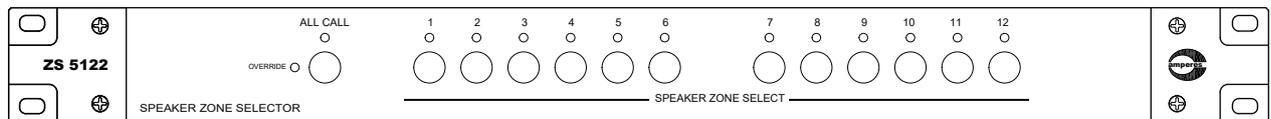
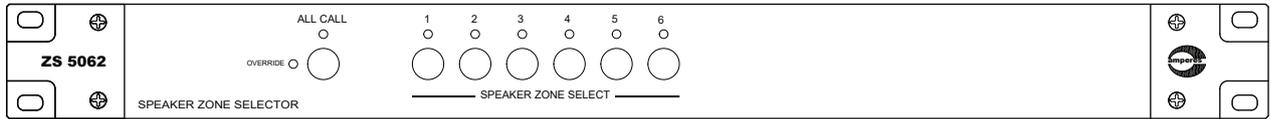




INSTRUCTION MANUAL

ZS5062 / 5122 6 / 12 Ch Speaker Zone Selector



Thank you for choosing another quality product from Amperes Electronics.

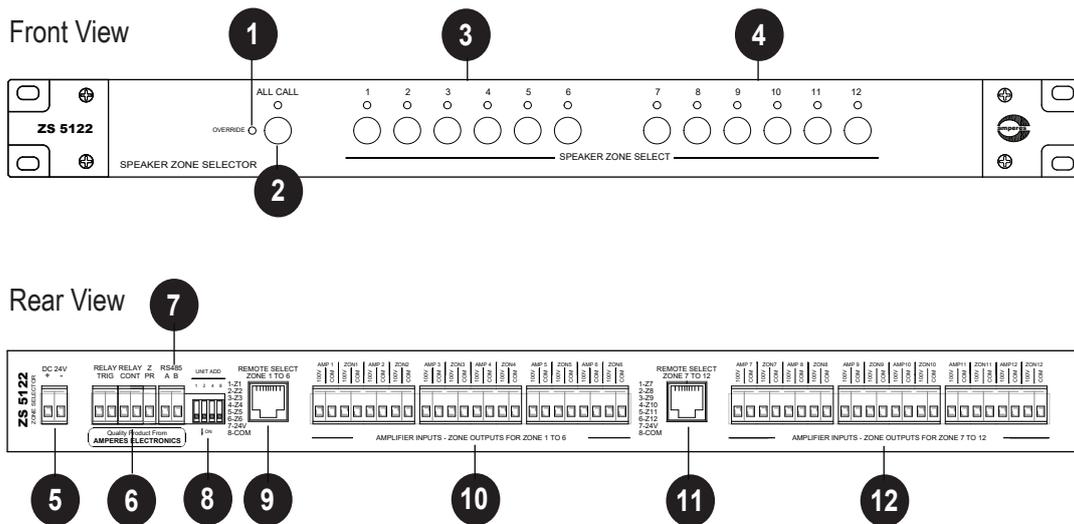
ZS5062 / 5122 has been upgraded with higher power load for each zone of up to 1000W 100V line, due to larger requirement of modern installations.

These series has fail safe feature that would ensure the speaker line will be connected to the amplifier output continuously if the unit fails. This ensure the overall EVAC or paging would not be interrupted for any malfunction in the zone selector.

Although it is not difficult to install the unit, a brief reading of the manual is truly recommended to avoid any misconnection as well as to explore the potential usage of the product to its maximum capability.



Parts Identifications



1. BGM ZONE OVERRIDING INDICATOR

The LED shall lit if remote paging microphone is active and is overriding the local BGM zone selection. This is active if Amperes PM 1060 paging is used or any other paging microphone console with Priority output signal.

2. ALL CALL SWITCH

All zones will be activated by pressing this switch, regardless of any inactive zone.

3. FRONT PANEL ZONE SWITCHES - ZONE 1 TO 6

Switching for zone 1 to 6.

4. FRONT PANEL ZONE SWITCHES - ZONE 7 TO 12

Switching for zone 7 to 12 for ZS5122 only.

5. DC SUPPLY INPUT PORT

24V DC supply is required to operate this unit. Ensure polarity is correctly terminated to the port. It is recommended that supply with 1A rating of regulated source is used. Amperes PS9400 is recommended as a DC supply source to your installation.

6. EMERGENCY OVERRIDE TERMINAL

External switch (eg. fr emergency paging mic with dry contact) can be connected here, which shall trigger the built in relay when pressed. This shall then provide a dry contact in which would enable the installer to apply several functions such as providing 24V DC output for volume controller overriding purpose, trigger external device or link to BAS system, etc.

Parts Identifications

7. RS485 DATA PORT

RS485 data port is used to interface with other Amperes products, to enable simpler cabling or interconnection works. Alternatively, it can be linked to PC for firmware upgrade. A USB-RS485 converter shall be required for this purpose.

Please refer to section 'Firmware Upgrading' to perform the Firmware update process.

When link multiple units of ZS, connect all RS485 ports together, to enable PD paging mic to control the zonings. (override local zone selections via front panel switches).

8. UNIT ADDRESS DIP SWITCH

When it is required to be linked to Amperes PMX II software for monitoring purpose, the unit / units are required to be addressed. Binary code addressing is used in setting the unit's ID. (Future application)

9. REMOTE SELECT PORT - Z1 TO 6

This is to connect to remote paging mic (PM Series) or Data Decoder (TD Series) for remote zone triggering. Upon triggering the zone via this port, it shall override the locally selected zones. External triggering switches or other made of paging microphones can utilise this facility provided that -ve triggering method is used.

10. AMPLIFIER - ZONE OUTPUT CONNECTORS (ZONE 1 TO 6)

Outputs from amplifiers are connected to these terminals and speaker zoning is configured to the respective unit of amplifier. The user has the flexibility to configure the zoning system as each zone comes with single amplifier output connection.

Please observe polarity when terminating the amplifier / speaker zones to ensure that each zone is not overloaded. (Less than 1000W rms per channel).

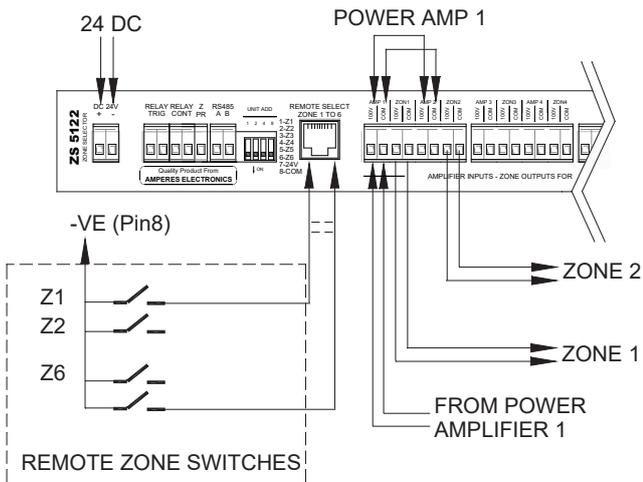
11. REMOTE SELECT PORT - Z7 TO 12

Similar function as Part 9 but only available for ZS5122.

12. AMPLIFIER - ZONE OUTPUT CONNECTORS (ZONE 7 TO 12)

Similar function as Part 10 but only available for ZS5122.

Single Unit Installation With Remote Select



The sample connections shown are using a single unit of either ZS5122 or ZS5062 in a small scale installation. ie. small number of zone outputs.

Assumptions made are that :

1. Volume control overriding facilities are done separately. (refer example on page 6)
2. Paging or background music is transmitted only to the zone selected. (Not uninterrupted paging system)
3. Power amplifier unit 1 is to serve zone 1 and 2

The diagram above shows an installation of a 2 zone system with remote triggering, employing external switches (optional). In this case, zone triggering can be made from remote location.

Note : Triggering any zone via the remote port shall override the previously selected zones. No Priority connection is required.

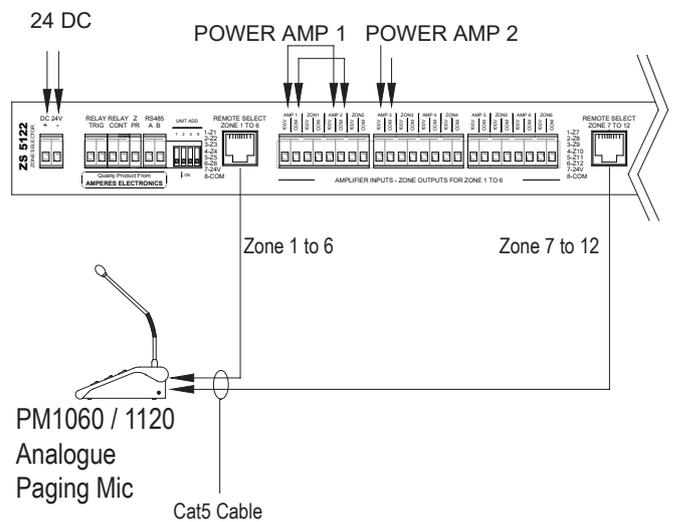
The diagram here show a zone selector connected to Amperes PM1120 desktop paging microphone.

Two way zone selection can be done, either from the PM1120 or using the front panel switches of the zone selector. When PM1120 zone is selected, it shall bypass the selected front panel zone switches.

Example :

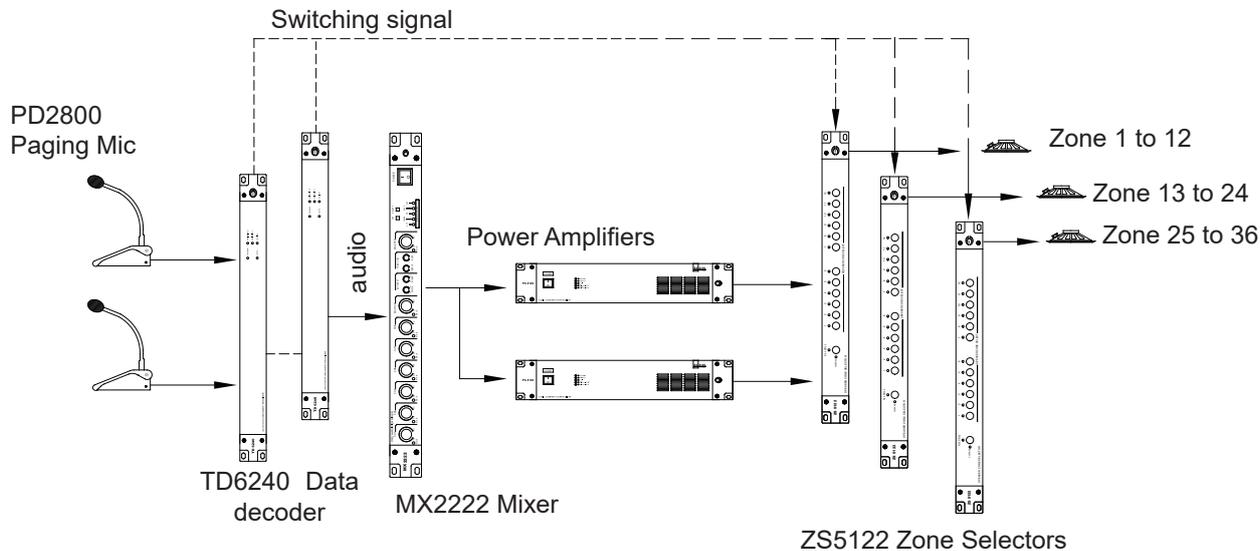
With front panel zone switches 1 and 2 active and the use wishes to page zone 3 only, activation of zone 3 from paging mic will override zone 1 and 2 (muted).

Upon releasing zone 3 from PM1120, the previous state of Zone 1 and 2 shall resume.

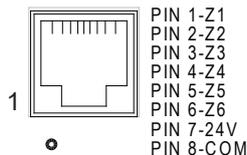


Multiple Units Installation (Cascading)

a sample of system with TD6240 zone decoder and few zone selectors

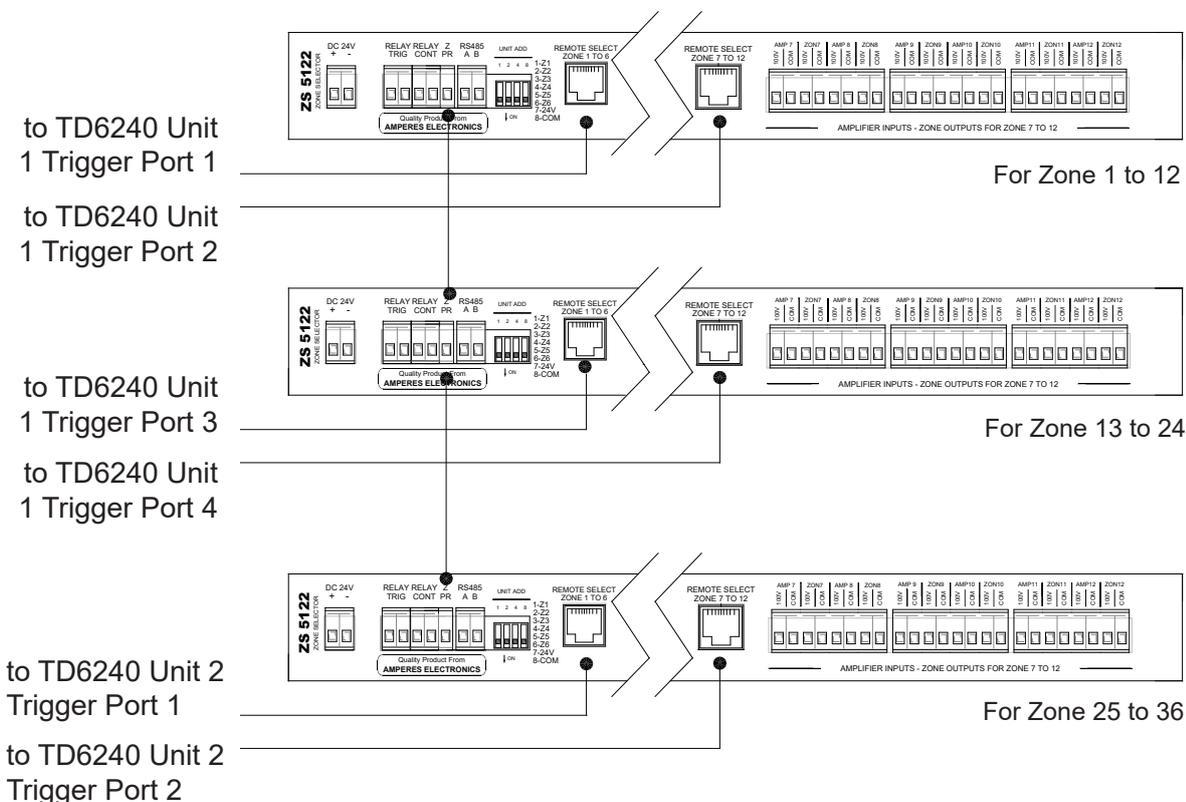


REMOTE SELECT



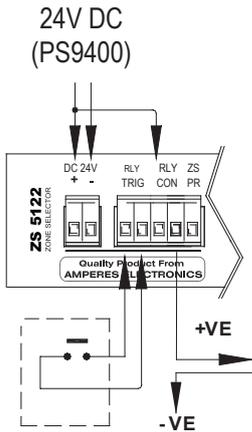
RJ45 Pin configurations

Note that All Call and PR from remote mic shall not be required



ALL CALL to all units can be triggered from paging mic.
 Pressing ALL CALL button from zone selector front panel shall only trigger all zones of the particular unit only. And the connection Z PR must link.
 Use EP1200A to make ALL CALL to all ZS installed - refer to page 6.

Connecting Emergency Overriding Port



To volume controller overriding relay or other emergency indicator or emergency interface:
Relay rating : 2A

Emergency paging microphone switch or other emergency trigger button

More than often, volume controllers are installed at areas that require sound level to be attenuated, eg. Conference room, function hall, etc.

Ovrriding is required when an emergency switch is pressed, normally via fireman paging panel with a dry contact. With the Connection shown, whenever the switch is pressed, it will trigger the internal relay which shall then provide a dry contact. It can be used to trigger overriding relay at volume controller or other external device such as emergency light indicator.

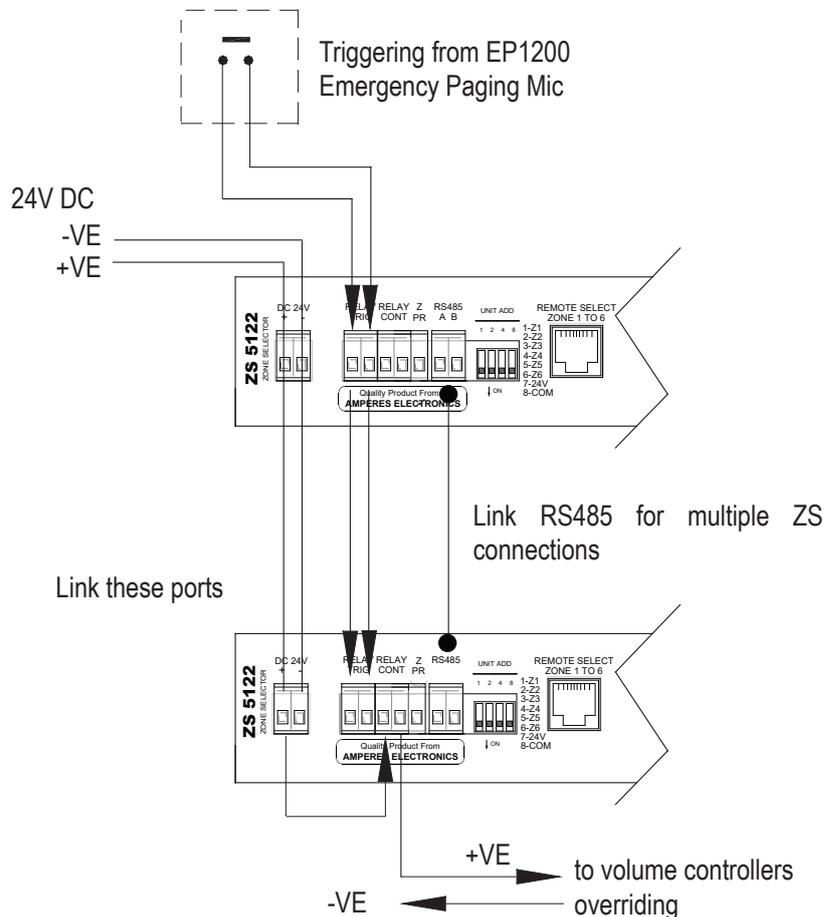
Please ensure the loading of the relay is not exceeded. Polarity must also be observed when connecting this port.

All Call paging can be performed from Emergency Paging Mic (EP1200), which when Relay Trigger port is energised, it shall provide a voltage free relay contact. Connect 24V DC power supply from PSU to trigger external volume controllers for overriding purpose.

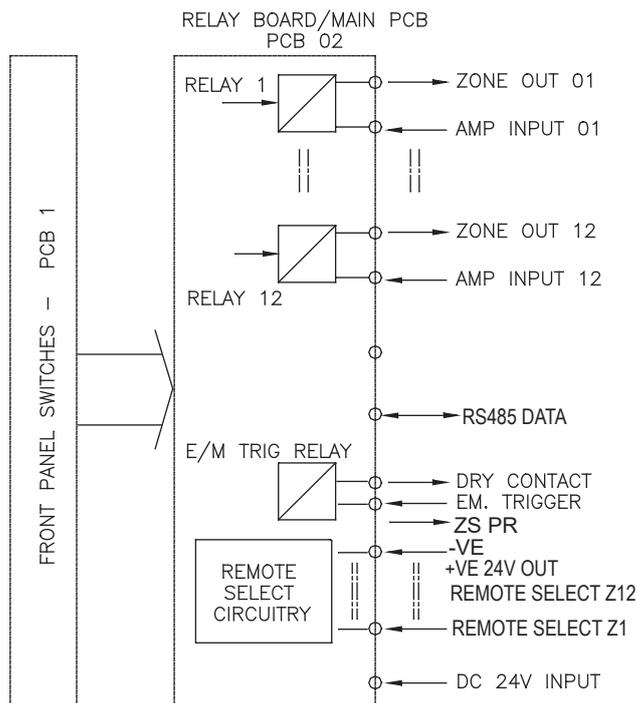
When multiple ZS are used, link the Relay Trig ports together, thus any triggering from EP1200 shall perform All Call paging to all zones at all the zone selectors

Note :

Pressing All Call at individual zone selector shall only trigger all zones at the respective unit, without triggering the relay output, thus shall not override the volume controller.



Block Diagram



The block diagram shown is for the installer to have a better understanding on how the unit works when interfacing it with other brands of PA equipment.

It is however not recommended that the internal circuitry of the unit be modified without prior consultation with the manufacturer .

Technical Specifications

	ZS5062	ZS5122
Operating voltage	24V DC adaptor	
Power consumption (idle)	3.29W	6.25W
Power consumption (All Call)	0.72W	0.96W
Current consumption (idle)	0.14A	0.26A
Current consumption (All Call)	0.03A	0.04A
Max load / channel	1000W at 100V line	
Number of Zones	6	12
Amplifier inputs	6	12
Zone selection	Front panel switch and remote	
Cascade limitation	16	
Remote triggering	-ve triggered (common ground)	
Indicators	Individual zone switch, Priority	
Data Communication	RS485 19.2 kbps baud rate	
Switching mode	Individual, All Call Local zone selection bypassed when remote trigger is activated	
Dimensions (W x H x D)	482 x 44 x 180 mm	
Weight	1.95 kg	2.1 kg

Warranty Conditions

Only Amperes Electronics Service Centres are allowed to make warranty repairs : a list of Amperes Electronics authorized service centres may be asked by the purchaser or send directly to Amperes Electronics Sdn Bhd at 70 Jalan Industri PBP3, Tmn Perindustrian Pusat Bandar Puchong, 47100, Puchong, Selangor. This warranty is not valid if repairs are performed by unauthorized personnel or service centres.

This warranty covers only repairs and replacement of defective parts. Cost and risk of transportation as well as removal and installation of the product from the main system are for the account of the purchaser. This warranty shall not extend to the replacement of the unit.

This warranty does not cover damages caused by misuse, negligence in application as well as using the product with power supply voltage other than shown on the product, or any other power supply source / adapter not recommended by the manufacturer.

This warranty does not cover damages caused by fire, earthquakes, floods, lightning and every cause not directly related to the unit.

This warranty does not include any indemnity in favor of the purchaser or the dealer for the period out of use of the unit, moreover the warranty does not cover any damages which may cause to the people and things during the use of the product.

This warranty certificate is valid only for the described product, and is not valid if modifications are made on this certificate or identification labels applied to the unit or any other modifications to the physical unit other than its intended usage.

This warranty covers all the material and manufacturing defects and is valid for a period of 36 months from the date of purchase or for a specified period in countries where this is stated by a national law. In this case, the extension is valid only in the country where the product is purchased.

Amperes Electronics Sdn Bhd is not obliged to modify previously manufactured products under warranty if the design changes or improvements are made.

The purchaser is deemed to agree to the above warranty conditions once the product packaging is unpacked., Otherwise the product shall be returned to the seller in proper original condition.

Disclaimer

Information contained in this manual is subjected to change without prior notice and does not represent a commitment on the part of the vendor. Amperes Electronics Sdn Bhd shall not be liable for any loss or damages whatsoever arising from the use of information or any error contained in this manual.

It is recommended that all services and repairs of this product to be carried out by Amperes Electronics or its authorized service agents.

Amperes products must only be used for the purpose they were intended by the manufacturer and in conjunction with this operation manual.

Amperes Electronics Sdn Bhd cannot accept any liability whatsoever for any loss or damages caused by service, maintenance or repair by unauthorized personnel, or by use other than that intended by the manufacturer.



ISO 9001: 2015
Design & Manufacture of Public Address Equipment and Systems
Certificate No. 16895 / A / 0001 / UK / En



AMPERES ELECTRONICS SDN BHD
MADE IN MALAYSIA
Published : MAY 2023