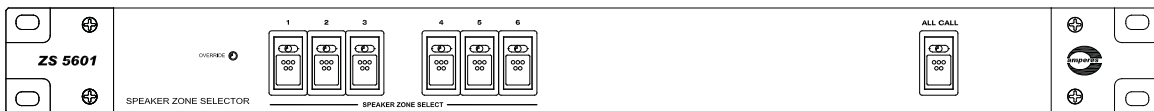
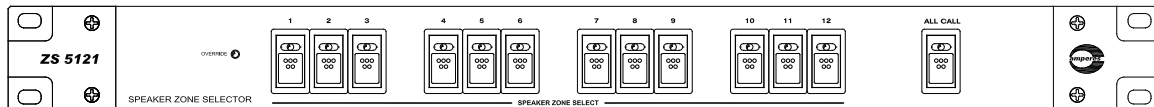


# INSTRUCTION MANUAL



**ZS 5601** 6 Channel Speaker Zone Selector

**ZS 5121** 12 Channel Speaker Zone Selector



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[www.ampereselectronics.com](http://www.ampereselectronics.com)

# Congratulations on the purchase of your new Amperes ZS 5601/ 5121 Speaker Zone Selector Panel.

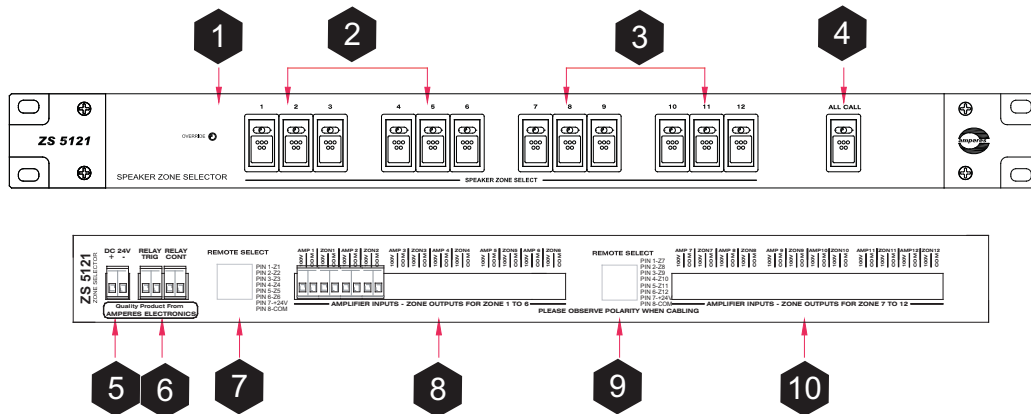
After much improvements made to the earlier models, Amperes ZS5601 and ZS5121 finally rolled out with better features and outlooks.

The original features of emergency paging microphone input port and remote triggering are maintained. However a priority overtaking LED is added to the front panel to alert the user that paging from remote is active and thus the BGM zone selected has been bypassed.

With this new product, you are assured that we live up to our policy, ie. continuous improvement to give you the products that are contemporary and with better value without increment in cost.

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

## PARTS IDENTIFICATION



### 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. FRONT PANEL ZONE SWITCHES - ZONE 1 TO 6

Switching for zone 1 to 6. They can be configured as zone 1 to 5 with Sub group switch. Refer to Application Example on how to do this.

## PARTS IDENTIFICATION

### 3. FRONT PANEL ZONE SWITCHES - ZONE 7 TO 12

Switching for zone 7 - 12 for ZS5121 only. Refer to Application example for grouping.

### 4. ALL CALL SWITCH

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

### 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.

### 7. 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 microphone can utilise this facility provided -ve triggering method is used.

### 8. 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 and ensure that each zone is not overloaded ( less than 400 W rms )

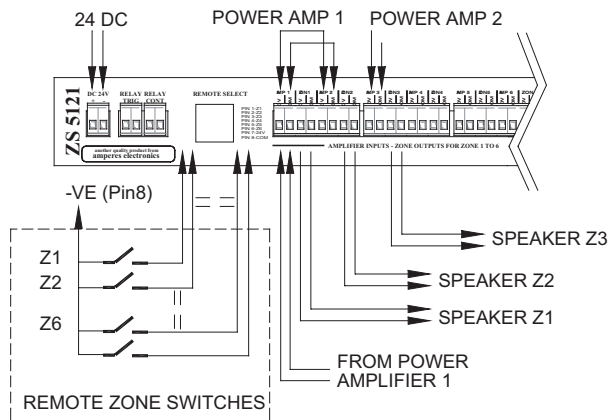
### 9. REMOTE SELECT PORT - Z7 TO 12

Similar function as Part7 but only available for ZS5121

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

Similar to Part 7 but only available for model ZS 5121

# SINGLE UNIT INSTALLATION WITH REMOTE SELECT



The sample connections shown are using a single unit of either ZS5121 or ZS5601 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
4. Power amplifier unit 2 is to serve zone 3

The diagram above shows installation of a 3 zone system with remote triggering employing external switches. ( this is optional ). In this case, zone triggering can be made from remote area but the front panel switches has to be at OFF position.

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

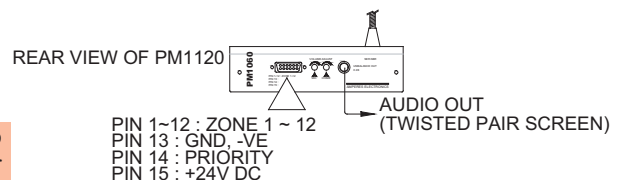
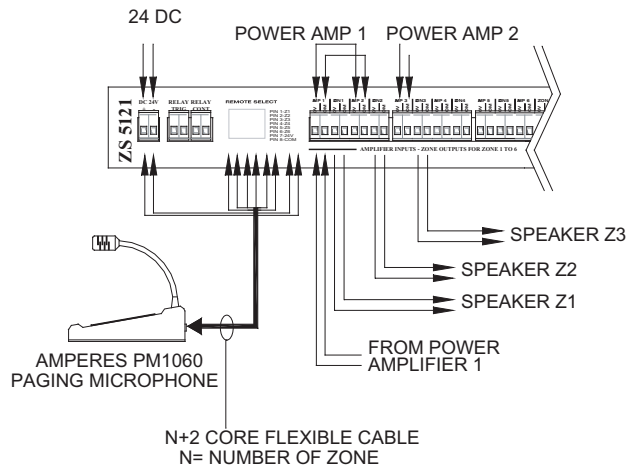
The illustration below shows a zone selector connected to the Amperes PM1060 desktop paging microphone. This shall provide a better zone selection than the above configuration.

Two way zone selection can be done, either from the PM1060 or via the front panel switches of the zone selector, with PM1060 has a priority over the former.

Example :

With front panel switches 1 and 2 active, and the user wishes to page zone 3 only, activation of zone 3 from PM1060 shall override zone 1 and 2.

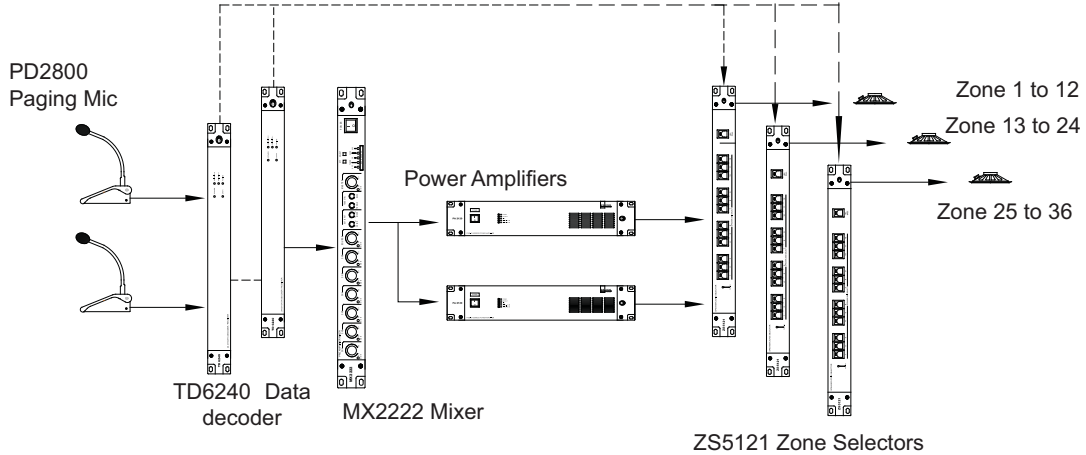
Upon releasing zone 3 from PM1060, zone 1 and 2 shall then return to its previous state.



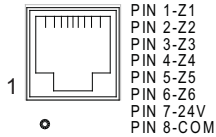
No connection required for Pin 14 to zone selector

# MULTIPLE UNIT INSTALLATION ( CASCADING )

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



## REMOTE SELECT

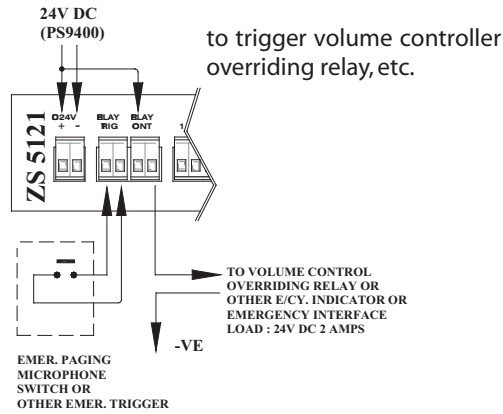


New RJ45 Pin configurations  
Note that All Call and PR from remote mic shall not be required



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.  
Use EP1200 to make ALL CALL to all ZS installed - refer to page 6

## CONNECTING EMERGENCY OVERRIDING PORT



More than often, volume controllers are installed at areas that requires sound level to be attenuated, eg. conference room, etc.

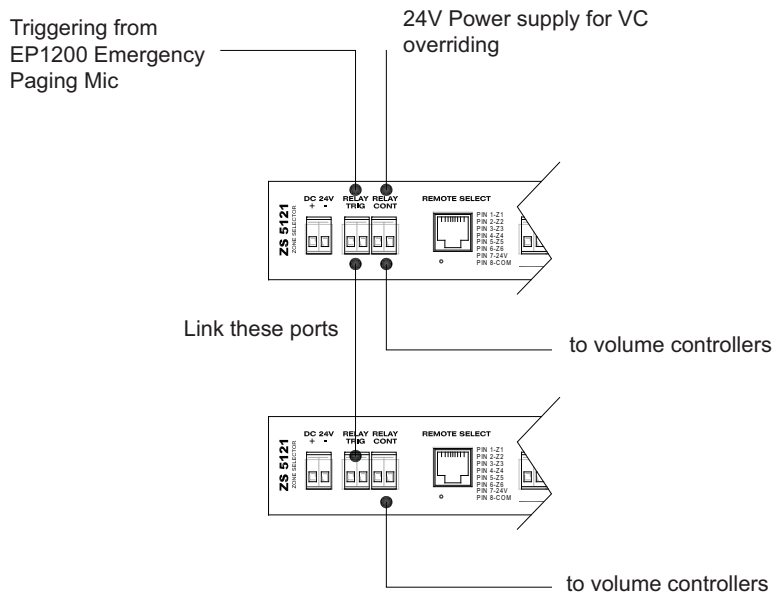
Overriding is required when an emergency switch is pressed, normally via firemen paging mic with a dry contact. With the connection shown, whenever the switch is pressed, it would trigger the internal relay which shall then provide a dry contact. It can be used to trigger overriding relay at volume controller or other external device such as emergency light indicator. It can also be used to trigger ALL CALL.

Please ensure the loading does not exceed the limits as indicated. Polarity must also be observed when connecting this port.

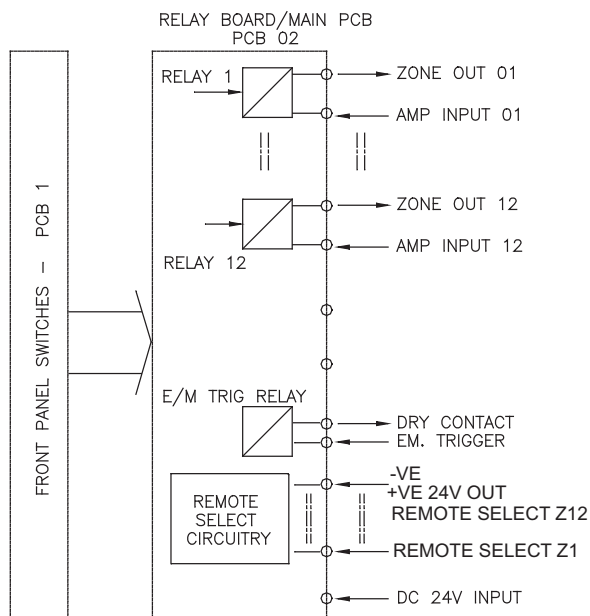
ALL CALL paging can be performed from Emergency Paging Mic ( EP1200 ), which when Relay Trigger port is energised, it shall provide a voltage free relay contact. Connect 24V DC power supply from PSU to trigger external volume controllers for Overriding purpose.

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 unit, without triggering the relay output ; ie. this shall not override the volume controllers



## 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.

### NOTE ON UPGRADE VERSION:

**RJ45 CONNecTOR - TO REMOTE PAGING MIC**

Connection to remote paging mic PM1060 / PM 1120 or to Data Decoder has been made easire with the new pin configuration.

Older version of Paging Mic can still be used together with this Zone Selector

## TECHNICAL SPECIFICATIONS

INPUT VOLTAGE	:	24V DC ; 0.4 A
POWER CONSUMPTION	:	ZS 5601 : 3.5W 0.14 A at full zones switched ZS5121 : 6.8W 0.28 A at full zones switched
ZONE LOAD RATING	:	400 W / 100 V line input ( Max )
NO OF AMPLIFIER INPUTS	:	6 for ZS 5601 or 12 for ZS 5121
ZONE SELECTION	:	Front panel push button switches or via remote switches
ZONE INDICATION	:	Front panel LED
SWITCHING MODE	:	Individual or All Call
CABLING CONNECTIONS	:	Plug in detachable connectors with screw terminals
CABLE SIZE	:	Up to 2.5 mm sq
DIMENSIONS	:	482 (W) X 44 (H) X 180 (D) mm
WEIGHT	:	ZS 5601 - 2.1 kg ZS 5121 - 2.8 kg
COLOUR	:	Black, Powder epoxy coating

### NOTE :

Amperes Electronics Sdn Bhd has the policy of improving or reviewing its products in design, performance as well as quality from time to time. It is therefore, Amperes Electronics has the right to change the above specifications without prior notice. The specification change shall cover the physical appearance, features as well as components used. However, amperes Electronics shall maintain at all times that the products manufactured are of highest quality.

## WARRANTY CONDITIONS

Only Amperes Electronics Service Centres are allowed to make warranty repairs : a list of Amperes Electronics Service Centres may be asked for by the purchaser or send directly to Amperes Electronics Sdn Bhd or its authorized master distributor, Amperes Global Marketing. 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 risks 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, neglect, accident of the product as well as using the product with power supply voltage other than shown on the product, or any other power supply source / adaptor 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 be caused to people and things when using the product.

This warranty certificate is valid only for the described product, and is not valid if modifications are made on this certificate or on the identification label applied on the product.

This warranty covers all the material and manufacturing defects and is valid for a period of 12 months from the date of purchase or for a longer 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.

## DISCLAIMER

Information contained in this manual is subject 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 on this product be carried out by AMPERES ELECTRONICS SDN BHD or its authorized service agents.

AMPERES series must only be used for the purpose they were intended by the manufacturer and in conjunction with this operating 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.



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