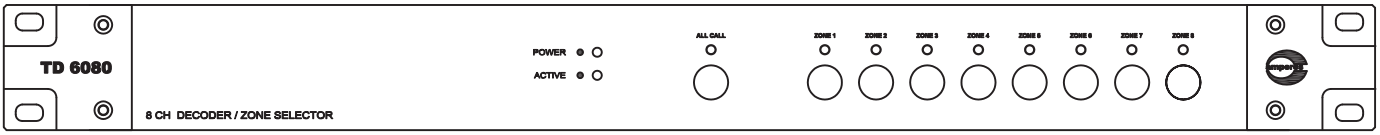
INSTRUCTION MANUAL

TD6080

8 Channel Decoder / Zone Selector



Thank you for choosing another quality product from Amperes Electronics.

TD6080 is an integration of mic data decoder and zone selector in a box, which simplifies the interconnection works during rack setup. Apart from simplification, a substantial cost reduction can be achieved due to lower unit count and space requirement as compared to setup using zone decoder and zone selector.

We appreciate that you read through the manual to avoid any mishandling as well as to explore the full potential this unit can offer. Keep this manual for future reference and we believe that you are getting an optimum product in its class.

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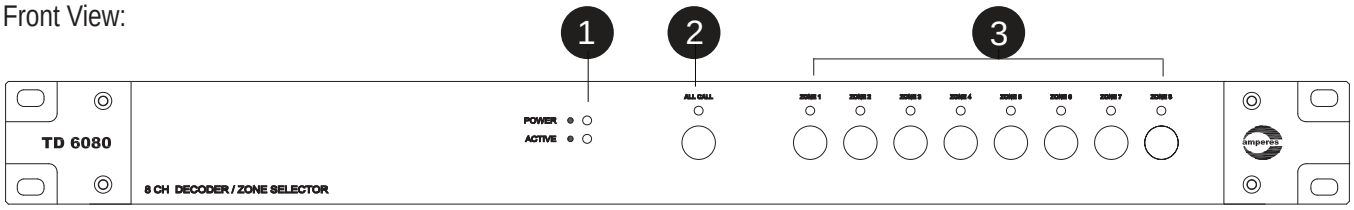
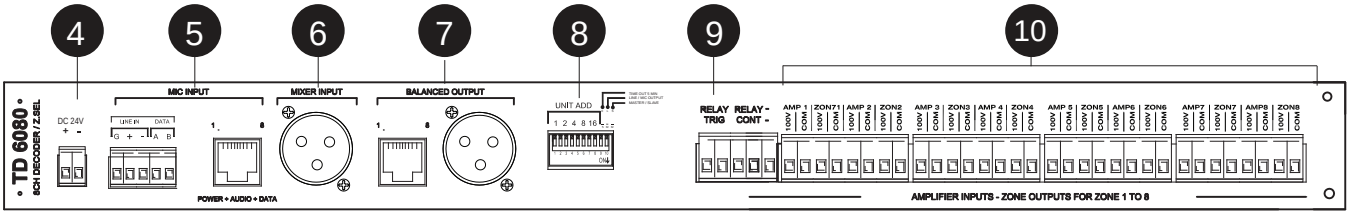
VER 3 / 2015

Parts Identification

Front View:



Rear View:



1. LED INDICATORS

POWER LED for DC input and ACTIVE for zone activation.

2. ALL CALL SWITCH

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

3. FRONT PANEL ZONE SWITCH - ZONE 1 - 8

Switching for zone 1 to 8. For grouping of zones using matrix, please refer to page 7.

4. DC SUPPLY INPUT

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

5. PAGING MIC INPUT

The connectors are to link to paging mics via EX2800 using 2 pair screen cable or from paging Mic using RJ45 connector.

6. MIXER INPUT

BGM source from mixer output. This shall be used when there is audio (BGM) grouping in the system for zones of the decoder.

7. AUDIO OUTPUT

Audio output from the decoder is balanced line output level. RJ45 connector consists of audio, data and power with the following pin configuration:-

Pin 1 - Data A	Pin 5 - +24V Supply
Pin 2 - Data B	Pin 6 - Audio -ve output
Pin 3 - Relay Trigger Signal	Pin 7 - Ground
Pin 4 - NC	Pin 8 - Audio +ve Output

8. UNIT ADDRESS DIP SWITCHES

Each decoder caters for 8 channel outputs, thus each DIP setting shall comprise address for a gorup of 8 channels. Address setting shall be using BCD codes.

Example:

DIP SWITCH 1 TO 8		DIP SWITCH 6	DIP SWITCH 7	DIP SWITCH 8
1000 0000	- Zone 1 to 8	ON = TIMER 5 MIN	ON = MIC OUTPUT	ON = MASTER (CH 1 - CH8)
0100 0000	- Zone 9 to 16	OFF = TIMER INFINITY	OFF = LINE OUTPUT	OFF = SLAVE (CH 9 - CH248)
1100 0000	- Zone 17 to 24			

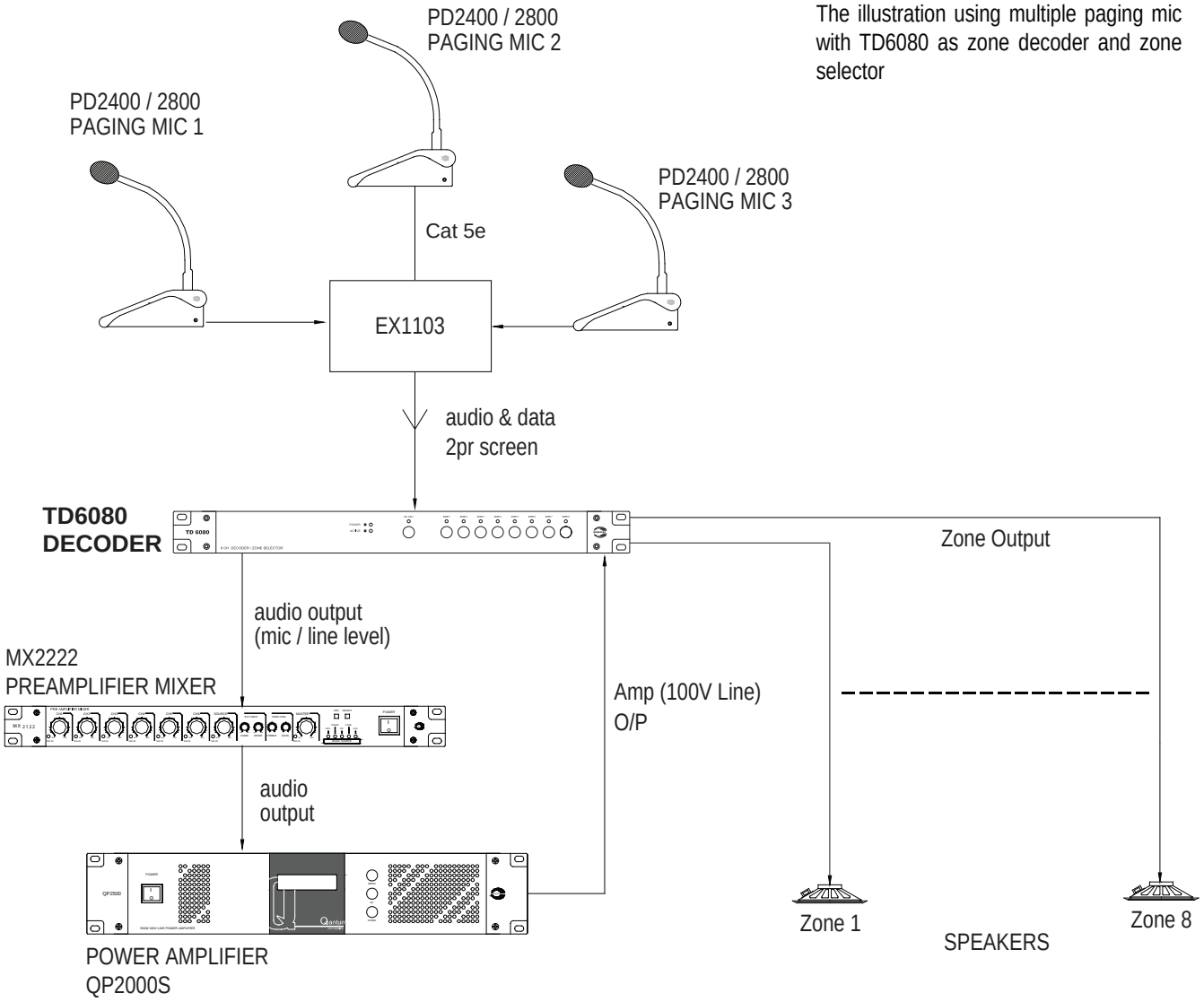
9. EMERGENCY OVERRIDE TERMINAL

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. Refer to page 10 for connection diagram.

10. AMPLIFIER ZONE OUTPUT CONNECTOR (ZONE 1 - 8)

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 over overloaded (max load 500W l00V line).

General Schematic Diagram

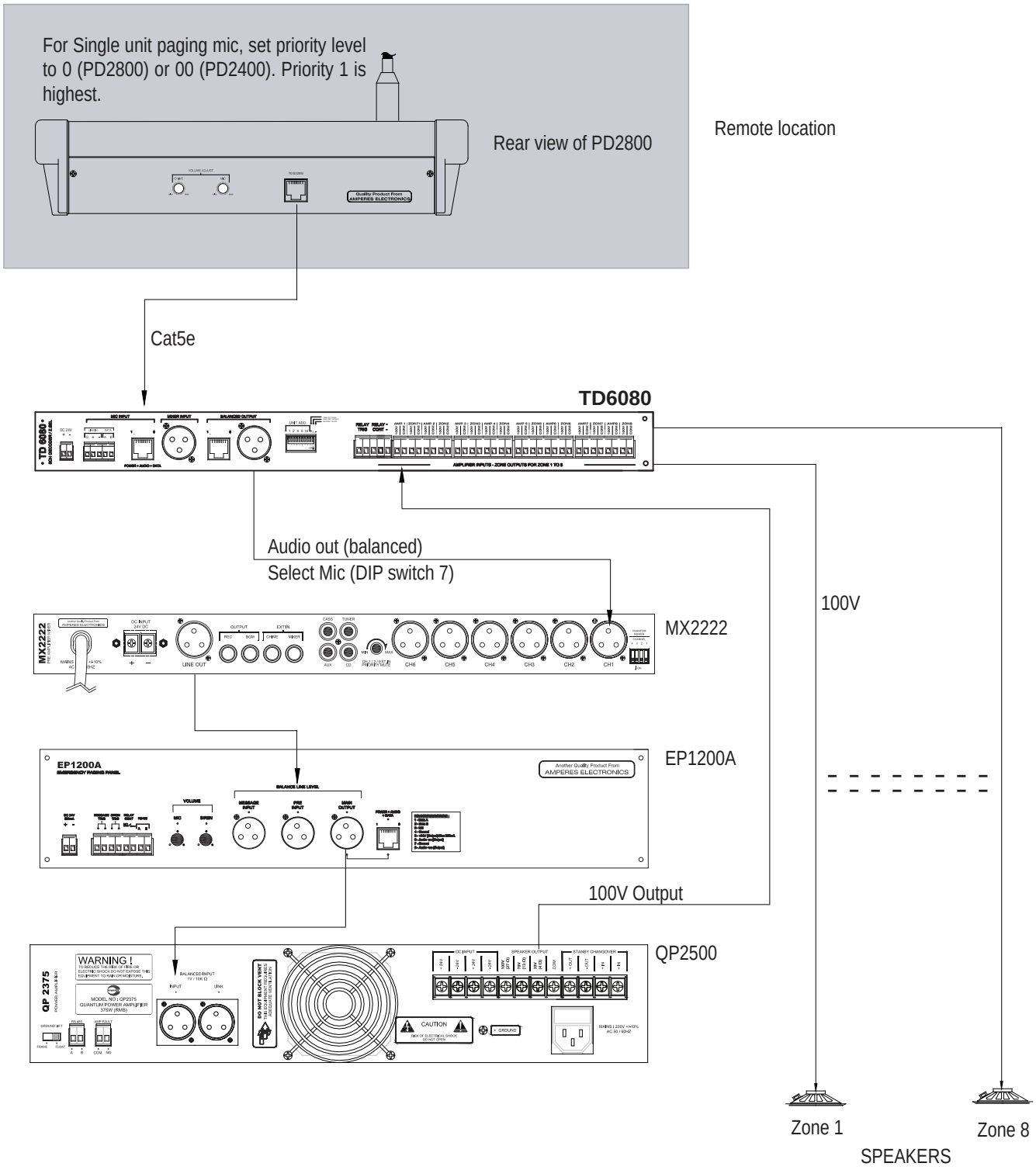


The illustration using multiple paging mic with TD6080 as zone decoder and zone selector

Note:

All PD Series of Amperes paging microphones can be used with TD6080.

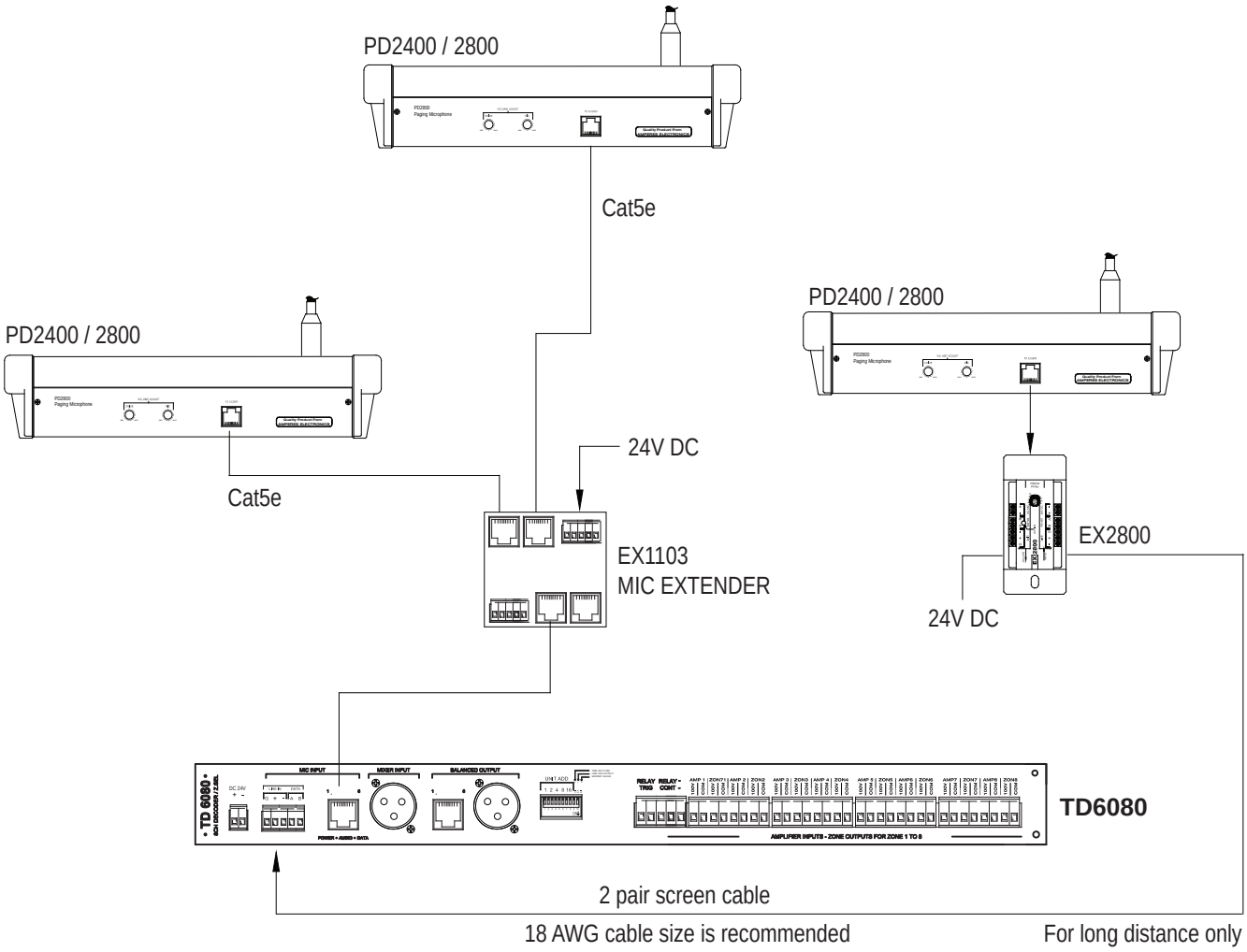
Connecting The Unit - Single Unit Installation



Note:

Also refer to page 10, in using EP1200A to trigger emergency overriding at volume controllers.

Connecting The Unit - Multipoint Paging Installations



Note :

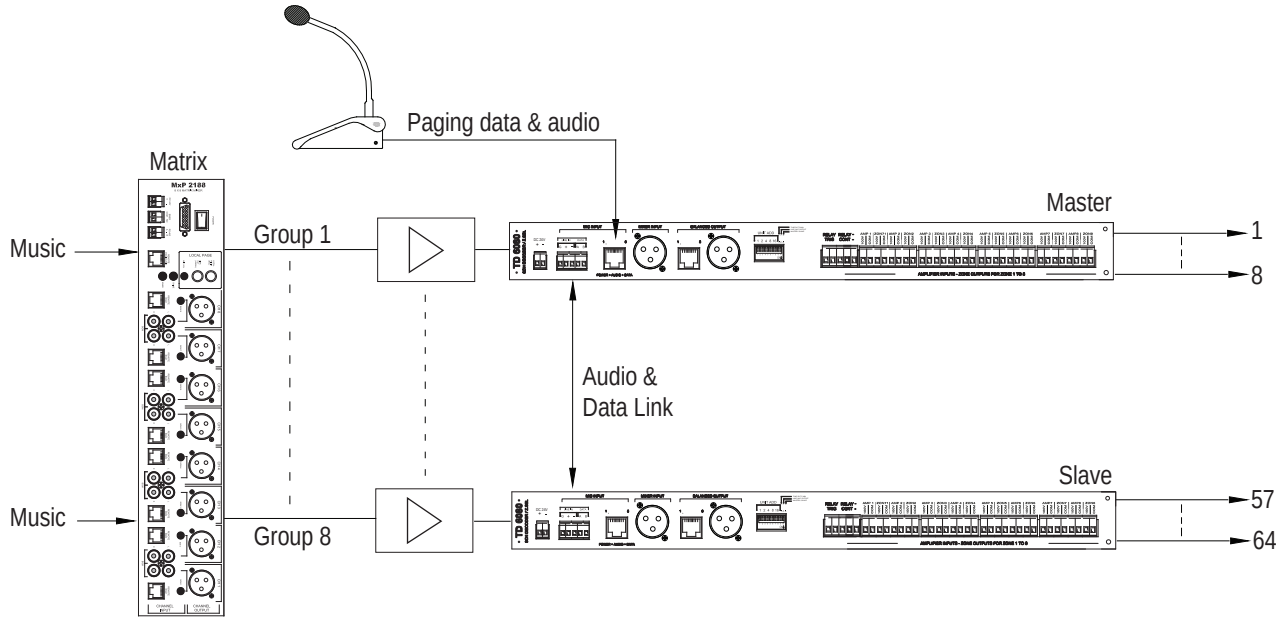
1) Use EX1103A if more than one PD2400 / 2800 are available in the system. The single output (RJ45) can be directly connected to TD6080 mic input port.

2) A higher priority mic shall override any lower priority unit in active.

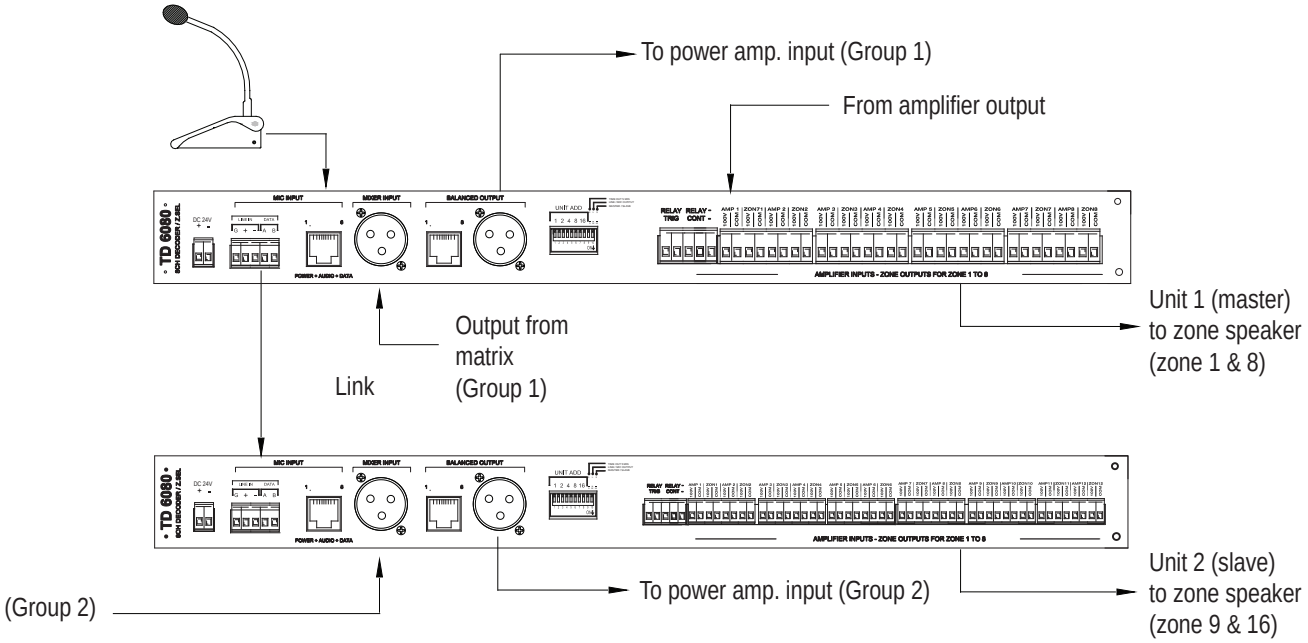
PD2400 :
3 levels of priority available for PD2400.

PD2800 :
9 levels of priority available for PD2800.

Connecting The Unit - BGM Grouping (Matrix)



Detailed BGM Grouping



Application Note:

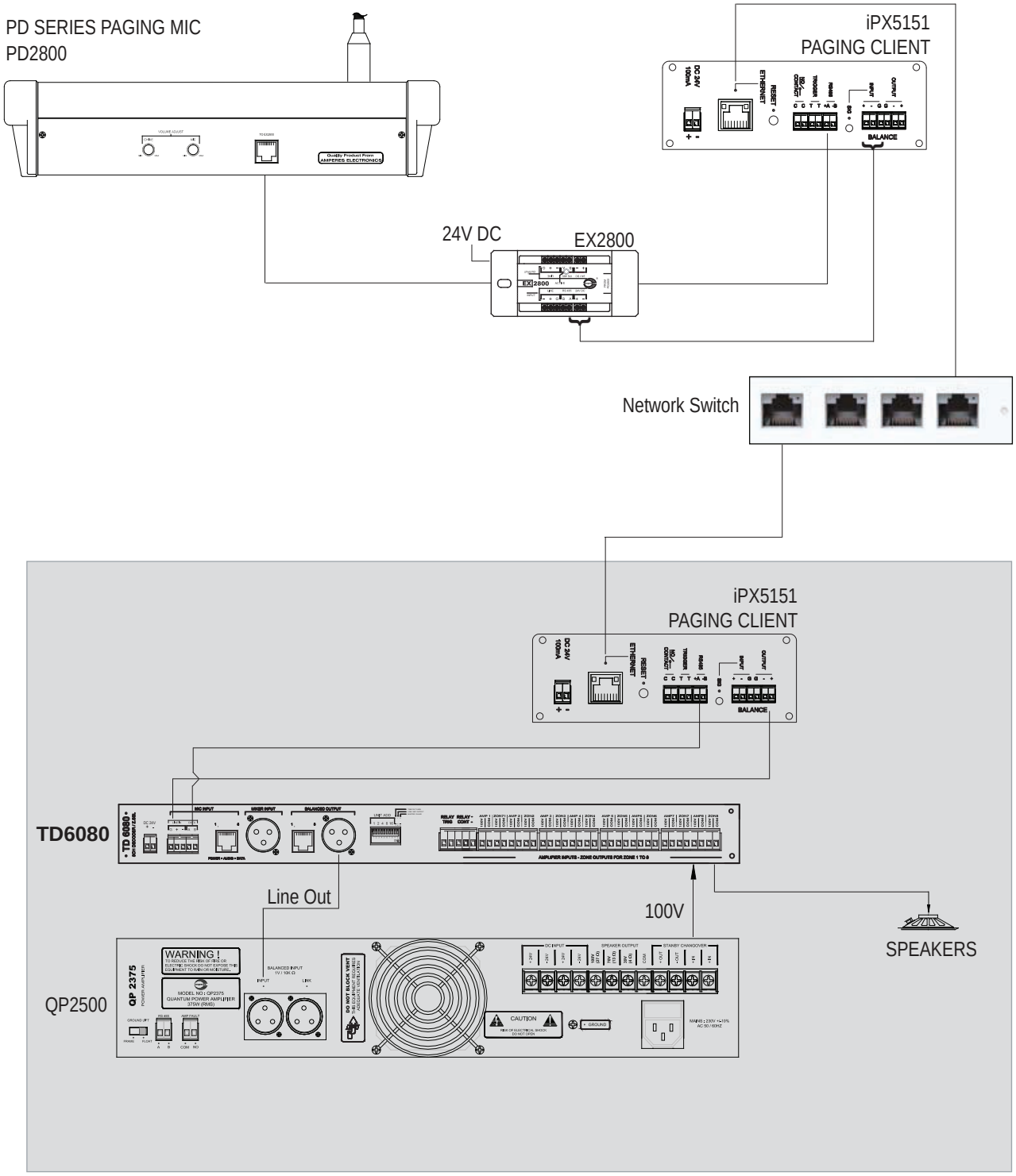
1) This configuration shall be and whenever grouping of zones is required.
   e.g: zone 1 to zone 8 to have same BGM input, Group 1 and so forth.

2) Paging made to a zone in the same group shall mute other zone within the group but would not interrupt zones in other groups.

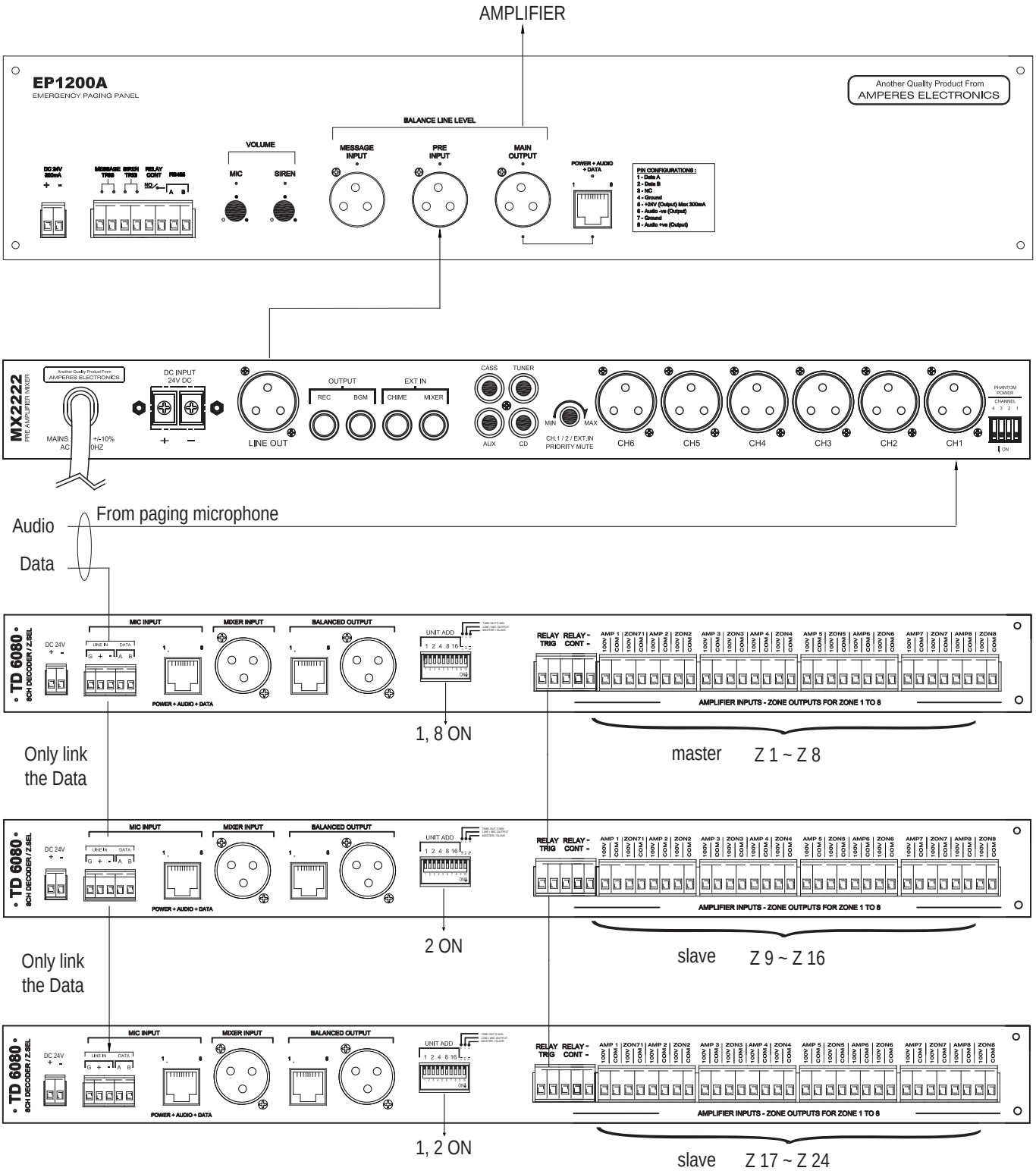
3) This setup would normally be used together with matrix controller.

4) Use of DA2208 at paging mic audio output is required if more than 6 amplifiers are installed in the system.

Connecting The Unit - iPX5151 ip Client



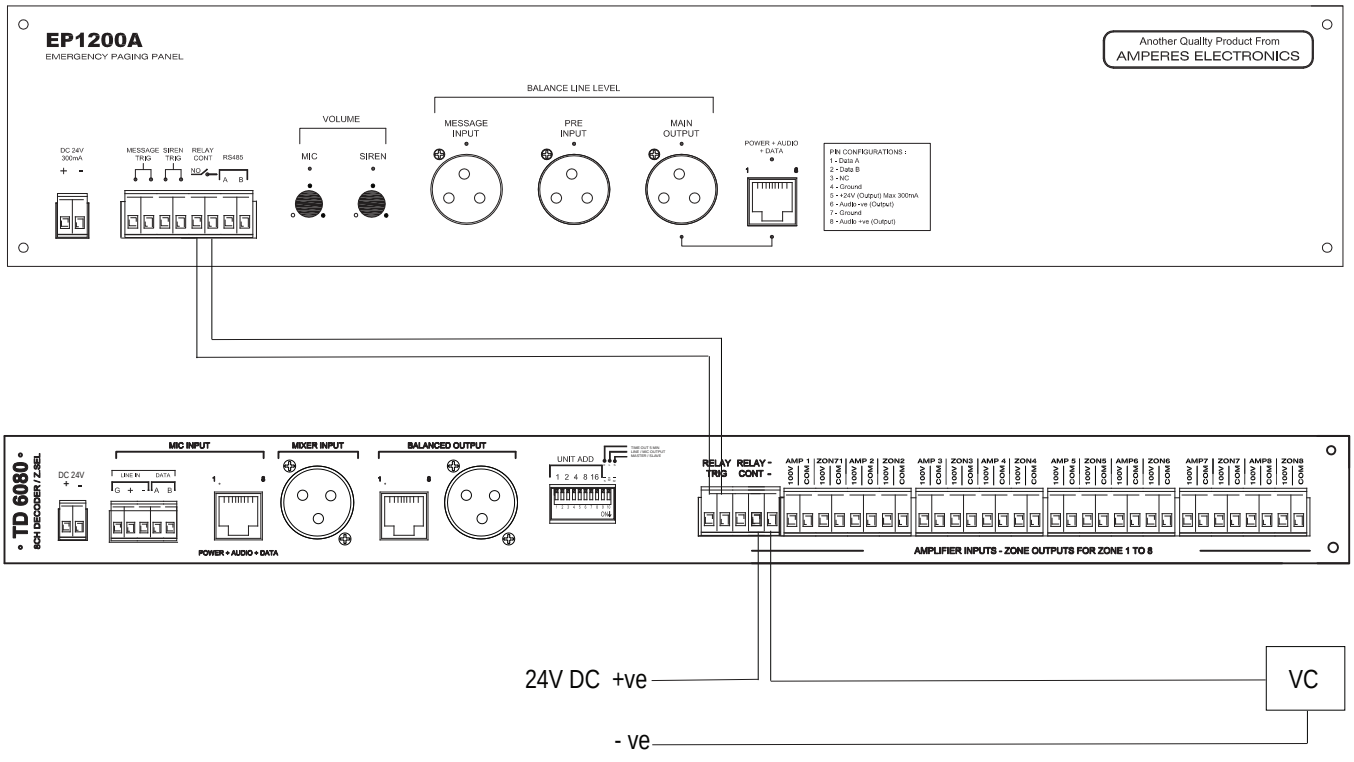
Cascading The Units



Set unit address :

example : 10000 0000 - Zone 1 to 8 (DIP Switch 8 ON)
01000 0000 - Zone 9 to 16 (DIP Switch 8 OFF)
11000 0000 - Zone 17 to 24 (DIP Switch 8 OFF)

Overriding Volume Controls



Note:

Trigger of 'ALL CALL' button at TD6080 front panel shall ON all zones but would not be able to override volume controllers. This is to avoid unnecessary announcement or BGM to be broadcasted to the selected zones.

EP1200A can be used, in case of emergency paging to override the volume controllers by using the above configuration.

Technical Data

Operating voltage	24V DC
Consumption	6W (250 mA)
Max load / channels	500W at 100V line
Cascade limitation	31 Unit (248 zone)
Input circuit	2
Number of zone	8
Amplifier input	8
Zone selection	Front panel switch & remote
Indicators	Individual zone switch
Switch mode	Individual, All Call Local zone selection bypassed when remote trigger is actived
AUDIO	
Input impedance (Ohm)	Line : 10 K
Output impedance	600 Ohm balanced
Freq response	70 ~ 15 KHz
Audio input	Line
Max audio output	Line 1.2V
DATA	
Data protocol	RS485
Baud rate	19.2 K bps
Dimension (WxHx D)	482 x 44 x 180 mm
Weight	2 kg

Note:

The above specifications are correct at time of printing but subjected to changes without prior notice due to product improvements.

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 at 70 Jalan Industri PBP 3, Tmn Perindustrian Pusat Bandar Puchong, 47100, Puchong, Selangor, Malaysia or its authorized master distributor, TNT Links Sdn Bhd / MyPA Systems Sdn Bhd. 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.

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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.

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