



INSTRUCTION MANUAL

PD2400

24 Zones Digital Desktop Paging Microphone

version 2 / 2010
harmonised protocol



Thank you for choosing another quality product from Amperes Electronics.

Amperes has improved and upgraded this version of PD2400 paging microphone, which can be used and interchanged with other models of PD series paging console in the system. Apart from this, every PD2400 can be used alongside with MxP2188 MatriMix system, thanks to the continuous improvement policy of Amperes.

We shall endeavor to make products with contemporary needs and yet expandable for future upgrades. We are sure you make the right decision to choose Amperes, which is not only offering the product that meets your budget, but perform beyond your expectation.

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.

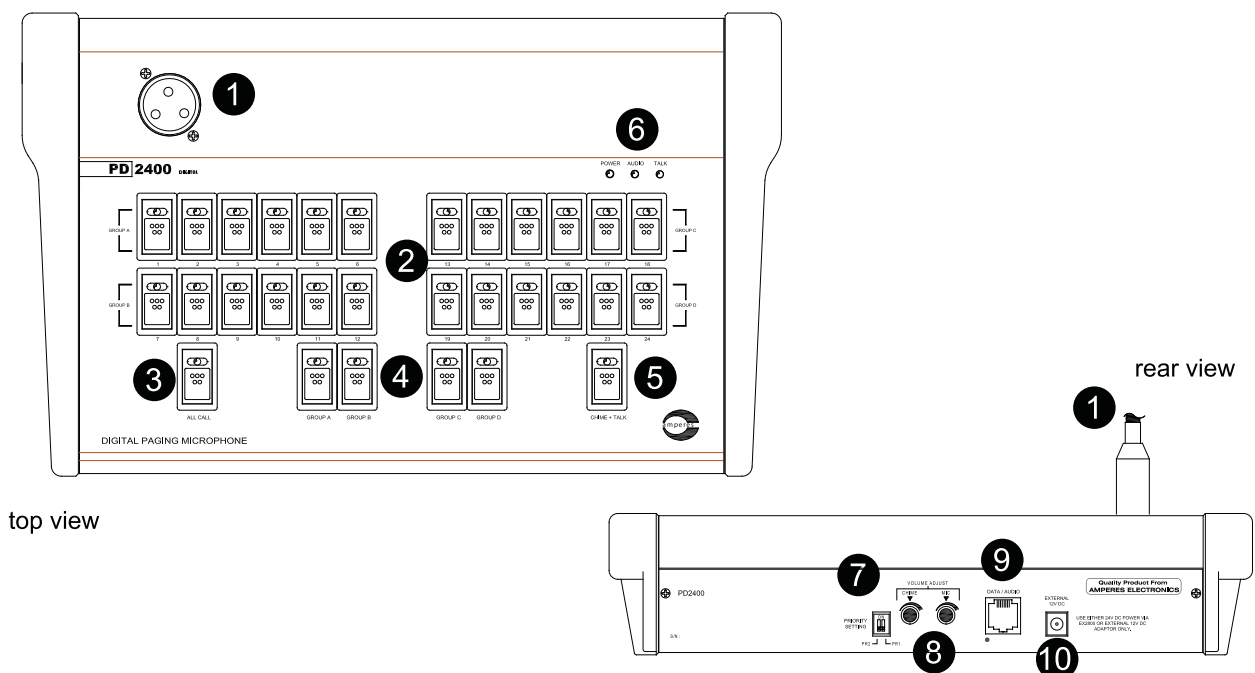
Notice On This Version Of PD2400

PD2000 series paging microphones has been upgraded with new harmonised protocols and different connection method as compared to the earlier versions. This version can be identified by its serial number, which begins with 240010060001. It is only compatible with TD6240 decoders with serial numbers beginning with 624010060001.

With the harmonised firmware, PD2400 can be used together with PD2800, or interchanged in system upgrades. In MatriMix system, either PD2400 or PD2800 can be employed for larger setup.

In system with TD6240 environment, priority of each paging mic can be set and identified during operation. However in MatriMix system, priority paging has been eliminated, and paging is done on first come first serve basis.

Parts Identification



1. GOOSENECK MIC

The detachable mic with illuminated LED ring when the unit is activated.

2. ZONE TRIGGERING SWITCH

Individual zone selection switch to trigger the zone selector

3. ALL CALL SWITCH

Pressing ALL CALL switch shall activate all zones. Please note that this shall not activate the Emergency 24V Relay at the zone selector to override external volume controllers. To activate the 24V DC output, please refer to the Zone Selector manual.

4. GROUP SWITCHES

Each group represents 6 zones. This is a convenient way of selecting zones according to groups.

5. CHIME / TALK SWITCH

Pressing this switch shall send signal for zones activated and followed by 4 tone upward chime. Blinking LED indicates that the chime is being transmitted and still LED is to alert the user that the microphone is ready for announcement.

Pressing momentary the switch shall deactivate the console in which a 4 tone downward chime shall be broadcasted before shutting down the zone selection.

6. DATA / AUDIO / POWER INDICATORS

Data LED shall lit whenever the console is activated, whereas the audio for microphone sound pick up. Power LED for DC input to the console.

7. PRIORITY SETTING

Setting is required whenever multi point paging is installed in a system. Select the priority level of each console, either as high or low. PR1 has higher priority over PR2.

8. VOLUME ADJUST

Chime output level as well as mic sensitivity level can be adjusted accordingly to the requirements.

9. DATA / AUDIO OUTPUT / POWER CONNECTOR

Data and audio outputs are connected to EX2800 External Connection Unit via RJ45 connector. Power can be fed to the unit either from EX2800 (24V DC) or via the power jack (12V DC). Use either one power input source only.

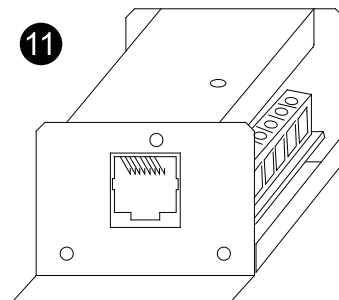
10. 12V POWER INPUT JACK

The unit can be operated either using 24V or 12V, whichever convenient. However, only one source of supply is required to power the paging console.

11. EX2800 EXTERNAL CONNECTION UNIT

Output from PD2800 shall be connected to EX2800 using Cat5e cable. Power to the unit can be drawn from EX2800 which is supplied by ac/dc 24V adaptor.

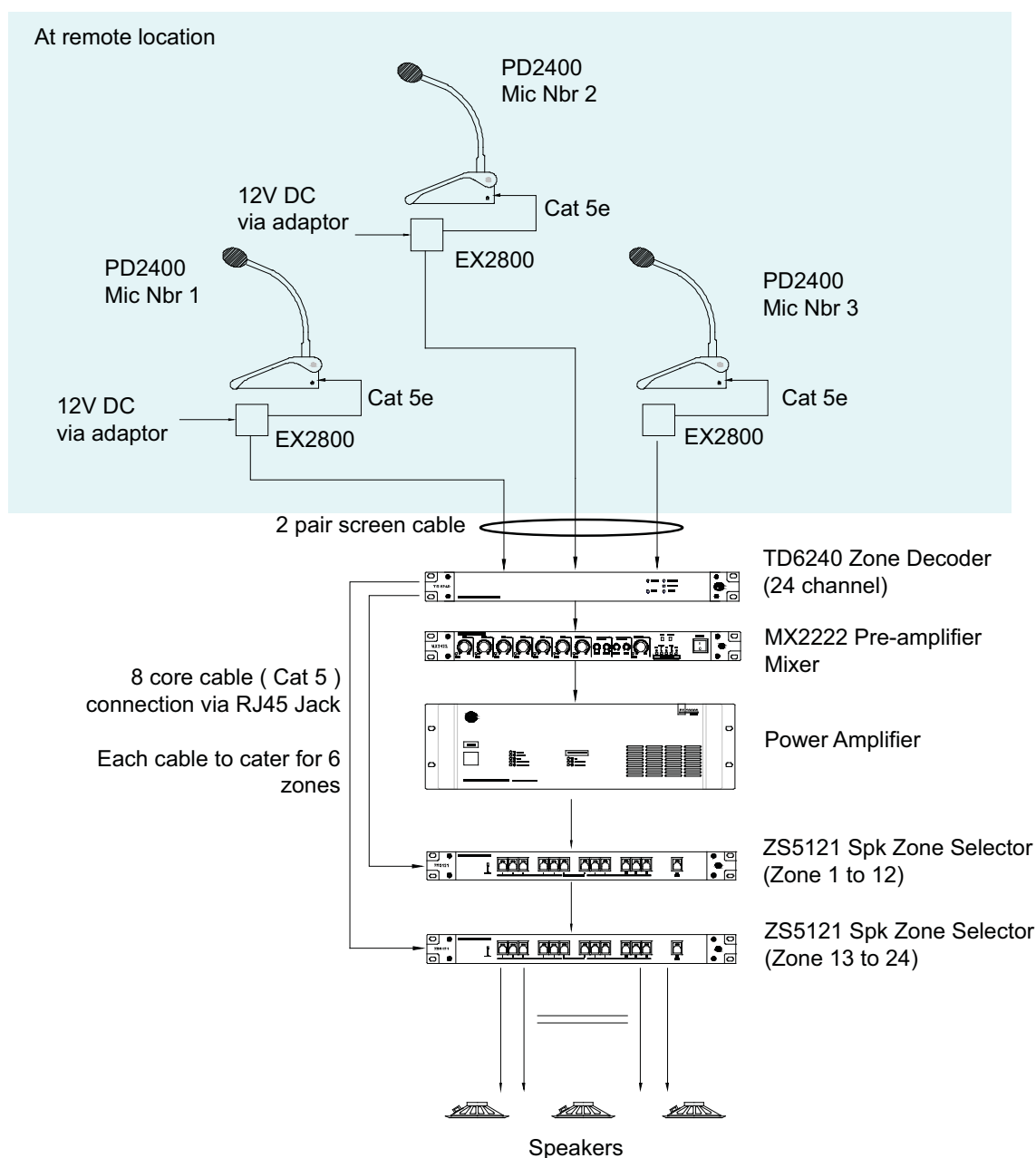
Please refer to Connecting The Unit in the following page.



EX2800 External Connection Unit



General Schematic Diagram



The above configuration shows a typical system with 24 speaker zones, using 3 units of PD2400 with a single TD6240 (24 zone decoder) and 2 ZS5121.

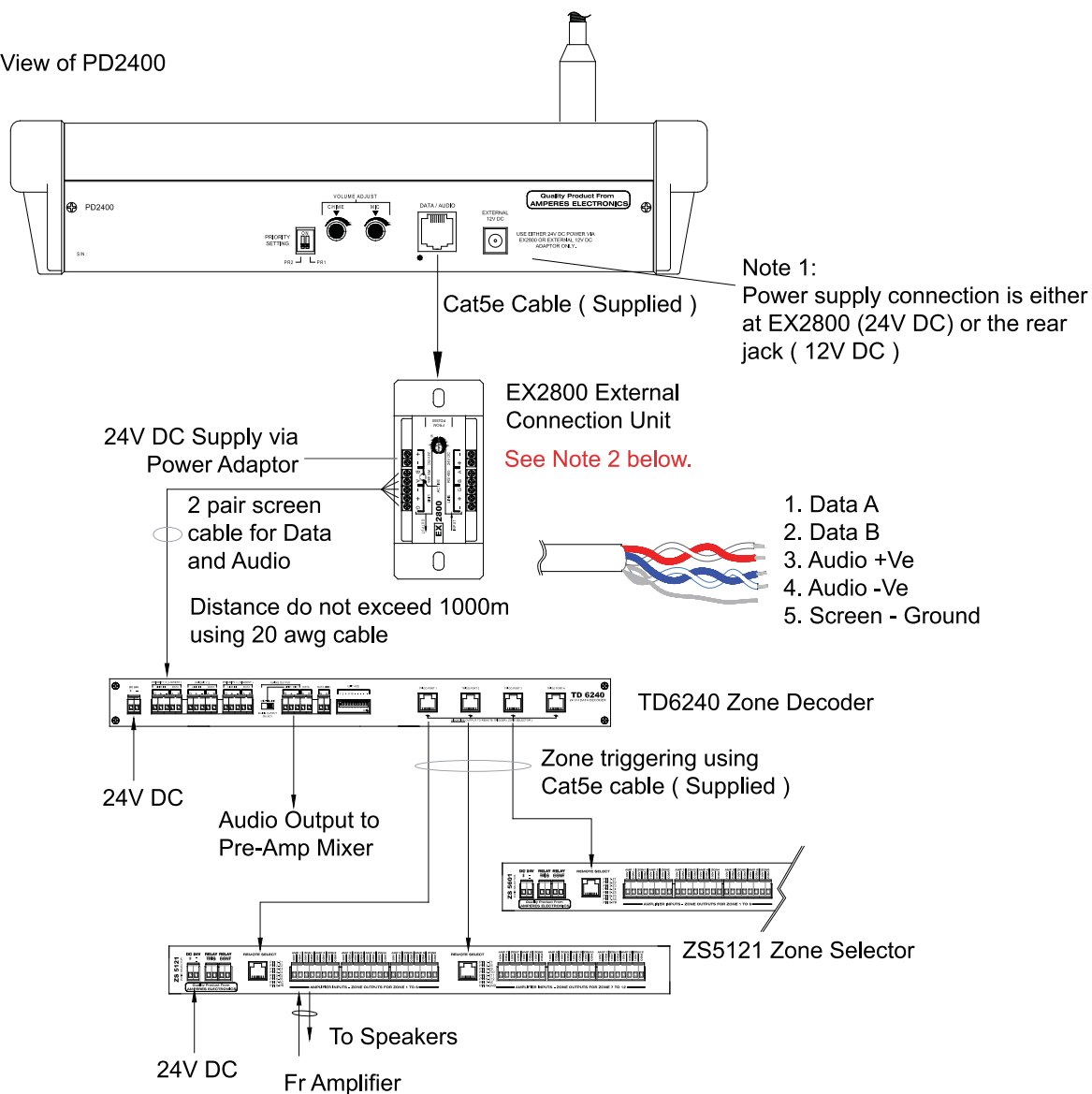
Other made of zone selectors of Amperes ZS5602 can be used to replaced ZS5121

Priority setting is done at each individual mic, connected to TD6240 remote mic inputs. Note that connection to the TD6240 can be made freely to the connectors unlike the previous version.

PD2400 can also be used with MatriMix system. In this case EX1102 shall be used instead of EX2800 as the external connection unit.

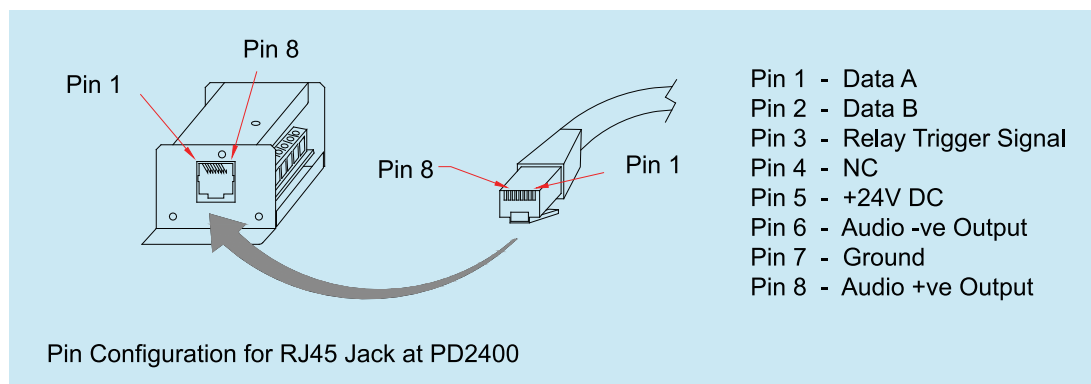
Connecting The Unit

Rear View of PD2400

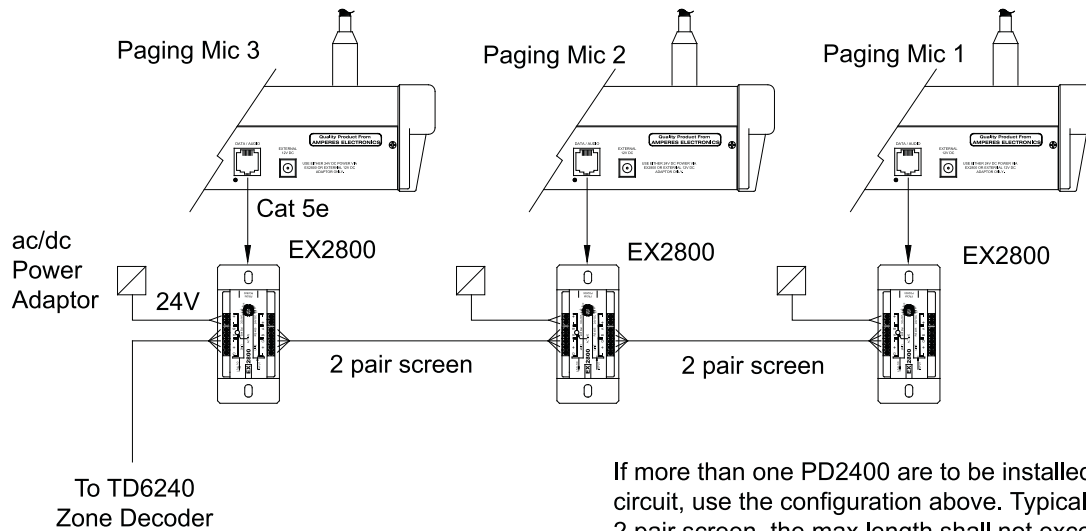


Note 2 :

More than 1 PD2400 can be installed in a single circuit. In this case, loop the data / audio cable via the EX2800 terminals accordingly.



Connecting PD2400 In Same Circuit



BGM Override When In Paging Mode

Unlike the previous version, overriding the BGM at zone selector shall be done automatically when paging mic is activated. No extra or particular connection is required. Please use the latest TD6240 and ZS5121 / 5601 for this feature. Check compatibility by the Serial Nbr - 512110060001 / 560110060001 / 624010060001 / 560210060001 and above.

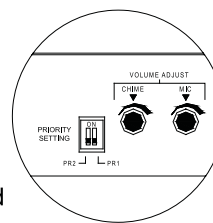
No PR connection shall be required.

Priority Setting

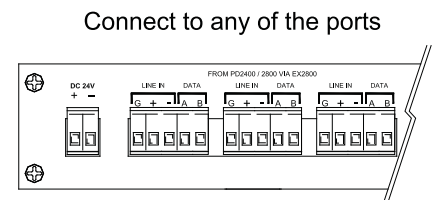
Priority setting of each mic is done at the rear DIP switch of the unit.

- 00 - Lowest Priority
- 01 - Highest Priority
- 11 - Medium Priority

Any mic connection port at the TD6240 can be used regardless of the priority status of the paging console.



Priority Setting



All Call Paging with 24V Override

Pressing ALL CALL from PD2400 shall activate all the zones at the zone selectors. If any volume controllers are installed in the particular zone and is switched off, this feature shall not override the VC. This is to avoid unnecessary interruption to the areas concerned, especially Emergency or Privacy Zones, such as Boardroom, Prayer Hall, Function Hall, etc.

To override the volume controllers during emergency, use EP1200 installed at the rack. Please refer to ZS manual to make necessary connection.

Operating The Unit

Select the zone for paging

Select the individual zone for paging or as group or ALL CALL, LEDs at the switches shall lit accordingly.

Press Chime + Talk button to page

A 4 tone upward chime shall be broadcasted to the zones selected.

This shall be followed by activation of gooseneck mic, indicated by LED ring near the mic capsule. The console is now ready for paging.

Press Chime + Talk button to end

A 4 tone downward chime shall be broadcasted to the selected zones.

LED ring turned off and the console is deactivated.

Technical Data

System
Output impedance
Output level
Output level controls
Chime
Frequency response
Signal to Noise Ratio
Indicators

Power supply
Power consumption
Data out
Data connection
Operating distance (controls)
Max line out distance
Dimensions
Gooseneck mic length
Weight

Condenser microphone, cardioid.
600 Ohm
1.1 V, Balanced
Chime and mic
4 tone (Up and Down)
100 - 12 k Hz
60 dB
Data send
Audio send
Power
Gooseneck mic LED upon activation
24V DC via D9 connector / external 12V DC supply via adaptor
170 mA
RS485 ; 19.2 kB/s
D9 connector
Up to 1000 meters
Up to 500 metres. (22 awg)
174(w) x 178(d) x 62(h) excluding microphone
300 mm
900 gms



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, 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.

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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.

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