amperes

Precision Design, Absolute Confidence

Public Address System
Commercial Installations

PD1280

REM MIC

GROUP RECALL

F1 F2 F3

G1 G2 G3 G4
G5 G6 G7 G8
SIREN   ALL CALL

1 2 3
4 5 6
7 8 9
CLR 0 ADD

REPEAT   CHIME + TALK

Digital Paging Microphone

CERTIFIED
QUALITY
MANAGEMENT
SYSTEM

UNITED REGISTRAR OF SYSTEMS
URS
ISO 9001

20 $\frac{22}{23}$

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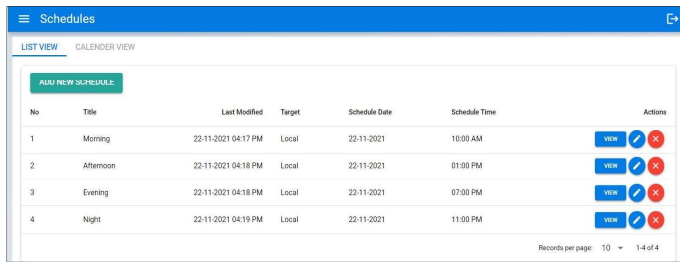## Weekly Programmable Timer **PT1801**
MK II

improved

PT1801 MK II succeeded its predecessor, packed with more advanced features for the ease of applications and controls. It is now LAN ready, which allows the user to access and setup the program times in a much more convenient way.

Users can now download melodies and songs of their choice directly to the unit without having to add additional external player. User can also play the tunes at designated schedules.

PT1801 MK II is also compatible to be integrated into Amperes iPX environment, which enabling schedules to be sent to iPX5155. Alongside with its balanced line out, PT1801 MK II is indeed an equipment of right choice.
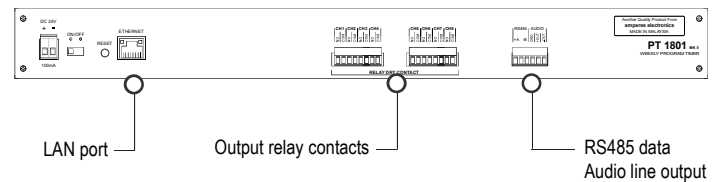
Features

- LAN connectivity for ease of setup and controls with world clock synchronization
- Compatible to be used in Amperes iPX environment
- 16 GB memory bank for large and multiple files for playback
- 1000 stored presets with free assignments
- 8 dry contact upon schedule activations
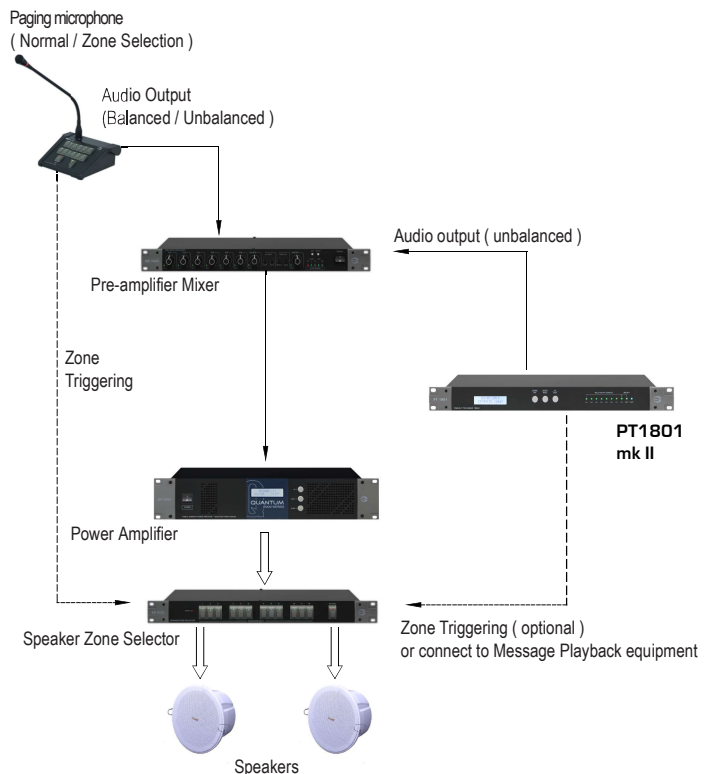- User friendly GUI

Creating schedules has been made simpler with user friendly GUI

Rear View:

LAN port
Output relay contacts
RS485 data
Audio line output

Application Schematic

Paging microphone (Normal / Zone Selection)

Audio Output (Balanced / Unbalanced)

Pre-amplifier Mixer

Audio output (unbalanced)

Zone Triggering

PT1801 mk II

Power Amplifier

Speaker Zone Selector

Zone Triggering (optional) or connect to Message Playback equipment

Speakers

Technical Specifications

Input voltage	24V DC ; 0.5 A
Power consumption	4.8 W
Output channels	8 dry contacts
Output contact rating	3 A
Contact connectors	Phoenix
Output triggering modes	ON, OFF, Pulse (3 seconds)
Output audio	Line out, +4 dBU balanced
Audio connectors	Mini Phoenix connectors
Output impedance	1 k Ohm
Preset capacity	1000 presets
Internal memory bank	32 GB
Indicators	LCD
Clock synchronization	World clock sync, PC
Clock back up	CR1220 button battery
RTC accuracy	+/- 2 ppm
Communications	LAN ; 10/100 Base T RS485 ; 19.2 kbps
Dimensions	482 x 44 x 180 mm
Weight	2.0 kg

Packing information

Carton size : 555 (L) x 295 (W) x 95 (H) mm
Gross weight : 2.55 kg
1 unit per carton

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improved

Fire Alarm Interface **FI6000** MK II

Fire Alarm Interface Extender **FI6001**

FI6000 MK II is an improvised phase evacuation controller, which is an essential intermediary device between Fire Alarm Panel and PA System. It enables zone controls and playback of various EVAC messages in pre-programmed sequences of activities. The orderly and automated activities upon receiving signals from Fire Alarm Panel (FAP) are part of compliance to EN54 or BS5839 Part 8 standards.

FI6000 has been improved and LAN interface has been added for the ease of programming via web interface instead of application software. Attractive and user friendly UI has been developed for better user experience during configurations.

FI6001 is an extension unit to the main FI6000 controller if the number of channels are more than 24. It can be able to be extended of up to 4 units (1 Master, 4 Slaves), which is equivalent to 120 receiving ports.

Features

- LAN connectivity for ease of setup and controls
- Available in 24 channels and can be extended with FI6001
- Integrated with Amperes products via RS485 and dry contacts
- Bi colour LEDs for easy identification of status
- Most suitable Fire Alarm Interface for Phase Evacuation activities
- User friendly GUI

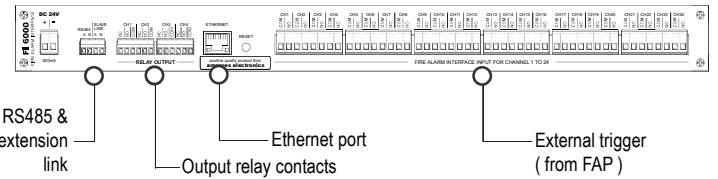*Creating schedules has been made simpler with user friendly GUI*

Rear View:

RS485 & extension link

Ethernet port

Output relay contacts

External trigger (from FAP)
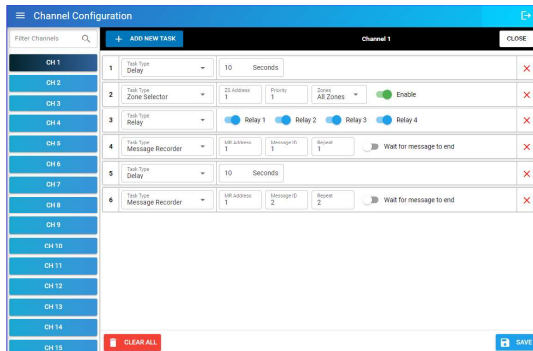
Schematic Diagram

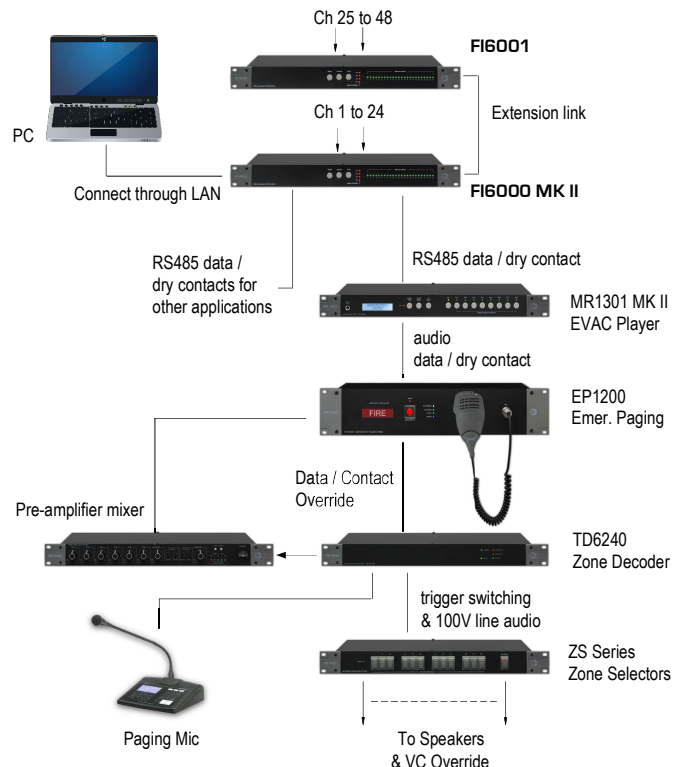|	
Input voltage	24 V DC ; 1 A
Power consumption (all triggered)	21 W ; 0.9 A
Input channels	24 ports
Max expandable unit (FI6001)	4 ; max 120 channels
Trigger method	Dry contact, NO
Output channels (dry contacts)	4
Output contact rating	3 A
Output contact modes	ON, OFF
Contact connectors	Mini Phoenix
Indicators	Channel bi colour LED
	Dry contact LED
Communications	RS485 ; 19.2 kbps
	LAN 10/100 Base T
User interface	Web browser : Google, Firefox
Dimensions	482 x 44 x 180 mm
Weight	1.9 kg

Packing information
Carton size : 555 (L) x 295 (W) x 95 (H) mm
Gross weight : 2.55 kg
1 unit per carton

Application Schematic

Ch 25 to 48

FI6001

PC

Ch 1 to 24

Extension link

Connect through LAN

FI6000 MK II

RS485 data / dry contacts for other applications

RS485 data / dry contact

MR1301 MK II EVAC Player

audio data / dry contact

EP1200 Emer. Paging

Pre-amplifier mixer

Data / Contact Override

TD6240 Zone Decoder

trigger switching & 100V line audio

ZS Series Zone Selectors

Paging Mic

To Speakers & VC Override

MR1301 EVAC Message Player / Voice Recorder
MK II

improved

MR1301 - EVAC Voice Message player has been further upgraded, notably the way the unit shall be setup. LAN port has been added to enable configuration to be performed smoothly using web interface with user friendly GUI. Tasks such as uploading of files, combining or grouping messages, and key assignments shall all be done via web browser or the front button keys.

As one of the most important equipment in EVAC, MR1301 MK II shall perform beyond the user's expectation by providing precise message delivery and clarity, to enable timely and systematic evacuation procedures in time of distress. Apart from the above application, it can also be used as general message player such as prayer playback, voice recording and other usages as required.
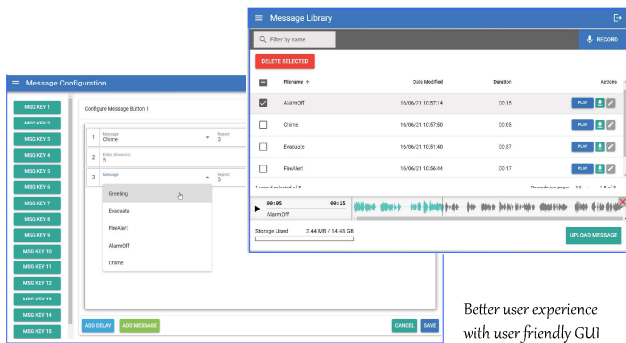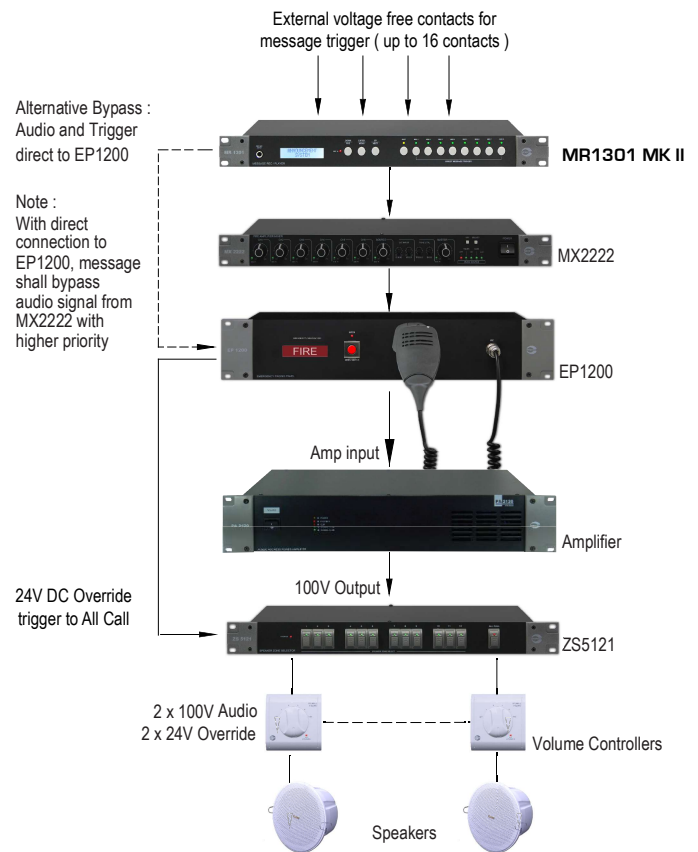

Better user experience with user friendly GUI

Features

- Up to 32 GB of memory space for large file storage and recording
- Web technology with user friendly GUI for setup, upload files and configurations
- Message playback via front button / rear remote triggering
- High quality MP3 audio playback of up to 320 kbps with 64 kbps IMA ADPCM voice recording
- Flexible message configuration in every memory bank, ie. multiple files in single button with delay setting in between
- Flexible message playback sequencing
- Event logging with time stamp for every message played, triggered and powered.
- Built in 5 band equalizer
- File / setting back up and restore
- Simple firmware updates

Application Schematic

External voltage free contacts for message trigger (up to 16 contacts)

Alternative Bypass : Audio and Trigger direct to EP1200

Note : With direct connection to EP1200, message shall bypass audio signal from MX2222 with higher priority

MR1301 MK II

MX2222

EP1200

Amp input

Amplifier

100V Output

24V DC Override trigger to All Call

ZS5121

2 x 100V Audio 2 x 24V Override

Volume Controllers

Speakers

Technical Specifications

Operating voltage	24V DC ; 1A
Power consumption	2.4 W (0.1 A)
Standby consumption	1.7 W (0.07 A)
Data connection	RS485 : Mini Phoenix connector, 19.2 kbps
	LAN : RJ45, 10/100 Base T
Inputs	Line in ; Unbalanced via RCA jack
	Mic in (recording) : 1/4" balanced phone jack
Message trigger	16 memory banks : Front and rear
Playback format	MP3, WAV
Voice recording	MP3, 1 hour per message
Playback delay	Yes
Priority message cut	Yes
User interface	Google Chrome, Edge
Remote view / control	Yes
Indicators	LED, 2x18 Char LCD
Memory	16 GB non detachable SD card (option for 32)
Dimensions (W x H X D)	482 x 44 x 180 mm
Weight	2.0 kg

Packing information

Carton size : 555 (L) x 295 (W) x 95 (H) mm
Gross weight : 2.55 kg
1 unit per carton

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new

AR1400 is a dual purpose machine, which serves as an event logging device as well as audio recorder. Activities or events running in the system shall be logged with time stamps and the announcement audio shall be recorded accordingly. This is to provide evidence if there is any disputes raised.

It shall record analogue audio during normal paging, emergency paging mic as well as in IP paging. With the large memory banks, hundreds of hours of audio recordings can be stored.
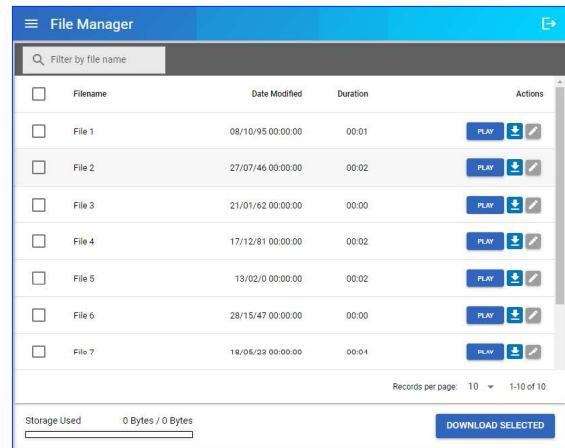
Apart from application in PA, it can also be used to record audio via Aux input, such as recording audio from conference systems and meetings.

Features

- LAN connectivity for ease of setup and controls
- Simultaneous recording for 2 analogue inputs
- Compatible with Amperes IP paging audio recording
- 32 GB of memory for hundreds of hours of recordings
- RS485 data port for external controls
- World clock synchronization
- Report generation to CSV file
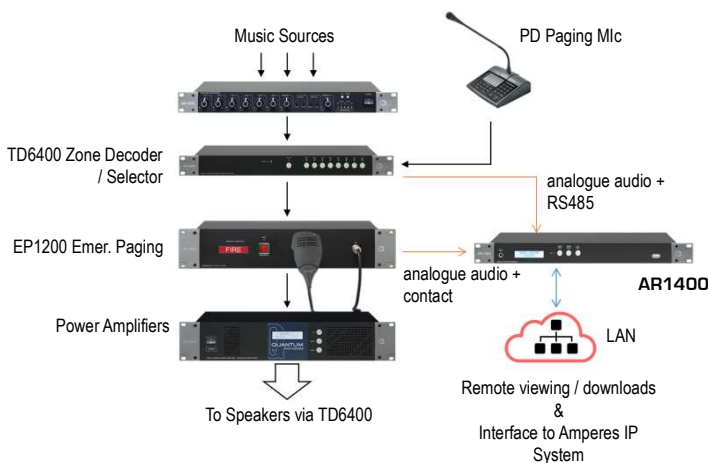- Access through web browser for setup and file retrieve
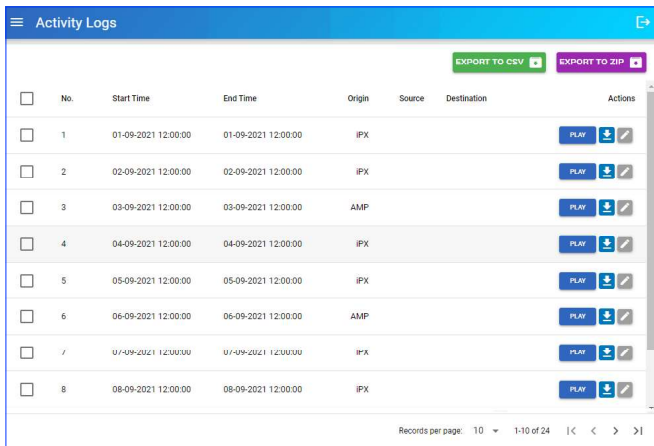
Activities shall be monitored and recorded with time stamp, which can be easily downloaded or export the logs into CSV files

File manager section which enable recorded audios to be downloaded to PC

Application Schematic

Music Sources

PD Paging MIc

TD6400 Zone Decoder / Selector

EP1200 Emer. Paging

Power Amplifiers

To Speakers via TD6400

analogue audio + RS485

analogue audio + contact

AR1400

LAN

Remote viewing / downloads & Interface to Amperes IP System

The above shows one of the possible application schematics to record voice normal and emergency paging by AR1400.

Technical Specifications

Input voltage	24 V DC ; 1 A
Power consumption (all triggered)	2.1 W ; (0.09 A)
Input channels	3 (including iPX)
PMX record initiation	Via iPX5101
Analogue input record initiation	Dry contact and RS485
Input level	Line : Balanced Max +4dBU
Output contacts	1
Storage media	32 GB
Recording duration	500 hours
Recording format	WAV, MP3
Indicators	LCD display
Communications	RS485 ; 19.2 kbps
	LAN 10/100 Base T
User interface	Web browser : Google, Firefox
Dimensions	482 x 44 x 180 mm
Weight	1.9 kg

Packing information
Carton size : 555 (L) x 295 (W) x 95 (H) mm
Gross weight : 2.55 kg
1 unit per carton

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PRE-AMPLIFIER MIXER

MX2222
12 Inputs Pre-amplifier Mixer

MX2222 is a compact mixer suitable for commercial PA applications with all features required to comply with EVAC system such as priority muting.

It is also suitable for other general applications such as audio mixing in meeting rooms, lecture theaters, house of worships, etc.

Packing information
Carton size : 555 (L) x 295 (W) x 95 (H) mm
Gross weight : 2.9 kg
1 unit per carton

Features

- 12 inputs of mic, BGM sources, ext.chime and mixer link for channel expansion
- Auto muting with adjustable ducking level for Ch. 1,2, chime and line in
- Priority muting with disable option for normal mixing mode
- Switchable phantom power for mic channel 1 to 4
- Dual output ; mixed line and BGM output for uninterrupted paging setup
- Independently adjustable BGM balance line output level
- Built in daisy chain source selector with last selection memory
- Bass and treble tone control
- AC and DC power source for uninterrupted operation during power failure

MX2322
13 Inputs Dual Bus Pre-Amplifier Mixer

MX2322 is a further refined pre-amplifier mixer with dual bus outputs, suitable for both EVAC commercial PA installations as well as for other general usage in meeting rooms, function halls etc.

Connections has been made simpler with Phoenix connectors, which is a preferred choice for fixed installations.

new

Packing information
Carton size : 555 (L) x 295 (W) x 165 (H) mm
Gross weight : 4.0 kg
1 unit per carton

Features

- 8 mic / line, 2 RCA, 2 external lines and 1 paging mic high priority inputs
- Switchable phantom power for Ch.1 to Ch.8
- Gain controls for mic and line inputs
- Assignable input to output A or B or both
- Priority muting switch to override BGM sources
- Dual output A and B with separate record output channels
- Low, Mid and High main tone controls for both outputs
- AC and DC power source for uninterrupted operation during power failure

Technical Specifications

|	MX2222	MX2322
Operating voltage	220 ~ 240 V ac : 50 / 60 Hz / 24V DC	
Current (max)	10 mA (240V ac) / 100 mA (24V DC)	40 mA (240V ac) / 260 mA (24V DC)
Power consumption (max)	2.4W (240V ac / 24V DC)	9.6W (240V ac) / 6.3W (24V DC)
Inputs	6 x Mic + phantom power at Ch 1 to 4	8 x Mic / Line with gain controls + phantom power
	2 x Line input with priority, 4 x RCA	2 x Line input with priority, 2 x RCA, 1 paging mic
Input impedance	RCA : 47 k Ohm, Mic : 10 k Ohm, Link : 10 k Ohm	Line : 10 kOhm ; Mic : 15 k Ohm
Phantom power	12 V DC at Ch 1 to 4 (Switchable)	18V DC at Ch 1 to 8 (Switchable)
Operating level (Sensitivity)	-30 dBU (mic), +4 dBU (line)	
Input level (max)	+10 dBU	
Gain controls	+20 dBU balanced / unbalanced	
Crosstalk	> 60 dB	> 70 dB
Outputs	1 x line balanced, 1 x records unnbalanced	2 (A & B) line balanced, 2 x records unnbalanced
Output impedance (Ohm)	600 Ohm balanced	300 Ohm balanced
Tone controls	2 : Low / Mid (300 Hz), Hi (10 kHz)	3 : Low (100 Hz), Mid (1 kHz), Hi (10 kHz)
Frequency response	175 ~ 15 kHz	20 ~ 20 kHz
S/N ratio / THD + N	> 60 dB / < 0.1%	> 75 dB / < 0.1%
Connectors	XLR-F (mic in / line out), 1/4" TRS (line & mix in)	Mini Phoenix (mic / line inputs and outputs)
	1/4" TRS Unbal (rec & BGM), RCA	RCA, RJ45 for Amperes PM1030 mic
Dimensions (WxHxD)	482 x 44 x 185 mm	482 x 88 x 185 mm
Weight	2.2 kg	3.3 kg

scan for updates

DA2208 is an audio (line level) distribution unit with configuration of 2 in x 4 out or 1 in x 8 out. As rule of thumb, a signal shall not be fed to more than six amplifiers in your PA rack in order to avoid signal degradation. Thus DA2208 shall come in handy to the solution.

Normally different amplifier will cater for different zones with specific speakers., such as horn and ceiling, the input shall be tuned to suit the sounders in terms of volume or tone. DA2208 has individual output tone controls for bass and treble and volume to fit to the requirement.

Features

● Operates as dual channel 1 input 4 output or single channel 1 input 8 output

● Individual bass and treble control with volume adjustment

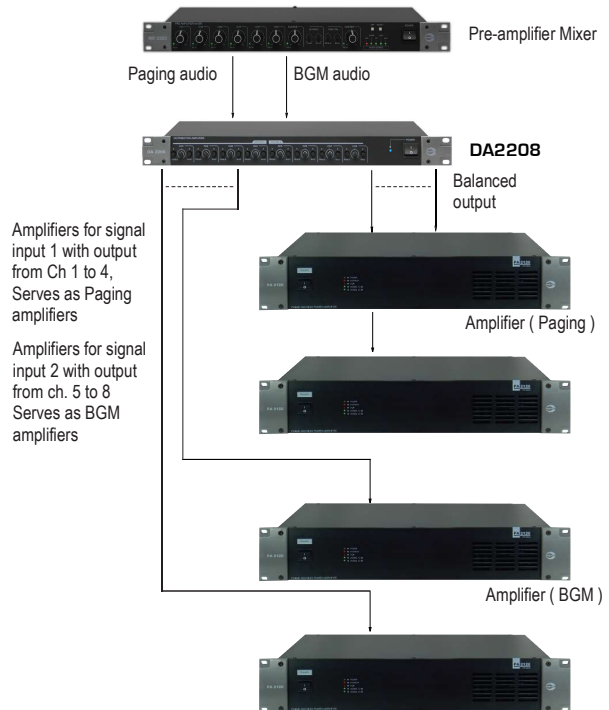● Fail safe feature : redirect input to outputs when DC supply or unit fails

Rear View:

Link Switch

Level select

Group A outputs

Group B outputs

Input for Group A & B
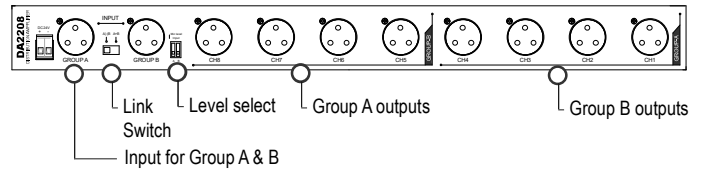
Technical Specifications

Operating voltage	24V DC ; 0.2A
Power consumption	2.4 W, 0.1 A
Configurations	1 in x 8 outputs
	2 in x 4 outputs
Input levels	Line : 1.2 V rms (+ 4 dBU) max
Input impedance	10 k Ohm
Output impedance	600 Ohm
Gain	+ 4 dB
Controls	Bass and Treble tones
	Individual and master volume
S/N ratio	> 60 dB
THD + N	< 1 %
Frequency response	150 - 19 k Hz (+/- 3 dB, 1 kHz)
Connections	XLR 3 pins
Dimension (W x H x D)	482 x 44 x 180 mm
Weight	1.95 kg

Application Schematic

Pre-amplifier Mixer

Paging audio   BGM audio

DA2208

Balanced output

Amplifiers for signal input 1 with output from Ch 1 to 4, Serves as Paging amplifiers

Amplifier (Paging)

Amplifiers for signal input 2 with output from ch. 5 to 8 Serves as BGM amplifiers

Amplifier (BGM)

The above illustration is for Uninterrupted Paging setup, which one set of amplifiers would be used for Paging purpose while the other only for BGM. Each output from DA2208 shall not be fed to more than 6 power amplifiers to avoid signal distortion.

Packing information
Carton size : 555 (L) x 295 (W) x 95 (H) mm
Gross weight : 2.55 kg
1 unit per carton

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PA320 — 20W 4 Ohm Mini Amplifier
PA322 — 20W 4 Ohm Mini Amplifier with Dual Source
PA330 — 30W 100V Mini Amplifier

PA300 Series of mini amplifiers are available to power small number of localised speakers. 3 variants are available for different applications, with 4 ohm speaker connectivity as well as 100V line output for high impedance speakers. Their compact size enabled them to be stored in small enclosed areas such as cabinets, pole boxes, etc.

PA320 — Used to amplify BGM to a speakers of 4 or 8 Ohm, from TV output to a bathroom speaker in hotel room. Amperes VC7805 volume controller and VP7810 BGM-Speaker patch panel can be installed for emergency overriding by central PA system.

- Compact size of 20W 4 Ohm rating
- Adjustable volume control

PA322 — It is powered by Class D amplifier with built in PA overriding module which allows central PA to override local source for emergency broadcast. Two audio source can be connected to PA322, which is selectable via VC7001 volume controller with source selector button and smooth volume adjustment.

- Class D amplifier with 20W 4 Ohm rating
- Dual input source, selectable via external volume controller (VC7001)
- Easy connection to VC7001 for source selection and volume adjustment

VC7001 Volume Controller for PA322

PA330 — It is suitable to be used as remote amplifier in decentralised system such as classroom paging, horn amplifier for security poles or to drive a group of localised high impedance speakers. To use as relay amplifiers along 100V line trunk, a down converter such as PR7400 can be installed with its output fed to PA330 to drive some 100V speakers.

- 30W 100V line output
- Adjustable volume controls

Packing information

PA320		PA330	
L x W x H	: 555 x 295 x 165 mm	L x W x H	: 550 x 465 x 180 mm
Qty per carton	: 20 unit	Qty per carton	: 12 unit
Weight	: 16.20 kg	Weight	: 16.55 kg

Technical Specifications

	PA320	PA322	PA330
Ratings	20W 4 Ohm		30W 100V
Operating voltage	220 ~ 240 V AC		
Current consumption (240V AC)	0.14 A	0.03 A	0.24 A
Inputs	1	2	1
Input audio	Mono, unbalanced		
Input signal (sensitivity)	800 mV		
Input gain controls	-40 to +4 dBU		
Input impedance	10 k Ohm		
Outputs impedance	4 Ohm	4 Ohm	330 Ohm
Controls	Volume	Volume & source select	Volume
External link (optional)	VC7810, VP7810	VC7001	VC7030
Frequency response	100 - 18 kHz	20 - 20 kHz	100 - 20 kHz
S/N ratio	> 65 dB		
Operating temperature	-10 to 60 deg C		
Operating humidity	80%		
Dimensions (W x H x D) mm	130 x 55 x 95	140 x 55 x 95	150 x 71 x 155
Net weight (kg)	0.76	0.82	1.10

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QD2000 Series Class D

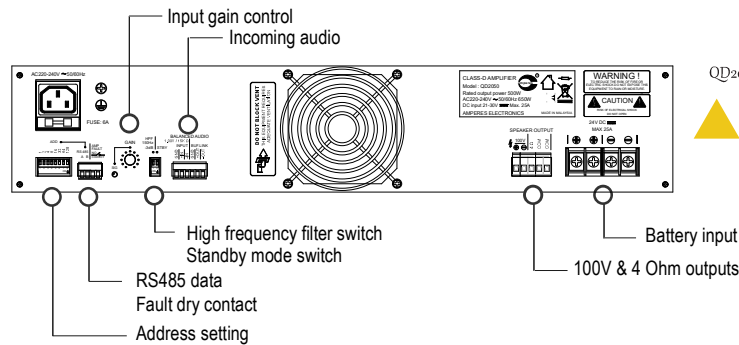|	
250W 100V Line	**QD2025**
500W 100V Line	**QD2050**
750W 100V Line	**QD2075**
1000W 100V Line	**QD2100**

new

QD2000 Series are newly added models of high performance power packs to the range of 100V line output power amplifiers. It is born out of in-depth R and D to produce high efficiency with broad frequency response for reliable and robust applications in PA installations.

QD2000 Series distinguished itself from others of its class by incorporating Auto Fault Sensor (AFS) circuit and is equipped with RS485 data port for remote monitoring by Amperes PMX LAN.

Features

- High efficiency Class D power amplifier technology
- 100V and 4 Ohm outputs
- High pass filter for speaker protections
- Switchable standby input detection for low power consumption during DC back up
- Auto fault sensor (AFS) with dry contact
- Remote monitoring via RS485 data port, compatible with iPX5500 data comm box
- AC and DC operation for uninterrupted operation during power failure

QD2000 is built with various protections for durability - thermal, short circuit, overload and fuse.

Input gain control
Incoming audio

High frequency filter switch
Standby mode switch

RS485 data
Fault dry contact

Address setting

Battery input

100V & 4 Ohm outputs

Packing information
Carton size : 550 (L) x 465 (W) x 180 (H) mm
Gross weight :
        QD2025, 2050   : 8.40 kg
        QD2075, 2100   : 8.60 kg
1 unit per carton

Technical Specifications

	QD2025	QD2050	QD2075	QD2100
Operating voltage	220 - 240V AC : 50/60 Hz or 21-30V DC Back up supply			
Rated output (rms at 100V)	250W	500W	750W	1000W
Power consumption (240V AC)	350 VA (1.3 A)	650 VA (2.6 A)	1000 VA (3.9 A)	1300 VA (5.1 A)
Current consumption (24V DC)	15 A	25 A	40 A	50 A
DC back up standby current	1.2 A (With standby Off)			
Input sensitivity (100V out)	1V rms balanced input via phoenix connector (15 kOhm)			
Input link (buffered)	0 dB balanced line (10 kOhm)			
Input signal standby	Switchable auto detect / always ON			
Input HF filter	150 Hz @-3dB slop via DIP switch			
Output	100V line / 4 Ohm			
4 Ohm output voltage	50V			
Frequency response	60 - 20 kHz (+/- 3dB, 1kHz)			
S/N ratio	> 68 dB			
THD + N	< 0.2 %			
Protections	Thermal,short circuit, overload, AC and DC fuses, Standby			
Cut off temperature	75 C			
Communications	RS485 ; 19.2 kbps			
Indicators	Signal, Temp, Fault, Power LEDs			
Fault relay	NO dry contact ; 3A			
Cooling system	Auto temp controlled fan			
Operating temperature	-10 to 45 C			
Storage temperature	-40 to 70 C			
Humidity	95%			
Dimensions (WxHxD) mm	482 x 88 x 340 mm			
Net weight (kg)	6.8	6.8	7.0	7.1

scan for updates

DP2240 2 x 240W 100V
DP4240 4 x 240W 100V
DP2500 2 x 500W 100V

DP2000 Series are multi channel Class D power amplifiers available in three variants, serving the needs of wider frequency range of audio. It is also compact in size and lighter than conventional power packs.

The high efficiency Class D circuits also reduces power consumption, an essential factor in reducing carbon prints to the environment.

Features

- Switching power supply technology with Class D amplification
- Available in 2 x 240W, 4 x 240W and 2 x 500W 100V line & 4 - 16 Ohm outputs
- Compact multichannel in 1 HU enclosure for rack space saving
- Individual balanced input with separate volume adjustment
- Bandpass filter to cut off unwanted bass audio and high pitch audio
- Short circuit, overload, temperature and DC protections
- Switchable sleep / On mode when input signal is not presence for energy saving
- Wide range AC supply with 24V DC back up

Rear View DP2240

Rear View DP4240

Input terminals   Input level adj

24V DC back up   100V line output   HF filter & standby option

Packing information

Carton size : 605 (L) x 560 (W) x 125 (H) mm
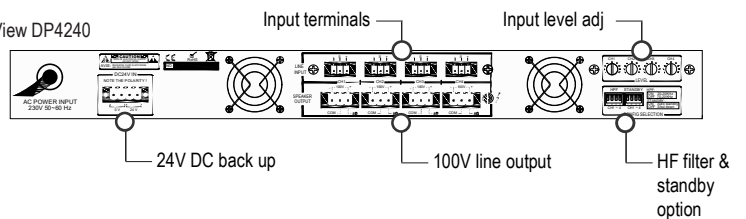Gross weight :
    DP2240 : 7.75 kg
   DP2500 : 8.50 kg
    DP4240 : 8.40 kg
1 unit per carton
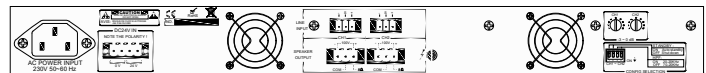
Technical Specifications

	DP2240	DP2500	DP4240
Ratings (rms) 100V output	2 x 240 W	2 x 500 W	4 x 240 W
Operating voltage	220 ~ 240 V AC or 24 V DC back up supply		
Power consumption (240V AC)	550 VA (2.3 A)	1100 VA (4.6 A)	
Current consumption (24V DC)	22 A	46 A	
Standby current (24V DC)	0.3 A		
Input signal (sensitivity)	0.775 V (0 dBU) / 10 k Ohm via Phoenix connectors		
Input gain controls	-40 to +4 dBU		
Outputs	100V line and 4 - 16 Ohm		
4 Ohm output voltage	38 V		
Output impedance (max load)	40 Ohm / Ch	20 Ohm / Ch	40 Ohm / Ch
Frequency response	20 - 20 kHz @ 1 kHz +/- 3dB		
S/N ratio	> 80 dB @ 1 kHz, 1V		
THD + N	< 0.1 %, 1 kHz		
Protections	Thermal, short circuit, overload, fuse, in-rush current		
Cut off temperature	75 deg C		
Cooling system	Fan forced cooling		
Indications	LED : Protect, input audio, output and power		
Dimensions (WxHxD) mm	482 x 44 x 420		
Net weight (kg)	5.90	6.90	6.80

scan for updates

125W 100V	**QP2125**
250W 100V	**QP2250**
375W 100V	**QP2375**
500W 100V	**QP2500**
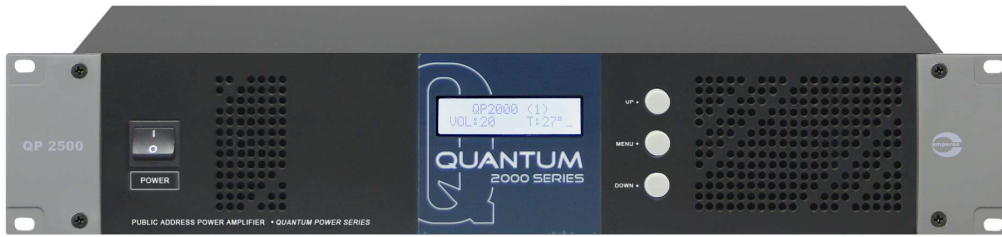
QP2000 Series are available with power ratings from 125W to 500W 100V, enhanced with various controls and protections for reliable performance. It is digitally controlled, enabling it to be monitored and controlled remotely via RS485. PMX LAN software can be incorporated in your PA system for remote setting and monitoring of QP amplifiers.

A distinctive feature would be its Auto Fault Sensor (AFS) and internally built Amplifier Fault Changeover relay (AFX). The amplifier shall self monitor through self generated Pilot Tone, and if fault is detected, change-over to standby amplifier shall be initiated. This is to ensure smooth operation of your system. An innovative feature for cost saving and uninterrupted operation.

Features

- Available in 125 / 250 / 375 / 500W 100V line output in compact 2hu height
- In rush current limiter
- Digital setting for various control features such as bass, treble, fan speed, etc
- Built in Auto Fault Sensor and Changeover relay for standby fault changeover
- Overload, thermal cut off, short circuit and fuse protections
- Fan speed option ensures longer lifespan of the unit
- RS485 data port for remote monitoring
- AC and DC operation for uninterrupted operation during power failure

Packing information
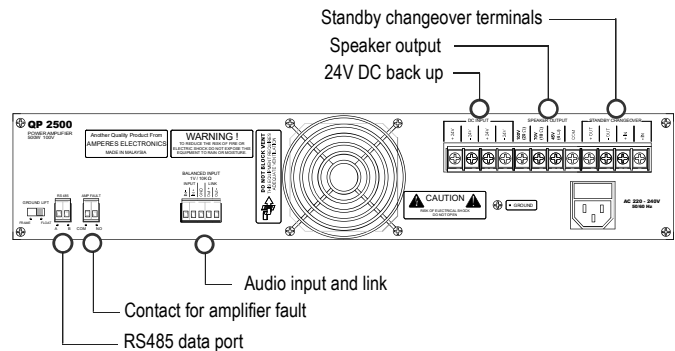Carton size : 550 (L) x 465 (W) x 180 (H) mm
Gross weight :

       QP2125 : 13.50 kg
       QP2250 : 14.60 kg
       QP2375 : 18.00 kg
       QP2500 : 19.90 kg
1 unit per carton

Standby changeover terminals
Speaker output
24V DC back up
Audio input and link
Contact for amplifier fault
RS485 data port

Technical Specifications

	QP2125	QP2250	QP2375	QP2500
Ratings (rms) 100V output	125 W	250 W	375 W	500 W
Operating voltage	220 ~ 240 V AC or 24 V DC back up supply			
Power consumption (240V ac)	294 VA (1.1 A)	447 VA (1.7 A)	749 VA (2.9 A)	873 VA (3.3 A)
Current consumption (24V DC)	5.9 A	10.6 A	16.7 A	19.6 A
Standby current (24V DC)	0.7 A			0.9 A
Input signal (sensitivity)	1V (+4 dBU) / 10 k Ohm via Phoenix connectors			
Input gain controls	-40 to +4 dBU			
Outputs	70 / 100V line and 4 Ohm			
4 Ohm output voltage	22.3 V	31.6 V	38.7 V	44.8 V
Output impedance (max load)	80 Ohm	40 Ohm	27 Ohm	20 Ohm
Frequency response	70 - 15 kHz @ 1 kHz +/- 3dB			
S/N ratio	> 70 dB @ 1 kHz, 1V			
THD + N	< 0.18 %			
Protections	Thermal, short circuit, overload, fuse, in-rush current			
Cut off temperature	75 deg C			
Cooling system	Auto temperature controlled cooling fan with auto ON			
Indications	LCD with temp, audio level and address			
Communication	RS485 ; 19.2 kbps			
Fault sensing	Internal Pilot Tone : 20 kHz, detection at 15 ~ 20 secs, 10 secs interval			
Fault detection response	Standby amplifier relay activation, fault dry contact			
Dimensions (WxHxD) mm	482 x 88 x 335			
Net weight (kg)	11.60	12.70	16.50	18.05

scan for updates

PA2120 120W 100V
PA2240 240W 100V
PA2360 360W 100V
PA2480 480W 100V
PA2600 600W 100V

PA2000 Series of power amplifiers has been a workhorse of powering the PA setups for decades. They are available in various power ratings to choose from to suit the loading requirement.

With our continuous product improvement effort, we had improved the performance and reliability in line with ever changing needs of the industry.

Features

- Available in various ratings ; from 120W to 600W 70 or 100V line
- 4 Ohm speaker connection available with 25V ~ 48V output
- Thermal protection by muting input signal (typically 75 deg at heat sink)
- Momentary short circuit protection
- In rush current limiter
- Temperature dependent dual speed cooling fan
- Balanced input signal with gain control and selectable grounding option
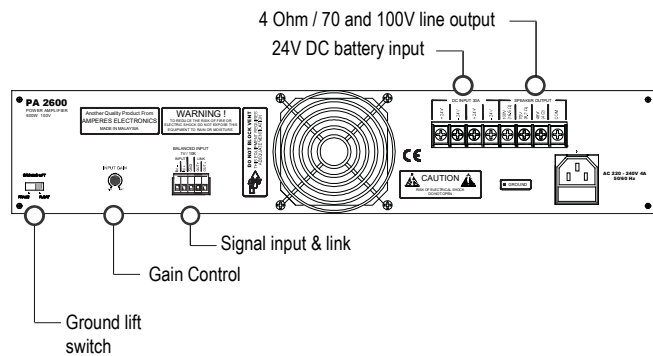- AC and DC operation for uninterrupted operation during power failure

4 Ohm / 70 and 100V line output
24V DC battery input

Signal input & link

Gain Control

Ground lift switch

Packing information
Carton size : 550 (L) x 465 (W) x 180 (H) mm
Gross weight :

PA2120 : 13.10 kg
PA2240 : 13.85 kg
PA2360 : 17.40 kg
PA2480 : 19.65 kg
PA2600 : 21.30 kg
1 unit per carton

Technical Specifications

	PA2120	PA2240	PA2360	PA2480	PA2600
Ratings (rms) 100V output	120 W	240 W	360 W	480 W	600 W
Operating voltage	220 ~ 240 V AC or 24 V DC back up supply				
Power consumption (240V ac)	255 VA (1.0 A)	497 VA (1.9 A)	731 VA (2.8 A)	996 VA (3.8 A)	1069 VA (4.1 A)
Current consumption (24V DC)	6.1 A	10.6 A	16.3 A	22.3 A	23.1 A
Standby current (24V DC)	0.2 A		0.3 A	0.4 A	
Input signal (sensitivity)	1V (+4 dBU) / 10 k Ohm via Phoenix connectors				
Input gain controls	-40 to +4 dBU				
Outputs	70 / 100V line and 4 Ohm				
4 Ohm output voltage	22 V	31 V	38 V	43.8 V	48 V
Output impedance (max load)	83 Ohm	42 Ohm	27 Ohm	20 Ohm	16.6 Ohm
Frequency response	70 - 15 kHz @ 1 kHz +/- 3dB				
S/N ratio	> 70 dB @ 1 kHz, 1V				
THD + N	< 0.18 %				
Protections	Thermal, short circuit, overload, fuse, in-rush current				
Cut off temperature	75 deg C				
Cooling system	Auto temperature controlled cooling fan				
Indications	LED : Power, Signals				
Dimensions (WxHxD) mm	482 x 88 x 335				
Net weight (kg)	11.40	12.35	16.20	17.95	19.60

scan for updates

MA2000 Series Mixing Amplifiers

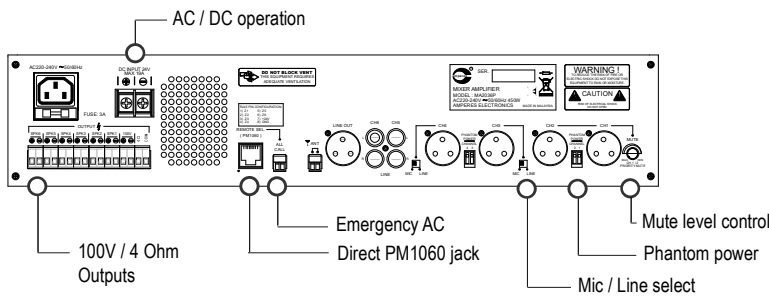|	
60W 100V Line	**MA2006**
120W 100V Line	**MA2012**
240W 100V Line	**MA2024**
360W 100V Line	**MA2036**

improved
CLASS D AMPLIFIERS

MA2000 Series of mixing amplifiers has been further improved with higher power ratings and better sound reproduction by incorporating high efficiency Class D amplifier circuits. The overall size and weight had also been further reduced for more efficient space usage.

It is suitable for small setups such as showrooms, retail outlets, function rooms and prayer halls. Each unit has 6 zones outputs which can be easily connected to PM1060 paging mic with RJ45 jack.

MA2000P is a series with media player module consisting USB / SD card MP3, bluetooth and FM tuner.

Features

- High efficiency Class D power amplifier technology
- 6 mic / line selectable inputs, with front mic jack, phantom power
- Priority muting for mic input 1 with adjustable muting level
- 6 zone speaker output with All Call and remote trigger port
- 100V line output with aux 4 Ohm speaker terminal
- Bass and treble tone controls
- Optional media player module
- AC and DC operation for uninterrupted operation during power failure

AC / DC operation

100V / 4 Ohm Outputs

Emergency AC
Direct PM1060 jack

Mic / Line select

Mute level control
Phantom power

Packing information
Carton size : 555 (L) x 295 (W) x 165 (H) mm
Gross weight :
MA2000 : 5.45 kg
MA2000P : 5.50 kg
1 unit per carton
Optional rack mounting bracket available

Technical Specifications

	MA2006 / 2006P	MA2012 / 2012P	MA2024 / 2024P	MA2036 / 2036P
Ratings (rms) 100V output	60 W	120 W	240 W	360 W
Operating voltage	220 ~ 240 V AC			
Power consumption (240V AC)	115 W / 0.5 A	160 W / 0.7 A	285 W / 1.2 A	450 W / 1.9 A
Input - Ch 1 and 2	Balanced Mic input with 12V Phantom Power (10 k Ohm) ; Adjustable mute priority			
Ch 3 and 4	Balanced Mic / Line selectable with 12V Phantom Power (Mic : 10 k Ohm, Line : 15 k Ohm)			
Ch 5 and 6	Unbalanced input (15 k Ohm) RCA 0 dBV			
THD + N (at rated power)	< 0.02 %			
S/N ratio	> 68 dB			
Tone controls	Bass (100 Hz), Treble (10 k Hz) +/- 15 dB			
Frequency response	120 - 20 k Hz (+/- 3 dB)			
Signal output	0 dBU balanced line			
Zone output	6 zone : Front switch and remote paging mic with All Call			
Power output -				
4 Ohm @ 1V rms input	50 V rms			
100 V @ 1V rms input	100V rms			
Protections	Thermal, short circuit, AC and DC fuses			
Indications	Power, zone selection, signal level			
Cooling system	Thermostat controlled fan at 45 Deg C			
Dimensions (WxHxD) mm	434 x 88 x 200 (without bracket)			
Net weight (kg)	4.35 kg / 4.40 kg (P version)			

scan for updates

MC2106 60W 100V Line
MC2112 120W 100V Line
MC2124 240W 100V Line
MC2136 360W 100V Line

improved
CLASS D AMPLIFIERS

## Features

- High efficiency Class D power amplifier technology
- 6 inputs with front mic jack and phantom power
- Priority muting for mic input 1 with adjustable muting level
- 100V line output with aux 4 Ohm speaker terminal
- Bass and treble tone controls
- Optional media player module

MC2000 Series of basic mixing amplifiers has been further enhanced with Class D amplifier technology, known for its better efficiency, wider frequency band light weight and compacted in size.

It is suitable for small setups such as showrooms, retail outlets, function rooms and prayer halls.

MC2000P are units with media player module with USD / SD card MP3 playback, bluetooth and FM tuner.

Mute level control
100V / 4 Ohm Outputs
Mic / Line select
Phantom power
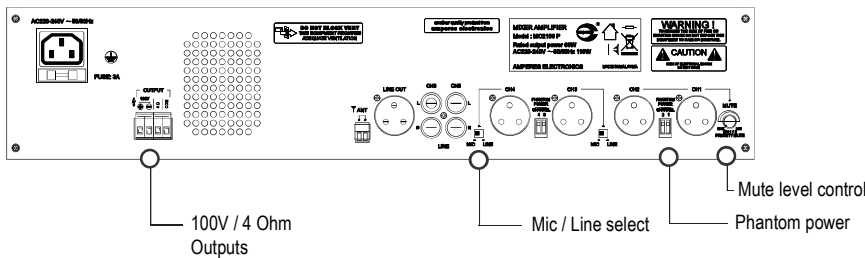
Packing information
Carton size : 555 (L) x 295 (W) x 165 (H) mm
Gross weight :
        MC2100   : 4.45 kg
        MC2100P : 4.50 kg
1 unit per carton
Optional rack mounting bracket available

Technical Specifications

	MC2106 / 2106P	MC2112 / 2112P	MC2124 / 2124P	MC2136 / 2136P
Ratings (rms) 100V output	60 W	120 W	240 W	360 W
Operating voltage	220 ~ 240 V AC			
Power consumption (240V AC)	115 W / 0.5 A	160 W / 0.7 A	285 W / 1.2 A	450 W / 1.9 A
Input -　　　Ch 1 and 2	Balanced Mic input with 12V Phantom Power (10 k Ohm) ; Adjustable mute priority			
Ch 3 and 4	Balanced Mic / Line selectable with 12V Phantom Power (Mic : 10 k Ohm, Line : 15 k Ohm)			
Ch 5 and 6	Unbalanced input (15 k Ohm) RCA 0 dBV			
THD + N (at rated power)	< 0.02 %			
S/N ratio	> 68 dB			
Tone controls	Bass (100 Hz), Treble (10 k Hz) +/- 15 dB			
Frequency response	120 - 20 k Hz (+/- 3 dB)			
Signal output	0 dBU balanced line			
Power output -				
4 Ohm @ 1V rms input	50 V rms			
100 V @ 1V rms input	100V rms			
Protections	Thermal, short circuit, AC and DC fuses			
Indications	Power, signal level			
Cooling system	Thermostat controlled fan at 45 Deg C			
Dimensions (WxHxD) mm	434 x 88 x 200 (without bracket)			
Net weight (kg)	3.40 / 3.45 (P version)			

scan for updates

Features

AC3801 is a manual amplifier changeover panel with capacity of 8 duty power amplifier inputs and 1 standby. It has dual mode of changeover, one being manually pressing the front switch to perform standby takeover and the other through dry contact trigger at the back of the unit. This shall make it suitable for power amplifiers with auto fault sensing such as Amperes QP Series or other makes with failure dry contacts.

The changeover will only take place for one duty at any one time to prevent amplifier overload and channels are assigned with priority to allow amplifiers with important zones having priority.

- Cater for 8 duty and 1 standby amplifier
- Expandable for 1 standby to serve more than 8 duty units
- Overload protection by allowing only a single take over
- Prioritized changeover - unit with higher number is preferred for changeover
- Manual front panel and rear triggering changeover selection
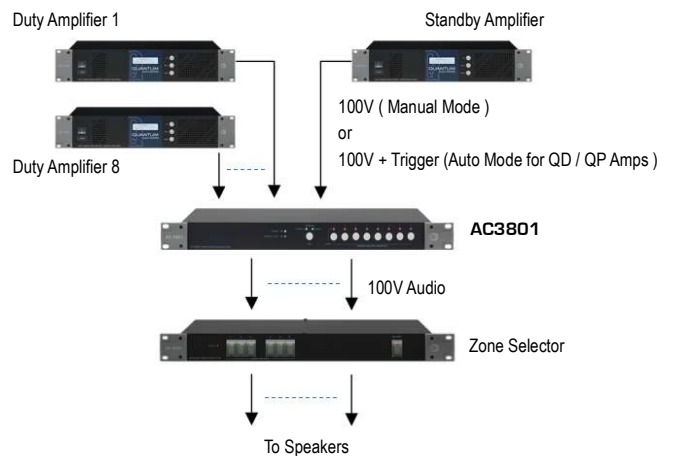- Suitable for any amplifiers in the market

Technical Specifications

Operating voltage	24V DC ; 0.2A
Power consumption	Standby: 82mW, 3.4 mA
	Operating: 1.3W, 50 mA
Zone load rating	500W / 100V line input (1000W available on request)
No of amplifier inputs	8 duty, 1 standby
Changeover indication	Front panel LED for duty amplifier being Changeover
Switching mode	Via front panel switches (manual mode)
	Remote trigger (auto mode)
Cable connections	Phoenix connectors
Cascade capacity	Unlimited (Recommended 3)
Cable size	Up to 2.5 mm sq
Dimension (W x H x D)	482 x 44 x 180 mm
Weight	1.95 kg
Colour	Black, powder epoxy coated

Rear View:

Cascade link

Standby amplifier input

Duty amplifier inputs

Rear trigger via dry contact

Application Schematic

Duty Amplifier 1

Duty Amplifier 8

Standby Amplifier

100V (Manual Mode)
or
100V + Trigger (Auto Mode for QD / QP Amps)

AC3801

100V Audio

Zone Selector

To Speakers
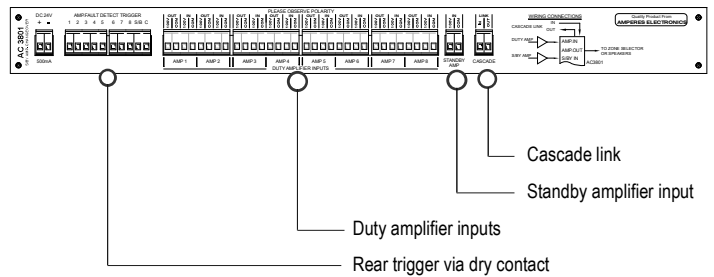
AC3801 is a dual mode changeover device, works as manual for normal power amplifiers and auto for amplifiers with Auto Fault Sensors with triggering contacts
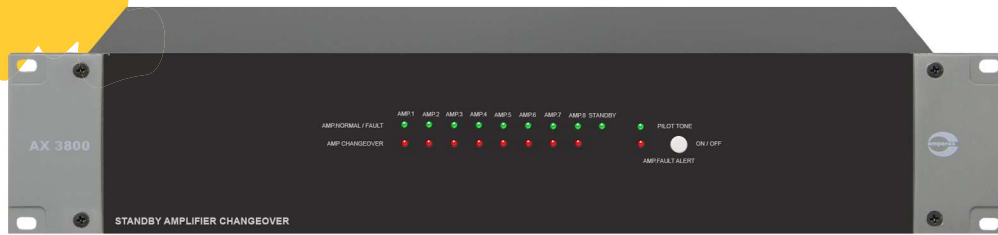
Packing information
Carton size : 555 (L) x 295 (W) x 95 (H) mm
Gross weight : 2.55 kg
1 unit per carton

scan for updates

AX3800 8 Duty / 1 Standby Auto Amplifier Changeover Panel

AX3800 has been improved further, offering greater flexibility and simplicity for amplifier fault changeover setup. Cascading is now made easier to enable 1 standby to cater for 16 duty power packs.

With precise circuit design, amplifier fault detection period is greatly reduced to initiate timely changeover to standby unit. The internal pilot tone generation at 20KHz is set at optimum interval to avoid unnecessary loading to amplifiers.

Changeover shall occur at both input and output of amplifiers, making it suitable for application in a matrix system. Priority and single changeover ensures overloading of standby amplifier is avoided, thus providing a reliable and uninterrupted system at most times.
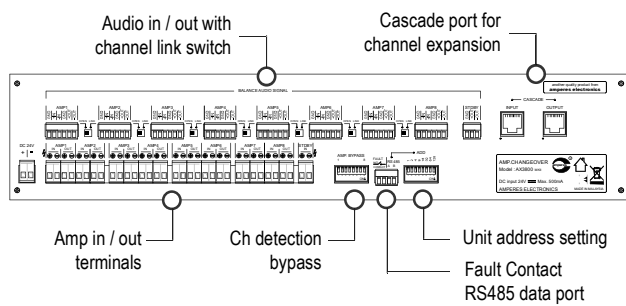
Features

- Cater for 8 duty and 1 standby
- Expandable for 1 standby to cater for more than 8 duty amps.
- Built in Pilot Tone generator, transmit at intervals and senses at sequence to protect amplifiers
- Overloading protection by allowing only a single take over
- Prioritised changeover which higher numbered amplifier shall be preferred for take over if more than two units are down
- Short fault detection time from 7 to 15 seconds
- Changeover at input and output section simultaneously ; suitable for matrix system installations
- Input link switch ; making connection of sources easier
- Channel isolation switch for unused or un-monitored channel
- Individual channel status indicators ; normal, fault and changeover

Audio in / out with channel link switch

Cascade port for channel expansion

Amp in / out terminals

Ch detection bypass

Unit address setting

Fault Contact RS485 data port

Application Schematic

Technical Specifications

Operating voltage	24V DC ; 1A
Power consumption	2.5 W (0.11 A)
Standby consumption	2.3 W (0.95 A)
Input signal	8 Ch balanced line signal
Input impedance	10 k Ohm
Audio output gain	Unity
Pilot tone interval	8 seconds / channel
Pilot tone frequency	20 k Hz (+/- 5%)
Detection line	70 / 100 V line
Detection level	5 V rms min
Failure detection time	20 seconds (max)
Failure recovery time	20 seconds (max)
Zone load rating	1000W 100V line max
Status indication LED	Normal ; Fault ; Changeover
Changeover alert	Buzzer with switch
Changeover section	Input and output simultaneously
Dimensions (W x H X D)	482 x 88 x 180 mm
Weight	3.55 kg

Packing information
Carton size : 555 (L) x 295 (W) x 165 (H) mm
Gross weight : 4.50 kg
1 unit per carton
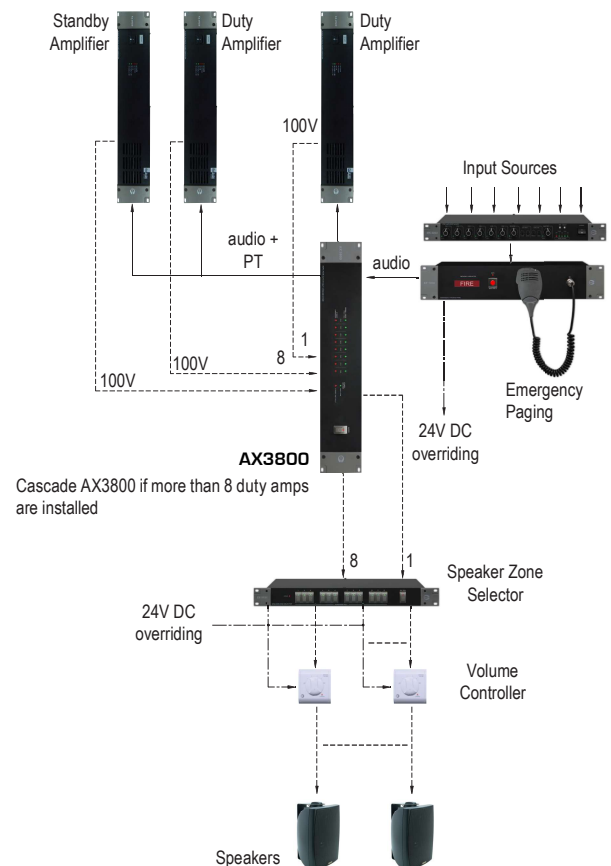
scan for updates

LS4808 offers 8 channels of speaker line monitoring while LS4816 has 16 channels. LS Series is a great tool of monitoring the speaker line integrity such as ground leakage, short and open circuit via impedance measurement method. End of Line resistors are not required and circuit branching is allowed, thus allowing a more flexibility in cabling works.

LS is powered by powerful processor and its unique measurement algorithm enables it to perform tasks at high speed with optimum accuracy. Setup is simple but for the more advanced requirement, LS also allows deviation limits, useful for more sensitive installations, such as power plants, military, etc.

It can be installed to run at intervals with user setting or link to a timer for specific time operation, to avoid disturbances to occupants of the building.

Features

- 8/16 channel speaker line monitoring with basic and advance level setup
- Impedance measurement method allowing cabling branching and no end of line resistors or coupling capacitors.
- Short burst test signal, minimizing interruption to PA operation
- Detection interval setting from 1 min to 48 hours with ad hoc testing trigger
- Faulty circuit isolation option
- Fault alert indicators and user friendly setup menu
- Built in impedance meter, range from 10 Ohm to 10 K Ohm
- Aux 24V DC output for volume controller overriding during testing mode

Technical Specifications

	LS4808	LS4816
Operating voltage	24V DC via PS9400	
Power consumption	3.8W	4.9W
Capacity	8	16
Impedance detection range	10 to 10 K Ohm	
Power measurement range	10 to 1000W 100V line	
Measurement accuracy	+/- 3% within range	
Pilot tone injection frequency	1 kHz	
Pilot tone signal output level	5V sine	
Monitor triggering	Auto / remote trigger	
Transmittal detection period	0.5 seconds per channel (max)	
Detection interval	User preset from 1 min to 48 hrs	
Sensitivity setting	User preset at each channel	
Indicators - LED	Normal, Fault, Buzzer, Auto run	
Display LCD	2 x 16 characters w back light	
Audible output signal	Continuous buzzer with Off option	
Dry contact setting	3A	
DC output in detection mode	24V DC for individual channel	
Data interface	RS485 : 19.2 kbps	
Dimensions (W x H x D)	482 x 44 x 180 mm	482 x 88 x 180 mm
Weight	2.15kg	3.25kg

Rear View LS4808:
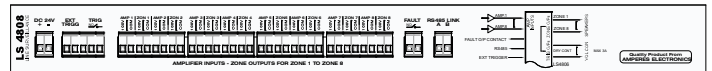
Rear View LS4816:
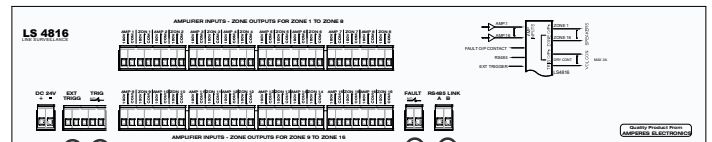
Vol Control Override

External trigger by timer / manual

RS485 data link

Fault dry contact

Please refer to schematic diagram available in manual for configurations

Packing information

Carton size :   LS4808 : 555 (L) x 295 (W) x 95 (H) mm
               LS4816 : 555 (L) x 295 (W) x 165 (H) mm
Gross weight : LS4808 : 2.75 kg
                 LS4816 : 4.00 kg
1 unit per carton

scan for updates

AMP MONITOR PANEL / SOURCE SELECTOR

## AM4120 12 Ch Amplifier Monitor Panel

AM4120 shall be used to monitor amplifier outputs of 70 / 100V line at the rack which is equipped with level meter, amplifier output LED and speaker for audio monitoring. It can also be used as a tool to calibrate sound output level of each amplifier from the rack.

Features

- 12 inputs for 70 / 100V line amplifier outputs
- Dual mode monitoring with continuous signal indicator
- Audio monitoring with volume control

Technical Specifications

Operating voltage	24V DC via PS9400 PSU
Power consumption	50 mW
Amplifier inputs	12 : 70 / 100V line
Monitoring mode	Audio : 1W speaker with 5 presets
	Visual : segment LED level meter
	LED for all channels
Dimensions (W x H x D)	482 x 44 x 180 mm
Weight	2.15 kg
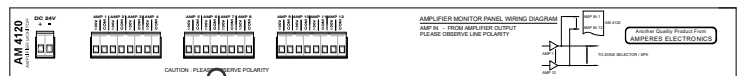
Rear View: Inputs from power amplifiers

Packing information
Carton size : 555 (L) x 295 (W) x 95 (H) mm
Gross weight : 2.80 kg
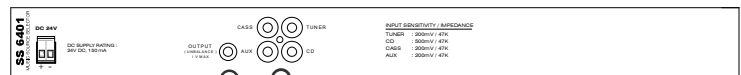1 unit per carton

SS6401 Audio Source Selector

SS6401 has 4 BGM source inputs via RCA jack with mono output suitable for PA system. Input channels of different BGM output sources with different line level has been equalized to the same level at output to avoid the trouble of adjusting the mixer gain whenever a source is changed.

Features

- 4 input BGM sources
- Input level balancing for constant output

Technical Specifications

Operating voltage	24V DC via PS9400 PSU	
Power consumption	3.6 W ; 0.15 A	
Input connections	RCA mono	
Input level / impedance	CD	: 2V / 47 k Ohm
	Tuner	: 600 mV / 10 k Ohm
	Cass	: 500 mV / 10 k Ohm
	Aux	: 1.25 V / 20 k Ohm
Output connection	RCA mono ; 1V 600 Ohm	
Gain / attenuation	CD : -6 dB, Tuner : 4 dB	
	Cass : 6 dB, Aux : - 2 dB	
Selection	Daisy chain	
Dimensions (W x H x D)	482 x 44 x 180 mm	
Weight	1.8 kg	

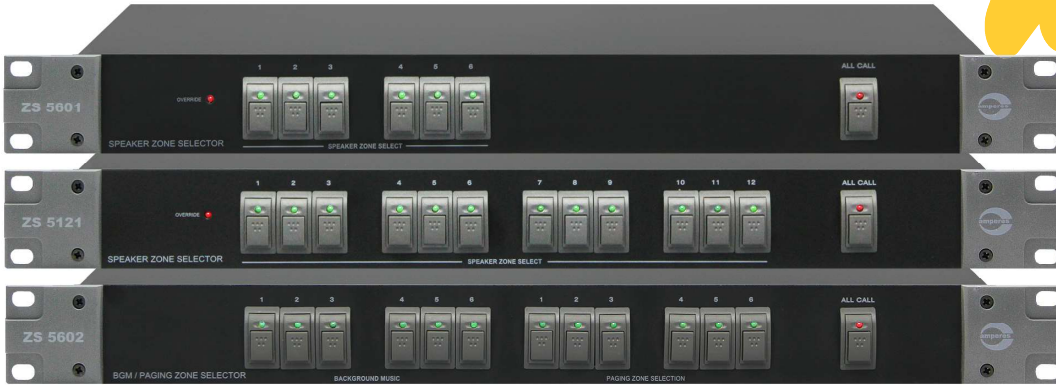Rear View: Inputs for audio sources
RCA output

Packing information
Carton size : 555 (L) x 295 (W) x 95 (H) mm
Gross weight : 2.50 kg
1 unit per carton

scan for updates

6 Ch Speaker Zone Selector **ZS5601**
12 Ch Speaker Zone Selector **ZS5121**
6 Ch Uninterrupted Speaker Zone Selector **ZS5602**

ZS5601 and ZS5121 are trusted products for speaker zone selection that provides direct zone switching for single source PA setup via front panel switches or through remote port connected to Amperes PM Series paging desk, or through Amperes TD decoders. Other brands of paging consoles are compatible with ZS provided they have negative triggering switching ports.

ZS5602 shall be suitable for uninterrupted paging setup, ie. when an announcement to a zone is made, other areas with BGM that shall not be interrupted. This will require two sets of amplifiers connected to the ZS5602, thus the system shall consist of two sources, one being BGM and the other as Paging.

Features

- Available in 6 (ZS5601, 5602) and 12 zones (ZS5121) with ALL CALL
- Expansion to more zones if required
- Remote zone triggering port via external paging microphone or console
- Paging override by Amperes paging console with Priority override indicator
- Emergency paging mic triggering port with dry contact for volume controller overriding application
- Flexible amplifier to zone configuration, suitable for 3 or 4 wire systems
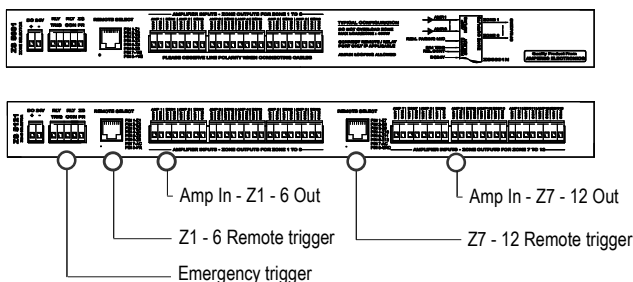
Technical Specifications

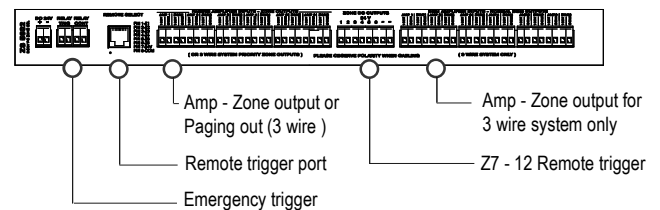|	ZS5601	ZS5121	ZS5602
Operating voltage	24V DC adaptor via PS9400		
Power consumption	3.5W, 0.14A w All Call	6.8W, 0.28A w All Call	10W, 0.42A w All Call
Max load / channel	500W at 100V line		
Number of zones	6	12	6
Amplifier inputs	6	12	6 BGM ; 6 Paging
Zone selection - Paging	Front panel switch and remote		
Zone selection - BGM	Front panel switch		
Cascade limitation	Unlimited		
Remote triggering	-ve triggered (common ground)		
Indicators	Individual zone switch, Priority		Zone LED
Switching mode	Individual, All Call		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	2.10 kg	2.20 kg

Packing information
Carton size : 555 (L) x 295 (W) x 95 (H) mm
Gross weight : ZS5601 : 2.55 kg
ZS5121 : 2.70 kg
ZS5602 : 2.70 kg
1 unit per carton

Rear Views
ZS5601 & 5121

ZS5602

- Amp - Zone output or Paging out (3 wire)
- Remote trigger port
- Emergency trigger
- Amp - Zone output for 3 wire system only
- Z7 - 12 Remote trigger

- Amp In - Z1 - 6 Out
- Z1 - 6 Remote trigger
- Emergency trigger
- Amp In - Z7 - 12 Out
- Z7 - 12 Remote trigger

scan for updates

SPEAKER ZONE SELECTOR

ZS5062 6 Ch Speaker Zone Selector
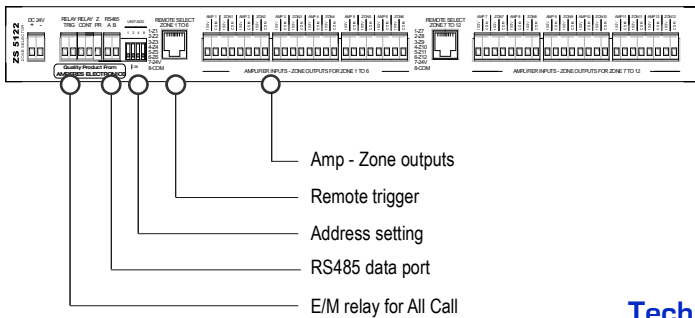**ZS5122** 12 Ch Speaker Zone Selector

improved

ZS5062 and ZS5122 have been improved in its individual zone rating with 1000W 100V line to meet the demand to increase zone loading in today's installations.

They differs from other zone selector, ie. they have fail safe feature which would ensure zone is always connected for paging if the unit itself failed. RS485 port is available for remote triggering and monitoring via PMX software.

ZS5062 or ZS5122 can be stacked to form larger zone setup in big installations.

Features

- Available in 6 and 12 zones ; expandable to 192 zones
- 1000W 100V per zone rating
- Fail safe zone trigger during power or unit failure
- Remote zone triggering via analogue and RS485 data
- Zone monitoring via PMX II software
- Local paging override bypassing BGM
- Flexible amplifier to zone configuration

rear view of ZS5122
Please refer to TD6240 brochure for schematic

- Amp - Zone outputs
- Remote trigger
- Address setting
- RS485 data port
- E/M relay for All Call

Technical Specifications

	ZS5062	ZS5122
Operating voltage	24V DC via PS9400	
Power consumption (idle)	3.29 W	6.25 W
Power consumption (All Call)	0.72 W	0.96 W
Current consumption (idle)	0.14 A	0.26 A
Current consumption (All Call)	0.03 A	0.04 A
Max load / channel	1000W 100V line	
Number of zones	6	12
Amplifier inputs	6	12
Zone selection	Front panel switch & remote (zone & all call)	
Max cascade	16 units	
Remote triggering	- Ve triggered (common ground)	
Indicators	Individual zone switch, all call and priority	
Data communications	RS485 : 19.2 kbps baud rate	
Switching mode	Individual , All Call Local zone bypassed when remote trigger is activated	
Operating temperature	- 10 ~ 60 deg C	
Dimensions (W x H x D) mm	482 x 44 x 180 (1 hu)	
Weight (kg)	1.95	2.10

Packing information

Carton size : 555 (L) x 295 (W) x 95 (H) mm
Gross weight : ZS5062 : 2.55 kg
              ZS5122 : 2.70 kg
1 unit per carton

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8 Ch Zone Decoder / Selector TD6080
2 x 4 Ch Zone Decoder / Selector TD6400

TD6080 is engineered for convenience where it combines data decoder and zone selector in a single box, which translates to fewer component counts and cabling cost. It is also suitable for decentralised installations of multiple locations, which can communicate with central paging system through RS485 or LAN.

TD6400 works similarly to TD6080, but the output zones are divided further to work with 2 inputs and 4 zones output. It provides more flexibility when working with Matrix Controller (MxP2288) as matrix output zone extender. This shall reduce the number of unused zones in matrix groupings.
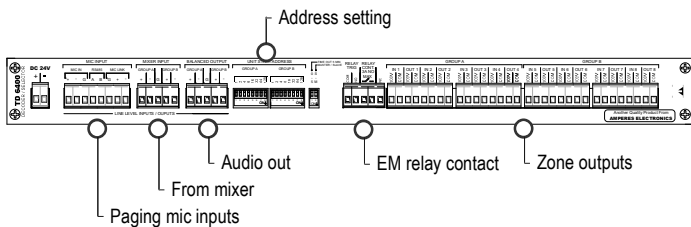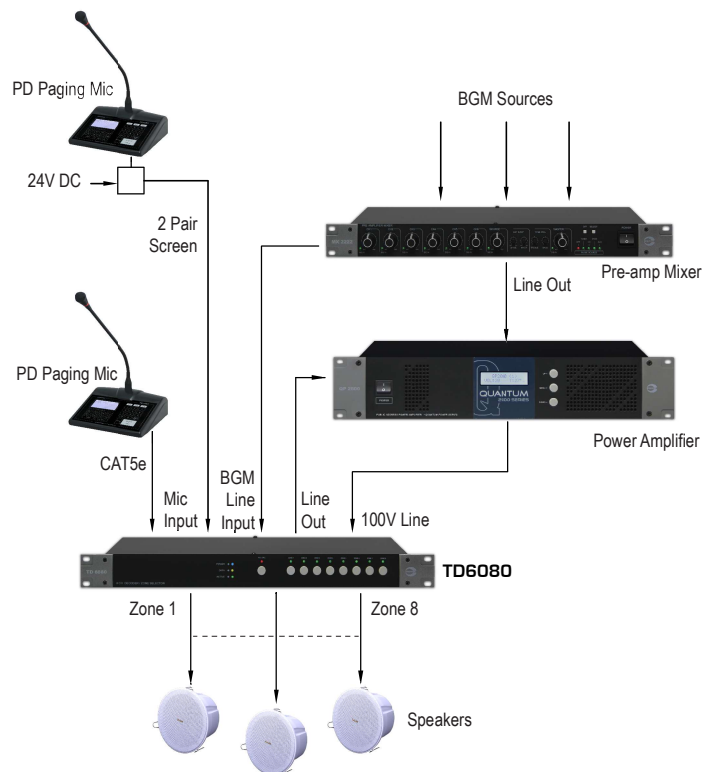
Features

- Integrated paging mic zone decoder and zone selector for simplified interconnections
- Works as matrix zone extender
- Multipoint paging input from PD series of paging mics
- 8 input / 8 output configurable amp – speaker line connections
- Cascade feature for larger number of zones
- Configurable as group BGM / Paging for matrix setup:
  TD6080 : 1 BGM + 1 PD with 1 audio out or
  TD6400 : 2 BGM + 1 PD with 2 audio out

Address setting

Audio out   EM relay contact   Zone outputs

From mixer

Paging mic inputs

Rear view of TD6400

Technical Specifications

	TD6080	TD6400
Operating voltage	24V DC	
Consumption	6W (250 mA)	
Max load / channels	500W at 100V line	
Cascade quantity	16 unit (128 zone)	31 (248 zone)
Configuration	1 in x 8 zones	2 in x 4 zones
Input circuits	2 : 1 mic, 1 BGM	3 : 1 mic, 2 BGM
Audio Output	1	2
Number of zones	8	
Amplifier inputs	8	
Zone selection	Front panel switch & remote	
Indicators	Individual zone switch	
Switch mode	Individual, All Call Local zone selection	
	bypassed when remote trigger is activated	
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 (balanced)	
DATA		
Data protocol	RS485	
Baud rate	19.2 kbps	
Dimension (W x H x D)	482 x 44 x 180 mm	
Weight	2.00 kg	

Packing information (TD6080 & TD6400)

Carton size : 555 (L) x 295 (W) x 95 (H) mm
Gross weight : 2.60 kg
1 unit per carton

Application Schematic

PD Paging Mic

BGM Sources

24V DC

2 Pair
Screen

Pre-amp Mixer

Line Out

PD Paging Mic

QUANTUM

CAT5e

Power Amplifier

Mic
Input

BGM
Line
Input

Line
Out

100V Line

TD6080

Zone 1   Zone 8

Speakers

Typical configuration of TD6080 as zone decoder / selector.
TD6080 / TD6400 can be used as Matrix zone extender in Matrix output zone grouping. Please refer to schematic available in instruction manual.

PAGING MIC ZONE DECODER
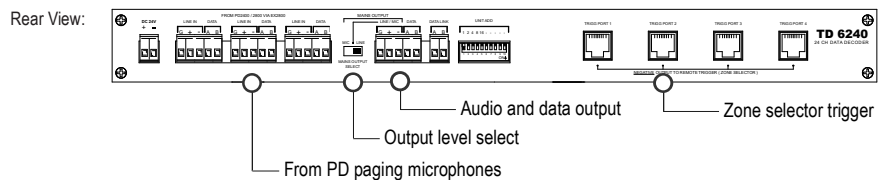
TD6240 24 Ch Zone Decoder

TD6240 is an intermediary equipment between Amperes PD series of paging microphones and Amperes ZS series of speaker zone selectors. It has 3 PD input circuits, enabling multi point paging setup from different areas. Decoded zones are connected to zone selectors through RJ45 jacks for zone switchings.
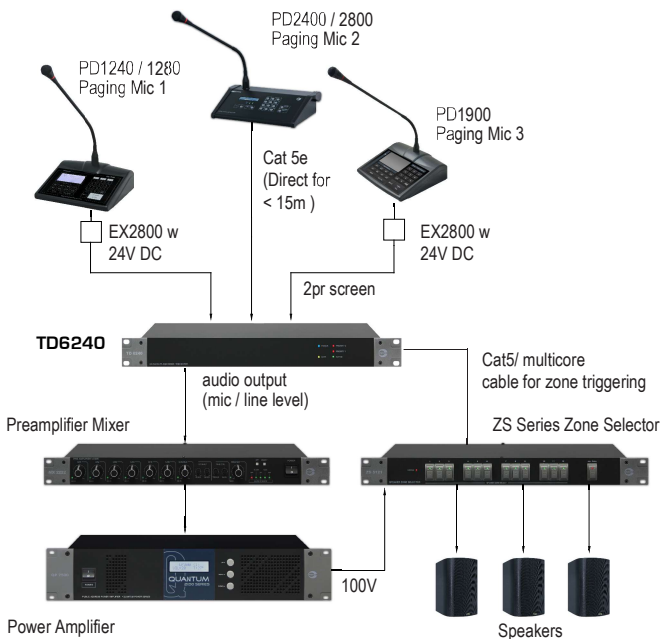
For system exceeding 24 zones, TD6240 can be stacked up to enable 254 zone switchings in total.

Features

- Expandable and addressable to cater for more than 24 zones
- Priority setting for multi point paging setup
- Selectable balanced audio output level (mic or line)
- Compatible with most zone selectors with remote triggering port
- Connects directly to ZS5601 / 5121 / 5062 / 5122 via remote triggering ports using RJ45 connector

Rear View:

Audio and data output
Output level select
From PD paging microphones
Zone selector trigger

Application Schematic

PD2400 / 2800
Paging Mic 2

PD1240 / 1280
Paging Mic 1

PD1900
Paging Mic 3

Cat 5e
(Direct for
< 15m)

EX2800 w
24V DC

EX2800 w
24V DC

2pr screen

TD6240

Preamplifier Mixer

audio output
(mic / line level)

Cat5/ multicore
cable for zone triggering

ZS Series Zone Selector

Power Amplifier

100V

Speakers

Technical Specifications

Operating voltage	24V DC
Consumption	2.4W (100 mA)
Switching channels	24
Cascade / max zones	8 (max 192 zones)
Input circuit	3
Output connection (Triggering)	RJ45 to ZS zone selector

AUDIO	
Input impedance (Ohm)	Line : 10 K
Output impedance	600 Ohm balanced
Freq response	70 ~ 15 KHz
Audio input	Line balanced (+4 dBU)
Max audio output	Line balanced (+4 dBU)

DATA	
Data protocol	RS485
Baud rate	19.2 kbps
Dimension (W x H x D)	482 x 44 x 180 mm
Weight	1.90 kg

Packing information
Carton size : 555 (L) x 295 (W) x 95 (H) mm
Gross weight : 2.45 kg
1 unit per carton

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POWER DISTRIBUTIONS

8 Ch Sequential Power Switcher **SQ9815**

SQ9815 is suitable for applications in PA, sound and AV systems, in which it manages the powering sequence of every equipment in an orderly manner. Random power switching of components within a system may cause damage to the equipment and thus SQ9815 is a tool of powering protection.

It also has built in surge protectors to kill harmful incoming power spikes.

Features

- 8 channel with 6A per channel; total load of 15A with surge protection
- Cascade 2 units to form 16 channel setup
- ON / OFF sequential switching
- Remote switching port via external noiseless contact
- AC output through IEC connectors with channel isolation via DIP switch
- Ch. 8 with delay Off option for 2 min ; suitable for video projector connection
- Lock mode to avoid accidental switching

Rear view

AC output connectors

Remote trigger & cascade

RS485 data port

Address setting

Technical Specifications

Operating voltage	220 - 240V AC
Power consumption	50 mW (without load)
Output voltage	230 / 240V AC
Max load / channel	6A
Max total load	15A
Output connection	IEC female socket
Max cascade	2 uts : total 16 channels
Surge protection	L-N, L-E, N-E.
Clamping voltage	870V AC
Turn on sequence	Step 1 to 8 incremental
Turn off sequence	Step 8 to 1 decremental
Step timing	2 seconds
Delay off option	Channel 8 via DIP switch
Delay off timer	2 minutes
Switch lock	Via front switch
Indicators	AC mains, Ch. on, Lock
Dimensions (W x H x D)	482 x 44 x 180 mm
Weight	2.80 kg excl. accessories
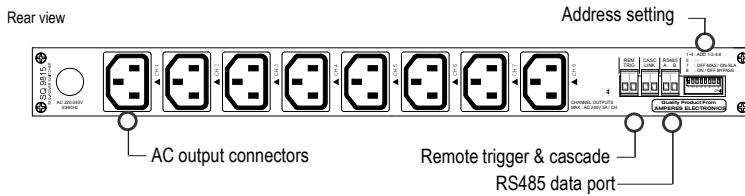
Packing information
Carton size : 555 (L) x 295 (W) x 95 (H) mm
Gross weight : 3.55 kg
1 unit per carton

PS9400 is a rack mounted 24V DC regulated power supply designed for PA installations. It has built in changeover relay which shall be connected to back up 24V DC battery bank to allow continuous and uninterrupted power supply to the whole installation whenever the mains failed.
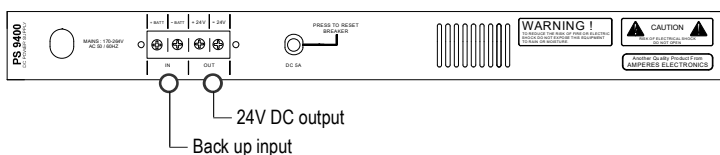
24V DC Power Supply **PS9400**

Features

- 24V DC 4A output highly regulated PSU
- Output Fuse protection
- Built in various protections
- Back up battery overriding relay

24V DC output

Back up input

Packing information
Carton size : 555 (L) x 295 (W) x 95 (H) mm
Gross weight : 3.00 kg
1 unit per carton

Technical Specifications

Operating voltage	220 - 240V AC
Output voltage	24V +/- 1 %
Rating	4A nominal ; max 5.5 A
No load consumption	50 mW
Efficiency	83 %
Indicators	AC mains, battery input, DC output
Protection	Built in surge protection
	Short circuit
	Overload (105% ~ 150%)
	Over voltage (115% ~ 135%)
Output DC protection	Fuse
Terminals	Batt input and load ; barrier connectors
Dimensions (W x H x D)	482 x 44 x 180 mm
Weight	2.35 kg

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Page 47

POWER DISTRIBUTIONS

BC9740 24V DC Automatic Battery Charger

BC9740 is the next generation of innovative Battery Charger, which has been engineered to meet the requirement of installers and users alike. It is compact in 1 HU height, built with the latest technology for efficient charging, controls and monitoring purpose. Driven by powerful ARM processor, it works to protect against connection error, prolonging battery life with its battery monitoring feature and communicates to provide human interaction. RS485 data port is available for external monitoring via PMX II Software and can be readily linked up to LAN through iPX5500 Com Box.
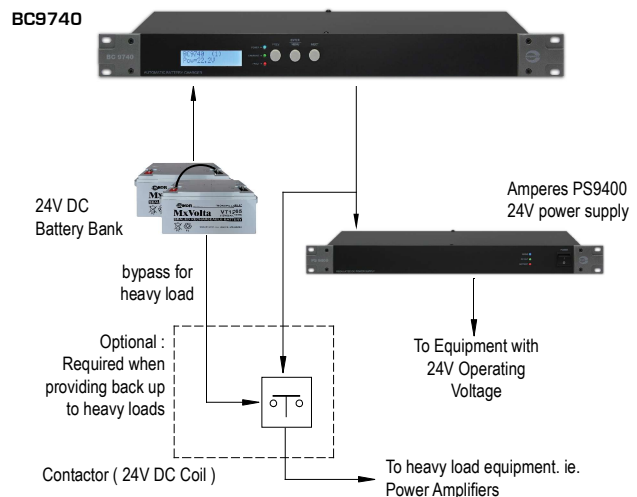
Features

- Constant DC voltage charging for 24V battery bank
- 4A initial charging current with reducing rate over charging time
- Built in surge protection
- Output short circuit protection
- Thermal protection against overheating
- Auto low battery disconnection with LCD indication
- Battery reversed polarity protection
- Rear mains switch to avoid unnecessarily switching off the unit
- RS485 communication for remote monitoring via PMX LAN software

Rear View:

RS485 data port

24V DC from batteries

Back up output terminal
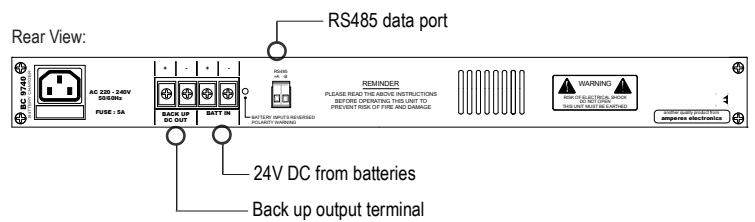
Technical Specifications

Operating voltage	220 - 240V AC
Charging voltage	27.8V DC
Charging current	4A; (max 5A)
Idle power consumption	1.3W
Protections	Low battery auto disconnection, reverse polarity, short circuit
Indications	AC mains, short circuit and low battery
Displays	Charging current
	Charging voltage
	Battery voltage
	Output current
	Battery reverse polarity
Communication	RS485 out; link to Amperes PMX LAN via iPX5500 comm. box for remote monitoring
E/M back up Amp rating	25A max (Use external contactor / relay if required)
Terminals	Battery input , EM load
Dimensions (W x H x D)	482 x 44 x 180 mm
Weight	4.50 kg

Application Schematics

BC9740

24V DC Battery Bank

Amperes PS9400 24V power supply

bypass for heavy load

To Equipment with 24V Operating Voltage

Optional : Required when providing back up to heavy loads

Contactor (24V DC Coil)

To heavy load equipment. ie. Power Amplifiers

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