

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, places of worships, etc.

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

Packing Information

Carton size : 555 (L) x 295 (W) x 95 (H) mm
Gross weight : 2.90 kg
1 unit per carton



MX2322

13 Inputs Dual Bus Pre-Amplifier Mixer

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

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

Packing Information

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

Technical Specifications

	MX2222	MX2322
Operating voltage	220 - 240V 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 2 x Line input with priority, 4 x RCA	8 x Mic/ Line with gain controls + phantom power 2 x Line input with priority, 2 x RCA, 1 paging mic
Inputs impedance	RCA: 47 k Ohm, Mic: 1 k Ohm, Link: 10 k Ohm	Line: 10k Ohm; 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 unbalanced	2 (A&B) line balanced, 2 x records unbalanced
Output impedance (Ohm)	600 Ohm balanced	300 Ohm balanced
Tone controls	2: Low/ Mid (300 Hz), Hi (10 KHz)	3: Low (100Hz), Mid (1 KHz), Hi (10 KHz)
Frequency response	175 - 15 KHz	20 - 20 KHz
S/N ratio / THD+N	>60 dB / < 1%	>75 dB / < 1%
Connectors	XLR-F (mic in / line out), 1/4" TRS (line & mix in) 1/4" TRS Unbal (rec & BGM), RCA	Mini Phoenix (mic/ line inputs and outputs) RCA, RJ45 for Amperes PM1030 mic
Dimensions (W x H x D)	482 x 44 x 185 mm	482 x 88 x 185 mm
Weight	2.2 kg	3.3 kg



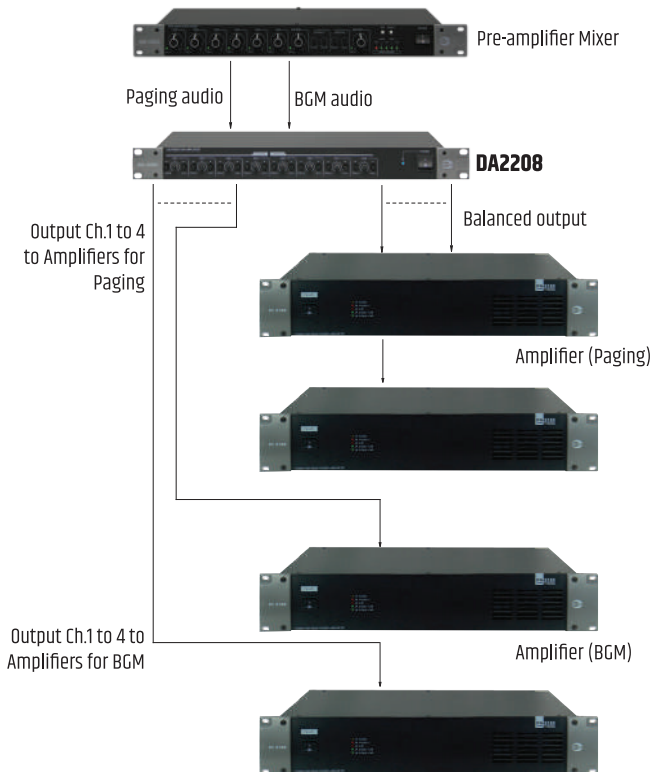


DA2208 is an audio (line level) distribution unit with configuration of 2 in x 4 out or 1 in x 8 out. As rule of thumb, a signal shall not be fed to more than six amplifiers in your PA rack in order to avoid signal degradation. Thus DA2208 shall come in handy to the solution.



- 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

Application Schematic



The above illustration is used for uninterrupted paging setup which requires 2 sets of amplifiers serving Paging and BGM respectively.

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: 1.2V rms (+4 dBu) max
Input impedance	10k 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 KHz (+/- 3 dB, 1 KHz)
Connections	XLR 3 pins
Dimensions (W x H x D)	482 x 44 x 180 mm
Weight	1.95 kg

Packing Information

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



PA300 Series of mini amplifiers are available to power small number of localized 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 20W 4 Ohm Mini Amplifier

Used to amplify BGM to a speakers of 4 or 8 Ohm, from TV output to a bathroom speaker in hotel room. Amperes VC7810 volume controller and VP7810 BGM Speaker patch panel can be installed for emergency overriding by central PA system.

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



VC7001
Volume Controller
for PA322

PA322 20W 4 Ohm Mini Amplifier with Dual Source

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

PA330 30W 100V Mini Amplifier

It is suitable to be used as remote amplifier in decentralized system such as classroom paging, horn amplifier for security poles or to drive a group of localized 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.

- Adjustable **volume** control
- **Compact size** of 30W 100V output



Technical Specifications

	PA320	PA322	PA330
Ratings	20W 4 Ohm		30W 100V
Operating voltage	220 - 240V AC		
Current consumption (240V AC)	0.14A	0.03A	0.24A
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°C		
Operating humidity	80%		
Dimensions (W x H x D)	130 x 55 x 95 mm	140 x 55 x 95 mm	150 x 71 x 155 mm
Weight	0.76 kg	0.82 kg	1.10 kg

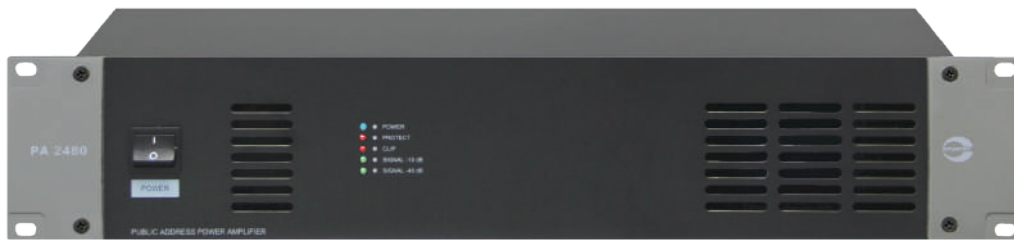
Packing Information

PA320 / 322 :

Carton size : 555 (L) x 295 (W) x 165 (H) mm
Gross weight : 16.20 kg
20 units per carton

PA330 :

Carton size : 550 (L) x 465 (W) x 180 (H) mm
Gross weight : 16.55 kg
12 units per carton



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.

- In rush current **limiter**
- Momentary short circuit **protection**
- Temperature dependent **dual speed** cooling fan
- **4 Ohm** speaker connection available with 25V - 48V output
- **AC** and **DC** operation for uninterrupted operation during power failure
- **Thermal protection** by muting input signal (typically 75 deg at heat sink)
- **Balanced input signal** with gain control and selectable grounding option

Technical Specifications

	PA2120	PA2240	PA2360	PA2480	PA2600
Ratings (rms) 100V output	120W	240W	360W	480W	600W
Operating voltage	220 - 240V AC or 24V DC back up supply				
Power consumption (240V AC)	255 VA (0.1A)	497 VA (1.9A)	731 VA (2.8A)	996 VA (3.8A)	1069 VA (4.1A)
Current consumption (24V DC)	6.1A	10.6A	16.3A	22.3A	23.1A
Standby current (24V DC)	0.2A		0.3A	0.4A	
Input signal (sensitivity)	1V (+4 dBu) / 10 k Ohm via Phoenix connectors				
Input gain controls	-40 to +40 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	< 1%				
Protections	Thermal, short circuit, overload, fuse, in-rush current				
Cut off temperature	75°C				
Cooling system	Auto temperature controlled cooling fan				
Indicators	LED: Power, Signals				
Dimensions (W x H x D)	482 x 88 x 335 mm				
Net weight	11.40 kg	12.35 kg	16.20 kg	17.95 kg	19.60 kg

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

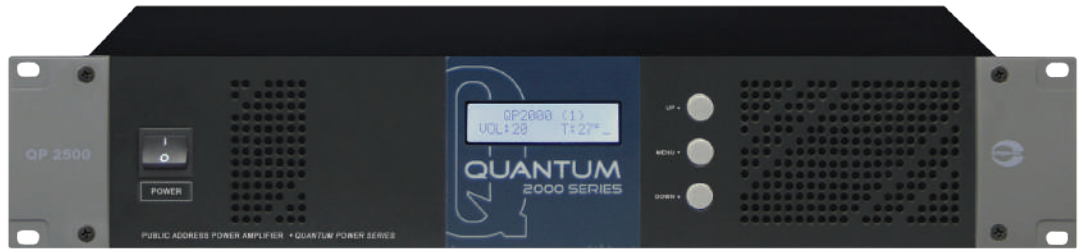


QP2125 125W 100V

QP2250 250W 100V

QP2375 375W 100V

QP2500 500W 100V



QP2000 series is 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 PMX software.

One distinct feature apart from others are the Auto Fault Sensor (AFS) circuitry with built in standby changeover relay. It saves the need of external changeover device for continuous operation of the system.

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

Technical Specifications

	QP2125	QP2250	QP2375	QP2500
Ratings (rms) 100V output	125W	250W	375W	500W
Operating voltage	220 - 240V AC or 24V DC back up supply			
Power consumption (240V AC)	294 VA (1.1A)	447 VA (1.7A)	749 VA (2.9A)	873 VA (3.3A)
Current consumption (24V DC)	5.9A	10.6A	16.7A	19.6A
Standby current (24V DC)	0.7A			0.9A
Input signal (sensitivity)	1V (+4 dBu) / 10 k Ohm via Phoenix connectors			
Input gain controls	-40 to +40 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	120 - 15 KHz @ 1 KHz +/- 3dB			
S/N ratio	>70 dB @ 1 KHz, 1V			
THD + N	< 1%			
Protections	Thermal, short circuit, overload, fuse, in-rush current			
Cut off temperature	75°C			
Cooling system	Auto temperature controlled cooling fan with auto ON			
Indicators	LCD with temp, audio level and address			
Communication	RS485; 19.2 kbps			
Fault sensing	Internal Pilot Ton : 20 KHz, detection at 15 - 20 sec, 10 secs interval			
Fault detection response	Standby amplifier relay activation, fault dry contact			
Dimensions (W x H x D)	482 x 88 x 335 mm			
Net weight	11.60 kg	12.70 kg	16.50 kg	18.05 kg

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



QD2025 QD2050 QD2075 QD2100

QD2000 Series Class D

POWER AMPLIFIERS



QD2025

250W 100V Line

QD2050

500W 100V Line

QD2075

750W 100V Line

QD2100

1000W 100V Line

QD2000 series are high performance Class D power amplifiers with high efficiency and broad frequency range suitable for wide range of speakers, be it full range or EVAC speakers.

The in-built Auto Fault Sensing circuit provides dry contact for easy standby fault changeover and the RS485 data port is available for remote monitoring by Amperes PMX III software.

- **100V and 4 Ohm** outputs
- **High pass filter** for speaker protections
- **Auto fault sensor (AFS)** with dry contact
- High efficiency **Class D** power amplifier technology
- **AC and DC** operation for uninterrupted operation during power failure
- Built in **DC Soft Starter**
- **Switchable standby** input detection for lower consumption during DC back up
- **Remote monitoring** via RS485 data port, compatible with iPX500 data comm box

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 (1.3A)	650 VA (2.6A)	1000 VA (3.9A)	1300 VA (5.1A)
Current consumption (24V AC)	15A	25A	40A	50A
DC back up standby current	1.2A (With standby off)			
Input sensitivity (100V out)	1V rms balanced input via phoenix connector (15k Ohm)			
Input link (buffered)	0 dB balanced line (10k Ohm)			
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, 1 KHz)			
S/N ratio	> 68 dB			
THD + N	< 1%			
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 (W x H x D)	482 x 88 x 340 mm			
Net weight	6.8 kg	6.8 kg	7.0 kg	7.1 kg

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

40



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DP2240 / DP2500

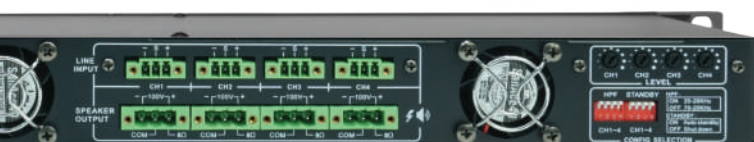
2 x 240W 100V / 2 x 500W 100V

DP4240

4 x 240W 100V

DP2000 Series are compact multi channel power amplifiers in a single HU, which greatly reduce the space required in equipment racks. They are powered by high efficiency and wide frequency response circuits, enabling it to deliver optimum sound quality and with lesser heat.

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



Technical Specifications

	DP2240	DP2500	DP4240
Ratings (rms) 100 V output	2 x 240W	2 x 500W	4 x 240W
Operating voltage	220 - 240V AC or 24V DC back up supply		
Power consumption (240V AC)	550 VA (2.3A)	1100 VA (4.6A)	
Current consumption (24V DC)	22 A	46 A	
Standby current (24V DC)	0.3 A		
Input signal (sensitivity)	0.775 V (0 dBu)/ 10k 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 +/- 3 dB		
S/N ratio	>80 dB @ 1 KHz, 1V		
THD + N	< 1%, 1 KHz		
Protections	Thermal, short circuit, overload, fuse, in-rush current		
Cut off temperature	75°C		
Cooling system	Fan forced cooling		
Indications	LED: Protect, input audio, output and power		
Dimensions (W x H x D)	482 x 44 x 420 mm		
Weight	5.90 kg	6.90 kg	6.80 kg

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



MA2012 MA2024 MA2036

Mixing Amplifier with Zone Selector

POWER AMPLIFIERS



MA2012 / 2012P

120W 100V Line

MA2024 / 2024P

240W 100V Line

MA2036 / 2036P

360W 100V Line

MA2000 series of mixing amplifiers are built with Class D amplifier circuits, equipped with DC back up input and zone controls of 6 zones. It is suitable for small scale installation such as in showrooms, small prayer venues, offices, etc which require segregation of speaker zones.

Options are available for media player versions.

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

Technical Specifications

	MA2012/ 2012P	MA2024/ 2024P	MA2036/ 2036P
Ratings (rms) 100 V output	120W	240W	360W
Operating voltage	220 - 240V AC		
Power consumption (240V AC)	160W / 0.7A	285W / 1.2A	450 W / 1.9A
Input -	Balanced Mic input with 12V Phantom Power (10k Ohm); Adjustable mute priority		
Ch 1 and 2	Balanced Mic / Line selectable with 12V Phantom Power (Mic: 10k Ohm, Line: 15k Ohm)		
Ch 3 and 4	Unbalanced input (15k Ohm) RCA 0 dBV		
Ch 5 and 6			
THD + N (at rated power)	< 1%		
S/N ratio	> 68 dB		
Tone controls	Bass (100 Hz), Treble (10 KHz) +/- 15 dB		
Frequency response	120 - 20 KHz (+/- 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		
100V @ 1V rms input	100 V rms		
Protections	Thermal, short circuit, AC and DC fuses		
Indicators	Power, zone selection, signal level		
Cooling system	Thermostat controlled fan at 45 deg C		
Dimensions (W x H x D)	434 x 88 x 200 mm (without bracket)		
Weight	4.35 kg / 4.40 kg (P version)		

Packing Information

Carton size : 550 (L) x 295 (W) x 165 (H) mm

Gross weight : MA2000 - 5.45 kg

: MA2000P - 5.50 kg

1 unit per carton





MC2112 / 2112P
120W 100V Line

MC2124 / 2124P
240W 100V Line

MC2136 / 2136P
360W 100V Line

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

MC2000P are units With media player module with USB / SD card MP3 playback, Bluetooth and FM tuner.

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

Technical Specifications

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

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



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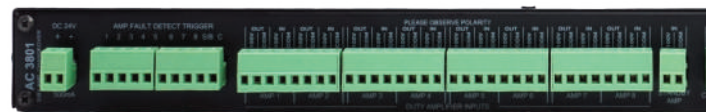
AC3801

8 Duty 1 Standby Manual Amplifier Changeover

MONITORING AND CHANGEOVER



AC3801 is a manual amplifier changeover panel with capacity of 8 duty and 1 standby amplifier. With its dual mode changeover triggering, the front panel switch can be used, otherwise from rear contact which is suitable for amplifiers with Auto Fault Sensing (AFS) feature such as QP or QD2000 series.

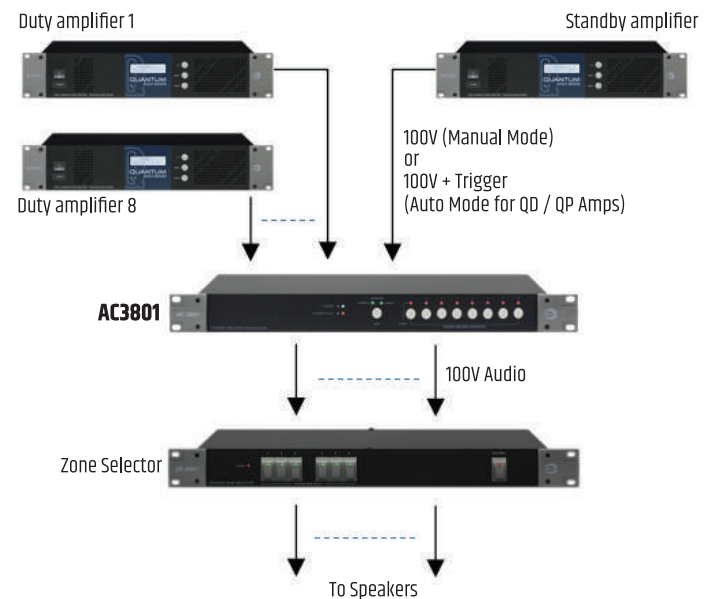


- Cater for **8 duty and 1** standby amplifier
- **Expandable** for 1 standby to server more than 8 duty units
- Overload **protection** by allowing only a single takeover
- **Priority** changeover for unit with higher numbered
- Manual front and rear triggering changeover (**dual mode**)
- Upgraded to **1000W** per channel

Technical Specifications

Operating voltage	24V DC
Power consumption	Standby: 82mW, 3.4 mA Operating: 1.3W, 50 mA
Zone load rating	1000W 100V line input
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 (Recommend 3)
Cable size	Up to 2.5 mm sq
Dimensions (W x H x D)	482 x 44 x 180 mm
Weight	1.95 kg
Colour	Black, powder epoxy coated

Application Schematic



Packing Information

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





AX3800 MK II provides fast automatic changeover for faulty duty amplifier to standby unit. It can be cascaded to several units to enable one standby power pack to serve more than 8 duty amplifiers.

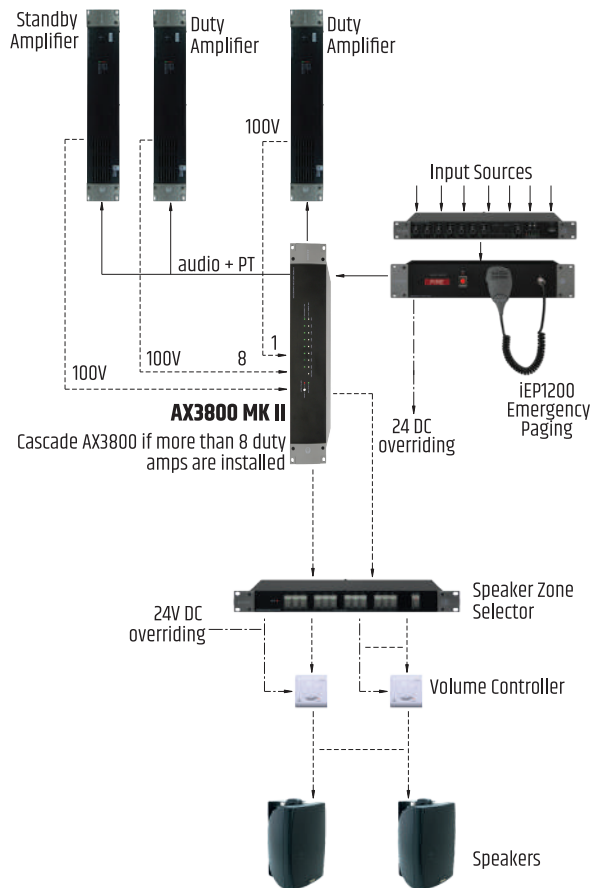
Internal pilot tone generated at intervals prevents phantom loading to amplifiers to lessen the work loads. With dual changeover at input signal and output 100V, it is thus suitable for matrix setup.

Priority and single takeover prevents overloading to standby unit.

- Cater for **8 duty and 1** standby with easy cascade link
- Pilot tone generated at **intervals** to prevent phantom amplifier loading
- Overloading **protection** by allowing only single takeover
- **Priority** changeover
- **Fast** fault detection and recovery time from 7 to 15 seconds
- Input and output changeover; suitable for **matrix** system setup
- Input **link switch** making connection of sources easier
- Channel **isolation** switch for unused channels
- Individual channel **status** indicator for normal, fault and changeover
- Improved rating to **1000W** per channel



Application Schematic



Technical Specifications

Operating voltage	24V DC
Power consumption	2.5W (0.11A)
Standby consumption	2.3W (0.95A)
Input signal	8 Ch balanced line signal
Input impedance	10k Ohm
Audio output gain	Unity
Pilot tone interval	8 seconds / channel
Pilot tone frequency	20 KHz (+/-5%)
Detection line	70 / 100V 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
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



LS4808 4816

8 / 16 Ch Speaker Line Surveillance

MONITORING AND CHANGEOVER



LS4808

8 Ch Speaker Line Surveillance



LS4816

16 Ch Speaker Line Surveillance

LS4808 / 4816 is a great tool to monitor the speaker line integrity such as ground leakage, short and open circuit as per requirement in EN54. Detection is via impedance measurement, thus usage of end of line resistors are not required and circuit branching is allowed.

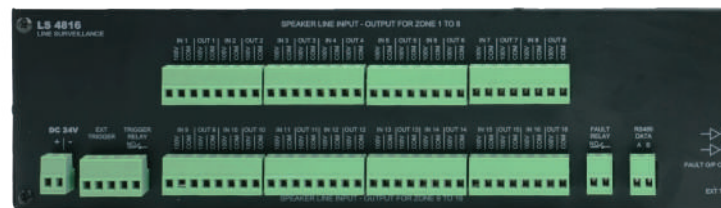
LS is powered by powerful processor and its unique measurement algorithm enables it to perform tasks at high speed with optimum accuracy.

The dual mode detection with basic and advance mode provides options for installer subject to site requirement or the nature of the project.

- Available in **8 or 16** channel options
- Impedance measurement method allows **circuit branching**
- No **end of line resistors** are required for the speaker circuit
- **Basic** and more accurate **advance** setup available
- **Short burst** test signals which minimize interruptions to PA operation
- **Auto** or **manual** fault detections with external test triggering
- Detection **intervals** setting from 1 min to 48 hours
- Faulty circuit **isolation** option
- Fault alert **indicators** with bi colour LEDs
- **Aux 24V DC** output for volume controller overriding during testing mode
- **RS485** data port for remote triggering by **PMX III** via iPX5500 comm box

Technical Specifications

	LS4808	LS4816
Operating voltage	24V DC via PS9400	
Power consumption	3.8W	4.9W
Capacity	8	16
Impedance detection range	10 to 10k Ohm	
Power measurement range	10 to 1000W 100V line	
Measurement accuracy	+/- 5% within range	
Pilot tone injection frequency	1 KHz	
Pilot tone signal output level	5V sine	
Monitor triggering	Auto / remote trigger	
Transmitted detection period	0.5 seconds per channel (max)	
Detection interval	User preset from 1 min to 48 hours	
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	2.15 kg	3.25 kg



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





AM4120 is 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.

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

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



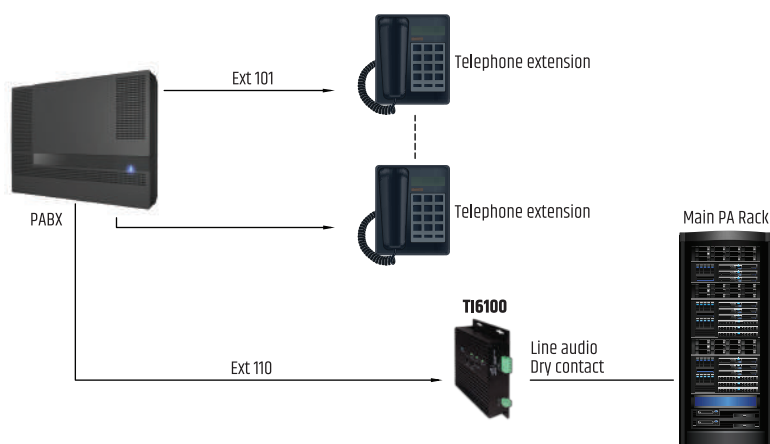
INTERFACE

T1600

PABX Telephone Interface

T16100 is an interface for PABX system to PA, allowing paging from any keyphone extension to speakers. It is suitable for analogue / hybrid keyphone systems.

Application Schematic



Packing Information

AM4120 :
 Carton size : 555 (L) x 295 (W) x 95 (H) mm
 Gross weight : 2.80 kg
 1 unit per carton

T16100 :
 Carton size : 155 (L) x 105 (W) x 125 (H) mm
 Gross weight : 0.90 kg
 1 unit per carton

ZS5601 ZS5121 ZS5602

6 / 12 Ch Speaker Zone Selectors

SPEAKER ZONE SELECTOR



ZS5602

6 Ch Uninterrupted Speaker Zone Selector



ZS5601

6 Ch Speaker Zone Selector



ZS5121

12 Ch Speaker Zone Selector

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.

ZS5602 is suitable for uninterrupted paging setup, i.e. when an announcement to a zone is made, other areas with BGM that shall not be interrupted. This will require two sets of amplifiers (BGM and Paging) connected to the ZS5602

- **Expansion** to more zones if required
- Available in 6 (ZS5601, ZS5602) and 12 zones (ZS5121) with **All Call**
- **Flexible** amplifier to zone configuration, suitable for 3 or 4 wire systems
- **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



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	1000W 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 Local zone selection bypassed when remote trigger is activated		Individual, All Call
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

Grass weight : ZS5601 - 2.55 kg

: ZS5121 - 2.70 kg

: ZS5602 - 2.70 kg

1 unit per carton





ZS5062

6 Ch Speaker Zone Selector

ZS5122

12 Ch Speaker Zone Selector

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 differ from other zone selector, i.e. they have fall 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.

- **1000W 100V** per zone rating
- **Zone monitoring** via PMX III software
- Local paging **override** bypassing BGM
- **Flexible** amplifier to zone configuration
- **Fall safe** zone trigger during power or unit failure
- **Remote zone triggering** via analogue and RS485 data
- Available in 6 and 12 zones ; expandable to **248 zones**

ZS5062



ZS5122



Technical Specifications

	ZS5062	ZS5122
Operating voltage	24V DC via PS9400	
Power consumption (idle)	3.29W	6.25W
Power consumption (All Call)	0.72W	0.96W
Current consumption (idle)	0.14A	0.26A
Current consumption (All Call)	0.03A	0.04A
Max load / channel	1000W 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°C	
Dimensions (W x H x D)	482 x 44 x 180 mm (1hu)	
Weight	1.95 kg	2.10 kg

Packing Information

Carton size : 550 (L) x 295 (W) x 95 (H) mm

Gross weight : ZS5062 - 2.55 kg
: ZS5122 - 2.70 kg

1 unit per carton



TD6400

2 X 4 Ch Zone Decoder / Selector

PAGING MIC ZONE DECODER



- **Integrated** paging mic zone decoder and selector
- 2 x 4 channel setup, **configurable** to 1 x 8
- **Independent address** setting for both groups of zones
- Works as **matrix zone extender**
- **Multi point paging** from PD series of paging mic
- Compatible with **iPX5155** Paging / BGM client via RS485 controls
- **Cascade** for larger zone setup

TD6400 combines paging mic data decoder and zone selector in a single box. It has two groups of zones (2 x 4 zones) with independent address settings, thus providing flexibility in zone assignments.

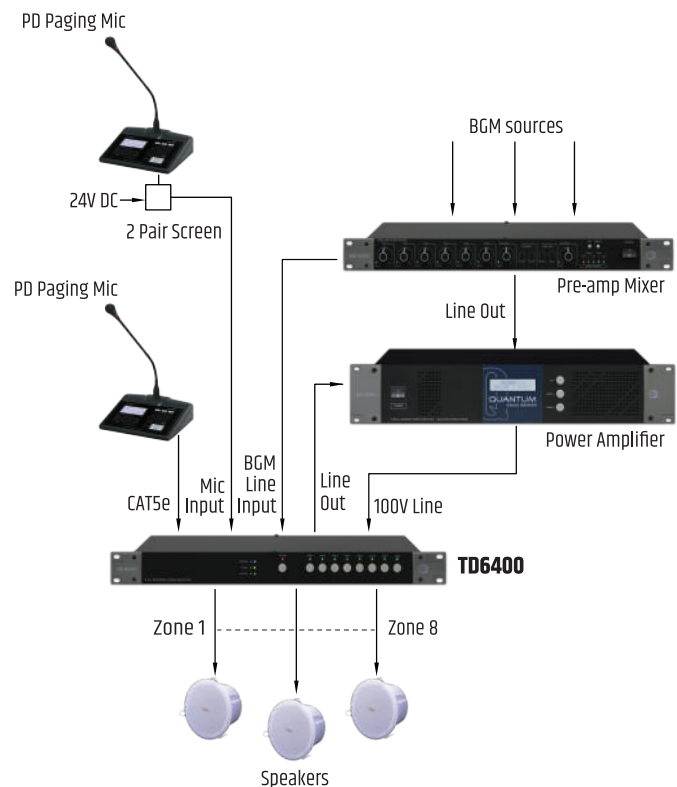
It is suitable for decentralized installations of multiple locations and it also functions as matrix zone extender. Link it via Amperes iPX5155 to enable remote zone controls via iPX microphone or PMX III software.



Technical Specifications

Operating voltage	24V DC
Consumption	6W (250mA)
Max load / channels	1000W 100V Line
Cascade quality	31 (248 zones)
Configuration	2 in x 4 zones
Input circuits	3 : 1 mic, 2 BGM
Audio Output	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
Input impedance (Ohm)	Line : 10 K
Output impedance	600 Ohm balanced
Frequency response	70 ~ 15 KHZ
Audio input	Line
Max audio output	Line 1.2V (balanced)
Data protocol	RS485
Baud rate	19.2 kbps
Dimensions (W x H x D)	482 x 44 x 180 mm
Weight	2.00 kg

Application Schematic



Packing Information

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



SQ9815 PS9400

8 Ch Sequential Power Switcher
24V DC Power Supply

POWER DISTRIBUTION



SQ9815

Sequential Power Switcher

SQ9815 is a 8 Ch Sequential Power Switcher, it manages the powering sequence of every equipment in an orderly manner. SQ9815 comes in handy to prevent random power switching of components within a system which may cause premature damage to the equipment. In addition, surge protection at power source minimize potential damage to installed equipment due to spikes in power lines.

- **ON / OFF** sequential switching
- **Lock mode** to avoid accidental switching
- **Cascade** 2 units to form 16 channel setup or 8 to max of 64 channels
- **Remote switching** port via external noiseless contact
- 8 channel with 6A per channel ; total load of 15A with **surge protection**
- **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



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	8 uts :total 64 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 exclude accessories

Packing Information

Carton size : 555 (L) x 295 (W) x 95 (H) mm

Gross weight : 3.55 kg

1 unit per carton



PS9400

24V DC Power Supply

Technical Specifications

Operating voltage	220 ~ 240V AC
Output voltage	24V +/- 1%
Rating	4A nominal ; max 5.5A
No load consumption	50 mW
Efficiency	83%
Indicators	AC mains, battery input, DC output Built in surge protection
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



PS9400 is a rack mounted 24V DC regulated power supply. 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 4A output **highly regulated** PSU
- Built in **various protections** including output fuse
- **Back up battery** overriding relay

Packing Information

Carton size : 555 (L) x 295 (W) x 95 (H) mm

Gross weight : 3.00 kg

1 unit per carton





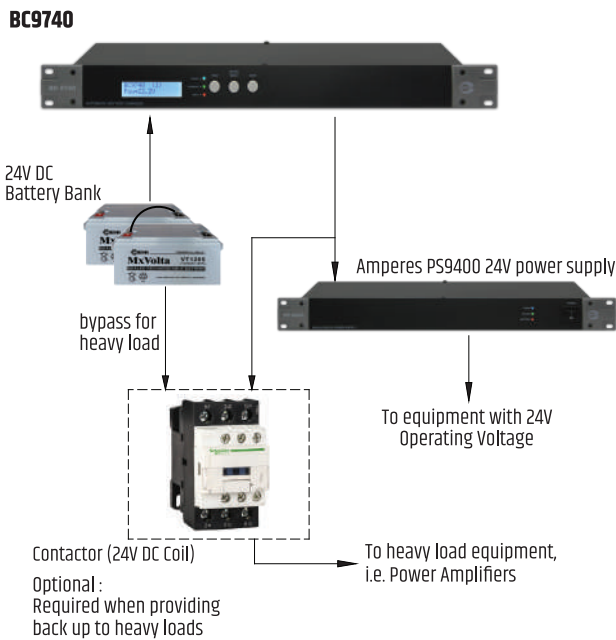
BC9740 is an innovative battery charger, specially designed for PA installation using 24V DC back up supply. It is compact in size yet highly efficient in charging and remote monitoring via PMX III is available.

Various protection circuits are incorporated such as polarity connection error and low battery cut off protection to prevent immature failure to battery pack.



- **Constant DC** voltage charging for 24 V battery bank
- **4A** initial charging current with reducing rate
- Built in **surge protection**
- Output **short circuit** protection
- **Thermal** cut off against overheating
- Auto **low battery** disconnection with alert
- Battery reversed **polarity** protection
- **RS485** comm port for remote monitoring by PMX III via iPX5500 comm box

Application Schematic



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
Indicators	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 III via iPX5500 comm. box for remote monitoring
E/M back up Amp rating	25A max (Use external contractor / relay if required)
Terminals	Battery input, EM load
Dimensions (W x H x D)	482 x 44 x 180 mm
Weight	4.50 kg

Packing Information

Carton size : 555 (L) x 295 (W) x 95 (H) mm
Gross weight : 5.20 kg
1 unit per carton

