



# PUBLIC ADDRESS MITRE RANGE

**Mitre**

The Mitre range is a well-proven group of products, with an excellent track record for reliability. Accommodating all your public address needs, the range includes:

M2300M • M2300S • M2120E

## FEATURES:

- Protected from overheating, especially important where amplifiers are rack mounted and used for continuous broadcast, such as background music.
- Should the amplifier exceed its safe operating temperature, the volume will automatically be reduced until cooled.
- M2300M and M2300S further protected by use of internal temperature-controlled fans.
- Music mute facility which allows music to be totally muted, or 'ducked' to a pre-set level, when paging announcements are made.
- Remote music mute DC input from time clocks, etc.
- Output stage protected by thermal shut down in the event of an unsuitable load.
- Auxiliary stereo music input (internally mixed) to accept tuners, CD players or tape decks.

## M2300M - 300W MIXER AMPLIFIER:

- Four balanced microphone/line universal inputs. Each input has the option of cascade priority, phantom power, chime and volume restoration/busy.
- 'Input live' indicator on the front panel for each input.
- Built-in one, two or three note chime with pre-set volume control.
- Built-in alarm tone generator with pre-set volume control. Tones are adjustable.
- A continuous 900Hz tone (or 'pips') can be configured, making it suitable for class change, start/stop work, etc.
- Master volume, treble and bass controls.
- Four zone relay selector as standard.
- Internal option socket. Can be used to add frequency equaliser, etc.

- Power amplifier input phone connector to enable two amplifiers to be connected together to provide ten inputs.
- XLR or screw terminations.

## M2300S - 300W SLAVE AMPLIFIER:

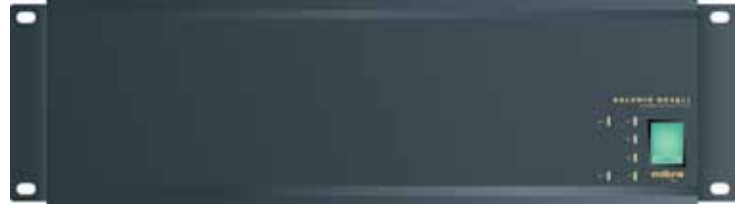
- Two 0dBm balanced line inputs which have selectable priority and rear mounted independent gain controls.
- Priority selectable by DIL switch.
- Internal option socket. Can be used to add frequency equalisers, etc.
- Output level indicator.
- Busy input indicator.
- Output stage protected by thermal shut down in the event of unsuitable load.
- 30V 1.5A output for powering mixers, etc.

## M2300M SPECIFICATION:

	M2300M
Rated output power: 100V line 230V AC supply	300W 33 ohms
THD 1kHz rated output aux input 230V AC supply	Less than 0.5% typically 0.2%
Typical output power 1% THD: aux input 230V AC supply	340W 29 ohms
Output regulation (1kHz 100V line)	Better than 1dB
Output voltages obtainable (pin selection)	50 & 100V
Supply voltage AC	220-240V 50-60Hz
Power consumption @ 230V: Quiescent (no external DC load) Rated output power @ 1kHz	26VA 700VA
Fuse protection: 1 x AC supply 20 x 5mm 2 x DC (amplifier) auto blade type 1 x DC aux output	6.3A(T) 20A(F) 2A(F)
Aux input phono stereo summed mono: Sensitivity Frequency response -3dB Signal to noise ratio	100mV @ 20K ohms 40Hz-20kHz Better than 80dB
Bass tone control Treble tone control	+12dB @ 100Hz +12dB @ 12kHz
Universal input (line): Sensitivity Frequency response -3dB Signal to noise ratio	80mV @ 12K balanced 40Hz-18kHz Better than 70dB
Universal input (microphone) Sensitivity	600uV balanced
Input impedance: Without phantom power With phantom power 15V Frequency response - 3 dB Common mode rejection ratio 50Hz-30kHz Signal to noise ratio terminated 200 ohms	12K ohms 660 ohms 40Hz-18kHz Better than 60dB Better than 60dB
System busy output - open collector	0.5A @ 40V max
Aux line output level Source impedance	0dBm transformer isolated 100 ohms
Busy/restoration relay output	2 pole changeover 5A @ 100V max
DC aux output	30V @ 1.5A max
4-zone relay output	5A @ 100V max
LED indicators	1 per universal input (indicates busy state). 1 indicates presence of 24V aux supply
Terminations: AC supply input Aux signal input Universal input	3-pin DIN IEC 6A 2 x phono, stereo summed mono 6-pin screw terminated connector + 3-pin XLR
Alarm trigger & 0dB line output Busy/restoration relay output Loudspeaker line output	4-pin screw terminated connector 8-pin screw terminated connector 3-in screw terminated connector
Fan assisted	Yes
Dimensions mm W x H x D	430 x 132 x 340
Weight	18kg



M2300M



M2300S

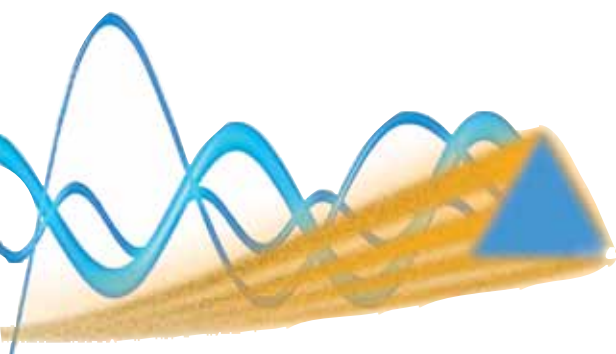
## M2300S SPECIFICATION:

	M2300S
Rated output power: 100V line 230V AC supply	300W 33 ohms
THD 1kHz rated output aux input 230V AC supply	Less than 0.5% typically 0.2%
Typical output power 1% THD: aux input 230V AC supply	340W 29 ohms
Output regulation (1kHz 100V line)	Better than 1dB
Output voltages obtainable (pin selection)	50 & 100V
Supply voltage AC	220-240V 50-60Hz
Power consumption @ 230V: Quiescent (no external DC load) Rated output power @ 1kHz	26VA 700VA
Fuse protection: 1 x AC supply 20 x 5mm 2 x DC (amplifier) auto blade type 1 x DC aux output	6.3A(T) 20A(F) 2A(T)
Input type	2 x line with priority gating
Sensitivity	0.5V @ 40K ohms balanced
Input common mode rejection ratio: 50Hz-30kHz Frequency response -3dB @ Signal to noise ratio Selectable high pass filter	Better than 40dB, typically 60dB 40Hz-20kHz Better than 85dB 200Hz 12dB/oct
DC aux output	30V @ 1.5A max
LED indicators	1 per universal input (indicates busy state). Output level indicator 5V 25V 50V 100V
Terminations: AC supply input Line signal inputs DC aux output Loudspeaker line output	DIN IEC 6A 3-pin screw terminated connector 2-pin crimp terminated connector 4-pin screw terminated connector
Fan assisted	Yes
Dimensions mm W x H x D	430 x 132 x 340
Weight	18kg



### M2120E - 120W MIXER AMPLIFIER:

- Five inputs each with volume, bass and treble controls.
- Output level LED display indicates at 5%, 25% and 100% power.
- Both 100V line or low impedance are selectable via a Neutrik Speakon connector.
- Optional OPT401 digital recordable message can be up to 60 seconds in length.
- Optional OPT33 chime module.
- Optional graphic equaliser.
- Free standing or rack-mountable.



### LOUDSPEAKER LOADINGS:

- Always ensure that the total loudspeaker load does not exceed the rating of the amplifier used.
- Use an impedance meter to measure any unknown load.
- Using a multimeter (set to the resistance range) ensures that the loudspeaker line is not connected to earth.

### CABLING:

- Always ensure that the correct cable type is used for the signal level.
- A twin screened cable should be used for balanced inputs operating at microphone or line level.
- Zone selection and access control cables do not generally require screening and should not share the same screen as the balanced input.
- Loudspeaker cables should be rated in excess of 100V and the cross sectional area to suit the load without excessive power loss.
- Always ensure that output cables are kept as far away from input cables as possible - reducing the risk of instability.



### M2120E SPECIFICATION:

	M2120E
Rated output power: 100V line 230V AC supply	120W 83 ohms
THD 1kHz rated output aux input 230V AC supply	Less than 0.5% typically 0.2%
Typical output power 1% THD: aux input 230V AC supply	100V line 150W 66 ohms. Plus: LowZ - 80W 4 ohms LowZ - 130W 2 ohms
Output regulation (1kHz 100V line)	Better than 1dB
Output voltages obtainable (pin selection)	100V & low impedance
Supply voltage AC	220-240V 50-60Hz
Power consumption @ 230V: Quiescent (no external DC load) Rated output power @ 1kHz	18VA 300VA
Fuse protection: 1 x AC supply 20 x 5mm 2 x DC (amplifier) auto blade type 1 x DC aux output	3:15A(T) 10A(F) 1A self resettable
Aux input phono stereo summed mono: Sensitivity Frequency response -3dB Signal to noise ratio	100mV @ 20K ohms 40Hz-20kHz Better than 80dB
Bass tone control Treble tone control	+12dB @ 100Hz +12dB @ 12kHz
Universal input (line): Sensitivity Frequency response -3dB Signal to noise ratio	80mV @ 12K balanced 40Hz-18kHz Better than 70dB
Universal input (microphone) Sensitivity	600uV balanced
Input impedance: Without phantom power With phantom power 15V Frequency response - 3 dB Common mode rejection ratio 50Hz-30kHz Signal to noise ratio terminated 200 ohms	12K ohms 660 ohms 40Hz-18kHz  Better than 60dB Better than 60dB
DC aux output	30V @ 1.5A max
LED indicators	Output level indicator 5%, 25%, 50% & 100%
Terminations: AC supply input Aux signal input Universal input Loudspeaker line output Line signal inputs	3-pin DIN IEC 6A 2 x phono, stereo summed mono 3-pin XLR 4-pin Speakon connector 6-pin screw terminal connector
Fan assisted	No
Dimensions mm W x H x D	430 x 90 x 340
Weight	12kg

## ALSO AVAILABLE:

- M2RACK - rack mounting kit for M2120E.
- M3RACK - rack mounting kit for M2300M & M2300S.
- MWALL - wall mounting bracket.
- M2000SB - Mitre range stacking bracket.
- BA100V - 100V line to microphone/line attenuator (when ordering specify the input it is to feed and we will fit the appropriate audio connector).
- XLRPLG3 - XLR 3 pole cable mounting plug (x5).
- PLUG100V - 100V output plug.

# BALDWIN BOX▲LL

TEL: +44 (0) 1892 664422  
FAX: +44 (0) 1892 663146

EMAIL: MAIL@BALDWINBOXALL.CO.UK  
WEB: WWW.BALDWINBOXALL.CO.UK

BALDWIN BOXALL COMMUNICATIONS LTD  
WEALDEN INDUSTRIAL ESTATE,  
FARNINGHAM ROAD, CROWBOROUGH,  
EAST SUSSEX, TN6 2JR, UNITED KINGDOM.



WE RESERVE THE RIGHT TO CHANGE THE PRODUCT SPECIFICATION WITHOUT PRIOR NOTICE OR LIABILITY. DOC NO. 1.0027.04.10