



INSTALLATION AND OPERATION MANUAL

 **PICOBLO**
MIXER AMPLIFIER



IMPORTANT SAFETY INFORMATION

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
15. This appliance shall not be exposed to dripping or splashing water and that no object filled with liquid such as vases shall be placed on the apparatus.
16. Plug this apparatus to the proper wall outlet and make the plug to be disconnected readily operable.
17. Mainsplug is used as disconnected device and it should remain readily operable during intended use. In order to disconnect the apparatus from the mains completely, the mains plug should be disconnected from the mains socket outlet completely.
18. WARNING: To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.
19. An appliance with a protective earth terminal should be connected to a mains outlet with a protective earth connection.
20. The apparatus should be disconnected from the mains completely before speaker wiring. The speaker output should be proper protected from direct contact and pay attention to speaker connections, terminals and speaker wiring during normal operation.

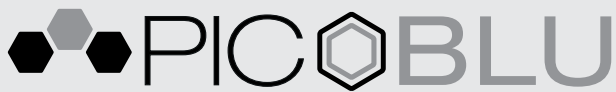


PRÉCAUTIONS DURANT UTILISATION

1. LISEZ ces instructions.
2. Tenez ces instructions.
3. Notez tous les avertissements.
4. Suivez toutes les avertissements.
5. N'utilisez pas ce produit près de l'eau (la piscine, la plage, le lac, etc.).
6. Nettoyez seulement avec une étoffe sèche.
7. Ne bloquez aucuns trous de ventilation. Installez en accord avec les instructions du fabricant.
8. N'installez près aucunes sources de chaleur comme radiateurs, registres de chaleur, fours ou les autres équipements (y compris ampli cateurs) qui produisent la chaleur.
9. Ne défaites pas le but de sécurité de la fiche polarisée ou base-type. Une fiche polarisée a deux tranchants avec un plus large que l'autre. Une fiche de base type a deux a deux tranchants et une troisième pointe de base, le tranchant large ou la troisième pointe est fourni pour votre sécurité. Si la fiche donnée ne conforme pas votre prise de contact, consultez un électricien pour remplacement de la prise de contact obsolète.
10. Protegez le cordon de secteur contre être marchée dessus ou pincez en particulier aux fiches, aux douilles de convenance, et au point où ils sortent de l'appareil.
11. Seulement utilisez attachements/accessoires spécifiés par le fabricant.
12. Utilisez seulement avec un chariot, un stand, un trépied, un support ou une table indiquée par le fabricant, ou vendue avec l'appareil. Quand un chariot est utilisé, faites attention en déplaçant la combinaison d'appareil/chariot pour éviter de se déséquilibrer.
13. Arrachez la fiche du dispositif durant éclair et orage ou quand pas utilisé pour longues périodes de temps.
14. Référéz au personnel qualifié de service pour toutes réparations. La réparation est donnée quand le système a été endommagé à n'importe façon, par exemple un fil ou une fiche endommagé(e) de la source d'alimentation. Avoir été exposé à pluie ou humidité, n'opère pas normalement, ou avoir été tombé.
15. L'appareil ne doit pas être exposé aux écoulements ou aux éclaboussures et aucun objet ne contenant de liquide, tel qu'un vase, ne doit être placé sur l'objet.
16. Branchez l'appareil à une source appropriée et faire que la prise à débrancher soit facilement accessible.
17. La prise du secteur ne doit pas être obstruée ou doit être facilement accessible pendant son utilisation. Pour être complètement déconnecté de l'alimentation d'entrée, la prise doit être débranchée du secteur.
18. AVERTISSEMENT: Pour éviter le risque d'incendie ou de chocs électriques, ne pas exposer cet appareil à la pluie ou à l'humidité.
19. Un appareil avec la borne de terre de protection doit être connecté au secteur avec la connexion de terre de protection.
20. Assurez-vous que l'appareil est hors tension avant de connecter les hauts parleurs. Vérifiez que la sortie des enceintes soit protégées contre un contact physique. Respecter les polarités des terminaux ainsi que le câblage des enceintes pendant le fonctionnement afin d'assurer une utilisation sécurisée.



INTRODUCTION & CONTENTS



Congratulations on choosing Australian Monitor for your professional amplification requirements.

The Australian Monitor PICOBLU is a small form factor 30W Mixer Amplifier specifically designed for small space applications such as cafes, restaurants, small retail and classrooms.

The PICOBLU features 3 mixer channels with microphone, line level, Bluetooth® and 3.5mm input jack options.

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Revision 1.0: Dec 2019

WARNING

TO PREVENT FIRE OR SHOCK HAZARD, DO NOT USE THE PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

TO PREVENT ELECTRICAL SHOCK, MATCH WIDE BLADE PLUG TO WIDE SLOT & FULLY INSERT.

CAUTION

THESE SERVICING INSTRUCTIONS ARE FOR USE BY QUALIFIED SERVICE PERSONNEL ONLY. TO REDUCE THE RISK OF ELECTRIC SHOCK DO NOT PERFORM ANY SERVICING OTHER THAN THAT CONTAINED IN THE OPERATING INSTRUCTIONS UNLESS YOU ARE QUALIFIED TO DO SO.



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

CAUTION

**RISK OF ELECTRIC SHOCK
DO NOT OPEN**

WARNING

TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance



For European Union countries: This symbol on the product or its packaging indicates that this product must not be disposed of with other waste. Instead, it is your responsibility to dispose of your waste equipment by handing it over to a designated collection point for the recycling of waste electrical and electronic equipment. Please contact your local authority for further details of your nearest designated collection point.

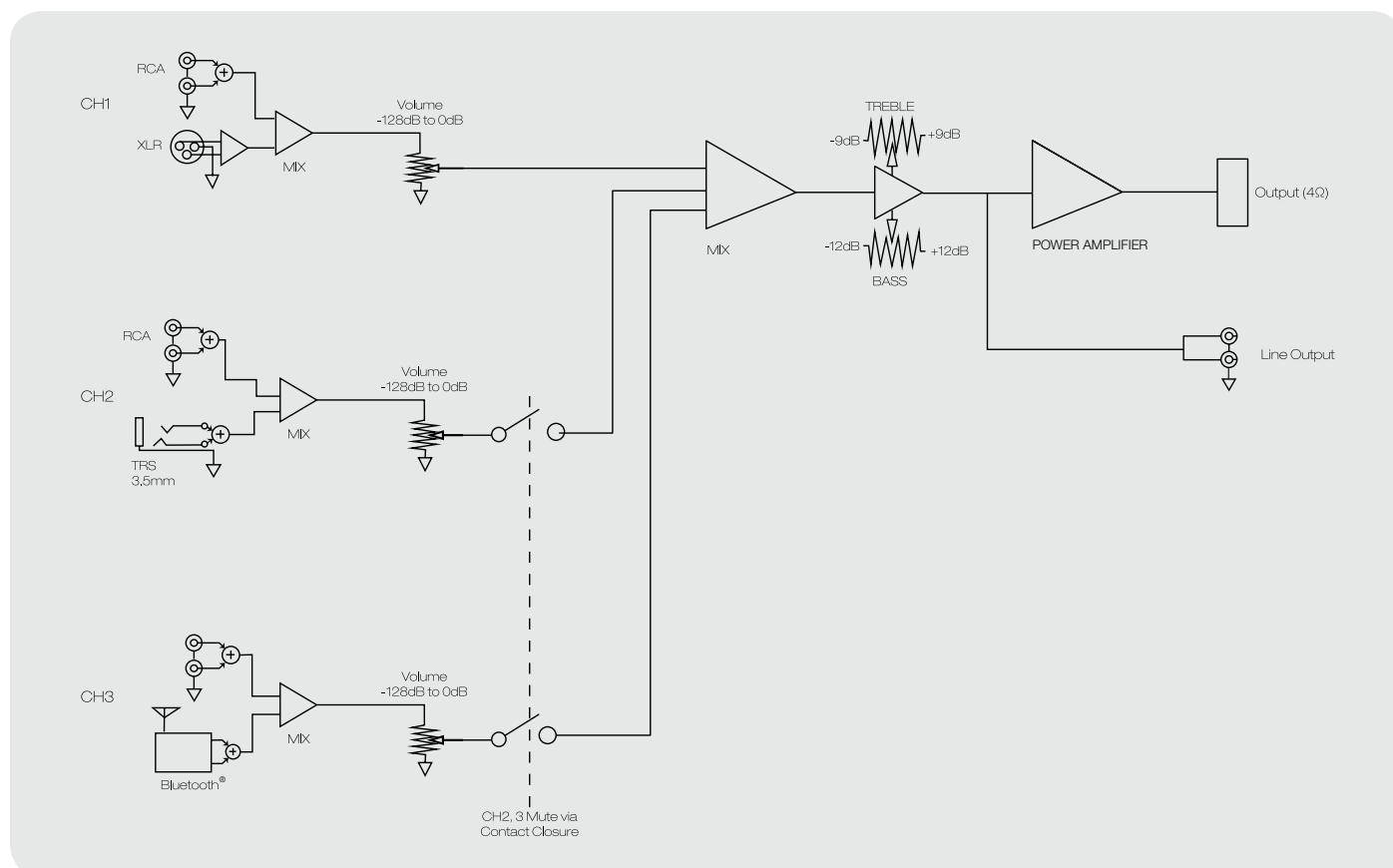
Rating plate and caution marking are marked on the back enclosure of the apparatus

FEATURES

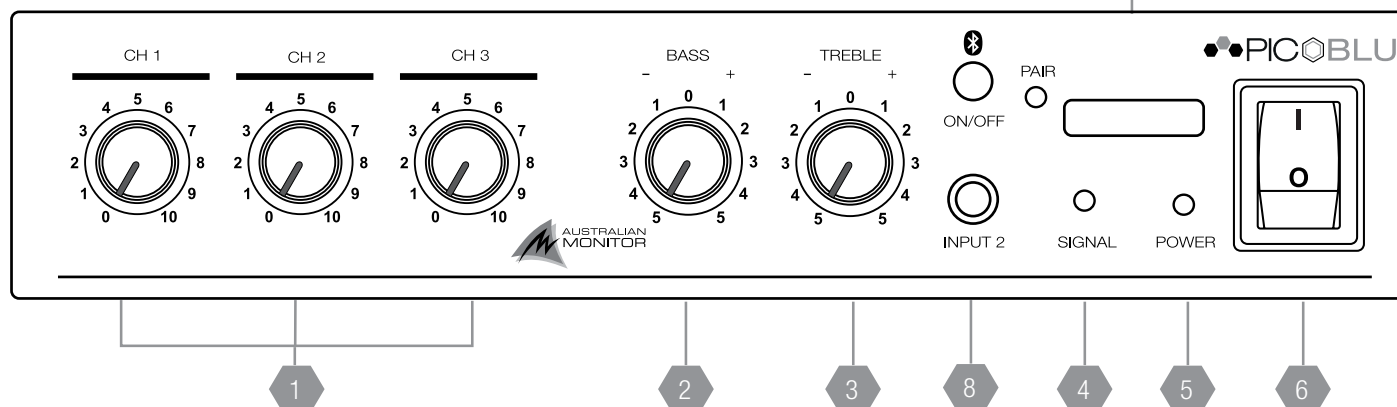
FEATURES

- 30W Mixer Amplifier
- 3 channel mixer
- Microphone support
- Bluetooth® receiver
- 3.5mm input
- Bass and Treble Tone Controls
- 100V and 4Ω outputs
- Priority Mute for microphones
- Line Output
- 217mm x 271mm x 44mm
- Rack mountable

PICOBLU BLOCK DIAGRAM



FRONT PANEL



1 CH 1-3
These control the levels for each channel input.

2 BASS
There is 12dB of cut and boost at 100Hz.

3 TREBLE
There is 9dB of cut and boost at 10kHz.

4 SIGNAL
This LED indicates the unit is outputting a signal.

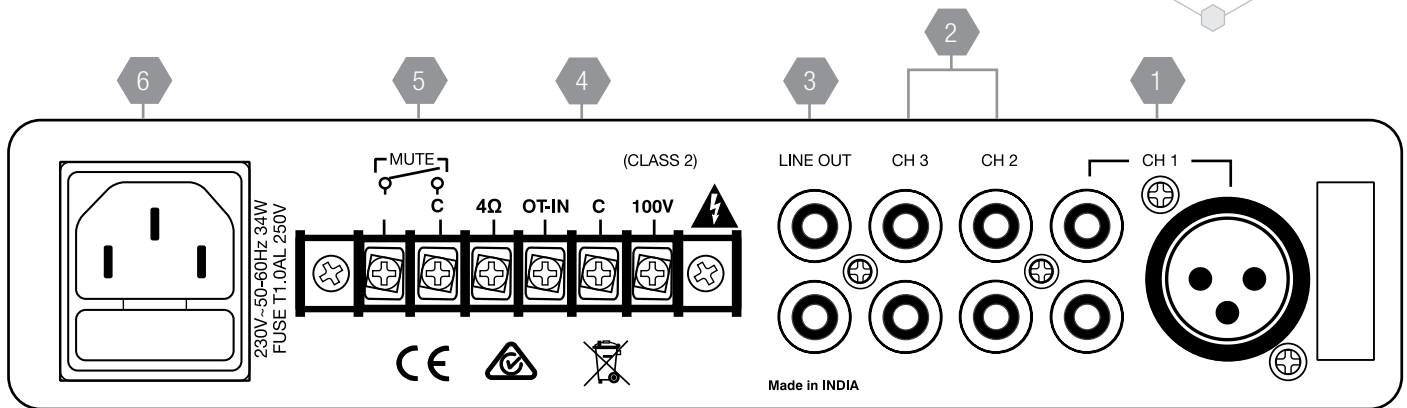
5 POWER
This LED indicates the unit is on.

6 POWER SWITCH
This switches the power to the unit on and off. The up position is on.

7 BLUETOOTH®
Consult the Bluetooth® Audio Streaming section of this manual for further details of these controls.

8 INPUT 2
Input 2 is an auxiliary line input. Its volume is controlled by the CH2 volume knob on the front.

REAR PANEL



1

CH 1

XLR input – This is a balanced microphone input with an input sensitivity of 3mV.

RCA input – This is an unbalanced line level input. It has an input sensitivity of 405mV. The two RCA sockets are summed to mono internally.

2

CH 2-3

RCA Input: These are unbalanced line level inputs. They have an input sensitivity of 405mV. The two RCA sockets are summed to mono internally.

CH2 RCA input is mixed with the 3.5mm front panel auxiliary input.

CH3 RCA input is mixed with the Bluetooth® input.

3

LINE OUTPUT

The LINE output is on an unbalanced RCA connector. The output level is 766mV with an output impedance of 4.7kΩ at the rated output.

The mono output signal is split across two RCA outputs.

4

SPEAKER OUTPUT

The class AB amplifier output features 100V Line or 4Ω low impedance.

⚠ NOTE: Only one output type should be used at a time.

5

MUTE INPUT

To enable CH1 priority (i.e., mute CH2 & CH3), connect the two contacts together with the mute illustration on the speaker terminal block

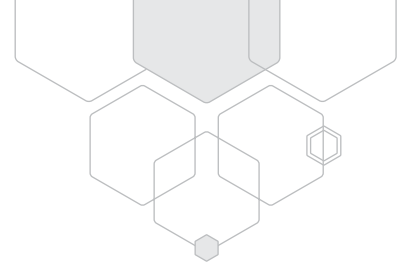
6

MAINS INPUT CONNECTOR

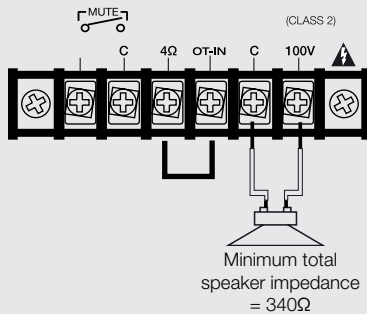
Your amplifier is fitted with a standard IEC 60320-C14 socket for mains connection. Use the mains cable supplied to power up the unit.

⚠ NOTE: Your unit must always be earthed!

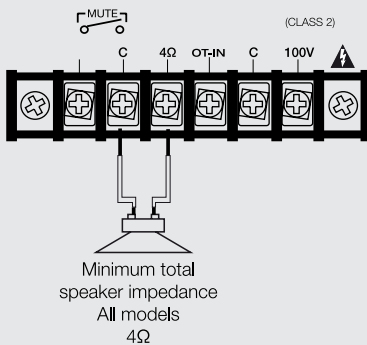
INSTALLATION



100V LINE



4Ω VOICE COIL



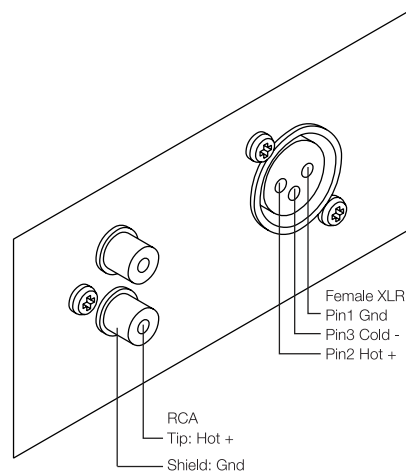
LINE OUTPUT

The LINE output RCA can be used to connect up to 3 booster amplifiers.

INPUT CONNECTIONS

For wiring balanced in, pin 2 is hot. Unbalanced wiring on the microphone inputs is not recommended.

Balanced input wiring (shielded pair cable) is recommended. Unbalanced RCA wiring should be kept as short as possible.

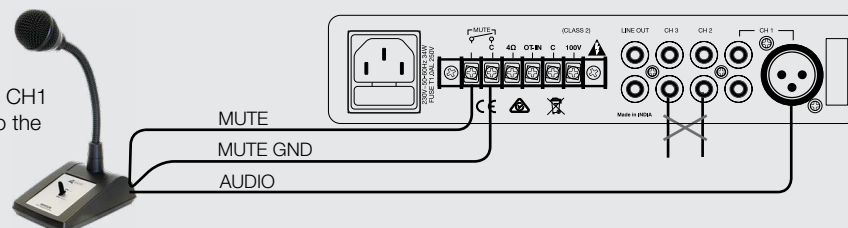


PAGING SOLUTION

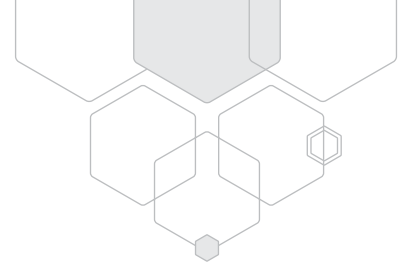
The PICOBLU can be configured to provide a paging solution for small installations. Simply connect a paging microphone to CH1 XLR input and connect the contact closure output of the paging microphone to the PICOBLU mute terminals as shown below:

PAGING SOLUTION - MUTE BACKGROUND MUSIC (CH2, CH3) TO PERFORM PAGING ON CH1

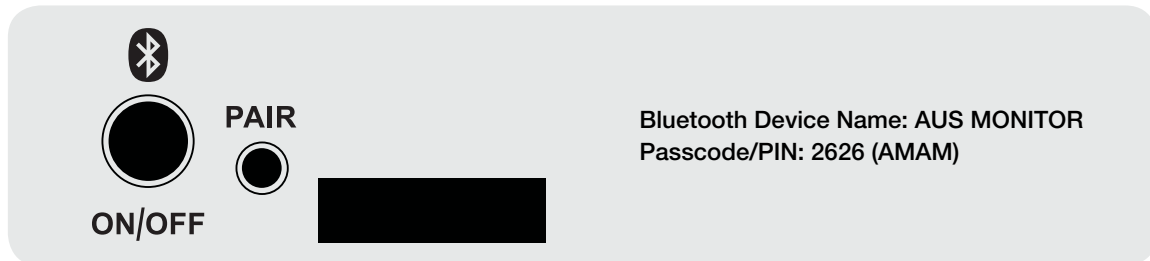
Connect a microphone to CH1 and the contact closure to the Mute input.



BLUETOOTH® AUDIO STREAMING



The mixer amplifier includes a Bluetooth® Audio streaming interface which can receive audio from any device like a mobile phone, computer or tablet. Simply connect your Bluetooth® device and it will mix in to the amplifier output.



BLUETOOTH® CONNECTION

1. Turn on the Bluetooth® module by holding the Bluetooth® ON/OFF power button down for more than 150ms
2. Enter pairing mode by holding the Bluetooth® ON/OFF button down for 2 seconds. The PAIR LED should start flashing every 200ms
3. On your Bluetooth® device, not the PICOBLU, select the Bluetooth® device named as 'AUS MONITOR'. Consult the device's manual about accessing the Bluetooth® connection options.
4. Your Bluetooth® device will ask for a passcode/PIN. Enter **2626**
5. The PAIR LED will then flash 10 times to indicate successful pairing
6. Play audio from your Bluetooth® device.

BLUETOOTH® CONNECTION RANGE

The Bluetooth® connection range is a minimum of 10 meters. However, range is typically much larger but not guaranteed.

CONNECTING A DIFFERENT BLUETOOTH® DEVICE

The Bluetooth® module can only support one device connection at a time.

If you need to change devices, repeat the Bluetooth® connection process described above. By entering pairing mode it disconnects the current device and allows a new device to be connected.

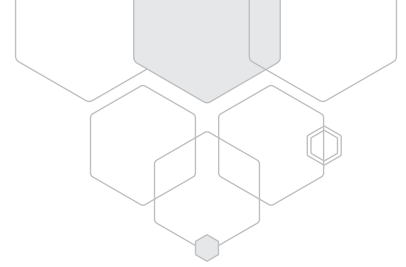
POWER OFF THE BLUETOOTH® DEVICE

To power off the Bluetooth® module hold down the Bluetooth® ON/OFF button until the PAIR LED turns fully on (not flashing) and then release the button.

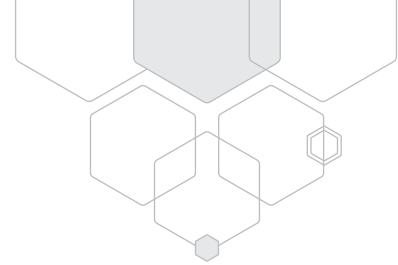
⚠ IMPORTANT: Ensure that the volume of your Bluetooth® device is set to an appropriate level as this effectively adds in another volume control to your system.

⚠ NOTE: The Bluetooth® module is powered off as standard when turning the amplifier on to maximise security. If the amplifier is power cycled you must turn the Bluetooth® module back on by pressing the Bluetooth® ON/ OFF button.

TROUBLESHOOTING

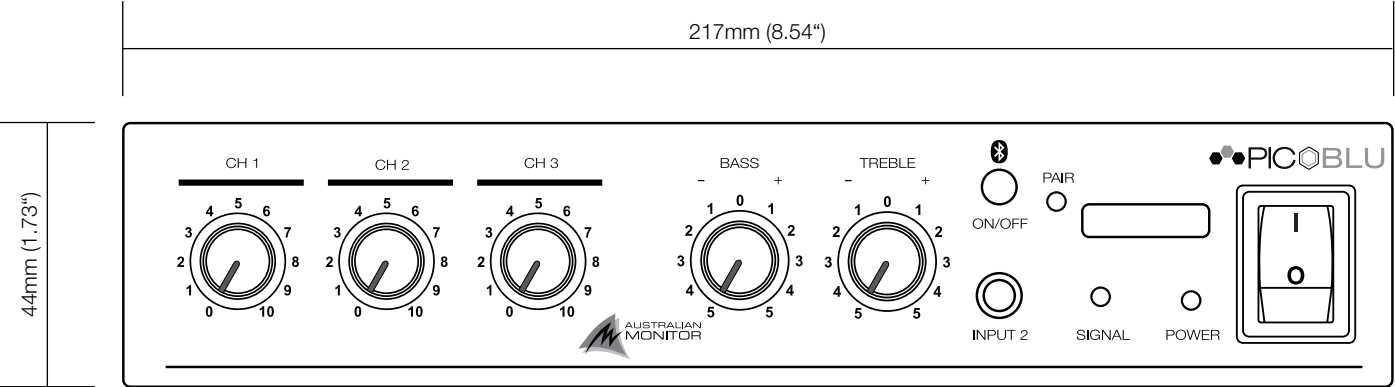


TROUBLE	LIKELY CAUSE	REMEDY
Power LED not on	Power not reaching amplifier	Check power switch is on Check power supply is connected
Distorted sound	Input is overloaded Output is being over driven Bass control is turned up	Reduce input level at source Reduce volume levels on front panel Reduce Bass control level
No sound but amplifier is on	Volume controls down	Check volume controls
No sound from channels 2 and 3	Priority function is being used	Disconnect mute connection on speaker output terminals.

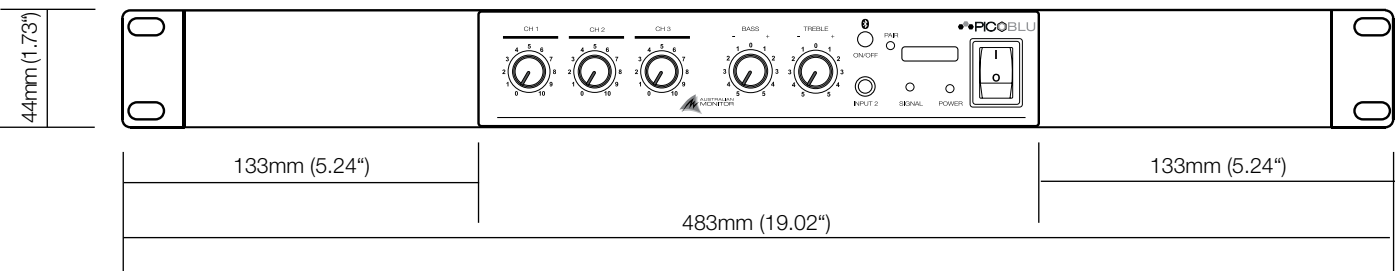


DIMENSIONS

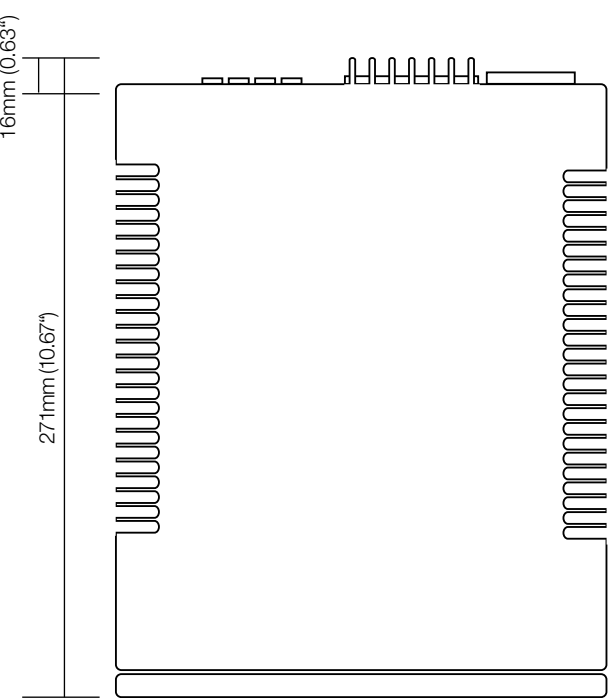
FRONT:



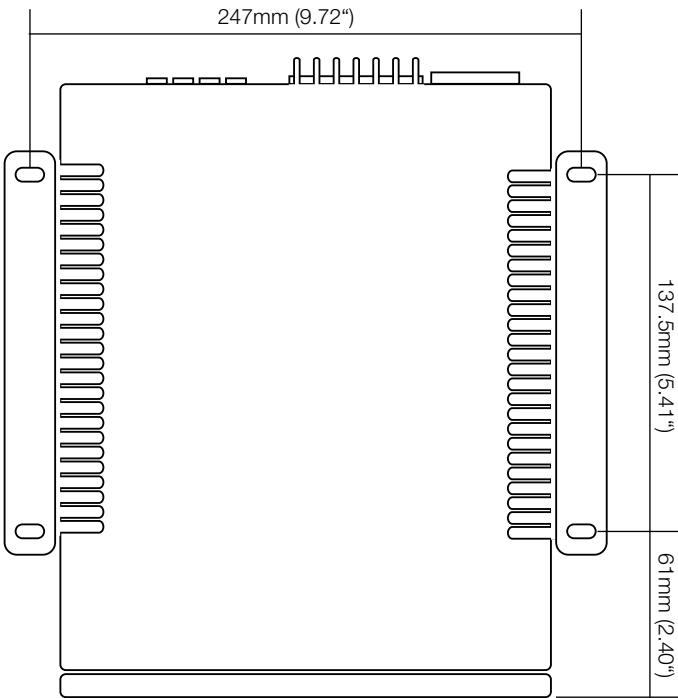
1RU RACK MOUNT KIT:



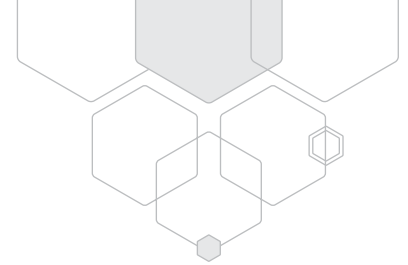
TOP:



UNDER DESK RACK MOUNT KIT:

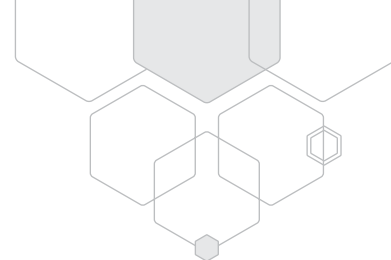


SPECIFICATIONS



	PicoBlu (XLR)	PicoBlu (RCA)	PicoBlu (3.5mm TRS)	PicoBlu (Bluetooth)	Conditions/ Comments
CHANNELS	1	3	1	1	
AUDIO INPUTS					
4Ω 100V	34W/3.0mV 31W/2.92mV	34W/405mV 31W/402mV	33W/53mV 30.5W/53mV	33W/422mV 30.5W/420mV	1kHz. 1%THD. -2W/+2W 1kHz. 1%THD. -2W/+2W
MAXIMUM OUTPUT LEVEL (DBV/VRMS)	11.7V				4Ω Output
SYSTEM GAIN	71.7dB	29.1dB	46.73dB	28.7 dB	4Ω
FREQ. RESPONSE 4Ω FREQ. RESPONSE 100V	32Hz ~ 24kHz 104Hz ~ 22kHz				3dB below clipping, +0/-3dB.±5Hz 3dB below clipping, +0/-3dB.±5Hz Low Freq ±2kHz High Freq
S/N RATIO 4Ω S/N RATIO 100V	0.62mV/-84br 5.4mV/-85dbr				All pots centre, Max Output, 1kHz, A-Weighted
THD+N. 4Ω. 1kHz THD+N. 4Ω. FREQ BAND THD+N. 100V. 1kHz THD+N. 100V. FREQ BAND	0.11% 0.20% 0.11% 0.23%				3dB below clipping, 1kHz. A-Weighted 3dB below clipping, Freq Band. 20kHz BW, A-Weighted 3dB below clipping, 1kHz. A-Weighted 3dB below clipping, Freq Band. 20kHz BW, A-Weighted
AUDIO SENSITIVITY					
AUDIO INPUT SENSITIVITY	3mV	405mV	50mV	422mV	Rated Power, 100V Output
LINE OUT	Output: 766mV @ 405mV Input/ 27Hz~23kHz bandwidth/ THD 0.08% @ 1kHz/ 27Hz~20kHz THD 0.18%				10kΩ loaded
BASS	±12.7dbr				
TREBLE	±9.0dbr				
AUDIO MISCELLANEOUS					
INPUT IMPEDANCE	> 10k	> 100k	> 100k	> 100k	Balanced, line-to-line Unbalanced, line-to-GND

SPECIFICATIONS CONT.



	PicoBlu (XLR)	PicoBlu (RCA)	PicoBlu (3.5mm TRS)	PicoBlu (Bluetooth)	Conditions/ Comments
POWER REQUIREMENTS					
AC INPUT	230V AC, 50-60Hz				±10%
AC INPUT CONNECTOR	IEC 60320-C14				
AC MAINS FUSE	T1.0AL S/B Glass				
MAX INRUSH CURRENT	10A				
POWER CONSUMPTION IDLE 1/8TH POWER 1/3RD POWER FULL POWER	6W 29W 43W 70W				230V AC, 50Hz, 100V 1kHz Sine
EFFICIENCY 1/8TH POWER 1/3RD POWER FULL POWER	16% 27% 47%				230V AC, 50Hz, 100V 1kHz Sine
MISCELLANEOUS					
PRODUCT DIMENSIONS (WITH RACK EARS)	483mm x 271mm x 44mm (19.02"W x 10.67"D x 1.73"H)				
PRODUCT DIMENSIONS (WITHOUT RACK EARS)	217mm x 271mm x 44mm (8.54"W x 10.67"D x 1.73"H)				
SHIPPING DIMENSIONS	315mm x 365mm x 105mm (12.4"W x 14.4"D x 4.1"H)				
NET WEIGHT	3.75kg				
SHIPPING WEIGHT	4.5 ~ 4.7kg				Add 0.2kg for export model power cords
MOUNTING	1 RU Rack, Under Desk				
OPERATING TEMPERATURE	0°C to 40°C				
FINISH	Powder Coated Steel				
COLOUR	Black (Satin)				
ACCESSORIES	IEC Mains cable, 1 label sticker sheet, 1 RU Rack Mount Kit (sold separately), Under Desk Mounting Kit (sold separately)				
APPROVALS	CE, IEC, RCM				

Due to continuous improvements, all specifications are subject to change



ENGINEERED BY AUSTRALIAN MONITOR

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