

Artcoustic^{AIC}

IMPACT SUBWOOFER OWNERS MANUAL



www.artcoustic.com

Welcome to the world of Artcoustic!

Congratulations with your purchase of the Artcoustic Impact Subwoofer.

Nearly 20 years of subwoofer technology and acoustic evolution, has merged into the most advanced and powerful subwoofer series ever produced by Artcoustic.

By mixing our early Q and Pressure Control technology and the later X2 bass system, we have ended up with something truly unique. The new technology and design addresses the issue of depth and power vs cabinet size, with an impressive F3 and F6 point due to multiple coupled 10" bass units, phase optimization and controlled frequency overlap

This new design technology allows this performance to be possible in a cabinet much smaller than would otherwise be required, alongside higher sensitivity and efficient heat dispersion.

Thank you for purchasing an Artcoustic product.

All the best,
The Artcoustic Team

IMPACT SUBWOOFER FEATURES

Impact Subwoofer Series Features

- Long throw bass units
- High long term power handling
- Very low distortion
- Very high SPL
- Remarkable dynamic range and transient response
- Fast, easy and simple installation
- Suitable for a wide range of applications: Dedicated cinemas, screening rooms and most commercial applications

PDA1000 Amplifier features

PDA1000 only occupies a 1U rack space and weight as little as 2.8 kg making it an ideal choice in a already crowded equipment rack.

2 x 450 watt 8 ohm and 1000 watt single channel bridged

- Input sensitivity control
- Signal presence, clip and protection indicator
- balanced Input via XLR
- Stable performance down to 4 ohms.
- Auto turn on, turn off - signal sensing
- Crossover, low-pass, full range, 100 Hz. and 400 Hz. 24 dB. per octave
- Crossover, hi-pass, full range, 100 Hz. and 400 Hz. 24 dB. per octave
- ASOF (Artcoustic Subwoofer Continued Filter) Slam, depth 1 and depth 2
- High current bi-polar technology
- Extended protection circuit

SPECIFICATIONS

Specifications Impact 1 Subwoofer

Transducer:

LF 1 x 10 inch cones

Connection:

Single Amped Gold Plated Push Terminals

Performance:

Operating Range 25 Hz (f3 30 Hz) to 250 Hz

Nominal Beamwidth omni directional

Axial Sensitivity (half space SPL) LF 95 dB

Input Impedance Nominal Minimum 6 ohms

Maximum Power Handling 300 Watt

Calculated Axial Output Limit (half space SPL) Average Peak LF 114 dB

Weight 15 kg

Dimensions H: 483 W: 450 D: 186 mm

Finish:

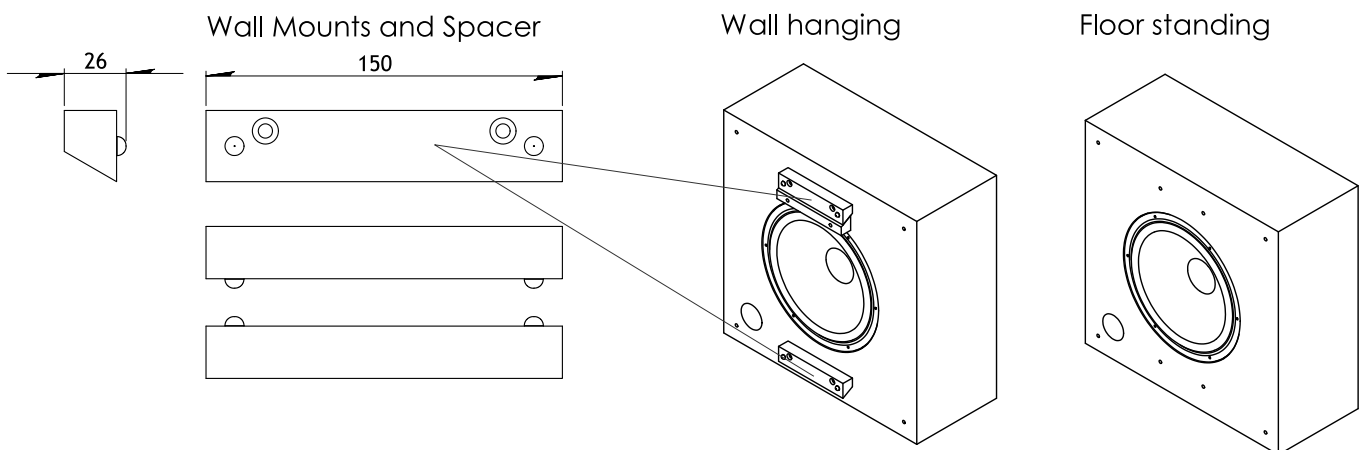
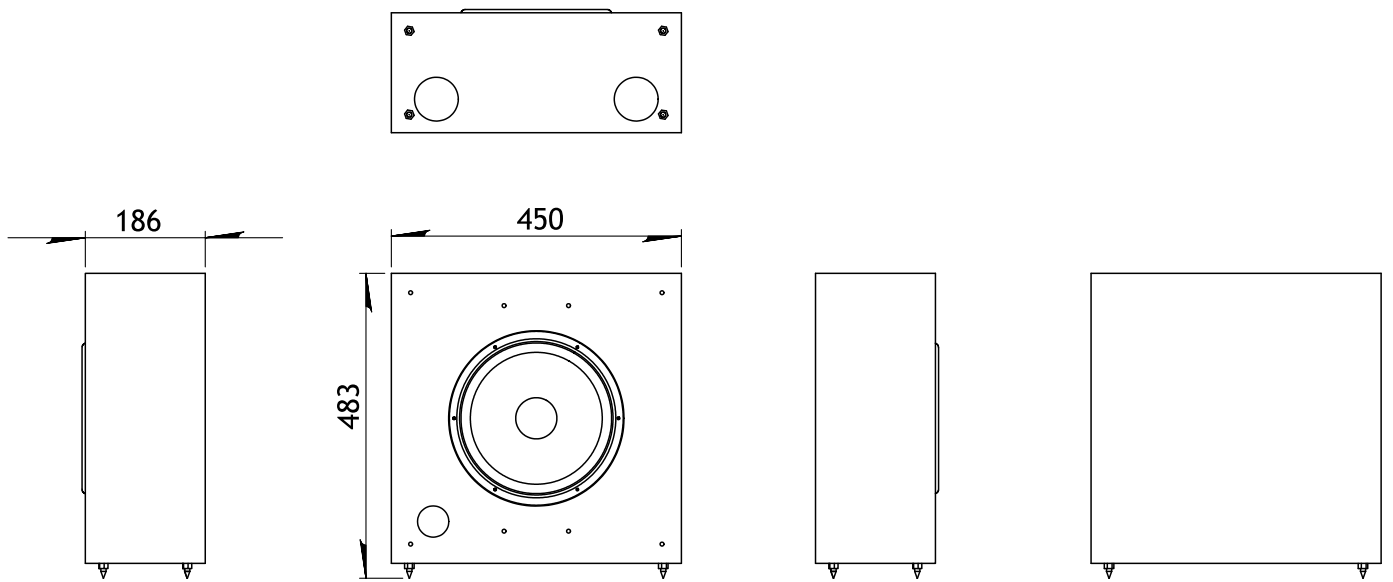
Cabinet: Black, White, RAL, NCS, Tikkurila

Impact 1 Subwoofer

Impact 1 subwoofer delivers amazing bass, ideal for professional applications, such as recording and film studios, dedicated cinemas and fixed installations in general. Employing one 10 inch long-throw woofer, capable of reproducing low frequency signals accurately and effortlessly, with high power handling and extremely low distortion, right down to 25 Hz.

The Impact 1 subwoofer is ideal for use in high-end installations where sound quality is paramount.

IMPACT 1 SCHEMATICS



SPECIFICATIONS

Specifications Impact 2 Subwoofer

Transducer:

LF 2 x 10 inch cones

Connection:

Single Amped Gold Plated Push Terminals

Performance:

Operating Range 15 Hz (f3 20 Hz) to 250 Hz

Nominal Beamwidth omni directional

Axial Sensitivity (half space SPL) LF 102 dB

Input Impedance Nominal Minimum 4 ohms

Maximum Power Handling 300 Watt

Calculated Axial Output Limit (half space SPL) Average Peak LF 122dB

Weight 30 kg

Dimensions H: 483 W: 320 D: 600 mm

Finish:

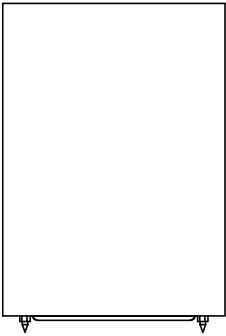
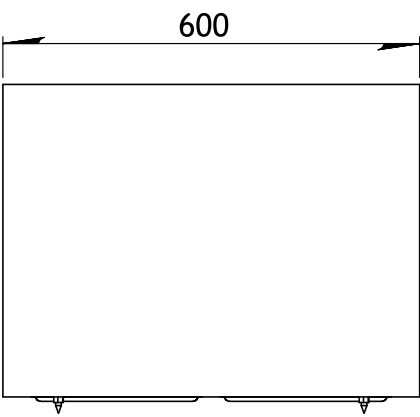
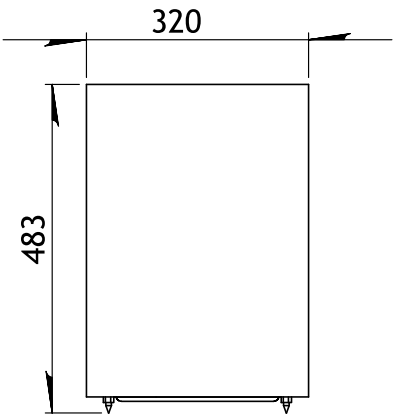
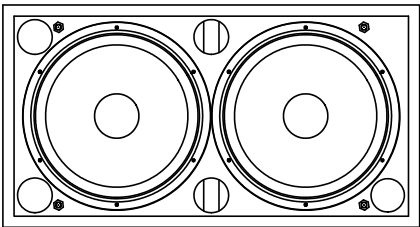
Cabinet: Black, White, RAL, NCS, Tikkurila, Gloss

Impact 2 Subwoofer

For the ultimate in low-frequency performance, the Impact 2 subwoofer delivers awesome bass reproduction. For its size, it is one of the most dynamic, powerful and controlled subwoofers on the market, making it ideal for professional applications, such as recording and film studios, dedicated cinemas and fixed installations in general. This model changes the way subwoofers are perceived. Employing two 10" long-throw woofers combined with our phase optimization and controlled frequency overlap technology, this subwoofer reproduce low frequency signals accurately and effortlessly, with high power handling and extremely low distortion, right down to 15Hz.

The Impact subwoofer is ideal for use in high-end installations where sound quality is paramount, such as mid-field to full-space studio monitoring, for private cinema installations, and for commercial use in bars, restaurants and corporate presentation facilities.

IMPACT 2 SCHEMATICS



SPECIFICATIONS

Specifications Impact 3 Subwoofer

Transducer:

LF 3 x 10 inch cones

Connection:

Single Amped Gold Plated Push Terminals

Performance:

Operating Range 15 Hz (f3 20 Hz) to 250 Hz

Nominal Beamwidth omni directional

Axial Sensitivity (half space SPL) LF 105 dB

Input Impedance Nominal Minimum 4 ohms

Maximum Power Handling 300 Watt

Calculated Axial Output Limit (half space SPL) Average Peak LF 126 dB

Weight 45 kg

Dimensions H: 633 W: 320 D: 600 mm

Finish:

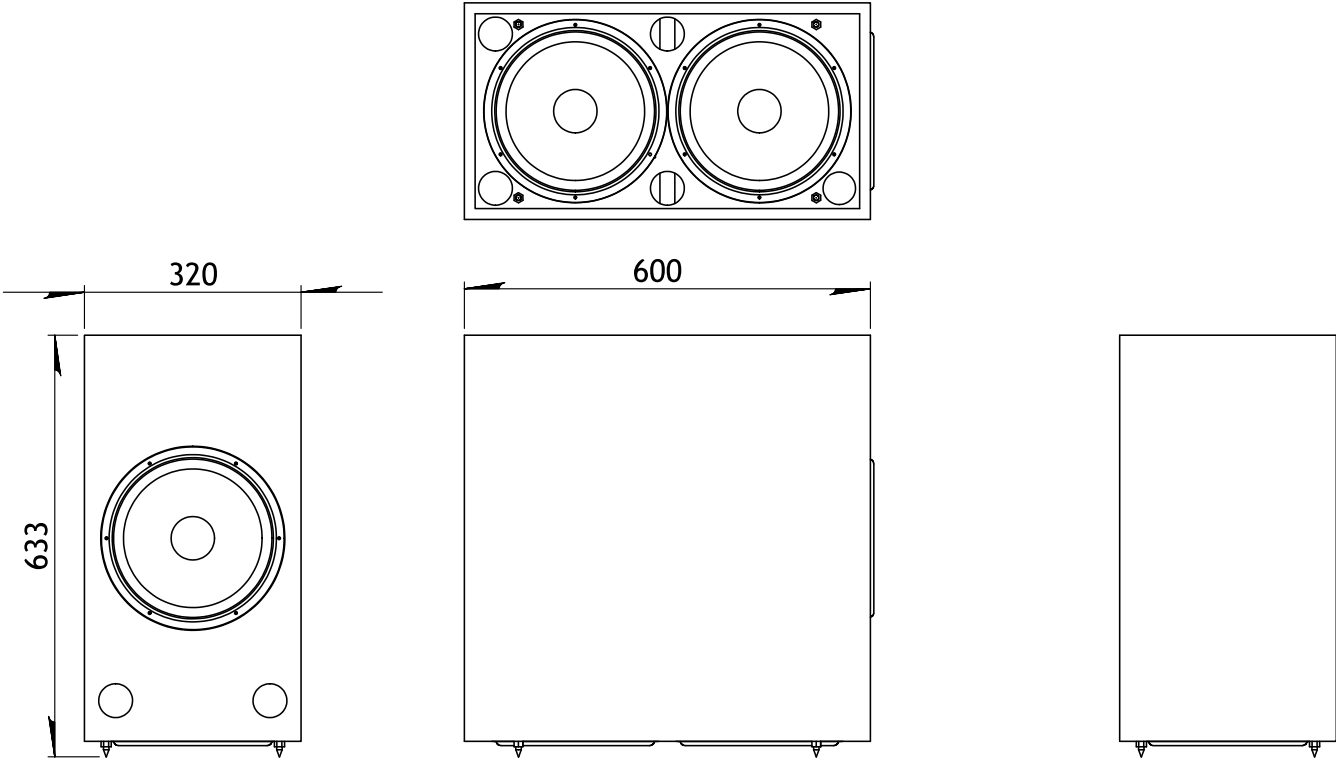
Cabinet: Black, White, RAL, NCS, Tikkurila, Gloss

Impact 3 Subwoofer

For the ultimate in low-frequency performance, the Impact 3 subwoofer delivers awesome bass reproduction. For its size, it is one of the most dynamic, powerful and controlled subwoofers on the market, making it ideal for professional applications, such as recording and film studios, dedicated cinemas and fixed installations in general. This model changes the way subwoofers are perceived. Employing three 10" long-throw woofers combined with our phase optimization and controlled frequency overlap technology, this subwoofer reproduce low frequency signals accurately and effortlessly, with high power handling and extremely low distortion, right down to 15Hz.

The Impact subwoofer is ideal for use in high-end installations where sound quality is paramount, such as mid-field to full-space studio monitoring, for private cinema installations, and for commercial use in bars, restaurants and corporate presentation facilities.

IMPACT 3 SCHEMATICS



PDA1000 FEATURES

Small size and weight

PDA1000 only occupies a 1U rack space and weight as little as 2.8 kg making it an ideal choice in a already crowded equipment rack.

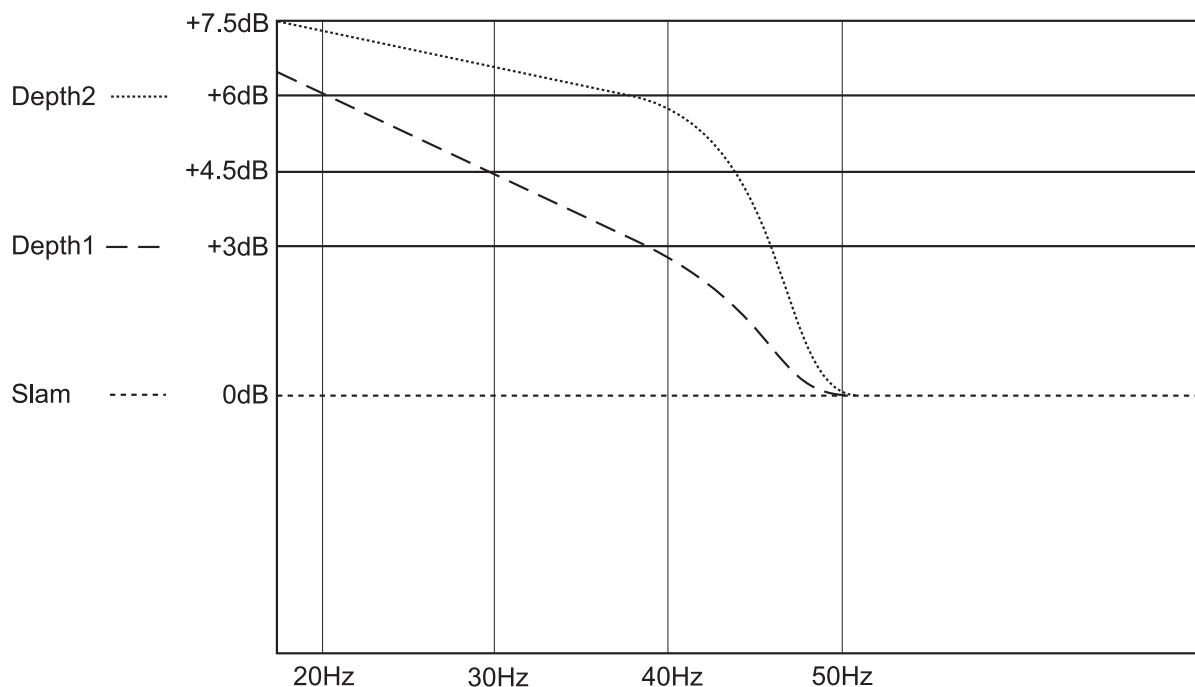
Incredible class D amplifier performance

2 x 450 watt 8 ohm and 1000 watt single channel bridged

Convenient features

- Input sensitivity control
- Signal presence, clip and protection indicator
- balanced Input via XLR
- Stable performance down to 4 ohms.
- Auto turn on, turn off - signal sensing
- Crossover, low-pass, full range, 100 Hz. and 400 Hz. 24 dB per octave
- Crossover, high-pass, full range, 100 Hz and 400 Hz 24 dB per octave
- ASOF (Artcoustic Subwoofer Optimized Filter) Slam, depth 1 and depth 2
- High current bi-polar technology
- Extended protection circuit

ASOF EQ. Filters and filter slopes explained.



Slam

Flat response with no EQ added to the signal. Recommended setting for environments where less dynamics and lower distortion is required.

Depth 1

EQ slope optimized for smaller Artcoustic subwoofer models, such as IWS-10 CPH-10 and Impact 1. The Depth 1 setting, mainly enhances the very deep frequencies, below 35 Hz. This setting is good for installations with main focus on 2-channel music reproduction.

Depth 2

EQ slope optimized for the medium to large Artcoustic subwoofers. The Depth 2 setting has a more conservative slope and a 10 Hz higher entry point, enhancing frequencies from around 45 Hz and down. This setting is optimised for cinema and public address installations.

SPECIFICATIONS

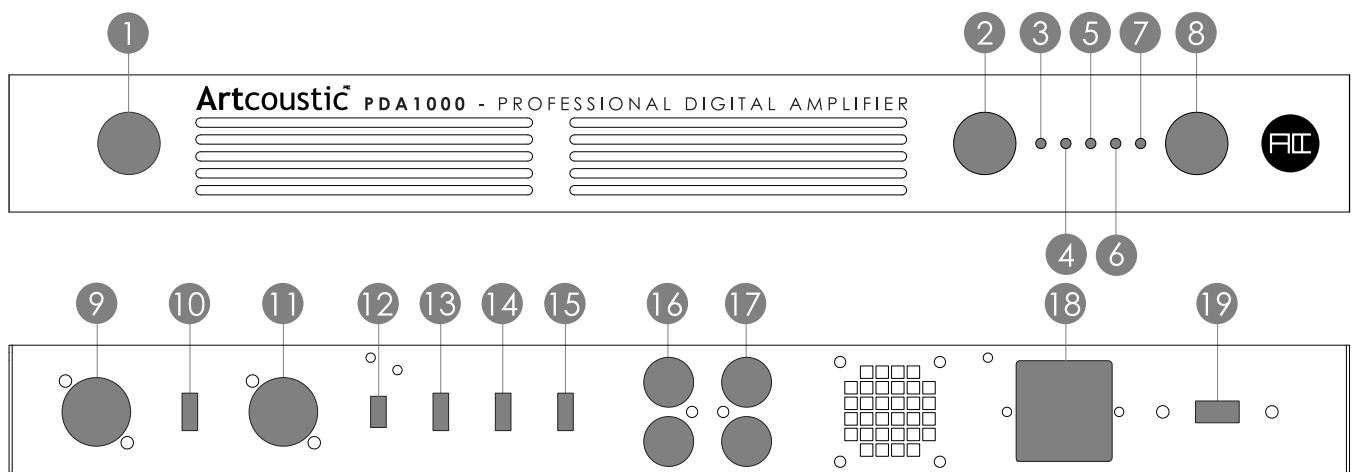
PDA1000 Technical Specification

Stereo 2 x 450 watt 8 ohm

Bridged 1 x 1000 watt 8 ohm

Max Power Consumption: 1300 watt / 3400 BTU/H

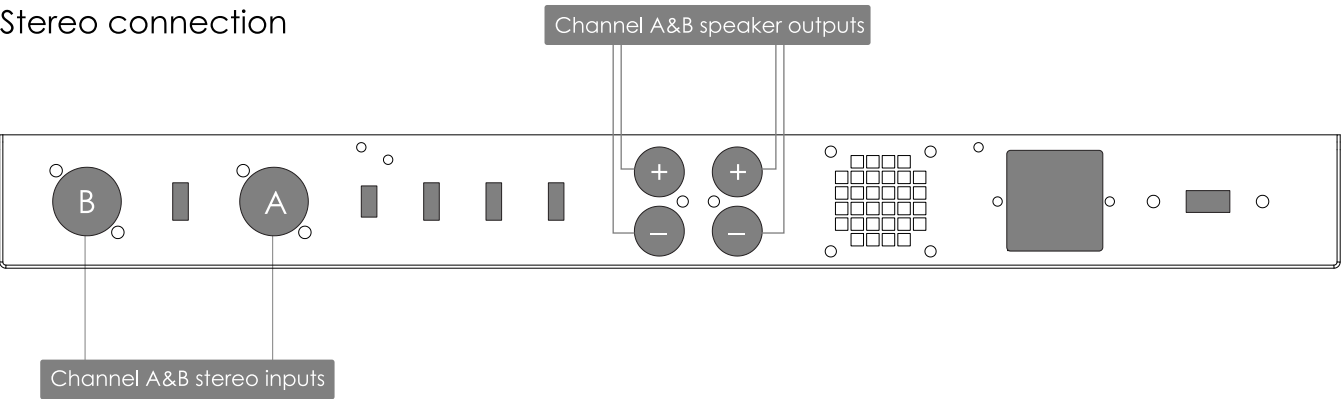
- Full range: 20 Hz-20 KHz $\pm$ 0.5 dB
- Low-pass: 20 Hz-100 Hz 24 dB/oct 20 Hz-400 Hz 24 dB/oct
- Hi pass: 100 Hz-20 KHz 24 dB/oct 400 Hz-20 kHz 24 dB/oct
- S/N Ratio: >103 dB
- THD (at 1 watt into 8 ohms 1KHz): <0.05%
- Damping factor: >300
- Input impedance: 20 Kohms balanced
- Maximum input level: 7 V
- Load impedance: 4-8 ohm
- Input sensitivity: (0 dB)
- Power supply: 115 V/230 V-50/60 Hz
- Input terminal: XLR
- Output terminal: Binding post
- Protection: Heat, over current, Short and DC
- Dimensions (H x W x D) : 44 x 430 x 180 mm
- Weight: 2.8 Kg



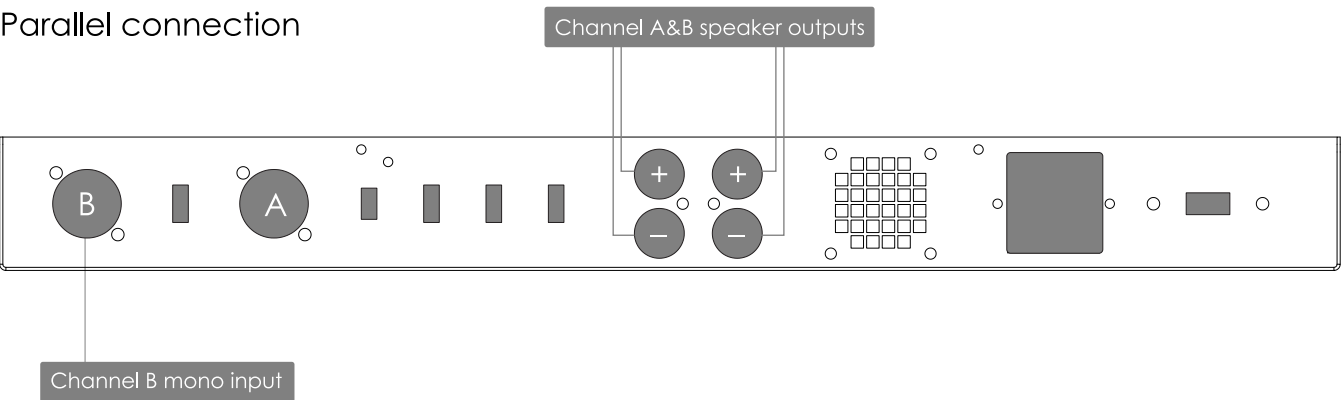
- | | |
|-------------------------------|--|
| 1. On/Off Switch | 9. Channel B XLR Balanced Input (Bridged Input) |
| 2. Channel A Volume Control | 10. Input Setting, Parallel, Stereo and Bridged |
| 3. Channel A Signal Indicator | 11. Channel A XLR Balance Input |
| 4. Channel A Clip Indicator | 12. Ground Lift |
| 5. Power On Indicator | 13. High-Pass Filter |
| 6. Channel B Clip Indicator | 14. Low-Pass Filter |
| 7. Channel B Signal Indicator | 15. ASOF EQ |
| 8. Channel B Volume Control | 16. Channel B Speaker Outputs |
| | 17. Channel A Speaker Outputs |
| | 18. AC Power Socket |
| | 19. Voltage Selector |

CONNECTIVITY

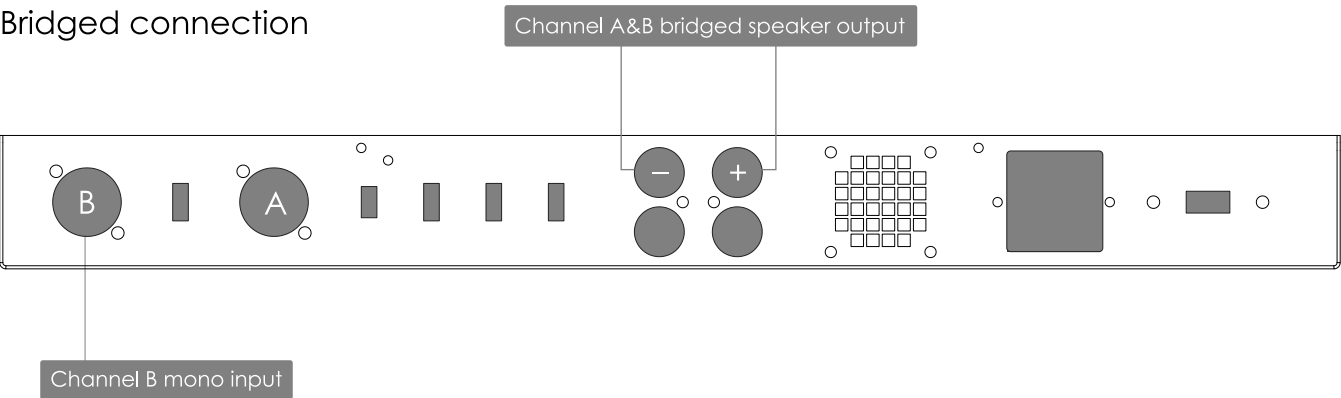
Stereo connection



Parallel connection



Bridged connection



SAFETY INSTRUCTIONS

SAFETY:

1. Do not use this product near water.
2. Clean rear panel only with dry cloth.
3. Do not block any ventilation openings.
4. Do not install near any heat sources, such as radiators, heat registers, stoves.
5. If wall mounted, make sure sufficient rawl plugs and matching screws are being used.

Refer all servicing to qualified service personnel. Servicing is required when the product 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 product, the product has been exposed to rain or moisture, does not operate normally or has been dropped. To completely disconnect unit power from the AC mains, disconnect the unit's power cord from the mains socket.

WARNING:

To reduce the risk of fire and electric shock do not expose this product to rain or moisture.

1. Do not place product filled with liquids such as vases on the product .
2. Do not open product. There are no user-serviceable parts inside.
3. Always use the power supply shipped with this product, using a power supply with wrong voltage or polarity, can damage the electronic

This product complies with Part 15 of the FCC Rules. Its operation is subject to the following two conditions:

This product may not cause harmful interference,

This product must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

WARRANTY:

Is valid only for products purchased from an authorized Artcoustic retailer or dealer.

Is valid from the date of purchase for a period of 3 years for passive loudspeakers, 2 years for powered loudspeakers and electronics.

Is limited to the repair of the equipment (which could be a repair or replacement at our discretion, neither of which affects your original warranty). Neither transportation, nor any other costs, nor any risk for removal, transportation and installation of products is covered by this warranty.

Is only valid for the original owner. It is not transferable.

Will not be applicable in cases other than defects in materials and/or workmanship at the time of purchase and will not be applicable:

For deterioration of component parts, the nature of which is to become worn or depleted with use, such as batteries. For damages caused by incorrect installation, connection or packing.

For damages caused by any use other than correct use described in the user manual, negligence, modifications, or use of parts that are not made or authorized by Artcoustic UK Ltd.

For damages caused by faulty or unsuitable ancillary equipment

For damages caused by accidents, lightning, water, fire heat, war, public disturbances or any other cause beyond the reasonable control of Artcoustic UK Ltd. And its appointed distributors.

If it is found necessary to return the product for repair, you may be given a Return Merchandise Authorization. You should not return the product without this authorization, if given.

To validate your warranty, you will need to produce the original sales invoice or other proof of ownership and date of purchase.