Manchester - England

BRS-12A3

12" active 3 channel subwoofer

User Manual

OHM (UK) LTD

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Contents

Introduction

Welcome to the Ohm family.

We have spent the last 40 years perfecting building practices, honing the acoustic envelope whilst constantly redefining what is possible in pursuit of the perfect product.

Thank you for your faith in our products and purchasing this equipment that we are proud to manufacture. Everything we make is built with care and consideration, delivering many years of sonic excellence with industry leading reliability.

We hope you enjoy using your new equipment.

Unpacking

Upon delivery, please check the carton and BRS-12A3 for damage which could have occurred in transit. If any is found, please contact the delivery courier to start a claim. Keeping the packaging is a great way of making sure that any future vacations the unit needs to make are as secure as possible.

This BRS-12A3 has been made with our environment in mind. There are many items used in its manufacture which are highly recyclable when the unit has reached the end of its useful life. Please contact your local authority to arrange responsible disposal.

Register your product

Remember to register your product to take advantage of our free 1 year extension. Simply fill in the warranty form included with your product and return to us within 90 days of purchase.

We acknowledge all warranty applications by email. It's important to keep this notification for future reference

Safety Precautions

Read these instructions carefully to help avoid personal injury and equipment damage.

Professional loudspeaker systems can create sound pressure levels that can be dangerous to health.

Even moderate sound levels (90 dB SPL or more) can cause permanent damage to hearing if you are exposed to it over a long period.

To help prevent injury, please refer to the following information:

- **Be sure to leave enough distance between speakers and the public**
- **Ensure that all hardware, fixings and fasteners used for installation, mobile, hung or ground-stacked use are of an appropriate size and load safety factor. Pay attention to all instructions and relevant safety guidance on datasheets**
- **Regularly check the loudspeaker cabinets, accessories and load bearing bolts for visible signs of wear & tear. Replace when necessary**
- **Read, retain and fully understand the user manual before use**
- **Do not install near heat sources e.g. radiators, heat registers or fires and avoid direct sunlight**
- **Keep away from moisture, humidity or rain. Liquid should not be stored/placed on top of the unit**
- **Keep all ventilation surfaces clean and un-obstructed**
- **This CLASS 1 product always requires an earth connection when connected to mains power**
- **Before powering up the system, make sure all connections have been properly made**
- **Ensure all wiring is safe to use and complies to your local standards**
- **Unplug the unit when not in use, during electrical storms or mains voltage disturbance**
- **To prevent shock risk, never open this product; there are no parts inside that are serviceable by the user**
- **Do not attempt to modify or change the unit's operational specifications**
- **For service, please return the module to Ohm for appropriate care**
- **This product requires a mains connection to work**
- **If the unit works in an unintended way, disconnect from the power and contact Ohm for support**
- **Do not suspend the unit from its handles**
- **Ohm strongly recommends this product is only installed/operated by qualified professionals**
- **This BRS-12A3 is not designed for permanent outdoor use**

Potential risk of equipment damage.

Speakers have a permanent magnetic field. Magnetic fields can cause damage to magnetic data media, Hard disk drives and other equipment. Keep all loudspeakers at least 1m away from sensitive equipment.

BRS-12A3 Subwoofer

Description:

BRS-12A3 is a compact, active, 3 channel subwoofer system with 1 x 12" long excursion driver. Integrated Class D amplifiers deliver 2 kW's of output through 3 DSP channels which can be adjusted locally or remotely configured through a Windows PC or Mac computer which has Pro A Sync software installed.

A low-profile design height of 333 mm allows for installation in confined spaces, under seating or ceiling mounted (using optional hardware).

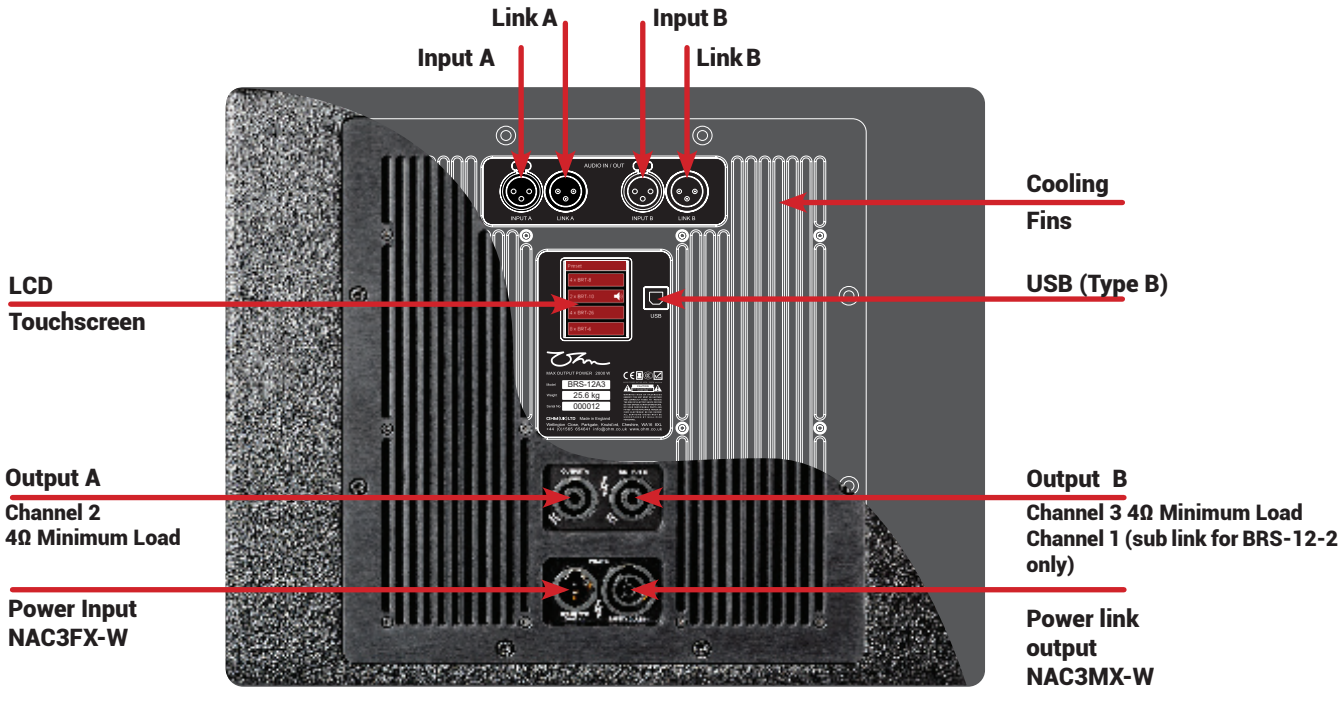
Designed with integrated handles and pole mounting plate for portable applications.

Key Features:

- **3 Channel amplified system with parallel subwoofer output**
- **Rebated Baltic Birch Plywood construction**
- **Universal 100 to 240 Volt mains operation (AC only)**
- **Integrated Class D Power modules**
- **Passive cooling provides silent operation and low maintenance**
- **Fully integrated peak and RMS limiters with active Gain Reduction**
- **LCD touchscreen selection and adjustment to gain, preset, phase and channel mutes**
- **2 kW Amplification, 1 kW for internal bass driver & parallel Sub, 2 x 500 W for satellite loudspeakers**

Rear Panel Overview

Audio input & signal link outputs



System Wiring

Mains Wiring

The mains input and power link output are via Neutrik powerCON True1 connectors. The input connector (NAC3FX-W) is supplied with the unit. The output link is type NAC3MX-W and available separately.

Only flexible copper wire should be used. We recommend a minimum diameter of 1.5mm per conductor but recommend 2.5mm. Colour coding for wiring alters from one region to another. Please check and confirm your local colour code.

Region	Phase (Live)	Non-phase (Neutral)	Earth
Europe, South Africa	Brown	Blue	Green/Yellow striped
Australia, New Zealand	Brown or Red	Blue or Black	Green/Yellow striped
Brazil	Yellow or Red	Blue	Green
USA, Canada	Black	White	Green/Yellow striped
Asia	Red / Yellow / Blue	Black	Green/Yellow striped

Insert the phase conductor into the receptacle marked (L) and tighten the screw terminal with a T8 Torx bit. Repeat the process with the non-phase conductor into the (N) connection and the earth wire into the (earth symbol) connector on the trueCON plug. Refit the cable clamp and tighten the collar onto the plug chassis.

All mains wiring should only be carried out by a competent, qualified electrician.

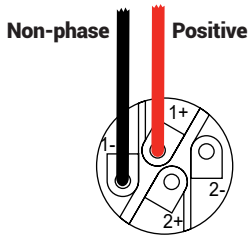
Speakon Wiring

Two 4-way speakON® connectors are used for connections to satellite mid-high speakers & subwoofer. Mating connector type is NL4FC.

Wiring is as follows:

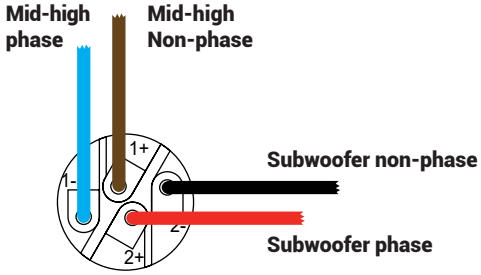
Channel A Output

1+ Phase output
1- Non-phase output



Channel B Output

1+ Phase output
1- Non-phase output
2+ Subwoofer phase output
2- Subwoofer non-phase output



Do not overload the internal amplifiers by using unsuitable loads/impedances. The mid-high outputs are designed to give maximum output at 4Ω. Ensure all cabling is in good condition with suitable connectors terminated appropriately. Failing to consider output impedances or using poor quality/damaged cables will significantly impact sound quality and system reliability.

XLR Wiring

XLR Input sockets are provided to connect a signal source. Output links offer the ability to daisy-chain low level input signal to another BRS-12A3 system.

Wiring is industry standard with the following assignments:

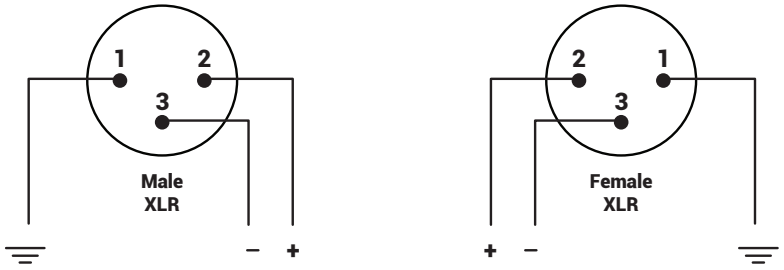
Pin 1 Chassis/Ground

Pin 2 Phase/positive (hot) signal

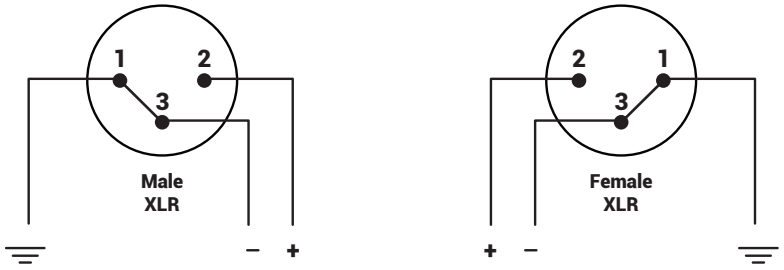
Pin 3 Non-phase/negative (cold) signal

When using the system with an unbalanced input, link pins 1 & 3 together.

Balanced XLR



Unbalanced XLR



Additional Deployment and Operating Precautions

Safety should be the first and foremost consideration when using this system.

For stability, the BRS-12A3/BRS-12-2 should not be used on a surface with more than +/- 5° incline if satellite speakers are being pole mounted using the threaded insert adaptor.

If the unit has been stored in a cold environment, it should be allowed to come to room temperature before use. If condensation forms on the rear panel, ensure the unit has dried before powering the system.

Do not use this unit without an earth connection. Ensure that any input source is connected to the same mains circuit & earth point as the BRS-12A3 to avoid mains earth hum-loops.

Cables to and from the unit should be placed in a way that does not present a trip hazard. Ensure all cabling is free from damage and that all connectors are properly seated before powering the system. Do not site the system close to heat sources and ensure that there is sufficient air flow to prevent overheating.

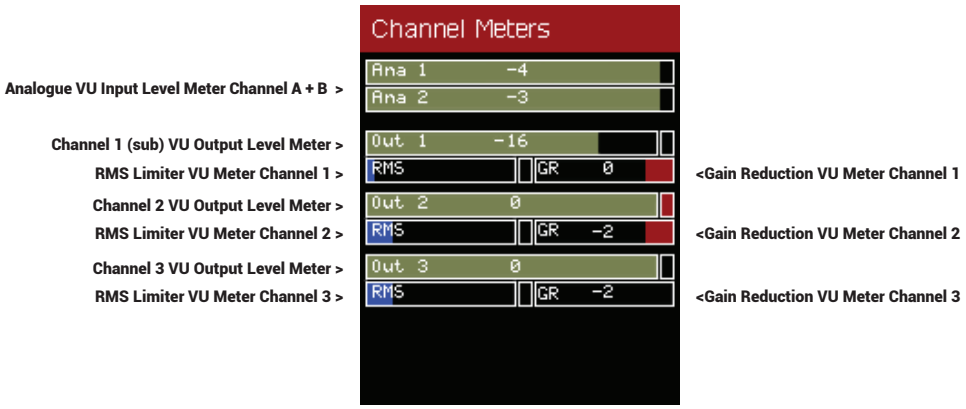
Under no circumstances should this system be used in environments with high humidity or rain. If possible, try to site the amplifier panel out of direct sunlight to reduce thermal loading and increase LCD visibility.

Only use genuine OHM accessories with this product

LCD Touchscreen

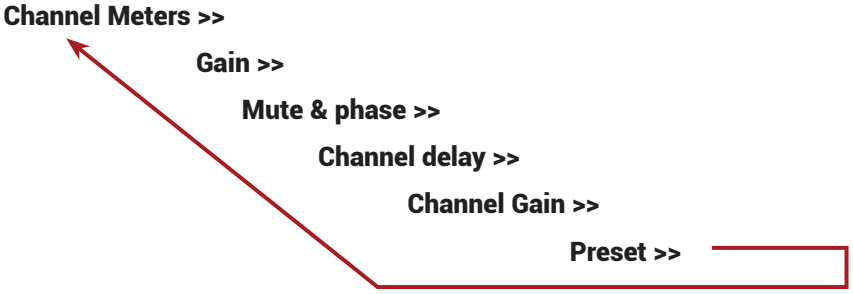
LCD Control and Menu Overview

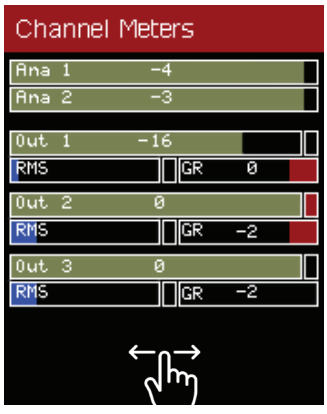
In simple system set-ups, the unit can be controlled entirely via the touch-screen display. After initial power-up, the main screen on the LCD displays the Channel Meters screen. This shows VU input and output gains, gain reduction levels and peak/RMS limit status.



The touchscreen menus operate with swipes from the left of the screen to the right to progress through the different pages. A finger tip dragged gently across the bottom section of the screen works best to change screens.

Swiping scrolls through the six screens as follows:





*It is normal for the VU meters to fluctuate slightly when no input signal is present.

**Throughout this manual, input A & B and input 1 & 2 are used interchangeably.

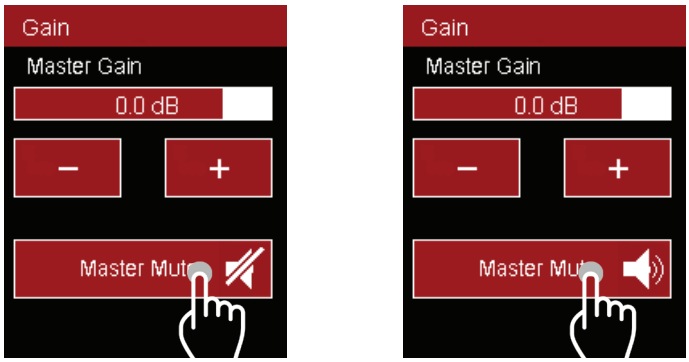
Adjustment

Item adjustment is done by lightly tapping the appropriate box displayed on-screen. Individual taps are required to adjust items. Pressing and holding screen buttons will not give consistent results.

When a menu page has been selected, the page will time-out after 15 seconds if no user input on the LCD is detected and return to the Channel Meters screen.

Preset selection and gain adjustment is remembered after power-off and re-applied when power is connected.

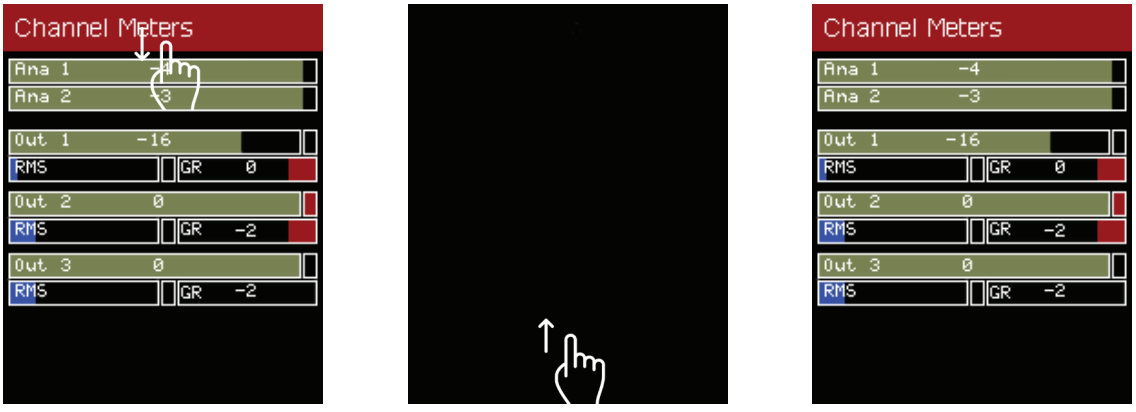
All function buttons (master mute, individual mutes and phase correction) behave like toggle button. Press the button once to activate it (the icon will change to confirm the function is active), then press the button again to turn it off (the icon will return to its normal view confirming the function is switched off).



Screen Off

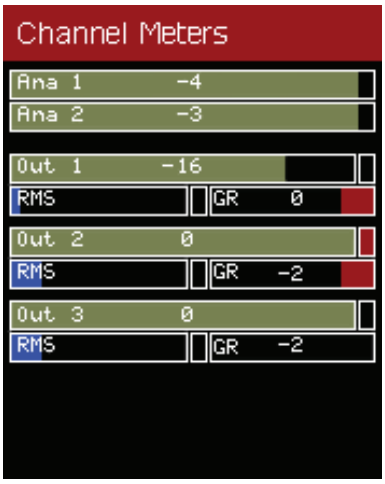
The LCD screen has a screen-off function. This can reduce rear facing glare when used in dark environments. It can also protect the unit from unauthorised adjustments after the system has been set.

To switch screen off: Swipe from the middle top of the display to the middle of the bottom.
To turn the screen on: Swipe from the middle of the bottom of the screen to the middle of the top.



Swipe down to turn off **Swipe up to turn off**

LCD Touchscreen Menu Tree



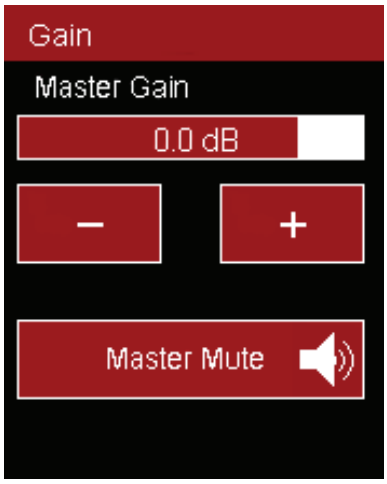
Channel Meters:

A visual display of input and output levels.

RMS capacity is shown in blue.

Gain reduction shown in red.

Gain reduction increases audio compression and degrades system performance.

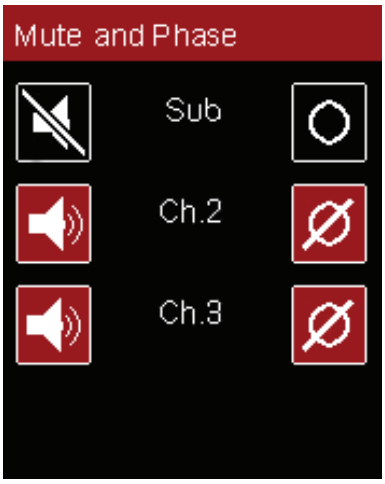


Master Gain & Master Mute:

System output level can be Adjusted from here. Minimum input = - 60dB. Maximum gain is +20dB. Best sonic performance is achieved between -50dB and +5dB.

The Master mute function mutes all channel simultaneously.

When the speaker icon has a diagonal line through it, the outputs are muted. Press the button again to un-mute. The icon will return to a speaker.



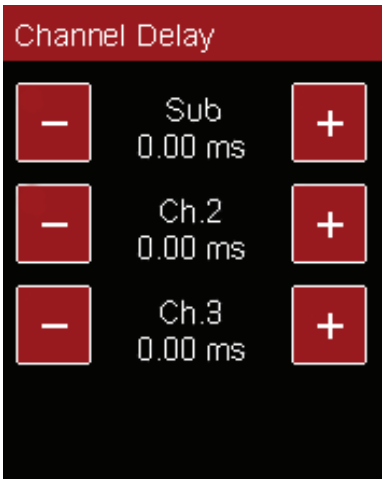
Mute and Phase:

Individual channel mutes and phase is adjusted on this page.

Mutes buttons are shown on left, phase buttons on the right.

When the speaker icon is on a black backgrounds and has a diagonal line through it is muted.

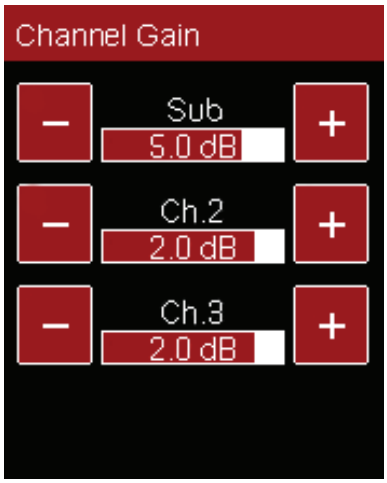
The circle icon relates to phase. When it is on a red background it is phased normally. When it is on a black background it is 180° out of phase.



Channel Delay:

Minus (-) buttons reduce the delay on each channel individually. The (+) plus buttons increase the delay to each channel.

Minimum delay is setting is 0.00 mS. Maximum delay is 10 mS per channel.



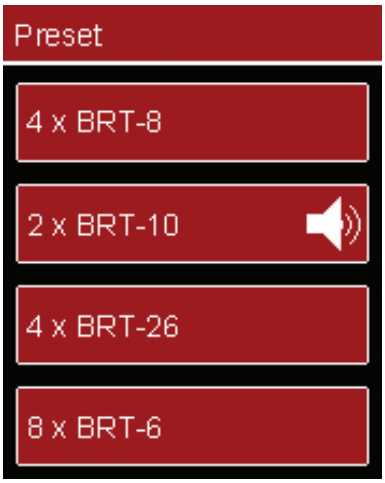
Channel Gain:

Minus (-) buttons reduce the gain on each channel individually.

The (+) plus buttons increases the gain to each channel.

Minimum gain is -60dB, maximum gain is +17dB.

Best sonic performance is realised between -60dB and +5dB.



Preset Selection:

To select a preset, press the appropriate preset button. After a short delay, the speaker icon will move to the newly selected preset.

Swiping up and down reveals more presets if they are available.

Initial System Testing

After the system is fully wired and all speakers are in their final positions, apply power to the BRS-12A3 whilst making sure that input signal is turned off.

Once the system has powered up, completed its self-test and is displaying the signal screen, gently turn the input signal up and confirm all internal and external drivers are working as expected.

Basic individual channel adjustment to gain, mute and phase can be done via the rear LCD screen or for more in-depth features, on any USB connected Windows or Mac computer running Ohm's Pro-A-Sync software.

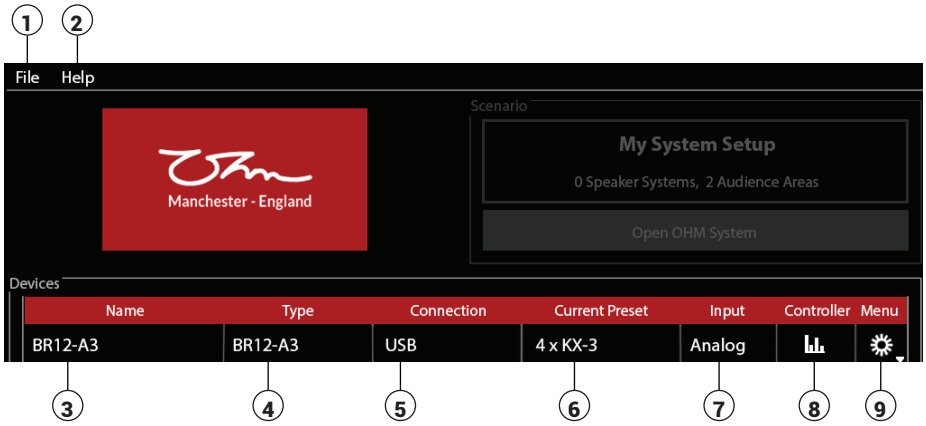
Pro-A-Sync Software

Download Software

This unit when connected via a USB lead to a compatible computer can run Ohm's proprietary Pro-A-Sync software which gives greater control over the performance and setup of the unit.

Visit www.ohm.co.uk/downloads to download the current version of Pro-A-Sync for your computer (macOS and Windows versions are available). Once installed, power up the BRS-12A3 and connect a USB type A to B lead from the computer to the module located on the rear of the BRS-12A3. The unit should be found and will populate the Devices section of the menu.

Start-up Window



1. File

   Clicking file gives you the options to install speaker definitions, manage speaker definitions, install DSP Definitions, manage DSP Definitions and create demo device from DDD (Device Definition Data file). (Not applicable on BRS-12A3)

2. Help

   Clicking Help allows you to select a demo device, and get information about the software version you are using. (Not applicable on BRS-12A3)

3. Name

   This field is used to label the unit. Click the Menu cog, then click the Device Name box and type a suitable new name. Press enter when complete.

4. Type

   Displays the Model of the unit that is selected

5. Connection

   This will show the USB COM port which the unit is connected to

6. Current Preset

   Select by double-clicking the box, then on the triangle, then the desired preset.

7. Input

   Displays input type. This unit uses analogue input signals

8. Controller

   Gain, PEQ & mute adjustments. Click this button to open a new controller window. **See page 14**

9. Menu

   Shows device information and firmware update feature.

Menu and Firmware Updates

At the main window, click the menu cog in the menu section of the screen.

Click Device info to either change the Device Name or confirm which firmware is running on the unit.

To update the firmware on the unit, click the menu cog **. Then select Update Firmware option*. A menu box will appear detailing what firmware is currently installed and if there is a newer version available. If there is newer firmware available, click the Yes, to install it. An update window will show progress of the update.

Simply click on the firmware update. A box will appear which will warn that the device will be updated with the current

firmware will be re-installed. Click Yes, please reinstall. A menu box will show progress of the update.

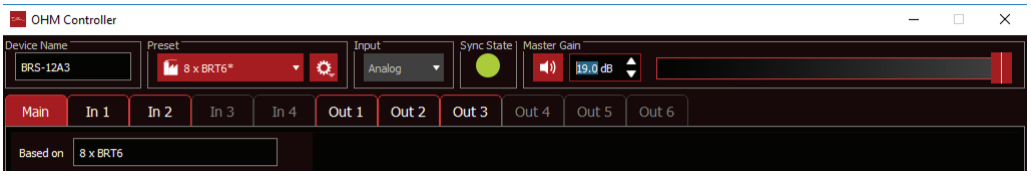
*** NEVER DISCONNECT THE POWER DURING A FIRMWARE UPDATE. This WILL permanently damage your equipment and invalidate your warranty.**

**** Important note for Firmware Updates. - The computer connected to the device MUST have an active internet connection for this feature to work.**

Controller Window

This is used to adjust channel output gains, phases, mutes and PEQ. Select this from the main Devices window by clicking the controller button

Header Menu



1. Device Name

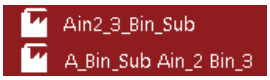
   Name of the device connected to the software.

2. Preset selection

   This option allows different presets to be recalled. Simply click the triangle on the right of the box, a drop-down menu will appear with your presets listed. Select one by moving the highlight to your selection and clicking on it. The preset will become active.

   There are two routing blank presets to choose from.

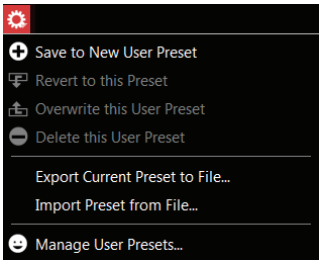
   Ain_2_3_bin_SuB. This is a mono preset, routing input A to outputs 2 and 3. Input B is routed to the subwoofer channel 1.



   A_Bin_Sub Ain_2 Bin_3, This is a stereo blank preset, Routing Input A to output 2, Input B to output 3. The Subwoofer channel 1 is Summed from Input A and input B.

3. Preset Options

   Clicking the preset cog button reveals a drop down menu for; saving current preset, revert to the original preset, overwrite the current preset and import and export of current presets for backup purposes.



   Save new user preset - Click preset cog, click the "Save New User Preset" option. Type the name of the new preset and press enter. This new preset is now stored.

   Revert to this preset - When alterations have been made to a preset which you are not happy with, simply click the preset cog then select "Revert to this preset" option. This will re-load the previously saved version of the file.

   Overwrite this preset - Once settings have been adjusted, click the preset cog then click "Overwrite this preset" to save the new adjustments to the currently recalled preset. This action cannot be undone.

   Delete this user preset - Selecting this option will delete the currently recalled preset. This action cannot be undone.

   Export current preset to file - Use this option if you wish to run the current preset on another unit or make a copy/backup of the file. Simply select "Import preset to file" option, in the new pop-up window, navigate to the file location on your computer you wish to load, and press enter to confirm. This will store the preset locally on the BRS-12A3.

   Import preset from file - Use this option if you wish to load a previously saved preset onto this unit. Simply select "Import preset from file" option, in the new pop-up window, type the name you wish to call the file, and select a location to store the file. Press enter to confirm.

   Manage User Presets - Use this function if you wish to delete multiple presets or change file names. Please note that factory loaded presets (denoted by a factory symbol in the preset list) cannot be deleted. User presets are show with a smiley face.

4. Input

Analog input only applicable on BRS-12A3

5. Sync Status

This shows the current connection status to the BRS-12A3.

Green shows an active connection.

Yellow shows the unit is updating settings which have been changed.

Red shows that there is no connection between the computer and BRS-12A3.

6. Master Gain

This slider adjusts all output gains simultaneously. Whilst clicking on the slider, drag to adjust gain. Clicking the up & down arrows next to the gain number will increase the gain in 1dB increments. Double clicking the gain number allows direct entry of a number. Hit enter to submit your adjustment in the case of direct numerical entry.

Master Mute - **This button mutes all output channels simultaneously.**

Click the button once to toggle the mute on.

Click again to un-mute.

7. Selection Tabs

The software is split into three screens, MAIN, IN and OUT. There are 4 available input channel tabs, (2 on BRS-12A3) and six available output channel tabs (3 on BRS-12A3) depending on which unit is connected. To access any screen click the relevant tab. The red tab denotes the screen currently being viewed. Unavailable tabs are greyed out as shown by the In 3 & 4, Out 4, 5 & 6 tabs on the picture shown on page 14.

Main Tab - Clicking on this tab allows access to main crossover settings, channel links, channel mutes, gain reduction sliders, RMS limiters & gain sliders. See page (16)

Channel Input Tabs - **Clicking on these tabs allows access to input channels, input and output VU meters, input gain slider, parametric equalisation (PEQ), delay, mute, phase, high pass, low pass settings and frequency view. See page (17)**

Channel Output Tabs - **Clicking on these tabs allows access to output channels,input and output VU meters, limiter settings, output gain slider, parametric equalisation (PEQ), delay settings and frequency view. See page (18)**

8. Based on

Name visible here equals the preset currently in use.

Main Tab

1. Channel link

   This feature allows both input channels to be linked together. This allows simultaneous adjustment of both Input Gain Levels, EQ, Limiting and Delay. Click the link button, in the pop-up box select which channel you would like to synchronise. You can link input 1 to 2, or 2 to 1. Once linked any changes on either input will be reflected on the other input. When you have selected your option the link button will have a white highlight around it to indicate it is active.

2. Channel Mutes

   These buttons allow each channel to be muted individually. Click the button below the appropriate channel. This will change to a symbol of a speaker with a white highlight around it to indicate the mute is active.

   Click the same channel mute button to un-mute the channel. The button will change to a speaker with lines radiating from it to indicate the channel is now live.

3. Gain Reduction VU Meters

   This VU meter shows a visual indication of how much peak limit is being applied to the output. Gain reduction is used to reduce channel output once it passes the threshold set. The more gain reduction is applied, the more compressed the audio signal will become. Best audio performance is achieved when least gain reduction is applied. The meter is marked in dB. Maximum gain reduction is -12dB

4. RMS limit VU Meters

   This VU meter shows a visual indication of how much RMS limiting is being applied to the output. RMS limiters allow outputs to be restrained without the typical "compression" heard in traditional limiters by allowing headroom for transients in music whilst keeping overall levels of signal at the limiter threshold setting. Good performance is enjoyed by keeping the RMS limiter below 85%.

5. Gain Sliders

   These sliders allow instant access to individual gain adjustment per channel. Either click, hold and drag the slider know up and down to control the output of that channel, or hover over the dB figure at the bottom of the slider and click rapidly 3 times to highlight the number in blue. Click delete then enter the gain figure you would like and press return.

   Remember that positive numbers can be entered directly whilst negative numbers require a minus (-) to be entered before a gain number.

6. Input / Output VU Meters

   This VU meter shows a visual indication of input / output performance.

7. Peak limit indicator

   A visual indication that the peak limiter is active when red.

Input Tab (EQ)

1. Output VU meters

   Visual representation of amplifier outputs for channels 1, 2 & 3.

2. Input VU meters

   Visual representation of signal inputs 1 & 2.

3. Input gain slider

   Directly control input gain by clicking and dragging the slider or rapidly clicking 3 times on the dB figure, click delete and enter a number. Press return to submit the gain change when entering numbers directly.

4. Delay

   Adjust input delay with this option by either clicking on the smp (samples), mS (milliseconds) or mm (Millimetre) box rapidly 3 times, press delete then enter a number followed by return to submit the change to the controller. Alternatively, you can adjust these settings by clicking on the up and down arrows on each box to change the figure incrementally.

5. PEQ

   This table is split into 10 columns. Clicking the number turns that filter on and off.

   EQ type - Click this box, then the drop-down triangle and a pop-up box will appear with a choice of filter options are available.

   Frequency - Click the box once, enter a number and press enter to change the frequency of that node.

   Clicking the box and using the up/down keys on the keyboard or the right of the box allow incremental changes. Minimum frequency is 20 Hz. Maximum is 24 kHz.

   Gain - Adjust the gain of the filter by clicking on the gain box and entering a number followed by the return key. Minimum gain is -80dB, maximum is +20dB.

   Quality - Use this box to change the quality (width) of the filter slope. Click the box and enter a number followed by enter to update the setting. 0.1 is maximum, 1000 is minimum width.

   Reset - This buttons resets the node to how it was before the settings were changed.

   Any changes to the filter nodes mentioned above are reflected in the frequency view section. See below.

6. Frequency view - **As nodes are altered and switched on or off, they will be populated in this section of the window to demonstrate visually how you are altering the response of that channel. When a filter node has been switched on, and is visible in the chart, you can click, hold and drag the node within the chart to make rough, on-the-fly adjustments to frequency response.**

Pro-tip:

In general, adjustments to overall system sound should be done via input PEQ rather than output PEQ. Systems should be tuned with negative cuts rather than additive gains to stop driver over-excursion or generate unwanted heat within voice-coils or crossovers.

Output Tab (EQ)

1. Output VU meters

Visual representation of amplifier outputs for channels 1, 2 & 3.

2 Limiter settings

Use these settings to restrict performance of the unit.

Impedance - This setting is adjusted by either clicking the up/down arrows in the box or directly entering a number followed by enter. Press Submit to update your changes.

Peak Threshold - Enter the maximum wattage you want to send to your speakers. Click the box twice then enter a numerical value. Press enter and then click Submit to update the DSP.

RMS Threshold - Enter the maximum RMS power you want to send to your speakers. Click the box twice then enter a numerical value. Press enter and then click Submit to update the DSP.

RMS Time Constance - This setting alters the time maximum RMS power is supplied to the speakers before limiting occurs. Click the box twice then enter a numerical value. Press enter and then click Submit to update the DSP.

RMS Release Time - This setting adjusts the slope of gain reduction when the limiter is turning off. Click the box twice then enter a numerical value. Press enter and then click Submit to update the DSP.

3. Output gain slider

Directly control output gain by clicking and dragging the slider or rapidly clicking 3 times on the dB figure, click delete and enter a number. Press return to submit the gain change when entering numbers directly.

4. Delay

Adjust output delay with this option by either clicking on the smp (samples), mS (milliseconds) or mm (Millimetre) box rapidly 3 times, press delete then enter a number followed by return to submit the change to the controller. Alternatively, you can adjust these settings by clicking on the up and down arrows on each box to change the figure incrementally.

5. Mute

Click this button to mute the channel you are viewing. This will change to a symbol of a speaker with a white highlight around it to indicate the mute is active.

Click the button again to un-mute the channel. The button will again change to a speaker with sound coming from it to show the output is active again.

6. Phase

Click this button to reverse the phase of the channel you are viewing. The button will be highlighted with a box to show the function is active. Click the button again to change the phase back to 0°. The button will change and the highlight will be removed.

7. Low pass

Click the tick box to add a low-pass filter to your preset. To enter a number, rapidly click 3 times on the frequency box, press delete to clear the current data then enter your new frequency and press enter to submit your change.

To alter the slope type, click the centre box to choose between a selection of different filter slopes.

To alter the slope rate, click the right box and choose between 2 and 10 to adjust the slope angle. Changes are reflected in the graph.

8. High pass

Click the tick box to add a high-pass filter to your preset. To enter a number, rapidly click 3 times on the frequency box, press delete to clear the current data then enter your new frequency and press enter to submit your change.

To alter the slope type, click the centre box to choose between a selection of different filter slopes. To alter the slope rate, click the right box and choose between 2 and 10 to adjust the slope angle. Changes are reflected in the graph.

9. PEQ

This table is split into 10 columns. Clicking the number turns that filter on and off.

EQ type - **Click this box, then the drop-down triangle and a pop-up box will appear with a choice of filter options are available.**

Frequency - **Click the box once, enter a number and press enter to change the frequency of that node.**

Clicking the box and using the up/down keys on the keyboard or the right of the box allow incremental changes. Minimum frequency is 20 Hz. Maximum is 24 kHz.

Gain - **Adjust the gain of the filter by clicking on the gain box and entering a number followed by the Return key. Minimum gain is -80dB, maximum is +20dB.**

Quality - **Use this box to change the quality (width) of the filter slope. Click the box and enter a number followed by enter to update the setting. 0.1 is maximum, 1000 is minimum width.**

Reset - **This buttons resets the node to how it was before the settings were changed.**

Any changes to the filter nodes mentioned above are reflected in the frequency view section. See below.

10. Frequency view

As nodes are altered and switched on or off, they will be populated in this section of the window to demonstrate visually how you are altering the response of that channel. When a filter node has been switched on, and is visible in the chart, you can click, hold and drag the node within the chart to make rough, on-the-fly adjustments to frequency response.

NB: Some filters and/or options are not available on all channels.

Technical Specifications

Design
12" Active Subwoofer with integrated DSP, Reflex Tuning

Amplifier Gain
26 dB

Internal Power Amps
Subwoofer - 1050 W RMS @ 4Ω
Mid-high - 2 x 500 W RMS @ 4Ω

Internal DSP
32 bit floating point DSP

Sensitivity Chassis 1w/1m
96 dB

Max. SPL
123 dB cont. / 129 dB peak (frequency dependent)

Frequency Response (±3 dB)
39 Hz – 110 Hz

Usable Frequency Range (-10 dB)
33 Hz - 110 Hz

Mains Input Voltage
110 - 240 V AC only

Mains Input Power Draw (max)
400 W

Dispersion
OMNI

SYSTEM OPERATION

System Controller
Integrated DSP

Input connection
Balanced XLR input with parallel link outputs

Protection
Internal multi-band Peak and RMS Limiter. DC, HF and thermal protection

PRODUCT FEATURES

Components
1 x 12" Low Frequency Driver

Crossover
Variable

Connectors
2 x XLR female, 2 x XLR male, 2 x 4 pole speakON® and 1 x powerCON® True1 Connector male, 1 x powerCON® True1 Connector female

Dimensions (H x W x D mm)
333.3 x 400 x 606

Weight (kg)
25.6

Shipping Weight (kg)
26.6 (1 cabinet per carton)

Colour
Black

Options
Available in white or RAL colours on request

Rigging
-

HARDWARE

Fitted as Standard
TP-1P Threaded adaptor Plate, Stacking foot system, Pocket handles

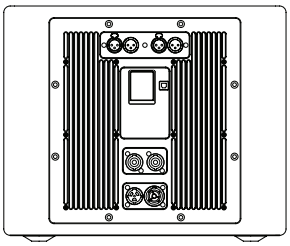
Optional
TP-1 adjustable threaded pole. BRSC-12 Cradle

Additional Descriptive Data
Birch plywood construction, with durable scratch resistant black textured paint finish, kick-proof steel grill and internal black foam with Ohm logo.

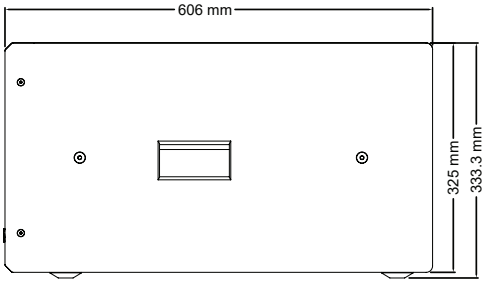
Dimensions and Accessories

2D Drawing with Dimensions

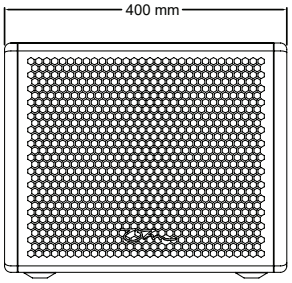
Front



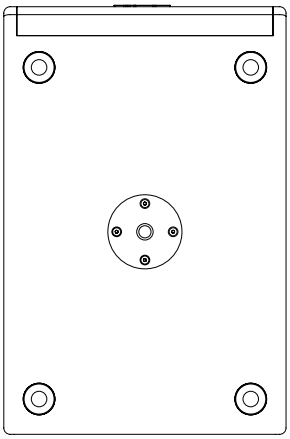
Side



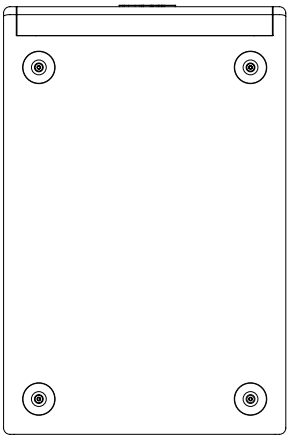
Back



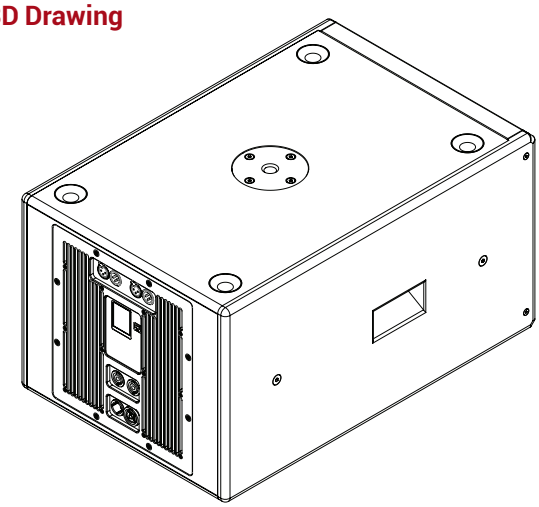
Top

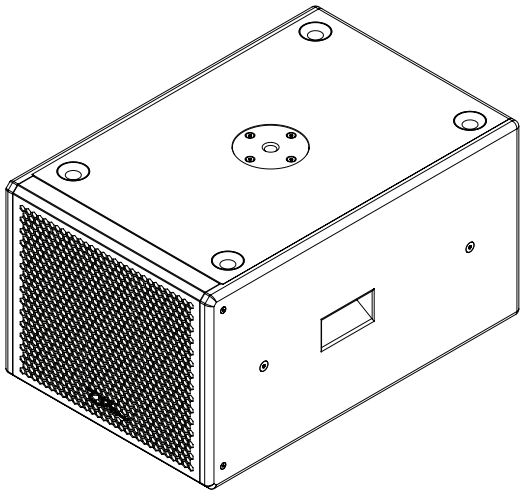


Bottom



3D Drawing





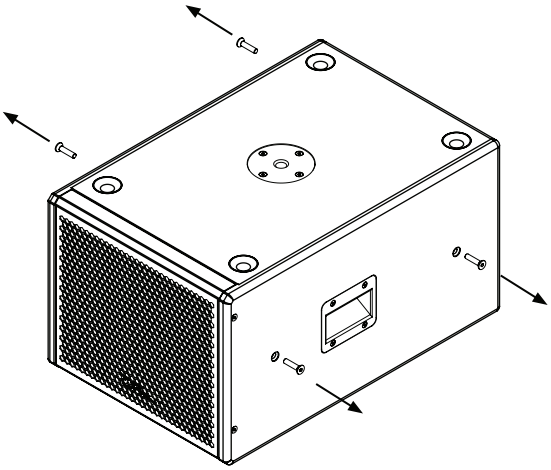
Accessories and Spare Parts

- **TP-1 adjustable threaded pole**
- **TP-1P threaded Mounting Plate**
- **BRSC-12 Cradle**
- **1 x 12" low frequency driver**
- **BRS-12A3 steel grill assembly**
- **BRS-12A3 backplate assembly**
- **Steel OHM Logo**

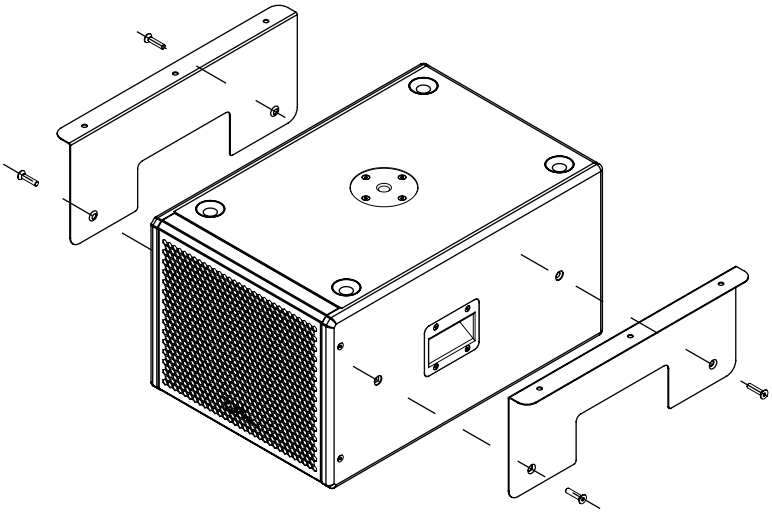
BRSC-12 Cradle fitting Instructions

The cradle can be used in a variety of positions for either ceiling, floor or wall mounting, and can be fitted to work from either top or bottom of the cabinet.

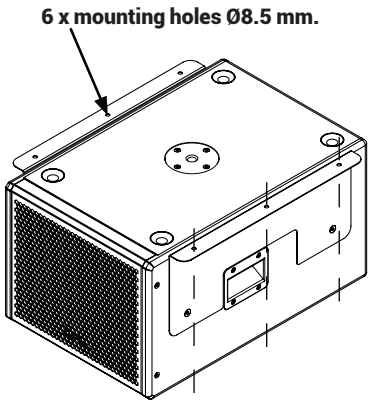
1.
Remove 4 x M8 hex bolts from side of cabinet.
Retain the screws for attaching cradle plates.



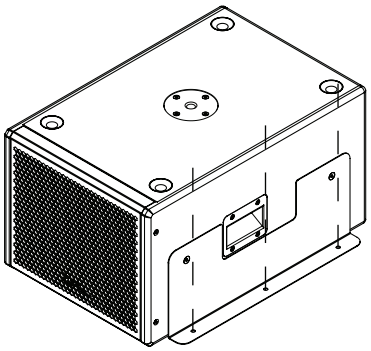
2.
Using the 4 x M8 hex bolts position and screw the cradle plate to the side mounting holes of the cabinet.
Ensure all bolts are tight.



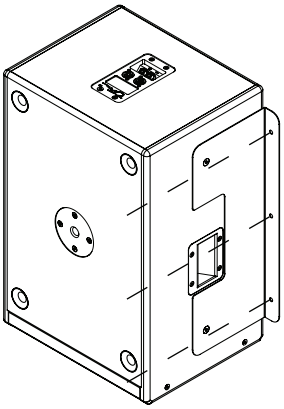
3.
Fix to ceiling, floor or wall using all 6 mounting holes Ø8.5 mm.
Ensure all fixings used are suitable for application type and weight of cabinet mounted and any supporting structure is stable enough to support the load.



Ceiling mounted.
Either directly or using truss clamps.

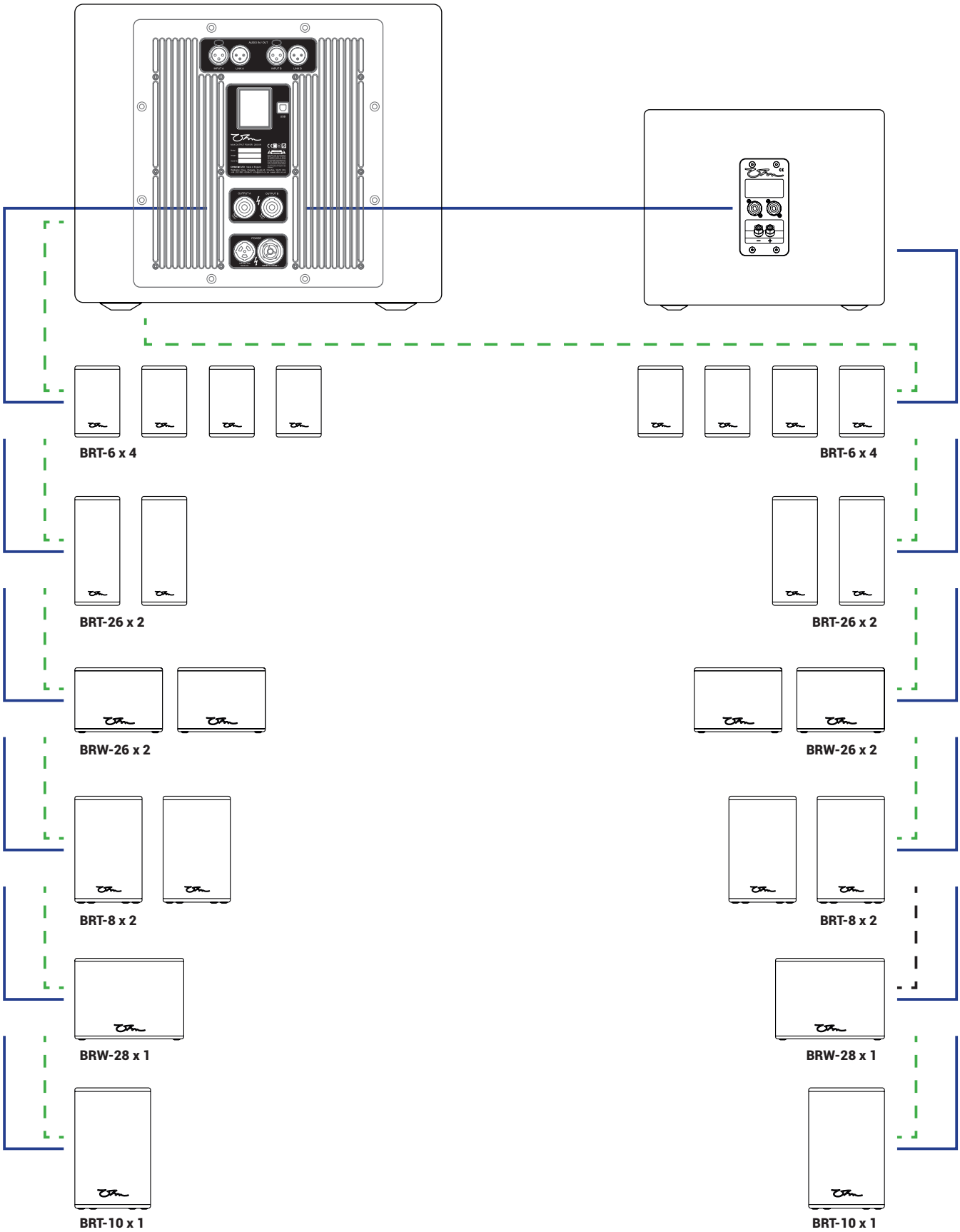


Floor mounted.
NB: if mounting from the bottom position remove feet.



Wall mounted.
Cradle can be mounted in the top or bottom position.
Minimum installation distance from floor must be 100 mm.

Example System Set-ups



BRS-12A3 solution

BRS-12A3 + BRS-12-2 solution

OHM (UK) LTD Product Warranty

In the unlikely event that you have a problem with one of our products, please see the information below.

OHM (UK) LTD Guarantees that if any product proves to be defective by reason of design, workmanship or materials, we will repair or replace the product (by our consideration) if the issue is brought to our attention within 2 years * of purchase.

- **Our warranty only covers the initial purchaser of equipment.**
- **The warranty is between the end user and the place of purchase. If the re-seller is no longer in business, we will step in and extend coverage once we establish whether the item in question is still covered by the warranty.**
- **All warranty claims must be accompanied by proof of purchase. Failure to present this will invalidate the claim.**
- ***Our 2 year warranty is comprised of 12 months standard warranty, plus a complimentary 12 month extension period when the product is registered by completing the card included with the product and returning it to our Knutsford headquarters. The warranty starts on the date the unit is delivered to the purchaser or recipient. On products which were not registered at the point of delivery, the warranty is strictly 12 months.**
- **Our warranty only covers new products.**
- **Products which have not been used in accordance with the instruction manual, or have been intentionally misused, modified, altered, repaired by third parties or had their constructional integrity damaged by way of excessive loading, impact or liquid damage are not covered in any way and will invalidate the remaining warranty period.**
- **We reserve the right to use used components if new items are no longer available or subject to long delivery times which would excessively delay the return of products back to the user.**
- **Wear and tear, incorrect adjustment and cosmetic finishes including accidental damage are not covered under this warranty.**
- **For electronic equipment, loss of data/setup/preset information is not included in our warranty.**
- **Consequential damage to other equipment connected at the time of failure is not covered.**
- **Items used outside their safe operating limits (voltage, current, moisture or heat) are not covered.**
- **Impact damage to LCD screens are not covered under this warranty.**
- **Items damaged in transit from or to us are not covered under this warranty if the item was signed for and was not checked at the point of delivery.**
- **Limited life items such as mains leads, signal leads, connectors, switches, covers are not covered under this warranty.**
- **Any item returned to us for warranty inspection becomes our property if replaced.**
- **Serial numbers which have been removed or tampered with or the removal of tamper evident stickers/labels will immediately invalidate any remaining warranty period.**
- **You are not entitled to recover, from us, any accidental damages resulting from our products used either correctly or incorrectly. This includes damages to other products, people or third parties.**
- **Any accessories used with products must be either OHM® branded or authorised by us for use with our products. Failure to do with will invalidate this warranty.**
- **Any faulty products must be returned to the factory before exchange goods are sent to replace them at the customers cost. OHM (UK) LTD will cover return shipping costs on warranty replacements.**
- **De-installation/Installation and associated costs are not covered under this warranty**
- **Technical specifications, dimensions, weights and properties are subject to variances.**
- **As manufacturers we reserve the right to make alterations and modifications to products in-line with our objective of constant improvement.**
- **OHM (UK) LTD.'s decision is final on all warranty matters concerning Ohm products.**

This manual does not include all details of design, production or variations of the equipment. Installation, operation or maintenance operations may present situations beyond the scope of this manual.

Technical specifications, dimensions, weights and properties do not represent actual, guaranteed qualities.

Errors & Omissions Excepted (E&OE).

Troubleshooting Guide

Problem	Explanation
No subwoofer output on passive subwoofer	A 4-core cable is required from the main unit to the passive subwoofer. Is the speakON connector connected to OUTPUT 2 & 3? Is output 1 muted on the phase and mute page?
LCD Screen is blank, but audio works OK	LCD Screen is switched off. Swipe from the bottom of the screen to the top in the centre to switch it back on.
LCD Shows input levels but there is no sound	Is the master mute switched on? If the rear panel of the amplifier module is hot, the module is in thermal protect. Allow the module to cool and it will un-mute.
LCD Screen does not scroll	Use a horizontal swipe to change screens, not diagonal movement. Use your fingertip/nail to gently swipe horizontally. Is your finger excessively dry/wet?
Poor sound quality	Check impedance loading on mid-high outputs. This unit is designed to work into 4Ω loads, reducing this impedance beyond 4Ω will impact sound reproduction and reliability.
Buzz from amplifier when input leads connected	Ensure there is a good earth connected to the unit. Check signal input leads for conductor continuity. Any input source needs to be connected to the same mains circuit and earth as this unit otherwise this could create a earth hum-loop.
Rubbing/crunching noise from driver	The loudspeaker driver has failed. Please contact OHM.
Unit behaving strangely	Unplug from mains connection for 2 minutes and re-power. Update firmware on the unit.
USB Connection does not work	Is Pro-A-Sync installed on your computer? Is the USB cable faulty? Try another cable. Reboot computer & reload Pro-A-Sync.
Unit does not power up	Please check mains connection/fuse and confirm there is a working mains supply to the unit.

OHM (UK) LTD