User Guide **IB2S-A Series**

ATL™
Advanced Transmission Line

PMC®

IMPORTANT

Warranty Certificate

Please take a few moments to complete the warranty card at the back of this booklet (or register at www.pmc-speakers.com) as this not only records the purchase of your loudspeakers, but also provides you with an opportunity to make suggestions and provide feedback directly to PMC.

Product Support

For product support, accessories or servicing advice, please contact a PMC authorised dealer. See www.pmc-speakers.com

Company Details

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WEEE EU Directive

This symbol on the product and in or on its packaging indicates that this product must not be disposed of with other household waste. It is the responsibility of the owner to dispose of waste equipment via a designated collection point for the recycling of waste electrical and electronic equipment. The recycling of waste equipment is an attempt to conserve natural resources and ensures that it is recycled in a manner that protects human health and the environment. For more information about where to dispose of waste equipment for recycling, please contact your local waste/recycling authority or the dealer from whom you purchased the product.
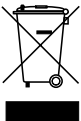
A message from Peter Thomas –

arguably the world's smartest loudspeaker designer

and a truly obsessive audiophile.

Peter Thomas

Owner & Chief Designer

"

Our sole aim while designing loudspeakers is to recreate the true essence of an artist's intention, combining the ultimate level of sonic resolution with solid engineering principles.

We believe that the same loudspeaker can be used throughout the entire audio chain, from composer to studio or film stage, post-production or mastering and then, finally, the consumer. Our unswerving passion for getting it right has made this goal possible.

Thank you for choosing PMC products. It is now time for you to read the user guide, install your new IB2S-Actives, and realise just how much you've been missing.

Congratulations - You have joined the elite.

PMC: the authority for quality sound.

Prince

Stevie Wonder

Francis Rossi (Status Quo)

BBC

Tony Bennett

JVC Studios

Tori Amos

SONY

Coldplay

Basement Jaxx

Over two decades PMC has earned an unrivalled reputation for creating the world's finest professional loudspeakers. Simply put, our loudspeakers provide a reference for the world's highest profile productions and events. They are found at every stage of the creative process, from conception to recording and broadcast and, of course, in the home. Our client list reads like a who's who of the sonically aware, with Prince, Stevie Wonder, Robbie Williams, Coldplay, Brian May, Universal, Sony, Dreamworks, Deutsche Grammophon and the BBC among the makers of movies and music. Our loudspeakers were used in the production of Titanic, Spiderman III, Pearl Harbor, Finding Nemo, Pirates of the Caribbean III, and during broadcasts of the Beijing Olympics, 2008.

UNIVERSAL MUSIC GROUP

Robbie Williams

Royal College of Music

Brian May

Kraftwerk

Warner Music

Underworld

Emil Berliner/Deutsche Grammophon

Google

Siemens

IB2S-A Series

User Guide

Contents

General Usage Guidelines

1. Read these instructions and keep them in a safe place for future reference.

2. Heed all electrical safety warnings, including any on the loudspeakers themselves.

3. Do not use the loudspeakers near water.

4. Do not install the loudspeakers near heat sources such as radiators, ovens or other very hot equipment, or in unventilated soffits or enclosures.

5. Do not attempt to service the equipment. There are no user serviceable parts inside. Please refer all servicing to PMC authorised personnel.

6. Servicing is required when the apparatus is damaged, exposed to moisture, or exhibits a distinct or sudden change of operation or audio performance.

7. Unplug this product from both signal source and power during electrical storms or when unused for extended periods of time

8. Packaging material can pose danger to the young and vulnerable. Ensure these items are stored or disposed of safely.

9. The IB2S-Active Series monitor loudspeaker can produce sound pressure levels in excess of 120dB. Long-term exposure to high levels of sound has the potential to cause hearing damage. Use care when adjusting the system volume to ensure sound pressure levels remain within safe and comfortable limits.

10. The IB2S-Active Series loudspeaker contains very powerful magnets and therefore may have a detrimental effect on nearby magnetically-sensitive items, such as CRT (tube-style) televisions or monitors, and media such as floppy discs, cassettes and videotapes.

11. The cabinet should only be cleaned with a dry, lint-free, cloth. Do not use solvents, abrasives, waxes or liquids as they may be detrimental to the finish.

12. To avoid damage to flooring when using PMC custom plinths or stands, the user should determine the suitability of either spikes or protective glides.

13. PMC has made efforts to provide accurate installation information and good quality fixings. However, PMC LTD will not be held responsible or liable for injuries or property damage (direct, indirect or consequential) arising out of use or inability to use this product safely and properly.

14. This product may contain nuts.

Introduction

The IB2S-Active Series builds on PMC's world-class monitor design pedigree, combining the finest drivers available with the unique **_ATL_**™ (Advanced Transmission Line) bass loading principle, sophisticated Class-D amplification, and ultra-precise DSP control.

The bass is loaded by PMC's unique **_ATL_**™ (Advanced Transmission Line) technology. The IB2S-Active Series uses a high-compression form of **_ATL_**™ to deliver a performance approaching that of the flagship BB5 system, despite being roughly half the size. The **_ATL_**™ system uses contemporary materials to provide optimised absorption of unwanted midrange energy within the cabinet, extending bass output significantly with negligible harmonic distortion. The cabinets are handed, and an absorbent baffle insert reduces reflections for improved dispersion and definition.

All three drivers are bespoke PMC designs. The 34mm soft-dome tweeter is the most sensitive direct radiating tweeter available anywhere, with a proven track record in other PMC monitors for delivering ultra-high resolution and a neutral balance. The perforated acoustic lens extends the response beyond 25kHz and controls dispersion to ensure perfect integration with PMC's own 75mm soft-dome midrange driver through the crossover region. This midrange driver is also well proven in other PMC monitors and is the lowest-distortion and most efficient soft-dome of its size available today. The unique 10-inch bass driver uses a carbon-fibre and Nomex™ honycombe piston face to deliver unparalleled transient response with no cone break up artefacts

The electronics built into each cabinet provides three channels of cutting-edge, ultra-low distortion Class-D power amplification, with a DSP-based crossover providing perfect driver optimisation and integration, with a non-aggressive protective limiting system. Remote control facilities enable the user to calibrate the system level and equalisation, as well as select between analogue and AES3 digital inputs, and recall personal equalisation presets.

The IB2S-Active Series is available with three cabinet options: the IB2S-Active three-way midfield reference monitor; the IB2S XBD-Active adds a second bass driver in a separate powered cabinet to increase the LF headroom by 3dB; and the XBD-Active can also be used as a stand-alone subwoofer or LFE monitor.

'The IB2S-Active Series is designed and hand-built in England, by nice people who care and who love audio'

Unpacking and Care

IB2S-Active Series monitors are packed in heavy-duty protective cartons. Please retain these to ensure that they can be transported safely if the need arises in the future. If you dispose of the packaging please do so in an environmentally responsible and safe way. Inside the packaging you will find:

IB2S-ACTIVE
3-Way Master cabinet (Pair)

User guide
2x IEC mains-power leads
   (region appropriate)
1x Remote control
1x 20m RJ45-RJ45 cable
   (for remote control)
1x10m RJ45-RJ45 cable
   (for inter-cabinet link)

IB2 XBDS-ACTIVE
3-Way Master cabinets with XBD cabinets (Pairs)

User guide
2x IEC mains-power leads
   (region appropriate)
2x 1.5m IEC extension cables
   (for inter-cabinet links)
1x Remote control
1x 20m RJ45-RJ45 cable
   (for remote control)
2x 1.5m RJ45-RJ45 cables
   (for inter-cabinet link)
1x 10m RJ45-RJ45 cable
   (for inter-cabinet link)
2x 1.5m XLR-XLR cables
   (for inter-cabinet signal links)

XBDS-ACTIVE
As standalone subwoofer

User guide
2x IEC mains-power leads
   (region-appropriate)
1x remote control
1x 20m RJ45-RJ45 cable
   (for remote control)

The IB2S-Active Series monitors are heavy. Please take extreme care when lifting them from the cartons. In particular, take great care not to touch the tweeter dispersion grilles during this process. Do not attempt to use these speakers if the packaging has been water damaged.

Care and Service

In normal usage PMC speakers should provide many years of trouble-free operation, but in the unlikely event that you suspect damage or failure has occurred do not attempt to repair the unit yourself. There are no user-serviceable parts inside. Contact your dealer for advice and a service return address.

Cleaning with a dry lint-free cloth. Avoid the use of solvents as they may damage the finish of the unit.

Advanced Transmission Line: How it works

ATL™
Advanced Transmission Line

PMC's unique **ATL**™ (Advanced Transmission Line) enclosures have taken loudspeaker design to the highest level, using sophisticated cabinet construction, proprietary drive units, and patented absorption materials and techniques. The benefits are enormous compared to the relatively simple sealed and ported designs currently available elsewhere.

PMC's innovative approach places the bass driver near one end of a long tunnel (the Advanced Transmission Line). This tunnel is heavily damped with acoustic material specified carefully to absorb the upper bass and higher frequencies radiating from the rear of the bass driver. The lowest frequencies are allowed to pass down the line and emerge from the large vent in the same polarity as the driver's frontal radiation, the vent acting essentially as a second bass driver.

An important benefit of the **ATL**™ approach is that the air pressure inside the cabinet, loading the bass driver, is maintained. This helps to control the driver over a wide frequency range and significantly reduces LF distortion. Consequently, the upper bass and midrange detail is not masked by harmonic distortion and the result is PMC's

characteristically transparent midrange, fast, attacking bass, and outstanding clarity.

A further advantage is greater bass extension and loudness than a ported or sealed design of a similar size, even if similar drivers were used. Moreover, the very consistent bass driver loading brings the welcome benefit that the frequency response remains consistent regardless of listening level, and analytical auditioning can be conducted without the need for high replay volumes to achieve optimal bass response – a unique and very valuable characteristic.

IB2S XBD-A
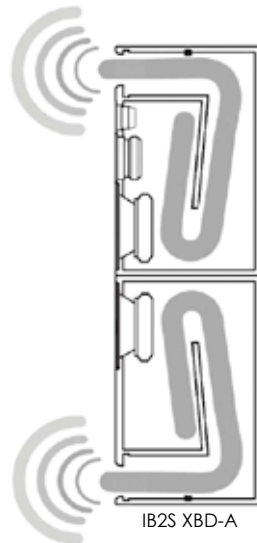
'No other bass loading technology provides such resolution and tonal accuracy at all volume levels'

System Description

The electronic heart of the IB2S-Active Series is a powerful DSP stage which operates at a fixed sample rate of 192kHz. The balanced analogue line input level is conditioned by a low-noise gain stage prior to A-D conversion, to optimise the signal-noise ratio. The converter is a very high quality multi-bit delta-sigma device, producing a 24 bit, 192kHz output. The AES3 digital input is sample rate converted to 192kHz.

The DSP stage provides the overall system level control, 24dB/octave precision crossovers, and both driver optimisation and protection. The sophisticated digital signal processing enables perfect matching between the three drivers' responses and roll-off rates, optimising the contribution of each driver, minimising distortion, and providing a flatter and more natural balance over the widest possible listening area.

The output signals from the DSP system are converted back to analogue to feed three separate Class-D power amplifiers and their respective drivers. A total of 1.2kW of high-efficiency amplification is provided in the master cabinets, with two 200W amplifiers powering the HF and MF drivers and 800W for the bass unit. The XBD-Active cabinet contains its own 800W amplifier for its bass driver. The amplifier design ensures that driver impedance variations with frequency are fully compensated to maintain a uniform frequency response.
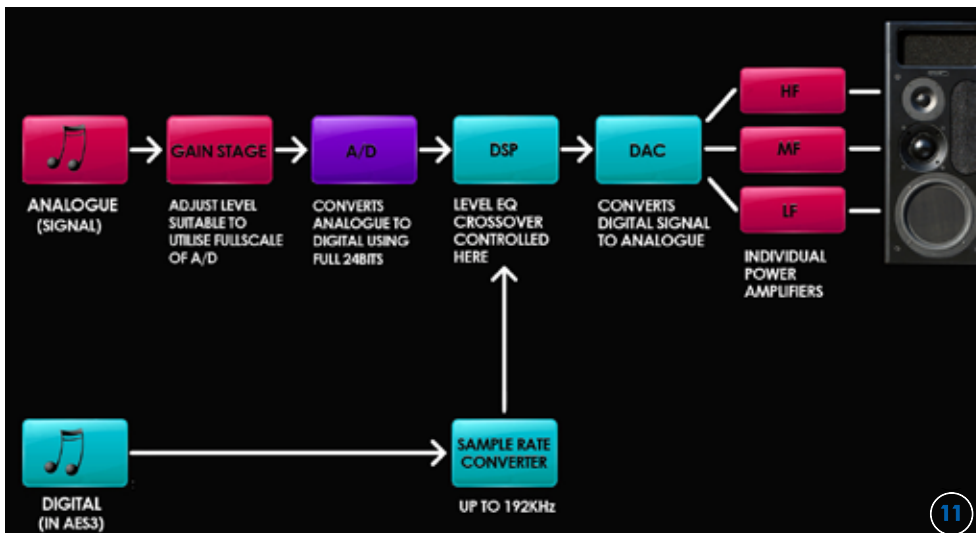
User EQ Options
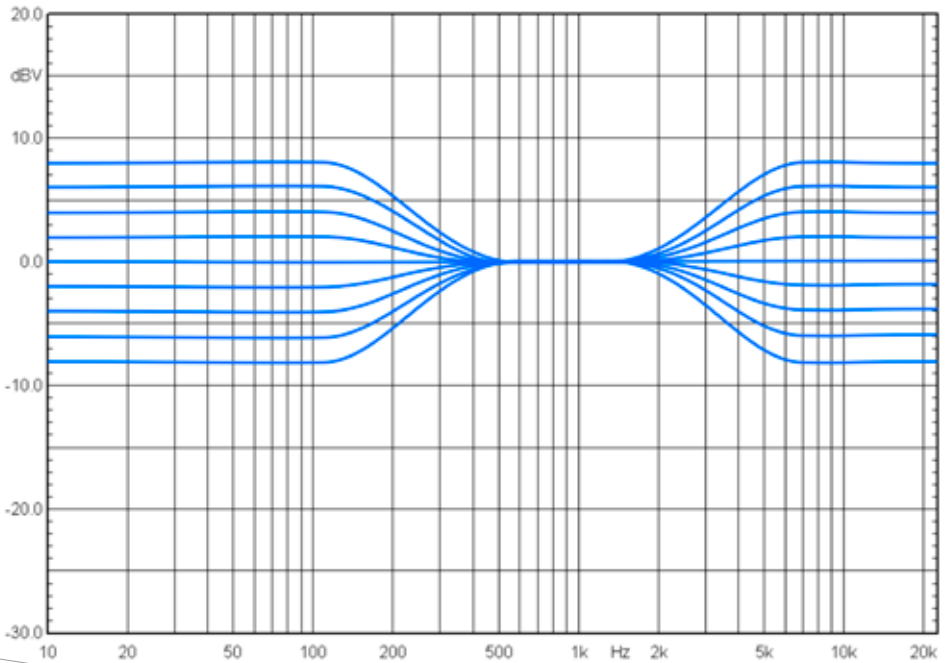
The IB2S-Active Series master cabinet remote control unit has facilities for five user-configurable equalisation presets, each of which can be named for easy recognition (eg. Frank, Geoff etc).

These DSP-based user-equalisation options include LF and HF shelf responses, as shown in the graph above, each adjustable over a range of ±8dB in increments of less than 1dB, with fixed knee frequencies of 200Hz and 5kHz, respectively.

Connections

Caution

To avoid potential damage, please ensure that the signal source is turned off before connecting or disconnecting your active loudspeakers.

Connections

The rear panel of the IB2S-Active Series carries various connectors for audio, control and mains power.

Audio

The electronically-balanced analogue audio input and the AES3 digital input accept 3-pin male XLR connectors, wired with **Pin-1** screen (ground), **Pin-2** signal positive (hot), and **Pin-3** signal negative (cold). If the monitor is to be used with an unbalanced analogue signal source pins 1 and 3 of the input XLR should be connected together inside the male XLR plug. Thru connections are provided for signal distribution.

Power

A single IEC (C14) mains socket is provided with an integral fuse-holder, voltage selector (115/230VAC) and power switch. Only change fuses with the power cord removed completely from the loudspeaker. A remote powering facility is provided via the 'Trigger In' terminals which accept a 4 to12V AC or DC voltage to enable remote switch on from an external device. The Trigger Thru terminals can be used to extend the control signal to another speaker in the system.

Remote Control

The 'Remote In' RJ45 socket accepts the connection from the remote control unit, while the Thru socket is used to distribute the control signal to the next speaker in the system. Please Note that the final loudspeaker in the chain must have the loopback connector fitted to the RJ45 Remote Thru socket.
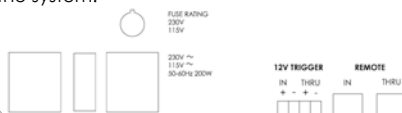
Note: This unit must be earthed.

Running-In

When brand new, PMC loudspeakers will take a short period of use before they reach their full potential.

This is because the mechanical and acoustical characteristics of the bass, midrange and treble drive units alter slightly after manufacture as the flexible elements in their construction relax and reach their optimum compliancy. The *ATL*™ cabinet parameters are critically designed to load the bass driver accurately only when it has reached its long-term, optimal compliancy.

Consequently, during the initial running-in period of about 20 hours, the performance of the IB2S-Active Series active monitor will change and improve. You will notice the bass tonality becoming warmer, fuller and more natural, and the bass extension will increase significantly. As the tweeter relaxes the treble tonality also sweetens and integrates perfectly with the midrange unit, and the sound staging improves.

20+ hours to run-in

Applications and Accessories

Applications

The large-scale performance of IB2S-Active Series monitors makes it appropriate wherever a clean, neutral and powerful presentation is required. Typically, IB2S-Active Series monitor loudspeakers are used for high-power midfield monitoring for music and speech recording and mixing, outside broadcast vehicles, radio on-air studios and television sound control galleries, home theatre and high-end domestic hi-fi, project music studios, post-production and editing suites, quality monitoring, music mastering, and A&R evaluations.

Accessories

It is critical that monitor loudspeakers are positioned at the correct height and kept stable during operation. However, the structure and materials used to support the monitor will have a bearing on how it performs. The purpose-designed PMC 33-inch Studio Frame Stand was developed with extensive listening tests in both the consumer and professional environments to optimise the imaging, dynamics and overall tonal balance. An acoustically inert 190mm high-mass plinth or spacer is also available to optimise the system height, placed below or between IB2S-Active and XBDS-Active cabinets. M8 threaded inserts accept spikes or floor-protecting glides.

One or more XBDS-Active cabinets can be incorporated where greater low-frequency extension or headroom is required, or where a dedicated effects subwoofer is appropriate. Harmonic distortion generated by a poor quality subwoofer will mask critical mid-frequency information from the main monitors, and also reveal the physical location of the subwoofer. However, PMC's unique *ATL*™ cabinet design and flat, 10-inch carbon-fibre & Nomex™ bass driver ensures extremely low levels of harmonic distortion and provides seamless acoustical and control integration with the IB2S-Active master cabinets.

The IB2S-Active Series monitors can be used in mix'n'match setups with other PMC monitors for surround sound applications. All PMC monitors share the same characteristics of wide dispersion, low distortion, consistent voicing, and an even bass response regardless of listening level.
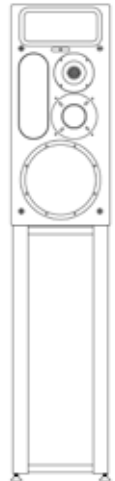
Positioning

With their unique **ATL**™ cabinet design, wide dispersion, ultra-low distortion, and smooth bass roll-off, PMC loudspeakers are more forgiving of difficult room conditions and placement constraints than conventional designs – you will be able to achieve a superb sound throughout the room with little effort. However, we encourage you to spend some time experimenting in your own room to achieve the very best results, remembering that small changes in location can often influence system performance significantly. The following guidelines are suggestions for a starting point to locate your new loudspeakers. Fine-tuning of their positioning can start from there.

Dispersion and Toeing-in

Most loudspeakers have a relatively narrow dispersion and are designed to be aimed directly at the listening position, as shown in the left-hand image below. However, the excellent stereo imaging which PMC monitors are known for is due, in part, to their wide dispersion characteristic, as shown on the right-hand image. To optimise the stereo imaging, PMC monitors should be angled so that their axes cross about 0.5 metres (2ft) behind the listening position (as illustrated below). Varying this toe-in angle will subtly affect the vividness of the audio soundstage. A good music track with vivid vocals will help to determine the best position.
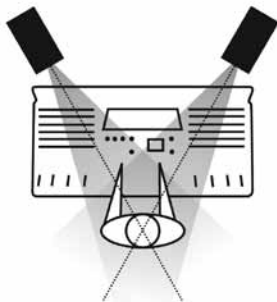
Conventional monitors
have narrow dispersion
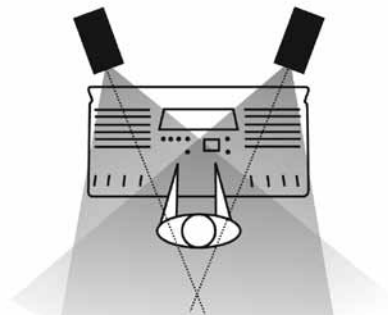
PMC Monitors
have wide dispersion

When initially positioning the loudspeakers, ideally they should be located at two of the three points of an equilateral triangle, with the listener at the third. If the monitors are spaced too far apart the stereo image will be wide but central definition will be impaired. Use a well recorded vocal track to judge the ideal placement.

Attention should be paid to the effect of reflective surfaces such as side walls and objects in close proximity to the loudspeakers, as excessive nearfield reflections will blur the stereo imaging significantly and may introduce unwelcome colouration of the sound.

TIP Place the speakers so that their front baffles are well forward of any objects placed between them, such as computer display screens.

With regard to vertical placement, the acoustic axis of the IB2S-Active master cabinet is midway between the HF and MF drivers. This axis should be level with the listener's ears.

TIP To prevent vertical room modes from causing boominess, do not position the speaker such that the bass driver is at an even proportion of the room height, such as a half or a quarter.

TIP Plinth modules can be used to raise the cabinets to help tune the bass response with respect to the room boundaries. Two possible mounting options are illustrated opposite.
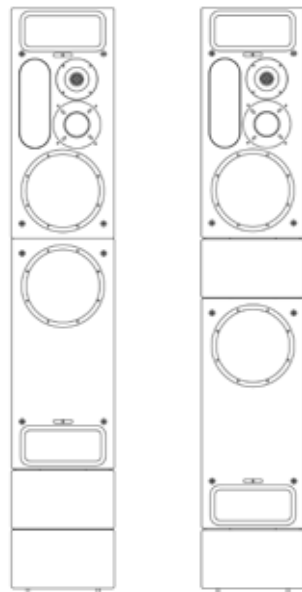
Positioning (Cont.)

Speaker Orientation

The IB2S-Active Series is designed to be used upright to ensure optimum stereo imaging, tonality and amplifier cooling.

Around the crossover frequencies each adjacent pair of drive units are inherently reproducing the same audio signal (although PMC designs employ steep crossover filters which minimises this), and so there are inevitably two sources of sound. When the drive units are aligned one above the other the two wavefronts emanate from one vertical plane and both will arrive at the listener at the same time, providing accurate stereo imaging and minimal colouration. This is illustrated in the left diagram below.

In contrast, if the speaker is mounted horizontally the wavefronts from the drivers radiate from horizontally spaced points. This results in different arrival times at the listening position for sound from each driver, producing colouration and vague stereo imaging (right diagram) below.
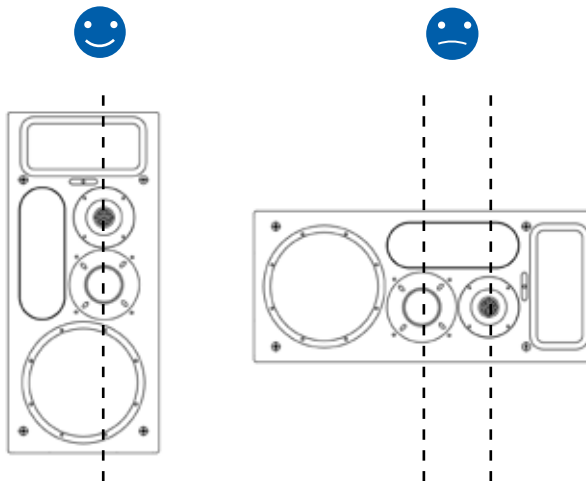
One source of sound
at the crossover point

Two sources of sound
at the crossover point

Bass Response

IB2S-Active Series monitor loudspeakers can produce significant bass energy below the frequencies at which they become omnidirectional. As a consequence, it is important to consider the effect of the boundaries of the listening room when placing the monitors. The use of plinth modules can assist in fine tuning the in-room bass response.
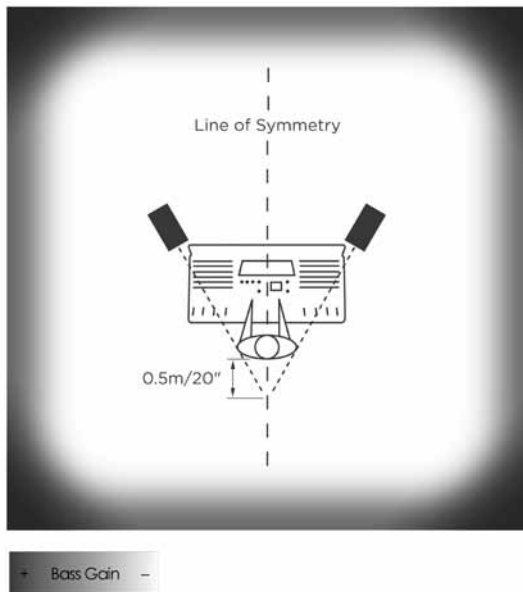
TIP Ideally, the monitors should be placed more than 0.5 metres from the side and rear walls of the room so that reinforcement and cancellation (peaks and dips) of the bass output caused by wall reflections will be moved higher in frequency and thus less influential. This reduces the incidence of 'lumpy' or 'boomy' bass. Small changes in position can have profound effects on the bass response, so experiment to find the optimal position.

Surround Sound Systems

5.1 Systems

The IB2S-Active Series monitor has been designed for perfect multi-channel music or movie playback. The following diagrams indicate the ideal speaker layouts.

TIP The constraints of room size and shape will often force some loudspeakers to be placed closer or further from the listening position than is ideal.
In such situations the time-alignment facilities of the surround processor or monitor controller should be employed to compensate.

TIP The subwoofer carries the LFE signal as well as the low bass from some, or all, of the main monitors when bass management is being used. The subwoofer should be placed at the front of the room, the optimal position providing the smoothest low bass without boomy or weak notes.
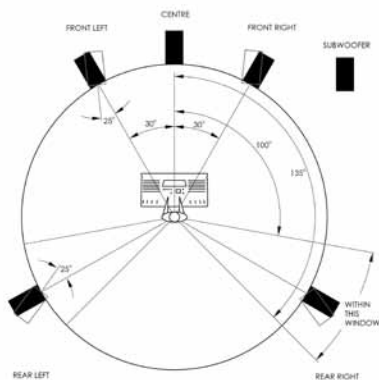
7.1 Systems

In a system capable of 7.1 Dolby® Digital Surround EX™ DTS® ES™ or Blu-ray™ playback, there will be two sets of surround speakers. The first pair (surround or side channels) should be positioned at 100º, and the second set (rear or back channels) at 150º. (The front centre axis is 0º while directly to the rear of the room is 180º).

Dolby® Digital Surround EX™ is a registered trademark of Dolby® Laboratories. DTS® ES™ are registered trademarks of DTS® Inc. Blu-ray™ is a trademark of the Blu-ray™ Disc Association.
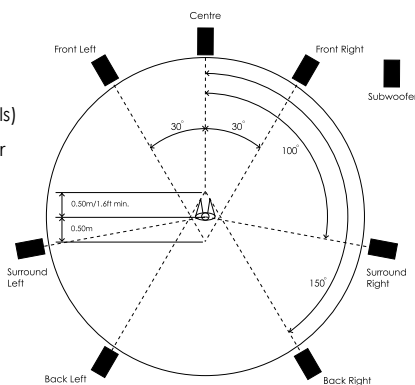
Operational Controls

The IB2S-A Active Series monitor is configured and controlled via the supplied remote control panel which has an LCD display with two rows of up to 16 characters each, plus four push buttons and a rotary control.

The top push button accesses the configuration menu, with a back button to exit. The preset button accesses the user preset facilities, and the mute button mutes the loudspeakers.

The menu displays are navigated using the rotary control wheel which has a push-button action that is used to select the currently displayed parameter.

The generic display is shown below. The lower row identifies the loudspeakers connected in the system (Left, Centre, Right, Left Surround, Right Surround, LFE1, LFE2), together with the current volume setting (±00.0dB in the example below). The upper row indicates the current function (Volume in this example), and the asterix symbols warn of a clipped loud-speaker channel.
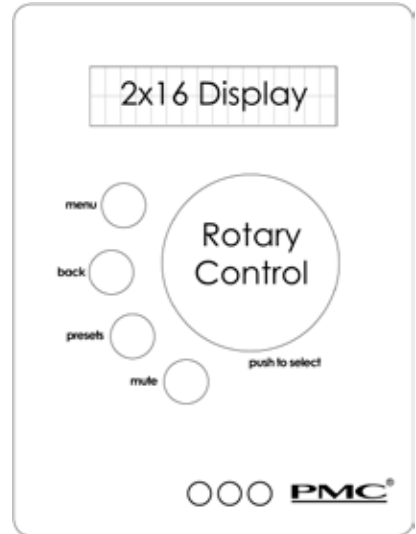
*	*	*	*		*		*	*		V	o	l	u	m	e
L	C	R	L	s	R	s	1	2	+	0	0	.	0	d	B

1 Standby Mode

Standby mode is activated either on start-up, when power-off is pressed in the main menu, or when a trigger signal is lost if the Trigger ON mode is enabled.

1.1 Trigger-OFF

When the 12V trigger mode is set to OFF in the main menu (see 3.1.3) the default standby mode display will look like this (Note: the backlight will be off, and there is no sub-menu):

Z	z	z													

Actions:

Buttons:	MENU/BACK/PRESETS/MUTE/SELECT: The System turns on and the default display appears (see 2).
Rotary:	UP/DOWN: System turns on, and the default display appears (see 2).
Clip:	Can't be sent because of standby mode.
Trigger:	Can't be sent because of trigger-off mode.

1.2 Trigger-ON

When the 12V trigger mode is set to ON in the main menu (see 3.1.3) the default standby mode display will look like this (Note: Backlight will be off, and there is no sub-menu):

A	w	a	i	t	i	n	g		T	r	i	g	g	e	r

Actions:
Buttons: MENU: If held for more than two seconds the 12V Trigger Mode is set to OFF.

T	r	i	g	g	e	r		M	o	d	e		O	f	f

This display is shown for two seconds, then the system turns ON and the default display appears (see 2).
BACK/PRESETS/MUTE/SELECT: These buttons do nothing in this mode

Rotary: UP/DOWN: This control does nothing in this mode.
Clip: Can't be sent, because of standby mode.
Trigger: Turn on, the default display appears (see 2).

2 Default Display

This display appears either when there is no menu activity for more than five seconds, when the BACK button is pressed in the main menu, PRESET menu, or PMC SETUP MODE menu, after a button press in standby mode, or after a trigger event (trigger-ON mode) when in standby. Provided no channels are clipping and the system is un-muted, the default display will look like this: (in this example only left and right channels are in use and volume is +15dB)

L	_	R	_	_	_	_	_	_	+	1	5	.	0	d	B

Actions:
Rotary: UP/DOWN changes volume in 0.5dB steps (minimum -48.5dB, maximum +15dB). Save value and send value to all channels.
Button press: MENU: the main menu appears (see 3).
                      BACK: If held for more than two seconds the volume locks at the current setting. The display looks like this (with +15.0 volume value as an example):

								V		L	o	c	k
L	C	R	L	s	R	s	1	2	+	1	5	.	0	d	B

If the BACK button is held again for more than two seconds the volume unlocks and the display reverts to the default display.
PRESET: If pressed briefly the current preset is displayed for two seconds. If held for more than two seconds, the preset menu appears (see 4).
SELECT: nothing.
MUTE: a mute command will be sent to all channels and the display back light will flash once per second. The Volume can not be changed during mute. (From now on this will be the default display, until the mute button is pressed in any menu). This display is shown:

A	l	l		C	h	a	n	n	e	l		M	u	t	e

Clip: If any channel clips an asterix appears to identify which channels. In the example below the center, right surround, and LFE 2 speakers are clipping.

	*				*			*							
L	C	R	L	s	R	s	1	2	+	1	5	.	0	d	B

Trigger:			ON mode: shut down, and show trigger on standby mode (see 1.2).
			OFF mode: nothing.

3 Main Menu

The main menu is shown when the MENU button is pressed in the default display, or when BACK is pressed in the setup menus. The sub-menu options which appear depend on the last shown main sub-menu (in this example power off):

P	M	C		R	e	m	o	t	e		V	1	.	0	
P	o	w	e	r		o	f	f							

Sub-menus: Power off, Setup

Actions:
Rotary: UP/DOWN: scroll up/down in the submenu list.
Buttons: MENU: nothing.
                   BACK: default display appears (see 2).
                   PRESET: If pressed briefly the current preset shown for two seconds. If held for more than two seconds the preset menu appears (see 4).
                   SELECT: dependent on submenu:
                        Power off: turn off and shows standby menu (see 1).
                        Setup: enters setup menu (see 3.1).
                   MUTE: a mute/un-mute command is sent to all channels. If mute is enabled the display backlight will flash once per second.
Clip: Nothing.
Trigger: ON mode: shut down and show trigger on standby mode (see 1.2).
                   OFF mode: nothing.

3.1 Setup Menu

The setup menu is shown when the SELECT button is pressed in the main menu with setup menu as the active sub-menu, or when the BACK button is pressed in the channel select menu, the analogue input sensitivity menu, the 12V trigger mode menu, or the channel settings menu. Which setup sub-menu option appears is dependent on the last shown setup sub-menu option. The last shown setup sub-menu option appears (in this example Channel Aliases):

S	e	t	u	p											
C	h	a	n	n	e	l		A	l	i	a	s	e	s	

Sub-menus   Channel Aliases
                  Analogue Input Sensitivity
                  12V Trigger Mode
                  1: Left Master
                  2: Left XBD
                  3: Right Master
                  4: Right XBD
                  5: Centre Master
                  6: Centre XBD
                  7: Left Surr Mast
                  8: Left Surr XBD
                  9: Right Surr Mast
                  10: Right Surr XBD
                  11: LFE1
                  12: LFE2

Actions:
Rotary: UP/DOWN: scrolls up/down through the sub-menu list.
Buttons: MENU: nothing.
                   BACK: the main menu appears (see 3).
                   PRESET: if pressed briefly the current preset is displayed for two seconds.
                   If pressed for more than two seconds the preset menu appears (see 4).
                   SELECT: dependent on sub-menu.
                        Channel Aliases: enter Aliases Channel Select menu (see 3.1.1).
                        Analogue Input Sensitivity: enter Analogue Sensitivity menu (see 3.1.4).

12V Trigger Mode: enter 12V Trigger Mode menu (see 3.1.3).
1: Left Master: enter Channel Settings menu (see 3.1.4).
2: Left XBD: enter Channel Settings menu (see 3.1.4).
3: Right Master: enter Channel Settings menu (see 3.1.4).
4: Right XBD: enter Channel Settings menu (see 3.1.4).
5: Centre Master: enter Channel Settings menu (see 3.1.4).
6: Centre XBD: enter Channel Settings menu (see 3.1.4).
7: Left Surr Mast: enter Channel Settings menu (see 3.1.4).
8: Left Surr XBD: enter Channel Settings menu (see 3.1.4).
9: Right Surr Mast: enter Channel Settings menu (see 3.1.4).
10: Right Surr XBD: enter Channel Settings menu (see 3.1.4).
11: LFE1: enter Channel Settings menu (see 3.1.4).
12: LFE2: enter Channel Settings menu (see 3.1.4).

	MUTE: a mute/un-mute command will be sent to all channels and the display backlight will flash once per second when the mute is active.
Clip:	Nothing.
Trigger:	ON mode: shut down and show standby mode (see 1.2).
	OFF mode: nothing.

3.1.1 Aliases Channel Select Menu

The aliases channel select menu is shown when the SELECT button is pressed in the setup menu with channel aliases menu as the active sub-menu, or when the BACK button is pressed in channel aliases menu. Which aliases appear in the channel select sub-menu option depends on the last shown aliases channel select sub-menu option (in this example Ch1).

C	h	a	n	n	e	l		A	l	i	a	s	e	s	
C	h	1													

Sub-menus:	Access Ch1 through Ch12
Actions:	
Rotary:	UP/DOWN: scroll up/down in the submenu list.
Buttons:	MENU: nothing.
	BACK: the setup menu appears (see 3.1).
	PRESET: if pressed briefly the current preset is displayed for 2 seconds. If pressed for more than two seconds the preset menu appears (see 4).
	SELECT: enters channel aliases menu (see 3.1.2.1).
	MUTE: a mute/un-mute command will be sent to all channels. The display backlight flashes once per second when muted.
Clip:	Nothing.
Trigger:	ON mode: system shuts down and display shows standby mode (see 1.2).
	OFF mode: nothing.

3.1.1.1 Channel Aliases Menu

The channel aliases menu is shown when the SELECT button is pressed in the aliases channel select menu. The selected channel appears (in the example below, channel one is selected). The channel aliases sub-menu option that appears depends on the current channel alias, but the selected channel and current alias is shown in the display (in this example the default option: None).

C	h	1		A	l	i	a	s							
N	o	n	e												

Sub-menus:	None, Left Master, Left XBD, Right Master, Right XBD, Centre Master, Centre XBD, Left Surround Master, Left Surround XBD, Right Surround Master, Right Surround XBD, LFE 1, LFE 2
Actions:	
Rotary:	Up/Down: scroll up/down in the sub-menu list.
Buttons:	MENU: nothing
	BACK: the aliases channel select menu appears (see 3.1.1).
	PRESET: If pressed briefly the current preset is displayed for two seconds. If held for more than two seconds the preset menu appears (see 4).
	SELECT: Stores the current alias.

MUTE: a mute/un-mute command will be sent to all channels. The display backlight will flash once per second when muted.

Clip:	Nothing.	
Trigger:	ON mode: system shuts down and display shows standby mode (see 1.2)	
	Off mode: nothing.	

3.1.2 Analogue Input Sensitivity Menu

The analogue input sensitivity menu is shown when the SELECT button is pressed in the setup menu with analogue input sensitivity menu as active sub-menu. The current value appears (in this example +4.00dB). There are no sub-menus.

A	n	a	l	o	g	u	e		I	n		S	e	n	s
+	4	.	0	0	d	B									

Actions:

Rotary:	UP/DOWN: change the analogue input sensitivity in steps of 0.25dB, with a minimum value of +4dB and a maximum of +20dB.
Buttons:	MENU: nothing.
	BACK: the setup menu appears (see 3.1).
	PRESET: If pressed briefly the current preset is displayed for two seconds. If held for more than two seconds the preset menu appears (see 4).
	SELECT: saves value and sends to all channels. Setup menu appears (see 3.1).
	MUTE: a mute/un-mute command is sent to all channels. The display backlight flashes once per second when muted.
Clip:	Nothing.
Trigger:	ON mode: system shuts down and display shows standby mode (see 1.2).
	OFF mode: nothing

3.1.3 12V Trigger Mode Menu

The 12V trigger mode menu is shown when the SELECT button is pressed in the setup menu with 12V trigger mode menu as active sub-menu. The current setting appears (this example shows the ON mode).

1	2	V		T	r	i	g	g	e	r		M	o	d	e
O	n														

Sub-menu:	ON or OFF
Actions:	
Rotary:	UP/DOWN: scrolls up/down through the sub-menu list.
Buttons:	MENU: nothing.
	BACK: the setup menu appears (see 3.1) .
	PRESET: If pressed briefly the current preset is displayed for two seconds. If held for more than two seconds the preset menu appears (see 4).
	SELECT: saves setting and sends to all channels. The setup menu appears (see 3.1). Note: Trigger must be attached to first channel.
	MUTE: a mute/un-mute command is sent to all channels. The display backlight flashed once per second when muted.
Clip:	Nothing.
Trigger:	ON mode: system shuts down and standby mode displayed (see 1.2).
	OFF mode: nothing.

3.1.4 Channel Settings Menu

The Channel Settings menu is shown when the SELECT button is pressed in the setup menu with Channel Settings menu as active sub-menu, or when the back button is pressed in main source menu, main trim menu, LFE source, or LFE trim menu. The selected channel in the setup menu and selected alias appears (in this example 1, Left Master). Which Channel Settings sub-menu option appears depends on the last shown channel settings sub-menu option (in this example Main Source).

L	e	f	t		M	a	s	t	e	r					
M	a	i	n		S	o	u	r	c	e					

	Sub-menus:	Main Source
		Main Trim
		LFE Source
		LFE Trim
	Actions:	
	Rotary:	UP/DOWN: scrolls up/down through the sub-menu list.
	Buttons:	MENU: nothing.
		BACK: the setup menu appears (see 3.1).
		PRESET: If pressed briefly the display shows the current preset for two seconds. If held for more than two seconds the preset menu appears (see 4).
		SELECT: depends on sub-menu:
		Main Source: enter Main Source menu (see 3.1.4.1).
		Main Trim: enter Main Trim menu (see 3.1.4.2).
		LFE Source: enter LFE Source menu (see 3.1.4.3).
		LFE Trim: enter LFE Trim menu (see 3.1.4.4).
		MUTE: a mute/un-mute command is sent to all channels. The display backlight will flash once per second when muted.
	Clip:	Nothing.
	Trigger:	ON mode: system shuts down and display shows standby mode (see 1.2).
		OFF mode: nothing.

3.1.4.1 Main Source Menu

The Main Source menu is shown when the SELECT button is pressed in the Channel Setting menu with Main Source as active sub-menu. The selected channel in the channel settings menu appears (in the example below, Channel 1). Which Main source sub-menu option appears depends on the current main source (in this example, Analogue In). Note: When Master Only Mode is not set the XBD cabinets settings are copied over from the master cabinets settings.

C	h	1		M	a	i	n		S	o	u	r	c	e	
A	n	a	l	o	g	u	e		I	n					

	Sub-menus:	Analogue In, Main AES3 Left, Main AES3 Right.
	Actions:	
	Rotary:	UP/DOWN: scroll up/down in the sub-menu list.
	Buttons:	MENU: nothing.
		BACK: the channel settings menu appears (see 3.1.4).
		PRESET: If pressed briefly the current preset is displayed for two seconds. If held for more than two seconds the preset menu appears (see 4).
		SELECT: saves setting and sends to selected channel. The channel settings menu appears (see 3.1.4).
		MUTE: a mute/un-mute command is sent to all channels. The display backlight flashes once per second when muted.
	Clip:	Nothing.
	Trigger:	ON mode: system shuts down and standby mode displayed (see 1.2).
		OFF mode: nothing.

3.1.4.2 Main Trim Menu

The Main Trim menu is shown when the SELECT button is pressed in the Channel Setting menu with Main Trim as active sub-menu. The selected channel in the channel settings menu appears (in this example, Ch1) with the current value (in this example +1.00dB).

C	h	1		M	a	i	n		T	r	i	m			
+	1	.	0	0	d	B									

	Actions:	
	Rotary:	UP/DOWN: changes the Main trim in steps of 0.125dB. The minimum setting is -8.00dB and the maximum is +7.87dB.
	Buttons:	MENU: nothing.
		BACK: the channel settings menu appears (see 3.1.4).
		PRESET: If pressed briefly the current preset is displayed for two seconds. If held for more than two seconds the preset menu appears (see 4).
		SELECT: saves value and sends to selected channel. The channel settings

menu appears (see 3.1.4).

MUTE: a mute/un-mute command is sent to all channels. The display backlight flashes once per second when muted.

Clip: Nothing.

Trigger: ON mode: system shuts down and standby mode is displayed (see 1.2).
OFF mode: nothing.

3.1.4.3 LFE Source Menu

The LFE Source menu is shown when the SELECT button is pressed in the Channel Setting menu with LFE Source as active sub-menu. The selected channel in the channel settings menu appears (in this example Ch1). Which LFE source sub-menu option appears depends on the current LFE source (in this example None).

C	h	1	:	L	F	E		S	o	u	r	c	e		
N	o	n	e												

Sub-menus: None, LFE AES3 Chan A, LFE AES3 Chan B, Analogue In.

Actions:

Rotary: UP/DOWN: scrolls up/down through the sub-menu list.

Buttons: MENU: nothing.
BACK: the channel settings menu appears (see 3.1.4).
PRESET: If pressed briefly the current preset is displayed for two seconds. If held for more than two seconds the preset menu appears (see 4).
SELECT: saves setting and sends to selected channel. The channel settings menu appears (see 3.1.4).
MUTE: a mute/un-mute command is sent to all channels. The display backlight flashes once per second when muted.

Clip: Nothing.

Trigger: ON mode: system shuts down and standby mode is displayed (see 1.2).
OFF mode: nothing.

3.1.4.4 LFE Trim Menu

The LFE Trim menu is shown when the SELECT button is pressed in the Channel Setting menu with LFE Trim as the active sub-menu. The selected channel in the channel settings menu appears (in this example, Ch1) and the current value appears (in this example +1.00dB). There are no sub-menus.

C	h	1	:	L	F	E		T	r	i	m				
+	1	.	0	0	d	B									

Actions:

Rotary: UP/DOWN: changes the Main trim in steps of 0.125dB. The minimum value is -8.00dB and the maximum is +7.87dB.

Buttons: MENU: nothing.
BACK: the channel settings menu appears (see 3.1.4).
PRESET: If pressed briefly the current preset is displayed for two seconds. If held for more than two seconds the preset menu appears (see 4).
SELECT: saves value and sends to selected channel. The channel settings menu appears (see 3.1.4).
MUTE: a mute/un-mute command is sent to all channels. The display backlight flashes once per second when muted.

Clip: Nothing.

Trigger: ON mode: system shuts down and standby mode is displayed (see 1.2).
OFF mode: nothing.

4 Preset Menu

The preset menu is shown whenever the PRESET button is pressed (unless in standby mode), or when the BACK button is pressed in the preset setup menu. Which preset sub-menu option appears depends on the last shown preset sub-menu option (this example shows the Preset Setup). An asterix means the name is changeable by the user.

P	r	e	s	e	t							
P	r	e	s	e	t		S	e	t	u	p	

Sub-menus: Preset Setup, No Preset, Preset A* to Preset E*.
Actions:
Rotary: UP/DOWN: scrolls up/down through the sub-menu list.
Buttons: MENU: nothing.
BACK: the default display appears (see 2).
PRESET: If pressed briefly the current preset is displayed for two seconds.
If held for more than two seconds: nothing.
SELECT: depends on sub-menu:
> *Preset Setup*: enters Preset Setup menu (see 4.1).
> *No Preset*: clears preset values. Shows selected preset for two seconds and enters default display (see 2).
> *Preset A*-E**: activates preset A-E settings. Displays selected preset for two seconds and enters default display (see 2).

MUTE: a mute/un-mute command is sent to all channels. The display backlight flashes once per second when muted.
Clip: Nothing.
Trigger: ON mode: system shuts down and standby mode displayed (see 1.2).
OFF mode: nothing.

4.1 Preset Setup Menu

The preset setup menu is shown when the SELECT button is pressed in the preset menu with preset setup as the active sub-menu, or when the BACK button is pressed in the preset aliases menu or preset settings menu. Which setup sub-menu option appears depends on the last shown preset setup sub-menu option (in this example, Preset Aliases).

P	r	e	s	e	t		S	e	t	u	p	
P	r	e	s	e	t		A	l	i	a	s	e	s

Sub-menus: Preset Aliases, 1: Preset A* to 5: Preset E*.
Actions:
Rotary: UP/DOWN: scrolls up/down through the sub-menu list.
Buttons: MENU: nothing.
BACK: the preset menu appears (see 4).
PRESET: If pressed briefly the current preset is displayed for two seconds.
If held for more than two seconds the preset menu appears (see 4).
SELECT: depends on sub-menu:
> *Preset Aliases*: enter Aliases Preset Select menu (see 4.1.1)
> *Preset A*-E**: enter Preset settings menu (see 4.1.2)

MUTE: a mute/un-mute command is sent to all channels. The display backlight flashes once per second when muted.
Clip: Nothing.
Trigger: ON mode: system shuts down and standby mode is displayed (see 1.2).
OFF mode: nothing.

4.1.1 Preset Aliases Select Menu

The aliases preset select menu is shown when the SELECT button is pressed in the preset setup menu with aliases preset select as active sub-menu. Which aliases preset select sub-menu option appears depends on the last shown aliases preset select sub-menu option (in this example, 1).

P	r	e	s	e	t		A	l	i	a	s	e	s
1	:		P	r	e	s	e	t		A			

Sub-menus: 1:Preset A* to 5: Preset E*
Actions:
Rotary: UP/DOWN: scrolls up/down through the sub-menu list.
Buttons: MENU: nothing.
BACK: the preset setup menu appears (see 4).
PRESET: If pressed briefly the current preset is displayed for two seconds.

If held for more than two seconds the preset menu appears (see 4).
SELECT: depends on sub-menu.
MUTE: a mute/un-mute command is sent to all channels. The display backlight flashed once per second when muted.

Clip: Nothing.
Trigger: ON mode: system shuts down and standby mode displayed (see 1.2).
               OFF mode: nothing.

4.1.1.1 Preset Aliases Menu

The preset aliases menu is shown when the SELECT button is pressed in the preset setup menu. The selected preset is shown (in this example 1). Which alias appears depends on the last stored alias.

| P | r | e | s | e | t | | 1 | | A | l | i | a | s | | |
| P | r | e | s | e | t | | A | | | | | | | | |

Sub-menus: A to Z.
Actions:
Rotary: If no place selected: UP/DOWN scrolls between characters, left to right.
               If place selected, UP/DOWN scrolls through the alphabet.
Buttons: MENU: nothing.
               BACK: the aliases preset select menu appears (see 4.1.1).
               PRESET: if pressed briefly the current preset is displayed for two seconds.
               If held for more than two seconds the preset menu appears (see 4).
               SELECT: When no character us selected this highlights the current position to change character. The UP/DOWN rotary function can then be used to scroll through the alphabet. Selecting a character stores the current character.
               MUTE: a mute/un-mute command is sent to all channels. The display backlight flashes once per second when muted.
Clip: Nothing.
Trigger: ON mode: system shuts down and standby mode displayed (see 1.2).
               OFF mode: nothing.

4.1.2 Preset Settings Menu

The preset settings menu is shown when the SELECT button is pressed in the preset setup menu with one of the five presets as active sub-menu, or when the BACK button is pressed in the preset Front or Rear LF or HF Shelf menus, or the master only mode menu. Which preset settings sub-menu option appears depends on the last shown preset settings sub-menu option (in this example Front LF Shelf).

| P | r | e | s | e | t | | S | e | t | t | i | n | g | s | |
| F | r | o | n | t | | L | F | | S | h | e | l | f | | |

Sub-menus: Front LF Shelf, Front HF Shelf, Rear LF Shelf, Rear HF Shelf, Master Only Mode.
Actions:
Rotary: UP/DOWN: scrolls up/down through the sub-menu list.
Buttons: MENU: nothing.
               BACK: the preset setup menu appears (see 4).
               PRESET: if pressed briefly the current preset is displayed for two seconds.
               If held for more than two seconds the preset menu appears (see 4).
               SELECT: depends on sub-menu:
                     Front LF Shelf: enter Front LF Shelf menu.
                     Front HF Shelf: enter Front HF Shelf menu.
                     Rear LF Shelf: enter Rear HF Shelf menu.
                     Rear HF Shelf: enter Rear HF Shelf menu.
               MUTE: a mute/un-mute command is sent to all channels. The display backlight flashes once per second when muted.
Clip: Nothing.
Trigger: ON mode: system shuts down and standby mode displayed (see 1.2).
               OFF mode: nothing.

4.1.2.1 Front LF Shelf Menu

The Front LF Shelf menu is shown when the SELECT button is pressed in the preset settings menu with Front LF Shelf as active sub-menu (in this example 1), along with the current value (in this example +1.00dB). There are no sub-menus.

1	:		F	r	o	n	t		L	F		S	h	e	l	f
+	1	.	0	0	d	B										

Actions:

Rotary:	UP/DOWN: changes the Front LF Shelf in steps of 0.125dB. The minimum value is -8.00dB and the maximum is +7.87dB
Buttons:	MENU: nothing.
	BACK: the preset settings menu appears (see 4.1.2).
	PRESET: if pressed briefly the current preset is displayed for two seconds. If held for more than two seconds the preset menu appears (see 4).
	SELECT: saves value and sends to all channels. The preset settings menu appears (see 4.1.2).
	MUTE: a mute/un-mute command is sent to all channels. The display backlight flashes once per second when muted.
Clip:	Nothing.
Trigger:	ON mode: system shuts down and the standby mode is displayed (see 1.2). OFF mode: nothing.

4.1.2.2 Front HF Shelf Menu

The Front HF Shelf menu is shown when the SELECT button is pressed in the preset settings menu with Front HF Shelf as active sub-menu. The selected preset in the preset settings menu appears (1 in this example) along with the current value (+1.00dB). There are no sub-menus.

1	:		F	r	o	n	t		H	F		S	h	e	l	f
+	1	.	0	0	d	B										

Actions:

Rotary:	UP/DOWN: changes the Front HF Shelf in steps of 0.125dB. The minimum value is -8.00dB and the maximum is +7.87dB.
Buttons:	MENU: nothing.
	BACK: the preset settings menu appears (see 4.1.2).
	PRESET: if pressed briefly the current preset is displayed for two seconds. If held for more than two seconds the preset menu appears (see 4).
	SELECT: saves value and sends to all channels. The preset settings menu appears (see 4.1.2).
	MUTE: a mute/un-mute command is sent to all channels. The display backlight flashes once per second when muted.
Clip:	Nothing.
Trigger:	ON mode: system shuts down and the standby mode is displayed (see 1.2). OFF mode: nothing.

4.1.2.3 Rear LF Shelf Menu

The Rear LF Shelf menu is shown when the SELECT button is pressed in the preset settings menu with Rear LF Shelf as active sub-menu. The selected preset in the preset settings menu appears (1 in this example) along with the current value (in this example +1.00dB). There are no sub-menus.

1	:		R	e	a	r		L	F		S	h	e	l	f	
+	1	.	0	0	d	B										

Actions:

Rotary:	UP/DOWN: changes the rear LF Shelf in steps of 0.125dB. The minimum value is -8.00dB and the maximum is +7.87dB.
Buttons:	MENU: nothing.
	BACK: the preset settings menu appears (see 4.1.2).
	PRESET: if pressed briefly the current preset is displayed for two seconds. If held for more than two seconds the preset menu appears (see 4).

SELECT: saves value and sends to all channels. The preset settings menu appears (see 4.1.2).
MUTE: a mute/un-mute command is sent to all channels. The display backlight flashes once per second when muted.

Clip: Nothing.
Trigger: ON mode: system shuts down and the standby mode is displayed (see 1.2).
OFF mode: nothing.

4.1.2.4 Rear HF Shelf Menu

The Rear HF Shelf menu is shown when the SELECT button is pressed in the preset settings menu with Rear HF Shelf as active sub-menu. The selected preset in the preset settings menu appears (1 in this example) along with the current value (in this example +1.00dB). There are no sub-menus.

1	:	R	e	a	r		H	F		S	h	e	l	f	
+	1	.	0	0	d	B									

Actions:
Rotary: UP/DOWN: changes the rear LF Shelf in steps of 0.125dB. The minimum value is -8.00dB and the maximum is +7.87dB.
Buttons: MENU: nothing
BACK: the preset settings menu appears (see 4.1.2)
PRESET: if pressed briefly the current preset is displayed for two seconds. If held for more than two seconds the preset menu appears (see 4)
SELECT: saves value and sends to all channels. The preset settings menu appears (see 4.1.2)
MUTE: a mute/un-mute command is sent to all channels. The display backlight flashes once per second when muted.
Clip: Nothing
Trigger: ON mode: system shuts down and the standby mode is displayed (see 1.2).
OFF mode: nothing.

Summary Table

The table on the following two pages summarises the menu structure of these control functions and associated displays, with reference to the notes below:

1.   Note that Aliases are assigned to speakers in the order that they are connected via the RJ45 In and Thru sockets. The speaker connected directly to the remote control is aloways alias number 1.

2.   "Select" is the push button action of the rotary encoder.

3.   The Mute button mutes all channels, in which condition the display backlight flashes.

4.   For preset alias, select from alphabet/numerals using rotary encoder and click (up to 10 chars).

5.   XBD Main Source, Main Trim, LFE Source, LFE Trim would default to track Master setting

6.   Front LCR ganged. Rear surrounds ganged.

7.   Alias name of preset

8.   Defaults to volume level and channel clip display after no remote activity for >60 sec.

9.   If Trigger mode on, then the display shows "Awaiting Trigger" when the system is in standby. External trigger signal on is required on 1st loudspeaker in the chain.

10.   Sets input level required to obtain rated output

Please Note that the final loudspeaker in the chain must have the loopback connector fitted to the RJ45 Remote Thru socket.

Display	Buttons	Rotary	Select (2)	Rotary	Select	Rotary	Select	Rotary	Select
Volume (8)		Volume		-48.5 to +15dB					
Chan Assignment									
Chan Clip									
Volume/Vlock	Back >2 secs								
Awaiting Trigger	Menu	Power Off	–	Zzz					
Trigger Mode Off	(10)		–						
	Menu >2 secs	Setup							
			–	Channel Aliases	–	Ch.1 (1)	–	None	–
						Ch.2	–	Left Master	–
						Ch.3	–	Left XBD (5)	–
						Ch.4	–	Right Master	–
						Ch.5	–	Right XBD	–
						Ch.6	–	Centre Master	–
						Ch.7	–	Centre XBD	–
						Ch.8	–	Left Surr Master	–
						Ch.9	–	Left Surr XBD	–
						Ch.10	–	Right Surr Master	–
						Ch.11	–	Right Surr XBD	–
						Ch.12	–	LFE 1	–
								LFE 2	–
All Channel Mute	Mute (3)			Analogue In Sens –		+4dB to +20dB	– (10)		
Blacklight Flashes				12V Trigger Mode – (9)		On	–		
						Off	–		

		Left Master		Main Source		Analogue In
						Main AES3 Left
						Main AES3 Right
				Main Trim	–	-8.00 to +7.87dB
				LFE Source	–	None
						LFE AES3 Ch.A
						LFE AES3 Ch.B
						Analogue In
				LFE Trim	–	-8.00 to +7.87dB
		Left XBD	–			
		Right Master	–			
		Right XBD	–			
		Centre Master	–			
		Centre XBD	–			
		Left Surr Master	–			
		Left Surr XBD	–			
		Right Surr Master	–			
		Right Surr XBD	–			
		LFE 1	–			
		LFE 2	–			
Presets						
Presets >2 secs	Preset Setup	Preset Aliases	–	Preset A	–	ABC... (4)
				Preset B	–	
				Preset C	–	
				Preset D	–	
				Preset E	–	
		1: Preset A	–	Front LF Shelf (6)	–	-8.00 to +7.87dB
				Front HF Shelf	–	-8.00 to +7.87dB
				Rear LF Shelf	–	-8.00 to +7.87dB
				Rear HF Shelf	–	-8.00 to +7.87dB
		2: Preset B	–			
		3: Preset C	–			
		4: Preset D	–			
		5: Preset E	–			
	No Preset	–				
	1: Preset A (7)	–				
	2: Preset B	–				
	3: Preset C	–				
	4: Preset D	–				
	5: Preset E	–				

Current Preset
Preset 'n' Alias
Preset
Preset 'n' Alias

The PMC Range

The PMC range of professional monitors currently spans 22 different models, from the enormous BB5 XBD-A flagship system down to the diminutive DB1 passive speaker. However, every monitor is designed with the same care and attention, using shared families of drive units, crossover designs and amplifiers. As a direct consequence they all enjoy the same family characteristics of wide dispersion, low distortion, consistent voicing, and an even bass response regardless of listening level. This feature allows different sizes of monitors to be used in concert to create effective multichannel systems where space is at a premium.

Almost all of the larger models (from the IB2 upwards) are available as either fully active or passive versions, while all the smaller models (IB1 downwards) are passive models which can be 'activated' if required (the passive speaker is fitted with a single integral power amplifier). The exceptions are the BB5 XBD-A, the AML2, and the TLE1 subwoofer which are only available as active designs. The two wafer™ monitors are designed for on-wall or in-wall mounting, and most PMC monitors are also available as horizontal-mounting centre-channel versions, the three largest systems being shown below.
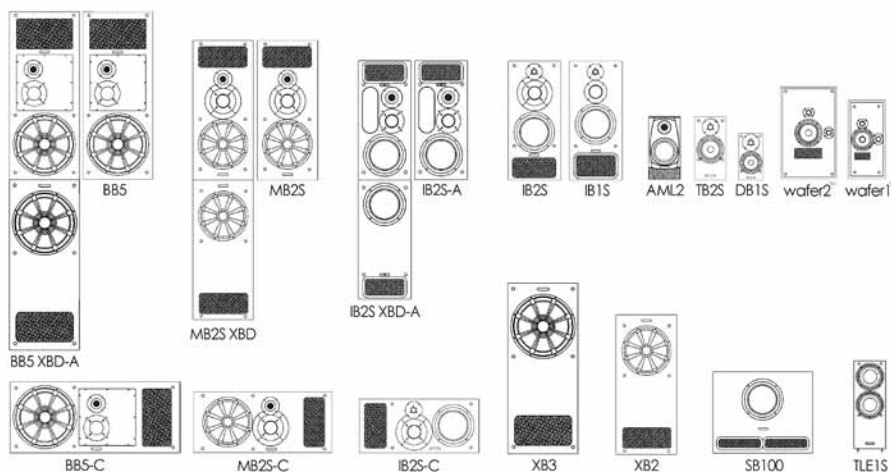
Service

We are confident that your IB2S-Active Series loudspeakers will afford many years of trouble-free listening of the highest order. However, in the unlikely event of requiring repair all replacement parts will exactly match the performance of those originally installed because we record the precise value of each component along with the system response as a whole for every loudspeaker we produce.

For any issues that might arise, or for advice and service requirements, the primary point of contact should be your authorised PMC dealer/distributor.

If you do not have a local representative please see www.pmc-speakers.com and click on 'distribution.'

Alternatively you can view the FAQ's (Frequently Asked Questions) and servicing section on our website. (Click on the 'contacts' section and select 'FAQ').

⚠️ **Important Note:** Please do not return any products to PMC directly without first contacting our service department.

Specifications

Usable Frequency Response	20Hz – 25kHz
Maximum SPL	120dBA @1metre
Effective ATL™	2.4m (8.0 feet) (Advanced Transmission Line length)
Crossover	380Hz and 3.8kHz with 24dB per octave slopes
Drive Unit Complement	**LF** 254mm (10 inch) PMC-designed Carbon Fibre and Nomex™ Flat Piston **MF** 75mm (3 inch) Soft-dome PMC-designed midrange **HF** 34mm (1.25 inch) FerroFluid-cooled Soft Dome with integral PMC dispersion plate
Input Connectors	Balanced analogue main & LFE inputs (both with Thru outputs), AES3 digital main & LFE inputs with Thru outputs. (XLR-3F connectors wired Pin-1 screen, Pin 2 hot, Pin-3 cold).
Input Sensitivity	Adjustable +4 to +20dBu
Digital Sample Rate	32 -192kHz, 24 bit via internal Sample Rate Converter
Mains Power	IEC Connector. Mains voltage switchable for 115 or 230V AC. 12V trigger operation for remote power on-off.

Main Source Selection	Main analogue, Main AES3 (left), Main AES3 (right)
	All with ±8dB level trims.
LFE Source Selection	LFE analogue, LFE AES3 (left), LFE AES3 (right),
	All with ±8dB level trims
Amplifier Section	**LF** 800Wrms, **MF** 200Wrms, **HF** 200Wrms
User Equalisation	**LF** Shelf ±8dB, **HF** Shelf ±8dB
Remote Control	Wired remote control via RJ45 socket, enabling control
	and setup of up to six channels. Incorporates rotary
	volume control spanning -48.5dB to +15dB
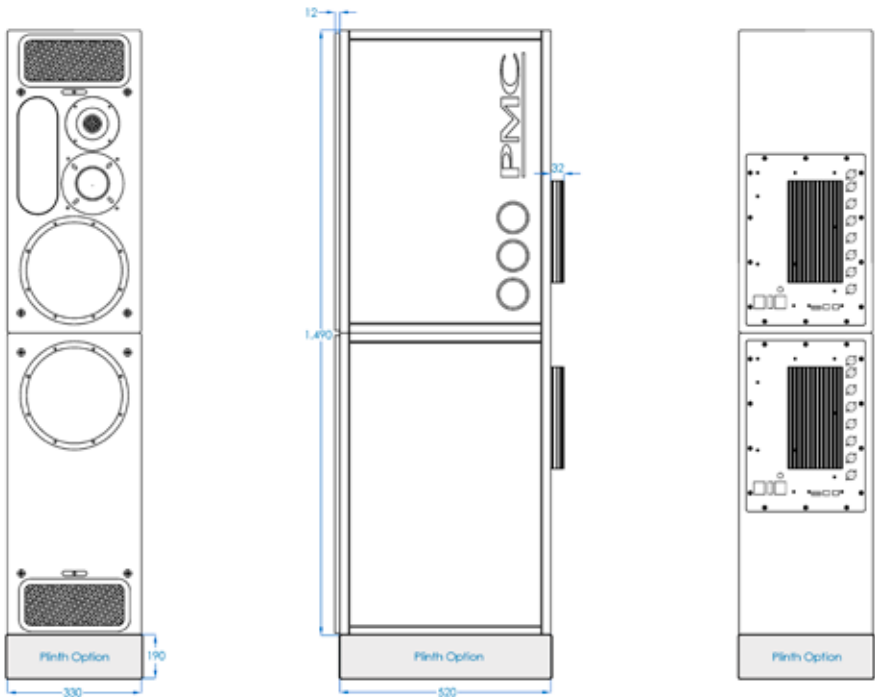
Our Meticulous Care and Attention

All PMC loudspeakers are hand-built in the U.K. using components that are individually matched to our reference model. This includes the structural integrity of every cabinet, and the testing and recording of each individual component to guarantee adherence to our strict tolerances. In this way we can ensure your purchase sounds identical to the original design.

Each completed loudspeaker then undergoes a set of objective and subjective measurements. For example, frequency response sweeps ensure that the unit meets our exacting performance criteria, and critical listening tests are conducted against the reference model using a wide variety of audio material, from a benchmark BBC speech recording to carefully selected classical music, pop and rock tracks.

Warranty On-Line

SIMPLY ACTIVATE YOUR 5-YEAR WARRANTY ON-LINE

GO TO *WWW.PMC-SPEAKERS.COM* **AND CLICK ON REGISTER PRODUCT**
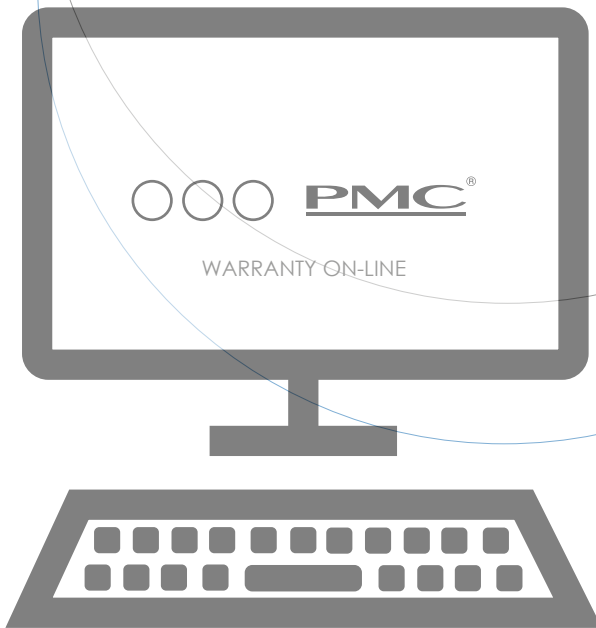
If you do not have access to the internet fill in the warranty form on pages 40 and 41, and post page 41 to us.

WARRANTY CERTIFICATE - PART 1

Your copy

Please complete and retain this page for your own records

Product

Serial No's

Date of purchase

Dealer's name

Dealer's address

Town

County

Postcode

Dealer's Telephone No.

Servicing and warranty issues – Please read the following carefully.

Non-UK clients

Contact your local dealer/distributor for the details of warranty repairs – see *www.pmc-speakers.com* and click on distribution for their details.

UK clients

In the unlikely event of a fault occurring with your PMC product please contact your dealer where the product was purchased.

Do not return a product to PMC Ltd without firstly contacting our technical dept. If the product needs to be returned for service you will be issued with a Returns Authorisation number.

If a product is returned to PMC Ltd and subsequently is found to have no fault or a non-warranty fault there will be minimum charge of £50.00 plus the carriage for its return.

Proof of purchase is required for any claim covered by this warranty.

This product is warranted for a period of five years from the date of purchase or valid warranty registration which is either by receipt of the 'Our Copy' card or an on-line registration which must be made within ten days of purchase or receipt.

The warranty covers defects due to faulty materials or workmanship but does not cover defects arising from accidental damage, misuse or wear and tear. The warranty is void if any attempt has been made by persons not authorised by PMC Ltd to dismantle, repair or modify any part of the product.

Products must be returned using original packing material. This warranty does not cover damage in transit.

Note that the cost of the carriage to PMC is not covered by the warranty.

Returned products that are defective but no longer covered by warranty will be repaired or replaced at the discretion of PMC Ltd.

Please allow a minimum of 14 working days for return of warranty repairs.

This warranty does not affect your consumer rights under statutory law. This warranty certificate is only valid in the United Kingdom.

PMC LIMITED 43-45 Crawley Green Road Luton LU2 0AA UK T +44 (0) 870 4441044 F +44 (0) 870 4441045
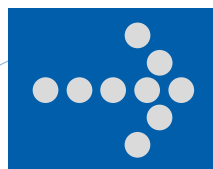
WARRANTY CERTIFICATE - PART 2

PMC's copy

Please complete and return this section – or simply complete the on-line

registration at *www.pmc-speakers.com* and click on 'register product.'

Product

Serial No's

Date of purchase

Purchased from

Your name

Your email address

Your address

Town

County

Postcode/Zip code

Help us to improve
our products.
See over

Help us Improve: Your Comments

We value all of our clients' comments. Please take a moment to help us improve:

If there is one thing we should change, what would it be?

Please tell us how your new PMC loudspeakers perform. Your comments may appear on the customer quotes section for this product on our website – but don't worry, the comments will be anonymous and your personal details will not be published.

Which magazines do you read?

| HiFi	Pro	Lifestyle	On-Line
HiFi Choice	Future Music	T3	mixonline.com
What HiFi	Sound On Sound	Stuff	gearslutz.com
Stereophile	Audio Media	GQ	avreview.co.uk
HiFi World	Pro Sound News	Boys Toys	avforums.com
HiFi Critic	Resolution	FHM	HiFi WigWam.com
HiFi News	Audio Fanzine	Shortlist	What HiFi.com
HiFi+	IBE	Maxim	SoundonSound.com
Gramophone	Tape Op	Esquire	SoundonSound/forum
Other	Other	Other	Other

'We hope you enjoy your latest purchase as much as we enjoyed designing and building them – Thank you'

Inspection Certificate

Every component employed within a PMC product is measured, tested, matched and recorded by hand. This analysis also applies to the final product to ensure you receive an identical replica of the original reference model.

- Enclosure finish
- Assembly & Wiring
- Driver installation
- Enclosure seal
- Level – Frequency
- Pair matching
- Listening test 1
- Listening test 2
- Final inspection
- Accessory pack
- User Guide
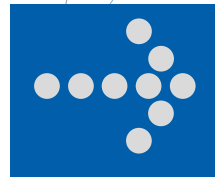
These have all been carefully checked by the builder of your IB2S-Active Series loudspeakers

Date

IB2S-Active   Serial no

XBD-Active   Serial no

Hand built by

IB2S-Active is a trademark of The Professional Monitor Company Limited.

This document should not be construed as a commitment on the part of The Professional Monitor Company Limited.

The Professional Monitor Company Limited will not assume responsibility for errors that may appear in this document.

Information may be subject to change.

Document edited by Apple & Pear Productions Ltd.

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