



## **DA-BM15A**

### **OWNERS MANUAL**

Congratulations on your purchase of the Dynaudio Acoustics BM15A monitor system. With the right care and attention it will give you many years of trouble free audio reproduction. It is most important, however, that you take a few minutes at this early stage in your BM15A's life to read the following paragraphs. They contain essential information to enable you to get the best from your monitors.

### **Electrical Safety Warning**

**This unit is supplied with a 3 wire power cord. Under no circumstances should the earth wire be disconnected.**

**To prevent possibility of shock hazard do not expose the unit to moisture**

**There are no user serviceable parts inside. Do not open cover. Refer servicing to qualified personnel only**

**Ensure correct mains voltage and fuse are selected before connection to mains**

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## ***Setting Up***

### ***Mains Power Connections***

Mains power is applied via a fused IEC inlet. The unit must be earthed. The voltage selector switch is used to match the unit to the mains voltage in your territory. The mains fuse must be the correct value for the voltage selected, 115v requires a T4A fuse while 230v requires a T2A fuse. The 'T' signifies a slow blow type fuse.

**You must ensure that the correct voltage and fuse have been selected before switching the unit on.**

### ***Audio Connections***

Audio input is via a female XLR connector. The input is electronically balanced with +ve on pin 2, -ve on pin 3 and ground on pin 1. If your signal source is unbalanced it is usual to connect the unused signal pin (i.e. Pin 3) to ground. This is normally done inside the connecting cable. For best results use only good quality screened cables and connectors.

### ***Positioning***

The BM15A is designed as a 'nearfield' or 'mid-field' monitor and would normally be positioned 1-3m from the listener. They can be mounted on stands or on the meter bridge of the console (providing this is substantial enough). For best results the speakers should be 'aimed' at the listener in both vertical and horizontal planes.

They may be used in a horizontal orientation i.e. lying on their sides, but the acoustic dispersion has been optimised for vertical use. Also the heatsink will provide improved cooling when used vertically.

In any situation ensure that there is adequate space for ventilation around the heatsink.

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## Operation

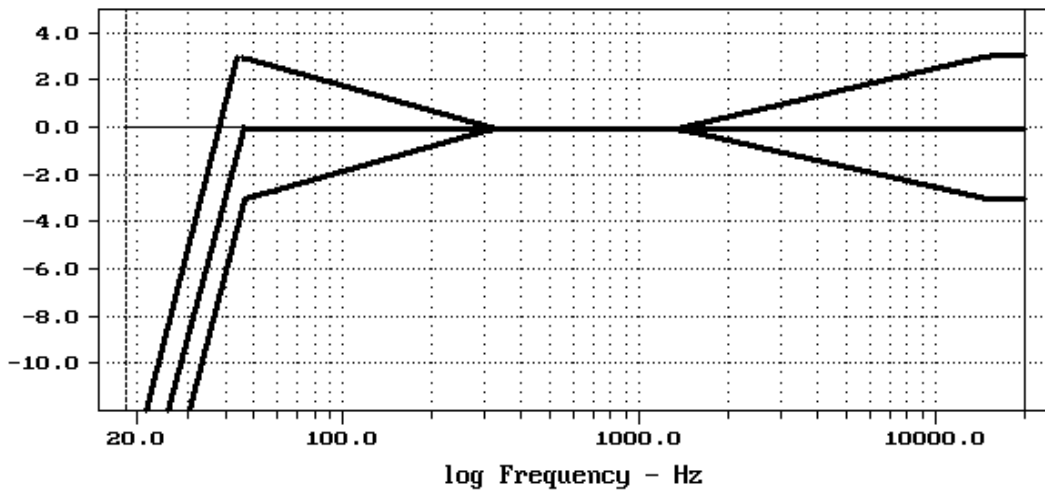
### Controls

Level switch. This sets the input sensitivity of the unit. The +4 position is intended for professional use and means that full power is reached with an input level of +4dBm (balanced). The -10 position is intended for semi-professional or domestic use and means that full power is reached with an input level of -10dBm (unbalanced).

HF Trim This control allows the high frequency level to be adjusted. The HF Trim circuit is a low-Q equaliser which reaches a maximum range of 6dB @ 15kHz (see graph).

LF Trim. This control allows the low frequency level to be adjusted. The LF Trim circuit is a low-Q equaliser which reaches a maximum range of 6dB @ 50Hz (see graph).

The trim controls are intended to allow the user to make some adjustment of the speaker response to accommodate personal tastes and variations in acoustic environment.



Trim Control Response

### Indicators

There are two LED indicators on the front baffle of the BM15A.

The right hand one is the power/fault indicator. On switching the unit on this will shine red for about five seconds and then turn green to indicate normal operation. If for any reason the amplifier protection circuitry is engaged the LED will turn back to red.

The left indicator is a 'true-clip' indicator and lights if the low frequency amplifier clips, or runs into overload. It is acceptable to run the system with this lighting occasionally on peaks, but avoid running the system with it lighting most of the time

### **Running-In**

The drivers in your BM15A must be run-in before optimum performance is achieved. Avoid using the system at high levels for the first 24 hours of operation. Full run-in is usually achieved after about one week of normal operation.

### **Protection**

The BM15A has a comprehensive electronic protection system. Thermal overload or dc voltage on the outputs will cause the system to engage. This will disconnect the drive units from the amplifiers and change the power LED to it's red/fault condition. In addition the HF amplifier has an optical limiter in circuit which prevents excessive long term power reaching the tweeter whilst allowing transients to pass uncompressed.

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## ***Troubleshooting***

If the speaker stops working and the power LED turns red (fault condition) switch the mains power off and leave it for a moment. If the unit fails to operate again when you switch back on the fault may be due to overheating, switch off again and allow it to fully cool down before powering up. Ensure the heatsink is clear of obstruction and has free air circulation around it. If however the fault condition persists the unit should be inspected by qualified personnel (your DA dealer).

If the speaker stops working and no LED's are alight then the mains fuse on the back panel should be checked and replaced if necessary. If this does not rectify the problem the unit should be inspected by qualified personnel (your DA dealer).

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## ***Care***

Components of the highest quality are used in the BM15A. and should give a long trouble free life. Here are a few hints to help them on their way.

Avoid running the system into more than very brief clipping or distortion. When an amplifier clips it can send potentially damaging d.c. components to the drive units. They may not fail at once but prolonged exposure to this will result in eventual failure.

Avoid unplugging or switching off any equipment that is connected to the monitor system without first turning off the BM15A. Large voltage spikes are often generated when equipment is switched off which will be amplified to a potentially damaging level.

Do not touch the drive units. The tweeter especially uses a very fine fabric diaphragm which is easily damaged.

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## ***Options***

The BM15A may be used in conjunction with the Dynaudio Acoustics Active Bass Extension System. The ABES comprises a single 2 x 12" Bass cabinet, with an integrated crossover and amplifier mounted on the rear. The ABES will extend the frequency response of the BM15A down to 35Hz. Please consult your local dealer for a demonstration.

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## **Service**

There are no user serviceable parts inside the BM15A so consult your dealer if service is required or contact one of the addresses below.

Dynaudio Acoustics A/S  
Sverigesvej 15  
DK-8660 Skanderborg  
Denmark  
Tel: +45 86 52 34 11  
Fax: +45 86 52 31 16

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## Warranty

This product is guaranteed against defects in materials and workmanship for 1 year from date of purchase. This warranty is void if the unit has been tampered with or modified in any way, or in our opinion has not been used in accordance with the instructions above.

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## Technical Specifications

Type:	2 way active near/midfield monitor
Frequency Response:	40 Hz to 22 kHz (-3dB).
SPL (Peak/Cont.):	119dB / 109dB one cabinet @ 1m.
Drive units:	240 mm bass driver, 26 mm high frequency driver
Internal amplifiers:	200W + 100W discrete MOSFET power amps. Convection cooled.
	1.7 kHz electronic crossover, 5 <sup>th</sup> order phase aligned.
	Instrumentation type balanced input section, with input overload protection.
Protection:	DC, Thermal on both channels, opto-electronic limiter on HF
User Controls:	Variable HF and LF trim, Input sensitivity
Dimensions:	455 x 290 x 387 millimetres (h x w x d) (Allow 35 mm for rear connectors clearance)
Positioning:	Free standing near/mid-field, desktop mounting. Rigid high performance stands recommended.
Accessories:	Power cable supplied.

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## Schematic Diagram

