

**DYNAUDIO**  
Professional

**DBM50**



User's manual



# IMPORTANT SAFETY INSTRUCTIONS



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



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

- 1 Read these instructions.
- 2 Keep these instructions.
- 3 Heed all warnings.
- 4 Follow all instructions.
- 5 Do not use this apparatus near water.
- 6 Clean only with dry cloth.
- 7 Install in accordance with the manufacturer's instructions.
- 8 Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- 9 Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- 10 Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- 11 Only use attachments/accessories specified by the manufacturer.



- 12 Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
- 13 Unplug this apparatus during lightning storms or when unused for long periods of time.
- 14 Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

## Warning!

- To reduce the risk of fire or electrical shock, do not expose this equipment to dripping or splashing and ensure that no objects filled with liquids, such as vases, are placed on the equipment.
- This apparatus must be earthed.
- Use a three wire grounding type line cord like the one supplied with the product.
- Be advised that different operating voltages require the use of different types of line cord and attachment plugs.
- Always observe the local safety regulations. Ensure that the factory-set power requirements for the device (refer to the label on the back of the monitor) corresponds to the mains supply in your region.
- This equipment should be installed near the socket outlet and disconnection of the device should be easily accessible.
- To completely disconnect from AC mains, disconnect the power supply cord from the AC receptacle.
- The mains plug of the power supply shall remain readily operable.
- Do not install in a confined space.
- Do not open the unit - risk of electric shock inside.

## Caution:

You are cautioned that any change or modifications not expressly approved in this manual could void your authority to operate this equipment.

## Service

- There are no user-serviceable parts inside.
- All service must be performed by qualified personnel.





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# INTRODUCTION

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## **Congratulations on your new Dynaudio DBM50.**

The DBM50 is the first desktop focused nearfield monitor by Dynaudio, and proudly continues the uncompromised sound and build quality that Dynaudio has been synonymous with for decades. The handcrafted drivers and the carefully matched amp channels and crossover will give you unprecedented performance for many years to come. It is most important, however, that you take a few minutes at this early stage of your DBM50's life, to read this manual. It contains essential information to make you get the best from your new monitors.

*The latest manual revision is always available at our website:  
[www.dynaudioprofessional.com](http://www.dynaudioprofessional.com)*

*For support please also refer to: [www.dynaudioprofessional.com](http://www.dynaudioprofessional.com)  
Please enjoy*

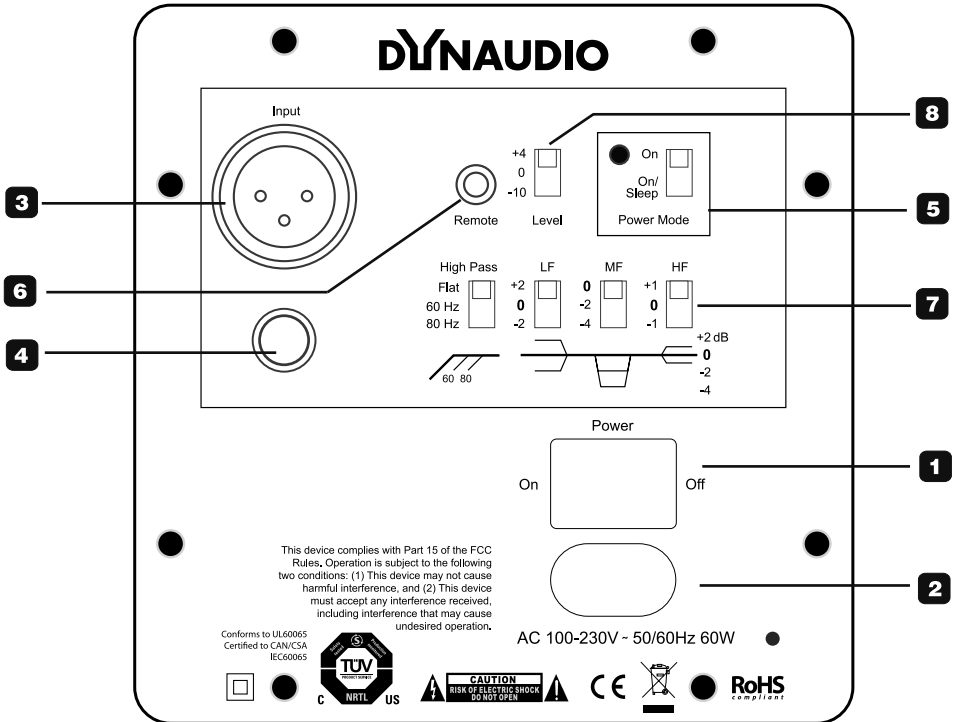


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# OVERVIEW - REAR PANEL

Correct setup and connections is essential to achieve optimal performance from your monitors. Please follow the instructions on the following pages.



1. Power On/Off switch
2. AC power Input
3. Balanced analog input (XLR)
4. Unbalance analog input (RCA)
5. Power Mode switch
6. Remote
7. Filter switches
  - High Pass
  - LF - Low filter setting
  - MF - Mid filter setting
  - HF - Hi filter setting
8. Level - Sensitivity switch

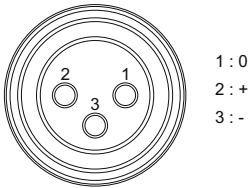
# SETTING UP

## 1/2. Power On/Off switch/AC Power In

Before switching on, make sure Mains Voltage matches your areas Mains Voltage specification.

## 3. Balanced analog Input

Audio Input is via a female XLR connector. The Input is electronically balanced with following connections. The connections are printed on the rear for easy reference.



## 4. Unbalanced analog input (RCA)

Unbalanced Input via RCA. If your audio source doesn't have a balanced output use the RCA input connection

For best results always use only good quality screened cables and connectors.

## Switches

On the rear of the monitor you will find 6 switches for setting up the monitor for optimum performance in different acoustic environments. Each switch is explained in the following.

### 5. Power Mode switch

**ON** - The speaker is active and ready to play.

**ON/SLEEP** - After if no input signal has been present on the inputs for 20 minutes the speakers enters the "Sleep" mode and saves power. The speaker is invoked and ready to play when a signal is present on the input again. Wake-up time is approximately 2 seconds.

### 6. Remote

Usually active speakers are at max level all the time. By connecting the Dynaudio External Volume control, the volume is conveniently controllable via the remote.'

## 7. Filter switches

**LF** - This switch controls the bass gain level using shelf-type EQ. The level can be set to +2dB, 0dB or -2dB.

This filter is used to adjust for the proximity of boundaries, so if positioned close to wall or corner, use the -2dB setting. If positioned far from walls use the +2dB or 0 position, depending on other equipment, and personal taste.

**MF** - This switch sets a notch filter, used to compensate for the acoustic effect of a console.

Such placement usually results in a response peak in lower midrange. The MF switch activates a bell shaped notch filter, which can compensate. Use either the -2 or the -4dB setting. You may experiment finding the setting, which provides the flattest response.

**HF** - This switch controls the Treble level and it is used to match the high end of the monitor to your other electronic equipment, and your acoustical environment. Use the setting providing the preferred timbre. If the sound is too bright; try to set to -1dB to reduce treble by 1dB. If too dull sound, use +1dB setting to raise the High Pass by 1dB.

**HP** - This switch sets the lower cut-off frequency of the monitor. It is used to match the monitor to a subwoofer. You can select between 60Hz or 80Hz X-over. Flat is used in case you do not use a subwoofer to assist your monitors. When used with a subwoofer it is recommended to use either 60Hz or 80Hz filter, thus allowing a higher un-distorted sound-pressure level.

## 8. Level Trim

Use this switch to match the sensitivity of the DBM50 monitor to your source.

### High-output Source

If your source has a high output, set switch to the -10 position to reduce sensitivity by 10dB.

### Low-output source

If your source has a low output, set switch to the +4 position to gain 4dB more sensitivity.





# INDICATORS & POSITIONING

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## Protection

The DBM50 monitor has several built in protection systems to reduce the risk of hazard or damage due to overloading.

Both power amplifiers have thermal protection. This activates if a problem should occur, and helps protect both the electronics and the loudspeaker drivers.

The woofer channel has a built in limiter that protects the woofer unit from too much excursion. It works by reducing the gain of the circuit when a certain threshold level is reached.

## Positioning

The DBM50 is designed as a near-field monitor for stereo and surround setups. The angled front-plate design makes it ideal for placement on a desktop.

If you prefer to place the speakers on stands or on the meter bridge of a console\* you simply place the speaker on the sides. For best results the speakers may be aimed towards the listener in both vertical and horizontal planes.

*Note:*

*Be aware that proper air circulation around the monitor for sufficient cooling is necessary.*

\* Check that the meter bridge is sufficiently sturdy

# MISCELLANEOUS

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## Troubleshooting

If Power LED lights green and no sound, check your input signal i.e. by switching speakers.

## Care

Components of the highest quality is used in your DBM50. This assures years of trouble free operation. Following precautions should still be made though.

Avoid running the system into severe clipping. Even there is an advanced protection system, you may be able to destroy your speakers by severe overpowering. The limiter works over a certain range, but exceeding this level may send a severely clipped signal to your drivers. When a noticeable distortion occurs, please turn down the level to your speakers.

Avoid hot plugging the equipment connected to the monitors. Always turn off the speaker and other equipment when plugging or unplugging signals, or switching equipment on or off. Do not touch the drive units by hand. The tweeter especially uses a very fine fabric dome with a ultra thin coating.

## Options

The DBM50 may be combined with a Dynaudio Acoustics subwoofer for extended bass performance, and higher spl if high-pass filter is used. See Setting Up.

## Service

There are no user serviceable parts inside the monitor. If service is required please contact service via:

***[www.tcsupport.tc](http://www.tcsupport.tc)***

***or***

***TC Electronic  
Sindalsvej 34  
DK-8240 Risskov  
Denmark***

***Tel: +45 87427000***

# TECHNICAL SPECIFICATIONS

Input level for 85 dB SPL @ 1m, @ 0 dB setting, unbalanced:	80 mVrms
Max input level (@setting):	4,8 Vrms (-10dB) 1,5 Vrms (0dB) 1 Vrms (+4dB)
Power consumption:	Standby: 0.3 W Idle: 5.8 W Max: 94 W
Amplifier power:	Tweeter: 50 W Woofers: 50 W
Max SPL 1m, normal room, short term IEC signal:	117 dB peak
Frequency Response: (+/- 3dB):	46 Hz – 21 kHz
Resonance Frequency:	39 Hz
Internal Cabinet Volume:	13.9 litres
Bass Principle:	Bass reflex
Weight:	7.2 kg
Dimensions (W x H x L):	230 x 335 x 348 mm
Crossover:	2 way
Crossover Frequencies:	1500 Hz
Crossover Slope:	12 dB/oct
Connection:	XLR balanced and RCA unbalanced
Recommended Placing:	Desktop

## Remarks

Tweeter:	D-281 - 28 mm soft dome, rear chamber, magnetic fluid 4mm aluminium front Pure aluminium wire voice coil
Woofers:	18cm moulded aluminium frame One piece thermo formed MSP cone 75 mm voice coil with pure aluminium wire on kapton former.
Cabinet:	Designed to be placed on a desk. Angular cabinet design to reduce internal standing sound waves. 18 mm MDF
Crossover:	Active, DSP based
Amplifier:	Input sensitivity selector HF, MF and LF trim selector High pass frequency selector Auto standby/On selector Remote volume control (cabled) High efficiency digital power amplifiers. Switch mode power supply with wide range input

**DUE TO CONTINUOUS DEVELOPMENT, THESE SPECIFICATIONS ARE  
SUBJECT TO CHANGE WITHOUT NOTICE.**



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