

CDM7

OWNER'S MANUAL



B&W

LISTEN AND YOU'LL SEE

Figure 1

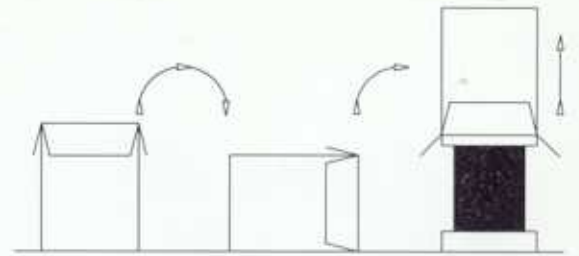


Figure 2

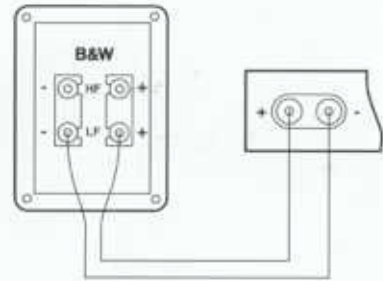


Figure 3

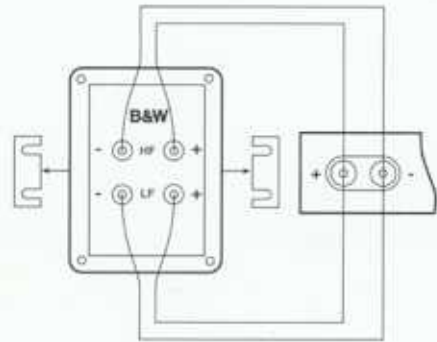


Figure 4

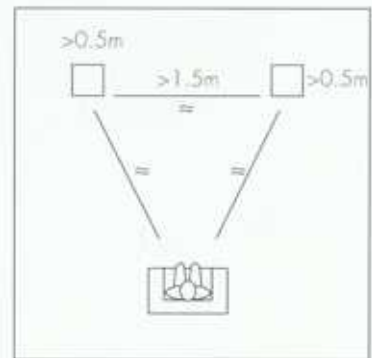
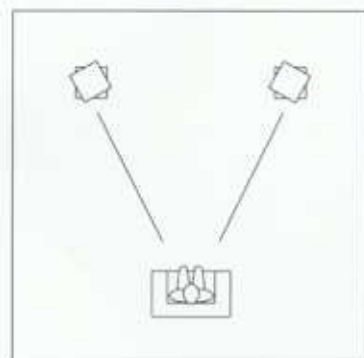


Figure 5



Introduction

Thank you for purchasing B&W CDM7 speakers.

Since its foundation in 1966, the continuing philosophy of B&W has been the quest for perfect sound reproduction. Inspired by the company's founder, the late John Bowers, this quest has entailed not only high investment in audio technology and innovation but also an abiding appreciation of music to ensure that the technology is put to maximum effect.

It is also our policy to make sure the advanced features pioneered on one product are incorporated into others we manufacture.

CDM systems have cabinets with contoured edges to reduce sound diffraction (the re-radiation of sound waves from sharp edges that interfere with and blur the direct sound from the drive units), incorporating woven Kevlar® cone bass/midrange drive units for lowest coloration and maximum definition. They also have alloy dome tweeters with magnetic fluid cooling to ensure good definition to the limits of audibility and maintain dynamics to high sound levels. Additionally, the tweeter is free space mounted to improve the spaciousness of the stereo image. All these features were originally developed for the acclaimed B&W800 Series systems and go towards the realisation of fine transducers.

However, no matter how good the speakers themselves, they must work well into the listening room and time spent on the installation process will reap the reward of many hours listening pleasure. Please read through this manual fully. It will help you optimise the performance of your audio system.

B&W distribute to over 50 countries world-wide and maintain a network of dedicated distributors who will be able to help should you have any problems your dealer cannot resolve.

Unpacking (figure 1)

- Fold the top carton flaps right back and invert the carton and contents.
- Lift the carton clear of the contents.
- Remove the inner packing from the product.
- 4 spike feet and 4 lock nuts are taped in recesses in one polystyrene end tray.
- Please retain the packaging for future use.

CDM7 speakers are supplied in veneer matched pairs. Check that your speakers have consecutive serial numbers.

Connections (figures 2 & 3)

All connections should be made with the equipment turned off.

There are two pairs of gold plated terminals at the back of each speaker, one pair to the bass-mid units and one pair to the tweeter which permit bi-wiring or bi-amplification if desired. On delivery, both pairs are connected together by high-quality gold plated copper links for use with a single twin cable.

The terminals accept bare wires.

For single cable connection, connect either of the positive terminals on the speaker (marked + and coloured red) to the positive terminal on the power amplifier and negative (-, black) to negative (figure 2). Failure to observe correct polarity will result in poor sound balance and image focusing.

When bi-wiring the speakers, loosen the terminal caps and remove the links. Use a separate twin cable from the amplifier terminals to each pair of speaker terminals (figure 3). Correct polarity connection is even more critical in this case to maintain the frequency response of each speaker as well as the correct balance between left and right speakers. The use of separate cables can improve the reproduction of low-level detail by reducing interaction in the crossover and allowing optimum choice of cable for each frequency range.

Always make sure all the terminal caps are screwed down tight, as otherwise they may rattle.

When choosing cable, keep the total electrical impedance (out and back) below the maximum recommended in the specification. In particular, the cable to the tweeter should have low inductance, otherwise the very high frequencies will be attenuated. Ask your dealer for advice, as the optimum cable will depend on the length required.

Positioning (figure 4)

Some experimentation with the position of the speakers is well worthwhile to optimise the interaction between them and the listening room. However, as an initial guide:

- Do not fit the spike feet until you have found the best position for the speakers.
- Place the speakers and the centre of the listening area approximately at the corners of an equilateral triangle.
- Keep the speakers at least 1.5m (5ft) apart to maintain left-right stereo separation.
- Keep the speaker baffles at least 0.5m (20in) clear of walls. Having the speakers too close to walls increases the level of bass relative to the midrange and may give a boomy quality to the sound.

WARNING: The CDM7 produces a static magnetic field that extends outside the cabinet boundary. As such the CDM7 should not be placed within 0.5m (20in) of equipment that may be affected by such a field, e.g. Cathode Ray Tubes in TVs and Personal Computers.

Fine tuning

Before fine tuning the installation, double check the polarity and security of the connections.

If the level of bass is uneven with frequency, this is usually due to strong excitation of resonance modes in the room.

Even small changes in the position of the speakers within the listening room can have a profound effect on the perceived sound quality by altering the excitation of these modes. Try mounting the speakers along a different wall. Even moving large pieces of furniture about can have an effect.

If the general level of bass is too high, try moving the speakers further away from the walls. Conversely, if you need more bass, move the speakers closer to the walls. Space behind the speakers also improves the impression of perspective on well recorded material.

If the central image is poor, try moving the speakers closer together or toeing them in so they point at or just in front of the listening area (figure 5).

If the sound is too harsh, increase the amount of soft furnishing in the room. For example, use heavier curtains. Conversely reduce the amount of soft furnishing if the sound is dull and lifeless.

Test for flutter echoes by clapping your hands and listening for rapid repetitions. These can smear the sound, but may be reduced by irregular shaped surfaces such as bookshelves and large pieces of furniture.

Ensure the speakers stand firmly on the floor. Whenever possible fit the spike feet supplied after you have optimised the positioning. These are designed to pierce through carpeting to the floor surface. Initially, screw the lock nuts fully onto the spikes and screw the spikes fully into the threaded inserts in the base of the cabinet. If the cabinet rocks, unscrew the two spikes that do not touch the floor equally until the cabinet sits firmly on the floor, and lock them in place by tightening the lock nuts against the cabinet. If there is no carpet and you wish to avoid scratching the floor surface, use a protective disc between the spike and the floor.

Aftercare

The veneers normally only require dusting. If you wish to use an aerosol cleaner, remove the grille first by gently pulling it away from the cabinet. Spray onto the cleaning cloth, not directly onto the cabinet. The grille fabric may be cleaned with a normal clothes brush after removing the grille from the cabinet.

Avoid touching the drive units, especially the tweeter, as damage may result.



CDM7

Description	3-way 4th-order vented-box system
Drive units	1x 165mm (6in) Cobex® bass 1x 165mm (6in) Kevlar® bass/midrange 1x 26mm (1in) metal dome high-frequency
Frequency range	-6dB at 29Hz and 30kHz
Frequency response	39Hz - 20kHz ±3dB on reference axis
Dispersion	Within 2dB of response on reference axis Horizontal: over 40° arc Vertical: over 10° arc
Sensitivity	90dB spl (2.83V, 1m)
Harmonic distortion	2nd & 3rd harmonics < 1% 45Hz - 20kHz (90dB spl, 1m)
Nominal impedance	8Ω (minimum 4Ω)
Crossover frequencies	150Hz, 3kHz
Power handling	30W - 150W continuous into 8Ω on unclipped programme
Max. recommended cable impedance	0.2Ω
Dimensions	Height: 950mm (37½in) Width: 220mm (8½in) Depth: 290mm (11½in)
Net Weight	18.5kg (40.7lb)
Finishes	Cabinet: Real wood veneers of black ash or red ash Grille: Black cloth



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