

**B&W** Digital  
Motors

**Instruction  
Manual**

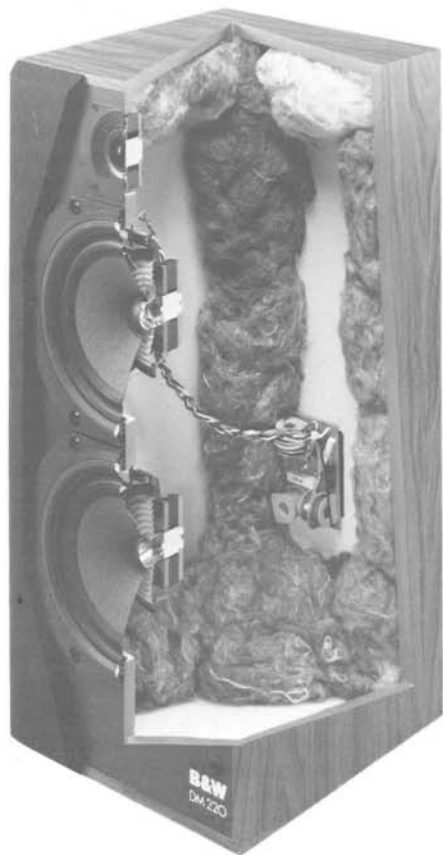


## Introducing the B&W DM220

Your Digital Monitor system DM220 was designed and made by B&W, the British manufacturer whose loudspeakers are used by the leading recording companies worldwide to monitor digital recording sessions.

It is a 3-way system of quite exceptional sensitivity. Other characteristics are broad linear frequency response and excellent transient performance, even at very high sound pressure levels.

The performance of your DM220 will delight you – and this manual will enable you to maximise your listening pleasure.



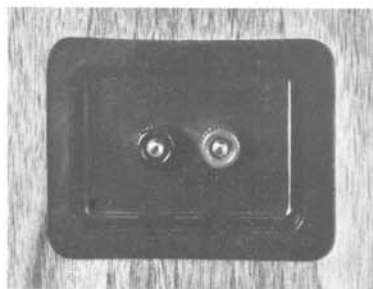
## Electrical Connection

Connect the loudspeaker to your amplifier by means of either the screw terminals or 4mm plugs. The red terminal on the loudspeaker should be connected to the red terminal on the amplifier, or the connection marked positive.

Correct phasing of stereo loudspeakers is extremely important and incorrect connection will produce a loss of bass and a poor stereo image. This will be rectified by reversing the connections to one of the loudspeakers.

It is good practice to keep the connecting leads between the power amplifier and speakers as short as possible, and to use a heavy gauge wire to keep the DC resistance to a minimum.

As a guide we would recommend a minimum cable size of 1.5mm<sup>2</sup> up to 5m long, and 2.5mm<sup>2</sup> or more over 5m.



## The Listening Room and Positioning your Loudspeakers

Both the listening room and positioning your loudspeakers within the room will widely influence the tonal balance and stereo information you receive. Choice of a listening room is often restricted but if you are able to choose, the following points may be helpful.

**1** The importance of the listening room, and its influence on your loudspeakers, cannot be overstated. At frequencies below 300-400 Hz sound will be determined by three factors: the loudspeakers themselves, their position in the room, and the acoustics of the room.

Generally, free-standing location of loudspeakers is better than shelf-mounting, and better still if they can be placed asymmetrically to the room boundaries since this will generally give a more linear frequency response.

The complexity of the broad spectrum of acoustic environments makes it impossible to give precise instructions for positioning your loudspeakers. Therefore, any effort on the part of the listener to try alternative positions will be amply rewarded in the final sound achieved.

Without exception, a corner position gives the least accurate result. If shelf or wall-mounting is essential, any asymmetry in the placing of the loudspeaker in relation to a wall will generally effect an improvement. Your dealer stocks B&W stands and will certainly offer you the option of using them wherever possible.

**2** The most unsuitable listening room would be one where all dimensions (wall spacing and ceiling height) are similar, since all resonances occur over a narrow band of frequencies. Rooms where all dimensions are different give the most even and natural bass response.

**3** Protuberances and larger items of furniture tend to break up these resonances and, where practical, varying the position of such items can often favourably influence sound reproduction.

**4** Soft furnishings, wall coverings and even pictures influence middle- and high-frequencies. Ideally you should aim to avoid discrete resonances or 'ringing', and an easy test for this problem is a simple hand-clap. If resonances exist there will be a distinct 'overhang' or sustaining of the response which could last between 0.5 and 1 second.

**5** A bookcase, placed on a wall opposite a reflective surface such as a window, will often help to alleviate the problem outlined above. Alternatively, a small panel of acoustic tiles placed on a wall can produce a remarkable improvement.

## Ancillary Equipment

As a discriminating listener, you will not have chosen your DM220 loudspeakers without thorough preliminary listening tests. You will have discovered that far from being the weakest link in the chain – as loudspeakers are so often described – the performance of the DM220 warrants the best ancillary equipment available in order to realise its full potential.

While we cannot of course recommend specific equipment manufacturers, there is a wide range of top-quality components available. Since you have already invested in one of the world's finest speakers, you should therefore pay equal attention to your choice of pick-up arm, cartridge, amplifier, tuner and tape recorder. Differences between them may be subtle but they do exist, and your own listening experience is an invaluable guide.

A question often raised is whether a high-powered amplifier will damage loudspeakers. The answer is no if they are used sensibly. Generally, due to transient clipping, an over-driven low-powered amplifier will provide more harmful signals than its high-powered counterpart. Your DM220 has been designed for high sensitivity, and will deliver high volume levels with modest inputs. A power amplifier rating 10-100 Watts may safely be employed.

Reliable advice is always available from a reputable hi-fi specialist, and our own specially-appointed B&W dealer will be pleased to give you expert assistance. Naturally, if it is possible to carry out a listening test in your home, using familiar recordings, this is the best way to ensure lasting satisfaction.

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## Service

Throughout the world B&W Loudspeakers have appointed distributors who are responsible for service. Should you experience any difficulty, please contact the dealer from whom you purchased the loudspeakers.



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