

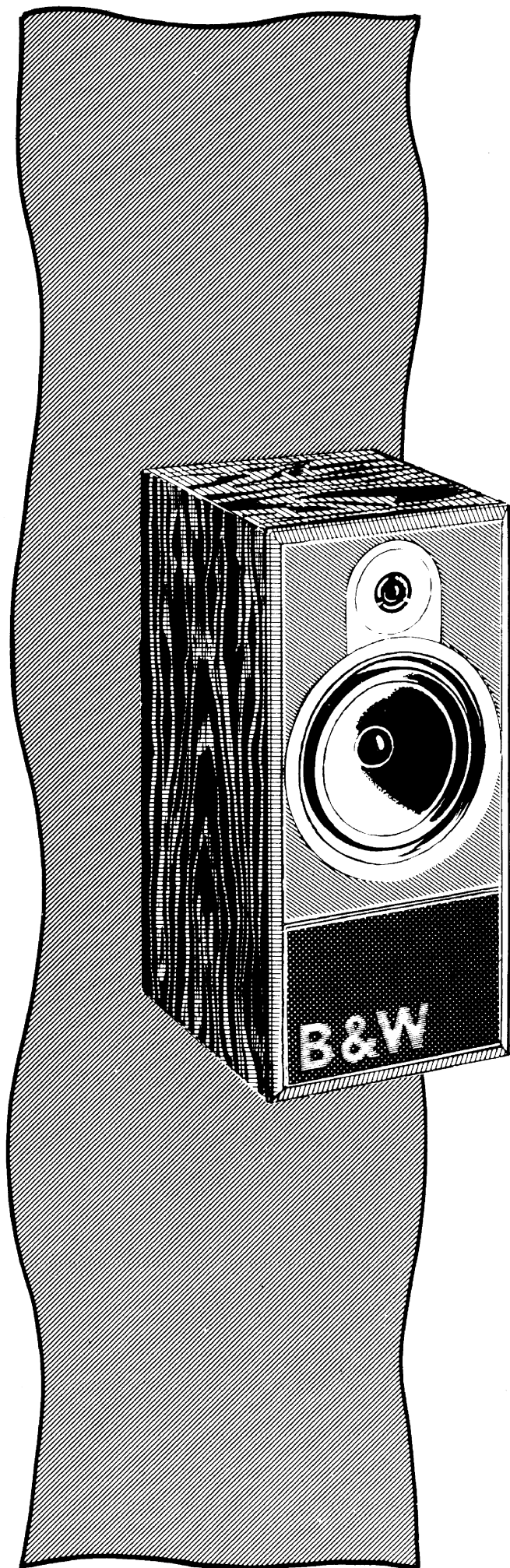
B & W 600 SERIES

B&W
LOUDSPEAKERS
B&W

U S E R



M A N U A L



I N T R O D U C T I O N

These B&W Loudspeakers have been carefully designed to give many years of listening pleasure. Please take time to read these instructions carefully before unpacking.

Unpacking

In order to minimise degradation of the sound quality, the grille frets on these loudspeakers are of thin section. Do not attempt to lift the systems out of the carton by pulling on the frets or the polythene bags. We suggest that you fold the carton flaps right back, invert the carton and its contents (leaving the polystyrene pieces in place) and lift the carton clear of the contents.

It is advisable that, after unpacking your loudspeakers, you retain the packaging for transport at a later date.

The listening room

The dimensions of the room and its furnishings can have a significant effect on the perceived sound quality of the loudspeakers. Rooms with different dimensions for height, width and depth are less prone to resonance problems than those having all dimensions nearly equal. Soft furnishings, especially large areas of curtaining, tend to absorb the higher frequencies more than the lower frequencies and may be used to alter the perceived balance. Large items of furniture, bookshelves and pictures on the walls help to break up undesirable flutter echoes.

Positioning

DM610 loudspeakers are designed to be used on rigid open stands and your dealer will be able to advise you as to suitable types. However, perfectly satisfactory results can be obtained by shelf mounting. The height of the loudspeakers should be set so the ears of the

listeners are on or close to the reference axis (see specifications). The vertical dispersion pattern is such that satisfactory results can be obtained within ± 5 degrees of the reference axis, equating to a range in height of 0.5m (20in) at a typical listening distance of 3m (10ft). At progressively greater vertical angles, the change in the relative time delay between the drive units will gradually cause a response dip in the crossover region.

The spacing between the loudspeakers will depend on the size of the listening room and the listening distance. As a general rule they should not be closer to the listener than 1.5m (5ft) and the distance between them should not exceed the distance to the listener. Placement of the loudspeakers and the listener at the points of the an equilateral triangle is a good starting point.

The proximity of the walls has a noticeable effect on the perceived sound quality. Generally, the level of low bass will increase relative to the mid- and high-frequencies the nearer the loudspeakers are placed to the walls. The perception of depth in the stereo image is usually better if the loudspeakers are pulled clear of the rear wall. The side to side imaging will benefit from symmetrical placement relative to the side walls and can often be improved, especially for a group of listeners, by angling the loudspeakers inwards so that the reference axes intersect at a point in front of the listeners.

It is well worth experimenting with the position of the loudspeakers and the furnishings in order to optimise the sound quality.

Electrical connections

All connections should be made with the amplifier switched off, otherwise inadvertent shorting of the wires may cause damage to the amplifier.

The loudspeakers are provided with separate terminals for the low-frequency and high-frequency sections, allowing them to be bi-wired (separate cables from a common power amplifier output to each pair of terminals) or bi-amplified (each section fed from a separate

power amplifier). The improved separation between the low-frequency and high-frequency sections of the loudspeakers can improve the resolution of low-level information. Links between the two pairs of terminals are fitted on delivery should neither of these options be used. They may be removed after loosening the upper terminal caps and removing the lower terminal caps. The terminals can accept either bare wires or 4mm (0.16in) plugs on 19mm (3/4in) centres. The wire from the positive terminal of the power amplifier should be connected to the terminal with a red cap, also marked to the side with a + symbol. Take care with bare wires that there are no loose strands which may short the positive and negative terminals together, as this may cause damage to the power amplifier. To preserve signal quality, ensure that the terminal caps are screwed down tightly. Do not, however, use a spanner as damage to the terminals may result from the use of excessive torque. It is good practice to check the tightness periodically, as the tension may relax after a period of time.

It is important to observe the correct polarity when connecting a stereo pair of loudspeakers. Wrong connections to one channel can result in a loss of bass and an inability to focus a correct stereo image. Reversal of the polarity to one loudspeaker will restore the situation.

It is good practice to keep the connecting leads between the power amplifier and the loudspeakers as short as possible. Use heavy gauge wire to keep the DC resistance to a minimum, preferably below 0.2Ω (out and back). Excessive inductance in the cable can lead to a lowering of extreme high frequencies, whilst excessive capacitance can cause instability in certain power amplifiers. Your dealer can advise you as to the most suitable cable for your application.

The power amplifier

The recommended limits of power output for the driving amplifier are given in the specifications. In giving these limits it should be stated that the amplifier power output requirement is almost impossible for the loudspeaker manufacturer to specify. It will depend entirely on

the type of music reproduced, the size of the listening room and the sound level required. It is always better to have an amplifier with a high power output used sensibly, as it allows the proper reproduction of transients; whereas if the power output is too low, clipping can occur during high peak-level transients. Apart from causing audible distortion, clipping causes a relative increase in the power fed to the high-frequency unit, with the possibility of thermal damage.

Aftercare

The cabinet should be treated as any normal piece of furniture. If you use a proprietary aerosol cleaner, spray onto the cloth and keep it away from the front of the loudspeaker, especially the grille cloth and drive units.

If you need to clean the grille, first remove the frame by grasping the outer edges near the corner and gently pulling away from the cabinet. The cloth may then be brushed with a normal clothes brush or similar. Please avoid touching the drive units, especially the high-frequency unit, as damage could result.

Service

B&W products are distributed to more than forty countries worldwide and we maintain an international network of carefully chosen distributors whose aim is to give you, the customer, the widest possible service. If at any time you should have any problem which your dealer cannot resolve, our distributors will be more than willing to assist you.



S P E C I F I C A T I O N



DM610

DESCRIPTION	Stand/shelf mounting two way second-order closed-box digital monitor system with bi-wiring/bi-amplification facility. Low-diffraction moulded grille frame.
DRIVE UNITS	One 200mm (8in) bass/midrange with reinforced polypropylene diaphragm and 30mm (1.2in) high temperature voice coil on Kapton former. One 26mm (1in) high-frequency with metal dome, high temperature voice coil and magnetic fluid cooling.
FREQUENCY RANGE	–6dB at 52Hz and 30kHz.
FREQUENCY RESPONSE	70Hz – 20kHz ± 2 dB on Reference Axis.
REFERENCE AXIS	Horizontal: 350mm (13.8in) from bottom of cabinet.
DISPERSION	Within ± 2 dB of response on Reference Axis 20Hz – 15kHz. Horizontal: over 40° arc Vertical: over 10° arc
SENSITIVITY	89dB spl (2.83V,1m)
NOMINAL IMPEDANCE	4 Ω
CROSSOVER FREQUENCY	2.5kHz
POWER HANDLING	Suitable for amplifiers with 30 – 150W output continuous into 4 Ω (typically 20 – 100W into 8 Ω) on undistorted speech and music programme.
INTERNAL VOLUME	21.8 litres (0.77 cu ft)
DIMENSIONS	Height: 490mm (19.3in) Width: 236mm (9.3in) Depth: 303mm (11.9in)
NET WEIGHT	7.8kg (17.1lb)

B&W Loudspeakers Ltd reserve the right to amend details of their specifications in line with technical developments.
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Listening suggestions

Given high quality source material, DM600 loudspeakers are capable of reproducing music to a very high standard, but they will ruthlessly expose the faults in poor recordings. B&W have produced a range of special compact disc recordings that will enable you to appreciate your system in full. They are available from your dealer.

- BW001** The Academy of Ancient Music – Christopher Hogwood
BW002 Live at the Montreux Jazz Festival

- BW003** The EMI Abbey Road Classical Collection
BW004 Live at the B&W Montreux Music Festival 1989 Vol. 1
BW005 Live at the B&W Montreux Music Festival 1989 Vol. 2
BW006 Live at the B&W Montreux Music Festival 1989 Vol. 3
BW007 Live at the B&W Montreux Music Festival 1989 Vol. 4
BW008 Live at the B&W Montreux Music Festival 1990 Vol. 1



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