

B&W

Instruction Manual

MODEL 801F

B&W Loudspeakers

Introducing Model 801F

Model 801F is B&W's first fully professional monitor loudspeaker, the outcome of four years' research employing totally new developments in measuring design technology. Throughout both design and production Model 801F is a truly "no compromise" product where cost in every instance is secondary to performance.

Model 801F is designed for the professional and the critical home user. Whilst in terms of quality and accuracy of performance their requirements are essentially the same the home user may require a more discrete appearance to the finished product. The top cover, primarily intended for the home user, has therefore been designed as a removable accessory. Instructions for fitting are contained within this manual.

In special locations where it is not possible to ideally place the loudspeaker there is some advantage in reducing the side and rear radiation. This reduction in polar radiation can be easily effected by fitting the Foam Absorbent Cover (FAC/801) specially made for this purpose.

The fact that unaltered standard production samples of Model 801F were, after almost two years of exhaustive tests, chosen by E.M.I. International as their classical music monitor loudspeakers at the London Abbey Road Studios and on location throughout the world is sufficient proof of the unique quality of this product. Whether, as a home listener or a professional user, you choose Model 801F you do so in the certain knowledge that one of the world's largest recording organisations chose this loudspeaker saying that, in their opinion, its reproduction was nearer the original sound than any other system which they had tested.

B&W Model 801F is probably subjected to more quality control and final inspection tests than any other loudspeaker in the world. For your part may we ask you to read the simple instruction manual in order that you may fully enjoy this unique product.

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Specification

Frequency response	45Hz to 20kHz ± 2 dB at centre of the listening window at 2m.		
Low-frequency system	Closed box acoustic suspension with system resonance of 37Hz and system Q of 0.7 (i.e. minus 3dB at resonant frequency).		
Dispersion	Vertical: ± 1 dB over 10° of centre window. Horizontal: +0, -3 dB over 60° of centre window, 10Hz to 15kHz.		
Drive unit configuration	Vertical in-line and corrected for minimum inter-unit time delay. Computer-matched in pairs insuring accuracy typically better than 0.25dB.		
Bass driver	Diaphragm: 270mm dia, thermo-plastic cone with PVA compound coating. Ultra long-throw suspension. Voice Coil: 50mm dia, high-temperature Nomex. Magnet System: 4.5kg ceramic.		
Mid-range driver	Diaphragm: 100mm dia, aromatic polyamide fibre matrix cone, critically formed and PVA impregnated following a laser interferometry computer-linked pattern. Voice Coil: 25mm dia, phenolic bonded and aluminium lined. Magnet System: Ceramic.		
High-frequency driver	Diaphragm: 26mm dia, multi-filament polyester weave dome mechanically damped. Voice Coil: 26mm dia, high temperature epoxy impregnated. Magnet System: high energy nickel cobalt, centre pole. Total moving mass less than 0.3g.		
Distortion	For a minimal s.p.l. of 95dB at 1m.		
		20Hz-100Hz	100Hz-20kHz
	2nd harmonic: less than	2.00%	0.60%
	3rd harmonic: less than	1.00%	1.00%
	4th harmonic: less than	0.20%	0.10%
	5th harmonic: less than	0.30%	0.15%
Impedance	8 ohms nominal throughout entire operating range.		
Sensitivity	1 watt into 8 ohms load for a s.p.l. of 85dB at 1m, sinewave input at 300Hz.		
Power handling	Minimum amplifier 50 watts into 8 ohms. No upper limit.		
Dimensions	Height:	948mm (37.3in)	
	Width:	432mm (17in)	
	Depth:	560mm (22in)	
	Weight:	49kg (108lb)	
Cabinet finish	Standard: Selected veneers of teak or walnut.		
	Special: Selected veneers of rosewood or black ash.		



Unpacking and Assembly

It is important to follow these unpacking and assembly instructions carefully.



Fig. 1

1. Having opened the top of the carton and read these instructions the other end of the carton should be opened (Fig. 1), the carton restored to its original position (writing facing upward) and the outer cardboard carton removed. This will reveal the inner polystyrene pack (Fig. 2).



Fig. 2

2. Remove the top section of the polystyrene pack which contains the mid-frequency/high frequency head assembly and the accessory pack (Fig. 3).



Fig. 3

The Accessory Pack contains (Fig. 4):—
Brush for cleaning fabric parts of the loudspeaker
2 spare 5.0 amp 20mm tubular fuses
2 sets of audio connecting plugs
1 coin for removing head retaining bolt



Fig. 4



Fig. 5



Fig. 6

3. Remove the polythene bag on the left-hand side of the loudspeaker containing the fabric foam cover for the bass enclosure (Fig. 5).
4. Using the coin provided in the accessory pack loosen and remove the head retaining bolt (Figs 6 and 7), lift head assembly and unplug flexible lead from the bass chamber (Fig. 8). Remove the polystyrene block under the mid-frequency head assembly.
5. Fit fabric covered foam top assembly to the top of bass enclosure (Fig. 9).



Fig. 7

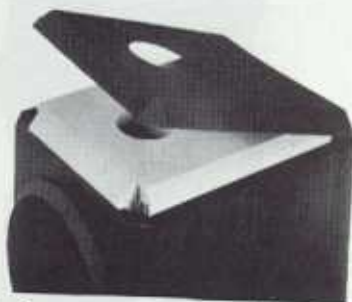


Fig. 9



Fig. 8

6. Reconnect the mid-frequency/high-frequency head assembly by plugging flexible lead to socket on top surface of the bass enclosure and fit the retaining bolt previously removed. It is important to tighten this bolt only sufficiently to firmly retain the head. It should be free to move and may be angled in a horizontal plane for final installation.

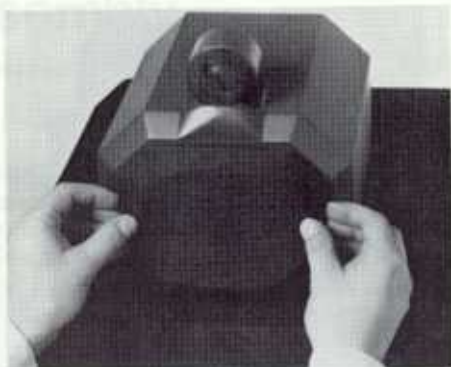


Fig. 10

The above procedure should be repeated for the second loudspeaker then they are ready for use. If, however, you have decided to purchase the top cover the following instructions will apply.

- (A) Remove the mid-frequency driver grille cover by placing fingers either side of the cover and withdraw it parallel to the head (Fig. 10).

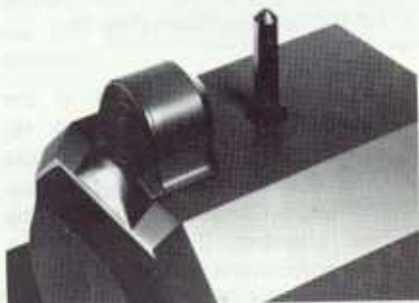


Fig. 11

- (B) Fit the head retaining peg by screwing into the threaded socket on the top surface of the mid-frequency head enclosure (Fig. 11).

- (C) Place fabric cover into position so that the socket on the underside of the head cover fits the peg previously fitted (B). The rear of this head cover is marked with an arrow (Fig. 12).



Fig. 12

It is important to retain all packing material for future shipping should this be required.

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 2.5mm² up to 5m long, and 4mm² over 5m.



Fig. 13