

CWMM **6i**

User Manual

CWMM **8i**



LISTEN AND YOU'LL SEE

Introduction

CWM6i and CWM8i are designed for simple and flexible mounting in wall or ceiling cavities. Please take time to read through this manual fully before installing the speakers. Time spent carefully planning the installation will pay dividends later and maximise your listening pleasure.

B&W loudspeakers are distributed to over 50 countries world-wide and we maintain an international network of carefully chosen and dedicated distributors who aim to give you, the customer, the best possible service. If at any time you should have a problem which your dealer cannot resolve, our distributors will be more than willing to assist you.

Unpacking

Check that, in addition to this user manual, the outer carton contains the following:

- Carton A containing:
 - 2x Baffle with drive units, crossover and foam pad
 - 2x Wall frame
 - 2x Perforated metal grille with scrim and foam backing
 - 1x Alignment template
 - 1x Accessory pack containing:
 - 20x spring clips + self-tapping screws + washers
 - 8x machine screws (fixing baffles to wall frames)

- Carton B containing:
 - 2x Pre-mount box
 - 4x Slotted steel straps
 - 1x Alignment template
 - 1x Accessory pack containing:
 - 8x L-shaped pegs (securing pre-mount boxes to drywall - retrofit)

Protection

Keep the baffles in their plastic bags (and preferably in the carton) away from the work area until you are ready to fit them. The thin alloy tweeter diaphragms are delicate and must be protected from damage.

Positioning

In all cases, check that there is no conflict with other in-wall installations (pipework, air conditioning, mains cabling etc.). In existing construction, use a stud-finding tool to map the wall construction accurately and a pipe detector to scan the proposed installation position. Avoid installing the speakers in the same cavity of the wall as flimsy ducting, which may be induced to rattle. The speakers are designed to operate satisfactorily in a wide range of cavity volumes. Before cutting into any of the wall panels, make sure that all the proposed sites are usable. If you need to alter one site then it is possible that you will need to move its pair. The speakers are balanced for half-space mounting (ie flush in a wall or soffit). Placement near a corner is to be avoided as it may give rise to too much bass and a boomy quality to the sound. If possible keep the speakers more than 0.5m (20in) from the wall edges.

The speakers may be mounted in either portrait or landscape orientation. Wherever possible, however, portrait orientation is to be preferred as it gives better horizontal dispersion and a more stable stereo image. If landscape orientation is used, orient the baffle so that the tweeters are towards the center of the room. The following sections give guidance on optimum positioning, but this may be adapted to domestic constraints.

Normal Stereo and Home Theatre Front

Left and Right Applications

The speakers should be positioned with the tweeters at around ear height. The spacing between them will depend on the size of the room and the distance to the listeners. As a general rule they should not be closer to the listeners than 1.5m (5ft) and the distance between them should not exceed their distance from the listeners. Having the speakers and listeners approximately at the corners of an equilateral triangle generally provides the best stereo imaging. For Home Theatre installations, the speakers should not be closer together than the width of the screen and their height should be approximately at center screen height.

Home Theatre Center Channel Applications

In most cases the speaker will be positioned in a laterally central position either directly above or directly below the screen. All other things being equal, choose the position that is nearest ear height. However, if this leads to a below screen position, you should be careful to ensure that the speaker is not too close to the floor (see above) and that the sound will not be muffled by the later placement of furniture.

Home Theatre Surround Speaker Applications

The sound from surround speakers should be as diffuse as possible. The speakers should generally be placed behind and 0.6m (2ft) or more above ear height. Ceiling mounting often gives good results in this application.

Cutting the Aperture (Retrofit only)

Use the template provided to mark out the correct size aperture, having regard to which fixing method is to be used and how the wall frame is to be lined up with any other features such as door frames, and cut out the aperture neatly.

Laying the Cable

Use twin cable that is coded for polarity and of a gauge heavy enough to keep the loop impedance below the maximum recommended in the specifications. Excess cable should be kept to a minimum and should not be coiled up for neatness as this increases the inductance. To avoid rattles, tie down loose cable near the speaker with clips, mastic or tape. To reduce the risk of damage by short circuit, do not connect the cable to the amplifier until after connection has been made to the speaker.

Damping the Wall Cavity

The baffle is supplied with a foam damping pad behind the drive units, but further damping of the cavity is required. The whole of the cavity should be filled (not tightly) with wadding. Glass fiber or mineral wool matting supplied for heat insulation or polyester fiber wadding are all suitable. For safety, use non-combustible or fire retarding materials.

Check that there is no debris that may fall into the speaker (especially in ceiling mount situations).

Fitting the Wall Frame

New Construction (See figure 1)

Screw one slotted steel strap horizontally across two studs just above the intended top edge of the pre-mount box. When deciding on the correct position, have regard to how you may wish to line up the wall frame (not the pre-mount box) to other features in the room such as door frames. Feed the upper tags of the pre-mount box through the lower slots in the strap and allow it to hang. Position a second strap over the lower tags, swing into position over the studding and secure. It is not necessary to get the pre-mount box absolutely square as some azimuth adjustment of the wall frame is provided for.

If it is required to mount the pre-mount box hard up against one of

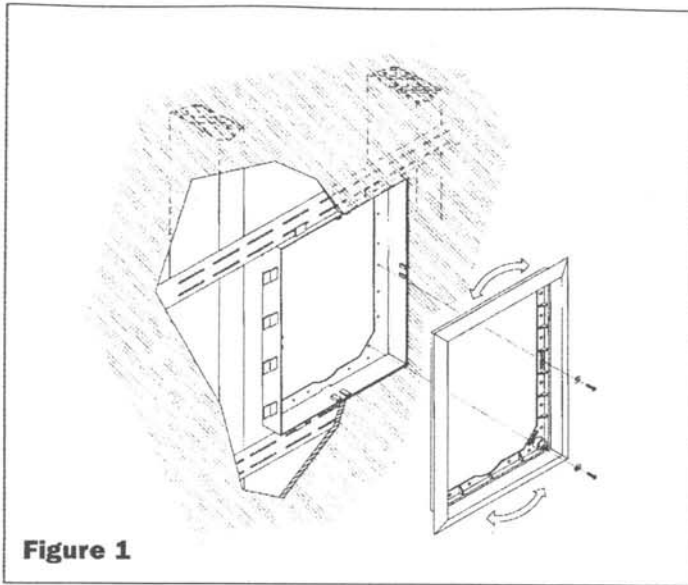


Figure 1

the studs, cut away the tags from that side then drill and screw through the side of the pre-mount box into the stud. Similarly, if the pre-mount box is to be mounted hard against a horizontal bracing stud or header, remove the tabs from that end and screw into the header instead of using the steel strap.

After the drywall panels have been fixed and the coating applied, fix the wall frame to the pre-mount box. Apply a strip of sealing compound or mastic to the back side of the frame lipping both to provide a seal and to prevent rattling. Screw, but do not tighten, 6 of the screws plus washers provided through the slots in the wall frame into the pilot holes in the pre-mount box. Align the frame squarely and tighten down the screws. A certain amount of flexing of the wall frame is allowed to take up unevenness in the wall surface, but be careful not to over tighten the screws as excessive distortion of the frame may impede the fitting of the baffle.

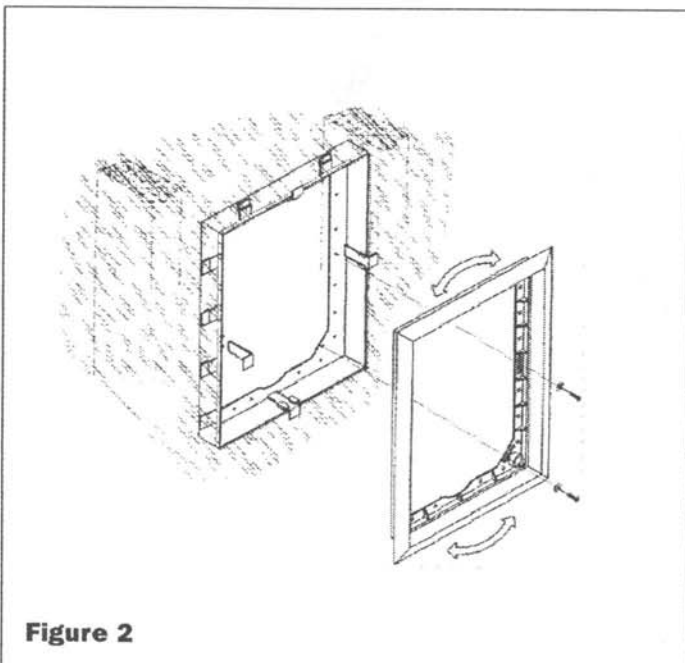


Figure 2

Existing Construction (Retrofit)

Method 1 (see figure 2)

This method uses the pre-mount box, but requires that the aperture has been cut fairly accurately. Feed the pre-mount box through the aperture and pull it forward so that the tabs pull on the back of the wall panel. If the tabs on any one side foul a stud, cut them off and drill and screw through the pre-mount box into the stud.

Push fit 4 of the barbed L-shaped metal pegs into the slots at the center of each side so that the wall panel is nipped and the pre-mount box is held in place. Fit the wall frame as described in the preceding section.

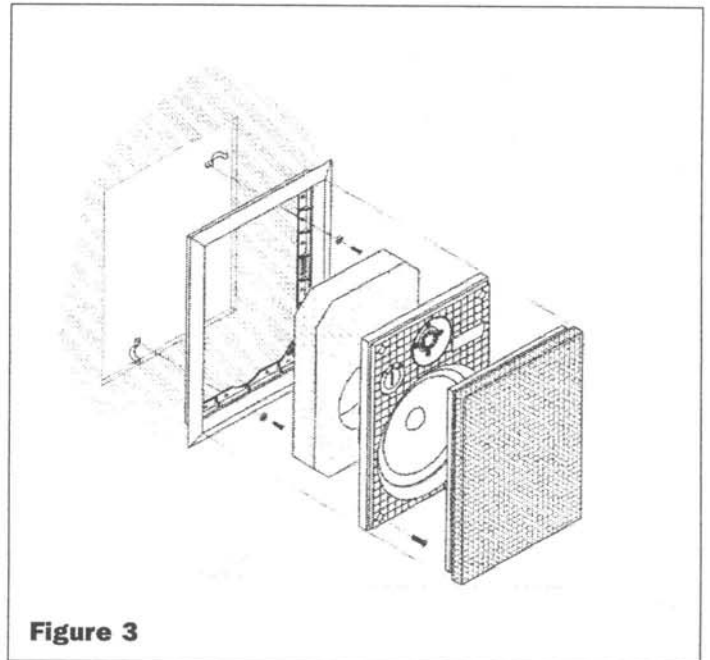


Figure 3

Method 2 (see figure 3)

Ten spring clips are supplied for each wall frame. Screw sufficient of them via the holes in the rear surface of the wall frame to ensure that it sits properly on the wall surface. Extra clips may be concentrated around areas of particular unevenness. Apply sealing compound and square up the frame as above before tightening down the screws.

Decorating

Decorate before the baffle is fitted. There is no necessity to mask off any areas. The wall frame and perforated grille are pre-finished in semi-matt white and will accept any water or oil based paint. For best results, the grille should be spray painted. Temporarily remove the scrim material from the rear of the grille before painting to avoid clogging the pores. The grille may be covered with a suitable acoustically transparent cloth if desired. If the cloth is sufficiently obscure visually, discard the scrim material to avoid excessive attenuation at high frequencies.

When redecorating after installation, remove the grille and baffle from the wall frame before commencing work.

Fitting the Baffle and Grille

The baffle is secured to the wall frame by 4 screws in the corners. A pre-fitted gasket seals the joint. When connecting the speakers, be sure to observe the correct polarity. The positive (+ / red) and negative (- / black) terminals should be connected to the appropriate amplifier terminals. Failure to observe correct polarity will result in a loss of bass and vague imaging in a multi-speaker installation.

The grille is a simple friction push fit in the slot formed between the baffle and the wall frame.

Tweeter Level Adjustment (CWM81 only)

A three position switch on the baffle adjusts the tweeter level relative to the bass / midrange unit. The center position, with the knob pointing vertically, gives a flat on-axis anechoic response. In situations where the lack of soft furnishings in the room gives too bright a sound, turn the knob anti-clockwise to reduce the tweeter output. Conversely, if the sound is too dim (for example if the normal listening position is well off-axis), turn the knob clockwise.

CWM8i

CWM6i

Specifications

<i>2-way 2nd-order wall mount system</i>	<i>Description</i>	<i>2-way 2nd-order wall mount system</i>
<i>One 200mm (8in) dia polypropylene bass/mid One 26mm (1in) dia metal dome high frequency</i>	<i>Drive Units</i>	<i>One 165mm (6½ in) dia polypropylene bass / mid One 26mm (1in) dia metal dome high frequency</i>
<i>-6dB at 30Hz and 30kHz</i>	<i>Frequency Range</i>	<i>-6dB at 45Hz and 30kHz</i>
<i>40Hz - 20kHz+3dB on axis</i>	<i>Frequency Response</i>	<i>55Hz - 20kHz + 3dB on axis</i>
<i>Within 2dB of on axis response 20Hz - 10kHz Horizontal: over 40° arc Vertical: over 10° arc</i>	<i>Dispersion</i>	<i>Within 2dB of on axis response 20Hz - 10kHz Horizontal: over 40° arc Vertical: over 10° arc</i>
<i>90dB spl (2.83V, 1m)</i>	<i>Sensitivity</i>	<i>89dB spl (2.83V, 1m)</i>
<i>4Ω</i>	<i>Nominal Impedance</i>	<i>6Ω</i>
<i>3kHz</i>	<i>Crossover Frequency</i>	<i>3kHz</i>
<i>For amplifiers with 10-100W continuous output on undistorted speech and music program. System thermal protection by APOC circuitry.</i>	<i>Power Handling</i>	<i>For amplifiers with 10-70W continuous output on undistorted speech and music program. HF unit thermal protection by polyswitch.</i>
<i>0.3Ω</i>	<i>Maximum Recommended Cable Impedance</i>	<i>0.4Ω</i>
<i>373mm (14.7in) 285mm (11.2in) 86mm (3.4in)</i>	<i>Dimensions</i>	<i>335mm (13.2in) 245mm (9.7in) 75mm (3.0in)</i>
<i>Semi-matt white</i>	<i>Finish</i>	<i>Semi-matt white</i>

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the right to amend details of the
specification in line with
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