

# WIDE DISPERSION WALL MOUNT LOUDSPEAKERS

## Model WD-1

Marshall Choong Audio



Model WD-1 with walnut veneer

### WD-1 Features

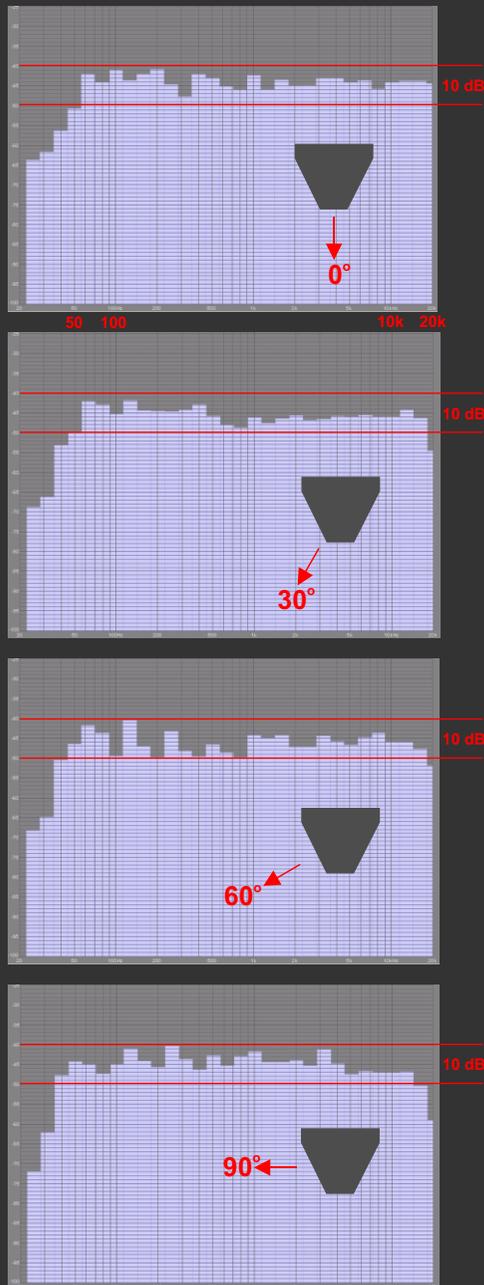
- 180 degree coverage in the horizontal plane
- multiple 180 mm long throw woofers with shorted turn technology
- minimum order crossovers with linear phase response
- 4 soft dome 25 mm hf units
- birch ply construction
- wall mount with rear mounting plate or stand mount
- can be sited up to 200 mm from a rear wall
- although intended for stereo reproduction, it is also a high performance surround loudspeaker



Marshall Choong reserves the right to vary products and specifications without prior notice

MARSHALL CHOONG AUDIO 75 Drewstead Road Streatham London SW16 1AA  
info@marshallchoong.co.uk

IN ROOM RESPONSES



**WALL MOUNT WIDE DISPERSION LOUSPEAKERS**

In the bass region, conventional forward firing free standing loudspeakers will all suffer from room acoustic effects caused by room modes. This will have the effect of producing uneven bass which cannot be corrected by the designer.

The lower mid range is also subject to a loss of 6 dB in the range of 300 - 600 Hz, as the dimensions of the cabinet reduce to the point where the sound output diffracts around the cabinet edges. This may not be a smooth transition and depends on the shape of the enclosure and position of the drivers.

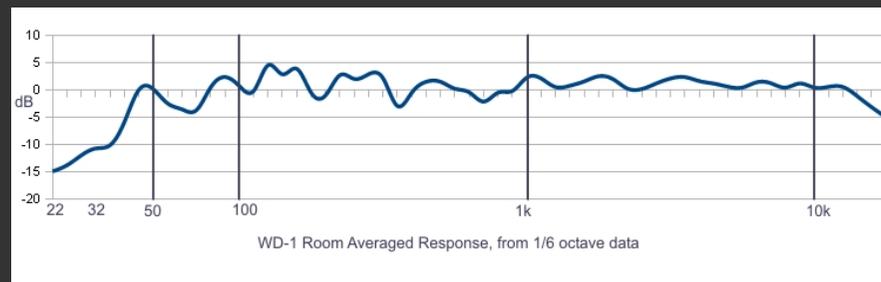
It is however within the scope of the designer to correct for diffraction losses and also minimise the peaks and troughs over the transition but at the expense of the loudspeakers sensitivity and added crossover complexity.

To add further to the lower mid / bass complications, the siting of a free standing loudspeaker also introduces significant reflections from adjacent walls which adds more response anomalies.

The wall mounted loudspeaker practically eliminates all these effects and if coupled with multi driver wide dispersion characteristics, has the following advantages:

1. Enhanced bass bandwidth and power handling.
2. Smoother bass to lower midrange region.
3. Multi driver design gives lower distortion.
4. Cabinet diffraction effects are minimised by the presence of the wall giving the effect of an infinite baffle.
5. The character of wall reflections are changed so that at critical listening angles i.e 0 and 30 degrees, they do not give rise to large peaks and deep troughs.
6. An essentially flat response over 180 degrees gives a flat power response into the room. This gives the listener enhanced envelopment and feelings of spaciousness due to more early reflections and a different balance between direct and reverberant sound.

The Model WD-1 is also ideal for use as a high quality left, centre, right or surround loudspeaker in home theatre or multi channel music reproduction.



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**WD-1 Specifications**

**Dimensions:**  
380 x 336 x 248 mm  
(height x width x depth)

**Frequency Response, worst case:**  
-6 dB at 45 Hz, -3 dB at 15 kHz  
90° off axis.

**Horizontal Dispersion:**  
+,- 90° from centre axis

**Sensitivity / Impedance:**  
90 dBA , 2.82 v input, nominal 4 ohm impedance.

**Long Term Power Handling:**  
100 - 200 w rms recommended amplifier rating. (IEC 268-5)

**MC Intermodulation Rating :**  
-49dB / .34 % unweighted at 90dBA output level  
1 m measurement distance. Overall rating, Class B.

**Connectors:**  
Screw terminal, combined banana and spade input

**Mounting:**  
Complete with rear metal plate wall mounting system

**Weight:**  
12 kg

CLICK HERE  
for further information,  
discussion and  
measurements concerning  
this product.