



W INSTALL SERIES

IN-WALL AND IN CEILING AND OUTDOOR

WCM-65

WCM-80

WWS-65

WWS-80

WOS-53

WOS-65



AVAILABLE AT
DIGITAL CINEMA



WHARFEDALE

User's Manual





USER INSTRUCTIONS: W INSTALL SERIES

Safety instructions

Safety First!

- Please read this manual fully before installing and operating this product.
- Retain a copy of this manual for future reference.
- Comply with all warning, label and instructions.
- Do not attempt the installation of this equipment unless you are qualified to do so.
- Protect your hearing from high sound pressure levels.

Rigging and Suspension

The rigging, suspension or mounting of these products can expose the installer and members of the public to serious health risks and even death. Under no circumstances attempt to rig, suspend or otherwise mount this equipment unless you are fully qualified and certified to do so by relevant local, state and national authorities. All relevant safety regulations must be followed. If you are not properly qualified or do not know of pertinent regulations, consult qualified personnel for advice and assistance.

Limited Liability

Wharfedale assumes no liability whatsoever for any damage or loss, either direct or consequential arising from the installation and use of these products. Liability is limited to replacement of product or refund, at Wharfedale's discretion. Your rights to compensation may vary by territory; consult with your local Wharfedale office or distributor.

Warranty & Service

These products are designed to be used as specified, and are warranted to be free from defects in material or workmanship. Warranty terms and conditions vary by territory. Please contact your local Wharfedale sales office or distributor for complete details. Under no circumstances should you attempt to repair these products, doing so may limit or void warranty coverage.



USER INSTRUCTIONS: WINSTALL SERIES

Introduction

The WinInstall In-Wall Series are two-way high performance in-ceiling and in-wall mounted speaker systems for home and public areas. All speakers are combine premium drive units, discreet ABS front baffles and attractive magnetic metal grilles which can be sprayed to fit in seamlessly with your environment. Follow these instructions carefully for installation and when properly installed you can enjoy the speakers with highest quality sound for many years.

Speaker Placement

To get the most from your loudspeakers, please view our recommendations for the most efficient configuration of your WinInstall Series.

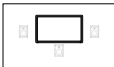
WWS In-Wall Stereo Configuration

The best positioning of your in-wall speakers is around ear level – for standing we would recommend around 30" / 127mm and for seating around 40" / 1016mm. The distance from the listener to the speakers and the distance between the two speakers should make an equilateral triangle and should be the same distance apart.



WWS In-Wall Home Theatre Configuration

When using with a flat screen TV or projector, the left and right speakers should line up centrally with the screen where possible. Depending on available space and the height of your TV the speaker can go above or below, however try to keep the speaker as close to the height of the stereo speakers where possible.

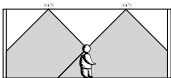




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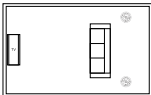
WCM In-Ceiling Stereo Configuration

When using the wcm in-ceiling speakers, separate them roughly 6 - 10' (1.8m - 3m) apart. Where possible try to position the speakers the same distance away from the listening position for best results.



WCM In-Ceiling Home Cinema Configuration

The in-ceiling speakers can also be used as surround sound speakers. When installing the speakers in the ceiling, position the speakers from 3 - 6ft (0.9 - 1.8m) behind the listening position and separate them roughly 6 - 10' (1.8m - 3m) apart.





USER INSTRUCTIONS: WINSTALL SERIES

Installation

- Check the desired ceiling / wall area for safety and that is suitably hollow (you can check by tapping, and if a hollow sound is heard).
- Trace around the cardboard template for speaker placement. Use a pencil to mark the location but to be changed.
- Find the centre of the outline and drill a hole.
- Use a bent coat hanger wire inserted into the drilled hole to check the area is safe and free from any obstructions. Do this by holding a right angle with the coat hanger and slowly rotating when in the hole. **If** there are any obstructions the speaker will have to be relocated.
- Use a dry-wall saw to carefully cut the outlined area and remove the excess.
- Run cable from your amplifier through the hole of the cut out. You should allow an extra few metres of cable to reach outside of the cutout. This gives you extra room to make the connections and not to put pressure on any parts of the speaker or amplifier.
- The speaker will perform better if the wall cavity has some insulation. We recommend use of mineral fibreglass to do so. Put the fibreglass sheet behind and around the speaker.
- Pull the cable through the hole and once the cable is stripped back, connect the positive wire from the amplifier to the red terminal on the speaker. **Warning:** Make sure the amplifier is turned off while connecting to the speakers.
- With the magnetic grille removed, push the speaker into the cavity in the ceiling or wall. Do so by pushing one side in first, then following with the other side so the speaker is flush with the ceiling.
- Tighten the screws so the speaker is secure in the ceiling. **If** you are using a drill, use a low torque setting to ensure the screws are not over-tightened.
- Replace the magnetic grille.
- The speaker grilles can also be painted if desired. We would advise to use paint lightly and use roughly 1 part finishing agent to 1 part paint. Too much paint can cause an obstruction to the holes in the grille and affect the speaker sound quality.
- Both the WCM & WWS Series utilise an adjustable tweeter for efficient direction of the high frequencies. Depending on varying acoustic conditions and if the recommended positioning is unachievable the HF can be angled to compensate for this. On the WWS Series the HF can be angled up or down and on the WCM Series the HF can be pointed at any 360° angle. When adjusting be sure to put pressure on the outer rim of the tweeter and not change the dome. Please refer to your retailer or Harbottle sales representative for further information on adapting the loudspeaker to your environment.



USER INSTRUCTIONS: W INSTALL SERIES

Installation

The WDS may be mounted vertically or horizontally.

The outdoor speaker case is weather resistant IP67 and made with UV stabilized ABS. But for longest life, we recommend placement in a protected area, such as under an eave.

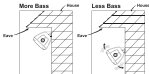
We recommend wiring with AWG 16 or larger, standard wire.

For proper phasing, both speakers must be wired alike. Connect red wire to red terminal on speakers and to red or plus terminal on amplifier.



To control the volume of the speakers locally, use an impedance matching HI volume control, e.g. BTVC-2 and BTVC-4.

Mounting Suggestions



Mounting close to the eave will increase bass output.

Specifications

	WCM-65	WCM-60
System Description	1-wire, 2-wire	1-wire, 2-wire
Nominal Impedance	5 Ohms	5 Ohms
Power (RMS / Peak)	30W / 120W	40W / 160W
Recommended Amp. Power	30 - 120W	30 - 140W
Max SPL	97dB	97dB
Sensitivity (1W @ 1m)	87dB	88dB
Frequency Response	45Hz - 20kHz	45Hz - 20kHz
Ram driver	6.5" / 160mm Polypropylene	8" / 200mm Polypropylene
Tweeter driver	1" Titanium Dome	1" Titanium Dome
Terminal	Gold Plated, Spring Loaded	Gold Plated, Spring Loaded
Dimensions (mm)	220mm (Diameter) x 97mm	240mm (Diameter) x 98mm
Net Weight (each)	1.07kg	1.1kg

	WMS-65	WMS-60
System Description	1-wire, 2-wire	1-wire, 2-wire
Nominal Impedance	5 Ohms	5 Ohms
Power (RMS / Peak)	30W / 120W	40W / 160W
Recommended Amp. Power	30 - 120W	30 - 140W
Max SPL	97dB	97dB
Sensitivity (1W @ 1m)	87dB	88dB
Frequency Response	45Hz - 20kHz	45Hz - 20kHz
Ram driver	6.5" / 160mm Polypropylene	8" / 200mm Polypropylene
Tweeter driver	1" Titanium Dome	1" Titanium Dome
Terminal	Gold Plated, Spring Loaded	Gold Plated, Spring Loaded
Dimensions (mm)	200mm x 210mm x 95mm	210mm x 210mm x 100mm
Net Weight (each)	1.5kg	1.6kg



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	W05-33	W05-63
System Description	All Weather Outdoor Speaker	All Weather Outdoor Speaker
Nominal Impedance	8 Ohms	8 Ohms
Power (RMS / Peak)	30W / 60W	40W / 80W
Recommended Amp. Power	20W - 120W	30 - 160W
Max SPL	96dB	96dB
Sensitivity (1W @ 1m)	86dB	86dB
Frequency Response	70Hz - 20kHz	60Hz - 20kHz
Driver	1.125" / 1.58cm Polypropylene	0.5" / 1.27cm Polypropylene
Tweeter driver	1" (30mm) Dome, Ferrofluid cooled	1" (30mm) Dome, Ferrofluid cooled
Terminal	Gold Plated	Gold Plated
Dimensions (mm)	150mm x 140mm x 207mm	202mm x 221mm x 240mm
Net Weight (each)	3.04kg	3.1kg



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Servicing

In the unlikely event that your unit develops a fault you should return it to your 'wharfedale dealer' using the original packing to ensure safe shipping.

The terms of your guarantee may vary in different countries. However, in all cases the guarantee excludes liability for damage or loss occurring in transit to or from the purchaser.

All damage caused through accident, misuse, wear and tear, neglect, incorrect installation, adjustment or repair by unauthorised personnel.

Wharfedale will not be liable for any consequential damage, loss of injury, arising from or in conjunction with this equipment.

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For further help and advice please visit our website
www.wharfedale.co.uk



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 **WHARFEDALE**

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