

Thank you for choosing DALI In-Wall loudspeakers!

DALI is acclaimed around the world for unique loudspeakers designed and built to our uncompromising standards for design and performance.

DALI's main area of expertise is the development and refinement of known and new techniques in the fields of audio and acoustics.

The goal for every single DALI loudspeaker is to create a listening experience in your home that will make you forget time and place.

It is essential that your DALI In-Wall loudspeakers are correctly installed and connected. This owner's manual contains our guidelines for installation, connection and maintenance.

NOTE: The sections on installing and painting the loudspeaker is for the use of professional installers. If you have any questions, please feel free to contact your authorised DALI dealer.

Enjoy!



Safety Guidelines

- Always follow all safety guidelines
- DALI Helicon IW 200 Phantom is intended for home use only. It is not intended for use in professional environments such as alarm systems, public address, etc.
- The speaker must only be used indoors and never in wet areas or at extreme hot or cold temperatures
- DALI Helicon IW 200 Phantom must not be exposed to direct sunlight
- DALI Helicon IW 200 Phantom must be installed with a secure drop wire support line
- Power off the amplifier when connecting the speaker cables

Parts List

The following parts are enclosed:

- 1 Helicon IW 200 Phantom
- 1 3 mm Allen wrench
- 1 mounting template
- 1 protective template for painting
- 1 owner's manual
- 1 white logo badge

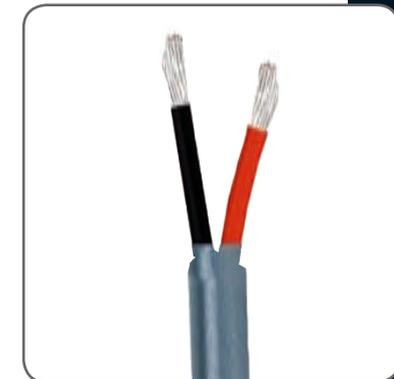
About In-Wall Loudspeakers

DALI Helicon IW 200 Phantom provides the unique, acclaimed sound of a true DALI Helicon loudspeaker for easy and discreet integration into your home.

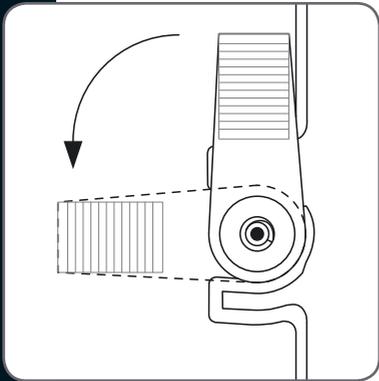
DALI Helicon IW 200 Phantom is equally suited for stereo and surround systems where sublime sound quality is a high priority.

DALI recommends the use of a subwoofer such as DALI Helicon S600 in conjunction with Helicon IW 200 Phantom. This will permit the reproduction of the lowest frequencies for an overall enhancement of your sound system.

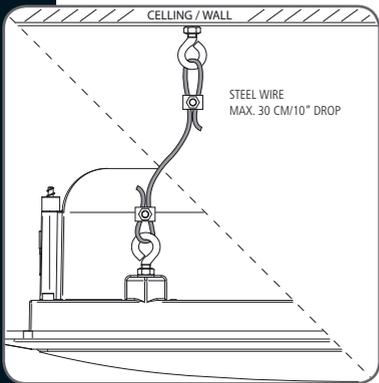
Your choice of cables is a crucial element in your installation. Be aware that replacing cables after installation is a difficult task. Therefore, select quality cables such as DALI Silver Wave Two.



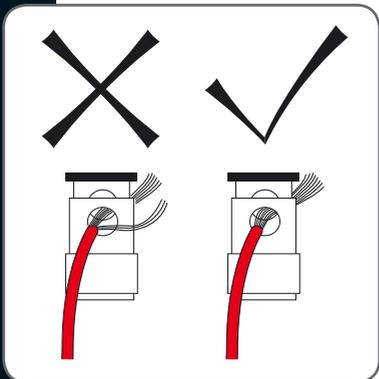
Helicon IW 200 Phantom



DALI Helicon IW 200 Phantom incorporates dog-leg brackets for wall or ceiling mounting. The brackets attach the loudspeaker firmly to the rear of the surface on which it is mounted. They extend out at a 90 degree angle when the screws are tightened. The screws should be tightened so that the loudspeaker sits securely in place - but be careful not to tighten them too much. If you need to remove the loudspeaker, loosen the screws approximately 5 to 10 turns counter-clockwise and the brackets will loosen their grip. Do not unscrew more than 5 to 10 turns or the bracket may fall off the screws.



DALI Helicon IW 200 Phantom must be fitted with a drop wire to prevent the speaker from falling in the event of fire, earthquake, etc. To prevent injury or damage from a fall, fit a steel wire or other non-flammable connection between a solid support in the house (ceiling beam, wall stud, etc.) and the eyehook on the Helicon IW 200 Phantom as shown.



Connect cables so that the loudspeaker is in correct phase. The red (+) loudspeaker terminal must be connected to the red (+) amplifier terminal. The black (-) loudspeaker terminal must be connected to the black (-) amplifier terminal.

Remove insulation so that approx. 1/2" of bare wire is exposed. Press the top of the terminal down and insert the bare wire into the opening. When the wire is fully in place with no loose strands exposed, release the terminal. The cable is now connected.

Mounting Template

The enclosed template can be used to initially visualise how your speakers should be mounted. Then, tape the template perfectly level at the selected mounting position, so that you can mark the necessary opening.



The Influence of the Listening Room

Every room has its own acoustics that affect the way we hear sound from loudspeakers. It is a question of how the room receives acoustic energy and releases it again. You can improve the acoustics of your listening room in different ways.

Part of the sound that you hear does not come directly from the loudspeaker. Instead, it is reflected from the floor, ceiling and walls. Reflections can be reduced by furniture, plants and carpets. If the sound is overly bright, soft, absorbent objects like curtains and carpets can help.

Both the quantity and quality of deep bass depend on the size and shape of the room and the placement of the loudspeakers in it. For instance, bass can be boosted by placement near a sidewall and even more by placement in a corner. Corner placement provides substantial added reflections.

As a general guideline, avoid large, hard, reflective surfaces in the immediate vicinity of the loudspeakers.

Placement in the Listening Room

DALI Helicon IW 200 Phantom incorporates Wide Dispersion technology.

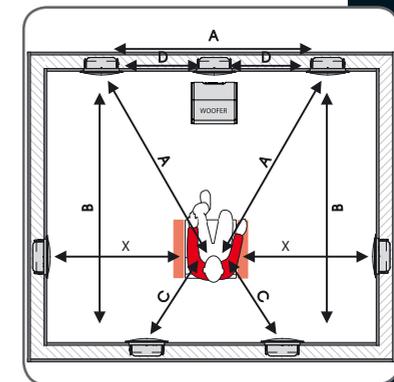
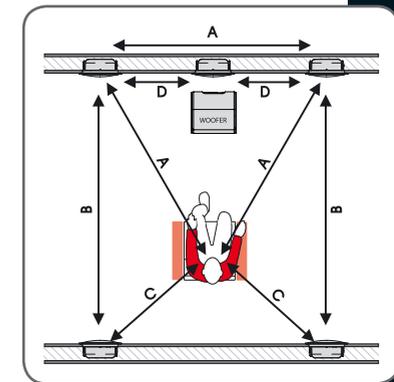
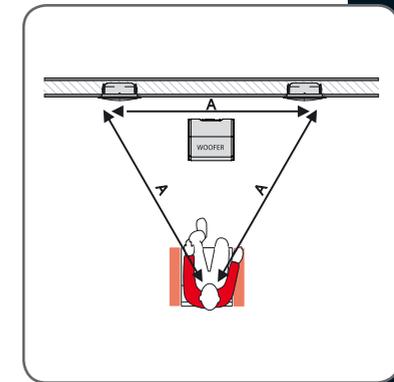
Wide Dispersion means that the area in front of the loudspeakers where a full three-dimensional sonic image is achieved is a great deal wider than with other loudspeakers. This ensures substantially better sound across a larger area within your listening room, when compared to loudspeakers without Wide Dispersion characteristics.

In a stereo system, the speakers should ideally be placed the same distance from each other as the distance from each speaker to a central listening position. The ideal mounting height for DALI Helicon IW 200 Phantom is at the listener's ear level when seated at the listening position, i.e. typically 40" - 50" above the floor.

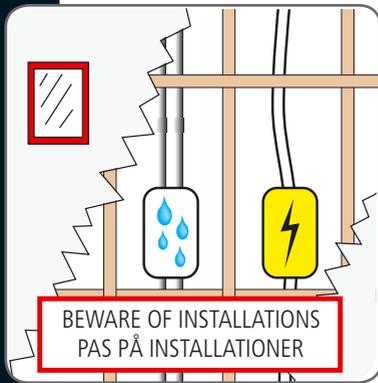
For surround systems, the same guidelines as for stereo apply with the following additions:

The center speaker should be placed exactly in the middle between the left/right front speakers.

The rear speakers should be placed in same height as the front speakers. It is possible to place the speakers higher because of the good sound dispersion from the speakers.



Installation



Please study and follow the safety guidelines found on page 2 and 4 of this manual!

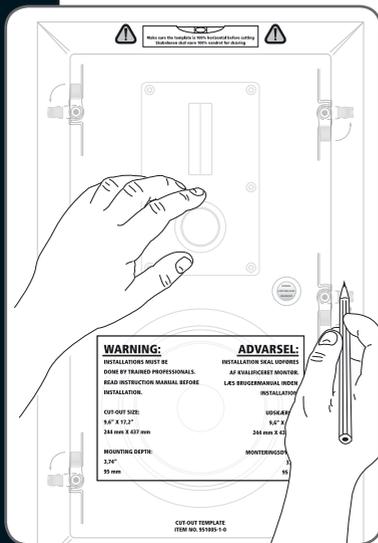
DALI Helicon IW 200 Phantom must be installed by a trained professional to ensure that all safety requirements are met to prevent it from falling, etc.

The following tools and items are necessary for proper installation:

- Spirit level and tape measure
- Pencil and saw or knife
- 3 mm Allen wrench (included with loudspeaker)
- Wire cutter and cutting nippers for mounting of steel wire
- Drill and bit
- Steel wire
- Hook and rawlplugs of the correct sizes
- Paint (if needed)
- Protective template (if needed)
- Compressed air (if needed)

When the correct placement has been found, tape the mounting template to the surface perfectly level. Outline the cut-out area with a pencil.

Remove the template and drill holes for insertion of saw or knife. Saw/cut carefully along the line marked in pencil.



Installation

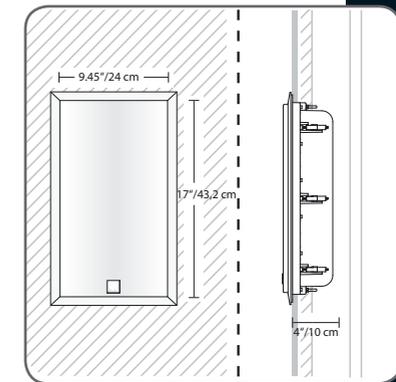
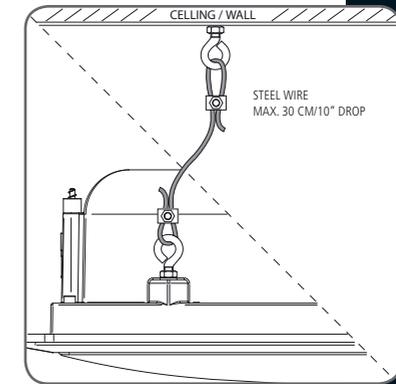
A steel drop wire must be firmly attached between a solid support in the house (ceiling beam, wall stud, etc.) and the eyehook on the DALI Helicon IW 200 Phantom in order to hold the speaker in case of a fall. This is particularly important for ceiling mounting, where a falling speaker can be life-threatening!

Connect cable to the terminals - being careful to connect the amplifier's red (+) terminal to the loudspeaker's red (+) terminal and the amplifier's black (-) terminal to the loudspeaker's black (-) terminal.

Loudspeaker cable must not hang loose from the terminals. It must be securely fastened with cable ties or by other means inside the wall. If left unsupported, cable can gradually come loose, creating a poor electrical connection between wire and terminals.

Turn on the system and listen to the loudspeakers before final mounting to make sure that all connections are correct.

Insert the speaker in the wall opening and tighten the 6 screws in the loudspeaker brackets with the enclosed Allen wrench so that the speaker is firmly mounted in place. Be careful to avoid over-tightening the screws and shredding the thread.



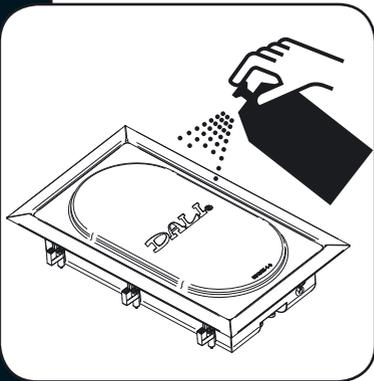
Painting the Loudspeaker (optional)

Painting the loudspeaker requires great care and attention and should only be done by a qualified professional

The loudspeaker's frame and front grille can be painted in colours to match your home decor. We recommend spray paint.

It is extremely important for the loudspeaker's performance that no paint touches the drive units. Therefore, it is necessary to cover the black front and the drive units with the enclosed protective template before painting.

NOTE: When painting the loudspeaker, do not remove the drive units and the switch. The front grille should be removed from the loudspeaker before painting.



Before painting the front grille, remove the logo badge. After painting, it can be replaced with the new logo badge enclosed with the loudspeaker.

The protective template must be carefully positioned, because the drive units are very sensitive and can be damaged by even the slightest pressure. When the frame has been painted and the paint is dry, remove the template. It can be used again, if you wish to re-paint the loudspeaker later.

The front grille must be painted only from the front. After painting, spray its rear with compressed air to remove any paint in the holes. Dried paint can block the sound.

Maintenance

Clean the loudspeaker with a soft, dry cloth. If the cabinets are dirty, a soft cloth wrung out in a mild household cleaning agent can be used. Be very careful when dusting off the driver cones and domes, as they are very sensitive. The front grilles can be vacuumed and, if necessary, wiped with a lint-free cloth wrung out nearly dry in a mild household cleaning agent.

Enjoy!

Once again, thank you for choosing DALI. We remind you that your authorised DALI Helicon dealer will be glad to assist with advice on connecting and adjusting your new loudspeakers. Finally, we would like to invite you to visit our website - www.dali.dk - for more information on DALI and the technology behind the Helicon series.



Technical Specifications

	HELICON IW 200 Phantom In-Wall Speaker	HELICON 800 Main Speaker	HELICON 400 Main Speaker	HELICON 300 Compact Speaker
Frequency range +/- 3 dB (Hz)	64 - 27000	31 - 27000	31.5 - 27000	37 - 27000
Sensitivity (2.83 V/1m) (dB)	89	89.5	88	86
Nominal impedance Ω	8	4	4	4
Maximum SPL (dB)	107	113	111	108
Crossover frequencies (Hz)	3000/13000	580/3000/13000	(700)/3000 (13500)	3400 (13000)
Bas reflex tuning frequency (Hz)	-	28.5	32	34.5
Enclosure type	Sealed	Reflex	Reflex	Reflex
Placement	In-wall	Floor	Floor	Stand
Recommended Amp. power (Watt)	30 - 150	50 - 400	50 - 300	50 - 200
Amplifier	-	-	-	-
High frequency drivers	1 x 25 mm soft dome 1 x 10 x 55 mm ribbon	1 x 25 mm soft dome 1 x 10 x 55 mm ribbon	1 x 25 mm soft dome 1 x 10 x 55 mm ribbon	1 x 25 mm soft dome 1 x 10 x 55 mm ribbon
Midrange drivers	-	1 x 6½"	-	-
Low frequency drivers	1 x 6½"	2 x 8"	2 x 6½"	1 x 6½"
Connection inputs	Single wire	Bi-wire	Bi-wire	Bi-wire
Controls	-	-	-	-
Dimensions (HxBxD) (cm)	47.7 x 28.5 x 11.0	112.6 x 25.5 x 49.3	102.6 x 21.9 x 45.7	43.5 x 20.8 x 35.6
Dimensions (HxBxD) (inches)	18.78 x 11.22 x 4.33	44.33 x 10.04 x 19.41	40.39 x 8.62 x 17.99	17.13 x 8.19 x 14.02
Weight (kg/lb)	7/15	41/90	32/70	40/22
Finish	White laquer, NCS S0502-Y	High gloss cherry and rosenut	High gloss cherry and rosenut	High gloss cherry and rosenut

	HELICON C200 Centre Speaker	HELICON W200 Wall Speaker	HELICON S600 Active Subwoofer
Frequency range +/- 3 dB (Hz)	49 - 27000	41 - 27000	25 - 175
Sensitivity (2.83 V/1m) (dB)	90	89	-
Nominal impedance Ω	4	4	20 k
Maximum SPL (dB)	111	108	117
Crossover frequencies (Hz)	2800/13000	3000/13000	45 - 120
Bas reflex tuning frequency (Hz)	36	-	-
Enclosure type	Reflex	Sealed	Sealed
Placement	On top/below TV or on S600	On wall/Stand	Floor
Recommended Amp. power (Watt)	40 - 250	30 - 150	-
Amplifier	-	-	300 W RMS
High frequency drivers	1 x 25 mm soft dome 1 x 10 x 55 mm ribbon	1 x 25 mm soft dome 1 x 10 x 55 mm ribbon	- -
Midrange drivers	-	-	-
Low frequency drivers	2 x 6½"	1 x 6½"	2 x 12" long throw
Connection inputs	Bi-wire	Bi-wire	RCA, Stereo (low-pass filtered) RCA, Mono (LFE)
Controls	-	-	Volume, Crossover, Frequency, Phase
Dimensions (HxBxD) (cm)	21 x 65 x 43.5	45.2 x 32.6 x 21.4	64.2 x 42 x 41.5
Dimensions (HxBxD) (inches)	8.27 x 25.59 x 17.13	17.8 x 12.83 x 8.13	25.28 x 16.54 x 16.34
Weight (kg/lb)	18/41	10/21	40/88
Finish	High gloss cherry and rosenut	High gloss cherry and rosenut	High gloss cherry and rosenut