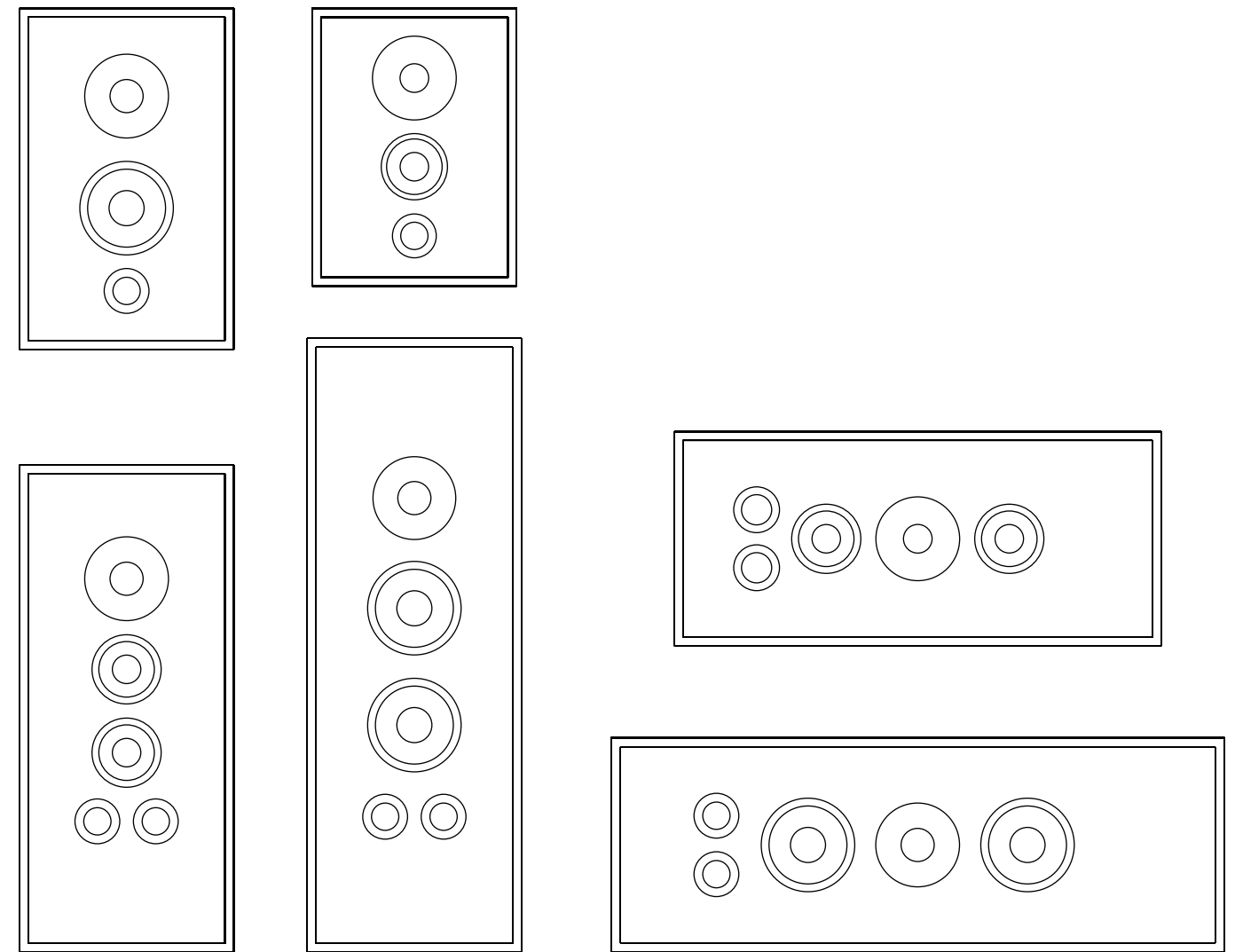




Passive speakers | owners manual



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	I.W.O. 511	I.W.O. 512
DESIGN	2 1/2 way, vented on-wall / in-wall speaker	2 1/2 way, vented on-wall / in-wall speaker
ENCLOSURE	MDF	MDF
TRANSDUCER COMPLEMENTS	2 x 3" woofer, 1" dome tweeter	2 x 4" woofer, 1" dome tweeter
RECOMMENDED AMPLIFIER POWER	60 ~ 100 W	60 ~ 120 W
NOMINAL IMPEDANCE	8 Ω	8 Ω
SENSITIVITY, 1 w/ 1 m	83 dB	88 dB
FREQUENCY RESPONSE (-3 dB), on axis	75 Hz ~ 20 kHz	70 Hz ~ 19 kHz
FREQUENCY EXTENSION (-10dB)	65 Hz ~ 22 kHz	55 Hz ~ 22 kHz
CROSSOVER FREQUENCY	970 Hz, 2.3 kHz	770 Hz, 2.3 kHz
INPUTS	Gold plated binding post	Gold plated binding post
DIMENSIONS (H x W x D) mm	500 x 220 x 93	630 x 220 x 93
NET WEIGHT	5 kg	6.4 kg
FINISH	Colour options: Semi gloss white / black	Colour options: Semi gloss white / black
ACCESSORIES (separate)	511 IWK	512 IWK

	I.W.O. 521	I.W.O. 522
DESIGN	2 way , MTM, vented, on-wall / in -wall, center speaker	2 way , MTM, vented, on-wall / in -wall, center speaker
ENCLOSURE	MDF	MDF
TRANSDUCER COMPLEMENTS	2 x 3" woofer, 1" dome tweeter	2 x 4" woofer, 1" dome tweeter
RECOMMENDED AMPLIFIER POWER	60 ~ 100 W	60 ~ 120 W
NOMINAL IMPEDANCE	8 Ω	8 Ω
SENSITIVITY, 1 w/ 1 m	82 dB	87 dB
FREQUENCY RESPONSE (-3 dB), on axis	75 Hz ~ 20 kHz	70 Hz ~ 19 kHz
FREQUENCY EXTENSION (-10dB)	65 Hz ~ 22 kHz	55 Hz ~ 22 kHz
CROSSOVER FREQUENCY	1.6 kHz	2.5 kHz
INPUTS	Gold plated binding post	Gold plated binding post
DIMENSIONS (H x W x D) mm	220 x 500 x 93	220 x 630 x 93
NET WEIGHT	4.9 kg	6 kg
FINISH	Colour options: Semi gloss white / black	Colour options: Semi gloss white / black
ACCESSORIES (separate)	521 IWK	522 IWK

Due to continuous improvements, all specifications are subject to change

10. ACOUSTICS OF THE LISTENING ROOM

The acoustical makeup of your listening room is key in determining how good (bad) is the sound that reaches your ear. The contents of a room (carpets, curtains, furniture etc.), its shape, and the material of which the boundaries are made, make or break your sound. The idea is to have a listening area where the absorptions and reflections are calibrated to attain, as far as possible, a neutral environment. While there are no 'quick fix' formulae to convert a 'room' to an 'ideal listening room,' here are some things that you might try to attain optimal performance.

In your listening room, clap your hands, snap your fingers, and jingle a ring of keys.

If the resulting sound is unintelligible (muffled), and resonating, your room is inclined toward being reflective. In this event, you might want to: Hang up curtains/ Lay a carpet or rug/ Introduce book cases/ other racks. In the event that the resulting sound is too damped your room is inclined toward being absorptive. You might want to remove some of the absorptive material (like those given above)

11. CARE AND MAINTENANCE

All Sonodyne loudspeakers of the I.W.O. range are manufactured with modern and thoroughly tested materials, which normally do not require any maintenance other than once in a while opening the front grill and vacuuming the cloth. If the loudspeaker's cabinet becomes greasy you may clean it by moistening a soft cloth with water and a mild soap to remove the dirt. Then, use a dry cloth to wipe and restore the original finish.

Please DO NOT use scouring powder, petrol, or any sort of alcohol or solvents to clean the loudspeaker. It will damage the finish permanently.

12. SPECIFICATIONS

	I.W.O. 501	I.W.O. 502
DESIGN	2 way, vented on-wall / In-wall speaker	2 way, vented on-wall / in-wall speaker
ENCLOSURE	MDF	MDF
TRANSDUCER COMPLEMENTS	3" woofer, 1" dome tweeter	4" woofer, 1" dome tweeter
RECOMMENDED AMPLIFIER POWER	40 ~ 80 W	60 ~ 100 W
NOMINAL IMPEDANCE	8 Ω	8 Ω
SENSITIVITY, 1 w/ 1 m	80 dB	85 dB
FREQUENCY RESPONSE (-3 dB), on axis	80 Hz ~ 20 kHz	70 Hz ~ 20 kHz
FREQUENCY EXTENSION (-10dB)	70 Hz ~ 22 kHz	60 Hz ~ 22 kHz
CROSSOVER FREQUENCY	1.6 kHz	1.8 kHz
INPUTS	Gold plated binding post	Gold plated binding post
DIMENSIONS (H x W x D) mm	285 x 210 x 93	350 x 220 x 93
NET WEIGHT	3 kg	3.7 kg
FINISH	Colour options: Semi gloss white / black	Colour options: Semi gloss white / black
ACCESSORIES (separate)	501 IWK	502 IWK

1. INTRODUCTION

Congratulations on your purchase of your IWO series loudspeaker. The IWO series is a break-through in loudspeaker design for the home, combining modern looks and superb finish with an amazing sound quality. Elegantly finished in glossy white or black, it is only 4 inch deep, and yet produces a full-bodied dynamic and detailed sound. It can be easily hung on your wall without looking obtrusive. You can even flush-mount on your wall using the ingenious wall-mounting kit (optional).

The IWO series ticks all the boxes when it comes to build quality, design, frequency and dynamic bandwidth, and detailing. Be it for stereo or multichannel audio, you will find a suitable solution from this range. So go ahead and play your favourite music and movies and let your eyes and ears feast.

2. UNPACKING

Your carton contains:

One I.W.O. Loudspeaker, and one grill packed separately.

Please retain all packing materials in case you need to transport the loudspeaker

We suggest that the loudspeaker be "broken in", i.e., played for some time, so that it can quickly start performing at its best! If you do not want to do this when you are at home set your source unit, i.e., CD player on "repeat entire disc" mode. Then, allow the loudspeaker to play at moderate volume level for 6 - 8 hrs.

3. AMPLIFIER SELECTION

We recommend using amplifiers whose continuous (rms) power per channel is greater than or equal to that the speaker handles. Recommended power ratings of amplifier are given under specifications. Please see page 16 and 17. In the event that the power is greater, care must be taken to avoid playing music at excessively loud levels and thus damage the speaker. Also, while using an amplifier with rms power lower than the rated power handling of the speaker, please ensure that the amplifier volume is set such that there is no audible distortion. Lower powered amplifiers, operating at close to maximum volume, often produce distorted signals at high levels. This can lead to damage of the high frequency driver, the tweeter.

4. WIRE CONNECTIONS

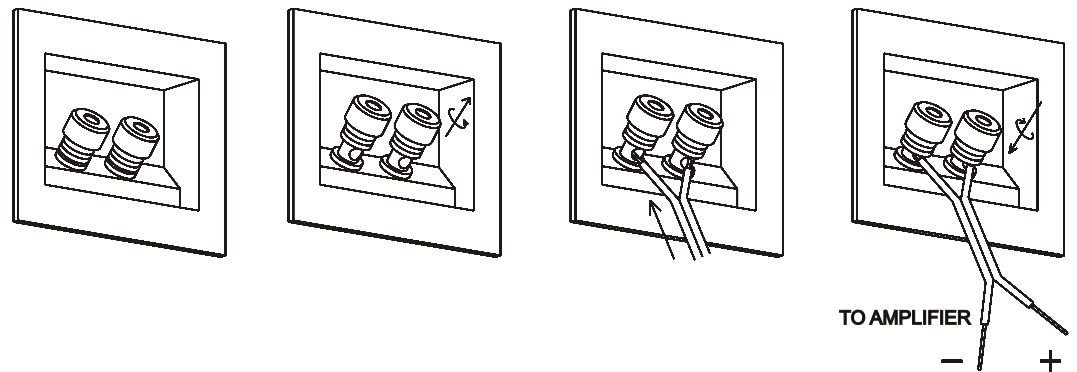
Please proceed with the connection in the following fashion:

1. Turn off the amplifier.
2. Remove the insulation on both ends of the speaker cable and twist the strands on the wire.
3. Insert them into the holes on the gold plated binding posts and turn them to tighten. Please note the following

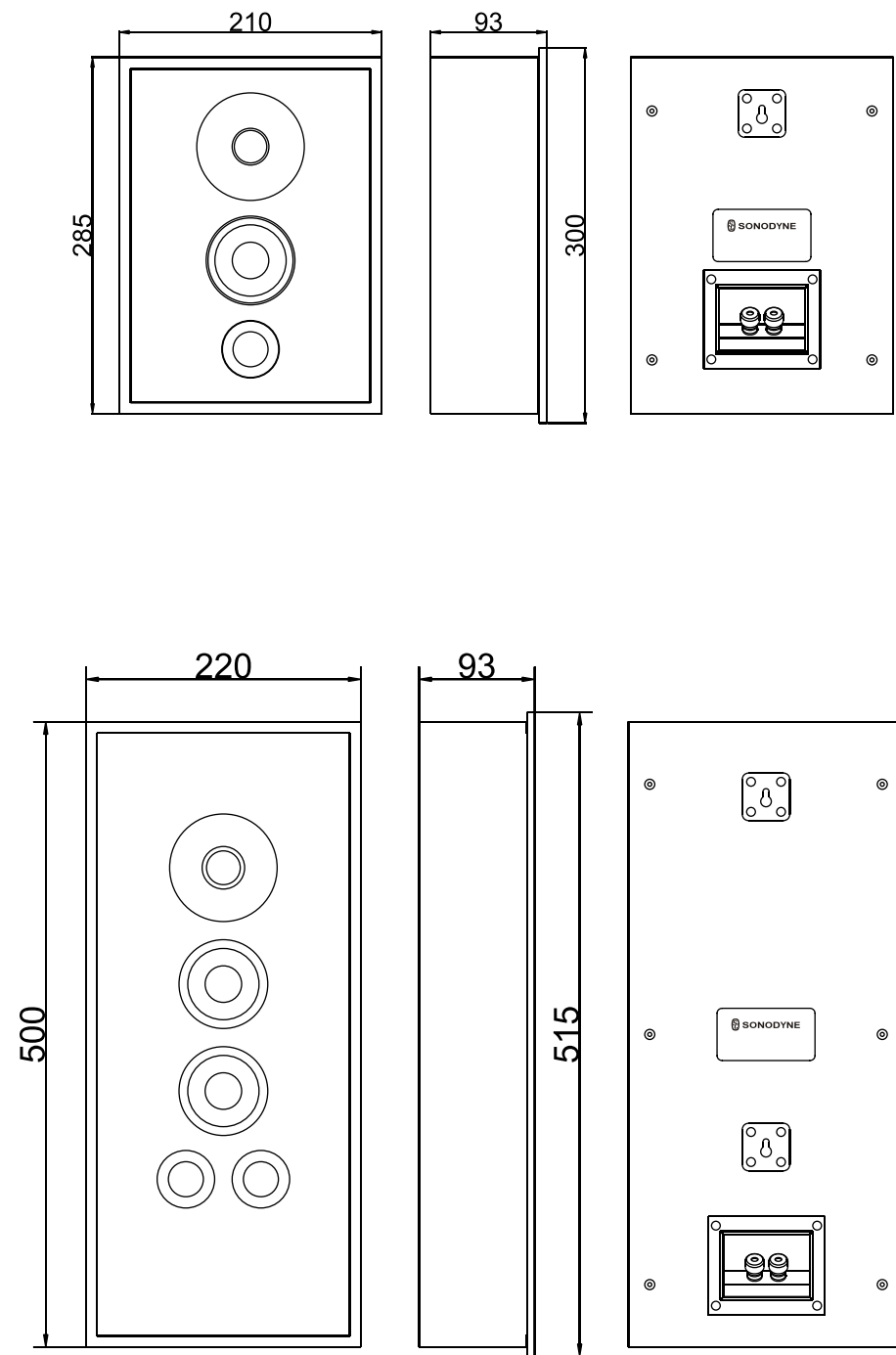
A. Verify that the wires from the positive terminal and negative terminal do not touch each other, as a short-circuit could damage the amplifier.

B. Verify that the loudspeaker is in proper phase: The + (red) terminal on the loudspeaker is connected to the + (red) terminal on the amplifier. The - (black) terminal on the loudspeaker is connected to the - (black) terminal on the amplifier.

The above is illustrated by the following sketch



5. LINE DRAWINGS



• IWO 511 •

• IWO 501 •

• in-wall mounting •

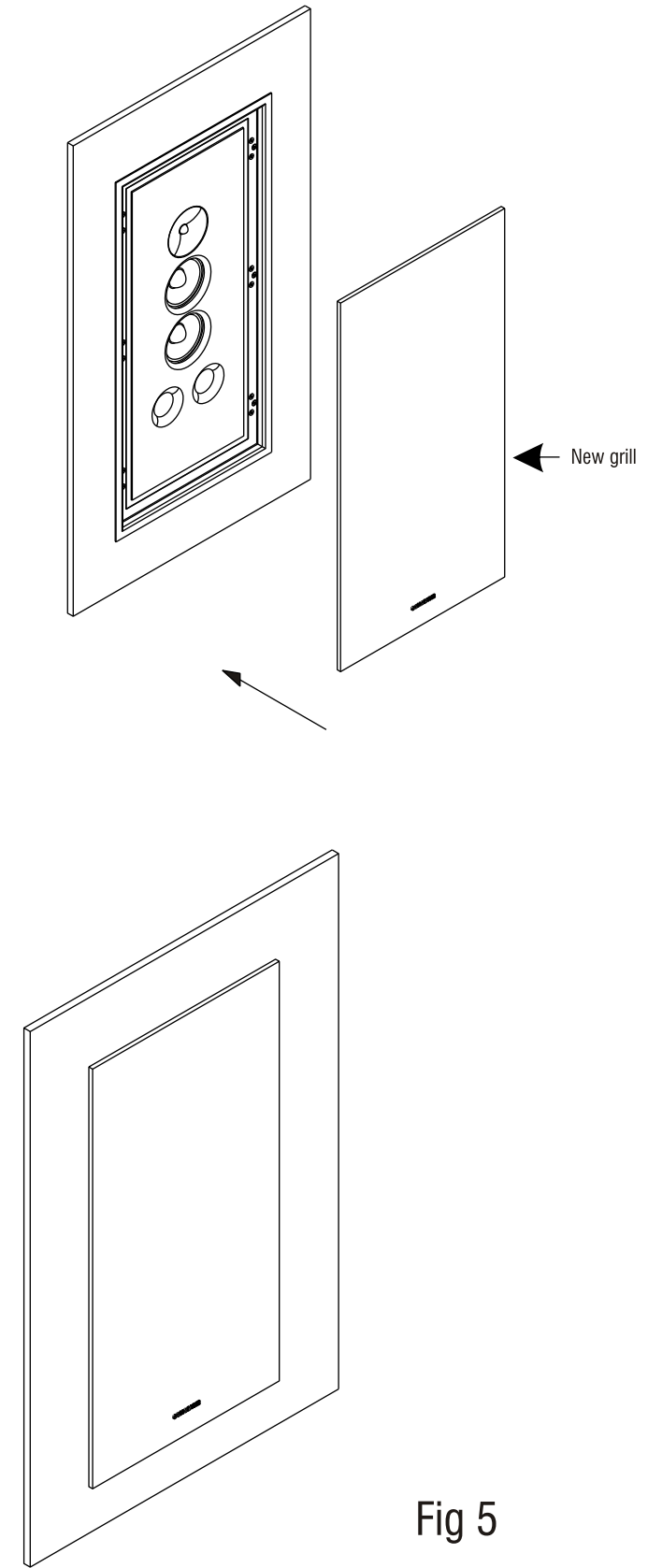


Fig 5

• fig 5 •

• in-wall mounting •

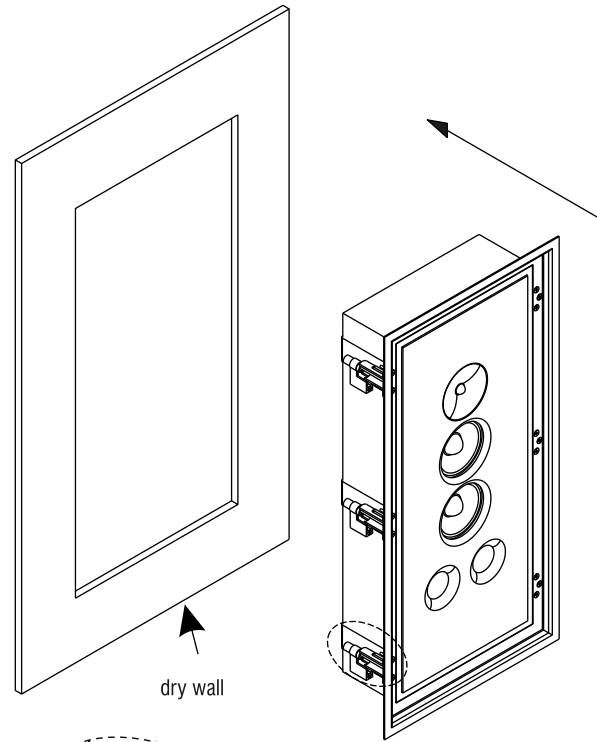


Fig 3

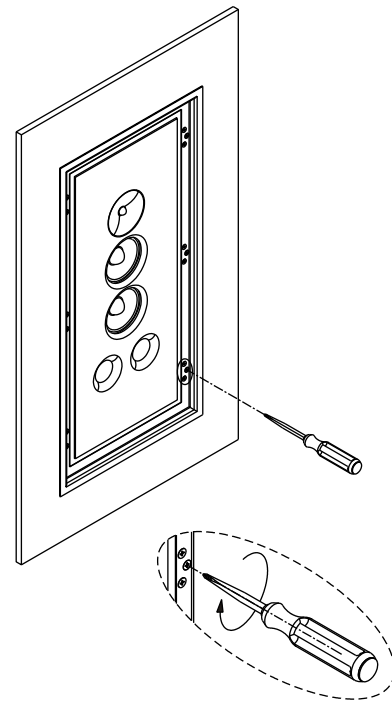
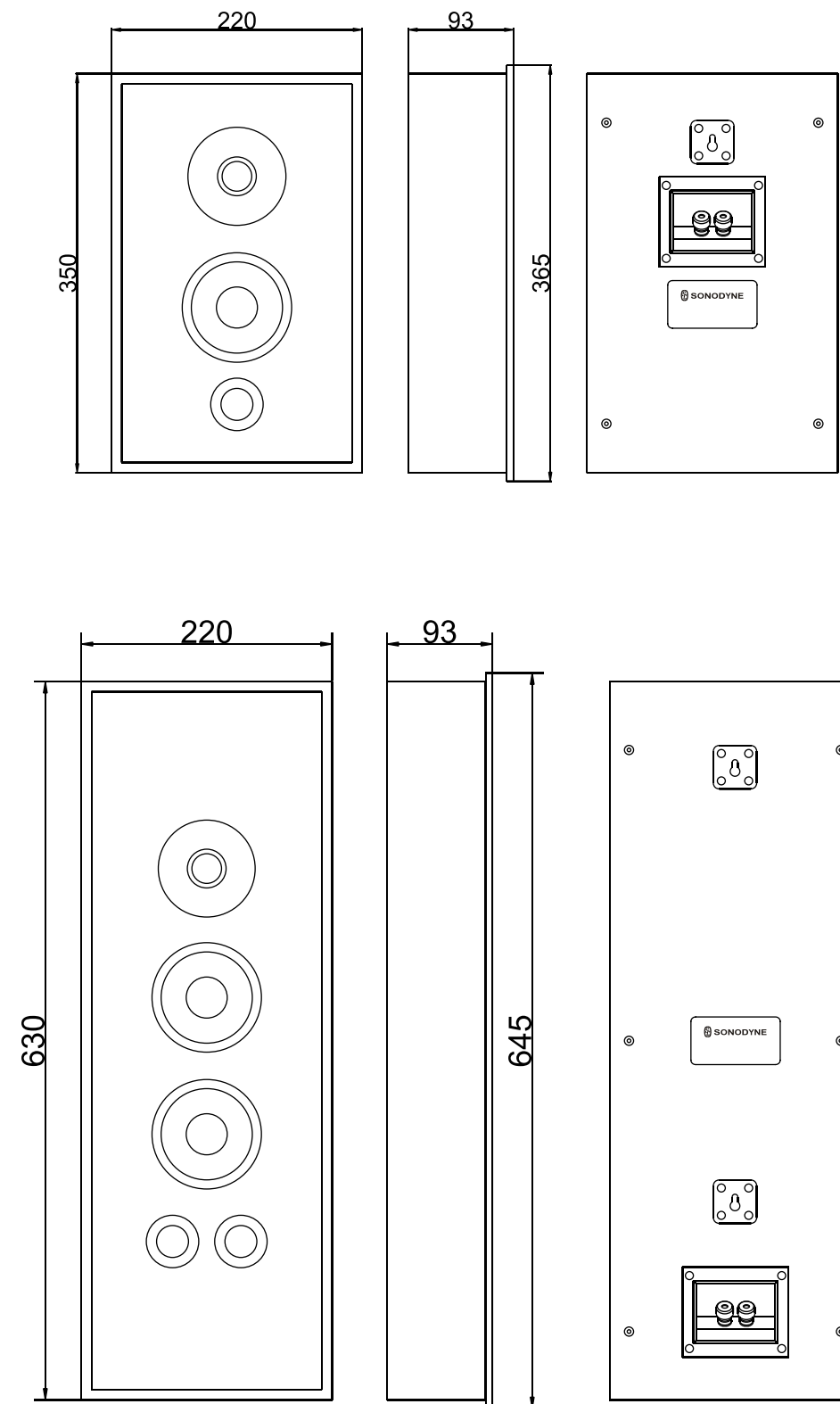


Fig 4

• fig 3 •

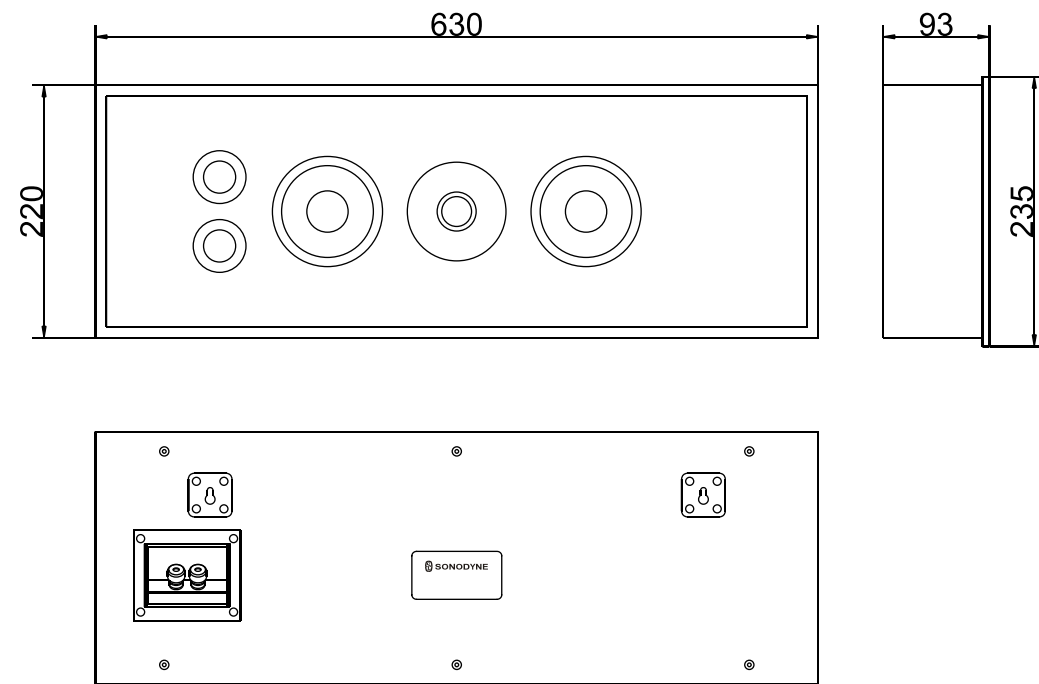
• fig 4 •

• line drawings •

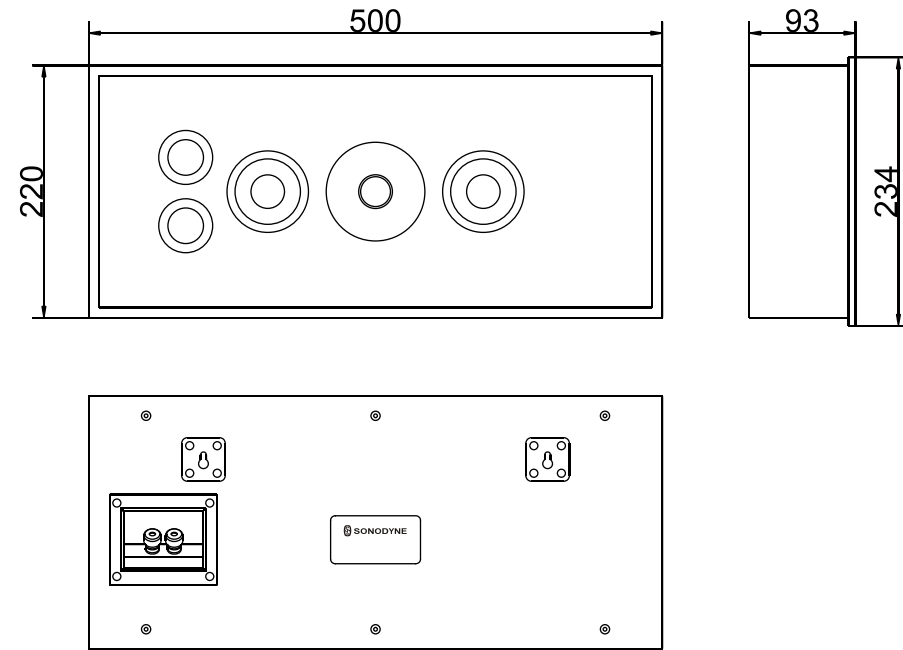


• IWO 502 •

• IWO 512 •



• IWO 522 •



• IWO 521 •

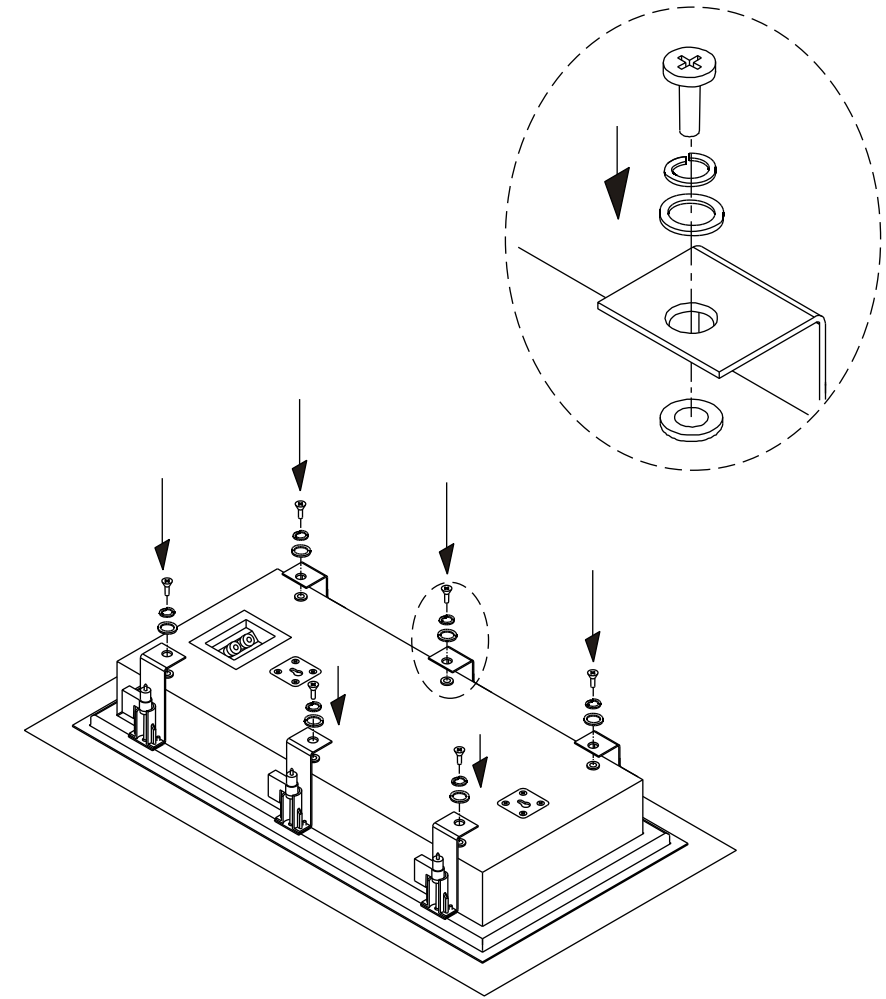


Fig 2

• fig 2 •

• in-wall mounting •

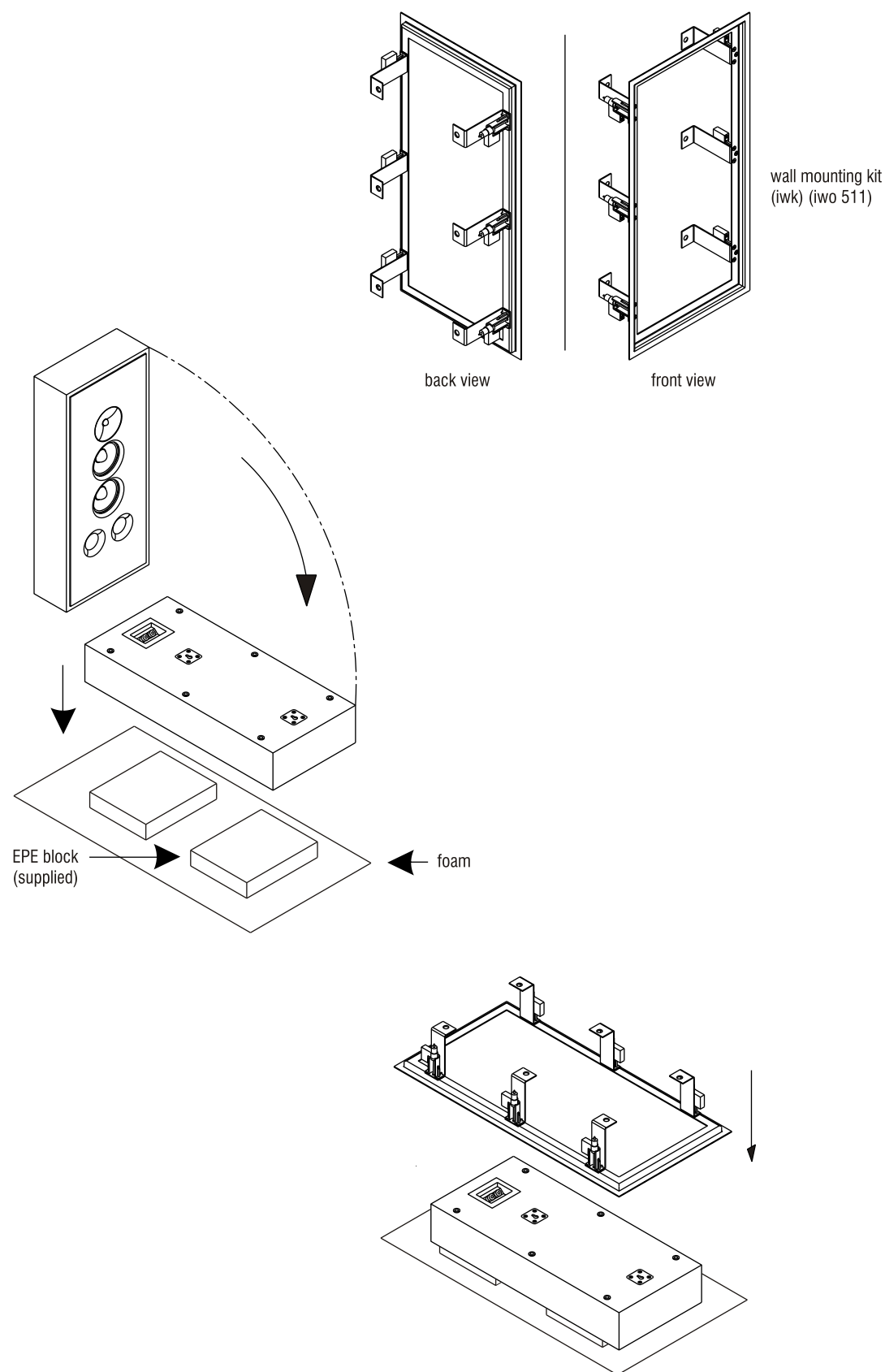


Fig 1

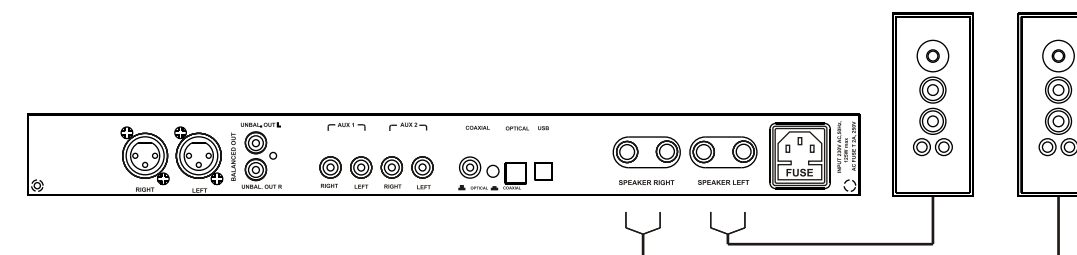
• fig 1 •

• connection diagram •

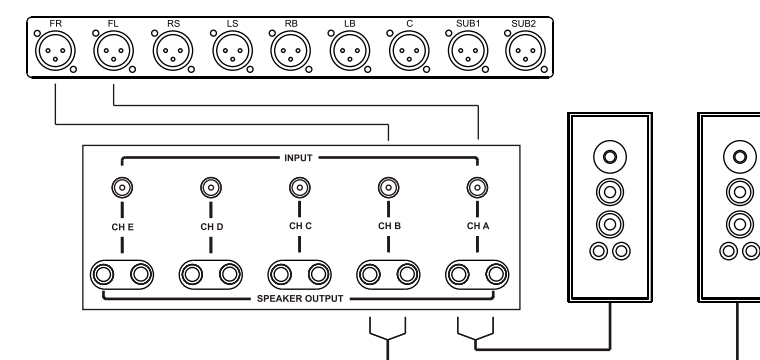
6. CONNECTION DIAGRAMS

6 a. Connecting I.W.O. 501 / 502 / 511 / 512

The following figure shows the I.W.O. 501 / 502 / 511 / 512 connected to a stereo setup.

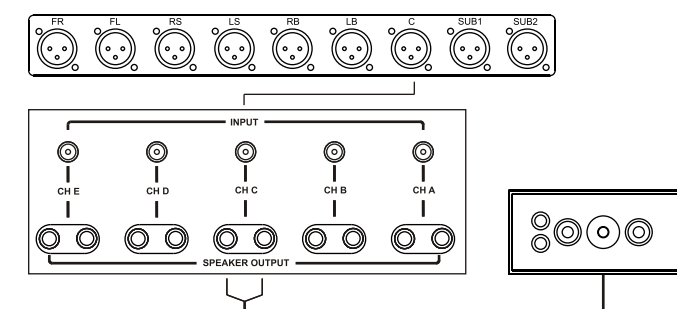


The following figure shows the I.W.O. 501 / 502 / 511 / 512 connected as the front left and front right speakers in a 5.1 system



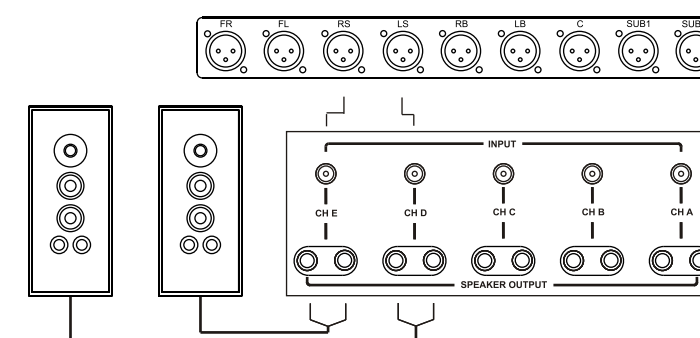
6 b. Connecting I.W.O. 521 / 522

The following figure shows the I.W.O. 521 / 522 connected as the center speaker in a 5.1 (or larger multichannel) system



6 c. Connecting additional I.W.O. 501 / 502 / 511 / 512 as surround speakers

The following figure shows 2 x IWO 501 / 502 / 511 / 512 connected as the surround speakers in a 5.1 system



7. SPEAKER PLACEMENTS

Placing stereo or front left and right speakers in a multi-channel system

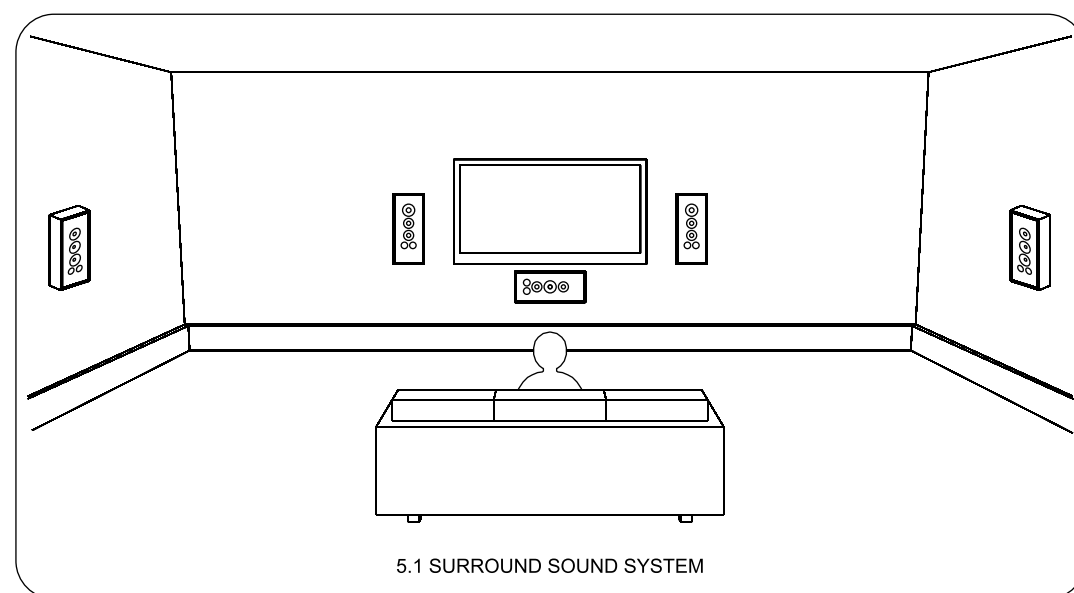
Finding the right position for your I.W.O. speaker is also very important. The following should aid in locating that optimal position:

Ensure that there are no objects between the speaker and the listener in general. Avoid placing the loudspeakers near corners which will boost the low frequency level but at the same time create reflections in the midrange and treble area, which results in a deterioration of the stereo image. As a guideline, for optimum placement, the distance to the side wall should be at least 50 ~ 80 cm.

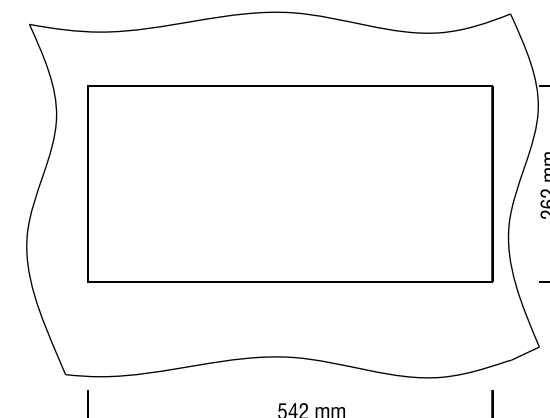
The distance between your I.W.O. speakers should be the same as the distance from either loudspeaker (left and right) to your preferred listening position (thus forming an equilateral triangle with the left, right speakers, and you as the three vertices.) If distances are not a premium, then the optimal position could be attained by playing a stereo recording, separating the left and right speakers till an acoustical hole is formed in the middle. Then bring the two speakers together to attain a uniform sound front.

The height of the speakers should be such that the tweeters of the speaker are at ear level. Detach the grill so you can see the tweeter

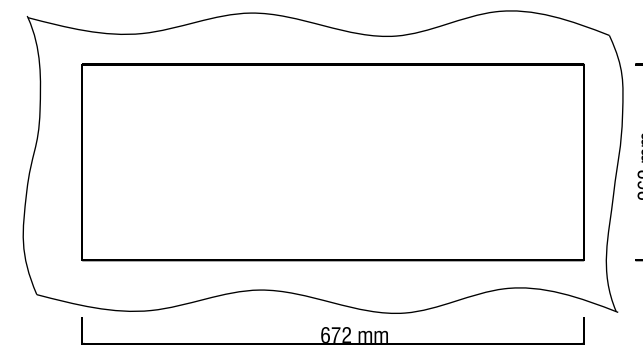
The following figure shows a typical room placement with your I.W.O. speakers connected as the front left and right speakers in a 5.1 system



• cut-out on the dry wall •



IWO 521



IWO 522

• in-wall mounting •

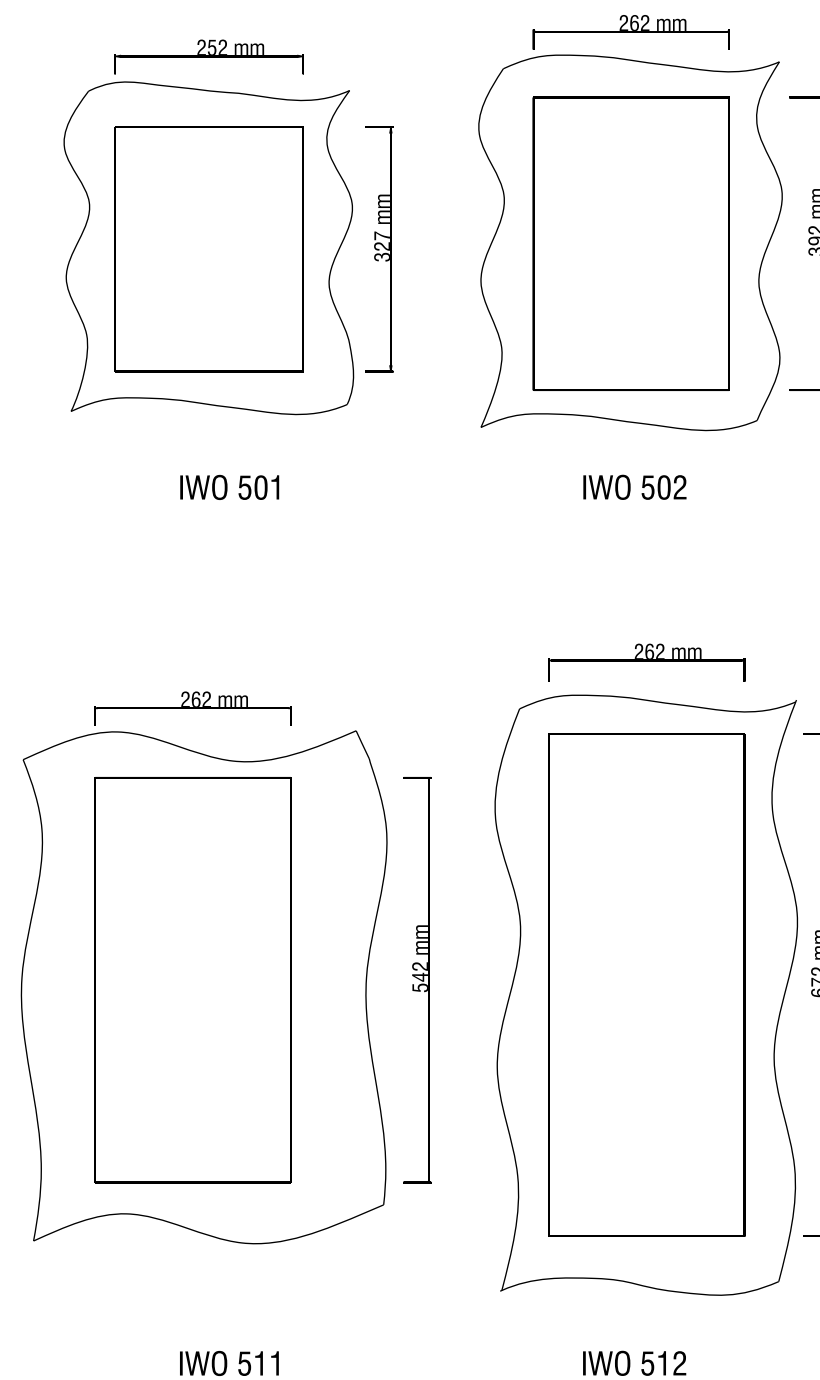
Next fit the in-wall mounting kit to the speakers. Proceed as follows

- Detach the magnetic grill and put the cabinet face down on 2 EPE blocks (supplied) on a piece of foam on a table. Hold the kit and gently slide it the cabinet so that the metal tongues of the kit come to rest on the cabinet back. Please see fig. 1 below.
- Fix the machine screws along with flat washer and spring washer supplied, to hold the tongues to the cabinet back. Tighten the screws. Please see fig. 2 below.
- Turn the dog-ears so that they are vertical. Hold the metal frame and insert the cabinet inside the cut-out on the dry-wall. Please see fig. 3 below.
- Tighten the screws so that the dog-ears hold the metal frame snugly against the dry-wall. Please see fig. 4 below.
- Attach the new grill supplied with the kit. Please see fig. 5 below.
- Please note that the in wall bracket accommodate a dry wall of thickness 1/4" (6.3 mm) to 1" (25.4 mm) mm.

9. IN-WALL MOUNTING OF IWO SPEAKERS

Each IWO speaker is provided with mounting inserts on the rear that allow them to be flush-mounted on a wall with the help of the optional in-wall mounting kit

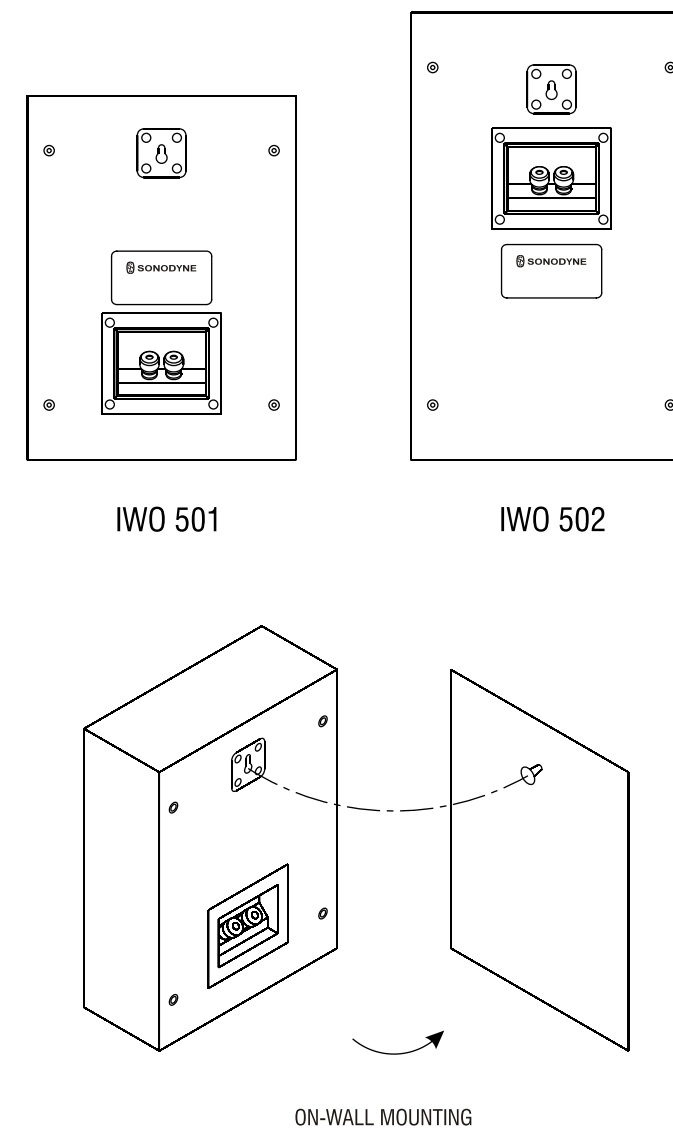
First make a cut-out on the dry wall for the IWO speakers as shown in the figure below.



8. ON-WALL MOUNTING OF IWO SPEAKERS

IWO 501 and 502

The IWO 501 and 502 have a key-hole type bracket at the rear, in the center and near the top. You can use this to hang the speaker on the wall, like a picture frame. Please see figure below.



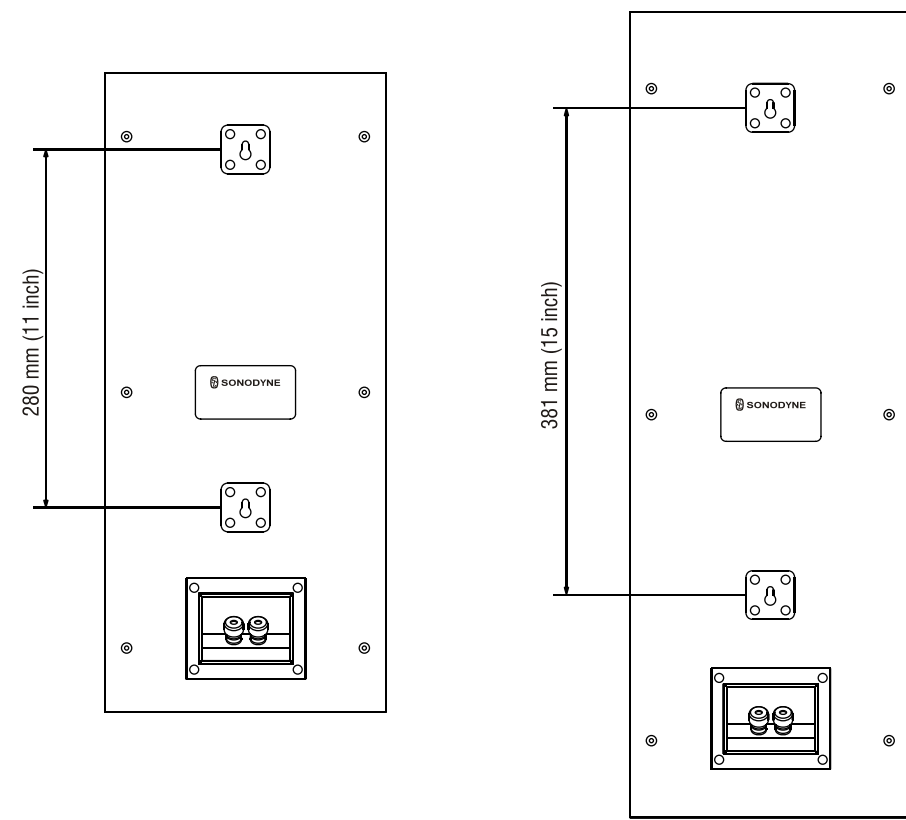
IWO 511 and 512

The IWO 511 and 512 have 2 key-hole brackets, placed vertically on the rear of the cabinet and at the horizontal center. Fix 2 screws vertically on the wall at a center distance as follows

- 280 mm (11 inch), for the IWO511,
- 381 mm (15 inch), for the IWO512 .

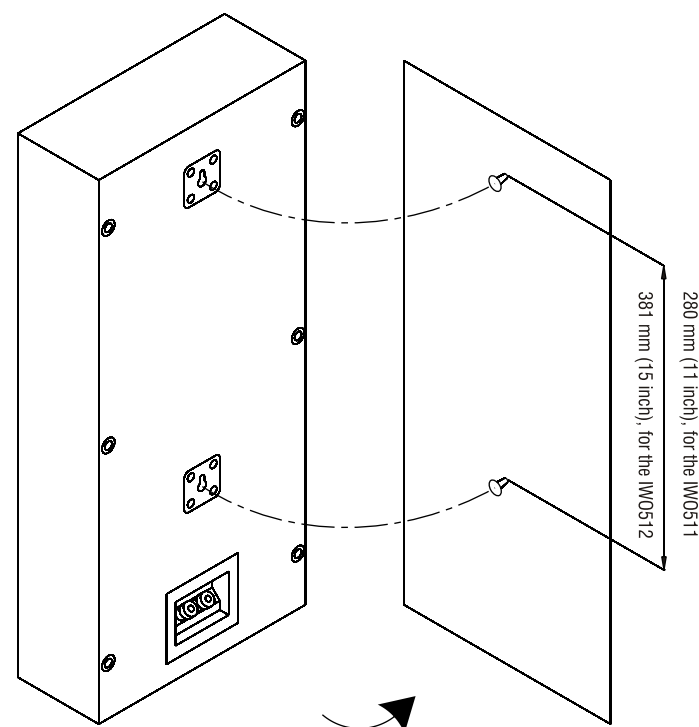
Make sure that the screws lie on the same vertical plane. Hang the speaker on these 2 screws. Please see figure below

• in-wall mounting I.W.O. 511 I.W.O. 512 •



IWO 511

IWO 512



ON-WALL MOUNTING

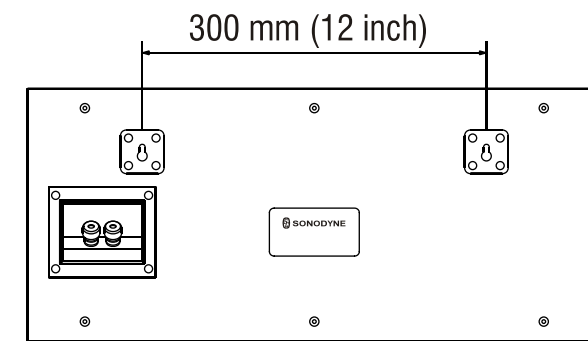
• on-wall mounting I.W.O. 521 I.W.O. 522 •

IWO 521 and 522

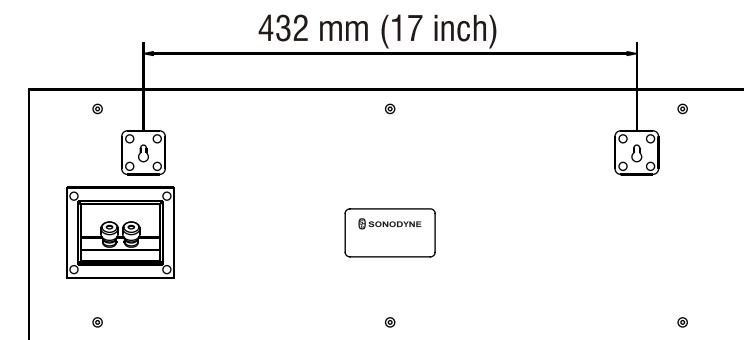
These cabinets are supposed to be mounted horizontally. Two key-hole type brackets are provided on the rear, in the same horizontal line on which the cabinet is hung. Fix 2 screws horizontally on the wall at a center distance as follows

- 300 mm (12 inch), for the IWO521,
- 432 mm (17 inch), for the IWO522 .

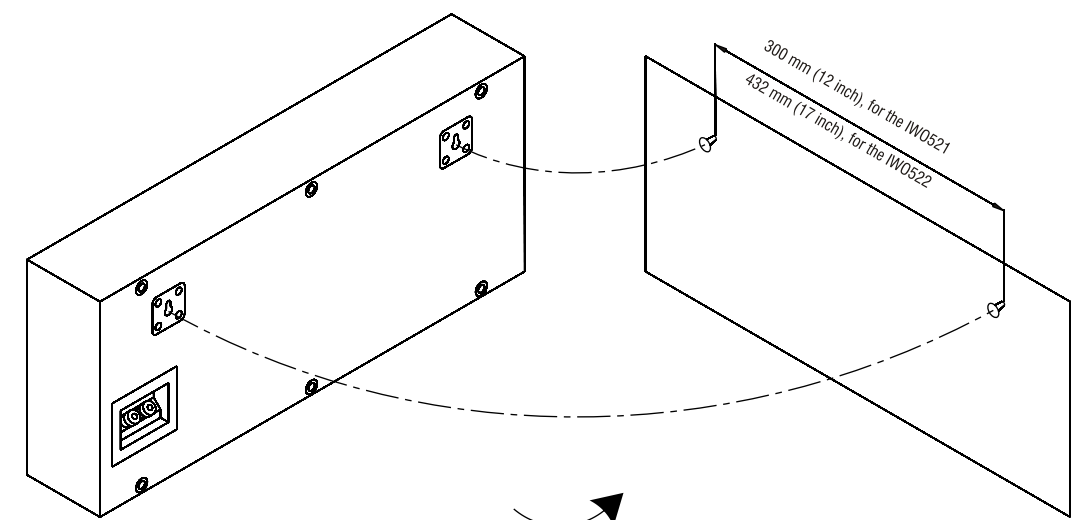
Make sure that the screws lie on the same horizontal line or the speaker will be tilted when hung. Hang the speaker on these 2 screws. Please see figure below



IWO 521



IWO 522



ON-WALL MOUNTING