Installation Guide

V1.4 April 2015

ALF80

Discreet Subwoofer

amina

TECHNOLOGIES   Ltd

Caution: Read this before operating your unit

01 To ensure optimal performance, please read this guide carefully and keep in a safe place for future reference.

02 Install this product in a cool, dry, clean place - away from direct sunlight and heat sources, vibration, dust and moisture.

03 Do not expose this unit to sudden temperature changes or locate it in an environment with high humidity. This is to prevent condensation forming inside which may cause damage to the unit.

04 Do not clean this unit with chemical solvents as this may damage the finish. Use a clean, dry or damp cloth.

05 Do not attempt to modify or repair the unit. Contact your distributor or manufacturer if a fault should occur.

06 Ensure that any fixing structures will support the weight of this product.

07 Do not modify the length of the port by cutting it or by extending it using additional tubing, or flexible pipes. Doing so will seriously compromise the acoustic performance of thre product.
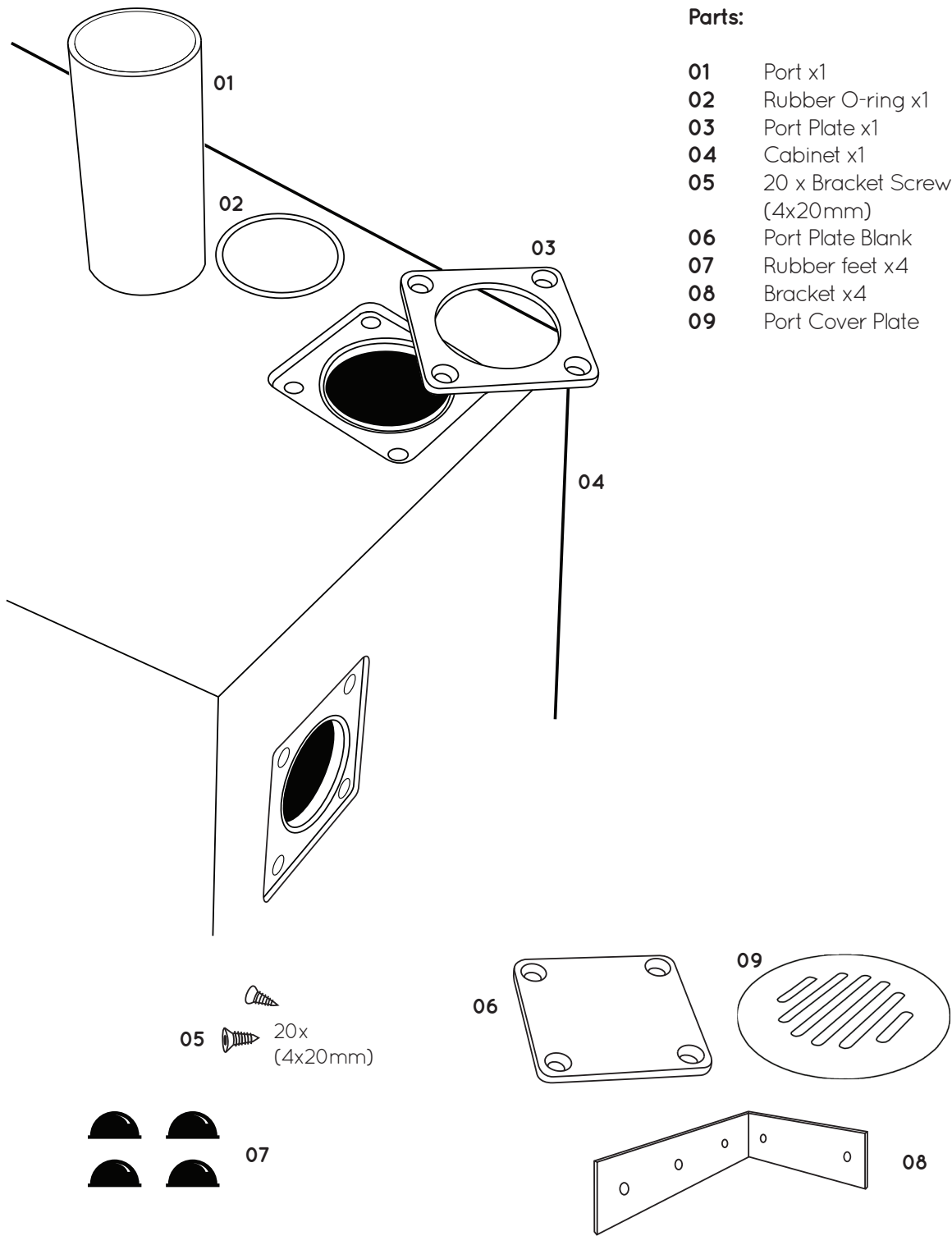
⚠️ ⚡ **WARNING:**

No attempt should be made to install this product within existing building structures unless you are certain no electric cables, water pipes, gas pipes or supporting joists will be cut through.

Contents

Included in the carton

Parts:

01 Port x1
02 Rubber O-ring x1
03 Port Plate x1
04 Cabinet x1
05 20 x Bracket Screws
(4x20mm)
06 Port Plate Blank
07 Rubber feet x4
08 Bracket x4
09 Port Cover Plate

Please contact your dealer if any of the above parts are missing or you require spares.

WARNING: TAKE CARE TO NOT DROP OBJECTS THROUGH THE PORT HOLES AND INTO THE ALF80 ENCLOSURE.

Using the Adjustable Port System

The ALF80 features a unique port system allowing for greater flexibility when positioning and concealing the product.
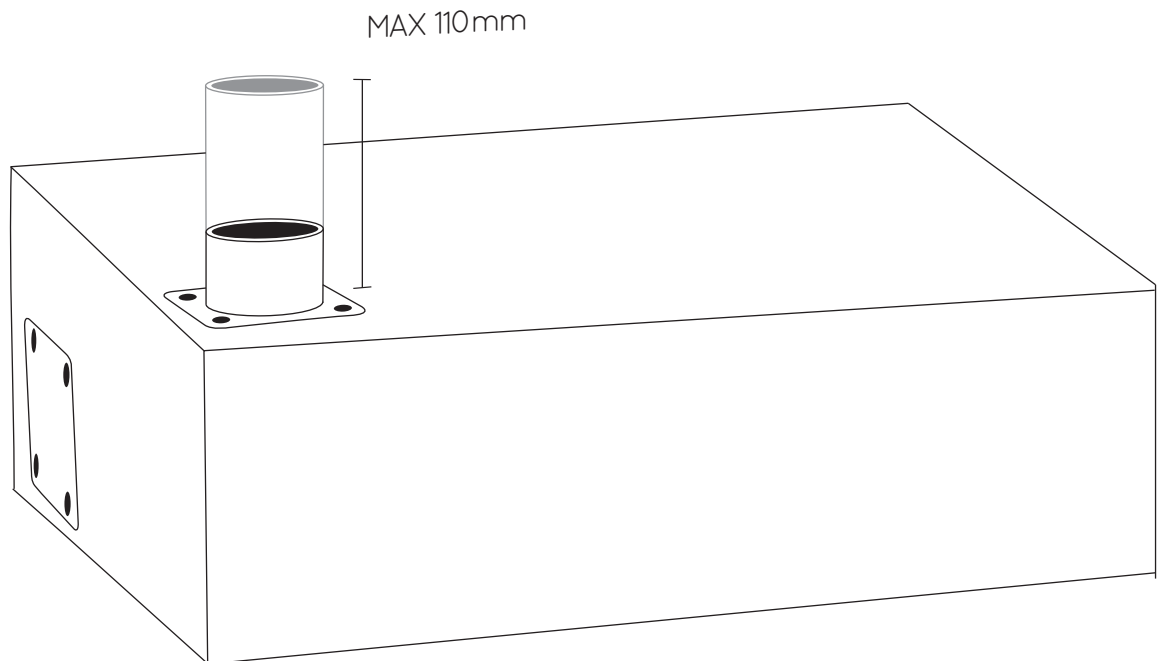
There are two optional positions where the port can be connected to the ALF80 cabinet. An aluminium plate (port plate) and a rubber o-ring provide an air tight seal around the port. A similar blanking plate is used to cover and seal the unused port hole.

To remove the port and blanking plates use a number 3 Hex screwdriver to remove the four fixing screws. Then remove the plate from the cabinet taking care not to drop the o-ring through the port openings.

To adjust the amount the port protrudes from the ALF80 cabinet, remove the screws along with the port plate and pull/push the port by gripping the inside surface. Ensure the o-ring is correctly positioned in its rebate before re-securing the port plate and make sure the port is absolutely firm. If it appears loose, check the o-ring has not dropped through the opening.
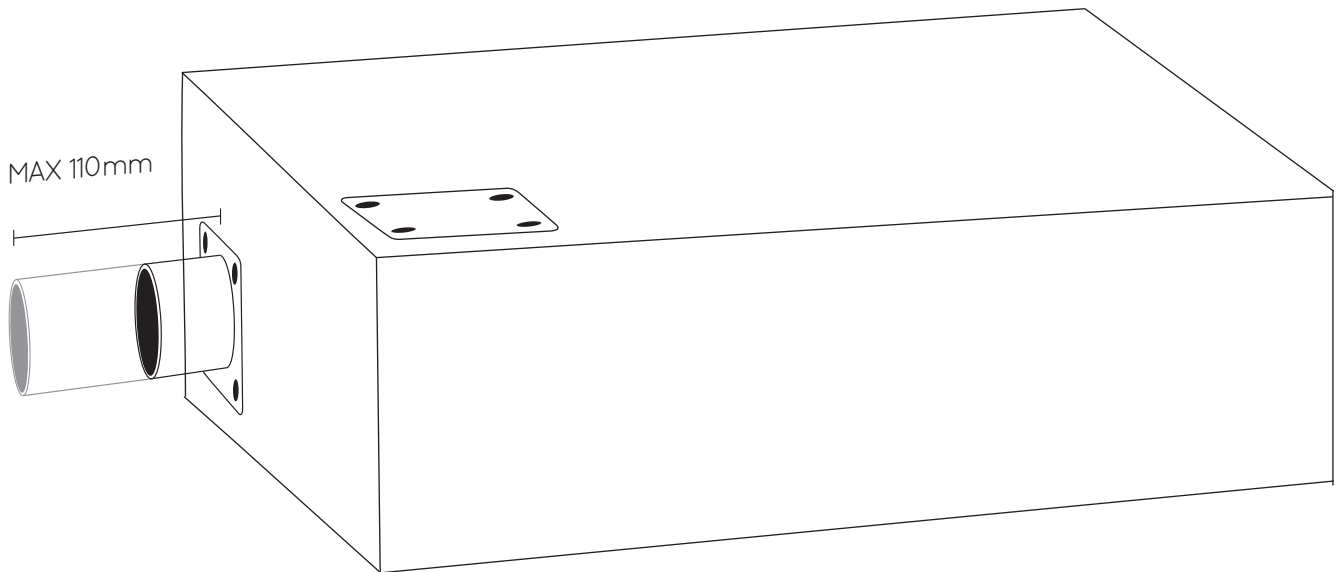
Top Position

This port position can be useful if you need to stand the ALF80 on its end (connection terminal facing upward), or when locating it in a ceiling void, port firing downward.

MAX 110mm

Using the Adjustable Port System

End Position
This port position is useful when the ALF80 is located behind a kickboard, or underneath a sofa.

MAX 110mm

Important notes:

01 ALWAYS loosen the four screws in the port plate before adjusting the port.

02 The blanking plate MUST always be screwed down over the port opening that is not in use.

03 Be sure to tighten both the port plate and the blanking plate. Never over-tighten the screws.

04 Use ONLY the supplied screws to fix the port and blanking plates.
Contact your dealer if spares are required.

05 Ensure the rubber o-ring is correctly in position around the port and sitting within the circular rebate.

06 To release the blanking plate from its position, it may be necessary to push it from behind from within the cabinet. This can be done via the other port opening once the port is removed.

⚠ **DO NOT modify the length of the port by cutting it, or by extending it using additional tubing, or flexible pipes. Doing so will seriously compromise the acoustic performance of the product.**

Positioning the ALF80

Free Standing

The ALF80 can be positioned anywhere within a room and in any orientation. A location near the corner of a room will give the most bass output however it is important to allow the bass port to breathe. Do not place any solid objects closer than 50mm (2") directly in front of the port. Adhere the supplied rubber feet to the cabinet, this will protect the product from dirt and scratches when positioned on the floor.

Fixing Brackets

Use the supplied brackets to secure the ALF80 to a solid structure. Use only the supplied, 12.3mm screws to fix the brackets to the cabinet. Never use longer screws as these may damage the unit's internal components. Ensure the brackets are not fixed over the port plate, blanking plate or connection terminal.

Concealed Placement

The ALF80 can be placed within furniture, behind wall panelling or even within a ceiling cavity. Whatever structure you install the ALF80 inside, it is important to create a suitable hole for the port to protrude through allowing it to breathe into the listening room.

Use the brackets and screws provided to secure the ALF80 within the structure.
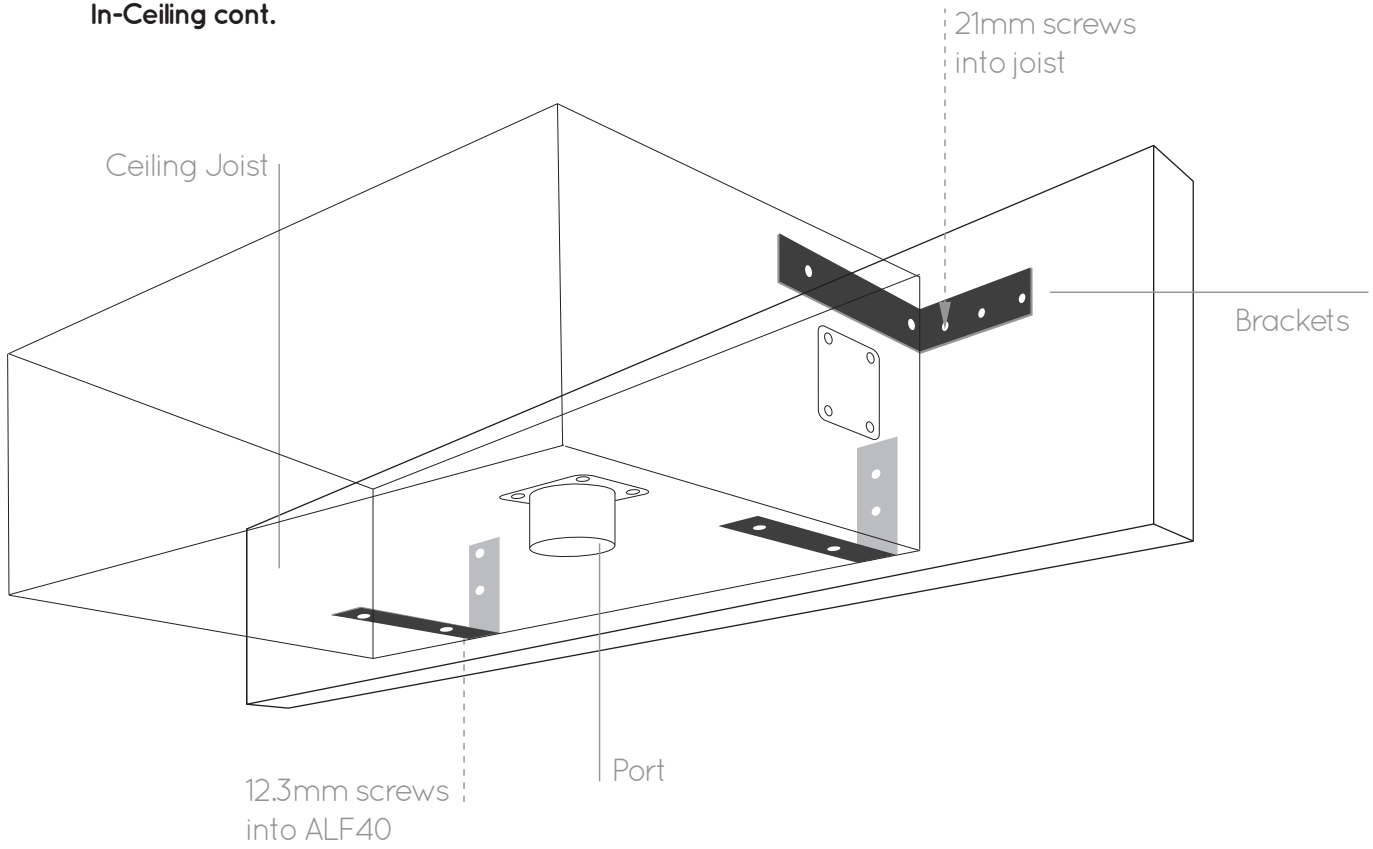
In-Ceiling

The illustration on the next page shows how the brackets supplied can be used to fix the ALF80 to a ceiling joist.
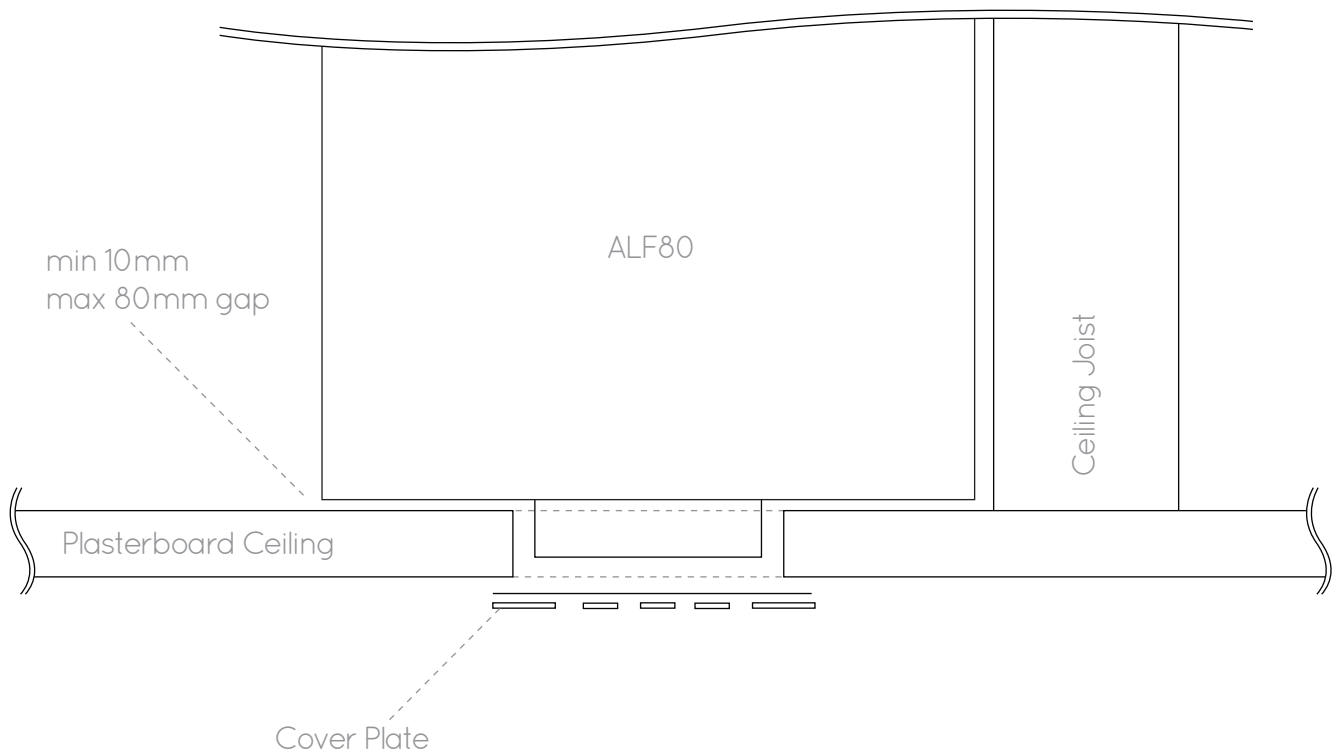
Notice the port protrudes from the cabinet - this allows it to then protrude through a suitable hole cut in the plasterboard ceiling layer.
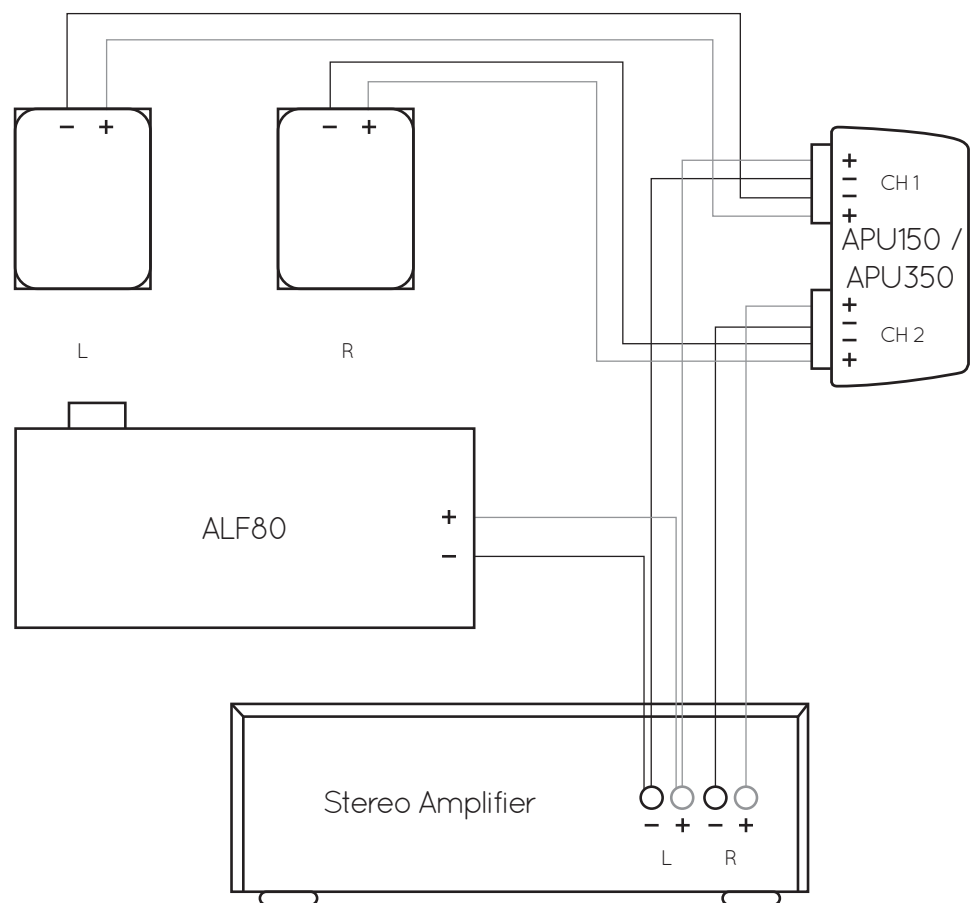
Positioning the ALF80 (Diagram)

In-Ceiling cont.

21mm screws
into joist

Ceiling Joist

Brackets

12.3mm screws
into ALF40

Port

Detail view

min 10mm
max 80mm gap

ALF80

Ceiling Joist

Plasterboard Ceiling

Cover Plate

Connection Options (Passive 2.1)

The ALF80 has been optimised to work with the Amina Evolution and iQ Series Invisible speakers. The following examples illustrate its use with these series of speakers. The ALF80 is designed so it can be connected in parallel with AIW150i, AIW350i, AIW550i, iQ1 and iQ3.

Passive Stereo 2.1 : AIW150i / AIW350i pair + ALF80

Note: Amplifier must be 4 Ohm stable.

In this scenario, one of the amplifier channels (left or right) is used to drive the ALF80 and one of the invisible speakers together in parallel. It is assumed bass frequencies are mixed in mono on most program material, however for orchestral music better performance will be obtained with the ALF80 connected to the right channel of the amplifier.
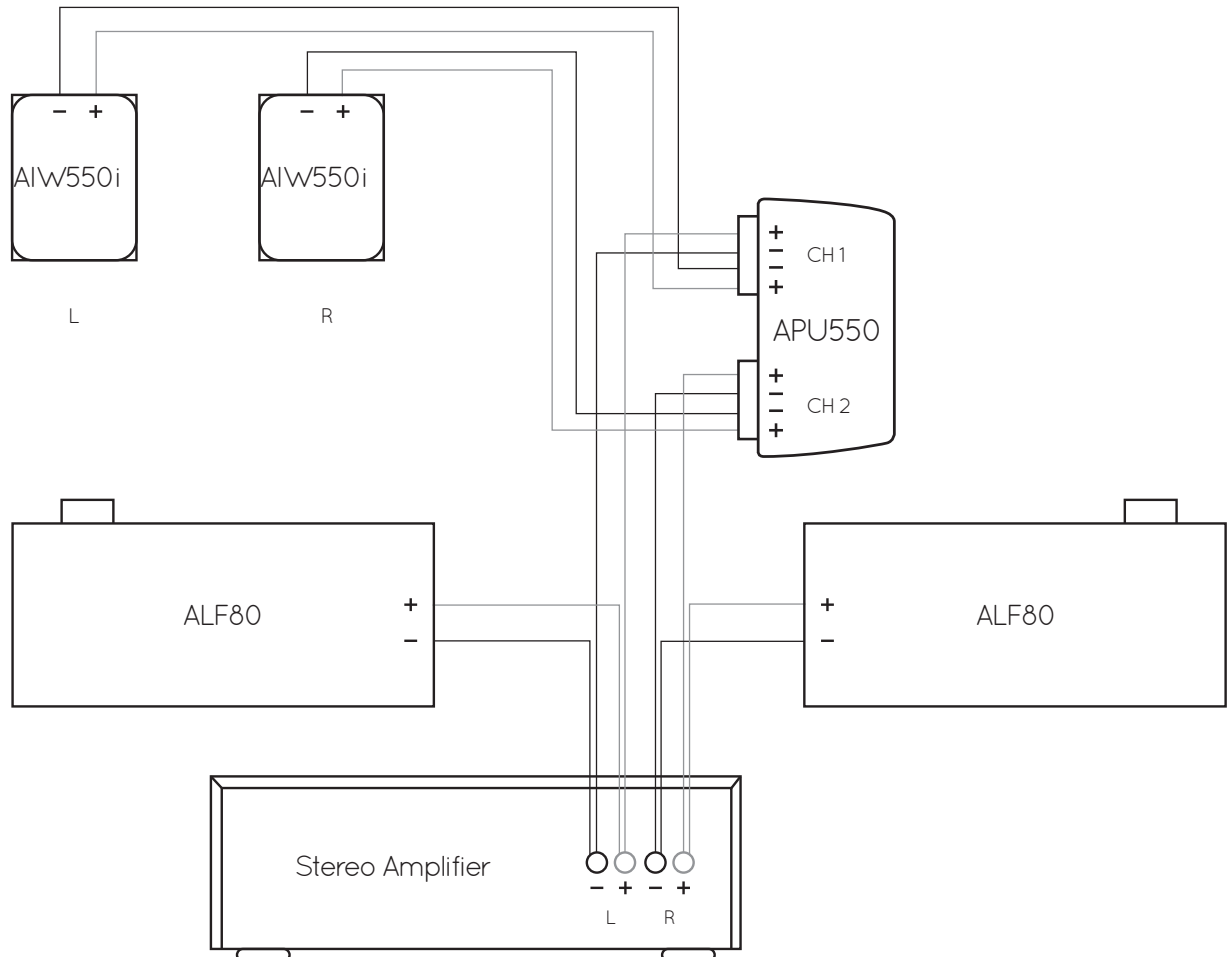The output of an ALF80 in most situations will match a pair of AIW150i or AIW350i speakers (2x ALF80 may be necessary to match a pair of AIW350i or AIW550i in a large room).

Note:
You may need to adjust the amplifier's balance control to obtain an equal output from the invisible speakers.

Connection Options (Passive 2.2)

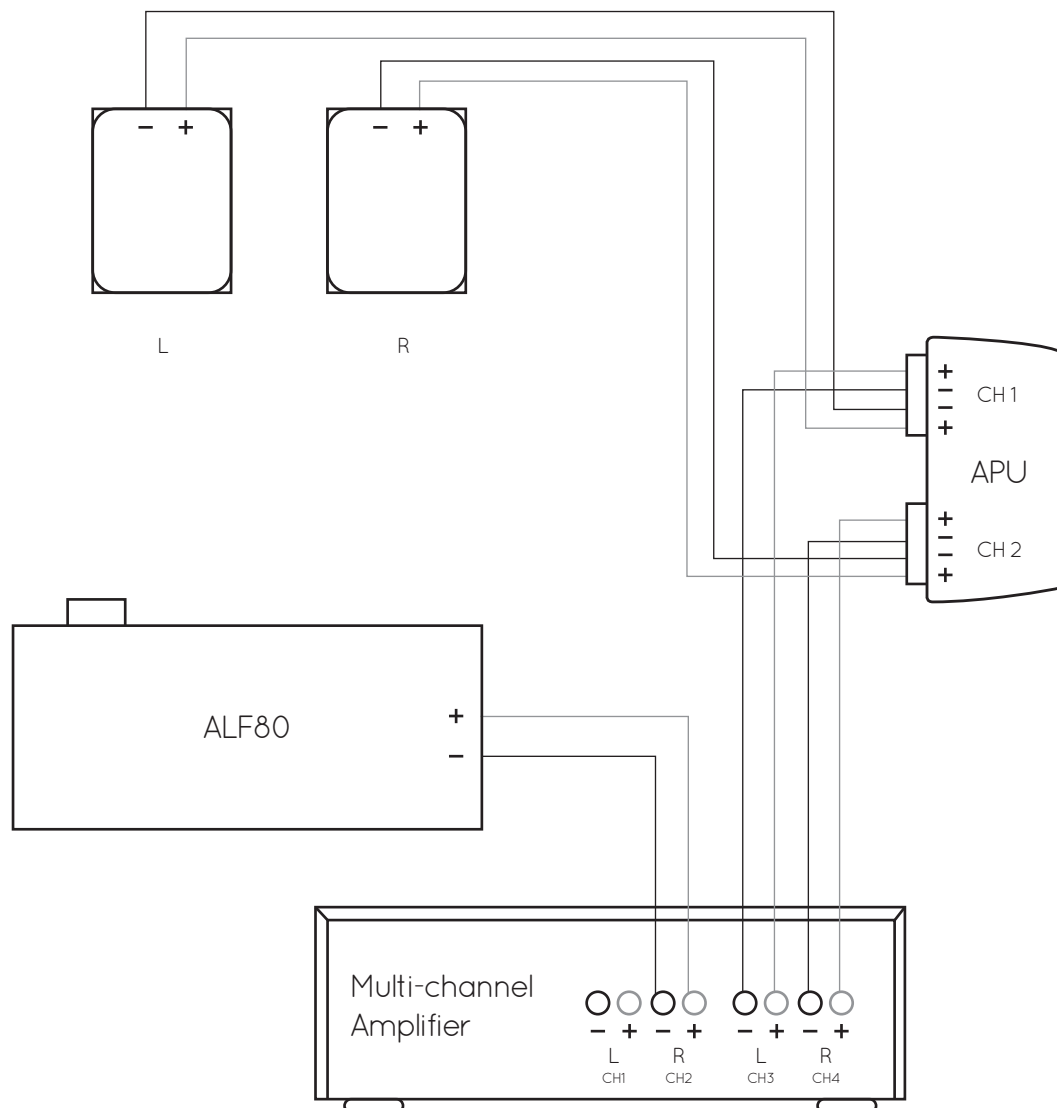**Passive Stereo 2. 2: AIW550i pair + 2x ALF80**

Note: Amplifier must be 4 Ohm stable.

For systems using a pair of AIW550i speakers, a pair of ALF80's may be necessary. In large rooms greater than 75m^2, each channel of the stereo amplifier drives one ALF80 in parallel connection with an AIW550i.
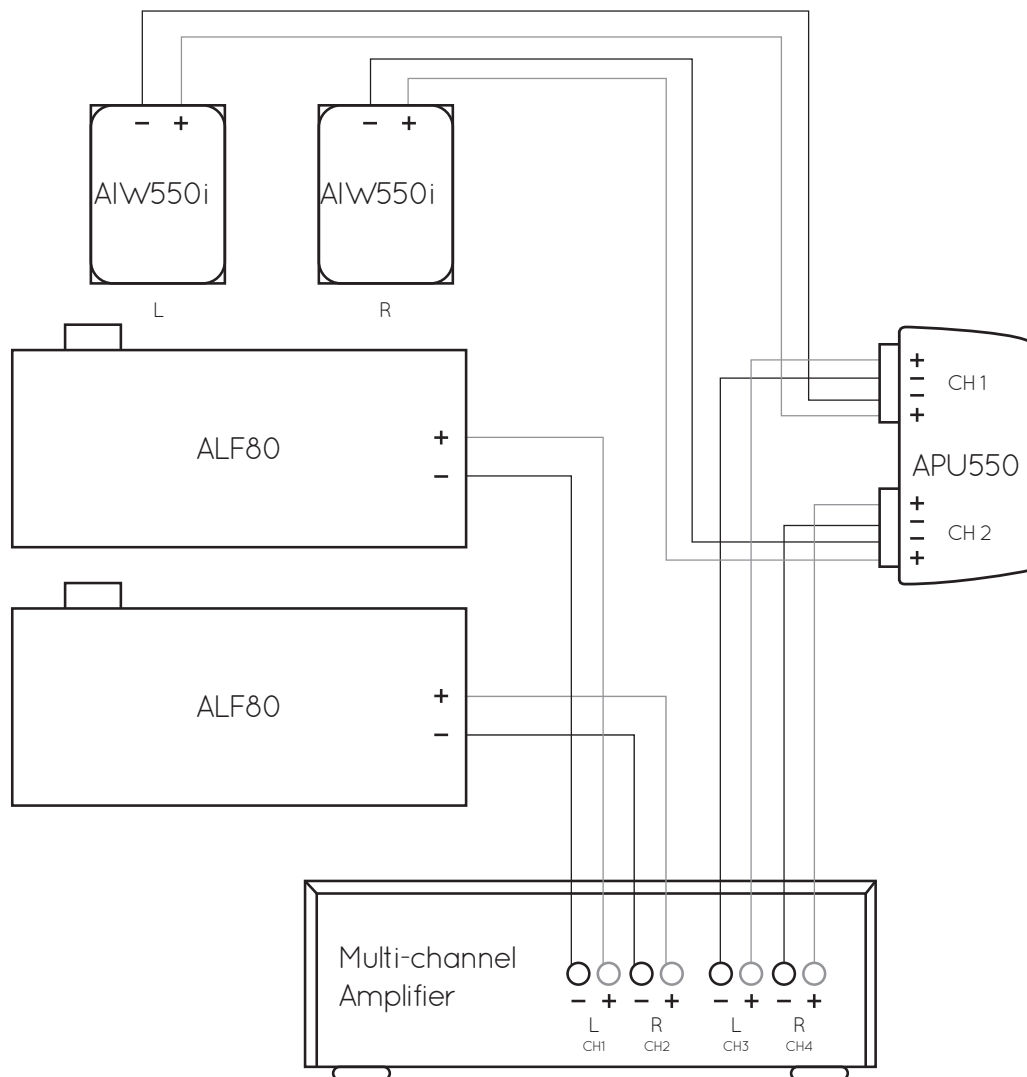
Connection Options (Active 2.1)

Active Stereo 2.1: AIW150i/ AIW350i/ AIW550i/ iQ1/ iQ3 and ALF80

L   R

CH 1

APU

CH 2

ALF80   +

                —

Multi-channel
Amplifier

— +   — +   — +   — +
L   R   L   R
CH1   CH2   CH3   CH4

By connecting a single ALF80 to its own amplifier channel, its output (relative to the invisible speaker pair) can be set optimally. In larger rooms care should be taken not to adjust the relative output of a single ALF80 too high. This may result in the unit reaching its mechanical limits well before that of the accompanying invisible speakers. In a larger room ($>75m^2$) a second ALF80 may be required.
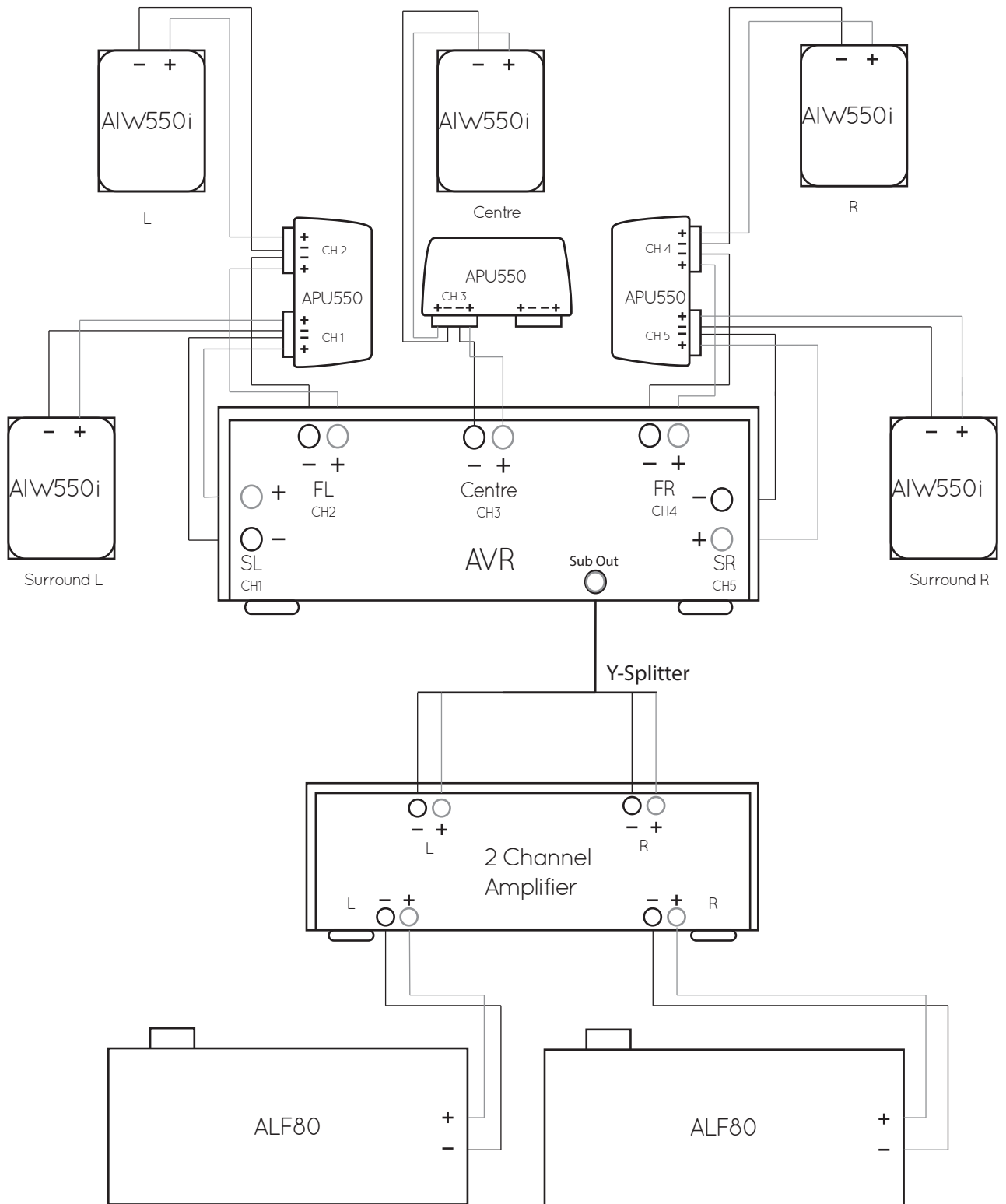
Connection Options (Active 2.2)

Active Stereo 2. 2: AIW550i pair + 2x ALF80

For systems using a pair of AIW550i speakers in rooms larger than 75m^2 two ALF80's will be necessary. In this scenario the amplifier will need four independent channels.

Connection Options (Home Cinema)

5.1 Cinema system. 5x AIW550i + 2x ALF80

Setup Tips

01   When setting up any of the above system scenarios, it is advised to experiment with connecting the ALF80 in reverse phase with respect to the Evolution series speakers. Often the reverse-phase connection results in better integration and slightly higher sound pressure level through "cross-over" region. Using pink noise can be a good way of judging the difference between the in-phase and reverse-phase connections.

02   To avoid unwanted vibrations, ensure the ALF80 is fixed securely to a structure or, if free standing, the supplied rubber feet are used.

03   The supplied port cover plate can be used to improve the appearance of the port when, for example, the ALF80 is installed behind plasterboard walls or ceilings. The plate is supplied with acrylic transfer adhesive already fitted; use the tab to assist removal of the liner paper then press the plate firmly into place. Please refer to the detail view on page 5.
Alternative finishes can be applied to the cover plate; for best results use water based paints and primers.

Specifications

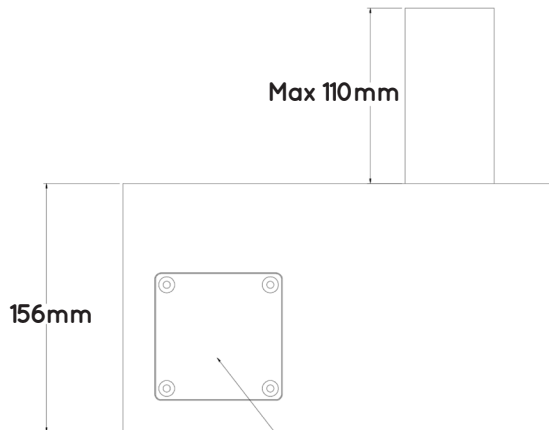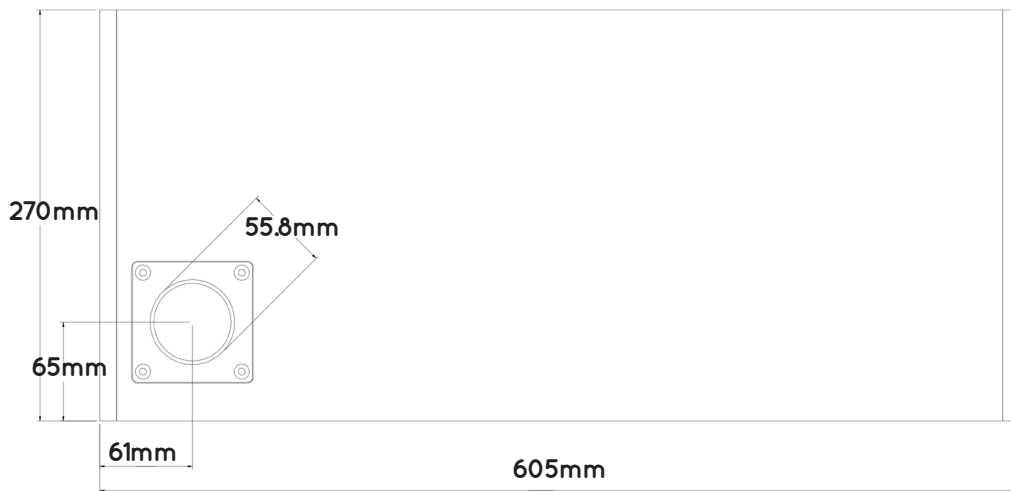| Dimensions:	605mm x 270mm x 156mm (23$^{4/5}$" x 10$^{3/5}$" x 6$^{1/10}$")
Weight:	9.2Kg (20$^{6/25}$lbs)
Design:	Ported, acoustic bandpass with built in protection circuit
Power Handling:	150W continuous
Nominal Impedance:	4 Ohms
Frequency Response:	39Hz - 140Hz (+/-6dB) 18dB/ octave band-pass
Sensitivity:	86dB 1m/1W *
Maximum Short term SPL:	108dB 1m/1W **
Connection:	3-Way binding post

* Corrected nearfield port measurement.
** Corrected nearfield port measurement. Assumes no in-room boundary loading which in some cases may increase SPL by as much as 6dB.

Limited Warranty:

The ALF80 is designed to operate reliably for many years. Correctly installed and in accordance with these instructions, Amina warranties the ALF80 against defective materials and workmanship for a period of one year.

CE

RoHS
Compliant

Dimensions

156mm

605mm

270mm

55.8mm

65mm

61mm

605mm

Max 110mm

156mm

Note:
Centre hole location of
port tube exactly the
same as other port.

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T E C H N O L O G I E S   L t d