



# 100 SERIES

Active Subwoofer

## AE108S

### Owner's manual

## Specifications

<b>Drive unit</b>	One front facing 12-inch pulp cone bass unit
<b>S/N ratio</b>	>75 dB
<b>Power handling</b>	150 watts max
<b>Crossover frequency range</b>	35 Hz - 150 Hz
<b>Connections</b>	Line level gold-plated RCA phono jacks 5-way binding posts
<b>Cabinet</b>	Precision engineered, low resonance 18 mm/30 mm MDF throughout, with front-facing drive unit and rear-firing bass reflex port
<b>Cabinet finish</b>	Black texture vinyl
<b>Grille</b>	Precision engineered, low diffraction protective grille (non-removeable)
<b>Weight (excl. packaging)</b>	21 kg
<b>Dimensions (WxHxD)</b>	500x380x380 mm

#### SUMMARY OF FEATURES

• Auto on/off • Gold-plated RCA phono jacks • 5-way binding posts  
• Line input and high level input capability • High pass line level output • High level speaker output • Phase control switch • Variable crossover frequency • Volume level control • Thermal output protection circuit included.

## Warranty

Your Acoustic Energy loudspeaker is guaranteed against original defects in materials, manufacture and workmanship for 5 years from the date of purchase. Please retain all original packaging materials for possible future use.

Under this warranty Acoustic Energy agrees to repair any defect or, at the company's discretion, replace the faulty component(s) without charge for parts and labour. This warranty does not imply any acceptance by Acoustic Energy or its agents for consequential loss or damage and specifically excludes fair wear and tear, accident, misuse or unauthorised modification.

This warranty is applicable in the United Kingdom only and does not in any way limit the customer's legal rights. Claims and enquiries under the warranty for AE products purchased outside the UK should be addressed to the local importers or distributors.

If you have reason to claim under the warranty please contact your dealer in the first instance.

Dealer's name: .....

Address: .....

.....

.....

Date of purchase: .....

Serial number: .....

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ACOUSTIC ENERGY

**Congratulations on choosing the Acoustic Energy AE108S — a powerful, active subwoofer loudspeaker which is capable of outstanding Hi-Fi and Home Cinema performance.**

**Please take a few moments to read this manual. The advice it contains will enable you to get the very best performance out of your Acoustic Energy loudspeaker.**

The AE108S is capable of handling 150 watts RMS with a clean bass response extending to 25Hz in the listening environment. Flexibility in its operation and connection mean the AE108S will compliment a wide range of high quality hi-fi and home theatre systems.

Correctly installed the sense of power and weight of its bass output can add substantially to the enjoyment of high quality music and prove indispensable for thrilling and realistic home theatre sound.

### Before applying power

The AE108S is available in two mains power versions to enable this product to be used globally, one to operate from 220–240V AC line mains power and one from 110–120V AC line mains power. Please ensure you have the correct version that relates to your country's mains power before use.

**NOTES:** Our warranty does not cover damage caused by using the incorrect version relative to the mains power supplied. The grille is designed to protect the bass unit from possible damage and should not be removed.

Please read all operating and safety instructions before use retaining them for future reference. Adhere to all warnings on the product or in this manual.

**Power sources** — the subwoofer should be connected only to a power supply of the type described on its rear panel. If you are not sure consult your dealer or a qualified electrician.

**Power cord** — Power supply cords should be routed so as not to be walked on or caught under or against items.

**Ventilation** — To ensure reliable operation and to prevent the subwoofer from overheating ensure good ventilation. Do not cover the subwoofer and do not place it closer than 10cm from walls or soft furnishings. Do not use in a built-in installation unless proper ventilation is provided. Consult your dealer.

**Water and moisture** — The subwoofer should not be used near water, i.e. near a wash-bowl, basin, in a wet basement or swimming pool area.

**Temperature** — The subwoofer may not function correctly at extremely low or freezing temperatures. The subwoofer should also be sited away from heat sources such as radiators or other electrical equipment that produces heat, including other amplifiers.

**Electric shock** — Care should be taken so that objects are not inserted into connectors or other apertures and that liquid does not spill into the enclosure. Do not insert objects into the reflex port. Never attempt to dismantle the subwoofer as serious electric shock might occur if the internal parts are touched.

**Cleaning** — Unplug the subwoofer from the wall power outlet before cleaning. Use only a clean, dry cloth. Do not use cleaners, liquids or solvent based preparations to clean the cabinet.

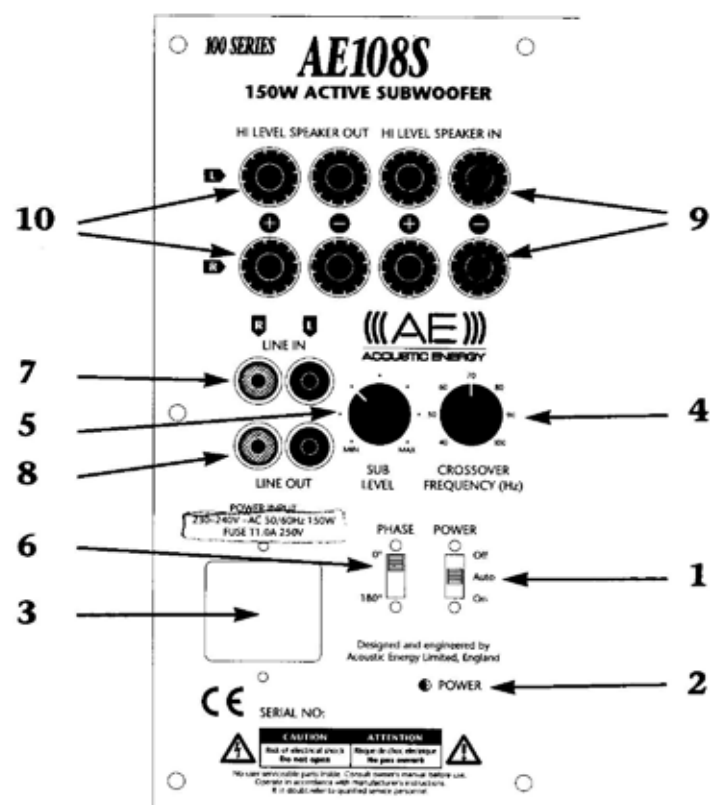
**Smells** — If an abnormal smell or smoke is detected, immediately turn the power Off and unplug the subwoofer from the wall power outlet.

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# Operation

1. **POWER SWITCH**  
Switches the power ON and OFF. By switching to AUTO the power is automatically switched ON when a signal is applied to an input.
2. **POWER INDICATOR LIGHT**  
This indicator lights green when the power is switched ON.
3. **POWER CORD SOCKET**  
Connect the cord supplied to a 110–120V or 220–240V AC mains power outlet.
4. **CROSSOVER FREQUENCY KNOB**  
Adjusts the balance at the crossover point between the bass (low frequencies) from the AE108S and the treble (high frequencies) continuing to the main stereo front speakers.
5. **SUB LEVEL VOLUME CONTROL KNOB**  
Adjusts the volume level output of the subwoofer, allowing you to balance the volume of the AE108S to blend in with your main stereo speakers. Turning the knob clockwise increases the volume level, and turning the knob counterclockwise decreases the volume level.
6. **PHASE SWITCH**  
The normal setting for the phase switch is the 0° position. Switching to 180° will change the subwoofer phase and vary the tonal quality of the bass, which is also dependant on the location of the AE108S relative to your main stereo speakers.
7. **LINE IN JACKS (RCA-type pin-plug)**  
Used to connect the subwoofer to the PRE-OUT jacks of the amplifier.
8. **LINE OUT JACKS (RCA-type pin-plug)**  
Used to connect to the LINE IN jacks on a second subwoofer, or to connect back to the power amp inputs on your amplifier.
9. **FROM AMPLIFIER — HI-LEVEL SPEAKER IN TERMINALS**  
Used to connect the FRONT SPEAKER terminals of the amplifier to this unit.
10. **TO SPEAKER — HI-LEVEL SPEAKER OUT TERMINALS**  
Used to connect the front speakers with this unit.

# Rear Elevation



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# Positioning

The AE108S subwoofer is virtually omni-directional, so it can be positioned in almost any location in the room. For the best performance in the ideal room the AE108S should be positioned in a corner of the room or near a back wall. In certain circumstances the addition of a second AE108S located in another position in the room helps to achieve a more uniform bass.

The use of two subwoofers often provides a greater than expected increase in sound quality and bass dynamics, worth more than the additional cost would suggest. If two AE108S subwoofers are used they should ideally be positioned in the corners near the respective units of the stereo loudspeaker pair.

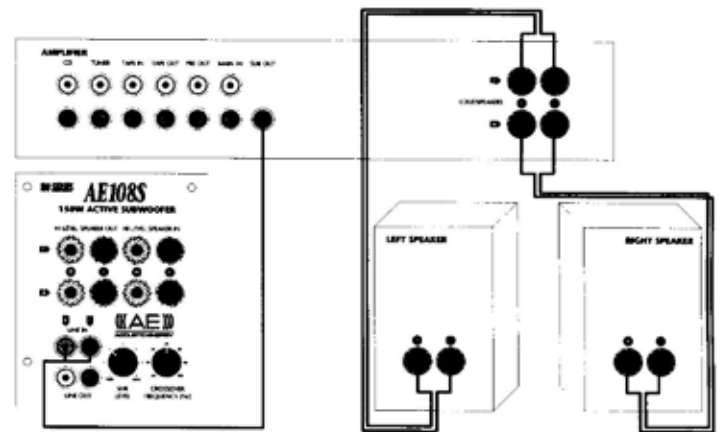
This subwoofer may be installed using the four rubber feet or spikes with lock nuts, both supplied. Alternatively it may be placed directly onto the floor.

*When positioned correctly ensure space is left to the rear of the AE108S since all operation switches are on the rear panel.*

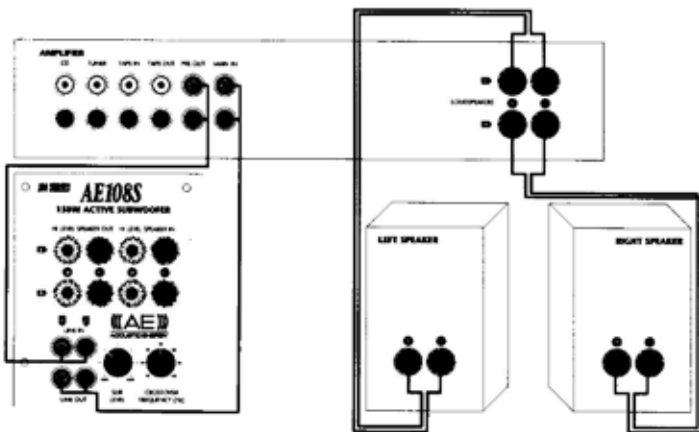
# Connections

Check that both your amplifier and subwoofer are switched off before connection. Failure to do so may result in speaker or amplifier damage. It is sometimes recommended that over-long low cost cables are used initially to facilitate experimentation with positioning, and only then purchase and install using the final cable choice. (For best results we would recommend our own AESC-C3 high performance speaker cable with any Acoustic Energy loudspeaker.)

- 1. For use with amplifiers having a Subwoofer Out Jack**  
Connect from the dedicated subwoofer line output on the amplifier to the line input(s) on the AE108S. (A single lead to either input or a 'Y' connector to both inputs may be used).



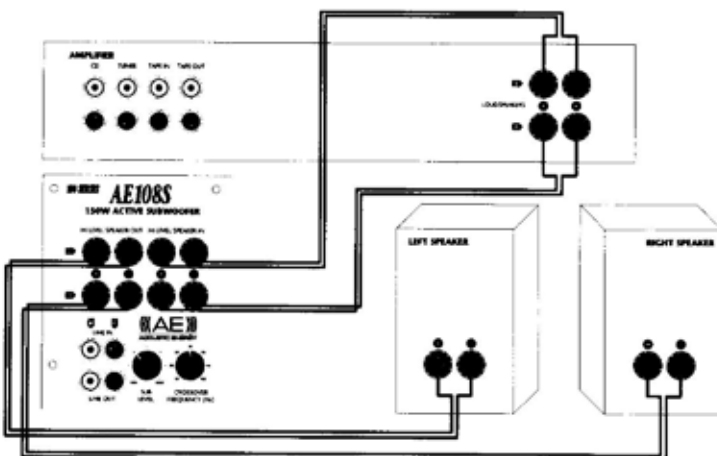
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# Connections

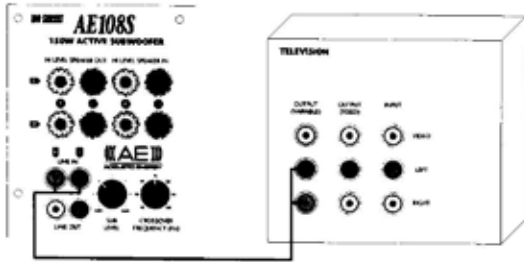
- 2. For use with amplifiers having Line level pre-amp Jacks**  
The pre-amp outputs of your amplifier can be connected to the line level inputs on the AE108S. The line level outputs on the AE108S are then connected back to the Hi-level amp (main) inputs on your amplifier.

- 3. For use with amplifiers not having a Subwoofer Out jack or Line level pre-amp jacks**  
Using speaker cable from the speaker terminals on your amplifier, connect to the Hi-level speaker input terminals on the AE108S, and then a further set of cables from the Hi-level output terminals to your main stereo/satellite speakers. (The stereo speakers receive the original amplified signal minus the frequencies used by the subwoofer).



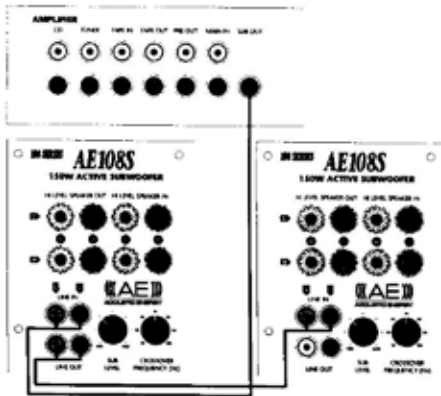
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# Connections



#### 4. For use with televisions with variable audio output (diagram above)

Some of the latest televisions are equipped with variable audio outputs. These can be connected directly to the Line level inputs on the AE108S to enhance the bass response of the television's built-in speaker.

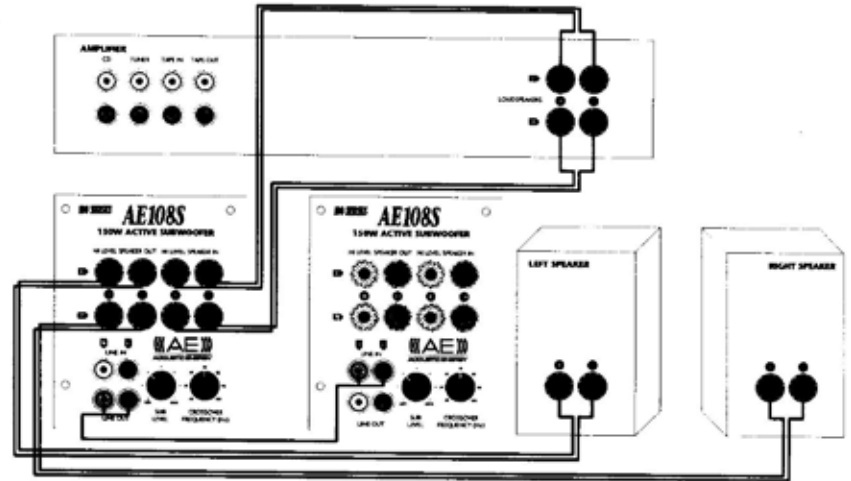


#### OPTION:

#### 5. For use with two AE108S subwoofers (diagrams below left/right)

When using two AE108S subwoofers use the Line Level output connectors from the main subwoofer to the Line Level input connectors on the second subwoofer.

The diagrams show only the most common applications of the AE108S and the associated wiring for each. Specific needs will vary and these diagrams should act as a guide only.



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# How to use the controls

#### How to use the SUB VOLUME CONTROL knob, CROSSOVER FREQUENCY knob and PHASE switch

The VOLUME CONTROL, FREQUENCY knob and PHASE switch can be adjusted to match the condition of the listening room and/or the characteristics of the left and right front speakers.

Due to the positioning of the subwoofer in the room and the associated room boundaries, the available bass response from the existing speakers and whether or not the filtered connection (nominally 100Hz is used), the actual settings used on the subwoofer control panel will vary considerably.

The SUB VOLUME CONTROL and the CROSSOVER FREQUENCY knobs should be used together when setting the correct bass response required. For example, raising the volume level will also raise the effective system crossover point, while reducing the volume has the converse effect of lowering the frequency range of the subwoofer. This is caused by the way the various responses and outputs blend together in the listening environment.

Initially set the crossover frequency fairly low, e.g 50-60Hz, and use the volume control knob on the sub to set the low bass level required. When the correct balance is almost achieved, the crossover level and volume level may be adjusted together to fine tune the sound and achieve the cleanest, most extended and suitably powerful bass.

*The ideal is for a seamless blend of extended low bass from the subwoofer leaving the clean upper bass response of the stereo system largely undisturbed.*

#### Typical Control Positions

FRONT SPEAKER	CROSSOVER	PHASE	SUB LEVEL
Large speaker	40 - 60 Hz	Normal 0°	●
Medium speaker	60 - 80 Hz	Normal 0°	●
Small speaker	80 - 100 Hz	Normal 0°	●

#### CAUTION

An excessive input level to the subwoofer may impair the sound quality or damage the unit. Do not increase the output of the amplifier to a high level while the low-frequency level is enhanced by the amplifier's tone control or loudness control.