

AE2

SERIES II

Owner's manual

(((AE)))
ACOUSTIC ENERGY

Introduction

Congratulations on choosing the Acoustic Energy AE2 Series II — a high power, compact two-way loudspeaker which is capable of outstanding performance with exceptional power handling, transparency, dynamics and low distortion.

Please take a few moments to read this manual. The advice it contains will enable you to get the optimum performance from your AE loudspeakers.

The AE2 Series II is closely based on the Acoustic Energy AE1 loudspeaker and employs its proven metal cone drivers. The twin mid-bass drivers use triple-layer, anodised metal diaphragms which ensure pure piston performance with exceptional rigidity. Acting also as a heat sink for the bonded voice coil, this metal cone limits the thermal compression effects that inhibit conventional drive units.

The tweeter, or treble driver, is a magnesium alloy metal dome unit matching the 'speed' and clarity of the rest of the system.

New developments already proven in the AE2 Signature have been applied to the AE2 Series II. The crossover features upgrades to the main components and the internal wiring is Teflon™ insulated, twisted-pair, silver-plated OFC (Oxygen Free Copper). Industrial grade encapsulation is also applied to the total crossover assembly eliminating resonance and microphony, and increasing power handling.

Additional optimum cabinet bracing between the drive units has increased transient definition beyond current standards.

Positioning

Rigid support is essential for the speaker to develop its full detail and dynamic performance. Rigid stands with spikes or cones are recommended — Acoustic Energy produces a dedicated matching stand — the STAE2. If the AE2s are to be shelf mounted the support must be firm; cones, felt or similar anti-vibration pads are recommended beneath the cabinets.

The widest, most focused and spacious stereo images require free-field use, with the speakers located away from side walls and the rear wall by approximately 40 to 120 cm. Ideally, each speaker should be symmetrically placed in the left and right locations, but with the three critical dimensions for speaker locations — height from the floor, distance to the side wall and finally to the rear wall — non-coincidental. This will give the most uniform and extended bass with best mid-range accuracy.

The tweeters should be at, or above ear height placed outermost to provide the designed, time delay correction.

If used horizontally on a mixing desk, the tweeters should be uppermost, ie. above head level. The compact nature, superb dynamics and high power handling of this speaker qualifies the Reference Series as top flight, near-field monitors as well as superb domestic free-field designs.

For serious listening speaker and tweeter grilles are best removed — please ensure extreme care is used when removing and replacing the magnetic tweeter grille.

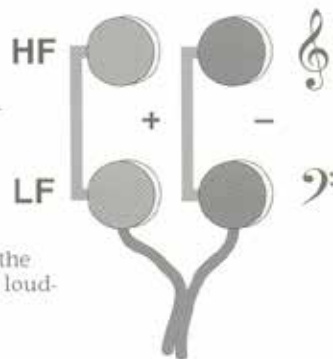
Experiment with the best position and trust your own judgement and ears.

Connection

Check that your amplifier is switched off before installing your loudspeakers. Failure to do so may result in speaker or amplifier damage. The diagrams illustrate one loudspeaker only.

Conventional

Normal passive wiring requires shorting links to be in place between the treble and mid/bass sections. The positive (ribbed) cable from the amplifier positive (or red) terminal should connect with the positive (red) terminal on the loudspeaker. Similarly the negative (smooth) cable should connect the amplifier negative terminal (black) to the negative terminal (black) on the loudspeaker.



Bi-wiring

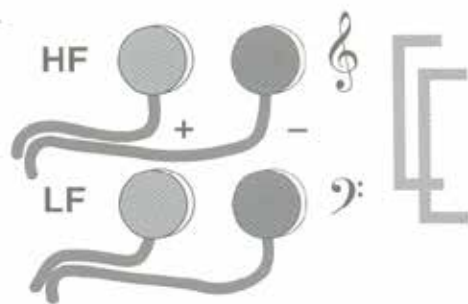
Bi-wiring separates the bass and treble ground paths in the loudspeaker and offers great sound quality advantages. An extra set of cables is required.

Note that the shorting links are removed between the treble and mid/bass sections and should be stored for later use if conventional, passive driving is required.

Two pairs of cables are connected to the amplifier terminals. One cable of each pair should connect to the HF or treble section and one to the LF or bass section. The positive (ribbed) cables from the amplifier positive (or red) terminal should connect with

the positive (red) terminals on the loudspeaker.

Similarly the negative (smooth) cables in each pair should connect the amplifier negative terminal (black) to the negative terminals (black) on the loudspeaker.



Bi-amping

Bi-amping adds a second amplifier to the system. One power amplifier drives the treble section of both loudspeakers; a second drives the mid/bass sections.

As regards the loudspeakers, wiring for bi-amping is achieved in much the same way as bi-wiring. Treble amplifier positive (red) terminal should be connected via the ribbed cable to the positive (red) HF terminal on the speaker. Similarly, treble amplifier negative is connected to the negative (black) HF terminal on the speaker. Repeat this process with the bass amplifier and LF terminal pair.

After wiring up

Lower the volume to minimum, switch on the amplifier, select the signal source and then raise the volume to the listening level required.

Specifications

HF unit	25 mm magnesium alloy dome, ferrofluid cooled and damped
MF/LF units	two 90 mm tri-layer alloy diaphragms thermally bonded to 32 mm edge-wound ribbon voice coils
Crossover	6 element 6 dB per octave slope at 3 kHz
Power handling	for use with amplifiers up to 250 watts
Overall frequency response	25 Hz - 30 kHz
Frequency response ± 2.5 dB	50 Hz - 17 kHz
Sensitivity	90 dB/1 w/1 m
Impedance	typically 6 ohm
Connections	Gold-plated binding posts. Bi-wireable
Weight (excl. packaging)	17 kg each
Dimensions (WxHxD)	235x385x330 mm

Warranty

Your Acoustic Energy loudspeakers are 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.

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