

h i - f i p a s s i v e s e r i e s



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h i - f i p a s s i v e

Welcome. In selecting ATC you have chosen an example of the finest audio engineering available. ATC was founded on a principle of engineering excellence, and that principle still defines our products today. Given the right opportunities,

ATC products will deliver exceptional audio performance, but the opportunities will only arise from careful and thoughtful installation and use. Please read the following manual fully. It will help you understand the product and to realise its full potential. We are happy to answer questions and offer advice on any issues that arise through installation or use of ATC products. Contact details can be found at the back of this manual.

ATC was founded in London in 1974 by Australian émigré Bill Woodman, who still heads the company today.

An enthusiastic pianist and engineer he was naturally drawn to loudspeaker design and, after a period working at Goodmans (where many of the names that went on to found British loudspeaker companies began their careers), he struck out on his own. The premise on which ATC began is a simple one – and one that, in many respects, is still true today: hi-fi loudspeakers tend to be detailed and accurate, but of limited dynamic range, while professional monitor speakers tend to express the opposite character. ATC products were designed from the outset to offer the best of both. It's an easy concept to describe, but surprisingly difficult to engineer.

The difficulty inherent in designing such loudspeakers is one of scale. Hi-fi levels of accuracy and detail call for lightweight moving parts and delicate engineering. Professional monitor levels of performance, however, demand far

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more robust components engineered to survive the rigours of high level use for extended periods.

The only way to combine the two is through precision engineering of a class and scale more often associated with aerospace or motorsport. But the results are worth the effort and the cost. ATC loudspeakers, with their unique in-house designed drivers, combine the best of hi-fi and professional to devastating effect.

ATC has become synonymous with active systems. Choosing to offer active loudspeakers (where the passive systems still have their place, and ATC engineering skills can still bring remarkable results from them) is a fundamentally better solution to the problems posed by accurate, high level music reproduction.

The ATC instinct is always for the better solution. Not cheaper, not quicker, but better.

It was the development of active loudspeakers that first brought ATC into electronics design and engineering.

Active speakers demand multiple power amplifiers, so ATC from the mid 1980s became not just a loudspeaker manufacturing company but an electronics manufacturer, too. The further step from electronics for active speakers to a range of stand-alone amplifier products was natural and now means that ATC engineering is available from the recording desk or CD player output to the ears.

From modest beginnings ATC has grown to become one of the very few manufacturers successful across both domestic and professional audio. By selecting ATC you join a group of music lovers, professional audio engineers, studios and musicians across the world that understand and value the engineering that goes into an ATC product.

1 : Monitor placement

The subjective performance of any monitor loudspeaker will be fundamentally influenced by the acoustic character of the room in which it is used, and its position within the room. Most often monitors are installed in rooms which are comfortable to sit and talk in. A mixture of carpets, curtains and soft furnishings will help ensure that middle and high frequencies are reasonably well controlled. There may however, be low frequency problems; either too much or too little bass. To minimize lower frequency problems the monitors should be kept away from corners or walls. Start with them positioned around 1 metre from the side walls and 2 metres from the back. If the balance is bass-light, the monitors can be moved towards the back walls.

For stereo listening, loudspeakers should be positioned so they form an equilateral triangle with the listening position (See **Fig. 1**). For surround sound listening, position loudspeakers according to **Fig. 2**. Loudspeaker stand height should be chosen to position the loudspeaker acoustic axis at, or close to ear level. (See **Fig. 3**).

All rooms vary and it is a good idea to experiment with both the listening and speaker position until a good compromise is reached. For professional installations the requirements are often very specific. Please consult with an experienced professional acoustician if necessary.

2 : Amplification

The choice of partnering amplifiers for the Hi-Fi Passive Series will have significant influences on the performance of the system. Consider the following when selecting the amplifier:

■ With any passive loudspeaker there is a trade-off between low frequency extension and sensitivity. Extended low frequency response means that sensitivity is relatively low. It is advisable therefore to select an amplifier of relatively high power capabilities. Use of an under-specified amplifier will result in the system sounding distorted at high level and may risk damage to the loudspeakers. Valve or solid state amplifiers with high output impedance should be auditioned carefully to establish that their characteristic reduced damping at low frequencies is acceptable. Typically, amplifiers with power outputs of 100W+ (continuous output) will give the best results.

■ The ATC bass/mid driver voice coils are unusually large and operate in an overhung gap. The result is that the monitors not only demonstrate extremely low distortion at all levels but also a greatly enhanced effective dynamic range. This exceptional distortion performance, also combined with very wide dispersion, will ruthlessly reveal deficiencies in ancillary equipment. It is advisable therefore to audition your speakers with your proposed amplifier and ancillary system. The range of ATC amplifiers and pre-amplifiers should be your first choice.

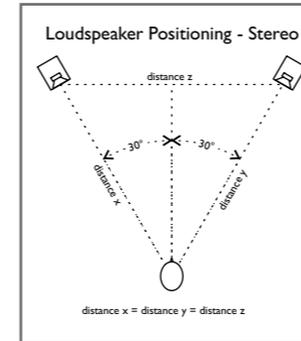


Fig. 1

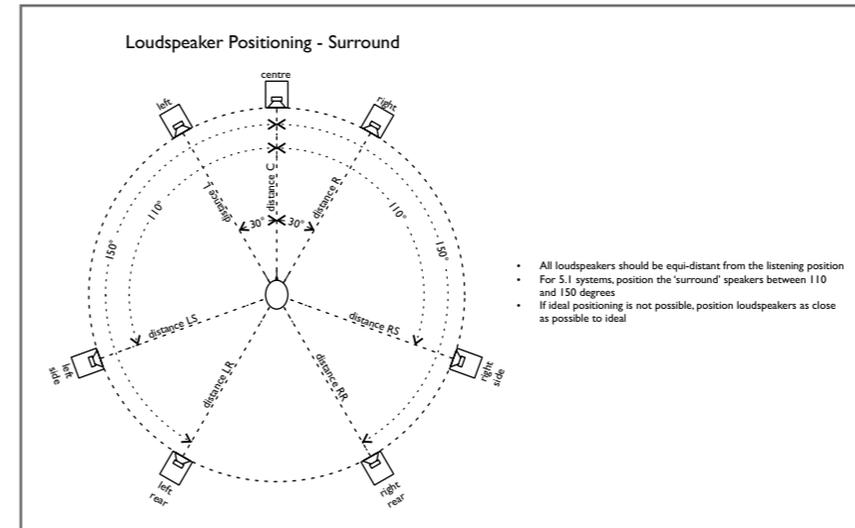


Fig. 2

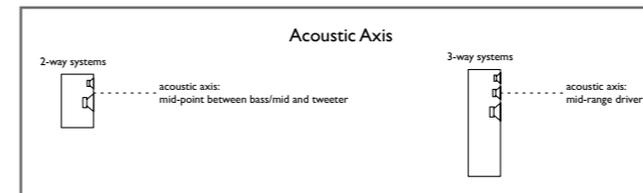


Fig. 3

3 : Connection

ATC Hi-Fi Passive Series monitors are equipped with a “bi-” or “tri-wire” connection panel that enables separate amplification of the bass/mid driver and tweeter. Remove the linking bars between the pairs of terminals if you wish to take advantage of this facility. The pairs of binding posts are laid out to match the drive unit positions with the bass driver pair towards the lower edge of the input panel. Ensure the multiple amplifiers used for bi or tri-amping have equal gain and use the most powerful amplifier for the LF driver. The terminals can accommodate either stripped cable ends or 4mm plugs. Always use good quality speaker cable with a 2.5mm minimum cross sectional area per conductor (79 strand). Cable of a smaller cross sectional area or fewer strands is unsuitable. For cable runs longer than 5m use a significantly heavier gauge cable. Consult our dealer or consultant for specific cable recommendations. Ensure that the positive and negative terminals on each connection panel are connected back to the corresponding positive and negative terminals on the amplifier.

4 : Listening

The ear and brain tend to interpret distorted sound as loudness and thus underestimate the actual level of undistorted sound. The Hi-Fi Passive Series, like all ATC monitors, demonstrates very much lower levels of distortion than conventional systems of a similar size and it is therefore advisable to begin listening at an artificially low level and carefully increase the volume. It is also possible for your speakers to produce sufficient sound pressure levels for your ears themselves to become a source of distortion and make the sound appear harsh. Any audible distortion indicates that either the system or your ears are being over-loaded and the volume level should be reduced.

5 : Care & Maintenance

High technology material finishes are used in this product. The surfaces are durable and with a little care can be kept as good as new even under conditions of heavy use. Normally, a dry duster will be all that is required to keep the finishes clean.

Heavy soiling can be cleaned using a cloth slightly moistened with a non-abrasive household cleaner.

There are no components within the speakers that can be considered expendable, or that would benefit from regular maintenance. There is no requirement for any kind of routine service work and there is no schedule for preventative maintenance.

There are no user-replaceable parts within the speaker and, in the unfortunate event of any malfunction, repair should be referred to either the supplying dealer or consultant, the relevant importer, or ATC.

ATC has every confidence in the quality of each product that it manufactures.

6 : Specifications

SCM7 **Drivers** : HF ATC 25mm Neo Soft Dome, Mid/LF ATC 125mm SC **Matched Response** : +/- 0.5dB **Frequency Response (-6dB)** : 60Hz–22kHz
Dispersion : ±80° Coherent Horizontal, ±10° Coherent Vertical **Sensitivity** : 84dB @ 1W @ 1metre **Max SPL** : 103dB
Recommended Power Amplifier : 75 to 300 Watts **Nominal Impedance** : 8 Ohm **Crossover Frequency** : 2.5kHz
Connectors : Binding Posts/4mm Plugs, bi-wire **Cabinet Dimensions (HxWxD)** : 300x174x215 (grill adds 28mm to depth) **Weight** : 7kg

SCM11 **Drivers** : HF ATC 25mm Neo Soft Dome, Mid/LF ATC 150mm CLD **Matched Response** : +/- 0.5dB **Frequency Response (-6dB)** : 56Hz–22kHz
Dispersion : ±80° Coherent Horizontal, ±10° Coherent Vertical **Sensitivity** : 85dB @ 1W @ 1metre **Max SPL** : 108dB
Recommended Power Amplifier : 75 to 300 Watts **Nominal Impedance** : 8 Ohm **Crossover Frequency** : 2.2kHz
Connectors : Binding Posts/4mm Plugs, bi-wire **Cabinet Dimensions (HxWxD)** : 381x232x236mm (grill adds 28mm to depth) **Weight** : 10.9kg

SCM19 **Drivers** : HF ATC 25mm Neo Soft Dome, Mid/LF ATC 150mm Super Linear **Matched Response** : +/- 0.5dB **Frequency Response (-6dB)** : 54Hz–22kHz
Dispersion : ±80° Coherent Horizontal, ±10° Coherent Vertical **Sensitivity** : 85dB @ 1W @ 1metre **Max SPL** : 108dB
Recommended Power Amplifier : 75 to 300 Watts **Nominal Impedance** : 8 Ohm **Crossover Frequency** : 2.5kHz
Connectors : Binding Posts/4mm Plugs, bi-wire **Cabinet Dimensions (HxWxD)** : 438x265x300mm (grill adds 34mm to depth) **Weight** : 17.8kg

SCM40 **Drivers** : HF ATC 25mm Neo Soft Dome, Mid ATC 75mm Soft Dome, LF ATC 165mm SC **Matched Response** : +/- 0.5dB **Frequency Response (-6dB)** : 48Hz–20kHz
Dispersion : ±80° Coherent Horizontal, ±10° Coherent Vertical **Sensitivity** : 85dB @ 1W @ 1metre **Max SPL** : 112dB
Recommended Power Amplifier : 75 to 300 Watts **Nominal Impedance** : 8 Ohm **Crossover Frequencies** : 380Hz & 3.5kHz **Connectors** : Binding Posts/4mm Plugs, tri-wire
Cabinet Dimensions (HxWxD) : 980x265x300mm (without spikes, grill adds 34mm to depth), 980x370x305mm (without spikes, inc. foot/plinth) **Weight** : 31kg

7 : W a r r a n t y & C o n t a c t

All ATC products are guaranteed against any defect in materials or workmanship for a period of two years from the date of purchase.

Within this period we will supply replacement parts free of charge provided that the failure was not caused by misuse, accident or negligence.

Purchasers who complete and return the Warranty Card will have their warranty period extended up to a period of six years from the date of purchase.

This guarantee does not limit statutory rights.



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