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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  $\frac{1}{2}$  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  $\frac{1}{2}$  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 : Safety Warnings

1. Read instructions  $\dot{\imath}$ ½ all the safety and operating instructions should be read before the appliance is operated.
2. Retain these instructions  $\dot{\imath}$ ½ the safety and operating instructions should be retained for future reference.
3. Heed warnings  $\dot{\imath}$ ½ all warnings on the appliance and in the operating instructions should be adhered to.
4. Follow instructions  $\dot{\imath}$ ½ all operating and other instructions should be followed.
5. Water and moisture - the appliance should not be exposed to dripping or splashing and no objects such as vases, should be placed on the appliance.
6. Ventilation - a minimum of 80mm is required at the rear of appliances to ensure sufficient ventilation. The ventilation should not be impeded by covering the appliance with items such as table-cloths, curtains etc. Further, the appliance should not be built into an installation, such as a bookcase or cabinet, that may impede the flow or air around the appliance.
7. Heat  $\dot{\imath}$ ½ the appliance should be situated away from heat sources such as radiators, stoves or other appliances that produce heat.
8. Power sources - The appliance is of Class1 construction and shall be connected to a MAINS socket outlet with a protective earthing connection.
9. Power cord protection  $\dot{\imath}$ ½ power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles and the point where they exit the appliance.
10. Cleaning  $\dot{\imath}$ ½ the appliance should be cleaned only as recommended by the manufacturer.
11. Unattended periods  $\dot{\imath}$ ½ the power cord of the appliance should be unplugged from the outlet when left unused for a long period of time.
12. Object entry  $\dot{\imath}$ ½ care should be taken so that objects do not fall into the appliance.



## 2 : Unpacking & Handling

13. Damage requiring service  $\dot{i}_L \frac{1}{2}$  the appliance should be serviced by qualified service personnel when:
    - i. the power supply cord or the plug has been damaged
    - ii. objects have fallen or liquid has been spilled into the appliance
    - iii. the appliance has been exposed to rain or other serious liquid exposure
    - iv. the appliance does not appear to operate normally or exhibits a marked change in performance
    - v. the appliance has been dropped or the cabinet damaged
  14. Servicing  $\dot{i}_L \frac{1}{2}$  the user should not attempt to service the appliance beyond those measures described in the operating instructions. All other servicing should be referred to qualified service personnel.
  15. Grounding or polarisation  $\dot{i}_L \frac{1}{2}$  precautions should be taken so that grounding or polarisation means for the appliance are not defeated.
  16. The Mains disconnection switch is located on the rear panel. Depressing the switch will turn the unit on; pressing the switch upwards will turn the unit off. Please allow enough room around the unit to ensure the switch is readily operable when the unit is in use.
1. Open the carton and remove all loose items.
  2. Fold back both the inner and outer carton flaps and carefully roll over the carton so that the loudspeaker and all stratocell caps remain in the carton.
  3. Lift away the cardboard carton leaving the loudspeaker cradled in the stratocell caps.
  4. Remove the upper half of the end caps and lift the loudspeaker away from the packaging.
  5. Remove the felt bag and position the loudspeaker in the listening room.

### 3 : 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.

### 4 : Amplification (Passive Models)

The choice of partnering amplifiers for Passive Entry Series loudspeakers 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.



## 5 : Connection (Passive Models)

ATC Entry Series monitors are equipped with a bi-wire 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.

## 6 : Connection (Active Models)

**Signal Cable Options:** Balanced cable configuration is the preferred option, however unbalanced connection is possible.

**Figs 4 and 5** illustrate the signal cable connections required for each option. Balanced (XLR to XLR) connection offers lower noise and better immunity to hum pick-up. Unbalanced (XLR to Phono or Two pole Jack) connection carries risk of hum caused by multiple signal earths. Hum problems resulting from unbalanced connection may be reduced by making ONE of the following modifications to the signal cable connections: If the driving preamplifier (or desk) is double insulated (i.e. has no mains earth), disconnect the signal cable screen at the RCA Phono plug end. Alternatively, disconnect the signal cable screen at the XLR end. This second option will make the source the reference signal earth.

**Connection:** Two connections are required for each monitor: one for mains power and one for the audio signal. The mains supply is supplied specifically to comply with local statutory safety approvals and alternatives should not be substituted. If you intend to use your monitors in an alternative territory, please contact ATC for advice. The mains connection must always be earthed. The signal cable and plug (not necessarily supplied) should be of a good quality and XLR terminated. Poor cable and plug quality will compromise the performance of your monitors. The signal input pin configuration is illustrated in **Fig 6**. Due to the nature of the electronics in ATC active loudspeakers, it is quite normal for a sound to be heard from the speaker when the power is applied or disconnected. The noise heard will not damage the speaker. Although ATC use the highest grade components, a different noise may be heard from each speaker due to slight variations in the amplifier components.

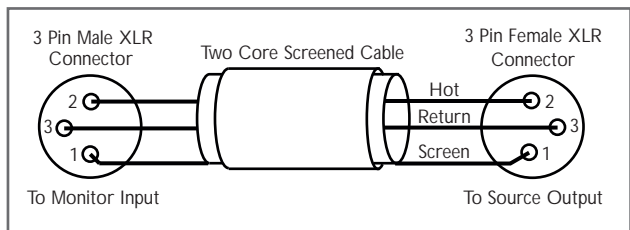


Fig. 4 Balanced Cable

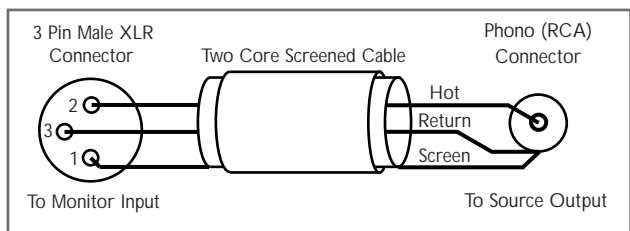


Fig. 5 Unbalanced Cable

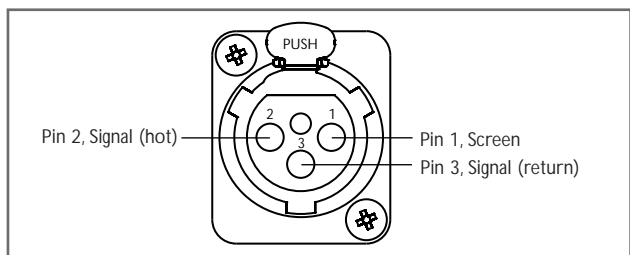


Fig. 6 Input Connection Pins

## 7 : Operation (Active Models)

**Figs 7 and 8** illustrate the connection and control panel for the amplifiers used in the active SCM40A and 19A monitors. Each feature is described below:

**Mains Inlet:** The supplied mains power lead (appropriate to the local territory) should be connected here. Ensure that the mains voltage specified on the panel corresponds with the local supply voltage.

**Power Switch:** Switches on the monitor.

**Fuseholder:** Should a monitor fail to switch on when the power switch is operated, the fuse should be inspected. Lift out the fuseholder cover using a flat-blade screwdriver, remove the fuse and inspect it for damage. If required, a replacement should be fitted. It should be stressed however, that fuses often fail because of a serious electrical fault. If this is the case, then simply replacing the fuse will only result in another fuse failure. The monitor should be returned to ATC if a second fuse fails.

**Input Socket:** The audio signal cable should be connected here. Balanced or unbalanced cables may be used (See Section 6.)

**Fault LED:** The fault LED will illuminate if there is a fault in the Amplifier or the heat sink temperature is too high for safety or reliability. There will be no output from the Loudspeaker if the LED is on. Turn the Amplifier off at the mains, remove the Input connector, wait approximately 10 seconds and then turn the Amplifier back on again. If the LED is still on, leave the Amplifier to cool for 30 minutes and repeat the above procedure. If after this time the LED still comes on then contact ATC for advice.

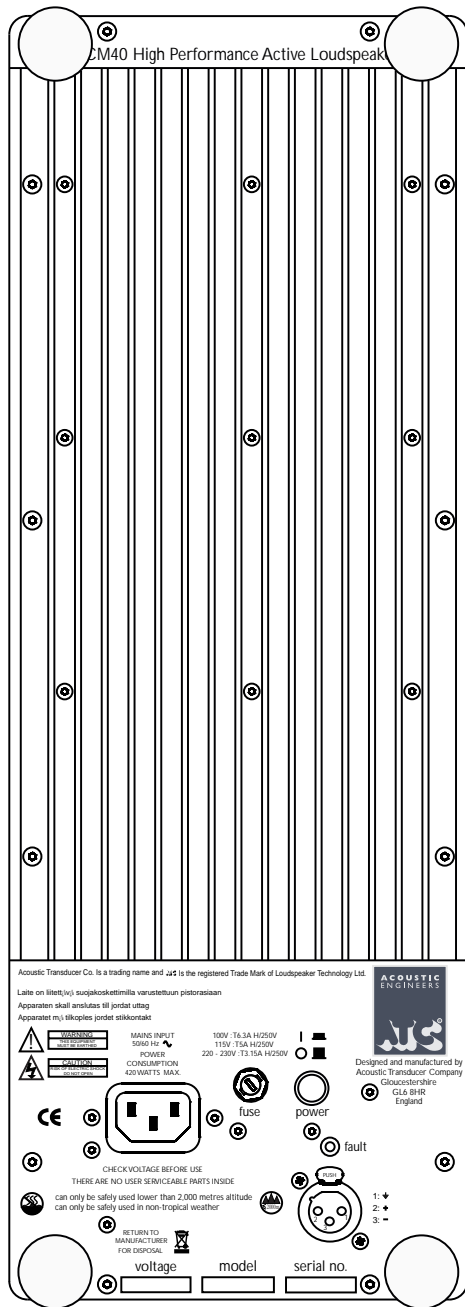


Fig. 7 SCM40A Connection and Control Panel

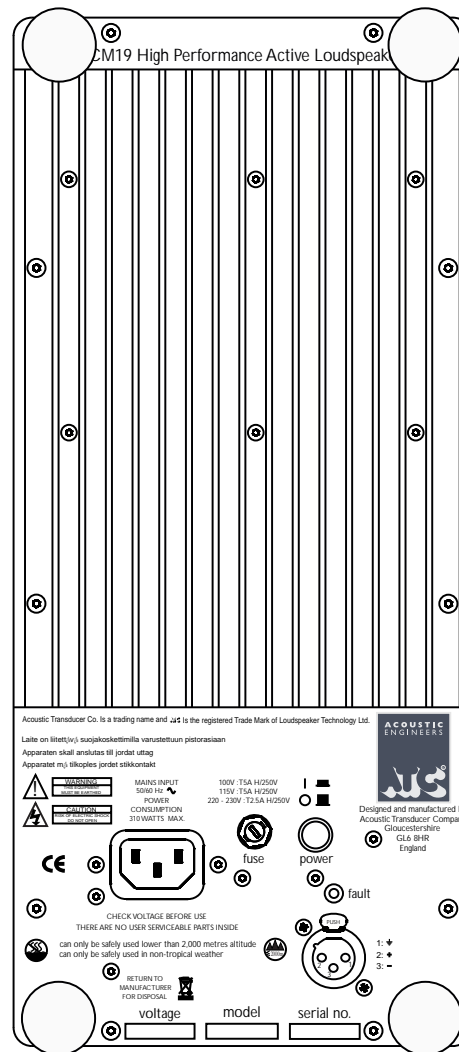


Fig. 8 SCM19A Connection and Control Panel



## 8 : Listening

The ear and brain tend to interpret distorted sound as loudness and thus underestimate the actual level of undistorted sound. The Entry 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.

## 9 : 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.





## 1 0 : Specifications

- SCM7** Drivers : HF ATC 25mm Neo Soft Dome, Mid/LF ATC 125mm SC Matched Response : +/- 0.5dB Frequency Response (-6dB) : 60Hz $\frac{1}{2}$ ~22kHz  
Dispersion :  $\frac{1}{2}$ 80 $\frac{1}{2}$  Coherent Horizontal,  $\frac{1}{2}$ 10 $\frac{1}{2}$  Coherent Vertical Sensitivity : 84dB @ 1W @ 1metre Max SPL : 103dB  
Recommended Power Amplifier : 50 to 300 Watts Nominal Impedance : 8 Ohm Crossover Frequency : 2.3kHz  
Connectors : Binding Posts/4mm Plugs, bi-wire Cabinet Dimensions (HxWxD) : 300x173x215 (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 $\frac{1}{2}$ ~22kHz  
Dispersion :  $\frac{1}{2}$ 80 $\frac{1}{2}$  Coherent Horizontal,  $\frac{1}{2}$ 10 $\frac{1}{2}$  Coherent Vertical Sensitivity : 85dB @ 1W @ 1metre Max SPL : 108dB  
Recommended Power Amplifier : 50 to 300 Watts Nominal Impedance : 8 Ohm Crossover Frequency : 2.1kHz  
Connectors : Binding Posts/4mm Plugs, bi-wire Cabinet Dimensions (HxWxD) : 380x232x235mm (grill adds 28mm to depth) Weight : 8.5kg
- SCM19** Drivers : HF ATC 25mm Neo Soft Dome, Mid/LF ATC 150mm Super Linear Matched Response : +/- 0.5dB Frequency Response (-6dB) : 54Hz $\frac{1}{2}$ ~22kHz  
Dispersion :  $\frac{1}{2}$ 80 $\frac{1}{2}$  Coherent Horizontal,  $\frac{1}{2}$ 10 $\frac{1}{2}$  Coherent Vertical Sensitivity : 85dB @ 1W @ 1metre Max SPL : 108dB  
Recommended Power Amplifier : 50 to 300 Watts Nominal Impedance : 8 Ohm Crossover Frequency : 2.4kHz  
Connectors : Binding Posts/4mm Plugs, bi-wire Cabinet Dimensions (HxWxD) : 438x265x300mm (grill adds 34mm to depth) Weight : 16kg
- SCM19A** Drivers : HF ATC 25mm dual suspension Tweeter, Mid/LF ATC 150mm SL Matched Response : +/- 0.5dB Frequency Response (-6dB) : 54Hz-22kHz  
Dispersion :  $\frac{1}{2}$ 80 $\frac{1}{2}$  Coherent Horizontal,  $\frac{1}{2}$ 10 $\frac{1}{2}$  Coherent Vertical Max SPL : 108dB Crossover Frequency : 2.5kHz Connectors : Male XLR  
Input sensitivity : 1V Filters : 2nd Order critically damped with phase compensation Overload Protection : Active FET momentary gain reduction  
Fault Protection : DC fault protection and thermal trip. Fault indication on rear panel mounted LED Amplifier Output : 150W LF, 32W HF  
Cabinet Dimensions (HxWxD) : 980x370x344mm (spikes add 25mm to height, grill adds 34mm to depth) Weight : 31kg
- 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 $\frac{1}{2}$ ~20kHz  
Dispersion :  $\frac{1}{2}$ 80 $\frac{1}{2}$  Coherent Horizontal,  $\frac{1}{2}$ 10 $\frac{1}{2}$  Coherent Vertical Sensitivity : 85dB @ 1W @ 1metre Max SPL : 112dB  
Recommended Power Amplifier : 50 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 : 23.5kg
- SCM40A** Drivers : HF ATC 25mm dual suspension Tweeter, Mid 75mm ATC Soft Dome, LF ATC 164mm SC Matched Response : +/- 0.5dB Frequency Response (-6dB) : 48Hz $\frac{1}{2}$ ~22kHz  
Dispersion :  $\frac{1}{2}$ 80 $\frac{1}{2}$  Coherent Horizontal,  $\frac{1}{2}$ 10 $\frac{1}{2}$  Coherent Vertical Max SPL : 112dB Crossover Frequencies : 380Hz & 3.5kHz Connectors : Male XLR  
Input sensitivity : 1V Filters : 4th Order critically damped with phase compensation Overload Protection : Active FET momentary gain reduction  
Fault Protection : DC fault protection and thermal trip. Fault indication on rear panel mounted LED Amplifier Output : 150W LF, 60W MF, 32W HF  
Cabinet Dimensions (HxWxD) : 980 x 370 x 344mm (inc. foot plinth and amplifier stand-offs. Spikes add 25mm to height, grill adds 34mm to depth) Weight : 36kg



## 1 1 : 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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