

C4 Sub Mk2

12" SUBWOOFER | MANUAL

# C4

ACOUSTIC  
ENGINEERS



- 1 Read instructions – all the safety and operating instructions should be read before the appliance is operated.
- 2 Retain these instructions – the safety and operating instructions should be retained for future reference.
- 3 Heed warnings – all warnings on the appliance and in the operating instructions should be adhered to.
- 4 Follow instructions – all operating and other instructions should be followed.
- 5 Water and moisture – the appliance should not be used near water, for example near a bathtub, wash bowl, kitchen sink, laundry tub, in a wet basement or near a swimming pool etc.
- 6 Ventilation – the appliance should be situated so that its location or position does not interfere with its proper ventilation. For example, the appliance should not be situated on a bed, sofa, or similar surface that may block the ventilation openings. Similarly, the appliance should not be built into an installation, such as a bookcase or cabinet, that may impede the flow of air through the ventilation openings.
- 7 Heat – the appliance should be situated away from heat sources such as radiators, stoves or other appliances that produce heat.
- 8 Power sources – the appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.
- 9 Power cord protection – 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 – the appliance should be cleaned only as recommended by the manufacturer.
- 11 Unattended periods – the power cord of the appliance should be unplugged from the outlet when left unused for a long period of time.
- 12 Object and liquid entry – care should be taken so that objects and liquids do not fall into the appliance.
- 13 Damage requiring service – 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 – 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. Please contact your local ATC dealer or distributor.
- 15 Grounding or polarisation – precautions should be taken so that grounding or polarisation means for the appliance are not defeated.

**SECTION ONE**

- 1.1 Welcome

**SECTION TWO**

- 2.1 Product Description

**SECTION THREE**

- 3.1 Room Interaction
- 3.2 Subwoofer Placement

**SECTION FOUR**

- 4.1 Connection
- 4.2 Signal Cable Options

**SECTION FIVE**

## Control Panel Operation

- 5.1 Power on/off
- 5.2 Level and Gain
- 5.3 Polarity and Phase
- 5.4 Frequency
- 5.5 Outputs
- 5.6 Footswitch – Input and Thru
- 5.7 Fault

**SECTION SIX**

- 6.1 Typical System Configurations and Recommendations
- 6.2 Bass Reinforcement/Bass Extension of a Stereo System
- 6.3 Multichannel Surround/Immersive Audio

**SECTION SEVEN**

- 7.1 Listening

**SECTION EIGHT**

- 8.1 Care and Maintenance

**SECTION NINE**

## Specification

- 9.1 Acoustic
- 9.2 Electronic
- 9.3 Physical

**SECTION TEN**

- 10.1 Warranty
- 10.2 Contact

## 11 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 emigre Billy Woodman. 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: hifi 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.

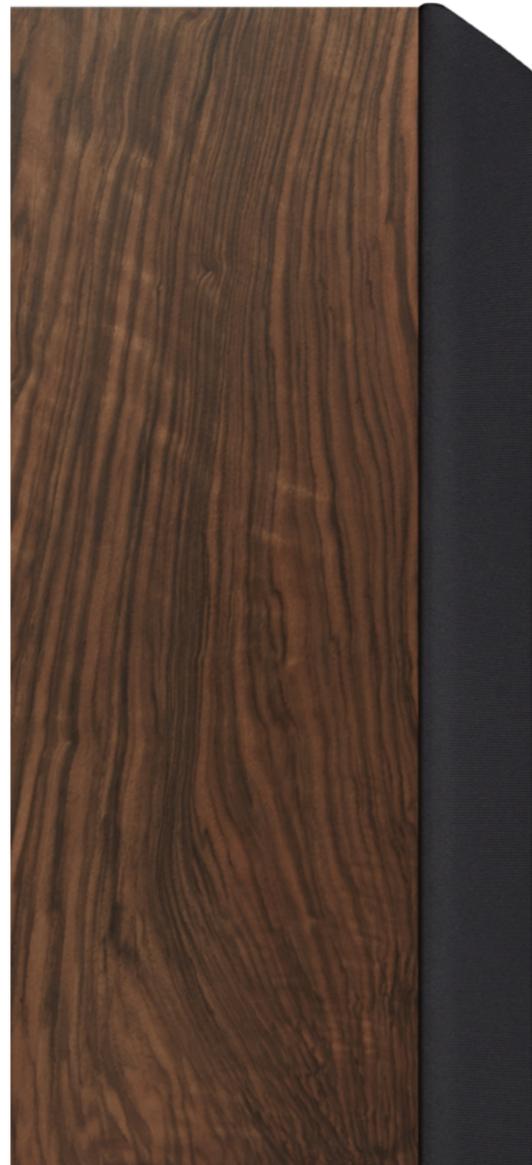
The difficulty inherent in designing such loudspeakers is one of scale. Hifi levels of accuracy and detail call for lightweight moving parts and delicate engineering. Professional monitor levels of performance however demand far more robust components engineered to survive the rigours of high-level use 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 motor sport. But the results are worth the effort and the cost. ATC loudspeakers, with their unique in-house designed drivers, combine the best of hifi and professional to devastating effect.

ATC has become synonymous with active systems. Choosing to offer active loudspeakers (where the passive crossover network is replaced by active filters and multiple power amplifiers) is simply a result of the uncompromising attitude to loudspeaker design. While passive systems still have their place, and ATC engineering skills can still bring remarkable results from them, "active" 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 – and the sound that comes out.





SECTION TWO

21 **Product Description**

The ATC C4 Sub Mk2 is a high-performance 12"/300mm active subwoofer, designed from the ground up to deliver the exceptional levels of performance required to partner ATC's active and passive loudspeaker range. Its performance and features make it ideally suited to use within stereo, multi-channel surround and immersive audio systems.

The sub features a sealed-box (infinite baffle) design, chosen for its balance of sub-bass extension and driver control. The cabinet is heavy and inert to minimise cabinet colouration.

The SS75-314SC driver employed has been meticulously optimised to reproduce the lowest 3 octaves of the audio band within the design of the C4 Sub Mk2 subwoofer system. It employs a short-coil operating in an exceptionally long magnetic gap to deliver high sound pressure levels with very low levels of distortion.

The C4 Sub Mk2's convection cooled amplifier is mounted in the rear of the cabinet. Two balanced Inputs enable connection to mono or stereo sources. A pair of buffered, un-filtered balanced Outputs provide connection to partnering active monitor loudspeakers, amplifiers or to daisy chain multiple subs. 21dB range of gain control, three low pass frequency settings, polarity switch and a 180 degree continuously variable phase setting allow the user to optimise the subwoofer for use with a very wide range of partnering loudspeakers. The low pass filter can also be set to 'Off' (320Hz) should the user wish to use the C4 Sub Mk2 with external processing. The amplifier features fault monitoring of amp panel temperature and power amplifier DC offset and either fault condition is indicated via illumination of a single red LED mounted on the amp panel.

When in use, the subwoofer output can be muted using a single latching footswitch connected via a 1/4"/6.35mm jack. The mute function does not affect the Outputs to the primary loudspeakers, only the output from the sub itself. Additional subs can be muted using the same single footswitch via connection to the mute 'Thru' jack.



### 3.1 Room Interaction

The room in which a loudspeaker is placed can be thought of as a filter; altering the acoustic response at the listening position from that of the loudspeaker. The position of the loudspeaker in a room will influence how it interacts with the space and therefore is often critical to achieving the best performance at the listening position.

Positioning is particularly relevant to subwoofers because at low frequencies the room will have a strong influence due to room modes/resonances. Room modes manifest themselves in an uneven distribution of acoustic energy within the room, which can lead to either too much or too little bass at the listening position. A room with a well-controlled low frequency response (reverb time) will have a far smaller influence on the performance of the subwoofer and will be less sensitive to subwoofer positioning. Applying acoustic treatment in a domestic setting is not always possible or desirable but if considered it should be noted that typically, a combination of resonant membrane traps and porous absorbers are needed to control the low frequency. The resonant membrane traps are effective at treating the low bass, typically below 80Hz and the porous absorbers frequencies above this. Porous absorbers such as those made from foams, fibreglass or rockwool are not effective at absorbing low bass energy without a very large air space between them and the wall behind. For this reason, they are a poor choice of absorber for the subwoofer bandwidth.

To minimise problems a free-standing subwoofer should be kept away from corners where possible. Avoid placing the subwoofer mid-way between any two parallel walls.

### 3.2 Subwoofer Placement

The C4 Sub Mk2 is supplied with 4 x steel spikes which can be fitted to the threaded holes in the base of the subwoofer. The spikes are optional and can be fitted to ensure the subwoofer is seated firmly when positioned on a soft carpeted floor. Without the spikes fitted, the subwoofer will sit on the 4 x fixed rubber feet, which is ideal for hardwood/concrete flooring.

Start with the subwoofer positioned next to one of the stereo monitors and at the same distance from the listening position. When installing two subwoofers, start with one by each of the stereo monitors. In most cases these guidelines will give the best results, however all rooms vary, and it is a good idea to experiment with both listening and speaker positions until a good compromise is reached. When working on optimising the positioning, only change one variable at a time.

Positioning the subwoofer in the centre of the room, equidistant from the two side walls and between the left and right stereo pair must be avoided. In the majority of cases, this position will result in large irregularities in the frequency response.

Multiple subs will excite the room from multiple locations and will often give a more even in-room response. Also, a pair of subs can be placed with the same physical relationship to the pair of main speakers and the listener:

Please see section 5 for recommendations on how to set the amplifier filters and level.

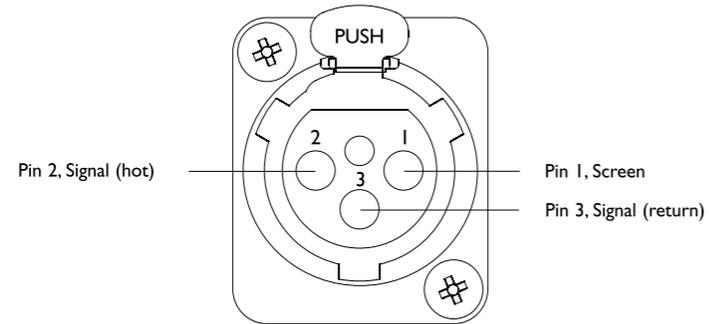


## 4.1 Connection

Either two or three cable connections are required for each subwoofer: one for mains power and one or two for the audio signal. The mains cable is specifically supplied to comply with local statutory safety approvals and alternatives should not be substituted. If you intend to use your subwoofer in an alternative territory, please contact ATC for advice. The mains connection must always be earthed.

The signal cable(s) and plug(s) should be of a good quality and XLR terminated. Poor cable and plug quality will compromise the performance of your subwoofer. The signal input pin configuration is illustrated in Diagram 1. If two signal connections are made to the subwoofer (i.e. a stereo pair) the left and right signals will be summed by the amplifier, increasing the effective input level to the amplifier stage by 6dB.

DIAGRAM 1



## 4.2 Signal Cable Options

Balanced cable configuration is the preferred option, however unbalanced connection is possible. Diagrams 2 and 3 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.

DIAGRAM 2

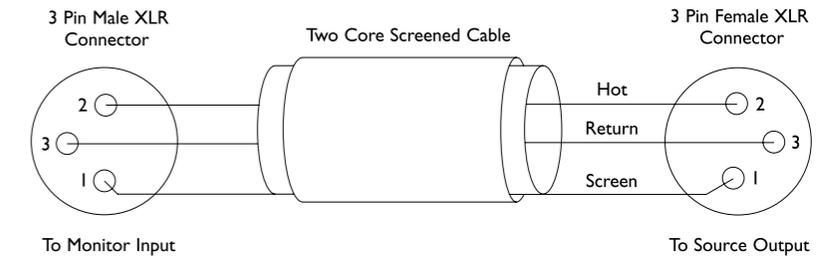


DIAGRAM 3

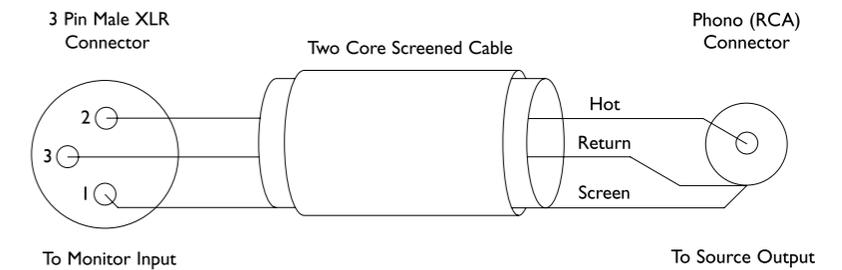
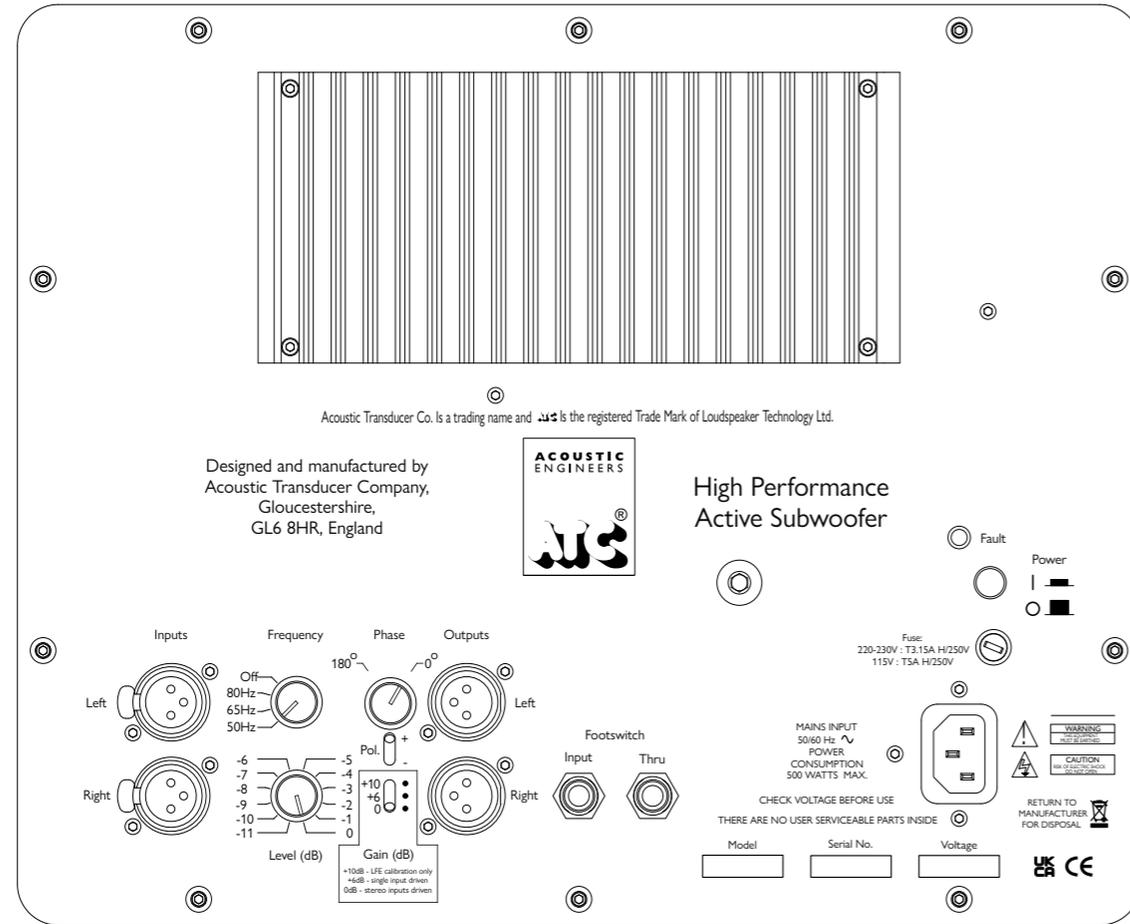


DIAGRAM 4



The subwoofer amplifier control and connection panel, shown in Diagram 4, provides a range of functions to assist with system integration. These are explained opposite.

### 5.1 Power on/off

Powers the subwoofer on or off. When the button is in the inward position, the loudspeaker is powered on. When the button is in the outward position, the subwoofer is powered off.

### 5.2 Level and Gain

Sets the overall sensitivity of the subwoofer. Initially, the Level control should be set towards the centre of its range and only adjusted once the Frequency has been set. If one Input is connected, start with the Gain switch set at +6dB. If both Inputs are connected, start with the Gain switch set at 0dB.

An additional +10dB gain setting is included for situations where the preceding equipment can only deliver a low output level. Please note that increasing the gain does not increase the maximum acoustic output capability of the system.

Please refer to Section 9 – Product Specifications for information on system sensitivity.

### 5.3 Polarity and Phase

Sets the overall polarity of the subwoofer and offers an adjustment of the input/output phase. When set to + and 0° the subwoofer will radiate a positive acoustic pressure for a positive electrical signal at the Input. When set to – and 0° the subwoofer will radiate in the opposite polarity to the Input. The Phase control allows for fine adjustment of the phase relationship between subwoofer and satellite speakers. This can be thought of as a delay, allowing for time alignment with other system elements and is useful when physical adjustment of loudspeaker/sub position is limited.

### 5.4 Frequency

Varies the low pass crossover Frequency as indicated on the control panel. This is the fundamental parameter that defines the integration of the subwoofer with the satellites. The Frequency control should be set at, or slightly above the specified low frequency cut-off of the satellite speakers.

The “open” setting applies a low pass filter at 320Hz. Select this setting if you will apply the sub low pass crossover filter via an external processor.

All filters are of the type 4th order Linkwitz Riley.

### 5.5 Outputs

Provides separately buffered and fully balanced Outputs with a signal identical to that at the corresponding Input terminals. The Output is unfiltered and unaltered in any way, and therefore it is possible to drive a stereo amplifier or pair of active loudspeakers from these terminals. Likewise, it is also possible to drive a second C4 Sub Mk2 from these Outputs. This function allows for an unlimited number of C4 Sub Mk2s to be daisy chained together, one driving the next.

## 5.6 Footswitch – Input and Thru

Facilitates remote muting of the subwoofer with the addition of a standard latching footswitch (not supplied, see specification). If the system includes more than one C4 Sub Mk2, a second subwoofer can be controlled from the Thru Output socket. This allows for all subwoofers in a system to be controlled simultaneously from one footswitch. The signal at the Output sockets is not affected.

## 5.7 Fault

Indicates a temporary or permanent amplifier fault. The Fault LED will illuminate if there is a DC fault on the amplifier or if the thermal limit of the heatsink is reached. In the rare case that the Fault LED illuminates, the subwoofer should be switched off. Ensure the subwoofer heatsink has adequate ventilation and after 45 minutes switch it back on. If the Fault LED remains illuminated the amplifier is registering a fault which should be investigated by an approved technician. Please contact your ATC dealer or distributor; details can be found at [www.atc.audio](http://www.atc.audio). If the Fault LED is no longer illuminated, the amplifier had shut down safely due to reaching high temperatures. Please reduce the system listening level, subwoofer Level or improve amplifier ventilation and continue to use the subwoofer.



## 6.1 Typical System Configurations and Recommendations

It is likely that a subwoofer will be used in one of two different scenarios: either as Bass Reinforcement/Extension in a Stereo System or as a discrete channel in a Multichannel Surround/Immersive Audio system.

## 6.2 Bass Reinforcement/Bass Extension of a Stereo System

Typically, a full-range stereo signal is driven into both Left and Right subwoofer Inputs. The subwoofer Outputs connect to and drive the main loudspeakers. Alternatively, the C4 Sub Mk2 and main loudspeakers can be driven independently from a suitable preamplifier/AV receiver. Example systems are shown in Diagrams 5, 6 and 7. All subwoofers can be controlled using the method described in section 5. All panel settings should be set independently for each subwoofer.

All ATC loudspeakers deliver significant low frequency output, more so with the larger monitors in the range, therefore there will always be some degree of acoustic overlap between the subwoofer and stereo loudspeaker in this configuration. Applying an external high pass filter to the main loudspeakers will introduce phase shift in the main loudspeakers and should be avoided where possible. Good results can be achieved through experimentation with the subwoofer Level, Frequency and Phase adjustment.

A selection of common wiring configurations are shown but other configurations exist, please contact your reseller or ATC for advice.

DIAGRAM 5 SUBWOOFER CONNECTED IN SERIES

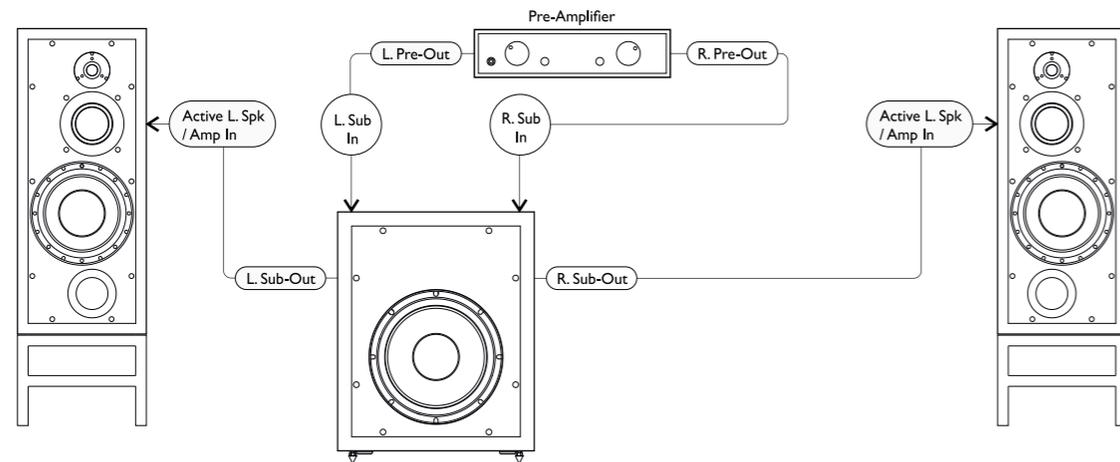


Diagram 5 – Typical Configuration – Stereo playback (Mono Sub). A preamplifier or AV receiver Output is connected to the L and R Inputs of the subwoofer. The subwoofer L and R Outputs are connected to the Input of the L and R main stereo amplifier or active loudspeakers. In this configuration the Gain switch is normally set to 0dB.

DIAGRAM 6 SUBWOOFER CONNECTED IN SERIES

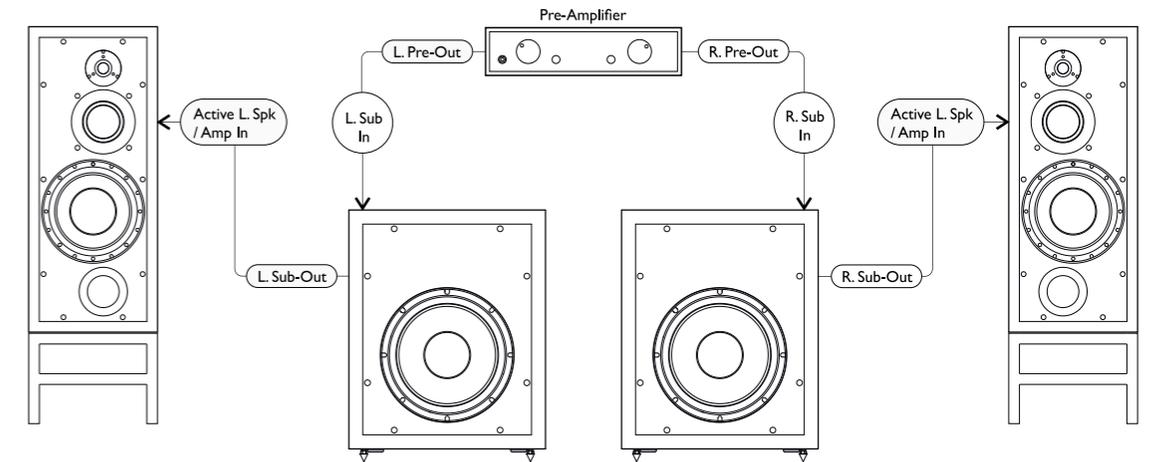


Diagram 6 – Typical Configuration – Stereo playback (Stereo Subs). A preamplifier or AV receiver Output is connected to a single Input on each subwoofer. The corresponding Output of each subwoofer is connected to the Input of the main power amplifier/active loudspeaker on that channel. In this configuration, the Gain switch is normally set to 0dB. Note that it is also possible to connect the preamplifier/AV receiver Output to both Left and Right channel Inputs on the subwoofer using a Y-Splitter cable. If connected in this way the “spare” Output can be used to connect further subwoofers.

DIAGRAM 7 SUBWOOFER CONNECTED IN PARALLEL

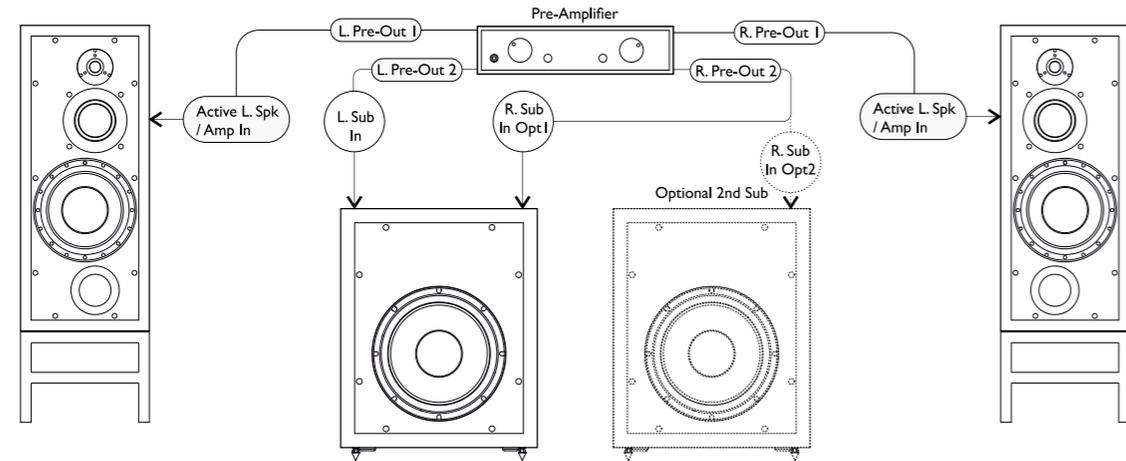


DIAGRAM 8 SUBWOOFER CONNECTED IN PARALLEL, PASSIVE SYSTEM

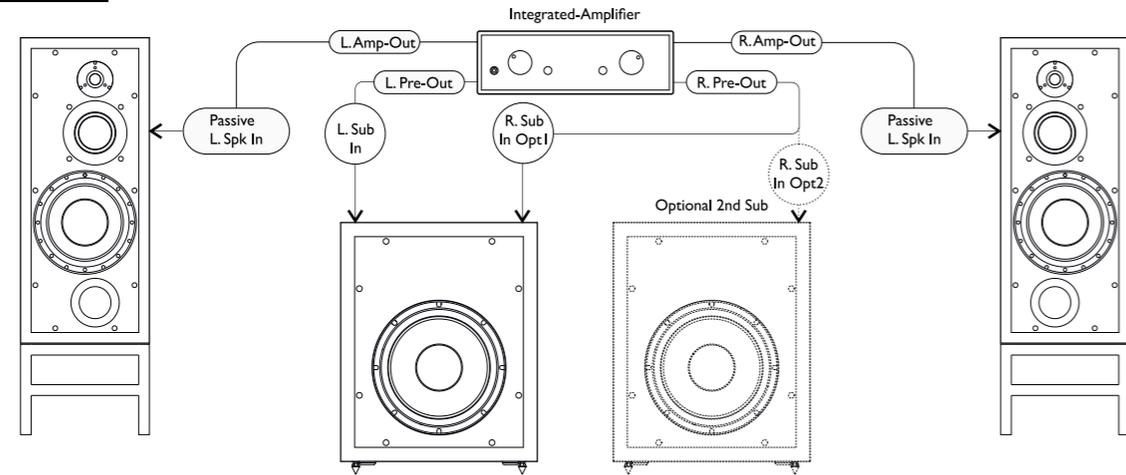


Diagram 7 and 8 – 2.1 Configuration – The subwoofer is driven by a preamplifier/AV receiver with a second pre-amplifier Output or dedicated subwoofer Output. Additional subwoofers may be daisy chained using the subwoofer Outputs, or connected in a stereo configuration as shown.

DIAGRAM 9

| BASS REINFORCEMENT/<br>EXTENSION OF STEREO<br>SYSTEM |           | C4 Sub Mk2 – recommended initial settings |                                     |   |                                 |          |
|--|-----------|---|-------------------------------------|---|---------------------------------|----------|
|  |           | FREQUENCY                                 | LEVEL<br>ADJUST FOR BEST<br>BALANCE | GAIN SWITCH<br>(SINGLE SUB/<br>DUAL SUBS) | PHASE<br>ADJUST TO<br>FINE TUNE | POLARITY |
| Loudspeaker model (pair)                             | SCM40     | 50Hz                                      | -6dB*                               | 6dB/0dB*                                  | 0°                              | +        |
|  | SCM40A    | 50Hz                                      | -6dB                                | 6dB/0dB                                   | 0°                              | -        |
|  | SCM20PSL  | 65Hz                                      | -6dB*                               | 6dB/0dB*                                  | 0°                              | +        |
|  | SCM20ASL  | 65Hz                                      | -6dB                                | 6dB/0dB                                   | 0°                              | +        |
|  | SCM50PSL  | 50Hz                                      | -6dB*                               | 6dB/0dB*                                  | 0°                              | +        |
|  | SCM50ASL  | 50Hz                                      | -6dB                                | 6dB/0dB                                   | 0°                              | -        |
|  | SCM100PSL | 50Hz                                      | -3dB*                               | 6dB/0dB*                                  | 0°                              | +        |
|  | SCM100ASL | 50Hz                                      | -3dB                                | 6dB/0dB                                   | 0°                              | -        |
|  | SCM150PSL | 50Hz                                      | 0dB*                                | 6dB/0dB*                                  | 0°                              | +        |
|  | SCM150ASL | 50Hz                                      | 0dB                                 | 6dB/0dB                                   | 0°                              | -        |

\* In case of a passive system the required subwoofer gain setting will depend on the gain of the amplifier used. Example shown is based on the ATC P1.

The recommended initial settings are shown opposite in Diagram 9.

The recommended number of subwoofers required in each system is shown in Diagram 10.

DIAGRAM 10

|      |            | Stereo loudspeakers |             |         |          |          |
|------|------------|---------------------|-------------|---------|----------|----------|
|      |            | SCM40               | SCM20SL PRO | SCM50SL | SCM100SL | SCM150SL |
| Subs | C4 SUB Mk2 | 1                   | 1           | 1       | 1-2      | 2        |

For detailed recommendations, please contact your dealer/distributor or ATC.

### 6.3 Multichannel Surround/Immersive Audio

A single subwoofer is driven from the 0.1/LFE channel Output of a multichannel processor/monitor controller. For increased dynamic range and headroom, multiple subwoofers can be connected in series as described in Section 5.5 and 5.6. All panel settings must be set independently for each subwoofer.

The choice of loudspeaker model and the number of subwoofers required in any system is dependent on room size, mix format and target calibration level at the listening position. Diagram 11 can be used as a guide to determine suitable partnering system elements from the ATC HiFi product range.

**DIAGRAM 11**

|                               |            | Left/centre/right loudspeakers |            |          |            |          |
|-------------------------------|------------|--------------------------------|------------|----------|------------|----------|
|                               |            | SCM20SL                        | SCM40      | SCM50SL  | SCM100SL   | SCM150SL |
| Surround<br>loudspeakers/subs | SCM20SL    | ●                              | ●          | ○        |            |          |
|                               | SCM40      |                                | ○          | ●        | ○          |          |
|                               | SCM50SL    |                                |            | ●        | ●          | ○        |
|                               | SCM100SL   |                                |            |          | ●          | ●        |
|                               | SCM150SL   |                                |            |          |            | ●        |
|                               | C4 SUB Mk2 | <b>1</b>                       | <b>1-2</b> | <b>2</b> | <b>2-4</b> | <b>4</b> |

● = Recommended. ○ = Acceptable. For detailed recommendations, please contact your dealer/distributor or ATC.

**DIAGRAM 12**

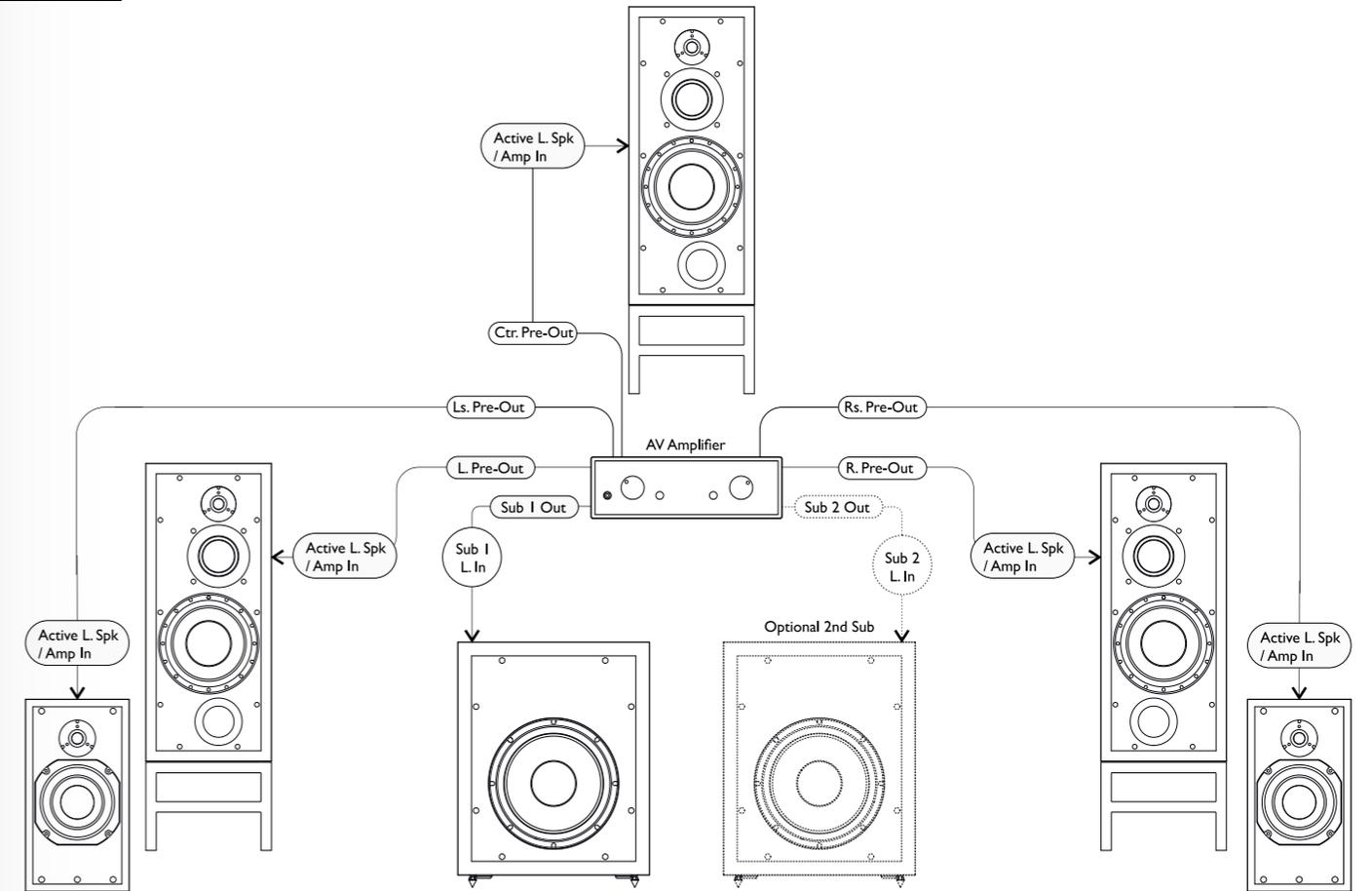
| C4 Sub Mk2 – recommended initial settings when used in a multichannel system |                                     |            |   |          |  |
|--|-------------------------------------|------------|---|----------|--|
| FREQUENCY  | LEVEL<br>ADJUST FOR BEST<br>BALANCE | GAIN       | PHASE<br>ADJUST TO FINE<br>TUNE INTEGRATION | POLARITY |  |
| <b>80Hz</b>  | <b>-6dB</b>                         | <b>0dB</b> | <b>0°</b>                                   | <b>+</b> |  |

Recommended initial settings for the C4 Sub Mk2 when used in a multichannel system are shown in Diagram 12.

Diagram 13 – Typical Multichannel System wiring. Depending on the AV receiver Output level and number of subwoofers, the Gain switches may need to be set to 6dB. Further subwoofers can be added to the system by connecting them in a daisy chain using the subwoofer Output sockets.

The system shown is an example and other configurations are available.

**DIAGRAM 13**



**7.1 Listening**

The ear and brain tend to interpret distorted sound as loudness and thus underestimate the actual level of undistorted sound. ATC subwoofers, like all ATC products, demonstrate 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 the ATC systems 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 overloaded and that the volume level should be reduced.

When a subwoofer is successfully integrated into a system it should become impossible to discern from the main loudspeakers. If the subwoofer is audible as a separate element, then it is likely the level is too high, the filter settings require adjustment, or the positioning can be improved. Please refer to Section 5 of this manual.

**8.1 Care and 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 of the cabinet or baffle can be cleaned using a cloth slightly moistened with a non-abrasive household cleaner. Dust can carefully be removed from the drive unit with the use of a dry, lint free cloth.

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.

**9.1 Acoustic specification**

Low Frequency Cut-off: 22Hz (-6dB, half space, low pass filter set at 80Hz).

Low Pass Filters: 50Hz, 65Hz, 80Hz, 320Hz. (-6dB, 4th order Linkwitz Riley).

Max SPL: 110dB continuous, 116dB peak (IEC Weighted Pink Noise, measured at 1m, half space, low pass filter set at 80Hz).

Sensitivity: +4dBu ref. 88dBC (single channel driven, measured at 1m, Gain +6dB, Level 0dB, pink noise, low pass filter set at 80Hz).

**9.2 Electronic specification**

Amplifier type: Grounded Source MOSFET based Class A-B, convection cooled.

Output Power: 300W in to 8Ω.

THD+N: <0.003%/-90dB, at 100Hz, 300W into 8Ω over 90kHz bandwidth.

Input CMRR: 90dB at 200Hz.

Input Impedance: Approx. 20kΩ (differential).

Line Output Impedance: Approx. 100Ω (differential).

Frequency Response: <2Hz (-3dB) – 320Hz (-6dB, set by panel-controlled LP filter).

Low Pass Filters: 4th Order Linkwitz Riley.

Gain Control: 0, +6dB, +10dB.

Level Control: 0dB -11dB in 1dB steps. Total range 21dB with use of Gain switch.

Phase Control: 0-180° ref. Input.

Polarity Control: In-phase/Out-of-phase ref. Input.

Limiter: ATC Active FET Momentary Gain Reduction.

Sensitivity: 1.55Vrms for full power (single channel driven, Gain 0dB, Level 0dB).

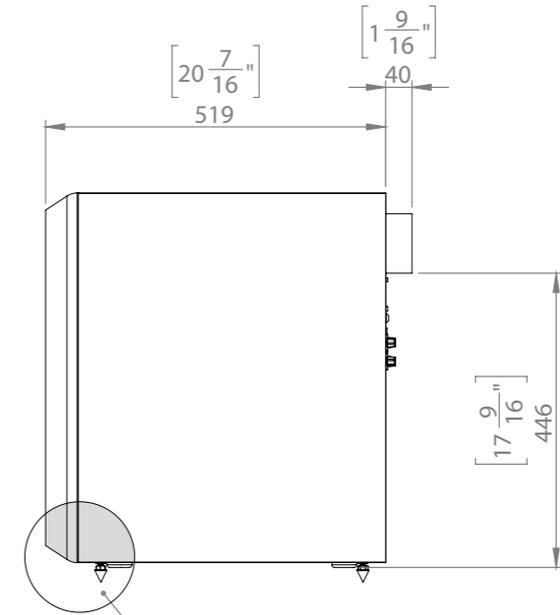
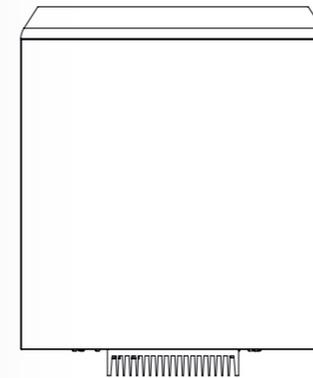
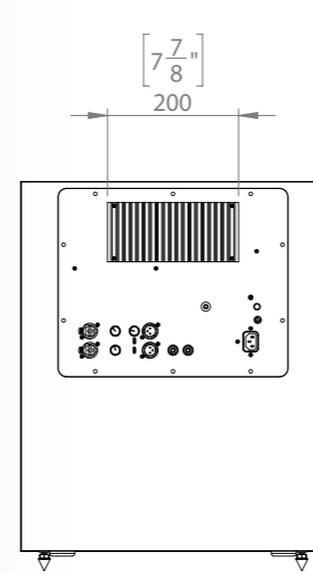
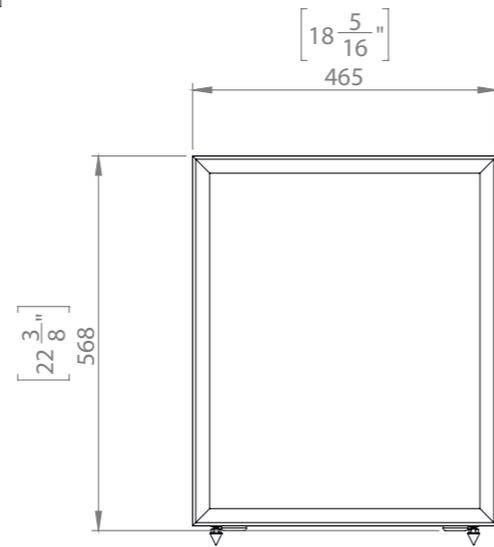
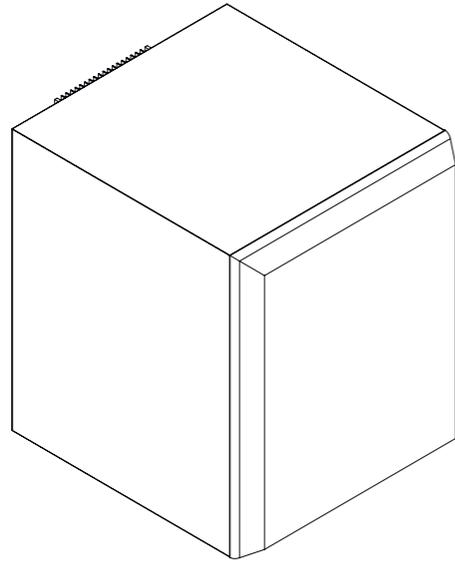
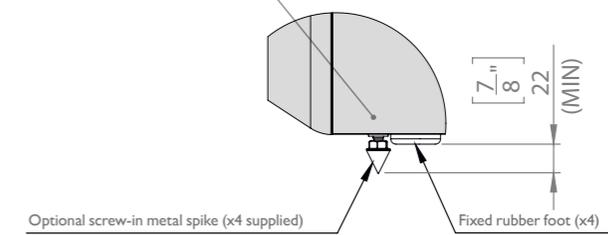
Power Consumption: Idle 8W / 14VA, 1/8th Power 170W / 230VA, Full Power 500W / 600VA.

Mains Input: 220-230V, 115V – Factory set. Please observe panel markings and labels.

Additional: Mute via ¼" 6.35mm Jack socket, controlled via latching footswitch.

## C4 Sub Mk2

WEIGHT - 42KG | DIMENSIONS - SEE DIAGRAM

DETAIL A  
SCALE 1:5

**10.1 Warranty**

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 the Product Registration process, either by returning a completed Warranty Card to ATC or by registering the product at [www.atc.audio](http://www.atc.audio), 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.

**10.2 Contact**

Loudspeaker Technology Ltd  
Gypsy Lane, Aston Down  
Stroud, Gloucestershire  
GL6 8HR  
United Kingdom

Telephone +44 (0)1285 760561  
Email: [info@atc.audio](mailto:info@atc.audio)  
Website: [www.atc.audio](http://www.atc.audio)

Acoustic Transducer Company is the trading name and  is the registered trade mark of Loudspeaker Technology Ltd.



**ACOUSTIC  
ENGINEERS**



Loudspeaker Technology Ltd  
Gypsy Lane  
Aston Down  
Stroud  
Gloucestershire  
GL6 8HR  
United Kingdom

Telephone +44 (0)1285 760561  
Email: [info@atc.audio](mailto:info@atc.audio)  
Website: [www.atc.audio](http://www.atc.audio)

Acoustic Transducer Company is the trading name.

 is the registered trade mark of Loudspeaker Technology Ltd.