

4.1 Sub-woofer Placement

The subjective performance of any sub-woofer will be fundamentally influenced by the acoustic character of the room in which it is used, and its position within the room. Monitor and sub-woofer systems are most often installed in rooms which are comfortable to sit and talk in, and the typical mixture of carpets, curtains and soft furnishings 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 minimise these problems the sub-woofer should be kept away from corners or walls. Start with it positioned around 1 metre from the side walls and 2 metres from the back. If the balance is bass-light, the sub-woofer can be moved towards the corner. Use the sub-woofer controls to optimise satellite integration and for fine tuning rather than to compensate for inappropriate positioning. All rooms vary and it is a good idea to experiment with both listening and speaker positions until a good compromise is reached. If the sub-woofer is to be placed in any form of enclosure, adequate side and top clearance for cooling airflow must be provided. For professional installations the requirements are often very specific. Please consult with an experienced professional acoustician if necessary.

More information on sub-woofer installation and use can be found later in Section 5.

4.2 Connection

Either two or three cable connections are required for each sub-woofer: 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 sub-woofer 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 sub-woofer. The signal input pin configuration is illustrated in Diagram 1. If two signal connections are made to the sub-woofer (i.e. a stereo pair) the left and right signals will be summed by the amplifier so increasing the effective sensitivity by 6dB. The mono sub-woofer signal from an audio-visual processor may be connected to either left or right line-level XLR input.

4.3 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 1 - input connection pins

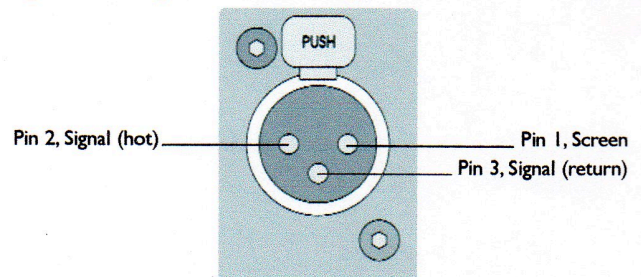


Diagram 2 - balanced cable

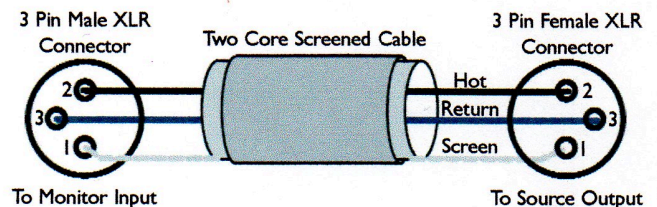


Diagram 3 - unbalanced cable

