

SC-1 System Controller



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Wisdom Audio's SC-1 System Controller incorporates an electronic crossover and acoustic room correction that incorporates Audyssey MultEQ® XT technology. It also includes selectable, RS-232 operable memory settings for optimized performance in varied acoustic settings for music and film environments. A PC-based installation application allows a professional installer to configure the SC-1 for the particular complement of Sage Series speakers used in a given installation.

A good loudspeaker is designed to deliver sound with little distortion and coloration. But when even great speakers are placed in a room, things change. Walls, furniture, and other objects reflect and absorb the sound from your speakers, creating complex distortions specific to your room, which could not have been predicted by the loudspeaker designer.

Advanced Room Correction

Audyssey MultEQ XT is a room equalization solution that calibrates any audio system so that it can achieve optimum performance for every listener in a large listening area. MultEQ XT captures acoustical information at multiple locations throughout a listening area in both the time and frequency domains. It uses a sophisticated clustering algorithm to combine this information so that acoustical problems are accurately analyzed. Based on these measurements, MultEQ XT calculates an equalization solution that corrects for both time and frequency response problems in the listening area

and also performs a fully automated surround system setup. The result is clear, well-balanced sound for every listener. Wisdom Audio licensed the most sophisticated form of this technology for use in our systems, and worked closely with Audyssey™ to ensure that you get all the performance you deserve.

Multiple Setup Memories

We then went further and provided support for recalling up to three complete and independent setup calibrations, any of which can be selected as needed. While a single setup is all that is necessary, having the ability to recall any of multiple setups can solve some otherwise difficult situations. For example, you might want to have selectable setups for different room conditions (e.g., drapes open vs. closed) or slightly different target curves (e.g., music vs. gaming).

Bi- or Tri-amplification

People who have wanted to extract the highest performance from their systems have known for a long time that driving each section of the speaker directly and separately yields the finest results. Of course, this requires having a dedicated, active crossover to divide the frequency range appropriately before the power amplifiers, so that they can then drive the speakers directly.

Bi-amplification makes use of two channels of amplification to drive different portions of a single channel. The most common instance of "bi-amping" today is in home theater applications, wherein a dedicated subwoofer handles the deepest bass, while the remaining audible range is handled by the various front and surround speakers. But you can also bi-amplify a full range loudspeaker, driving the woofer separately from the drivers that handle the midrange and treble frequencies.



Logically, you can combine these two approaches, and the result is “tri-amplification.” A “tri-amped” system uses separate amplification for three audible ranges. In our case, the three ranges are:

- * Deepest bass (one or more subwoofers)
- * Mid-bass (the woofers in the front and surround speakers)
- * Midrange and treble (the planar magnetic panels)

Since each channel of the amplifier is delivering current into its load only over a limited range of frequencies, several forms of distortion are reduced as compared to each channel handling the full range of musical information.

The SC-1 supports up to a “7.3 channel” system, meaning that up to seven main speakers can be supported (all of which are bi-amplified), plus up to three independent subwoofer channels. All of these outputs benefit from room correction, described above.

System-Specific EQ

Wisdom Audio speakers deliver extraordinary performance from slim, elegant enclosures. However, we cannot cheat the rules of physics. Delivering powerful bass from such small enclosures places unusual demands on both the woofers and the amplifiers used to drive them.

Specifically, equalization is used to compensate for the unusually small enclosure volume behind the woofer. This approach is used in almost all dedicated subwoofers today, and we use it in our full range speakers. Doing so allows us to achieve the bass performance usually associated with much larger speakers, but in elegant enclosures that support modern lifestyle choices.



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The World’s Most Advanced Architectural Loudspeakers.™

SC-1 Specifications

All specifications are subject to change at any time, in order to improve the product.

Signal to Noise ratio	-110dB (ref 2.5V rms A-wtd.)
Input impedance	25kΩ (balanced)
Output impedance	50Ω
Maximum output voltage	2.5V rms
Maximum input voltage	2.5V rms
Power consumption	33W
Thermal load	2 BTU/minute
DC trigger input sensitivity	3-20V @ 10 mA
DC trigger output signal	12V @ 100 mA
Mains voltage ranges	100-120V or 200-240V
Shipping weight	34 lbs. (15.4 kg)

