



ICC

Installation Compensation Circuit for SA2C

Architects and Engineers Specification:

The ICC shall be a two channel electronic device designed to provide compensation circuitry for exclusive use with Sound Advance SA2C Invisible Speakers. The ICC shall provide 2 unbalanced input channels and 4 unbalanced output channels on female RCA connectors. It shall offer correction circuitry for low-frequency response, high-frequency response and mid-bass response based on mounting cavity size, and output level. These controls shall be a combination of linear taper potentiometers and multi-position slide switches.

The ICC shall also provide Spatial Enhancement Circuitry for expansion of the stereo stage, and a low cut filter to remove unwanted information from the signals supplied on the processed outputs. This filter shall be operational from 90Hz and below, and provide a slope of 12dB/octave.

The ICC shall use either a UL/CSA-listed 120V AC 60Hz or a TUV/CE-approved 230V AC 50Hz external power supply weighing .53 lbs. (0.24kg), which shall provide 9VAC/500mA via a male 5.5mm AC plug. The ICC shall be housed in a ½ standard rack space chassis, with a powder-coated black finish, and incorporate gray push-buttons and soft-touch knobs for all rotary controls.

It shall be 9.50 in (241mm) in width, 1.75 in (44mm) in height, and 5.03 in (128mm) in depth including all controls and connections.

The unit shall be the Sound Advance ICC or equivalent.



ACTIVE ELECTRONIC COMPENSATION

The Sound Advance® ICC (Installation Compensation Circuit) is a two-channel, ½-rack width, active electronic correction circuit specifically designed for use with the Sound Advance SA2C Invisible Speaker.

Because of the variety of finishing options available for the SA2C, the ICC provides a wide range of post-installation correction and response compensation for any variations in the SA2C's performance caused by surface finish and the specific installation location selected.

The ICC is normally installed between the system pre-amplifier and the power amplifier. It may also be inserted into the external processor loops available on some equipment. The ICC inputs and outputs are line level (–10dBV) unbalanced female RCA jacks.

An extensive set of controls allows the installer to precisely tailor the performance of SA2C speakers to counteract the negative effects of specific room surface finish and acoustic conditions for each project. The ICC provides two inputs, and two sets of outputs (4 total), all gold-plated. One pair of outputs is the ICC-processed signal, the other is a direct signal, unprocessed by any ICC circuitry. These direct outputs are designed for use with powered subwoofers for the SA2C, or with other loudspeaker systems.

The ICC is a low-voltage (9V AC), always-on device, with full safety agency ratings for worldwide use on its external power supply unit (. Designed to be rack- or shelf-mounted, the ICC is ½ rack width, and two units can be placed in a single 1U rack space, allowing processing to be performed for multiple sets of SA2C speakers installed in different areas while occupying minimal additional rack space.

Recommended Installation:

The ICC is designed to be shelf- or rack-mounted on standard EIA spacing with other electronic components of the system (includes self-adhesive rubber feet). The ICC occupies ½-width of space (1U height) in a standard 19" equipment rack, and a rack filler panel is supplied if only one ICC is used in a particular installation. Two ICC units may be mounted side-by-side with the supplied rack mounting kit.

Recommended Applications:

The ICC is an active electronic correction circuit specifically-designed to be used only with the Sound Advance SA2C "Invisible Speaker". The ICC helps achieve maximum performance from SA2C speakers by compensating for variations in mounting location, wall/ceiling surface finish and room acoustics. To achieve maximum performance in installations using multiple pairs of SA2Cs, one ICC unit should be employed for each pair of separately-amplified speakers. ICC units may be linked together by connecting the direct (unprocessed) outputs of one ICC unit to the inputs of another.

Installation Compensation Circuit for SA2C

Performance Specifications:

Inputs:	2 Unbalanced (–10dBV) gold-plated female RCA jacks
Outputs:	4 Unbalanced gold-plated female RCA jacks: 2 processed; 2 direct
Controls:	LF, HF, Spatial Enhancement, Output Level, Cavity Compensation, Low-Cut
Dimensions: (W x H x D)	9½" x 1¾" x 5" (241mm x 44mm x 128mm), including all controls and connections
Net Weight:	2.07 lbs. (0.94 kg) including external power supply
Shipping Weight:	2.9 lbs. (1.4kg)
Finish:	Black powder-coated paint, with gray switches and knobs
Fuse:	3AG, 250mA slow-blow type
External Power Supply:	UL/CSA-approved 120V AC/9V AC, 500mA (US version, SKU #40067) – OR – TUV/CE-approved 230V AC/9V AC 500mA (foreign version, SKU #40071)
Included:	1 x ICC rackmount extension panel
Accessories:	1 x ICC rack-mount panel link 8 x #10-32 x ¾ in. truss head black Phillips machine screws

Controls:

SUB: Inserts a 12dB/octave cutoff filter at 90Hz to the processed outputs, for installations that include a powered subwoofer. Does not affect the Direct outputs.

SPACE: Adds a Spatial Enhancement effect to the processed outputs, creating a wider stage or surround effect. Vocals and other centered signals remain as created, while other instruments or effects "spread-out" beyond the main physical speaker locations.

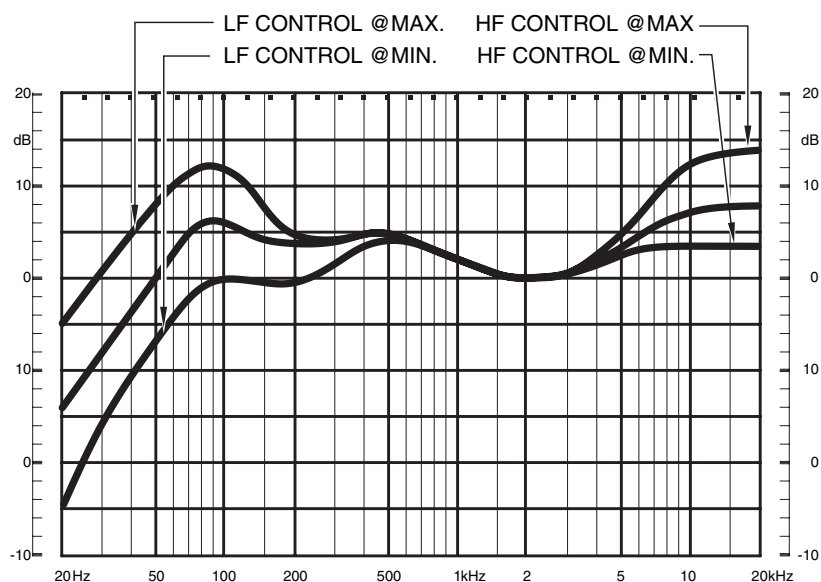
ATTENUATION: Allows trimming of individual output channel levels to compensate for speaker location, finish, listener location (off-center), or other imbalances.

LOW FREQUENCY: Shapes the low-frequency region to compensate for finish or room conditions.

HIGH FREQUENCY: Shapes the high-frequency region to compensate for finish or room conditions.

CAVITY: Alters the mid-bass region to compensate for the type of enclosure used: wall cavity (no backbox), PBB4 backbox, PBB6 backbox.

Response Characteristics:



NOTE: CURVES SHOWN ARE WITH CAVITY CORRECTION SWITCH IN "WALL" POSITION AND THE SUB (LF CUTOFF) SWITCH "ON"



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Warranty:

Sound Advance warrants the ICC to be free of any defect in material of workmanship for a period of 5 years from the date of purchase. During the warranty period, Sound Advance will repair or replace (at its option) all such defects without charge for parts or labor, if returned prepaid to the proper Sound Advance service facility, together with the original sales receipt or other proof of purchase. The unit will be returned prepaid.