

Model 68A and Model 69A Comparison/Highlight Summary

Introduction

When compared with the Model 68/Model 69 combination, the StudioComm for Surround Model 68A Central Controller and Model 69A Control Console offer additional performance and features for surround and stereo monitoring applications. This document summarizes the key differences between the two systems.

Input Level

68A/69A: The Model 68A provides two 6-channel surround and two stereo inputs. Each input circuit is electronically balanced, and is intended for connection to balanced or unbalanced sources with nominal signal levels of -12dBV to $+6\text{dBu}$. A 15-turn trim potentiometer is associated with each input, allowing the input sensitivity to be adjusted to match the source's level.

68/69: The input circuitry on the Model 68 is compatible with nominal signal levels of $+4\text{dBu}$ only. The 15-turn trim potentiometers associated with each input allow an adjustment range of $\pm 2\text{dB}$.

Format

68A/69A: Two functions allow the format of the monitored signals to be checked for level or phase inconsistencies. The downmix function is used to create a stereo (2-channel) signal from a surround (5.1) source. The mono function allows a stereo signal to be added (summed) and monitored. The downmix and mono functions can be enabled at the same time, allowing a surround signal to be checked for mono compatibility. A bandpass filter can be inserted into the path of the mono signal. This allows the simulation of the response of a monaural loudspeaker associated with an inexpensive television or portable radio.

Downmix Function Details

The downmix function is implemented in the Model 68 Central Control's hardware using analog circuitry. From the factory downmix is defined as: center dropped in level by 6dB and routed to left and right; left surround dropped in level by 3dB and routed to left; right surround dropped in level by 3dB and routed to right; LFE muted. By making simple resistor changes, a technician can easily revise the downmix levels.

Mono Function Details

The mono operating mode can be selected from two choices: mono-to-left-and-right or mono-to-center. For music mixing it's common to have a mono function combine (sum) the signals from the left and right channels and route the result to both the left and right output channels. For broadcast and cinema use, it may be more appropriate to combine the left and right signals and route the result to the surround output's center channel. To meet the needs of the operator and specific program content, the attenuation level associated with the mono function can be configured. The attenuation choices are 0, 3, 4, and 6dB.

Bandpass Filter Details

The bandpass filter is a special feature included to assist an operator in determining compatibility with "real world" playback environments. The filter can be inserted into the path of the mono signal when it is being routed to the center channel. This allows the simulation of the response of a loudspeaker associated with an inexpensive monaural television or portable radio. The filter passes signals in the range of 100Hz to 5kHz, while rejecting those above and below. For some applications it may be optimal to adjust these frequencies.

The Model 68A makes this a simple task, with no soldering or complicated procedure required.

68/69: No format functions are provided.

Stereo Output

68A/69A: In addition to a 6-channel surround monitor output, a 2-channel (stereo) monitor output is also available. This allows the connection of a separate set of stereo monitor loudspeakers.

68/69: Only a 6-channel monitor output is provided.

L/R Bypass Function

68A/69A: No support is provided for a L/R bypass function. The connector pins used by the Model 68 for the L/R bypass input are used in the Model 68A for the stereo output.

68/69: Support for a L/R Bypass function is provided. This is intended to allow direct interconnection with a console's stereo monitor output.

Level Control Response

68A/69A: The amount the rotary level control has to be turned to reach a specific monitor output level is configurable. This allows the "curve" or "taper" of the level control to be selected. Two choices are available: true logarithmic and modified logarithmic. In the true logarithmic mode the level control provides a precise logarithmic performance over its entire rotation. Many users may be more comfortable with the response given by the modified logarithmic mode. This provides a much greater output level during the first 50% of the level control's travel. The modified log mode more

closely matches the monitor level control performance found in many audio consoles.

68/69: Level control functions only in the true logarithmic mode.

Level Control Auto Mute All

68A/69A: The level control auto mute all function allows the monitor output channels to automatically mute whenever the rotary level control is in its fully counterclockwise position. This is especially desirable in some applications, such as broadcast. In other applications it may be desirable to disable this function. When disabled, the rotary level control adjusts the monitor output level over the approximately 72dB range; no automatic muting takes place.

68/69: This function is not available.

Exclusive Solo Mode

68A/69A: Solo operation can be configured to satisfy operator preference. The additive solo mode matches the functionality found in most recording consoles. In this mode, multiple channels can be simultaneously "soloed," allowing those channels to be monitored at the same time. Other operators may prefer the exclusive solo mode. When this mode is selected, only one channel can be selected for solo at a time.

68/69: Only the additive solo mode is available.

Conclusion

For complete details on the Model 68A/69A functions, please refer to the user guide. It is available for download on the website at www.studio-tech.com. Questions can also be addressed to support@studio-tech.com.

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