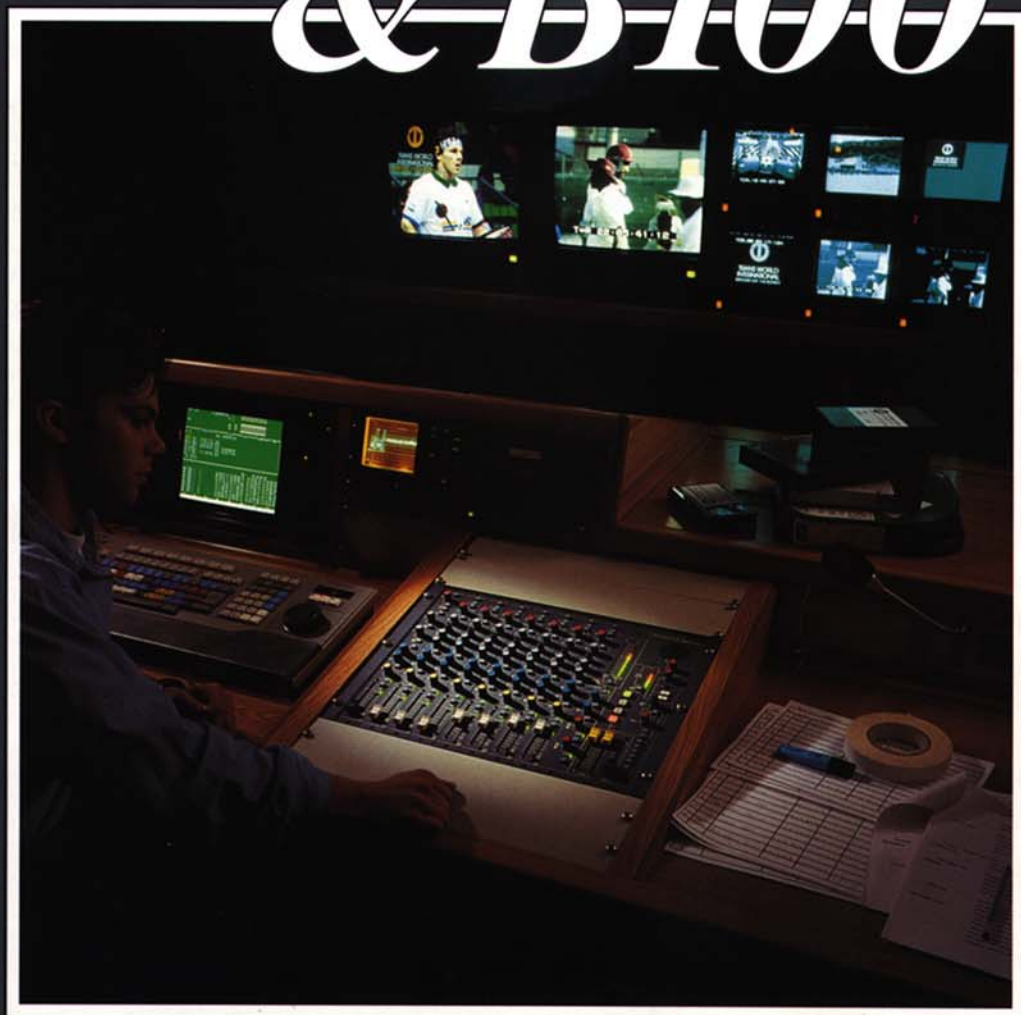


Broadcast

BVE100 & B100



**Audio Mixers
for Stereo Recording,
Video Post-production and
Audio-follow-video**

 **Soundcraft**

SERIES BVE100 & B100 AUDIO MIXERS

Attention to detail has been the hallmark of Soundcraft audio consoles for more than two decades - and in the high-pressure environment of post-production, control ergonomics and repeatable performance are primary concerns.

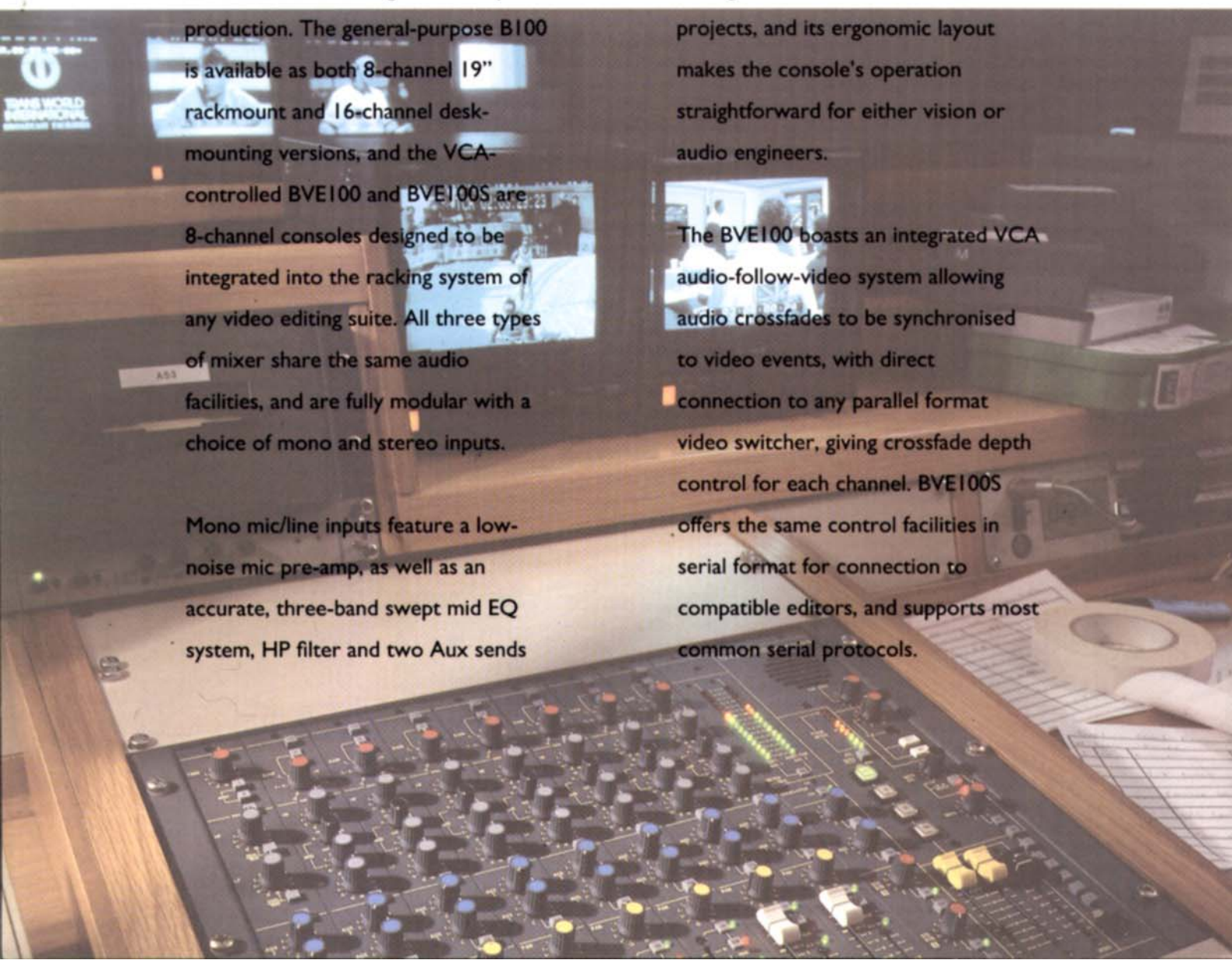
The Soundcraft Broadcast Series BVE100 & B100 is a family of compact, high quality professional audio mixers for use in stereo recording and video post-production. The general-purpose B100 is available as both 8-channel 19" rackmount and 16-channel desk-mounting versions, and the VCA-controlled BVE100 and BVE100S are 8-channel consoles designed to be integrated into the racking system of any video editing suite. All three types of mixer share the same audio facilities, and are fully modular with a choice of mono and stereo inputs.

Mono mic/line inputs feature a low-noise mic pre-amp, as well as an accurate, three-band swept mid EQ system, HP filter and two Aux sends

(one pre/post switched). The stereo line input module has a two-band switched frequency EQ section, gain trim and L/R selection matrix. Master module facilities include a comprehensive monitoring system, two stereo returns, Aux masters and metering. Thoughtful touches include the built-in Cue loudspeaker, phase meter and talkback mic.

The B100 is ideal for manual audio mixing for video or audio-visual projects, and its ergonomic layout makes the console's operation straightforward for either vision or audio engineers.

The BVE100 boasts an integrated VCA audio-follow-video system allowing audio crossfades to be synchronised to video events, with direct connection to any parallel format video switcher, giving crossfade depth control for each channel. BVE100S offers the same control facilities in serial format for connection to compatible editors, and supports most common serial protocols.

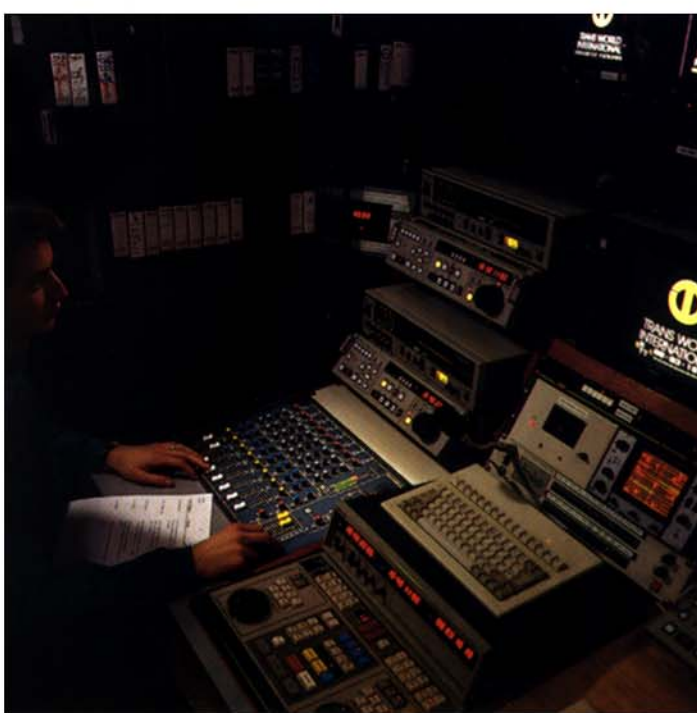
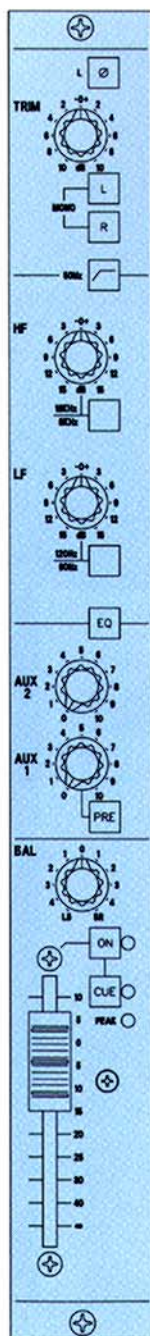
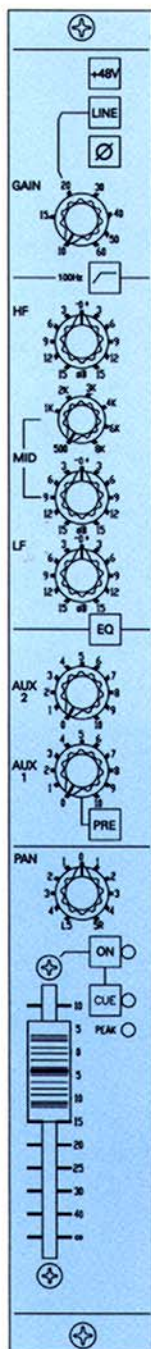


B100 STEREO AUDIO CONSOLE

The B100 is designed for use when high quality stereo recording or editing is required. A compact unit, it is equally suited to studio or mobile work. Standard features include built-in loudspeaker, Phase Meter and insert points on mono inputs and Master outputs.

Mono Input Module

Each mono input is equipped with a Mic/Line selector, phase reverse and 48V phantom power switch. Input gain is variable between +60dBu and +10dBu (mic) or +30dBu and -10dBu (line) to cater for a wide range of sources. A precise, three band EQ section is provided, with HF roll-off at 12kHz, a swept midband section (500Hz to 8kHz) and a 60Hz shelving LF section. A separate third order 100Hz HP filter may be used to remove rumble or other low frequency noise. Inputs may be routed to two Aux sends; Aux 1 is switchable pre or post-fade, whereas Aux 2 is a dedicated post fade send for effects use. The channel is routed to the main Left and Right busses via the high quality conductive plastic fader and rotary Pan control, and may be enabled by the illuminated ON switch. Pre-fade monitoring is made possible by the CUE switch, which overrides the monitor feed to loudspeaker and headphones, as well as illuminating both local and master Cue LEDs. A peak LED warns of any pre-fade input signal after the input amp or EQ section within 6dB of clipping.



Stereo Input Module

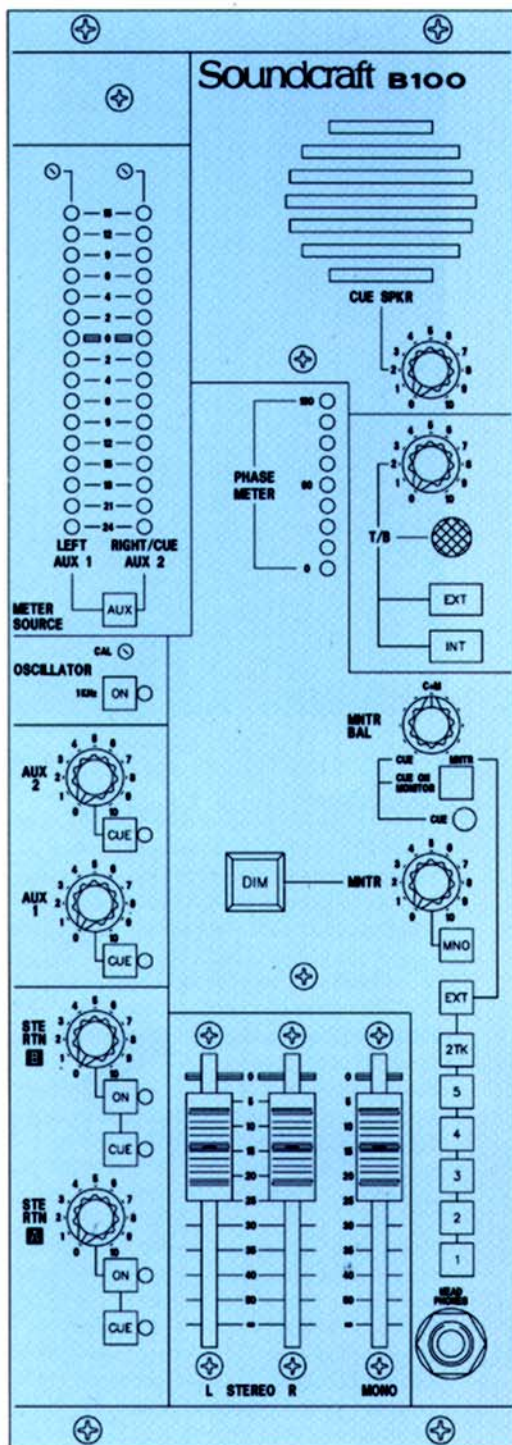
The B100 is available fitted with stereo modules (or any mix of mono and stereo). These are designated line level inputs and offer different facilities to the user.

Input level may be adjusted by +/-10dBu using the Trim control, and the phase of the Left input may be reversed to compensate for incorrect wiring or to check mono compatibility. A source matrix is provided, enabling the operator to send Left or Right signal to both outputs, to sum both inputs to mono or to feed the outputs in the normal stereo configuration.

The stereo EQ section is a two-band switched frequency design, with HF mid-points at 8kHz and 16kHz, and LF frequencies of 60Hz or 120Hz. A 50Hz HP filter is also provided. The Aux sends are similar to those on the mono module, but both left and right signal are summed to mono before feeding the Auxes. Alternatively, Aux 1 and 2 may be internally linked to provide a stereo pre or post-fade Aux pair.

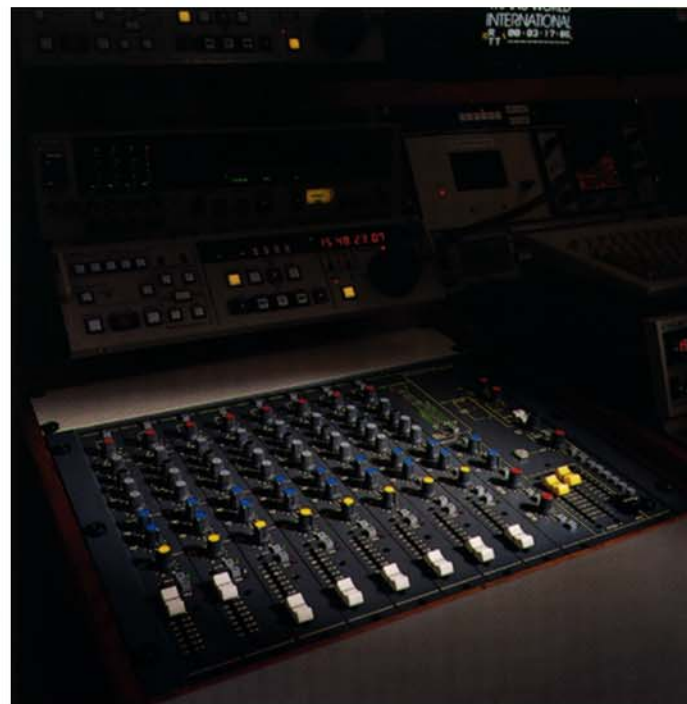
Each stereo input is routed to the main Left and Right output busses via the ON switch and Balance control. The PEAK LED illuminates if either Left or Right signal are within 6dB of clipping.

B 100 STEREO AUDIO CONSOLE



Master Module

The B100 Master section forms the heart of the console's monitoring and communication system. Fitted with conductive plastic Left, Right and Mono master faders, and rotary Aux masters (with post-fade Cue switch), this module also incorporates two stereo returns. These are routed to the Left and Right busses via illuminated ON switches, and may be monitored using the Cue function. The Mono output is derived from the sum of the Left and Right busses. A calibrated 1kHz oscillator may be switched to the main stereo and mono outputs for equipment line-up. Dual 16-segment bargraph meters are used to monitor either Left and Right, or Aux 1 and 2 respectively. The phase correlation of the Left and Right outputs is indicated by a 9-segment bargraph meter. Phase and level meters may be used to display one of six external inputs, which may also be switched to the console's monitoring system. This provides a stereo headphone feed, control room output and mono Cue feed. The Cue signal may be mixed with the Monitor feed using the MNTR BAL control and CUE ON MONITOR switch. The combined monitor output level is varied using a single rotary control. A talkback microphone is built into the console, and may be routed to the main outputs or an external feed. All monitors may be dimmed or cut to avoid howlround.



BVE 100/100S STEREO VCA CONSOLE

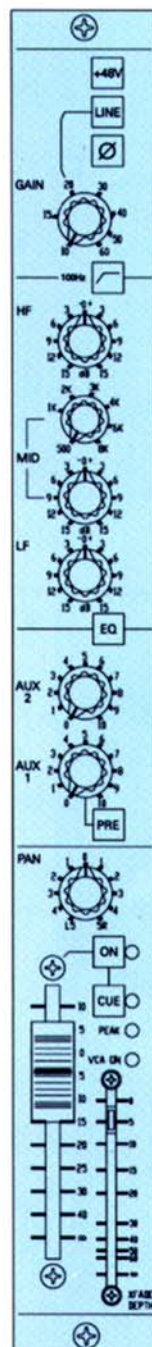


The BVE100 is designed for use when high quality stereo audio-follow-video editing is required. Each input is equipped with VCA control which may be accessed by a video editor using a parallel control connection. The BVE100S benefits from the addition of an industry-standard serial interface, allowing the console to be controlled by a wide variety of serial-format editors. Standard features include built-in loudspeaker, Phase Meter and insert points on mono inputs and Master outputs.

Mono Input Module

The Mono Input is similar to that fitted to the B100, and is equipped with a Mic/Line selector (+60dBu to +10dBu or +30dBu to -10dBu), phase reverse and 48V phantom power switch. A precise, three band EQ section is provided, with HF roll-off at 12kHz, a swept midband section (500Hz to 8kHz) and a 60Hz shelving LF section. A separate third order 100Hz HP filter may be used to remove rumble or other low frequency noise. Inputs may be routed to two Aux sends; Aux 1 is switchable pre or post-fade, whereas Aux 2 is a dedicated post fade send for effects use. The channel is routed to the main Left and Right busses via a conductive plastic fader and rotary Pan control,

and may be enabled by the illuminated ON switch. The CUE switch overrides the monitor feed to loudspeaker and headphones, as well as illuminating both local and master Cue LEDs. A peak LED warns of any pre-fade input signal after the input amp or EQ section within 6dB of clipping. The BVE100 and BVE100S are equipped with VCA ON indicators on each channel; these give an indication of the control level of the VCA. The depth of crossfade may be controlled by the fader adjacent to the main signal fader.



BVE 100/100S STEREO VCA CONSOLE

Stereo Input Module

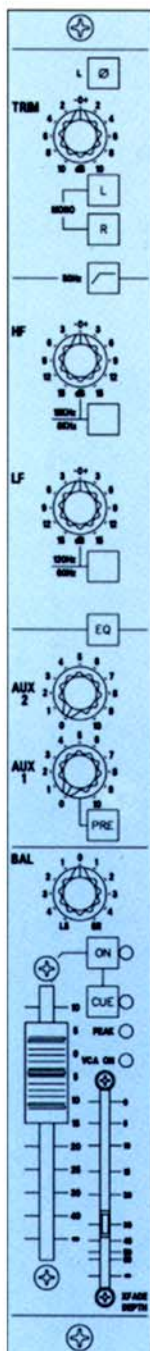
The BVE100 and BVE100S are available with any combination of mono and stereo modules. The Stereo Input allows a line level stereo source such as a video player to be controlled by a single-width module.

Input level may be adjusted by $\pm 10\text{dBu}$ using the Trim control, and the Left input may be inverted using the Phase Reverse switch. A source matrix is provided, enabling the operator to send Left or Right signal to both outputs, to sum both inputs to mono or to feed the outputs in the normal stereo configuration.

The stereo EQ section is a two-band switched frequency design, with an HF roll-off at 8kHz or 16kHz and shelving LF control at 60Hz or 120Hz. A 50Hz HP filter is also provided. The Aux sends are similar to the mono module, but both left and right signal are summed to mono before feeding the Auxes. Alternatively, Aux 1 and 2 may be internally linked to provide a stereo pre or post-fade Aux pair.

Each stereo input is routed to the Left and Right output busses via the ON switch and Balance control. The PEAK LED illuminates if either Left or Right signal are within 6dB of clipping.

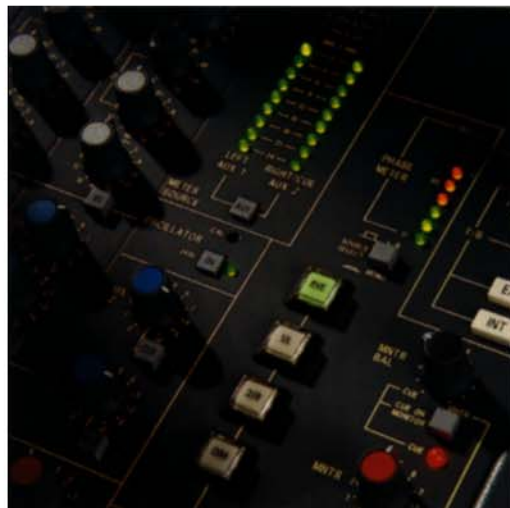
As with the mono input module, BVE100 and BVE100S stereo modules are equipped with VCA control; stereo channels may be selected to work as a pair or separately, using internal links.



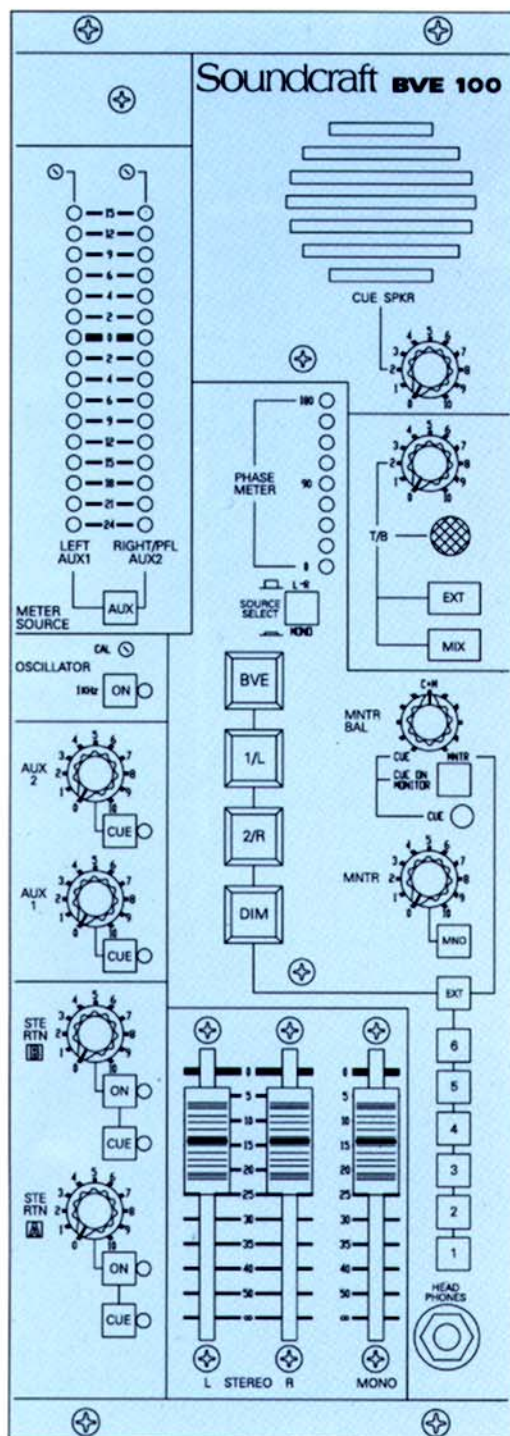
Master Module

The BVE100 and BVE100S Master sections contain controls for monitor outputs, talkback and audio-follow-video selection. Fitted with conductive plastic Left, Right and Mono master faders, and rotary Aux masters (with post-fade Cue switch), this module also incorporates two stereo returns. These are routed to the Left and Right busses via illuminated ON switches, and may be monitored using the Cue function. The Mono output is derived from the sum of the Left and Right busses. A calibrated 1kHz oscillator may be switched to the main stereo and mono outputs for equipment line-up. Dual 16-segment bargraph meters are used to monitor either Left and Right, or Aux 1 and 2 respectively. The phase correlation of the Left and Right outputs is indicated by a 9-segment bargraph meter. Phase and level meters may be used to display one of six external inputs (such as off-tape feeds), which may also be switched to the console's monitoring system. This provides a stereo headphone feed, control room output and mono Cue feed. The Cue signal may be mixed with the Monitor feed using the MNTR BAL control and CUE ON MONITOR switch. The combined monitor output level is varied using a single rotary control. A talkback microphone is built into the console, and may be routed to the main outputs or an external feed.

The BVE100 and BVE100S consoles allow the video switcher or edit controller to select the console's monitor feed, enabling the master machine outputs to be heard. The BVE switch controls the editor interface, so manual mixing may be achieved at the press of a button. Monitor feeds may be dimmed or cut completely (link selectable) either manually or under editor control.



BVE 100/100S STEREO VCA CONSOLE

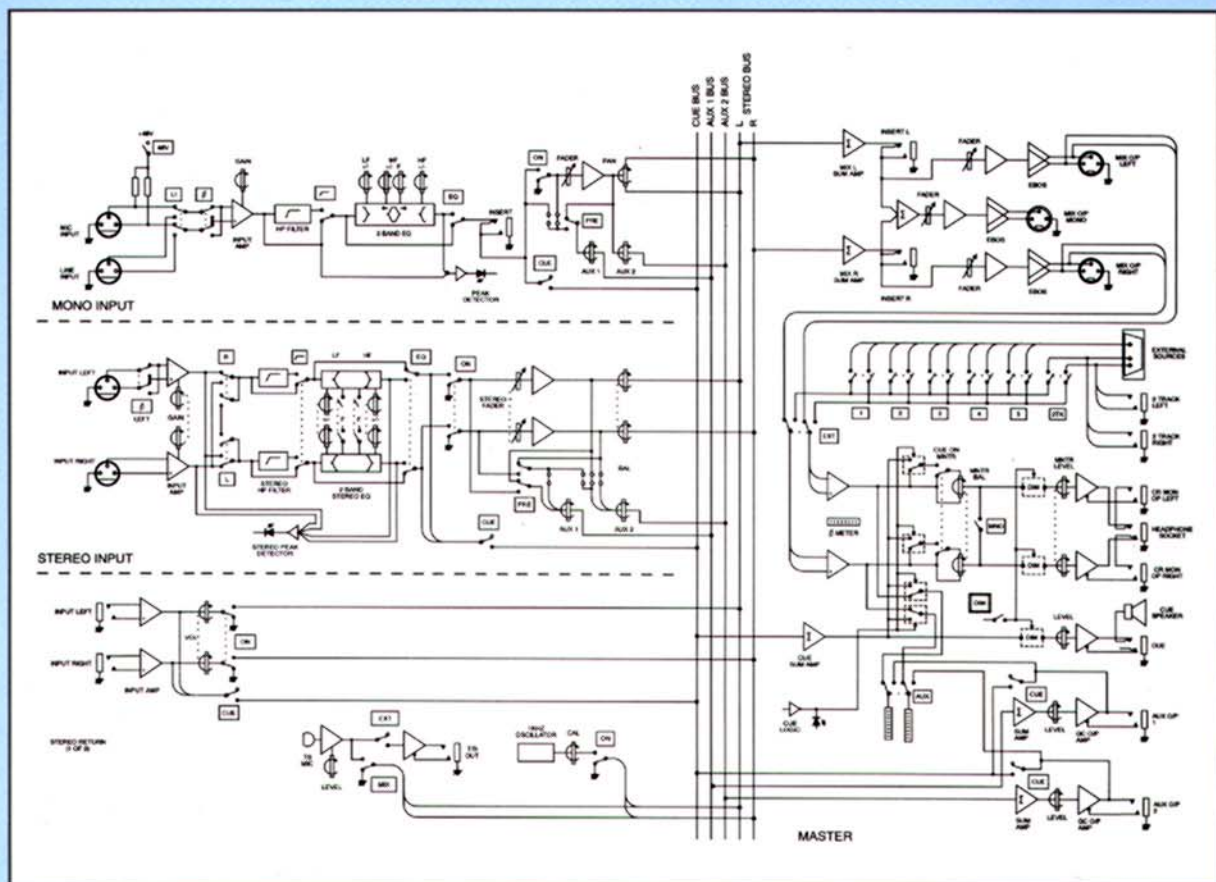


Audio-follow-video

The BVE100 has a built-in parallel VCA control system, requiring individual DC voltages (0V to +5V) to control the level of each input. Contact closures enable monitor selection (Left, Right and Dim) and BVE functions. This system allows the console to be used with most parallel switchers directly. Each input is equipped with a crossfade depth fader, which permits the operator to manually set up partial crossfades for matching backgrounds or overlapping sources. An external serial interface (the VSA 24 II) is available in the event of video facilities being changed to serial format.

The BVE100S has an internal serial interface, and connects to an external switcher using RS-422 links, which support the following protocols: GVG100, ESAM1, ESAM2 and AMX100. These protocols are internally selected using jumper links. For enhanced compatibility, 30fps and 25fps frame rates are selectable, as are the common Baud rates of 9.6kB/s and 38.4kB/s. Three fade laws are link-selectable; linear, logarithmic and stepped linear to allow for different crossfade requirements. The BVE100S will work in Eavesdrop or Reply mode, depending on the complexity of the installation, and stereo channels may be accessed as dual mono or true stereo pairs.

Series BVE100 & B100 Technical Specifications



Frequency Response

Mic/Line Input +0, -0.5dB 20Hz to 20kHz

Noise

(20Hz - 20kHz bandwidth, unweighted)

Mix Noise Less than -83dBu

Aux Noise Less than -90dBu

Distortion

(Measured at 1kHz)

THD and Noise Less than 0.01%

Crosstalk

(All measurements at 1kHz)

Fader isolation Greater than 90dBu

Input Levels

Mic input -60dBu to -10dBu

Max input level +10dBu

Mono line input -40dBu to +10dBu

Stereo line input -6dBu to +14dBu

Mono insert -2dBu unbalanced

All channel inputs are electronically balanced

Input Impedances

Mic input 2kOhm balanced

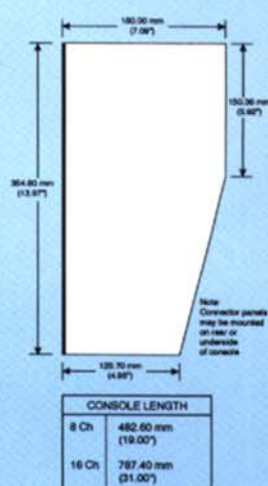
Mono line input Greater than 10kOhm balanced

Stereo line input Greater than 10kOhm balanced

Output Levels

Max output level +25dBu

Nominal output level 0dBu for PPM4 (+4dBu for 0VU)



Soundcraft reserves the right to improve or otherwise alter any information supplied in this document or any other documentation supplied hereafter.
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This equipment complies with the EMC Directive 89/336/EEC



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