
SOUNDCRAFT

BVE100

BVE100S

B100

USER GUIDE

SoundcraftTM

B R O A D C A S T



The B100 and BVE100 comply
with the EMC Directive
89/336/EEC

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Introduction to BVE100/ BVE100S and B100

BVE100

The Soundcraft BVE100 compact mixing console has been designed to meet the specific requirements of video editing applications, providing top-quality audio mixing under the control of a wide range of edit controllers, either by direct connection to a parallel interface or via industry standard serial communications with the optional VSA24 Serial Interface unit. It is available in 8 or 16 channel frame sizes.

BVE100S

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. The BVE100S does not have a parallel interface.

BVE100 and BVE100S

The mono input modules each have three band equalisation plus a separate Hi-pass filter. Two Auxiliary sends are provided with AUX1 switchable pre or post fader and link selectable pre or post the ON switch. Each channel has a VCA which enables the signal level to be controlled externally by an edit controller, thus allowing audio crossfades to be synchronised with video transitions or at other precisely controlled cue points. A separate depth fader controls the extent to which the edit controller can attenuate the signal by presetting the maximum fade depth from the audio console. The optional stereo input module offers similar facilities, but has a two band EQ with switchable frequencies.

The master section has a 2 Track Tape Return with independent track selection for monitoring the audio outputs of the master video machine and can be automatically switched by a compatible edit controller. Built-in talkback and a calibration oscillator are provided.

Comprehensive monitoring facilities also include dual 16 segment LED output meters, a 9 segment LED Phase Meter, six external Stereo Inputs and the Cue Speaker system.

B100

The B100 mixing console is designed for use when high quality stereo recording or sound reinforcement is required and is available in 8 or 16 channel frame sizes.

The eight mono input modules each have three band equalisation plus a separate Hi-pass filter. Two Auxiliary sends are provided with AUX1 switchable pre or post fader and link selectable pre or post the ON switch. The optional stereo input module offers similar facilities, but has a two band EQ with switchable frequencies.

The master section has a stereo output and a separate mono output, each controlled by high quality linear faders. Built-in talkback and a calibration oscillator are provided.

Comprehensive monitoring facilities also include dual 16 segment LED output meters with a choice of mix, aux, cue or external sourcing, a 9 segment LED Phase Meter, six external Stereo Inputs and the Cue Speaker system.

Precautions and Safety Instructions

General Precautions

Avoid storing or using the mixing console in conditions of excessive heat or cold, or in positions where it is likely to be subject to vibration, dust or moisture. Do not use any liquids to clean the fascia of the unit: a soft dry brush is ideal. Use only water or ethyl alcohol to clean the trim and scribble strips. Other solvents may cause damage to paint or plastic parts.

Avoid using the console close to strong sources of electromagnetic radiation (e.g. video monitors, high power electric cabling): this may cause degradation of the audio quality due to induced voltages in connecting leads and chassis. For the same reason, always site the console power supply away from the unit .

Caution! In all cases, refer servicing to qualified personnel.

Handling and Transport

The console is a very rugged unit, designed for long service. However, care in handling and transportation will ensure a long and trouble-free life. If the console is to be regularly moved we recommend that it is installed in a foam lined flight case. At all times avoid applying excessive force to any knobs, switches or connectors.

Power supplies & cables

Always make sure that the power supplies have been set to the same source voltage as the mains supply.

Always use the power supplies and power cables supplied with the mixer: the use of alternative supplies may cause damage and voids the warranty; the extension of power cables may result in malfunction of the mixing console.

Warning! Always switch the power supplies off before connecting or disconnecting the console power cable, removing or installing modules, and servicing. In the event of an electrical storm, or large mains voltage fluctuations, immediately switch off the PSU and unplug from the mains.

Always ensure that that you use the correct power supply for your console. Each BVE100, BVE100S or B100 console requires the CPS150 power supply.

Signal Levels

It is important to supply the correct input levels to the console, otherwise signal-to-noise ratio or distortion performance may be degraded; and in extreme cases damage to the internal circuitry may result. Likewise, on all balanced inputs avoid sources with large common mode DC, AC or RF voltages, as these will reduce the available signal range on the inputs. Note that 0dBu = 0.775V RMS.

The microphone input is designed for use with balanced low impedance (150 or 200Ω) microphones.

Caution! DO NOT use unbalanced microphones or battery powered condenser microphones without isolating the +48V phantom power on the rear panel. - degraded performance or damage to the microphone may result.

The sensitivity of the Microphone input is variable from -10dBu to -60dBu (for +4dBu at the Mix outputs).

The Line inputs have a sensitivity variable between -40dBu and +10dBu, and can handle a maximum input level up to +30dBu. Note that the maximum input level for unbalanced inputs is 6dB less than that for balanced signals, so very high level unbalanced signals (e.g. loudspeaker outputs of power amplifiers) may cause distortion. The input impedance is greater than 10kΩ, balanced.

The main outputs of the console (Mix Left, Right and Mono) are balanced and have an output level of +4dBu and an output impedance of <75Ω and a drive capability of +25dBu into 600Ω.

The Stereo Returns, 2 Track and External Inputs 1-6 have a sensitivity of +4dBu, with an input impedance of 10kΩ.

The secondary outputs (Aux, Control Room and Cue) are ground compensated and have a nominal output level of +4dBu and an output impedance of <75Ω. These outputs can deliver full level (+20dBu) into loads of greater than 600Ω. The monitor outputs (Control Room and Cue) are unbalanced and can deliver +20dBu into 600Ω.

Input and Mix L/R Insert Sends are unbalanced and have a nominal output level of -2dBu at an output impedance of <75Ω, and a maximum output level of +20dBu into load impedances of greater than 2kΩ. All Insert Returns are unbalanced, at corresponding nominal levels, with an input impedance of >10kΩ.

The Headphone output can drive +20dBu into 600Ω (150mW into 8Ω).

Installation

Connectors

Installation

BVE100, BVE100S and B100 are designed for reliability, high performance and built to the highest standards. Whilst great care has been taken to ensure that installations are made as trouble-free as possible, care taken at this stage, followed by correct setting up will be rewarded by a long life and reliable operation.

Warning! Before switching on your console, check that the mains voltage selectors on the power supply units are set to the correct mains voltage for your area, and that the fuses are of the correct rating. This is clearly marked on the case of the power supplies. Do not replace the fuses with any other type, as this could become a safety hazard and will void the warranty.

Always ensure that you use the correct power supply for your console. Each BVE100, BVE100S or B100 console requires the CPS150 supply.

Wiring Considerations

A For optimum performance it is essential for the earthing system to be clean and noise-free, as all signals are referenced to this earth. A central point should be decided on for the main earth point, and all earths should be 'star-fed' from this point. It is recommended that an individual earth wire be run from each electrical outlet, back to the system star point to provide a safety earth reference for each piece of equipment.

B Install separate mains outlets for the audio equipment, and feed these independently from any other equipment.

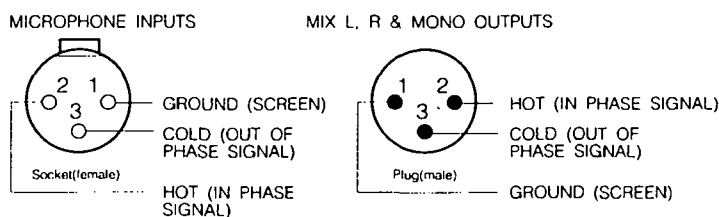
C Avoid locating mains distribution boxes near audio equipment, especially tape recorders, which are very sensitive to electro-magnetic fields.

D Where possible ensure that all audio cable screens and signal earths are connected to ground only at their source.

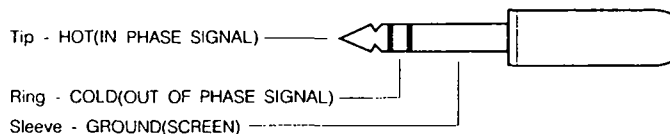
Connections

Wiring conventions

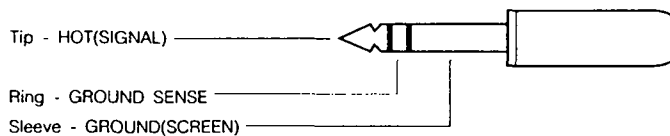
The standard BVE100, BVE100S and B100 consoles use two different types of audio connector to the modules, 3 pin XLR (top diagram) and 1/4" three pole ('A' gauge or stereo) jacks. The latter are used in several configurations, as shown below. Miniature 'D' Type connectors are used for external inputs to the monitor and for the editor interface on the BVE100 and BVE100S. Pinouts are included with the module descriptions later in this guide.



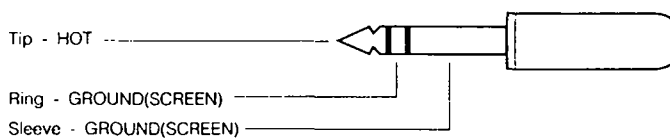
1/4" 'A' Gauge Stereo Jack Plug used as balanced input:
Stereo Returns, 2 Track Returns



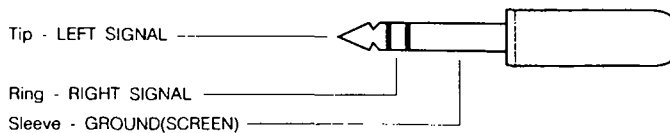
1/4" 'A' Gauge Stereo Jack Plug used as ground compensated output:
Aux output, Talkback output



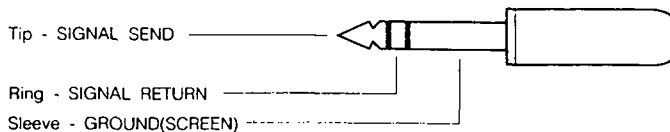
1/4" 'A' Gauge Stereo Jack Plug used as unbalanced output:
Control Room Output, Cue Output



1/4" 'A' Gauge Stereo Jack Plug used as a stereo input/output:
Headphones

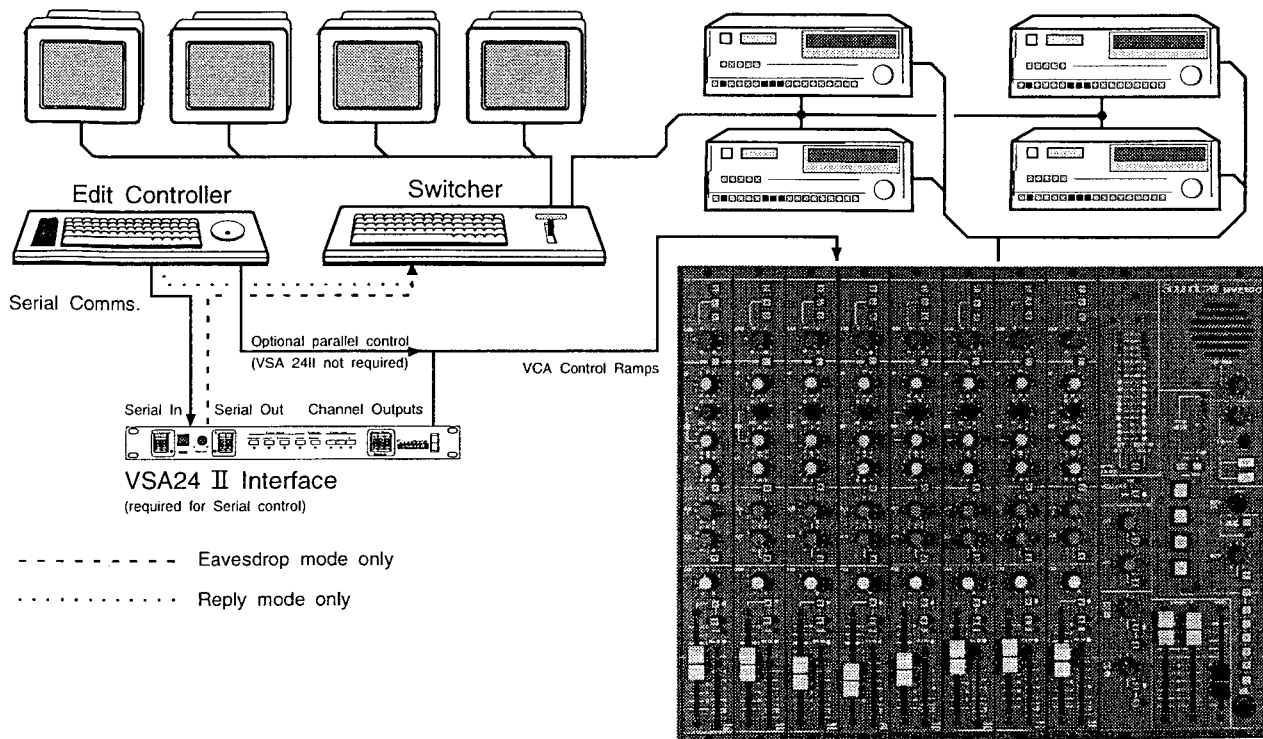


1/4" 'A' Gauge Stereo Jack Plug used as an Insert Send/Return:
Channel Inserts, Mix Inserts L & R



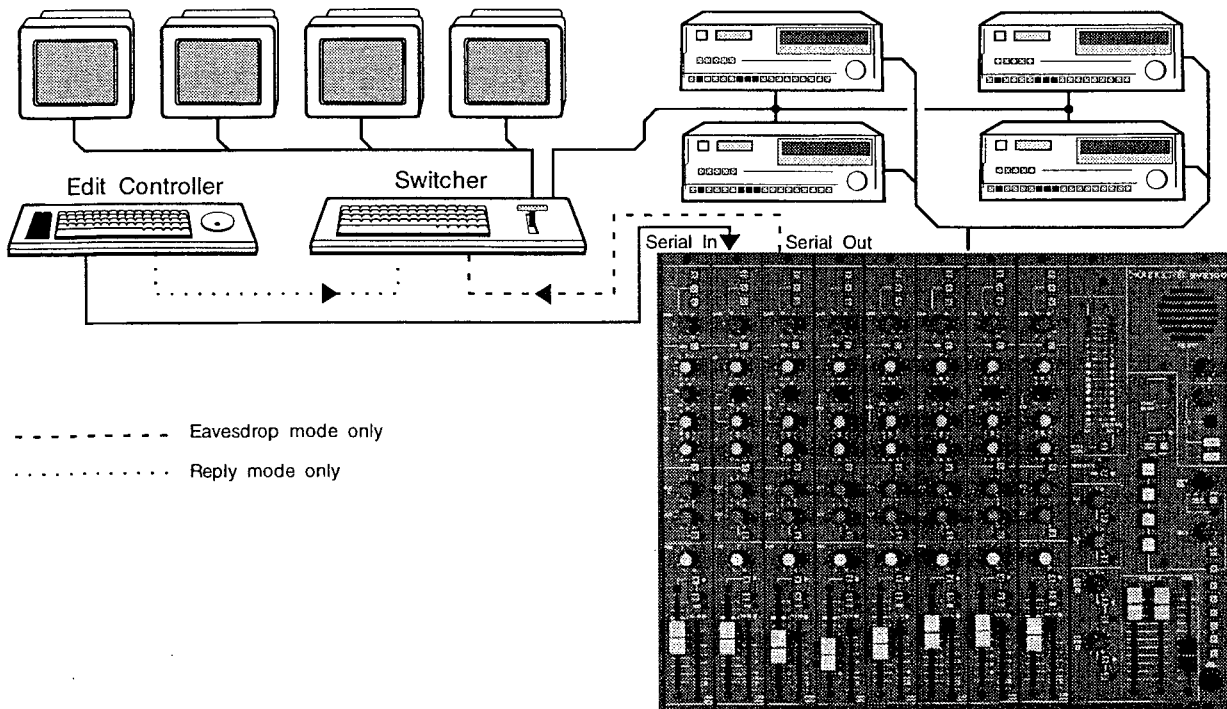
Typical Applications - BVE100

The diagram below shows a typical application of the BVE100 as the audio mixer in a video editing system.



Typical Applications - BVE100S

The diagram below shows a typical application of the BVE100S as the audio mixer in a video editing system.



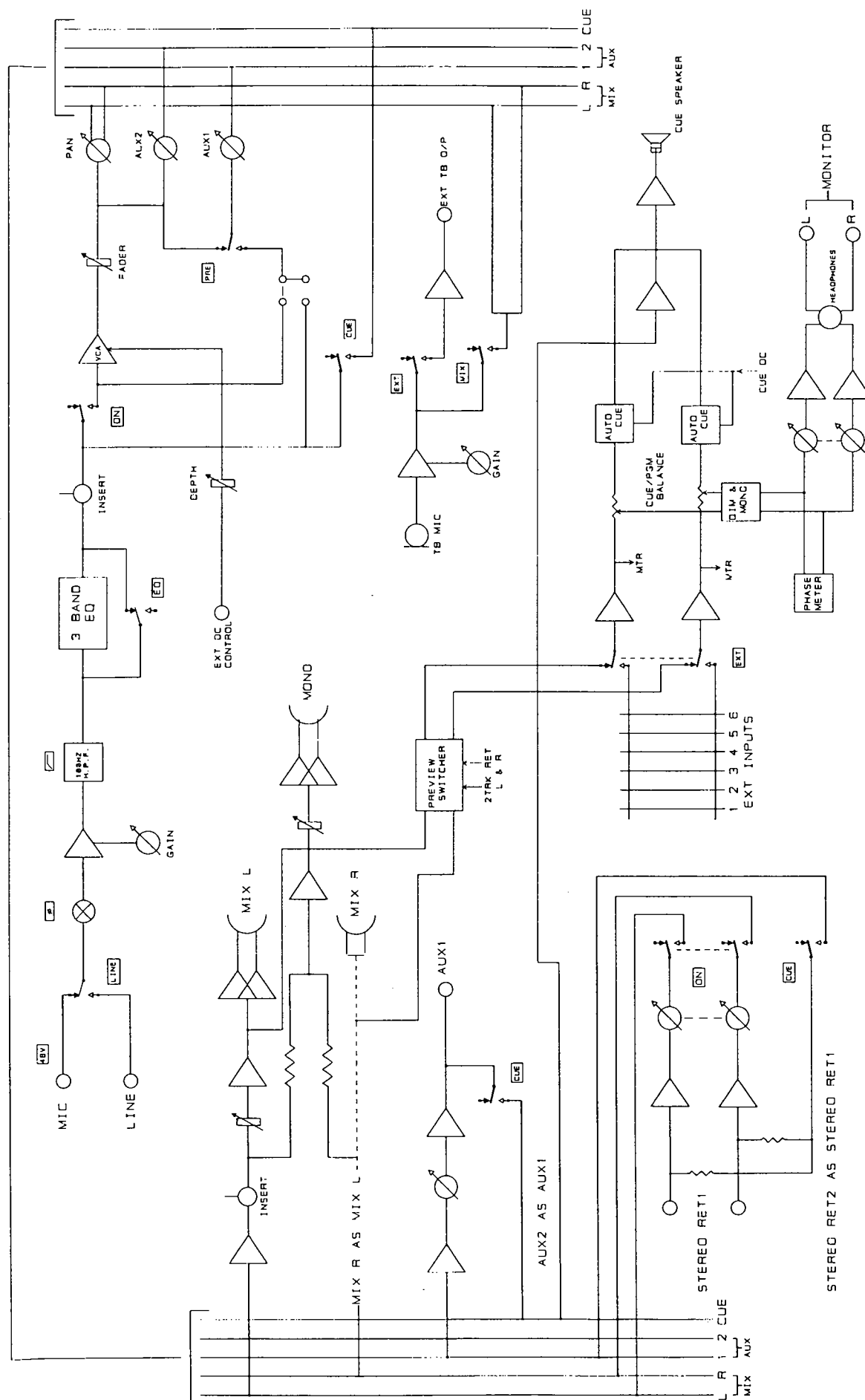
Block Diagrams

<i>BVE100 System</i>	<i>10</i>
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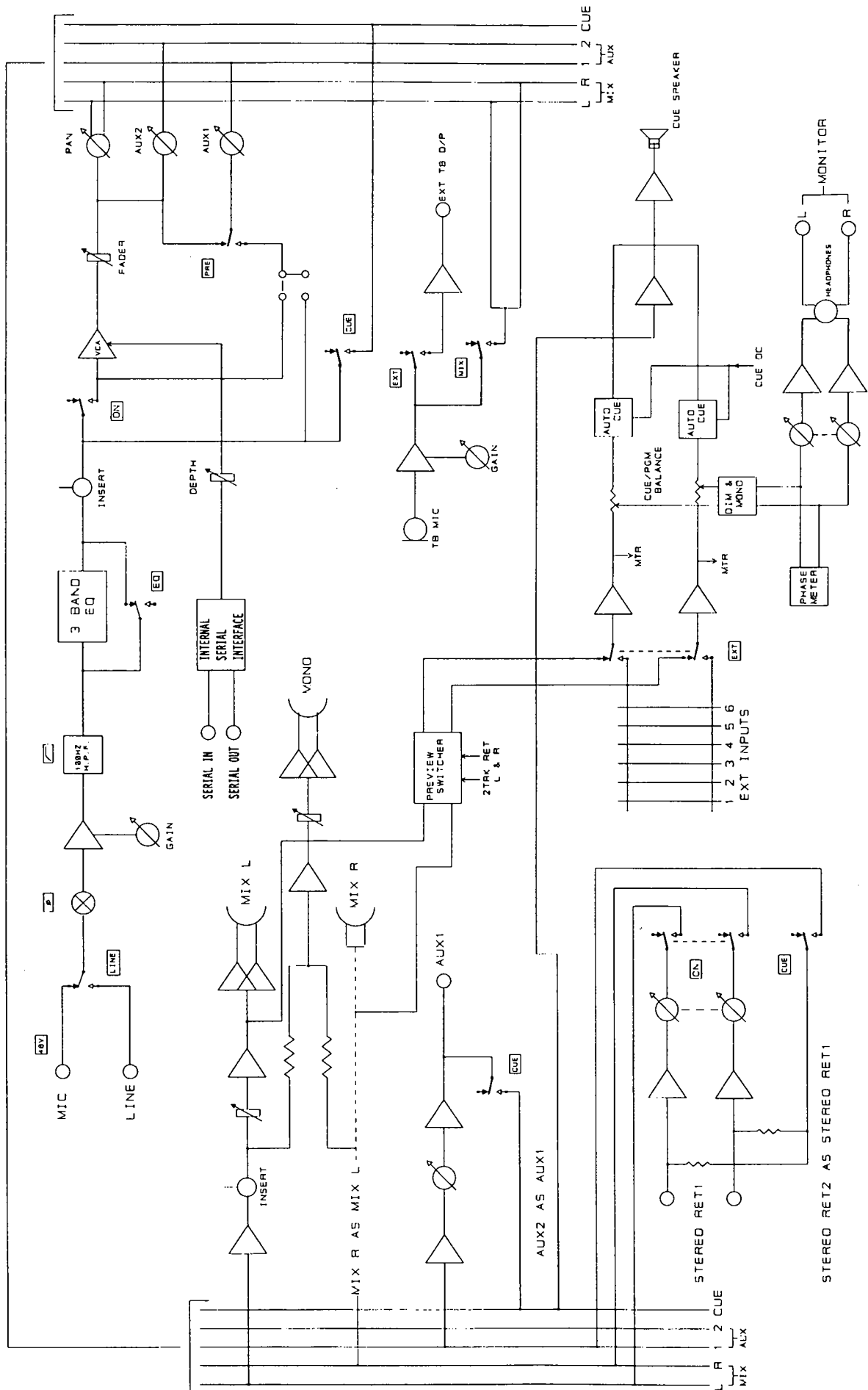
<i>BVE100S System</i>	<i>11</i>
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<i>B100 System</i>	<i>12</i>
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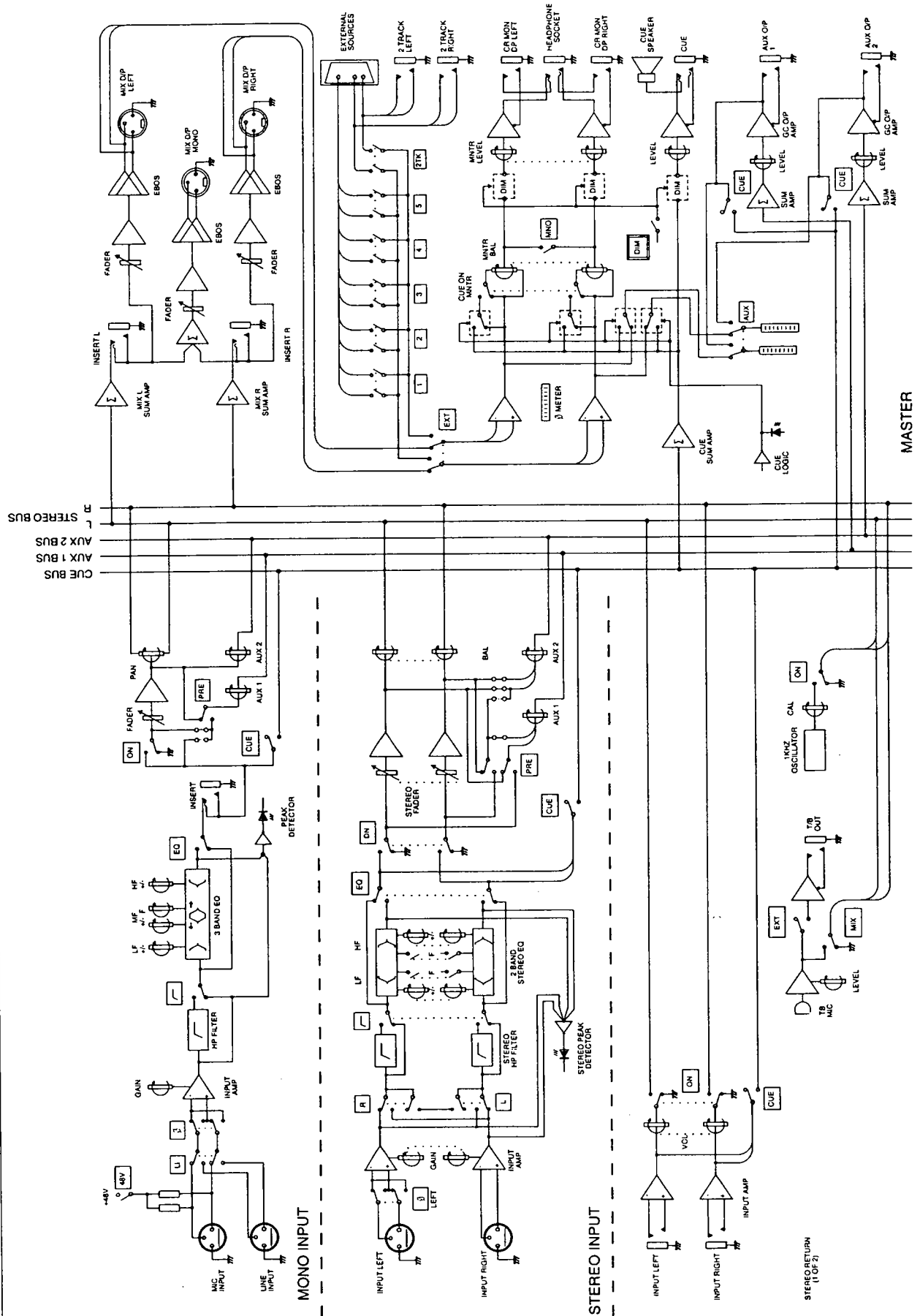
BVE100 System Diagram



BVE100/S System Diagram



B100 System Diagram

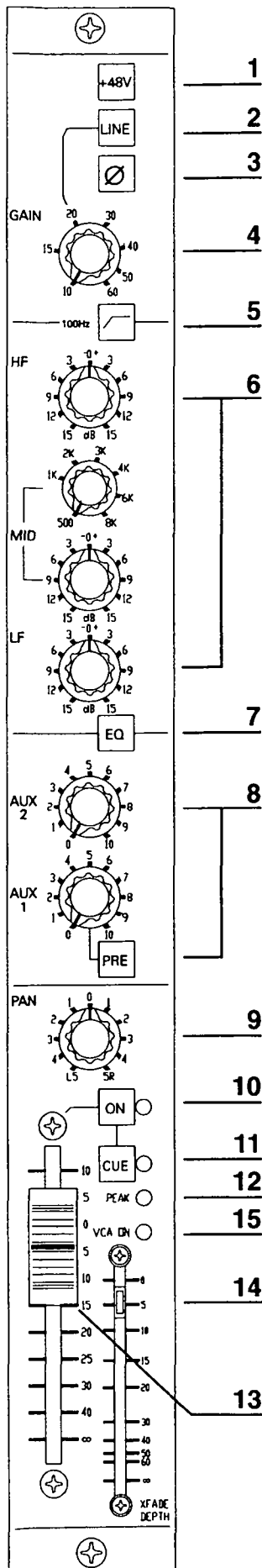


BVE100/S Mono Input Module

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BVE100/S Mono Input Module



The Channel is factory set to operate between a Microphone level input and a Line level input but may be re-configured to have two Line Inputs by depressing internal switch **SW9** at the top of the PCB. The inputs are electronically balanced.

1 The **+48V** switch applies 48 Volts to the microphone input for Phantom Power. If the Input is re-configured to operate as a second Line input, the 48 Volts is disabled.

2 The **LINE** switch selects between the Microphone Input and the Line input, the available gain being reduced by 20dB when the Line Input is selected.

3 The **PHASE** switch reverses the phase of the selected input.

4 The **GAIN** control adjusts the sensitivity of the selected input. The sensitivity of the Microphone input is variable from -10dBu to -60dBu. The Line input sensitivity is variable from +10dBu to -40dBu.

5 The 100Hz **HI-PASS FILTER** can be inserted into the signal path immediately after the input pre-amplifier independently of the EQ In/Out switch.

Equaliser

6 The **EQ** section is three band semi-parametric. The cut/boost controls are centre detented with the centre position giving a flat response. The **HF** control is shelving and provides 15dB of boost or cut at a fixed frequency of 12kHz. The **MID** section has a peak/dip characteristic and provides 15dB of boost or cut between 500Hz and 8kHz. The **LF** control is shelving and provides 15dB of boost or cut at a fixed frequency of 60Hz.

7 The **EQ** switch allows the entire EQ section to be switched in or out of the signal path.

Auxiliary Sends

8 Two Auxiliary sends are provided:

AUX 2 is post-fade and post the channel ON switch.

AUX 1 is post-fade and post the channel ON switch but can be selected pre-fade by pressing the **PRE** switch. The channel is factory set so that when **PRE** is selected, **AUX 1** is post the channel ON switch. **AUX 1** may be internally re-configured by fitting Jumper J1 instead of Jumper J2 on the PCB, so that when **PRE** is selected, the send is pre-fade and pre the channel ON switch.

Routing

9 The **PAN** control determines the position of the signal within the stereo image. In the centre detented position there is a 4.5dB loss which is a compromise between the 3dB loss required for constant power panning and the 6dB loss required for constant voltage panning.

10 The **ON** switch enables the signal into the Fader & VCA System, to the **PAN** control and to the Stereo Left/Right Outputs, the status is indicated by a green LED.

11 The **CUE** status is indicated by a red LED. The **CUE** switch sends the signal from the channel to the **CUE** Speaker and to the Monitoring system if selected on the Master Module. The **CUE** signal is taken after the channel insert point and before the channel **ON** switch.

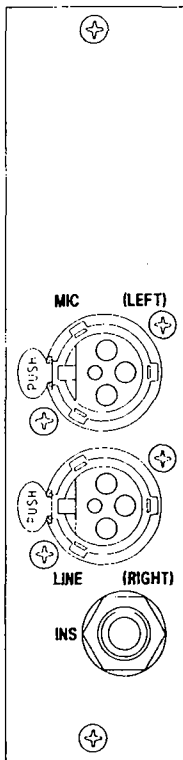
12 The red **PEAK** LED illuminates when the signal level is 6dB below the clipping point. The circuit is multi-sourced with feeds from the Input pre-amplifier, the HF/LF EQ section and the MID EQ section.

Faders & VCA System

13 The main audio level control for the channel is a 60mm conductive plastic **Fader** and has 10dB of gain available.

14 The **XFADE DEPTH** fader sets the maximum amount of attenuation when the VCA is faded down under the external control of a video edit controller. This allows partial fades to be performed, for instance to leave outdoor sounds still audible in the background when cutting from outside to inside a room. When the fader is in the fully down position the VCA responds to the full control range - from fully **ON** to fully **OFF**.

15 The green **VCA ON** LED illuminates and follows the VCA control Voltage. The circuit is factory set to follow the voltage from the Edit Controller but may be internally re-configured to follow the actual VCA control voltage after the **XFADE DEPTH** fader by fitting Jumper J4 instead of Jumper J3 on the PCB.



Connectors

Microphone Input

Balanced, 3-pin female XLR

Pin 1	Ground
Pin 2	Hot (+ve)
Pin 3	Cold (-ve)

+48V is normally available on pin 2 & 3 for phantom power but when the Microphone Input is configured as a second Line Input the +48V is disabled.

Line Input

Balanced, 3-pin female XLR

Pin 1	Ground
Pin 2	Hot (+ve)
Pin 3	Cold (-ve)

Channel Insert Point

Unbalanced, 3-pole 'A' gauge jack

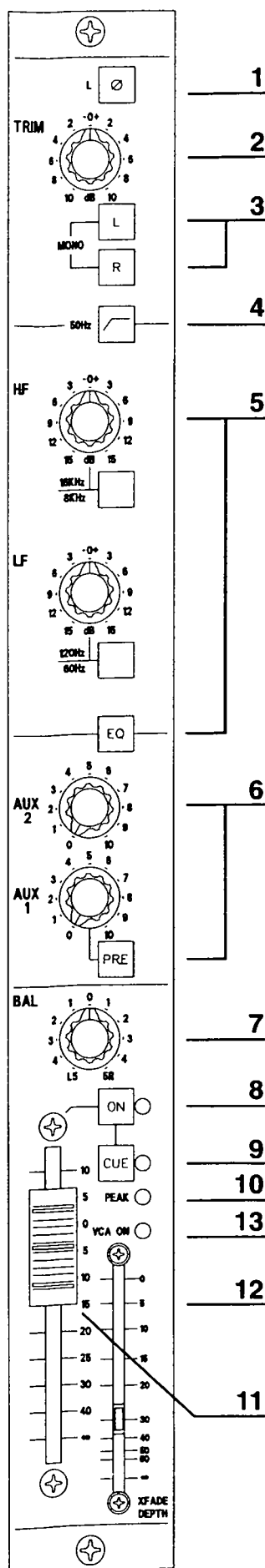
Tip	Signal Send
Ring	Signal Return
Sleeve	Ground

BVE100/S Stereo Input Module

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BVE100/S Stereo Input Module



The Stereo Input module provides a stereo path to the mix and auxiliaries.

Input Section

The left and right channel inputs are electronically balanced.

- 1 The **PHASE** switch reverses the phase of the left input.
- 2 The **TRIM** control adjusts the sensitivity of the left and right inputs, giving 10dB of gain or attenuation. The control is centre detented at the unity gain (+4dBu sensitivity) position.
- 3 The **MONO L** switch places the signal on the Left input in mono to both sides of the channel. Similarly, the **MONO R** switch places the signal on the Right input in mono to both sides of the channel.
- 4 The stereo 50Hz **HI-PASS FILTER** can be inserted into the signal path of both channels immediately after the input pre-amplifier independently of the EQ In/Out switch.

Equaliser

- 5 The stereo **EQ** section is two band shelving. The cut/boost controls are centre detented with the centre position giving a flat response. The **HF** control is shelving and provides 15dB of boost or cut at a fixed frequency of 16kHz; the frequency may be lowered by a switch to 8kHz. The **LF** control is shelving and provides 15dB of boost or cut at a fixed frequency of 120Hz; the frequency may be lowered by a switch to 60Hz. The **EQ** switch allows the entire EQ section to be switched in or out of the signal path.

Auxiliary Sends

- 6 Two Auxiliary sends are provided. These normally give a mono sum of the left and right channels.

AUX 2 is post-fade and post the channel ON switch.

AUX 1 is post-fade and post the channel ON switch but can be selected pre-fade by pressing the **PRE** switch. The channel is factory set so that when **PRE** is selected **AUX 1** is before the channel VCAs. **AUX 1** may be internally re-configured by fitting Jumpers J4 and J6 instead of Jumpers J3 and J5 on the PCB so that when **PRE** is selected the send is pre-fade and post the channel VCAs.

The Auxiliary sends are factory configured to provide a mono sum of both left and right input channels. However, the sends may be internally re-configured to provide a stereo Auxiliary send: **Aux 2** is fed from the left channel and **AUX 1**, when not selected **PRE**, is fed from the right channel. To configure for stereo Auxiliaries, fit Jumpers J10, J11 and J12, and do not fit Jumpers J7, J8 and J9.

Routing

7 The **BALANCE** control adjust the relative level of the left and right channels to the stereo mix. The adjustment range is plus or minus 5dB, with a centre detent at the unity gain position.

8 The **ON** switch enables the signal into the Fader & VCA System, to the Auxiliary sends and to the STEREO Left/Right Outputs. The status is indicated by a green LED.

9 The **CUE** status is indicated by a red LED. The **CUE** switch sends a mono sum of the left and right signals to the CUE Speaker and to the Monitoring system if selected on the Master Module. The CUE signal is taken after the Equaliser, and before the ON switch.

10 The red **PEAK** LED illuminates when the signal level is 6dB below the clipping point. The circuit is multi-sourced with feeds from the Input pre-amplifier and the EQ section, from both left and right channels.

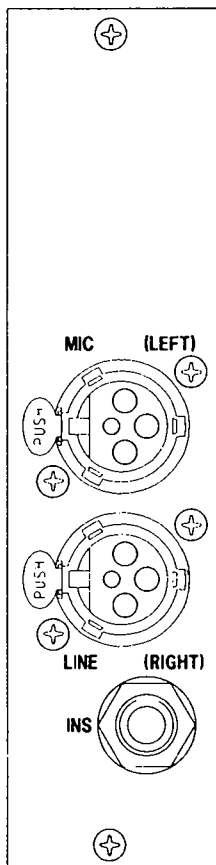
Faders & VCA System

11 The main audio level control for the left and right signals is a stereo 60mm conductive plastic **FADER**, and has 10dB of gain available.

12 The **XFADE DEPTH** fader sets the maximum amount of attenuation when the VCAs are faded down under the external control of a video edit controller. This allows partial fades to be performed, for instance to leave outdoor sounds still audible in the background when cutting from outside to inside a room. When the fader is in the fully down position the VCAs respond to the full control range - from fully ON to fully OFF.

13 The Green **VCA ON LED** illuminates and follows the VCA control Voltage. The circuit is factory set to follow the voltage from the Edit Controller but may be internally re-configured to follow the actual VCA control voltage after the XFADE DEPTH fader by fitting Jumper J1 instead of Jumper J2 on the PCB.

Rear Connector Panel



Connector Pinouts

Left & Right Inputs, 3-pin Female XLR

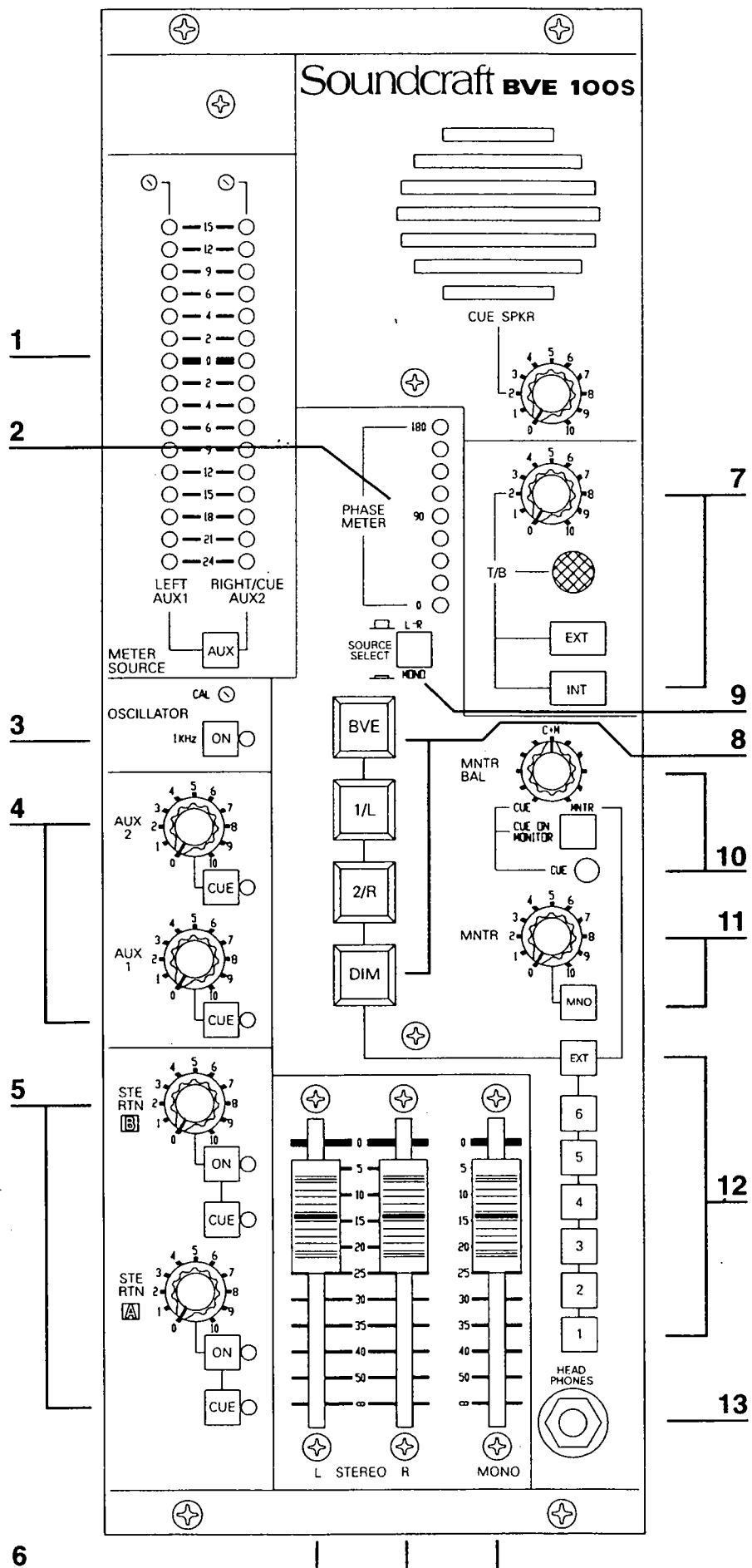
Pin 1	Ground
Pin 2	Hot (+ve)
Pin 3	Cold (-ve)

Note: The Insert Jack is not used.

BVE100/S Master Section

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BVE100/S Master Section

Metering

1 The **OUTPUT METERS** follow the monitor selection of CUE, MIX, Master Machine Returns or one or more of the six External Inputs. When CUE is metered, the left meter is cut and the right meter monitors the CUE signal. The Meters may be switched with the **METER SOURCE AUX** switch to monitor the Auxiliary Outputs, in which case CUE, when active, will not be displayed. Auxiliary 1 is displayed on the left meter and Auxiliary 2 on the right meter. The trimmer above each meter is for calibrating the '0' position to the desired operating level.

2 The **PHASE METER** displays the phase relationship between the left and right signals being monitored giving a visual indication that an in phase signal is present at the main Stereo output. In phase signals are indicated by the illuminated LED's staying in the lower section of the display. Out of phase signals will cause the LED's in the upper section of the display to illuminate. The lowest LED next to the '0' ident is always illuminated. Signals with no clearly defined phase relationship may cause the illumination of LED's in an undetermined position.

Oscillator

3 A 1kHz **OSCILLATOR** is provided and feeds a sinewave output to the Mix Busses. The signal is therefore available at the Stereo, Mono and MNTR Outputs. The oscillator is enabled when the **ON** switch is pressed and the green LED is illuminated. The pre-set allows the level to be set to match different operating levels.

Auxiliary Masters

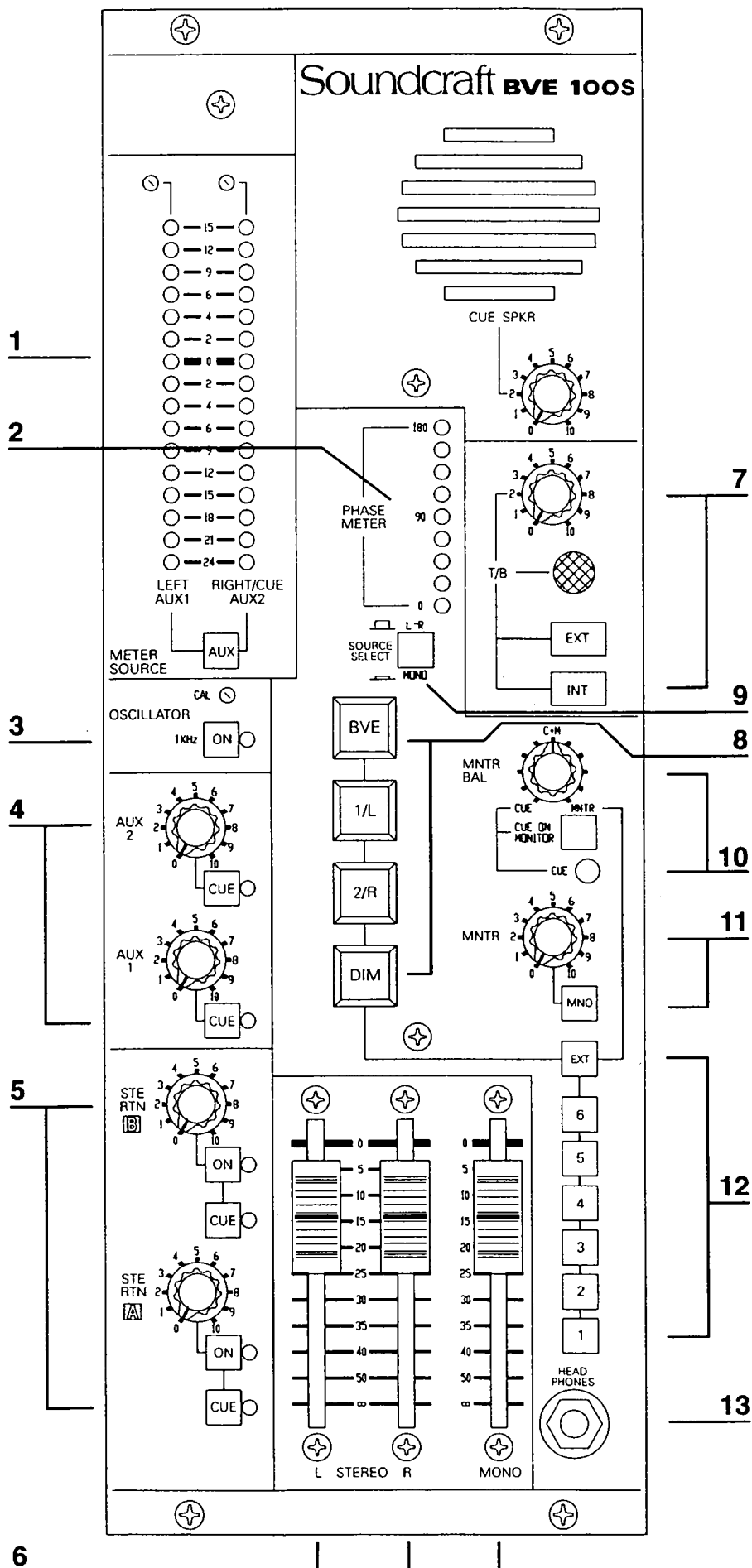
4 The Auxiliary Send Master **LEVEL** Controls set the output level of the Auxiliary send mixes. Each output is provided with a **CUE** switch and associated LED. These allow the post-fade output signals to be metered and monitored.

Stereo Returns

5 Two **STEREO RETURNS** are provided. Each return has an independent Level Control plus **ON** and **CUE** switches with associated LED's. The CUE switch sends a pre-fade sum of the Left and Right Signals to the CUE and MNTR system allowing the input signals to be metered and monitored.

Master Output Faders

6 The Mix Left and Right signals are summed from the busses and fed via insert jacks on the rear connector panel to 60mm conductive plastic Master **FADERS**, which control the levels of the main **STEREO** Mix outputs and the **MONO** Mix output. The Mono output is a pre-fade, post-insert sum of the main Stereo output. The faders have their '0' position at the top of the fader travel. Mix Left, Right and Mono outputs on the rear panel are electronically balanced.



Talkback

7 An integral microphone is provided and the T/B Signal can be sent to main Mono and Stereo Outputs by use of the **INT** switch, and to the External Talkback Socket on the rear connector panel with the **EXT** switch. The level of the T/B signal is set with the **T/B LEVEL** Control. When T/B is used the **MNTR** and **CUE** Outputs are dimmed by approximately 20dB to prevent acoustic feedback.

BVE Masters

8 The four illuminated **BVE MASTER** switches indicate the current control status of the desk.

The **BVE** switch enables the BVE system, allowing remote control of the input channel VCA's, 2-track return monitor switching and control room dim function. Note for BVE100 only: the BVE system can only be turned on when the BVE **ENABLE** line from the Editor is active, and is reset if the enable line is inactive.

The **1/L** switch swaps the left monitor from the Mix Left or Mix Mono to 2-Track Return Left. The **2/R** switch swaps the right monitor from the Mix Right or Mix Mono to 2-Track Return Right. For BVE applications, the 2-Track return would normally be connected to the Master Machine Outputs, and the Editor would control the monitor source.

The **DIM** switch dims the left and right monitor outputs - this can be activated either by pressing the switch, or under remote control. The DIM circuitry can be internally re-configured to be CUT by the addition of jumpers J1 and J2 to the Master Source PCB.

When the BVE system is inactive, the DIM, 1/L and 2/R switches may still be activated manually. The channel VCAs are set to unity gain.

9 The **SOURCE SELECT** switch selects either the Mix Mono or Mix L/Mix R signals which in turn are routed to the Monitor L & R via the 1/L & 2/R switches (see 8 above).

Cue System

10 When any of the Input Channels, Auxiliary Outputs or Stereo Returns have the CUE switch pressed the **CUE LED** illuminates and the signal is sent to the CUE SPKR system and the Headphone Outputs.

The CUE signal may also be sent to the Monitor Outputs by pressing the **CUE ON MONITOR** switch. The **MNTR BAL** control allows a balance to be set between CUE and MNTR (see also 11 below). Fully anti-clockwise allows the CUE signal to totally override the MNTR signal. Fully clockwise allows only the MNTR signal. With the control at the centre point there is an even balance between CUE and MNTR. When CUE ON MONITOR is not selected the MNTR BAL control allows the DIM level to be varied.

The overall level of the **CUE SPKR** output is set by the **CUE SPKR LEVEL** Control.

CUE from Inputs is *pre-fade*, from the Auxiliary Masters *post-fade* and from the Stereo Returns is a *mono sum* of the pre-fade Left and Right signals. The CUE SPKR signal is dimmed when either talk to EXT or MIX is used.

When the **CUE OUT** socket on the rear panel is used to send the CUE signal to an external amplifier the internal CUE SPKR will be cut.

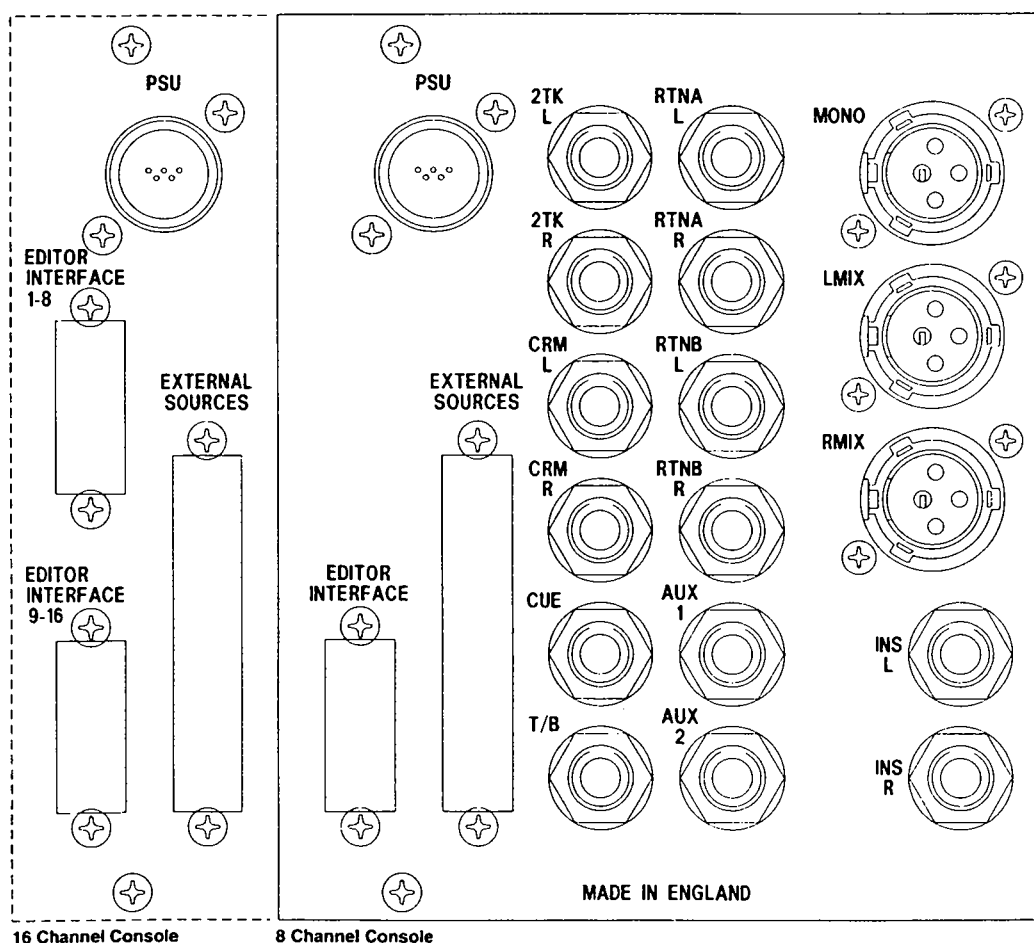
Monitoring

11 Provision is made to monitor the main Stereo Outputs, the Mono Output, the Master Machine Returns, CUE Signals (see 9 above) and six External Stereo Inputs. The **MONITOR OUTPUT** jacks on the rear connector panel are available to drive an external power amplifier for Control Room Monitoring. The Monitoring output level is set by the **MNTR** Level Control. The outputs may be summed to Mono with the **MNO** switch.

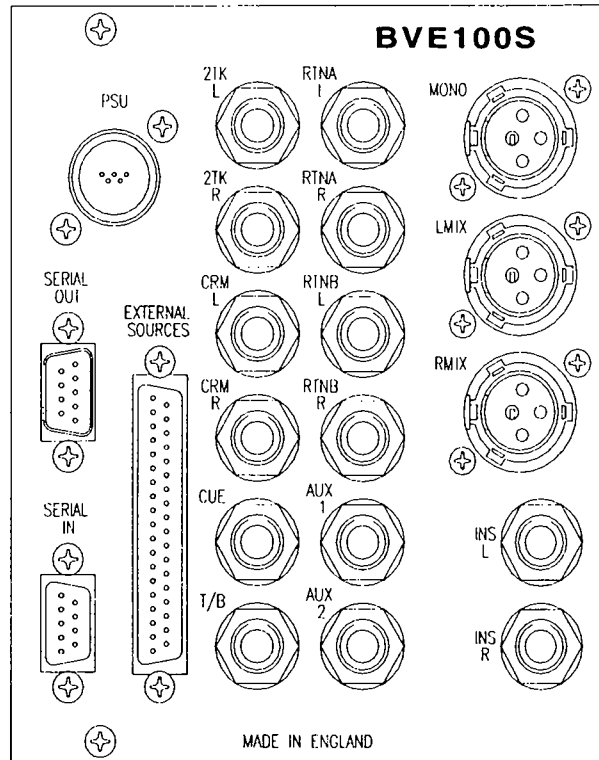
12 Normally the monitor system is sourced from the Mix outputs, or the 2-Track Return, as determined by the BVE Master switches or the external control of an edit controller. Pressing the **EXT** switch replaces the normal source with a choice of six **EXTERNAL STEREO INPUTS**. The switches are non-interlocking so that any combination of the inputs may be monitored.

13 Stereo headphones may be plugged into the **HEADPHONES** Jack socket on the front panel to receive the selected monitor signal and this will cut the Control Room Monitor Outputs.

Rear Connector Panel (BVE100)



Rear Connector Panel (BVE100S)



Connectors

Mono, Mix Left & Right Outputs

Balanced, 3-pin male XLR

Pin 1	Ground
Pin 2	Hot (+ve)
Pin 3	Cold (-ve)

2-Track Return Left & Right, Stereo Returns A & B

Balanced, 3-pole 'A' gauge Jack

Tip	Hot (+ve)
Ring	Cold -ve)
Sleeve	Ground

Aux 1 & 2 and Talkback Outputs

Ground Compensated, 3-pole 'A' gauge Jack

Tip	Hot (+ve)
Ring	Ground Sense
Sleeve	Ground

Control Room Left & Right and Cue Outputs

Unbalanced, 3-pole 'A' gauge Jack

Tip	Signal
Ring	Ground
Sleeve	Ground

Mix L & R Inserts

Unbalanced, 3-pole 'A' gauge Jack

Tip	Signal Send
Ring	Signal Return
Sleeve	Ground

External Sources

37-way 'D' Type female connector

1	EXT1 Left	+ve	19	No connection	
2	Ground		20	EXT1 Left	-ve
3	EXT1 Right	-ve	21	EXT1 Right	+ve
4	EXT2 Left	+ve	22	Ground	
5	Ground		23	EXT2 Left	-ve
6	EXT2 Right	-ve	24	EXT2 Right	+ve
7	EXT3 Left	+ve	25	Ground	
8	Ground		26	EXT3 Left	-ve
9	EXT3 Right	-ve	27	EXT3 Right	+ve
10	EXT4 Left	+ve	28	Ground	
11	Ground		29	EXT4 Left	-ve
12	EXT4 Right	-ve	30	EXT4 Right	+ve
13	EXT5 Left	+ve	31	Ground	
14	Ground		32	EXT5 Left	-ve
15	EXT5 Right	-ve	33	EXT5 Right	+ve
16	EXT6 Left	+ve	34	Ground	
17	Ground		35	EXT6 Left	-ve
18	EXT6 Right	-ve	36	EXT6 Right	+ve
			37	Ground	

Editor Interface (8 Channel Consoles) (BVE100 only)

Editor Interface 1-8 (16 Channel Consoles)

15-way 'D' Type male connector

1	VCA 1
2	VCA 2
3	VCA 3
4	VCA 4
5	VCA 5
6	VCA 6
7	VCA 7
8	VCA 8
9	Ground
10	Monitor Left
11	Monitor Right
12	BVE Enable
13	Dim
14	No connection
15	Ground

Editor Interface 9-16 (16 Channel Consoles) (BVE100 only)

15-way 'D' Type male connector

1	VCA 9
2	VCA 10
3	VCA 11
4	VCA 12
5	VCA 13
6	VCA 14
7	VCA 15
8	VCA 16
9	Ground
10	No connection
11	No connection
12	No connection
13	No connection
14	No connection
15	Ground

NOTE:

The VCA Control voltage for the inputs varies from 0V (Channel ON) and +5V (Channel OFF).

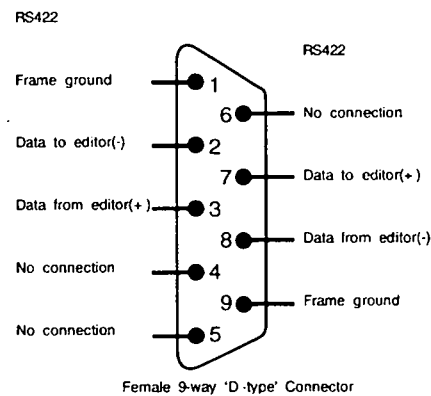
The BVE control lines (BVE ENABLE, MONITOR LEFT, MONITOR RIGHT and DIM) are active when pulled to ground, and inactive when open circuit or at +5V. The pull-down switching for the MONITOR LEFT, MONITOR RIGHT and DIM should be able to sink 1.5mA; the switch for the BVE ENABLE should be able to sink 1.65mA.

The BVE ENABLE line is level triggered, and will prevent the BVE switch on the Master module from activating external control of the monitoring and input channels all the time it is high (inactive).

The MONITOR LEFT, MONITOR RIGHT and DIM lines are edge triggered, and will toggle their respective functions ON during a high (inactive) to low (active) transition, and OFF during a low to high transition (providing the BVE system is active). The switches on the Master module will also control these functions whether the lines are active or inactive.

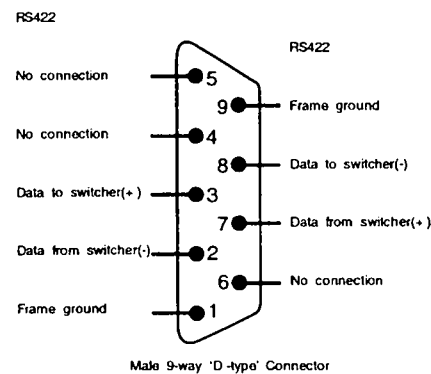
Serial In (BVE100S only)

9-way 'D' Type female connector



Serial Out (BVE100S only)

9-way 'D' Type male connector



BVE100S Serial Interface

BVE100S Serial Interface

General

The BVE100S interface provides serial control of levels from an edit controller. The control signals issued by the edit controller are decoded in accordance with the selected protocol.

Normally the BVE100S interface will receive a foreground channel number, a background channel number and a fade rate via the serial link from the edit controller. It then receives a command to start the transition and so the appropriate channels on the BVE100S are crossfaded.

The BVE100S variant is available with 8 and 16 channels.

Mono/Stereo

Mono/Stereo is link settable. The eight control voltages available may be routed individually to the first eight channels, or channels may be controlled in pairs (channels 1 & 2 from Control Voltage 1, Channels 3 & 4 from Control Voltage 2 etc). Channels 9-16, where applicable, are permanently connected in pairs from CV5,CV6,CV7 and CV8.

Protocols

Four edit controller protocols are supported: GVG100, AMX100, ESAM1 and ESAM2.

Baud Rates

38.4kB or 9.6kB

Jumper Settings

J1, J2:	fitted left = REPLY Mode fitted right = EAVESDROP Mode
J3, J4:	J3 only fitted = 38.4kB J4 only fitted = 9.6kB
J5:	fitted = EVEN parity not fitted = ODD parity
J6,J7:	neither fitted = ESAM2 J6 only fitted = ESAM1 J7 only fitted = AMX100 J6 & J7 fitted = GVG100
J8:	Fitted left = Fader Law 1 Fitted right = Fader Law 2 Not fitted = Fader Law 3

J9:	Fitted = 30fps rate Not fitted = 25 fps rate	
J12:	Channel 2	fitted right = Mono from CV2 fitted left = stereo from CV1
J13:	Channel 3	fitted right = Mono from CV3 fitted left = stereo from CV2
J14:	Channel 4	fitted right = Mono from CV4 fitted left = stereo from CV2
J15:	Channel 5	fitted right = Mono from CV5 fitted left = stereo from CV3
J16:	Channel 6	fitted right = Mono from CV6 fitted left = stereo from CV3
J17:	Channel 7	fitted right = Mono from CV7 fitted left = stereo from CV4
J18:	Channel 8	fitted right = Mono from CV8 fitted left = stereo from CV4

Note: Channel 1 is always controlled by CV1, and Channels 9-16 are always controlled in pairs by CV5-8

Rearcon

There are two 15-way D-type connectors associated with the interface.

The Serial In connector is a female type, and is used to connect to the edit controller.

The Serial Out connector is male type and is used to connect to a video switcher when the BVE100S is in Eavesdrop mode.

Fade Law Selection

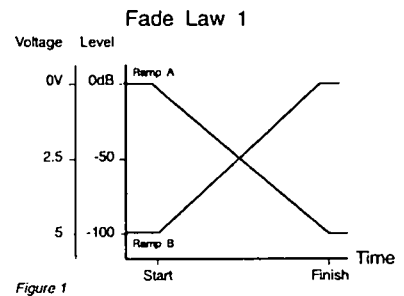
One of three crossfade laws can be selected using jumper 8.

Figures 1, 2, and 3, illustrate the three laws.

Fade Law 1

Linear Crossfade

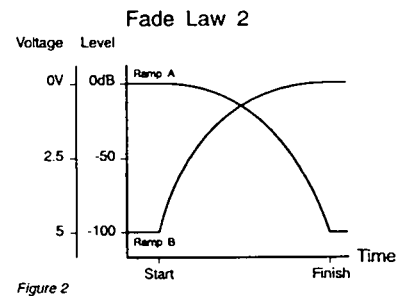
The channel which is audible at the start quickly fades, followed by an almost silent period before the second channel fades in. At the centre point the attenuation is about 50dB. This law can be usefully used with faders which provide their own logarithmic correction.



Fade Law 2

Logarithmic Crossfade

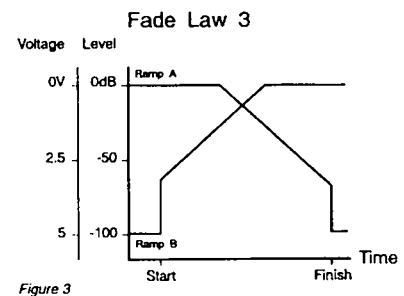
This is the most commonly used law. The first channel is still audible as the second fades in. At the centre point the attenuation is approximately 6dB.



Fade Law 3

Stepped Linear

This results in an audibly smooth transition, the steps being at such a low level that they are inaudible. At the centre point the attenuation is approximately 6dB.

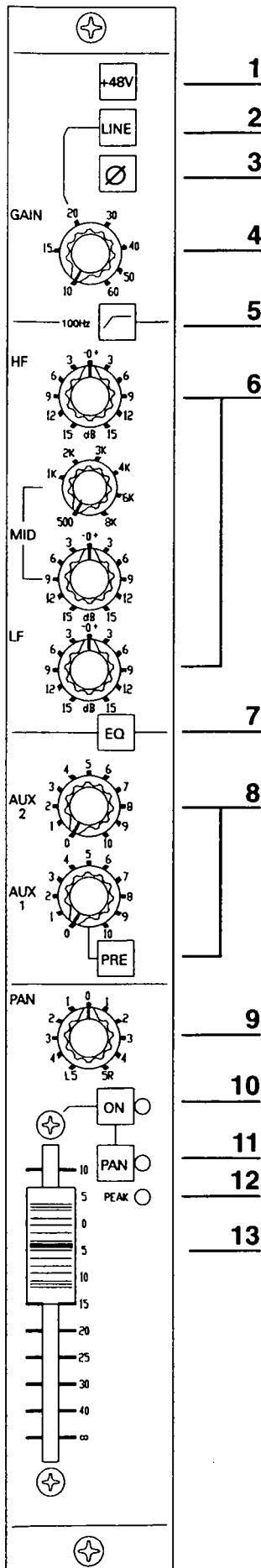


B100 Mono Input Module

Description and Operation:

<i>Input Section</i>	<i>36</i>
<i>Equaliser</i>	<i>36</i>
<i>Auxiliary Sends</i>	<i>36</i>
<i>Routing</i>	<i>37</i>
<i>Connectors</i>	<i>37</i>

B100 Mono Input Module



The Channel is factory set to operate between a Microphone level input and a Line level input but may be re-configured to have two Line Inputs by depressing internal switch **SW9** at the top of the PCB. The inputs are electronically balanced.

Input Section

1 The **+48V** switch applies 48 Volts to the microphone input for Phantom Power. If the Input is re-configured to operate as a second Line input, the 48 Volts is disabled.

2 The **LINE** switch selects between the Microphone Input and the Line input, the available gain being reduced by 20dB when the Line Input is selected.

3 The **PHASE** switch reverses the phase of the selected input.

4 The **GAIN** control adjusts the sensitivity of the selected input. The sensitivity of the Microphone input is variable from -10dBu to -60dBu. The Line input sensitivity is variable from +10dBu to -40dBu.

5 The 100Hz **HI-PASS FILTER** can be inserted into the signal path immediately after the input pre-amplifier independently of the EQ In/Out switch.

Equaliser

6 The **EQ** section is three band semi-parametric. The cut/boost controls are centre detented with the centre position giving a flat response. The **HF** control is shelving and provides 15dB of boost or cut at a fixed frequency of 12kHz. The **MID** section has a peak/dip characteristic and provides 15dB of boost or cut between 500Hz and 8kHz. The **LF** control is shelving and provides 15dB of boost or cut at a fixed frequency of 60Hz.

7 The **EQ** switch allows the entire EQ section to be switched in or out of the signal path.

Auxiliary Sends

8 Two **Auxiliary sends** are provided:

AUX 2 is post-fade and post the channel ON switch.

AUX 1 is post-fade and post the channel ON switch but can be selected pre-fade by pressing the **PRE** switch. The channel is factory set so that when **PRE** is selected, **AUX 1** is post the channel ON switch. **AUX 1** may be internally re-configured by fitting Jumper J1 instead of Jumper J2 on the PCB, so that when **PRE** is selected, the send is pre-fade and pre the channel ON switch.

Routing

9 The PAN control determines the position of the signal within the stereo image. In the centre detented position there is a 4.5dB loss which is a compromise between the 3dB loss required for constant power panning and the 6dB loss required for constant voltage panning.

10 The ON switch enables the signal into the Fader & VCA System, to the PAN control and to the Stereo Left/Right Outputs, the status is indicated by a green LED.

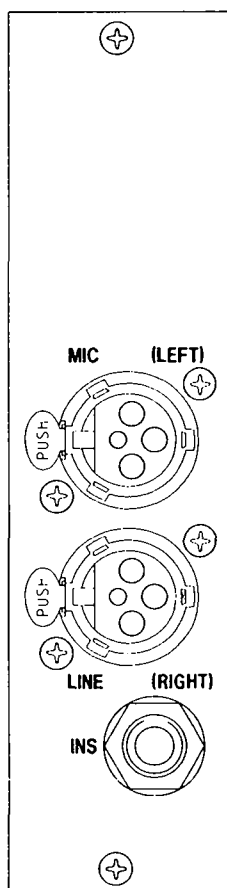
11 The CUE status is indicated by a red LED. The CUE switch sends the signal from the channel to the CUE Speaker and to the Monitoring system if selected on the Master Module. The CUE signal is taken after the channel insert point and before the channel ON switch.

12 The red PEAK LED illuminates when the signal level is 6dB below the clipping point. The circuit is multi-sourced with feeds from the Input pre-amplifier, the HF/LF EQ section and the MID EQ section.

13 The main audio level control for the channel is a 60mm conductive plastic Fader and has 10dB of gain available.

Connectors

Rear Connector Panel



Microphone Input

Balanced, 3-pin female XLR

Pin 1	Ground
Pin 2	Hot (+ve)
Pin 3	Cold (-ve)

+48V is normally available on pin 2 & 3 for phantom power but when the Microphone Input is configured as a second Line Input the +48V is disabled.

Line Input

Balanced, 3-pin female XLR

Pin 1	Ground
Pin 2	Hot (+ve)
Pin 3	Cold (-ve)

Channel Insert Point

Unbalanced, 3-pole 'A' gauge jack

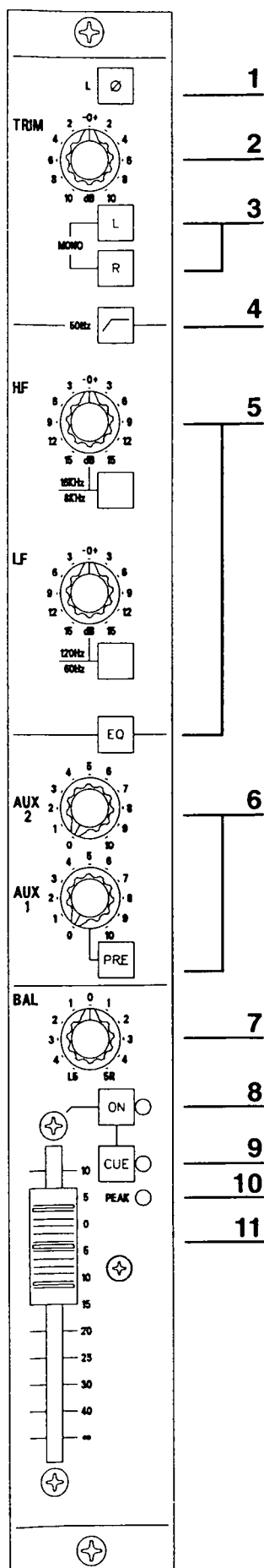
Tip	Signal Send
Ring	Signal Return
Sleeve	Ground

B100 Stereo Input Module

Description and Operation:

<i>Input Section</i>	<i>40</i>
<i>Equaliser</i>	<i>40</i>
<i>Auxiliary Sends</i>	<i>40</i>
<i>Routing</i>	<i>41</i>
<i>Connectors</i>	<i>41</i>

B100 Stereo Input Module



The Stereo Input module provides a stereo path to the mix and auxiliaries.

Input Section

The left and right channel inputs are electronically balanced.

- 1 The **PHASE** switch reverses the phase of the left input.
- 2 The **TRIM** control adjusts the sensitivity of the left and right inputs, giving 10dB of gain or attenuation. The control is centre detented at the unity gain (+4dBu sensitivity) position.
- 3 The **MONO L** switch places the signal on the Left input in mono to both sides of the channel. Similarly, the **MONO R** switch places the signal on the Right input in mono to both sides of the channel.
- 4 The stereo 50Hz **HI-PASS FILTER** can be inserted into the signal path of both channels immediately after the input pre-amplifier independently of the EQ In/Out switch.

Equaliser

- 5 The stereo **EQ** section is two band shelving. The cut/boost controls are centre detented with the centre position giving a flat response. The **HF** control is shelving and provides 15dB of boost or cut at a fixed frequency of 16kHz; the frequency may be lowered by a switch to 8kHz. The **LF** control is shelving and provides 15dB of boost or cut at a fixed frequency of 120Hz; the frequency may be lowered by a switch to 60Hz. The **EQ** switch allows the entire EQ section to be switched in or out of the signal path.

Auxiliary Sends

- 6 Two Auxiliary sends are provided. These normally give a mono sum of the left and right channels.

AUX 2 is post-fade and post the channel ON switch.

AUX 1 is post-fade and post the channel ON switch but can be selected pre-fade by pressing the **PRE** switch. The channel is factory set so that when **PRE** is selected **AUX 1** is before the channel VCAs. **AUX 1** may be internally re-configured by fitting Jumpers J4 and J6 instead of Jumpers J3 and J5 on the PCB so that when **PRE** is selected the send is pre-fade and post the channel VCAs.

The Auxiliary sends are factory configured to provide a mono sum of both left and right input channels. However, the sends may be internally re-configured to provide a stereo Auxiliary send: **Aux 2** is fed from the left channel and **AUX 1**, when not selected **PRE**, is fed from the right channel. To configure for stereo Auxiliaries, fit Jumpers J10, J11 and J12, and do not fit Jumpers J7, J8 and J9.

Routing

7 The **BALANCE** control adjust the relative level of the left and right channels to the stereo mix. The adjustment range is plus or minus 5dB, with a centre detent at the unity gain position.

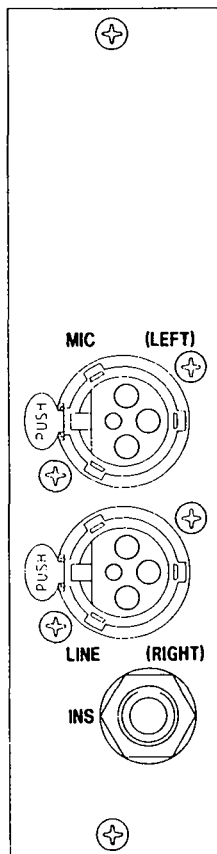
8 The **ON** switch enables the signal into the Fader & VCA System, to the Auxiliary sends and to the STEREO Left/Right Outputs. The status is indicated by a green LED.

9 The **CUE** status is indicated by a red LED. The **CUE** switch sends a mono sum of the left and right signals to the CUE Speaker and to the Monitoring system if selected on the Master Module. The CUE signal is taken after the Equaliser, and before the ON switch.

10 The red **PEAK** LED illuminates when the signal level is 6dB below the clipping point. The circuit is multi-sourced with feeds from the Input pre-amplifier and the EQ section, from both left and right channels.

11 The main audio level control for the left and right signals is a stereo 60mm conductive plastic **FADER**, and has 10dB of gain available.

Rear Connector Panel



Connector Pinouts

Left & Right Inputs, 3-pin Female XLR

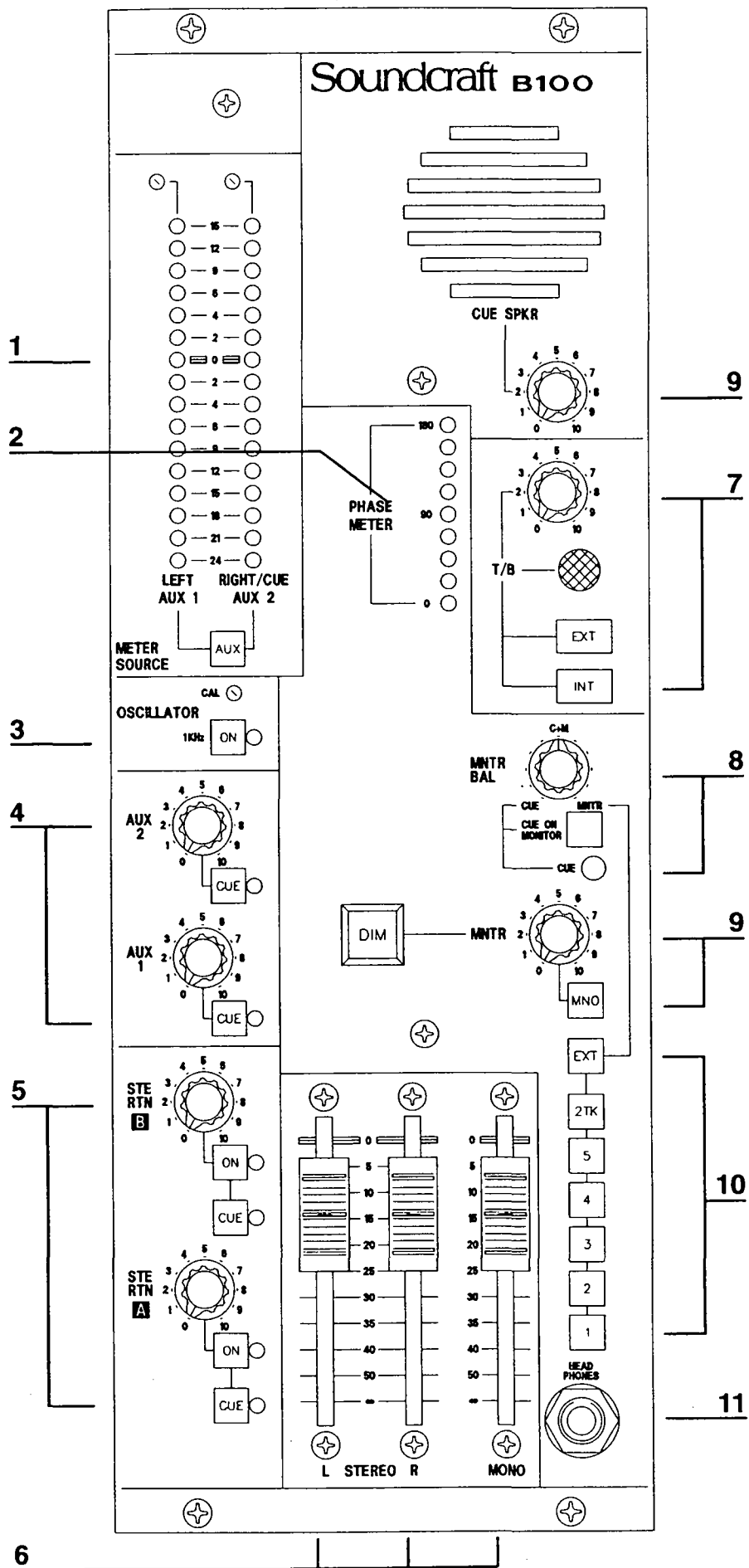
Pin 1	Ground
Pin 2	Hot (+ve)
Pin 3	Cold (-ve)

Note: The Insert Jack is not used.

B100 Master Section

Description and Operation:

<i>Metering</i>	<i>45</i>
<i>Oscillator</i>	<i>45</i>
<i>Auxiliary Masters</i>	<i>45</i>
<i>Stereo Returns</i>	<i>45</i>
<i>Master Output Faders</i>	<i>45</i>
<i>Talkback</i>	<i>47</i>
<i>Cue System</i>	<i>47</i>
<i>Monitoring</i>	<i>47</i>
<i>Connectors</i>	<i>48</i>



B100 Master Section

Metering

1 The **OUTPUT METERS** follow the monitor selection of CUE, MIX, Master Machine Returns or one or more of the six External Inputs. When CUE is metered, the left meter is cut and the right meter monitors the CUE signal. The Meters may be switched with the **METER SOURCE AUX** switch to monitor the Auxiliary Outputs, in which case CUE, when active, will not be displayed. Auxiliary 1 is displayed on the left meter and Auxiliary 2 on the right meter. The trimmer above each meter is for calibrating the '0' position to the desired operating level.

2 The **PHASE METER** displays the phase relationship between the left and right signals being monitored giving a visual indication that an in phase signal is present at the main Stereo output. In phase signals are indicated by the illuminated LED's staying in the lower section of the display. Out of phase signals will cause the LED's in the upper section of the display to illuminate. The lowest LED next to the '0' ident is always illuminated. Signals with no clearly defined phase relationship may cause the illumination of LED's in an undetermined position.

Oscillator

3 A 1kHz **OSCILLATOR** is provided and feeds a sinewave output to the Mix Busses. The signal is therefore available at the Stereo, Mono and MNTR Outputs. The oscillator is enabled when the **ON** switch is pressed and the green LED is illuminated. The pre-set allows the level to be set to match different operating levels.

Auxiliary Masters

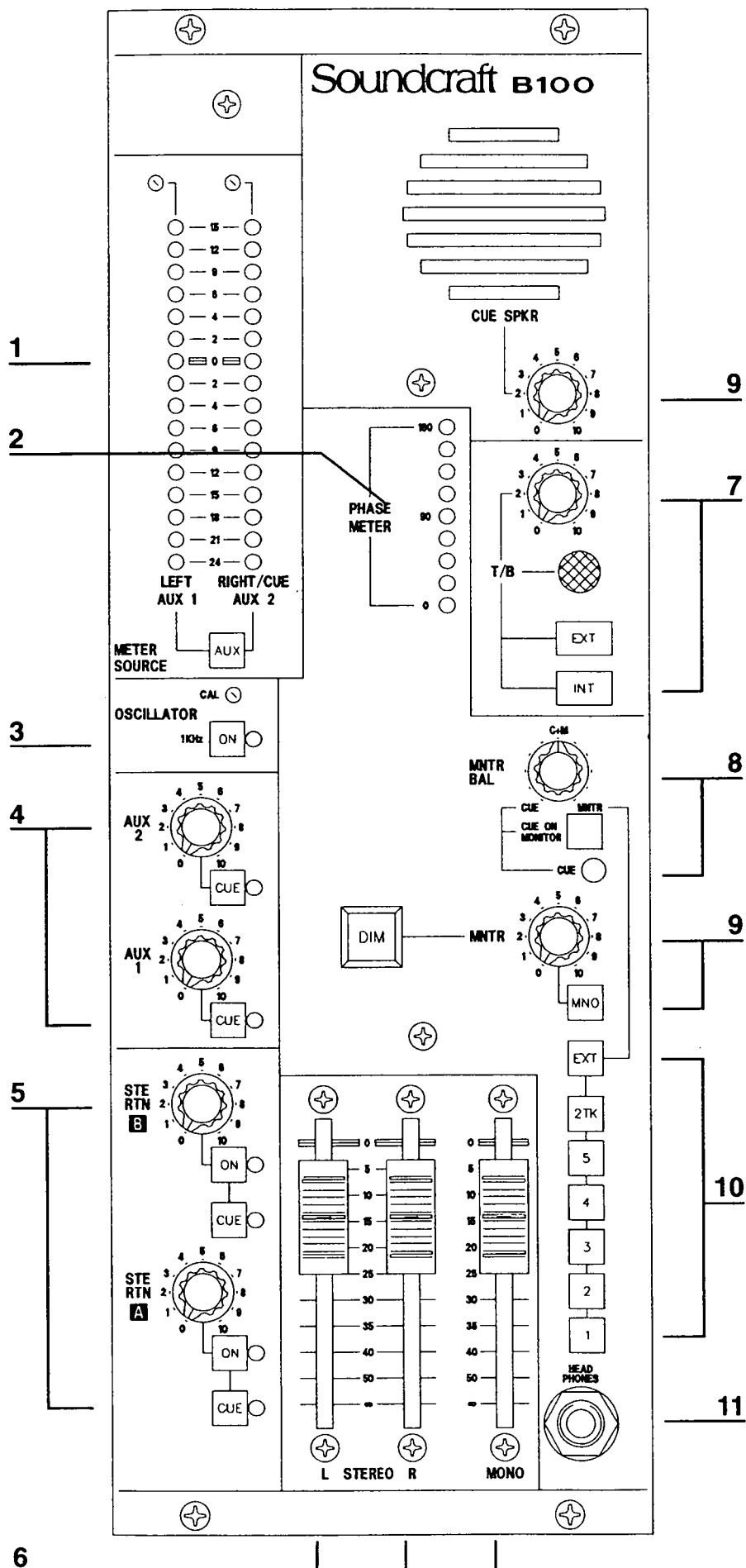
4 The Auxiliary Send Master **LEVEL** Controls set the output level of the Auxiliary send mixes. Each output is provided with a **CUE** switch and associated LED. These allow the post-fade output signals to be metered and monitored.

Stereo Returns

5 Two **STEREO RETURNS** are provided. Each return has an independent **LEVEL** control plus **ON** and **CUE** switches with associated LED's. The **CUE** switch sends a pre-fade sum of the Left and Right Signals to the CUE and MNTR system allowing the input signals to be metered and monitored.

Master Output Faders

6 The Mix Left and Right signals are summed from the busses and fed via insert jacks on the rear connector panel to 60mm conductive plastic Master **FADERS**, which control the levels of the main **STEREO** Mix outputs and the **MONO** Mix output. The Mono output is a pre-fade, post-insert sum of the main Stereo output. The faders have their '0' position at the top of the fader travel. Mix Left, Right and Mono outputs on the rear panel are electronically balanced.



Talkback

7 An integral microphone is provided and the T/B Signal can be sent to main Mono and Stereo Outputs by use of the **MIX** switch and to the External Talkback Socket on the rear connector panel with the **EXT** switch. The level of the T/B signal is set with the **T/B LEVEL** Control. When T/B is used the MNTR and CUE Outputs are dimmed by approximately 20dB to prevent acoustic feedback.

Cue System

8 When any of the Input Channels, Auxiliary Outputs or Stereo Returns have the CUE switch pressed the **CUE LED** illuminates and the signal is sent to the **CUE SPKR** system and the Headphone Outputs.

The CUE signal may also be sent to the Monitor Outputs by pressing the **CUE ON MONITOR** switch. The **MNTR BAL** control allows a balance to be set between CUE and MNTR (see also 10 below). Fully anti-clockwise allows the CUE signal to totally override the MNTR signal. Fully clockwise allows only the MNTR signal. With the control at the centre point there is an even balance between CUE and MNTR. When CUE ON MONITOR is not selected the MNTR BAL control allows the DIM level to be varied.

The overall level of the **CUE SPKR** output is set by the **CUE SPKR LEVEL** Control.

CUE from Inputs is *pre-fade*, from the Auxiliary Masters *post-fade* and from the Stereo Returns is a *mono sum* of the pre-fade Left and Right signals. The CUE SPKR signal is dimmed when either talk to EXT or MIX is used.

When the **CUE OUT** socket on the rear panel is used to send the CUE signal to an external amplifier the internal CUE SPKR will be cut.

Monitoring

9 Provision is made to monitor the main Stereo Outputs, a Two-track Return, CUE Signals and five External Stereo Inputs. The **MONITOR OUTPUT** jacks on the rear connector panel are available to drive an external power amplifier for Control Room Monitoring. Alternatively, stereo headphones may be plugged into the **HEADPHONES** jack on the front panel (see below) and this will cut the Control Room Monitor Outputs. The Monitoring output level is set by the **MNTR Level** Control. The outputs may be summed to Mono with the **MNO** switch.

The illuminated **DIM** switch dims the Left and Right Monitor Outputs. The DIM circuitry can be internally re-configured to be CUT by the addition of Jumper J1 and Jumper J2 on the Source PCB.

10 Normally, the monitor system is sourced from the Mix outputs. Pressing the **EXT** switch replaces the Mix signal with a choice of five **EXTERNAL STEREO INPUTS** or the **2-TRACK RETURN**. The switches are non-interlocking so that any combination of the inputs may be monitored.

11 Stereo headphones may be plugged into the **HEADPHONES** Jack socket on the front panel to receive the selected monitor signal and this will cut the Control Room Monitor Outputs.

Connectors

Mono, Mix Left & Right Outputs

Balanced, 3-pin male XLR

Pin 1	Ground
Pin 2	Hot (+ve)
Pin 3	Cold (-ve)

2-Track Return Left & Right, Stereo Returns A & B

Balanced, 3-pole 'A' gauge Jack

Tip	Hot (+ve)
Ring	Cold -ve)
Sleeve	Ground

Note:

2-Track Returns L & R are duplicated on the External Sources connector.

Aux 1 & 2 and Talkback Outputs

Ground Compensated, 3-pole 'A' gauge Jack

Tip	Hot (+ve)
Ring	Ground Sense
Sleeve	Ground

Control Room Left & Right and Cue Outputs

Unbalanced, 3-pole 'A' gauge Jack

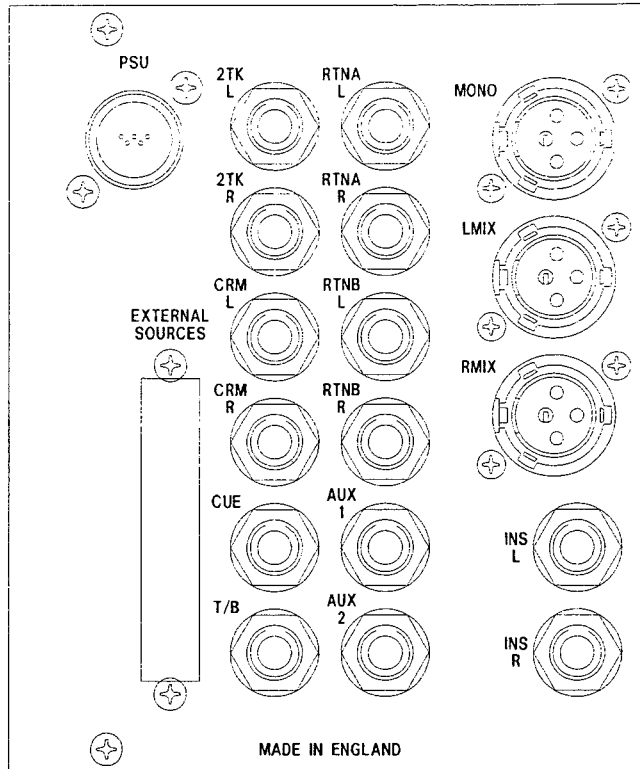
Tip	Signal
Ring	Ground
Sleeve	Ground

Mix Inserts L & R

Unbalanced, 3-pole 'A' gauge Jack

Tip	Signal Send
Ring	Signal Return
Sleeve	Ground

Rear Connector Panel



External Sources

37-way 'D' Type male connector

1	EXT1 Left	+ve
2	Ground	
3	EXT1 Right	-ve
4	EXT2 Left	+ve
5	Ground	
6	EXT2 Right	-ve
7	EXT3 Left	+ve
8	Ground	
9	EXT3 Right	-ve
10	EXT4 Left	+ve
11	Ground	
12	EXT4 Right	-ve
13	EXT5 Left	+ve
14	Ground	
15	EXT5 Right	-ve
16	2-Track Left	+ve
17	Ground	
18	2-Track Right	-ve
19	No connection	
20	EXT1 Left	-ve
21	EXT1 Right	+ve
22	Ground	
23	EXT2 Left	-ve
24	EXT2 Right	+ve
25	Ground	
26	EXT3 Left	-ve
27	EXT3 Right	+ve
28	Ground	
29	EXT4 Left	-ve
30	EXT4 Right	+ve
31	Ground	
32	EXT5 Left	-ve
33	EXT5 Right	+ve
34	Ground	
35	2-Track Left	-ve
36	2-Track Right	+ve
37	Ground	

BVE100/BVE100S/B100 Specifications

Specifications

Input & Output Levels - Mono Input

MICROPHONE INPUT (Electronically Balanced)

Sensitivity: -10dBu to -60dBu
Impedance: 2k Ω
Max. Input Level: +10dBu

NOTE: if the microphone input is switched for use as a second line input, the sensitivity range is altered to +16dBu to -34dBu, the input impedance is increased to 10k Ω and the maximum input level is increased to +36dBu.

LINE INPUT (Electronically Balanced)

Sensitivity: +10dBu to -40dBu
Impedance: 10k Ω
Max. Input Level: +30dBu

INSERT SEND (Unbalanced)

Nominal Level: -2dBu
Output Impedance: 75 Ω
Output Capability: +20dBu into 2k ohms

INSERT RETURN (Unbalanced)

Nominal Level: -2dBu
Input Impedance: 10k Ω

Input Levels - Stereo Input

LEFT AND RIGHT INPUTS (Electronically Balanced)

Sensitivity: +14dBu to -6dBu (+/-10dB trim)
Impedance: 10k Ω
Max. Input Level: +27dBu

Input and Output Levels - Master Section

MIX INSERT SENDS (Unbalanced)

Nominal Level: -2dBu
Output Impedance: 75 Ω
Output Capability: +20dBu into 2k ohms

MIX INSERT RETURNS (Unbalanced)

Nominal Level: -2dBu
Input Impedance: 10k Ω

MIX LEFT, RIGHT AND MONO OUTPUTS (Electronically Balanced)

Nominal Level: +4dBu
Output Impedance: <75Ω
Output Capability: +25dBu into 600 ohms
+26dBu into 2k ohms

AUXILIARY OUTPUTS (Ground Compensated)

Nominal Level: +4dBu
Output Impedance: 75Ω
Output Capability: +20dBu into 600 ohms

**EXTERNAL INPUTS 1-6, 2-TRACK RETURN,
STEREO RETURNS A & B**

(Electronically Balanced)

Nominal Level: +4dBu
Input Impedance: 10kΩ
Max. Input Level: +27dBu

HEADPHONES OUTPUT (Unbalanced)

Output Impedance: 33Ω
Output Capability: +5dBu into 8Ω

CONTROL ROOM LEFT & RIGHT, CUE OUTPUTS (Unbalanced)

Nominal Level: +4dBu
Output Impedance: 33Ω
Output Capability: +20dBu into 600Ω

TALKBACK OUTPUT (Ground Compensated)

Nominal Level: +4dBu
Output Impedance: 75Ω

Distortion

THD Line In to Mix Out <0.01% @+20dBu, 1kHz (B100)
<0.05% @+20dBu, 1kHz (BVE100)

Crosstalk

Aux Send OFF ratio >90dB @ 1kHz
Fader OFF ratio >90dB @ 1kHz
'ON' switch OFF ratio >95dB @ 1kHz
Pan OFF ratio >70dB @ 1kHz

Noise (16 Channel Console)

(22Hz - 22kHz Bandwidth, RMS)

Mix Noise (ch. faders down) -83dBu
Aux Noise -90dBu

Frequency Response

Channel Line In to Mix Out +0,-0.5dB 20-20kHz
(Unity gain)

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SPECIFICATION NOTES AND CONDITIONS

A The console has a nominal output level of +4dBu: all input sensitivities are relative to this: i.e. with line input gain set to '0', an input of 0dBu, will give an output of +4dBu at any group or mix output and, a sensitivity of +4dBu gives unity gain from input to output.

B Noise measurements are taken with 22Hz-22kHz bandwidth, average reading response.

C Distortion measurements are made with an input of +20dBu (line inputs at unity gain) giving an output of +20dBu. The analyser reads THD+N with an average response, over a 10Hz-30kHz bandwidth.

D Frequency response and E.Q. measurements are made with an input of 0dBu to line inputs at unity gain, outputs are quoted relative to 0dBu.

E Crosstalk and rejection measurements are made with an input level of +20dBu (line inputs at unity gain) giving an output of +20dBu on the active signal path. The ratio quoted is relative to +20dBu output.

F Gain tolerance +/-1.5dB or 10% of indicated value, which ever is the greater.

G All crosstalk and rejection figures stated with 16 channels routed to the measured output, where applicable.

H Mix noise figures are stated in two ways:

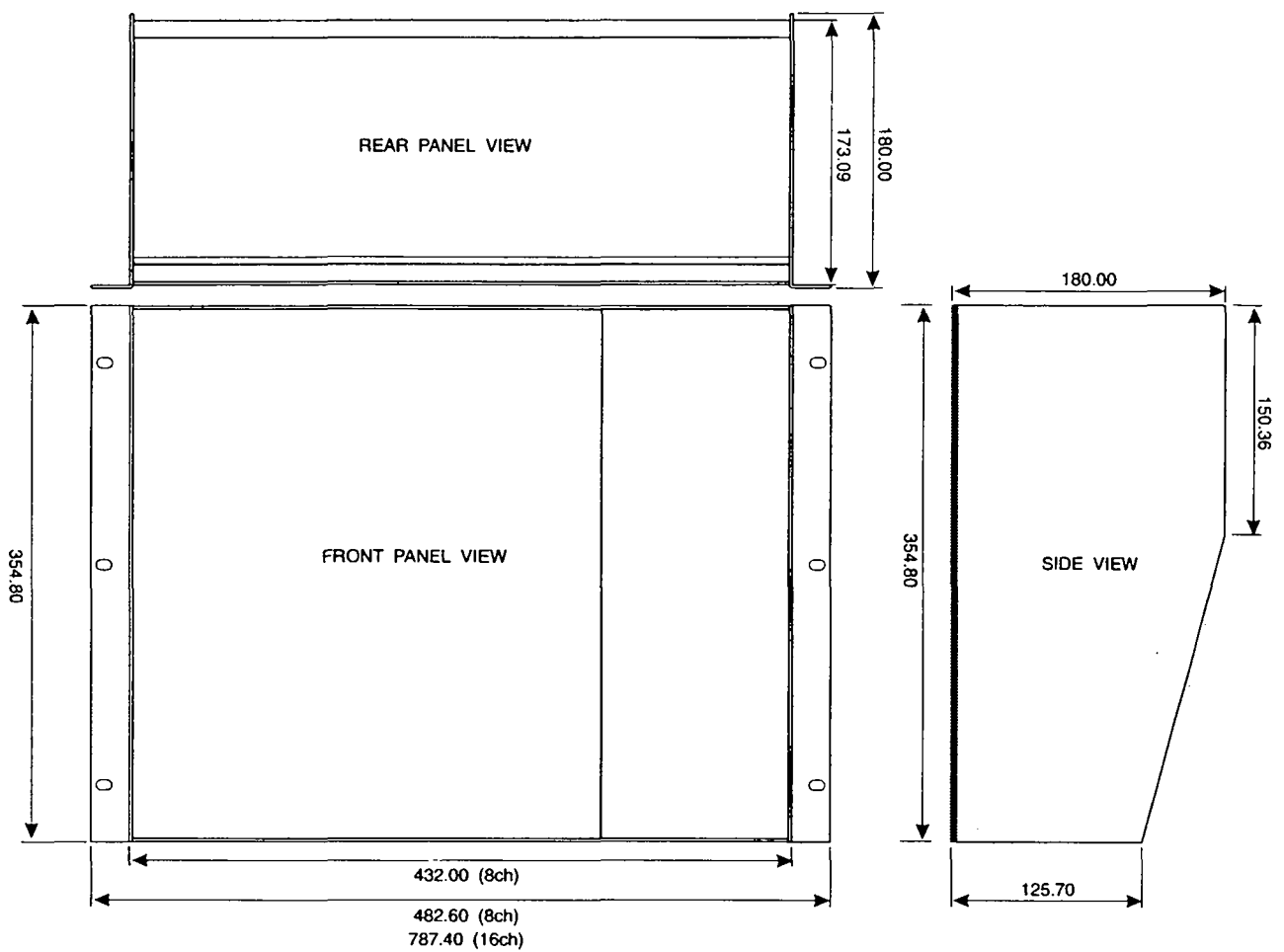
- Bus residual noise: Noise measured at the output with faders at unity and no channels routed.
- Mix bus noise: Noise measured at the output with 36 channels routed, faders down.

Variations From Published Specifications

Please note that the published performance specifications apply to standard factory consoles. If any modifications are carried out, such as additional circuitry or the fitting of transformers, the performance of the console may deviate from the published specification.

Dimensions

BVE100/ BVE100S/ B100 Outline Dimensions



Warranty

- 1 **Soundcraft** means Soundcraft Electronics Ltd.

End User means the person who first puts the equipment into regular operation.

Dealer means the person other than Soundcraft (if any) from whom the End User purchased the Equipment, provided such a person is authorised for this purpose by Soundcraft or its accredited Distributor.

Equipment means the equipment supplied with this manual.

- 2 If within the period of twelve months from the date of delivery of the Equipment to the End User it shall prove defective by reason only of faulty materials and/or workmanship to such an extent that the effectiveness and/or usability thereof is materially affected the Equipment or the defective component should be returned to the Dealer or to Soundcraft and subject to the following conditions the Dealer or Soundcraft will repair or replace the defective components. Any components replaced will become the property of Soundcraft.
- 3 Any Equipment or component returned will be at the risk of the End User whilst in transit (both to and from the Dealer or Soundcraft) and postage must be prepaid.
- 4 This warranty shall only be available if:
 - a) the Equipment has been properly installed in accordance with instructions contained in Soundcraft's manual; and
 - b) the End User has notified Soundcraft or the Dealer within 14 days of the defect appearing; and
 - c) no persons other than authorised representatives of Soundcraft or the Dealer have effected any replacement of parts maintenance adjustments or repairs to the Equipment; and
 - d) the End User has used the Equipment only for such purposes as Soundcraft recommends, with only such operating supplies as meet Soundcraft's specifications and otherwise in all respects in accordance Soundcraft's recommendations.
- 5 Defects arising as a result of the following are not covered by this Warranty: faulty or negligent handling, chemical or electro-chemical or electrical influences, accidental damage, Acts of God, neglect, deficiency in electrical power, air-conditioning or humidity control.
- 6 The benefit of this Warranty may not be assigned by the End User.
- 7 End Users who are consumers should note their rights under this Warranty are in addition to and do not affect any other rights to which they may be entitled against the seller of the Equipment.