

# B800 Typical Specifications

# B800

Connections		
Mic Input (XLR) with +/-6dB trim	>1.5kΩ balanced	-72dBu to -6dBu in 6dB steps . . . . . +27dBu max
Line Input (XLR) with +/-6dB trim	>10kΩ balanced	-54dBu to +12dBu in 6dB steps . . . . . +33dBu max
Insert Send (XLR)	<60Ω balanced	0dBu (-4dBu Prefade) . . . +28dBu max (+25dBu into 600Ω)
Insert Return (XLR)	>10kΩ balanced	0dBu (-4dBu Prefade) . . . . . +28dBu max (+24dBu Prefade)
Mono Direct Out (XLR)	<60Ω balanced	0dBu . . . . . +28dBu max (+25dBu into 600Ω)
Stereo Direct Out (Multipin)		
Group Insert Send (XLR)	<60Ω balanced	
Group Insert Return (XLR)	>10kΩ balanced	
Group Output (XLR)	<60Ω balanced	0dBu . . . . . +28dBu max (+26dBu into 600Ω)
Aux Output (XLR)	<60Ω balanced	0dBu . . . . . +28dBu max (+26dBu into 600Ω)
Monitor Output (XLR)	<60Ω balanced	0dBu . . . . . +28dBu max (+26dBu into 600Ω)
Main O/P Send (XLR)	<60Ω balanced	0dBu . . . . . +28dBu max
Main O/P Insert Return (XLR)	>10kΩ balanced	0dBu . . . . . +28dBu max (+26dBu into 600Ω)
Main Output (XLR)	<60Ω balanced	0dBu . . . . . +28dBu max (+26dBu into 600Ω)

Filter and EQ			
		Mono Input	Stereo Input
<b>Filters</b>			
High Pass Filter	Freq	80Hz . . . . .	80Hz
	Slope	18dB/Oct . . . . .	12dB/Oct
Low Pass Filter	Freq	N/A . . . . .	12kHz
	Slope	N/A . . . . .	12dB/Oct
<b>EQ</b>			
High Frequency	Freq	1kHz to 16kHz . . . . .	1kHz to 16kHz
	Gain	±15dB . . . . .	±15dB
	Q	Shelf . . . . .	Shelf
High Mid Frequency	Freq	500Hz to 8kHz . . . . .	500Hz to 8kHz
	Gain	±15dB . . . . .	±15dB
	Q	1.2/2.5 . . . . .	1.2
Low Mid Frequency	Freq	125Hz to 2kHz . . . . .	125Hz to 2kHz
	Gain	±15dB . . . . .	±15dB
	Q	1.2/2.5 . . . . .	1.2
Low Frequency	Freq	32Hz to 500Hz . . . . .	33Hz to 500Hz
	Gain	±15dB . . . . .	±15dB
	Q	Shelf . . . . .	Shelf

Auxiliaries		
1/2	Mono	Dual concentric Level . . . . . Pre/Post fade switched in pairs
3/4	Mono	Dual concentric Level . . . . . Pre/Post fade switched in pairs
5/6	Mono	Dual concentric Level . . . . . Pre/Post fade switched in pairs
7	Stereo	Dual concentric Level/Pan . . . Pre/Post fade switched in stereo
8	Stereo	Dual concentric Level/Pan . . . Pre/Post fade switched in stereo

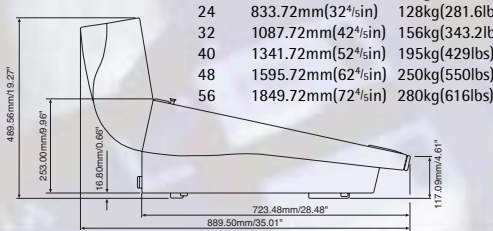
Oscillator		
Switchable 100Hz, 400Hz, 1kHz, 10kHz plus 30Hz Slate override		

Frequency Response		
Any input into any output	Measured at +50dB gain	+0/-0.5dB, 20Hz - 20kHz

THD and Noise		
Mic input to Group or Main output	Measured at +20dBu output	< 0.1% 20Hz - 16kHz
	Measured at 0dBu output	<0.02% @ 1kHz, <0.05% 20Hz - 16kHz
Mic input EIN (22Hz - 22kHz bandwidth, unweighted)		<-128dBu (150Ω source)
Mix bus output noise (32ch routed)		Less than -80dBu
Mix Bus noise (no channels routed)		Less than -88dBu
Line noise		Less than -86dBu

CMRR		Weights & Dimensions		
Mic Input	80dB @ 1kHz	Frame	Width	Weight
	60dB @ 10kHz	24	833.72mm(32 7/8")	128kg(281.6lbs)
Line Input	70dB @ 1kHz	32	1087.72mm(42 7/8")	156kg(343.2lbs)
	50dB @ 10kHz	40	1341.72mm(52 7/8")	195kg(429lbs)
		48	1595.72mm(62 7/8")	250kg(550lbs)
		56	1849.72mm(72 7/8")	280kg(616lbs)

Crosstalk	
Channel muting	95dB @ 1kHz
	90dB @ 10kHz
Channel fader attention	90dB @ 1kHz
	85dB @ 10kHz



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HA Harman International Company



Note: These figures are typical of performance in a normal electromagnetic environment. Performance may be degraded in severe conditions. All measurements refer to electronically balanced inputs and outputs with VCAs enabled. Input and output transformers may affect these specifications.

Thanks to The Creative Team, Essex Radio plc, and Carlton 021, Birmingham.



custom  
broadcast  
facilities  
from a  
standard  
console

**F**inding the right desk for demanding professional broadcast applications has never been easy. The varied requirements of live TV broadcast, production and live radio work, and OB installations means that only highly customised versions of existing mixers have been suitable – especially when space is at a premium. The Soundcraft B800 changes this.

The B800 is a specialised yet highly flexible modular broadcast mixer, drawing on Soundcraft's experience of designing and customising consoles for the broadcast audio market. Extensive configuration options available within modules mean that the features and flexibility you would previously have expected only on a customised desk are available within the B800's compact frame. In terms of audio routing, remote control and signalling facilities, the B800 sets a new standard for versatility, and compact, ergonomic efficiency.

Designed from the ground up as the key audio component in broadcast installations, the frame and electronics of the Soundcraft B800 embody the highest standards of structural and electronic integrity. Whatever the mix of high-quality studio sources and unpredictable remote signals, the B800 ensures superior audio performance. Modules are connected to internal bussing via motherboard construction, audio connections are via balanced XLRs, and all internal mix busses are balanced to achieve a high degree of isolation, noise and interference rejection, and robust signal handling.

Five frame sizes are available, accepting up to 48 inputs. The desk can be configured with 8 mono or 4 stereo groups, and there are two fully independent stereo master output modules. 6 mono and 2 stereo aux sends are provided. Extensive monitoring and cue facilities include stereo AFL/PFL, and several sets of speaker and phones outputs. There are 4 VCA groups for additional level control.



- Massive 33dB input headroom
- 24, 32, 40, 48, 56-module frames
- 8 mono or 4 stereo groups
- Two fully independent stereo master output modules
- 6 mono and 2 stereo auxes
- Stereo AFL/PFL
- LED indication on all switches
- 4 VCA groups
- Wide variation in module audio and logic/control functions via internal links and jumpers
- Flexible cleanfeed facilities via Direct outputs on all channels
- Versatile and highly configurable monitoring via speakers and studio and guest headphones
- Limiters on mono and stereo groups and master outputs
- 8 input with 6 monitor channel surround module
- Wide range of meterbridge options
- Balanced audio inputs and outputs throughout, on XLRs and EDACS
- Balanced internal bussing
- Motherboard construction
- Momentary or latching Cue operation
- Oscillator and slate oscillator
- Manual or remote mute switching
- External control
- Remote start/stop
- Incrementally switched input channel gain



# Mono Input Module



The Mono Input Module accepts a mic or line input, each via its own rear panel XLR socket. +48V mic phantom power is individually switched for each channel. The TONE switch applies a -60dBu signal to the module pre-amplifier, to check module operation. Indicator LEDs are provided for the LINE, TONE, and +48V phantom power switches.

The channel GAIN control offers 6dB switched increments, covering +6dB to +72dB gain on the mic input, and -12dB to +54dB of gain on the line input. The TRIM pot provides an additional +/-6dB of continuous gain variation. The channel insert point can be switched in and out; note, however, that the channel signal is always available on the insert send XLR. The insert is configured pre or post-EQ via internal jumpers, and pre or post-fader via an internal switch.

The mono input EQ is a 4-band semi-parametric design, with a phase reverse switch and high-pass filter (18dB/octave at 100Hz). The HF and LF shelving bands both offer  $\pm 15$ dB, at 1kHz-16kHz and 32Hz-500Hz respectively. The two mid bands offer  $\pm 15$ dB bell-response filters, with Q switchable between 1.2 and 2.5, and swept centre frequencies from 125Hz-2kHz and 500Hz-8kHz. An EQ in/out switch is provided.

There are eight auxiliary sends. The mono Auxes 1-6 are controlled by three pairs of dual-concentric pots, and are switchable pre/post-fade in pairs. Aux 7 and 8 are both stereo sends, with dual-concentric pots for level and pan control. Each can be switched to pre or post-fade operation. The Aux 1 pot can also be switched into the channel direct output circuit, with the DIR O/P switch. In this mode the module's feed to the Aux 1 mix is removed. The normally post fade direct output is, in DIR mode, jumper selectable to be pre/post fade.

The Pan pot positions the input signal within the main stereo mix. With the PAN button depressed, the channel signal is sent left and right to odd and even-numbered groups respectively; otherwise the pre-pan signal is sent to all groups. The mute section, located after the optional low-pass filter, can be operated manually (with the MUTE button) or remotely (via a 25-way D-sub connector). The 100mm channel fader offers +10dB maximum gain. In addition, any of the four VCA group master faders can add an offset to the fader level, via VCA GRP 1-4 switches.

The 8-segment LED meter can be set to pre-fade or pre-EQ by an internal jumper. In DIR mode Direct Output level is metered. The PEAK LED monitors the signal at three points: pre-EQ, post-EQ, and post-fade. The mono module's audio output is routed to any or all of the 8 groups, and/or to one or both of the master stereo busses (ST1 and ST2).

The channel's Direct Output can carry one of two cleanfeed outputs, talkback from the overbridge mic XLR input, or the oscillator and slate oscillator. Cleanfeed 1 Bus carries a mono mix of all inputs routed to the ST1 mix (not groups); depressing the CLEANFEED and ST1 buttons routes this to the Direct Output. With the CLEANFEED button depressed and ST1 released, the Cleanfeed 2 bus is used as the mix-minus source. Cleanfeed 2 carries a mix from all the input modules which have their CLEANFEED but not their ST1 buttons depressed - ie. all other channels that are using Cleanfeed 2 Bus.

The desk's cue system has two modes - if the CUE button is depressed for less than 0.5s it latches electronically, otherwise it operates in momentary mode. If the channel fader is down when the cue system is active, then the PFL signal will be put onto the Cue L and R busses whatever the AFL/PFL settings on the Monitor Module. The CUE button is reset whenever the channel fader is moved away from the down position. If the button is pressed when the fader is already raised, the AFL/PFL signal will be selected according to the position of the AFL/PFL master switch on the Monitor Module.

The channel remote start/stop facility has two sets of relay contacts, available via a rear panel D-sub connector. These can be set to latching or pulse operation via internal jumpers, and are activated whenever the fader is raised and the On button depressed. This facility, which only operates when the Line input is selected, also cancels local mute (if applicable) to open the module channel.

# Stereo Input Module



The Stereo Input Module accepts mic or line inputs via two rear panel XLR sockets. A PHASE REVERSE switch affects the right channel only, and the +48V mic phantom power switch affects both XLRs. M/S decoding is available, switched in with the M/S button.

The status of the L and R buttons determines whether the L and R input signals are treated as a stereo pair, are summed to mono, or whether either signal is routed to both sides of the stereo channel bus. The TONE switch operates as on the mono module.

The channel GAIN and TRIM pots operate as on the mono channel, except that they are affecting a stereo signal. The stereo channel insert point can be switched in and out with the INS button; note that the channel signal is always available on the L & R insert send XLRs, however. The insert is configured pre or post-EQ, and pre or post-fader, via two internal switches and jumper links.

The EQ is a 4-band swept design, with high-pass filter and low-pass filters (12dB/octave at 100Hz and 12kHz respectively). The HF and LF shelving bands both offer  $\pm 15$ dB, at 1kHz-16kHz and 32Hz-500Hz respectively. The two mid bands offer  $\pm 15$ dB bell-response filters, with Q fixed at 1.2, and swept centre frequencies from 125Hz-2kHz and 500Hz-8kHz. An EQ in/out switch is provided. EQ operates equally on both the L & R parts of the channel signal.

There are eight auxiliary sends. Auxes 1-6, carrying a mono summed signal, are controlled by three pairs of dual-concentric pots, and are switchable pre/post-fade in pairs. Aux 7 and 8 are both fed in stereo, with dual-concentric pots for level control of left and right channels. Each can be switched to pre or post-fade operation. A stereo channel direct output is an option.

The dual-function Balance/Pan pot is, depending on whether the PAN button is depressed, used to trim the stereo balance of the channel signal or pan the stereo signal. The STEREO WIDTH pot provides variation from mono to phase-enhanced wide stereo.

The panned or balanced signal can be routed, via the six buttons at the top of the channel strip, to any combination of the four pairs of groups (1 & 2, 3 & 4, 5 & 6, 7 & 8) and the two stereo master busses. When the channel signal is routed to groups, the left side is routed to odd-numbered groups and the right side to even-numbered groups.

The 100mm channel fader offers +10dB maximum gain. In addition, any of the four VCA group master faders (on the Monitor and Communications Module) can add an offset to the fader level. The 8-segment LED meter can be set to pre-fade or pre-EQ by internal jumpers. The PEAK LED monitors the signal at three points L and R: pre-EQ, post-EQ, and post-fade.

The channel's optional stereo Direct Output can carry one of two mono cleanfeed outputs, talkback from the overbridge mic XLR input, or the oscillator and slate oscillator. See mono input for details of cleanfeed operation. Cue, mute, and remote start/stop operate as on the Mono Input Module, except that the PFL feed to the cue bus is in stereo.

# Mono and Stereo Group Modules



The Mono and Stereo Group Modules are almost identical in operation, providing both Stereo Return and Group Master facilities. The Stereo Group offers greater packing density, and is more suited to applications where groups are always treated as stereo pairs.

**Stereo Return**  
Stereo Return inputs are via rear panel XLR sockets. The left and right inputs can be accepted as stereo or summed mono signals, determined by the MONO switch. Alternatively, by depressing the BUS switch the stereo return section will pick up signals from the 8 group output busses. (Feedback is avoided as no group can route to itself.) PAN, LEVEL and MUTE controls are provided.

The post-mute stereo signal can be routed to the ST1 mix, the ST2 mix, and/or the Group. The GROUP and BUS switches are interlocked such that the GROUP switch is disabled if both are depressed at the same time.

The Stereo Return Cue facility operates in the same manner as the Cue facility on input channels.

**Group Master**  
The group insert can be switched in and out of the signal path, and an internal switch sets pre or post-fade operation. Whether the insert is switched in or not, the group signal always appears at the insert send XLR.

The Group Mute section, placed immediately before the fader, can be manually or remotely switched. An LED is provided to indicate remote mute activation.

A remote control facility for machine start is available, via relay contacts that are closed when the fader is raised.

The Limiter in the Group signal path offers a 4-position switch for threshold, 0.5ms or 10ms attack, and release continuously variable from 200ms to 10 secs. An Auto release facility is also available, giving 1 sec release time with a 2-stage release action. An 8-LED gain reduction meter is provided. On mono groups, the limiter can be linked to that on the group to its right with the LINK switch. On stereo groups, the LINK switch is omitted and operates as a stereo limiter.

The post-limiter signal is sent to the Group Output XLR on the rear panel. An internal jumper can be used to configure the module such that the signal is also passed to the PAN pot and then routed to any of the ST1, ST2, and eight Group busses. The left signal is passed to odd numbered groups, and the right signal to even-numbered groups. The stereo group is fitted with a balance control, switchable to pan, and a width image control. These operate in the same way as on the stereo input.

Feeds from the group to Auxes 1-8 are controlled by four pots. Each is switchable to control either the odd or even one of the pairs Aux 1-2, 3-4, 5-6 and 7-8. Each is switchable to pre or post-fade operation.

The group cue system operates as on Mono and Stereo Input Modules.

Two level indicator LEDs are provided: the SP LED illuminates when a signal is present on the Group mix bus, and the PEAK LED illuminates whenever the output of the group mix amplifier or the post-fader signal come within 6dB of clipping.

# Master ST1 & ST2 Modules



Two fully independent and fully featured modules are provided for ST1 and ST2, with their own sets of outputs. The modules are similar apart from the provision of PSU status LEDs and an on-air switch on the ST1 module.

The On-Air switch, operated manually or via an opto-isolator circuit, is used to close a set of relay contacts, for external signalisation; it also disables some oscillator and talkback facilities on the Communications Module.

The Aux master controls are located on both modules. Each master has a rotary level pot, a Mute switch, and an AFL button to monitor the after-fade listen signal via the Cue system.

The Stereo Master inserts can be switched in and out of the signal path, though the signals are always available on the Insert Send XLRs.

The stereo limiter functionally operates exactly as does the limiter on the Group modules, though there is no LINK switch.

The stereo output from each module is controlled via a stereo master fader. A mute circuit, operated remotely, is positioned after the fader. The PEAK LED monitors both L & R signals, pre-fader, and illuminates if either comes within 6dB of clipping.

A mono output is also available, jumper selectable pre or post the limiter. This output has a rotary level control, offering up to 0dB of gain, Mute circuit, and PFL. The signal is a mix of the Stereo Master left and right signals, and is taken pre or post-fader, as determined by the PRE switch.

# Communications Module



In addition to its communication functions, the Communications Module also carries VCA Master faders 3 & 4, allowing further input channel level control.

The talkback input is derived from the meterbridge Talkback Mic XLR. Gain is adjusted on the Communications Module.

Talkback can be routed at any time to the external Talkback Output and to all Group Outputs, also to any combination of Aux buses 1-8, or optionally, any combination of the the 8 group outputs. The signal can also, apart from when the On Air Lock Out LED is lit, be routed to either of the two Stereo Master outputs, and to the studio speakers. Talkback to studio headphones is not "locked out".

There are two sets of studio headphones outputs - Studio Phones and Guest Phones - plus a Studio Speaker output, each with their own level control. The input to these three can be CRM (ie. whatever the control monitor is receiving), ST1, Aux 8, or an external input (via the Communications Module EDAC). If the Talk To Studio switch is active, the ST1 stereo signal will be routed in mono to the left side of the headphones, and talkback to the right. A Producer-to-Studio input is also available to the phones, with audio input and control via the Communications Module EDAC and EXT Logic D-sub connector. This signal is similarly routed left, with talkback right, whenever it is present.

The Studio Speaker outputs can be manually or externally muted; an LED is provided to indicate if external muting is in operation. A speaker dim facility, linked to an internal preset pot for dim level, is also provided.

The Communications Module's oscillator, switched in and out via a clear illuminated switch, is routed to the internal tone bus, and also to two sets of balanced outputs on the rear panel EDAC (OSCL & OSCR). A calibration pot controls overall tone level, and a level control attenuates the balanced outputs. The internal tone bus is disabled when the ST1 Module's On Air switch is active. The oscillator can be switched to 100, 400, 1k and 10k Hertz, and an EBU Tone facility is provided to switch the OSCL output such that it is muted for 100ms every 3s. A slate facility is also provided - the oscillator signal can be routed to the Direct Output of every input module, the talkback signal can be similarly routed, or the two can be routed simultaneously (though the oscillator frequency will be automatically set to 30Hz).

Two Option switches are provided, controlling relays available via the Communications Module External Logic D-type connector, for remote control of external devices, lamps etc. The switches also drive talkback contacts for external use via an EDAC connector, with Call LEDs accessed via the Logic D-sub connector.

# Monitor Module



The Monitor Module provides facilities for mono and stereo monitoring of many internal and external sources, as well as VCA master faders 1 and 2 for adjusting input module gain.

Any one of eight external or six internal sources can be selected for monitoring. External sources are taken from a rear-panel 90-way EDAC connector, whilst internal jumpers allow combinations of the following to be assigned as the six internal sources:

- Groups 1 to 8 (mono)
- The main stereo mixes of the ST1 and ST2 Modules (stereo)
- The mono mixes of the ST1 and ST2 Modules (mono)
- Aux 1 to Aux 6 (mono)
- Aux 7 and 8 (stereo)

Stereo sources are normally sent in stereo to the monitor bus. With the MONO SOURCE L & R switches, however, either or both the left and right sides of a stereo monitor source can be sent in mono to both sides of the monitor bus. Monitor outputs are via two sets of Monitor Speaker outputs, and to a headphones output.

Both Cue and Monitor signals can be simultaneously heard in the headphones by depressing the H/P SPLIT button. The monitor signal is sent (in mono, summed if it is a stereo source) to the left side, and the cue to the right side.

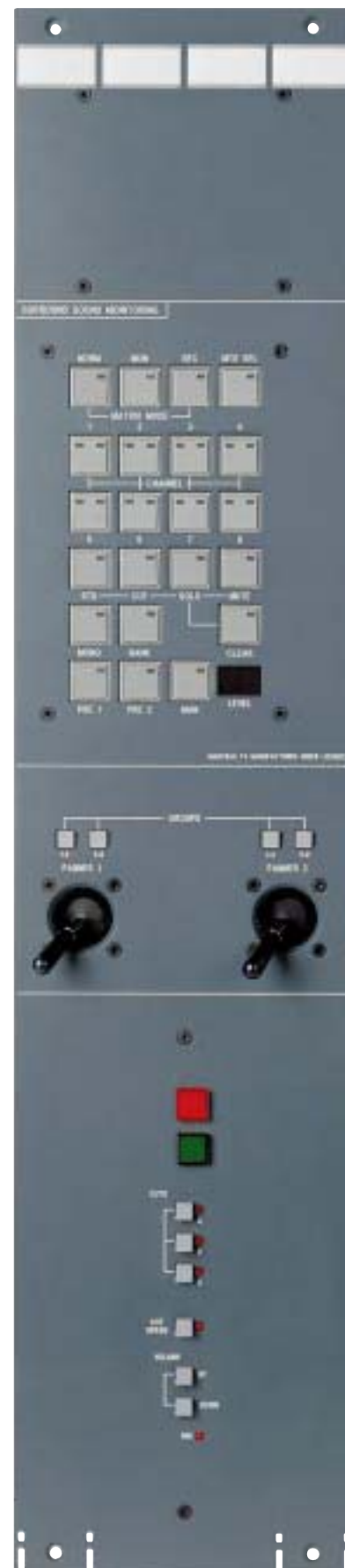
The ALT switch is used to switch between the two sets of monitor speaker outputs. Whichever set is selected is affected by the right channel phase reverse, balance and level controls. The L & R outputs can be summed to mono, and independently muted. Mutes can be executed under manual or external control. A Dim facility is also available, cutting monitor output level by a preset level (-20dB is the default, but this can be changed by jumpers on the Monitor Module PCB).

Master Cue facilities are provided on the Monitor Module. The Overbridge Cue Speaker is fed with Overpress Cue Signals (if the Overpress Option is fitted), the Return Talkback signal, and (if the correct jumpers are fitted) a mono sum of the Cue L & R signals. A stereo pair of Cue Speaker outputs is also provided. Return Talkback and Cue Monitor have their own level controls.

The Cue Speaker outputs carry PFL and AFL signals via the Cue L & R busses. These signals are muted with the Overpress facility (if fitted), if the appropriate jumpers are fitted.

The Cue L & R busses can be switched from the Cue Speakers Output to the Monitor Outputs, and a master switch is provided to select PFL or AFL operation from the various Cue switches on the console. All CUE switches can be reset from the monitor module.

# Surround Sound Module



To address the needs of the modern broadcaster the B800 offers a Surround Sound facility based on the industry standard Magtrax™ system. The same system as is used in the ground breaking DC2020 and other Soundcraft consoles.

The surround facility comprises two individual items: the B800 Surround monitor/panner control module, as pictured, and the TV8 8 channel, 6 speaker interface in a separate 2u rack.

With up to 8 monitor channels of 6 speaker surround sound, the B800 system fully supports all surround formats used in TV, radio and video. Additionally, it is compatible with all proprietary systems currently available including Dolby™ and Ultra Stereo™.

The TV8 also features an 8-channel record/replay insert for use with a master recorder such as Dolby Dubber™, Tascam DA88 and Akai's DB8.

The status of speaker level, record/replay and "toggle" plus solo groups are controlled from the B800 control module while VME speaker cut groups are easily and quickly assigned.

Software controlled presets allow monitoring levels to be selected at either 85dB, 88dB or at a user defined level.

Two quad joysticks are routable to all 8 group busses and the ergonomic control layout lends itself to intuitive, efficient operation.

# Module Jumper/Link Options

## Mono Input Module

Links 1-4	Pre-fade insert point	Pre or (default) post-EQ
J1	Used for VCA option	
J2	VCA ground	Local (default) or Master 0V
J3	Remote start/stop	Pulse start/stop (default) or latched on/off operation
J4	Remote switching	Enabled (default) or disabled
J5	Remote switch function	Start pulses only or latching start/stop (default)
J7	Stereo aux source	Pre (default) or post-mute
J8	Mono aux source	Pre or post mute (default)
J9	Slate/cleanfeed relationship	Mutually exclusive or simultaneous (default) in Direct Output
J10	Meter feed	Pre-EQ/pre-fade (default) or post-fade in DIR mode
J11	Remote common	Allows signalisation interlock with master and group modules, ie. operates autonomously (default), or only when all 'remote' modules in signal path have faders raised
J12	Signalisation	Studio speaker mute activated (default) or Monitor Dim activated.
J13	Signalisation	Either when line input is selected or when mic input is selected (default)
J14	Channel meter	Follows either channel input (default) or Direct Output switch
J15	Direct Output source	Enables Direct Output in DIR mode to be pre or post-fade
J16	Remote Start	Operates in either Mic or Line mode (default)

## Mono Group Module

### Jumper options

J1	Remote common	Allows signalisation interlock with master and input modules, ie. operates autonomously (default), or only when all 'remote' modules in signal path have faders raised
J2	Talkback to group	Talkback replaces (default) or mixes with program in Group Output
J3	Slate (Osc to groups)	Replaces (default) or mixes with program
J4	Effect of On-Air switch on talkback	No effect (default) or kills talkback to group output
J5	Limiter	Post-limiter signal sent to stereo bus/group routing switches and Group Output, or (default) limiter affects signal from Group Output only
J6	Limiter pre-emphasis	Pre-emphasis or no pre-emphasis on limiter side chain
J7	Aux 1-6 pre-fade source	Pre or post-mute(default)
J8	Stereo auxes 7/8 pre-fade source	Pre or post-mute(default)

### Internal switch options

S30	Insert point	Pre (default) or post-fade
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## Stereo Master Modules

The Stereo Master Module can be supplied with three fader options: a single VCA control fader; a stereo audio fader; or two mono faders

J1	Remote common	Allows signalisation interlock with group and input modules, ie. operates autonomously (default), or only when all 'remote' modules in signal path have faders raised
J2 & J3	Mono output	Post-fade, pre-limiter or post-limiter (default)
J4	Talkback	Talkback replaces (default) or mixes with program
J5 & J6	Limiter pre-emphasis	Pre-emphasis or no pre-emphasis (default) on limiter

## Monitor Module

J1	Ext. 8 input	Set for +4dB or -10dBV
J2, J3 & J4	Monitoring	Cue to monitor/talk to studio (2 monitor modules)
J5, J6, J7, J8 & J9	Talkback	Selections for control room or studio
J10 & J11	Cue speaker outputs	Cue signal output routing. Internal/External feed & overpress
J12	Cue to headphones	Allows cue to mix (default) or replace prog.
J13	Monitor dim bus	Enables monitor dim (default) or monitor mute
J14	Studio dim bus	Enables studio mute (default) or studio dim

## Comms Module

J1 & J2	Option 1 & 2 switches	Feed T/B to the external destinations. When not operated these can be either an external cue input signal (default) or no signal (grounded).
J3	Talkback to studio speakers	Mute kills T/B to speakers (default) or T/B overrides mute.
J4	Talkback to studio speakers	T/B mixes with prog (default) or replaces prog.
J5 & J6	Cleanfeed options	These jumpers allow engineer talkback to cleanfeed 1, cleanfeed 2, or to neither bus (default).

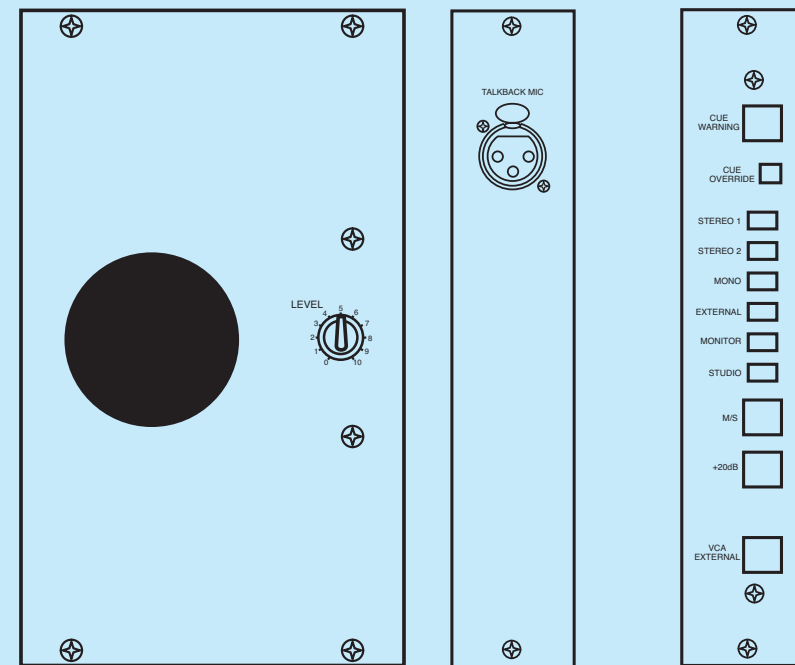
## Internal monitor source selection

The Monitor Module's bank of Desk 'A' switches allow you to select any one of six internal monitor signals. The sources of these six signals are determined by links on an internal scramble card., from:

- Groups 1 to 8 (mono)
- The main stereo mixes of the ST1 and ST2 Modules (stereo)
- The mono mixes of the ST1 and ST2 Modules (mono)
- Aux 1 to Aux 6 (mono)
- Aux 7 and 8 (stereo)

In addition to these, there are also two feeds, Spare L & R, which can be used to monitor any point in the console.

# B800 Meterbridge Modules



### Meterbridge Speaker

The Meterbridge speaker feed is sourced from the Monitor Module and has its own volume control

### Talkback Mic

The talkback mic socket is routed onto the Talk Bus via the Communications Module.

### Meter Selector Panel

This panel allows you to monitor a variety of console signals. The meters which would be used in conjunction with this panel may be chosen from a range of Soundcraft meter panels which are available from your dealer. It is suggested that a suitable choice would be an L/R pair + phase correlator.

### Selector Switches

There are six sources for monitoring: **STEREO 1** monitors the Stereo output of the ST1 Master module, **STEREO 2** monitors the Stereo output of the ST2 Master module, **MONO** monitors the Mono outputs from the ST1 and ST2 modules (ST1 on the left meter, and ST2 on the right meter), **EXTERNAL** monitors any signal placed on the external Input L and R XLRs on the meterbridge rear connector panel, **MONITOR** monitors the Monitor Module's output (to output speakers), and **STUDIO** monitors the Studio Speakers.

### Cue Override

If the CUE OVERRIDE switch is depressed, an Overpress or Cue generated from the console will replace the selected meter source. The green CUE WARNING lamp will light whenever a Cue or Overpress signal is present.

### M/S

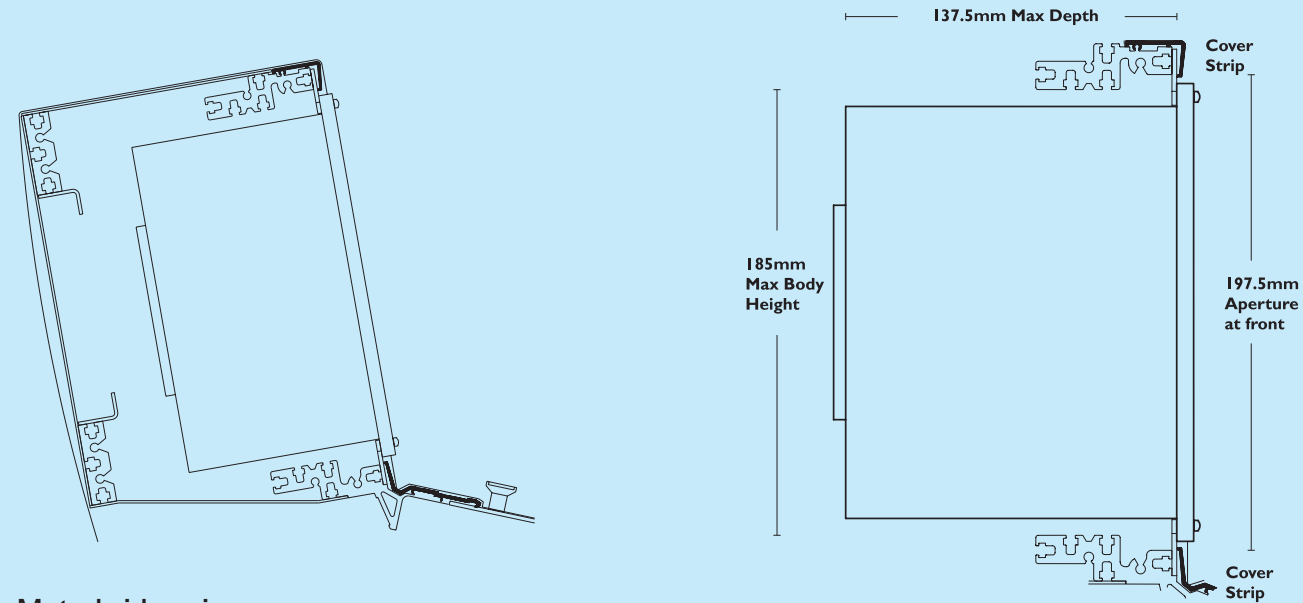
Mainly used to decode an M/S source for display in L/R mode. The M/S switch also encodes an incoming Stereo L/R signal into M/S for display on the meters. The +20dB switch works in conjunction with the M/S switch: it boosts the S signal by +20dB.

### VCA External

The red VCA EXTERNAL lamp illuminates to indicate external VCA control, from AFV interface.

# B800 Meterbridge Options

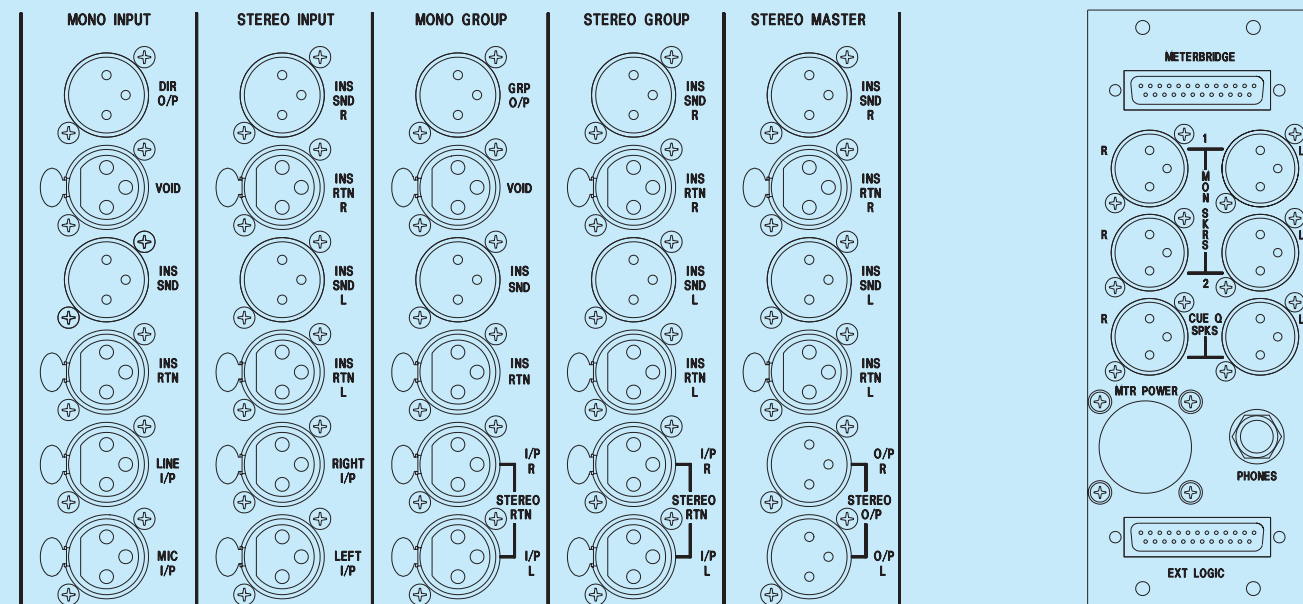
The meterbridge of the B800 is designed to accept DIN standard and Nordic cassettes (European and Scandinavian standards), with apertures based on modules measuring 190x40mm (height x width)\*. For example TRW & NTP Meters.



## Meterbridge sizes

Console	Meterbridge
24-module frame	14 slots
32-module frame	20 slots
40-module frame	26 slots
48-module frame	33 slots
56-module frame	39 slots

# Rear Panels



# B800 System Components

## Frames

B800 24-module frame (13-slot meterbridge)	RW5251
B800 32-module frame (20-slot meterbridge)	RW5252
B800 40-module frame (26-slot meterbridge)	RW5253
B800 48-module frame (33-slot meterbridge)	RW5254
B800 56-module frame (39-slot meterbridge)	RW5255

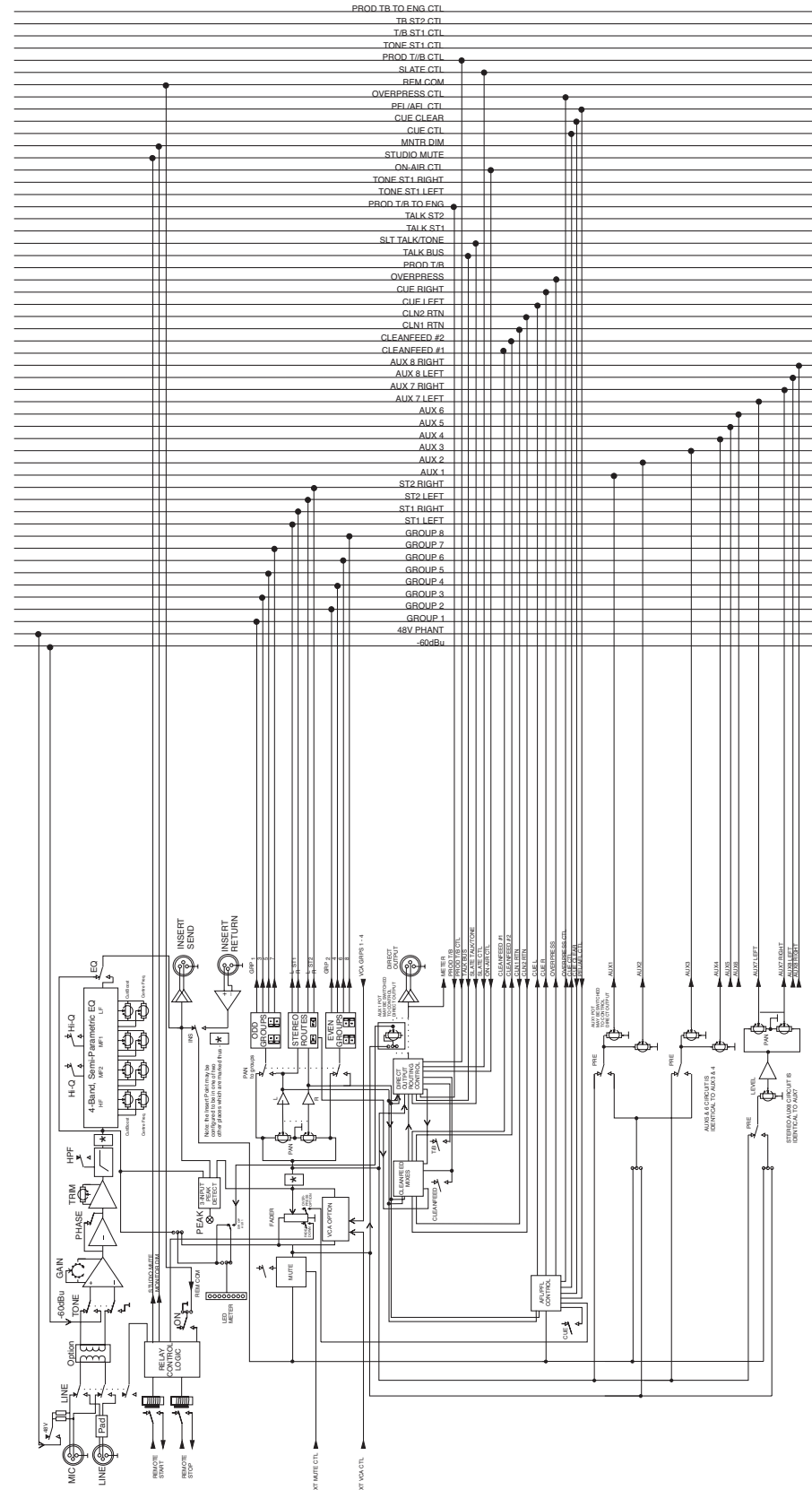
## Modules

Mono Input	RS5952
Mono Input with input transformer	RS5952TX
Mono Input with P&G fader	RS5952PG
Mono Input with P&G fader and input transformer	RS5952PGTX
Mono Input with P&G overpress	RS5952OP
Mono Input with P&G overpress & transformer	RS5952OPTX
Stereo Input	RS5953
Stereo Input with input transformers (2)	RS5953TX
Stereo Input with P&G fader	RS5953PG
Stereo Input with P&G fader and input transformers	RS5953PGTX
Stereo Input with P&G overpress	RS5953OP
Stereo Input with P&G overpress & transformers	RS5953OPTX
Mono Group	RS5954
Mono Group with output transformer	RS5954TX
Mono Group with P&G fader	RS5954PG
Mono Group with P&G fader and output transformer	RS5954PGTX
Mono Group with P&G overpress	RS5954OP
Mono Group with P&G overpress and output transformer	RS5954OPTX
Stereo Group	RS5955
Stereo Group with output transformers	RS5955TX
Stereo Group with P&G fader	RS5955PG
Stereo Group with P&G fader and output transformers	RS5955PGTX
Stereo Master 1	RS5956
Stereo Master 1 with output transformers (2)	RS5956TX
Stereo Master 1 with P&G fader	RS5956PG
Stereo Master 1 with P&G fader and output transformers	RS5956PGTX
Stereo Master 2	RS5957
Stereo Master 2 with output transformers (2)	RS5957TX
Stereo Master 2 with P&G fader	RS5957PG
Stereo Master 2 with P&G fader and output transformers	RS5957PGTX
Monitor Module	RS5958
Monitor Module with P&G faders	RS5958PG
Comms Module	RS5959
Comms Module with ext. T/B input transformer	RS5959TX
Comms Module with P&G faders (2)	RS5959PG
Comms Module with P&G faders and transformer	RS5959PGTX
Blank Module	PH1263-01

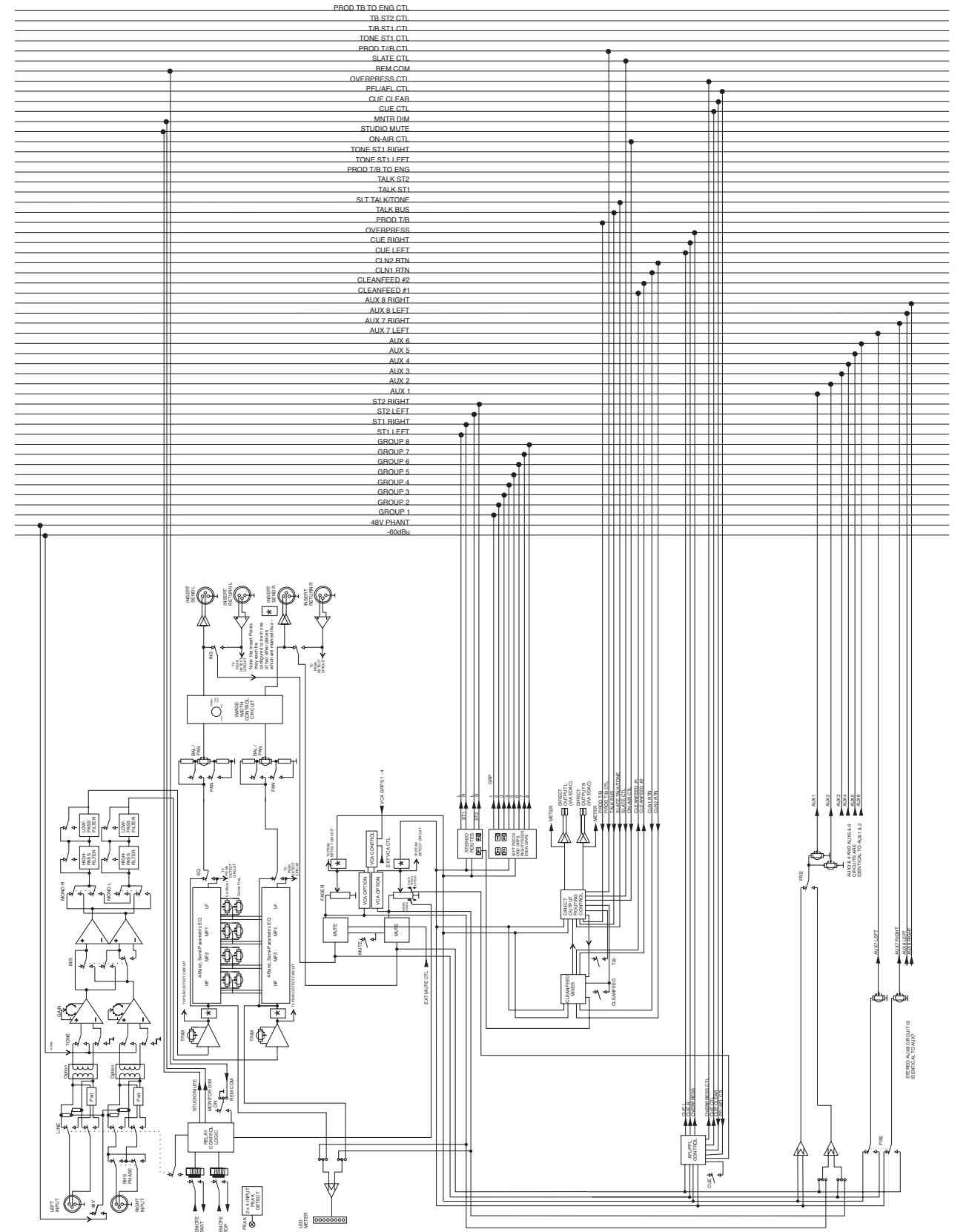
## Meterbridge Options

8 x DIN PPM (-40, +5) meter panel	10 slots	RS5779
4 x DIN PPM (-40, +5) meter panel	5 slots	RS5788
8 x BBC PPM (1-7) meter panel	10 slots	RS5783
4 x BBC PPM (1-7) meter panel	5 slots	RS5786
8 x EBU PPM (-12, 0, +12) meter panel	10 slots	RS5784
4 x EBU PPM (-12, 0, +12) meter panel	5 slots	RS5787
8 x professional VU meter panel	10 slots	RS5782
4 x professional VU meter panel	5 slots	RS5785
2 x DIN PPM (-40, +5) plus phase correlator	5 slots	RS5826
2 x BBC PPM (1-7) plus phase correlator	5 slots	RS5824
2 x EBU PPM (-12, 0, +12) plus phase correlator	5 slots	RS5825
2 x professional VU meters (-40, +5) plus phase correlator	5 slots	RS5823
3 x DIN PPM (-40, +5) meter panel	5 slots	RS5830
3 x BBC PPM (1-7) meter panel	5 slots	RS5828
3 x EBU PPM (-12, 0, +12) meter panel	5 slots	RS5829
3 x professional VU meters (-40, +5) meter panel	5 slots	RS5827
1 x Twin Needle PPM (1-7) Meter Panel	3 slots	RS5899
2 x Twin Needle PPM (1-7) Meter Panel	5 slots	RS5900
2 x Twin Needle PPM + Phase Correlator	5 slots	RS5901
RTW 1113 DIN stereo bargraph meter	1 slot	RS5780
RTW 1119 DIN stereo bargraph meter plus phase correlation meter	1 slot	RS5781
10 x 40 segment led aux meters VU	8 slots	RS5855V
10 x 40 segment led aux meters PPM	8 slots	RS5855P
10 x 40 segment led master VU	8 slots	RS5857V
10 x 40 segment led master PPM	8 slots	RS5857P
8 x 40 segment led group VU	8 slots	RS5856V
8 x 40 segment led group PPM	8 slots	RS5856P
Single meterbridge blank	1 slot	PB0682-01
Dual meterbridge blank	2 slots	PB0685-01
4-way meterbridge blank	4 slots	PB0686-01
8-way meterbridge blank	8 slots	PB0687-01

# Mono Input Block Diagram

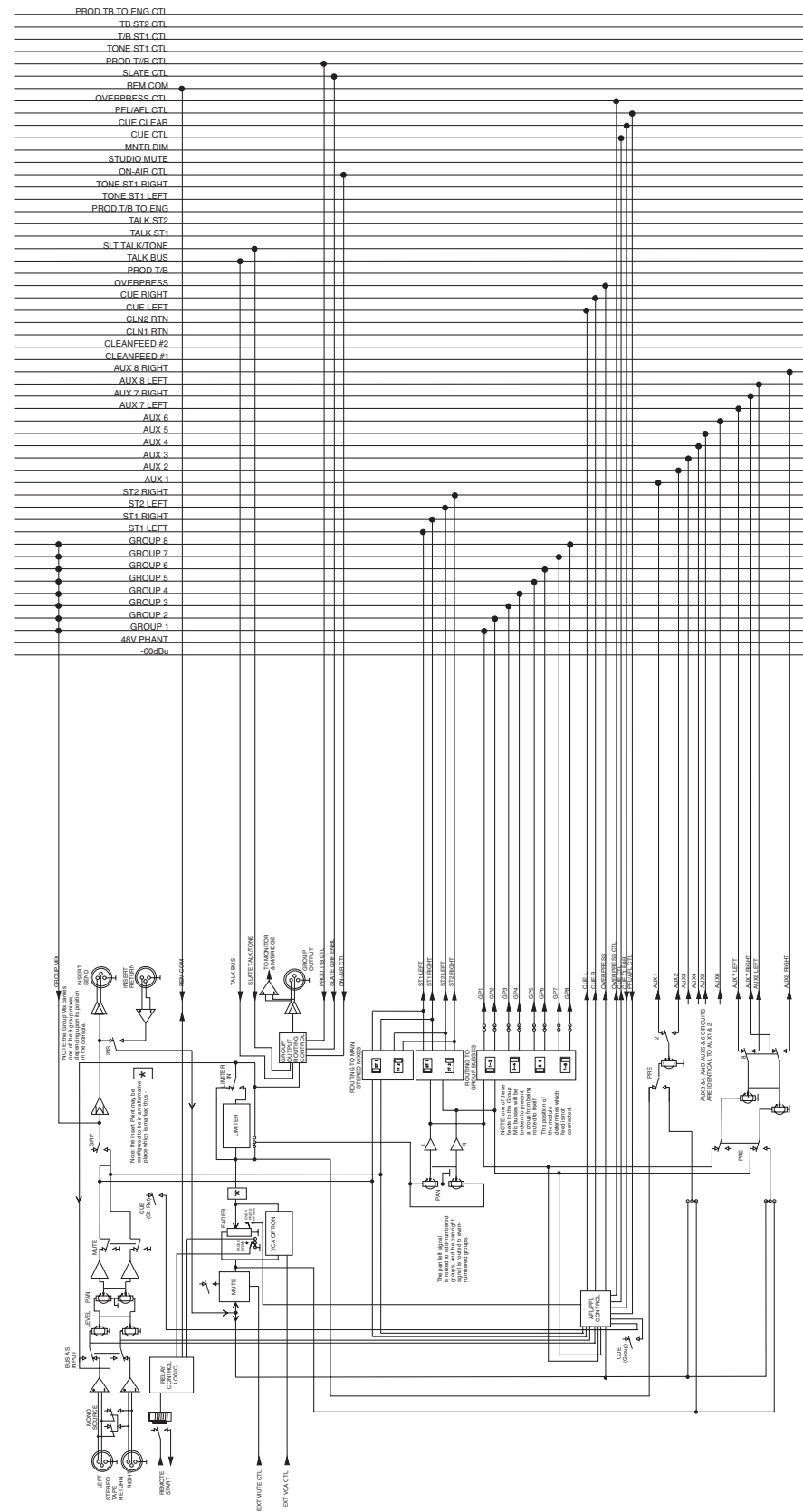


# Stereo Input Block Diagram



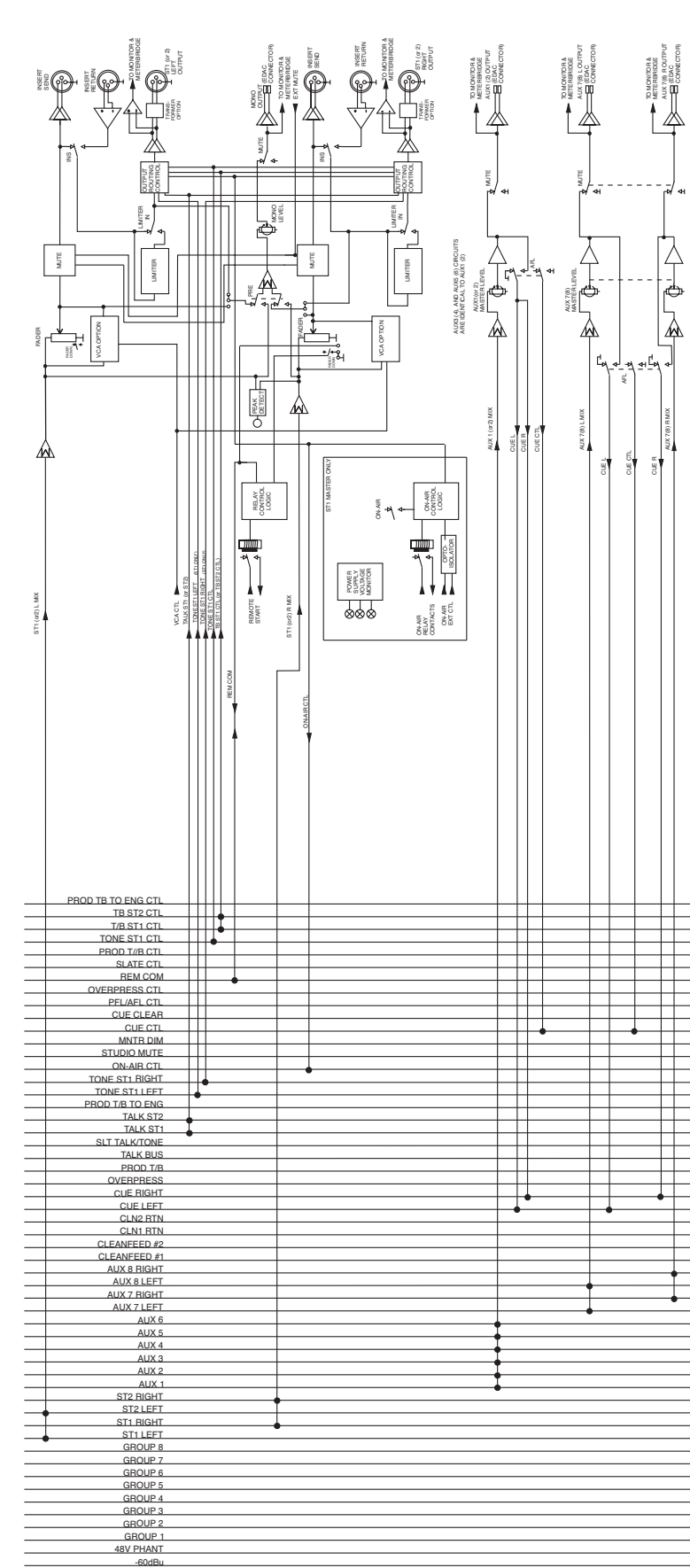


# Mono Group Block Diagram

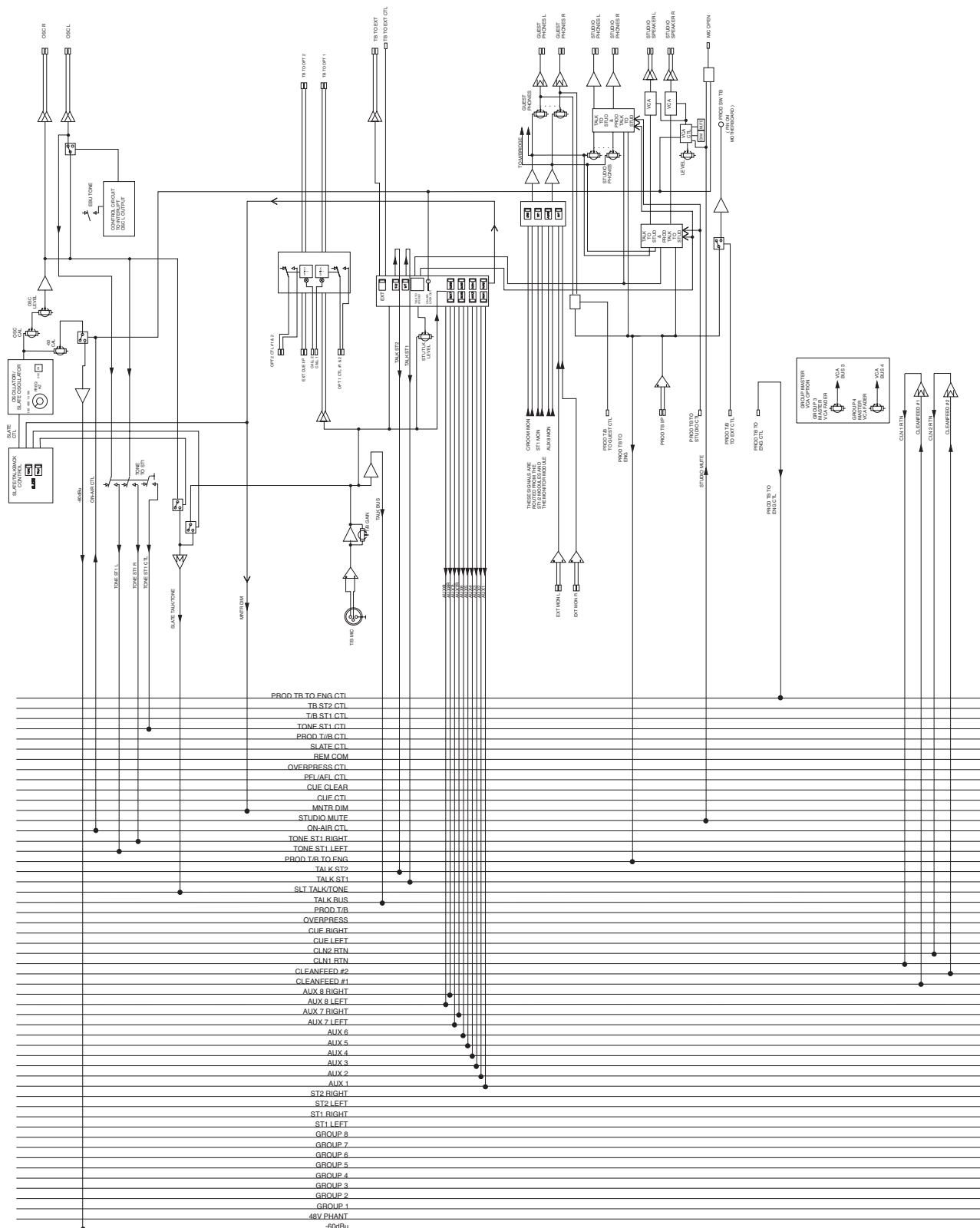


\*Note  
The stereo group is fitted with a balance control, switchable to pan, and a stereo image width control. These functions appear in the circuit, post the group summing amp and pre the insert switch. The rest is as per above block diagram but in stereo, with aux 7 and 8 being in true stereo.

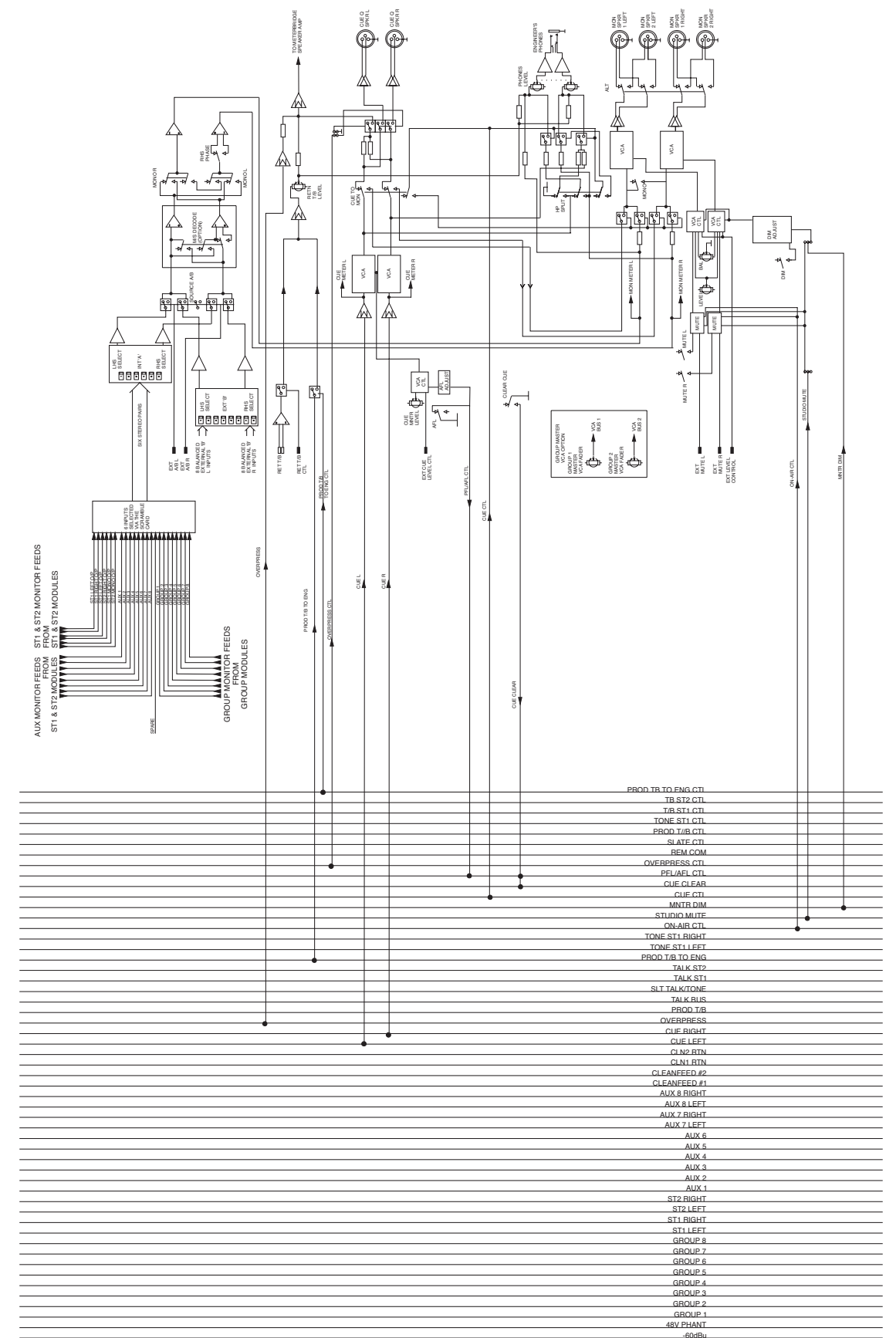
# Stereo Master Module Block Diagram



# Communications Module Block Diagram

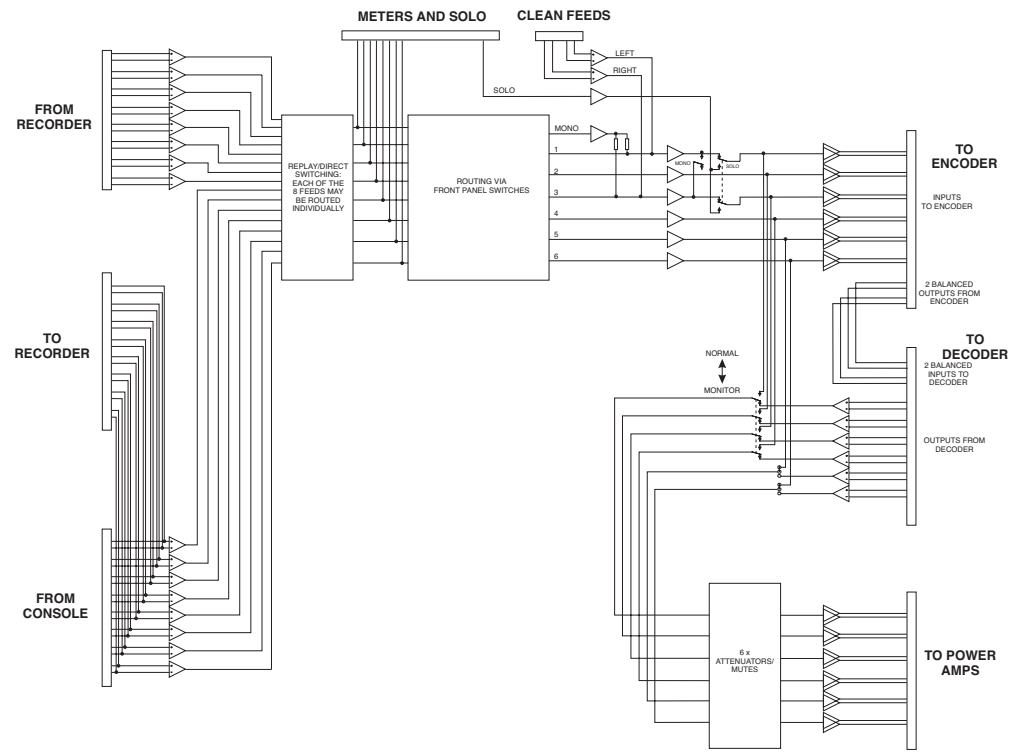


# Monitor Module Block Diagram

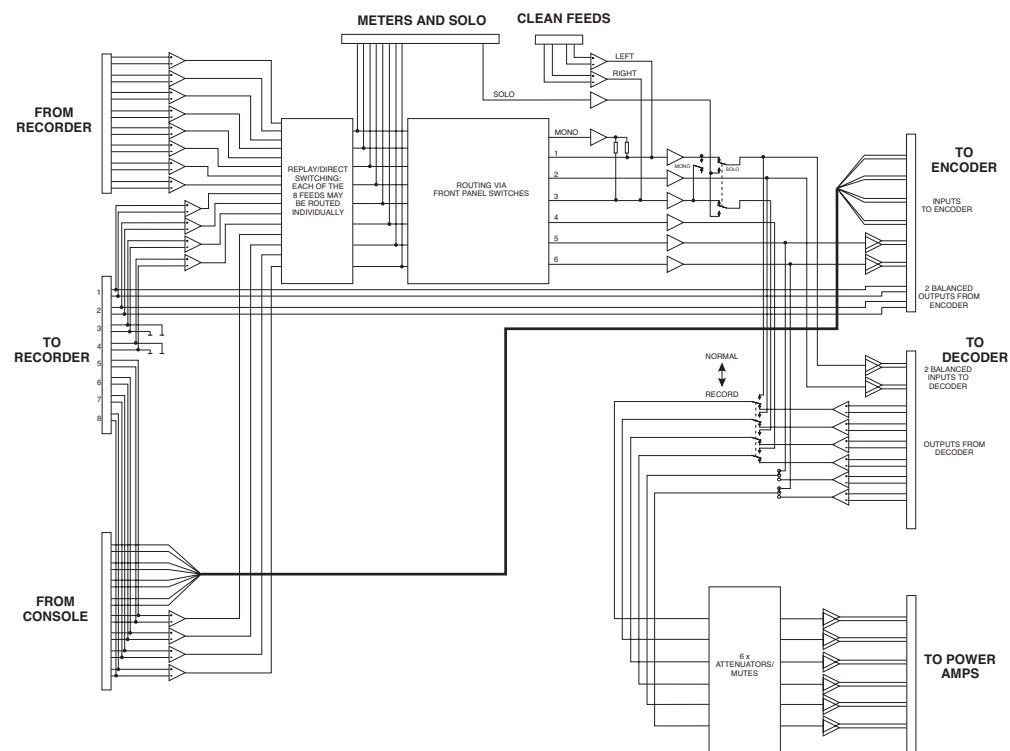


# Surround Module

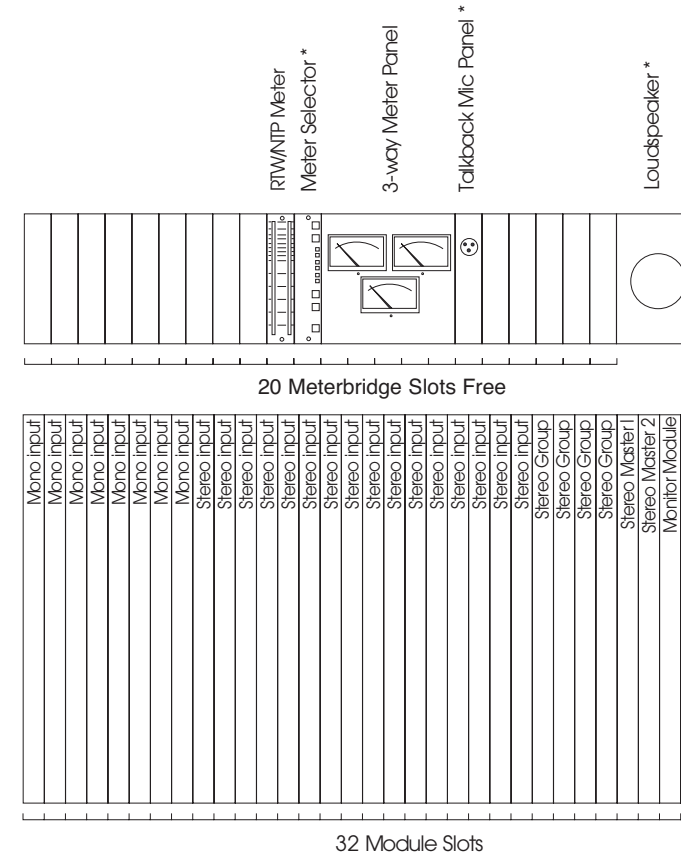
## Monitor Mode



## Record Mode



# Example Desk Configurations



\*Denotes fitted as standard

