

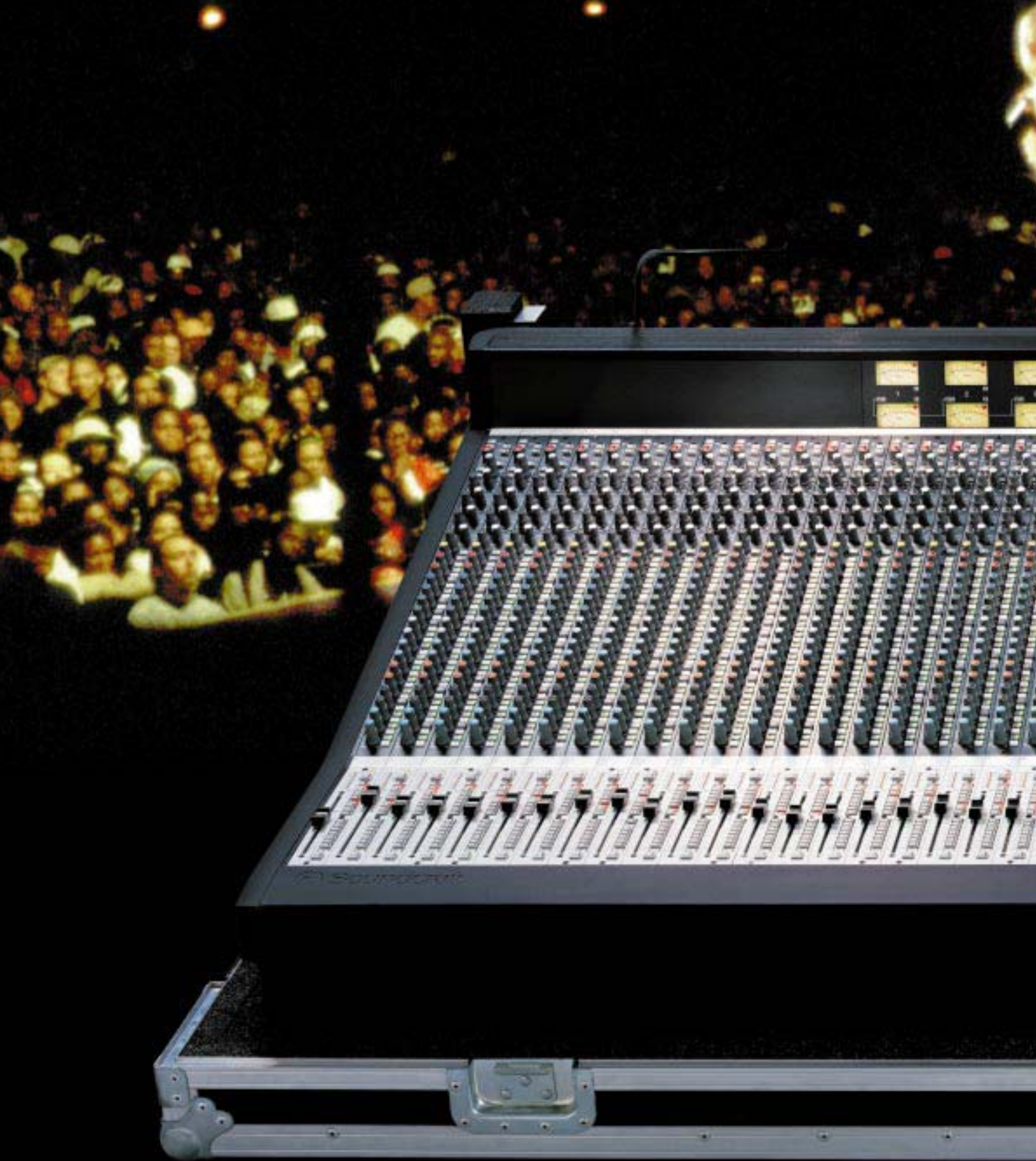


FIVE
MONITOR

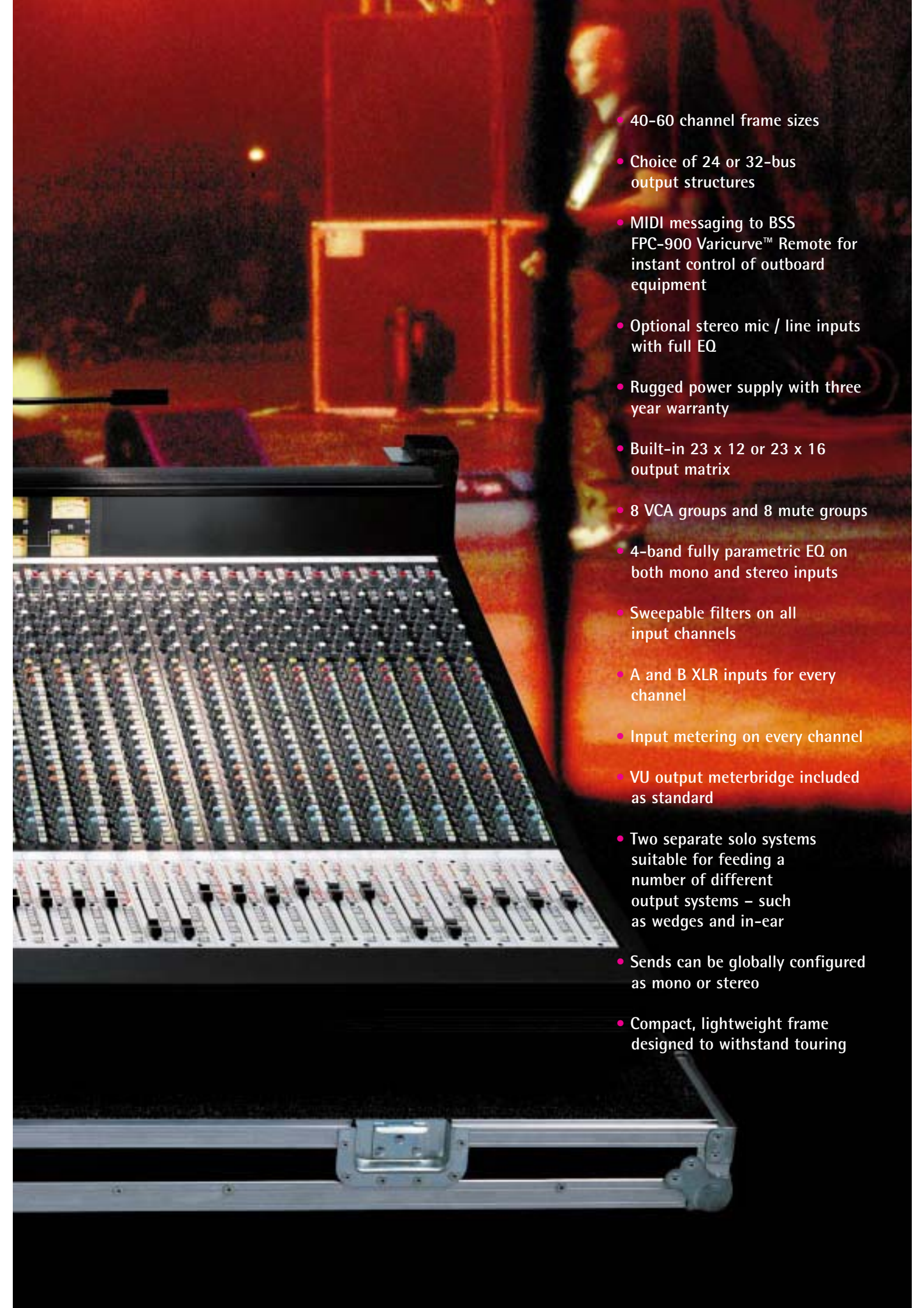


Soundcraft

The Perfect Companion





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- 40-60 channel frame sizes
 - Choice of 24 or 32-bus output structures
 - MIDI messaging to BSS FPC-900 Varicurve™ Remote for instant control of outboard equipment
 - Optional stereo mic / line inputs with full EQ
 - Rugged power supply with three year warranty
 - Built-in 23 x 12 or 23 x 16 output matrix
 - 8 VCA groups and 8 mute groups
 - 4-band fully parametric EQ on both mono and stereo inputs
 - Sweepable filters on all input channels
 - A and B XLR inputs for every channel
 - Input metering on every channel
 - VU output meterbridge included as standard
 - Two separate solo systems suitable for feeding a number of different output systems – such as wedges and in-ear
 - Sends can be globally configured as mono or stereo
 - Compact, lightweight frame designed to withstand touring

Setting The Stage

More than 25 years' experience of professional mixing console design has given Soundcraft an unmatched knowledge of the field. Over the years, a series of now legendary consoles, such as Series Four and Europa, have earned Soundcraft worldwide respect for audio performance and unique British sound.

Then came Series FIVE, Soundcraft's finest front-of-house console yet. Since its release, Series FIVE has been adopted as an industry standard by touring companies, installations and theatres alike. Its first year of production saw Series FIVE in use around the world at countless high profile performances - with artists such as Texas, Del Amitri and Garbage enjoying its flexibility and outstanding sound quality.

FIVE Monitor is a dedicated monitor console to partner Series FIVE. Light and compact, yet strong and reliable, FIVE Monitor is designed to be highly flexible while retaining the famous Soundcraft familiarity.

Central to the design of FIVE Monitor is a fully configurable stereo bus structure. Given the complexity of today's shows and concerts, more and more musicians are demanding in-ear monitoring systems, which are now more reliable than ever before. FIVE Monitor's highly flexible mono or stereo bus structure ensures that you can always meet the requirements of your performers.

An extensive range of other fully professional features includes a choice of two bus structures, a dedicated interface for the popular BSS Varicurve™ FPC-900 remote control, a selection of input and output modules, and a comprehensive output matrix.

FIVE Monitor is the perfect companion for existing Soundcraft front-of-house users, and newcomers to Soundcraft alike.



The Series FIVE front-of-house console

Designed For The Way You Work



FLEXIBLE FRAME AND BUS STRUCTURE OPTIONS

To allow you to match your console as closely as possible to the complexity of your application, the FIVE Monitor is available in a choice of two bus structures: 24-bus and 32-bus. The 24-bus version is available with 44, 52 or 60 input channels, while the 32-bus version offers 40, 48 and 56 channel frame sizes.

BSS VARICURVE™ REMOTE CONTROLLER

Unique to Soundcraft consoles is the integrated MIDI control of the BSS FPC-900 Varicurve™ Remote unit. When the FPC-900 is inserted into the FIVE Monitor's MIDI loop, soloing any output channel will cause the FPC-900 to display

all external EQ settings associated with that output.* Any individual parameter can then be adjusted from the

Varicurve™ remote control unit, without having to leave the console's central mixing

position. This makes setting up output EQs quicker and easier, for better all-round results.



BSS Varicurve™ FPC-900 remote control

*Requires FPC900 software v1.6 or later

FLEXIBLE OUTPUT STRUCTURE

Both the 24 and 32-bus variants offer a large number of stereo monitor outputs; the 24-bus version has 8 dedicated mono

sends and 8 stereo pairs of sends, and the 32-bus version has 16 pairs of stereo sends. In addition to these, both versions offer a master L/R stereo output.

The real advantage of the FIVE Monitor bus structure design is that every pair of stereo outputs can be switched to act as dual mono; so whatever combination of mono wedges and stereo in-ear systems you're mixing for, you can always configure your

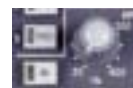
console to work as you require. A switch on the output modules determines whether each pair of busses works as mono or stereo.



SWEEPABLE FILTERS



The input EQ sections of both the mono and stereo modules on the FIVE



Monitor contain a sweepable high-pass filter. The mono module also has the additional flexibility of a sweepable low-pass filter.

OPTIONAL STEREO MODULE

Any pair of mono input channels can be replaced by the optional stereo input module. Features are almost identical to those of the mono module; with the exception that the A and B dual inputs of the mono input are replaced by L and R for the stereo.

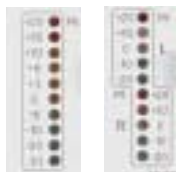


METERING

A VU output meterbridge is included as standard on the FIVE Monitor. This can be switched to display the signal from either the monitor outputs or the matrix outputs. The meters are illuminated by LED backlighting, not filament lamps which would be unreliable and prone to failure. The FIVE Monitor's two large central VU meters read the signals from the master left and right busses, and automatically switch over to read any soloed signals.

INPUT METERING ON EVERY CHANNEL

LED signal metering is built into every channel. The mono channel has a 10-segment meter, while the stereo channel employs two 5-segment meters.



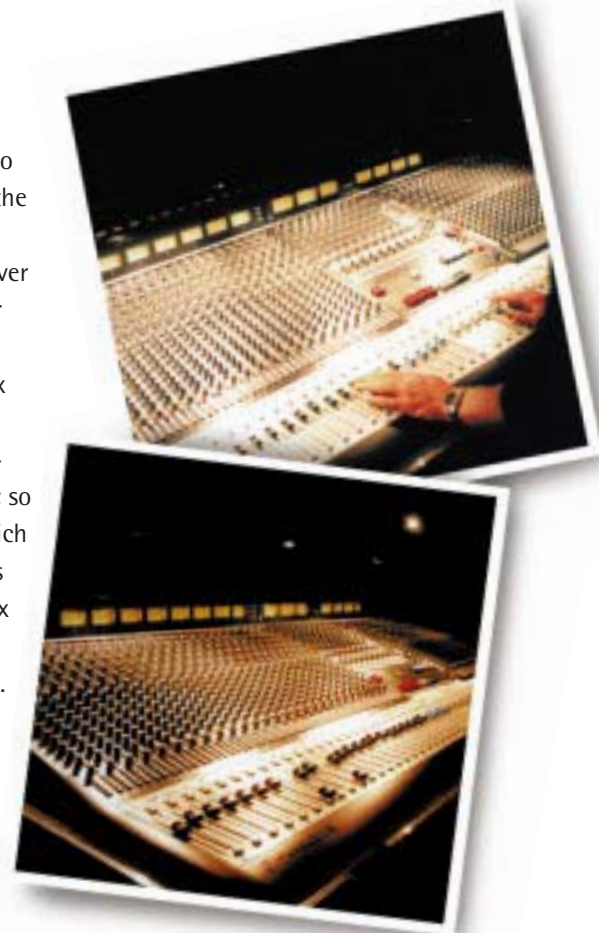
DUAL SOLO SYSTEM

The FIVE Monitor's flexibility extends to having two separate solo systems. A switch on each output, both group and matrix, determines to which solo bus the signal will be sent. So the operator can have a wedge on main solo and an in-ear set on alt solo, with the result that soloed signals will automatically appear on the appropriate listening device.

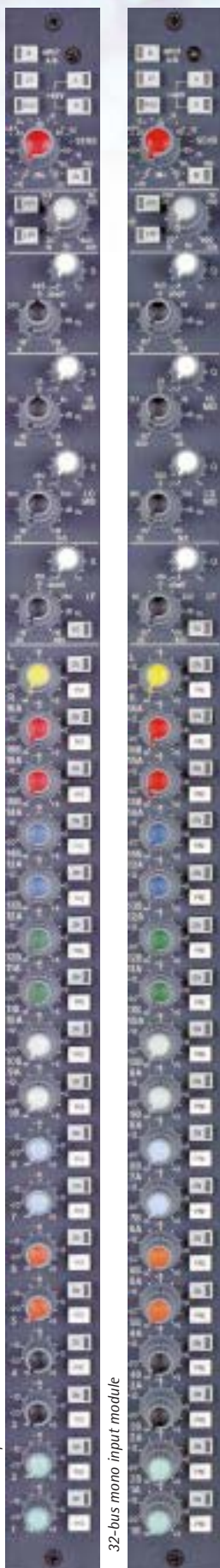


OUTPUT MATRIX

The comprehensive output matrix built into the output section of the FIVE Monitor offers additional flexibility, over and above the monitor outputs. Each output channel offers a matrix output which can be derived from any combination of 23 sources; so the 24-bus version which has 12 output modules therefore has 12 matrix outputs, while the 32-bus has 16 matrix outs. As an alternative to the matrix outputs, an EQ output module is available as an option.



Input Modules (1)



The Series FIVE front-of-house console's input modules were designed to offer a stereo input module with features as similar as possible to those of the mono. This has been retained in the design of the FIVE Monitor; an optional stereo module is available for both 24 and 32-bus versions which is almost identical to the mono channel. Furthermore, the overall feature sets of both the mono and stereo modules are very similar to the Series FIVE, ensuring continuity and familiarity between the two.

INPUT STAGE

Every mono channel on the desk features A and B XLR inputs. These allow many inputs to be connected and switched between without the need for repatching. So, when you're working with more than one band, the alternative input can be selected within seconds using the B switch. Phantom power is separately applied to either input via 48V switches, with the polarity being changed by the phase button (Ø). The INS IN button allows the balanced insert point on the console's back panel to be easily switched in and out. The RNG button toggles the range of the input, be it mic or line level, from high to low sensitivity. The signal then passes through the SENS (sensitivity) potentiometer for fine input gain adjustment. These two separate active gain stages are an incredibly effective way of keeping a controllable amount of headroom in the pre-amp stage; consoles which use a traditional pad control unnecessarily degrade their input signal. This is because a pad circuit adds noise and reduces the amplifier's common mode rejection properties, crucial in live sound applications where long mic cables and multicores mean that effective interference rejection is crucial.

On the stereo module, the L and R inputs can be treated separately as two mono inputs or as a stereo pair. A pair of MONO switches enables L, R or both inputs to be sent along both sides of the channel path and feed a stereo send. Phantom power is again supplied to the left and right paths separately, and each leg also has a RNG button. With the phase reverse button down (Ø), the phase of the left leg will be reversed. A jumper on the module can be changed, causing the phase of both L and R legs to reverse.

The INS (insert) button engages the left and right balanced insert points on the FIVE Monitor's back panel, which uses separate jacks for send and return. Both mono and stereo insert points can be set pre or post-EQ using internal jumpers.

FILTERS

Both modules contain a sweepable high-pass filter, ranging from 20–600Hz, which may be switched in or out of circuit as required. The high-pass filter affects both legs of the stereo module. The mono module also contains a low-pass filter to remove excess high frequencies, ranging from 1–20kHz. It is sweepable and can be removed completely from the signal chain with a switch.

EQ

Soundcraft is famous for its sweet, musical EQ. The Series 4 and Europa consoles built that reputation, and the Series FIVE cemented it. Some monitor consoles cut corners on their EQ section, mistakenly believing that EQ is unnecessary for monitoring purposes. FIVE Monitor doesn't have this problem; the 4-band parametric EQ allows accurate control over frequencies from 30Hz to 20kHz. The Q of each band can be adjusted – there are also two SHELF click-switches at the end-stop of the Q control in the HF and LF bands. The entire EQ section of the input channel can be bypassed via the EQ switch.

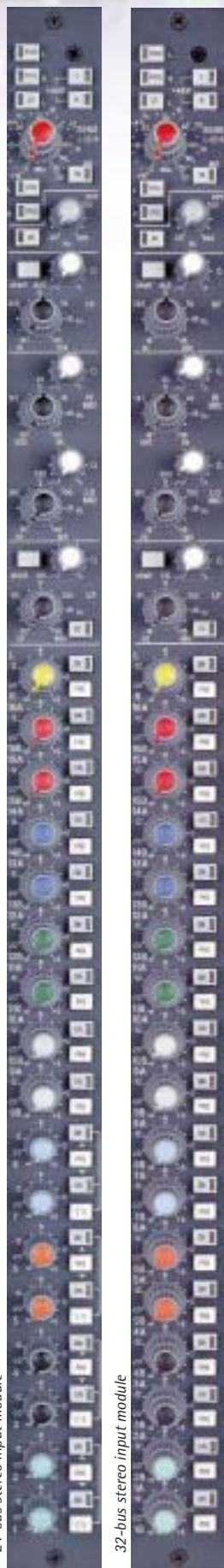
EQ on the stereo module is every bit as comprehensive as that of the mono module, and is linked to both paths as it is ganged across the stereo pair. At the HF and LF sections there is an extra switch, changing the response of these filters from shelf to bell.

MONITOR SENDS

FIVE Monitor has 8 full time stereo sends, as well as a stereo L/R send. In addition to these, the 32-bus version has another 8 full-time stereo sends while the 24-bus version offers another 8 mono sends. Each send, or pair of sends, is individually on/off and pre/post switchable.

To deliver the flexibility required by live applications which involve both in-ear and wedge monitoring, FIVE Monitor's output sends can be configured in pairs to act as stereo sends or as dual mono. On the corresponding output module, a GLOBAL

Input Modules (2)



24-bus stereo input module

32-bus stereo input module



Stereo input fader

MODE STE switch allows you to make the decision for each pair of sends as to whether they will act as stereo or mono. The first four output modules on the 24-bus version do not, however, have this facility - because the first eight sends on the 24-bus version are always mono, and cannot therefore be switched into stereo mode. On the 32-bus, all sixteen output modules plus the master module do contain the switch, in order that any of the 17 pairs can be set to act as a stereo pair if required. When a pair of sends acts as stereo, the dual-concentric pots on the input module change from controlling the level of each mono send to controlling the level (upper pot) and the pan (lower pot) of the stereo signal. Each level pot offers an extra 5dB of gain for further flexibility at this stage.

The stereo module works in a similar way, except that the module is divided between the left and right paths. The two pots now control level and balance - when the balance is in the centre, the signals remain at unity gain. When the pot is turned fully to the left, 4.5dB of extra signal gain is given to the left channel and the right is killed completely, and vice versa. When the outputs are switched to mono at the output section, the controls function as two individual level controls - the top sending a mono sum to the A bus, with the bottom pot sending to the B bus. These can still be selected as being pre or post-fade with the PRE button.

FADER AND MUTING

The level of each channel is controlled by a high quality 100mm fader, which offers an additional 10dB gain at full deflection, and an expanded scale around the unity mark for precision control around this crucial area. The MUTE switch cuts all post-MUTE feeds from the input channel. Each channel can be assigned to one or more mute groups and / or VCA groups via the two banks of 8 assign keys adjacent to the fader; and each channel can be assigned to as many groups as you wish. To prevent the channel from accidental muting, a recessed MUTE SAFE button may be engaged, preventing the channel from being muted by either the VCA groups or the mute groups. The channel can still, however, be cut with the local MUTE button located beside each channel fader. Once assigned to one of the VCA groups, the channel's output level, mute and solo will be controlled by the VCA section of the console.

However, these features are still also controlled locally from the channel itself, and can be edited here at any time. LED input metering gives an indication of the incoming signal level on each channel. It is divided into ten sections, with the top LED configured as a peak level indicator which illuminates when the signal is within 3dB of clipping. The meter is not linear - the scale gives the greatest information around the unity gain area, since this is where the level will be set for the majority of the time.

SOLO

The function of the SOLO button changes depending on the selection between mono PFL or stereo AFL made at the master section. Input channel SOLOs are not destructive, appearing only in headphones or on the wedge monitors. Solo can be activated from each channel, or from its associated VCA fader section, where there is another SOLO button alongside each of the 8 faders. All solos can be cleared from the master section with one press of SOLO CLEAR - there is also a variety of logic controlled SOLO options here, including intercancel or additive SOLOs.

BACK PANEL CONNECTIONS

A balanced direct output is provided on the back panel of the mono module via an XLR. Internal jumpers dictate whether this output source is post-fade, pre-fade / post-mute or post-input amp. The channel insert point is on two balanced 1/4" jacks. The dual inputs are marked with the separate A and B channels. On the optional stereo module, the dual XLR inputs are designated L and R, rather than A and B. Each side of the stereo signal has dedicated balanced insert points, with individual sends and returns on 1/4" jacks.



Mono input connections x2

Output Section

The lower section of the FIVE Monitor output module offers control of the associated pair of monitor sends, while the top section features a matrix output. Each output module controls two monitor sends and has one matrix output, therefore a 24-bus FIVE Monitor has 12 output modules and 12 matrix sends, while the 32-bus version has 16 output modules and 16 matrix sends. The combination of monitor outputs and matrix sends offered by FIVE Monitor allows for complex setups of monitoring configurations.

OUTPUT CHANNEL

The SOLO TRIM pot allows 20dB of control over the signal which goes to the AFL/PFL bus. This enables levels in the monitor path to be kept constant whenever the SOLO button is pressed. The GLOBAL MODE STE button determines whether this pair of sends works as mono or as a stereo pair. The GRP TO L/R switches enable routing of the signal from the A and B busses to L/R, effectively giving an instant 2-track output from the console, useful for recording purposes. Inserts can be switched out of the output path by pressing INSERT OUT, and the phase of the output is reversible with the Ø key. Talkback to the stage is possible using the TB switch. Pressing MUTE will cut the signal from the output channel to all sends, including the matrix, rear connector panel and L/R outputs. The 100mm fader offers an extra 10dB gain at full deflection. The output SOLO depends on the position of the PFL/AFL switch on the master section. The ALT button routes solos to the alternative solo bus. The output SOLO button can select the corresponding EQ control page on a BSS Varicurve™ remote control.

EQ OUTPUT OPTION

An alternative output module is available which provides 4-band parametric EQ on each output, instead of the matrix. This is ideal for in-ear monitoring applications, where EQ is often requested by performers. If this module option is specified, the matrix output XLR on

the back panel provides a mono sum of the two monitor outputs, with screw driver trimmable level control. External bus inputs are also adjustable in this way.

MATRIX OUTPUTS

The matrix output derives its signal from a mix of up to 23 sources, which differ between the 24-bus and 32-bus structures, as follows:

24-bus version	32-bus version
Group outputs 1/2	1A/1B
Group outputs 3/4	2A/2B
Group outputs 5/6	3A/3B
Group outputs 7/8	4A/4B
Group outputs 9A/9B	5A/5B
Group outputs 10A/10B	6A/6B
Group outputs 11A/11B	7A/7B
Group outputs 12A/12B	8A/8B
Group outputs 13A/13B	9A/9B
Group outputs 14A/14B	10A/10B
Group outputs L/R	L/R
External input	External input

The external input is derived from two XLRs on the console's back panel – one stereo external input feeds all matrix outputs. As this control pot is not dual-concentric, a mono sum of this L/R signal can be sent to the matrix, or the left path can be sent to odd number sections and the right to even. This is determined by an internal jumper selection. Matrix inserts can be disabled using the INS OUT button. The TB button feeds the talkback signal into the matrix, in the process reducing the output by 6dB. The MUTE button will mute the output of the particular matrix whose mute has been engaged, although the TB will still work for that channel. A matrix SOLO button is also provided. The MATRIX MASTER pot controls the overall level from the matrix output XLR.

VCA FADERS

A bank of 8 master faders for the 8 VCA groups controls the level of every input channel assigned to a VCA group. Every level, mute or solo change made on these faders is carried out on each assigned slave channel. This allows quick and easy control over a large number of channels with one quick button press. The NOMINAL LED lights when the fader is at unity – useful when two FIVE Monitors are cascaded, giving a flat VCA master overall.



24-bus output module with matrix option

32-bus output module with EQ option

VCA fader (no 4 of 8)



Matrix connector panel (32-bus)



Master Section



The master module is a single module which is the same regardless of whether the console is the 24-bus or 32-bus version.

LAMP DIMMER & PSU RAILS

The dimmer control governs the brightness of all the Littlites™ connected to the desk. They will flash when a Clear-Com™ call arrives via the loop-through interface. The PSU RAILS LEDs confirm that the power supply rails are operating efficiently. MUTE FLASH DISABLE prevents the mute LED on an input from flashing (as is normal) when it is muted by a VCA or mute master.

OSCILLATOR

Tone or pink noise can be produced by the oscillator - FREQUENCY is adjustable from 63Hz to 10kHz. Tone level is fully adjustable. The oscillator can be routed to the external XLRs or to all busses.

TALKBACK

The FIVE Monitor's comprehensive talkback system allows communication to the group and matrix outputs, as well as to and from the front-of-house engineer via the EXT button, using Soundcraft's proprietary 'Blythphone' system. The talkback microphone can be connected on the master module or to an input XLR on the rear connector panel. Phantom power can be applied if needed. Incoming talkback will be sent to the headphone output and will automatically dim the level of the existing signal. The FOH light illuminates when the desk is in this state. The TO OUTPUTS VIA TB INT switch allows talkback to feed the group or L/R outputs. The TB buttons on each module must be pressed for the output to accept talkback from the master module. The MASTER MODE AFL/PFL switch determines, for the entire console, whether solos will act as pre or post-fade, and therefore be in mono (pre-fade) or stereo (post-fade). There is a PFL trim to control the level of the solos on the input section.

SOLO

The FIVE Monitor has several solo modes, set by the AUTO CANCEL and INPUT PRIORITY buttons:

INPUT PRIORITY	AUTO CANCEL	
ON	OFF	Input solos replace output solos - output solo heard again only once all input solos are released.
OFF	ON	Every new solo cancels the existing one.
ON	ON	Output solos cancel other output solos. Input solos cancel other input solos as well as overriding output solos.

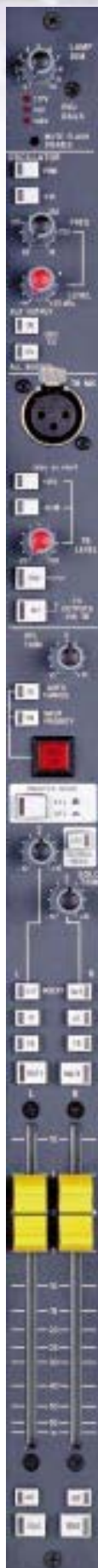
The SOLO CLEAR button is a quick way to remove any active solos anywhere on the FIVE Monitor console. It illuminates when any solos are active.

WEDGE OUTPUT FADER

There are two balanced stereo outputs from the FIVE Monitor - wedge and alt wedge. The headphones also have their own feed from the wedge bus (1W into 8Ω), with a level control. The main wedge may be switched in or out, with a wedge insert point provided. Two MONO SOURCE buttons allow either the L or R output signals to feed both wedge outputs with no change in overall level. Both the main and the alt wedge outputs are fed with signals from the main solo bus, unless the alt wedge is sourced from the alt solo by the SRC button. The alt wedge, when sourced from the main wedge, may be set as pre or post-fade but is always post-wedge insert.

MUTE MASTERS

The MUTE ALL OUTPUTS button will mute every group and matrix output. It has a protective cover to avoid accidental usage. This button is extremely useful when leaving the console unattended. The eight mute group buttons allow quick control over the mutes of all assigned channels.



Master module



Mute group master controls



Wedge fader & associated controls



Master connector panel (32-bus)

The Power Of Experience



A console is nothing without a reliable power supply. So when Soundcraft designed the Series FIVE front-of-house console, we introduced the CPS 2000, a ground up redesign using nothing but the finest quality components.

Now thoroughly road tested, reliability of the CPS 2000 has proved exceptional, so the decision to include the same power supply with the FIVE Monitor was taken without hesitation.

The key to the reliability of the CPS 2000 is the simplified voltage rail



structure which makes for an uncomplicated voltage processing mechanism.

Another crucial element is the headroom; with the CPS 2000, there's no shortage. And in the unlikely event of a failure, a second diode-linked supply will seamlessly switch into action, ensuring that there is no chance of a power interruption.*

- Linear circuitry uses industry standard components
- Fewer voltage rails makes for a simpler, more reliable configuration
- Load is spread across several power devices on each rail for optimum heat dissipation
- Heavy current wiring is all hard soldered minimising number of connectors
- Front panel digital mains voltage meter aids correct voltage tap setting
- Built-in diode output linking allows two supplies to be connected for redundancy
- Heavy duty Socapex® DC connectors link PSU to console
- High quality PAPST® fans for reduced noise and longer product life
- 4U high 19" rackmountable

Designed For A Life On The Road

Out on the road, you need a console that's light, compact and portable, yet strong and reliable. A tricky balance to find. In the FIVE Monitor, Soundcraft have struck the ultimate deal between rugged construction and mobility. Its frame, although lightweight and compact, is extremely strong and capable of withstanding journey after journey. And with a space efficient console footprint, even for larger configurations, you can be sure that you won't have to apologise for getting in the way in that ever-cramped backstage area.



Rugged sub-frame construction

*56ch/32-bus and 60ch/24-bus consoles are supplied with 2xCPS2000, not including backup supplies.

Architect's Specification

The mixing console shall be constructed in a rugged, compact housing with an additional steel sub-frame, and shall be available in two bus formats: 24-bus and 32-bus. The 24-bus console shall be available with 44, 52 or 60 inputs, and the 32-bus console shall be available with 40, 48 or 56 inputs. The mixing console shall provide up to 9 (24-bus) or 17 (32-bus) stereo mixes, with an output matrix of 23 x 12 (24-bus) or 23 x 16 (32-bus) as standard. 8 MUTE Groups and 8 VCA Groups shall be supplied, and a MUTE ALL OUTPUTS switch, protected by a plastic cover, will MUTE every Group and Matrix output. In addition to the Wedge output, two independent stereo SOLO busses - SOLO and ALT SOLO shall be available, and the SOLO signal for each Group and Matrix output may be sent to either of these busses depending upon the selection of the local ALT switch.

The mixing console shall use the rack-mounted CPS2000 power supply, with integral PSU linking capability to a backup supply.

The Mono Input shall have A and B inputs, each with their own 48V Phantom power switch. A phase reverse switch will invert the phase of both the A and B signals. The inputs shall handle mic or line level signals, up to +30dBu, with a RNGE switch selecting high or low sensitivity. The input shall offer a 20-600Hz high-pass filter and a 1-20kHz low-pass filter, switched individually. The 4-band parametric EQ shall offer adjustment in the ranges: 30-480Hz (LF), 70Hz-1.5kHz (LM), 500Hz-8kHz (HM) and 1-20kHz (HF). Each band shall allow ± 15 dB of cut / boost, with Q variable from 0.5 to 3.0. A bypass switch shall remove the EQ from the circuit. A direct output may be set as post-fade, pre-fade / post-mute, or post-input amp. 9 full-time stereo / dual mono sends shall be available on all frame types. All sends have +5dB of gain available at full deflection. Sends may be sourced pre or post-fade, with the pre-fade signal selectable as pre-fade / post-mute, pre-mute, or pre-EQ (pre or post-mute) and pre-insert, using internal jumpers. The remaining 8 sends on the 24-bus console shall be permanently mono, but shall be stereo / dual mono switchable on the 32-bus console. A 100mm channel fader shall offer 10dB of gain at the top of its travel, and the channel fader and mute switch may be put under the control of any combination of the 8 VCA groups and 8 MUTE groups. A MUTE SAFE switch protects the channel from muting via any remote system. The SOLO switch may be defined globally to derive its signal either pre or post-fade.

The optional Stereo Input shall have L and R inputs, each with their own 48V Phantom power switch, and configurable as the L/R legs of a Stereo pair, or as two independent Mono inputs. A phase reverse switch will invert the phase of the left leg (L), but may be set to invert both legs via an internal jumper. A MONO L and R switch shall sum both legs together, and feed the result to both paths of the channel strip. The inputs shall handle mic or line level signals, up to +30dBu, with a RNGE switch selecting high or low sensitivity. The input shall offer a 20-600Hz high-pass filter, which affects both legs. The 4-band ganged stereo parametric EQ shall offer adjustment in the ranges: 30-480Hz (LF), 70Hz-

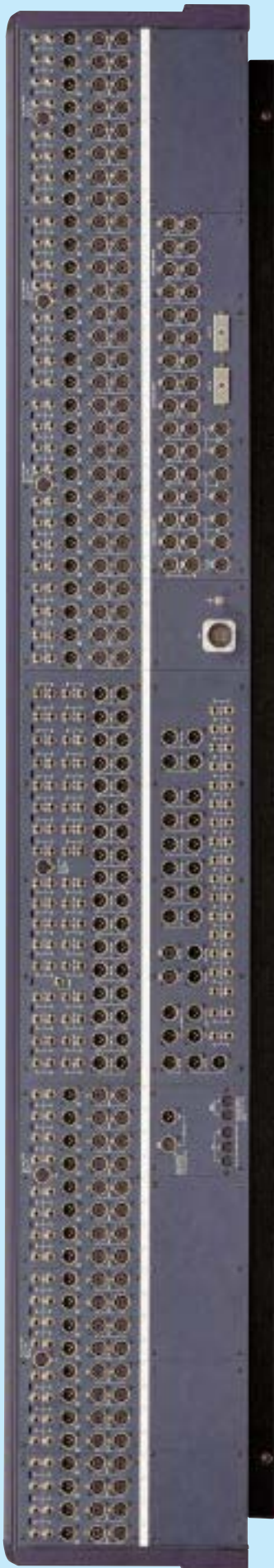
1.5kHz (LM), 500Hz-8kHz (HM) and 1-20kHz (HF). Each band shall allow ± 15 dB of cut / boost, with Q variable from 0.5 to 3.0. A bypass switch shall remove the EQ from the circuit. 9 full-time stereo / dual mono sends shall be available on all frame types. All sends have +5dB of gain available at full deflection. Sends may be sourced pre or post-fade, with the pre-fade signal selectable as pre-fade / post-mute, pre-mute, or pre-EQ and pre-insert using internal jumpers. The remaining 8 sends on the 24-bus console shall be switchable into mono (feeding a sum of the pair to each send) or stereo (feeding left and right paths to alternate sends). A 100mm channel fader shall offer 10dB of gain at the top of its travel, and the channel fader and MUTE switch may be put under the control of any combination of the 8 VCA groups and 8 mute groups. A MUTE SAFE switch protects the channel from muting via any remote system. The SOLO switch may be defined globally to derive its signal either pre or post-fade.

The Dual Output module shall offer MUTE, SOLO and Fader control over pairs of Group Outputs. SOLOs from these outputs may be routed to either the main solo bus, or the alt solo bus, configured via the local ALT switch. A phase reverse switch inverts the signal, and a TB switch routes console talkback to the appropriate Output. L and R switches shall route the signal to the L and R busses. A solo trim pot allows the AFL signal to be trimmed by ± 10 dB, and the INSERT OUT switch removes the Insert chain from the path. A GLOBAL MODE STE switch shall configure the dual output module to operate as either two discrete mono outputs, or as a stereo pair. There shall be a single matrix output fitted as standard to each dual output module, with rotary level, MUTE, SOLO and ALT SOLO switches. A SIGNAL present LED shall denote -30dB signal present.

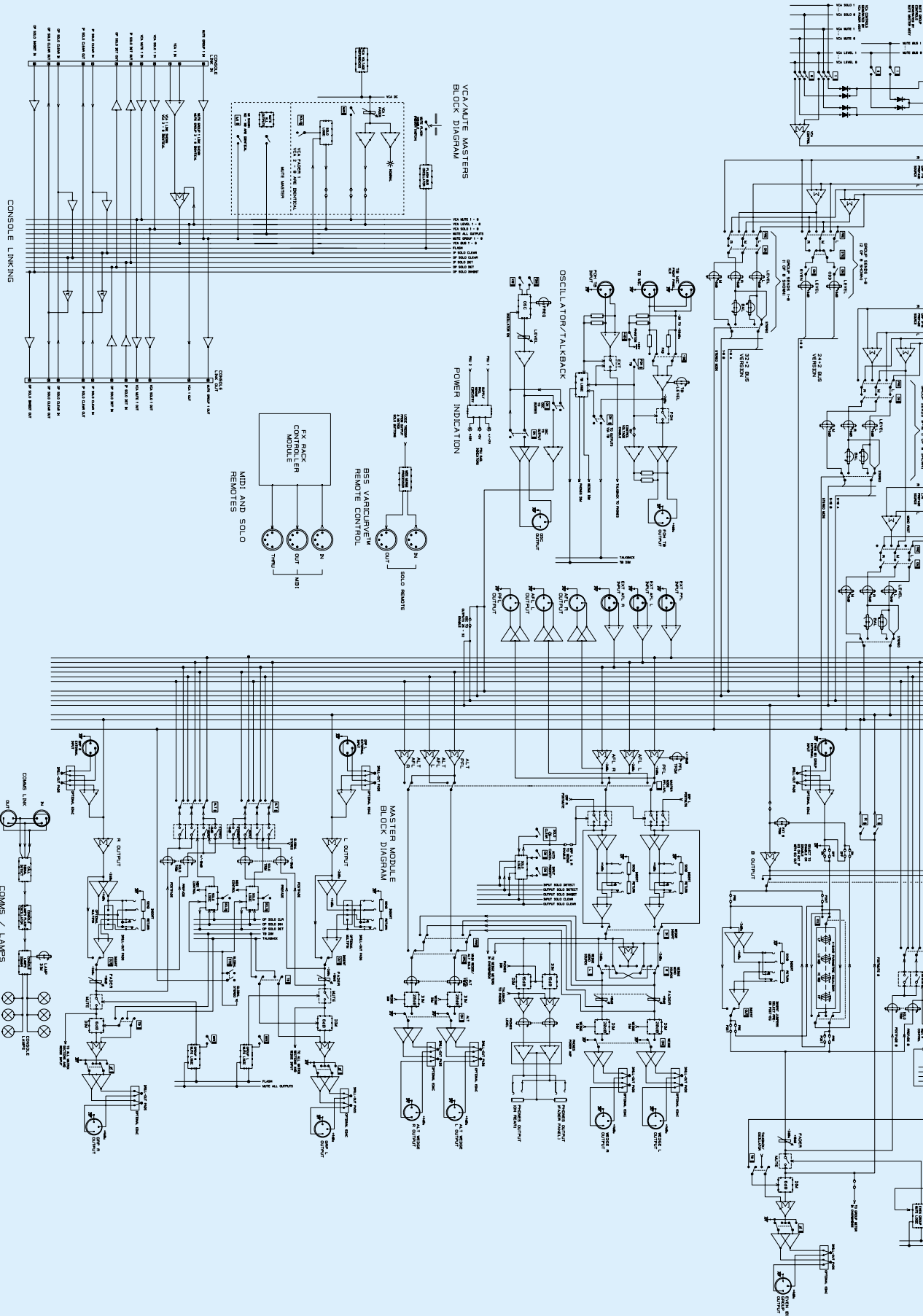
An EQ Module Option shall be available, replacing the Matrix output with two 4-band parametric EQs. On this option, an additional Mono sum output shall be available via a screwdriver pot, and an external input level control shall be available via a similar device.

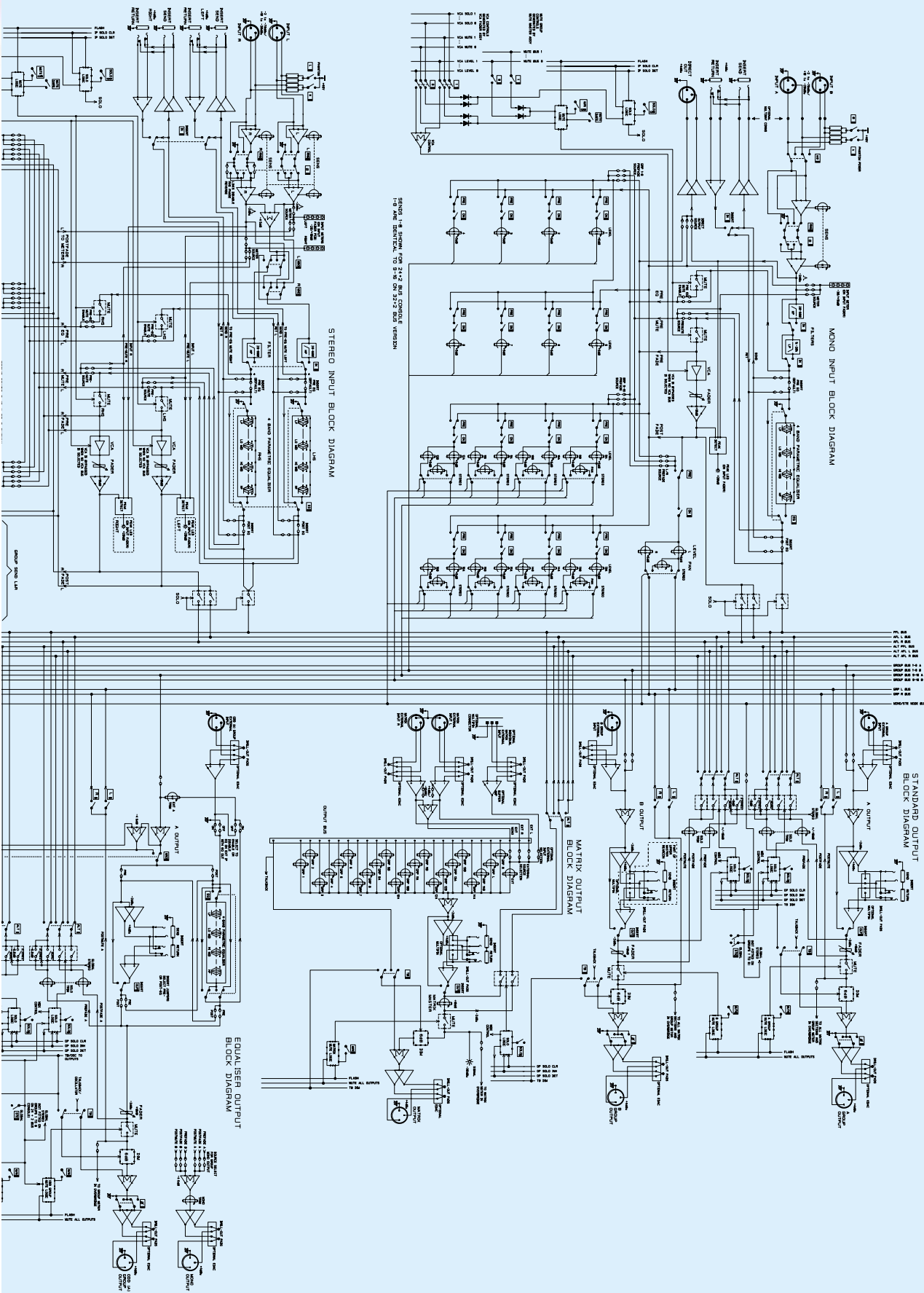
The Master Module shall offer fader, MUTE and SOLO control over the L/R outputs, with similar TB, INSERT, and PHASE and SOLO TRIM options as the regular output modules. The SOLO mode of the console may be configured with input priority and / or auto cancel. A SOLO CLEAR switch shall remove any solo selected anywhere on the console. A TB MIC input shall provide optional 48V phantom power and -30dB pad, and may be routed to the INTERNAL or EXTERNAL TB system. The wedge output shall be dimmed by 20dB whenever a talkback switch is activated. The wedge fader shall be a 100mm type, and the wedge source may be selected as either regular solo or alt solo.

The VU meterbridge shall offer full-time metering of the 24 or 32 Group outputs in addition to the wedge outputs, and 16 of the VU meters may be switched to meter the matrix outputs. An interface to the BSS Varicurve™ Equaliser Remote Controller shall be provided, which will allow console solos to select the correct slave page on the Remote Controller.

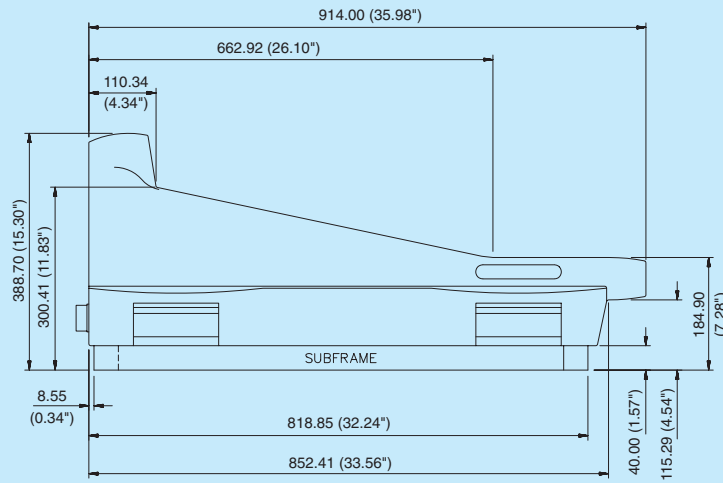


System Block Diagram



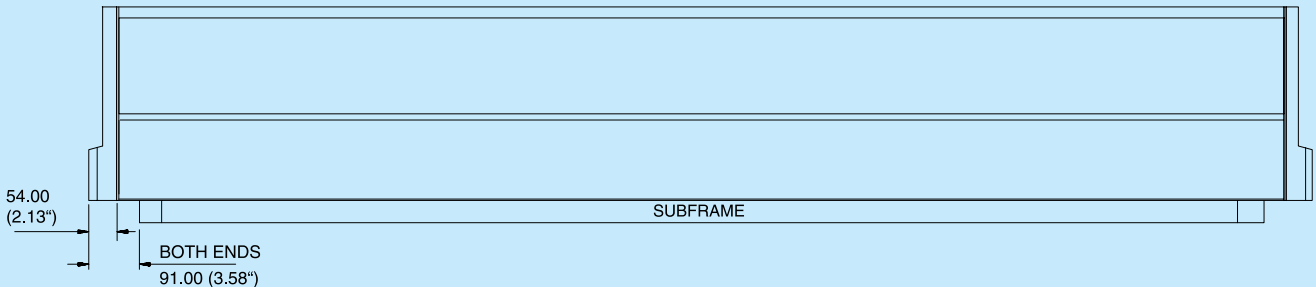


Dimensions & Configurations

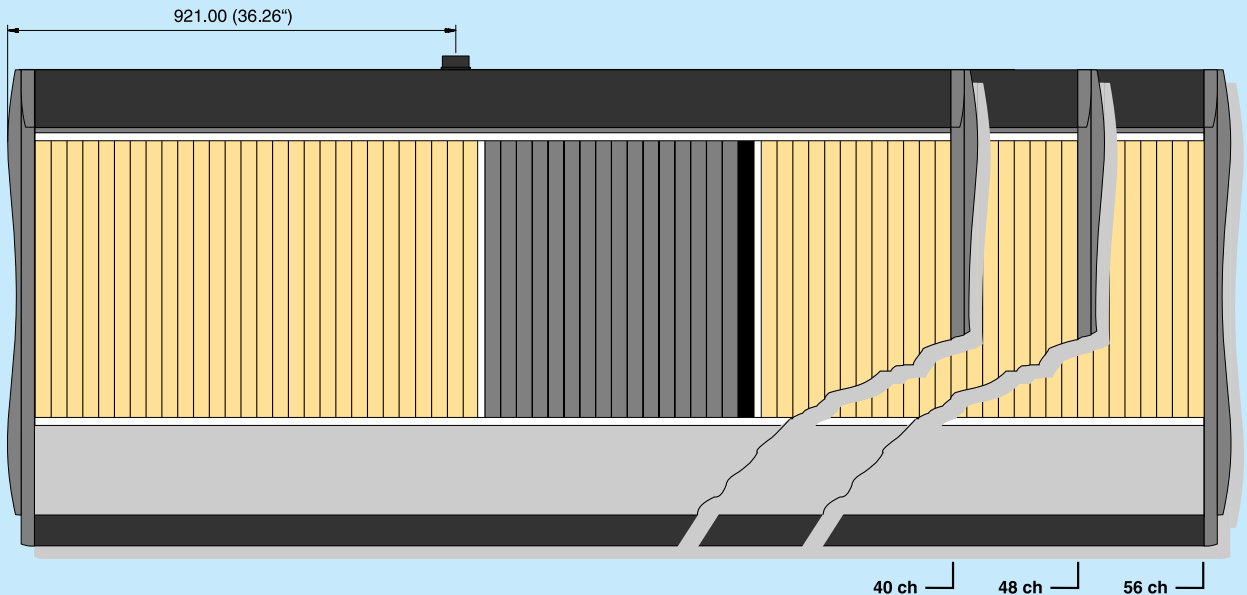


All dimensions are in millimeters (inches in brackets)

CONSOLE	TOTAL WIDTH	WEIGHTS
32-bus, (24-bus, 44ch), 40ch	2007.80 (79.05")	156kg (343lbs)
32-bus, (24-bus, 52ch), 48ch	2269.80 (89.36")	170kg (374lbs)
32-bus, (24-bus, 60ch), 56ch	2531.80 (99.67")	185kg (407lbs)

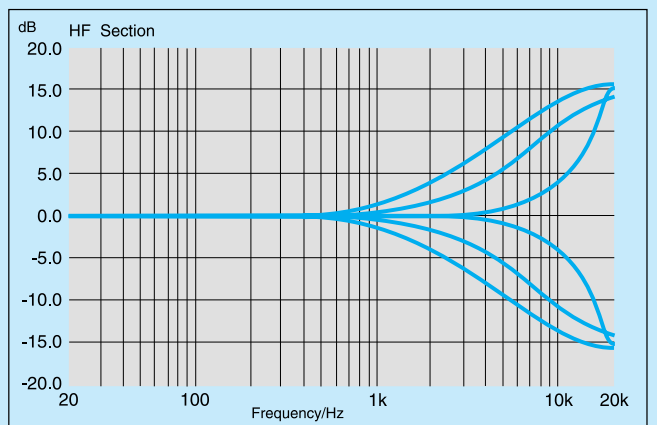
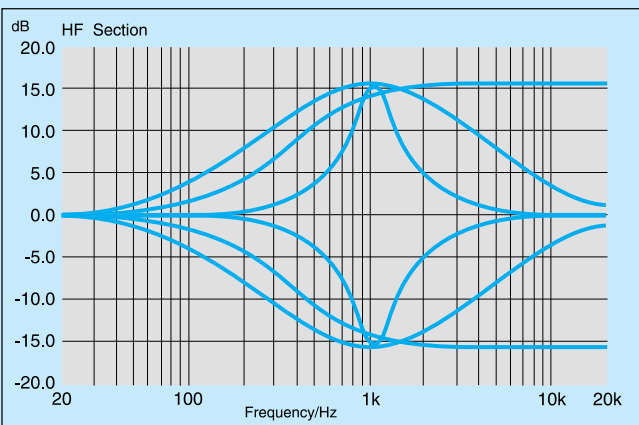
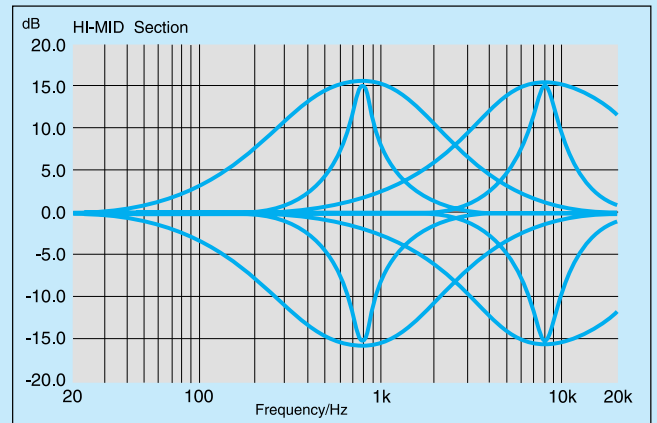
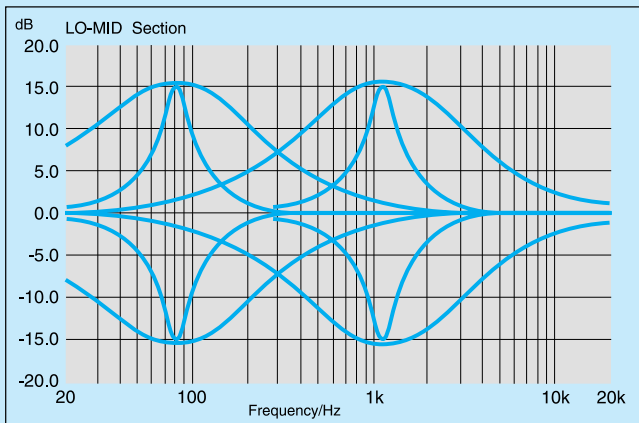
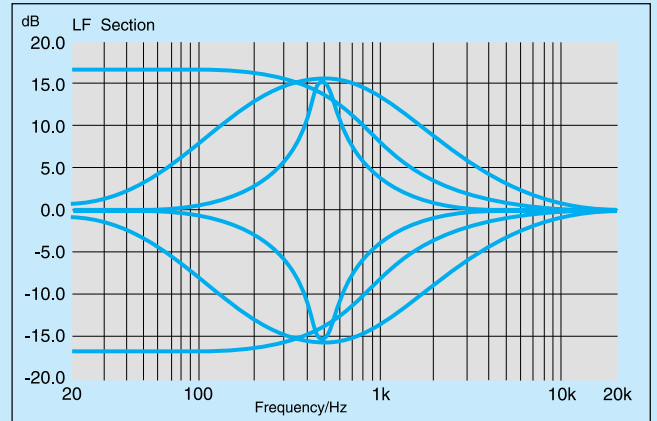
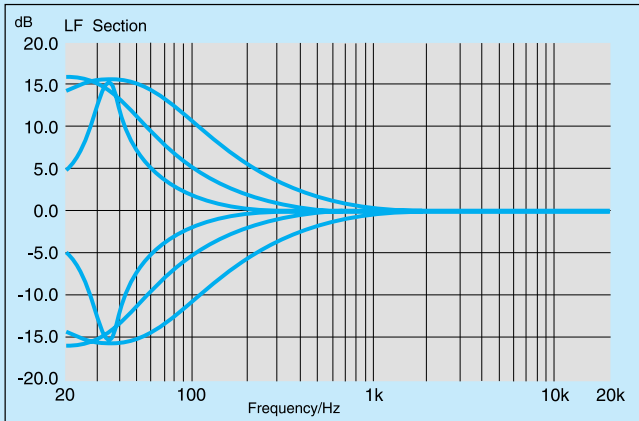


Mono Input
 Master
 Output

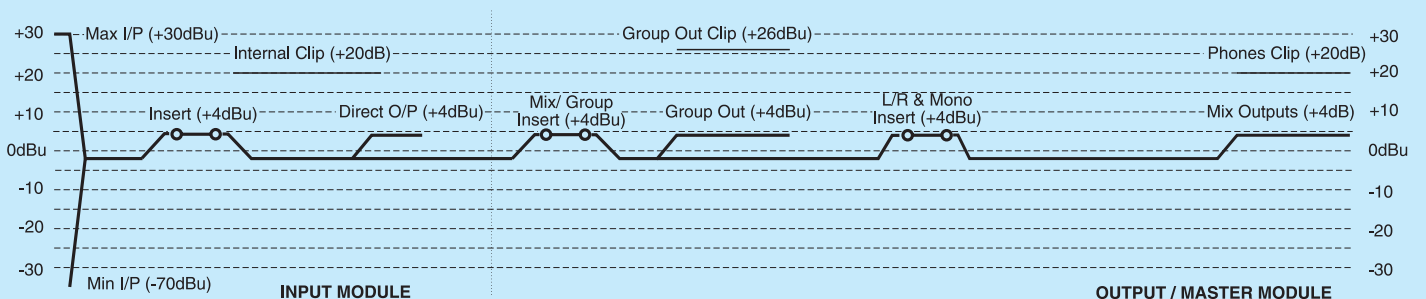


32-bus console shown. 24-bus version has 4 output modules replaced by 4 mono input modules.

EQ Curves



Level Diagram



FIVE Monitor Typical Specifications

Frequency Response	Any input to any output: +0/-0.5dB, 20Hz - 20kHz
T.H.D. (All measurements at 20dBu)	Line In to Direct Out (VCA Out) Less than 0.006% @ 1kHz Line In to Direct Out (VCA In) Less than 0.02% @ 1kHz Line In to Mix Out (VCA Out) Less than 0.008% @ 1kHz
Noise (22Hz-22kHz bandwidth, unweighted)	Mic input Equivalent Input Noise ... Less than -127dBu (150Ω source) Group Output Noise Less than -80dBu (32ch routed) Mix Output Noise Less than -80dBu (32ch routed) Group Output Residual Noise Less than -92dBu
Crosstalk (all measurements at 1kHz)	Input Channel Muting Greater than 90dB Input Channel Fader Isolation Greater than 90dB Input Send Pot Routing Isolation Greater than 90dB Group to Group Crosstalk Less than -90dB Group to Mix Crosstalk Less than -90dB
Input and Output Impedances	Mono Input 1.6kΩ balanced All Insert Sends Less than 75Ω balanced All Insert Returns Greater than 10kΩ unbalanced Outputs Less than 75Ω balanced
Input / Output Capability	Maximum Input Level +30dBu All Insert Sends +26dBu into 1kΩ All Insert Returns +26dBu All Balanced Outputs +26dBu into 1kΩ Headphone Output +20dBu into 1kΩ, 1W into 8Ω
Oscillator	63Hz to 10kHz / pink noise, variable level
Filters	HP (Mono input) LP 20-600Hz, 12dB/octave 1k-20Hz, 12dB/octave
EQ (Mono input)	HF Hi-Mid Lo-Mid LF 1k - 20kHz, +/-15dB, Q = 0.5 - 3.0 or shelf 500 - 8kHz, +/-15dB, Q = 0.5 - 3.0 70 - 1.5kHz, +/-15dB, Q = 0.5 - 3.0 30 - 480Hz, +/-15dB, Q = 0.5 - 3.0 or shelf
Metering	Overbridge: 16 VU Meters monitoring Output or Matrix & 2 VU Meters monitoring Left and Right wedge mixes Each meter has a peak LED set to 3dB below clipping level. Mono Input 9-LED bargraph + Peak LED Stereo Input 2 x 4-LED bargraph + Peak LED
Power Consumption	48/32ch console: each 17V rail draws 14.2A (nominal, without Littlites™) 8V rail draws 0.8A (nominal). 56ch/32-bus and 60ch/24-bus consoles require 2xCPS2000 supplies.
Weights	24-bus, 44ch / 32-bus, 40ch156kg (343 lbs) 24-bus, 52ch / 32-bus, 48ch170kg (374 lbs) 24-bus, 60ch / 32-bus, 56ch185kg (407 lbs)
Operating Conditions	-10°C to +30°C 0% to 80% humidity
Power Supply Unit CPS2000	Input voltage range 230/200/115/100V AC +10%/-20% @ 50/60Hz Rated input power 980 Watts Mains fuse rating T10A/250V (slow-blow) Outputs: DC Voltage Rail Max Output Current +17V 16A -17V 16A +48V 0.5A +8V 1.25A Temperature Range -10°C to +40°C Humidity 0% to 90% (non-condensing ±5% relative humidity, @40°C for 16 Hours, load switched between 20% and 100% at regular intervals) Dimensions: Height 177mm (4U) Width (chassis) 440mm Width (front panel) 482.6mm Depth (excl. handles) 436mm Weight 30kg



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US; ZL0489

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This equipment complies with the EMC Directive 89/336/EEC



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Note: These figures are typical of performance in a normal electromagnetic environment. Performance may be degraded in severe conditions.

Artist photography by Mark Cunningham.
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