

Series Two Typical Specifications



| Connections | Impedance | Level |
|-----------------------------|---------------------------------|---|
| Low Impedance Input (XLR) | 2kΩ | -60dBu to -15dBu / -40dBu to +5dBu (+27dBu max) |
| High Impedance Input (jack) | >10kΩ | -60dBu to -15dBu / -40dBu to +5dBu (+27dBu max) |
| Insert (jack) | Unbalanced send/return 75Ω/10kΩ | 0dBu (+22dBu max) |
| Direct Out (jack) | 75Ω Impedance balanced | 0dBu (+22dBu max) |
| Stereo Input/Return (jack) | >10kΩ balanced | +4dBu (+26dBu max) |
| Replay Input (RCA phono) | >10kΩ unbalanced | -10dBV (+14dBu max) |
| Record Output (RCA phono) | 75Ω unbalanced | -10dBV (+22dBu max) |
| Group Insert (jack) | Unbalanced send/return 75Ω/10kΩ | 0dBu (+22dBu max) |
| Group Output (jack) | 75Ω Impedance balanced | +4dBu (+22dBu max) |
| Aux Output (jack) | 75Ω Impedance balanced | +4dBu (+22dBu max) |
| Matrix Output (jack) | 75Ω Impedance balanced | +4dBu (+22dBu max) |
| L/R/Mono Insert (jack) | Unbalanced send/return 75Ω/10kΩ | 0dBu (+22dBu max) |
| L/R/Mono Output (XLR) | 75Ω balanced | +4dBu (+26dBu max) |

Mono I/P EQ and Filter

| | | |
|-----------|----------------------|--------------------|
| High Pass | Freq: 40-400Hz | Slope: 12dB/octave |
| HF | Freq: 12kHz | Gain: ±15dB |
| HMF | Freq: 550Hz to 13kHz | Q: 1.3 |
| LMF | Freq: 80Hz to 1.9kHz | Q: 1.3 |
| LF | Freq: 60Hz | Gain: ±15dB |

Frequency response

| | |
|-------------------------|------------------------|
| XLR input to any output | +0/-0.5dB, 20Hz -20kHz |
|-------------------------|------------------------|

THD and Noise

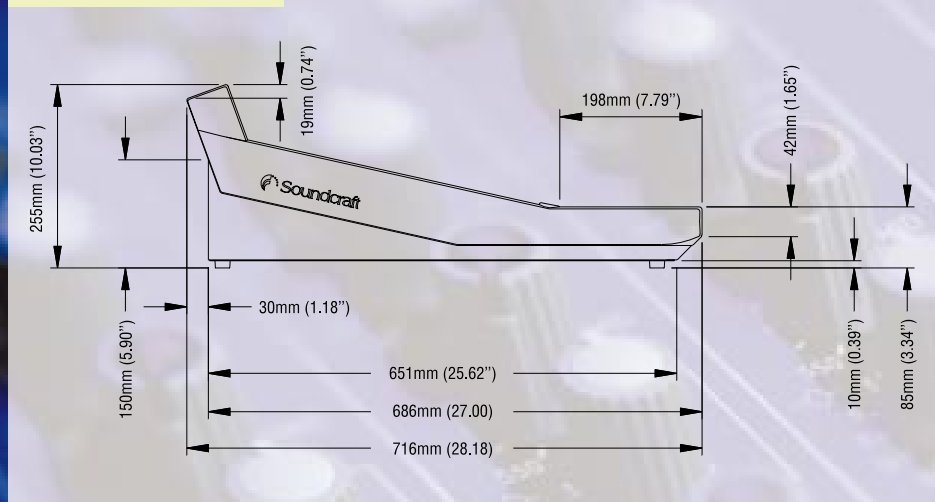
| | | |
|-----------------------------|---|----------|
| Measured at +4dBu output | 1kHz XLR in to Mix Output @ +20dBu | <0.0065% |
| Mic Input E.I.N | 22Hz-22kHz bandwidth, unweighted (200Ω source) | <-127dBu |
| Residual Noise (Mix Output) | No inputs routed, Mix fader @ 0dB | -88dBu |
| Bus Noise (Mix Output) | 40 channels routed, input faders @ -∞, Mix fader 0dB: | -79dBu |
| Bus Noise (Group Output) | 40 channels routed, input faders @ -∞, Mix fader 0dB: | -80dBu |

Crosstalk

| | | |
|------------------|-----------------------|------|
| Measured at 1kHz | Input channel muting: | 90dB |
| | Input fader cutoff: | 90dB |

Dimensions (Width/Weight)

| CH | mm | inches | kgs | lbs |
|----|------|--------|-----|-----|
| 24 | 1037 | 40.83 | 31 | 68 |
| 32 | 1243 | 48.93 | 40 | 88 |
| 40 | 1449 | 57.04 | 48 | 106 |



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

Part No. A4; ZL0543 US; ZL0544

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More features. More flexibility. More performance.



The new Soundcraft Series TWO live performance console delivers more features, more flexibility and more performance than any other console in its class.

ergonomics and reliability within reach of even the tightest tour and install budgets.

From the classic 3-tier raked styling to the 8-bus, 8-Aux structure for which Soundcraft live consoles first became famous, the Series TWO is packed with professional features.

Frame sizes of 24, 32 and 40 channels are available, each with two fully-featured stereo input channels as standard, LED bargraph metering for every input and output, an 11x2 matrix, and MIDI muting.

Sound quality is everything you'd expect from a console backed by the reputation of the Soundcraft brand, assured by the use of high-grade components throughout such as an ultra-low noise input stage which minimises signal degradation and improves overall sonic performance.

Completing the standard feature set are the classic Soundcraft 4-band EQ with two sweepable mids, high-pass filtering on every mono channel, 8 Group outputs with Stereo and Mono master busses, and 4 stereo returns with routing and tilt EQ.

If you thought you couldn't afford a professional live sound console with all the features you need for the most demanding show or installation, prepare to think again.

The new Soundcraft Series TWO. More features. More flexibility. More performance.



It all started here:
The original Soundcraft Series 1

Backed by twenty-seven years of pro-console know-how, the new Series TWO brings legendary Soundcraft performance,



Series TWO Input Channels

MONO INPUT CHANNEL

Benefiting from 27 years of Soundcraft console design experience, the Series TWO's innovative circuit design allows for the inclusion of more features than ever before at such a low cost. From the all-new mic preamp design at the top to the flattened fader-tray at the bottom, the Series TWO's feature-packed mono input channel ensures optimum sound quality and control throughout the mix.

INPUT SIGNAL METERING

Every input channel on the Series TWO has its own, dedicated 12-segment LED bargraph meter which reads the peak level of the pre-fade, post-EQ input channel signal. The uppermost LED on the meter, identified by the adjacent legending 'PK', has a peak hold facility which monitors both the insert send and pre-fade signals, warning the engineer in the event of clipping in either signal path.

INPUT STAGE

The -20dB gain change switch combines with the SENS control to create an input stage which allows signals from -60dBu up to a maximum of +26dBu to be accommodated, and by splitting the control into two ranges, allows finer adjustment. The high maximum input level means that even the hottest mic signals from snare or kick drums can be handled via the XLR input. The -20 switch works as an active gain change rather than a passive PAD, and provides better noise and common mode rejection performance as a result. Also included at the input stage is a phase (Ø) switch which inverts the phase of the signal.

FILTERING

A switchable high-pass filter can be set to remove any unwanted low-frequency content in the range 40 to 400Hz.

EQUALISATION

The Series TWO's EQ section follows the classic 4-band design pioneered by Soundcraft in the 1970s. Two sweepable mid frequencies are provided, the lower of which operates between 80Hz and 1.9kHz, with the high-mid accessing 550Hz to 13kHz. LF and HF are also provided. All four bands provide an impressive gain range of ±15dB. The entire EQ section can be switched in and out of circuit.

AUX SENDS

8 Auxiliary sends are provided, switchable in pairs to be pre or post fade. When the PRE=PREQ switch is engaged then any Auxiliaries which are set to pre-fade will also be sourced pre-EQ.

ROUTING & PANNING

The channel output is routed to the 8 Group outputs in pairs, with the PAN control sweeping between the odd and even-numbered busses. The MIX switch routes the signal to the main Stereo output bus, while the MONO switch allows a separate Mono Mix to be generated from a selection of channels, for uses such as a foyer mix or for driving a central speaker cluster.

FADER & MUTING

The Series TWO frame is designed to separate the faders from the rest of the input channel, placing them in a flat area at the front of the console. This provides a clear, uncluttered area in which to mix.

The MUTE switch, accompanied by an LED activity indicator, cuts the output to all busses - Auxiliary and Group - regardless of pre or post-fade settings. It can be operated locally or controlled by a mute group or MIDI snapshot from the master section. The mode of the SOLO switch, which again is accompanied by an LED, is determined on the master section. It can either function as a mono PFL to the engineer's headphones or monitors, or can be configured to trigger a Solo-in-place (SIP) whereby all other channels are muted.

The DIR PRE switch causes the direct channel output to be sourced pre-fade and pre-mute - very useful for providing feeds for live multitrack recording.

REAR PANEL CONNECTIONS

+48V phantom power is available on all mono inputs, and is enabled via the rear panel switch. The mic input is via a low impedance balanced XLR, while line level signals can either be connected via the XLR input, or to the high impedance balanced 1/4" line jack. Plugging into the jack socket will override any signal connected to the XLR. The line jack is isolated from phantom power. The channel insert is on a 1/4" jack with the send on the ring and the return on the tip. The direct output is on an impedance balanced 1/4" jack.

STEREO INPUT CHANNEL

All the Series TWO's frame sizes incorporate two stereo input channels, which are located just to the left of the master section and are designated as STE 1 and STE 2. Similar in operation to the mono channel, they provide that crucial additional flexibility required for complex live setups.

INPUT SIGNAL METERING

Just as the mono inputs, all four stereo inputs (L and R for each of STE 1 and STE 2) feature dedicated 12-segment LED bargraph input signal meters.

INPUT STAGE

The Series TWO's stereo input channels are designed for line level signals, and input gain is adjustable by a single rotary pot.

EQUALISATION

Four bands of EQ are provided: HF, HMID, LMID and LF. The entire EQ section can be switched in and out of circuit via the EQ switch.

AUX SENDS

The eight discrete Auxiliary sends route a summed stereo signal to each of the mono Auxiliary sends. Each pair of sends is switchable pre or post-fade.

ROUTING & BALANCE

The channel output is routed to the 8 Group outputs in pairs, with the BALANCE control governing the stereo spread between the odd and even-numbered busses. The MIX switch routes the signal to the main Stereo output bus.

FADER & MUTING

As on the mono channel, the LED-indicated MUTE switch cuts the output to all busses - Auxiliary and Group - regardless of pre or post-fade settings. The mute function can also be activated from the master section, via a mute group or MIDI snapshot. The SOLO switch can function as a PFL or, when Solo-in-place is engaged on the master section, can cause all other channels to mute while the soloed channel is heard 'in situ' along with any associated effects.

REAR PANEL CONNECTIONS

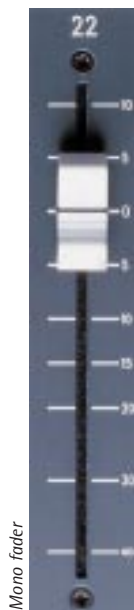
Inputs to the two stereo channels are via four balanced 1/4" jacks.



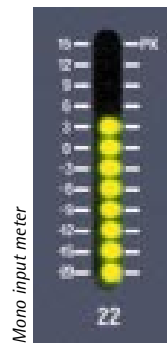
Mono input channel



Mono rear panel connections



Mono fader



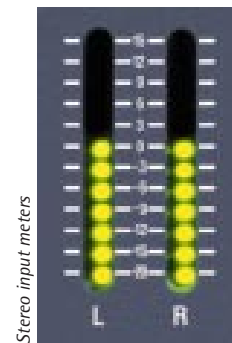
Mono input meter



Stereo rear panel connections



Stereo fader



Stereo input meters

Stereo input channel (2 included as standard with all frame sizes)

Series TWO Master Section

The Series TWO master section is positioned in the centre of the console, just to the right of the two stereo input channels. It provides final level controls for all console outputs, houses the four stereo returns, and contains controls for the 11x2 output matrix.

STEREO RETURNS

As well as the two fully-featured stereo input channels which are described earlier, the Series TWO also offers, as standard, four stereo returns which are ideal for introducing pre-recorded sources or FX returns to the mix. The TILT control emphasises either the high or low end of the sound spectrum or, if left at its centre detent, has no effect. Routing is thoroughly comprehensive; all of the 8 Auxiliary busses can be accessed from 4 send pots (Aux 1/3, 2/4, 5/7, 6/8) which are shift-switched in pairs to toggle between the former and latter of the designated busses. All the Group outputs and the main Stereo Mix outputs can be accessed via individual routing switches, while the 60mm fader is accompanied by LED-indicated MUTE and PFL switches.

AUX MASTERS

A bank of eight rotary master faders controls the final output levels of the Auxiliary busses. An AFL switch for each bus allows the output to be checked on the monitor and phones outputs.

OUTPUT MATRIX

The presence of the output matrix offers additional flexibility in the live mixing situation. It feeds two additional console outputs which can be sourced from any of 11 sources: the 8 Group outputs, either side of the Stereo Mix output, and the Mono bus. This feature is ideal for creating feeds for flown speaker systems or for other parts of the

venue where different mixes are required. Two banks of 11 rotary faders govern the mix for the matrix, while master output rotary faders are provided with AFL facility.

GROUP & MAIN MIX MASTERS

In the flattened fader tray at the front of the console, high-quality 100mm faders are provided for Group outputs 1-8 and, immediately to their right, for the main Mix and Mono masters, which are coloured yellow and black respectively. Each of the Groups can be routed independently to either or both of the Mix and Mono busses, and each has a pan pot to determine its position within the stereo field of the Mix bus. PFL is provided for each output. Each also has an insert point on the console back panel.

METERING

High resolution bargraph meters are provided, in the centre portion of the meterbridge. These provide metering for the eight Group outputs, each side of the Stereo Mix bus, and the Mono bus. The mono meter also switches to display PFL when required to do so. The main left and right bargraph meters can be set to read the monitor output instead, by pressing MONITOR TO L-R METERS.

MONITORING

The monitoring source, selectable between the Stereo Mix bus, the Mono output and an external replay source such as a CD player, is fed to the front panel headphone socket as well as to the stereo monitor output on the console's back panel. The replay source has its own level control and can be routed to the Stereo Mix bus if required. Any soloed signal will automatically override the selected monitor source for as long as the Solo is engaged.



TALKBACK & OSCILLATOR

The talkback signal from a front panel mic XLR or the 1kHz test oscillator can be routed to any combination of Aux busses 1-4, Mix+Mono, matrix 1 and matrix 2.

MUTE GROUPS & MIDI SCENE CONTROL

Eight mute groups are provided, which are created by enabling the individual channel mutes and simply pressing STORE together with the required mute master buttons. 128 MIDI snapshots can be set up in the same way - when one is recalled, a MIDI program

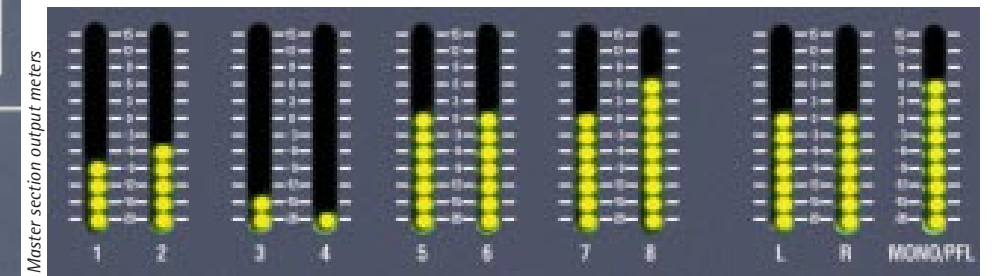
change message is transmitted - ideal for changing external effects patches. For scene-based mixing, mute snapshots can be recalled sequentially using the NEXT switch. Individual channels can be set to mute safe to prevent accidental muting of important channels.

REAR PANEL CONNECTIONS

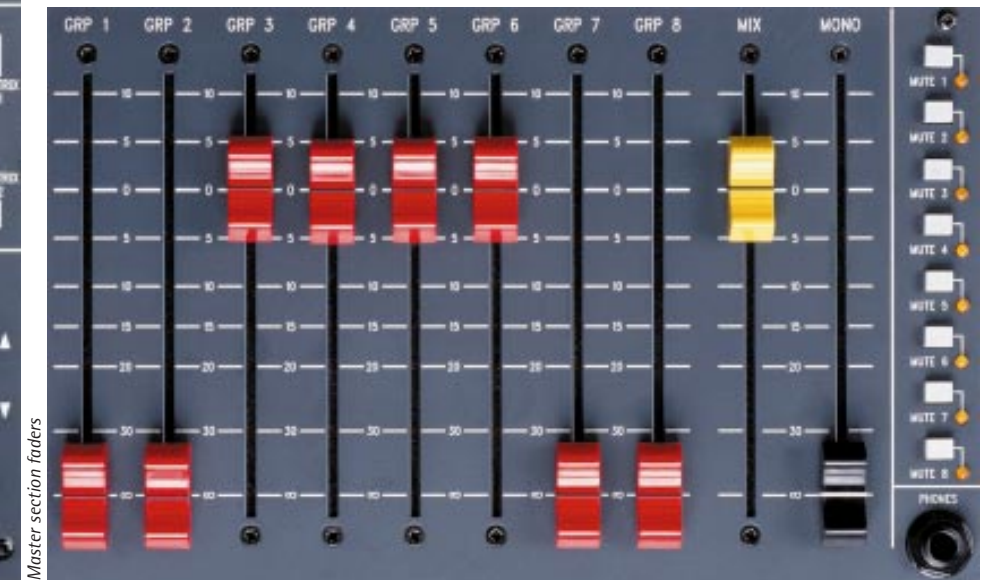
The master rear panel houses all the audio inputs and outputs for the master section, as well as the heavy duty connector for the power supply. The connections are as per the table below.

| | |
|-------------------------|---------------------------------------|
| Stereo returns | 1/4" jack (balanced) x 8 |
| Group outputs | 1/4" jack (balanced) x 8 |
| Group inserts | 1/4" jack (ring=send, tip=return) x 8 |
| Left/Right/Mono out | XLR (balanced) x 3 |
| Left/Right/Mono inserts | 1/4" jack (ring=send, tip=return) x 3 |
| Monitor outputs | 1/4" jack (balanced) x 2 |
| Auxiliary outputs | 1/4" jack (balanced) x 8 |
| Matrix outputs | 1/4" jack (balanced) x 2 |
| MIDI in/out | Standard MIDI 5-pin DIN x 2 |
| Replay inputs | RCA phono x 2 |
| Record outputs | RCA phono x 2 |

See back page for detailed I/O specifications.



Master section output meters



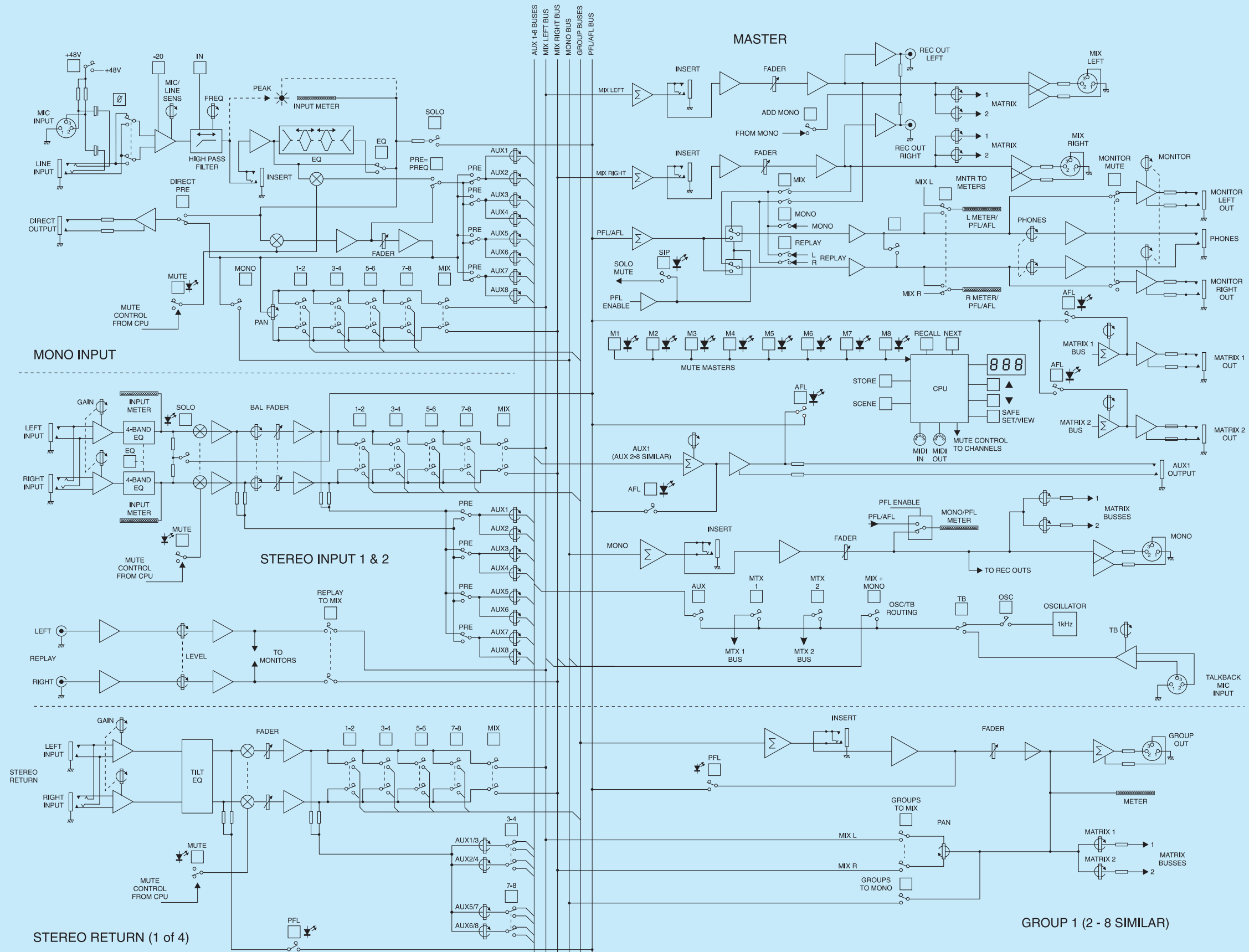
Master section faders



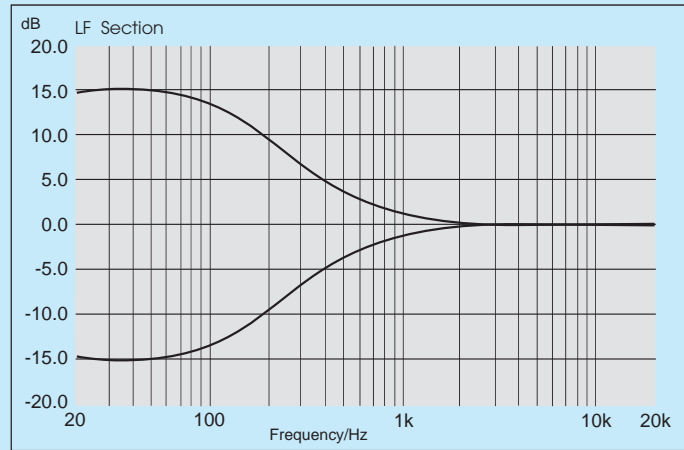
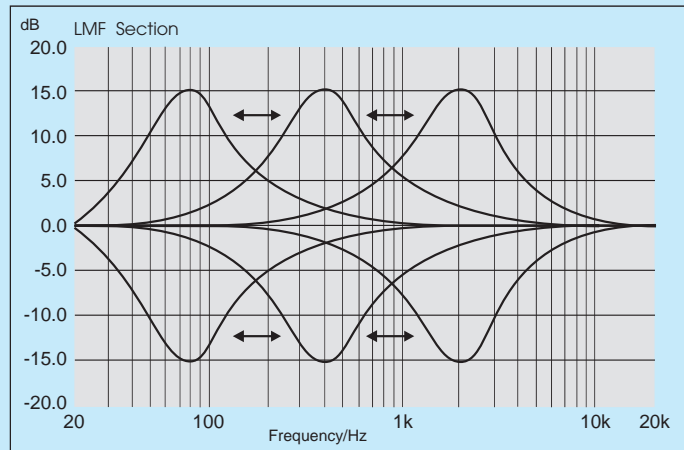
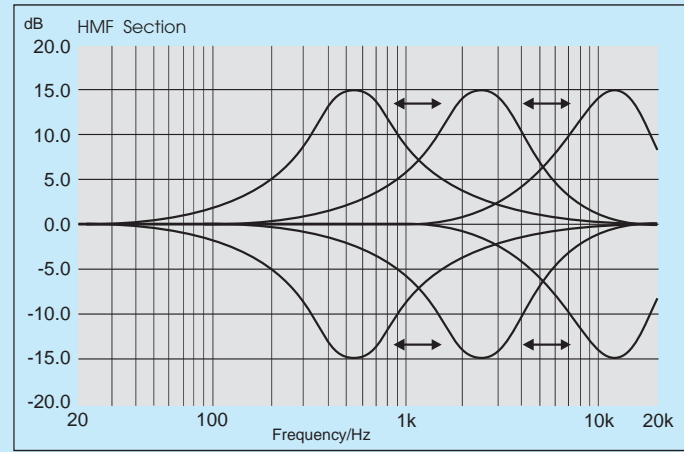
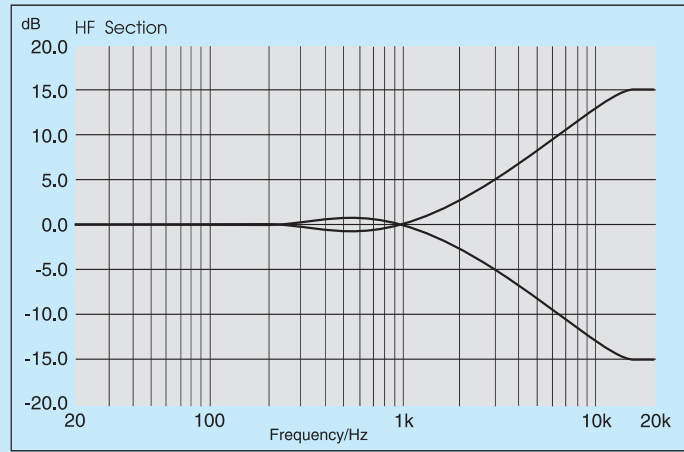
Master section rear panel connections

Master section

System Block Diagram

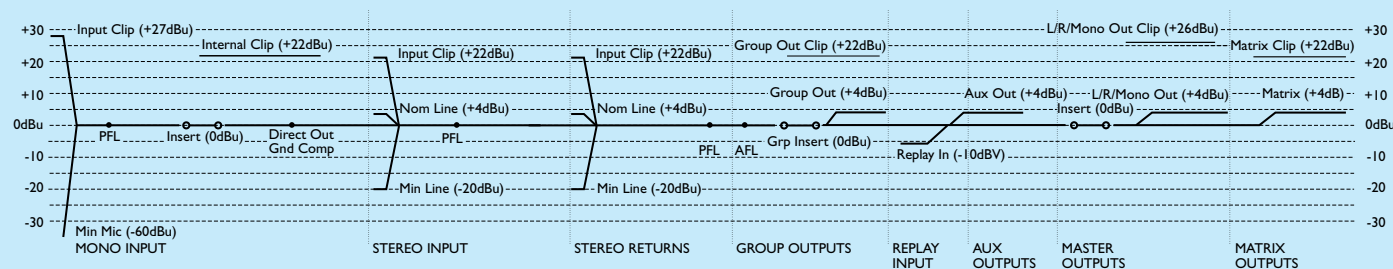


EQ Curves



Level Diagram

SERIES TWO NOMINAL LEVEL DIAGRAM



Architect's Specification



The Mixing Console shall be constructed in a rigid mono-coque chassis, and shall be available in 24, 32, and 40 mono input sizes. The mixing console shall provide eight mono Auxiliary sends, eight mono subgroups, as well as Stereo and Mono outputs. A Mute Scenaset system shall be included, enabling up to 128 scenes to be stored and recalled, with eight mute groups. The console shall be provided with 2 Stereo Input channels, 4 FX Returns, Master Section and MIDI Scene Set Section. There shall be a flexible matrix system. The console will be supplied with a separate DCP200 Power Supply with optional 19-inch rack-mount capability.

The Mono Input shall have the following features; electronically balanced low-impedance input via an XLR socket with a switched continuously variable gain giving two sensitivity ranges of -15dBu to -60dBu and +5dBu to -40dBu, switchable 48V phantom power, a 40-400Hz High-pass filter and phase switch. A bypassable 4-band semi-parametric equaliser shall be provided, with shelving response HF and LF controls with cut-off points 12kHz and 60Hz, and two mid-frequency controls covering the ranges of 550Hz - 13kHz and 80Hz - 1.9kHz with a Q factor of 1.3. All bands shall have a cut and boost of 15dB (centre detented). 8 Auxiliary sends shall be provided with individual level controls and pre/post fader switching in pairs. The pre-fade source shall be selectable pre- or post-EQ from a front-panel switch. The direct output shall be switch-selectable to be pre- or post-fade. Routing to the 8 subgroups shall be post-pan, in pairs via switches. The pan control shall also feed the Stereo Mix bus via the Mix switch. Routing to the Mono (centre) Mix shall be via a separate switch. A 100mm fader with dust protection shall control the level to all post-fade busses. A mute switch shall control the main signal path and a solo switch shall allow the pre-fade signals to be monitored at all times. A 12-segment LED meter with separate dual-sensing peak indicator shall be provided in the overbridge above each channel. There shall be a post-filter, pre-EQ insert point using a jack.

The Stereo Input shall have the following features; stereo line level input on balanced jacks with a continuously variable gain range giving a sensitivity of +4dBu to -18dBu. A bypassable 4-band stereo equaliser shall be provided, with shelving HF and LF sections operating at 12kHz and 60Hz respectively, and peak/dip mid bands operating at 3kHz and 320Hz. Access to all eight Auxiliaries shall be possible, with paired switch selection of pre- and post-fader. All Auxiliaries are fed with a mono sum of the stereo signal. A 100mm fader and illuminated Mute switch, a stereo balance control and routing switches to the main Mix, Mono (centre) Mix and 8 subgroup busses shall be provided. Twin 12-segment peak-reading bargraph meters and illuminated Solo switch will allow pre-fade monitoring at all times.

Eight Group Outputs, 8 Aux Outputs, and 2 Matrix Outputs shall be provided, controlled from the output section of the console. The Group master sections shall each have a 100mm fader, and an illuminated PFL switch. The Group outputs shall be routable to the main Mono (centre) bus via a switch, and to the main Stereo busses via a pan pot and a switch. They shall each have an insert point via rear panel jack. Two Matrix outputs shall be provided, with each output receiving a contribution from each of the 8 Groups, Mix L, R and Mono (centre). The Matrix output shall be controlled by a master rotary fader with associated AFL switch. The Aux master section shall have a rotary master fader for each of the 8 Aux busses, and associated AFL switches for monitoring.

The Master section shall have a 100mm stereo master fader which controls L and R Mix outputs, and a second 100mm fader controlling the Mono (centre) Mix output. A stereo monitor and phones output shall be provided, with switchable source selection from the Mono or Stereo Mix busses or a Stereo Replay line input. The Replay input shall also be routable to the main Stereo Mix bus. The Solo system shall comprise PFL from inputs and PFL or AFL from outputs, and a selectable Solo-in-Place mode shall be provided. The PFL/AFL signals shall appear on the monitor and phones outputs and the Mono/Solo bargraph meter. There shall be a Talkback microphone socket and switching, and a 1kHz test oscillator. Four Stereo Returns shall be provided for stereo line level inputs, with 60mm fader, 'TILT' EQ, Mute and Solo switches and routing to Group and Stereo Mix busses. Access to all 8 Auxiliaries shall be provided via four rotary send controls in conjunction with two shift switches.

The console will have an overbridge as standard, with LED peak-reading bargraphs for all Mono and Stereo inputs plus the Group, Stereo and Mono (centre) Mix outputs. The MIDI Scene Set section shall be capable of storing up to 128 snapshots comprising mono and stereo input and stereo return mutes. A fixed MIDI Program change message shall be transmitted upon recalling a snapshot. A three-digit LED display shall be used to show snapshot number. Eight preset switches shall be used to assign mute groups; these shall work independently of the snapshot system. External devices may be triggered using MIDI Note On/Off messages transmitted when mute switches are pressed.

The dimensions and specifications shall be as published on the rear cover of this brochure. The console shall be the Soundcraft Series TWO.