

specialisations

S

type

S-TYPE
COMPACT
LIVE
PRODUCTION
CONSOLE



cadac 

S-TYPE PERFORMANCE SPECIFICATION

MICROPHONE INPUT

Electronically balanced; input impedance is 1k Ω

Gain is continuously variable from 10 to 60dB. CMRR is better than 80dB.

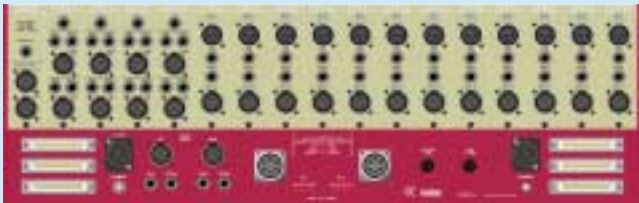
OUTPUTS

All outputs are electronically balanced.

The output impedance is 33 Ω in series with 1000 μ F. The maximum output is +21dBu into 2k Ω .

MIXING SYSTEM

All mixing busses are of the differential current summing type, providing 80dB rejection of external noise fields. The system is designed so that the gain of the summing amplifier is proportional to the number of channels routed to the bus. For example, the basic noise contributed by a group-summing amplifier, with no inputs selected, is typically -105dBu.

<p>Complete Signal Path</p> <p>Output Noise: Better than -85dBu Frequency Response: ± 0.5dB 20Hz to 20kHz Maximum Gain: Microphone input to sub group output = 80dB Total Harmonic Distortion: Output level into 2kΩ = +20dBu: 20Hz 50Hz 100Hz 1kHz 10kHz 20kHz <0.02% <0.02% <0.03% <0.04% <0.06% <0.08%</p> <p>Measured from a microphone input (10dB gain) to a sub group output, with the input channel VCA fader and sub group fader set at '0' (unity gain). The equaliser is in circuit and the controls set flat.</p>	<p>Crosstalk</p> <p>0dBu input level. total gain = 20dB</p> <table border="0"> <tr> <td>Adjacent channels</td> <td>-89dB (noise on i/p)</td> <td>at 1kHz</td> </tr> <tr> <td></td> <td>-89dB (noise on i/p)</td> <td>at 20kHz</td> </tr> <tr> <td>Adjacent sub outputs</td> <td>-110dB</td> <td>at 1kHz</td> </tr> <tr> <td></td> <td>-86dB</td> <td>at 20kHz</td> </tr> <tr> <td>Adjacent matrix outputs</td> <td>-117dB</td> <td>at 1kHz</td> </tr> <tr> <td></td> <td>-87dB</td> <td>at 20kHz</td> </tr> <tr> <td>Adjacent aux outputs</td> <td>-88dB</td> <td>at 1kHz</td> </tr> <tr> <td></td> <td>-65dB</td> <td>at 20kHz</td> </tr> <tr> <td>Channel mute isolation</td> <td>-115dB</td> <td>at 1kHz</td> </tr> <tr> <td></td> <td>-96db</td> <td>at 20kHz</td> </tr> <tr> <td>Channel fader isolation</td> <td>-106dB</td> <td>at 1kHz</td> </tr> <tr> <td></td> <td>-92db</td> <td>at 20kHz</td> </tr> </table>	Adjacent channels	-89dB (noise on i/p)	at 1kHz		-89dB (noise on i/p)	at 20kHz	Adjacent sub outputs	-110dB	at 1kHz		-86dB	at 20kHz	Adjacent matrix outputs	-117dB	at 1kHz		-87dB	at 20kHz	Adjacent aux outputs	-88dB	at 1kHz		-65dB	at 20kHz	Channel mute isolation	-115dB	at 1kHz		-96db	at 20kHz	Channel fader isolation	-106dB	at 1kHz		-92db	at 20kHz
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<p>Low Frequency Phase Linearity</p> <p>< 6$^{\circ}$ at 30Hz. input to output.</p> <p>Measured by applying a tone to the microphone input at 10dB gain, routing that channel (EQ selected and set flat) to a sub group.</p>	<p>Input/Output Capability</p> <table border="0"> <tr> <td>Maximum input level</td> <td>+11dBu at minimum gain</td> </tr> <tr> <td></td> <td>+31dBu with -20dB pad</td> </tr> <tr> <td>Maximum output level</td> <td>+22dBu into 2kΩ</td> </tr> </table>	Maximum input level	+11dBu at minimum gain		+31dBu with -20dB pad	Maximum output level	+22dBu into 2k Ω																														
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General Console Performance Specification.

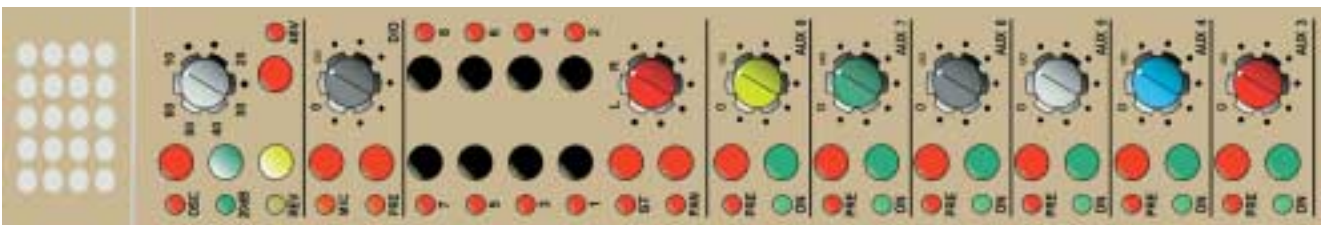
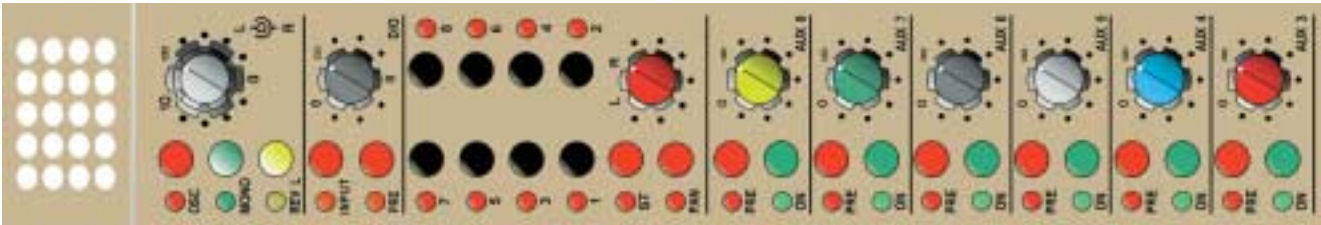
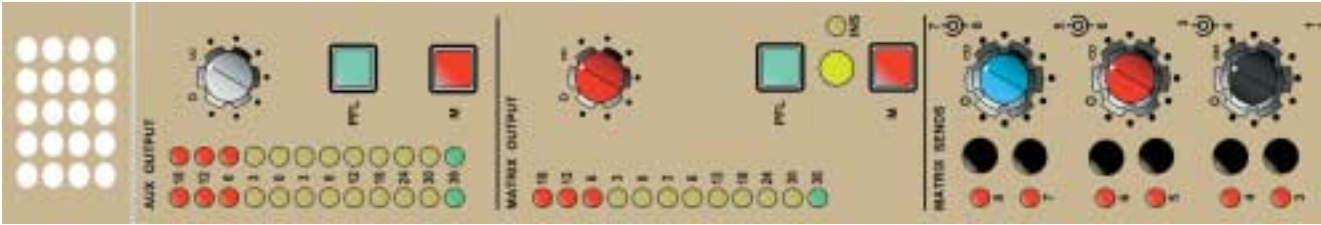
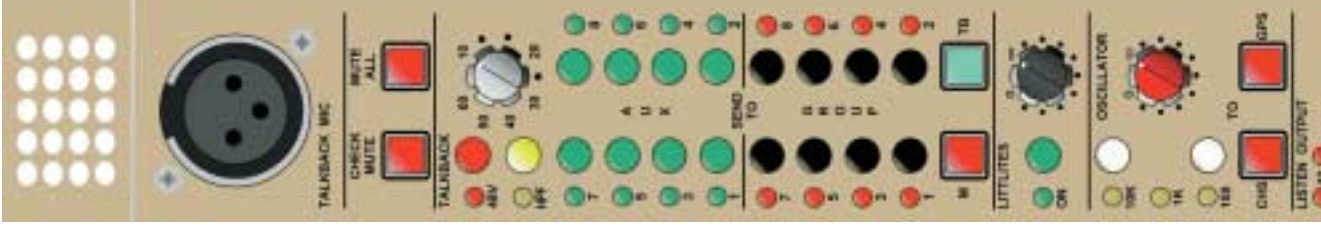
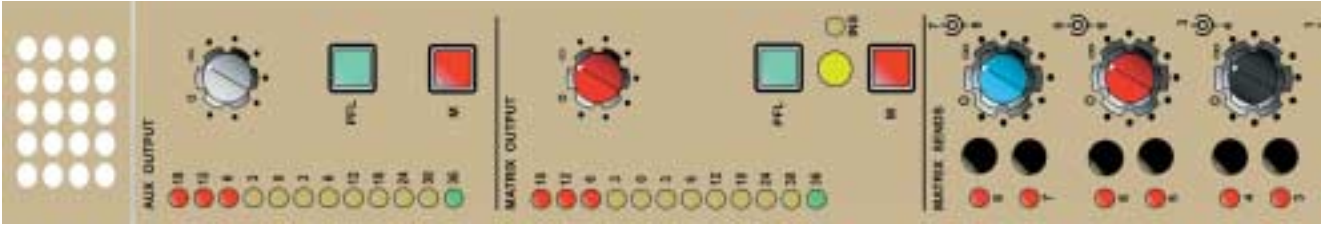
All figures are typical, not worst case, and therefore no de-rating is required.

Note

OdBu = 0.775V r.m.s Without reference to impedance.

Unless stated otherwise all specifications apply to the frequency range 20Hz to 20kHz.

All noise measurements are r.m.s. via a DIN audio band filter, with -3dB points at 22Hz and 22kHz.



S type

10 5 0 5 10 20 30 40 50 60 ∞

SUB GROUP L R

VCA MASTER

STEREO TO MATRIX

HEADPHONES

STORED MASTER

10 5 0 5 10 20 30 40 50 60 ∞

SUB GROUP L R

VCA MASTER

AUX 2

AUX 1

VCA GP

dB

PFL

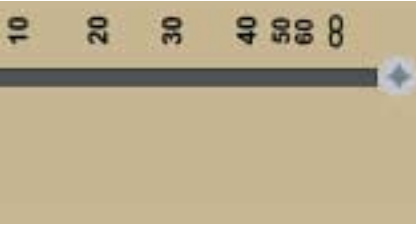
AUX 2

AUX 1

VCA GP

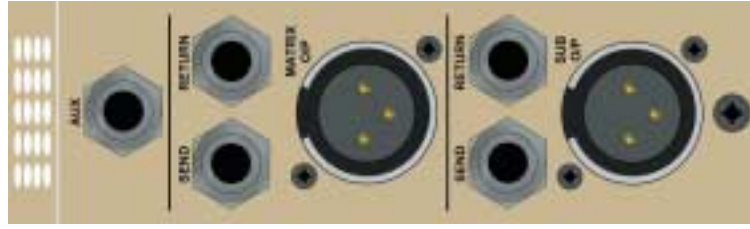
dB

PFL



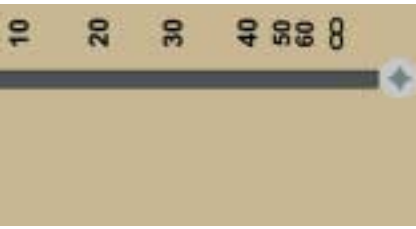
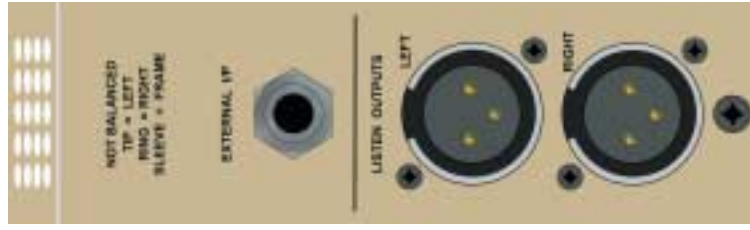
8415

VCA Master,
Sub-Group, Matrix,
Aux.



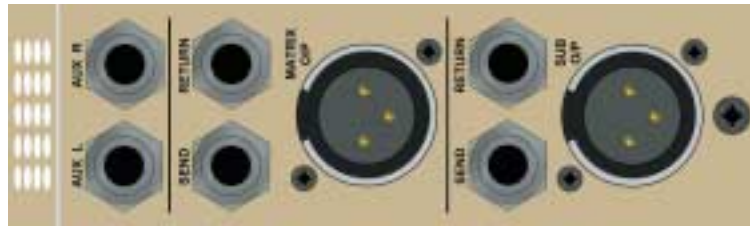
8414

Stereo Master,
Stereo Output,
Listen, Osc.



8413

VCA Master,
Sub-Group, Matrix,
Stereo Aux.



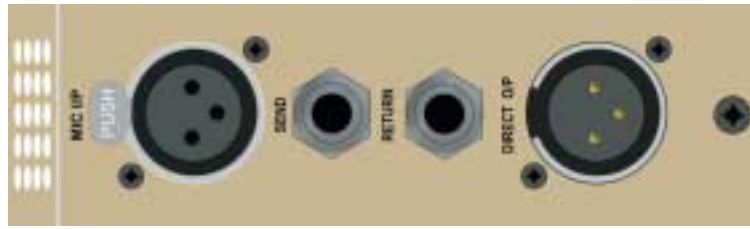
8412

Stereo Input

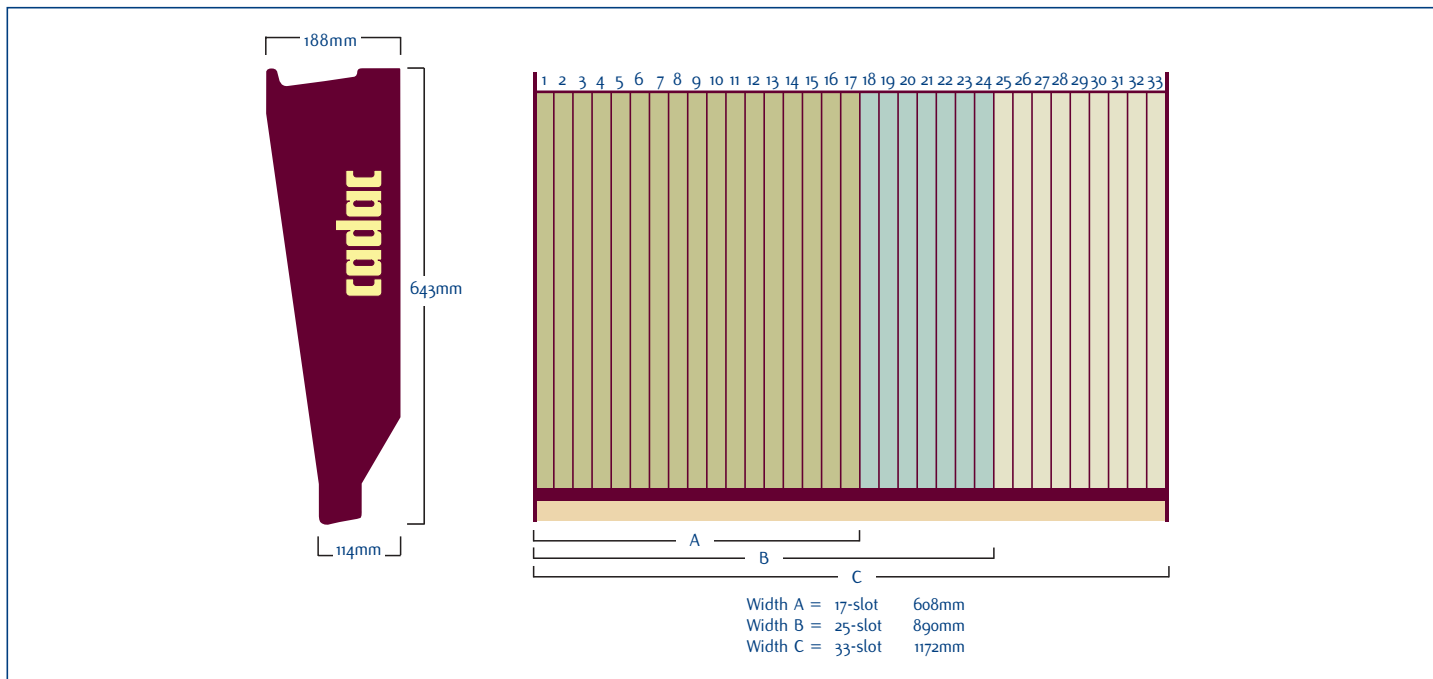


8411

Mono Input



GENERAL SPECIFICATION



FRAME

The S-Type is constructed from 1.6 mm Zintec, fixed to 4mm aluminium end profiles. This allows multiple frames to be positioned, so that modules are almost adjacent. Internal audio bussing is balanced and uses ribbon cables. All power bussing is also routed via ribbon cables. Frame-mounted inputs include diode-mixed power inlets, earth points, a headphone jack, bus expansion connectors, main stereo outputs XLRs, main stereo insert point jacks and Littlite XLRs. The frame also incorporates multiple cooling fans.

The three sizes of frame available comprise 17, 25 and 33 module positions. These allow for the standard configurations of 8, 16 or 24 input channels, 8 output groups and a Stereo Master/Talkback/Oscillator/Comms module. Alternatively, any combination of modules can be fitted. The only limits are a maximum of 8 output groups and 1 Oscillator/Comms module in a system. A system can comprise multiple frames. Each module may be located into any

position within the console frame to accommodate for personal preferences in layout.

CONNECTORS

Balanced XLR type connectors are standard for all inputs and outputs. Balanced TRS ¼" jack sockets are used for insert sends and returns, plus the inputs on the stereo channel. An unbalanced TRS ¼" jack socket is used for the external stereo input on the Stereo Master/Talkback/Oscillator/Comms module.

POWER SUPPLIES

Each S-Type console requires the following:

- ±18V for the audio electronics
- +13V for LEDs and relays
- +48V for phantom powering of microphones
- Input 110-240VAC, 1Φ

The 2U power supplies are suitable for rack-mounting or flight cases, and are connected via a shielded multicore cable with 6 pole military circular bayonet connectors at each end. Each

console may be powered from two independent power supply systems, operating simultaneously for continuous redundant operation.

FINISH

The front panels are stove enamelled, silk-screened and lacquered. The silk-screened legend is designed to withstand arduous operating conditions.

TRANSPORTATION

Custom-made flight cases are available for the S-Type console, as required.

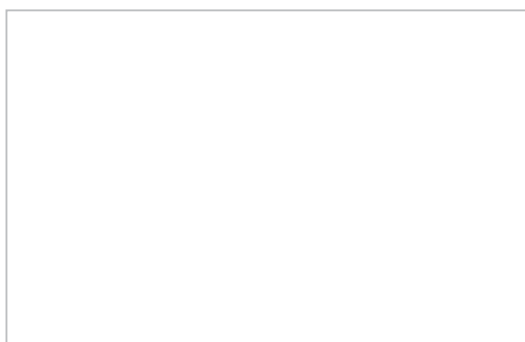
STANDARDS

The S-Type is designed to the following standards:

- EN55103-1:1997
- EN55103-2:1997
- EN60065:1998



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