



SR PLUS

Sound Mixing Consoles

building on success

Control Functions



The Allen & Heath SR plus series of sound reinforcement consoles is a development of their highly successful SR range.

SR mixers are installed in churches, leisure centres, theatres and concert halls around the world, including the Purcell Room at London's South Bank Centre.

SR consoles are frequently behind the quality sound demanded for today's professional product launches and commercial presentations.

SR Plus, like its predecessor, has been designed and built for the rugged life led by a touring board.

SR Plus now has an input pad switch operating on both microphone and line inputs for maximum flexibility on gain matching and XLR connectors are provided for left, right and mono outputs. These can be balanced with the Allen & Heath ground sensing electronic output balance amplifier.

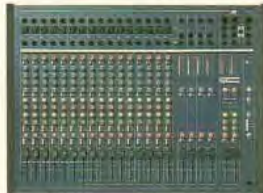
SR plus stands for Sound Reinforcement – now more than ever.



PRODUCT RANGE



SR424 four group, stereo and mono outputs, 24 input channels



SR416 four group, stereo and mono outputs, 16 input channels



SR16 stereo and mono outputs, 16 input channels



SR12 stereo and mono outputs, 12 input channels



SR8 stereo and mono outputs, 8 input channels

Note: Consoles will be finished in grey with grey side trims during 1991

INPUT CHANNEL

LINE LEVEL INPUT JACK
1/4" Jack accepts balanced or unbalanced signals.

MICROPHONE INPUT XLR
Electrically balanced input with phantom powering.

INSERT JACK
Pre-equaliser insertion point.

INPUT GAIN
Adjusts pre-amplifier to suit various input levels.

PAD SWITCH
Reduces Mic input by 18 dB or line input by 12 dB.

HF CONTROL
Shelving characteristic with ± 12 dB cut/boost at a corner frequency of 8 kHz.

HIGH MF CONTROL
Peaking characteristic with ± 12 dB cut/boost at a centre frequency of 3.5 kHz.

LOW MF CONTROL
Peaking characteristic with ± 12 dB cut/boost at a centre frequency of 250 Hz.

LF CONTROL
Shelving characteristic with ± 12 dB cut/boost at a corner frequency of 80 Hz.

EQ CUT SWITCH
By pass switch for the equaliser section allowing instant comparisons.

AUX SEND LEVELS A,B,C,D
Allows up to four mixes of input sources for foldback, echo and cue mixes. A & B post fade, C & D pre- eq. (internal links allow optional -re eq. pre-fade or post fade sends.)

ASSIGNMENT SWITCHES (SR Plus 416, SR Plus 424 ONLY)
Selects the channel to groups 1 - 4 or L - R outputs.

PAN CONTROL
Used to position the input in the stereo mix or between a pair of groups.

PFL SWITCH
Monitors pre fader signal to allow cueing of input signal.

MUTE SWITCH (SR Plus 416, SR Plus 424 ONLY)
PEAK INDICATOR
LED warns of imminent overload (clipping)

CHANNEL FADER
With 10 dB boost available.



GROUP OUTPUT

GROUP OUTPUT JACK

With optional electronically balanced output.

AUX INPUT JACK

TAPE INPUT JACK

GROUP INSERT JACK

Pre fade insertion point.

GROUP METER

10 segment VU characteristic display giving visual indication of group output signal level.

AUX/TAPE SWITCH AND LEVEL CONTROL

With switch in aux position, signals from an external source can be mixed into the group with the level control. With switch in the tape position, group output no longer feeds the pan control and the tape input is fed to the L - R outputs via the level and pan controls. The group fader always feeds the group output jack.

PAN CONTROL

Used to position the signal in the stereo mix.

GROUP PFL SWITCH

Monitors pre-fader signal to allow cueing of group signal.

PEAK INDICATOR

LED warns of imminent overload (clipping).

GROUP FADER

With 10 dB boost available.

STEREO OUTPUT

R (L) MASTER OUTPUT XLRs

With optional electronically balanced output.

AUX B (A) OUTPUT JACK

FX RETURN 2 (1) INPUT JACK

Dual level input connector

R (L) INSERT JACK

pre fader insertion point

R (L) MONITOR METER

10 segment VU characteristic display giving visual indication of the selected monitor source.

AUX B (A) LEVEL CONTROL

Auxiliary mix master output level control.

FX RETURN 2 (1)

Line input signal can be added to the stereo mix and to aux mixes C and D. A level control, 2 Aux send controls and a pan control are provided, along with a PFL switch.

PEAK INDICATOR

LED warns of imminent overload (clipping).

MASTER R (L) OUTPUT FADER

Controls the level to the stereo output and mono summing amplifier.

MASTER SECTION

MONO OUTPUT XLR

With optional electronically balanced output.

AUX D OUTPUT JACK

AUX C OUTPUT JACK

MONITOR OUTPUT JACK

Unbalanced stereo monitor output.

PHANTOM POWER LED AND SWITCH

Switches the 48 volt phantom power for the microphones on and off.

AUX C LEVEL CONTROL

Master output level control.

AUX D LEVEL CONTROL

Master output level control.

MONO LEVEL CONTROL

Master control of summed L-R mix (MONO) output.

MONITOR SOURCE SELECT SWITCHES

Selects the signal for headphone or control room monitoring and monitor meters.

MONITOR LEVEL CONTROL

Sets listening level for both monitor and headphone output.

HEADPHONE JACK

ELECTRONIC PERFORMANCE

0dBv = 0.775 RMS 1kHz
 OVU = +4dBv = 1.23 Volts RMS
GAIN
 MIC IN to GROUP OUT +82dB max
 MIC IN to L/R OUT +72dB max
 LINE IN to L/R OUT +50dB max
 LINE IN to GROUP OUT +60dB max
 GROUP to L/R OUT +10dB max
 L/R to MONO OUT +6dB
 FX RETURN to L/R OUT +12dB max
 AUX RETURN to GROUP OUT +17dB max

Figures include 10dB input and group fader boost.
INPUT GAIN CONTROL RANGE
 41dB

FREQUENCY RESPONSE

Equaliser set to fiat response or switched out - 20Hz-20kHz +0, -1dB.

OUTPUTS

Max level +21dBv, recommended load 2K ohms or more. With 600 ohms load max level +18dBm.

DISTORTION

THD typically better than 0.05%
 20Hz-20kHz at normal levels and gain settings.

EQUALISER

HF continuously variable ± 12 dB with shelving characteristic at 8kHz.
 3.5kHz continuously variable peak/dip ± 12 dB centred at 3.5kHz, Q=0.6
 250Hz continuously variable peak/dip ± 12 dB centred at 250Hz.
 LF continuously variable ± 12 dB with shelving characteristic at 80Hz.

Each model is shipped in protective packing with the power supply and one owner handbook which includes technical service data and schematics.

CONSTRUCTION

Steel control panel, stove enamel, epoxy silkscreen legend.
 Steel base, black finish with wood trims.
 Channel circuit boards are individual, secured to control panel.
 Internal bussbar circuits employ removable harness.
 IC op amp circuit design with discreet transistor input pre amp.

NOISE PERFORMANCE

RMS noise 20kHz bandwidth, ref OVU

| MODEL | SR8 | SR12 | SR16 | SR416 | SR424 |
|----------------------------------------------------|-------|-------|-------|-------|-------|
| Stereo Output, all inputs routed and faders closed | -89dB | -87dB | -86dB | -85dB | -83dB |
| Group Output, all inputs routed and faders closed | - | - | - | -79dB | -76dB |
| Aux Output | -89dB | -86dB | -82dB | -82dB | -79dB |

Microphone Input equivalent noise -125dBm (200ohm source).
 Line input pre-amp noise at 0dB gain; -88dB.

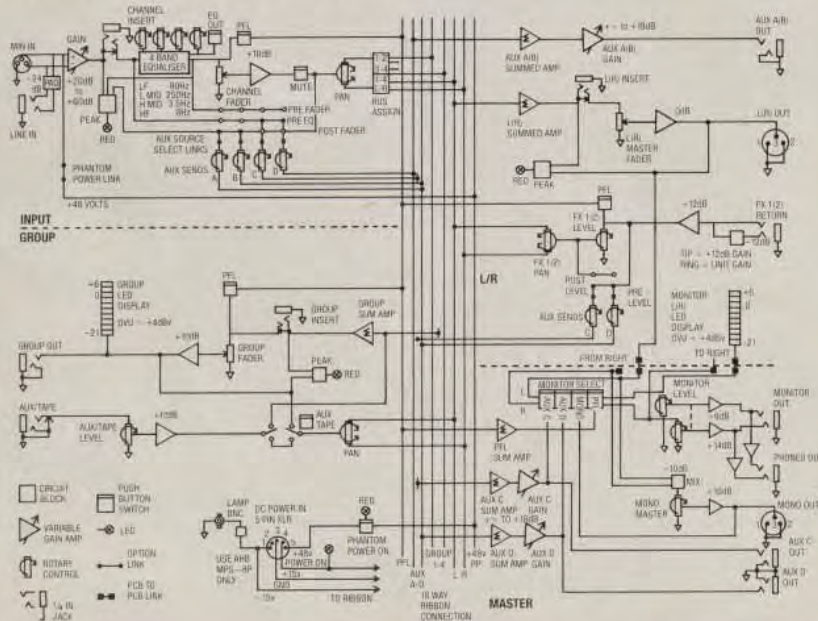
DIMENSIONS mm(in)

| MODEL | SR8 | SR12 | SR16 | SR416 | SR424 |
|----------------------|----------|----------|----------|----------|-----------|
| Width | 472 (19) | 600 (24) | 728 (29) | 872 (35) | 1128 (45) |
| Height | 100 (4) | 100 (4) | 100 (4) | 100 (4) | 100 (4) |
| Front-to-back | 644 (26) | 644 (26) | 644 (26) | 644 (26) | 644 (26) |
| Packet weight kg lbs | | 20 (44) | 25 (55) | 26 (58) | 35 (77) |

All models use power supply AHB MPS8P
 The supply voltage setting may be altered to suit local requirements if required. BNC connector to suit lamps rated 12-15v, 50m A, D.C.).

Note:
 Optional soft covers are available

SR PLUS BLOCK SCHEMATIC



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In line with our continuous product improvement, we reserve the right to amend the design and specification of equipment without notice.

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