



## 5422 Compact Portable 8 Channel 2 Group Sound Mixing Console



### Features

The Neve 5422 Suitcase Mixing Console is a Compact Lightweight unit, designed for professional mobile applications where small size and ruggedness are important requirements. The console is housed in a strong formed metal case with an integral handle and has an option of a leather cover.

The eight modular channels feed to 2 main output groups with full equalisation available on all channels. The latest circuit techniques, using integrated circuits, give a no compromise performance. The monitoring facilities enable the performance of the mixer and tape machine to be checked either on headset or via output to a loudspeaker monitor system. Two V.U. Meters are included as standard but PPM's are available as options.

All inputs and outputs are on XLR or compatible connectors. The unit can run for several hours on internal

nickel cadmium batteries which can be recharged via an external mains battery charger unit. This unit can also be used to drive the mixer without the batteries and it will also provide 48v for phantom powering capacitor microphones.

### Facilities

#### Inputs

8 modular input channels are provided each switchable to mic or line with mic sensitivity of -90dB to -15dB and a line sensitivity of -30dB to +15dB both switchable in 15dB steps. The inputs are balanced and floating via a high grade transformer and a phase reversal switch is included.

#### Channel Equalisation

Comprehensive equalisation is provided on each channel consisting of High Frequency control giving up

to  $\pm 15$ dB, a presence control giving up to  $\pm 15$ dB at 820Hz, 1200kHz and 3900Hz, and a low frequency control giving up to  $\pm 15$ dB. An equaliser switch enables this section to be bypassed.

#### Filter

A high pass filter with a slope of 12dB/Octave and turnover frequencies of 47Hz, 82Hz and 150Hz is provided.

#### Faders

Professional conductive plastic faders with 105mm travel are used for channels and groups.

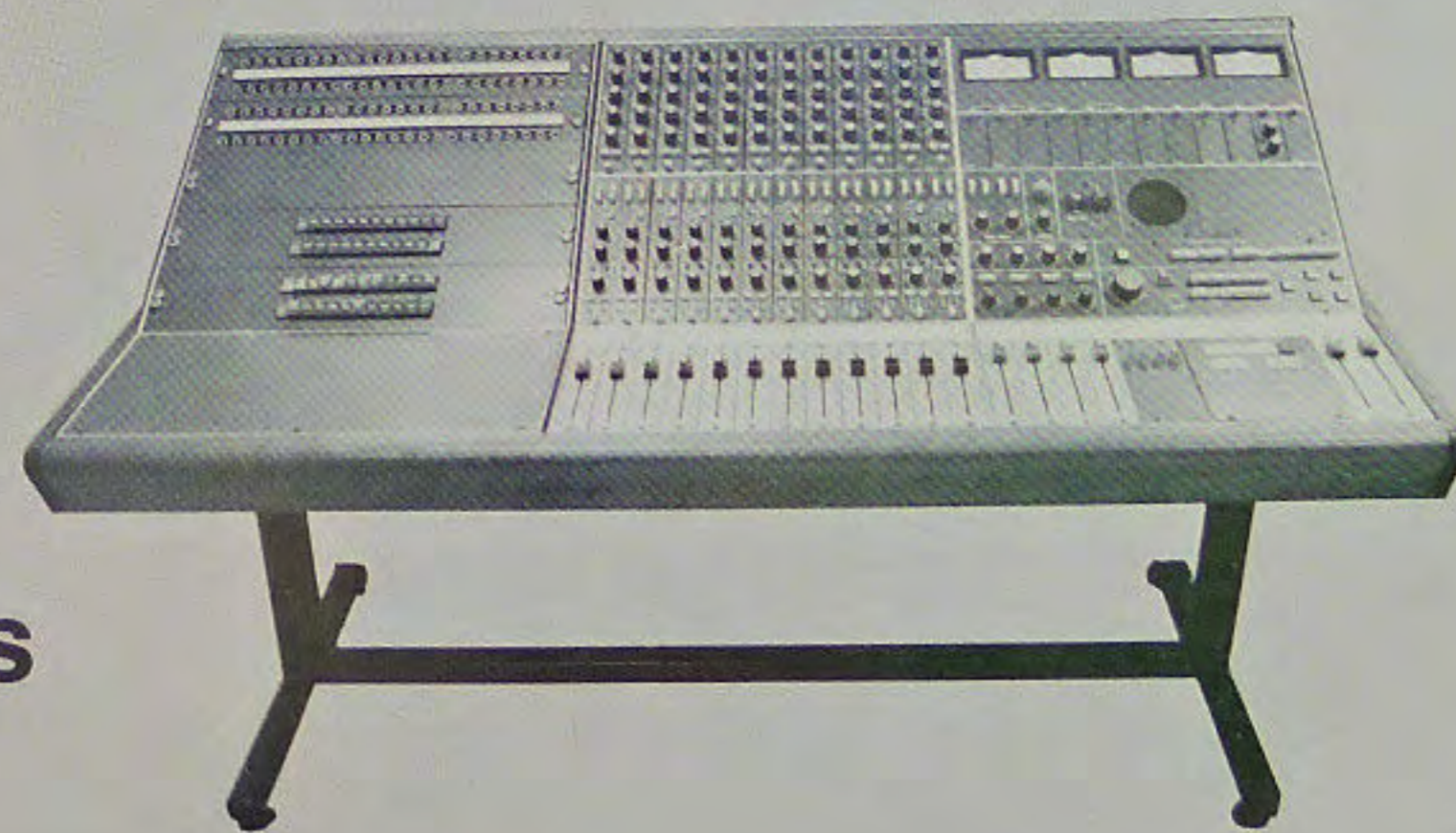
#### Routing

Each channel can be routed via a pan pot to a stereo programme output or to a stereo audition bus bar.





**Models**  
**5305/5312**  
**12-36 Inputs    4 Bus 2 Main**  
**TV Sound Production Consoles**



 **Neve**





**5315**  
**12/24 Channel 4 Group**  
**Multi-Purpose**  
**Sound Mixing Console**



### Introduction

The Neve 5315 range of consoles of 4 subgroup design with 2 main outputs and 4 auxiliary outputs are suitable for television production, radio production and 4 track sound recording.

Available as standard equipment with 12 or 24 microphone line inputs with each channel assignable to the four subgroups or 2 main outputs, the consoles are fully modular in concept, practical in construction and finished in selected hardwoods where the overall presentation conforms to the Neve tradition of design elegance coupled with ruggedness and durability.

### Installation

Of 'table top' design overall dimensions present a compact arrangement which allows installation in both studios and outside broadcast vans. For free standing applications a wide range of purpose built subframes is available with adjustable levelling feet, (castors to special order). Subfitted consoles, extended frames and a variety of matching furniture support the range.

Matching table mounted patch fields are options to augment the consoles and provide a wide range of insertion and monitoring points. The patchfields can be fitted to form an integral part of the consoles on left or right hand sides, be provided as free standing units, or as 19" rack-mounting panels.



## Features

### Channel Amplifier — Equalisers

The type 33114, 33115 and 33117 channel amplifier modules used in the consoles are interchangeable and can be used in any combination offering varying degrees of equalisation.

Within the range the 33117 is a simple pre-amplifier without correction circuits. The 33114 and 33115 are the more sophisticated versions with 3 equalisation bands, high and low frequency shelving and medium frequency peaking. Both provide  $\pm 18\text{dB}$  cut and boost with slope and bandwidth characteristics designed for musical effectiveness. High pass filters are incorporated in both types with a low pass filter on the 33114 only, each with a slope characteristic of  $18\text{dB/octave}$ .

All have independent microphone and line input transformers with a single rotary switch selecting either input and providing pre-selectable sensitivity settings variable in 5dB steps. The operating characteristics, parameters and facilities available on each unit are described on associated leaflets.

Phantom Power. Microphone inputs are prewired for true phantom powering of capacitor microphones and the Neve 33601 24V to 48V converter is available for this purpose.

### Signal Assignment

The signal routing module 33726A associated with each channel provides assignment of the input signals to the four subgroups and the two main outputs directly or via stereo positioning pan pots. Pre or post fader assignment is also provided to the four auxiliary groups. Solo and cut push buttons are included.

### Direct Inputs

Two direct inputs without equalisation are provided for line level signals and via individual selector switches and level controls are routed to the subgroups and main outputs.

### Faders

The channel, subgroup and main output linear faders are fully professional in quality and employ conductive plastic tracks giving a smooth accurately defined audio taper. End of track 'overpress' switches are fitted to all linear faders and are wired to multipin connectors for use as machine starts or in interlock systems. The 'overpress' switches are also wired to the solo circuit to provide preview (prefade listen).

### Insertions

Insertion points in channel inputs (prefade), subgroups (post fade) and main outputs have balanced, floating send and return lines. The insertion feeds together with all input and output lines are wired to multipin connectors on the rear of the console. To meet the requirements of the installation these may be wired through the mating connectors supplied to fan out strips, jack strips or audio connector panels. When not in use, the insertion points may be permanently bridged by linking cables.

### Outputs

The four subgroups and two main outputs are controlled by linear faders with the main outputs derived as a mix from the four subgroups either directly or via pan pots. The main outputs can be used as a broadcast stereo pair or alternatively in the mono mode, as Main and Standby programme sources. In music recording applications the main outputs can be used as stereo monitor mix-down. Provision is made to feed the four track inputs directly to the subgroups. A simultaneous mono output obtained from the two main output groups is optionally available.

### Monitor Facilities

Provision is made for 4 speaker monitoring of the four sub group outputs and 4 track tape returns, with, in addition, a comprehensive system of monitoring individual outputs including auxiliaries. In broadcast applications stereo external inputs to the monitoring are provided for sampling 'off air' returns.

### Meters

4 VU meters to ANSI C-16 are standard equipments and unless otherwise specified are calibrated to read 0VU at +4dBu. Optional PPM's to BS4297 can be fitted with other types available to order.

### Talkback

A high grade microphone and associated amplifier are provided, together with keys enabling the auxiliary groups, the 4 sub groups or either of two independent outputs to be addressed.

### Line Up Oscillator

An oscillator with independent level control and a choice of 5 frequencies (40Hz, 400Hz, 1kHz, 10kHz and 15kHz) is provided together with key selection to subgroups, main outputs and an independent output.

### Transmit/Rehearse Key

For broadcast applications, a key is provided which in the 'Transmit' position inhibits the following functions:

Talkback to Bus, Oscillator to Bus, 4 Track tape to Main Outputs, Studio Loudspeaker feed from Auxiliary 4. Red and Green tally lamps are provided, as well as independent contacts wired to a connector at the rear of the console for Studio Cue or signal lamps.

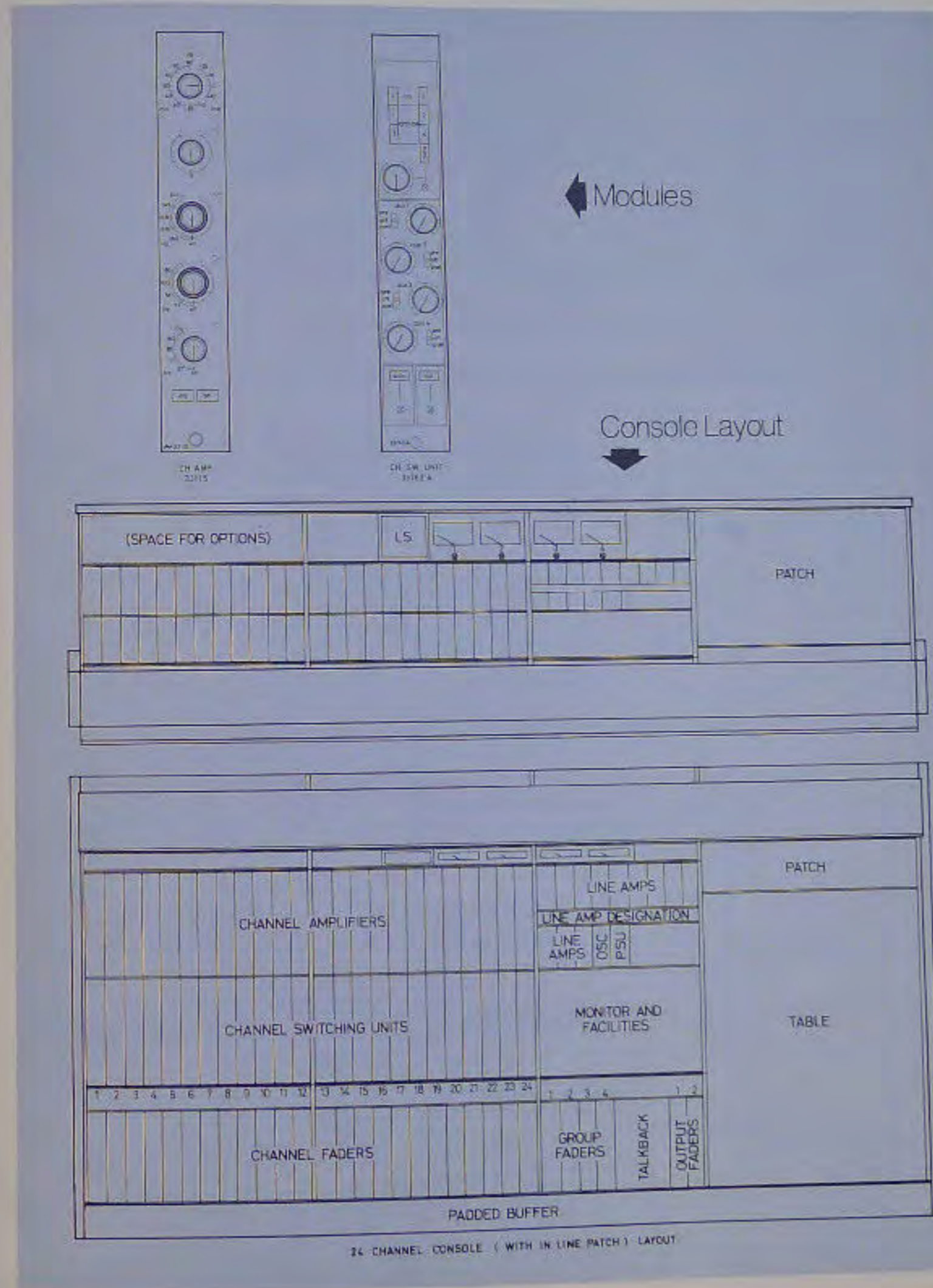
### Console Loudspeaker

A small, robust, internal speaker and drive amplifier is fitted, fed from the solo group with level control.

### Power Supply

Neve 33605 power supply units will be supplied. Each is a high grade, stabilised, unit specifically designed for console applications. These units are normally supplied in 'Stand Alone' form, but a purpose built rack frame holding up to 3 such units in standard 19 inch width, is available.

## Modules and Console Layout



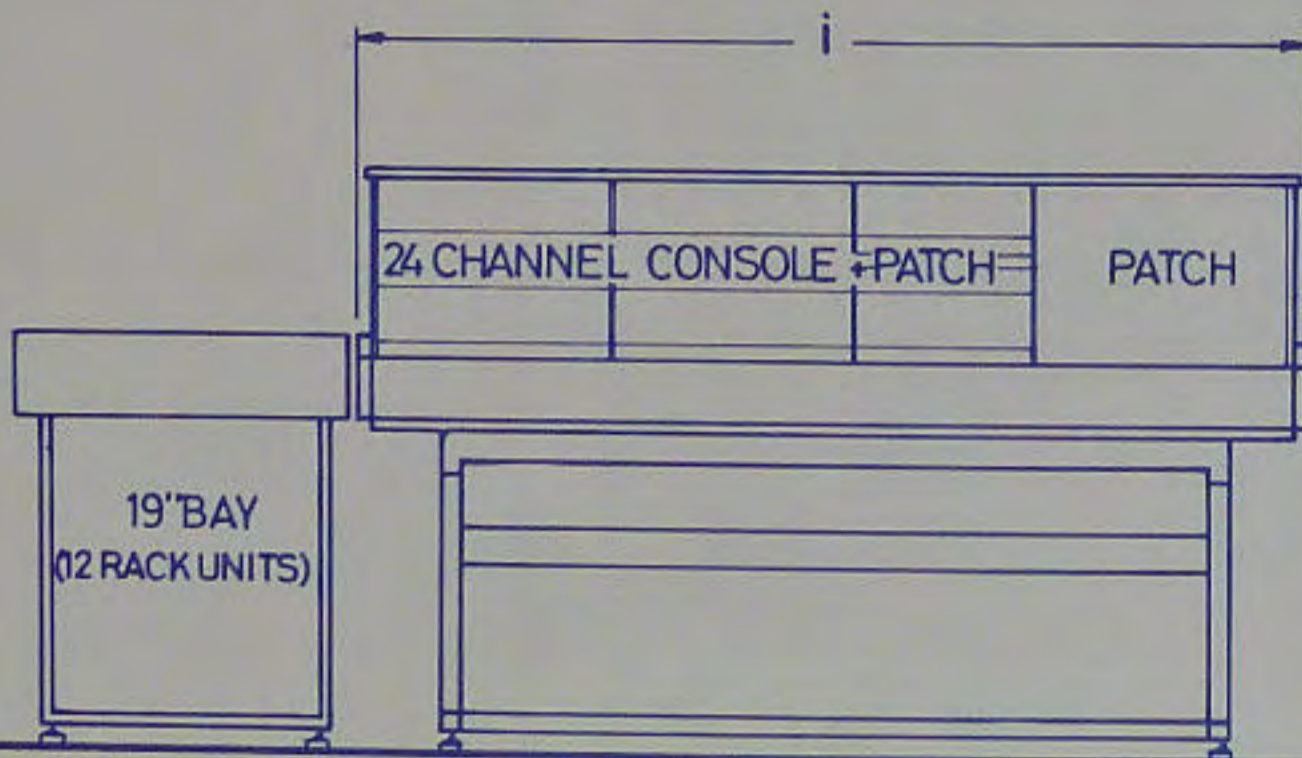
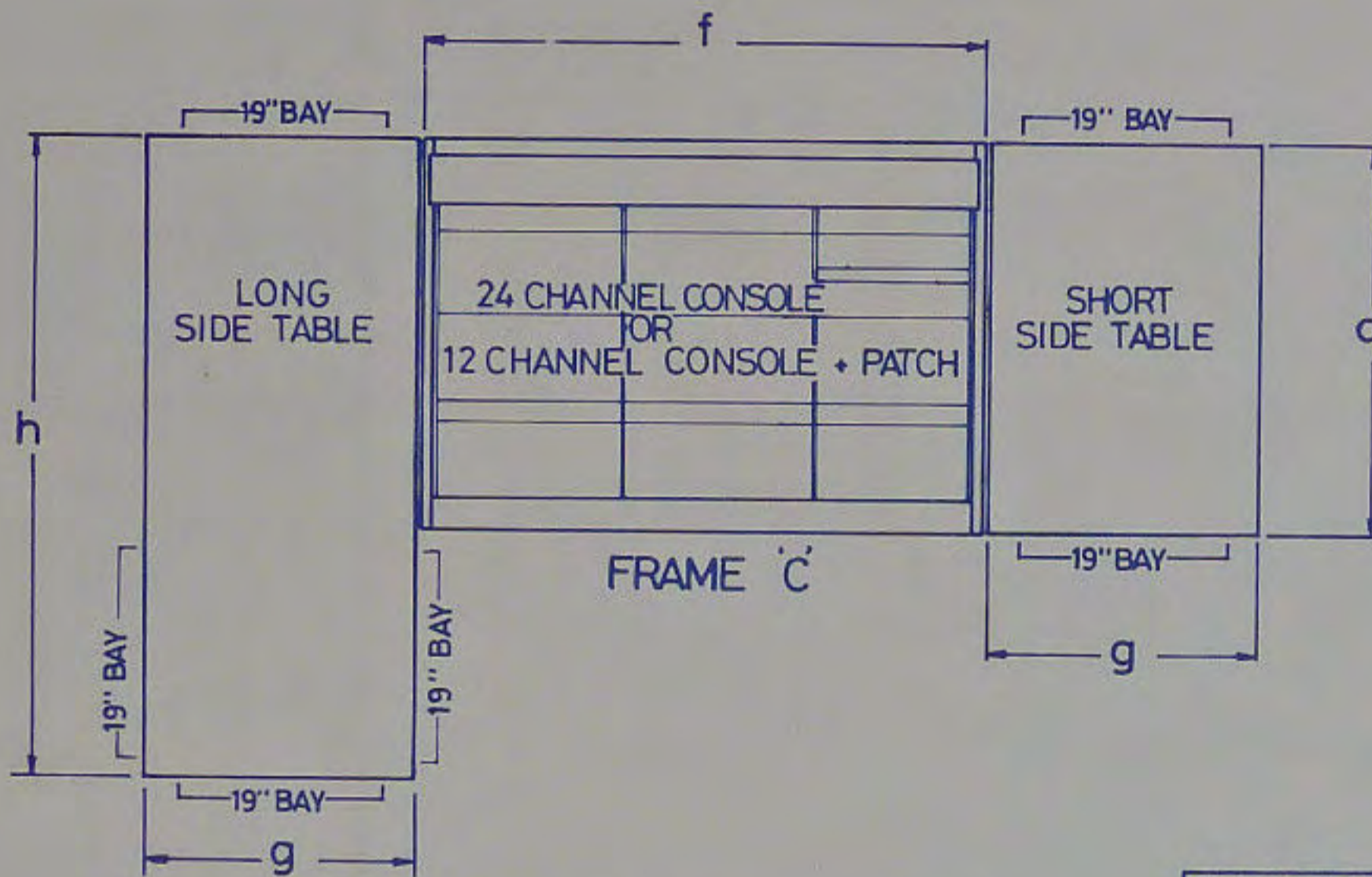
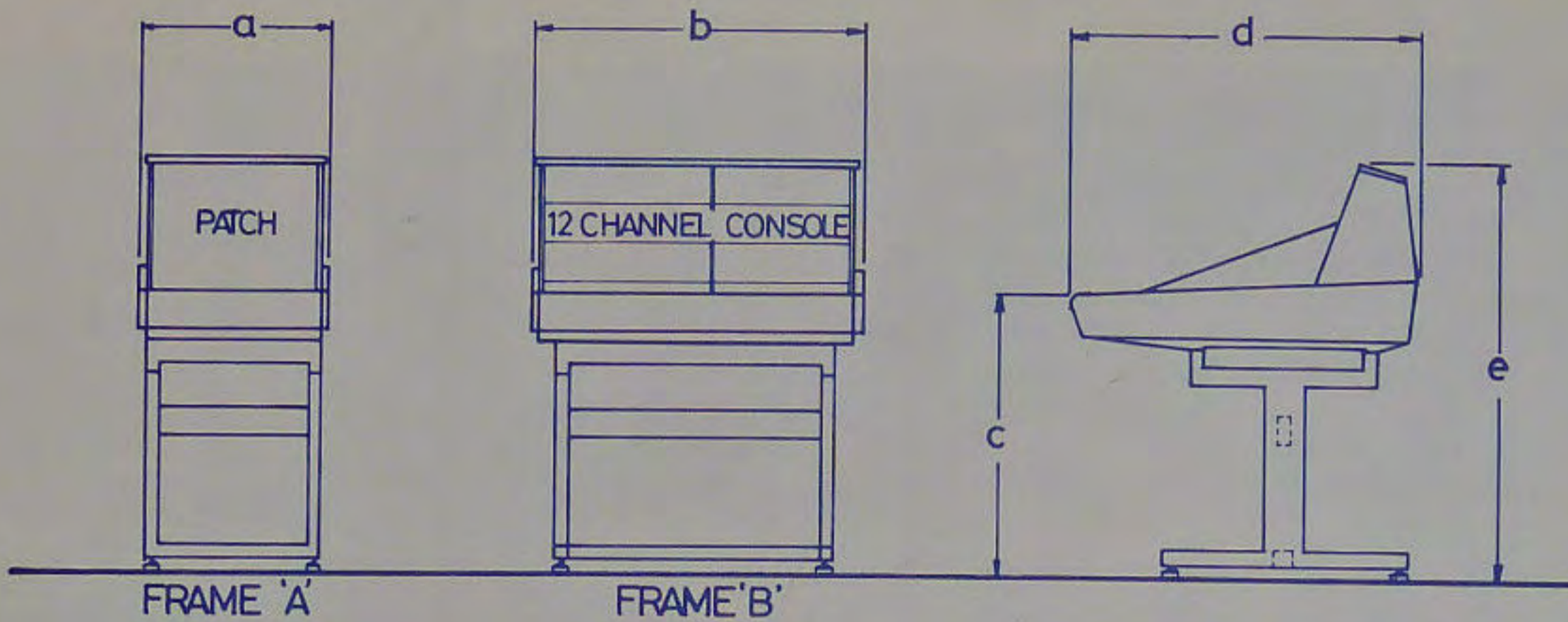
## Options

- PPM's in lieu of VU meters
- Mono Output (includes VU meter).
- Input selector.
- Playback Selector.
- Phantom Power Unit.
- 19" rack for P.S.U.s.
- Mic input box (with 15 metre extension lead).
- Underframes.
- Short and long tables.

## Agents



# Typical Configuration



DIMENSIONS		
	mm	inches
a	480	18.9
b	812	32
c	711	28
d	879	34.6
e	1051	41.375
f	1252	42.3
g	1430	56.3
i	1692	66.6

fader height after adjustment



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In keeping with our policy of continuous development, we reserve the right to change the design of any unit forming part of this specification if such a change will, in our opinion, improve the performance or produce any other advantage mutual to the customer and ourselves.

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## Facilities

### Input Channels

20 channels with amplifier/equaliser type 31099 fitted to channels 1 – 16 only as standard. Fully wired and tested for later addition of amplifiers for 17 – 20.

Line inputs 1 – 16 assigned to 16T PB  
 Line inputs 17 – 20 assigned to 4T PB

Horizontal P & G Faders.

Switching directly to 16 groups or via quad positioning control.

Group routing is partially exclusive; see module front panel layout.

Switching to Auxiliary 1 and 2 outputs via individual level controls and pre/post switches.

Switching to Auxiliary 3 and 4 outputs via a pre/post switch, level pot and pan pot giving a stereo auxiliary facility.

Line input and pre fader insertion points.

Positional Muting Solo pushbutton, Cut pushbutton and LED.

A Solo 'safe' facility is fitted with a master push button on the facilities panel.

### Groups

16 groups fitted rotary level controls and post fade insertions. Groups 1 – 16 are assigned to 16T Tape Input tracks 1 – 16. Groups 1 – 4 are also assigned to 4T Tape Input tracks 1 – 4.

A 4 track fader is fitted switchable in series with the rotary level controls in Groups 1 – 4, for use in 4T working.

### Monitor Mixdown

Separate 16 Track Mixdown Section (2 tracks per module).

Input selectable by Master push buttons from Tape Input/Tape Output/Overdub.

In overdub mode, inputs are individually selectable between Tape Input/Tape Output, with remote DC Tape mode switching facility on

individual 'overdub' pushbuttons. Small horizontal linear faders for individual monitor track level controls.

Routing direct to 4T Monitor Mix busses or via stereo pan control.

Post-Fade Routing to Auxiliary 5 and 6 outputs via individual switch-pots.

Solo push button, cut pushbutton and LED per track.

Individual rotary level controls for the monitor mix outputs and post-fade insertions are provided.

### 6 Auxiliary Outputs

Individual rotary level controls and post fade insertions are provided on Aux 1 – 6.

Auxiliary 5 and 6 outputs also have a re-routing facility to Auxiliary 1 – 4.

### 4 Reverberation Returns

Each can be switched directly to Groups 1 – 16 or via a stereo pan control. Each return may also be routed through a monitor mixdown switch unit identical to those used for the mixdown inputs, to provide Reverberation on Monitor.

### 4T Monitor and Studio Loudspeaker Outputs

Input selectable by keyswitch and master pushbuttons from:-

1. 4T Tape IN/Tape OUT.
2. 16T Mon. Mixdown.
3. Auxiliary Inputs
  - a) Patch Input
  - b) Aux Output 1 - 6
  - c) Mono Output to LF Output
  - d) Stereo Output to LF and RF Outputs
  - e) Stereo from Aux Outputs 3 and 4 to LF and RF Outputs.

Monitor mode key switching monitors into Quad, Stereo or Mono. 4 gang monitor rotary level control. Monitor 'cut' button with automatic

cut facility operating during talkback etc.

Studio Loudspeaker outputs are parallel with the monitor output and a separate 4 gang rotary level control is provided.

### Metering

16 Track metering:

Input selectable by Master push buttons between 16T Tape in and 16T Tape out.

4 Track metering:

Input selectable by Master push buttons between 4T Tape In/Out, 2T Tape In, Monitor Mixdown.

Auxiliary Meter:

Follows Auxiliary monitor input selection to LF monitor loudspeaker.

### Talkback

Gooseneck microphone, rotary level control and 4 keys providing talkback to:-

1. Monitor Mixdown or Tape Inputs.
2. Auxiliary 1 or Auxiliary 2.
3. Auxiliary 3 and 4 or Auxiliary 5 and 6.
4. External or Auxiliary 1 – 6 and SLS. Studio Loudspeakers.

### Oscillator

5 Switched frequencies, rotary level controls and routing via a keyswitch to Monitor Mixdown, external output or Tape Inputs.

### Patch

This is an in-line assembly on right hand side using 4 off 2 x 24 Bantam Jack Panels with space available for a further 2 x 24 assembly. A small table area is available in front of the patch panel.

### Power Supplies

4 off Neve 24V 5A Units are housed in two 5¼" x 19" Rack Mounting Assemblies.



## Facilities Continued

### Auxiliaries

Each channel can be routed either pre or post fade via a common level control to 2 auxiliary outputs. The 2 auxiliary outputs are controlled by 2 master rotary level controls.

### Outputs

The stereo programme outputs are controlled by independent linear faders. A lever key enables tone, talkback, or programme, to be sent to the main outputs. A mono button enables the right to be combined with the left giving a mono output on programme left.

### Playback

Provision is made for two playback sources with level controls to be panned between left and right programme and/or left and right audition.

### Monitoring

The comprehensive stereo monitoring system enables programme, output, audition, auxiliaries 1 and 2 and playback to be monitored either in mono or stereo on a headset or via an external amplifier and loudspeaker. In addition P.F.L. is monitored on the left channel.

### Talkback

Talkback from an internal microphone is switchable to programme, Auxiliary 1, and Auxiliary 2.

### Oscillator

An oscillator switchable to 40Hz, 400Hz, 1kHz, 10kHz and 15kHz is incorporated for test purposes. This can also be switched to programme outputs for line up.

## Options

A set of rechargeable nickel-cadmium batteries are available.

An external mains power supply unit is available which also acts as a battery charger. It also provides 48v for phantom powering capacitor microphones.

A leather carrying case is available which provides protection for the XLR connectors.

The V.U. meters can be replaced by P.P.M.s.

## Brief Specification

EIN at microphone input ( Z source = 200 ohm, 25°C BW 20kHz unweighted. Overall gain 90dB)	Better than -125dBu
Input amplifier noise factor	Better than 5dB
Input headroom	Greater than 40dB
Maximum output	Greater than +20dBu
Design load	600 ohm
Mic input distortion at +18dB (load 600 ohm)	Less than 0.08%
100 Hz - 10kHz	Less than 0.2%
30 Hz - 15kHz	
Frequency response, resistive load	±0.5dB
30 Hz - 15kHz	+0.5/-1dB
25 Hz - 20kHz	
Adjacent channel isolation	Better than 70dB
Inter bus isolation (crosstalk)	Better than 75dB
Input and output balance, 10kHz	Better than 50dB
Overall gain	90dB maximum
Power supply:	External mains driven supply unit
or	Internal rechargeable battery
Weight	Less than 44lb (19.958 kg)
Input impedance - Microphone	1k ohm ±20% 30Hz - 12kHz
- Line	10kohm ±20% 30Hz - 12kHz
Output impedance (Programme & Aux.) (50Hz - 15kHz)	Less than 50 ohm



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In keeping with our policy of continuous development, we reserve the right to change the design of any unit forming part of this specification if such a change will, in our opinion, improve the performance or produce any other advantage mutual to the customer and ourselves.

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