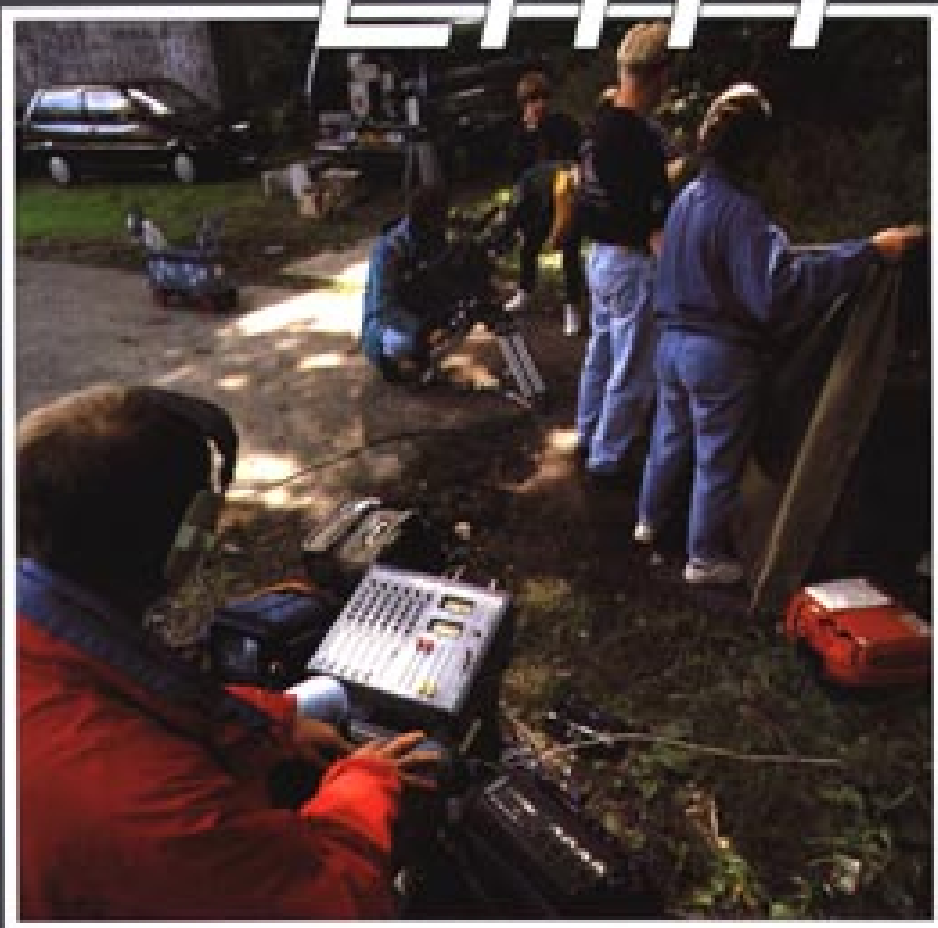


# Broadcast

# Lm1



**Portable Audio Mixer**



# Superb audio performance time after time.

Over the last two decades, Soundcraft has earned a well-respected reputation for the design and manufacture of high quality professional audio consoles for a variety of applications. The use of experienced specialist designers coupled with Soundcraft's modern manufacturing techniques using the highest quality components have resulted in a range of consoles which provide the

facilities and specifications demanded by the world's top broadcasters, production companies and sound recordists.

Available in 3 frame sizes for 6, 8 and 12 inputs, the LMI is designed to meet the demands of location sound recording for the film and broadcast industry. It offers performance and features to satisfy the most exacting requirements. Robust construction combined with minimum size and weight allow the LMI to be easily transported to the most remote location, where high gain, low noise and long battery life guarantee the best results under the worst conditions.

*Lm1*





### ◀ Mono Input Module

The low-noise switchable high-gain mic amp permits accurate channel matching and is sensitive enough for the low signal levels encountered on location. Isolating transformers may be fitted as an option. Switched mic power is available in all three common formats; 48V, 12V and 12VT. A phase reverse switch is fitted, which affects both Line and Mic inputs. The Switchable 3-band EQ section is supplemented by an independent 80Hz high-pass filter. Aux 1 is switchable pre or post fade, and is controlled by a dedicated level control. Aux 2 is a switched post fade send. Input modules may be paired for M-S working, using the 'S' switch for the channel carrying the 'Side' signal. Stereo placement is via a rotary pan control, and channel level is controlled by a 100mm long-throw conductive plastic fader. Stereo pre fade listen (PFL) is indicated by an LED on the input module. Each input may be routed to the main stereo busses via the L-R switch. The 'Peak' LED illuminates at 6dB below clipping, giving ample warning of high signal levels.

### ◀ Monitor Module

A comprehensive monitoring section is included, allowing selection of any internal bus for routing to headphones, external monitor loudspeakers and on-board PPM or VU. Two external stereo line inputs may also be monitored. Monitor output level is set by a rotary control; M-S signals may be decoded for metering and L-R monitoring. The talkback section includes a variable level return circuit, which may be routed to headphones by an external control. The built-in talkback mic may be selected to talk to L-R busses or an external T/B output, and may be mixed with slate tone onto the main L-R outputs.

### ◀ Stereo Mic Input Module

Available as an option, this standard width module retains many of the features of the mono module. Input gain is switched by a stereo rotary control; the 'Phase' switch inverts the right hand channel only. A three-band EQ section is provided, with a separate high pass filter. The Aux 1 bus is fed a mono mix of the L+R channels. Aux 2 is a mono switched post fade send. The 'S' switch allows the LMI to operate with M-S stereo microphones, and the rotary 'Balance' control gives a stereo offset of up to +12dB in L-R mode, or may be used to control the stereo width in M-S applications.

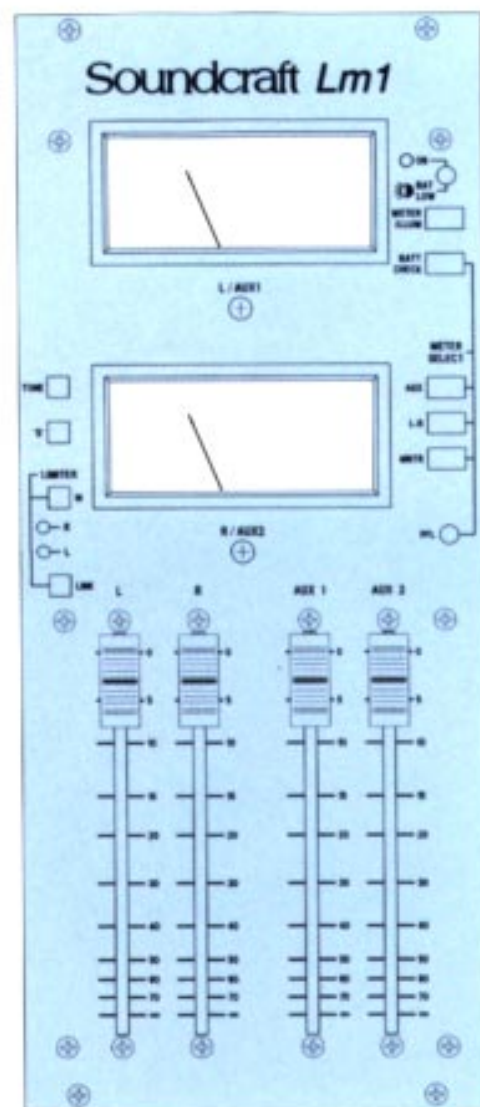
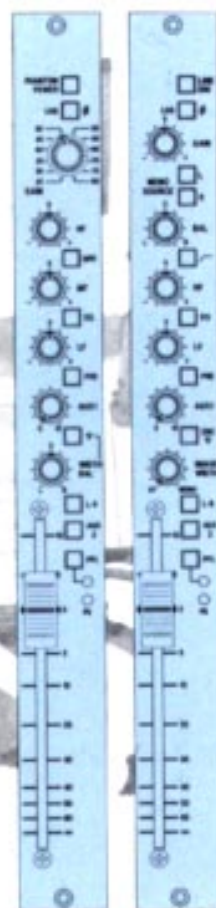
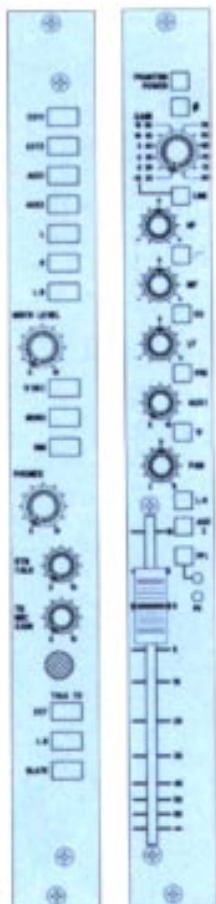
### ◀ Stereo Line Input Module

Available as an option, this module is useful for field overlay of a stereo signal from CD,

DAT or tape. A switch selects between balanced (0dBu) and unbalanced (-10dBu) inputs. Input gain control gives a cut or boost of 15dB to both channels. Phase switch and HP filter are identical to the Stereo Mic Input Module, and a two-band EQ section is provided. Mono/Stereo selection is made by the combination of L and R switches; Aux routing is identical to other LMI modules. The ENC 'S' switch allows the operator to convert an input to M-S format. Balance and image width may be adjusted using dedicated rotary controls, and the 100mm long-throw fader may be equipped with a fader start switch to allow remote control of the stereo source.

### Master Module

Four long-throw faders control the L-R, Aux 1 and Aux 2 output levels; these are indicated



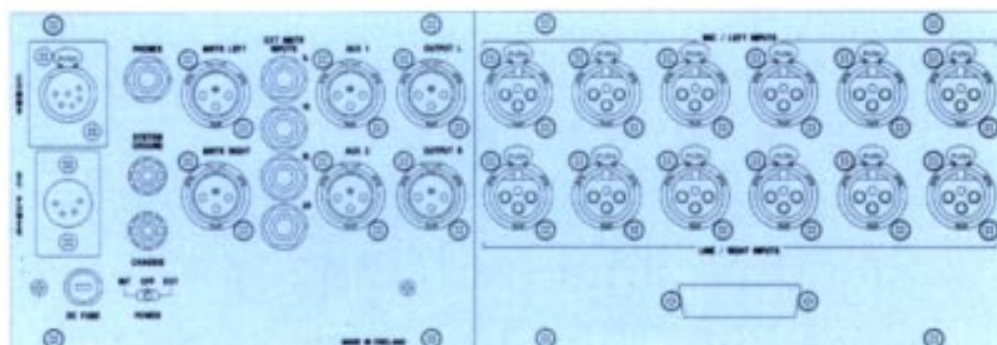
# PORTABLE AUDIO MIXER

by PPM or VU meters, selectable as L-R, Aux 1-2 or via the Monitor select section. Meter illumination is switched to increase battery life, and a 'Low Battery' LED indicates when less than 1/2 hour battery life remains. Battery voltage may be monitored using the 'Batt Check' switch and the upper level meter. L+R outputs may be replaced with 1kHz tone from the in-built oscillator; this is pre-fade and does not affect the Aux 1 or 2 outputs. The LM1 may be configured for M-S outputs by depressing the 'S' switch. With M-S selected, the upper level meter displays the 'Mid' signal, the lower indicating the 'Side' level. Main L-R outputs are provided with switched limiters and separate indicators. The limiters may be linked to preserve stereo tracking via the 'Link' switch. L-R, Aux 1 and 2 outputs are balanced and may be fitted with optional isolating transformers for maximum protection.

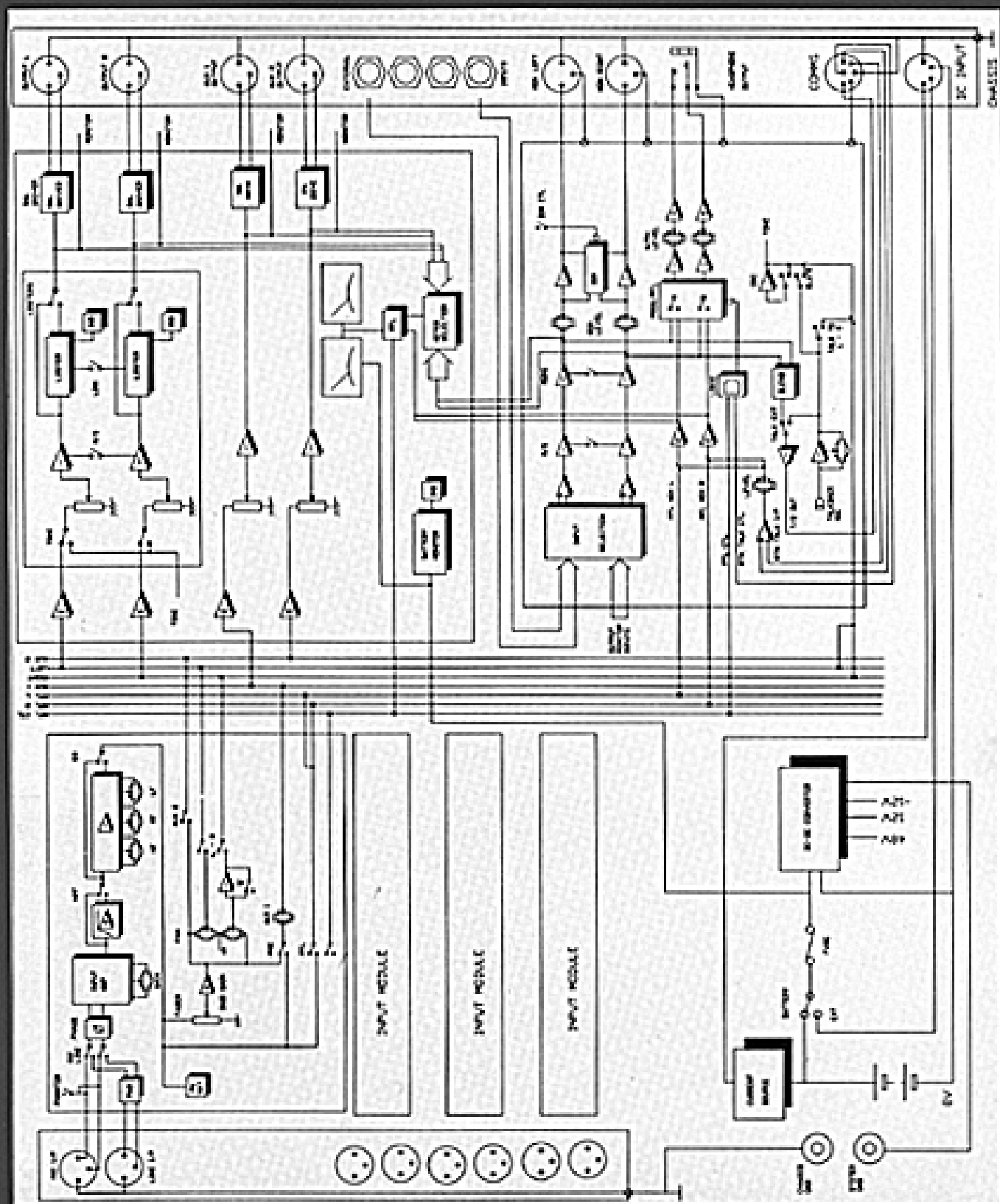
## Connections and Powering

External Talkback audio and control signals are interfaced via a 6-pin XLR connector; all other major connections are via industry-standard 3-pin XLR connectors. DC power is supplied by twelve 'D' cells (16 for the 12-channel version); depending on the quality of cells used, battery life is approximately 12-15 hours using dry cells and up to 8 hours with rechargeable cells fitted. The optional Soundcraft PPS100 Power Supply Unit or other external 8-30V dc power supply may be connected to power the mixer or recharge the batteries when mains power is available.

The 8 channel frame is available in a 19" rack mount version for installed applications.



# PORTABLE AUDIO MIXER





# Lm1 Specifications

## Frequency Response (Mic gain set to +70dB)

Mic Input to Main Output +0.0, -1dB, 20Hz to 20kHz

## Total Harmonic Distortion (+18dBu output, faders at 0dB)

Mic/Line Input to Main Output Less than .03% (20Hz - 20kHz).

## Noise (20Hz to 20kHz, unweighted)

Microphone Input E.I.N. Less than -128dBu (150Ω source)

Main/Aux Bus Output Noise Less than -80dBu (6 channels routed, 1 channel open at 0dB)

## Crosstalk (All measurements at 1kHz, electronically balanced outputs)

Channel Fader Attenuation Greater than 90dB (80dB @ 10kHz)

Channel Routing Isolation Greater than 90dB (80dB @ 10kHz)

Aux 1 Send Attenuation Greater than 90dB (80dB @ 10kHz)

## Input and Output Impedances (All measurements at 1kHz)

Microphone Input Greater than 1.5kΩ Balanced

Line Input Greater than 15kΩ Balanced

L, R, Aux 1, Aux 2 Outputs Less than 80Ω Balanced

## Input/Output Capability

Microphone Max Input Level +6dBu

Line Max Input Level +40dBu

All Balanced Outputs +24dBu

Headphones +16dBu into 600Ω

## Input and Output Levels

Microphone Input Sensitivity -25 to -80dBu, switched in 5dBu steps

Line Input Sensitivity +10 to -35dBu, switched in 5dBu steps

L, R, Aux Outputs 0dBu for PPM4 (+4dBu for 0VU)

All measurements made with: Fresh or fully charged cells

Output limiters bypassed

Calibrated Neutrik TP40I test set

## Packed Weights and Dimensions

### 6 Input

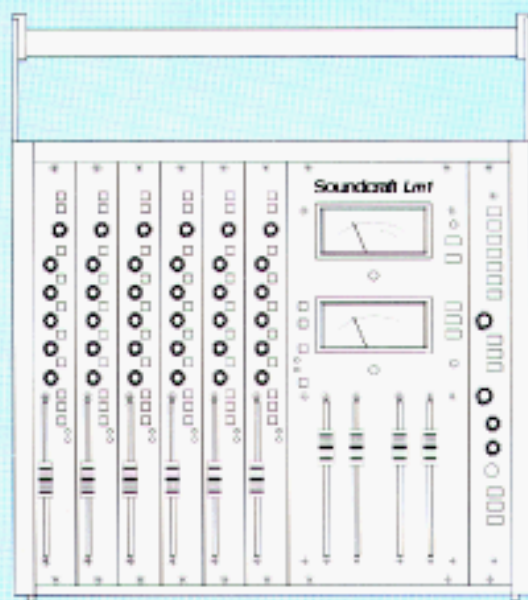
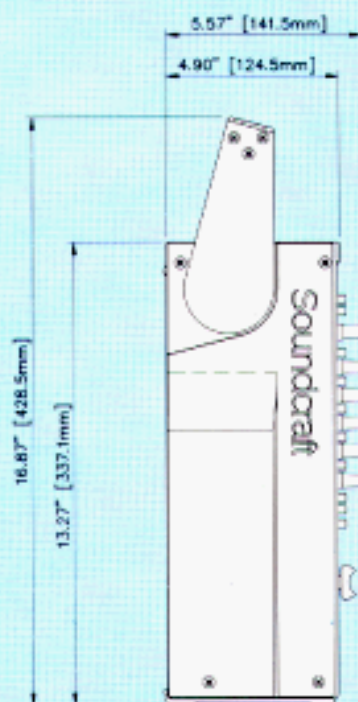
480mm x 220mm x 550mm (19" x 8.75" x 21.75") 9.8kg (21.5lbs)

### 8 Input

540mm x 220mm x 550mm (22.5" x 8.75" x 21.75") 11.1kg (24.2lbs)

### 12 Input

660mm x 220mm x 550mm (26" x 8.75" x 21.75") 13.6kg (29.9lbs)



6 I/P LENGTH = 14.71" [373.6mm]  
8 I/P LENGTH = 17.11" [434.6mm]  
12 I/P LENGTH = 21.91" [558.5mm]

Soundcraft reserves the right to improve or otherwise alter any information supplied in this document or any other documentation supplied hereafter.

F&OE 9/96

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Part no. ZL0076 (US)