



The original concept for the Merlin was to create a Small, Portable Audio Mixer suitable for Media Training in Schools and other Educational Institutions. The design criteria were:

- Must Look and Operate like a dedicated Broadcast On-Air Mixer
- Have Full Broadcast Performance
- Modest Price
- Be Versatile, Reliable, Tough and
- Not Require Permanent Installation

The resulting design, the Merlin Mixer is much more than a media training mixer; it is a highly practical and versatile piece of Professional Broadcast Equipment. Technical performance of the Merlin is flawless, equal to other Elan Audio Professional On-Air Mixers in areas such as low distortion, flat frequency response, low noise and generous overload margins. Making it not only sound good, but also easy and forgiving to operate.

Operational features of the Merlin closely resemble those of other Elan and most other Professional Audio Mixers making it not only the ideal unit for Media Training, but also for Broadcast and Production applications.

Applications for the Merlin Mixer:

- Outside Broadcasts
- Media and Broadcast Training in High Schools and Institutions
- Pre Recording of Radio Programs
- Remote Studio or budget second On-Air Studio
- Announcer or Presenter Training
- Audio Production for Transfer to PC based systems
- Audio Production for Sound or AV Presentations
- News Room Production and Presentation Mixer
- Stand-By or Emergency Mixer on Transmitter Site
- On-Air Mixer during Radio Test Transmissions
- School Radio Station
- Narrowcast or Internet Streaming

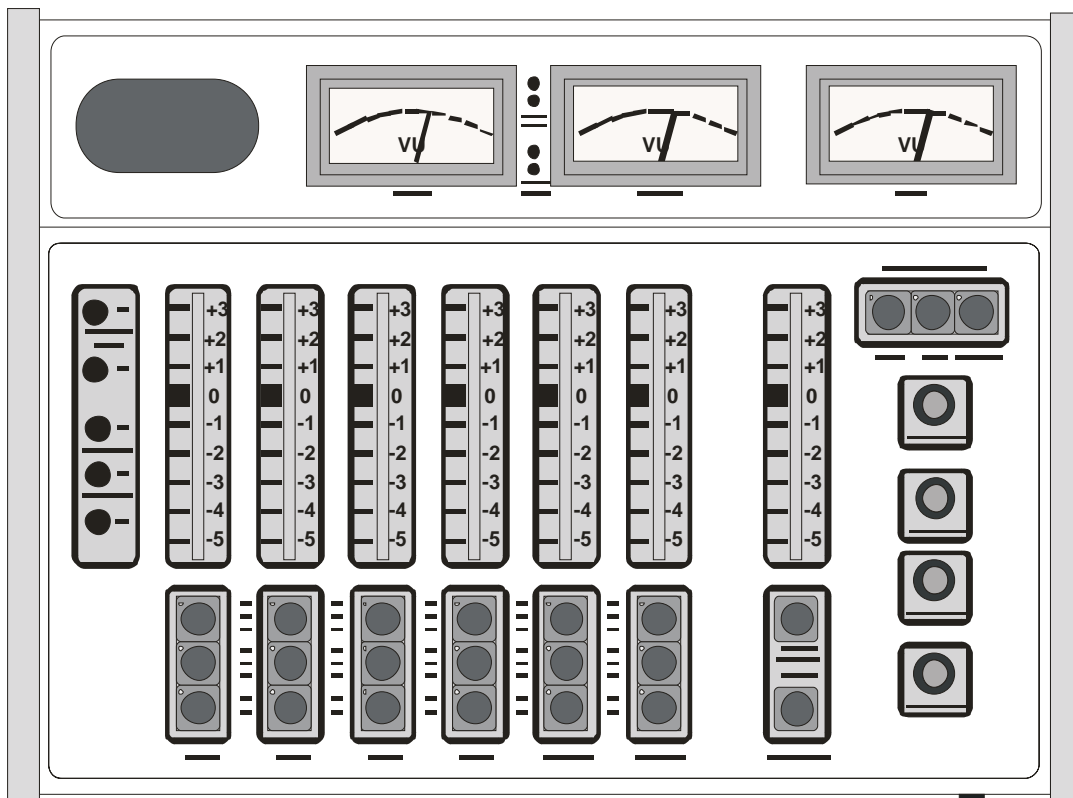
Features

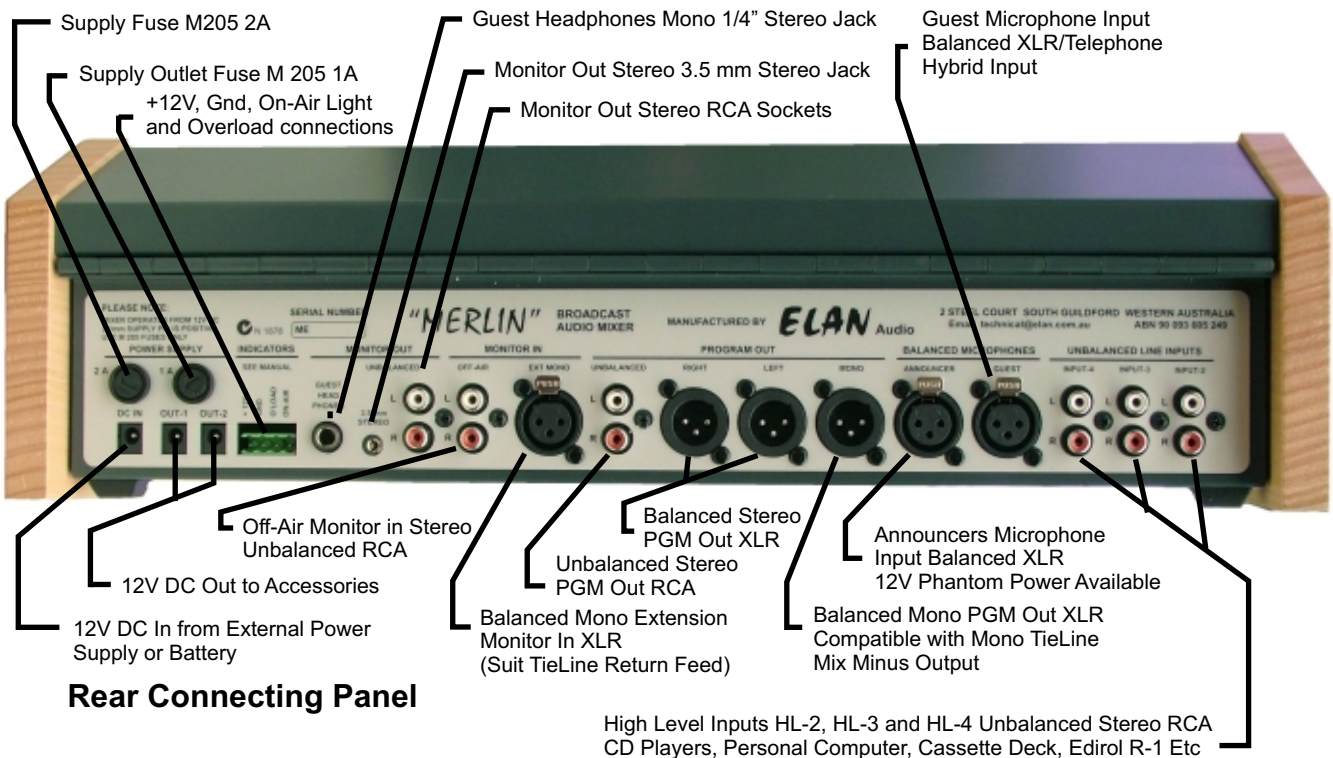
- Attractive Styling, Robust Metal Construction with Lacquered Tasmanian Oak End Panels
- Tough Wear Resistant Polyester Operating Panel Surfaces - Legends Silk Screened on back of Panels (so they Won't Wear Off)
- Small Size W 480 mm x D 360 mm x H 145 mm
- Free Standing Design (Does Not Require Permanent Installation)
- Powered by 12V DC from Completely Safe 4 Amp External Switchmode Power Supply (Supplied with the Mixer) or from an External Battery Supply
- Quality Alps Faders and Marquardt LED Illuminated Push Buttons
- Solid State Click Free Channel ON-OFF and CUE Switching
- Comprehensive Monitor Facilities
- Automatic Monitor Muting with Microphone Turned ON
- On-Air Light Output
- CUE System featuring Split CUE to Announcers Headphones
- Illuminated Stereo VU Meter style Audio Level Meters indicating Left and Right Channel Output Levels, and Mono CUE Level
- Overload and Phase Indicator LED's
- Mix Minus Facility to allow operation with Telephone Hybrid Unit
- Easy Interfacing to TieLine CODECS
- 4 Unbalanced Stereo Line Inputs - 1 Balanced Stereo Line Level Input
- 2 Balanced Microphone Inputs with 12V Phantom Power
- Balanced Stereo and Mono Line Outputs - Unbalanced Stereo Line Outputs –
- Balanced Mono Monitor Input for Interfacing to TieLine CODECS
- Unbalanced Monitor Inputs and Outputs
- Guest Headphone Feed

Technical Specifications

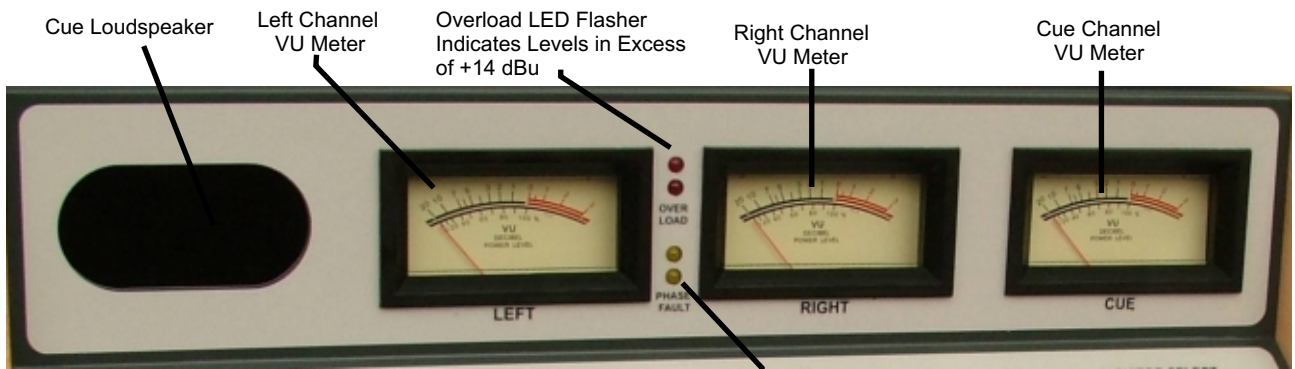
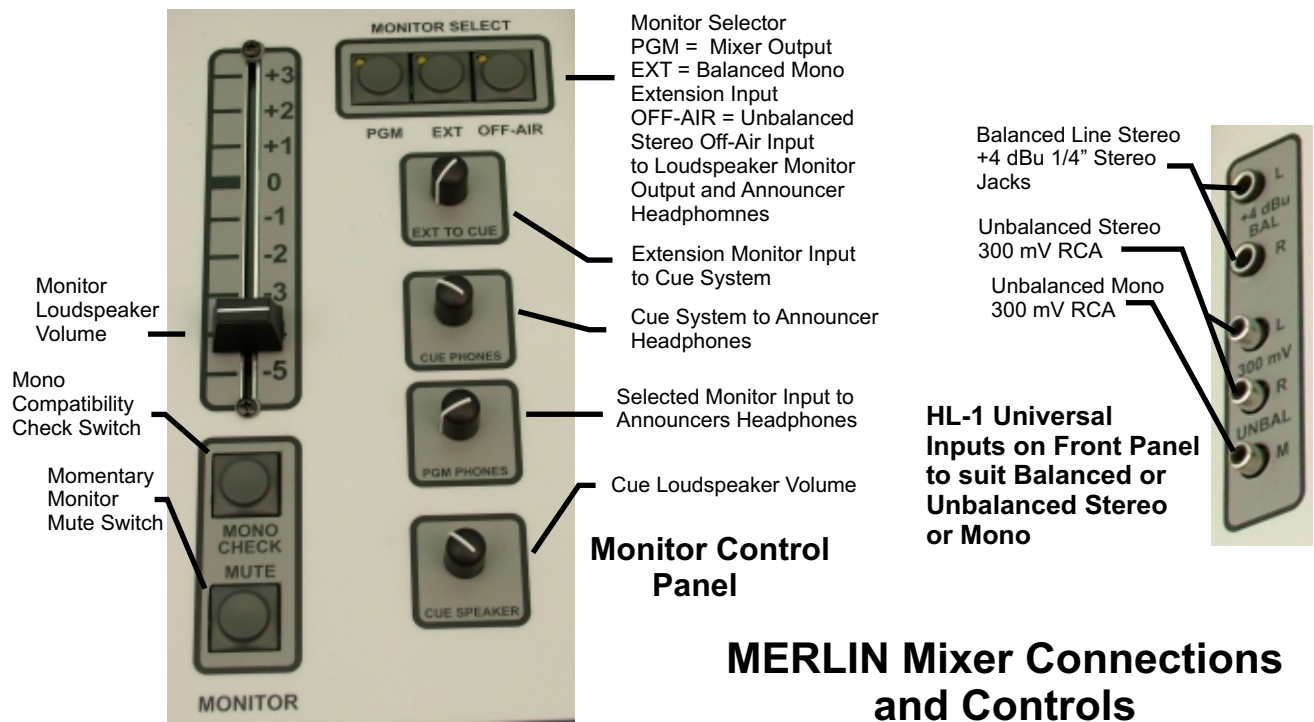
Announcer and Guest Microphones (Mono)	
Input Connector	Balanced XLR 12V Phantom Power DIP Switch Selectable
Nominal Input Level	- 63 dBV to - 41 dBV DIP Switch Selectable
Frequency Response WRT 1 KHz	+ 0 - 1 dB 10 Hz to 25 KHz - 3dB 45 KHz
Distortion @ 1 KHz + 12 dBu Out	0.03 %
S/N Ratio @ - 52 dBV In + 12 dBu Out	70 dB 20 Hz to 20 KHz
High Level Inputs 1 to 4 (Stereo)	
Input Connector	RCA Unbalanced HL-1 also Balanced 1/4" Stereo Jack
Nominal Input Level	300 mV Unbalanced Hi-Z HL-1 +4 dBu Balanced Hi-Z
Frequency Response WRT 1 KHz	+ 0 - 1 dB 10 Hz to 22 KHz - 3 dB 40 KHz
Distortion @ 1 KHz + 12 dBu Out	0.01 %
S/N Ratio @ 300 mV + 8 dB In + 12 dBu Out	92 dB 20 Hz to 20 KHz
General Specifications	
Calibrated Output Level for 0 VU	Balanced + 4 dBu XLR Unbalanced 300 mV RCA
Maximum Output Level Before Clipping	Balanced Output + 24 dBmW into 600 Ohms
Channel Crosstalk	- 75 dB @ 1 KHz - 68 dB @ 20 KHz
Channel Off Isolation	- 80 dB @ 1 KHz - 72 dB @ 20 KHz
Self Noise, all Channels Off	- 95 dB Below +12 dBu 20 Hz to 20 KHz
Power Requirements	+ 12 V DC 700 mA or 8.4 Watts at idle from external battery or from 12V DC 4 Amp Switchmode PSU supplied with the Merlin
Weight Unpacked	6.5 Kg
Physical Size	W 480mm x D 360mm x H 145mm

Front Panel View

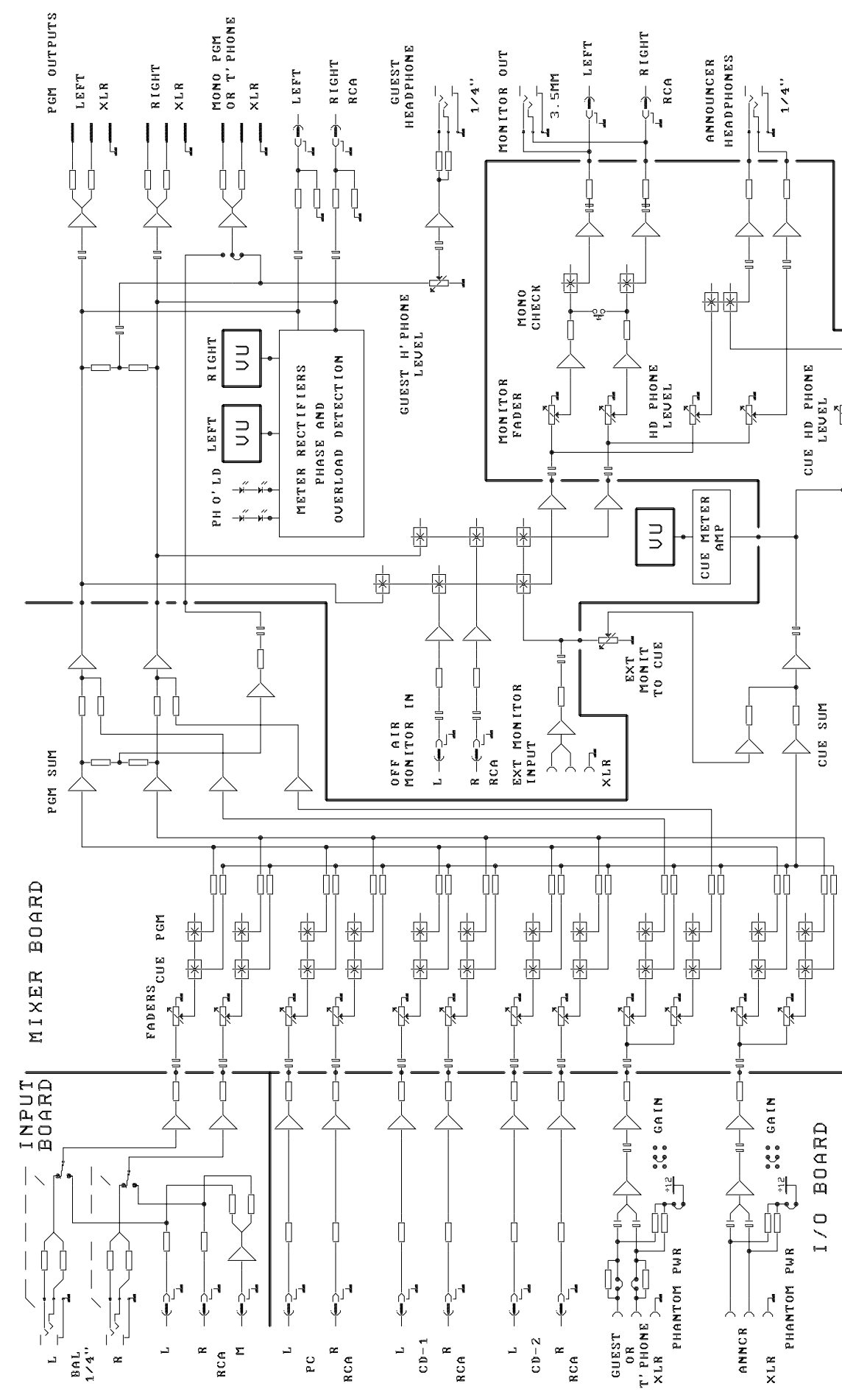




Rear Connecting Panel



Meter and Indicator Panel



**BLOCK DIAGRAM
 'MERLIN' VERSATILE GENERAL
 PURPOSE AND TRAINING MIXER**

ELAN AUDIO
 AUSTRALIA

Title		MERLIN MIXER	
Size	Number	Revision	
03	MERLINBK		
Date:	5-6-88	2095	Sheet
File:	MERLINBK71		Drawn By: