



GENERAL DESCRIPTION

The FALCON 10 is a Professional Broadcast Audio mixing console designed to be a practical and affordable Audio Mixer for On-Air and News Presentation as well as use in general audio production. It is a high quality unit designed for mounting on top of the operators or announcers desk.

The FALCON 10 is provided with all the features normally expected on a professional broadcast mixer:

- 6x High Level Stereo Inputs
- 1x selectable Microphone/Line channel
- 2x Microphone Inputs
- 1x Telephone Input with Mix Minus, mono
- 1x additional Mix Minus bus, stereo/mono
- On-Air, Delay and Delay Dump control switches
- 5 way High Level Input selector switch
- Stereo Program VU meters
- Microphone activated speaker Muting
- Remote Machine Control facilities
- Telephone Mix minus output
- Cue System with Metering and Cue speaker
- Split Headphone Cue
- Talkback facilities and many more

General components are professional or high quality commercial grade with German made Marquardt switches used for panel controls including channel On-Off and Cue switching, Japanese Faders made by Alps and British made Sifam VU Meters.

All Inputs are professional broadcast balanced line level and have sufficient gain to operate from unbalanced domestic source equipment. High Level inputs 1 to 8 are identical having Balanced Stereo inputs.

High Level input 8 is intended for use as the Telephone Input with the Telephone Mix minus derived from it. High Level input 8 is wired as a Stereo input, and may be used as a general High Level Stereo Input if a Telephone System is not connected.

Input 7 can be either a line input or a microphone input, selectable by internal jumpers.

Microphone inputs 9 and 10 are balanced and transformerless. + 15V DC phantom powering is available for powering of condenser microphones.

All line outputs are balanced with special moveable links provided on the Monitor Line Outputs to allow the use of unbalanced domestic Hi-Fi type Monitor Amplifiers or a pair of good quality Self-Powered Speakers.

All connections in and out from the FALCON 10 are via sturdy easily accessed screw terminals. The FALCON 10 is hinged at the rear giving easy access to internal adjustments and component parts. Installation is simple, with concealed cable access through holes in the bottom panel.

The FALCON 10 Mixer is constructed using only two main Printed Circuit Boards, which are both readily accessible and can be removed and re-installed using basic tools with all connections between the Printed Circuit Boards via Plugs and Sockets. In addition, a small number of minor PC Boards are also fitted and used to support switches and the remote control facility offered with the Falcon 10 mixer. All Integrated Circuits are installed in high quality Machined-Pin IC Sockets with Programmed Microprocessors used in the Control Circuitry.

The attached Overall Block Diagram shows the signal flow through the mixer and the general circuit arrangement.

The Falcon, as well as all Elan Audio equipment are designed and manufactured on our premises in Perth, Western Australia. All Elan Audio mixers are designed for continuous use, ease of operation, serviceability by in house technicians and long service life.

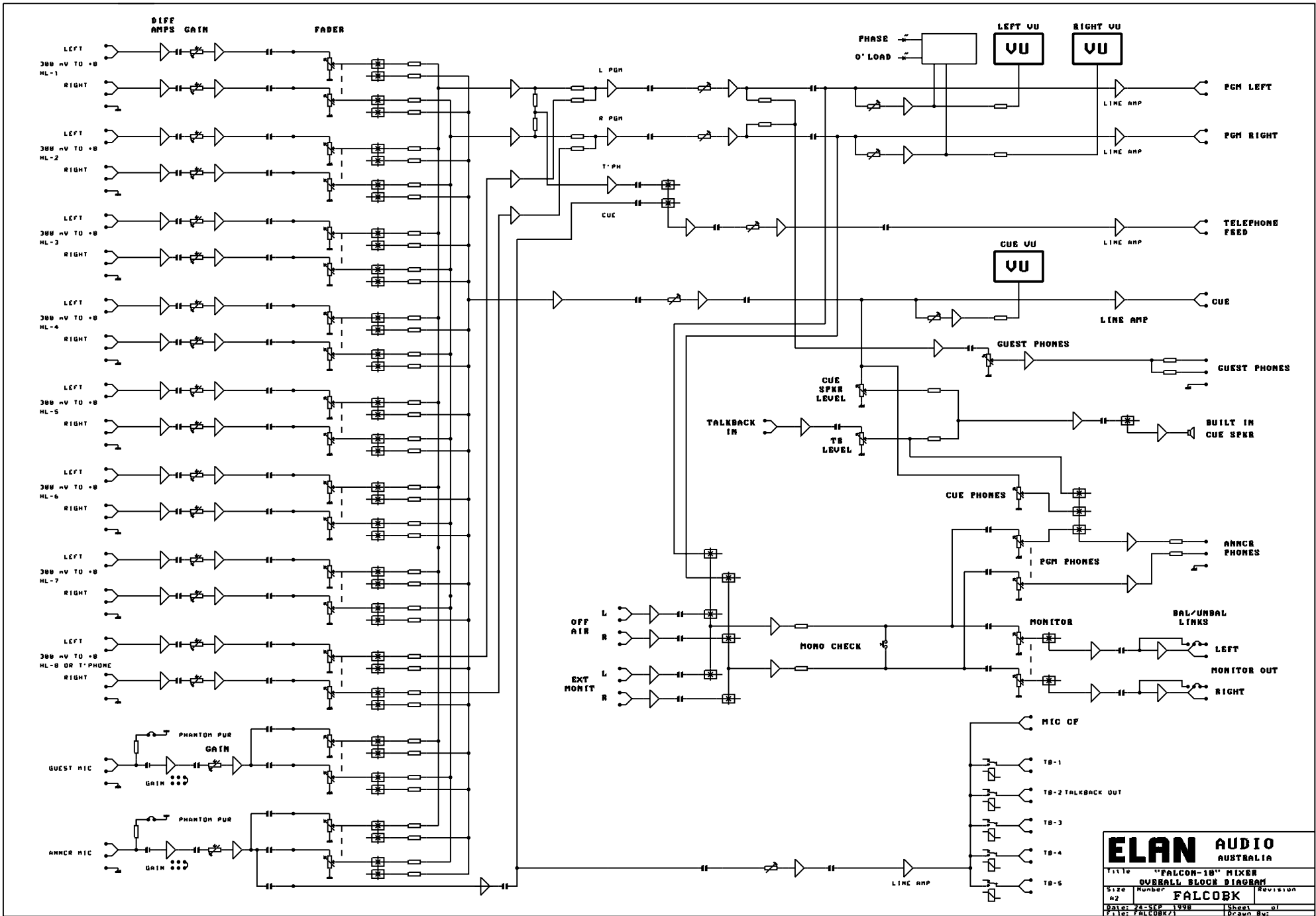
We provide a 3 year warranty, lifetime product support and all spare parts are stocked at Elan Audio.

TECHNICAL SPECIFICATONS

Line Inputs	Differential Balanced Z in appx 50 K Ohms
Mic Inputs	Differential Balanced Z in Greater than 1K Ohm
Line Outputs	Differential Balanced Z out appx 50 Ohms
Line Input	Level Adjustable from 300 mV to + 10 dBu
Output and Level Display Alignment Level	Adjustable 0 dBu, +4 dBu and +8 dBu
Output Crash Level	+ 24 dBm into 600 Ohms or greater

High Level Channel in, Program Line out			
Mixer gain Unity, Input level +16 dBu, Output Level +16 dBm, Load 600 Ohms			
		Specification	Actual measurements
Frequency Response	+0 -0.2 dB	20Hz to 20 KHz	(-1 dB 9 Hz to 80 KHz)
Harmonic Distortion	100 Hz	0.02%	(0.015%)
	1000 Hz	0.02%	(0.015%)
	10 KHz	0.04%	(0.03%)
S/N Ratio	20 Hz to 20 KHz	88 dB	(93 dB)
Crosstalk		65 dB or better	(86 dB at 1 KHz)

Microphone Channel in, Program Line out			
Mixer Gain 68 dB, Input Level -52 dBV, output level +16 dBm, Load 600 Ohms.			
		Specification	Actual measurements
Frequency Response	+0 -0.2 dB	20Hz to 20 KHz	(-1 dB 11 Hz to 100KHz)
Harmonic Distortion	100 Hz	0.05%	(0.045%)
	1000 Hz	0.025%	(0.02%)
	10 KHz	0.06%	(0.05%)
S/N Ratio	20 Hz to 20 KHz	74 dB	(76 dB)
EIN varies with Microphone Pre-Amp setting, normally expect: -120 dBV in Low Gain setting, -126 dBV in Mid Gain setting, -129 dBV in High Gain setting.			



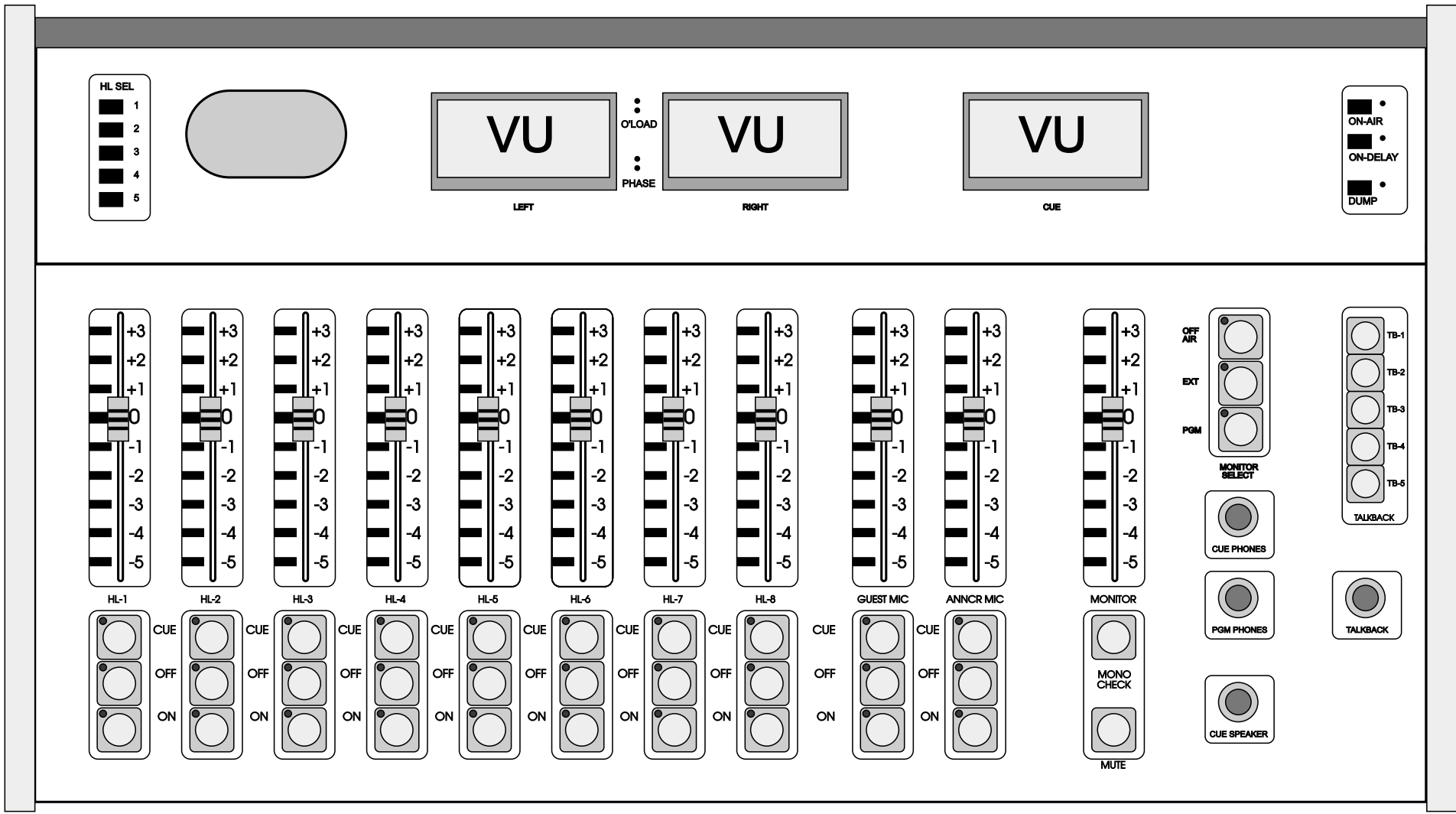
ELAN AUDIO AUSTRALIA

Title: "FALCON-18" MIXER
 Overall Block Diagram

Size: A2
 Number: 42
 Revision:

Date: 24-SEP 1998
 File: FALCONB71

Sheet: 1 of 1
 Drawn By:



Physical Dimensions
W 640mm D 360mm H 145mm