



GENERAL DESCRIPTION

The HAWK 12 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 HAWK is provided with all the features normally expected on a professional broadcast mixer, Including:

- 8 x High Level Balanced Inputs
- 1 x Telephone Input with mix minus
- 3 x Microphone Inputs
- Additional mono Mix Minus bus
- LED VU Meters: Program, Left, Right, Mono and Cue
- On-Air, Delay and Delay Dump switching
- 2x 5 way High Level Input selector switches
- Event Timer
- 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 much more.

General components are professional or high quality commercial grade for quality and long service life.

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 9 is intended for use as the Telephone Input with the Telephone Mix minus derived from it.

Microphone inputs 10, 11 and 12 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 Hawk are via sturdy easily accessed screw terminals. The Hawk 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 Hawk Mixer is constructed using only three main Printed Circuit Boards, which are 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 mixer. All user serviceable 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 Hawk, 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.

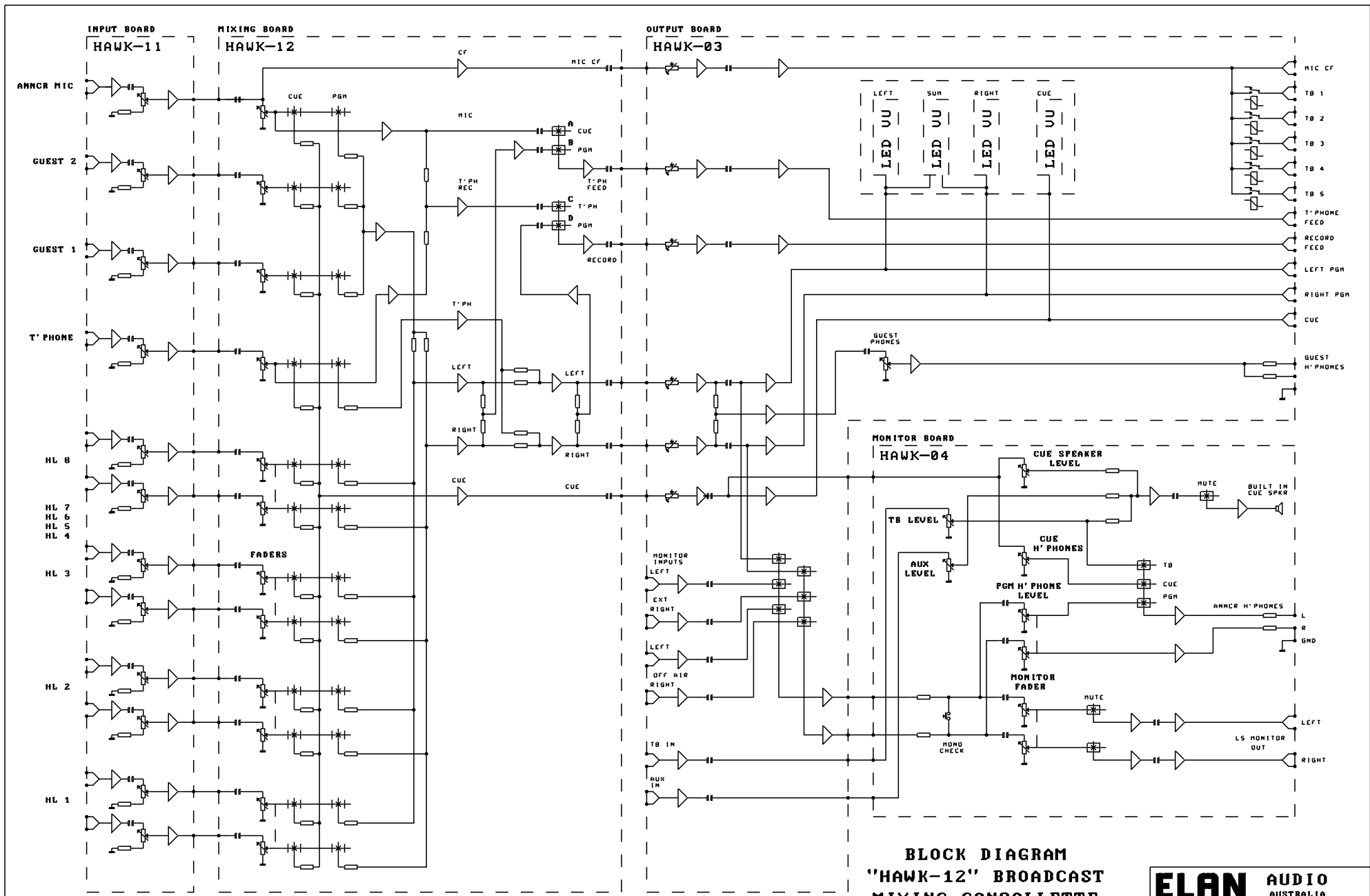
We provide a 3 year warranty, lifetime product support and all spare parts are stocked at Elan Audio.

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 -10dBu (300 mV) to + 10 dBu
Output and Level Display Alignment Level	Adjustable 0 dBu, +4 dBu and +8 dBu
Output Clip 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.			

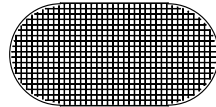
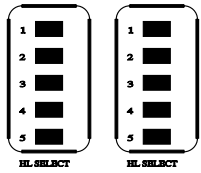


EXTERNAL CONTROLS NOT SHOWN ON BLOCK DIAGRAM

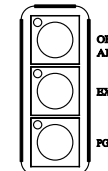
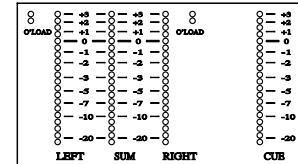
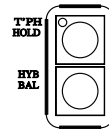
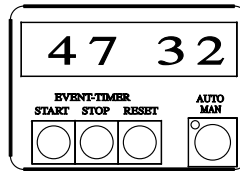
**BLOCK DIAGRAM
"HAWK-12" BROADCAST
MIXING CONSOLLETTE**

ELAN		AUSTRALIA	
Title	HAWK-12 BLOCK		
Size	Number	Revision	
A2	HAWK12BK		
DATE: 18-OCT-1988	Sheet	of	
FILE: HAWK12BK/1	PCBNO	NO:	

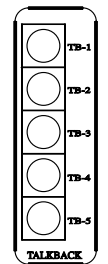
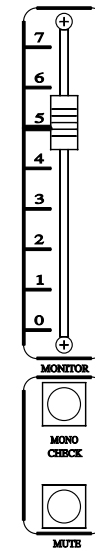
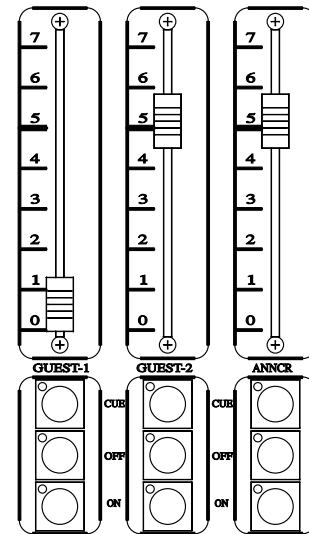
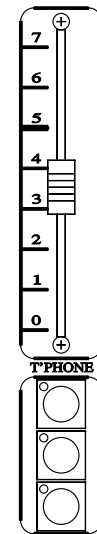
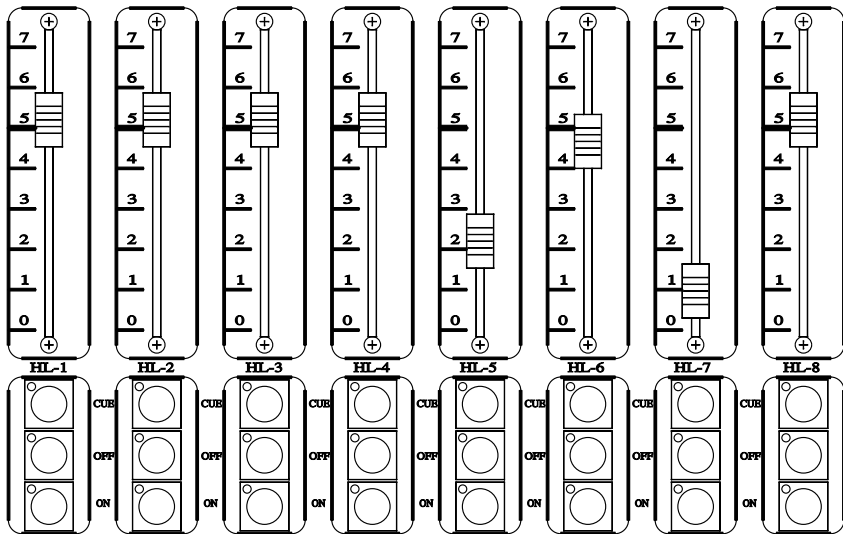
750 mm



"HAWK 12" Professional Audio Mixer



ELAN Audio



ELAN AUDIO "HAWK" ON AIR MIXER

PHYSICAL DIMENSIONS
 WIDTH: 750 mm
 DEPTH: 360 mm
 HEIGHT: 145 mm

ANNOUNCERS
 HEADPHONE
 SOCKET