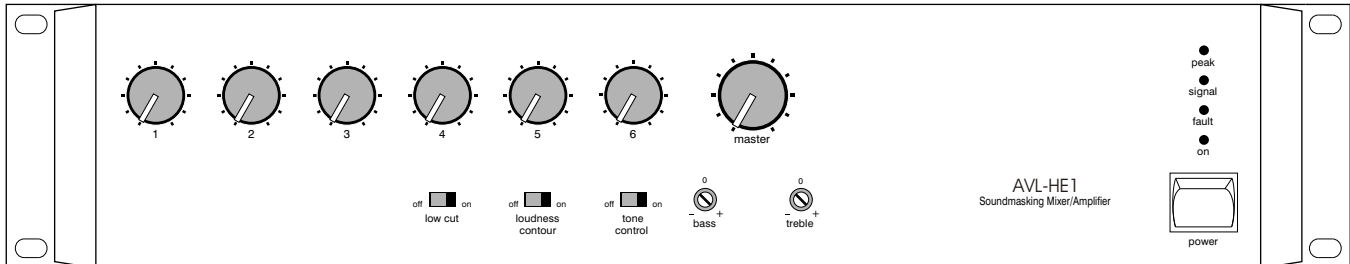


www.avlelec.com, inc.

HE-1 Series

Soundmasking Mixer/Amplifiers



The **HE-1 Series** of commercial mixer/amplifiers combines a versatile 6-input mic/line mixer with either 30 Watt, 60 Watt, or 120 Watt amplification. Mixing functions include mic/line/telephone inputs, selectable automatic & manual channel muting, channel priority assignment, remote level control, tone control, a built-in compressor, an internal chime, phantom power, and extensive output patching. The amplifier includes an output transformer, and provides rated power into direct or distributed speaker systems. The HE-1 Series carries a five-year warranty.

FEATURES

- integrated mixer, power amplifier, and output transformer
- five electronically balanced microphone/line input channels
- one transformer balanced microphone/line/tel input channel
- rear panel trim control & pad switch on each input channel
- +24 Volt phantom power selectable on each input channel
- input isolation transformer option on mic/line input channels
- automatic muting of selected channels (-10, -20, or -40dB)
- automatic muting triggered by selected "priority" channels
- manual muting of selected channels (-10, -20, or -40dB)
- manual muting triggered from remote contact closures
- remote control of master level via rear panel terminals
- integral output compressor with rear panel threshold control
- recessed treble & bass controls plus "loudness" & "low-cut"
- two insert points for signal processing and remote control
- two line-outs and one stack-in for system interconnections
- 30W, 60W, or 120W power into direct or distributed systems
- front panel indicators for power, fault, signal, and peak
- internal 'pre-announcement' chime tone with level control
- input/output connections provided on barrier strip terminals
- integral security cover and removable rack-wing/handles
- covered by Five-Year "Gold Seal" Warranty
- CE marked, UL and C-UL (UL Canada) listed

ARCHITECT'S & ENGINEER'S SPECIFICATION

The commercial mixer/amplifier shall provide a 6-input mic/line mixer with an integral power amplifier. Three models shall be available, providing a choice of 30 Watt, 60 Watt, or 120 Watt power amplification. The power amplifier shall include a selectable output transformer, and shall be capable of delivering rated power into direct or distributed speaker systems. Front panel indicators shall be provided for amplifier signal present, peak, and fault.

The mixer shall provide five electronically balanced mic/line input channels and one transformer balanced mic/line/telephone input channel. Input transformers shall be optional on the mic/line channels. Each channel shall include a rear panel trim control, a front panel level control, and a +24V phantom power switch. Automatic and/or manual muting, by -10dB, -20dB, or -40dB, shall be selectable on each channel. Automatic muting shall be triggered by selected priority channels and manual muting shall be triggered by external contact closures. The output section of the mixer shall include a master level control, recessed tone controls with on/off switch, loudness & low-cut filter switches, a built-in compressor with a rear panel threshold control, and an internal pre-announcement chime tone with rear panel level control. Rear panel terminals shall allow remote control of master level. Two separate insert points shall be provided for connection of external signal processing or remote control devices. Two line outputs and one stacking input shall be provided for other system interconnections. All channel input and amplifier output connections shall be on barrier strip screw terminals. The mixer/amplifier shall include a see-through security cover and removable rack-wing/handles.

Frequency Response shall be +0/-1.5dB from 20Hz to 20kHz at rated power into a direct load. THD + Noise shall be less than 0.2% at 1kHz at rated power. Equivalent Input Noise shall be -123dBu at mic input with 150Ω termination. Signal-to-Noise shall be greater than 78dB from 20Hz to 20kHz at line input at rated power. Power consumption shall be less than 90W (CMA 30), 220W (CMA 60), or 375W (CMA 120). Dimensions shall be 3.68" (2 rack spaces) high, 19" wide, and 14.33" deep. Weight shall be 17.64 lbs. (CMA 30), 22 lbs. (CMA 60), or 26.46 lbs. (CMA 120). The mixer/amplifier shall be CE marked, UL / C-UL listed, and shall carry a five-year warranty.

The 30 Watt mixer/amplifier shall be an AVL-HE-130

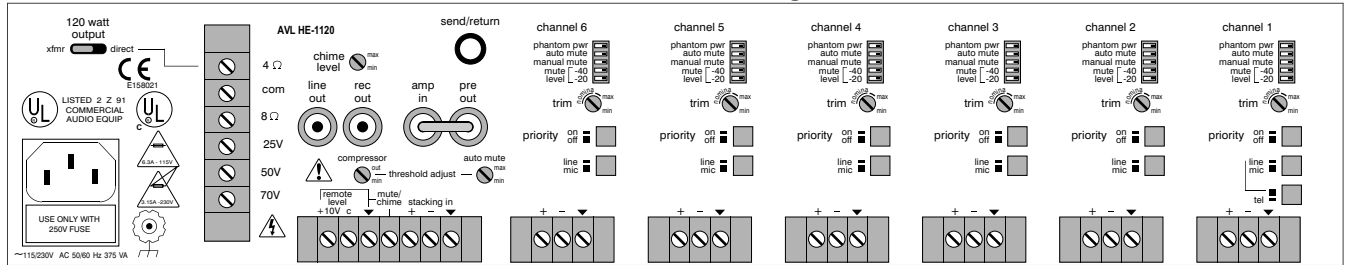
The 60 Watt mixer/amplifier shall be an AVL-HE160

The 120 Watt mixer/amplifier shall be an AVL-HE120

SPECIFICATIONS

Output Power:		Input Impedance / Sensitivity		
HE-130	30 Watts	mic inputs	6k Ω / -77dBu (110 μ V)	
HE-160	60 Watts	line inputs	15k Ω / -37dBu (14mV)	
HE-1120	120 Watts	telephone inputs	600 Ω / -60dBu (775 μ V)	
Power Bandwidth (THD < 0.4%):		amplifier input	10k Ω / +4dBu (1.2V)	
direct output	20Hz~20kHz	stacking input	20k Ω / -8dBu (300mV)	
transformer output	50Hz~20kHz	patch/return input	10k Ω / -8dBu (300mV)	
Frequency Response (+0/-1.5dB):		Output Impedance / Level:		
direct output	20Hz~20kHz	preamp output & line output	200 Ω / +4dBu (1.2V)	
transformer output	50Hz~20kHz	record output	200 Ω / +4dBu (1.2V)	
THD + Noise (1kHz @ rated power):	< 0.2%	patch/send output	50 Ω / -8dBu (300mV)	
Output Regulation (no load to full load)	< 0.5dB	Amplifier Output Impedance / Level:		
Equivalent Input Noise (mic in, 150Ω termination):	-123dBu	<u>HE-130</u>	<u>HE-160</u>	<u>HE-1120</u>
Signal-to-Noise Ratio (20Hz-20kHz @ rated power):		4 Ω / 11V	4 Ω / 16V	4 Ω / 22V
line inputs	78dB	8 Ω / 16V	8 Ω / 22V	8 Ω / 31V
telephone inputs	78dB	20.8 Ω / 25V	10.4 Ω / 25V	5.2 Ω / 25V
master level off	98dB	83.3 Ω / 50V	41.7 Ω / 50V	20.8 Ω / 50V
Compressor:		163.3 Ω / 70V	81.7 Ω / 70V	40.8 Ω / 70V
attack time	< 1mSecond	333.3 Ω / 100V (export)	166.7 Ω / 100V (export)	83.3 Ω / 100V (export)
release time	> 1 Second	Power Consumption (120VAC 60Hz / 240VAC 50Hz) :		
compression ratio	4 : 1	<u>HE-130</u>	<u>HE-160</u>	<u>HE-1120</u>
threshold adjust range	15dB	<90W	<220W	<375W
Dimensions (all models; includes rack/handles & feet):		Weight:		
height (two rack spaces)	3.68" (93.5mm)	CMA 30		17.64 lbs. (8kg)
width	19" (482mm)	CMA 60		22 lbs. (10kg)
depth	14.33" (364mm)	CMA 120		26.45 lbs. (12kg)

HE-1120 Rear Panel Diagram



HE-1120 Block Diagram

