

A300/1



300-Watt Single-Channel Power Amplifier

COMMERCIAL

General Product Description

The Electro-Voice® A300/1 power amplifier is a high quality, low cost monaural amplifier for general purpose applications. It produces 300 watts of continuous average output power. Included are many built-in features that far exceed what is normally found in amplifiers of this type. For example, the amplifier includes a 15-kohm electronically balanced bridging input, and choice of four input connector types: a three-screw terminal removable plug, female XLR, male XLR, and phono connector. The male XLR is also usable as a convenient patch output point for routing the input signal to another amplifier.

Two auxiliary unbalanced outputs are also provided. One is before (pre-fader), and the other is after (post-fader), the MASTER output level control. These outputs greatly simplify many complex system designs. In addition to a direct output capable of driving 4-ohm or 8-ohm loads, the A300/1 also provides an 8-ohm autoformer output and 25 Volt and 70.7 Volt outputs for distributed speaker systems.

The amplifier is fully protected from short circuited loads, overheating, and excessive load reactance, and the loads from turn-on/turn-off transients, subsonic signals, and DC offsets. When a problem is detected, the amplifier automatically shuts down and illuminates the front panel PROTECT indicator. In addition, a front panel clipping indicator warns of excessive output levels. The MASTER level control is rear mounted for extra protection against "accidental" changes made by non-qualified personnel.

Architects' and Engineers' Specifications

The power amplifier shall be a monaural amplifier of solid state design employing true complementary symmetry output circuitry and capable of operating from a 120, 220, or 240 VAC, 50/60 Hz power source. The amplifier shall provide a plurality of balanced transformer output taps as well as an unbalanced direct output, and a 15-kohm electronically balanced bridging input. The amplifier shall contain sensing circuitry to provide protection for the output transistors against over temperature, excessive output voltage, radio frequency interference, excessive output current, and excessive



output phase shift. The load shall be similarly protected against subsonic signals, startup/shutdown transients, low AC line voltage, and DC offsets.

There shall be a rear panel mounted input level control. Input connectors shall include a 3-lug screw terminal connector and a 3-pin XLR female connector for balanced inputs, and a phono connector for unbalanced inputs. Output connectors shall include a 3-pin XLR male connector, two phono connectors as auxiliary unbalanced outputs, and a 7-terminal barrier strip connector.

Front panel illuminated indicators shall include a power on/off indicator, a signal clipping indicator, and a protection circuit activation indicator. The front panel control shall be the power on/off switch.

The amplifier shall include a balanced bridging input with a nominal input impedance of 15 kohms. A power output isolation transformer shall provide balanced outputs of 25 Volts (2.08 ohm lload) and 70.7 Volts (16.6 ohm load). A direct output of 4 ohm (34.64V) and also an unbalanced autoformer output of 8 ohm shall be provided.

The power amplifier shall be enclosed in a sturdy steel cabinet measuring 5.25" x 19" x 13". The cabinet shall be rack mountable in a standard 19" equipment rack and occupy three rack spaces.

The Electro-Voice® Model A300/1 has been specified.

Specifications:

Continuous average power (direct or transformer output):

..... 300 Watts

Max midband output power (Ref. 1 kHz, 1% THD): 400 Watts

Transformer output (any output tap): 300 Watts

Power Bandwidth (Ref. 1 kHz @ rated output power):

Direct Output 20 Hz - 20 kHz, +0/-1 dB

Transformer Output (any output tap):

..... 50 Hz - 15 kHz. +0/-1.5 dB

Frequency Response (Ref. 1 kHz at 1 Watt output power):

Direct Output 20 Hz - 15 kHz, ±1 dB

..... 10 Hz - 30 kHz, ±1.5 dB

Transformer output (any output tap): 20 Hz - 15 kHz, ±1.5 dB

..... 10 Hz - 30 kHz, ±3 dB

Total Harmonic Distortion (THD)

(Ref. 1 kHz at rated output power, 30 kHz low pass filter)

Direct output

..... 20 Hz <0.1%, 1 kHz <0.05%, 20 kHz <0.05%

Transformer output (any output tap)

..... 50 Hz <0.1%, 1 kHz <0.1%, 15 kHz, <0.05%

Intermodulation Distortion <0.05% (typ. <0.01%)

(SMPTE, 4:1, at rated output power, direct output)

Input Sensitivity/Input Impedance

(Ref. 1kHz, 0 dBu=0.775 Vrms)

Balanced line input 0 dBu / 15 kohm

Unbalanced line input 0 dBu / 47 kohm

Specifications: (Continued)

Maximum input level (ref. 1 kHz signal, MASTER off)
 Balanced input +18 dBu (6.2 Vrms)
 Unbalanced input +18 dBu (6.2 Vrms)

Output level/Load impedance
 (ref. 1 kHz, 0 dBu=0.775 Vrms applied to balanced line input, ± 1 dB)
 Line output (balanced) 0 dBu / 15 kHz
 PRE Auxiliary out (unbal) 0 dBu / 600 ohm
 POST Auxiliary out (bal) 0 dBu / 600 ohm

Power Outputs
 Direct, unbalanced 34.64 Vrms / 4 ohm
 Direct, unbalanced 34.64 Vrms / 8 ohm
 Autotransformer, unbal 48.98 Vrms / 8 ohm
 Transformer, balanced 25 Vrms / 2.08 ohm
 Transformer, balanced 70.7 Vrms / 16.6 ohm

Damping factor (at 1 kHz, direct output) >150

Output regulation (ref. 1 kHz, no load to full load)
 Direct output <0.05 dB
 Transformer output <1.2 dB

Signal-to-Noise ratio
 (A-weighted, MASTER at full clockwise position) >100 dB

Power Requirements 120, 220, or 240 VAC, 50/60 Hz

Power consumption
Maximum output power 710 Watts
1/3 max. output power 450 Watts

Minimum operating supply voltage
 (at reduced output power and performance) 90 VAC

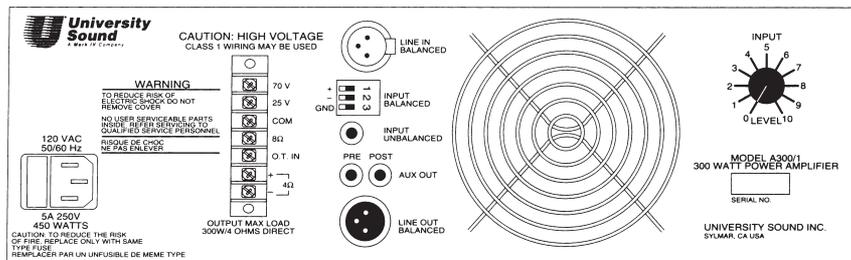
Operating temperature 140°F (60°C) maximum

Dimensions
 Height 5.25" (13.3 cm)
 Width 19.0" (48.2 cm)
 Depth 13.0" (33 cm)

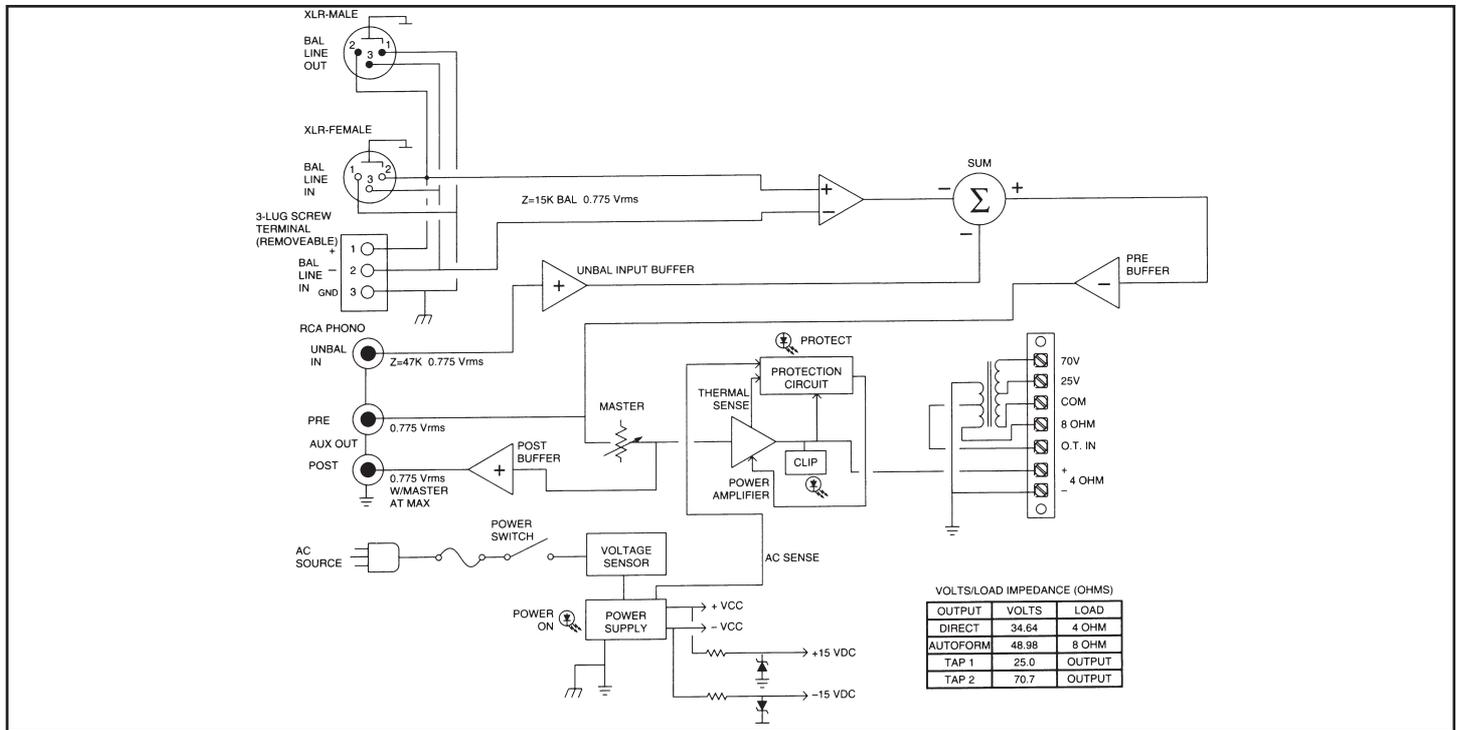
Net Weight 42 lbs (19 kg)

Shipping Weight 51 lbs (23 kg)

Color Black



A300/1 Rear Panel



A300/1 Block Diagram

USA 12000 Portland Ave South, Burnsville, MN 55337, Phone: 952-884-4051, FAX: 952-884-0043
Canada 705 Progress Avenue, Unit 46, Scarborough, Ontario, Canada, M1H2X1, Phone: 416-431-4975, 800-881-1685, FAX: 416-431-4588
Switzerland Keltenstrasse 11, CH-2563 IPSACH, Switzerland, Phone: 41/32-331-6833, FAX: 41/32-331-1221
Germany Hirschberger Ring 45, D94315, Straubing, Germany, Phone: 49 9421-706 392, FAX: 49 9421-706 287
France Parc de Courcerin, Alle Lech Walesa, Lognes, 77185 Marne La Vallee, France, Phone: 33/1-6480-0090, FAX: 33/1-6480-4538
Australia Unit 23, Block C, Slough Business Park, Slough Avenue, Silverwater, N.S.W. 2128, Australia, Phone: 61/2-9648-3455, FAX: 61/2-9648-5585
Hong Kong Unit E & F, 21/F, Luk Hop Industrial Bldg., 8 Luk Hop St., San PO Kong, Kowloon, Hong Kong, Phone: 852-2351-3628, FAX: 852-2351-3329
Japan 2-5-60 Izumi, Suginami-ku, Tokyo, Japan 168, Phone: 81-3-3325-7900, FAX: 81-3-3325-7789
Singapore 3015A Ubi Rd 1, 05-10, Kampong Ubi Industrial Estate, Singapore 408705, Phone: 65-746-8760, FAX: 65-746-1206
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Electro-Voice®

U.S.A. and Canada only.
 For customer orders, contact the Customer Service department at 800/392-3497 Fax: 800/955-6831
 For warranty repair or service information, contact the Service Repair department at 800/685-2606
 For technical assistance, contact Technical Support at 866/78AUDIO

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Please refer to the Engineering Data Sheet for warranty information.
 Specifications subject to change without notice.