

Product Data

- **60 watts (1160) or 100 watts (1110) RMS power rating**
- **Three paging inputs (phone, mic/line, and aux levels) and one music input**
- **Power outputs for 4 ohm, 8 ohm, 25V, or 70.7V speaker lines, all on screw terminals**
- **Booster Amp output for applications requiring more than 100 watts**
- **Automatic music mute**
- **Wall or surface mount**
- **Separate bass and treble controls**
- **Trumpet Protect feature for horn and driver speaker systems**
- **Circuit breaker protection with push-to-reset**
- **Tamper deterrent screwdriver control adjustments**
- **UL listed**

Summary Specifications:

Power Output:

1160: 60 watts RMS @ 1kHz

1110: 100 watts RMS @ 1kHz

Frequency Response: 50 Hz – 20 kHz, ± 2 dB

Distortion: <1.5% THD, ref 1 kHz @ rated output

Outputs: 4 Ω , 8 Ω , 25V, and 70.7V

Output Regulation: <2 dB from no load to full load

Tone Control:

Bass: ± 12 dB @ 50 Hz

Treble: ± 13 dB @ 15 kHz

Input Sensitivity/Impedance/

Signal-to-Noise Ratio:

Aux: 250mV/ 250k Ω (unbal)/ 70 dB

Phone: 70 mV/ 600 Ω (bal)/ 71dB

Mic: 0.7 mV/ 150 Ω (bal)/ 58 dB

Line: 70 mV/10k Ω (bal)/ 58 dB

Music: 280mV/ 200k Ω (unbal)/ 71dB

Circuit Protection: Internal thermal breaker

Power Consumption: 0.6 A 120 VAC 60 Hz (1160)

1.0 A 120 VAC 60 Hz (1110)

Dimensions: 15.25" W x 11.75" H x 4.125" D (38.7 cm x 29.8 cm x 10.5 cm)

Shipping Weight: 20 lbs. (9 kg) (1160)

26 lbs. (11.8 kg) (1110)

Description

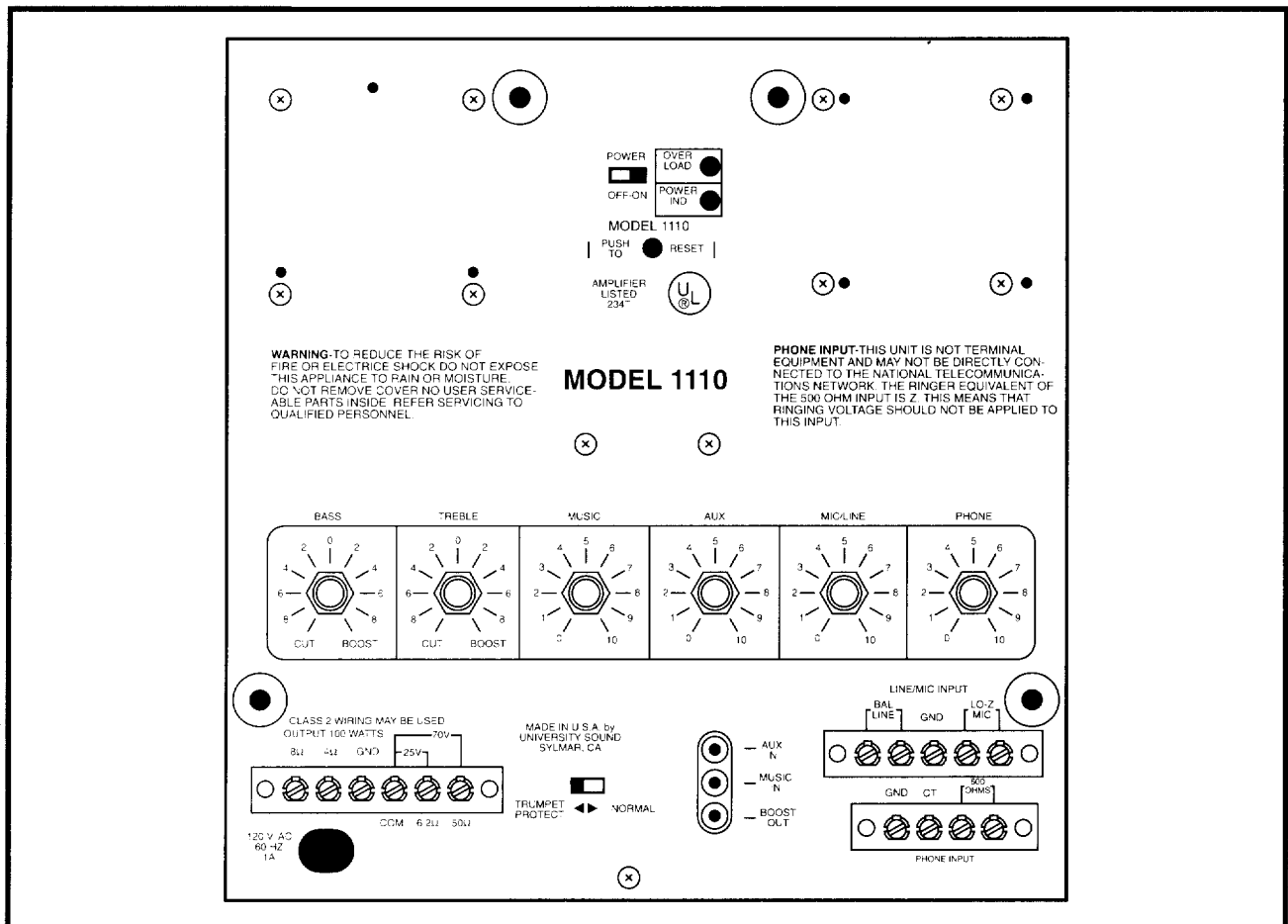
The University Sound Models 1160 and 1110 are monaural solid state 60 watt and 100 watt RMS paging amplifiers. Other than their respective power output differences and the corresponding weight difference, the two models are identical. Four input channels are provided, consisting of three paging channels and one music channel. The three paging channels are configured as follows: the PHONE channel has a 500/600 ohm balanced transformer input to provide proper termination for the paging access output port of registered telephone equipment such as a PABX or switchboard. The MIC/LINE channel has balanced inputs which may be wired to accommodate either low impedance microphone or balanced line signals. The AUX channel has an unbalanced input with an input sensitivity of 250 mV for use as a paging input from preamplifiers or intercom systems. The MUSIC channel may receive its input from an external signal such as a tape deck or tuner. Paging priority is automatically established by a voice-activated circuit which mutes the music channel when any of the paging inputs are used.

Separate BASS and TREBLE controls are provided to compensate for frequency response characteristics of the speaker system or the acoustical environment. In addition, a TRUMPET PROTECT switch is provided on the front panel. This serves to reduce the low frequency power delivered to horn-type paging projectors below their low-frequency cutoff to protect the speaker diaphragm from low-frequency over-excitation, as well as to reduce excessive loading of the amplifier at low frequencies.

Power output terminals are provided for driving 4 ohm or 8 ohm direct speaker coil connections, as well as for 25 Volt and 70.7 Volt constant-voltage distribution lines. A BOOSTER AMP output jack is also provided so that supplemental amplifiers may be operated simultaneously.

The 1160 and 1110 operate from a standard 120V AC 60 Hz power source, and are protected by push-to-reset circuit breakers. The units are housed in sturdy steel cabinets measuring 15.25" W x 11.75" H x 4.125" D (38.7 cm x 29.8 cm x 10.5 cm) with two metal flanges that permit mounting on a wall surface.

Front Cover Removed



Specifications

Input Specifications

Impedance

Aux Input: 250K Ω unbal
 Phone Input: 600 Ω bal
 Mic Input: 150 Ω bal
 Music Input: 200K Ω unbal
 Line Input: 10K Ω bal

Sensitivity

Aux Input: 220mv
 Phone Input: 50mv
 Mic Input: 0.5mv
 Music Input: 220mv
 Line Input: 50mv

Frequency Response (+/-2dB)

Aux Input: 50Hz-20kHz
 Phone Input: 400Hz-6kHz
 Mic Input: 70Hz-20kHz
 Music Input: 20Hz-20kHz (-2,+6dB)
 Line Input: 70Hz-20kHz

Signal to Noise Ratio

Aux Input: 70dB
 Phone Input: 71dB
 Mic Input: 58dB
 Music Input: 71dB
 Line Input: 58dB

Controls

Phone, Mic/Line, Aux, Music, Bass, Treble & Power On/Off

Connectors

RCA type phono jacks for Booster Out, Music In, Aux In
 Screwtype Terminals for Power Output, Phone In, Mic In & Line In

Protection

Push-to-Reset Circuit Breaker

Power Consumption

1160: 0.6A 120 VAC 60 Hz
 1110: 1.0A 120 VAC 60 Hz

Power Output:

1120: 60 watts RMS @ 1kHz
 1140: 100 watts RMS @ 1kHz

Frequency Response:

50 Hz – 20 kHz \pm 2 dB

Distortion:

<1.5% THD @ 1 kHz, rated output

Outputs:

4 Ω , 8 Ω , 25V, and 70.7V

Output Regulation:

<2 dB No load to full load

Tone Control:

Bass: \pm 12dB @ 50kHz
 Treble: \pm 13dB @ 15kHz

Circuit Protection:

Internal thermal breaker

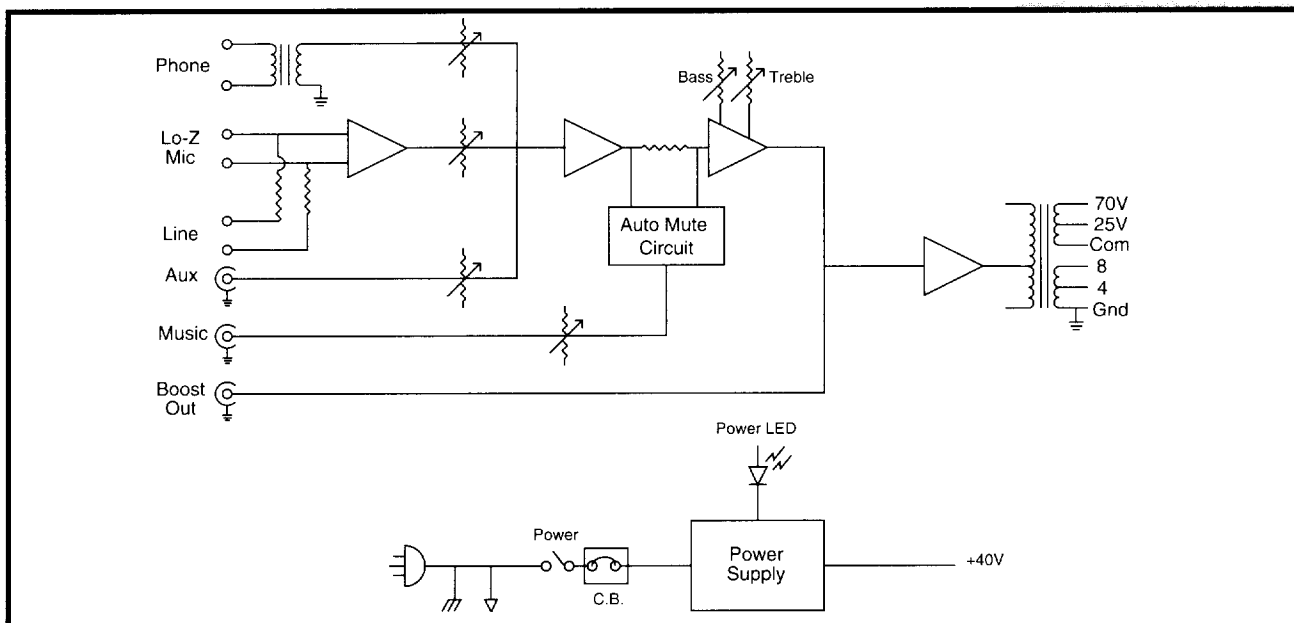
Dimensions:

16.0" W x 7.75" H x
 3.625" D (40.6 cm x
 19.7 cm x 9.2 cm)

Shipping Weight:

1160: 20 lbs. (9 kg)
 1110: 26 lbs. (11.8 kg)

Block Diagram



Architect's and Engineer's Specifications

The paging amplifiers shall have three paging inputs and one music input. The paging inputs shall have the following characteristics: one input shall have a 500/600 ohm balanced isolation transformer, another shall be a balanced Lo-Z mic / line level input with an impedance of 150/10K ohms, while the remaining input shall be a high-impedance input with a sensitivity of 250 mV. The music input shall be a high-impedance input with a sensitivity of 250 mV. A voice-activated circuit will provide paging mute of the music input whenever a signal is detected on any of the three paging inputs.

There shall be a treble tone control with ± 13 dB boost/cut at 15 kHz, and a bass tone control with ± 12 dB boost/cut at 50 Hz. The amplifier output shall be able to drive 4 ohm, 8 ohm, 25V, or 70.7V speaker

systems. There shall be a BOOST OUT output with a RCA-type connector jack. There shall be a power switch on the face of unit, a push-to-reset circuit breaker button, and POWER ON and OVERLOAD LED indicators. The enclosure shall measure 15.25" x 11.75" x 4.125" (38.7 cm x 29.8 cm x 10.5 cm) including wall-mount flanges on either side. The units shall operate from a 120V AC 60 Hz line.

[Paragraph below applies only to the Model 1160]
The unit shall provide a power output rated at 60 watts RMS. The unit shall be the University Sound Model 1160.

[Paragraph below applies only to the Model 1110]
The unit shall provide a power output rated at 100 watts RMS. The unit shall be the University Sound Model 1110.



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