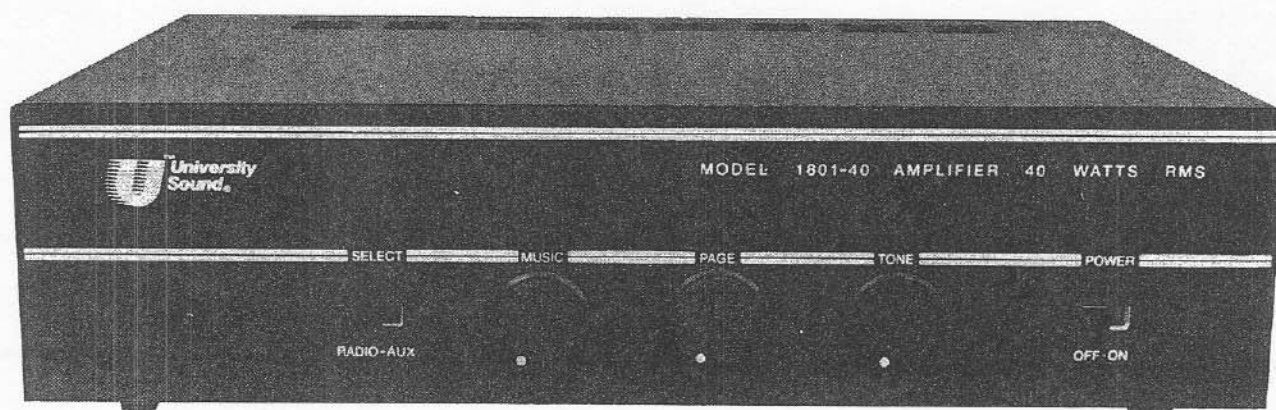




1801-40

40 Watt
Paging Amplifier



Product Data

- 40 watts RMS power output
- Two inputs: balanced Lo-Z mic / line paging, and high impedance unbalanced music
- Music input has two-source selection
- Power outputs for 4 ohm, 8 ohm, 25V, and 70.7V speaker systems
- Voice-activated or manual page-over- music mute
- UL Listed

Specifications:

Power Output: 40 watts output RMS

Distortion: <1.0% THD @ 1 kHz
at full power output

Frequency Response:

Power Amp: 50 Hz — 15 kHz, ± 2 dB

Page Input: 200 Hz — 10 kHz,
 ± 2 dB

Music Input: 30 Hz — 14 kHz, ± 4 dB
(includes fixed
loudness boost)

Tone Control: -20 dB @ 10 kHz

Hum and Noise: 70 dB below rated
output (all controls ccw)

Input Impedance/Sensitivity:

Page: 200 Ω /0.5 mV (Mic)

1k Ω /50 mV (Line)

Music: 50k Ω /240 mV

Preamp In/Out: 75k Ω /200mV

Outputs: 4 Ω , 8 Ω , 25V, 70.7V
(transformer coupled)

Music Mute: 30 dB down, sensitivity
0.22mV (mic) or 22mV
(line)

Power Requirement: 120V AC, 60 Hz, 50 W

Dimensions: 13.5" x 3.625" x
10.875" (34.3 cm x
9.2 cm x 27.6 cm)

Net Weight: 14 lbs. (6.4 kg)

Shipping Weight: 16 lbs. (7.3 kg)

Description

The Model 1801-40 is a monaural solid state paging amplifier rated at 40 watts RMS. The pre-amplifier section can mix two inputs: a music input and a paging input. The 1801-40 features voice-activated muting, a low 1.0% total harmonic distortion at full power output, and a 15 kHz power bandwidth output. The 1801-40 is designed for continuous operation, and is an excellent choice for applications in background music, public address, and sound reinforcement systems.

The front panel features two level control knobs, one for the MUSIC input and one for the PAGE input, and a single TONE control knob. A SELECT switch is used for selecting the signal source for the music input. There is also a POWER slide switch with an accompanying "power-on" LED.

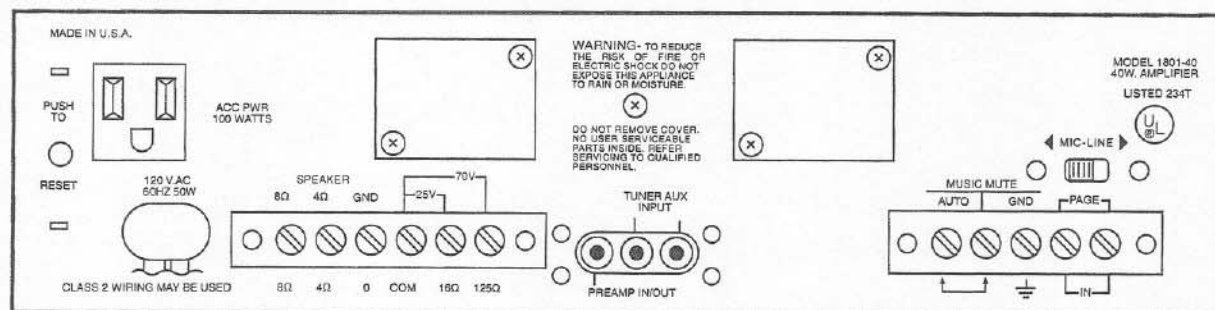
The music input is high-impedance unbalanced, suitable for use with the output of a tuner, tape deck, or other line-level source. While only one music source is fed to the pre-amp, two separate sources may be connected to the unit; there are two RCA jacks on the rear of the unit and a switch on the front panel for selecting which is fed to the music input. The paging input uses a single set of three screw-terminals. It is

a balanced input, and can match a lo-Z microphone or a 600 ohm line for phone system access. The selection is made with a switch on the rear panel just above the paging input terminals. A voice-activated muting circuit will mute the music input when a signal is detected on the paging input, thus eliminating the need for external wiring from a microphone switch. The muting circuit can also be activated manually from two rear panel screw terminals. Additionally, the automatic mute feature can be disabled from the rear panel.

Power output connections are made via screw terminals on the back of the unit. There are outputs for 4 ohm and 8 ohm direct speaker voice-coil connections, and for 25V and 70.7V constant voltage distributed systems.

The 1801-40 is housed in a steel cabinet with aluminum front and back panels, all finished in black. The unit can be rack mounted in a standard 19" rack space with the optional RPK-2 rack mount kit. The unit operates from a 120V AC (60 Hz) power source and is protected by a push-to-reset circuit breaker that prevents possible damage resulting from accidental shorts or overloads.

Back Panel View



Architect's and Engineer's Specifications

The mixer/amplifier shall be rated at 40 watts RMS output power and be capable of mixing two audio inputs. The audio inputs shall consist of a music input and a paging input. The music input shall be an unbalanced high impedance input and shall be capable of selecting between two different music sources by means of a front-panel switch. There shall be two rear-panel RCA phono jacks that feed to this source selection switch. The page input shall be a balanced input, and shall be capable of matching either a Lo-Z microphone or a 600 ohm source. The input shall appear on rear panel screw terminals, and a switch directly above these terminals shall determine which source is matched by the input. A front-panel control shall affect the tone of both of these audio inputs. There shall be a muting circuit that, when activated, mutes the music input while leaving the paging input unmuted. Activation of the mute shall occur automatically when a signal is detected on the paging input, or

manually when contact closure is made across two screw terminals on the rear panel. Using these same screw terminals, the automatic muting feature shall be defeatable. As shipped from the factory, automatic muting shall be enabled. The power amplifier shall provide outputs for 4 ohm, 8 ohm, 25V, and 70.7V connections, all of which shall appear on screw terminals. There shall also be a preamplifier input/output that ties directly to the mixer buss, which shall appear on a RCA phono jack. The unit shall measure 13.5" x 3.625" x 10.875" (34.3 cm x 9.2 cm x 27.6 cm), and weigh 14 lbs. (7.3 kg). The unit's enclosure shall be made from heavy-gauge steel finished in black, and the front panel from black anodized aluminum. The unit shall operate from a standard 120V AC 60 Hz power source and shall feature push-to-reset circuit breaker protection. The University Sound Model 1801-40 has been specified.

Block Diagram

