

# Telephone Paging Amplifier

## Model TPU15A



**Description** The Bogen Model TPU15A is a unique 15-watt, wall-mounting amplifier, specifically designed for telephone paging applications. This compact unit provides voice-activated muting of music when paging, completely eliminating the need for manual activation of switches and the use of external relays. The page channel features automatic output leveling (ALC) as channel input varies, which is particularly important in

telephone paging applications, where persons with varying voice levels and paging techniques have access to the system.

Installation and maintenance are simple; all connections, adjustments, and mounting are accomplished with a screwdriver.

- Features**
- Compact wall-mount design
  - Inputs for 600-ohm balanced telephone line and background music
  - 25V, 70V, or 8-ohm output
  - Built-in night ringer triggered by external contact closure
  - Integral automatic level control (ALC) circuit
  - Signal-activated music muting circuit
  - Individual controls for tone, page volume, background music volume, night ringer volume
  - Lo-cut switch
  - LED overload indicator
  - Circuit breaker
  - Black finish
  - Listed to UL Standard 60065 for U.S. & Canada

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**Technical Specifications**

<b>Rated Output Power:</b>	15 watts RMS
<b>Distortion:</b>	Less than 2%
<b>Frequency Response:</b>	Music: 70 Hz to 12 kHz $\pm 2$ dB; Page: Shaped for maximum intelligibility
<b>Sensitivity:</b>	Music: 70mV; Page: -20 dBm, 600 ohms
<b>Inputs:</b>	Music: Hi-Z AUX, 25 kilohms, unbalanced; Page: 600 ohms, balanced, transformer-isolated; Night Ringer: steady tone while dry contacts* are closed
<b>Outputs:</b>	8 ohms, 25V, and 70V balanced, transformer-coupled
<b>Input and Output Connections:</b>	Screw terminals
<b>Signal-to-Noise ("A" weighted):</b>	-70 dB
<b>Controls and Indicators:</b>	(Screwdriver-adjustable) PAGE VOLume, MUSIC VOLume, NIGHT RINGER VOLume, TONE; LO-CUT switch (for horn protection); PEAK LEVEL-indicating LED (ON when peak output exceeds rated output); CIRCUIT BREAKER
<b>Tone Control:</b>	-10 dB @ 10 kHz
<b>Low Cut:</b>	-100 dB @ 100 Hz
<b>ALC (Page Channel):</b>	+1, -3 dB output level change with 15 dB input level change (ref. -20 dBm rated input sensitivity)
<b>Power Consumption (120V AC, 60 Hz):</b>	0.5A
<b>Thermal Emissions (Full Power):</b>	95.6 BTU/hr.
<b>Finish:</b>	Black with silver lettering
<b>Dimensions:</b>	11" W x 2-3/4" H x 2-3/8" D
<b>Product Weight:</b>	4 lb.

*\*Customer Supplied*

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**Architect and Engineer Specifications**

The telephone paging amplifier shall be a Bogen Model TPU15A, or equivalent, with a power rating of 15 watts. Distortion shall be less than 2%. Frequency response shall be  $\pm 2$  dB from 70 Hz to 12 kHz for the music channel and the page channel shall be shaped for maximum intelligibility. Sensitivity shall be -20 dBm, for the page channel, and 70mV for the music channel. Signal-to-noise shall be -70 dB ("A" weighted). Tone control action shall be -10 dB @ 10 kHz; 6 dB per octave; the lo-cut filter action shall be -10 dB @ 100 Hz; 6 dB per octave. The amplifier shall provide a 600-ohm balanced page channel input, and a 25-kilohm, unbalanced auxiliary/music channel input. The page channel shall incorporate automatic level control (ALC) limiting output level change to +1, -3 dB with 15 dB input level change (ref. -20 dBm rated input sensitivity). The amplifier shall also provide a night ringer, which shall be triggered by an external contact closure. Outputs shall be 25V, 70V, and 8 ohms balanced and transformer-coupled.

The amplifier components shall mount directly to a wall. Electronic circuitry shall provide voice-activated muting of background music during a page. Amplifiers that require the use of telephone system-supplied external relays shall not be accepted.

Screw terminal barrier strips shall be provided for all input and output connections. Individual controls shall consist of Page Volume, Music Volume, Night Ringer Volume, and Tone, all of which shall be screwdriver-adjustable. A Peak Level LED indicator, Lo-Cut filter switch and a circuit breaker shall be provided.

The amplifier shall operate from a 120V AC, 60 Hz power source. The unit shall be professionally finished (silver on black) and shall measure 11" W x 2-3/4" H x 2-3/8" D. The product weight shall be four pounds.

The amplifier shall carry the necessary safety agency listings for both U.S. and Canada.

**BOGEN<sup>®</sup>**  
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