

# Telephone Paging Amplifier

## Model TPU15A



### Features

- Compact wall-mount design
- Inputs for 600-ohm balanced telephone line and background music
- Built-in night ringer
- Integral automatic level control (ALC) circuit
- Signal-activated music muting circuit
- UL and CSA listed

### Description

The Bogen Model TPU15A is a unique 15-watt, wall-mounting amplifier, specifically designed for telephone paging applications. This compact unit incorporates state-of-the-art electronic technology. It 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. A built-in night ringer can be triggered by an external contact closure, alerting personnel of incoming calls during non-business hours.

Installation and maintenance are simple; all connections, adjustments and mounting are accomplished with a screwdriver. Input terminals are furnished for a 600-ohm balanced telephone line, a background music source, and dry contacts which, when closed, trigger the night ringer. Output terminals offer a choice of 25 volts, 70 volts, or 8 ohms for connection of various types of loudspeakers.

The Model TPU15A features an LED overload indicator, a low-cut switch for use with horn loudspeakers, a push-to-reset circuit breaker, and individual controls for tone, page volume, background music volume, and night ringer volume. The unit is professional in styling, finished in black with silver lettering. It operates from a 120V AC, 60Hz source.

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Part No. 54-7797-03R2 Printed in U.S.A. 0109

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**Technical Specifications**

<b>Rated Output Power:</b>	15 watts RMS
<b>Distortion:</b>	Less than 2%
<b>Frequency Response:</b>	<i>Music</i> – 70Hz to 12kHz $\pm$ 2dB; <i>Page</i> – Shaped for maximum intelligibility
<b>Sensitivity:</b>	<i>Music</i> – 70mV; <i>Page</i> – -20dBm, 600 ohms
<b>Inputs:</b>	<i>Music</i> – Hi-Z AUX, 25 kilohms, unbalanced; <i>Page</i> – 600 ohms, balanced, transformer-isolated; <i>Night Ringer</i> – steady tone while dry contacts* are closed
<b>Outputs:</b>	15 watts @ 8 ohms; 25V, and 70V balanced, transformer-coupled
<b>Input and Output Connections:</b>	Screw terminals
<b>Signal-to-Noise ("A" weighted):</b>	-70dB
<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>	-3dB @ 2.5kHz; 6dB per octave
<b>Low Cut:</b>	-3dB @ 350Hz; 6dB per octave
<b>ALC (Page Channel):</b>	+1, -3dB output level change with 15dB input level change (ref. -20dBm rated input sensitivity)
<b>Power Consumption (120V AC, 60Hz):</b>	0.4A, 48W
<b>Finish:</b>	Black with silver lettering
<b>Dimensions:</b>	11"W x 2-3/4"H x 2-3/8"D
<b>Shipping Weight:</b>	4 lbs.

\*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  $\pm$ 2dB from 70Hz to 12kHz for the music channel and the page channel shall be shaped for maximum intelligibility. Sensitivity shall be -20dBm, 600 ohms for the page channel, and 70mV for the music channel. Signal-to-noise shall be -70dB ("A" weighted). Tone control action shall be -3dB at 2.5kHz; 6dB per octave; the low-cut filter action shall be -3dB at 350Hz; 6dB 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, -3dB with 15dB input level change (ref.-20dBm 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 be completely solid-state and the unit 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, 60Hz 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 shipping weight shall be four pounds.

**BOGEN<sup>®</sup>**  
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