

# Talkback Amplifier

## Model TBA15



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**Description** The TBA15 amplifier allows a paging system to be used for hands-free, two-way conversation between a telephone system and remote speakers. The TBA15 uses the system's speakers as microphones and feeds this signal out to a telephone line. When the TBA15 senses an audio signal on the telephone line, it automatically switches its 15W amplifier on and uses the speakers in the system conventionally. Control of speech direction is maintained at the telephone handset.

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| <p><b>Features</b></p> <ul style="list-style-type: none"><li>• 15-watt amplifier</li><li>• Hands-free 2-way conversations through the paging system</li><li>• 600-ohm transformer-coupled telephone line input</li><li>• 25V or 70V balanced line outputs</li><li>• Adjustable sensitivity control for switching from listen to talk</li><li>• Adjustable switch-back delay prevents chopping of pages and provides smooth 2-way conversations</li><li>• Talkback and page volume controls</li><li>• Talkback frequency shaped for maximum intelligibility and background noise rejection</li></ul> | <ul style="list-style-type: none"><li>• Power ON LED</li><li>• Mute input forces amplifier to go into page mode</li><li>• Control of speech direction is maintained at the telephone handset</li><li>• Electronic switching, no relays</li><li>• Resettable circuit breaker with thermal protection</li><li>• Operates from a 120V AC, 60 Hz source</li><li>• Finished in black enamel</li><li>• Wall or 19" rack mount</li><li>• FCC Part 68 registered</li></ul> |
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Specifications subject to change without notice.  
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## Technical Specifications

<b>FCC Registration Number, under Part 68 rules:</b>	CD272Q-17147-KX-N
<b>Ringer Equivalence:</b>	0.0B
<b>Controls (screwdriver-adjustable):</b>	Loudspeaker Output Volume, Talkback Volume, Switching Sensitivity, Switching Delay
<b><u>Telephone to Loudspeaker</u></b>	
<b>Rated Power Output:</b>	15W
<b>Frequency Response:</b>	200 Hz to 10 kHz
<b>Input Sensitivity:</b>	-20 dBm
<b>Input Impedance:</b>	600 ohms, balanced
<b>Distortion (@RPO):</b>	Less than 3% (150 mV input signal)
<b>Signal-to-Noise Ratio:</b>	-50dB (20 Hz to 20 kHz)
<b>Voice-Activated Switching:</b>	Sensitivity: -46dBm; Attack Time: Less than 5ms. (3ms., typ.); Switching Delay Time: adjustable from 50 ms. to greater than 0.5 sec.
<b>Output Impedance:</b>	25V or 70V balanced line
<b><u>Loudspeaker to Telephone</u></b>	
<b>Frequency Response:</b>	1500 Hz to 20 kHz
<b>Distortion:</b>	Less than 2%
<b>Signal-to-Noise Ratio:</b>	-40 dB
<b>Output Level:</b>	Processed to meet FCC Part 68
<b>Circuit Overload Protection:</b>	Push-to-Reset circuit breaker, Safe Operating Area (SOA) and thermal protection for the output device
<b>Unidirectional Operation:</b>	Terminals provided to defeat two-way function
<b>Power Requirements:</b>	120V AC, 60 Hz, 0.7A
<b>Temperature Range:</b>	0 - 50°C (32 - 122°F)
<b>Humidity Range:</b>	0 - 95%, noncondensing
<b>Enclosure:</b>	Sheet metal finished in black enamel
<b>Dimensions:</b>	19" W x 5-1/4" H x 2-5/8" D
<b>Product Weight:</b>	7 lb.

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## Architect and Engineer Specifications

The paging/talkback amplifier shall be a Bogen TBA15, approved under part 68 of FCC rules. The unit shall provide two-way communication between a telephone and remote loudspeakers. It shall provide automatic electronic switching of the direction of conversation, without the use of relays or other moving parts.

The amplifier shall have a rated power output of 15 watts. The frequency response shall be shaped for maximum intelligibility and background noise rejection. Distortion shall be less than 3% at rated power. Attack time for the voice-activated circuit shall be less than 5ms. (3ms., typ.). Switching delay time shall be adjustable from less than 50ms. to greater than 0.5 sec. Screwdriver-adjustable controls shall be provided to adjust switching sensitivity, switching delay, and loudspeaker, and handset volume levels.

Terminals shall be provided for connection of a 600-ohm transformer-coupled telephone input line, and 25V/70V constant-voltage outputs. Mute terminals shall be provided to defeat the talkback function. Terminals shall be housed within a panel recess and protected by a removable cover.

The amplifier shall operate from a 120V AC, 60 Hz source. Circuit safeguards shall include a press-to-reset AC circuit breaker, safe operating area (SOA) and thermal protection. A power lamp shall be provided on the front panel.

The amplifier enclosure shall be constructed of sheet metal and finished in black enamel. Overall dimensions shall be 19" W x 5-1/4" H x 2-5/8" D. Keyhole slots and machine-screw holes shall be provided for wall- or rack-mounted installation. The product shall weigh 7 lb.

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