

## TOA 900 SERIES

# ALL-PURPOSE AMPLIFIER (10-WATT)

## BG-10



### Features

1. 2-channel mixer power amplifier
2. Output power; 10 watts RMS
3. Wide frequency response; 50 to 20,000Hz,  $\pm 1$ dB
4. Low distortion and noise level
5. Bass and treble controls on Program Input
6. Built-in muting circuit
7. Balanced Mic/Telephone page Input and Program Input
8. Mic/Telephone page Input (Switchable)
9. Self-protecting circuitry design
10. 4 different output impedances; 4 and 8 ohms, 25 and 70 volts
11. Compact and light weight
12. Desk top or rack-mounted type

### Description

The TOA BG-10 Mixer Power Amplifier controls and mixes up to two independent input signals. Capable of delivering 10 watts rms, the BG-10 has ideal flexibility for small sound reinforcement systems. Any microphone of impedance of less than 600 ohms can be connected to the microphone input of the BG-10.

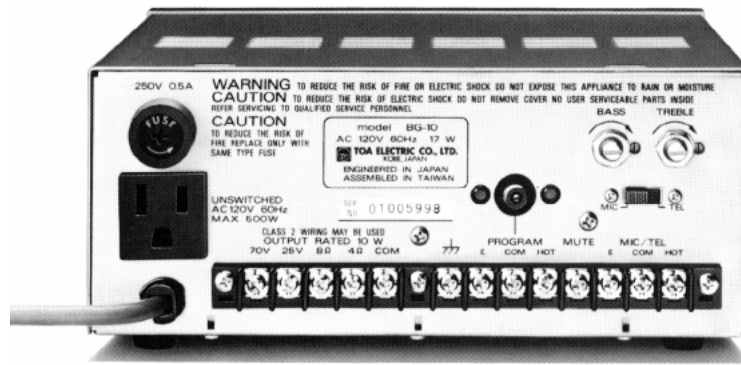
Changing over a selector switch turns this microphone input into the Telephone page input, and allow the BG-10 to be used as an amplifier for the page made from the telephone. The program input of the BG-10 has a built-in 10k-ohm matching transformer and so, can accept the balanced or unbalanced line.

The BG-10 incorporates the electronic muting circuit. This permits quiet alternate-action muting of the microphone or Telephone page and program input. When short-circuited between the Mute and Ground terminals, the microphone or Telephone page input overrides the program input.

For the program input, independent Bass and Treble controls of boost/attenuation system are provided on the rear panel.

The BG-10 has transformer-isolated output terminals for connection to 4 or 8-ohm speaker systems, or for 25-volt or 70-volt line distribution.

The BG-10 is mountable in an equipment rack using optional rack mounting brackets model MB-922 or MB-921A.



## Specifications

Type	2-channel mixer power amplifier
Output Power	10 watts RMS
Power Bandwidth	50–20,000Hz 1% THD
Frequency Response	50–20,000Hz ±1dB
Total Harmonic Distortion	0.5% or less, at 1 KHz, rated output 0.1% or less, at 1 KHz, 5W output
Inputs	MIC/Telephone Page Input Program Input (Screw terminal strip input and RCA phono jack input) *Note: Two (2) program inputs cannot be used at the same time.
Input Sensitivity/Impedance	Mic: 1 mV (-60dBv)/600ohms, balanced Telephone Page: 100mV (-20dBv)/600ohms, balanced Program: 200 mV (-14dBv)/10k ohms, balanced for Screw Terminal, unbalanced for RCA Phono Jack
Outputs (Transformer-isolated)	Balanced 4,8 ohms, 25 & 70 volts
Output Regulation (1 kHz)	Less than 2.0dB, no load to full load.
Signal to Noise Ratio (Band Pass: 20-20,000 Hz) (Tone Controls Centered)	Mic: 64dB Telephone Page: 77dB Program: 77dB
Tone Controls	Bass: ±10dB at 100Hz, Treble: ±10dB at 10 KHz Controls affect only program input.
Controls	1 Mic/Tel gain control 1 Program gain control 1 Bass tone control 1 Treble tone control 1 Power ON/OFF switch 1 Mic/Tel selector switch
Indicators	1 Power LED
Protection	Self protection, with 1 AC fuse
Connectors	MIC/TEL input: Screw terminal strip Program input: Screw terminal strip and RCA phono jack Outputs: Screw terminal strip Mute: Screw terminal strip AC power cord/plug: SVT, 3-prong type AC outlet 3 pin grounding type
Power Consumption	AC 120 Volts, 60 Hz, 17 watts
Temperature Range	-10°C to +60°C (12°F to 140°F)
Dimensions in inches (mm) (high) X (wide) X (deep)	3.68" (93.5) x 8.27" (210) x 8.9" (226) Rack-mounting space size "2U" (3.46")
Weight	6.5 lbs. (2.95kg)
Color	Silver
Other Features	Automatic electronic drive limiter Electronic muting
Optional Accessories	Rack mounting bracket model MB-922 for one BG-10. Model MB-921A for two BG-10

\*Specifications are subject to change without notice.

## Architect's and Engineer's Specifications

The mixer power amplifier shall control and mix up to two input signals. It shall deliver an audio output of 10W RMS with less than 1% THD distortion over the frequency range of 50 to 20,000Hz. Frequency response shall be 50 to 20,000Hz, ±1dB. It shall be capable of operation from a 120V 50/60Hz line. The amplifier shall have a TEL/MIC input and a Program input. Both inputs shall have built-in matching transformer to accept the balanced or unbalanced input signals. The input connectors provided shall be screw terminals plus RCA phono jack for the program input. The TEL/MIC input with 600-ohm impedance shall be equipped with a TEL/MIC selector switch to accept low impedance microphone or telephone line paging input. The impedance of program input shall be 10,000 ohms to be usable with high level devices. The amplifier shall have outputs of transformer-isolated and balanced 4 and 8 ohms and balanced 25 and 70 volts across the screw terminal strip. The output regulation shall be less than 2dB, no load to full load. The amplifier shall incorporate the electronic muting function. This shall permit quiet alternate-action muting of the TEL/MIC paging and program input; e.g. the TEL/MIC page input overrides the program input when short-circuited between MUTE and GRAND terminals. The amplifier shall include independent Bass and Treble tone controls on the rear panel to adjust the bass and treble response on the program input. Dimensions shall be 3.68" (93.5mm) high x 8.27" (210mm) wide x 8.9" (226mm) deep. Net weight shall be 6.5 pounds (2.95kg). It shall be designed for mounting in a standard 19" rack with optional rack mounting brackets. The Mixer Power Amplifier shall be the TOA Model BG-10.

