

# Tower Broadcast Paging Module

Model 10458-10x



## Features

- Provides Amplified Audio Signal to 1-4 Tower Broadcast Speakers in 234SBA Tower Broadcast Assembly or 234SBM Tower Broadcast Module
- Hard-wired (600 Ohm) and RF (VHF/UHF) Audio Delivery to Amplifier
- Control Output for Strobe or Peripheral Equipment Activation
- Generic or Selective Operation
- Addressable Via DTMF or 2-Tone (up to 8 Addresses)
- Remote Volume Control Via DTMF Signaling
- Trickle-Charge Circuit for Battery Back-Up
- High-Efficiency Class D Amplifier Delivers up to 8-Watt Output
- Requires 120/230 V ac, 50/60 Hz Power
- Mounts to Tower Access Panel
- PC Programmable Using CARD Suite Programming Software



Model 10458-102 Shown

The **10458-10x series Electronics Paging Module** is the heart of each GAI-TRONICS' Tower Broadcast product. This device receives the broadcast audio, via 600 Ohm telephone pair, RF frequency, or both, and provides high-efficiency amplification for speaker broadcasts. Its powerful output is capable of generating a greater than 110dB SPL output from each speaker, measured at 1 meter on axis.

The module conveniently mounts on the access panel that installs at the base of the tower, allowing easy access for installation and service. All field wire terminations are made at the Paging Module.

The 10458-10x can be programmed for two different modes of operation; Generic or Selective. Generic operation provides common broadcasting of any received signal. Selective operation requires not only the appropriate audio signal, but also requires a DTMF or 2-Tone address for activation. Each unit will accept up to 8 different addresses allowing access of each individual unit, multiple zones, and/or all call.

Programmable output control and battery trickle charge are standard features of the Paging Module.

Note: The 10458-10x is ordered as part of a 234SBA Tower Broadcast Assembly or 234SBM Tower Broadcast Module. It should be ordered separately only for spare part purposes.

## Available Models

Part No.	Description
10458-101	Hardwired 600-ohm audio input
10458-102	Hardwired 600-ohm input and/or VHF radio receiver input (154–174 MHz)
10458-103	Hardwired 600-ohm input and/or UHF radio receiver input (450–470 MHz)

### Specifications

#### Power Requirements

##### AC Power Supply

Input voltage	120/230 V ac (nominal), 50/60 Hz
Power factor @ nominal 120 V ac	.05
Current Draw	@ 120 V ac = 1.10 Amperes @ 230 V ac = 0.65 Amperes

##### Battery Backup

Voltage	12 V dc
Minimum Capacity	2.8 Ah
Battery life	1 hour at full output

#### Mechanical

Physical dimensions	4.5 W × 7 D × 7.63 H inches (0.11 W × 0.18 D × 0.19 H m)
Construction/finish	0.62 inch thick aluminum
Termination connections	Screw-type terminal blocks
Shipping Weight	
Model 10458-101	2.5 lbs. (1.13 kg)
Models 10458-102 and -103	3.0 lbs. (1.36 kg)

#### Control Output

Type	Opto-coupled solid state relay
Current Rating	100 mA

#### Environmental

Temperature range	-4° F to +140° F (-20° C to +60° C)
Humidity	95% non-condensing

#### Amplifier

Input impedance	600 Ω +/-10% with 600 Ω setting 15 kΩ minimum with 15 kΩ setting
Minimum input level for rated output	0.7 Vrms
Output power	4 mW to 8 W (default 16 mW)
Maximum sound pressure level (SPL)	110 dB SPL at 1 meter (when used with no. 12538-201 Speaker Package)
Frequency response	250–6,500 Hz, +0/-3 dB ref. to 1 kHz
Distortion	<1% THD @1 kHz

#### RF Module (Models 10458-102 and -103 only)

##### General

Frequency range	VHF: 154–174 MHz; UHF: 450–470 MHz
Antenna impedance	50 Ω
Antenna connector	BNC
Operating voltage	9–18 V dc, 12 V dc nominal
Decoder	CTCSS/CDCSS

##### Receiver (measurement procedures made per ANSI/TIA/EIA-603)

Sensitivity (12 dB SINAD)	0.25 μV
Inter-modulation	60 dB
Spurious response	55 dB
Audio output	900 mVrms, 3.5 kHz deviated signal

#### Approvals

FCC Identifier	VHF: AIERT 17-142 / UHF: AIERT 17-442
FCC Compliance	Part 90

### Accessories / Programming / System Components

ACC2500	Audio Control Center	10959-903	Audio Messenger Interface
234SBA	Tower Broadcast Assembly	234SBM	Tower Broadcast Module
13353	Addressable Amplified Speaker, 600 Ohm	13363/13373	Addressable Amplified Speaker, VHF/UHF
12538-201	Speaker Package	XAC4000B	Programming Bundle
XAC0004A	Programming Cable	19101-024	RF Module Programming Kit