



## VOICE-ACTIVATED RELAY

## VAR1

### DESCRIPTION

The VAR1 Voice-Activated Relay is a DPDT relay device that is activated when an audio signal is detected at the microphone pre-amp or at 70V, 25V, or 600-ohm line level inputs. It has a number of useful applications, such as muting a sound system in response to a microphone or telephone page, activation of accessory (security) equipment, or activation of a zone paging module.

A slide switch is included to select the pre-amp or the line inputs. The VOX detect circuit also includes volume, sensitivity, and delay controls. The audio output is an isolated 600-ohm transformer. The unit operates from a DC power source (not included).

### INSTALLATION

Set input source switch on the top side of the unit to LINE if using one of the line inputs or to MIC if using a microphone.

Connect a power supply to the 12-24V DC jack on the top of the unit or to the + and - screw terminals. The Bogen model PRS40C power supply is recommended.

### WIRING

Refer to the block diagrams and the sample wiring diagrams on the next page to wire the VAR1 for your application.

### OPERATION

Sensitivity can be adjusted according to the needs of the application. Clockwise rotation of the control increases sensitivity. Do not over rotate the control or you may damage the trimpot.

The delay control is also adjustable in the field. The maximum delay time is 25 seconds. Clockwise rotation of the control increases delay time.

### SPECIFICATIONS

#### LINE INPUT

Impedance: 600 ohms  
Frequency Response: 100 Hz to 10 kHz  
70V Input Impedance: 200k ohms  
Output Level: 400 m VRMS  
25V Input Impedance: 75k ohms  
Output Level: 420 m VRMS

#### MIC PREAMP

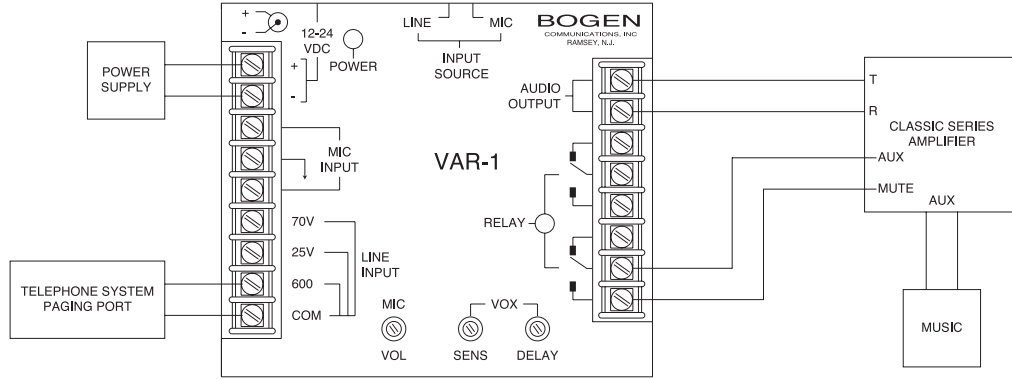
Gain: 62 dB  
Sensitivity: 750 microvolts, rms for 1 VRMS out  
Distortion: <2%  
Frequency Response: 200 Hz to 10 kHz  
Output Signal-to-Noise Ratio: 55 dB  
VOX Sensitivity: 20 mV - 150 m VRMS  
@ 600 ohms Line input  
Time Delay Range (approx.): 0.25 to 25 sec.  
Relay Contact Rating: 2 amps/30 VDC,  
0.5 amp./120 VAC

### SERVICE

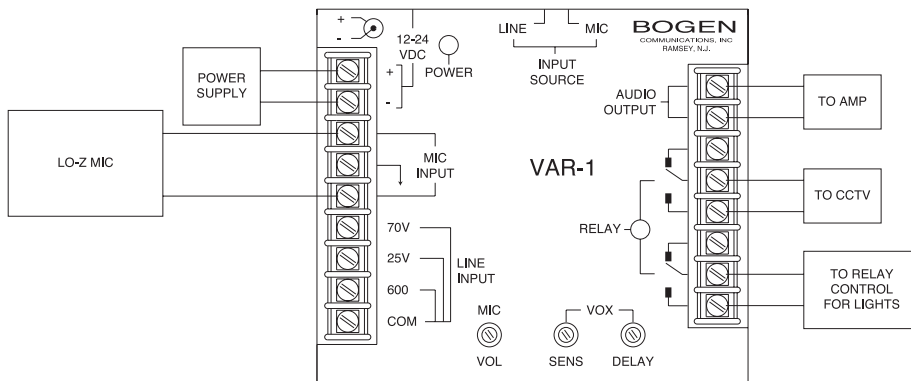
There are no user serviceable components within the VAR1. The warranty may become void if the unit is serviced by other than an authorized Bogen service agency.

Contact the Bogen Applications Department if you have any questions concerning VAR1 applications.

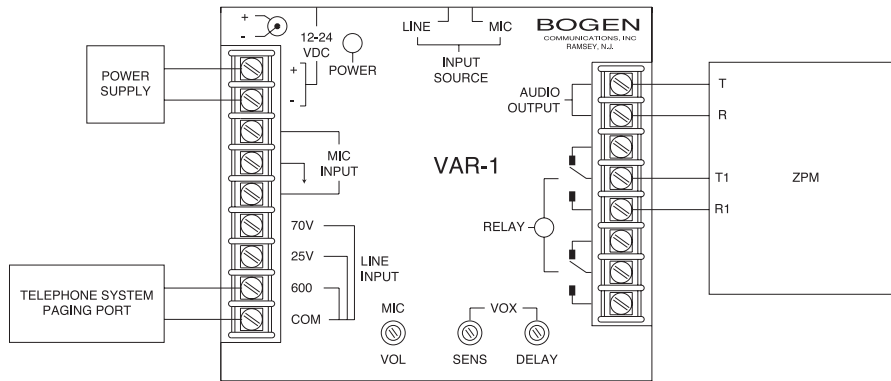
VAR1 used with Classic Series amplifiers to mute music during a telephone page (paging port without contact closure).



VAR1 used in a security system to activate an amplifier, CCTV, and light relay control.



VAR1 used with zone paging module.



### VAR1 Block Diagram

