Ambient Noise Sensor System

Model ANS501
Control Unit

Model ANS500M
Microphone Module

Description

The Bogen Ambient Noise Sensor system is designed to monitor continuously changing ambient noise levels and electronically adjust the level of a page announcement and/or background music so intelligibility is maintained. The system consists of the control module (Model ANS501), a microphone module (ANS500M), and a power supply.

The system ensures that page announcements and music are audible even during periods of high noise levels by continuously monitoring the ambient noise level through a microphone module located in the subject area and adjusting the paging signal level into the system's amplifier.

Features

- Consists of an ANS501 control unit, an ANS500M microphone module, and a power supply
- Balanced input and output
- Unbalanced input and output
- Unbalanced stereo AUX inputs (summed mono)
- AUX inputs bypass gain control feature
- Remote defeat connections (to disable level boost)
- Automatically adjusts level of page announcements
- Run/Set mode switch
- ANS501 can be wired in between preamp and power amp or to amplifier insert jacks
- Maximum boost; activity threshold; relative gain; AUX input level; ramp speed; and ambient MIC input threshold controls
- Supports up to four microphones wired in parallel
- Microphone wire run can be up to 2,000 feet with no appreciable loss of signal
- Microphone module includes an adjustable mounting bracket for precise positioning
- Powered by a 12V wall-mounted power supply that operates from 120V AC

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Technical Specifications

Gain (Boost):	0 dB to 22 dB (± 1 dB)
Frequency Response:	5 Hz to 80 kHz (+0 / -3 dB)
S/N (20 Hz - 20 kHz):	-96 dBV
Distortion:	<0.007%
Input Impedance:	Aux Input: Unbalanced 10 k-ohms Unbalanced Input: 20 k-ohms Balanced Input: 20 k-ohms
Output Impedance:	Unbalanced Output: 300 ohms Balanced Output: 600 ohms
Gain Ramp Speed:	1 dB/s to 20 dB/s
Power:	12V AC/0.4A
Controls:	Maximum Boost, Ramp Speed, Activity Threshold, Ambient Threshold, Aux Level, & Relative Gain
Connector:	RCA & pluggable screw terminals
Product Weight:	12 oz. (ANS501); 4 oz. (ANS500M)
Dimensions:	5¼" W x 3" H x 1¼" D (ANS501); 2" W x 2⅛" H x ⅞" D (ANS500M)
Indicators:	Bi-Color Status (Amber/Green); Power (Green)

Architect and Engineer Specifications

The Ambient Noise Sensor system shall consist of a Bogen Model ANS501 control module, a Bogen Model ANS500M microphone module, and a 12V/0.4A wall-mounted power supply. The system shall be designed to electronically adjust the level of a page announcement in an area where ambient noise levels are continuously changing.

The system shall continuously monitor the ambient noise level through the microphone module located in the subject area and change page signal levels to make pages audible over noise.

Up to four (4) microphone modules may be wired in parallel to monitor larger locations. The wire run between control unit and microphone module, when composed of 2-conductor AWG20, shall be able to reach a length of 2,000 feet with no appreciable loss of signal strength.

All wiring connections to the control module shall be made via pluggable screw terminals or RCA jacks.

The control module shall include controls for maximum boost; activity threshold; relative gain; AUX input level; ramp speed; and ambient MIC input threshold.

The control module shall include two unbalanced RCA inputs with mono summing stereo; balanced and unbalanced inputs; balanced and unbalanced outputs; a sensor MIC input; and a defeat input.

The control module shall include a mode switch and power and status LED's.

The control module is designed to be wall-mounted. The microphone module shall include an adjustable mounting bracket for precise positioning.

The system shall be powered by a 12V power supply, which shall operate from 120V AC. Current draw shall not exceed 400 mA.

Dimensions of the control unit shall be 5¼" W x 3" H x 1¼" D. Dimensions of the microphone module shall be 2" W x 2⅛" H x ⅞" D.

BOGEN®
COMMUNICATIONS, INC.
50 Spring Street, Ramsey, NJ 07446, U.S.A.
201-934-8500 FAX: 201-934-9832
Web Site: www.bogen.com