



# **NG-1**

## **AUDIBLE NOISE GENERATOR**

### **OPERATING AND MAINTENANCE MANUAL**



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## NG-1 AUDIBLE NOISE GENERATOR

Pink Noise is a type of random noise which has equal energy (power) in each octave ( $2Xf$ ) band of frequencies as contrasted to white noise which has equal energy per Hz. Our ears tend to perceive both pitch and loudness on an octave scale and will recognize sounds of equal energy per octave as having equal loudness. Although an octave centered at 1 kHz spans 1000 Hz and an octave centered on 100 Hz spans only 100 Hz, our ears integrate the energy equally in these two bands to determine perceived loudness. Pink noise sounds as if it has relatively uniform loudness at all pitches whereas white noise sounds very bright and lacking in low frequencies.

The ATI NG-1 Pink Noise Generator is a useful tool for level matching of multiple microphones in teleconferencing rooms and A/V installations. The NG-1 output is first set to a desired reference level in the range of 60 to 94dB SPL at one foot by ear or using a sound level meter. Multiple microphones can then all be set for equal broadband output by placing the NG-1 in front of each microphone, in turn, on-axis at precisely one foot and adjusting the microphone's level control. Gating thresholds for automatic mic mixers can also be set by reducing the NG-1 output by a fixed amount; say, 20dB, from the initial reference level using the sound level meter, and trimming the hold-in threshold adjustment.

Mid-band room response peaks and valleys can be measured using either a real time analyzer or a tuned audio voltmeter having octave or 1/3 octave response driven by the output of the sound level meter. Although the internal electronics of the NG-1 provides smooth pink noise response from 20Hz to 20kHz, the small loudspeaker limits the effective acoustical response to a five-octave range from 300Hz to 10kHz. Smooth ten-octave pink noise can be supplied to external amplifiers and loudspeakers through the OUTPUT phone jack. Inserting a 1/4" phone plug into the output jack disables the internal speaker.

The NG-1 can be AC line or battery powered using the supplied plug-in 9VDC/200mA power supply or a user-supplied 9V alkaline battery mounted inside the case and accessed by removing four rear screws. Remove the battery if the unit will not be used for an extended period to avoid corrosion damage.

The NG-1 incorporates a timer for pulse operation that interrupts the noise output for one second out of every four seconds so that the resulting signal picked up by the microphone can be readily distinguished from background acoustic and electronic noise. Select STEADY or PULSE mode with the top panel switch.

The NG-1 can provide PINK or WHITE noise by means of a separate selector switch.

## One Year Limited Warranty

ATI warrants this product to be free from defects in materials and workmanship to its original owner for a period of one year from date of purchase. ATI will repair or replace such product or part thereof, which upon inspection by ATI, is found to be defective in materials or workmanship.

The Proper Return Authorization Number must be obtained from ATI in advance of return. Contact ATI at 856-626-3480 or email [sales@atiaudio.com](mailto:sales@atiaudio.com) to receive the number and instructions for return of your unit.

A written statement providing the name, address, daytime telephone number and email address of the original owner, together with receipt from the original purchase, and a brief description of any claimed defects, must accompany all returns. Parts or product for which replacement is made shall become the property of ATI.

The customer shall be responsible for costs of transportation and insurance to the factory of ATI, and shall be required to prepay such costs.

ATI shall use reasonable efforts to repair or replace any product covered by this limited warranty within thirty days of receipt. In the event repair or replacement shall require more than thirty days, ATI shall notify the customer accordingly. ATI reserves the right to replace any product that has been discontinued from its product line with a new product of comparable value and function.

This warranty shall be void in the event a covered product has been damaged, or failure is caused by or attributable to acts of God, abuse, accident, misuse, improper or abnormal usage, failure to follow instructions, improper installation or maintenance, alteration, or lightning, power fluctuations and other incidental or environmental conditions. Further, product malfunction or deterioration due to normal wear is not covered by this warranty.

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Some states do not allow the exclusion or limitation of incidental or consequential damages or limitation on how long an implied warranty lasts, so the above limitations and exclusions may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights that vary from state to state.

ATI reserves the right to modify or discontinue, without prior notice to you, any model or style product.

If warranty problems arise, or if you need assistance in using your product contact us.