

**pocket  
noise**

**intelix**  
DESIGN WITH INTELLIGENCE



## **Pink Noise Test Signal Generator**

Full Spectrum Audio Test Signal  
True 3dB per Octave Roll Off  
Balanced Mic Level Output  
Phantom Power Indicator

**intelix**  
DESIGN WITH INTELLIGENCE

## **Uses for Pink Noise**

- ▶ **Adjust speaker crossover points & balance.**
- ▶ **Check frequency response of amplifiers, tape decks & other audio components**
- ▶ **Adjust system equalization**
- ▶ **Sound masking of other noise sources, such as heavy machinery & air handling systems.**

**POCKET NOISE** by Intelix is a full audio spectrum noise source housed in an XLR microphone connector. The output of the white noise source is frequency limited, amplified and passed through a precision -3db per octave low pass filter.



**LED  
Indicator**



**Phantom  
Powered**

**www.intelix.com**

## **Pocket Noise Instructions**

To use, first choose an open microphone input on your mixer. Turn volume full off & flatten all EQ to avoid loud pops. Then turn on the input's phantom power, & set input gain control to about 30dB. Insert the Pocket Noise into the XLR Input jack. The LED will light to indicate phantom power is active & you're ready to test.

### **USING PINK NOISE**

Pink noise is usually used in conjunction with an audio spectrum analyzer, sometimes referred to as a real time analyzer or RTA for short. Pink noise is sent to the device under test, be it a single component or complete sound system. The output of the device or system is then viewed on the RTA. The RTA will show the relative amplitudes, measured in db, of each one-third octave interval over the entire audio spectrum. Unless the device under test is an equalizer, cross-over or other frequency limiting device, the display on the RTA is usually expected to be a straight line.

### **WHAT IS PINK NOISE?**

Pink noise is an audio test signal that contains all the frequencies in the audio spectrum with equal energy in each octave. Unlike white noise, which contains equal energy at all frequencies, pink noise contains less energy in the higher audio frequencies than in the lower ones. This is because the higher octaves have wider frequency content than the lower ones. For example, if you were to slice the audio spectrum into one hertz "slices", the octave between 100Hz and 200Hz would contain 100 such slices. The octave, between 1KHz and 2KHz would contain 1000 slices, while the octave between 10KHz and 20KHz would contain 10,000 slices. It can be seen that if each slice contained the same energy, there would be much more overall energy in the higher octaves than in the lower ones. This is the case with white noise. White noise can be converted to pink noise by passing it through a low pass filter with a -3db per octave roll off.