

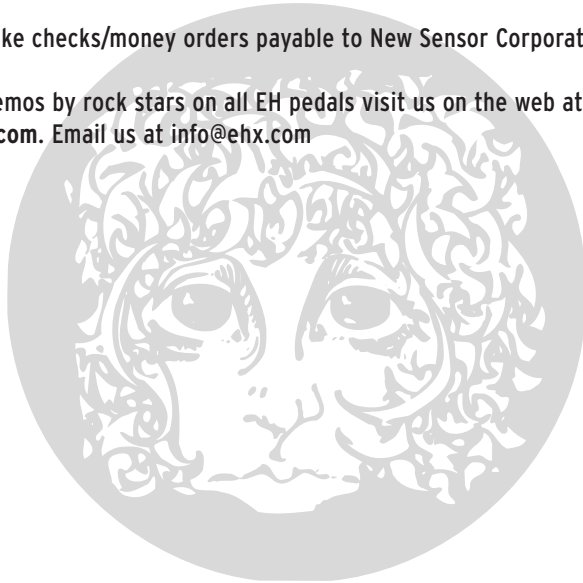
- WARRANTY INFORMATION -

Please complete and return the enclosed warranty card within 10 days of purchase. We will repair the unit for free within one year of date of purchase. If you should need to return your unit for service within the warranty period, please include a brief description of the problem as well as you name, address, telephone number, copy of your receipt, and a check or money order for \$5.00 shipping and handling to:

Electro-Harmonix
C/O New Sensor Corporation
32-33 47th Avenue
Long Island City, NY 11101
Att: Service Department

Please make checks/money orders payable to New Sensor Corporation.

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MICRO SYNTHESIZER INSTRUCTIONS



electro-harmonix

– OPERATING INSTRUCTIONS –

Congratulations on your purchase of the **Electro-Harmonix Micro Synthesizer**! You have purchased a very powerful tool for musical expression. Please take a few minutes to familiarize yourself with the Micro Synthesizer's controls and how they work.

The **Micro Synthesizer** can create many of the most popular analog lead synthesizer voicings at a fraction of the normal cost for such capabilities. Its four voices: **GUITAR**, **OCTAVE**, **SUB-OCTAVE**, and **SQUARE WAVE** are completely independent and fully mixable. The **MICRO SYNTHESIZER** can modify these signals with envelope control for a variety of "bowed" or "blown" sounds. In addition, a sophisticated swept filter control allows highly variable frequency adjustments to be made to the signal. When combined, these controls offer the user a creative capability that is virtually limitless.

POWER ADAPTOR: Your unit comes equipped with a 24 volt/100 mA tip-positive, external power supply (European models come equipped with a 24V DC/30 mA tip positive adaptor). **USE ONLY THE POWER ADAPTOR SUPPLIED.** Using the wrong adaptor can cause serious bodily injury. Using the wrong adaptor may also damage your unit and will void your warranty.

PREAMP GAIN ADJUSTMENT: The preamp gain in the Micro Synthesizer has been set at the factory for use with a guitar equipped with single-coil pickups. If you will be using another instrument with higher or lower output, it may be necessary to readjust this setting. For this purpose, an access port has been provided in the upper right hand corner of the case bottom. A screwdriver or alignment tool with a tip width of no more than 1/16" is required. Plug the AC power adaptor (supplied) into the **MICRO SYNTHESIZER** and then into a power outlet. Make sure the power switch on the unit is in the "on" position. Set the **GUITAR** slider control to 10, the **STOP FREQ** slider control to 5, and all other controls to minimum. Insert the screwdriver through the access port until it seats firmly in the trim control inside the unit. Play your instrument with hard strokes. If the output signal distorts, turn the trim control counterclockwise until the distortion stops. If there is no distortion, tune the trim control clockwise until distortion occurs, and then back off slightly. This adjustment can be made in effect or bypass mode.

OPERATION: The Micro Synthesizer's controls operate as described below. In all cases, high-numbered control settings increase the level of the given effect.

FOOTSWITCH - Selects either the effect signal or the unaltered guitar signal. This unaltered signal may be boosted slightly depending on the gain trim control adjustment described above.

TRIGGER - Determines the input volume at which the filter circuits will "turn on". It does not affect any other circuitry. If the **TRIGGER** is set too high, the filter may "stutter" due to multiple triggering. This is especially true if full chords are played. It is best to set the **TRIGGER** at exactly the sensitivity needed for your playing. This allows the further possibility of playing synthesizer-type leads with filtering against softer, unfiltered chords.

The next five controls of the Micro Synthesizer comprise the **VOICE MIXING** section: **GUITAR**, **SUB-OCTAVE** (one octave below), **OCTAVE** (one octave above), **SQUARE WAVE**, and **ATTACK DELAY**. Each voice is completely independent and can be mixed with the others in any degree. Please note the following voice characteristics:

GUITAR - This is the dry instrument input signal.

SUB OCTAVE - Only tracks single notes.

OCTAVE - Only tracks single notes. This voice contains a small amount of harmonic distortion for added richness of tone.

SQUARE WAVE - Intensity of this voice is also determined by instrument attack or volume. In all other respects it operates in a similar fashion to a standard distortion device.

ATTACK DELAY - Determines the time required for the voice signals to reach full volume. Higher-numbered settings can completely remove the initial attack of the instrument. Different delay times contribute greatly to the characteristic sounds of various instruments. It is recommended that you synchronize your playing to the speed setting of the **ATTACK DELAY**.

The final five controls comprise the **FILTER SWEEP** section.

RESONANCE - Affects the degree of sharpness, or "Q" of the filter. Higher settings cover a greater frequency range and also add a slight boost to the signal.

START FREQUENCY - Determines the frequency at which the filter sweep begins.

STOP FREQUENCY - Determines the frequency at which the filter sweep ends. This is also the "resting frequency" of the filter, and if **START** and **STOP** controls are set at the same level no sweep will occur, but the filter will provide emphasis of that particular frequency band. In addition to lead synthesizer sounds, **START** and **STOP** controls can be used to simulate attack, decay, and harmonic content of acoustic instruments.

RATE - Determines the speed at which the filter sweeps from **START FREQUENCY** to **STOP FREQUENCY**. It is recommended that **RATE** be synchronized with your playing speed.

SOUND TEMPLATES - The sample settings included with these instructions will help you get familiar with your **MICRO SYNTHESIZER** and its controls. Once you've tried all the sample settings, feel free to experiment and develop your own unique palette of sounds. You can record your new settings in the blank templates provided.