# electro-harmonix

# SUPER SPACE DRUM

# **Analog Drum Synthesizer**

Congratulations on your purchase of the Super Space Drum (SSD), a faithful reissue of the Electro-Harmonix Super Space Drum first released in 1979. The Super Space Drum uses analog synthesis techniques—such as modulating an oscillator followed by a gated volume amplifier—to create drum sounds ranging from deep kicks to high toms to sci-fi drums. Trigger the SSD from the built-in pushbutton or an external, non-MIDI, electronic drum pad. Pass external sounds through the gated amplifier via the auxilliary input.

**WARNING:** Your Super Space Drum (SSD) comes equipped with an Electro-Harmonix 9.6DC-200 power supply (same as used by Boss® & Ibanez®: 9.6 Volts DC 200mA). The SSD requires 25mA at 9VDC with a center negative plug. Using the wrong adapter or a plug with the wrong polarity may damage your SSD and void the warranty.

## - CONTROLS -

**FREQ Controls** – Use the START and STOP knobs together to control the start and end frequencies (pitch) of the synthesizer's sweep:

**START Knob** – Sets the starting point of the frequency sweep. Sweeps can begin anywhere from 20 Hz when set fully counterclockwise to 4 kHz when set fully clockwise.

**STOP Knob** – Sets the end point of the frequency sweep. Sweeps can end anywhere from 20 Hz when set fully counterclockwise to 4 kHz when set fully clockwise.

**TIME Knob** — Controls the amount of time that the sweep will take to get from the START frequency to the STOP frequency. As TIME is turned clockwise, the sweep time slows down. Sweep time ranges from 40 ms to 6 seconds.

**SENS Knob** – Controls the sensitivity of the SSD to an external trigger. As SENS is turned clockwise, it becomes more sensitive and less amplitude is required from the external trigger to activate the Super Space Drum.

**VOLUME Knob** — Controls the volume of the output. As VOLUME is turned clockwise, the output volume increases.

**MOD Controls** — The MOD controls consist of a MOD switch, a DEPTH Knob, and a RATE knob. Use the MOD controls to apply an LFO modulation waveform to the SSD's frequency sweep for an extra layer of analog fun.

**MOD Switch** – Set to ON to engage modulation. OFF disables modulation.

**DEPTH Knob** – Controls modulation depth or amount. This knob is center-detented. At 12 o'clock, the modulation depth is zero. Set the knob fully counterclockwise for the largest negative depth. Set fully clockwise for the maximum positive depth. Vary the positive or negative depth setting to taste. The positive waveform has a rising sawtooth waveshape that produces a reverse type of modulation at lower RATE settings. Negative depth consists of a falling sawtooth that produces sharper sounding modulation at lower RATE settings.

**RATE Knob** – Controls the rate of modulation. Turn this knob clockwise to increase the modulation rate from 10 Hz to 1.5 kHz. Higher RATE settings can produce ring modulated sounds.

**LED** – Lights up when the SSD is powered up. The LED blinks briefly upon receiving an external trigger pulse or when you press the SSD's white pushbutton. If you power the SSD from a battery, the LED's brightness diminishes as the battery's life nears its end.

**Pushbutton Trigger** – Push the white pushbutton at the center of the logo to trigger the SSD and create amazing sounds.

## - I/O JACKS -

**OUTPUT Jack** – This 1/4" jack provides the audio output from the SSD. The output impedance varies from  $100\Omega$  to  $25k\Omega$ . **Please note:** when powering from a battery, inserting a plug into the OUTPUT jack turns on the SSD. Remove the plug from the OUTPUT jack to prolong battery life when not using the SSD.

**EXT. TRIG Jack** – Connect this jack to the output of an external trigger source. We recommend using a  $\frac{1}{4}$ " TS plug/cable but a TRS plug may also be used as long as the trigger signal is present on the tip. The input impedance is  $2M\Omega$ .

The SSD synthesizer triggers when it receives positive-going pulses or clock signals. The acceptable trigger amplitude range is 3V to 15V for unipolar signals or +/-3V to +/-8V for bipolar signals. Nearly all types of gate, clock, and trigger signals that fall within these voltage ranges will trigger the SSD. Some examples of acceptable trigger signals include: electronic drum trigger pads; an electronic pulse (as produced, for example, by the EHX Clockworks); a clock generator (such as the EHX 8 Step Program); gate signals from synthesizers such as V-Trigger; simple clock sync signals from drum machines.

**Please note:** The SSD does not respond to MIDI. Use a MIDI to CV/Gate converter if you wish to trigger the SSD with a MIDI device.

**AUX IN Jack** – This  $\frac{1}{4}$ " jack is the input for an external sound source. The signal present at the AUX IN jack connects to the SSD's internal gated amplifier. When a plug is inserted into the AUX IN jack, the SSD's internal oscillator synthesizer is disconnected from the output. The input impedance is  $2.2\text{M}\Omega$ .

Use AUX IN to gate external instruments and sound sources with the SSD's trigger. Each time you trigger the SSD—whether you use the EXT. TRIG input or the pushbutton—the AUX IN signal will be heard at the OUTPUT jack. Use the TIME knob to set the decay time of the AUX IN signal.

**9V Power Jack** – Although the Super Space Drum accepts 9V Batteries, EHX supplies your SSD with an Electro-Harmonix 9.6DC-200 power supply. Plug the output of the AC adapter into the 9V power jack located at the top of the Super Space Drum. The SSD draws 25 mA at 9VDC with a center negative plug. Please do not exceed 12VDC on the SSD's power jack.

#### - CHANGING THE BATTERY -

To change your 9V battery, remove the four screws on the bottom of the Super Space Drum. Take off the bottom plate and change the battery. Do not touch the circuit board while the bottom plate is off or you risk damaging a component.

## - WARRANTY INFORMATION -

Please register online at http://www.ehx.com/product-registration or complete and return the enclosed warranty card within 10 days of purchase. Electro-Harmonix will repair or replace, at its discretion, a product that fails to operate due to defects in materials or workmanship for a period of one year from date of purchase. This applies only to original purchasers who have bought their product from an authorized Electro-Harmonix retailer. Repaired or replaced units will then be warranted for the unexpired portion of the original warranty term.

If you should need to return your unit for service within the warranty period, please contact the appropriate office listed below. Customers outside the regions listed below, please contact EHX Customer Service for information on warranty repairs at info@ehx.com or +1-718-937-8300. USA and Canadian customers: please obtain a **Return Authorization Number** (RA#) from EHX Customer Service before returning your product. Include—with your returned unit—a written description of the problem as well as your name, address, telephone number, e-mail address, RA# and a copy of your receipt clearly showing the purchase date.

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