



Echo-Nugget by Crucial Audio®



OPERATING INSTRUCTIONS

Crucial Audio®

July, 2009

EN Manual (EC) Rev E
Vacuum Tube EFX Systems

IMPORTANT: READ ALL INSTRUCTIONS BEFORE OPERATING THIS UNIT!

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CAUTION NOTES

- TO PREVENT DAMAGE, FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE.
- DO NOT ALTER THE POWER ADAPTER. AND ONLY USE THE APPROVED AC ADAPTER(S) FOR THIS UNIT.
- UNPLUG THE AC ADAPTER BEFORE CLEANING THE UNIT'S CHASSIS WITH ONLY A DAMP CLOTH. WAIT UNTIL THE UNIT IS COMPLETELY DRY BEFORE RECONNECTING IT TO THE POWER.
- NO USER SERVICEABLE PARTS INSIDE, REFER SERVICING TO QUALIFIED PERSONNEL ONLY.

Your Echo-Nugget™

Congratulations and Thank You for purchasing The Echo-Nugget™ by Crucial Audio®. Your new Echo-Nugget is designed to deliver the warm tone and quality of a tube preamp combined with the classic sound of an Analog Delay. This classic technology is combined with modern manufacturing techniques and standards. Please, refer to the following sections for operational and maintenance information.

Product Features

- ANODIZED EXTRUDED ALUMINUM ENCLOSURE.
- DUAL LAYER FR4 PC BOARD.
- DUAL 12AX7 VACUUM TUBES.
- BBD ANALOG DELAY (UP TO 500MS).
- SWITCH-ABLE OUTPUT LEVEL WITH TONE CONTROL.
- WIDE FREQUENCY RESPONSE
- LOW GAIN/THRU INPUT JACK.
- NO OP AMPS IN AUDIO PATH.
- LOW NOISE DESIGN.
- CAN BE USED AS A STAND ALONE TUBE PRE AMP.
- 1 YEAR LIMITED WARRANTY.
- 16 VAC POWER SUPPLY (INCLUDED).

Top Panel Functions



TIME: Adjusts Delay Time from ~100 to 500 milliseconds (ms).

REPEATS: Feedback control adjusts the number of repeats from 1 to infinite.

MIX: Adjusts the amount of effect (wet) signal with the original (dry) signal.

OUTPUT: Adjusts the overall signal output amplitude when selected. Unity is approximately set to the '2 O-Clock' position.

STONE: Adjusts the tone control from Dark to Bright for the optional **OUTPUT LEVEL** function.

ANALOG DELAY SWITCH: Engages Analog Delay Effect.

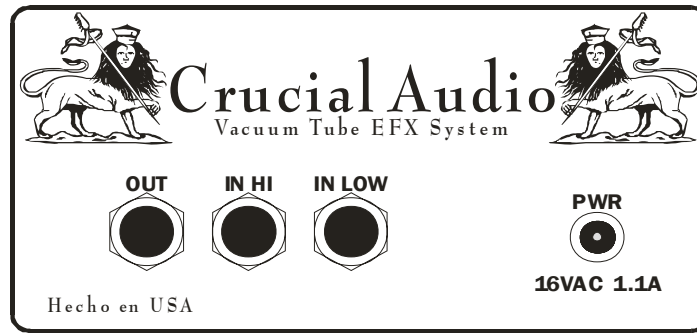
LEDS:

RED Indicates Analog Delay is engaged

YELLOW Indicates Power is on and flashes to the rhythm of the delay time. This can be used to 'optically synchronize' the delay to your desired tempo.

GREEN Indicates the Output Level/Tone controls are engaged.

Side Panel Functions



- OUT:** This unbalanced 1/4" jack provides the output signal to your amplifier, mixing console, or other effect units. NOTE: This output signal is proportionate to the input signal and delivers amplitudes up to 0dBv.
- IN Hi:** This unbalanced, high impedance 1/4" input is optimized for Guitar, and can tolerate input levels up to 0dBv.
- IN LOW:** This unbalanced, high-impedance 1/4" input is optimized for Guitar or other instruments with high-gain or active pickups, and can tolerate input levels up to +12dBv.
- PWR:** This 2.5mm Power Input receptacle is for the provided 16Vac (1.1A) Power Adapter. **IMPORTANT:** *To prevent damage, fire, or shock hazard only use the approved AC power adapter for this unit.*

Specifications

Model:	Echo-Nugget
Power Requirement:	16Vac 1.1A (17.6 Watts)
Input Impedance:	1M Ω
Maximum Input Level:	0dBv
Maximum Output Level:	0dBv
Frequency Response:	20Hz to 20kHz < -3dBv Pass Band Attenuation
Noise Floor:	-100dBv (typ)
Vacuum Tubes:	Two 12AX7A valves (refer to approved tube list)
Footswitch:	Two Heavy Duty 3PDT chassis mounted footswitches
Dimensions:	
Height:	4 in 10.16 cm
Width:	6 in 15.24 cm
Length:	8 in 20.32 cm
Weight:	3 lbs 6.61 kg

Product Specifications are typical and subject to change without notice.

Maintenance

Your Echo-Nugget is designed to be relatively low maintenance and durable. From time to time, it will become necessary to replace the two (2) 12AX7A vacuum tubes. This is a routine task, and Crucial Audio recommends that this only be performed by qualified personnel. Dangerous voltages may be present on the circuit board (even if the unit is unplugged from its power adapter), and the glass vacuum tubes are fragile and can shatter. Please, refer tube replacement to a qualified and authorized technician.

Approved Tube List

The following is a list of approved and tested 9-pin Twin Triode Vacuum Tubes:

Tube Number	Manufacturer
7025SS	RUBY
12AT7CZ	TESLA / JJ
12AU7	SELECTED NOS
12AX7A	TESLA / JJ
12AX7AC5	RUBY
12AX7EH	ELECTRO-HARMONIX
12AX7LP	SOVTEK
12AX7WA	SOVTEK
12AX7WB	SOVTEK
12AY7EH	ELECTRO-HARMONIX

*This list is in alphabetical order, and not necessarily in order of preference.

NOTE: Different tube types can be combined to create different gain levels and sonic qualities. Suggested settings and tube combinations will be available online at www.crucialaudio.com

Product Support & Contact Information

Please, refer all technical support inquiries to Crucial Audio Customer Support. Product information, Frequently Asked Questions, and other information can be found online at www.crucialaudio.com

Contact Information:

Crucial Audio
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Vacuum Tube EFX System Limited Warranty

Crucial Audio LLC warrants that the Crucial Audio product you have purchased shall be free of any defects in parts and workmanship if used under normal operating conditions for a period of one (1) year from the date of purchase, except that vacuum tubes, cables, and other included accessory products are warranted for ninety (90) days from date of purchase. This warranty shall run to the original purchaser or lessee when purchased or leased from an Authorized Crucial Audio Dealer and any transferee of a retail purchaser. **IMPORTANT: PLEASE RETAIN YOUR SALES RECEIPT OR LEASE AS IT IS YOUR PROOF OF PURCHASE COVERING YOUR LIMITED WARRANTY. IF YOU WANT TO TRANSFER THE WARRANTY TO A SUBSEQUENT PURCHASER OF THE PRODUCT YOU MUST ENDORSE THE SALES RECEIPT TO SUCH SUBSEQUENT PURCHASER. THIS LIMITED WARRANTY IS VOID WITHOUT SUCH SALES RECEIPT OR LEASE.**

Defective parts presented during the applicable warranty period with proof of purchase will be repaired or replaced without charge if the complete product is returned to any Authorized Crucial Audio Electronics Service Center within the country it was purchased. Any repair or service performed by any person or entity other than an Authorized Crucial Audio Electronics Service Center is not covered by this limited warranty. Transportation costs are not included in this limited warranty.

This limited warranty becomes void if the serial number on any product is defaced or removed, or the product has been damaged to alteration, misuse, accident, or neglect; or the product has been repaired or serviced by persons not authorized by Crucial Audio. **THE FOREGOING CONSTITUTES THE ONLY WARRANTY MADE BY CRUCIAL AUDIO WITH RESPECT TO THE PRODUCTS AND IS MADE EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES EXPRESS OR IMPLIED.** Any implied warranties, including without limitation, any implied warranties of duration of this limited warranty. Some states do not allow limitations on how long an implied warranty lasts, so the above limitations may not be applicable to you. This warranty applies only to products purchased and serviced within the U.S.A and Canada.

EFFECTIVE DATE: SEPTEMBER 1, 2007