



**OPERATING INSTRUCTIONS**

**Crucial Audio llc®**

OCT, 2015

APOLLO18\_MANUAL Rev A

*Vacuum Tube Interface Module*

**IMPORTANT: READ ALL INSTRUCTIONS BEFORE OPERATING THIS UNIT!**

**Table of Contents**

IMPORTANT: READ ALL INSTRUCTIONS BEFORE OPERATING THIS UNIT!.....2

Table of Contents.....2

CAUTION NOTES.....3

Your Apollo-18 Vacuum Tube Interface Module.....3

Product Features.....3

Top Panel Functions.....4

Side Panel Functions.....5

Right Side Panel.....5

Left Side Panel.....6

Specifications.....7

Maintenance .....8

Product Support & Contact Information.....8

Apollo-18 System Limited Warranty.....9

## CAUTION NOTES

- ◆ TO PREVENT DAMAGE, FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE.
- ◆ NO USER SERVICEABLE PARTS INSIDE, REFER SERVICING TO QUALIFIED PERSONNEL ONLY.

## Your Apollo-18 Vacuum Tube Interface Module

Congratulations and Thank You for purchasing The Apollo-18 by Crucial Audio llc ®. The Apollo-18 a high-voltage vacuum tube interface module. It is designed to provide an interface for two channels of high-impedance line level inputs to a Leslie® 122 or 147 type rotary speaker. The Apollo-18 also provides Volume controls for each input, Bass, Middle & Treble controls, Speed & Stop motor switches, Channel 2 Mute function, high-impedance 1/4" output, and two channels of balanced low-impedance (pre-Volume/pre-EQ) XLR outputs. Please, refer to the following sections for operational and maintenance information.

## Product Features

- ◆ ANODIZED EXTRUDED ALUMINUM ENCLOSURE.
- ◆ SPEED, STOP & MUTE FUNCTION SWITCHING.
- ◆ DUAL 12AX7 VACUUM TUBES.
- ◆ LESLIE® 122 OR 147 TYPE INTERFACE..
- ◆ TREKII® EIS-122 & EIS-147 RELAY COMPATIBLE
- ◆ TWO CHANNEL LOW IMPEDANCE BALANCED OUTPUTS
- ◆ DUAL CHANNEL INPUT WITH 3-BAND EQ.
- ◆ TWO HIGH IMPEDANCE 1/4" INPUT JACKS.
- ◆ HIGH IMPEDANCE 1/4" OUTPUT JACK.
- ◆ LOW NOISE DESIGN.
- ◆ CAN BE USED AS A STAND ALONE TUBE PRE AMP.
- ◆ 1 YEAR LIMITED WARRANTY.

LESLIE® IS A REGISTERED TRADEMARK OF HAMMOND SUZUKI USA.

TREKII® IS A REGISTERED TRADEMARK OF TREKII PRODUCTS, INC.

CRUCIAL AUDIO® LLC IS NOT AFFILIATED WITH HAMMOD SUZUKI USA OR TREKII PRODUCTS INC.

## Top Panel Functions



**VOLUME 1:** Adjusts amplitude for Input 1's signal. (direct/balanced low impedance output is pre volume).

**VOLUME 2:** Adjusts amplitude for Input 2's signal. (direct/balanced low impedance output is pre volume).

**TREBLE:** Adjusts high-frequency amplitude to high-Impedance and rotary speaker outputs.

**MIDDLE:** Adjusts mid rang frequency amplitude to high-Impedance and rotary speaker outputs.

**BASS:** Adjusts low-frequency amplitude to high-Impedance and rotary speaker outputs.

**MUTE CH2 SWITCH:** Mutes Channel 2 input signal to the high-Impedance and rotary speaker outputs, but not the direct/balanced low impedance output.

**STOP SWITCH:** Controls STOP motor function to rotary speaker via motor brake switch cable, or TrekII® Products EIS relay upgrade.

**SPEED SWITCH:** Controls SPEED motor function to rotary speaker via 6 pin rotary speaker cable.

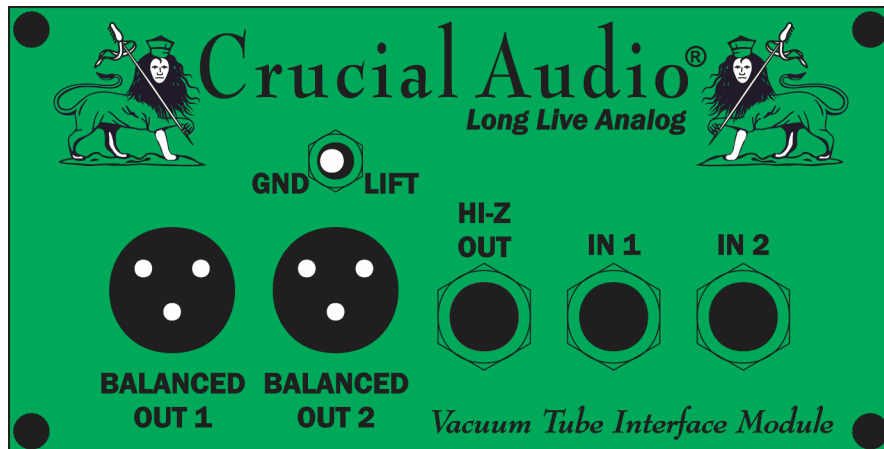
### LEDS:

**MUTE CH2 LED (red):** Indicates *Channel 2 Mute* function is engaged.

**STOP LED (red):** Indicates *STOP* function is engaged.

**SPEED LED (amber/green):** Indicates *SPEED* function, Amber = slow; Green = Fast.

## Side Panel Functions



*Right Side Panel*

**BALANCED OUT 1:** Pre-Volume Vacuum Tube Balanced Low-Impedance Out for Input 1 (pin 2 = positive).

**BALANCED OUT 2:** Pre-Volume Vacuum Tube Balanced Low-Impedance Out for Input 2 (pin 2 = positive).

**GND LIFT SWITCH:** Isolates balanced outputs' chassis ground, to reduce potential ground loops.

**HI-Z OUT:** This unbalanced ¼" jack provides a high impedance output signal to your amplifier, mixing console, or other effect units.

**IN 1:** Unbalanced, high impedance ¼" input is optimized for electronic keyboard line or instrument level outputs. The output level is controlled by Volume 1.

**IN 2:** Unbalanced, high impedance ¼" input is optimized for electronic keyboard line or instrument level outputs. The output level is controlled by Volume 2.



**Left Side Panel**

**POWER SWITCH:** Main AC power switch. Switch to the “up” position to turn power on.

**FUSE HOLDER:** Main power fuse, make sure to replace with same type and value to prevent damage, injury or fire. Fuse = T3A 3AGC

**6-PIN CONNECTOR:** For use with Leslie® 122/142/ or 145/147 Type speaker.  
**WARNING!!!** - Make sure to align six-pin connector with center alignment mark. The protrusion or center mark must be aligned between Leslie® Connector's Pins 1 & 6. Use only with specified/configured rotary speaker. Damage or injury could occur if connected to a non-specified model. See unit's specific left side panel for configuration type. Leslie® is a registered trademark of the Hammond Suzuki USA. Crucial Audio® is not affiliated with the Hammond Suzuki USA.

**STOP:** This high-current 2 position Hi-Rose® connector provides a switched relay for the Leslie® 5-pin stop motor accessory connector. The Crucial Audio® STOP cable assembly required for this option. The STOP function can also be configured for TrekII® EIS Relay system (specify configuration at time of order). This option doesn't require an extra cable, and provides STOP function via the standard 6-Pin connector. Please, note when using the EIS relay option that there is a 'learning mode'. The Apollo-18 must be set to SLOW speed after initial warm up, and before the EIS relay can recognize the STOP function. TrekII® is a registered trademark of the Trek II Products, Inc. Crucial Audio® is not affiliated with TrekII Products, Inc.

**AC POWER CABLE:** 3-Pin Grounded AC Cable for US domestic power. Export options are available. Please, specify at time of order.

## Specifications

Model:	Apollo-18
Power Requirement:	115Vac 360 Wva
Input Impedance:	220 K $\Omega$
Maximum Input Level:	0 dBv
Maximum Output Level:	0 dBv
Frequency Response:	20Hz to 20kHz < -3dBv Pass Band Attenuation
Noise Floor:	-100dBv (typ)
Vacuum Tubes:	Two 12AX7A Valves
Footswitch:	Three Heavy Duty chassis mounted footswitches
Dimensions:	
Height:	4 in    10.16 cm
Width:	6 in    15.24 cm
Length:	10 in   20.32 cm
Weight:	4.5 lbs 2.04 kg

*Product Specifications are typical and subject to change without notice.*

## Maintenance

Your Apollo-18 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 llc 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.

## 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](http://www.crucialaudio.com)

### Contact Information:

Crucial Audio LLC  
PO BOX 277  
Dagsboro, Delaware 19939  
Tel/Fax 1-302-927-0090  
Email: [info@crucialaudio.com](mailto:info@crucialaudio.com)  
URL: [www.crucialaudio.com](http://www.crucialaudio.com)



## Apollo-18 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: OCTOBER 1, 2015**