



Owner's Manual For The

Ultra High Current Amplifier



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Thank you for selecting a Legacy Electronics product. This hand-crafted instrument will provide you with many years of listening enjoyment. Please take a few moments to read this brief manual to insure maximum benefit from your electronic system.

Limited Five Year Warranty

Legacy Audio extends to the original owner coverage of defects in materials and workmanship for a period of five years from date of purchase.

This warranty does not include a) damage in shipment, b) damage caused by accidental or intentional misuse or abuse, c) units not registered with Legacy Audio, d) damage resulting from unauthorized modifications or repairs. Liability is limited to the repair or replacement, at our option, of any defective component and shall not include damage due to short circuits, property and/or consequential damages which may result from the failure of this product.

Customer Record

Model No. _____

Serial No. _____

Date of Purchase ____ / ____ / ____

Owner _____

Street Address _____

City _____ State _____ Zip _____

Designer's Note from Bill Dudleston

The Legacy Ultra High Current is the most exquisite 2 channel amplifier we have built. A balanced interconnection is provided to take advantage of the greater noise rejection it provides. Differential voltage gain throughout provides exceptional rejection of external noise and contributes to the inherent DC stability of the circuit. This allows direct coupling without servo circuitry. The unit also uses output followers operating without feedback.

The front end is designed to provide a slew rate of 50 V/ μ s without entering Class B operation as is common in many other designs. This, in combination with excellent high frequency design, insures linear operation at high speed. The supplies take a very direct approach to high performance. A top quality 1700 VA toroidal transformer and 80,000 μ F of total capacitance with very low ESR and inductance are used in the power supply. Each High Current uses 36 individual output transistors with a linear bandwidth of 10 MHz.

The current stage is capable of producing peak currents in excess of 90 Amperes. This offers a degree of linearity and speed which is not matched by other designs when producing only a fraction of this current. This is achieved by the implementation of several distinct circuit features.

The bias section is designed to produce a precision transition with no abrupt changes in distortion or output impedance. This "Precision Bias" technique yields seamless performance regardless of the complexity of the load impedance. With such linearity and bandwidth no overall feedback correction is used. One advantage of this is a high degree of immunity from interactions with complex speaker loads or cables.



Installation

To properly install the Ultra High Current Amplifier in your audio system, follow these brief steps.

1. Location

To provide for adequate ventilation you should allow at least a couple of inches on each side of the amplifier.

Because of its large power supply, the amplifier produces a local magnetic field that may be picked up by low level circuitry such as preamplifiers, turntables, and the like. For this reason you should also provide about a foot of space between your amplifier and these low level components.

2. Power Connections

Be certain all associated equipment is turned off before making any connections.

Position your amplifier as near the final location as possible while leaving sufficient access to its rear panel connectors. Check that the amplifier is turned off by pressing the rocker switch on the left side.

Insert the power cord into the AC LINE INPUT on the back panel and then connect it to an appropriate power source.

3. Input Connections

Signal input from your preamplifier is made through one gold plated RCA (unbalanced) or one XLR (balanced) type connector per channel. **Do not use both RCA and XLR connectors at the same time as they will load each other improperly.**

4. Output Connections

Signal output to your speaker is made through heavy duty gold plated five way binding posts that are doubled up to provide bi-wiring capability. Be sure of correct speaker phasing by matching the + on the amplifier to the + on the speaker and the - on the amplifier to the - on the speaker.

5. Electrical Protection

The AC line voltage is preset at the factory but may be changed by your Legacy dealer. Also, there is an AC line fuse and internal rail fuses, but these too should be changed by your Legacy dealer since the failure of these parts may indicate a further problem.

Care

If you wish to clean your Ultra High Current Amplifier, use a diluted ammonia based window cleaner. Do not use any abrasive cleaners or chemical solvents. Take care not to damage the aluminum faceplate, since aluminum is a medium hardness metal and can be scratched by the careless use of tools during the installation.

The Ultra High Current may overheat and the finish may fade if exposed to direct sunlight or intense heat sources for prolonged periods.

Save your box and packing material; they may be necessary for moving or shipping the unit for servicing by the factory.

Specifications

Bandwidth: CD to -3dB @ 100kHz

Distortion: < .05% (actual type .025)

Gain: 26dB

Power Supply: 1700VA toroidal transformer and eight 10,000 μ F 100 volt capacitors

Noise: More than 100dB referenced to rated output.

Input Impedance: 50k Ohms unbalanced

Output Impedance: 0.08 ohms from 20Hz to 20kHz

Slew Rate: 50 Volts/microseconds

Rated Power:

300 Watts/channel, 20Hz to 20kHz, into 8 ohms.

600 Watts/channel, 20Hz to 20kHz, 4 ohms.

Dimensions:

Faceplate: 17" W x 5 1/2" H

Chassis: 16 3/4" W x 6" H x 14" D

Shipping Weight: 50 pounds

Current Capability: 90 Amperes peak