

LEGACY

Owners Manual For The  
**Ultra MonoBloc**  
Amplifier System



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## **Owners Record**

The model and serial numbers are located on the rear of the unit. Record these numbers in the spaces provided below. Refer to them when calling upon your dealer regarding this product.

Model No. \_\_\_\_\_

Serial No. \_\_\_\_\_

Date of purchase: \_\_\_\_\_

Thank you for selecting a Legacy Audio System. Please take a few moments to read this brief manual to insure maximum benefit from your electronic system.

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## Unit Connections

To properly install the Ultra MonoBloc 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.

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## Unit Connections

### 3. Input Connections

Signal input from your preamplifier is made through one gold plated RCA (unbalanced) or one XLR (balanced) type connector.

**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.

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## Unit Care

If you wish to clean your Ultra MonoBloc, use 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 MonoBloc 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.

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## Designer's Note (From Bill Dudleyston)

The Legacy Ultra MonoBloc is the most exquisite 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/ $\mu$ 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  $\mu$ F of total capacitance with very low ESR and inductance are used in the power supply. Each Monobloc uses 36 individual output transistors with a linear bandwidth of 10 MHz.

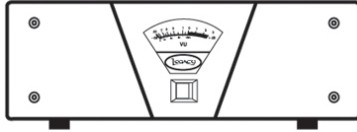
## Designer's Note (From Bill Dudleston)

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.





# Specifications



**Bandwidth:** CD to -3dB @ 100 kHz

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

**Gain:** 26dB

**Power Supply:** 1700VA toroidal transformer and eight 10,000  $\mu$ F  
100 volt capacitors

**Noise:** More than 100 dB referenced to rated output.

**Input Impedance:** 50 k ohms unbalanced

**Output Impedance:** 0.08 ohms from 20Hz to 20 kHz

**Slew Rate:** 50 Volts/microseconds

**Rated Power:**

600 Watts/channel, 20 Hz to 20 kHz, into 8 ohms

1200 Watts/channel, 20 Hz to 20 kHz, 4 ohms

**Dimensions:**

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

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

**Weight:** 58 pounds

**Current Capability:** 90 Amperes peak



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