

REFERENCE MANUAL
- MANLEY 160 MONOBLOCK -



HANDBUILT IN THE UNITED STATES OF AMERICA

INTRODUCTION

Thank you for selecting the Manley 160W Monoblocks.

Please read through this reference manual so you will know how to operate your Manley 160W monoblocks properly. After you have finished reading the instructions put them in a safe place for future reference.

We wish you many hours of musical pleasure!

GENERAL NOTES

HEED WARNINGS

All warnings on the amplifier and in the reference manual must be adhered to.

FOLLOW INSTRUCTIONS

All operating and use instructions in the reference manual must be followed.

WATER & MOISTURE

The amplifier should not be used near water or moisture.

LOCATION & VENTILATION

The amplifier must be installed in a stable location and should be situated such that its location does not interfere with its proper ventilation. If the amplifier is placed in a built-in installation ensure that there is adequate room for a supply of air to flow through the ventilation openings. Do not site the amplifier next to heat sources such as radiators, stoves or other appliances.

POWER SOURCES

The amplifier should be connected to a supply only of the type described in this reference manual or as marked on the amplifier.

SERVICING

The user should not attempt to service the amplifier beyond that described in the reference manual. For all other servicing contact the Manley service department.

WARNING

**TO PREVENT THE RISK OF ELECTRIC SHOCK DO NOT OPEN
THE CABINET - REFER SERVICING TO
QUALIFIED PERSONEL**

MAINS CONNECTION

Your amplifier has been factory set to the correct mains voltage for your country. The voltage setting is marked on the serial badge, located on the rear panel. Check that this complies with your local supply.

Export units for certain markets have a moulded mains plug fitted to comply with local requirements. If your unit does not have a plug fitted the coloured wires should be connected to the appropriate plug terminals in accordance with the following code.

GREEN/YELLOW	EARTH	terminal
BLUE	NEUTRAL	terminal
BROWN	LIVE	terminal

As the colours of the wires in the mains lead may not correspond with the coloured marking identifying the terminals in your plug proceed as follows:

The wire which is coloured GREEN/YELLOW must be connected to the terminal in the plug which is marked by the letter E or by the safety earth symbol or coloured GREEN or GREEN and YELLOW.

The wire which is coloured BLUE must be connected to the terminal in the plug which is marked by the letter N or coloured BLACK.

The wire which is coloured BROWN must be connected to the terminal in the plug which is marked by the letter L or coloured RED.

DO NOT CONNECT/SWITCH ON THE MAINS SUPPLY UNTIL ALL OTHER CONNECTIONS HAVE BEEN MADE.

CONNECTING YOUR AMPLIFIER

Setting up your amplifier is rather easy.

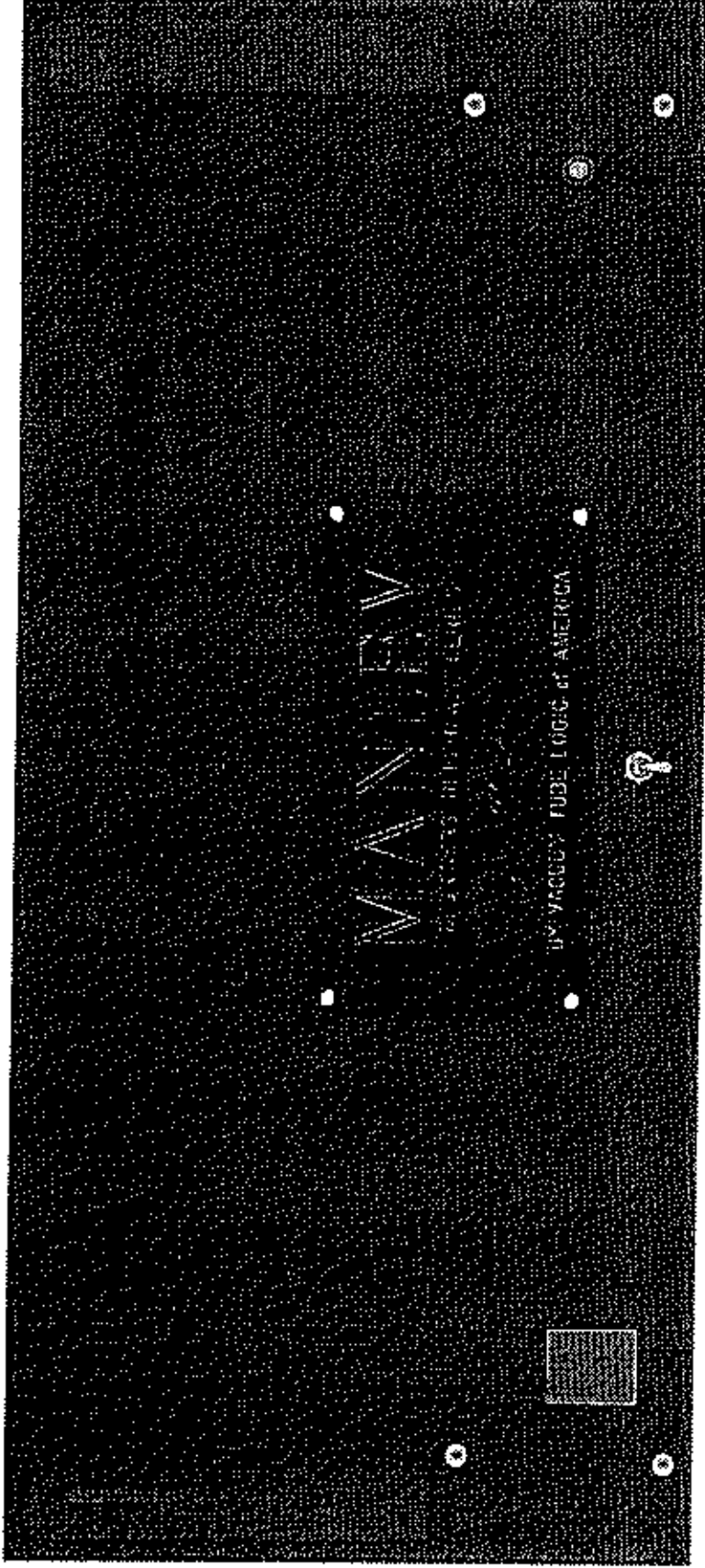
1. Connect all source components (turntable, CD, Tuner, Tape DAT, etc.) to your preamplifier.
2. Connect the interconnects from the output of the preamplifier or switching center to RCA input.
3. Connect the hot or "+" speaker cable to the top binding post and the common or "-" speaker cable to the bottom binding post (See diagram III). Ensure that the other end of the cable is connected correctly to the speaker. Tighten the binding posts by hand. If you use a nut-driver (3/8") **do not over-tighten** the posts or you may break the connection inside the amplifier.
4. Turn on Preamplifier and any source components you plan to use.
5. Ensure that the "mains" switch on the front panel is in the "off" or "0" position.
6. Plug amplifier into wall outlet.
7. Turn on one amplifier at a time so as not to trip a circuit breaker or blow a fuse.
8. Turn up the volume and enjoy.

FRONT PANEL

Your MANLEY 160 front panel is depicted in diagram 1.

The large rocker switch engages power to the unit when switched in the up position. The red LED on the right of the panel will illuminate when the unit is powered and running.

The small toggle switch located in the middle of the panel places the amplifier in triode or tetrode. The switch, when in the down position, operates the amplifier in tetrode, providing the greatest amount of power. The switch, when in the up position, operated the amplifier in triode. When in triode, the unit has approximately half the power of tetrode, however, most feel that tubes running in triode perform better sonically. Let your ears make the decision!



POWER SWITCH
(UP ON)

TETRODE / TRIODE SWITCH
(UP FOR TRIODE)

POWER INDICATOR


FRONT PANEL

MANLEY 160

DIAGRAM 1

TOP VIEW

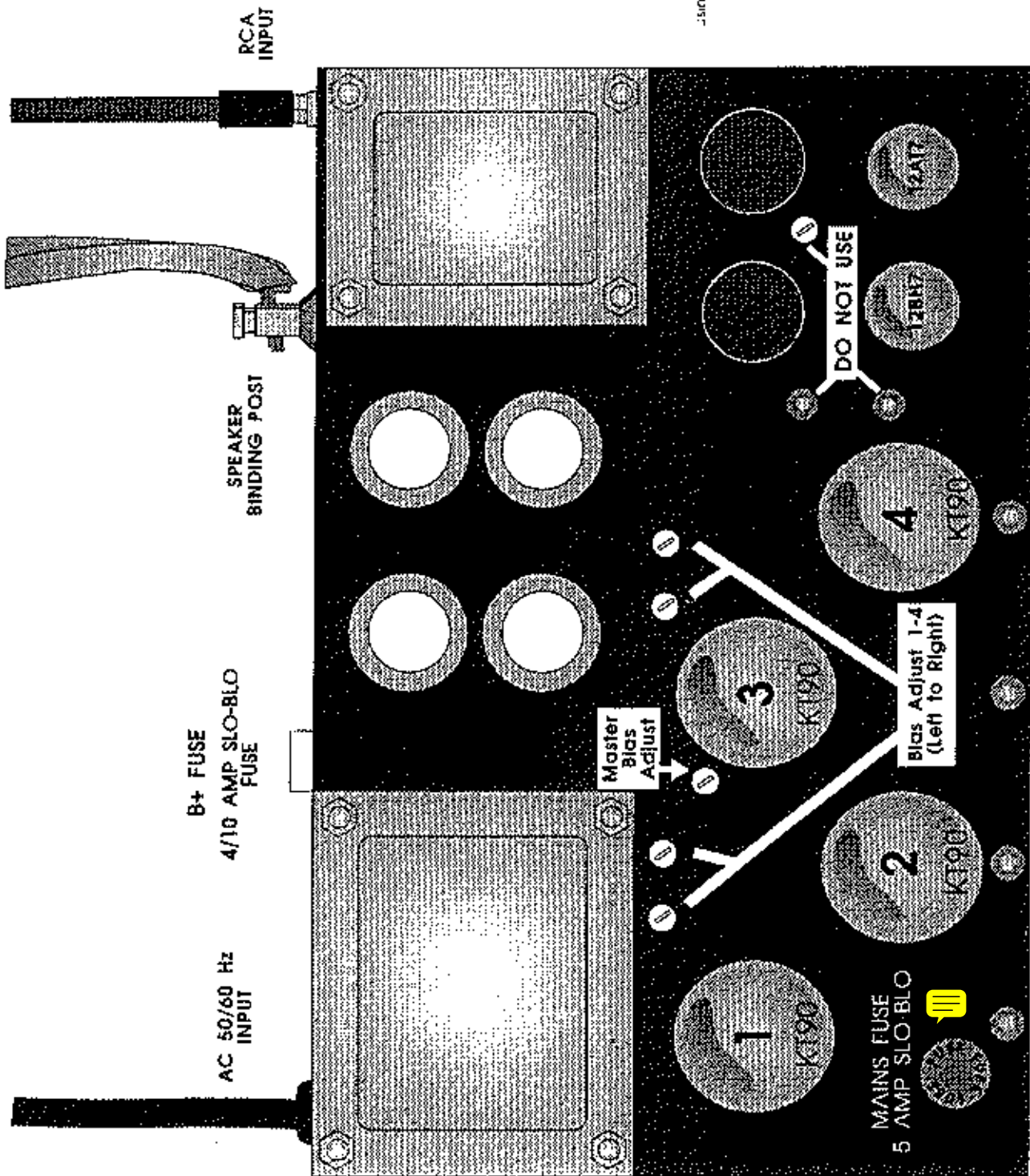
Bias adjustment and measurement is made via the top of the amplifier. Since tube bias current varies with use, it is important to measure the bias on a regular basis (Monthly). Please refer to the section on biasing the amplifier in this manual.

The fuse holder on the top panel is designed to protect the amplifier from unexpected failure. If the fuse should blow, replace it with only a 5 AMP SLKO-BLO fuse. 

Be certain to use only KT90's as the output tubes in this unit and that the driver tube is a 12BH7 and the input tube is a 12AT7.

DO NOT ADJUST THE CONTROL LOCATED BETWEEN THE INPUT AND DRIVER TUBE. THIS ADJUSTMENT IS PRESET AND SHOULD NOT BE ALTERED.

TOP VIEW MANLEY 160



Using 2 voltmeter: negative probe to ground
adjust BIAS ADJUST until 1200V
at measurement points #1,2,3,4

The MASTER BIAS ADJUST will not be changed
but this should not be changed

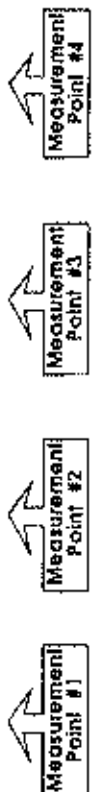


DIAGRAM II

REAR PANEL

The RCA connector is on the left of the panel as depicted in diagram III. A standard RCA cable could connect your preamp to your amplifier via this connector.

The speaker binding post are identified by color. The red binding post is positive and should be connected to the positive terminal of your speaker. The black binding post is negative and should be connected to the negative terminal of your speaker.

The fuse holder located in the middle of the rear panel is designed to protect your amplifier from excessive current draw by the output tubes. If this fuse should "blow" replace only with the identical size and type fuse. If the fuse happens to blow often, check your tube biases as explained in this manual. A blown B+ fuse is often the sign of a bad or worn out tube.

The AC cord should be connected to a 50 to 60 Hz outlet. The rear panel of the amplifier should tell you the voltage setting for proper operation.



MANLEY 160 REAR PANEL

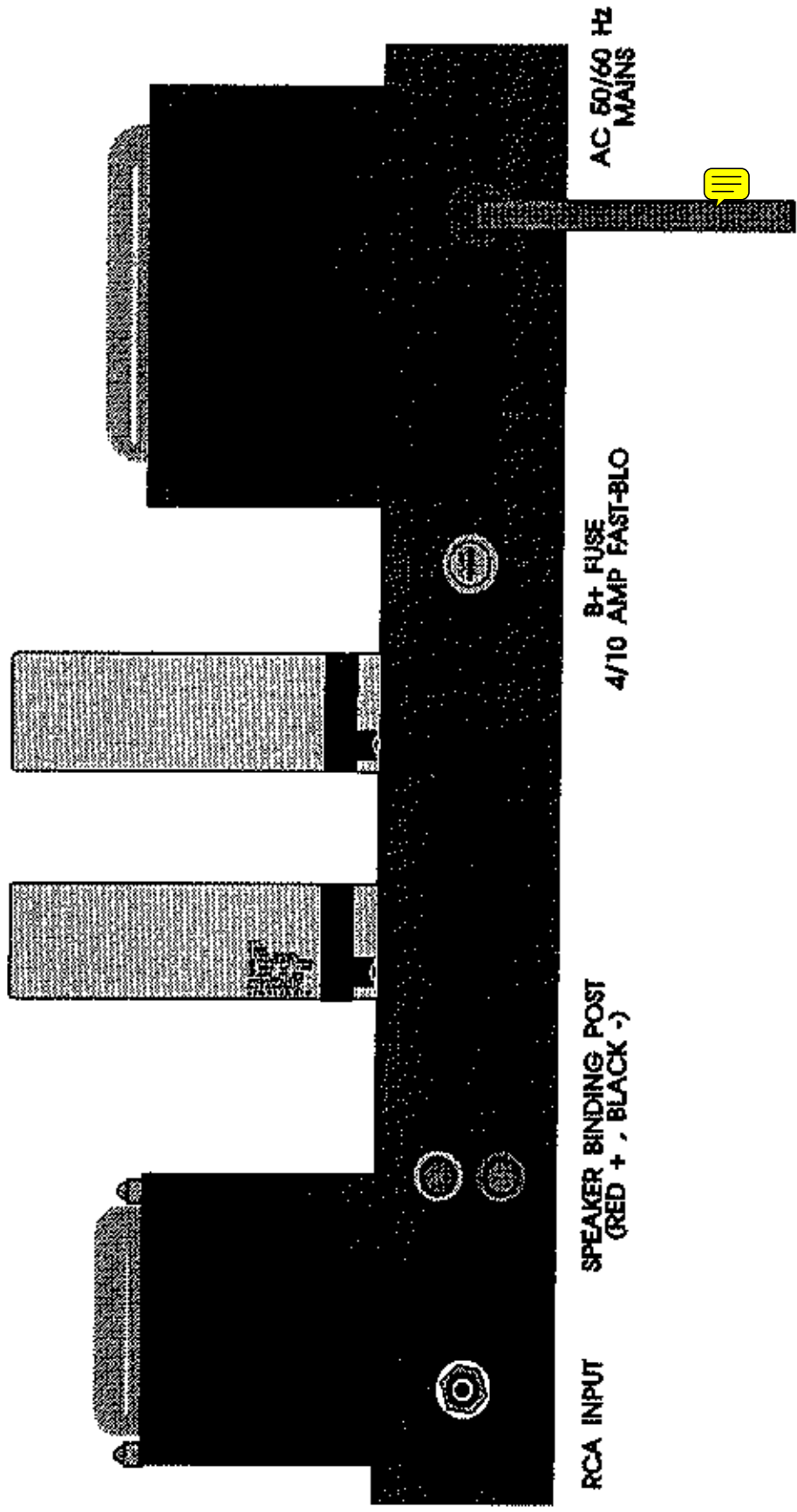


DIAGRAM III

BIAS PROCEDURE

Your amplifier uses a fixed bias system that requires very little attention. If you wish to adjust or check the bias you will require a voltmeter and a suitable load on the speaker outputs (your existing speakers form an ideal load)..

Refer to diagram II for the necessary procedure to measure the bias.



If a tube fails in the circuit it may automatically blow the B+ fuse which is located at the rear of the amplifier. This must be replaced when the replacement tube has been fitted.

If you have difficulty in measuring the bias or do not feel comfortable in doing so, please refer the duty to a competent technician or your dealer.

WARNING ELECTRIC SHOCK HAZARD - LETHAL VOLTAGES EXSIST WITHIN THE EQUIPMENT EVEN AFTER THE UNIT HAS BEEN DISCONNECTED FROM THE MAINS SUPPLY.

UNDER NO CIRCUMSTANCES SHOULD AN UNQUALIFIED PERSON REMOVE COVERS OF AN AMPLIFIER.

**DO NOT TOUCH THE TUBES WHEN THE UNIT IS IN OPERATION
EXTREMELY HIGH TEMPERATURES EXSIST - BEFORE SERVICING OR
REPLACING TUBES ALLOW THE EQUIPMENT TO COOL DOWN.**

SPECIFICATIONS

AMPLIFIER: MANLEY 160 MONOBLOCK

TUBES: KT90 - OUTPUT, 4 REQUIRED
12BH7 - DRIVER, 1 REQUIRED
12AT7 - INPUT, 1 REQUIRED

POWER OUTPUT TRIODE 110 WATTS INTO 50 OHM LOAD
TETRODE 180 WATTS INTO 50 OHM LOAD

FREQ. RESPONSE 10Hz - 40KHz +/- 0.5 dB @ 1Watt

INPUT SENSITIVITY 1 Volt

INPUT IMPEDENCE 82.5 KOHMS

POWER CONSUMPTION QUIESCENT 150 WATTS
FULL POWER 380 WATTS in tetrode with 8 Ohm load
FULL POWER 260 WATTS in triode with 8 Ohm load

DIMENSIONS 8 (D) x 15.8 (W) x 6.7 (H) inches

WEIGHT 28 lbs

