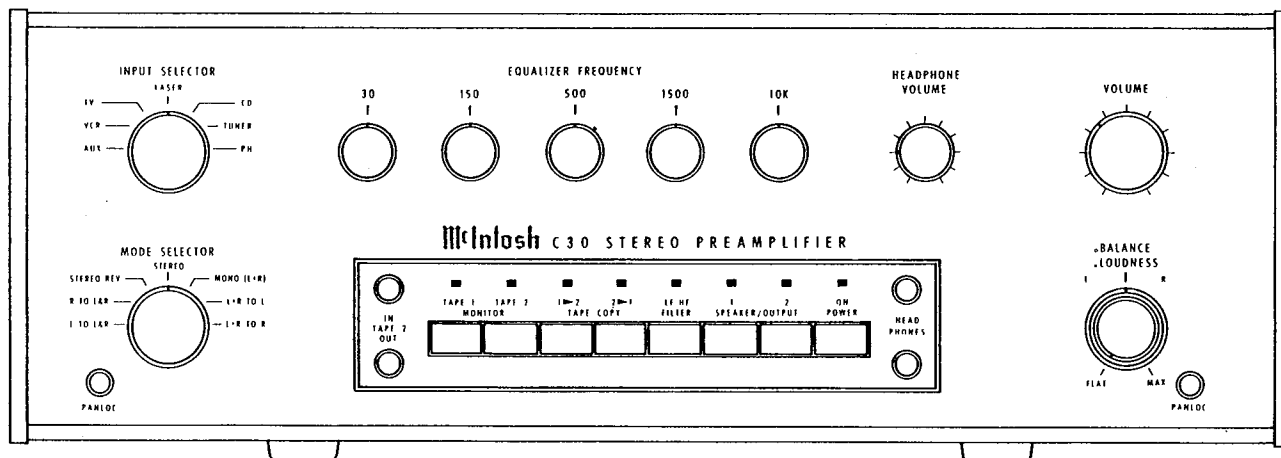


C30

STEREO PREAMPLIFIER



CONTENTS

Performance Specifications.....	2	Section 4 — Input and Mode Switch.....	24-26
Front and Top Views.....	3	Section 5 — Loudness and Balance.....	27-28
Rear View.....	4	Section 6 — Equalizer.....	29-33
General Notes.....	4	Section 7 — Outputs and Power Supply.....	34-39
Block Diagram.....	5-6	Equalizer Amp.	
Section Locations.....	7	Headphone Amp.	
Interconnection Diagram Parts List.....	8	Turn on Delay	
Front Panel and Trim Parts List.....	8	Power Supply	
Installation Hardware Parts List.....	8	Switched Outputs	
Section 1 — Interconnection Diagram.....	9-11	High and Low Filters	
Section 2 — Signal Switching		Tape Control	
(left channel).....	12-17	Section 8 — Auto-on.....	40-42
Phono Amp.		Repacking Instructions.....	43
Mono Switching			
Tape Output Switching			
Tape Copy Switching			
Section 3 — Signal Switching			
(right channel).....	18-23		
Phono Amp.			
Mono Switching			
Tape Output Switching			
Tape Copy Switching			

Performance Specifications

FREQUENCY RESPONSE

+0, -0.5dB from 20Hz to 20,000Hz

MAXIMUM VOLTAGE OUTPUT

Main and Tape Output- 10V from 20 to 20,000Hz
Line / Headphone Output- 9V (1.3V with 8 ohm headphones) from 20 to 20,000Hz

TOTAL HARMONIC DISTORTION

.007% maximum from 20 to 20,000Hz at 2.5V rated output

SENSITIVITY

Phono- 2mV for 2.5V rated output (0.4mV IHF)
High Level- 200mV for 2.5V rated output (40mV IHF)

SIGNAL TO NOISE RATIO, A-WEIGHTED

Phono- 90dB below 10mV input (84dB IHF)
High Level- 100dB below rated output (86dB IHF)

MAXIMUM INPUT SIGNAL

Phono- 100mV
High Level- 10V

INPUT IMPEDANCE

Phono- 47k ohms and 65pF capacitance
High Level- 22k ohms

VOLTAGE GAIN

Phono to Tape- 40dB
Phono to Main- 62dB
Phono to Headphone / Line- 68dB
(51dB with 8 ohm headphones)
High Level to Tape- 0dB
High Level to Main- 22dB
High Level to Headphone / Line- 28dB
(11dB with 8 ohm headphones)

EQUALIZATION CONTROL

Variable 12dB boost to 12dB cut at center frequencies of 30, 150, 500, 1500, 10kHz

LF-HF FILTER

Flat or roll-off at 12dB per octave below 50Hz and above 7,000Hz

General Information

SEMICONDUCTOR COMPLEMENT

28 Bipolar Transistors
66 Field Effect Transistors
15 Integrated Circuits
91 Diodes
1 Silicon Controlled Rectifier (SCR)

AC POWER OUTLETS

1 Turntable current-sensing, green, 100 watts
6 Switched, black, and 1 unswitched, red, 1200 watts total

POWER REQUIREMENTS

120 volts, 50/60Hz, 25 watts

Mechanical Information

WEIGHT

18 pounds (8.2kg) net, 30 pounds (13.6kg) in shipping carton

Front and Top Views

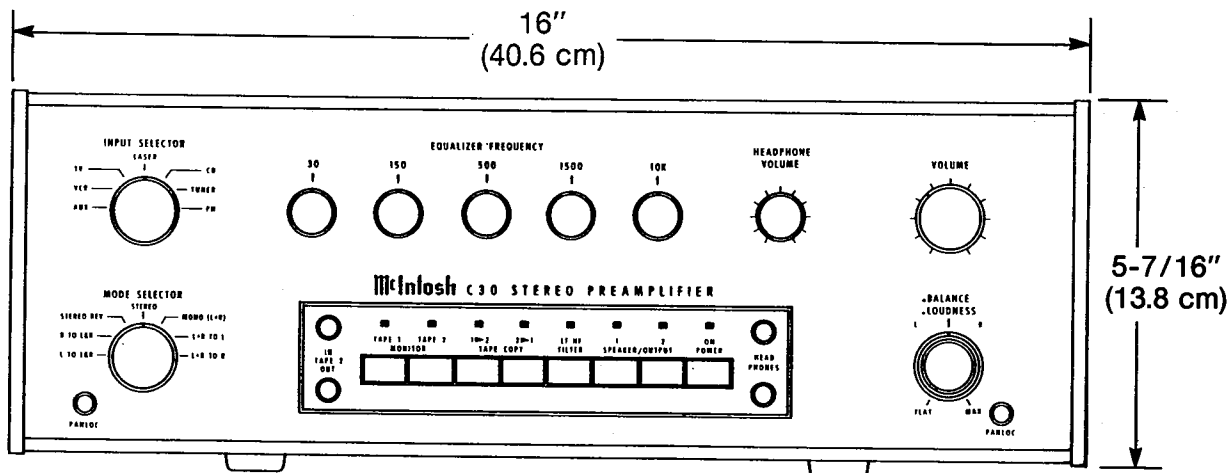


Fig. 1. Front View

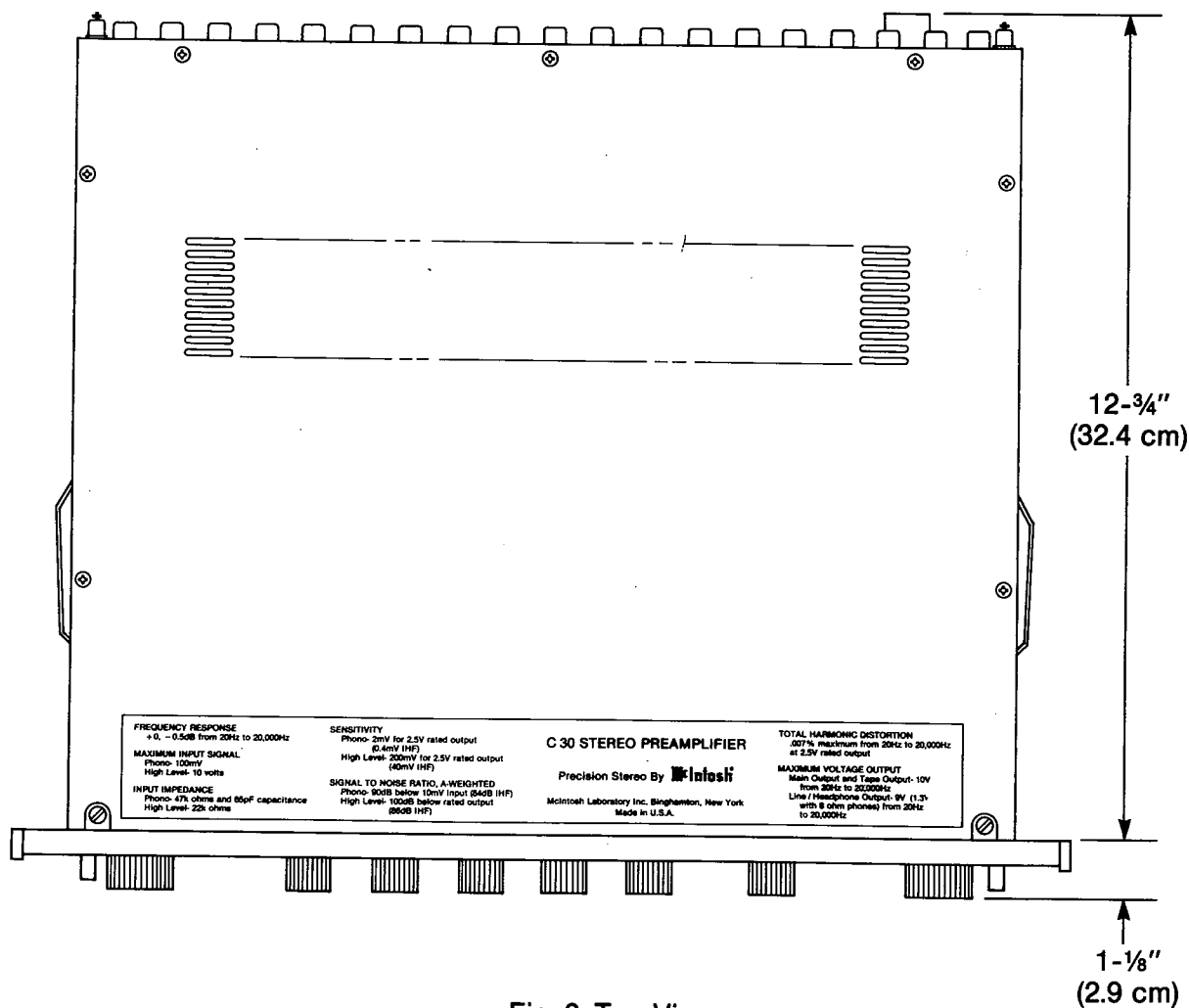


Fig. 2. Top View

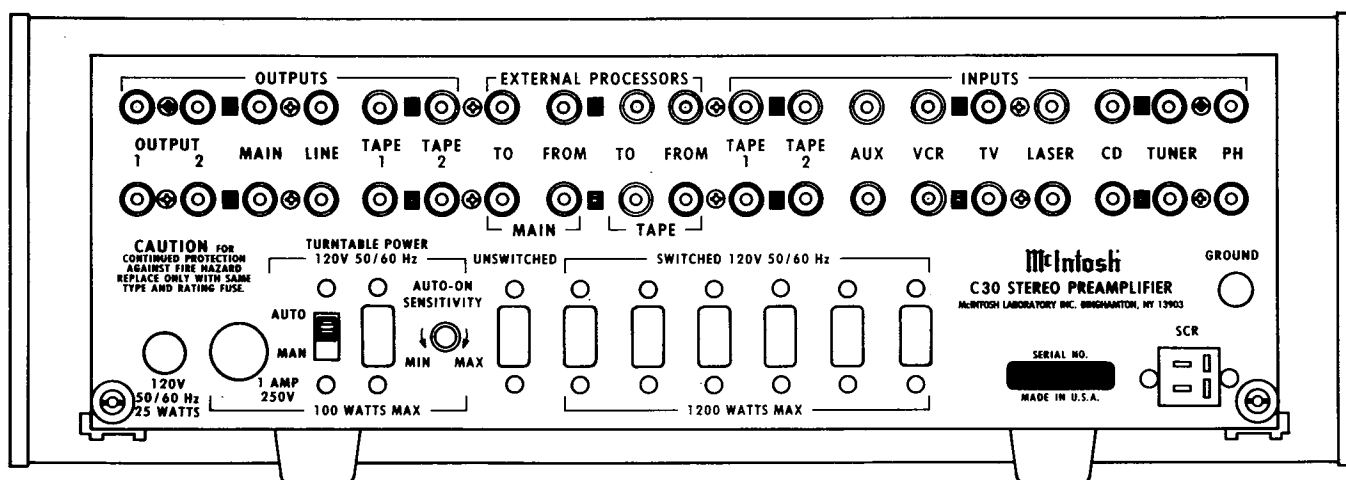


Fig. 3. Rear View

General Notes

1. Unless otherwise noted, all voltages indicated on the schematics are measured under the following conditions:

- a. AC input at 120 volts, 50/60 Hz.
- b. All voltages are $\pm 20\%$ with respect to ground except for the regulated circuits in the power supply. A high impedance voltmeter must be used.
- c. The voltages enclosed in a box (sections 2, 3, 5 and 7) are signal voltages that are measured with a 2mV, 1kHz signal connected to both channels of the PHONO 1 input jacks.
- d. Front panel controls are set at:
 INPUT SELECTOR.....AUX
 MODE.....STEREO
 EQUALIZERS (5).....CENTER DETENT
 HEADPHONE VOLUME.....FULLY CW
 VOLUME.....FULLY CW
 BALANCE.....CENTER DETENT
 LOUDNESS.....FLAT
 PUSHBUTTONS (7).....OUT
 POWER.....ON

2. Unless otherwise specified:

- a. Resistor values are in ohms.
- b. Capacitor values smaller than 1 are in microfarads (μF), and capacitance values greater than 1 are in picofarads (pF).
- c. Inductor values are in micohenries (μH).

3. Symbols used in this manual are in conformance with the book "Electrical and Electronics Graphic Symbols and Reference Designations" published by the IEEE. Some important symbols are described below:

- | | |
|--|--|
| | Plug disconnect (pin 2) |
| | Solder connection (pin 2) |
| | Section number reference.
Wire connects to pin 18 of Section 4. |
| | PC board ground |
| | Chassis ground |

Section
Locations

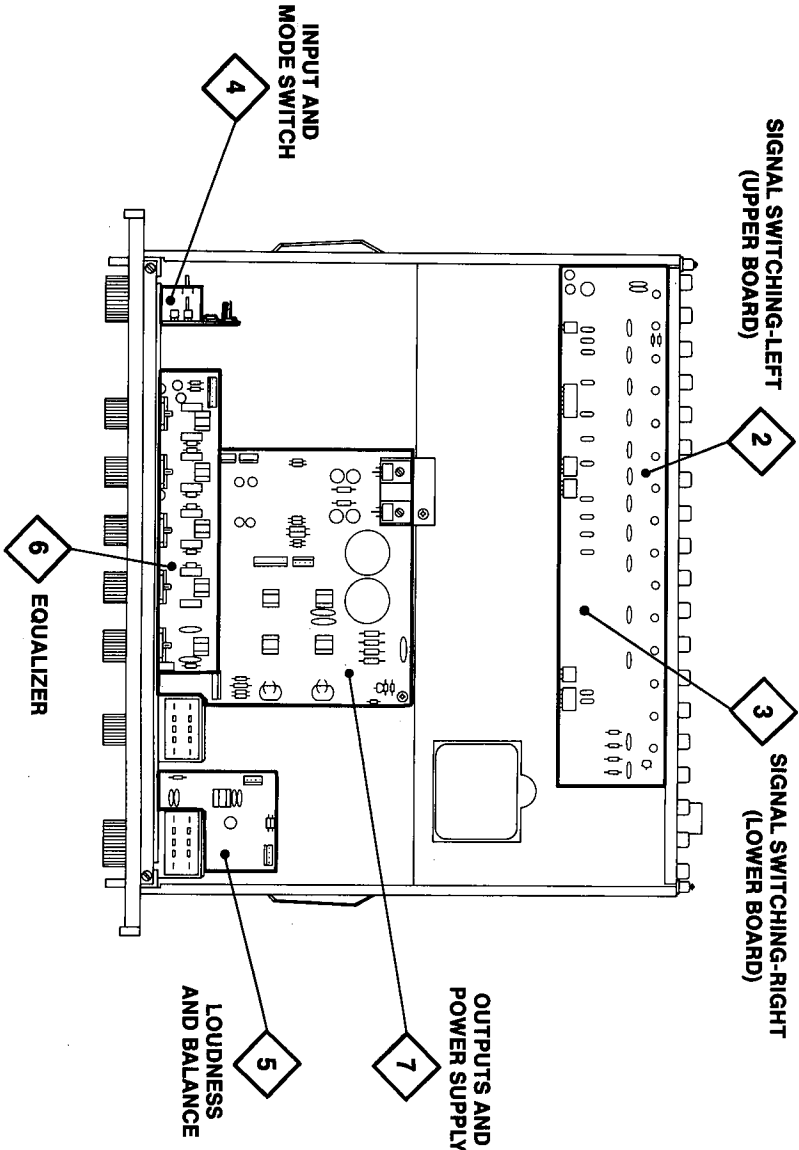


Fig. 4. Top view with cover removed

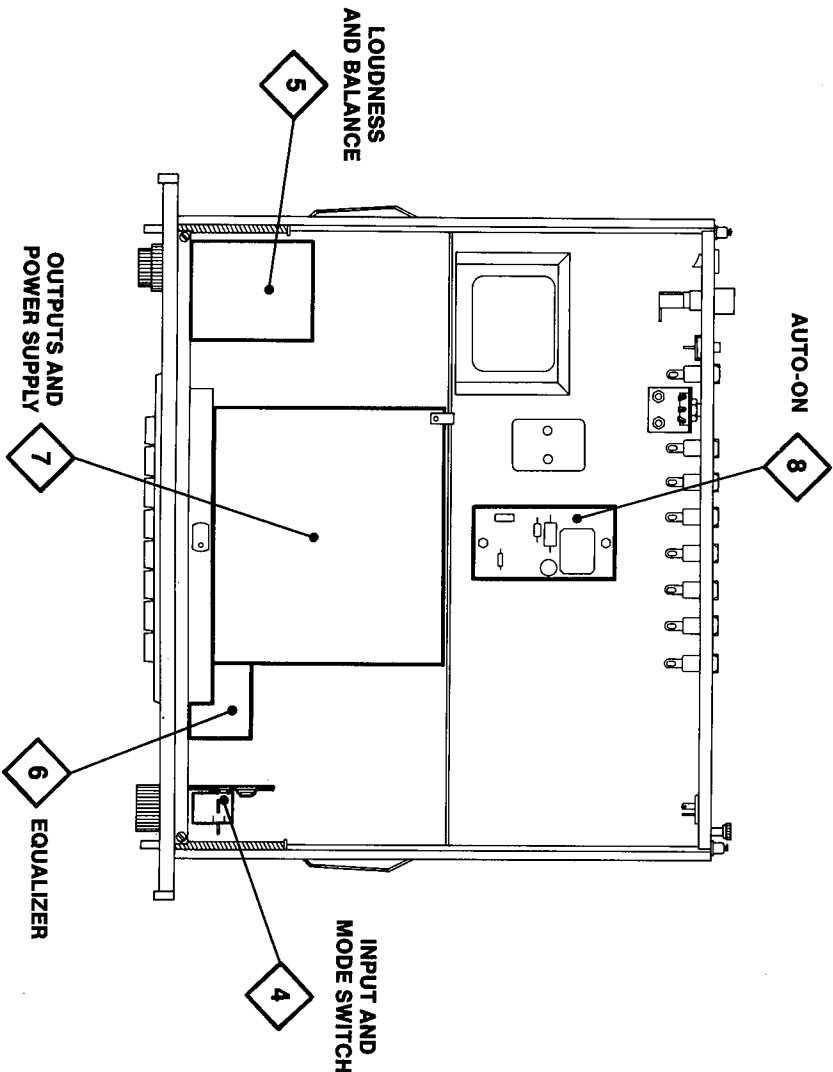


Fig. 5. Bottom view with cover removed

INTERCONNECTION DIAGRAM
PARTS LIST

Symbol	Part No.	Description
FUSES		
F1	089007	Fuse, SB, 5A, 125V, MDL-5
F2	089020	Fuse, SB, 0.5A, 250V, MDL-1/2
F3	089002	Fuse, FA, 1A, 250V, AGC-1
RESISTORS (POT = Potentiometer)		
R1	134395	POT, 100K Ω , Volume Control
R2	134365	POT, 50k, Volume Control
R3	134400-134429	POT, Auto-on Adjust
SWITCHES		
S1	148043	Auto-on Switch
TRANSFORMERS		
*T1	159157	Power

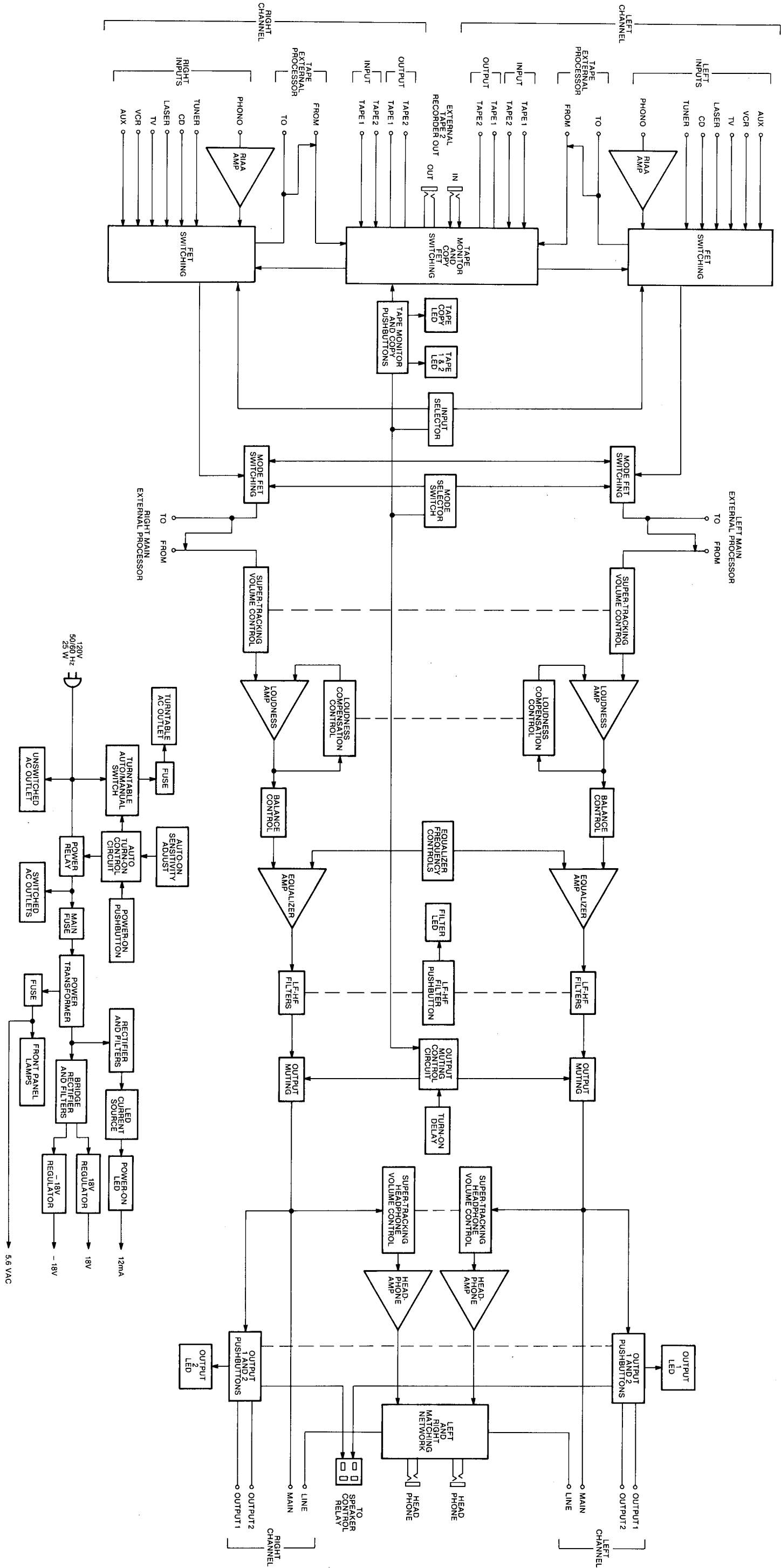
INSTALLATION HARDWARE
PARTS LIST

Part No.	Description
017156	Plastic foot, secure w/101089 screws
038179	Mounting template
043401	Mounting strips
045261	Panloc shelf bracket, right
045262	Panloc shelf bracket, left
045142	Hardware package
101089	Sheet metal screw, #8 x 5/8", Phillips, Black

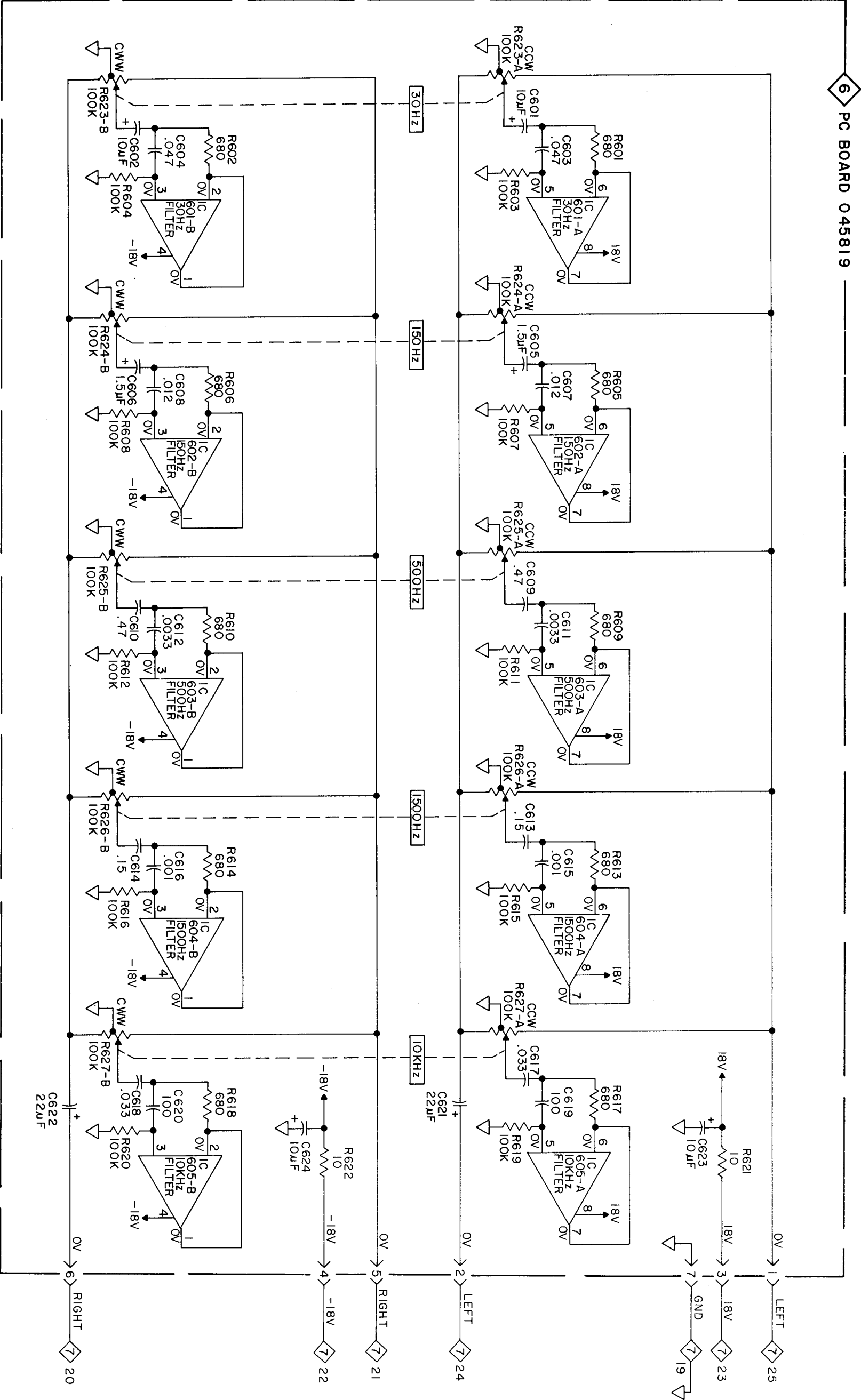
FRONT PANEL & TRIM
PARTS LIST

Part No.	Description
046203	Front panel, glass
046204	Front panel, complete
018155	Top panel rail, secure w/100007 screws
043410	Bottom panel extrusion, secure w/100103 screws
018348	End cap, secure w/101035 screws
100007	Machine screw, #6-32 x 1/4"
100103	Machine screw, #6-32 x 1/8"
101035	Tapping screw, #4-40 x 5/16", fillister head

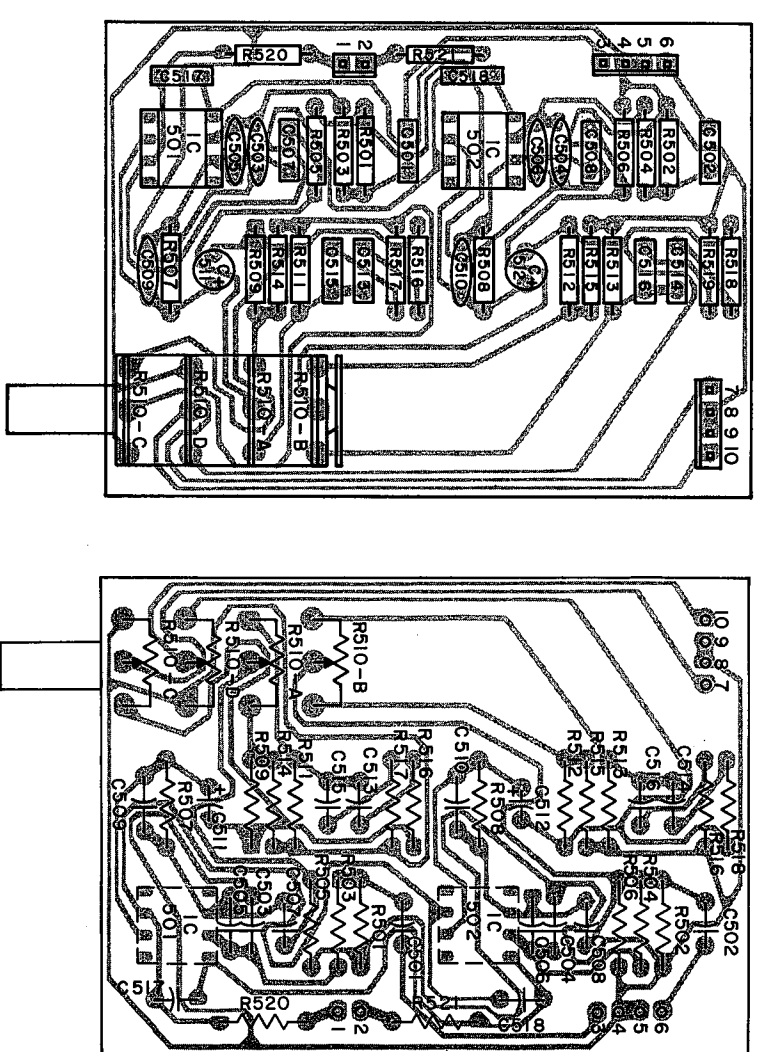
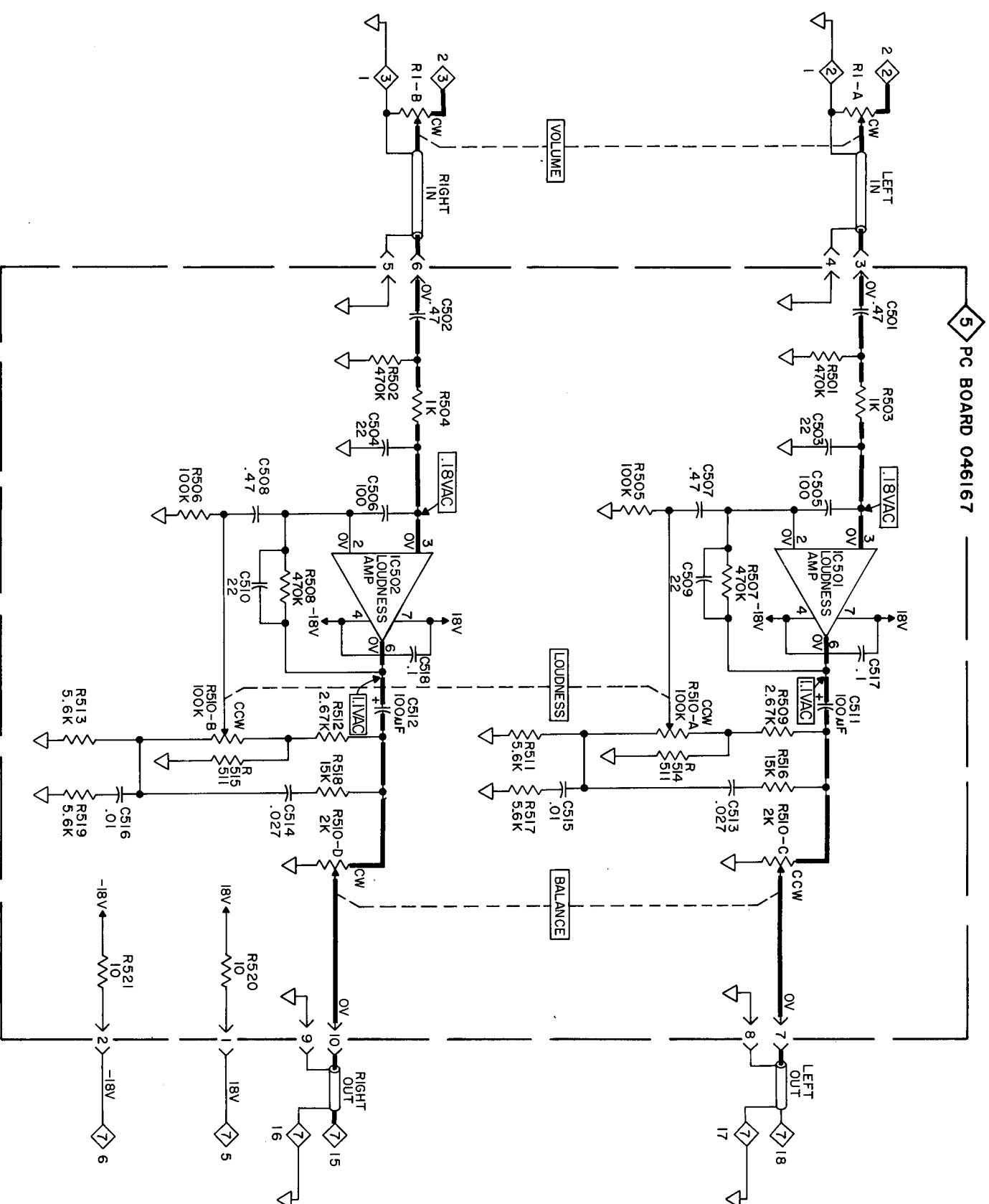
Block Diagram



6 Equalizer



Loudness and Balance



LOUDNESS AND BALANCE PCB 046167



IC501-IC502

LOUDNESS AND BALANCE PARTS LIST

Symbol	Part	Description
No.	No.	
INTEGRATED CIRCUITS		
IC501	133066	Operational Amp, NE5534N
IC502	133066	Operational Amp, NE5534N
RESISTORS (POT = Potentiometer)		
R510	134397	POT, Balance/Loudness

Repacking Instructions

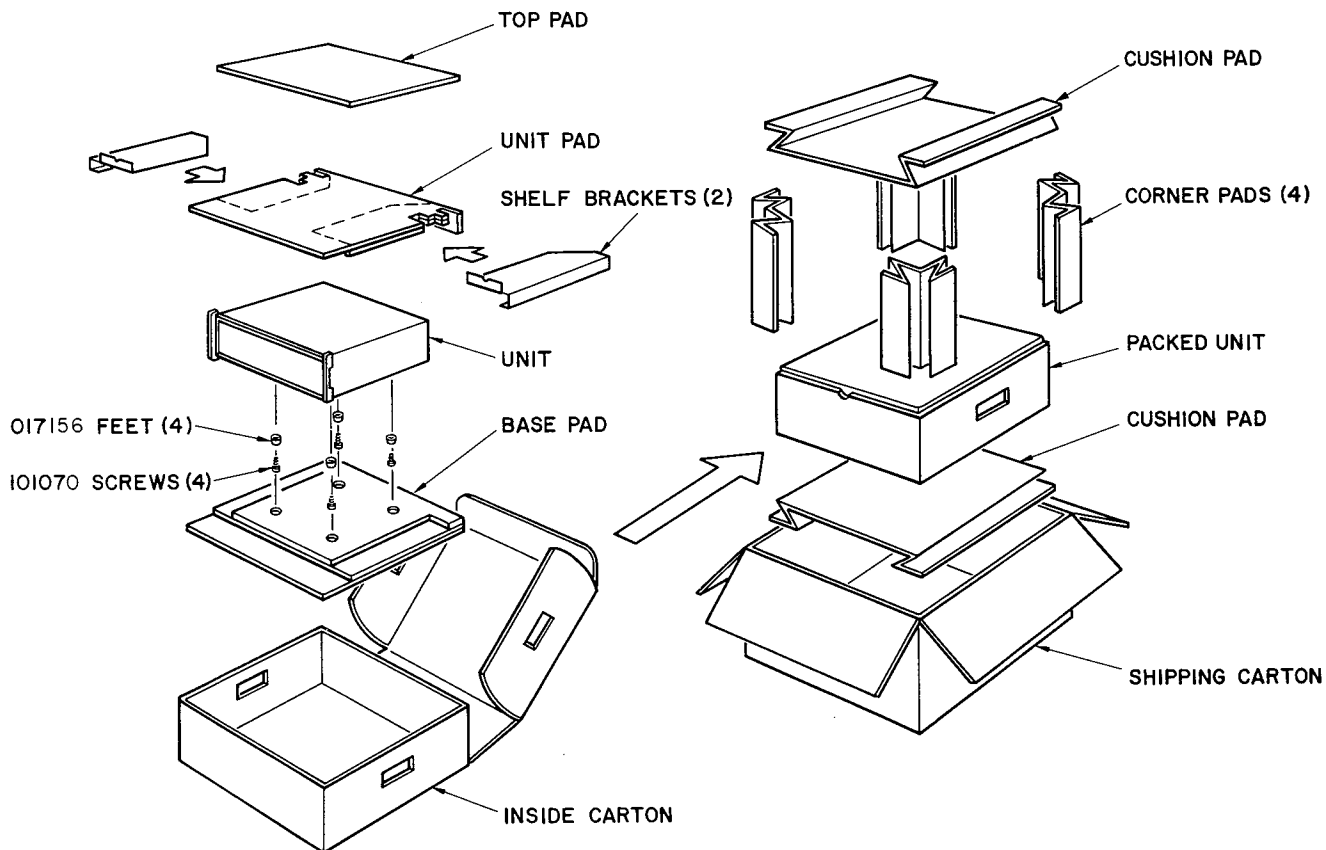
In the event it is necessary to return the C30 to McIntosh Laboratory for service, the unit must be packed exactly as shown below. It is not necessary to return the shelf brackets, although their position in the carton is shown.

The four plastic feet must be attached to the bottom of the C30 so they will locate in the four holes of the base pad.

If a shipping carton is needed, please call or write the Customer Service Department of McIntosh Laboratory. Order using the part numbers on the accompanying list.

Use the original shipping carton only if all pads and cartons are in good serviceable condition.

QTY	PART NO.	DESCRIPTION
1	033466	Shipping carton only
1	033331	Top pad
1	033330	Unit pad
1	033259	Base pad
1	033118	Inside carton
2	033332	Cushion pad
4	033333	Corner pads
4	017156	Plastic feet
1	046463	Shipping carton, complete
4	101070	Screws for feet



McIntosh[®]

The continuous improvement of its products is the policy of McIntosh Laboratory Incorporated, who reserve the right to improve design without notice. Because of the constant upgrading of McIntosh products' circuitry and components, the Company cannot insure, and does not warrant, the accuracy of the within schematic material, which is intended for information only.

McIntosh Laboratory Inc. 2 Chambers Street Binghamton, NY 13903-2699

Part No. 039620

Printed in U.S.A

Telephone (607)723-3512