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McIntosh Service Manual
Performance Specifications

Preamplifier Section

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

MAXIMUM VOLTAGE OUTPUT
10 volts from 20Hz to 20,000Hz

TOTAL HARMONIC DISTORTION
0.01% maximum from 20Hz to 20,000Hz at rated output

SENSITIVITY
Phono — 2mV for 2.5V rated output (0.4mV IHF)
High Level — 250mV for 2.5V rated output (50mV 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 — 20 volts

INPUT IMPEDANCE
Phono — 47k ohms and 65pf capacitance
High Level — 50k ohms

EQUALIZATION CONTROLS
Variable 12dB boost to 12dB cut at center frequencies
of 30, 150, 500, 1500, 10k Hz

COMPANDER RATIOS
From 1:2 compression to 2:1 expansion

LF FILTER
Flat or roll-off at 12dB per octave below 50 Hz.

HF FILTER
Flat or roll-off at 12dB per octave above 7,000 Hz.

Monitor Amplifier Section

CONTINUOUS AVERAGE POWER OUTPUT
20 watts per channel into 8 ohms, from 20 Hz to 20 kHz,
at 0.01% maximum harmonic distortion

FREQUENCY RESPONSE
+0, -0.2dB from 20Hz to 20,000Hz

SENSITIVITY
750mV for rated output (170mV IHF), input impedance
is 27K ohms

SIGNAL TO NOISE RATIO, A-WEIGHTED
100dB below rated output (87dB IHF)

General Information

SEMICONDUCTOR COMPLEMENT
31 Bipolar Transistors
76 Field Effect Transistors
35 Integrated Circuits
107 Diodes
1 Silicon Controlled Rectifier

AC POWER OUTLETS
1 green turntable current sensing, 100 watts
2 red unswitched
3 black switched
1440 watts total capacity

POWER REQUIREMENTS
120 volts, 50/60 Hz, 25 to 85 watts

Mechanical Information

SIZE:
16-1/8 inches wide (40.6 cm) by 5-7/16 inches high
(13.8 cm) by 13 inches deep (33 cm), from the mounting
surface, including PANLOC shelf and back panel
connectors. Knob clearance required is 1-1/4 inches
(3.2 cm) in front of the mounting panel.

WEIGHT:
26 pounds (11.8 kg) net, 38 pounds (17.2 kg) in
shipping carton.
Fig. 3. Rear view

General Notes

1. Unless otherwise noted, all voltages indicated on the following schematics are measured under the following conditions:
   a. AC input at 120 volts, 50/60Hz.
   b. All voltages are ±10% with respect to ground. A high impedance (10 megohm) voltmeter must be used.

2. Unless otherwise specified:
   a. Resistor values are in ohms.
   b. Capacitor values smaller than 1 are microfarads (µF), and capacitor values greater than 1 are in picofarads (pF).
   c. Inductor values are in microhenries (µH).
Fig. 4. Top view with cover removed

Fig. 5. Bottom view with cover removed
### Parts List

<table>
<thead>
<tr>
<th>Symbol No.</th>
<th>Part No.</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>D301-D316</td>
<td>070047</td>
<td>SIG, 75V, 10mA, 154148</td>
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</tbody>
</table>

### Transistors

- Q301-Q322
- Q324, Q325
- Q326, Q327
- Q328

---

**High Level Input and Tape Output Switching (Left) PCB 045939**
LOUDNESS AND BALANCE PCB 046039

LOUDNESS AND BALANCE
PARTS LIST

Symbol | Part No. | Description
-------|---------|-----------------|
-      | IC601   | IC602

INTEGRATED CIRCUITS
IC601-IC602 133096 Operational Amp, NE5534N

RESISTORS
R61, R62 134307 POT, Balance/Loudness
R61/R62 134308 POT, Compressor/Ratio Control

SWITCHES
S6B1/S6B2 134309 POT, Compressor/Ratio Control

EQUALIZER PCB 045819

EQUALIZER PARTS LIST

Symbol | Part No. | Description
-------|---------|-----------------|
-      | IC701-IC702 133003 Dual Hi-Speed Operational Amp, MC4558CP1
      | IC705-IC709 133005 Operational Amp, ME5534N

RESISTORS
R72A-R727 134316 POT, 100K(2/100K), Equalizer

SWITCHES
S701 150038 Potlight Switch (6)
COMPANDOR AND
COMPANDOR SWITCHING

COMPONENT SIDE

CIRCUIT SIDE

COMPANDOR AND COMPANDOR SWITCHING PORTION OF PCB 045959

COMPONENT SIDE

CIRCUIT SIDE

COMPONENT SIDE

CIRCUIT SIDE
MONITOR AMPLIFIER
PARTS LIST

<table>
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<td>D1001-D1008, D1011-D1012, D1019, D1010</td>
<td>070647</td>
<td>550, 6.75V, 1mA, 2N4414/18</td>
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<tr>
<td>D1019, D1010, D1011</td>
<td>070114</td>
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<td>IC1001, IC1002</td>
<td>133068</td>
<td>Operational Amp, LM201AN</td>
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<tr>
<td>LDR1001, LDR1002</td>
<td>144270</td>
<td>LDR, CLM6000</td>
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<td>TRANSISTORS</td>
<td>Q1001, Q1002</td>
<td>132225, P, JFET, J174</td>
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<td>Q1003-Q1005, Q1003, Q1005</td>
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<td>PNP, 2N5680</td>
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<td>Q1013, Q1014</td>
<td>132223</td>
<td>NPN, MPS4124</td>
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<td>Q1011, Q1012</td>
<td>132225</td>
<td>NPN, 2SC2408-3L</td>
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<td>Q1015, Q1016</td>
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<td>Q1017, Q1018</td>
<td>132149</td>
<td>NPN, MPS3007</td>
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<td>Q1019, Q1020</td>
<td>132194</td>
<td>PNP, Selected 2N5686</td>
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<td>Q1021, Q1022</td>
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<td>Q1023, Q1024</td>
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<td>PNP, TIP42B</td>
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MONITOR AMPLIFIER PCB 045810
SECTION II PARTS LIST

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<td><strong>DIODES</strong></td>
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<td><strong>INTEGRATED CIRCUITS</strong></td>
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<td>IC1101</td>
<td>132053</td>
<td>CMOS, Dual Type OF-F,</td>
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<td></td>
<td>MCI4103AL</td>
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<tr>
<td><strong>TRANSISTORS</strong></td>
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<tr>
<td>Q101-1, Q110</td>
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<td>NPN, BAR, Selected MPSA114</td>
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<td>Q102-1, Q114</td>
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<td>Q112</td>
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<td>Q113</td>
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<td>Q115-Q117, Q111</td>
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<td>Q118</td>
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<td>NPN, MPS4124</td>
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<tr>
<td><strong>SWITCHES</strong></td>
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</tr>
<tr>
<td>S101</td>
<td>150038</td>
<td>Pushbutton Switch (5)</td>
</tr>
</tbody>
</table>

IC1101

D1101-D1127

Q1101-Q1111
Repackaging Instructions

In the event it is necessary to return the C34V 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 C34V 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.

<table>
<thead>
<tr>
<th>QTY.</th>
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<tr>
<td>1</td>
<td>033466</td>
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<tr>
<td>1</td>
<td>033331</td>
<td>Top pad</td>
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<tr>
<td>1</td>
<td>033330</td>
<td>Unit pad</td>
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<td>1</td>
<td>033259</td>
<td>Base pad</td>
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<td>1</td>
<td>033118</td>
<td>Inside carton</td>
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<tr>
<td>2</td>
<td>033332</td>
<td>Cushion pad</td>
</tr>
<tr>
<td>4</td>
<td>033333</td>
<td>Corner pads</td>
</tr>
<tr>
<td>4</td>
<td>017156</td>
<td>Plastic feet</td>
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<tr>
<td>1</td>
<td>046862</td>
<td>Shipping carton complete</td>
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<tr>
<td>4</td>
<td>100160</td>
<td>Screws for feet</td>
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<tr>
<td>4</td>
<td>104080</td>
<td>Washers</td>
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</table>

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