

AG JACK BOARD ASSEMBLY
200-1038-000
(PLUS JACK INPUT CKT BD 25-1056-100)

1/2 A2 PHONO/SELECT
BOARD ASSY
200-1043-100

1/2 A3 TONE BOARD ASSSEMBLY
200-1042-100

1/2 A2 PHONOSELECT BOARD ASSY
200-1043-100

1/2 A3 TONE BOARD ASSSEMBLY
200-1042-100

M4 POWER SUPPLY
BOARD ASSSEMBLY
200-1041-100
(PARTIAL)
SEE SHEET 2

Model 1220
console
stereo amplifier
SCHEMATIC

O. LOUDNESS CIRCUIT TEST

1. Connect Audio Oscillator to both channel AUX input jacks. Adjust level for 21.9V output into the 8 ohm load. Adjust unit VOLUME control (from MAXIMUM) for a 30dB reduction in output level.
2. With oscillator frequency at 100Hz, compare output level with LOUDNESS switch IN and OUT. Verify a 7dB \pm 2dB boost with switch IN.
3. Change oscillator frequency to 10KHz. Verify a 7dB \pm 2dB boost in output voltage when LOUDNESS switch is depressed.

ADJUSTMENT PROCEDURE

A. TEST EQUIPMENT

Refer to Table 1 for recommended test equipment.

B. PRELIMINARY PROCEDURES

The preliminary procedures outlined in the Performance Verification section of this manual are applicable in their entirety.

C. UNIT DISASSEMBLY

Remove the top cover. (See Service Notes section for disassembly instructions).

D. BIAS ADJUST

1. Turn Line Switch to OFF. Rotate the bias adjust potentiometers R523 and R524 fully C.W. (See Figure 14 for component locations).

2. Switch the Wattmeter IN and set the Variac to 0.

3. Turn the Line Switch ON and slowly advance the Variac to 120 VAC while observing the Wattmeter. The Wattmeter should indicate less than 35W at 120V. If the Wattmeter indicates either 0 or greater than 35W, a defect exists. Turn off the unit and correct the fault.

4. Reduce the unit VOLUME to minimum. Connect a low-range voltmeter across series combination of R553 and R549 (voltmeter in 0-100mV range). See Figure 14 for component and connection point location.

5. Adjust R523 for voltmeter reading between 11 and 18mV.

6. Change location of voltmeter to series combination of R550 and R554. See Figure 14.

7. Adjust R524 for voltmeter reading between 11 and 18mV.

Note: 11mV drop across the series resistance represents 30mA idling current in the output stage. 18mV represents 50mA idling current.

E. DC BALANCE ADJUST

1. Monitor the left channel output with a VTVM in the DC mode.
2. With the unit VOLUME control set to minimum, adjust the left channel Zero Set potentiometer R517 for a DC output voltage of 0V \pm 50mV. (See Figure 14 for component location).
3. While monitoring the right channel output, adjust the right channel Zero Set potentiometer R518 for a DC output voltage of 0V \pm 50mV.

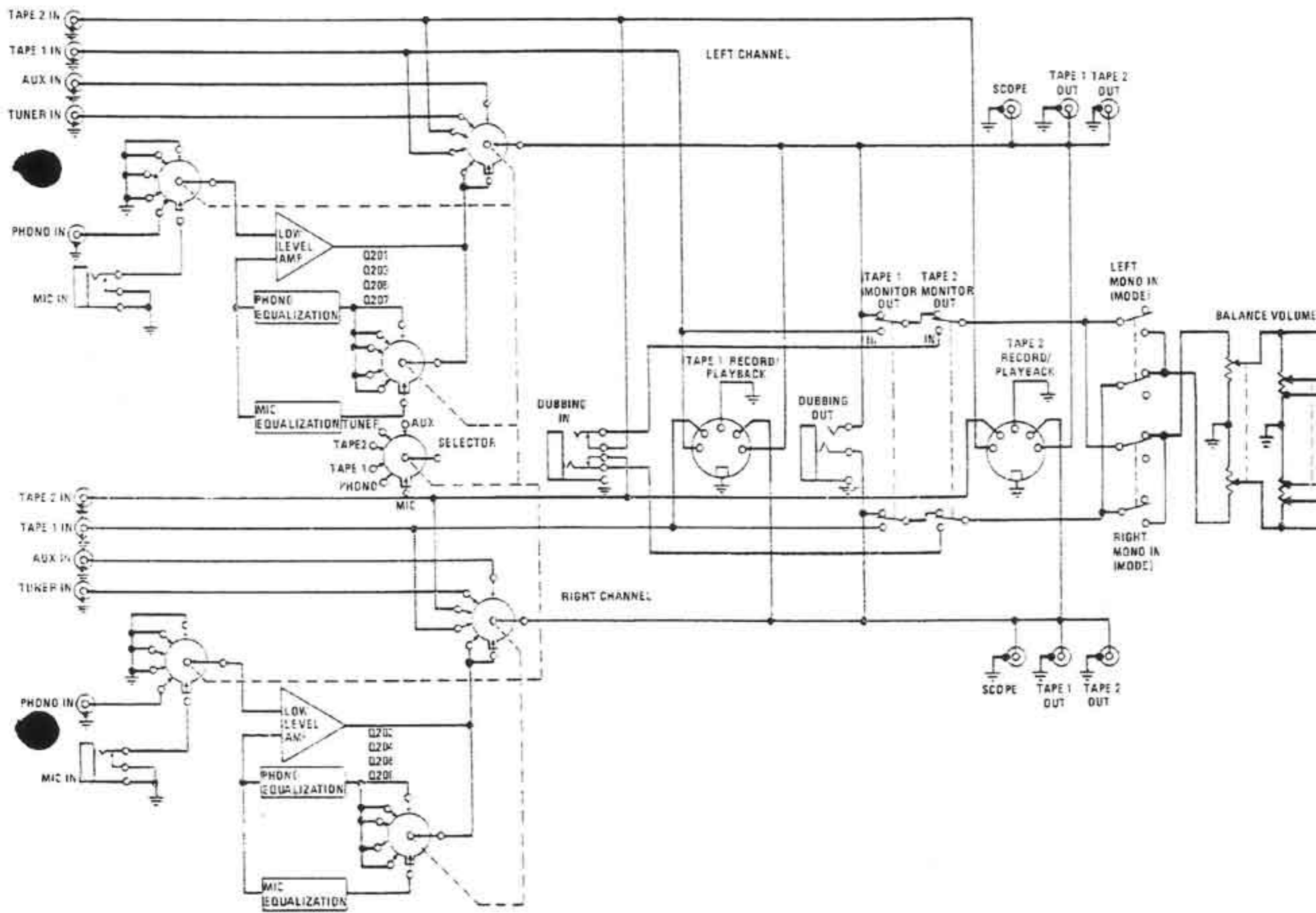
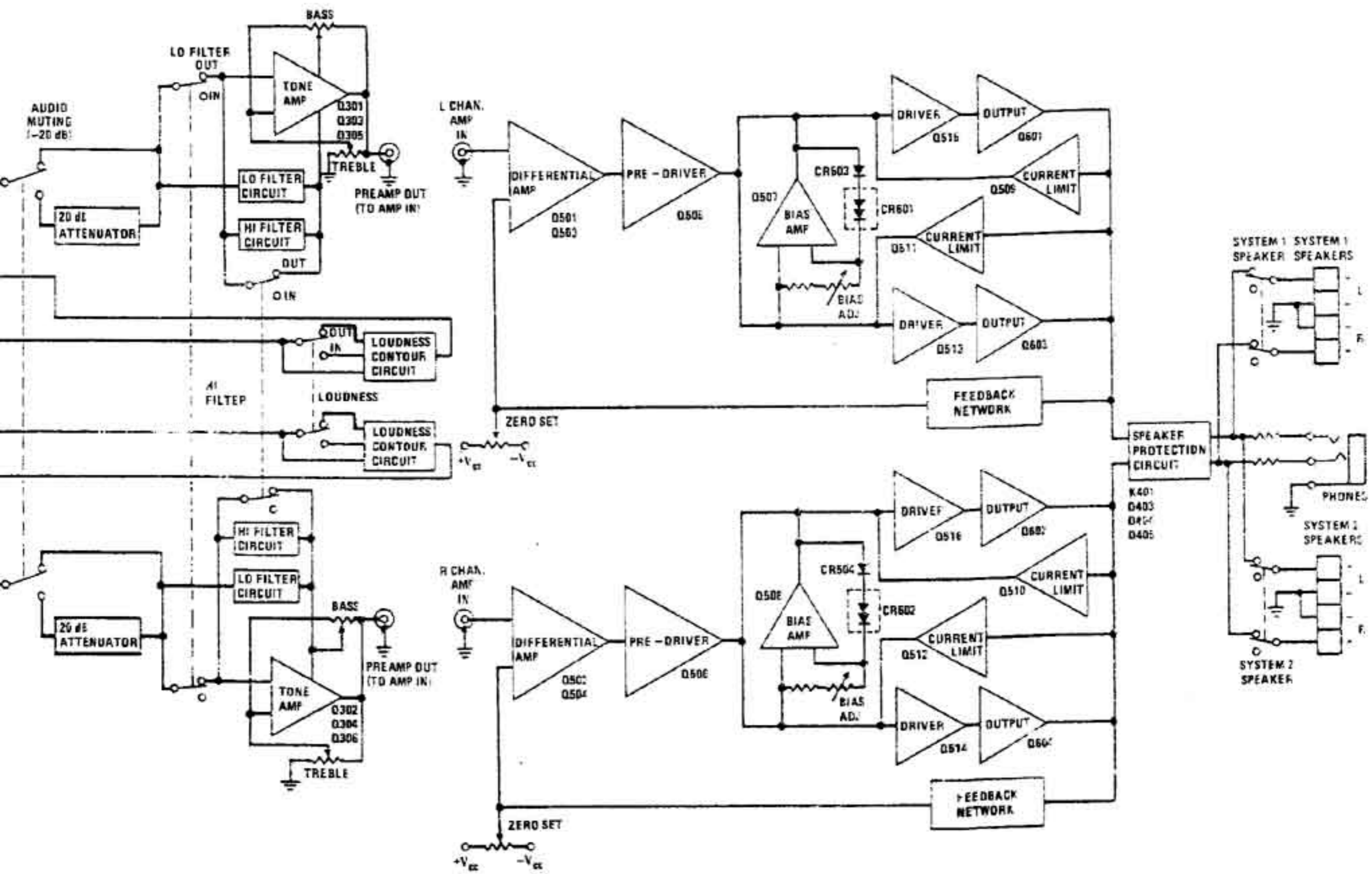
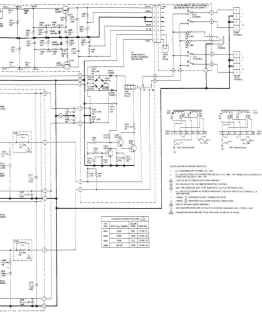


Figure 8. Functional Block Diagram





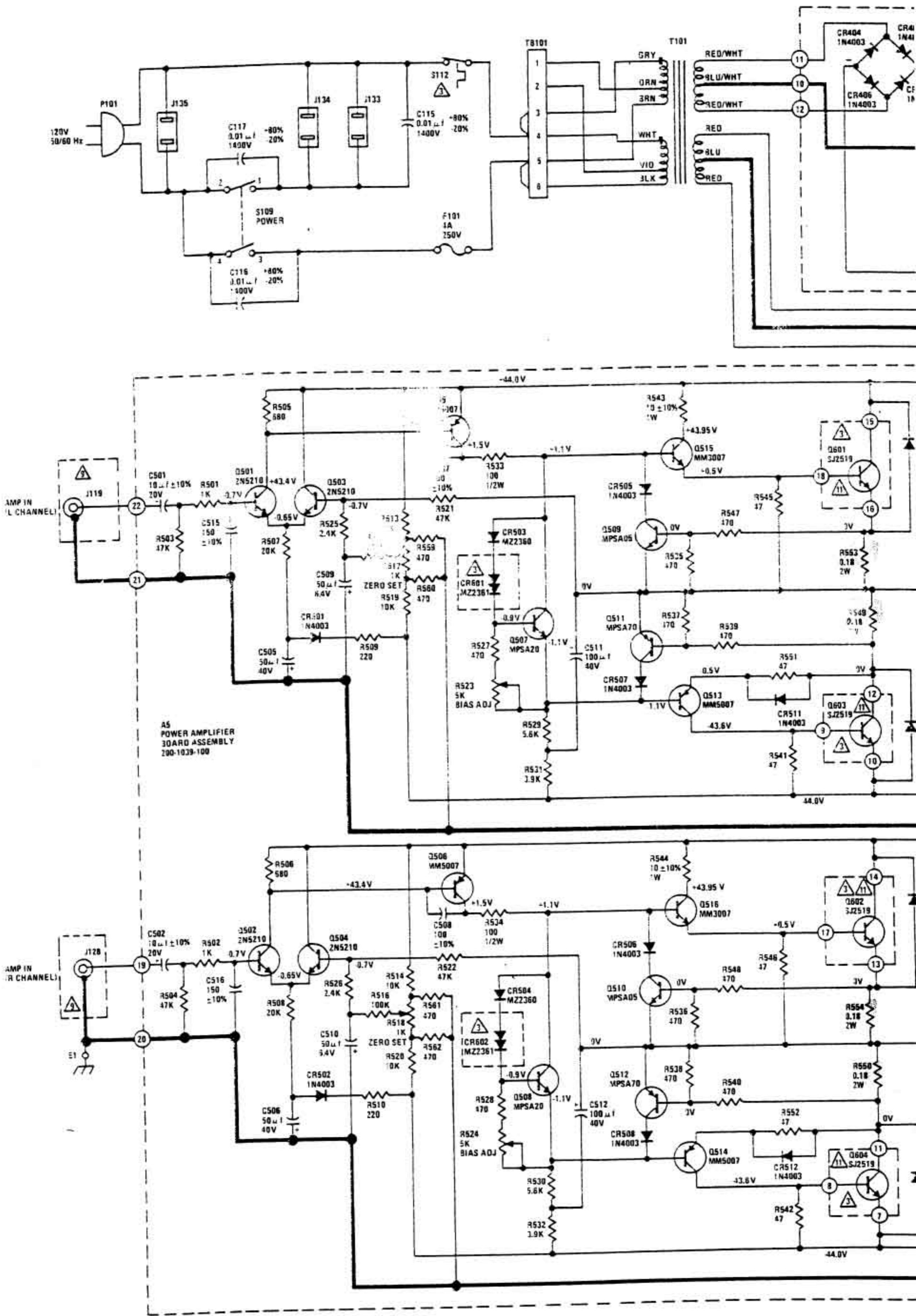


Figure 7B. Model 1120 Schematic

A6 JACK BOARD ASSEMBLY
200-1038-100
I PLUS JACK INPUT CKT BD 125-1056-000

1/2 A2 PHONO/SELECT
BOARD ASSY
200-1043-100

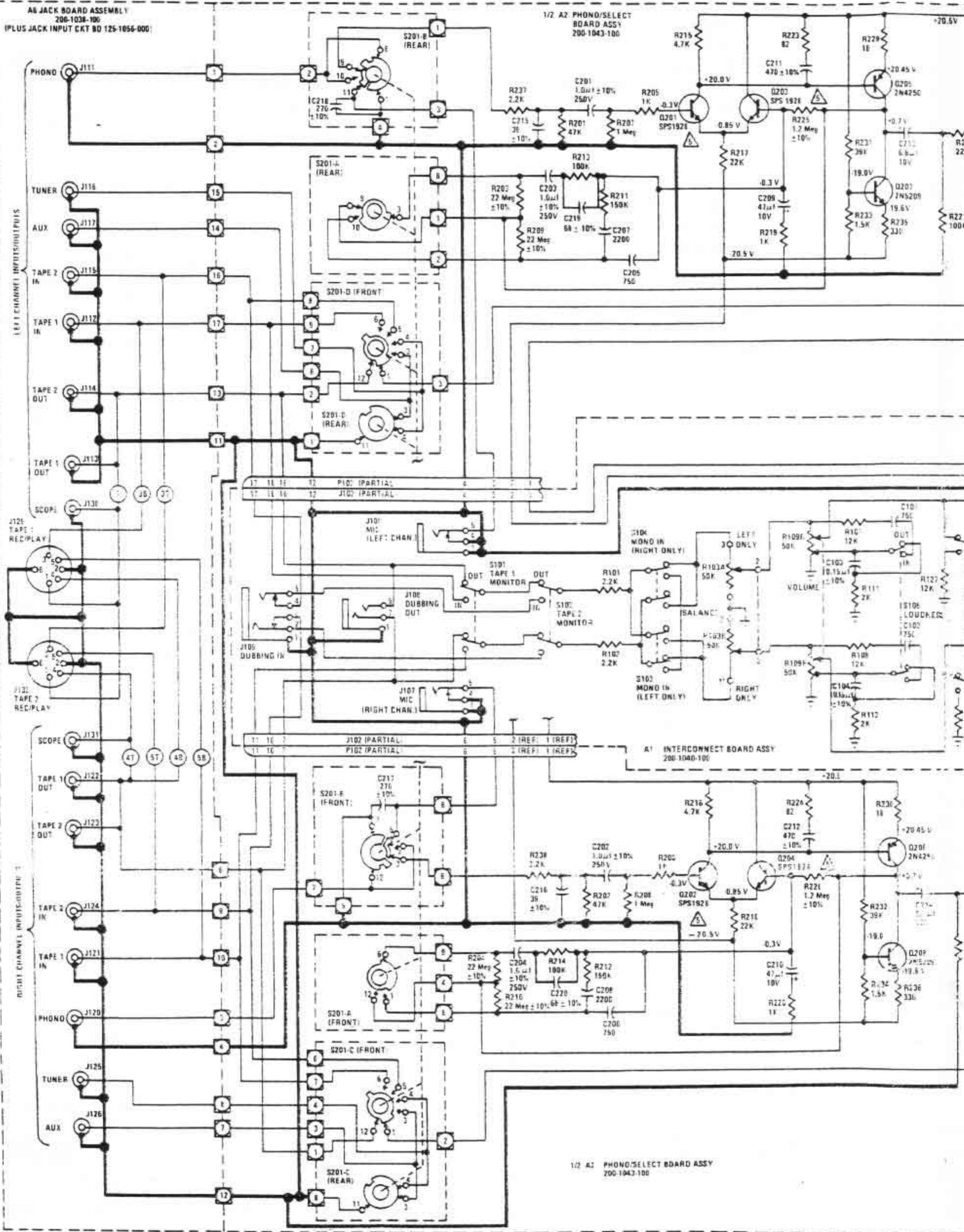
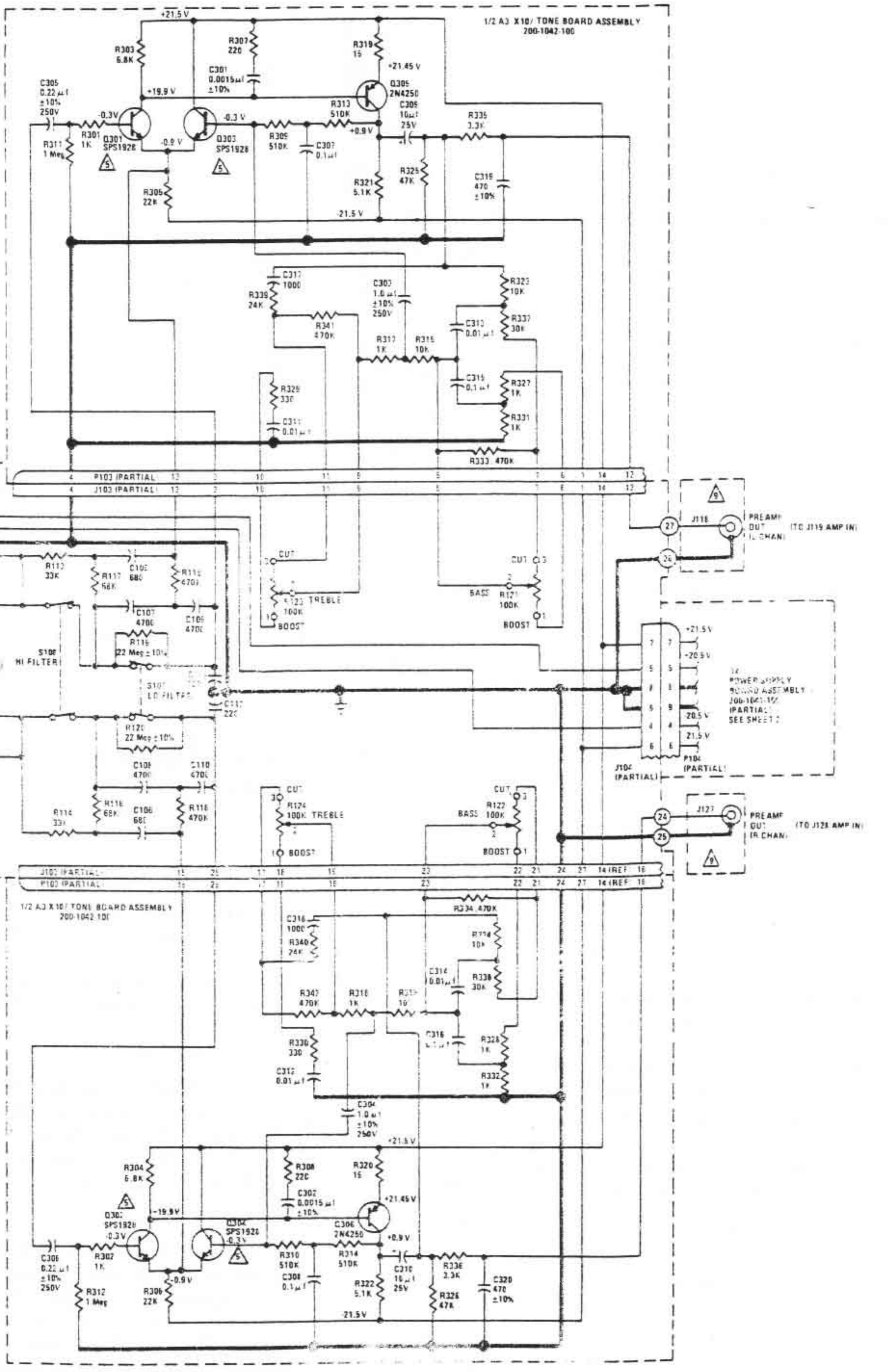


Figure 7A. Model 1120 Schematic

1/2 A3 X10/ TONE BOARD ASSEMBLY
200-1042-100

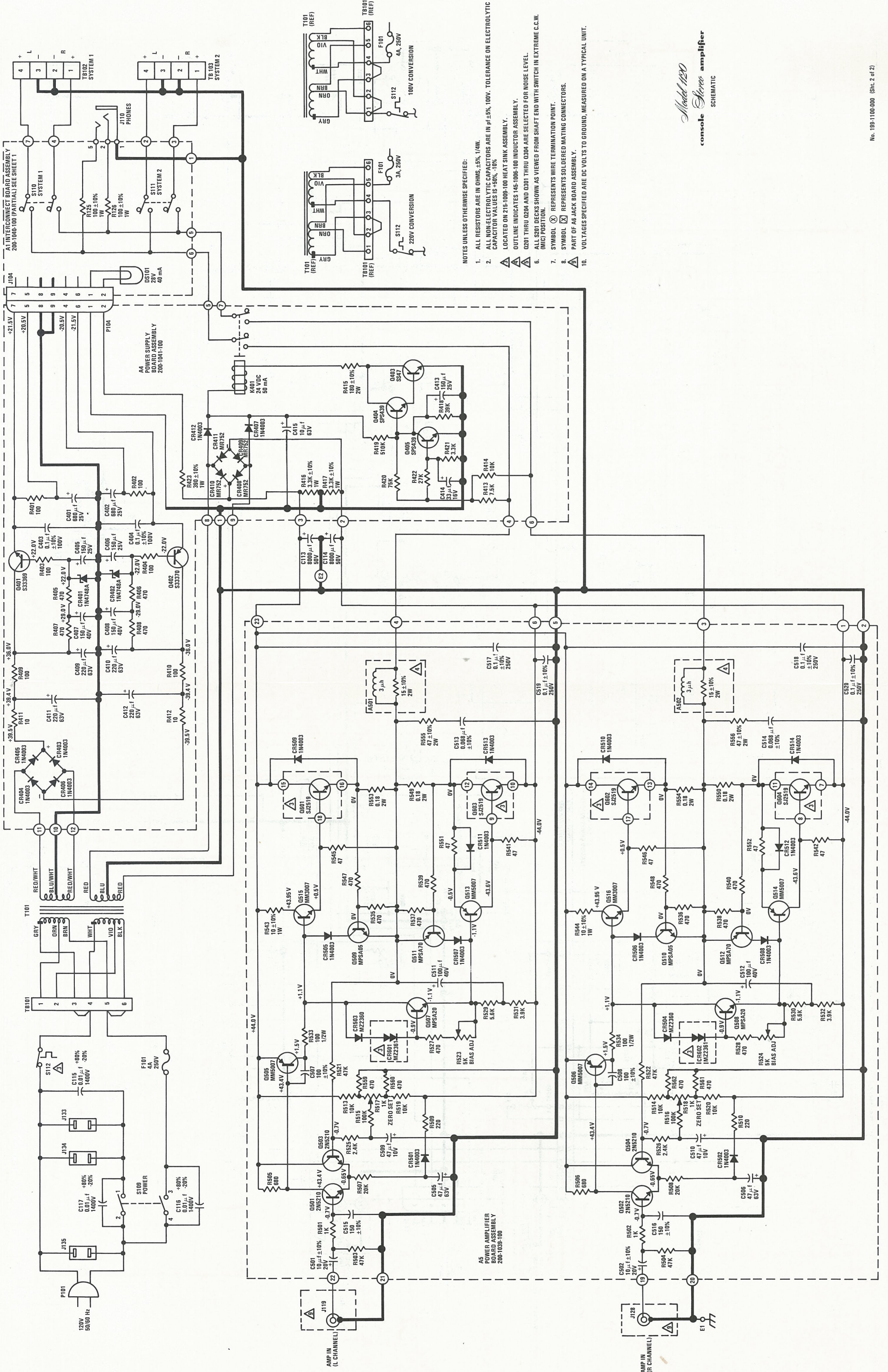


PREAMP
OUT
(L CHAN)
(TO J118 AMP IN)

PREAMP
OUT
(R CHAN)
(TO J127 AMP IN)

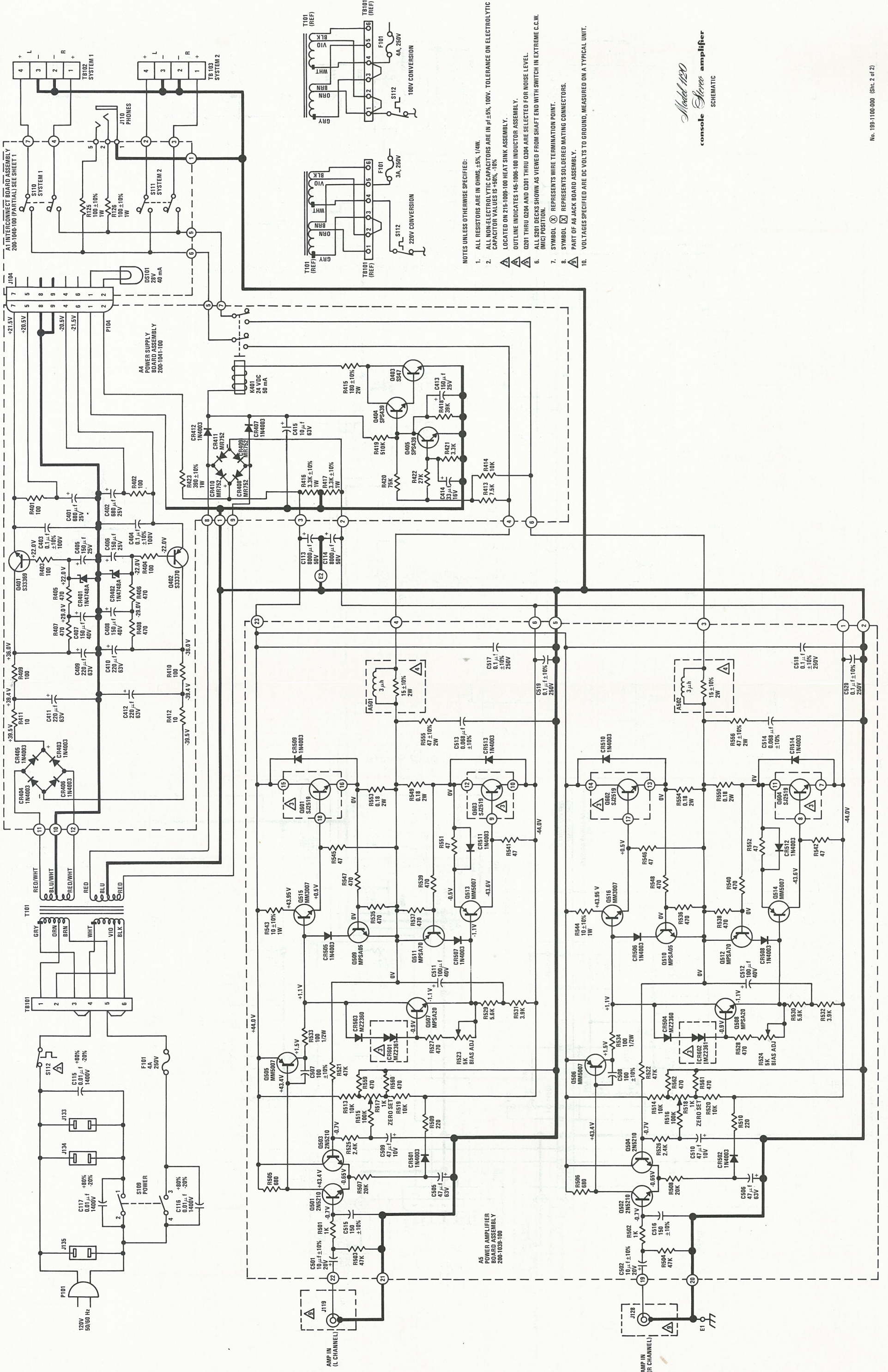
14
POWER SUPPLY
BOARD ASSEMBLY
200-1042-100
PARTIAL
SEE SHEET 1

1/2 A3 X10/ TONE BOARD ASSEMBLY
200-1042-100



- NOTES UNLESS OTHERWISE SPECIFIED:
1. ALL RESISTORS ARE IN OHMS, $\pm 5\%$, 1/4W.
 2. ALL NON-ELECTROLYTIC CAPACITORS ARE IN μf , $\pm 5\%$, 100V. TOLERANCE ON ELECTROLYTIC CAPACITOR VALUES IS $\pm 50\%$, -10%.
 3. OUTLINE INDICATES 145-1006-100 HEAT SINK ASSEMBLY.
 4. Q201 THRU Q204 AND Q301 THRU Q304 ARE SELECTED FOR NOISE LEVEL.
 5. ALL S201 DECKS SHOWN AS VIEWED FROM SHAFT END WITH SWITCH IN EXTREME C.C.W. (MIC) POSITION.
 6. SYMBOL \otimes REPRESENTS WIRE TERMINATION POINT.
 7. SYMBOL \boxtimes REPRESENTS SOLDERED MATING CONNECTORS.
 8. PART OF A6 JACK BOARD ASSEMBLY.
 9. VOLTAGES SPECIFIED ARE DC VOLTS TO GROUND, MEASURED ON A TYPICAL UNIT.

Model 120
console stereo amplifier
SCHEMATIC



- NOTES UNLESS OTHERWISE SPECIFIED:
1. ALL RESISTORS ARE IN OHMS, $\pm 5\%$, 1/4W.
 2. ALL NON-ELECTROLYTIC CAPACITORS ARE IN μf , $\pm 5\%$, 100V. TOLERANCE ON ELECTROLYTIC CAPACITOR VALUES IS $\pm 50\%$, -10%.
 3. LOCATED ON 215-1009-100 HEAT SINK ASSEMBLY.
 4. OUTLINE INDICATES 145-1006-100 INDUCTOR ASSEMBLY.
 5. Q201 THRU Q204 AND Q301 THRU Q304 ARE SELECTED FOR NOISE LEVEL.
 6. ALL S201 DECKS SHOWN AS VIEWED FROM SHAFT END WITH SWITCH IN EXTREME C.C.W. (MIC) POSITION.
 7. SYMBOL \otimes REPRESENTS WIRE TERMINATION POINT.
 8. SYMBOL \boxtimes REPRESENTS SOLDERED MATING CONNECTORS.
 9. PART OF A6 JACK BOARD ASSEMBLY.
 10. VOLTAGES SPECIFIED ARE DC VOLTS TO GROUND, MEASURED ON A TYPICAL UNIT.

Model 120
console stereo amplifier
SCHEMATIC

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6. Change location of voltmeter to series combination of R550 and R554. See Figure 14.

7. Adjust R524 for voltmeter reading between 11 and 18mV.

Note: 11mV drop across the series resistance represents 30mA idling current in the output stage. 18mV represents 50mA idling current.

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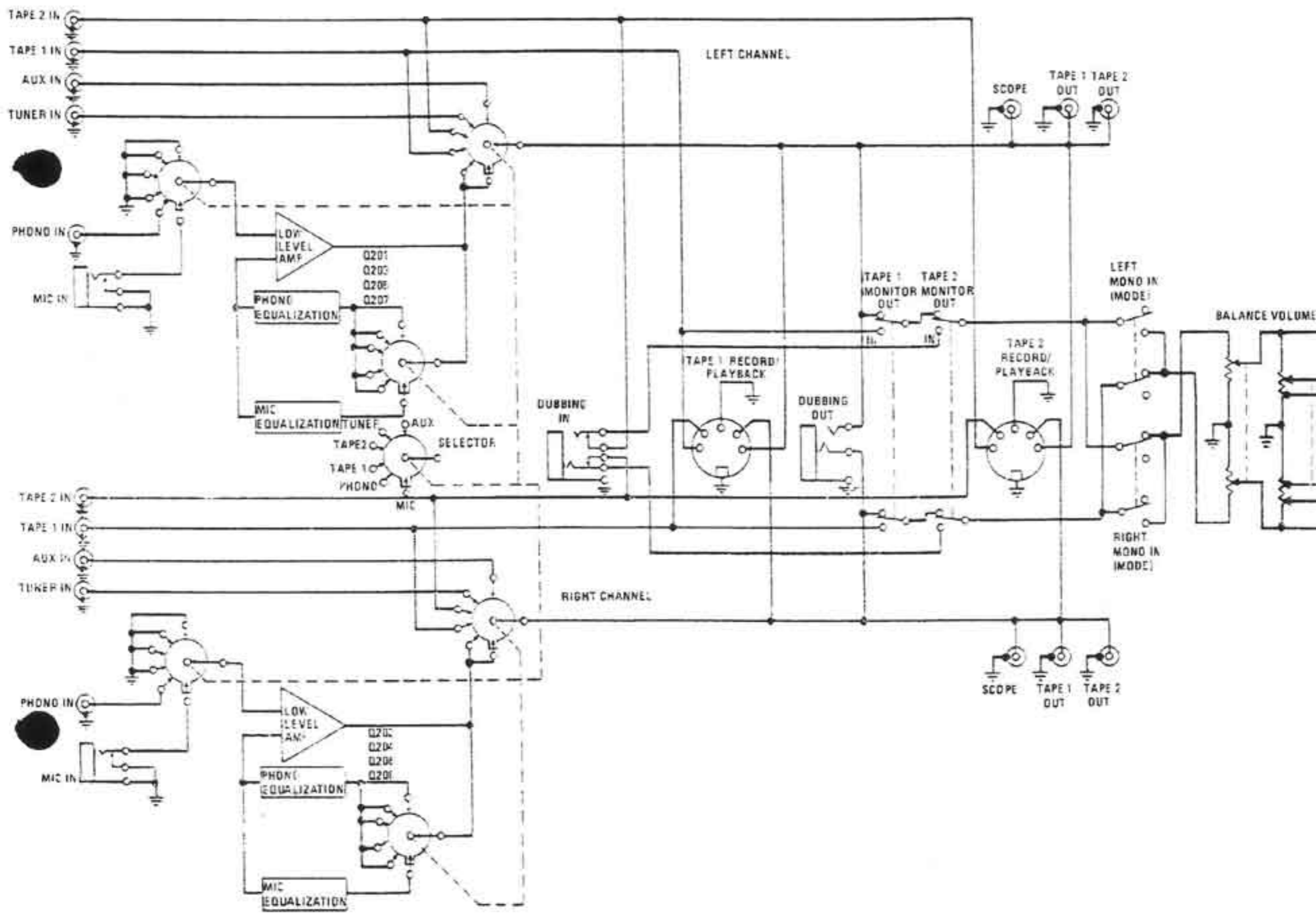
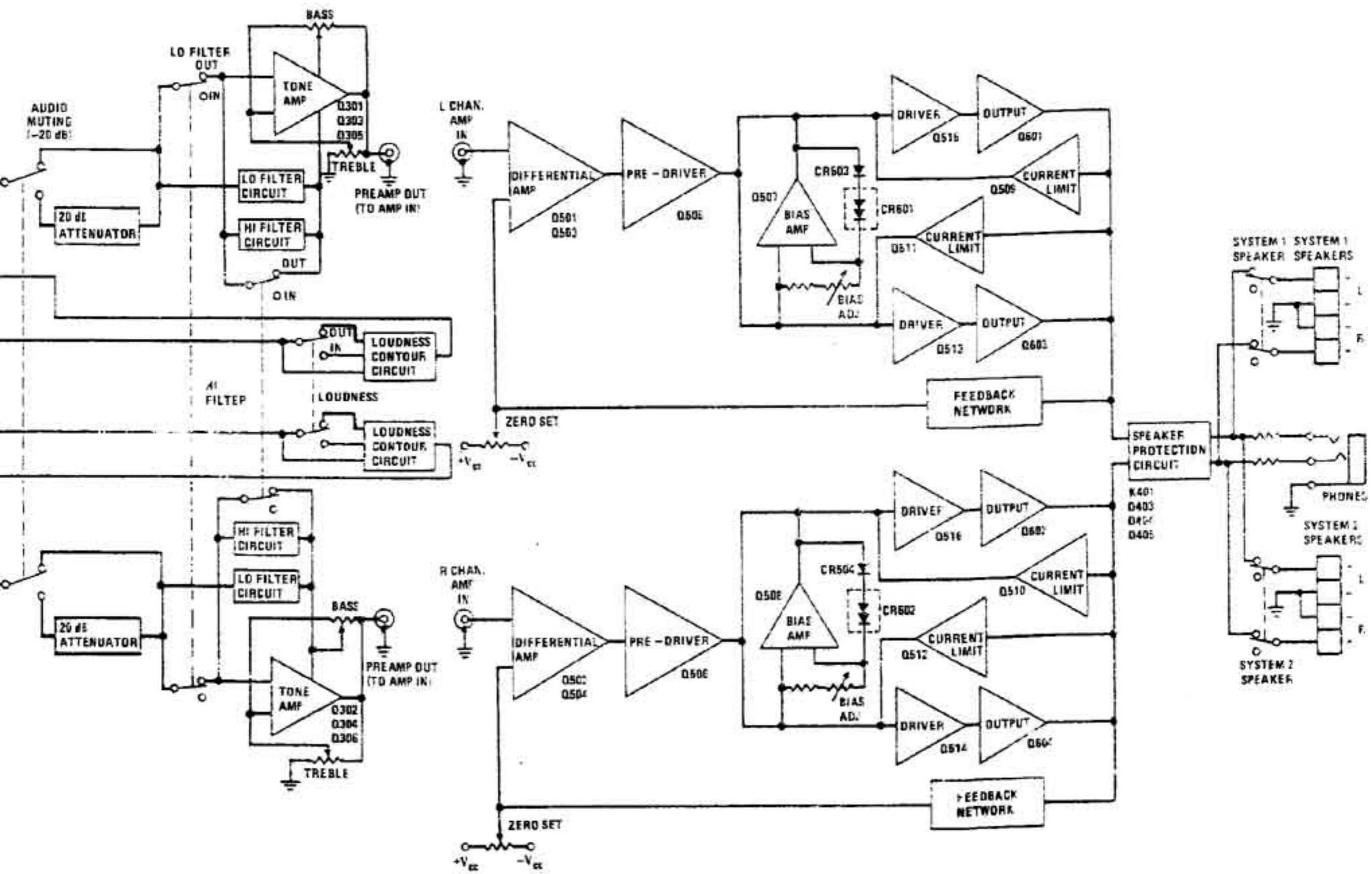
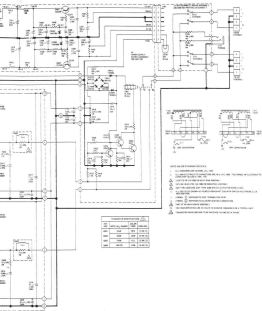


Figure 8. Functional Block Diagram





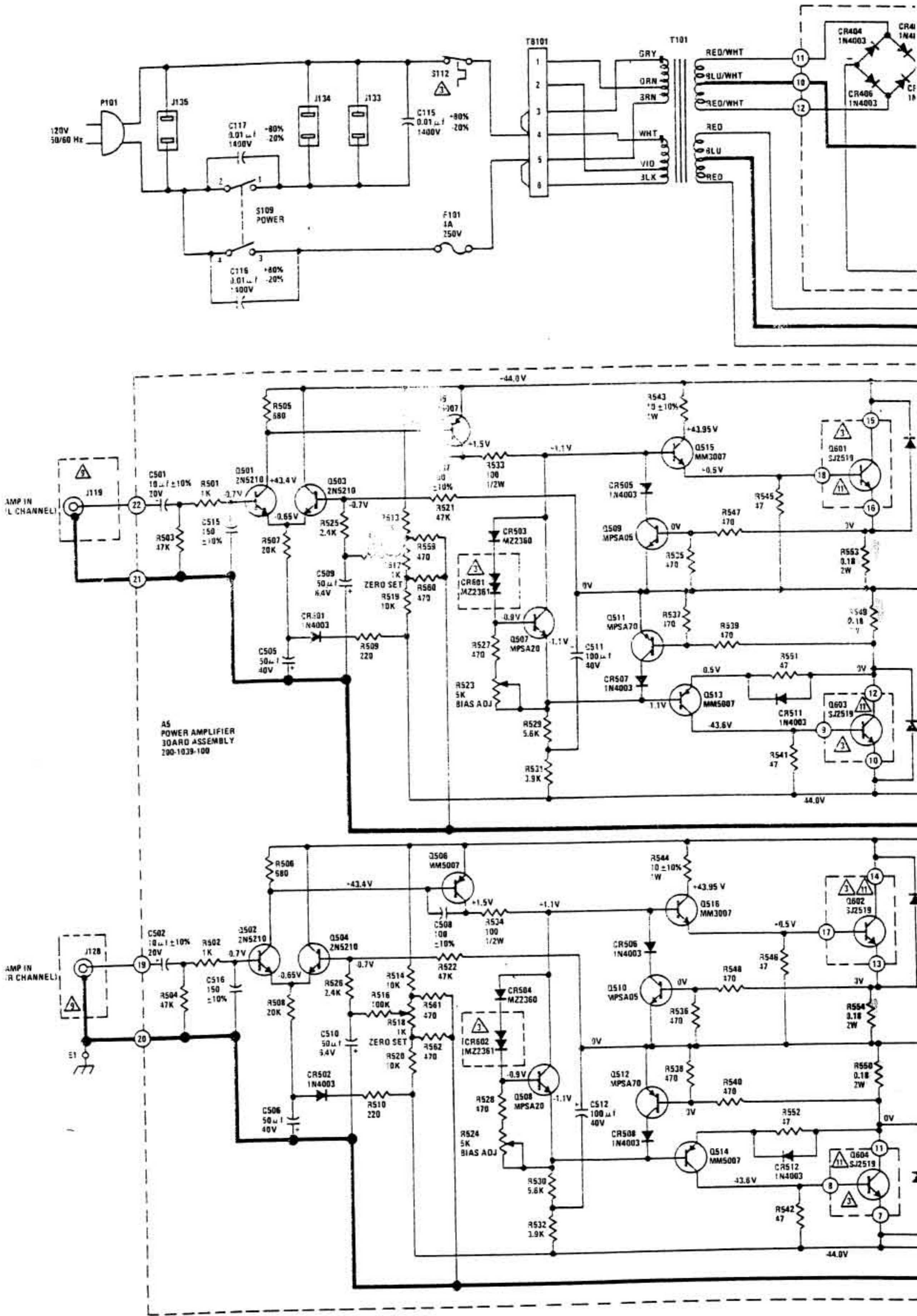


Figure 7B. Model 1120 Schematic

A6 JACK BOARD ASSEMBLY
200-1038-100
I PLUS JACK INPUT CKT BD 125-1056-000

1/2 A2 PHONO/SELECT
BOARD ASSY
200-1043-100

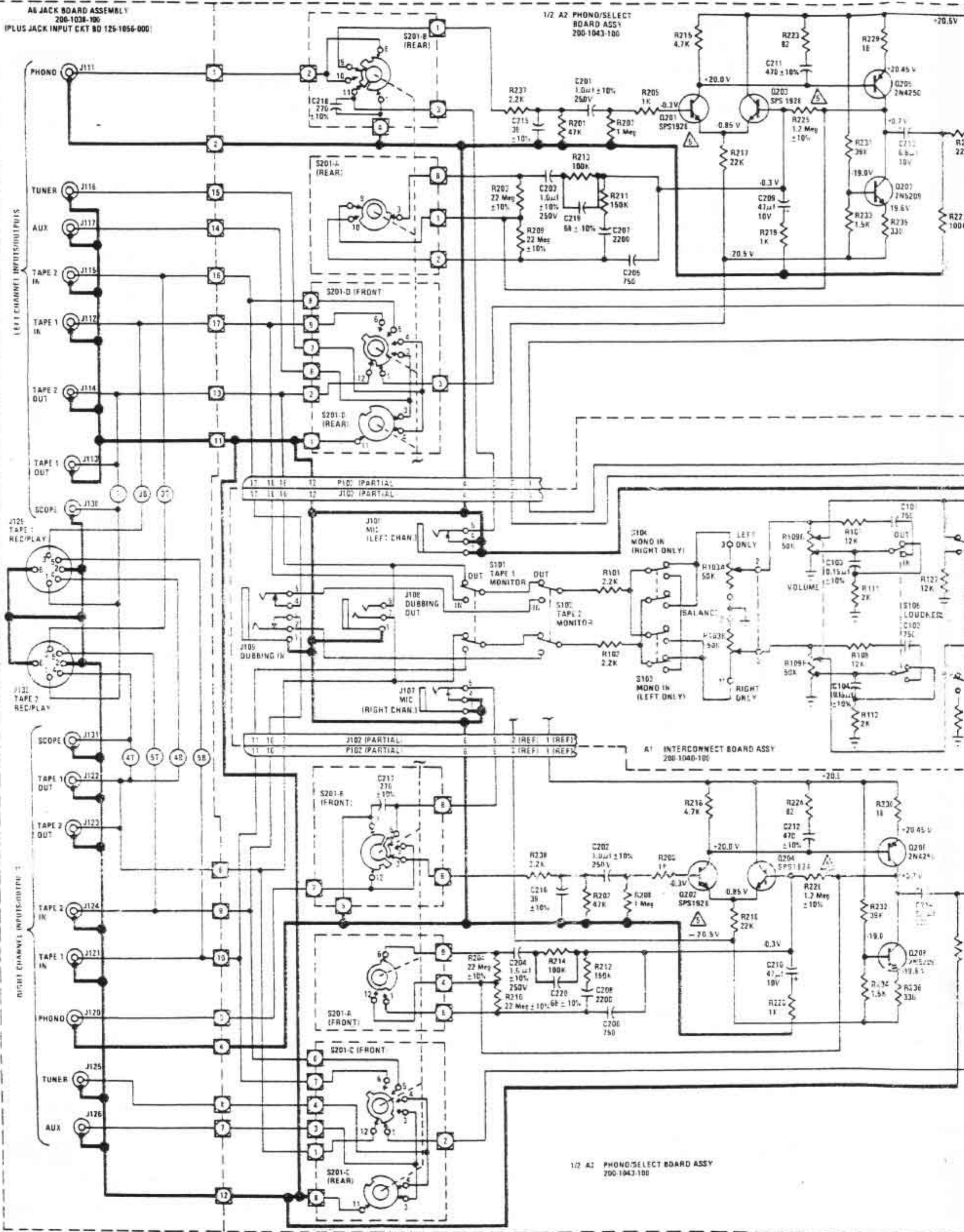
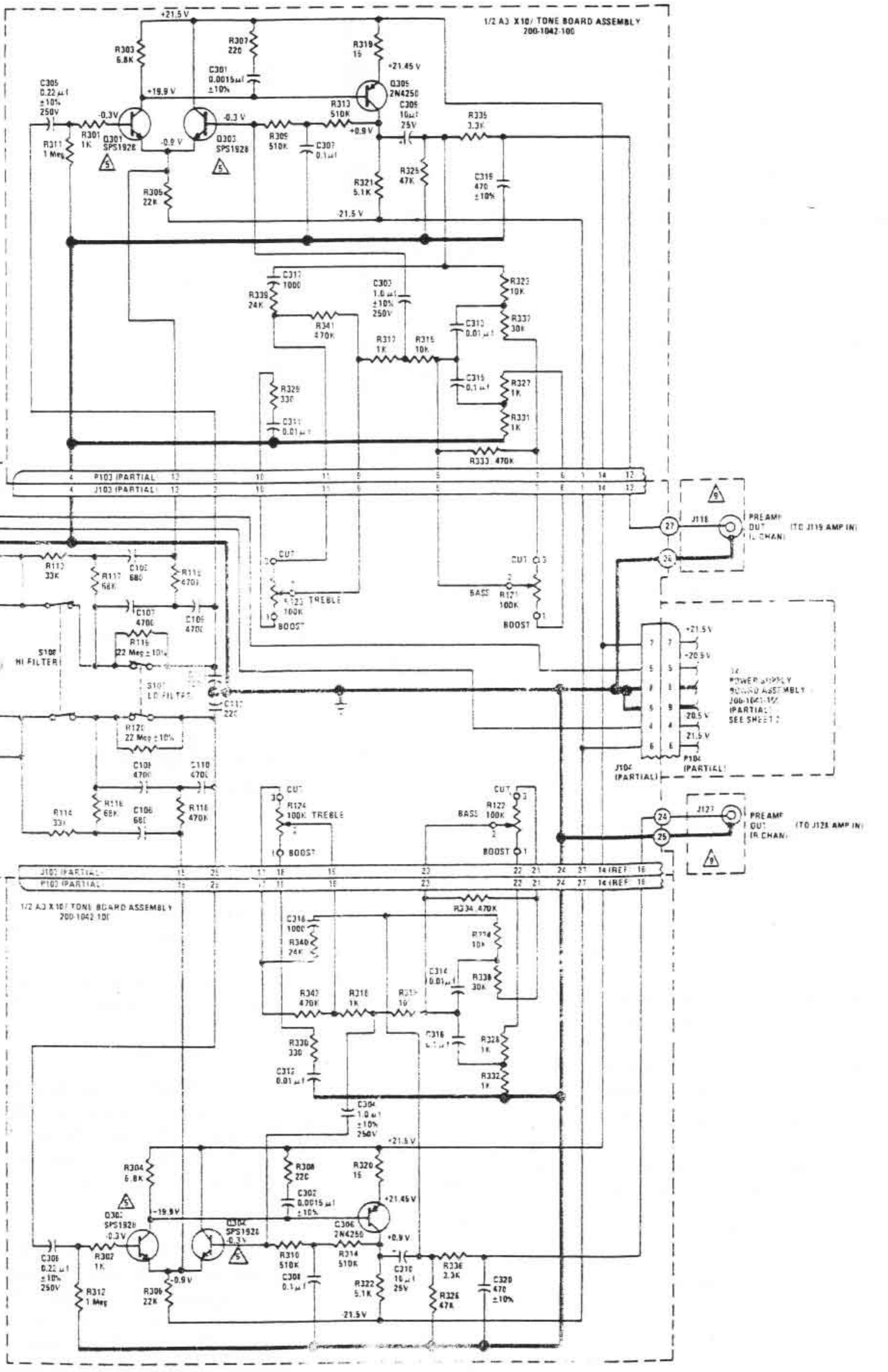


Figure 7A. Model 1120 Schematic

1/2 A3 X10/ TONE BOARD ASSEMBLY
200-1042-100



P100 (PARTIAL) 13 2 10 11 9 5 7 6 14 12

J100 (PARTIAL) 13 2 10 11 9 5 7 6 14 12

J100 (PARTIAL) 13 25 11 18 15 23 22 21 24 27 14 (REF) 16

P100 (PARTIAL) 13 25 11 18 15 23 22 21 24 27 14 (REF) 16

1/2 A3 X10/ TONE BOARD ASSEMBLY
200-1042-100

