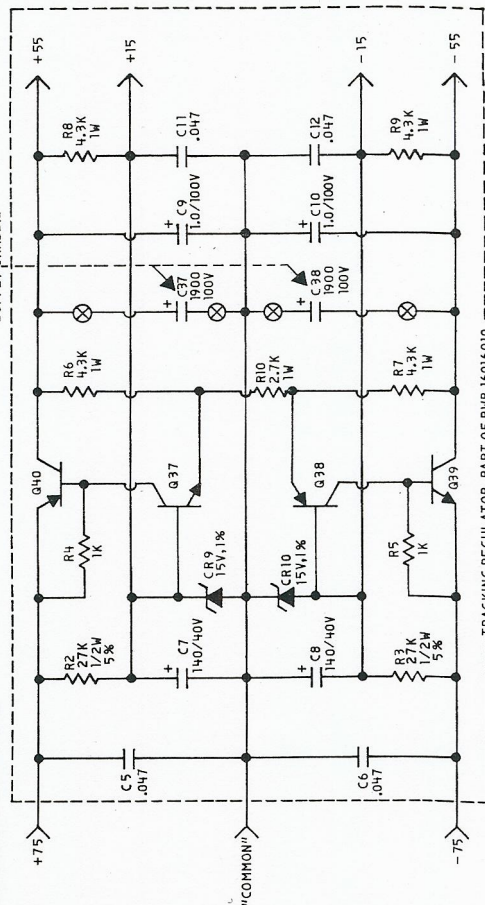
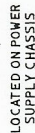


MODEL D-52B POWER AMPLIFIER
SCHEMATIC & PARTS LIST

audio research corporation

2843 TWENTY-SIXTH AVENUE SOUTH
MINNEAPOLIS, MINNESOTA 55406



TRACKING REGULATOR, PART OF PWB 16016010

| TRANSFORMER PRIMARY WIRING | |
|----------------------------|--------------------------------|
| VOLTAGE | LEAD CONNECTIONS |
| 120 VAC | BLU TO BLK, BLK/WHT TO BLU/WHT |
| 240 VAC | BLK/WHT TO BLU |

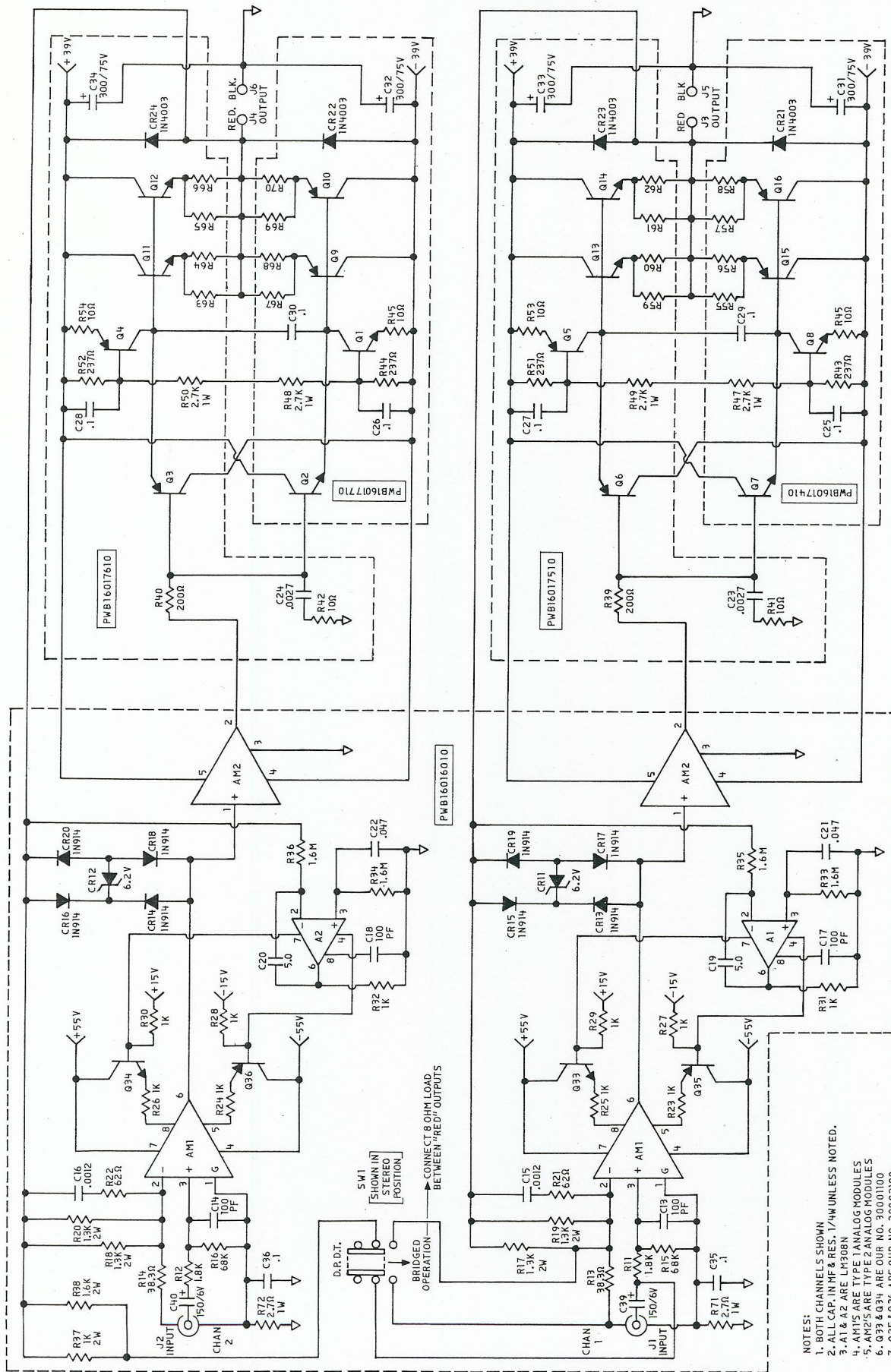
(120 VAC WIRING SHOWN)

1. - CR1 - CR6 ARE 1N4003
2. - BR1 = VARO YK248
3. - SW2 MOUNTED ON HEAT SINK ASSEMBLY
4. - ALL CAP. IN MF & RES. 1/4W UNLESS NOTED
5. - Q37,38 ARE M.P., OUR NO. 30001100 & 30002100
6. - Q39,40 ARE M.P., OUR NO. 30002400 & 30002500

PROPRIETARY NOTICE

| | | | |
|---------------------------------|--|--------------------|-----------------------|
| TOLERANCES (EXCEPT AS NOTED) | AUDIO RESEARCH CORPORATION MINNEAPOLIS, MINNESOTA | | |
| ORIGINAL | SCALE | DRAWN BY <i>JC</i> | APPROVED BY <i>AL</i> |
| ± | | | |
| FRACTIONAL | TITLE | | |
| ± | SCHEMATIC D-52B AMPLIFIER (SHEET 1 OF 2) | | |
| DATE | DRAWING NUMBER | | |
| ± | 910059-10A | | |
| ANNUAL | 8-6-79 | | |
| ± | | | |

910059-10A



- NOTES:
1. BOTH CHANNELS SHOWN
 2. ALL CAP. IN MF & RES. 1/4W UNLESS NOTED.
 3. A1 & A2 ARE LM308N
 4. AM15 ARE TYPE 2 ANALOG MODULES
 5. AM25 ARE TYPE 2 ANALOG MODULES
 6. Q33 & Q34 ARE OUR NO. 30001100
 7. Q35 & Q36 ARE OUR NO. 30002100
 8. Q37 & Q38 ARE OUR NO. 30002500
 9. Q39 & Q40 ARE OUR NO. 30002700
 10. Q41 & Q42 ARE OUR NO. 30002800
 11. Q43 & Q44 ARE OUR NO. 30002900
 12. R55-70 ARE 1.0% 1/4W 5%

| AUDIO RESEARCH CORPORATION MINNEAPOLIS, MINNESOTA | | | |
|--|---------|--------------------------------|---------|
| TOLERANCES (EXCEPT AS NOTED) | DECIMAL | FRACTIONAL | ANGULAR |
| | ± | ± | ± |
| DRAWN BY <i>SC</i> | | APPROVED BY <i>SC</i> | |
| TITLE | | SCHEMATIC | |
| DATE | | D-52B AMPLIFIER (SHEET 2 OF 2) | |
| DRAWING NUMBER | | 8-6-79 | |
| | | 910059-10 A | |

THIS PRINT CONTAINS PATENTED AND/OR OTHER INFORMATION CONSIDERED PROPRIETARY BY AUDIO RESEARCH CORPORATION AND IS FURNISHED ON A CONFIDENTIAL BASIS FOR IDENTIFICATION PURPOSES ONLY.

D-52B PARTS LIST

| <u>COMPONENT</u> | <u>QUAN.</u> | <u>DESCRIPTION</u> | <u>VALUE</u> | <u>RATING</u> | <u>TOL.</u> | <u>ARC PART NO.</u> |
|-----------------------|--------------|-------------------------|-----------------|-----------------|-------------|-------------------------|
| AM1 | 2 | Type AM1, Analog Module | | | | AM-1 |
| AM2 | 2 | Type AM2, Analog Module | | | | AM-2 |
| A1, A2 | 2 | LM308N Op-Amp | | | | 31000300 |
| Q1, 2, 7, 8, 39 | 5 | NPN | | | | 300024XX |
| Q3, 4, 5, 6, 40 | 5 | PNP | | | | 300025XX |
| Q9, 10, 15, 16 | 4 | PNP | | | | 300027XX |
| Q11-14 | 4 | NPN | | | | 300026XX |
| Q33, 34, 37 | 3 | NPN | | | | 30001100 |
| Q35, 36, 38 | 3 | PNP | | | | 30002100 |
| CRI-6, 21-24 | 10 | 1N4003 | | | | 30501700 |
| BR1 | 1 | VK248 | | | | 30501900 |
| R1, 11, 12 | 3 | Carbon Comp. | 1.8K | 2W | 5% | 41180305 |
| R2, R3 | 2 | Carbon Comp. | 27K | $\frac{1}{2}$ W | 10% | 40270403 |
| R4, 5, 23-30 | 10 | Metal Film | 1K | $\frac{1}{4}$ W | 1% | 42100302 |
| R6-9 | 4 | Metal Film | 4.3K | 1W | 2% | 46430301 |
| R10, 47-50 | 5 | Metal Film | 2.7K | 1W | 2% | 46270301 |
| R13, R14 | 2 | Metal Film | 38.3 Ω | $\frac{1}{4}$ W | 1% | 42383102 |
| R15, R16 | 2 | Carbon Comp. | 68K | $\frac{1}{4}$ W | 5% | 41680402 |
| R17-20 | 4 | Metal Film | 1.3K | 2W | 2% | 46130301 |
| R21, R22 | 2 | Carbon Comp. | 62 Ω | $\frac{1}{4}$ W | 5% | 41620102 |
| R31, R32 | 2 | Carbon Comp. | 1K | $\frac{1}{4}$ W | 5% | 41100302 |
| R33-36 | 4 | Carbon Comp. | 1.6M | $\frac{1}{4}$ W | 5% | 41160602 |
| R37 | 1 | Metal Film | 1K | 2W | 2% | 46100301 |
| R38 | 1 | Metal Film | 1.6K | 2W | 2% | 46160301 |
| R39, R40 | 2 | Carbon Comp. | 200 Ω | $\frac{1}{4}$ W | 5% | 41200202 |
| R41, R42 | 2 | Carbon Comp. | 10 Ω | $\frac{1}{4}$ W | 5% | 41100102 |
| R43, 44, 51, 52 | 4 | Metal Film | 237 Ω | $\frac{1}{4}$ W | 1% | 42237202 |
| R45, 46, 53, 54 | 4 | Metal Film | 10 Ω | $\frac{1}{4}$ W | 1% | 42100102 |
| R55-70 | 16 | Wire Wound | 1.0 Ω | 2W | 5% | 43100002 |
| R71, 72 | 2 | Carbon Comp. | 2.7 Ω | 1W | 5% | 41270004 |
| CR9, CR10 | 2 | 0.5M15ZS1 | 15V | 500MW | 1% | 30501800 |
| CR11, CR12 | 2 | 1N5234B | 6.2V | 500MW | 5% | 30502100 |
| CR13-20 | 8 | 1N914 | | | | 30500900 |
| C1, C2 | 2 | Electrolytic | 60,000 μ F | 40V | -10/+75% | 50601000 |
| C3, C4, 37, 38 | 2 | Electrolytic | 1900 μ F | 100V | -10/+75% | 50190900 |
| C5, 6, 11, 12, 21, 22 | 6 | Metalized Mylar | .047 μ F | 200V | 10% | 53470401 |
| C7, C8 | 2 | Electrolytic | 140 μ F | 40V | -10/+75% | 50140801 |
| C9, C10 | 2 | Metalized Mylar | 1.0 μ F | 100V | 10% | 53100600 |
| C13, 14, 17, 18 | 4 | Dipped Silver Mica | 100pf | 500V | 5% | 57100201 |
| C15, C16 | 2 | Metalized Mylar | .0012 μ F | 200V | 10% | 53120301 |
| C19, C20 | 2 | Metalized Mylar | 5.0 μ F | 200V | 10% | 53500601 |
| C23, C24 | 2 | Metalized Mylar | .0027 μ F | 200V | 10% | 53270301 |
| C25-30, 35, 36 | 8 | Metalized Mylar | .1 μ F | 200V | 10% | 53100503 |
| C31-34 | 4 | Electrolytic | 300 μ F | 75V | 10% | 50300802 |
| C39, 40 | 2 | Tantalum | 150 μ F | 6V | 10% | 51150801 |
| F1 | 1 | MDX-4 Amp | 4A | 125V | | 34500701 |
| F1 | 1 | MDX-2 Amp | 2A | 250V | | 34501301 |
| F2-5 | 4 | 312004/MTH4 | 4A | 250V | | 34500702 |
| F6, F7 | 2 | MDV-1/4 Amp | $\frac{1}{4}$ A | 250V | | 34500101 |
| T1 | 1 | AM8584 | | | | 60003500 |
| SW1 | 1 | MSS-204NG | | | | 24100500 |
| SW2 | 1 | 3450-056-077 | | | | 24300100 |
| LED | 1 | 3505G-Green | | | | 34300100 |
| J1, J2 | 2 | Phono Jack | | | | 23201000 |
| J3, J4 | 2 | Binding Post-Red | | | | 23102500 |
| J5, J6 | 2 | Binding Post-Black | | | | 23102600 |