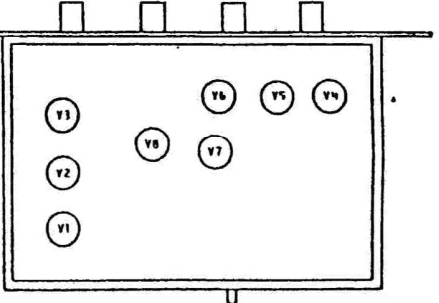
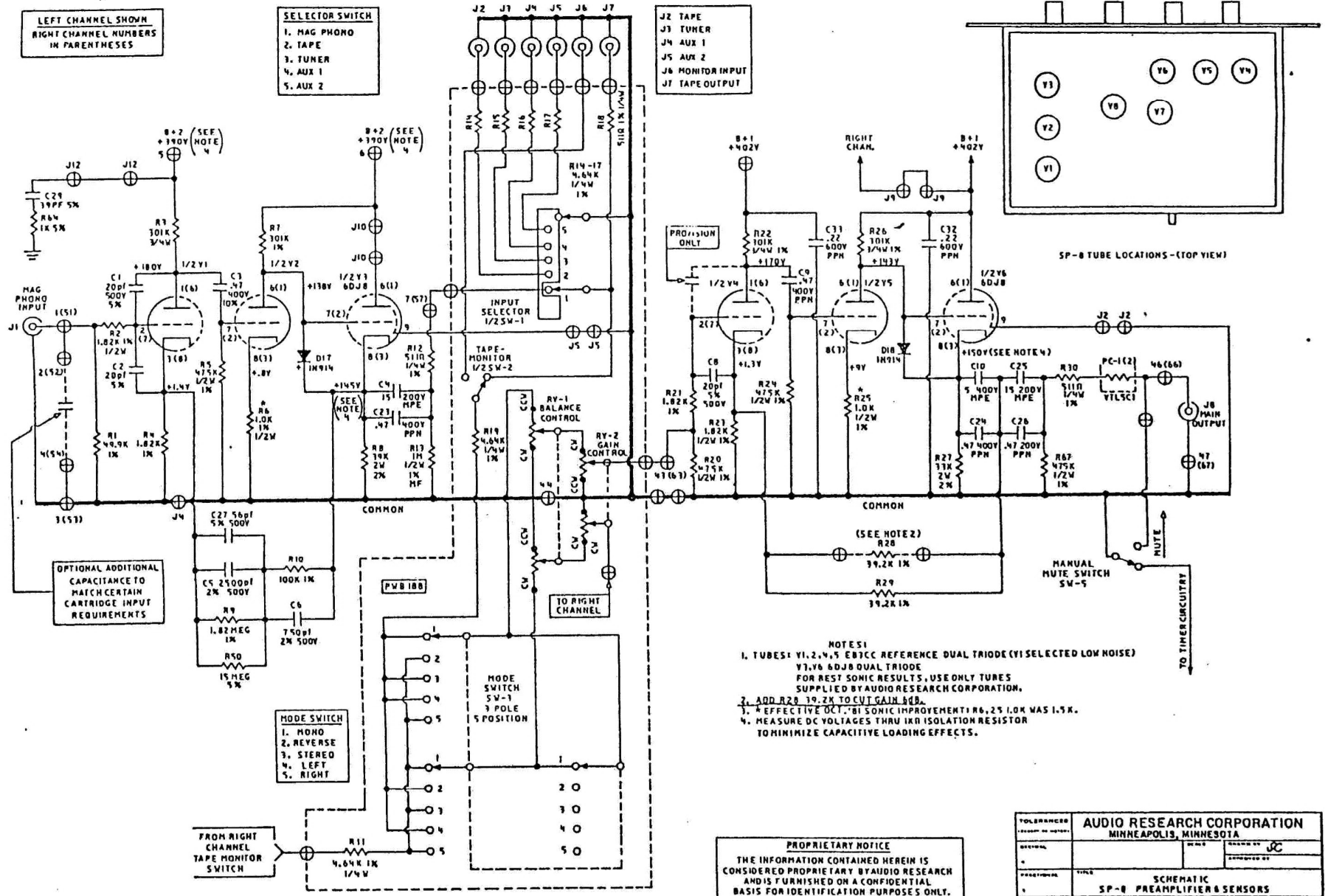


LEFT CHANNEL SHOWN
RIGHT CHANNEL NUMBERS
IN PARENTHESES

SELECTOR SWITCH
1. MAG PHONO
2. TAPE
3. TUNER
4. AUX 1
5. AUX 2

J2 TAPE
J3 TUNER
J4 AUX 1
J5 AUX 2
J6 MONITOR INPUT
J7 TAPE OUTPUT

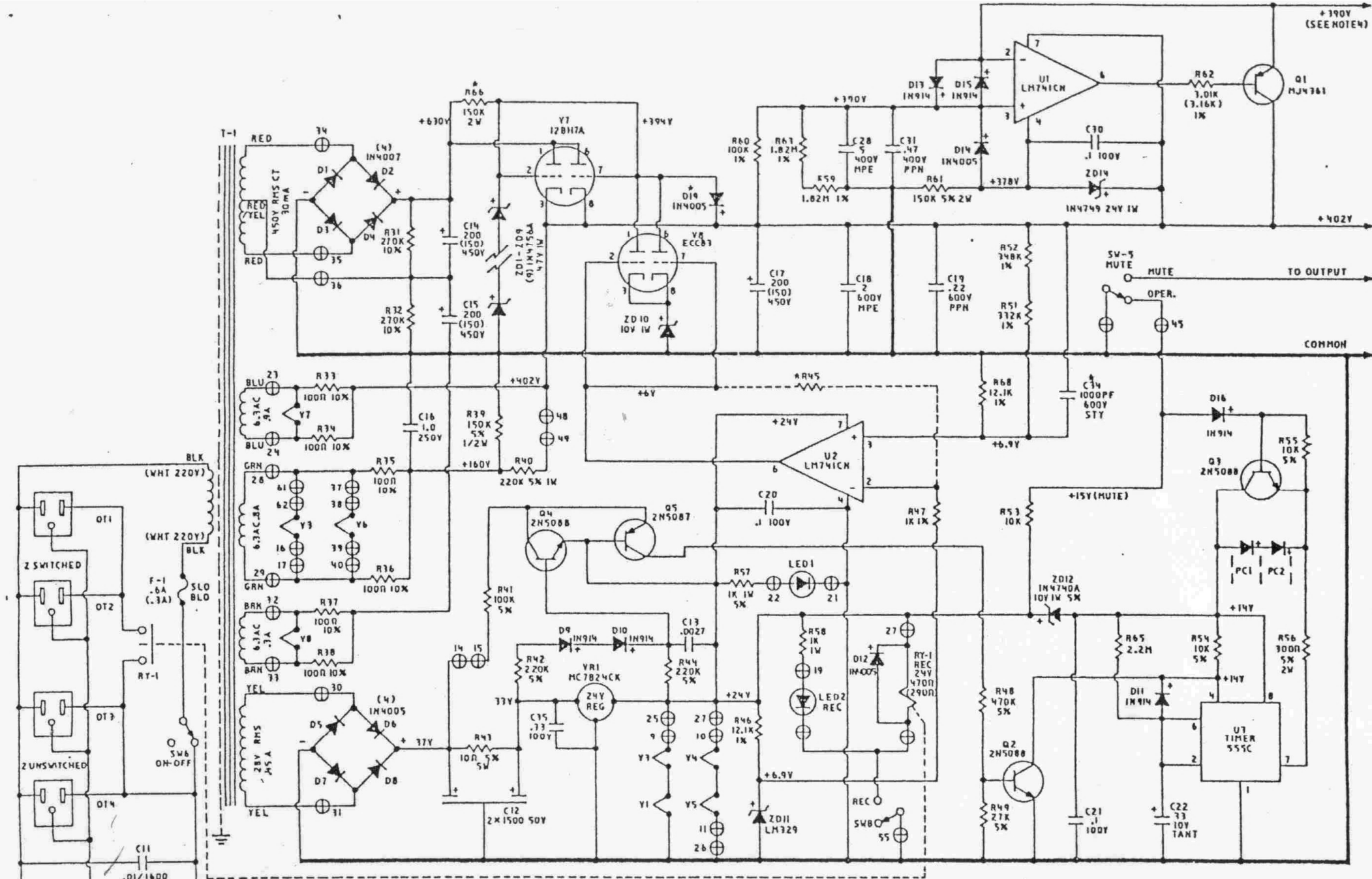


SP-8 TUBE LOCATIONS - (TOP VIEW)

- NOTES:
1. TUBES: V1, 2, 4, 5 EB3CC REFERENCE DUAL TRIODE (V1 SELECTED LOW NOISE)
V1, V6 6DJ8 DUAL TRIODE
FOR BEST SONIC RESULTS, USE ONLY TUBES SUPPLIED BY AUDIO RESEARCH CORPORATION.
2. ADD R28 39.2K TO CUT GAIN 8dB.
3. EFFECTIVE OCT. 81 SONIC IMPROVEMENT! R6, 25 1.0K WAS 1.5K.
4. MEASURE DC VOLTAGES THRU 1KΩ ISOLATION RESISTOR TO MINIMIZE CAPACITIVE LOADING EFFECTS.

PROPRIETARY NOTICE
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| | | | |
|---------------------------------------|-----------|--|-------------|
| TOLERANCES UNLESS OTHERWISE SPECIFIED | | AUDIO RESEARCH CORPORATION MINNEAPOLIS, MINNESOTA | |
| RESISTOR | RESISTOR | DATE | DESIGNED BY |
| CAPACITOR | CAPACITOR | REVISED BY | REVISED BY |
| WIRE | WIRE | DATE | DATE |
| PROJECT NO. | | TITLE | |
| 1 | | SCHEMATIC SP-8 PREAMPLIFIER & SENSORS | |



105-125VAC (210-250VAC)
60Hz 50Hz
60W MAX

NOTES:

1. ALL CAP IN μ F; RES 1/2W 5% UNLESS NOTED.
2. USE CAUTION WHEN SERVICING HIGH VOLTAGE COMPONENTS. CONTACT WITH STORED ENERGY WITH POWER OFF COULD BE LETHAL.
3. ALL VOLTAGES AT 120VAC 60Hz LINE.
4. MEASURE DC VOLTAGES THRU 1K ISOLATION RESISTOR TO MINIMIZE CAPACITIVE LOADING EFFECTS.
5. * EFFECTIVE OCT '81 SONIC AND RELIABILITY IMPROVEMENT: ADDED C74 AND D19. R66 2W WAS 1/2W. R45 DELETED WAS 100K. LITZ WIRE ADDED.

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| | | | |
|--|----|--|-------------|
| TOLERANCES (UNLESS OTHERWISE SPECIFIED) | | AUDIO RESEARCH CORPORATION MINNEAPOLIS, MINNESOTA | |
| RESISTORS | 1% | DATE | DESIGNED BY |
| CAPACITORS | 5% | REVISED BY | APPROVED BY |
| FUNCTIONAL | | TITLE | |
| 1 | | SCHEMATIC SP-8 POWER SUPPLY | |

| COMPONENT | QUAN. | DESCRIPTION | VALUE | RATING | TOL. | ARC PART NO. |
|----------------|-------|----------------------|---------|----------|------|-----------------|
| V1,2,4,5 | 4 | E83CC Reference | | | | 32001000 |
| V3,6 | 2 | 6DJ8 | | | | 32001100 |
| V7 | 1 | 12BH7A | | | | 32001200 |
| V8 | 1 | ECC83/12AX7A | | | | 32000100 |
| D1-4 | 4 | IN4007(IN4006) | 1A | 1000V | | 30501000 |
| D5-8,12,14,19 | 7 | IN4005 | 1A | 600V | | 30500400 |
| D9-11,13,15-18 | 10 | IN914 | | 100V | | 30500900 |
| ZD1-9 | 9 | IN4756A Zener | | 47V | 1W | 30503200 |
| ZD10,12 | 2 | IN4740A Zener | | 10V | 1W | 30500300 |
| ZD11 | 1 | LM329DZ Zener Ref. | | 6.9V | | 31000700 |
| ZD14 | 1 | IN4749 Zener | | 24V | 1W | 30502500 |
| LED 1,2 | 2 | LED Green | | | | 34300100 |
| Q1 | 1 | MJ4361 Transistor | | | | 30004400 |
| Q2,3,4 | 3 | 2N5088 Transistor | | | | 30003100 |
| Q5 | 1 | 2N5087 Transistor | | | | 30003000 |
| RV1 | 1 | Balance Control | 100K | LinTaper | 10% | 45100525 |
| RV2 | 1 | Gain Control | 100K | LogTaper | 10% | 45100523 |
| VR1 | 1 | MC7824CK | 24V | 1A | | 31001200 |
| U1,U2 | 1 | LM741CN | | | | 31000400 |
| U3 | 1 | LM555CN Timer | | | | 31000800 |
| PC1,2 | 2 | VTL5C1 Photo Coupler | | | | 34400100 |
| R1 | 2 | Metal Film | 49.9K | 1/2W | 1% | 42499403 |
| R2,4,21,23 | 8 | Metal Film | 1.82K | 1/2W | 1% | 42182303 |
| R3,7,22,26 | 8 | Metal Film | 301K | 3/4W | 1% | 42301504 |
| R5,20,24,67 | 8 | Metal Film | 475K | 1/2W | 1% | 42475503 |
| R6,25 | 4 | Metal Film | 1.0K | 1/2W | 1% | 42100303 |
| R8 | 2 | Metal Film | 1.5K | 1/2W | 1% | 42150303 |
| R9,59,63 | 4 | Metal Film | 39K | 2W | 2% | 46390401 |
| R10,60 | 3 | Metal Film | 1.82Meg | 1/2W | 1% | 42182603 |
| R11,14-17,19 | 10 | Metal Film | 100K | 1/2W | 1% | 42100503 |
| R12,18,30 | 6 | Metal Film | 4.64K | 1/4W | 1% | 42464302 |
| R13 | 2 | Metal Film | 511Ω | 1/4W | 1% | 42511202 |
| R27 | 2 | Metal Film | 1.0Meg | 1/2W | 1% | 42100603 |
| R29(R28) | 2 | Metal Film | 33K | 2W | 2% | 46330401 |
| R31,32 | 2 | Metal Film | 39.2K | 1/2W | 1% | 42392403 |
| R33-38 | 2 | Metal Film | 270K | 2W | 10% | 40270505 |
| R39 | 2 | Carbon | 100Ω | 1/2W | 10% | 40270505 |
| R40 | 6 | Carbon | 150K | 1/2W | 5% | 41150503 |
| R41 | 1 | Carbon | 220K | 1W | 5% | 41220504 |
| R42,44 | 1 | Carbon | 100K | 1/4W | 5% | 41100502 |
| R43 | 2 | Carbon | 220K | 1/4W | 5% | 41220502 |
| R45 | 1 | Wirewound | 10Ω | 5W | 5% | 43100104 |
| R46,68 | 2 | Metal Film | 100K | 1/4W | 1% | 42100502 |
| R47 | 1 | Metal Film | 12.1K | 1/2W | 1% | 42121403 |
| R48 | 1 | Metal Film | 1K | 1/4W | 1% | 42100302 |
| | | Carbon | 470K | 1/4W | 5% | 41470502 |

