



A Division of St. Louis Music, Inc.

11880 Borman Drive  
St. Louis, MO 63146 USA  
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FAX (314) 569-0175

DECEMBER 1994

AMPEG UPDATE

MODELS AFFECTED: SVT-II/SVT-300, SVT-III, AP-3550.

SVT-II & SVT-300:

- 1) Remove and discard 4 screws that secure bottom rubber feet.
- 2) Install shorter 30-833-20 screw in place of above.
- 3) Install a jumper wire on Power Amp P/C assembly as follows:
  - A) P/C assembly 07-419-01: (Early SVT-II)  
Install a jumper in place of resistor R53 (10 ohms)  
see enclosed pictorial Page 1 of 2.
  - B) P/C assembly 07-419-02: (Later SVT-II & SVT-300)  
Same as above but resistor is designated as R23.  
See enclosed pictorial Page 2 of 2.

SVT-III & AP-3550:

- 1) Remove and discard 4 screws that secure bottom rubber feet.
- 2) Install shorter 30-833-20 screw in place of above.

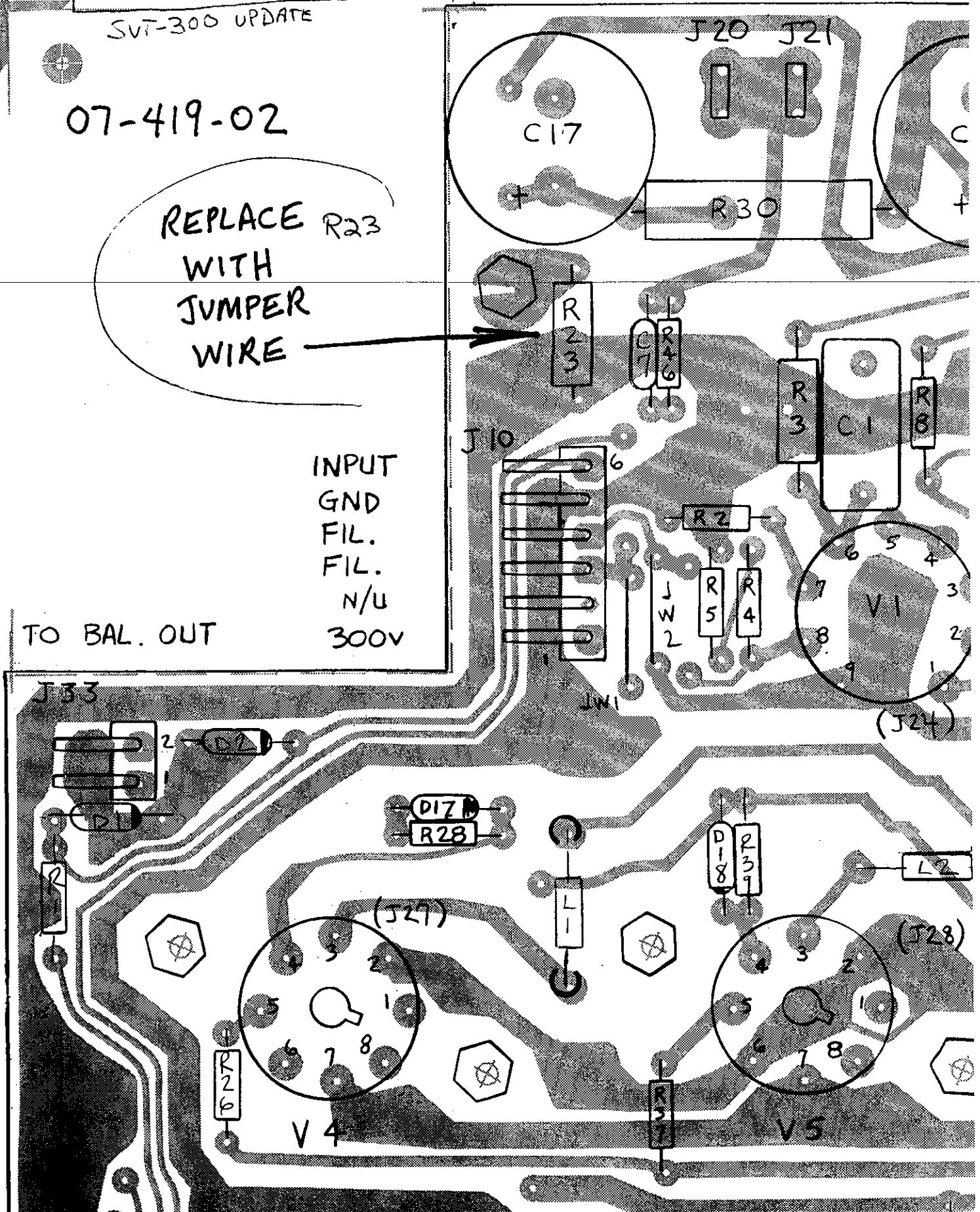
OUTPUT  
OR

07-419-02

REPLACE R23  
WITH  
JUMPER  
WIRE

INPUT  
GND  
FIL.  
FIL.  
N/U  
300V

TO BAL. OUT



## HISTORY

Two problems have been occurring in the SVT-II: excessive hum in the midrange control circuit and damage to the pc board from power tube faults.

The hum in the midrange control circuit is due to magnetic pickup from the power transformer into the toroidal inductor used in this circuit. The original design allowed a wide tolerance in the noise induced into the coil which made some units much noisier than others.

Some power tubes experience intermittent shorts and arcing when new. This action "clears" the tubes and they then function normally. However, these shorts are not severe enough to cause the fuse to blow and this causes the 5 ohm plate resistors or the 1 ohm cathode resistors to burn. This in turn burns the pc board.

The 5 ohm plate resistors are replaced by ferrite beads. These provide some small impedance (about 50 ohms) at high frequencies to keep the power amp stable. They are basically a wire at audio frequencies so there is no power loss in them. A diode (1N5401-or similar) is placed across each of the 1 ohm cathode resistors with the cathode of the diodes facing ground. This will limit the voltage across the resistors to 0.6 volts. The diode will take the excess current. This will not affect normal operation or biasing of the amp.

These parts will provide a much more severe short to the power supply in case of a tube fault which will blow the fuse. The arcing in a new tube will clear itself in a short time and will not blow a 10 amp slo blo fuse. The diode and ferrite bead will not be damaged and the amp will operate normally.

## MODIFICATION

### PREAMP PC ASSEMBLY 07-519-01 (SVT-II only)

The pc board must be removed from the chassis for this replacement. Remove toroidal inductor, 94-602-32 (L1) and replace with supplied unit. Note the orientation of pin 1.

Note: Since the original inductors vary widely as to the amount of hum pickup, some of the quieter units will not be improved by this change. It may be worthwhile to only change inductors on the noisier units.

### POWER AMP PC ASSEMBLY 07-419-02 (easy, field modification)

This modification can be done without removing the pc assembly.

Add six ferrite beads, 94A001-01, one each in parallel with R27, R30, R32, R38, R41 and R44 mounting on bottom of board. Use care to insure leads do not touch any other traces or component leads. Keep beads close to the board in order to have as much clearance as possible to the chassis bottom.

Add two 1N5401 diodes, 21-541-01, one each in parallel with R35 and R36. Be sure cathodes point toward ground as shown in pictorial. These components will also fit on the bottom of the board; make sure they are as close to the board as possible so that the diodes clear the chassis and chassis bottom when assembled.

### POWER AMP PC ASSEMBLY 07-419-02 (factory modification)

The pc assembly must be removed for this modification.

Remove six power tube sockets and power tube bracket. Replace R27, R30, R32, R38, R41 and R44 each with ferrite bead, 94A001-01. Be sure leads do not touch any pc board traces.

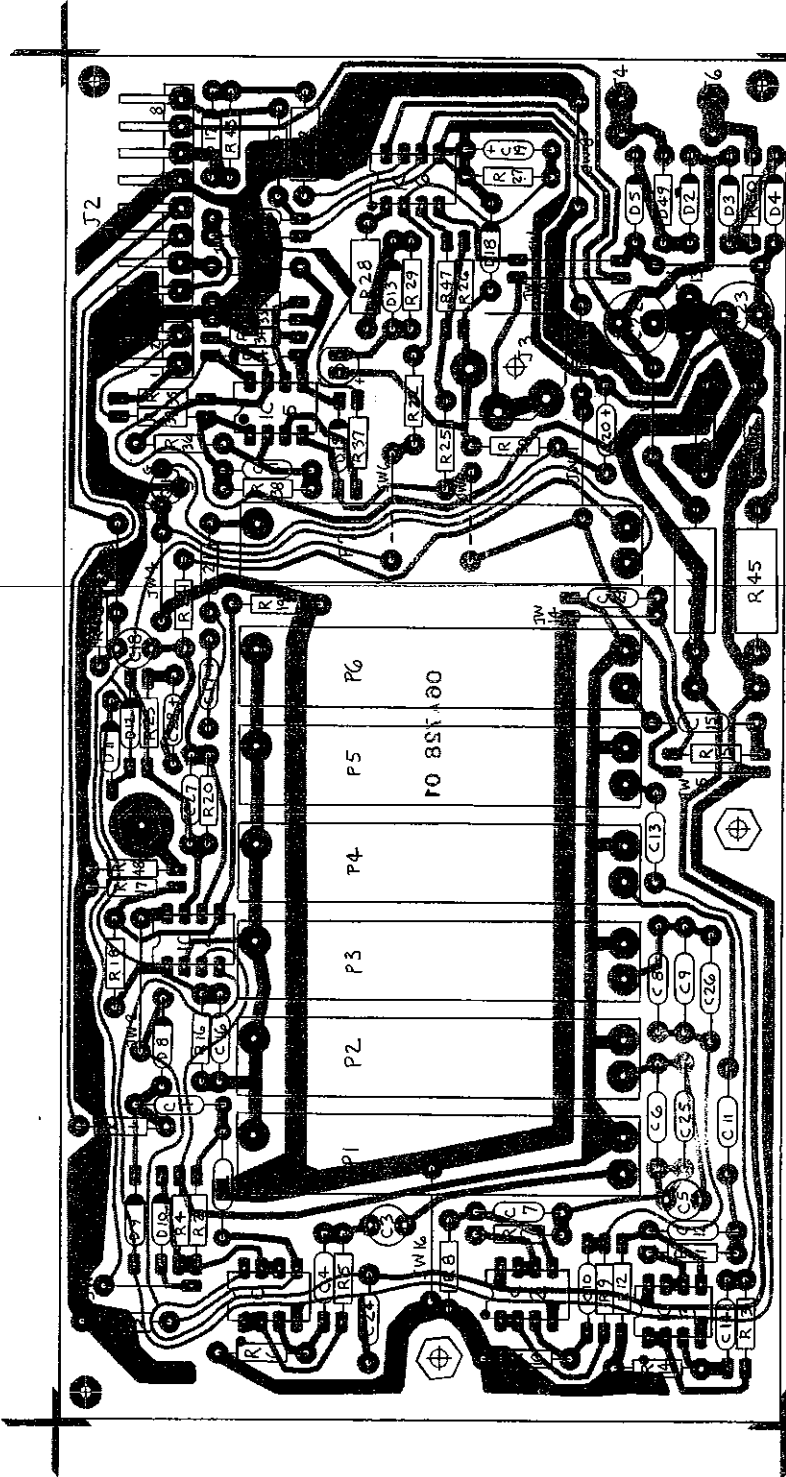
Add two 1N5401 diodes, 21-541-01, one each in parallel with R35 and R36, soldering leads securely to the resistor leads. Be sure cathodes point toward ground as shown in pictorial.

Replace the power tube bracket and the tube sockets; this time with the bracket of top of the sockets (this will facilitate easy future removal of the bracket). Tighten all mounting screws before resoldering the sockets onto the pc board. Be sure to orient the sockets as shown in the pictorial.

George McKale, project engineer

PART	VALUE	BLM PART NO.
R1	22K	76-223-01
R2	22K	76-223-01
R3	220K	76-224-01
R4	3.3K	76-332-01
R5	560	76-561-01
R6	100K	76-104-01
R7	560	76-561-01
R8	470	76-472-01
R9	470	76-472-01
R10	1.0K	76-103-01
R11	1.0K	76-103-01
R12	1.0K	76-103-01
R13	330	76-331-01
R14	100K	76-104-01
R15	470	76-471-01
R16	3.3K	76-332-01
R17	220K	76-224-01
R18	4.7K	76-472-01
R19	10K	76-103-01
R20	10K	76-103-01
R21	2.2K	76-222-01
R22	1.8K	76-182-01
R23	2.2K	76-222-01
R24	1K	76-103-01
R25	1K	76-103-01
R26	22K	76-223-01
R27	560 1/2W	77-561-01
R28	470	76-471-01
R29	100K	76-104-01
R30	15K	76-153-01
R31	15K	76-153-01
R32	15K	76-153-01
R33	47K	76-473-01
R34	47K	76-473-01
R35	330	76-331-01
R36	10K	76-103-01
R37	4.7K	76-472-01
R38	10K	76-103-01
R39	22K	76-223-01
R40	100K	76-104-01
R41	100K	76-104-01
R42	250 1/2W	77-561-01
R43	470	76-471-01
R44	150 1W	76-151-01
R45	150 1W	76-151-01
R46	100K	76-104-01
R47	470K	76-474-01
R48	10	76-108-01
R49	1	76-010-01
R50	1	76-010-01
C1	.022	10A222-01
C2	.22	10A222-01
C3	22/16V NP	12A22-01
C4	1.01 NP	12A105-01
C5	1.2	12A105-01
C6	.033	10A224-01
C7	.22	10A224-01
C8	.22	10A224-01
C9	.22	10A224-01
C10	.01	10A103-11
C11	.22	10A224-01
C12	.0047	10A172-01
C13	.1	10A104-01
C14	.0022	10A222-01
C15	.1	10A104-01
C16	.0022	10A222-01
C17	10/16V	12A105-11
C18	2.2 NP	12A105-11
C19	10/16V	12A105-11
C20	330/250V	12A105-21
C21	100/35V	10A331-01
C22	100/35V	12-107-32
C23	100/35V	12-107-32
C24	.033	10A333-01
C25	.22	10A224-01
C26	.22	10A224-01
C27	230P	10A331-01
C28	10/16V	12A105-11
C29	.0022	10A222-01
D1	RED-BRN LED	21-591-51
D2-5	IN4002	21A102-01
D6-7	IN754	21A754-01
D8-18	IN754	21A754-01
D19	1J12	21-125-01
D20	1J12	21-125-01
D21	RED-BRN LED	21-591-51
D22	RED-BRN LED	21-591-51
D23	RED-BRN LED	21-591-51
D24	RED-BRN LED	21-591-51
D25	RED-BRN LED	21-591-51
D26	RED-BRN LED	21-591-51
D27	RED-BRN LED	21-591-51
D28	RED-BRN LED	21-591-51
D29	RED-BRN LED	21-591-51
D30	RED-BRN LED	21-591-51
D31	RED-BRN LED	21-591-51
D32	RED-BRN LED	21-591-51
D33	RED-BRN LED	21-591-51
D34	RED-BRN LED	21-591-51
D35	RED-BRN LED	21-591-51
D36	RED-BRN LED	21-591-51
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D42	RED-BRN LED	21-591-51
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D50	RED-BRN LED	21-591-51
D51	RED-BRN LED	21-591-51
D52	RED-BRN LED	21-591-51
D53	RED-BRN LED	21-591-51
D54	RED-BRN LED	21-591-51
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D75	RED-BRN LED	21-591-51
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D79	RED-BRN LED	21-591-51
D80	RED-BRN LED	21-591-51
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D82	RED-BRN LED	21-591-51
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D96	RED-BRN LED	21-591-51
D97	RED-BRN LED	21-591-51
D98	RED-BRN LED	21-591-51
D99	RED-BRN LED	21-591-51
D100	RED-BRN LED	21-591-51

NOTES: 1) UNLESS OTHERWISE SPECIFIED, ALL RESISTORS ARE IN OHMS 1/4 WATT. 5K. ALL CAPACITORS ARE IN MICROFARADS (AND HAVE A 50 VOLT RATING (MINIMUM)).



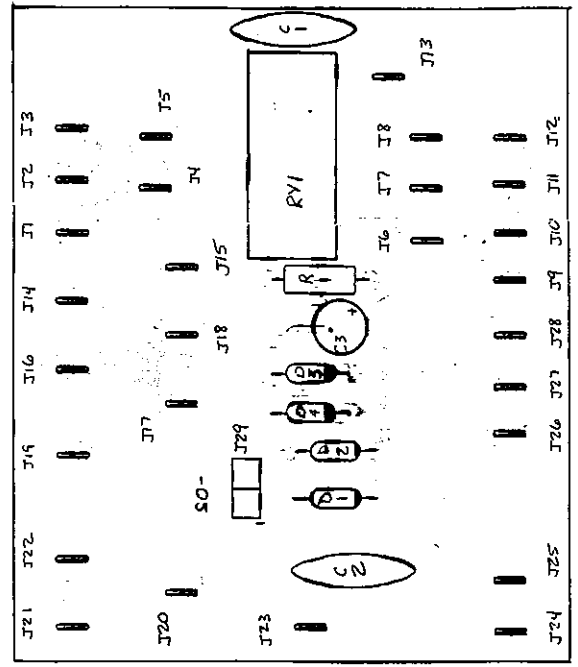
PC ASSY 01-728-01

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DECIMAL	FRACTIONAL	NO.	DATE
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±.05	±.002	2	
±.02	±.001	3	
±.01	±.0005	4	
±.005	±.0002	5	

SVT-II GRAPHIC EQ PICTORIAL	DATE	BY
SJM ELECTRONICS		
1400 FERGUSON ST. LOUIS MO 63133		
DESIGNED BY	DATE	APP'D
DRAWN BY	11-1-88	JJM
CHECKED		
TRACED		
DRAWING NO.		07-728-01

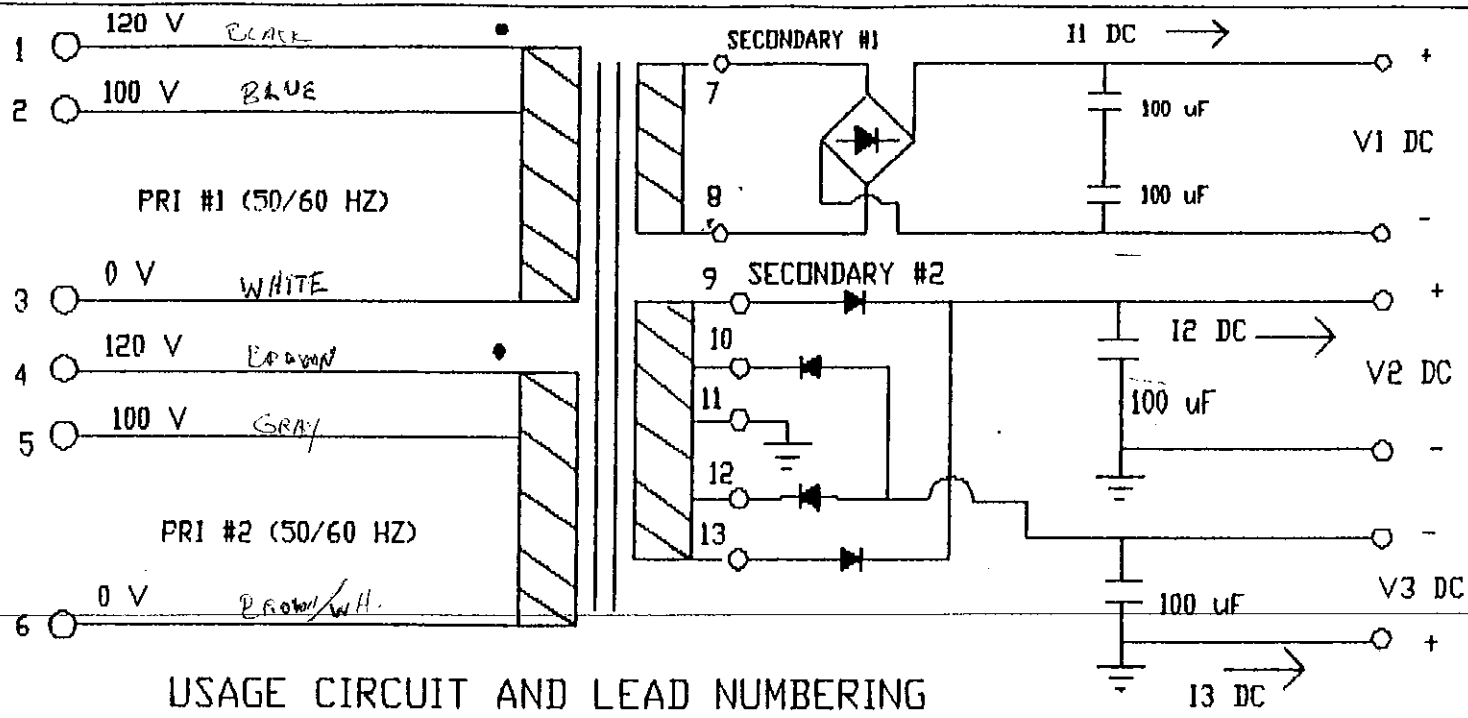
**SVT-II AC TERM P.C. ASSY**



C1	.0027UF UL	10-272-01
C2	.01 UF U.L.	10-103-01
C3	220UF/16V	12-227-12
D1	1M4002	21A402-01
D2	1M4002	21A402-01
D3	1M4002	21A402-01
D4	1M4002	21A402-01
RV1	5 VDC RELAY	62-505-01
J1	.187 ST. PC TAB	17-894-01
J2	.187 ST. PC TAB	17-894-01
J3	.187 ST. PC TAB	17-894-01
J4	.250 ST. PC TAB	17-894-01
J5	.250 ST. PC TAB	17-894-01
J6	.250 ST. PC TAB	17-894-01
J7	.187 ST. PC TAB	17-894-01
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J9	.187 ST. PC TAB	17-894-01
J10	.187 ST. PC TAB	17-894-01
J11	.250 ST. PC TAB	17-894-01
J12	.250 ST. PC TAB	17-894-01
J13	.187 ST. PC TAB	17-894-01
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J25	.250 ST. PC TAB	17-894-01
J26	.250 ST. PC TAB	17-894-01
J27	.187 ST. PC TAB	17-894-01
J28	.187 ST. PC TAB	17-894-01
J29	2 PIN HEADER	17-310-02
PCB		06A319-02
R1	10R 1/2W	77-100-01

ART REV. 0

TOLERANCES UNLESS OTHERWISE SPECIFIED		REVISIONS	
1	ORIGINAL	NO	DATE
2	FUNCTIONAL	BY	
3	APPROVAL		
4			
5			
6			
7			
8			
9			
10			
DRAWN BY: AC		SVM ELECTRONICS	
CHECKED BY: JHM		SVM ELECTRONICS	
DATE: 1-30-91		SVM ELECTRONICS	
PROJECT: 07P319-02		SVM ELECTRONICS	
SCALE: 2:1		SVM ELECTRONICS	
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APP'D: JHM		SVM ELECTRONICS	
DATE: 1-30-91		SVM ELECTRONICS	
PROJECT: 07P319-02		SVM ELECTRONICS	
SCALE: 2:1		SVM ELECTRONICS	
DRAWING NO: 07P319-02		SVM ELECTRONICS	
APP'D: JHM		SVM ELECTRONICS	
DATE: 1-30-91		SVM ELECTRONICS	
PROJECT: 07P319-02		SVM ELECTRONICS	



USAGE CIRCUIT AND LEAD NUMBERING

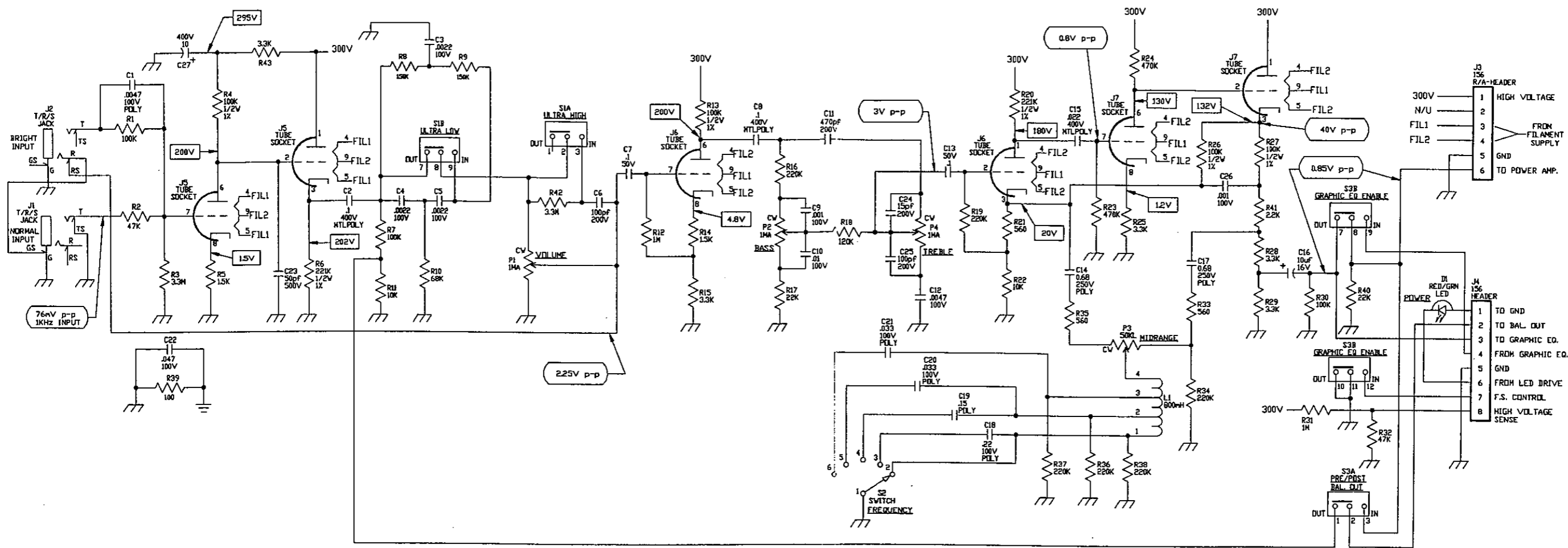
LEAD	GAUGE	COLOR	LENGTH	TERMINATION
1	AS NEEDED	BLACK	10'	.250' FULLY INSULATED RIGHT ANGLE FASTON
2	'	BLUE	10'	.250' FULLY INSULATED RIGHT ANGLE FASTON
3	'	WHITE	11'	.250' FULLY INSULATED RIGHT ANGLE FASTON
4	'	BROWN	11'	.250' FULLY INSULATED RIGHT ANGLE FASTON
5	'	GRAY	11'	.250' FULLY INSULATED RIGHT ANGLE FASTON
6	'	BROWN-WH.	10'	.250' FULLY INSULATED RIGHT ANGLE FASTON
7	'	RED-WHITE	13'	.250' FULLY INSULATED RIGHT ANGLE FASTON
8	'	RED	13'	.250' FULLY INSULATED RIGHT ANGLE FASTON
9	'	VIOLET	13'	.250' FULLY INSULATED RIGHT ANGLE FASTON
10	'	BLUE-YEL.	13'	.250' FULLY INSULATED RIGHT ANGLE FASTON
11	'	ORANGE	12'	.250' FULLY INSULATED RIGHT ANGLE FASTON
12	'	GRN.-YEL.	13'	.250' FULLY INSULATED RIGHT ANGLE FASTON
13	'	GREEN	13'	.250' FULLY INSULATED RIGHT ANGLE FASTON

GLM ELECTRONICS  
 11880 BORMAN DRIVE  
 ST LOUIS, MO 63146  
 TEL 314-569-0141  
 TELEX 5106004723

1/88 EXPORT  
 REV A  
 01P3

SVT-II  
 POWER TRANSFORMER  
 94-602-01

P3



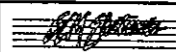
**NOTES**

- 1) CAUTION: SHOCK HAZARD!!  
THIS UNIT CONTAINS HAZARDOUS VOLTAGE. DISCONNECT POWER AND BE SURE POWER SUPPLY IS DISCHARGED BEFORE TOUCHING INTERNAL PARTS.
- 2) UNLESS NOTED, RESISTOR VALUES IN OHMS, 1/4V-5% TOL. CAPACITOR VALUES IN MICROFARADS, 50V-10% TOL.
- 3) VOLTAGES ARE MEASURED WITH 1 MEGOHM OSCILLOSCOPE AND 10 MEGOHM DIGITAL VOLTMETER.
- 4) CIRCUIT GROUND  $\perp$  CHASSIS GROUND  $\perp$
- 5) 295V DC VOLTAGES, NO INPUT SIGNAL

76mV p-p  
1KHz INPUT AC VOLTAGES, 1KHz SIGNAL, ALL TONES FLAT, VOLUME @ '10', SWITCHES 'OUT'.

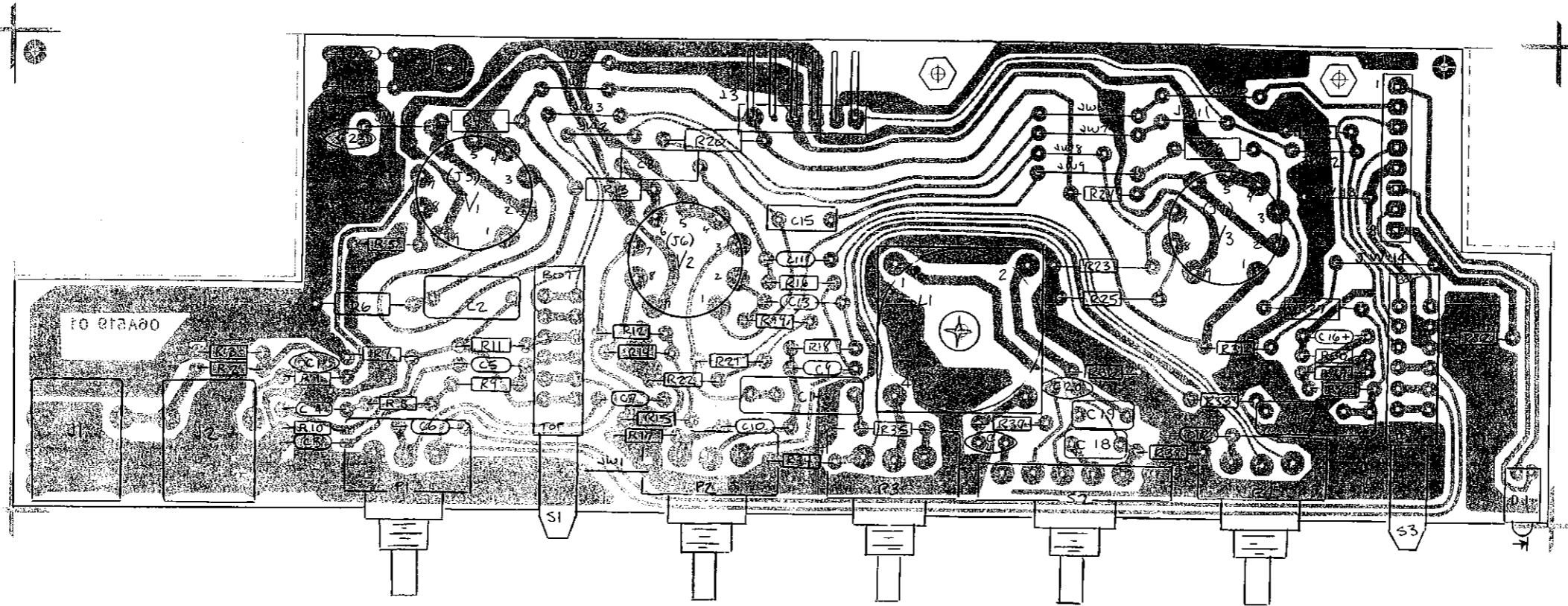
**CAUTION:**

THIS SCHEMATIC IS PROVIDED FOR USE BY QUALIFIED PERSONNEL. TO AVOID RISK OF ELECTRIC SHOCK, REFER SERVICING TO QUALIFIED SERVICE PERSONNEL. DO NOT PERFORM ANY SERVICING BEYOND THAT EXPLAINED IN THE OPERATING INSTRUCTIONS.

SIGNATURES:	DATE:		1180 BORMAN DR. ST. LOUIS, MISSOURI 63148
DRAWN: SWR	5/11/92		
CHK'D: GM	06/09/92	PROJECT NAME: SVT-II	
APP'D: GM	06/09/92	DRAWING NAME: PRE-AMP SCHEMATIC	
ORIGINAL ISSUED:	06/10/82	DRAWING NO. 07S519-02	
PLOT DATE:	10:10:34	SCALE: NONE SHEET: 1 OF 1	
FILE NAME:	SS1902		



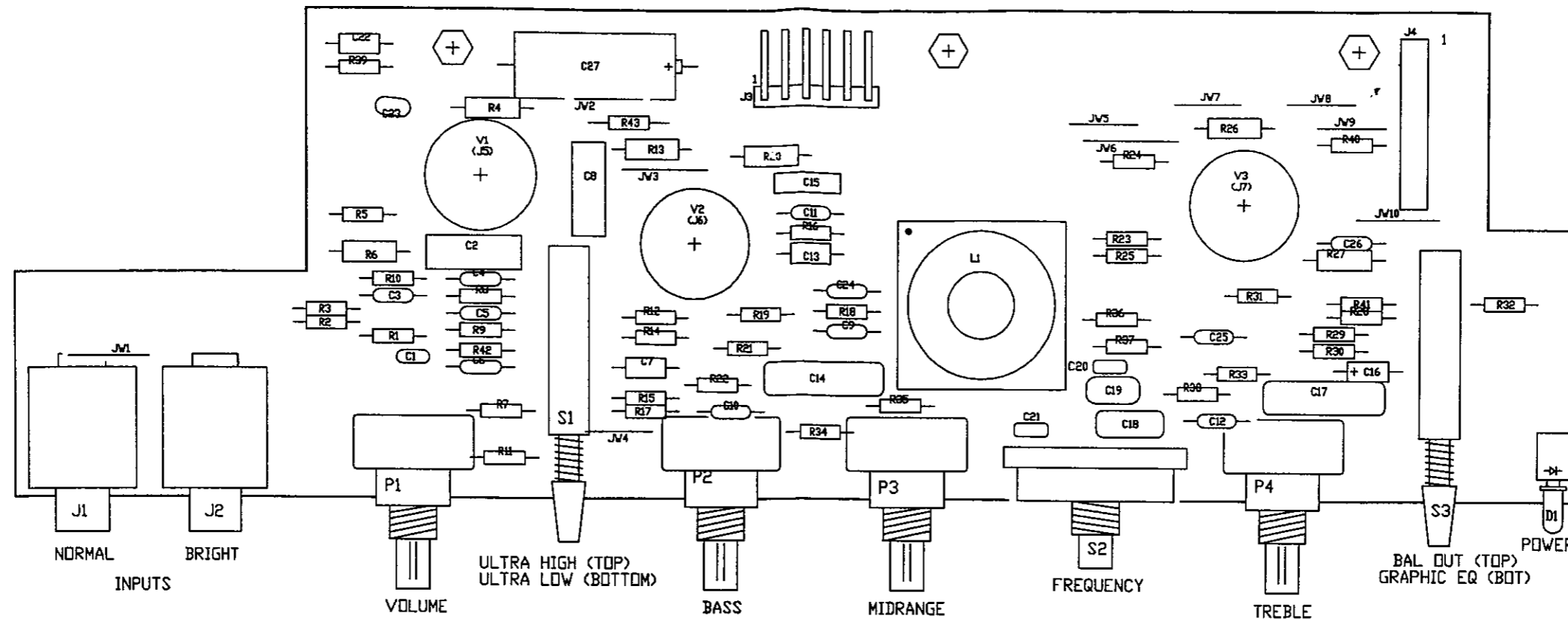
PART	VALUE	SLM PART NO.	PART	VALUE	SLM PART NO.	PART	VALUE	SLM PART NO.	PART	VALUE	SLM PART NO.
R1	100K	76-104-01	R25	3.3K	76-332-01	C8	.1 400V	10-104-41	B1	APDT	88-303-01
R2	47K	76-473-01	R26	100K 1/2W	77-104-01	C9	.001 100V	10A102-11	B2	ROTARY	88-107-01
R3	3.3M	76-335-01	R27	100K 1/2W	77-104-01	C10	.01 100V	10A103-11	B3	APDT	88-303-01
R4	100K	77-104-02	R28	3.3K	76-332-01	C11	470p 200V	10A471-21	JW1, 5, 13	JUMPER HD	76-000-02
R5	1.5K	76-152-01	R29	3.3K	76-332-01	C12	.0047 100V	10A472-11	JW2-4,		
R6	220K 1/2W	77-224-01	R30	100K	76-104-01	C13	.1 50V	10A104-01	6-12,		
R7	100K	76-104-01	R31	1M	76-105-01	C14	.68 200V	10-684-21	14, 15	JUMPER	76-000-01
R8	150K	76-154-01	R32	47K	76-473-01	C15	.01 400V	10-103-41	J1, 2	1/4" JACK	39-119-01
R9	150K	76-154-01	R33	560	76-561-01	C16	1.0 50V	12A105-51	J3	6 PIN HDR	17-311-06
R10	68K	76-683-01	R34	220K	76-224-01	C17	.68 200V	10-684-21	J4	8 PIN HDR	17-310-00
R11	1M	76-105-01	R35	470	76-471-01	C18	.22 100V	10-224-03	J5-7	9 PIN SOCKET	17-450-09
R12	1M	76-105-01	R36	220K	76-224-01	C19	.15 100V	10-154-02	(3)	HEX STANDOFF	85-065-01
R13	100K 1/2W 1%	77-104-02	R37	220K	76-224-01	C20	.033 100V	10-333-02	(3)	6-32 SCREW	30-638-53
R14	1.5K	76-152-01	R38	220K	76-224-01	C21	.033 100V	10-333-02	(1)	6-32 SCREW	30-004-01
R15	3.3K	76-332-01	R39	100	76-101-01	C22	.047 100V	10A473-11	(1)	#8 LOCKWASHER	30-801-01
R16	220K	76-224-01	R40	22K	76-223-01	C23	50p 500V	10-500-02	(1)	R. A. MOUNT	68-935-01
R17	22K	76-223-01	C1	.0047 POLY	10-472-01	D1	LED	21-591-01	(1)	PC BOARD	66A519-01
R18	120K	76-124-01	C2	.1 400V	10-104-41	L1	INDUCTOR	94-605-32			
R19	1M	76-105-01	C3	.0022 100V	10A222-11	V1-3	12AX7	95-127-01			
R20	220K 1/2W	77-224-01	C4	.0022 100V	10A222-11	P1, 2	1MA	70-105-12			
R21	560	76-561-01	C5	.0022 100V	10A222-11	P3	50KL	70-503-17			
R22	10K	76-103-01	C6	470p 200V	10A471-21	P4	1MA	70-105-12			
R23	1M	76-105-01	C7	.1 50V	10A104-01						
R24	470K	76-474-01									



NOTES: 1) UNLESS OTHERWISE SPECIFIED, ALL RESISTORS ARE IN OHMS 1/4 WATT, 5%. ALL CAPACITORS ARE IN MICROFARADS AND HAVE A 50 VOLT RATING (MINIMUM).

TOLERANCES	REVISIONS	SVT-II PREAMP Bd.	
(EXCEPT AS NOTED)	NO.	DATE	BY
DECIMAL	1		
FRACTIONAL	2		
ANGULAR	3		
	4		
	5		

P.C. ARTWORK  
 SLM ELECTRONICS ST. LOUIS  
 1400 FERGUSON AVE. 63133  
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 DATE: 8-23-88  
 SCALE: 2X  
 MATERIAL: TRACED  
 DRAWING NO.: 07-519-01




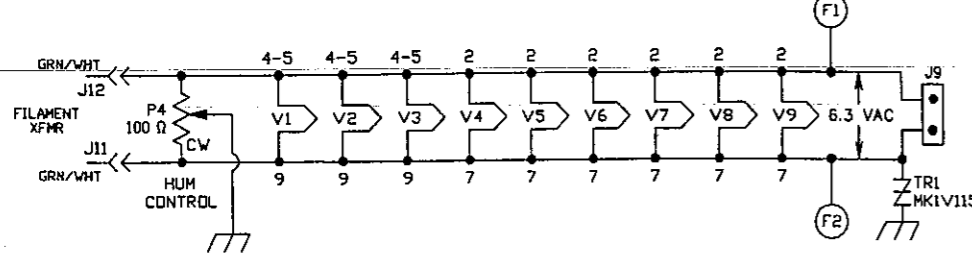
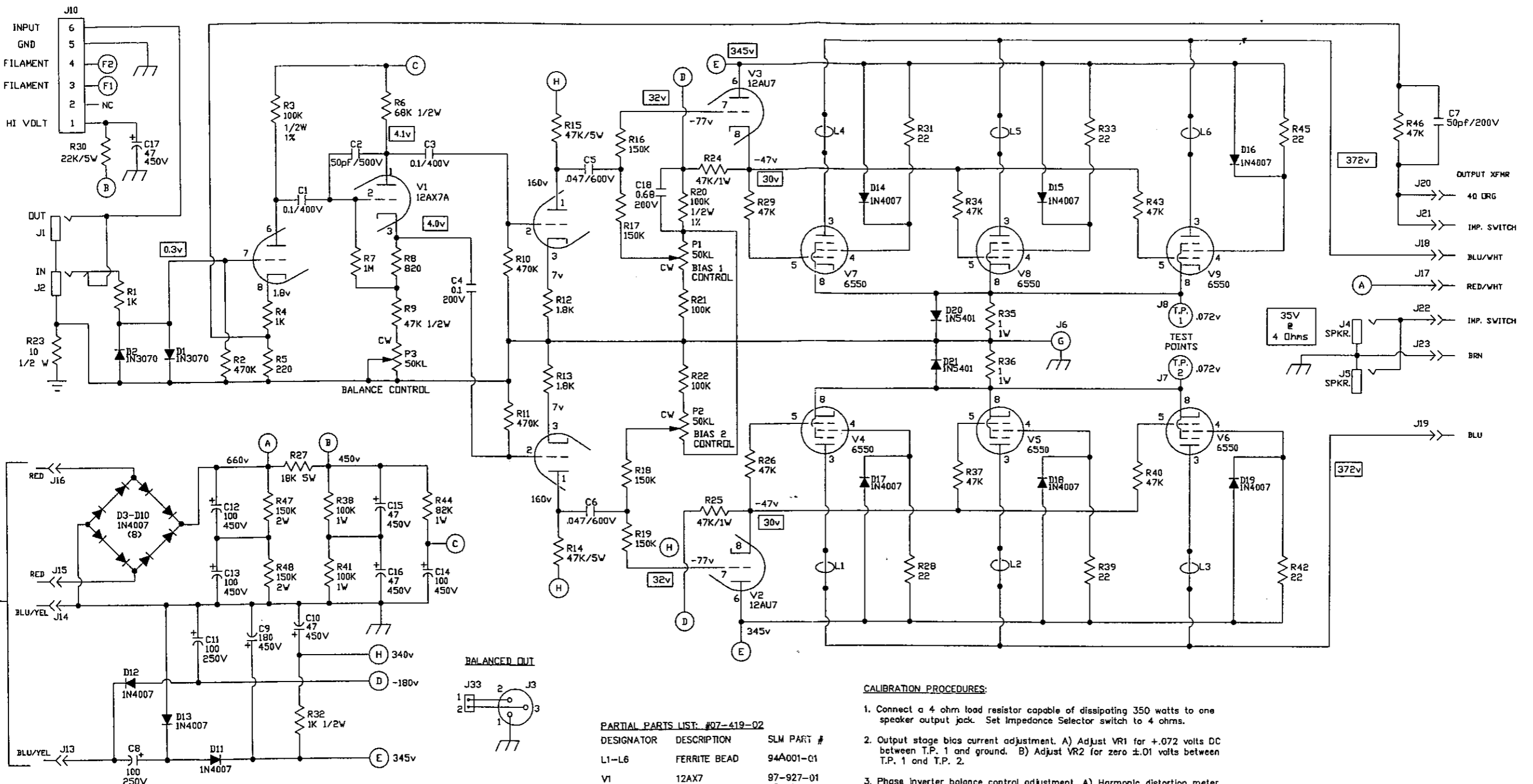
DESIGNATOR	PART #	DESCRIPTION
C1	10-472-01	.0047 100V
C2	10-104-10	.1 400V
C3	10A222-11	.0022 100V
C4	10A222-11	.0022 100V
C5	10A222-11	.0022 100V
C6	10A101-21	100pf 200V
C7	10A104-01	.1 50V
C8	10-104-10	.1 400V
C9	10A102-11	.001 100V
C10	10A103-11	.01 100V
C11	10A471-21	470pf 200V
C12	10A472-11	.0047 100V
C13	10A104-01	.1 50V
C14	10-684-21	0.68 250V
C15	10-223-10	.022 400V
C16	12A106-11	10uF 16V
C17	10-684-21	0.68 250V
C18	10-224-03	.22 100V
C19	10-154-02	.15 PDLY
C20	10-333-02	.033 100V
C21	10-333-02	.033 100V
C22	10A473-11	.047 100V
C23	10-500-02	50pf 500V
C24	10A150-21	15pf 200V
C25	10A101-21	100pf 200V
C26	10A102-11	.001 100V
C27	12-106-91	10 400V
D1	21-591-01	RED/GRN LED
J1	39-120-01	T/R/S JACK
J2	39-120-01	T/R/S JACK
J3	17-311-06	156 R/A-HEADER
J4	17-310-08	156 HEADER
J5	17-450-09	TUBE SOCKET
J6	17-450-09	TUBE SOCKET
J7	17-450-09	TUBE SOCKET
JW1-JW10	76-000-05	JUMPER
L1	94-602-32	800mH
P1	70-105-12	1MA
P2	70-105-12	1MA
P3	70-503-17	50K
P4	70-105-12	1MA
R1	76-104-01	100K
R2	76-473-01	47K
R3	76-335-01	3.3K
R4	77-104-02	100K 1/2W 1%
R5	76-152-01	1.5K
R6	77-224-02	221K 1/2W 1%
R7	76-104-01	100K
R8	76-154-01	150K
R9	76-154-01	150K
R10	76-683-01	68K
R11	76-103-01	10K
R12	76-105-01	1M
R13	77-104-02	100K 1/2W 1%
R14	76-152-01	1.5K
R15	76-332-01	3.3K
R16	76-224-01	220K
R17	76-223-01	22K
R18	76-124-01	120K
R19	76-224-01	220K
R20	77-224-02	221K 1/2W 1%
R21	76-561-01	560
R22	76-103-01	10K
R23	76-474-01	470K
R24	76-474-01	470K
R25	76-332-01	3.3K
R26	77-104-02	100K 1/2W 1%
R27	77-104-02	100K 1/2W 1%
R28	76-332-01	3.3K
R29	76-332-01	3.3K
R30	76-104-01	100K
R31	76-105-01	1M
R32	76-473-01	47K
R33	76-561-01	560
R34	76-224-01	220K
R35	76-561-01	560
R36	76-224-01	220K
R37	76-224-01	220K
R38	76-224-01	220K
R39	76-101-01	100
R40	76-223-01	22K
R41	76-222-01	2.2K
R42	76-335-01	3.3K
R43	76-332-01	3.3K
S1	88-303-01	SWITCH
S2	88-107-01	SWITCH
S3	88-303-01	SWITCH
V1	97-127-01	12AX7 TUBE
V2	97-127-01	12AX7 TUBE
V3	97-127-01	12AX7 TUBE
3	85-065-01	1 7/16 STANDOFF
3	30-638-53	6-32 x 3/8" SCREWS
1	06A519-02	PRINTED CIRCUIT BOARD
1	68-935-01	LED MOUNT

**NOTES**  
 1) CAUTION: SHOCK HAZARD!!  
 THIS UNIT CONTAINS HAZARDOUS VOLTAGE. DISCONNECT POWER AND BE SURE POWER SUPPLY IS DISCHARGED BEFORE TOUCHING INTERNAL PARTS.  
 2) UNLESS NOTED, RESISTOR VALUES IN OHMS, 1/4W-5% TOL. CAPACITOR VALUES IN MICROFARADS, 50V-10% TOL.

PC BOARD ART REV. 1

**RELEASED**

SIGNATURES:	DATE:	 11880 BORMAN DR. ST. LOUIS, MISSOURI 63146
DRAWN: SWR	5/11/92	
CHK'D: GM	06/09/92	PROJECT NAME: SVT-II
APP'D: GM	06/09/92	DRAWING NAME: PRE-AMP PICTORIAL
ORIGINAL ISSUED:	06/09/92	DRAWING NO. 06P519-02
PLOT DATE:	08/11/92	SCALE: 1:1
PLOT TIME:	14:26:20	SHEET: 1 OF 1
FILE NAME:	P51902	



**CAUTION:**  
THIS SCHEMATIC IS PROVIDED FOR USE BY QUALIFIED PERSONNEL TO AVOID RISK OF ELECTRIC SHOCK. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL. DO NOT PERFORM ANY SERVICING BEYOND THAT EXPLAINED IN THE OPERATING INSTRUCTIONS.

**PARTIAL PARTS LIST: #07-419-02**

DESIGNATOR	DESCRIPTION	SLM PART #
L1-L6	FERRITE BEAD	94A001-01
V1	12AX7	97-927-01
V2, V3	12AU7	95-126-01
V4-V9	6550	97-950-01
P1-P3	50KL	70-503-20
P4	100 WW	70-101-21
J1, J2	1/4" JACK	39-116-01
J3	XLR MALE	39-308-01
J4, J5	1/4" JACK	39-116-01
J6-J8	PIN JACK	39-403-01
J9	2 PIN HDR	17-310-02
J10	6 PIN HDR	17-311-06
J11-J23	.250 TAB	17-836-01
J24-J26	9 PIN SOCKET	17-450-09
J27-J32	8 PIN SOCKET	17-450-08
J33	2 PIN HDR	17-311-02
(3)	HEX STANDOFF	85-085-01
(12)	HEX STANDOFF	85-133-01
(15)	SCREW	30-638-53
(1)	PCB	06A419-02
(1)	PLATE	51-406-71
(12)	SCREW	30-637-01

**CALIBRATION PROCEDURES:**

- Connect a 4 ohm load resistor capable of dissipating 350 watts to one speaker output jack. Set Impedance Selector switch to 4 ohms.
- Output stage bias current adjustment. A) Adjust VR1 for +.072 volts DC between T.P. 1 and ground. B) Adjust VR2 for zero ±.01 volts between T.P. 1 and T.P. 2.
- Phase inverter balance control adjustment. A) Harmonic distortion meter method: Drive amplifier to 25 volts RMS out at 40 Hz and connect distortion meter to load resistor, adjust VR3 for minimum distortion. B) Voltmeter method: Adjust output as in step 3A and connect DC voltmeter between test points T.P. 1 and T.P. 2; adjust VR3 for zero ±.01 volts.

**NOTES:**

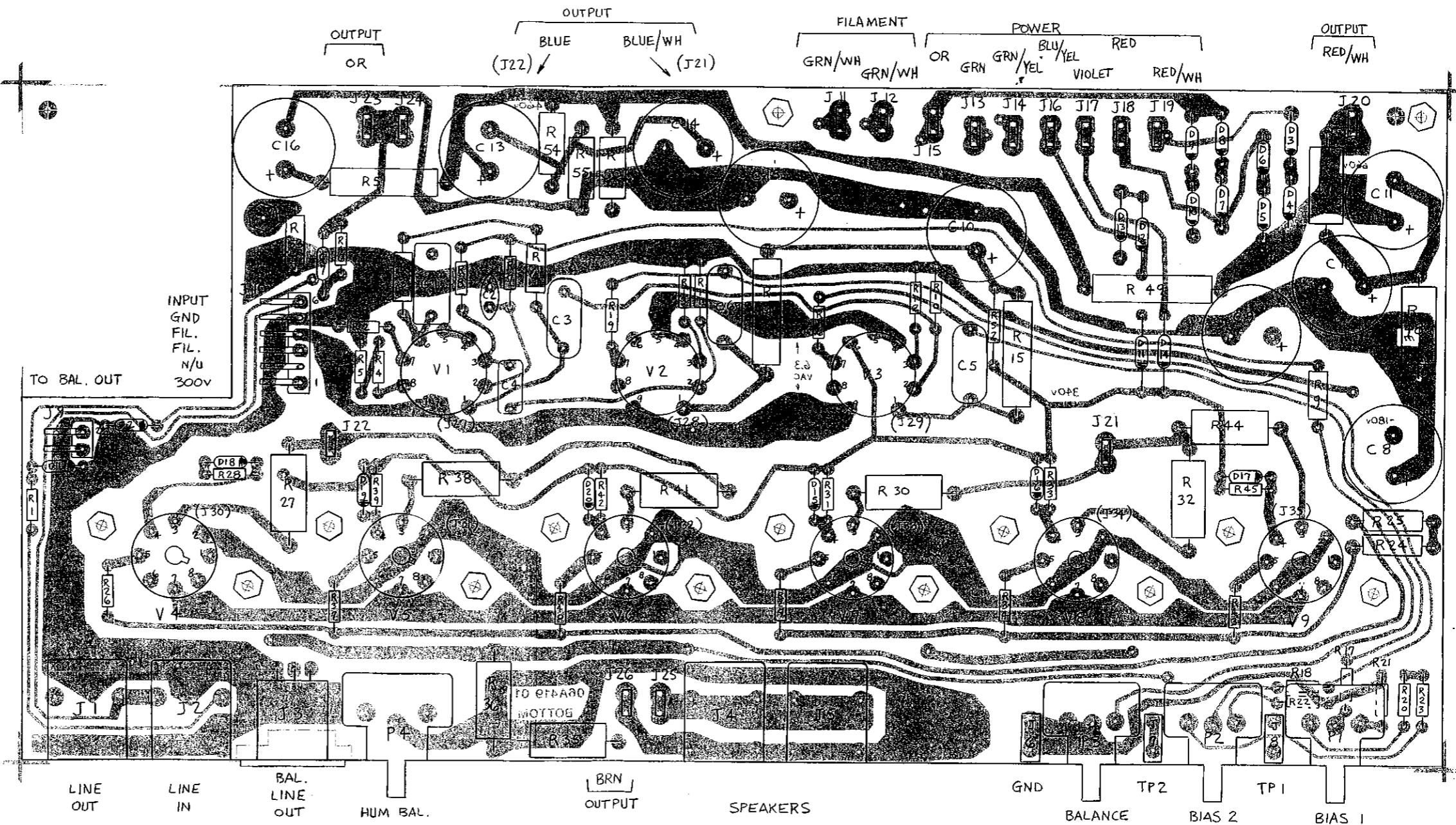
- THIS UNIT CONTAINS HAZARDOUS VOLTAGE. DISCONNECT POWER AND BE SURE POWER SUPPLY IS DISCHARGED BEFORE TOUCHING INTERNAL PARTS.
- UNLESS NOTED, RESISTOR VALUES IN OHMS, 1/4W-5% TOL. CAPACITOR VALUES IN MICROFARADS, 50V-10% TOL.
- VOLTAGES ARE MEASURED WITH 1 MEGOHM OSCILLOSCOPE AND 10 MEGOHM DIGITAL VOLTMETER. VOLTS IN RECTANGLES ARE RMS SIGNAL VOLTAGES WITH 0.3V 1KHZ @ J2. OTHER VOLTAGES ARE DC WITH NO SIGNAL.

REV	DATE	BY	CHK'D	DESCRIPTION
3	5/19/92	SWR		ADDED TR1 & C18. RENUMBERED RESISTORS. CHANGED BIAS CIRCUIT.
2	4/8/92	SWR		REPLACED R27, R30, R32, R38, R41, R44 WITH FERRITE BEAD (L1-L6) CHG'D R35, R36 TO 1/2W. ADDED D20, D21
1	11/6/91	SWR		CHANGED VALUE OF C7 FROM 100pF/200V TO 50pF/200V. ADDED C18 50pF/500V

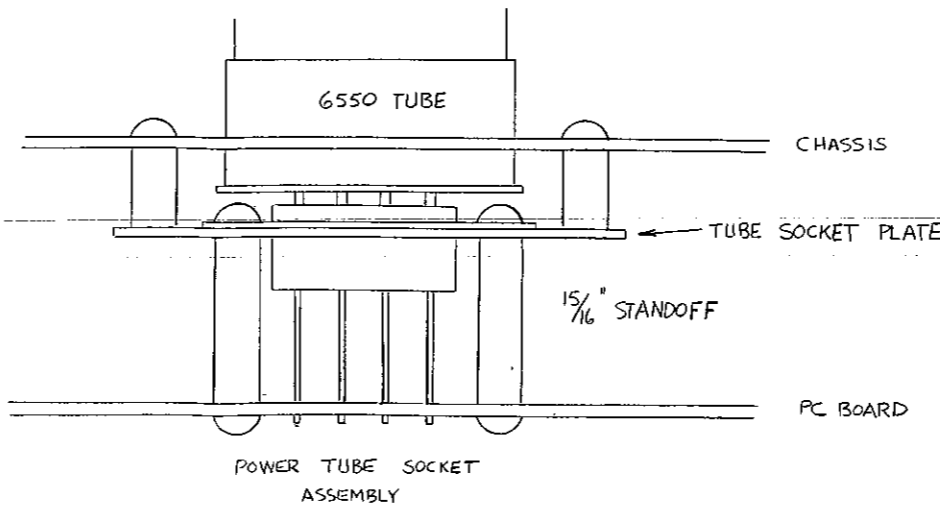
SIGNATURES:	DATE:	 <b>T. BORMAN DR.</b> <b>ST. LOUIS, MISSOURI</b> <b>63148</b>
DRAWN: ML	2-1-91	
CHK'D: G.M.	02/15/91	
APP'D: G.M.	02/15/91	
ORIGINAL ISSUED:	02/15/91	
PROJECT NAME:		SVT-II PWR AMP
DRAWING NAME:		SCHEMATIC
DRAWING NO.:		07S419-02
FILE NAME:		S419023
SCALE:		NONE
SHEET:		1 of 1

TRANSFORMER HOOK UP



PART	VALUE	BLM PART NO.
R1	1K	76-102-01
R2	470K	76-474-01
R3	100K 1/2W 1%	77-104-02
R4	1K	76-102-01
R5	220	76-221-01
R6	68K 1/2W	77-683-01
R7	1M	76-105-01
R8	220	76-221-01
R9	47K 1/2W	77-473-01
R10	470K	76-474-01
R11	470K	76-474-01
R12	1.0K	76-182-01
R13	1.0K	76-182-01
R14	47K 5W	78-473-05
R15	47K 5W	78-473-05
R16	150K	76-154-01
R17	150K	76-154-01
R18	150K	76-154-01
R19	150K	76-154-01
R20	180K	76-184-01
R21	100K	76-104-01
R22	100K	76-104-01
R23	180K	76-184-01
R24	47K 1W	78-473-01
R25	47K 1W	78-473-01
R26	47K	76-473-01
R27	5 5W	78-050-05
R28	22	76-220-01
R29	47K	76-473-01
R30	5 5W	78-050-05
R31	22	76-220-01
R32	5 5W	78-050-05
R33	22	76-220-01
R34	47K	76-473-01
R35	1 5W	78-010-01
R36	1 5W	78-010-01
R37	47K	76-473-01
R38	5 5W	78-050-05
R39	22	76-220-01
R40	47K	76-473-01
R41	5 5W	78-050-05
R42	22	76-220-01
R43	47K	76-473-01
R44	5 5W	78-050-05
R45	22	76-220-01
R46	47K	76-473-01
R47	150K 2W	78-154-02
R48	150K 2W	78-154-02
R49	18K 5W	78-183-05
R50	82K 1W	78-823-01
R51	22K 5W	78-223-05
R52	1K 1/2W	77-102-01
R53	10 1/2W	77-100-01
R54	100K 1W	78-104-01
R55	100K 1W	78-104-01
C1	.1 400V	10-104-41
C2	50p 500V	10-500-02
C3	.1 400V	10-104-41
C4	.1 200V	10-104-21
C5	.047 600V	10-473-61
C6	.047 600V	10-473-61
C7	100p 200V	10-101-21
C8	100 250V	12-107-33
C9	100 450V	12-107-33
C10	47 450V	12-476-42
C11	100 450V	12-107-33
C12	100 450V	12-107-33
C13	47 450V	12-476-42
C14	47 450V	12-476-42
C15	47 450V	12-476-42
C16	47 450V	12-476-42
D1,2	1N3070	21A370-01
D3-20	1N4007	21A407-01
V1	12AX7	25-127-01
V2	12AU7	25-126-01
V3	6X4	25-650-01
V4-9	6X4	25-650-01
V10	6X4	25-650-01
V11	6X4	25-650-01
V12	6X4	25-650-01
V13	6X4	25-650-01
V14	6X4	25-650-01
V15	6X4	25-650-01
V16	6X4	25-650-01
V17	6X4	25-650-01
V18	6X4	25-650-01
V19	6X4	25-650-01
V20	6X4	25-650-01
V21	6X4	25-650-01
V22	6X4	25-650-01
V23	6X4	25-650-01
V24	6X4	25-650-01
V25	6X4	25-650-01
V26	6X4	25-650-01
V27	6X4	25-650-01
V28	6X4	25-650-01
V29	6X4	25-650-01
V30	6X4	25-650-01
V31	6X4	25-650-01
V32	6X4	25-650-01
V33	6X4	25-650-01
V34	6X4	25-650-01
V35	6X4	25-650-01
V36	6X4	25-650-01
V37	6X4	25-650-01
V38	6X4	25-650-01
V39	6X4	25-650-01
V40	6X4	25-650-01
V41	6X4	25-650-01
V42	6X4	25-650-01
V43	6X4	25-650-01
V44	6X4	25-650-01
V45	6X4	25-650-01
V46	6X4	25-650-01
V47	6X4	25-650-01
V48	6X4	25-650-01
V49	6X4	25-650-01
V50	6X4	25-650-01
V51	6X4	25-650-01
V52	6X4	25-650-01
V53	6X4	25-650-01
V54	6X4	25-650-01
V55	6X4	25-650-01
V56	6X4	25-650-01
V57	6X4	25-650-01
V58	6X4	25-650-01
V59	6X4	25-650-01
V60	6X4	25-650-01
V61	6X4	25-650-01
V62	6X4	25-650-01
V63	6X4	25-650-01
V64	6X4	25-650-01
V65	6X4	25-650-01
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V72	6X4	25-650-01
V73	6X4	25-650-01
V74	6X4	25-650-01
V75	6X4	25-650-01
V76	6X4	25-650-01
V77	6X4	25-650-01
V78	6X4	25-650-01
V79	6X4	25-650-01
V80	6X4	25-650-01
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V82	6X4	25-650-01
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V84	6X4	25-650-01
V85	6X4	25-650-01
V86	6X4	25-650-01
V87	6X4	25-650-01
V88	6X4	25-650-01
V89	6X4	25-650-01
V90	6X4	25-650-01
V91	6X4	25-650-01
V92	6X4	25-650-01
V93	6X4	25-650-01
V94	6X4	25-650-01
V95	6X4	25-650-01
V96	6X4	25-650-01
V97	6X4	25-650-01
V98	6X4	25-650-01
V99	6X4	25-650-01
V100	6X4	25-650-01

NOTES: 1) UNLESS OTHERWISE SPECIFIED, ALL RESISTORS ARE IN OHMS 1/4 WATT, 5%. ALL CAPACITORS ARE IN MICROFARADS AND HAVE A 50 VOLT RATING (MINIMUM).



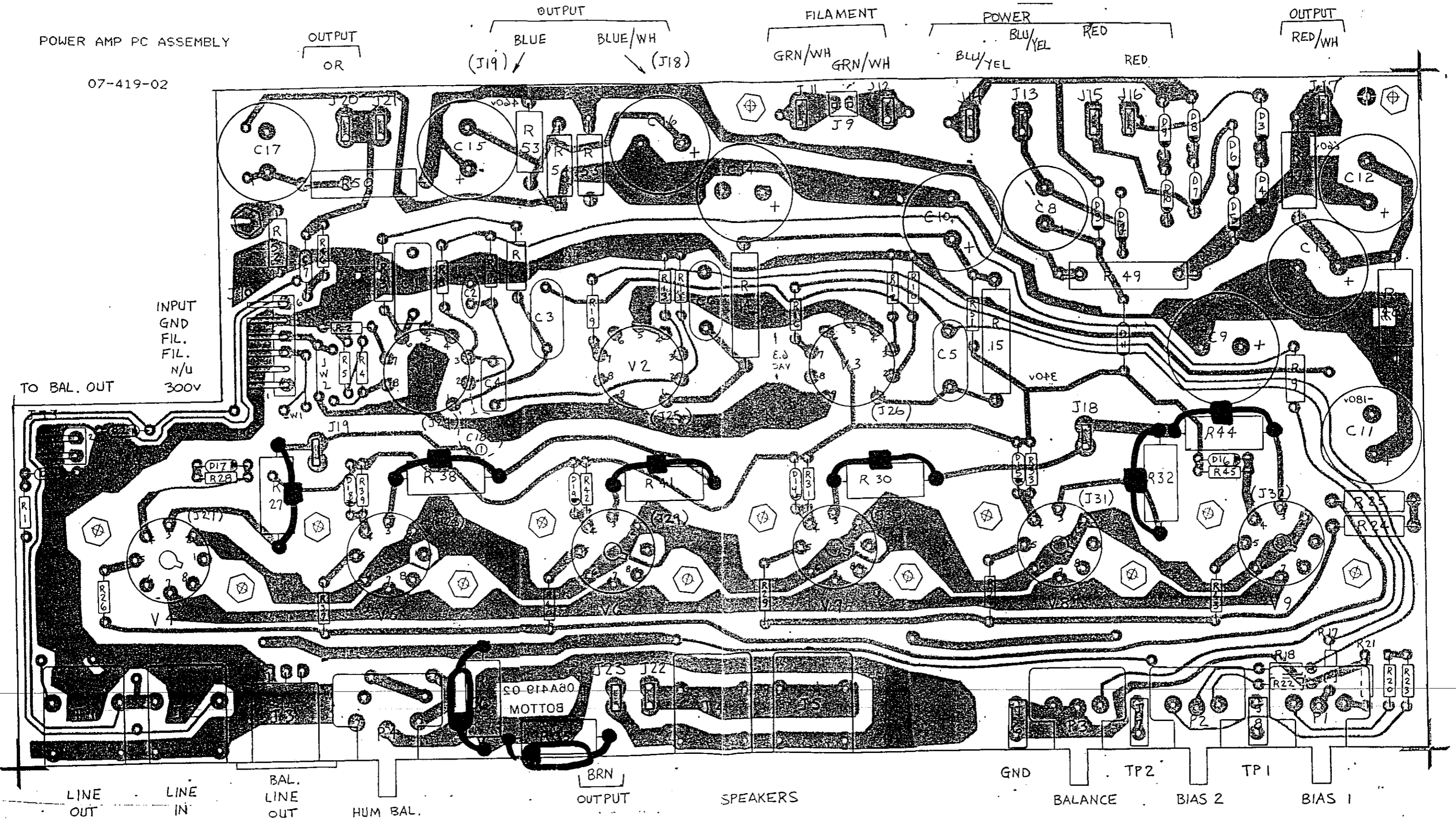
ASSY NO 07-419-01

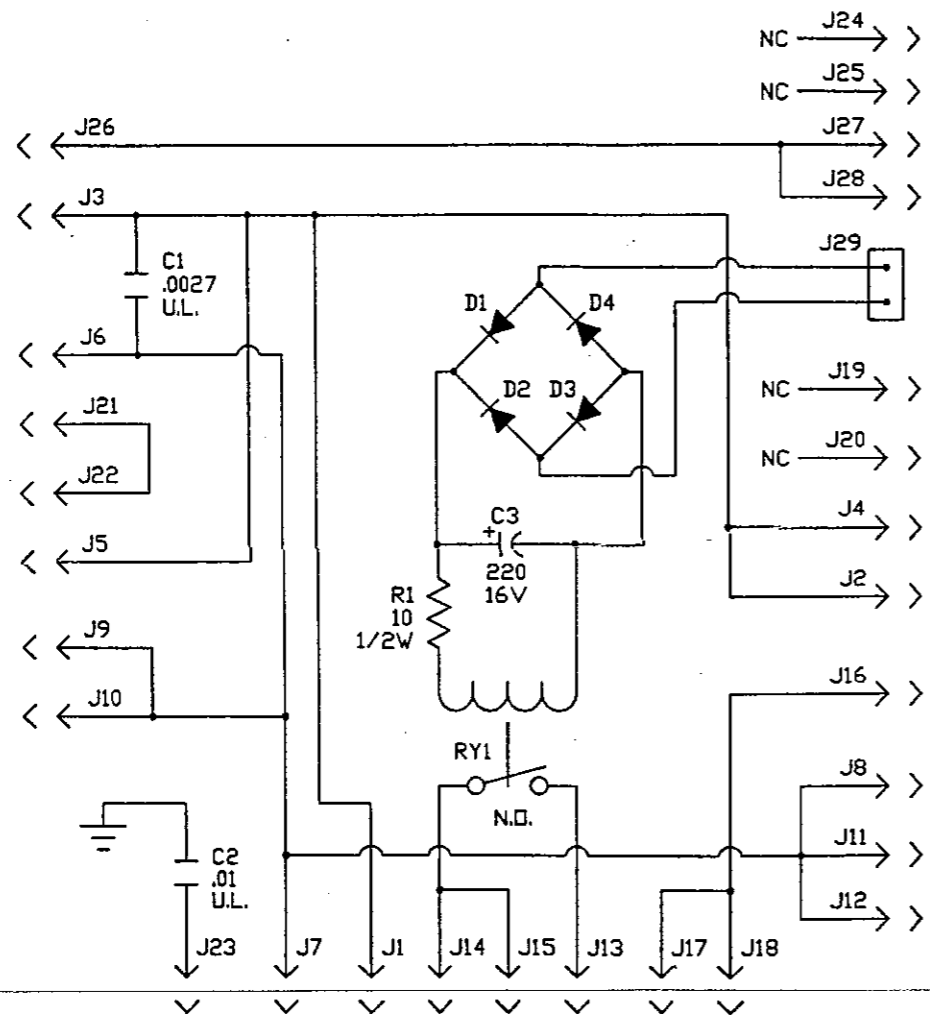
TOLERANCES (EXCEPT AS NOTED)	REVISIONS	NO.	DATE	BY
DECIMAL	1			
FRACTIONAL	2			
ANGULAR	4			
	5			

SVT-II PWR AMP PICTORIAL  
SLM ELECTRONICS  
1400 FERGUSON ST LOUIS, MO 63133  
DRAWN BY GM SCALE -- MATERIAL --  
CHK'D DATE 10-21-88 DRAWING NO. 07-419-01  
TRACED APP'D /mm

POWER AMP PC ASSEMBLY

07-419-02

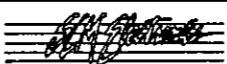


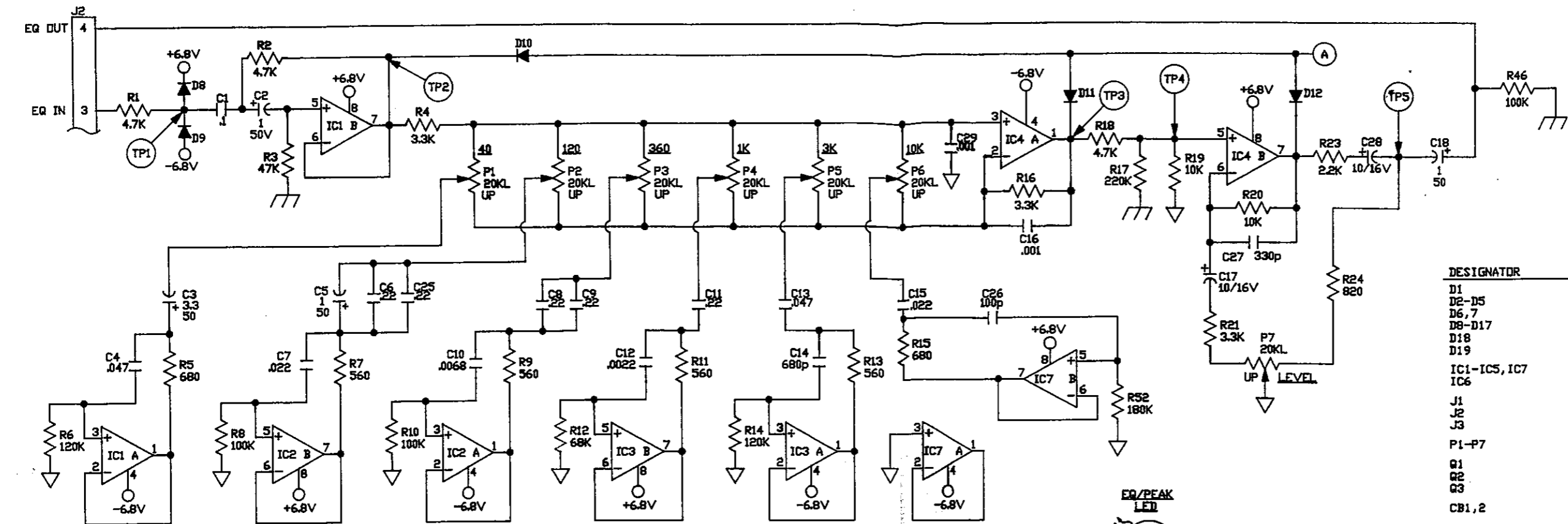


**NOTES**

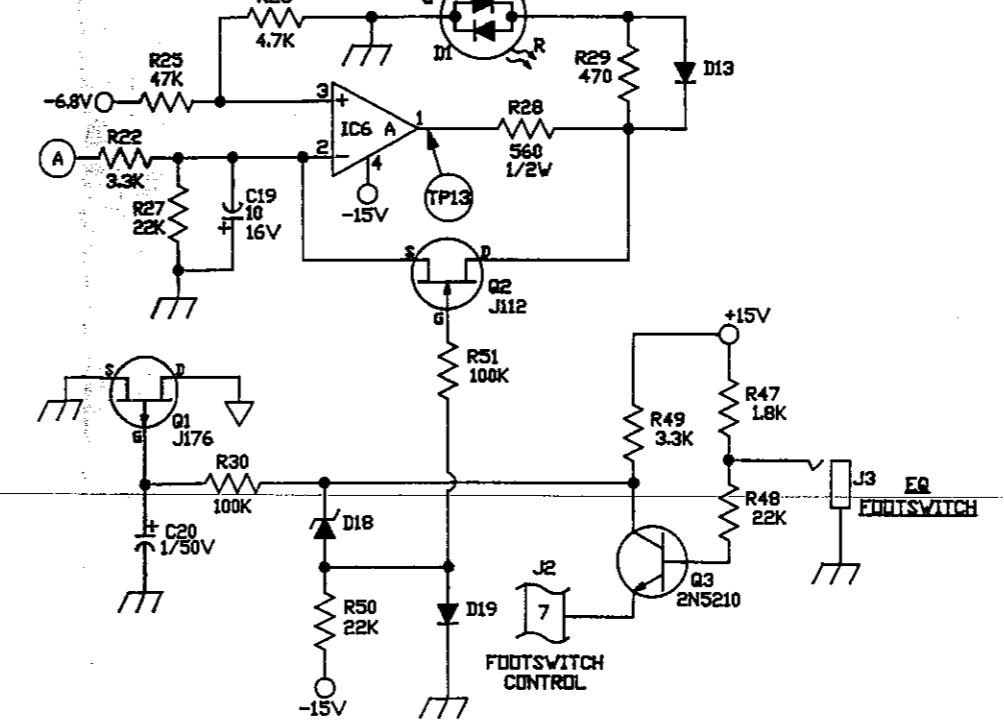
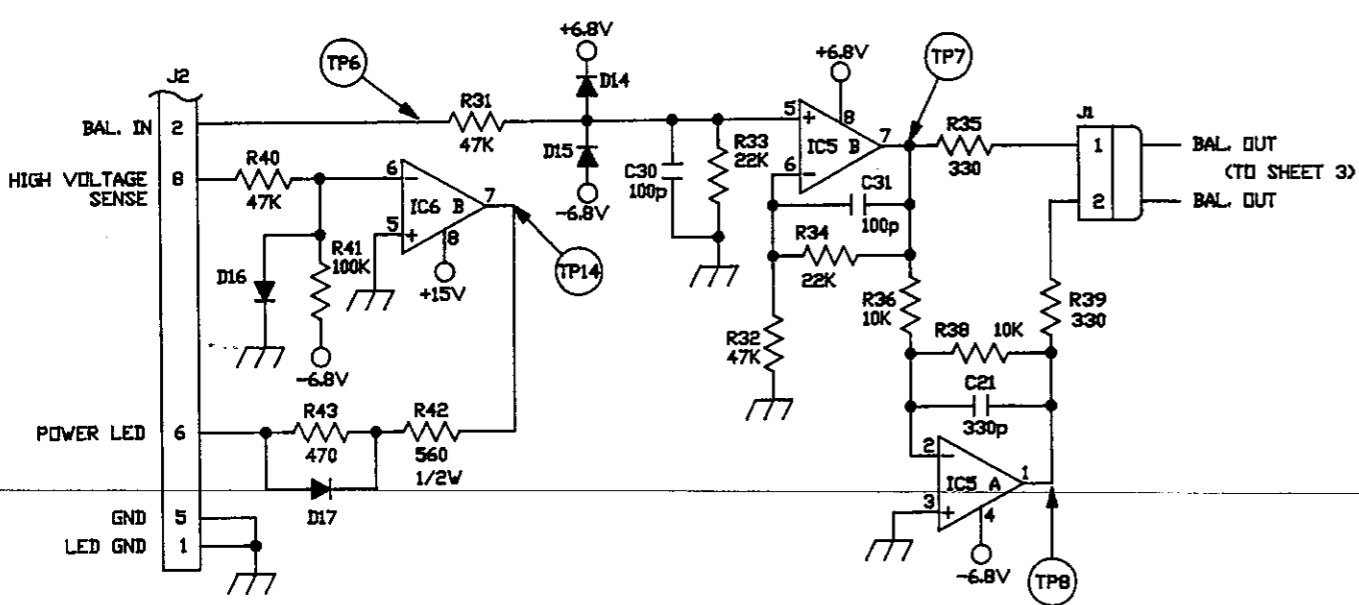
- 1) CAUTION: SHOCK HAZARD!!  
THIS UNIT CONTAINS HAZARDOUS VOLTAGE. DISCONNECT POWER AND BE SURE POWER SUPPLY IS DISCHARGED BEFORE TOUCHING INTERNAL PARTS.
- 2) UNLESS NOTED, RESISTOR VALUES IN OHMS, 1/4W-5% TOL. CAPACITOR VALUES IN MICROFARADS, 50V-10% TOL.
- 3) VOLTAGES ARE MEASURED WITH 1 MEGOHM OSCILLOSCOPE AND 10 MEGOHM DIGITAL VOLTMETER.
- 4) CIRCUIT GROUND  $\nabla$  SWITCH GROUND  $\nabla$  CHASSIS GROUND  $\nabla$

**CAUTION:**  
THIS SCHEMATIC IS PROVIDED FOR USE BY QUALIFIED PERSONNEL. TO AVOID RISK OF ELECTRIC SHOCK, REFER SERVICING TO QUALIFIED SERVICE PERSONNEL. DO NOT PERFORM ANY SERVICING BEYOND THAT EXPLAINED IN THE OPERATING INSTRUCTIONS.

SIGNATURES:		DATE:	 1880 BORMAN DR. ST. LOUIS, MISSOURI 63148
DRAWN:	ML	2-7-91	
CHK'D:			PROJECT NAME:
APP'D:			SVT-II/300 AC TERM.
ORIGINAL ISSUED:			DRAWING NAME:
PLOT DATE:	02/11/91		SCHEMATIC
PLOT TIME:	09:19:09		DRAWING NO. 16-319-02
FILE NAME:	1631902		SCALE: NONE SHEET: 1 of 1

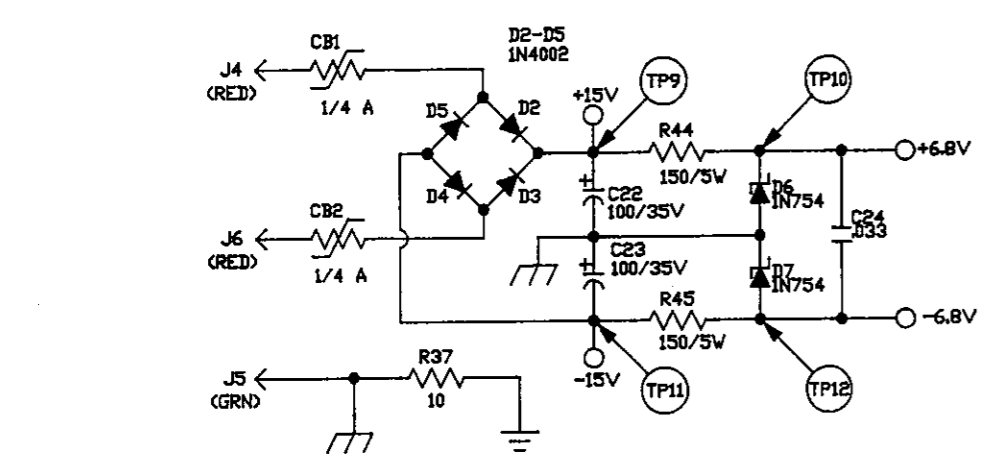


DESIGNATOR	DESCRIPTION	SLM PART #
D1	LED, RED-GREEN	21-591-51
D2-D5	1N4002	21A402-01
D6,7	1N754	21A754-01
D8-D17	1N914	21A914-01
D18	1N4743	21A443-01
D19	1N914	21A914-01
IC1-IC5, IC7	TL072	37-072-01
IC6	NE5532	37-532-01
J1	2 PIN HEADER	17-311-02
J2	8 PIN HEADER	17-311-08
J3	1/4" JACK	39-012-01
P1-P7	20K POT (SLIDER)	70-203-51
Q1	J176	96-176-01
Q2	J112	96-112-01
Q3	2N5210	96-510-01
CB1,2	1/4A THERMISTOR	73-101-01



TEST POINTS	VOLTAGE V p-p	VOLTAGE VDC
1	.5	0
2	.5	0
3	.5	0
4	.5 EQ OFF	0
	.33 EQ ON	0
5	.5	0
6	.5	0
7	.23	0
8	.23	0
9	---	+15
10	---	+6.8
11	---	-15
12	---	-6.8
13	W/ 3 @ TP1	+14
14	---	-14 (ON)
	---	+14 (STANDBY)

CONDITIONS:  
 VOLTAGES ARE MEASURED WITH ALL POTS @ CENTER POSITION, FRONT PANEL EQ ENABLED (J2-7 @ GND) & BALANCED OUT SWITCH IN.  
 INPUT: 1KHz SINE WAVE @ .5Vp-p EQ IN (J2-3) & BALANCED IN (J2-2) TO GND (J2-5).



- NOTES
- THIS UNIT CONTAINS HAZARDOUS VOLTAGE. DISCONNECT POWER AND BE SURE POWER SUPPLY IS DISCHARGED BEFORE TOUCHING INTERNAL PARTS.
  - UNLESS NOTED, RESISTOR VALUES IN OHMS, 1/4W-5% TOL. CAPACITOR VALUES IN MICROFARADS, 50V-10% TOL.
  - VOLTAGES ARE MEASURED WITH 1 MEGOHM OSCILLOSCOPE AND 10 MEGOHM DIGITAL VOLTMETER.
  - CIRCUIT GROUND  $\perp$  SWITCHED GROUND  $\nabla$  CHASSIS GROUND  $\pm$

REV	DATE	BY	CHK'D	DESCRIPTION
3	3/10/02	SWR		REDESIGN
2	11/8/01	SWR		CHANGED VALUE OF C3,C4,C14,C15, C16,R13,R15,R21,R22, AND R28
1	12/6/00	ML		REDRAWN DUE TO CIRCUIT CHANGES

SIGNATURES:	DATE:	1998 NORMAN DR. ST. LOUIS, MISSOURI 63146
DRAWN: MGA	7-18-89	
CHK'D:		PROJECT NAME: SVT-II GRAPHIC EQ
APP'D:		DRAWING NAME: SCHEMATIC
ISSUED:		DRAWING NO. 07S728-01
PLOT DATE: 04/09/02		
PLOT TIME: 12:43:54		
FILE NAME: 75728013	SCALE: NONE	SHEET: 1 of 1