

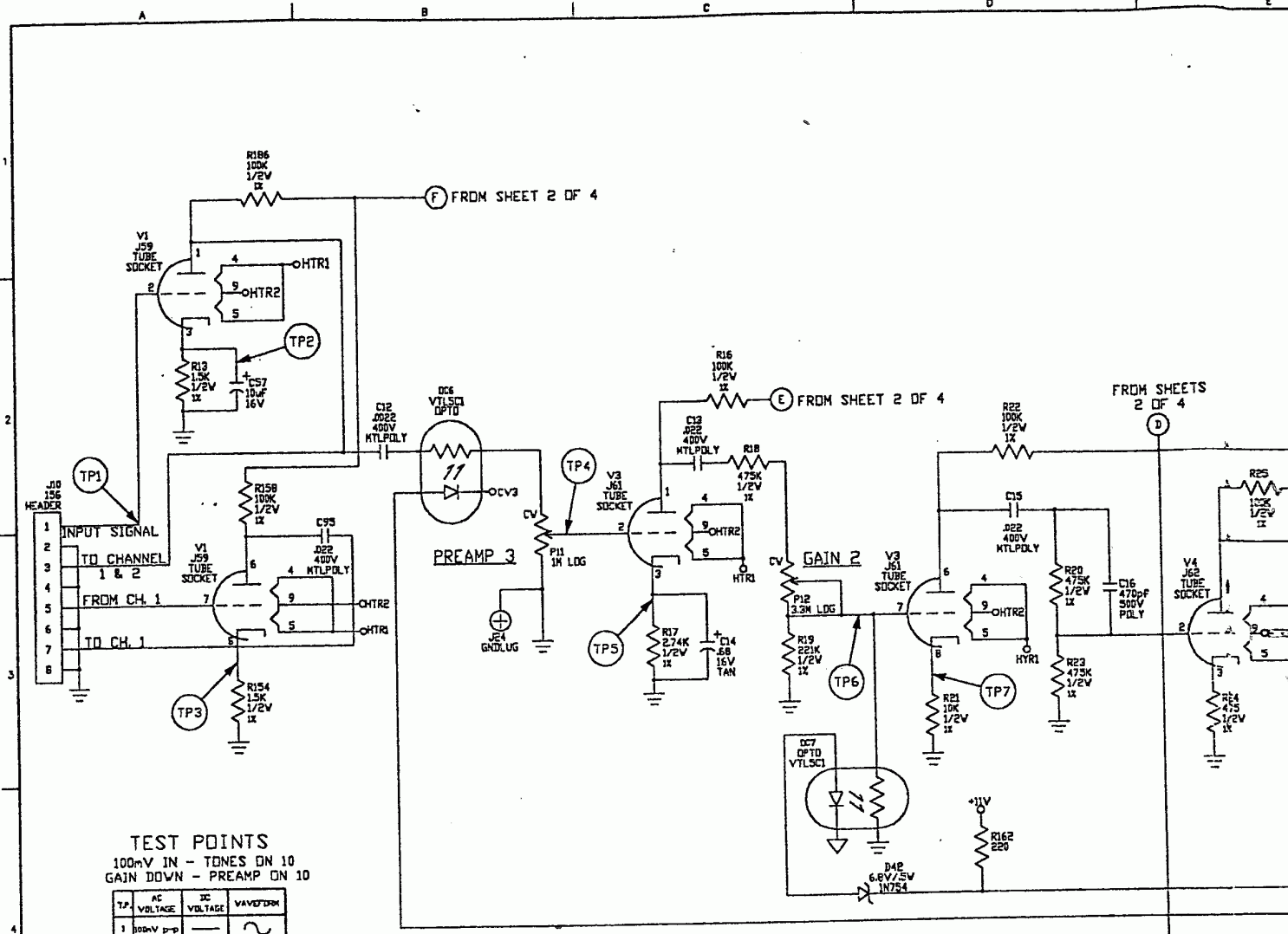
# Ampeg VL-503 Service Manual

Note: This service manual scan is as provided by Ampeg, Division of St. Louis Music Electronics.

Due to the large size of each page of the original schematic, each page has been divided into two halves. Therefore, this document is Page 1 of the PDF file. The following pages comprise the remainder of the document:

Page 2: Left side, schematic 07S253-01 Page 1  
Page 3: Right side, schematic 07S253-01 Page 1  
Page 4: Left side, schematic 07S253-01 Page 2  
Page 5: Right side, schematic 07S253-01 Page 2  
Page 6: Left side, schematic 07S253-01 Page 3  
Page 7: Right side, schematic 07S253-01 Page 3  
Page 8: Left side, schematic 07S253-01 Page 4  
Page 8: Right side, schematic 07S253-01 Page 4  
Page 9: Left side, schematic 07S550-01 Page 1  
Page 10: Right side, schematic 07S550-01 Page 1  
Page 11: Left side, schematic 07S253-51 Page 1  
Page 12: Right side, schematic 07S253-51 Page 1  
Page 11: Left side, pictorial 07S253-51 Page 1  
Page 12: Right side, pictorial 07S253-51 Page 1  
Page 13: Left side, pictorial 07P253-51 Page 1  
Page 14: Right side, pictorial 07P253-51 Page 1  
Page 15: Left side, pictorial 07P253-01 Page 1  
Page 16: Right side, pictorial 07P253-01 Page 1  
Page 17: Left side, pictorial 07P253-01 Page 2  
Page 18: Right side, pictorial 07P253-01 Page 2

The schematic pages are all very readable if the user will magnify using the zoom feature found on Adobe Acrobat and other PDF file format readers.



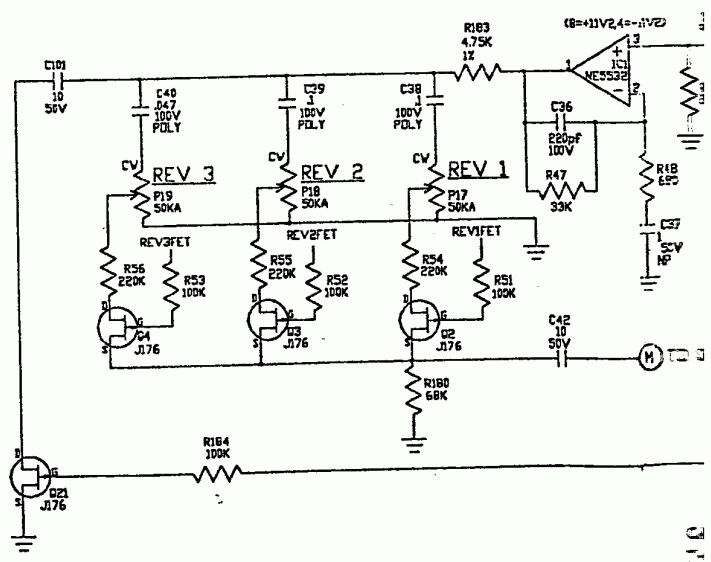
**TEST POINTS**  
 100mV IN - TONES ON 10  
 GAIN DOWN - PREAMP ON 10

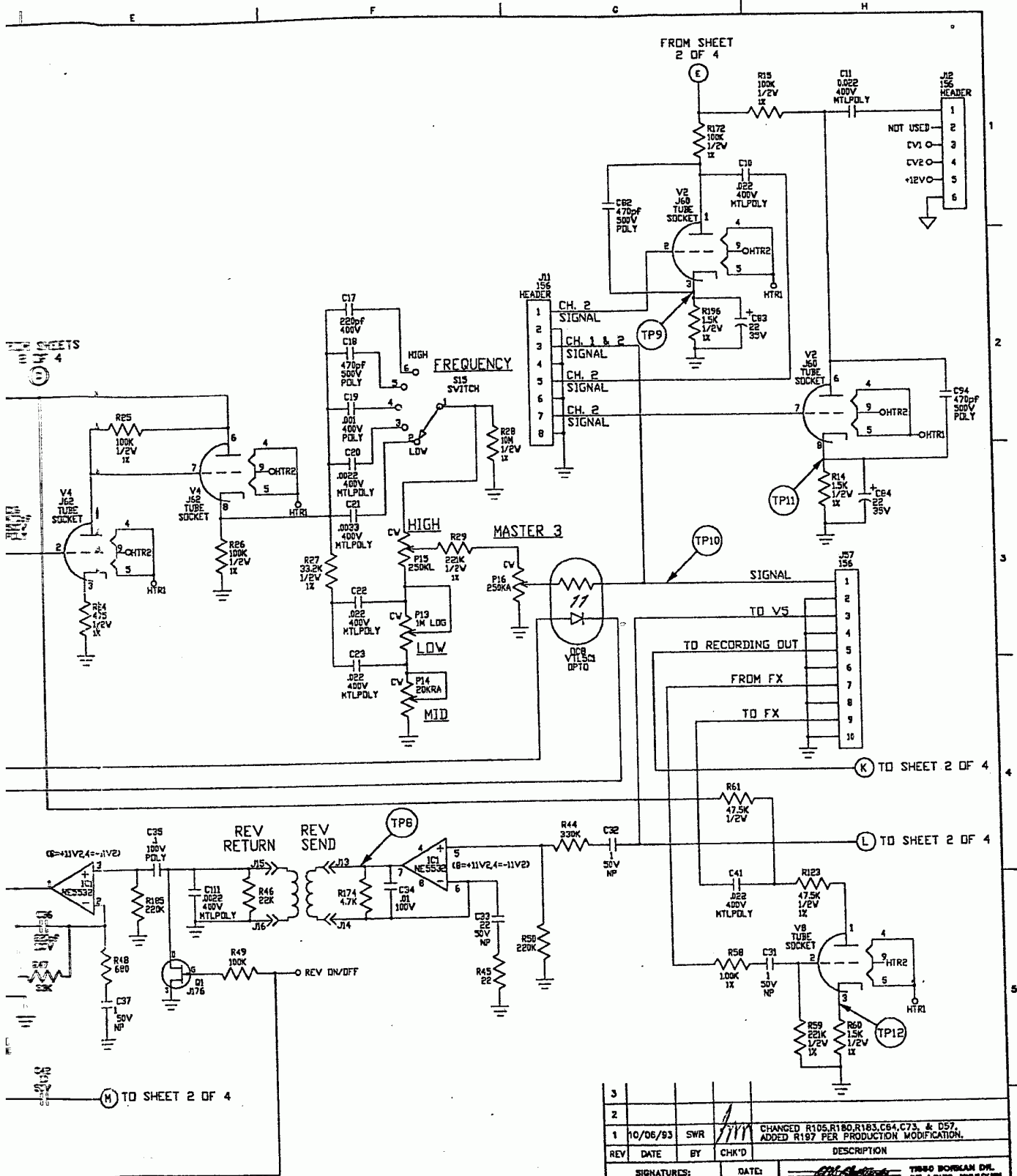
T.P.	AC VOLTAGE	DC VOLTAGE	WAVEFORM
1	100mV p-p	—	~
2	—	1.57V	—
3	—	1.82V	—
4	1.04mV p-p	—	~
5	—	84V	—
6	5.77V p-p	—	~
7	—	3.2V	—
8	1.05mV p-p	—	~
9	—	1.08V	—
10	8.04V p-p	—	~
* 10	8.10V p-p	—	~
11	—	14VDC	—
12	—	1.8VDC	—

\*GAIN @ 10

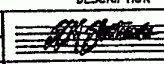
**NOTES**

- 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  $\nabla$  SWITCH GROUND  $\nabla$  CHASSIS GROUND  $\nabla$

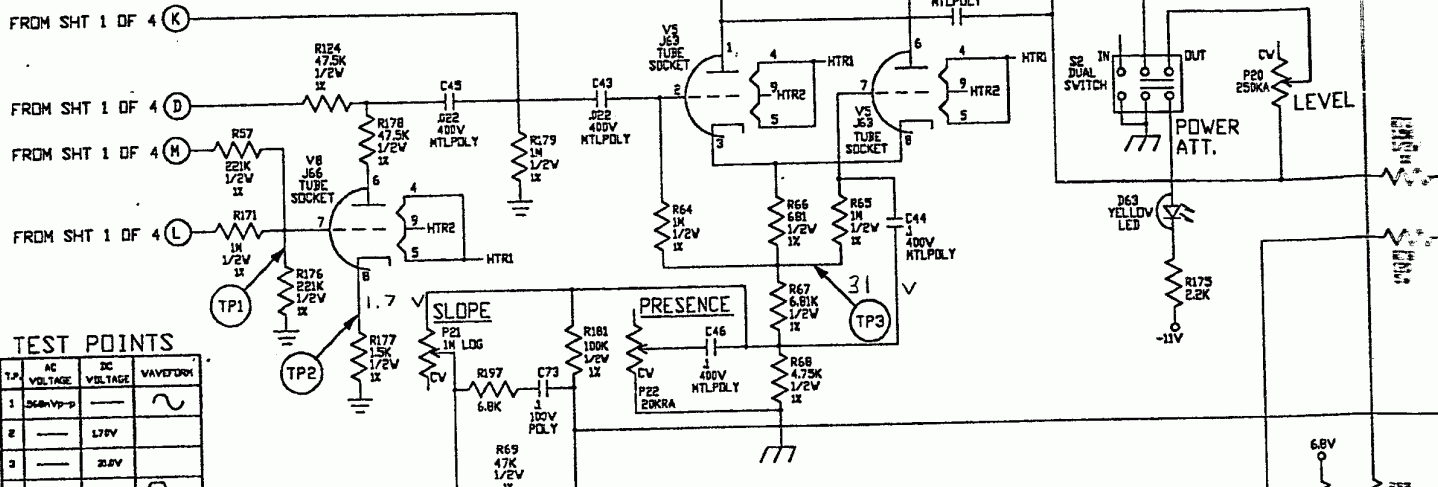




**CAUTION:**  
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 TO AVOID RISK OF ELECTRIC SHOCK, REFER SERVICING TO QUALIFIED  
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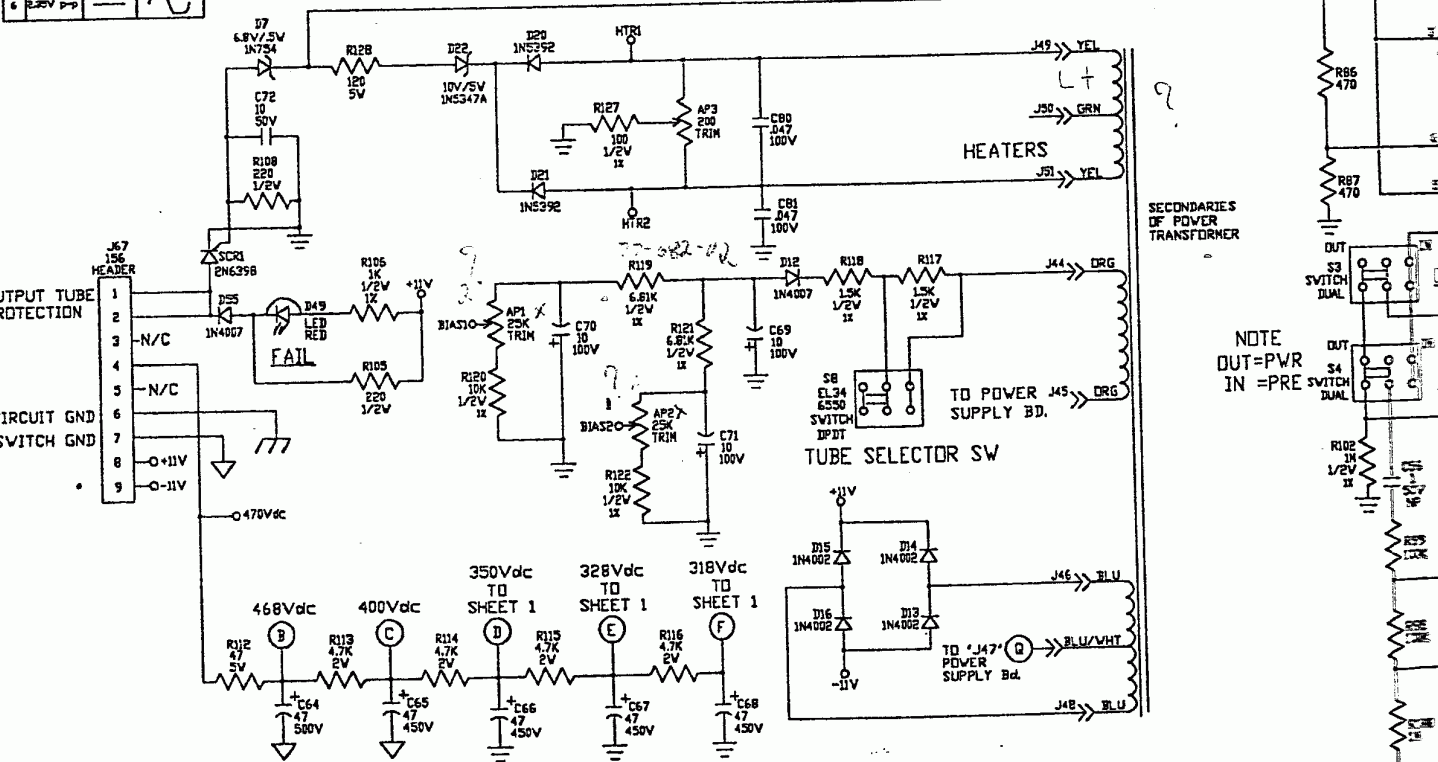
3				
2				
1	10/06/93	SWR	1/1/1	CHANGED R105, R180, R183, C64, C73, & D57, ADDED R187 PER PRODUCTION MODIFICATION.
REV	DATE	BY	CHK'D	DESCRIPTION
SIGNATURES:		DATE:		 T880 BORKAN DR. ST. LOUIS, MISSOURI 63148
DRAWN: S.W.R.		04/02/93		
CHK'D:		PROJECT NAME:		VL-503
APP'D:		DRAWING NAME:		
ORIGINAL ISSUED:		06/21/93		SCHEMATIC DRAWING
PLOT DATE:		10/06/93		
PLOT TIME:		09:49:22		DRAWING NO. 07S253-01
FILE NAME: S253011		SCALE: 1:1		SHEET: 1 OF 4

VL-503



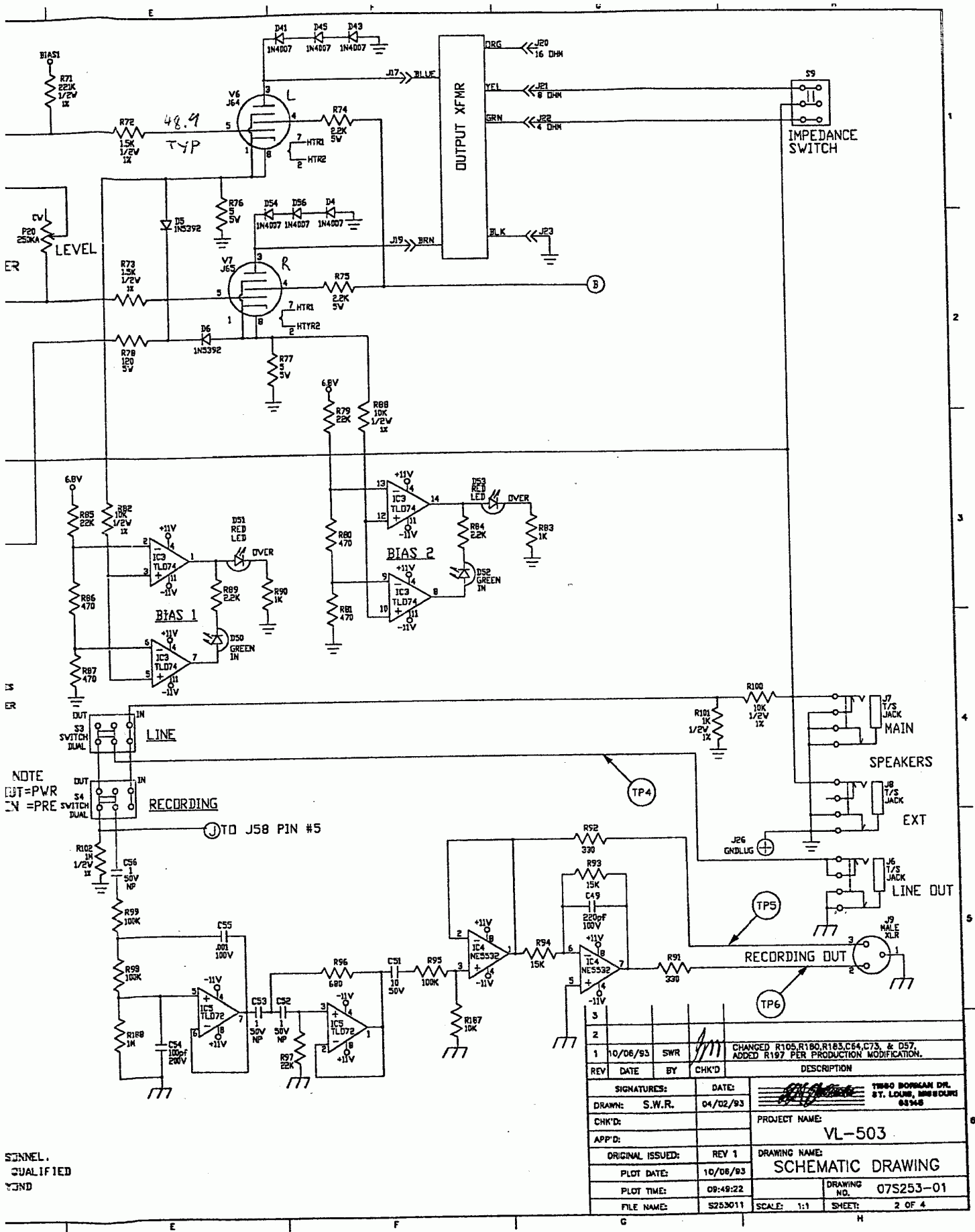
TEST POINTS

T.P.	AC VOLTAGE	DC VOLTAGE	WAVEFORM
1	360Vrms	—	~
2	—	1.7V	—
3	—	2.0V	—
4	2.7V p-p	—	~
5	2.35V p-p	—	~
6	2.25V p-p	—	~



- NOTES
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  - CIRCUIT GROUND  $\nabla$  SWITCH GROUND  $\nabla$  CHASSIS GROUND  $\nabla$

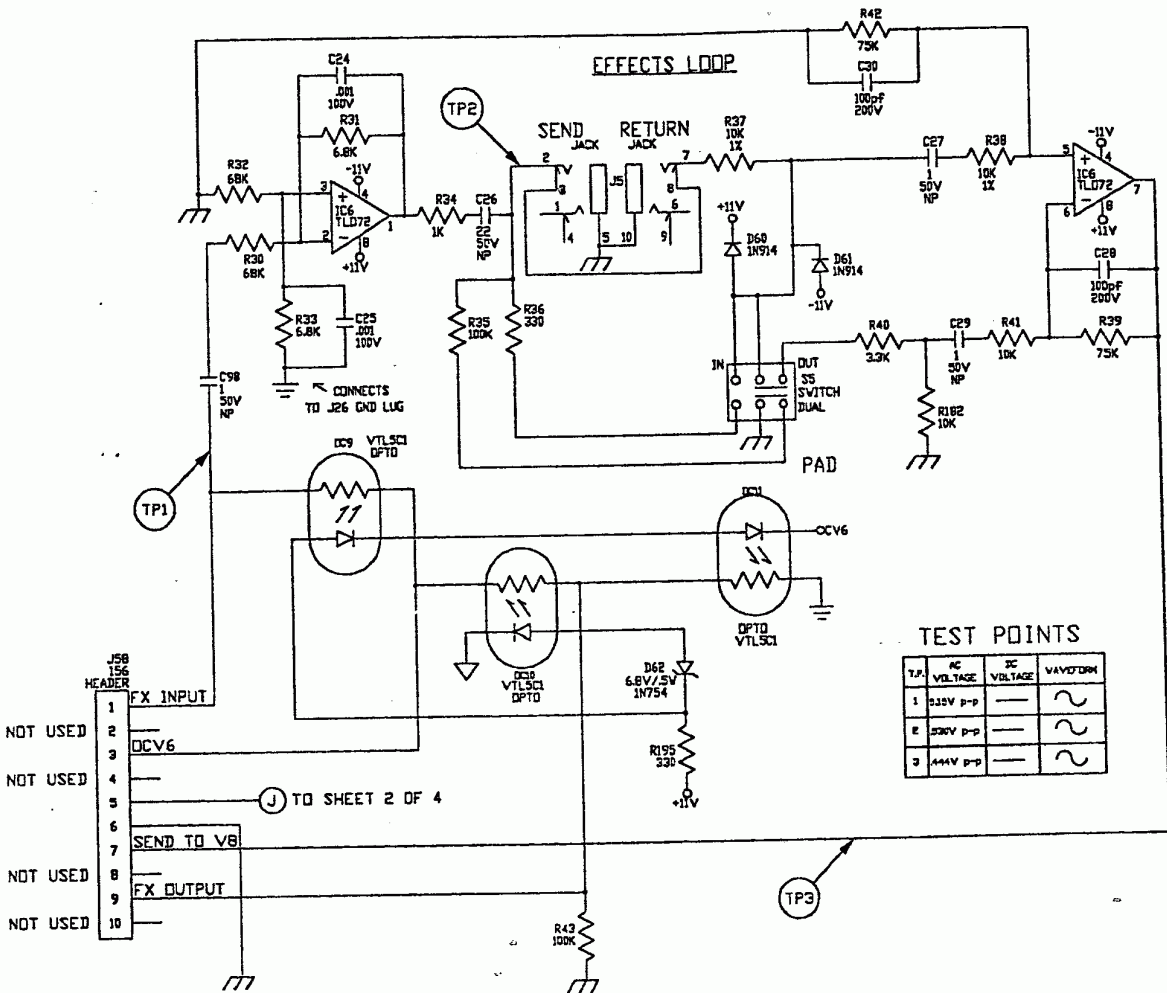
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NOTE  
 OUT=PWR  
 IN=PRE  
 SWITCH DUAL

SINNEL.  
 QUALIFIED  
 GND

3				
2				
1	10/06/93	SWR		CHANGED R105,R190,R163,C64,C75, & D57, ADDED R197 PER PRODUCTION MODIFICATION.
REV	DATE	BY	CHK'D	DESCRIPTION
SIGNATURES:		DATE:		1980 BORGAN DR. ST. LOUIS, MISSOURI 63148
DRAWN: S.W.R.		04/02/93		
CHK'D:		PROJECT NAME:		VL-503
APP'D:		DRAWING NAME:		
ORIGINAL ISSUED:		REV 1		SCHEMATIC DRAWING
PLOT DATE:		10/06/93		
PLOT TIME:		09:49:22		DRAWING NO. 07S253-01
FILE NAME:		S253011		
		SCALE: 1:1		SHEET: 2 OF 4



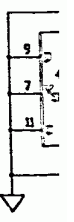
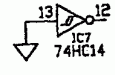
**NOTES**

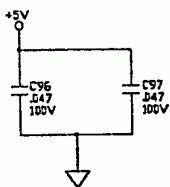
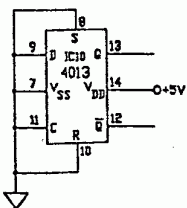
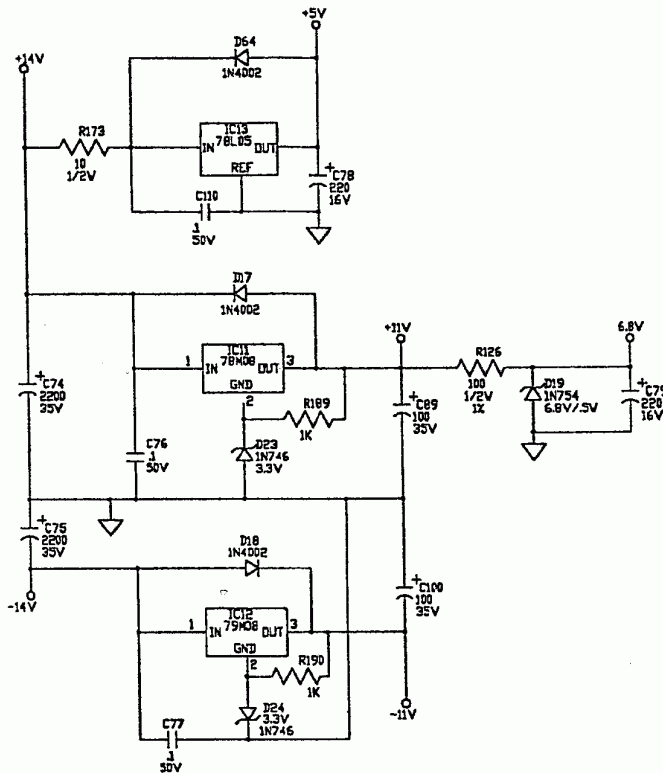
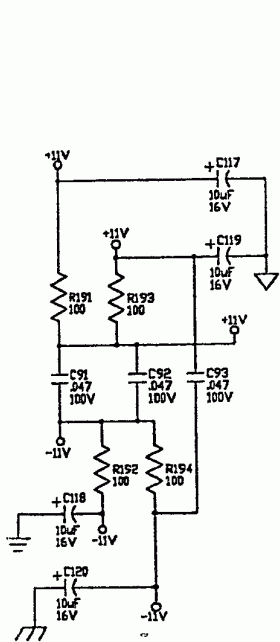
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**CAUTION:**

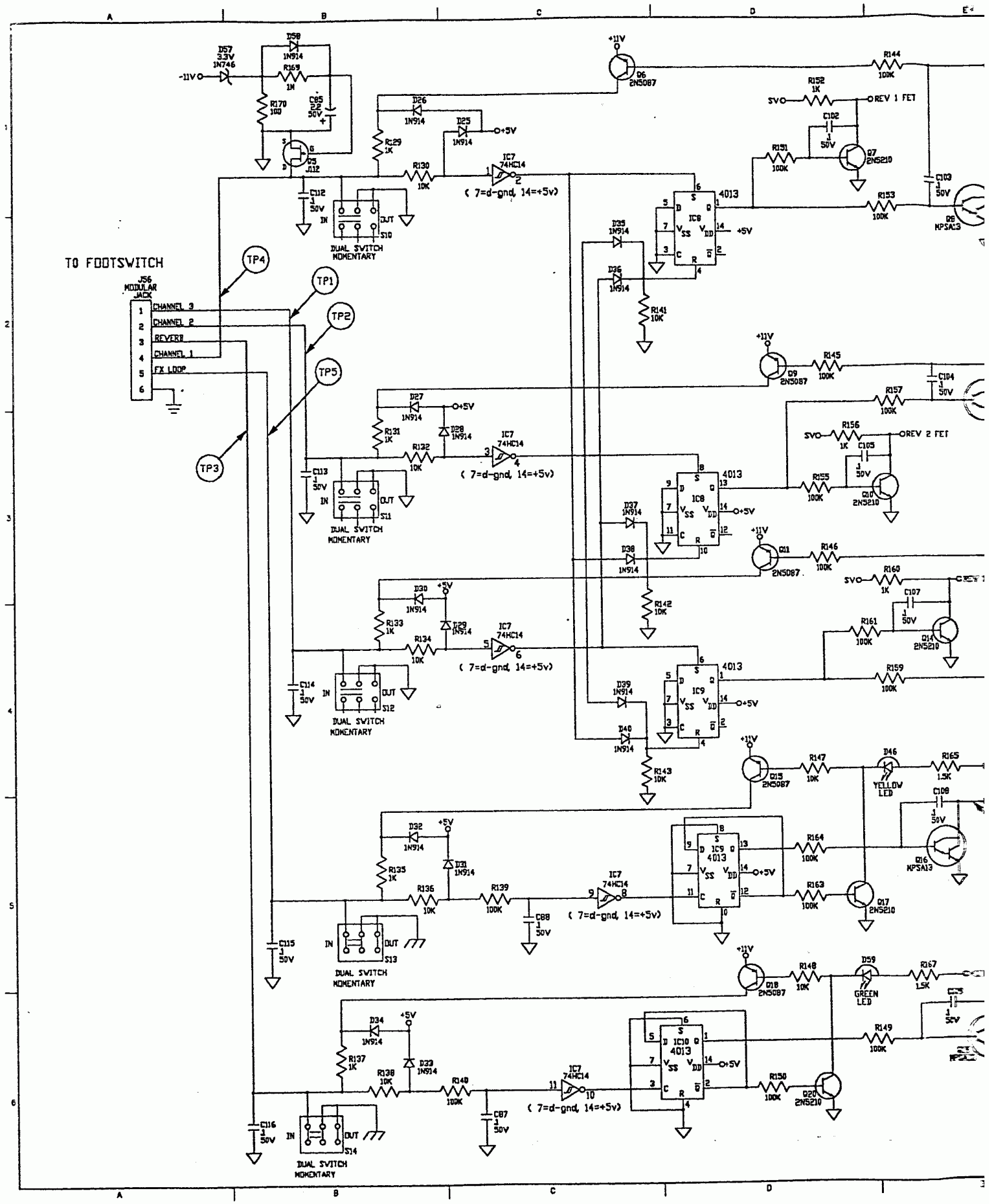
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(7=d-gnd 14=+5v)





3					
2					
1	10/06/93	SWR	<i>[Signature]</i>	CHANGED R105, R180, R183, C64, C73, & D57, ADDED R197 PER PRODUCTION MODIFICATION.	
REV	DATE	BY	CHK'D	DESCRIPTION	
SIGNATURES:			DATE:	1980 BORGAN DR. ST. LOUIS, MISSOURI 63148	
DRAWN: S.W.R.		04/02/93		PROJECT NAME: VL-503	
APP'D:			DRAWING NAME: SCHEMATIC DRAWING		
ORIGINAL ISSUED:		06/21/93		DRAWING NO.: 07S253-01	
PLOT DATE:		10/06/93		SCALE: 1:1	
PLOT TIME:		09:49:22		SHEET: 3 OF 4	
FILE NAME:		S253011			



TO FOOTSWITCH

J56 MODULAR JACK

- 1 CHANNEL 3
- 2 CHANNEL 2
- 3 REVERB
- 4 CHANNEL 1
- 5 FX LOOP
- 6

DUAL SWITCH MOMENTARY

DUAL SWITCH MOMENTARY

DUAL SWITCH MOMENTARY

DUAL SWITCH MOMENTARY

DUAL SWITCH MOMENTARY

(7=d-gnd, 14=+5v)

(7=d-gnd, 14=+5v)

(7=d-gnd, 14=+5v)

(7=d-gnd, 14=+5v)

(7=d-gnd, 14=+5v)

OREV 1 FET

OREV 2 FET

OREV 1

YELLOW LED

GREEN LED

MPSA13

MPSA13

MPSA13

MPSA13

MPSA13

MPSA13

MPSA13

MPSA13

MPSA13

MPSA13

MPSA13

MPSA13

MPSA13

MPSA13

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MPSA13

MPSA13

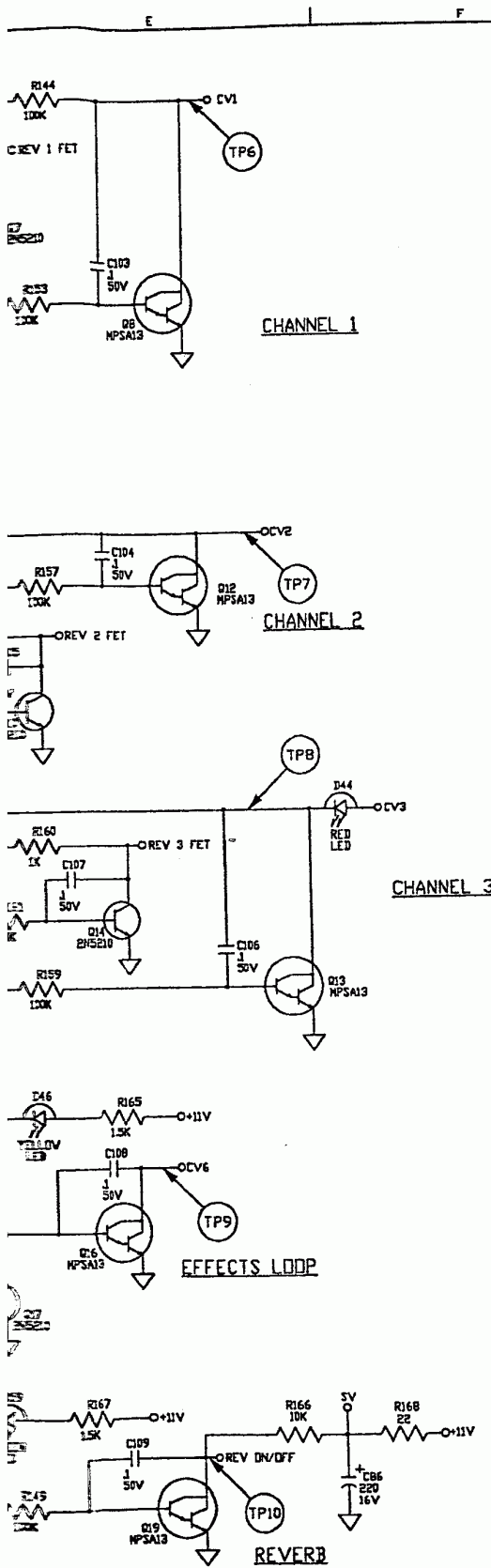
MPSA13

MPSA13

MPSA13

MPSA13





TEST POINTS  
DC VOLTAGE

TP	SIG.	ON	OFF
1	DL 3	10.4EV	4.69V
2	DL 2	10.4EV	4.69V
3	REV.	10.4EV	4.69V
4	DL 1	10.4EV	4.69V
5	FX LOOP	10.4EV	4.69V
6	CV1	.74V	10.22V
7	CV2	.74V	10.22V
8	CV3	.74V	10.22V
9	CV6	.74V	10.22V
10	REVERB DN/OFF	.74V	10.22V

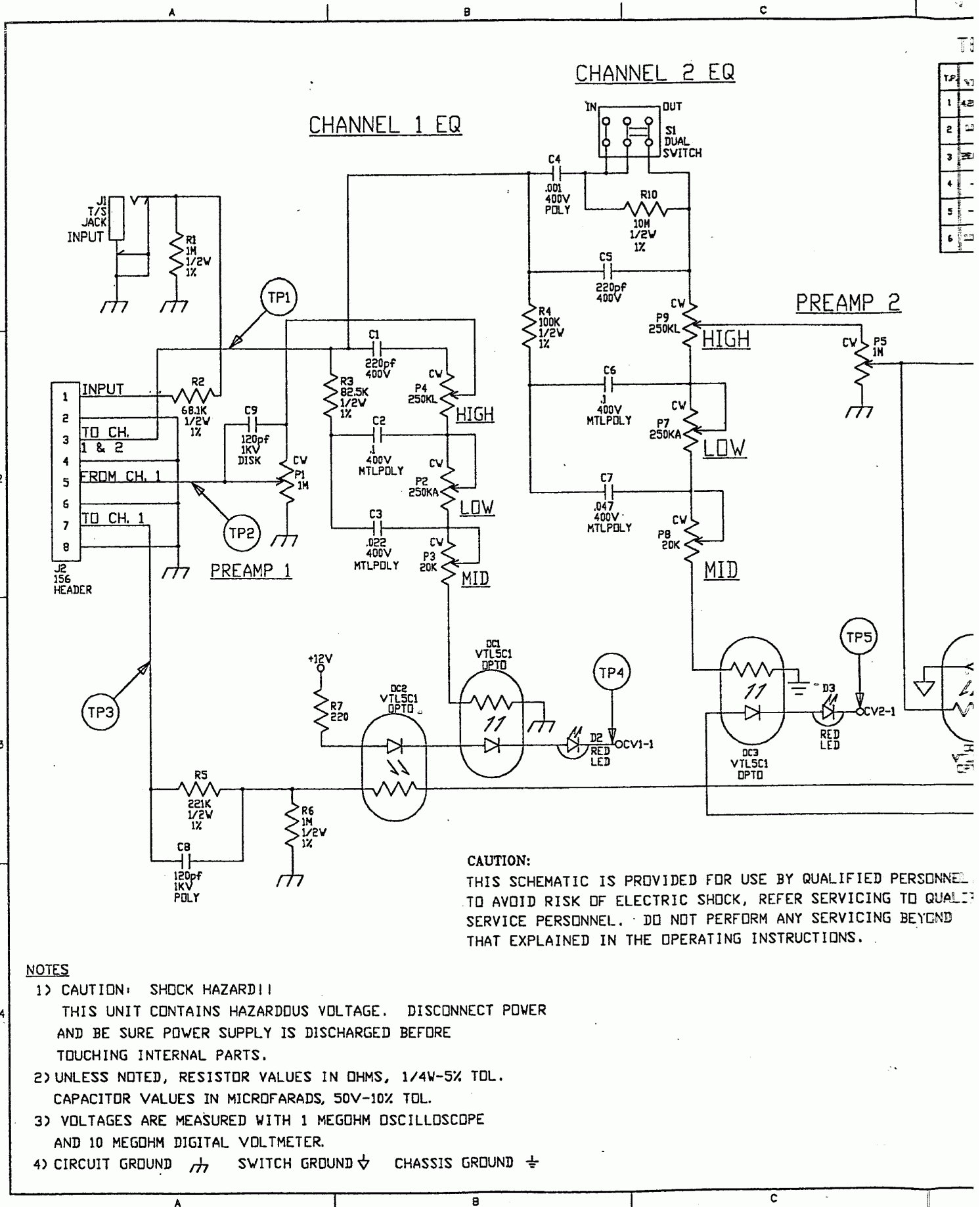
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3				
2				
1	10/06/93	SWR	MM	CHANGED R105,R180,R183,C84,C73, & D57, ADDED R197 PER PRODUCTION MODIFICATION.
REV	DATE	BY	CHK'D	DESCRIPTION
SIGNATURES:		DATE:		 TISSOT WORKMAN DIV. ST. LOUIS, MISSOURI 63146
DRAWN: S.W.R.		04/02/93		
CHK'D:		PROJECT NAME:		
APP'D:		VL-503		
ORIGINAL ISSUED: REV 1		DRAWING NAME:		
PLOT DATE: 10/06/93		SCHEMATIC DRAWING		
PLOT TIME: 09:49:22		DRAWING NO: 07S253-01		
FILE NAME: S253011		SCALE: 1:1 SHEET: 4 OF 4		



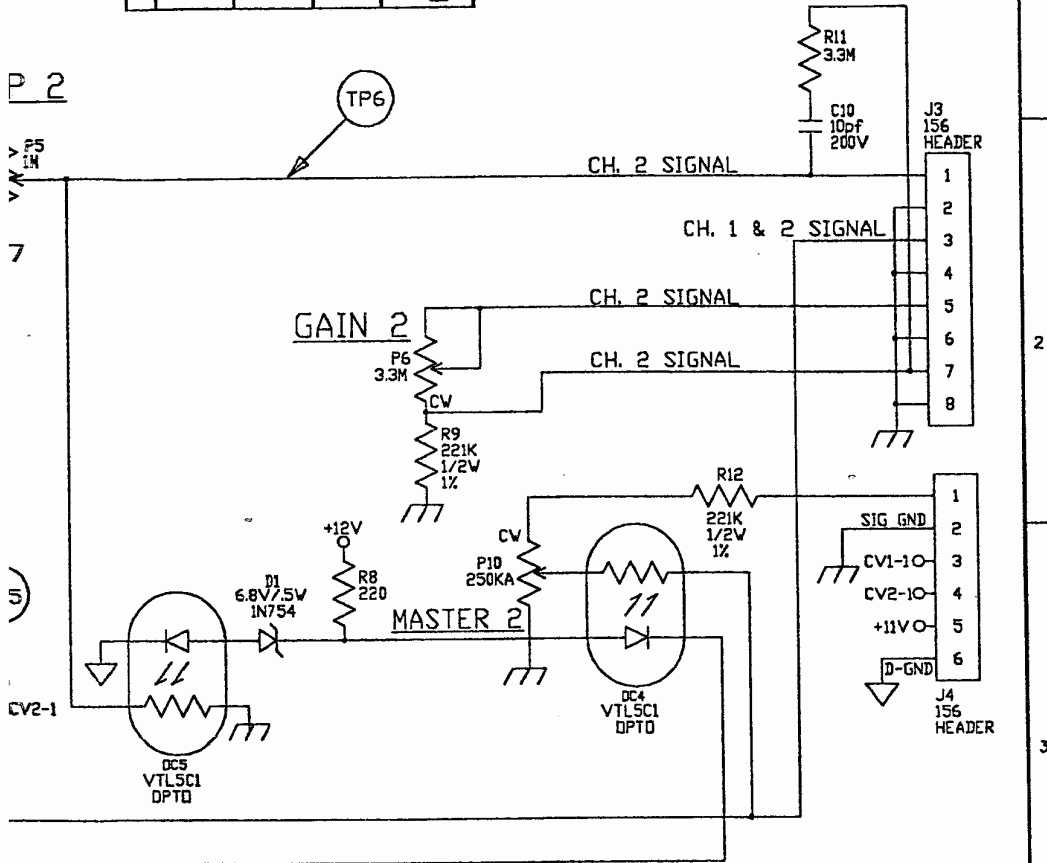
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**NOTES**

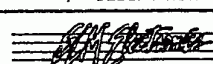
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# TEST POINTS

T.P.	AC VOLTAGE	DC ON VOLTAGE	DC OFF VOLTAGE	WAVEFORM
1	4.25V p-p	—	—	~
2	1.1V p-p	—	—	~
3	28.6V p-p	—	—	~
4	—	10.22V	.74V	
5	—	10.22V	.74V	
6	1.12V p-p	—	—	~

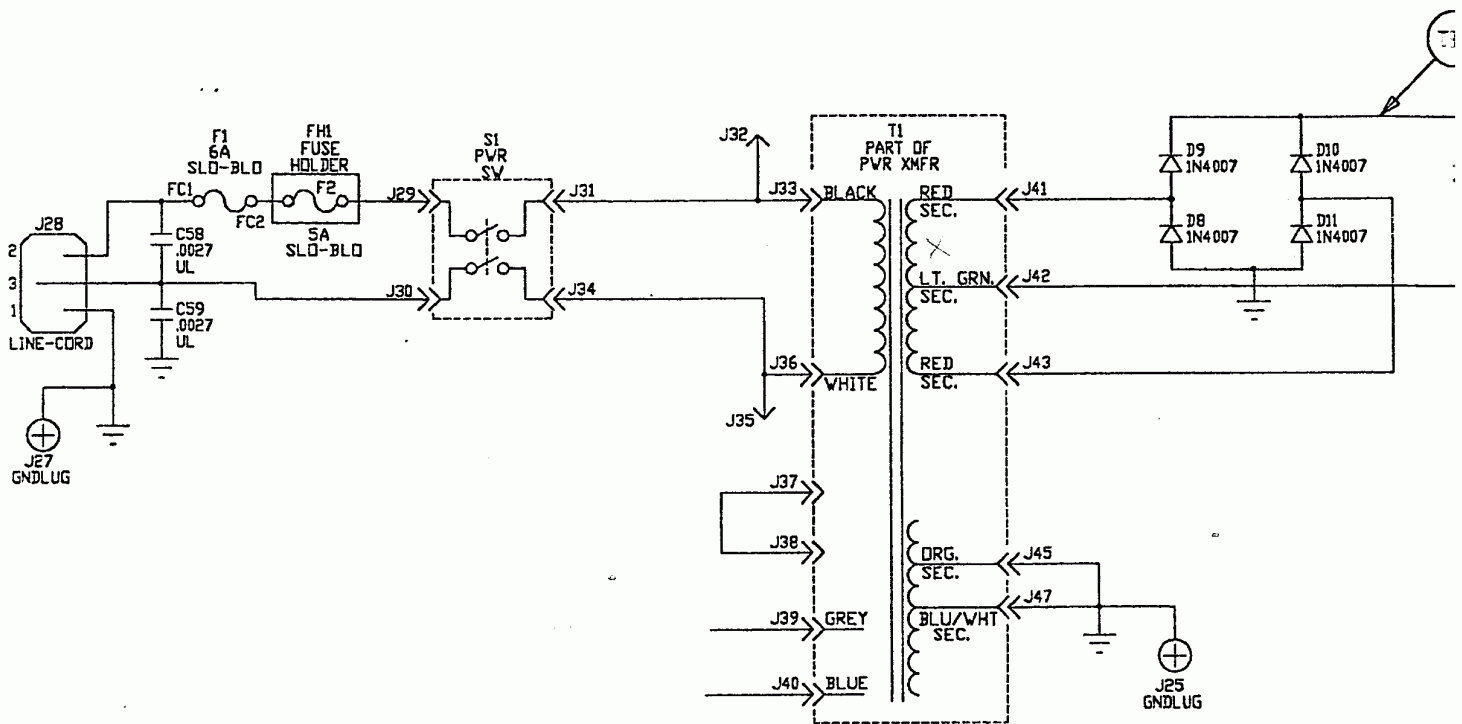


ED PERSONNEL.  
ING TO QUALIFIED  
ING BEYOND

REV	DATE	BY	CHK'D	DESCRIPTION
1	10/06/93	SWR	<i>[Signature]</i>	ADDED R11 & C10 FOR PRODUCTION MODIFICATION.
SIGNATURES:		DATE:		 <b>T. BORMAN DR.</b> <b>ST. LOUIS, MISSOURI</b> <b>63108</b>
DRAWN: S.RADER		04/21/93		
CHK'D:		PROJECT NAME:		VL-503
APP'D:		DRAWING NAME:		
ORIGINAL ISSUED:		04/21/93		CHANNEL 1 & 2 SCH.
PLOT DATE:		10/06/93		
PLOT TIME:		10:50:43		DRAWING NO. 07S550-01
FILE NAME:		S550011		SCALE: 1:1 SHEET: 1 OF 1

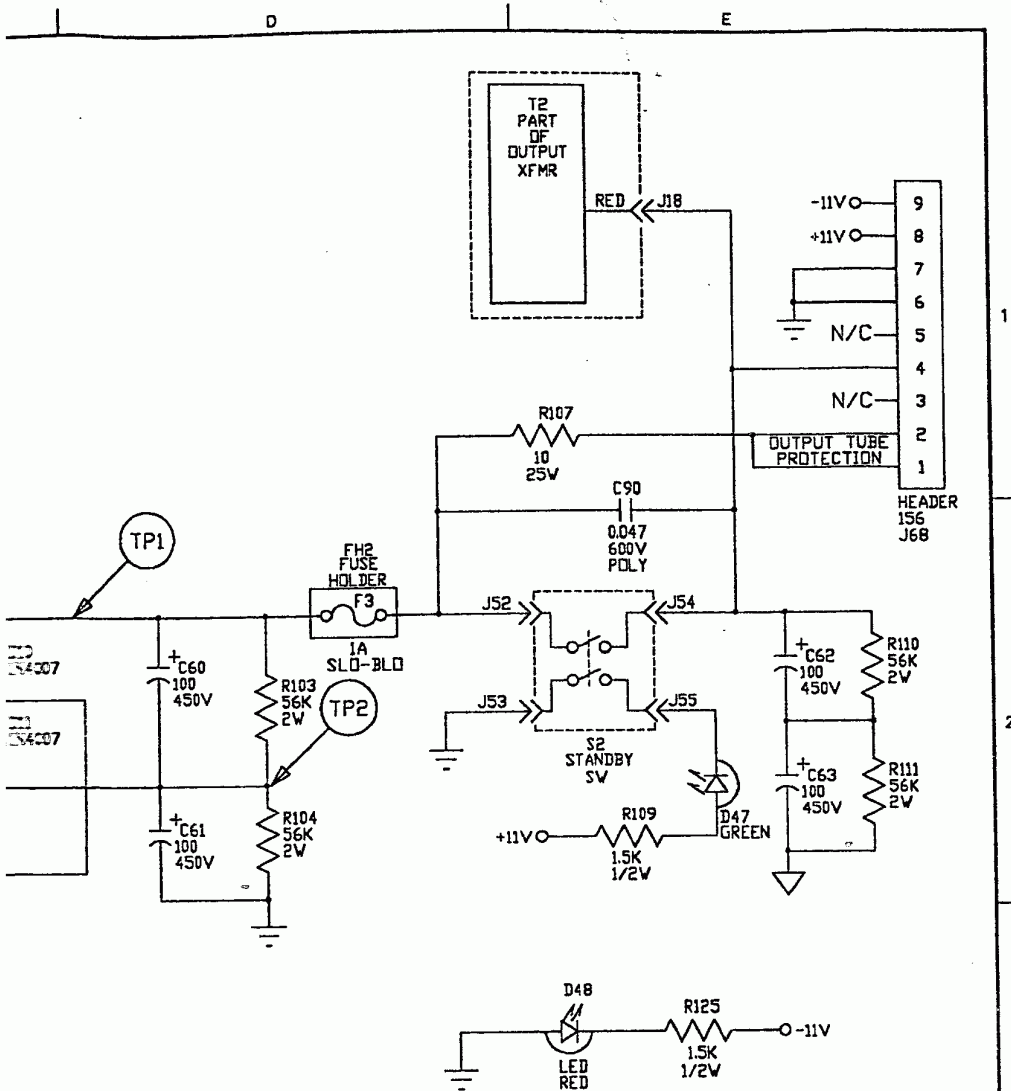
# TEST POINTS

T.P.	AC VOLTAGE	DC VOLTAGE	WAVEFORM
1	—	470V	
2	—	233V	




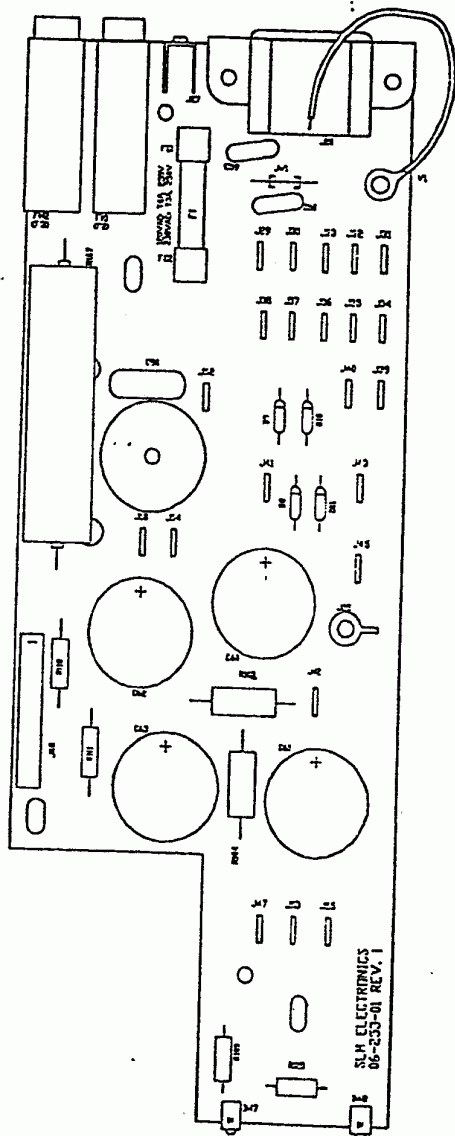
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- 4) CIRCUIT GROUND  $\uparrow$  SWITCH GROUND  $\nabla$  CHASSIS GROUND  $\perp$



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SIGNATURES:	DATE:	 1880 BORMAN DR. ST. LOUIS, MISSOURI 63146
DRAWN: S.RADER	04/21/93	
CHK'D:		PROJECT NAME:
APP'D:		VL-503
ORIGINAL ISSUED:	Z	DRAWING NAME:
PLOT DATE:	05/07/93	POWER SUPPLY SCH.
PLOT TIME:	06:15:39	DRAWING NO. 07S253-51
FILE NAME:	7S25351Z	SCALE: 1:1 SHEET: 1 OF 1



DESIGNATOR	PART #	DESCRIPTION	QTY	MISC. HARDWARE
C58	10-332-01	.0033 UL		
C59	10-332-01	.0033 UL		
C60	12-107-94	100 350V		
C61	12-107-94	100 350V		
C62	12-107-94	100 350V		
C63	12-107-94	100 350V		
C90	10-473-61	0.047 600V		
D8	21A407-01	1N4007		
D9	21A407-01	1N4007		
D10	21A407-01	1N4007		
D11	21A407-01	1N4007		
D47	21-502-01	GREEN LED		
D48	21-501-01	RED LED		
FC1	23-926-01	CLIP		
FC2	23-926-01	CLIP		
FH1	23-346-01	FUSE HOLDER		
FH2	23-346-01	FUSE HOLDER		
F1	23-307-01	FUSE 6A SLD BLD		
(F2	23-305-05	FUSE 5A SLD BLD)		
(F3	23-301-05	FUSE 1A SLD BLD)		
J18	17-836-01	TAB		
J25	17-500-01	GND LUG		
J27	51-149-01	GND BRACKET		
J28	17-604-01	LINE-CORD CONNECTOR		
J29	17-836-01	TAB		
J30	17-836-01	TAB		
J31	17-836-01	TAB		
J32	17-836-01	TAB		
J33	17-836-01	TAB		
	NUT	(2)	30-700-01	
	SCREW	(2)	30-638-53	
		(2)	23-346-11	

ARTWORK REV. 0

A

B

C

J34	17-836-01	TAB
J35	17-836-01	TAB
J36	17-836-01	TAB
J37	17-836-01	TAB
J38	17-836-01	TAB
J39	17-836-01	TAB
J40	17-836-01	TAB
J41	17-836-01	TAB
J42	17-836-01	TAB
J43	17-836-01	TAB
J45	17-836-01	TAB
J47	17-836-01	TAB
J52	17-836-01	TAB
J53	17-836-01	TAB
J54	17-836-01	TAB
J55	17-836-01	TAB
J68	17-310-09	S-PIN HEADER

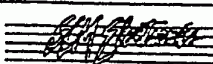
ELO  
ELO  
ELO

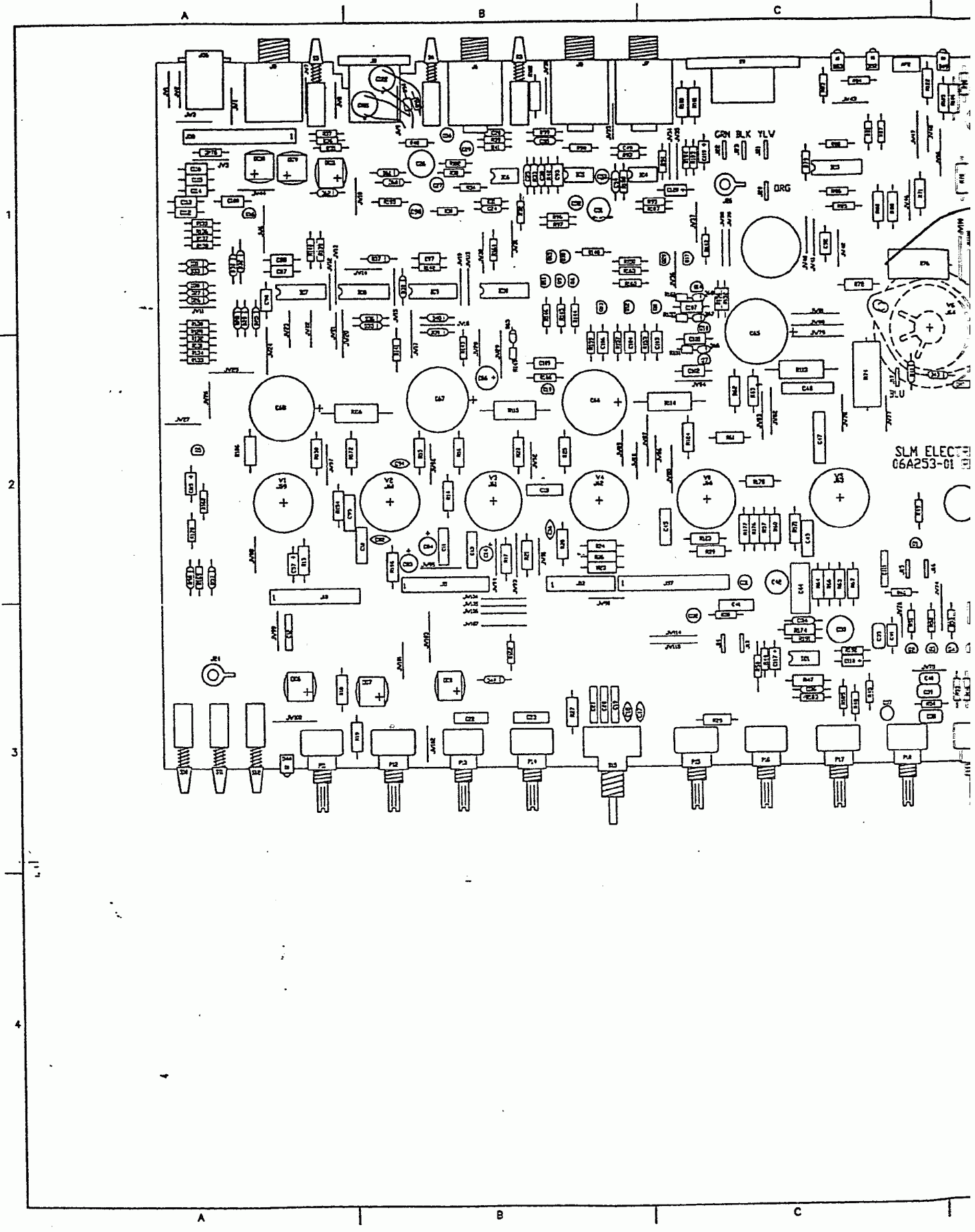
R103	78-563-01	56K	2V
R104	78-563-01	56K	2V
R107	78-100-25	10	25W
R109	77-152-01	1.5K	1/2W
◇ R110	78-104-01	100K	1W
◇ R111	78-104-01	100K	1W
R125	77-152-01	1.5K	1/2W
⊙ JW1	76-000-05	JUMPER	
□ W1	97-151-34	4" SLUG/RING BLACK	

CONNECTOR

HARDWARE

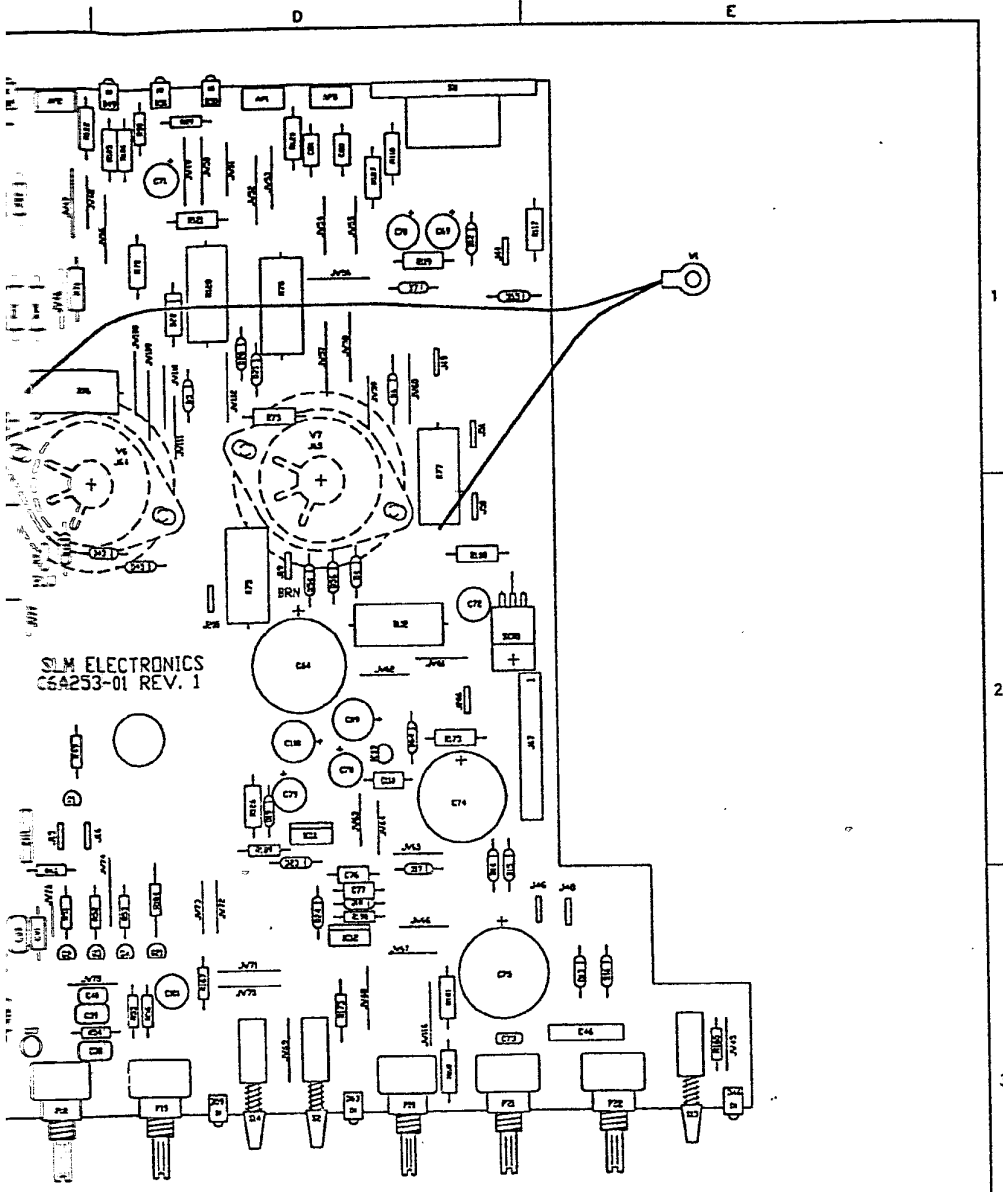
700-01	6-32 HEX KEPNUT ASSY.
638-53	6-32x3/8' PPH
645-11	FUSEHOLDER CAP


32	08/30/94	SWR	<i>[Signature]</i>	DELETED J69. ADDED 4" SLUG/RING. PER ECO #E0315.
2	04/16/94	LMA	<i>[Signature]</i>	JUMPER FROM 76-000-01 TO -05 PER E150
1	02/04/94	SWR		ADDED GND LUG (J69) CHANGED VALUE OF C58-C63 AND R110 & R111 AS PER ECO #E00B
REV	DATE	BY	CHK'D	DESCRIPTION
SIGNATURES:		DATE:		 1280 BORRAN DR. ST. LOUIS, MISSOURI 63106
DRAWN: S.RADER		04/26/93		
CHK'D:				PROJECT NAME:
APP'D:				VL-503
ORIGINAL ISSUED:		04/26/93		DRAWING NAME:
PLOT DATE:		09/07/94		PWR. SUPPLY BD. PICT.
PLOT TIME:		12:08:35		DRAWING NO. 07P253-51
FILE NAME:		25351P3Z		REV. 3Z
		SCALE: 1:1		SHEET: 1 OF 1



SLM ELECT.  
66A253-01





REV	DATE	BY	CHK'D	DESCRIPTION
6				
5				
4	09/07/94	SWR	<i>[Signature]</i>	CHANGED P/N & VALUES AS MARKED. PER ECO #E0315.
3	12-09-93	ERW		CHANGED J64 & J65 TO 17-450-04.
2	10/06/93	SWR		CHANGED R105,R180,R183,C64,C73, & D57, ADDED R197, PER PRODUCTION MODIFICATION.
1	08/10/93	SWR		CHANGED P/N OF PARTS J6, J7, & J8. CHANGED R112 TO 78-047-05.
SIGNATURES:		DATE:		 1280 BORMAX DR. ST. LOUIS, MISSOURI 63163
DRAWN: S.RADER		04/26/93		
CHK'D: LJ		05/21/93		PROJECT NAME:
APP'D: LJ		05/21/93		VL-503
ORIGINAL ISSUED:		05/21/93		DRAWING NAME:
PLOT DATE:		09/08/94		MAIN Bd. PICTORIAL
PLOT TIME:		08:17:39		DRAWING NO. 07P253-01
FILE NAME:		25301P4Z		SCALE: 1:1 SHEET: 1 OF 2

A			B			C		
DESIGNATOR	PART #	DESCRIPTION	D29	21A914-01	IN914	018	96-587-01	2NS210
A1	71-253-50	25K TRIM	D30	21A914-01	IN914	019	96-511-01	2NS210
A2	71-253-30	25K TRIM	D31	21A914-01	IN914	020	96-013-01	MPSA13
A3	71-281-10	25K TRIM	D32	21A914-01	IN914	021	96-176-01	J176
C10	10-223-10	0.022 400V	D33	21A914-01	IN914	R13	77-152-02	1.5K
C11	10-223-10	0.022 400V	D34	21A914-01	IN914	R14	77-152-02	1.5K
C12	10-223-10	0.022 400V	D35	21A914-01	IN914	R15	77-104-02	100K
C13	10-223-10	0.022 400V	D36	21A914-01	IN914	R16	77-104-02	100K
C14	12-684-10	0.68 16V	D37	21A914-01	IN914	R17	77-272-02	2.74K
C15	10-223-10	0.022 500V	D38	21A914-01	IN914	R19	77-74-02	475K
C16	10-471-32	470pF 400V	D39	21A914-01	IN914	R20	77-224-02	221K
C17	10-221-04	220pF 500V	D40	21A914-01	IN914	R21	77-474-02	475K
C18	10-471-32	470pF 500V	D41	21A914-01	IN4007	R22	77-104-02	100K
C19	10-102-10	0.001 400V	D42	21A914-01	IN4007	R23	77-104-02	100K
C20	10-222-10	0.0022 400V	D43	21A914-01	IN4007	R24	77-471-02	475
C21	10-332-10	0.0033 400V	D44	21-501-01	RED LED	R25	77-104-02	100K
C22	10-223-10	0.022 400V	D45	21A407-01	IN4007	R26	77-104-02	100K
C23	10-223-10	0.022 400V	D46	21-501-01	RED LED	R27	77-333-02	33.2K
C24	10-223-10	0.022 400V	D49	21-502-01	GREEN LED	A R28	MOT USED	
C25	10A102-11	0.001 100V	D50	21-501-01	RED LED	R29	77-224-02	221K
C26	10A102-11	0.001 100V	D51	21-501-01	RED LED	A R30	76-753-01	75K
C27	12-226-81	22 50V	D52	21-502-01	GREEN LED	R31	76-582-01	6.81K
C28	12-105-81	1 30V	D53	21-501-01	RED LED	A R32	76-733-01	75K
C29	10A101-21	100pF 50V	D54	21A407-01	IN4007	R33	76-682-01	6.81K
C30	12-105-81	1 30V	D55	21A407-01	IN4007	R34	76-102-02	100K
C31	10A101-21	100pF 200V	D56	21A407-01	IN4007	R35	76-104-01	100K
C32	12-105-81	1 30V	D57	21A46-01	IN746	R36	76-331-01	330
C33	12-105-81	1 30V	D58	21A914-01	IN914	R37	76-103-02	10K
C34	12-226-81	22 50V	D59	21-502-01	GREEN LED	R38	76-103-02	10K
C35	10A103-11	0.01 100V	D60	21A914-01	IN914	R39	76-733-01	75K
C36	10-134-03	0.1 100V	D61	21A914-01	IN914	R40	76-332-01	33K
C37	10A102-11	100pF 50V	D62	21A754-01	IN754	R41	76-103-02	10K
C38	12-105-81	1 30V	D63	21-503-01	YELLOW LED	R42	76-103-02	10K
C39	10-104-03	0.1 100V	D64	21A407-01	IN4007	A R43	MOT USED	
C40	10-104-03	0.1 100V	D65	21A914-01	IN914	R44	76-334-01	33K
C41	10-473-03	0.047 100V	D66	21A914-01	IN914	R45	76-220-01	22K
C42	10-223-10	0.022 400V	D67	21A914-01	IN914	R46	76-331-01	33K
C43	12-105-81	1 30V	D68	21A914-01	IN914	R47	76-472-01	4.7K
C44	10-223-10	0.022 400V	IC1	37-532-01	NE5532	R48	76-581-01	68K
C45	10-104-10	0.1 400V	IC3	37-074-01	TL074	R49	76-104-01	100K
C46	10-223-10	0.022 400V	IC4	37-532-01	NE5532	R50	76-224-01	22K
C47	10-473-10	0.047 400V	IC5	37-072-01	TL072	R51	76-104-01	100K
C48	10-473-10	0.047 400V	IC6	37-072-01	TL072	R52	76-104-01	100K
C49	10A221-11	220pF 100V	IC7	37-114-01	74HC14	R53	76-104-01	100K
C50	12-105-81	1 30V	IC8	37-413-01	4013	IC	76-220-01	22K
C51	12-105-81	1 30V	IC9	37-413-01	4013	A R55	76-220-01	22K
C52	12-105-81	1 30V	IC10	37-413-01	4013	A R56	76-220-01	22K
C53	10A101-21	100pF 200V	IC11	37-705-01	78M08	R57	77-224-02	221K
C54	10A102-11	100pF 100V	IC12	37-908-01	78L05	R58	76-102-02	1.5K
C55	12-105-81	1 30V	IC13	37-705-02	78L05	R59	77-224-02	221K
C56	12-105-81	1 30V	J5	39-910-01	JACK	R60	77-152-02	1.5K
C57	12A106-11	100F 16V	J6	39-116-51	T/S	R61	77-473-02	47.5K
C58	12-476-53	47M 450V	J7	39-116-51	T/S	R62	77-823-02	82.3K
C59	12-476-42	47 450V	J8	39-116-31	T/S	R63	76-104-02	100K
C60	12-476-42	47 450V	J9	39-308-01	MALE	R64	77-105-02	1K
C61	12-476-42	47 450V	J10	17-310-08	156	R65	77-103-02	1K
C62	12-106-10	10 100V	J11	17-310-08	156	R66	77-681-02	681
C63	12-106-10	10 100V	J12	17-310-06	156	R67	77-682-02	6.81K
C64	12-106-10	10 100V	J13	17-894-01	.187 TAB	R68	77-472-02	4.75K
C65	10-333-02	0.0033 35V	J14	17-894-01	.187 TAB	A R69	MOT USED	
C66	12-228-32	220 35V	J15	17-894-01	.187 TAB	R70	77-224-02	221K
C67	12-228-32	220 35V	J16	17-894-01	.187 TAB	R71	77-224-02	221K
C68	10A104-01	0.1 50V	J17	17-826-01	.250 TAB	R72	77-152-02	1.5K
C69	10A104-01	0.1 50V	J18	17-826-01	.250 TAB	R73	77-152-02	1.5K
C70	12-227-12	220 16V	J19	17-826-01	.250 TAB	R74	76-222-05	2K
C71	12-227-12	220 16V	J20	17-826-01	.250 TAB	R75	76-202-05	2K
C72	12-227-12	220 16V	J21	17-826-01	.250 TAB	R76	76-330-05	3K
C73	10A473-11	0.047 100V	J22	17-826-01	.250 TAB	R77	76-330-05	3K
C74	10A473-11	0.047 100V	J23	17-826-01	.250 TAB	R78	76-121-05	120
C75	10A473-11	0.047 100V	J24	17-826-01	.250 TAB	R79	76-223-01	22K
C76	10A473-11	0.047 100V	J25	17-500-01	GNDLUG	R80	76-223-01	22K
C77	10A473-11	0.047 100V	J44	17-826-01	.250 TAB	A R81	76-331-01	330
C78	12-226-32	22 35V	J45	17-826-01	.250 TAB	R82	77-103-02	10K
C79	12-226-32	22 35V	J46	17-826-01	.250 TAB	R83	76-102-02	1K
C80	12A225-51	2.2 16V	J48	17-826-01	.250 TAB	R84	76-228-01	2.2K
C81	12-227-12	220 16V	J49	17-826-01	.250 TAB	R85	76-228-01	2.2K
C82	10A104-01	0.1 50V	J50	17-826-01	.250 TAB	A R86	76-581-01	68K
C83	10A104-01	0.1 50V	J51	17-826-01	.250 TAB	R87	76-331-01	330
C84	12-107-32	100 35V	J56	39-920-01	MODULAR	A R87	76-331-01	330
C85	10A473-11	0.047 100V	J57	17-310-10	156	R88	77-103-02	10K
C86	10A473-11	0.047 100V	J58	17-310-10	156	R89	76-222-01	2.2K
C87	10A473-11	0.047 100V	J59	17-450-09	TUBE	R90	76-102-02	1K
C88	10-471-32	470pF 500V	J60	17-450-09	TUBE	R91	76-331-01	330
C89	10-223-10	0.022 400V	J61	17-450-09	TUBE	R92	76-331-01	330
C90	10A473-11	0.047 100V	J62	17-450-09	TUBE	R93	76-153-01	15K
C91	12-105-81	1 30V	J63	17-450-09	TUBE	R94	76-153-01	15K
C92	12-105-81	1 30V	J64	17-450-09	TUBE	R95	76-104-01	100K
C93	10A104-01	0.1 50V	J65	17-450-09	TUBE	R96	76-681-01	68K
C94	10A104-01	0.1 50V	J66	17-450-09	TUBE	R97	76-104-01	100K
C95	10A104-01	0.1 50V	J67	17-450-09	TUBE	R98	76-104-01	100K
C96	10A104-01	0.1 50V	J68	17-450-04	TUBE	R99	76-104-01	100K
C97	10A104-01	0.1 50V	J69	17-450-04	TUBE	R100	77-103-02	10K
C98	10A104-01	0.1 50V	J70	17-450-09	TUBE	R101	77-102-02	1K
C99	10A104-01	0.1 50V	J71	17-450-09	TUBE	R102	77-102-02	1K
C100	10A104-01	0.1 50V	J72	17-310-09	156	R103	77-221-01	22K
C101	10A104-01	0.1 50V	J73	17-310-09	156	R104	77-102-02	1K
C102	10A104-01	0.1 50V	DC5	66-104-01	YTLSC1	OPTO	77-102-02	1K
C103	10A104-01	0.1 50V	DC7	66-104-01	YTLSC1	OPTO	77-221-01	22K
C104	10A104-01	0.1 50V	DC8	66-104-01	YTLSC1	OPTO	78-047-05	47
C105	10A104-01	0.1 50V	DC9	66-104-01	YTLSC1	OPTO	78-472-01	4.7K
C106	10A104-01	0.1 50V	DC10	66-104-01	YTLSC1	OPTO	78-475-01	4.7K
C107	10A104-01	0.1 50V	DC11	66-104-01	YTLSC1	OPTO	78-472-01	4.7K
C108	10A104-01	0.1 50V	P11	70-105-22	1N	R117	77-152-02	1.5K
C109	10A104-01	0.1 50V	P12	70-303-01	1N	R118	77-152-02	1.5K
C110	10A104-01	0.1 50V	P13	70-105-22	1N	R119	77-682-02	6.8K
C111	10A104-01	0.1 50V	P14	70-303-23	20K	R120	77-103-02	10K
C112	12A106-11	100F 16V	P15	70-306-01	250K	R121	77-682-02	6.8K
C113	12A106-11	100F 16V	P16	70-254-22	250KA	R122	77-103-02	10K
C114	12A106-11	100F 16V	P17	70-503-22	50KA	R123	77-473-02	47.5K
C115	12A106-11	100F 16V	P18	70-503-22	50KA	R124	77-473-02	47.5K
C116	12A106-11	100F 16V	P19	70-254-22	250KA	A R126	77-221-01	22K
C117	12A106-11	100F 16V	P20	70-306-01	250K	R127	77-101-02	10K
C118	12A106-11	100F 16V	P21	70-203-23	20K	R128	76-121-05	120
C119	12A106-							

R10	96-507-01	25027	
R11	96-510-01	250210	
R12	96-812-01	MPSA13	
R13	96-176-01	J176	
R14	77-152-02	1.5K	1/2V 1X
R15	77-152-02	1.5K	1/2V 1X
R16	77-104-02	100K	1/2V 1X
R17	77-272-02	2.7K	1/2V 1X
R18	77-474-02	475K	1/2V 1X
R19	77-224-02	221K	1/2V 1X
R20	77-474-02	475K	1/2V 1X
R21	77-103-02	10K	1/2V 1X
R22	77-104-02	100K	1/2V 1X
R23	77-474-02	475K	1/2V 1X
R24	77-471-02	475	1/2V 1X
R25	77-104-02	100K	1/2V 1X
R26	77-104-02	100K	1/2V 1X
R27	77-332-02	33.2K	1/2V 1X
R28	NOT USED		
R29	77-224-02	221K	1/2V 1X
R30	76-753-01	75K	
R31	76-682-01	6.81K	
R32	76-753-01	75K	
R33	76-682-01	6.81K	
R34	76-102-02	1K	1X
R35	76-104-01	100K	
R36	76-331-01	330	
R37	76-103-02	10K	1X
R38	76-103-02	10K	1X
R39	77-753-01	75K	
R40	76-332-01	3.3K	
R41	76-100-02	10K	1X
R42	76-753-01	75K	
R43	NOT USED		
R44	76-334-01	330K	
R45	76-220-01	22	
R46	76-223-01	22K	
R47	76-472-01	4.7K	
R48	76-681-01	680	
R49	76-104-01	100K	
R50	76-224-01	22K	
R51	76-104-01	100K	
R52	76-104-01	100K	
R53	76-104-01	100K	
R54	76-220-01	22	
R55	76-220-01	22	
R56	76-220-01	22	
R57	77-224-02	221K	1/2V 1X
R58	76-102-02	1.0K	1X
R59	77-224-02	221K	1/2V 1X
R60	77-152-02	1.5K	1/2V 1X
R61	77-473-02	47.5K	1/2V 1X
R62	77-682-02	6.81K	1/2V 1X
R63	77-104-02	100K	1/2V 1X
R64	77-105-02	1M	1/2V 1X
R65	77-105-02	1M	1/2V 1X
R66	77-681-02	681	1/2V 1X
R67	77-682-02	6.81K	1/2V 1X
R68	77-472-02	4.75K	1/2V 1X
R69	NOT USED		
R70	77-224-02	221K	1/2V 1X
R71	77-224-02	221K	1/2V 1X
R72	77-152-02	1.5K	1/2V 1X
R73	77-152-02	1.5K	1/2V 1X
R74	78-202-05	2K	5V
R75	78-202-05	2K	5V
R76	78-050-05	5	5V
R77	78-050-05	5	5V
R78	78-121-05	120	5V
R79	76-223-01	22K	
R80	76-681-01	680	
R81	76-331-01	330	1/2V 1X
R82	77-103-02	10K	1X
R83	76-102-02	1K	1X
R84	76-220-01	22	
R85	76-223-01	22K	
R86	76-681-01	680	
R87	76-331-01	330	1/2V 1X
R88	77-103-02	10K	
R89	76-220-01	22	
R90	76-102-02	1K	1X
R91	76-331-01	330	
R92	76-331-01	330	
R93	76-153-01	15K	
R94	76-153-01	15K	
R95	76-104-01	100K	
R96	76-681-01	680	
R97	76-223-01	22K	
R98	76-104-01	100K	
R99	76-104-01	100K	
R100	77-103-02	10K	1/2V 1X
R101	77-102-02	1K	1/2V 1X
R102	77-105-02	1M	1/2V 1X
R103	77-221-01	220	1/2V 1X
R104	77-102-02	1K	1/2V 1X
R105	77-221-01	220	1/2V 1X
R106	78-047-05	47	5V
R107	78-472-01	4.7K	2V
R108	78-472-01	4.7K	2V
R109	78-472-01	4.7K	2V
R110	78-472-01	4.7K	2V
R111	77-152-02	1.5K	1/2V 1X
R112	77-152-02	1.5K	1/2V 1X
R113	77-682-02	6.81K	1/2V 1X
R114	77-103-02	10K	1/2V 1X
R115	77-682-02	6.81K	1/2V 1X
R116	77-103-02	10K	1/2V 1X
R117	77-473-02	47.5K	1/2V 1X
R118	77-473-02	47.5K	1/2V 1X
R119	77-473-02	47.5K	1/2V 1X
R120	77-103-02	10K	1/2V 1X
R121	77-682-02	6.81K	1/2V 1X
R122	77-103-02	10K	1/2V 1X
R123	77-473-02	47.5K	1/2V 1X
R124	77-473-02	47.5K	1/2V 1X
R125	77-473-02	47.5K	1/2V 1X
R126	77-101-02	100	5V
R127	78-121-05	120	5V
R128	76-102-02	1K	1X
R129	76-103-02	10K	1X
R130	76-103-02	10K	1X
R131	76-103-02	10K	1X
R132	76-103-02	10K	1X
R133	76-103-02	10K	1X
R134	76-103-02	10K	1X
R135	76-103-02	10K	1X
R136	76-103-02	10K	1X
R137	76-103-02	10K	1X
R138	76-103-02	10K	1X
R139	76-104-01	100K	1X
R140	76-104-01	100K	1X
R141	76-103-02	10K	1X
R142	76-103-02	10K	1X
R143	76-103-02	10K	1X
R144	76-104-01	100K	1X
R145	76-104-01	100K	1X

R146	76-104-01	100K	
R147	76-103-02	10K	1X
R148	76-103-02	10K	1X
R149	76-104-01	100K	
R150	76-104-01	100K	
R151	76-104-01	100K	
R152	76-102-02	1K	1X
R153	76-104-01	100K	1/2V 1X
R154	77-152-02	1.5K	
R155	76-104-01	100K	
R156	76-102-02	1K	1X
R157	76-104-01	100K	
R158	77-104-02	100K	1/2V 1X
R159	76-104-01	100K	
R160	76-102-02	1K	1X
R161	76-104-01	100K	
R162	76-221-01	220	
R163	76-104-01	100K	
R164	76-104-01	100K	
R165	76-152-01	1.5K	
R166	76-103-02	10K	1X
R167	76-152-01	1.5K	
R168	76-220-01	22	
R169	76-105-01	1M	
R170	76-101-01	100	
R171	77-105-02	1M	1/2V 1X
R172	77-104-02	100K	1/2V 1X
R173	77-100-01	10	1/2V 1X
R174	77-472-02	4.7K	1/2V 1X
R175	76-222-01	2.2K	
R176	77-224-02	221K	1/2V 1X
R177	77-102-01	10K	1/2V 1X
R178	77-473-02	47.5K	1/2V 1X
R179	NOT USED		
R180	NOT USED		
R181	77-682-02	68.2K	1/2V 1X
R182	76-103-02	10K	1X
R183	76-682-01	6.8K	
R184	76-104-01	100K	
R185	76-224-01	220K	
R186	77-104-02	100K	1/2V 1X
R187	76-103-01	10K	
R188	76-102-01	1M	
R189	76-102-02	1K	1X
R190	76-102-02	1K	1X
R191	76-101-01	100	
R192	76-101-01	100	
R193	76-101-01	100	
R194	76-101-01	100	
R195	76-321-01	330	
R196	77-152-02	1.5K	1/2V 1X
R197	NOT USED		
SCR1	96-639-01	2N6398	
S2	88-302-03	---	
S3	88-302-03	DUAL	SWITCH
S4	88-302-03	---	
S5	88-302-03	DUAL	SWITCH
S6	88-220-01	DPDT	SWITCH
S7	88-220-01	DPDT	SWITCH
S8	88-302-10	DUAL	SWITCH
S9	88-302-10	DUAL	SWITCH
S10	88-302-10	DUAL	SWITCH
S11	88-302-10	DUAL	SWITCH
S12	88-302-10	DUAL	SWITCH
S13	88-302-10	DUAL	SWITCH
S14	88-302-10	DUAL	SWITCH
S15	88-108-01	SWITCH	
V1	97-927-02	12AX7A	TUBE
V2	97-927-01	12AX7A	TUBE
V3	97-927-02	12AX7A	TUBE
V4	97-927-01	12AX7A	TUBE
V5	97-927-01	12AX7A	TUBE
V6	97-550-01	6550A	TUBE
V7	97-550-01	6550A	TUBE
V8	97-927-01	97AX7A	TUBE
V1	97-503-22	WIRE PREP	
JW1-JW116	76-000-05	JUMPER	

QTY.	MISC. HARDWARE	
1	SCREW	30-440-02 4-40x3/8" PPH
1	SCREW	30-638-53 6-32x3/8" PPH
3	NUT	30-442-52 4-40 HEXKEEPS ASSY
4	NUT	30-700-01 6-32 HEXKEEPS ASSY
3	STANDOFF	85-065-01 1-7/16" 6-32 HEX STDOFF
4	STANDOFF	85-125-01 1/2" ALUM. N/P HEX STDOFF

6				
5				
4	09/07/94	SWR	<i>[Signature]</i>	CHANGED P/N & VALUES AS MARKED. PER ECO #E0315.
3	12-09-93	ERW		CHANGED J64 & J65 TO 17-450-04.
2	10/06/93	SWR		CHANGED R105,R180,R183,C64,C73, & D57. ADDED R197. PER PRODUCTION MODIFICATION.
1	08/10/93	SWR		CHANGED P/N OF PARTS J6, J7, & J8. CHANGED R112 TO 78-047-05.
REV	DATE	BY	CHK'D	DESCRIPTION
SIGNATURES:		DATE:		<i>[Signature]</i> 1280 BORMAN DR. ST. LOUIS, MISSOURI 63163
DRAWN: S.RADER		04/26/93		
CHK'D: LJ		05/21/93		PROJECT NAME:
APP'D: LJ		05/21/93		VL-503 GUITAR AMP
ORIGINAL ISSUED: 05/21/93		PLOT DATE: 09/08/94		DRAWING NAME:
PLOT TIME: 08:17:39		DRAWING NO. 07P253-01		
FILE NAME: 25301P4Z		SCALE: 1:1		SHEET: 2 OF 2