

TEST POINTS	WAVE FORMS	VOLTAGES	WAVE FORMS	VOLTAGES
1	~	45mV p-p	~	45mV p-p
2	~	250mV p-p	~	250mV p-p
3	~	~	~	2.1V p-p
4	~	~	~	1.5V p-p
5	~	~	~	3.3V p-p
6	~	~	~	3.3V p-p
7	~	2.4V p-p	~	~
8	~	1.44V p-p	~	~
9	~	3.25V p-p	~	8V p-p
10	~	11V p-p	~	36V p-p
11	~	.6V p-p approx.	~	4V p-p approx.
12	~	2.1V p-p	~	4.2V p-p
13	~	62V p-p	~	62V p-p
14	~	-14 VDC reverb on	~	-14 VDC reverb on
15	~	~	~	-14 VDC
16	~	+14 VDC	~	~
17	~	+37 VDC	~	+37 VDC
18	~	-37 VDC	~	-37 VDC
19	~	+16 VDC	~	+16 VDC
20	~	-16 VDC	~	-16 VDC

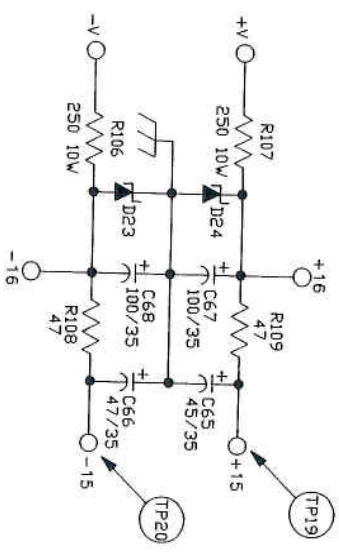
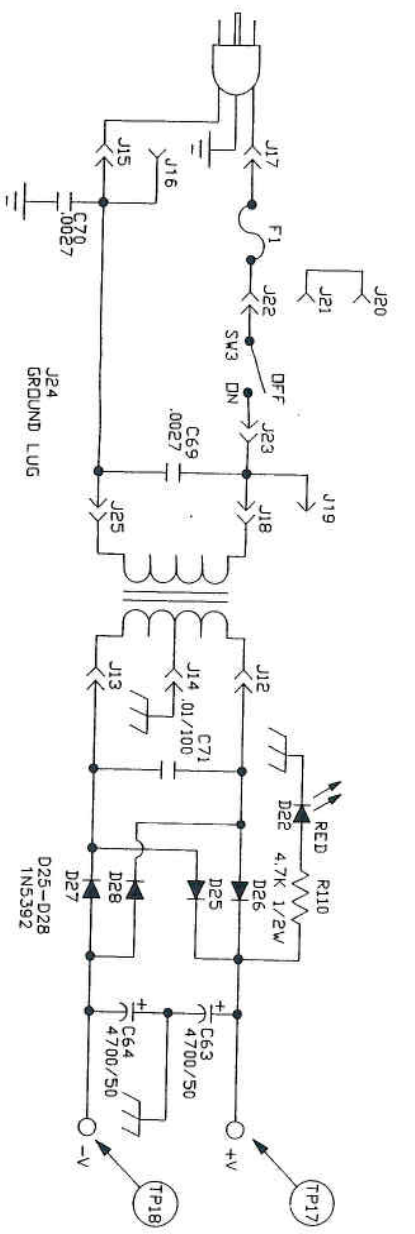
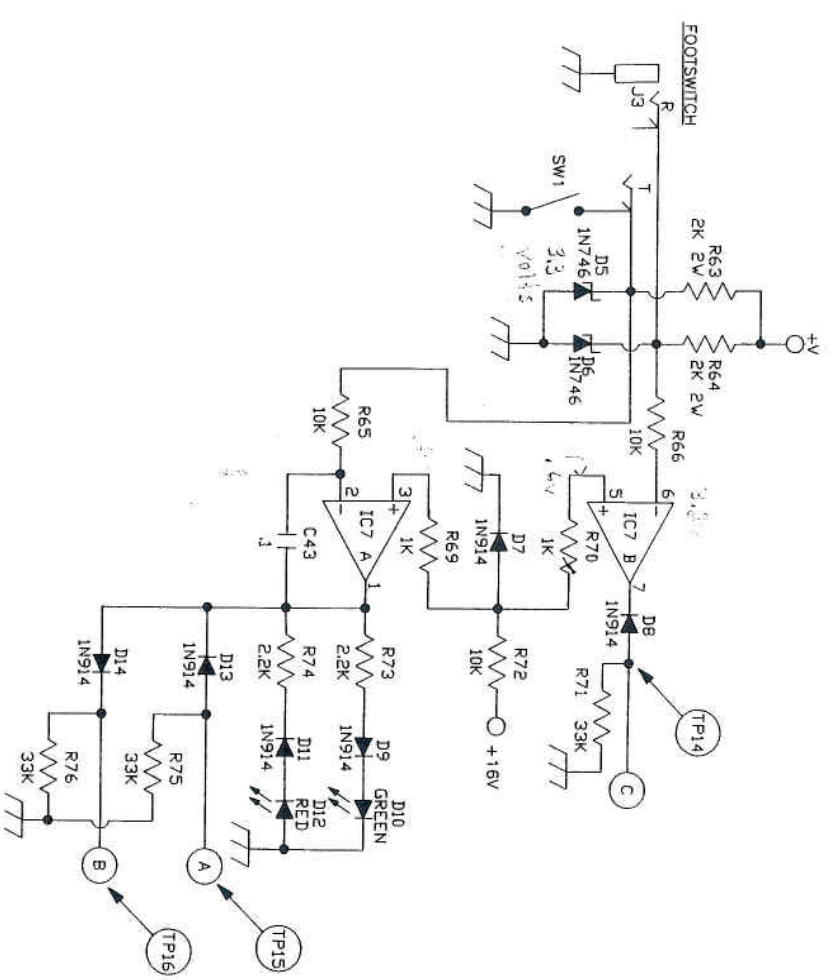
- NOTES:
- 1) THIS UNIT CONTAINS HAZARDOUS VOLTAGE. DISCONNECT POWER AND BE SURE POWER SUPPLY IS DISCHARGED BEFORE TOUCHING INTERNAL PARTS.
  - 2) UNLESS NOTED, RESISTOR VALUES IN OHMS, 1/4W-5% TOL. CAPACITOR VALUES IN MICROFARADS, 50V-10% TOL.
  - 3) VOLTAGES ARE MEASURED WITH 1 MEGOHM OSCILLOSCOPE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

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.

DESCRIPTION: G-80XL GUITAR AMP

PAGE # 1 OF 2 DRAWING # 16-024-01

APPROVED BY



DESIGNATOR	DESCRIPTION	SLM PART #
D1, D2	1N754A	21A754-01
D3-D6	1N746 5.2	21A146-01
D7-D9, D11, D13, 1N914	1N914	21A914-01
D14, D16-D21	1N914	21A914-01
D10, D22	1N914	21A914-01
D12	GREEN LED	21-285-01
D15	RED LED	21-284-01
D23, D24	1N754A	21A754-01
D25-D28	1N5358B	21-553-01
D29	1N5392	21A192-01
D59	G1752	21-752-01
Q1-Q3, Q6	J112	96-112-01
Q4, Q5, Q7	J176	96-176-01
Q8, Q9, Q13	2N5087	96-597-01
Q10	2N3440	96-340-01
Q11	2N3402	96-342-01
Q12	2N5089	96-588-01
Q14	T1P147	96-147-01
Q15	T1P142	96-142-01
IC1-IC7	4558	37-458-01
J1, J2, J4, J5	1/4" CLIFF-TS	39-116-01
J3	1/4" CLIFF-TRS	39-117-01
J6-J11, J22, J23	187 TAB	17-894-01
J12-J21	.250 TAB	17-836-01
J24	GROUND LUG	17-500-01
P1, P6	100KRA	70-104-23
P2, P7, P9	50KA	70-503-22
P3-P5	50KLA	70-133-01
P8	2KA	70-202-22
P10	10KL	70-132-01
AP-1	500	71-501-02
SW1, SW2	DPDT SWITCH	89-302-01
F1	2 AMP 3 AG	23-302-01

NOTES

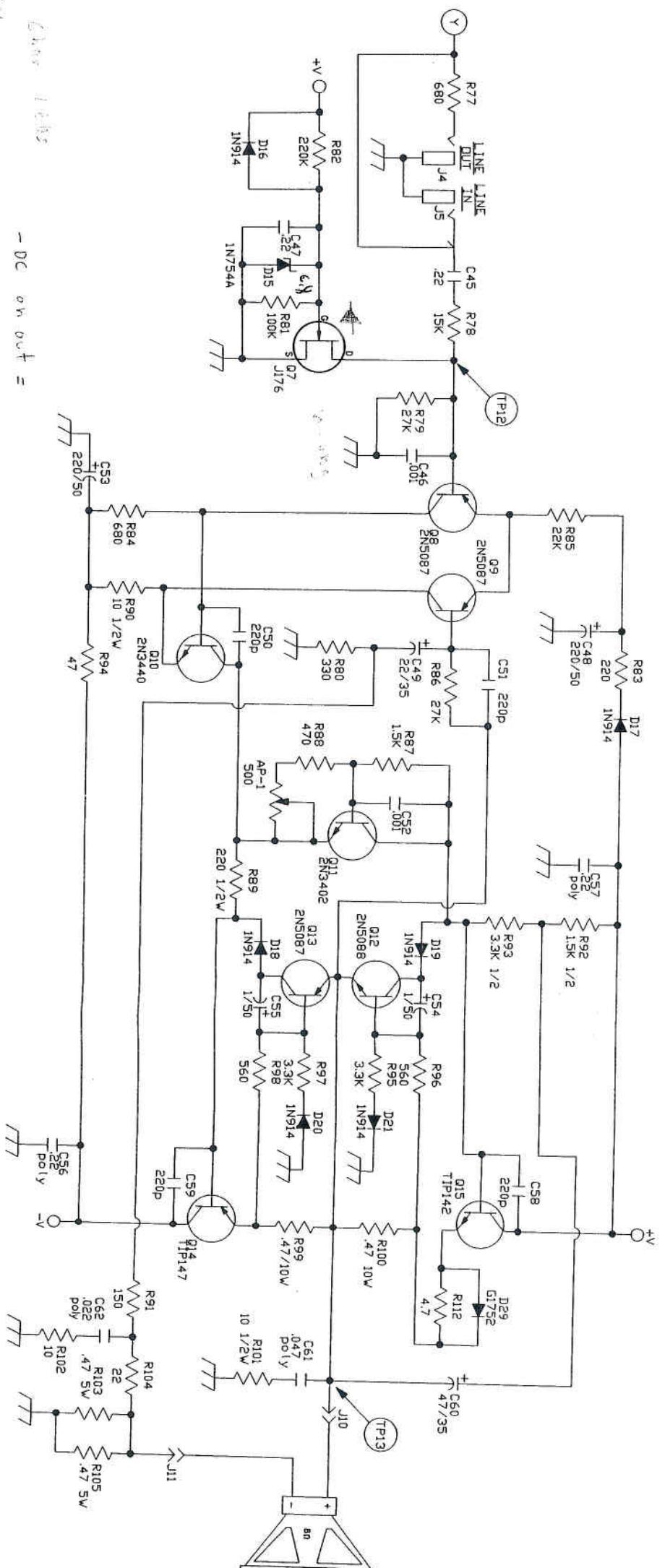
- 1) THIS UNIT CONTAINS HAZARDOUS VOLTAGE. DISCONNECT POWER AND BE SURE POWER SUPPLY IS DISCHARGED BEFORE TOUCHING INTERNAL PARTS.
- 2) UNLESS NOTED, RESISTOR VALUES IN OHMS, 1/4W-5% TOL. CAPACITOR VALUES IN MICROFARADS, 50V-10% TOL.
- 3) VOLTAGES ARE MEASURED WITH 1 MEGOHM OSCILLOSCOPE AND 10 MEGOHM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

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.

Bias: Across R99

*Motorola cold*  
*TI cold*

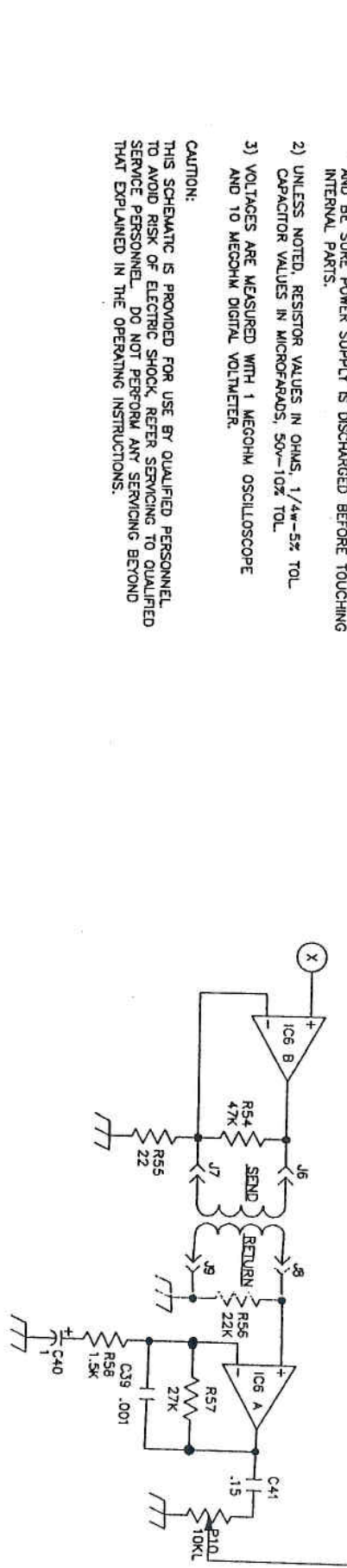
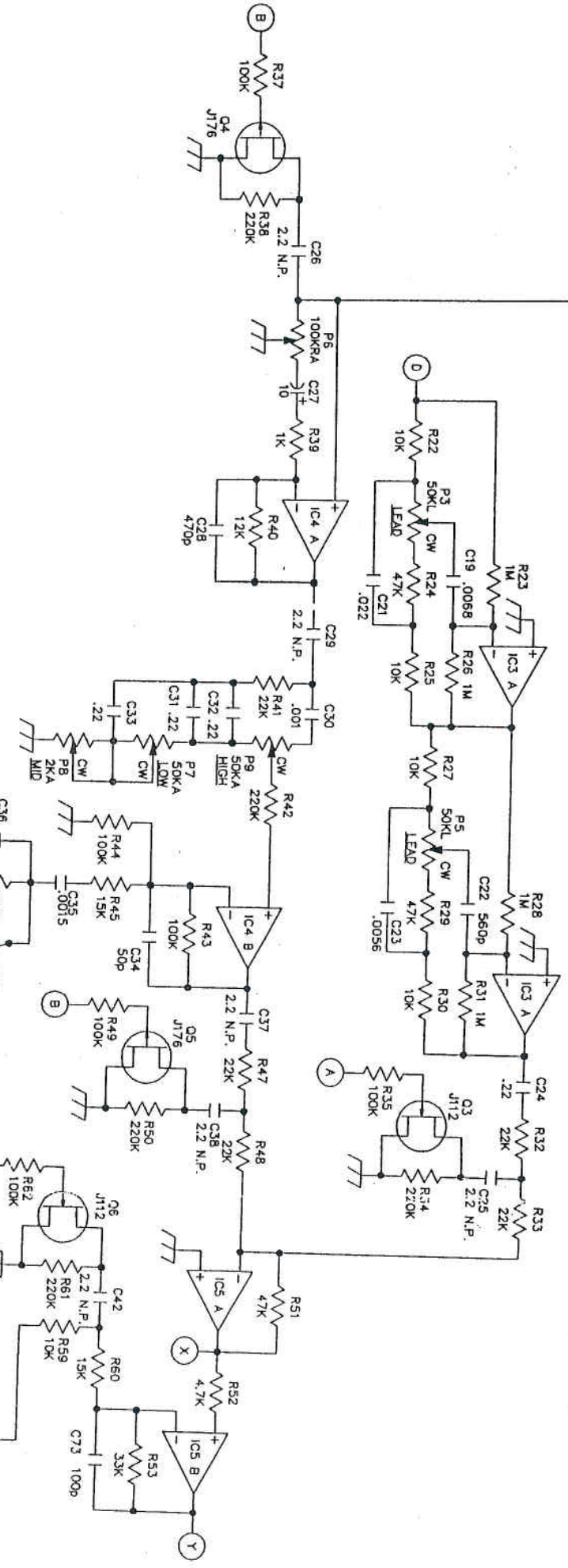
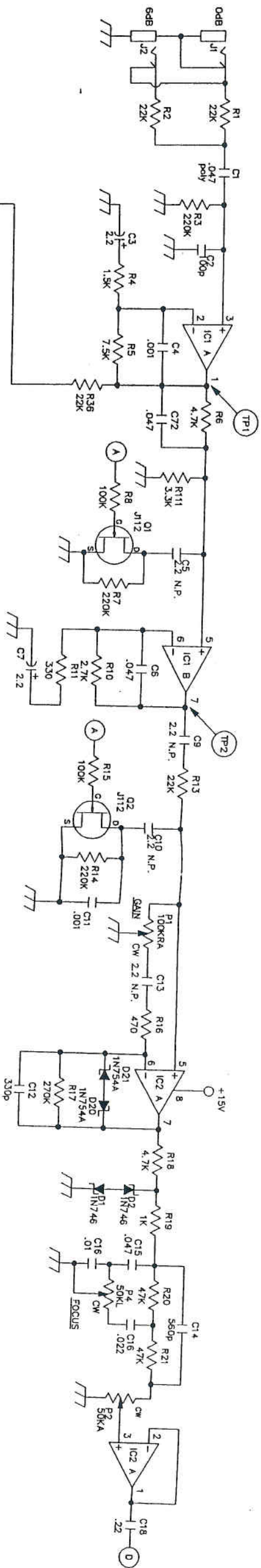


1180 BORMAN TP  
- DC on out =

ORIG. MGA 7/12/89	f.c.	APPROVED BY
VERS. DRAWN BY	CHECKED BY	DRAWING # 16-024-01
PAGE # 2 OF 2		

DESCRIPTION: G-80XL GUITAR AMP

SIM ELECTRONICS  
11880 BORMAN TP



TEST POINTS	WAVE FORMS	VOLTAGES	WAVE FORMS	VOLTAGES
1	~	.47V p-p	~	6.2mV p-p
2	~	~	~	.22V p-p
3	~	~	~	13V p-p
4	~	9.7V p-p	~	~
5	~	2.5V p-p	~	3.5V p-p
6	~	2.5V p-p	~	3.5V p-p
* 7	~	12V p-p	~	14V p-p
** 8	~	11V p-p	~	11V p-p
9	~	60V p-p	~	67V p-p
10	~	1V p-p	~	1V p-p
11	~	+35.5 VDC	~	-35.5 VDC
12	~	20mV p-p	~	20mV p-p
13	~	20mV p-p	~	20mV p-p

\* - WITH 150 Ohm LOAD ACROSS REVERB SEND.  
 - INPUT SIGNAL AT REVERB RETURN @ 3V p-p.

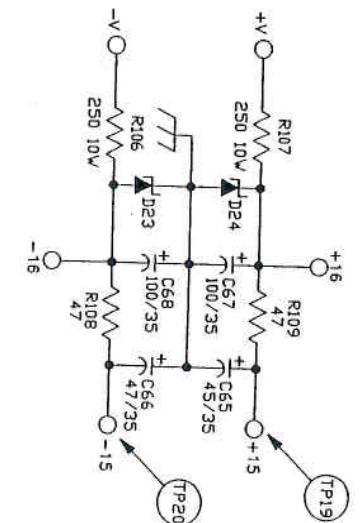
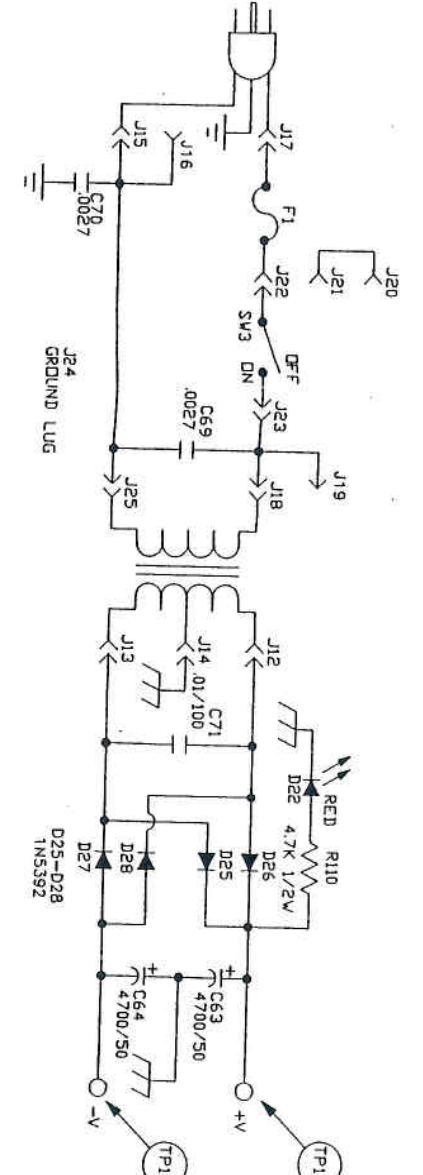
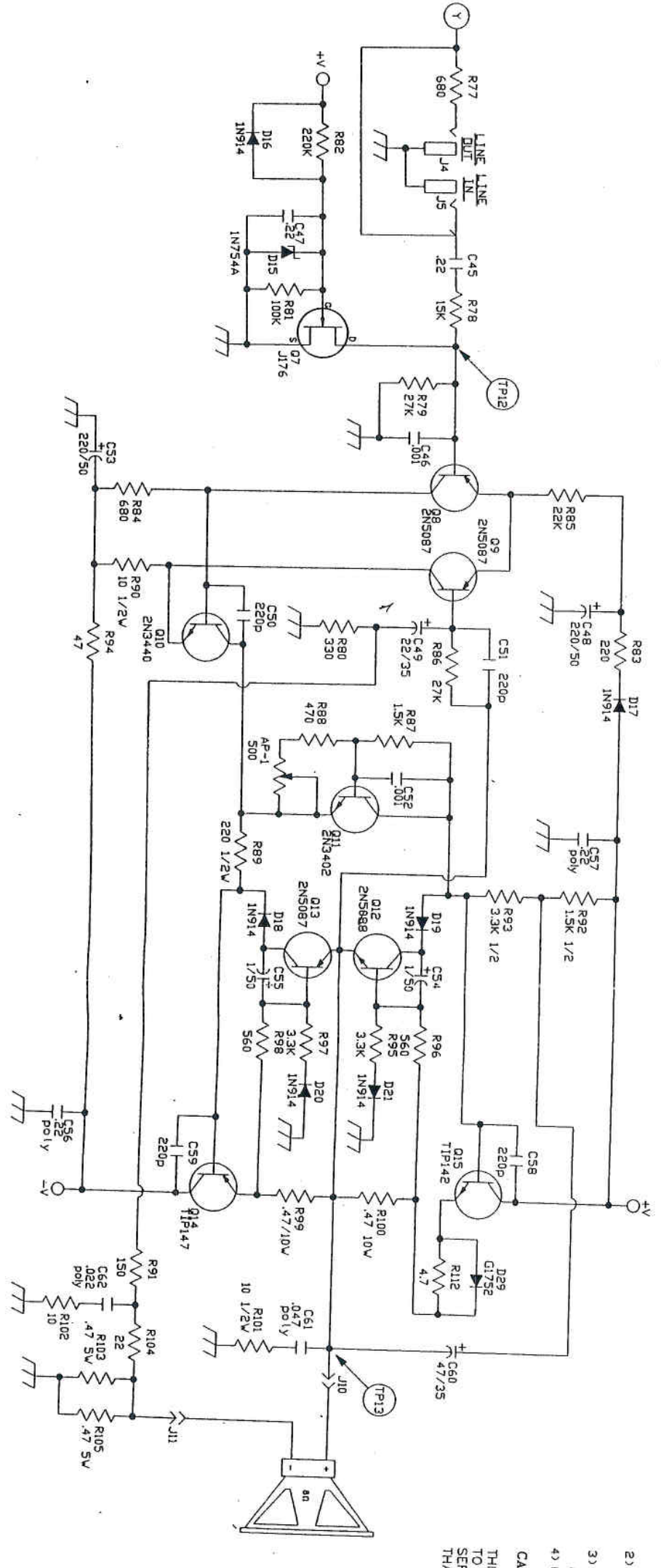
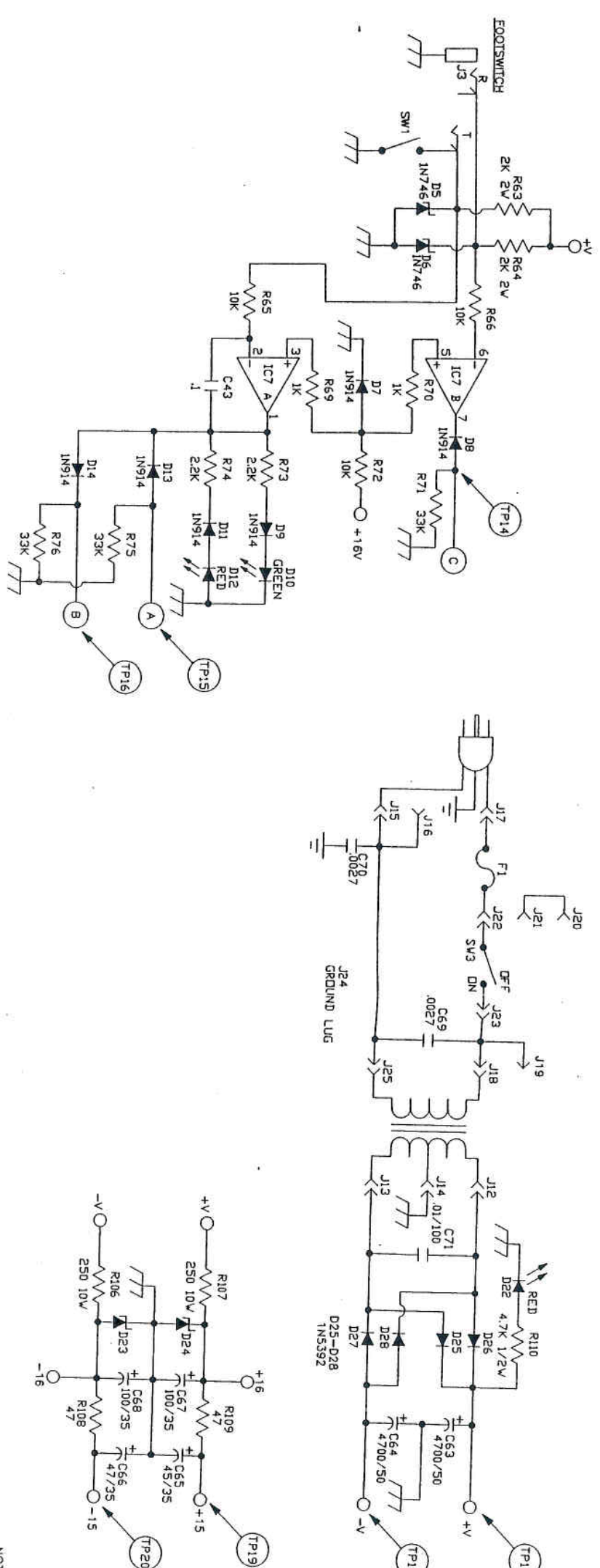
- NOTES:
- 1) THIS UNIT CONTAINS HAZARDOUS VOLTAGE. DISCONNECT POWER AND BE SURE POWER SUPPLY IS DISCHARGED BEFORE TOUCHING INTERNAL PARTS.
  - 2) UNLESS NOTED, RESISTOR VALUES IN OHMS, 1/4"-5% TOL CAPACITOR VALUES IN MICROFARADS, 50%-10% TOL
  - 3) VOLTAGES ARE MEASURED WITH 1 MEGOHM OSCILLOSCOPE AND 10 MEGOHM DIGITAL VOLTMETER.

CAUTION:  
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1-CHANGED DESCRIPTION FROM: G-80XL TO: GX-80

1	SWR 11/13/92		
ORIG.	MGA 7/12/89	CHECKED BY	APPROVED BY
VERS.	DRAWN BY		
PAGE #	1 OF 2	DRAWING #	16-024-01
DESCRIPTION: GX-80/212			

**SLM ELECTRONICS**  
 11880 BORMAN DR.  
 ST. LOUIS, MO 63146



DESIGNATOR	DESCRIPTION	SLM PART #
D1, D2	1N754A	21A754-01
D3-D6	1N746	21A146-01
D7-D9, D11, D13	1N914	21A914-01
D14, D16-D21	1N914	21A914-01
D10, D22	1N914	21A914-01
D12	GREEN LED	E1-823-01
D15	RED LED	E1-823-01
D23, D24	1N754A	21A754-01
D25-D28	1N5352B	21-553-01
D29	1N5392	21A192-01
D17	1N5392	21-752-01
Q1-Q3, Q6	J112	96-112-01
Q4, Q5, Q7	J176	96-176-01
Q8, Q9, Q13	2N5087	96-587-01
Q10	D10	96-340-01
Q11	2N3440	96-340-01
Q12	2N5088	96-588-01
Q14	D14	96-589-01
Q15	T1P147	96-147-01
IC1-IC7	T1P142	96-142-01
	4558	37-458-01
J1, J2, J4, J5	1/4" CLIFF-TS	39-116-01
J3	1/4" CLIFF-TRS	39-117-01
J6-J11, J22, J23	.187 TAB	17-894-01
J12-J21	.250 TAB	17-896-01
J24	GROUND LUG	17-500-01
P1, P6	100KRA	70-104-23
P2, P7, P9	50KA	70-503-22
P8	50KL	70-133-01
P3-P5	RKA	70-133-01
P10	10KL	70-202-22
AP-1	500	70-132-01
SW1, SW2	DAPT SWITCH	88-302-01
F1	2 AMP 3 AG	23-302-01

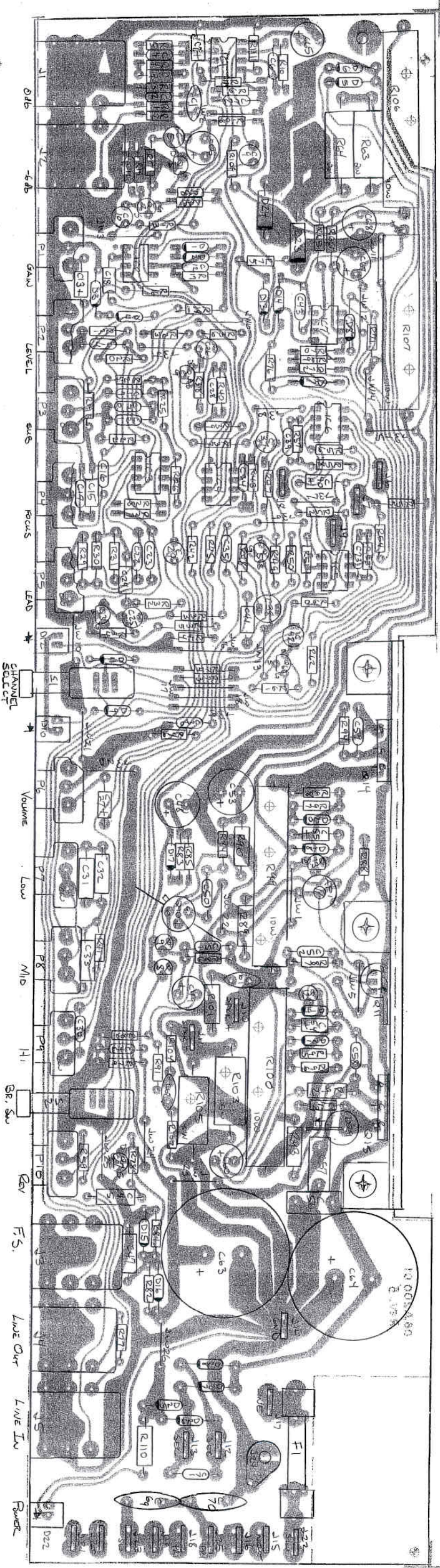
**NOTES:**  
 1) THIS UNIT CONTAINS HAZARDOUS VOLTAGE. DISCONNECT POWER AND BE SURE POWER SUPPLY IS DISCHARGED BEFORE TOUCHING INTERNAL PARTS.  
 2) UNLESS NOTED, RESISTOR VALUES IN OHMS, 1/4W-5% TOL. CAPACITOR VALUES IN MICROFARADS. 50V-10% TOL.  
 3) VOLTAGES ARE MEASURED WITH 1 MEGOHM DIGITAL OSCILLOSCOPE AND 10 MEGOHM DIGITAL VOLT-METER.  
 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.

ORIG. MGA 7/12/89	1-C	CHECKED BY	APPROVED BY
VERS. DRAWN BY		DRAWING # 16-024-01	
PAGE # 2 OF 2			

DESCRIPTION: G-X-80/212 GUITAR AMP





ITEM #	DESCRIPTION	QTY	REF. DESIG.	ITEM #	DESCRIPTION	QTY	REF. DESIG.
R1	100K	1	R1	R1	100K	1	R1
R2	100K	1	R2	R2	100K	1	R2
R3	100K	1	R3	R3	100K	1	R3
R4	100K	1	R4	R4	100K	1	R4
R5	100K	1	R5	R5	100K	1	R5
R6	100K	1	R6	R6	100K	1	R6
R7	100K	1	R7	R7	100K	1	R7
R8	100K	1	R8	R8	100K	1	R8
R9	100K	1	R9	R9	100K	1	R9
R10	100K	1	R10	R10	100K	1	R10
R11	100K	1	R11	R11	100K	1	R11
R12	100K	1	R12	R12	100K	1	R12
R13	100K	1	R13	R13	100K	1	R13
R14	100K	1	R14	R14	100K	1	R14
R15	100K	1	R15	R15	100K	1	R15
R16	100K	1	R16	R16	100K	1	R16
R17	100K	1	R17	R17	100K	1	R17
R18	100K	1	R18	R18	100K	1	R18
R19	100K	1	R19	R19	100K	1	R19
R20	100K	1	R20	R20	100K	1	R20
R21	100K	1	R21	R21	100K	1	R21
R22	100K	1	R22	R22	100K	1	R22
R23	100K	1	R23	R23	100K	1	R23
R24	100K	1	R24	R24	100K	1	R24
R25	100K	1	R25	R25	100K	1	R25
R26	100K	1	R26	R26	100K	1	R26
R27	100K	1	R27	R27	100K	1	R27
R28	100K	1	R28	R28	100K	1	R28
R29	100K	1	R29	R29	100K	1	R29
R30	100K	1	R30	R30	100K	1	R30
R31	100K	1	R31	R31	100K	1	R31
R32	100K	1	R32	R32	100K	1	R32
R33	100K	1	R33	R33	100K	1	R33
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R35	100K	1	R35	R35	100K	1	R35
R36	100K	1	R36	R36	100K	1	R36
R37	100K	1	R37	R37	100K	1	R37
R38	100K	1	R38	R38	100K	1	R38
R39	100K	1	R39	R39	100K	1	R39
R40	100K	1	R40	R40	100K	1	R40
R41	100K	1	R41	R41	100K	1	R41
R42	100K	1	R42	R42	100K	1	R42
R43	100K	1	R43	R43	100K	1	R43
R44	100K	1	R44	R44	100K	1	R44
R45	100K	1	R45	R45	100K	1	R45
R46	100K	1	R46	R46	100K	1	R46
R47	100K	1	R47	R47	100K	1	R47
R48	100K	1	R48	R48	100K	1	R48
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R52	100K	1	R52	R52	100K	1	R52
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R54	100K	1	R54	R54	100K	1	R54
R55	100K	1	R55	R55	100K	1	R55
R56	100K	1	R56	R56	100K	1	R56
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R66	100K	1	R66	R66	100K	1	R66
R67	100K	1	R67	R67	100K	1	R67
R68	100K	1	R68	R68	100K	1	R68
R69	100K	1	R69	R69	100K	1	R69
R70	100K	1	R70	R70	100K	1	R70
R71	100K	1	R71	R71	100K	1	R71
R72	100K	1	R72	R72	100K	1	R72
R73	100K	1	R73	R73	100K	1	R73
R74	100K	1	R74	R74	100K	1	R74
R75	100K	1	R75	R75	100K	1	R75
R76	100K	1	R76	R76	100K	1	R76
R77	100K	1	R77	R77	100K	1	R77
R78	100K	1	R78	R78	100K	1	R78
R79	100K	1	R79	R79	100K	1	R79
R80	100K	1	R80	R80	100K	1	R80
R81	100K	1	R81	R81	100K	1	R81
R82	100K	1	R82	R82	100K	1	R82
R83	100K	1	R83	R83	100K	1	R83
R84	100K	1	R84	R84	100K	1	R84
R85	100K	1	R85	R85	100K	1	R85
R86	100K	1	R86	R86	100K	1	R86
R87	100K	1	R87	R87	100K	1	R87
R88	100K	1	R88	R88	100K	1	R88
R89	100K	1	R89	R89	100K	1	R89
R90	100K	1	R90	R90	100K	1	R90
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R92	100K	1	R92	R92	100K	1	R92
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R96	100K	1	R96	R96	100K	1	R96
R97	100K	1	R97	R97	100K	1	R97
R98	100K	1	R98	R98	100K	1	R98
R99	100K	1	R99	R99	100K	1	R99
R100	100K	1	R100	R100	100K	1	R100

REV 3-01 FUSE CLIPS TO -02

REV 3-01 FUSE CLIPS TO -02

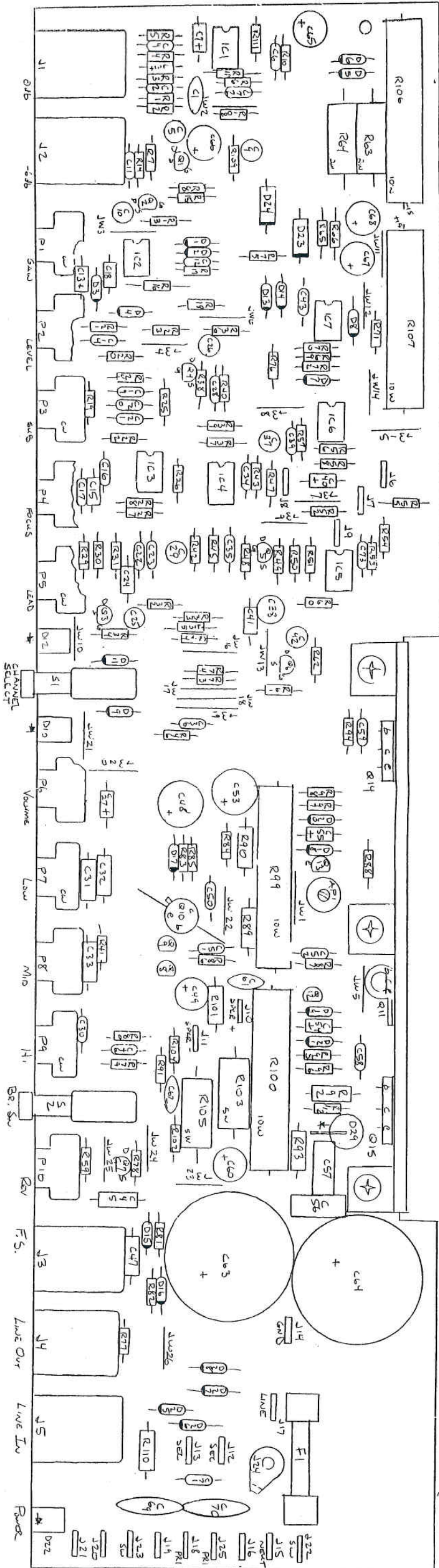
REV 3-01 FUSE CLIPS TO -02

REV 3-01 FUSE CLIPS TO -02

NOTE: UNLESS OTHERWISE SPECIFIED:  
ALL RESISTORS IN OHMS  
1/4 WATT 5%  
ALL CAPS IN MICROFARADS  
50V MIN. RATING

REV	DATE	BY	DESCRIPTION
1	11/15/88	SM	INITIAL DESIGN
2	11/15/88	SM	REVISED FOR COMPONENT CHANGES
3	11/15/88	SM	REVISED FOR COMPONENT CHANGES
4	11/15/88	SM	REVISED FOR COMPONENT CHANGES
5	11/15/88	SM	REVISED FOR COMPONENT CHANGES

REV 3-01 FUSE CLIPS TO -02



ITEM	DESCRIPTION	QTY	UNIT	REVISION
1	100UF	1	100UF	1
2	100UF	1	100UF	1
3	100UF	1	100UF	1
4	100UF	1	100UF	1
5	100UF	1	100UF	1
6	100UF	1	100UF	1
7	100UF	1	100UF	1
8	100UF	1	100UF	1
9	100UF	1	100UF	1
10	100UF	1	100UF	1
11	100UF	1	100UF	1
12	100UF	1	100UF	1
13	100UF	1	100UF	1
14	100UF	1	100UF	1
15	100UF	1	100UF	1
16	100UF	1	100UF	1
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18	100UF	1	100UF	1
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21	100UF	1	100UF	1
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30	100UF	1	100UF	1
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32	100UF	1	100UF	1
33	100UF	1	100UF	1
34	100UF	1	100UF	1
35	100UF	1	100UF	1
36	100UF	1	100UF	1
37	100UF	1	100UF	1
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83	100UF	1	100UF	1
84	100UF	1	100UF	1
85	100UF	1	100UF	1
86	100UF	1	100UF	1
87	100UF	1	100UF	1
88	100UF	1	100UF	1
89	100UF	1	100UF	1
90	100UF	1	100UF	1
91	100UF	1	100UF	1
92	100UF	1	100UF	1
93	100UF	1	100UF	1
94	100UF	1	100UF	1
95	100UF	1	100UF	1
96	100UF	1	100UF	1
97	100UF	1	100UF	1
98	100UF	1	100UF	1
99	100UF	1	100UF	1
100	100UF	1	100UF	1

REV A RT Rev to D. Circuit floor plan  
OF COMPONENT CHANGES.

REV	DATE	DESCRIPTION
1	11-11-61	INITIAL DESIGN
2	11-11-61	REVISED
3	11-11-61	REVISED
4	11-11-61	REVISED
5	11-11-61	REVISED
6	11-11-61	REVISED
7	11-11-61	REVISED
8	11-11-61	REVISED
9	11-11-61	REVISED
10	11-11-61	REVISED

64-80/212  
PICTORIAL ASSY DR 1200-01  
SUN ELECTRONICS ST. LOUIS  
1700 E. MISSOURI  
MO. 63133  
REV. 1-58  
07 200 01

NOTE: UNLESS OTHERWISE SPECIFIED:  
ALL RESISTORS IN OHMS  
1/4 WATT 5%  
ALL CAPS IN MICROFARADS  
150 T43