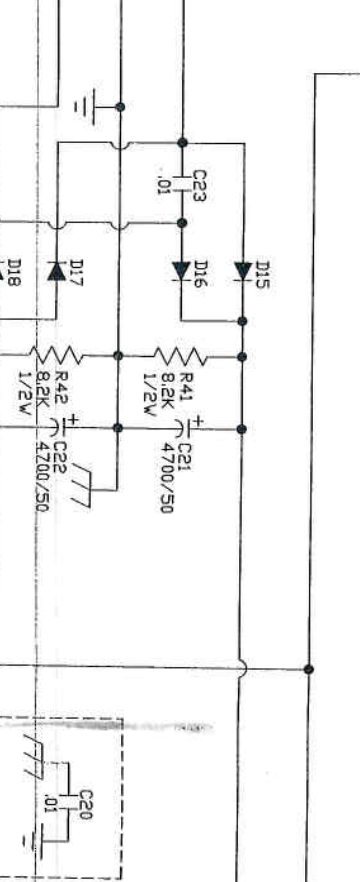
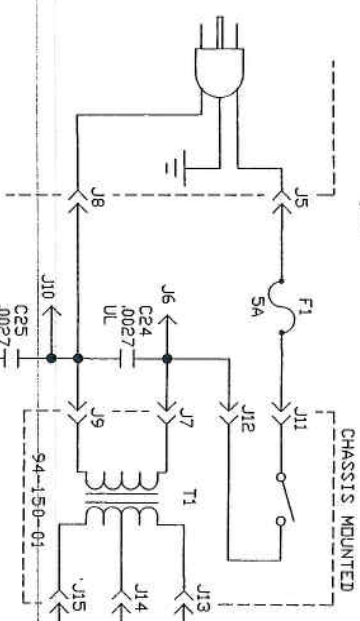
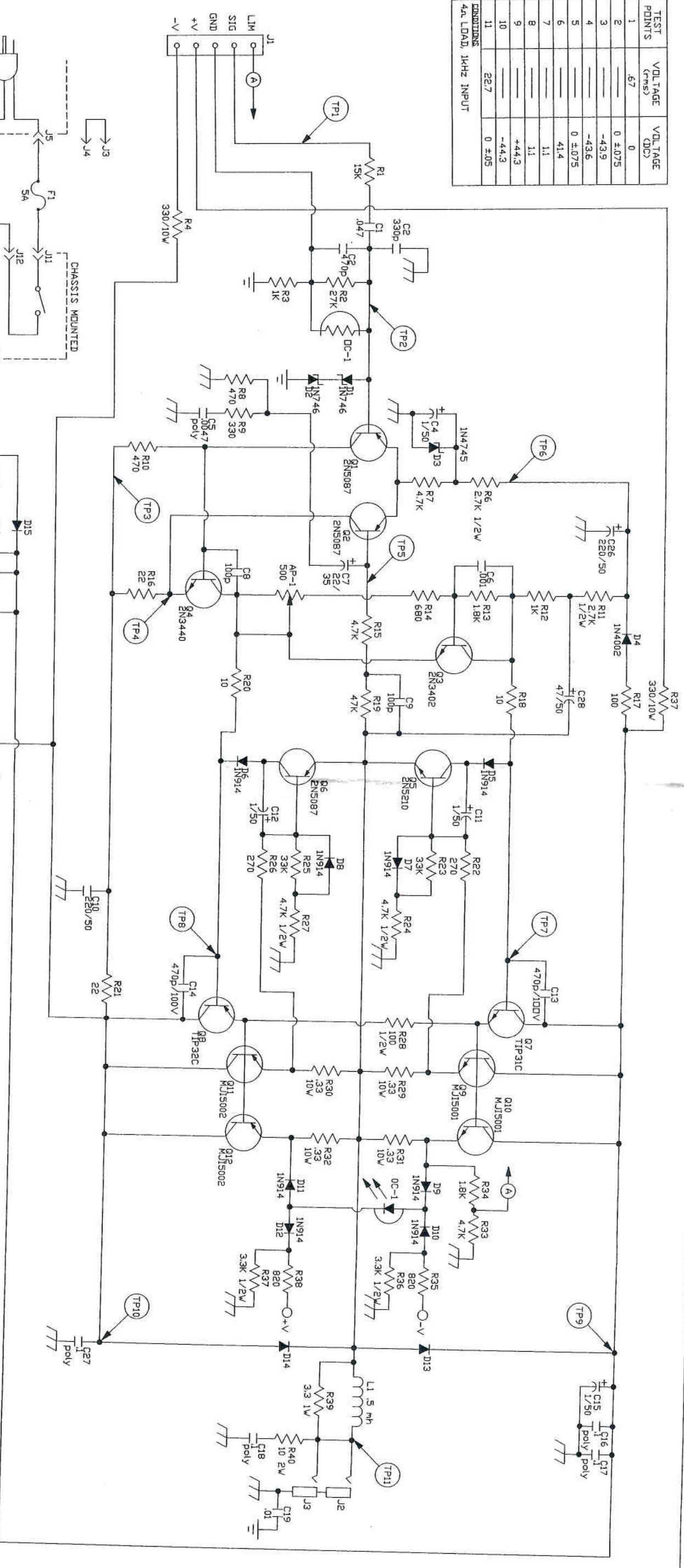


TEST POINTS	VOLTAGE (rms)	VOLTAGE (DC)
1	.67	0
2	—	0 ±.075
3	—	-43.9
4	—	-43.6
5	—	0 ±.075
6	—	41.4
7	—	1.1
8	—	+44.3
9	—	-44.3
10	—	—
11	22.7	0 ±.05

CONDITIONS
4A LOAD, 1KHZ INPUT



DESIGNATOR	DESCRIPTION	PART NUMBER
Q1-Q2-Q6	TRANSISTOR	96-587-01
Q3	TRANSISTOR	96-342-01
Q4	TRANSISTOR	96-340-01
Q5	TRANSISTOR	96-340-01
Q7	TRANSISTOR	96-031-01
Q8	TRANSISTOR	96-031-03
Q9-Q10	TRANSISTOR	96-032-03
Q11-Q12	TRANSISTOR	96-101-01
D1-D2	DIODE	21A145-01
D3	DIODE	21A145-01
D4, D13-D14	DIODE	21A402
D5-D12	DIODE	1N914
D15-D18	DIODE	21A914-01
J1	HEADER	17-310-05
J2-J3	CLIFF NOSE	39-118-01
J3-J15	.250" FASTON TAB	17-696-01
J16	LUG CONNECT	17-500-01
DC-1	VTL-5C7	66-100-01
L1	.5 UH	94-141-01
AP-1	500 OHM TRIMMER POT	71-501-02
F1	5 AMP 250V FUSE	23-305-01

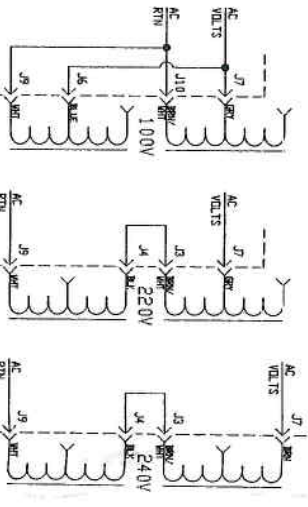
CAUTION:
THIS SCHEMATIC IS PROVIDED FOR USE BY QUALIFIED PERSONNEL. TO AVOID RISK OF ELECTRIC SHOCK, REFER SERVICING TO QUALIFIED SERVICE PERSONNEL. DO NOT PERFORM ANY SERVICING BEYOND THAT EXPLAINED IN THE OPERATING INSTRUCTIONS.

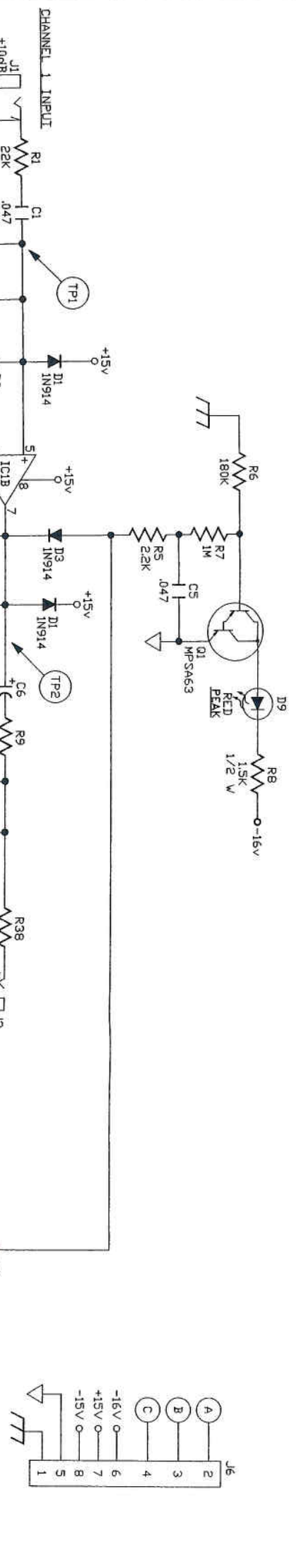
PC BOARD ASSY # 074420-01

ORIG.	VER.	DRAWN BY	CHECKED BY	APPROVED BY
MGA 7-5-89	1	DKS-4/24/90		
DESCRIPTION: K-160XL POWER AMP				
PAGE # 1 of 2 DRAWING # 16-230-01				

- 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 SWITCH GROUND.
 - 4) CIRCUIT GROUND \downarrow SWITCH GROUND \downarrow CHASSIS GROUND \downarrow

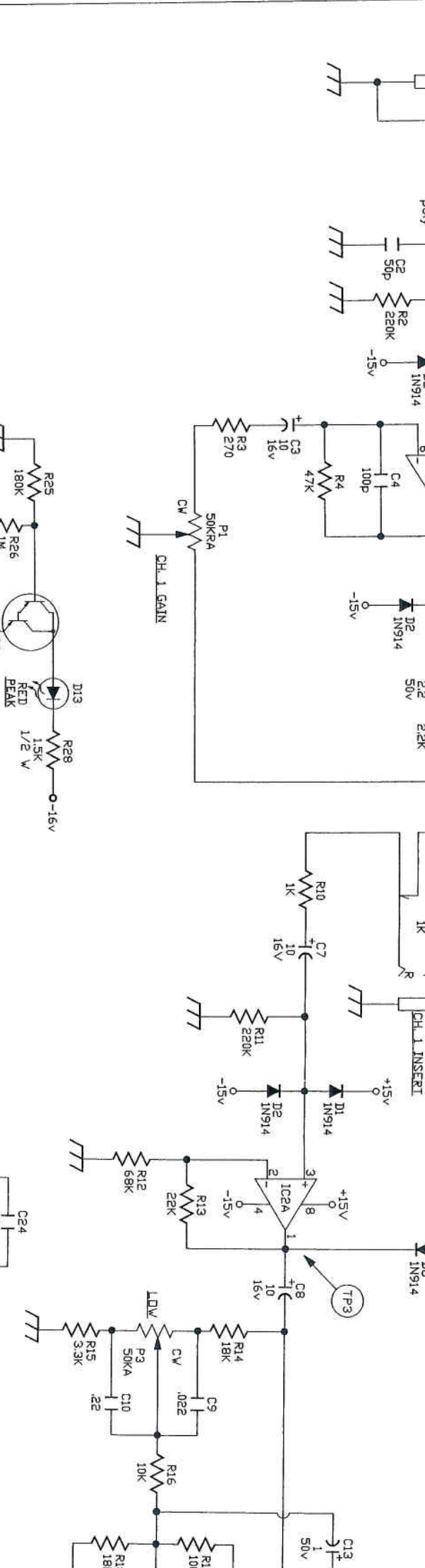
EXPORT WIRING





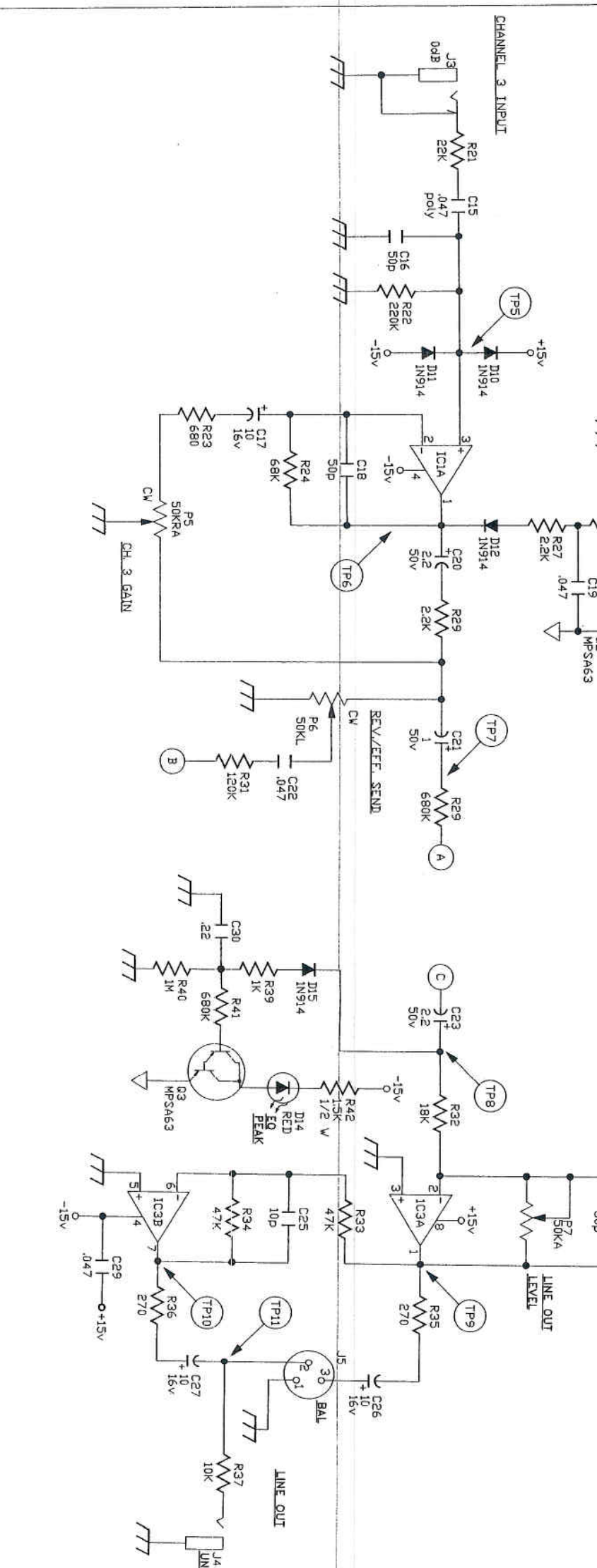
TEST POINTS	VOLTAGE	WAVE FORM
1	90mV P-P	
2	15V P-P	
3	18.5V P-P	
4	2.25V P-P	
5	90mV P-P	
6	8.8V P-P	
7	8V P-P	
8	540mV P-P	
9	1.5V P-P	
10	1.5V P-P	

CONDITIONS:
 TP1-TP7, 1K & 100mV INPUT ON CHANNEL 1
 TP8-TP10, 1K & 100mV INPUT ON CHANNEL 3



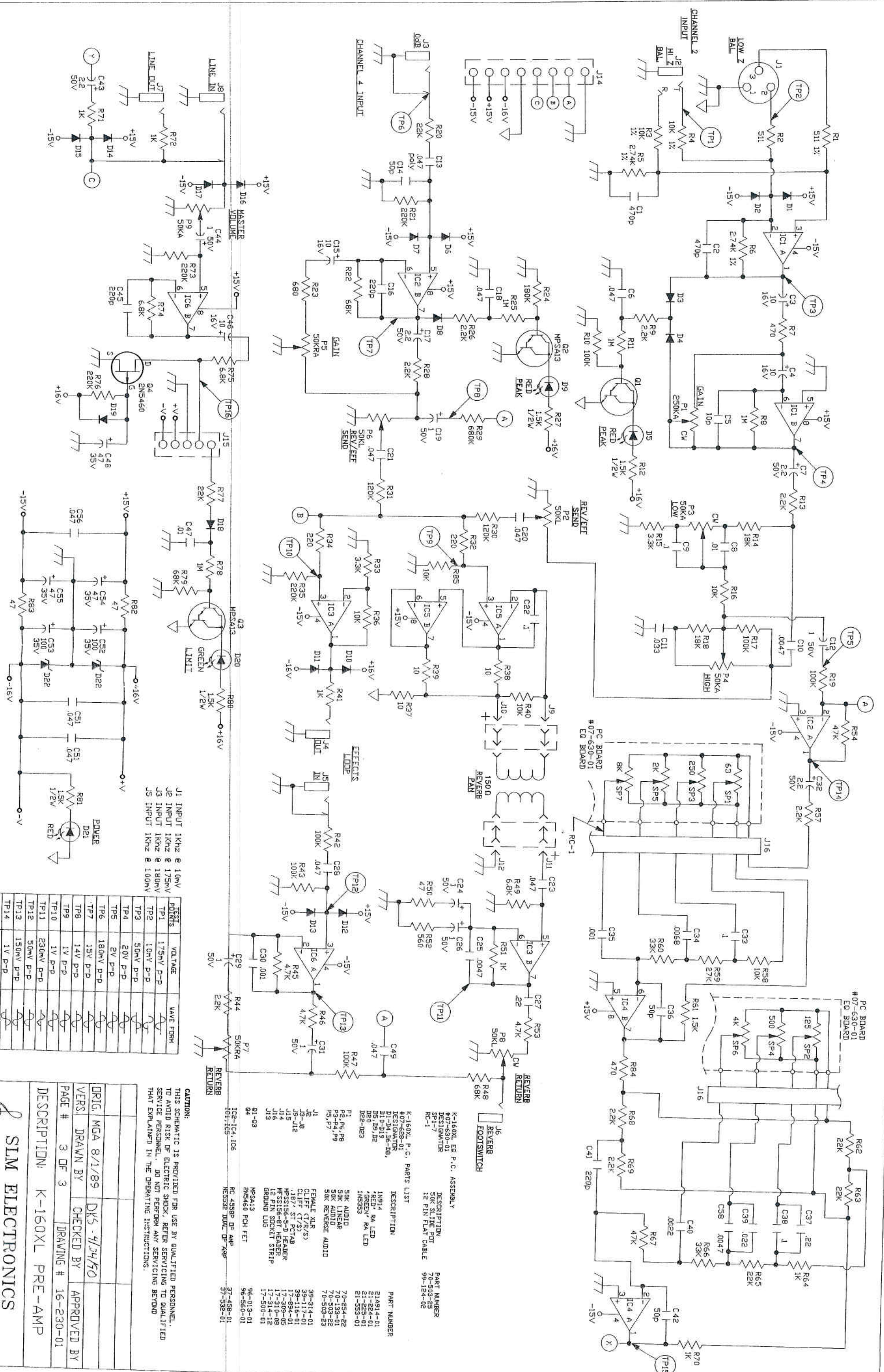
CAUTION:
 THIS SCHEMATIC IS PROVIDED FOR USE BY QUALIFIED PERSONNEL. TO AVOID RISK OF ELECTRIC SHOCK, REFER SERVICING TO QUALIFIED SERVICE PERSONNEL. DO NOT PERFORM ANY SERVICING BEYOND THAT EXPLAINED IN THE OPERATING INSTRUCTIONS.

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.

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 ---



J1 INPUT 1kHz @ 10mV
 J2 INPUT 1kHz @ 175mV
 J3 INPUT 1kHz @ 180mV
 J5 INPUT 1kHz @ 100mV

TEST POINTS	VOLTAGE	WAVE FORM
TP1	1.75mV P-P	
TP2	10mV P-P	
TP3	50mV P-P	
TP4	20V P-P	
TP5	2V P-P	
TP6	180mV P-P	
TP7	15V P-P	
TP8	14V P-P	
TP9	1V P-P	
TP10	1V P-P	
TP11	230mV P-P	
TP12	50mV P-P	
TP13	150mV P-P	
TP14	1V P-P	
TP15	1V P-P	
TP16	440mV P-P	

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.

DRIG, MGA 8/1/89
 VERS. DRAWN BY DKS-4/3/80
 PAGE # 3 OF 3
 DESCRIPTION: K-160XL PRE-AMP

11880 BORMAN DR.
 ST. LOUIS, MO 63146

DESCRIPTION	PART NUMBER
K-160XL P.C. ASSEMBLY	21491-4-01
#07-630-01 DESIGNATOR	21-224-01
50K SLIDE POT	21-225-01
12 PIN FLAT CABLE	99-124-02
RC-1	
K-160XL P.C. PARTS LIST	
DESCRIPTION	PART NUMBER
1N914	21491-4-01
RED RA LED	21-224-01
RED RA LED	21-225-01
1N555	21-553-01
DE2-D23	
P1	70-554-22
P2, P5, P8	70-133-01
P3, P4, P9	70-503-22
F5, P7	70-503-23
J1	39-314-01
J2	39-117-01
J3-J8	39-118-01
J9-J12	1877 ST PCTAB
J13	17-306-05
J14	17-310-08
J15	17-314-12
J16	17-314-12
J18	17-500-01
Q1-Q3	96-013-01
MPSA13	96-560-01
2N5460 PCH FET	96-560-01
IC2-IC4, IC6	37-459-01
IC5	37-532-01
IC6	

PC BOARD #07-630-01 EQ BOARD
 PC BOARD #07-630-01 EQ BOARD

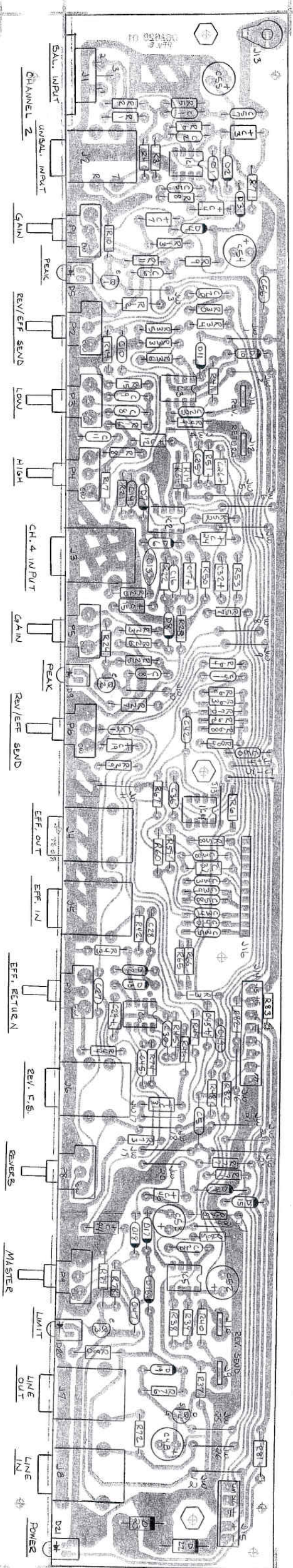
REVERB RETURN
 REVERB RETURN
 REVERB RETURN

PC BOARD #07-630-01 EQ BOARD
 PC BOARD #07-630-01 EQ BOARD

REVERB RETURN
 REVERB RETURN
 REVERB RETURN

PC BOARD #07-630-01 EQ BOARD
 PC BOARD #07-630-01 EQ BOARD

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).



K-160XL P.C. PRINTS LIST
BOARD "A"
REV. 10-78

DESIGNATOR	DESCRIPTION	PART NUMBER
R1	511 1K	76-511-02
R2	511 1K	76-511-02
R3	10.0K 1K	76-100-01
R4	10.0K 1K	76-100-01
R5	2.7M 1K	76-270-02
R6	2.7M 1K	76-270-02
R7	470	76-471-01
R8	2.2M	76-220-01
R9	1.8M	76-180-01
R10	1M	76-100-01
R11	1M	76-100-01
R12	1.8M	76-180-01
R13	2.2M	76-220-01
R14	1.8M	76-180-01
R15	1.8M	76-180-01
R16	10K	76-100-01
R17	10K	76-100-01
R18	10K	76-100-01
R19	10K	76-100-01
R20	10K	76-100-01
R21	10K	76-100-01
R22	10K	76-100-01
R23	10K	76-100-01
R24	10K	76-100-01
R25	10K	76-100-01
R26	10K	76-100-01
R27	10K	76-100-01
R28	10K	76-100-01
R29	10K	76-100-01
R30	10K	76-100-01
R31	10K	76-100-01
R32	10K	76-100-01
R33	10K	76-100-01
R34	10K	76-100-01
R35	10K	76-100-01
R36	10K	76-100-01
R37	10K	76-100-01
R38	10K	76-100-01
R39	10K	76-100-01
R40	10K	76-100-01

DESIGNATOR	DESCRIPTION	PART NUMBER
C1	470P	100A71-11
C2	470P	100A71-11
C3	10/16V	18A106-11
C4	10/16V	18A106-11
C5	10/16V	18A106-11
C6	10/16V	18A106-11
C7	10/16V	18A106-11
C8	10/16V	18A106-11
C9	10/16V	18A106-11
C10	10/16V	18A106-11
C11	10/16V	18A106-11
C12	10/16V	18A106-11
C13	10/16V	18A106-11
C14	10/16V	18A106-11
C15	10/16V	18A106-11
C16	10/16V	18A106-11
C17	10/16V	18A106-11
C18	10/16V	18A106-11
C19	10/16V	18A106-11
C20	10/16V	18A106-11
C21	10/16V	18A106-11
C22	10/16V	18A106-11
C23	10/16V	18A106-11
C24	10/16V	18A106-11
C25	10/16V	18A106-11
C26	10/16V	18A106-11
C27	10/16V	18A106-11
C28	10/16V	18A106-11
C29	10/16V	18A106-11
C30	10/16V	18A106-11
C31	10/16V	18A106-11
C32	10/16V	18A106-11
C33	10/16V	18A106-11
C34	10/16V	18A106-11
C35	10/16V	18A106-11
C36	10/16V	18A106-11
C37	10/16V	18A106-11
C38	10/16V	18A106-11
C39	10/16V	18A106-11
C40	10/16V	18A106-11

DESIGNATOR	DESCRIPTION	PART NUMBER
IC1	74LS00	100A72-11
IC2	74LS00	100A72-11
IC3	74LS00	100A72-11
IC4	74LS00	100A72-11
IC5	74LS00	100A72-11

DESIGNATOR	DESCRIPTION	PART NUMBER
J1	RE-ON X707-02 FEMALE CLR	39-311-01
J2	CLIFF BR-BBB-BLK (17/8)	39-117-01
J3	CLIFF BR-BBB-BLK (17/8)	39-117-01
J4	MS1515-50D HEADER	17-499-01
J5	MS1515-50D HEADER	17-499-01
J6	12 PIN SOCKET STRIP	17-310-08
J7	12 PIN SOCKET STRIP	17-310-08
J8	12 PIN SOCKET STRIP	17-310-08
J9	12 PIN SOCKET STRIP	17-310-08
J10	12 PIN SOCKET STRIP	17-310-08
J11	12 PIN SOCKET STRIP	17-310-08
J12	12 PIN SOCKET STRIP	17-310-08
J13	12 PIN SOCKET STRIP	17-310-08
J14	12 PIN SOCKET STRIP	17-310-08
J15	12 PIN SOCKET STRIP	17-310-08
J16	12 PIN SOCKET STRIP	17-310-08
J17	12 PIN SOCKET STRIP	17-310-08
J18	12 PIN SOCKET STRIP	17-310-08
J19	12 PIN SOCKET STRIP	17-310-08
J20	12 PIN SOCKET STRIP	17-310-08
J21	12 PIN SOCKET STRIP	17-310-08
J22	12 PIN SOCKET STRIP	17-310-08
J23	12 PIN SOCKET STRIP	17-310-08
J24	12 PIN SOCKET STRIP	17-310-08
J25	12 PIN SOCKET STRIP	17-310-08
J26	12 PIN SOCKET STRIP	17-310-08
J27	12 PIN SOCKET STRIP	17-310-08
J28	12 PIN SOCKET STRIP	17-310-08
J29	12 PIN SOCKET STRIP	17-310-08
J30	12 PIN SOCKET STRIP	17-310-08
J31	12 PIN SOCKET STRIP	17-310-08
J32	12 PIN SOCKET STRIP	17-310-08
J33	12 PIN SOCKET STRIP	17-310-08
J34	12 PIN SOCKET STRIP	17-310-08
J35	12 PIN SOCKET STRIP	17-310-08
J36	12 PIN SOCKET STRIP	17-310-08
J37	12 PIN SOCKET STRIP	17-310-08
J38	12 PIN SOCKET STRIP	17-310-08
J39	12 PIN SOCKET STRIP	17-310-08
J40	12 PIN SOCKET STRIP	17-310-08

ASSY PART # 07-628-01

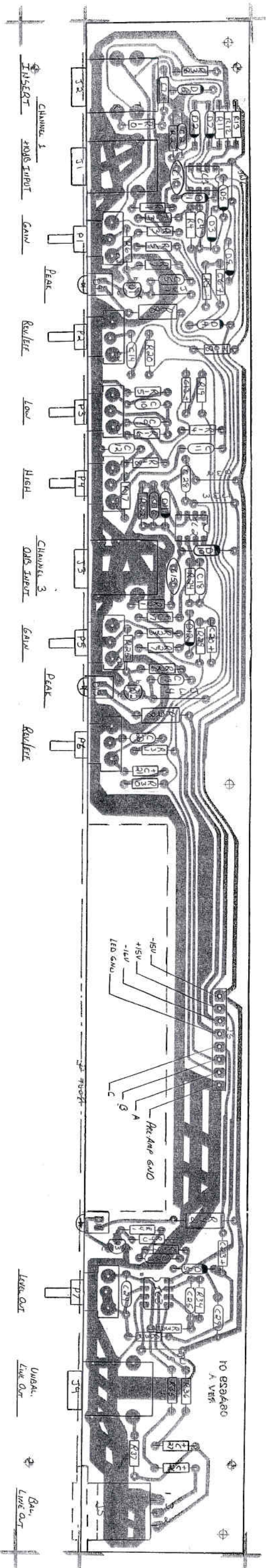
K-160XL BRD I/P PICTORIAL

BLK ELECTRONICS
1400 PERDUE BLVD., ST. LOUIS, MO 63133

DATE: 11-13-84
DRAWN BY: [Signature]
CHECKED BY: [Signature]

REV	DATE	DESCRIPTION
1		
2		
3		
4		
5		

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).



K-160XL P.C. BOARD ASSEMBLY "B"
#07-629-01

DESIGNATOR	DESCRIPTION	PART NUMBER
R1	22K	76-223-01
R2	220K	76-224-01
R3	270	76-271-01
R4	47K	76-473-01
R5	2.2K	76-184-01
R6	10K	76-105-01
R7	1.5K	77-152-01
R8	2.2K	76-222-01
R9	1K	76-102-01
R10	2.2K	76-224-01
R11	220K	76-223-01
R12	68K	76-683-01
R13	22K	76-183-01
R14	3.3K	76-332-01
R15	10K	76-103-01
R16	100K	76-104-01
R17	100K	76-103-01
R18	1K	76-183-01
R19	82K	76-823-01
R20	180K	76-184-01
R21	22K	76-223-01
R22	220K	76-224-01
R23	270	76-271-01
R24	47K	76-473-01
R25	2.2K	76-184-01
R26	10K	76-105-01
R27	1.5K	77-152-01
R28	2.2K	76-222-01
R29	1K	76-102-01
R30	2.2K	76-224-01
R31	220K	76-223-01
R32	68K	76-683-01
R33	22K	76-183-01
R34	3.3K	76-332-01
R35	10K	76-103-01
R36	100K	76-104-01
R37	100K	76-103-01
R38	1K	76-183-01
R39	82K	76-823-01
R40	180K	76-184-01
R41	22K	76-223-01
R42	220K	76-224-01
R43	270	76-271-01
R44	47K	76-473-01
R45	2.2K	76-184-01
R46	10K	76-105-01
R47	1.5K	77-152-01
R48	2.2K	76-222-01
R49	1K	76-102-01
R50	2.2K	76-224-01
R51	220K	76-223-01
R52	68K	76-683-01
R53	22K	76-183-01
R54	3.3K	76-332-01
R55	10K	76-103-01
R56	100K	76-104-01
R57	100K	76-103-01
R58	1K	76-183-01
R59	82K	76-823-01
R60	180K	76-184-01
R61	22K	76-223-01
R62	220K	76-224-01
R63	270	76-271-01
R64	47K	76-473-01
R65	2.2K	76-184-01
R66	10K	76-105-01
R67	1.5K	77-152-01
R68	2.2K	76-222-01
R69	1K	76-102-01
R70	2.2K	76-224-01
R71	220K	76-223-01
R72	68K	76-683-01
R73	22K	76-183-01
R74	3.3K	76-332-01
R75	10K	76-103-01
R76	100K	76-104-01
R77	100K	76-103-01
R78	1K	76-183-01
R79	82K	76-823-01
R80	180K	76-184-01
R81	22K	76-223-01
R82	220K	76-224-01
R83	270	76-271-01
R84	47K	76-473-01
R85	2.2K	76-184-01
R86	10K	76-105-01
R87	1.5K	77-152-01
R88	2.2K	76-222-01
R89	1K	76-102-01
R90	2.2K	76-224-01
R91	220K	76-223-01
R92	68K	76-683-01
R93	22K	76-183-01
R94	3.3K	76-332-01
R95	10K	76-103-01
R96	100K	76-104-01
R97	100K	76-103-01
R98	1K	76-183-01
R99	82K	76-823-01
R100	180K	76-184-01

DESIGNATOR	DESCRIPTION	PART NUMBER
C1	.047 poly	10-473-03
C2	50P	10M500-21
C3	10/15V	12R106-11
C4	100P	10M100-21
C5	50P	10M500-21
C6	10/15V	12R106-11
C7	10/15V	12R106-11
C8	10/15V	12R106-11
C9	.022	10R223-01
C10	.022	10R223-01
C11	.01	10R101-01
C12	.01	10R101-01
C13	1/50V	12R106-11
C14	.047	10R473-11
C15	10-473-03	10-473-03
C16	50P	10M500-21
C17	10/15V	12R106-11
C18	50P	10M500-21
C19	.047	10R473-11
C20	2.2/50V	12R106-11
C21	1.0/47	12R106-11
C22	1.0/47	12R106-11
C23	2.2/50V	12R106-11
C24	50P	10M500-21
C25	10P	10R100-21
C26	10/15V	12R106-11
C27	10/15V	12R106-11
C28	.047	10R473-11
C29	.022	10R223-01
C30	.022	10R223-01

DESIGNATOR	DESCRIPTION	PART NUMBER
D1-D3	RED RIGHT ANGLE LED	21R914-01
D1-D3	RED RIGHT ANGLE LED	21-224-01

DESIGNATOR	DESCRIPTION	PART NUMBER
J1-J4	JACKS	39-116-01
J1	CLIFF SE-BND-BLK (T/S)	39-117-01
J2	CLIFF MALE XLR	39-308-01
J3	M/SB156-01 HEADER	17-310-08

DESIGNATOR	DESCRIPTION	PART NUMBER
P1-P7	POTS	70-503-23
P1	50K REVERSE AUDIO	70-133-01
P2	50K 30K LINER	70-133-01
P3-P7	50K 10K & 50K AUDIO	70-503-22

DESIGNATOR	DESCRIPTION	PART NUMBER
C1	.047 poly	10-473-03
C2	50P	10M500-21
C3	10/15V	12R106-11
C4	100P	10M100-21
C5	50P	10M500-21
C6	10/15V	12R106-11
C7	10/15V	12R106-11
C8	10/15V	12R106-11
C9	.022	10R223-01
C10	.022	10R223-01
C11	.01	10R101-01
C12	.01	10R101-01
C13	1/50V	12R106-11
C14	.047	10R473-11
C15	10-473-03	10-473-03
C16	50P	10M500-21
C17	10/15V	12R106-11
C18	50P	10M500-21
C19	.047	10R473-11
C20	2.2/50V	12R106-11
C21	1.0/47	12R106-11
C22	1.0/47	12R106-11
C23	2.2/50V	12R106-11
C24	50P	10M500-21
C25	10P	10R100-21
C26	10/15V	12R106-11
C27	10/15V	12R106-11
C28	.047	10R473-11
C29	.022	10R223-01
C30	.022	10R223-01

DESIGNATOR	DESCRIPTION	PART NUMBER
D1-D3	RED RIGHT ANGLE LED	21R914-01
D1-D3	RED RIGHT ANGLE LED	21-224-01

DESIGNATOR	DESCRIPTION	PART NUMBER
J1-J4	JACKS	39-116-01
J1	CLIFF SE-BND-BLK (T/S)	39-117-01
J2	CLIFF MALE XLR	39-308-01
J3	M/SB156-01 HEADER	17-310-08

DESIGNATOR	DESCRIPTION	PART NUMBER
P1-P7	POTS	70-503-23
P1	50K REVERSE AUDIO	70-133-01
P2	50K 30K LINER	70-133-01
P3-P7	50K 10K & 50K AUDIO	70-503-22

RESISTORS
DESIGNATOR DESCRIPTION PART NUMBER

CAPACITORS
DESIGNATOR DESCRIPTION PART NUMBER

DIODES
DESIGNATOR DESCRIPTION PART NUMBER

INTEGRATED CIRCUITS
DESIGNATOR DESCRIPTION PART NUMBER

TRANSISTORS
DESIGNATOR DESCRIPTION PART NUMBER

WIRE JUMPERS
76-000-05

ASSY. PART # 07-629-01

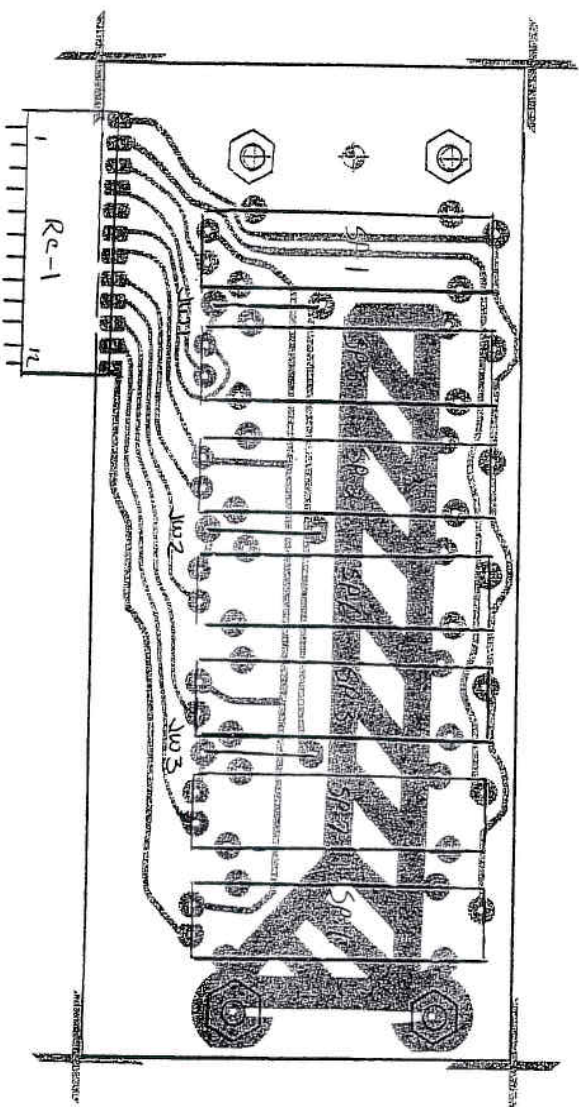
K-160XL PRE-AMP BRD 11g11

NO.	DATE	BY	REVISIONS
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

BLM ELECTRONICS
1400 FERGUSON, ST. LOUIS, MO 63133
DATE 5-5-64
DRAWN BY DKS
CHECKED BY
APPROVED BY
07-629-01

K-160XL EQ P.C. ASSEMBLY
 1107-630-01

DESIGNATOR	DESCRIPTION	PART NUMBER
SP1-7	20MM SOK SLIDER POT	70-503-25
JM1-3	WIRE JUMPERS	76-005-01
RC-1	3" 12 PIN FLAT CABLE	99-124-02
	--- HARDWARE ---	
PART NUMBER	DESCRIPTION	QTY
30-442-52	4-40 A.F. HEXHEPS ASSY	4
85-139-01	3/16 X 5/16 H-F STANDOFF	4



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. PART# 07-630-01

TOLERANCES UNLESS OTHERWISE SPECIFIED		REVISIONS		DRAWING NO.	
INCHES	DECIMAL	NO.	DATE	BY	
1	1	1			
2	2	2			
3	3	3			
4	4	4			
5	5	5			

K-160XL EQ PC BRD PICT

SLM ELECTRONICS
 1400 FERGUSON, ST. LOUIS, MO 63133

DRAWN BY: *KEM* SCALE: *2X* MATERIAL: _____
 CHK'D BY: *DKS* DATE: *4-7-89* DRAWING NO.: *07-630-01*
 TRACED BY: _____