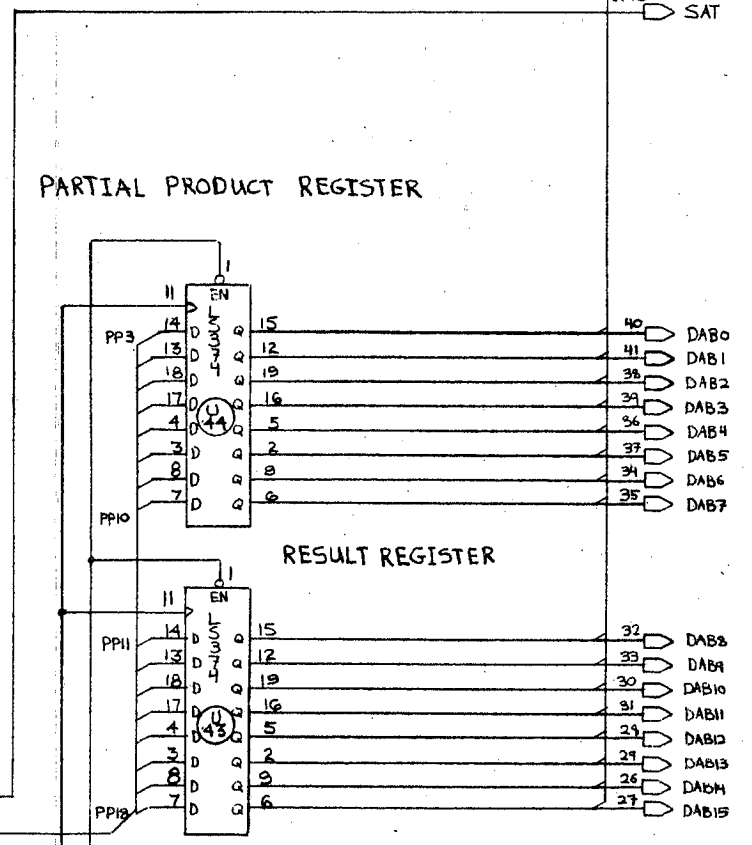


FOR 224X VERSION ONLY

REF.	PART
U13, U24, U25, U38, U39	74S283
U10, U11, U43, U44	74S374
U12	74S175
U7, U9	74S86
U33, U34, U35, U36, U37	74S157
U45, U46, U47, U48, U49	74S163
U54	74S04



SPARE LOCATION:

**EXICON INC, WALTHAM MA 02154**

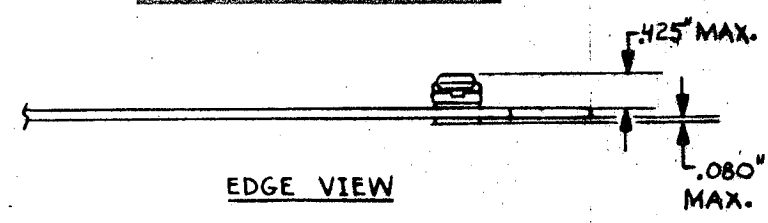
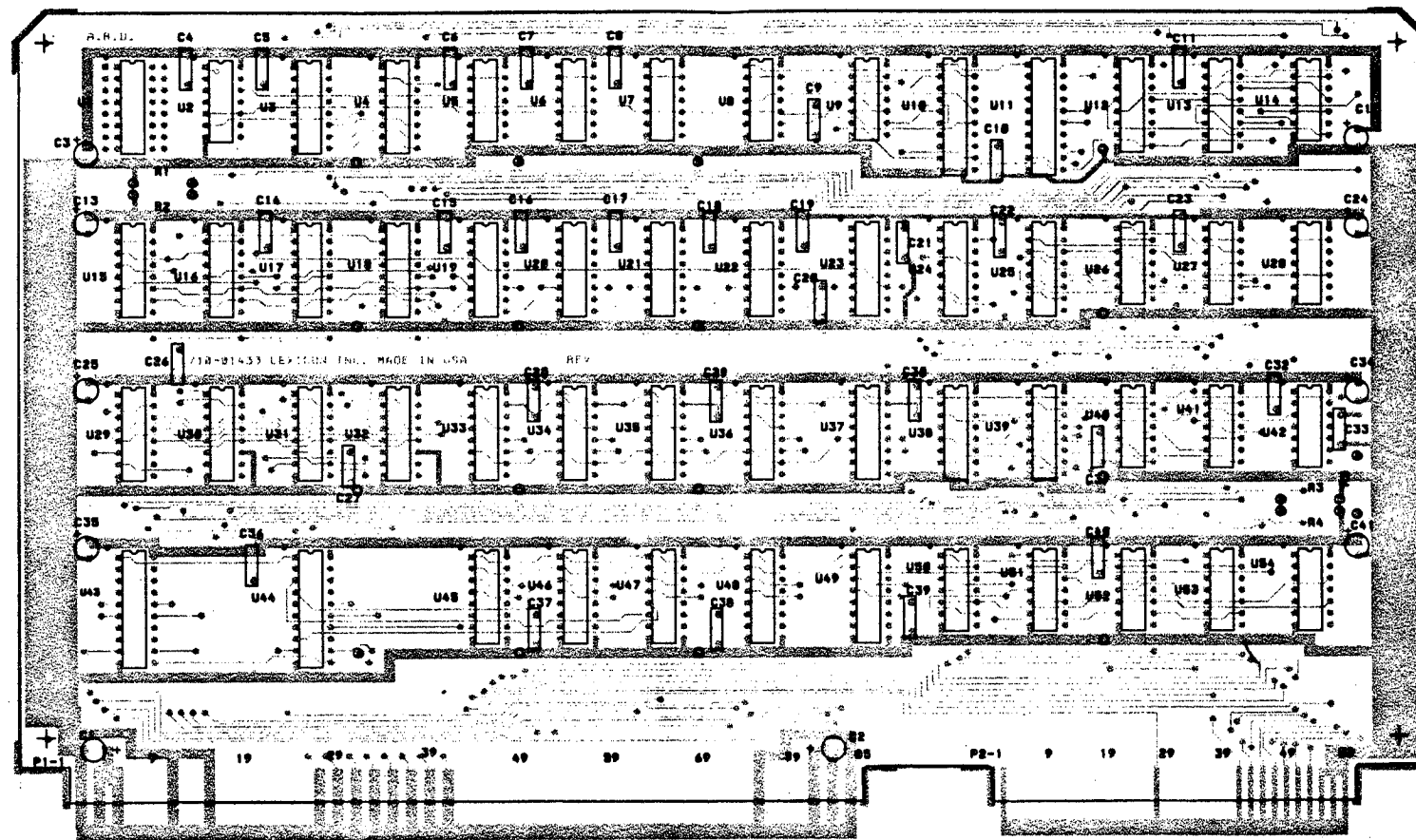
SCALE: NA	APPROVED BY: CS 7-26-79	DRAWN BY: R.KAO
DATE: 7-11-78		REVISED: 3/9-10-81

ARU - MODEL 224

SHEET 1 OF 1

DRAWING NUMBER: 060-01318

LEXICON 030-01347 REV NO. 2  
 COMPUTER DRAFTING 02/10/79 COMPONENT SIDE



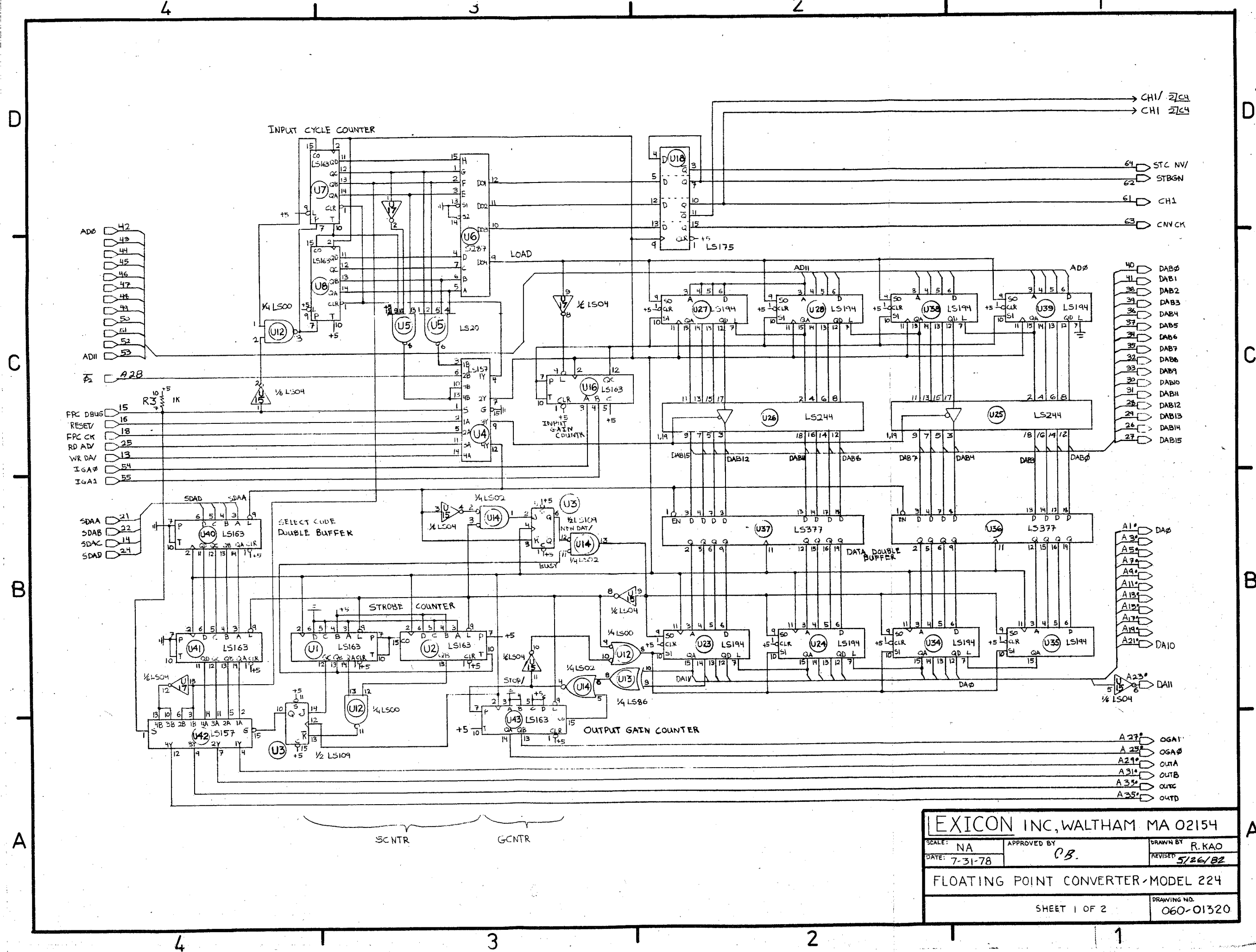
NOTES

1. REFER TO PARTS LIST NO. 020-02601
2. COMPONENT HEIGHT MAX. .425"
3. SOLDER TAIL PROTRUSION MAX. .080"
4. SPARE LOCATIONS: U1 & C33.
5. ALL RESISTORS IN Q.
6. ALL CAPACITORS IN  $\mu$ F UNLESS OTHERWISE SPECIFIED.
7. SOCKET ALL IC POSITIONS EXCEPT U1.

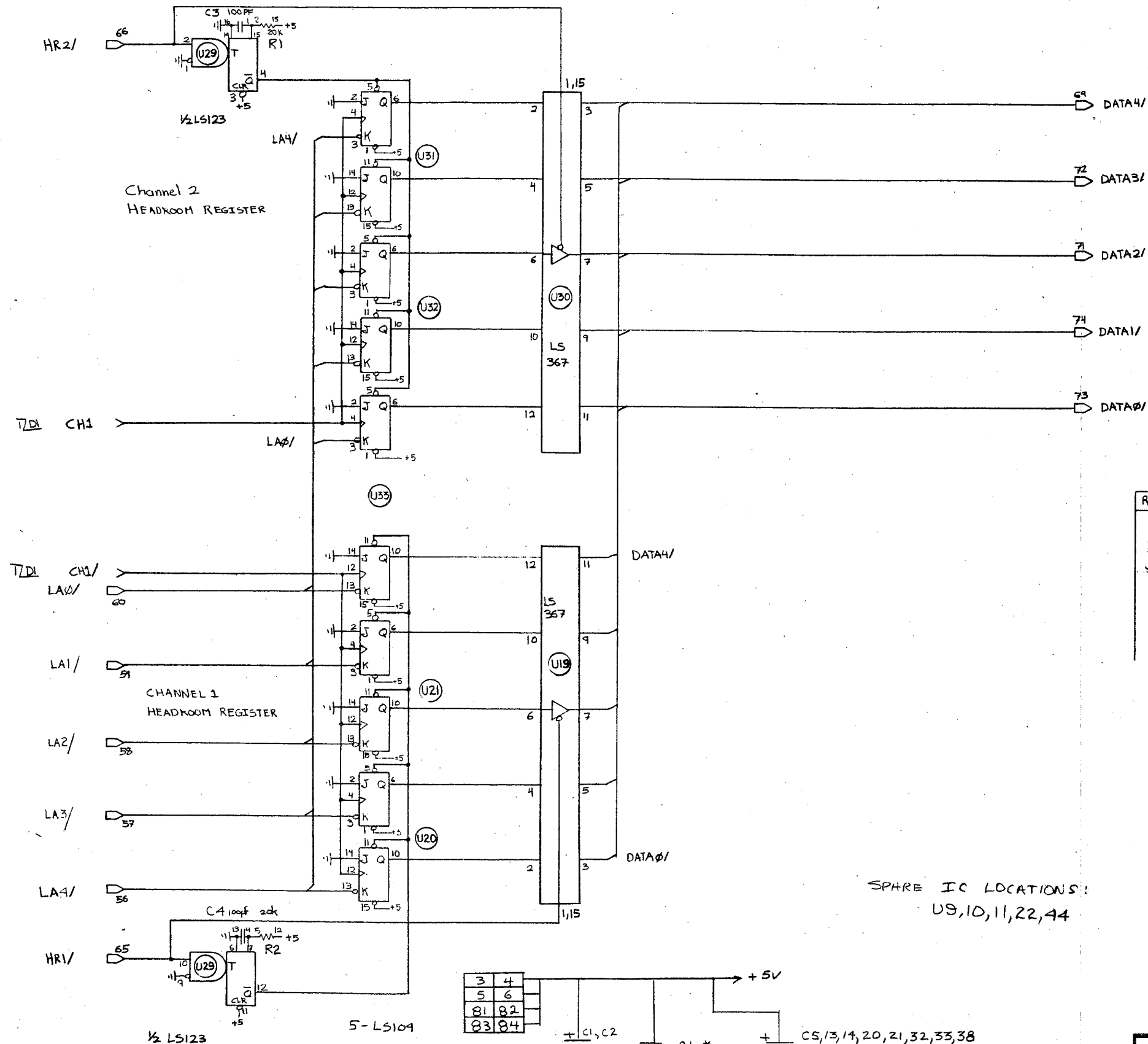
REV.	DATE	DESCRIPTION	INIT/APP'Y'D

**lexicon**

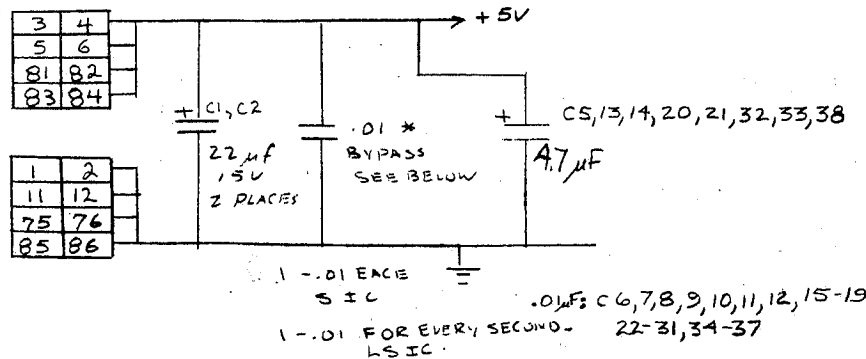
APPROVALS	DATE	PC DOC. ASS'Y DWG.		
CHECKED	1/23/81	ARU BD., 224X		
ISSUED	12/1/81	SCALE	SIZE	DWG. NO.
		1:1	C	030-02735
				REV. 0
				SHEET 1 OF 1



EXICON INC, WALTHAM MA 02154			
SCALE: NA	APPROVED BY: P.B.	DRAWN BY: R. KAO	
DATE: 7-31-78		REVISED: 5/26/82	
FLOATING POINT CONVERTER - MODEL 224			
SHEET 1 OF 2			DRAWING NO. 060-01320



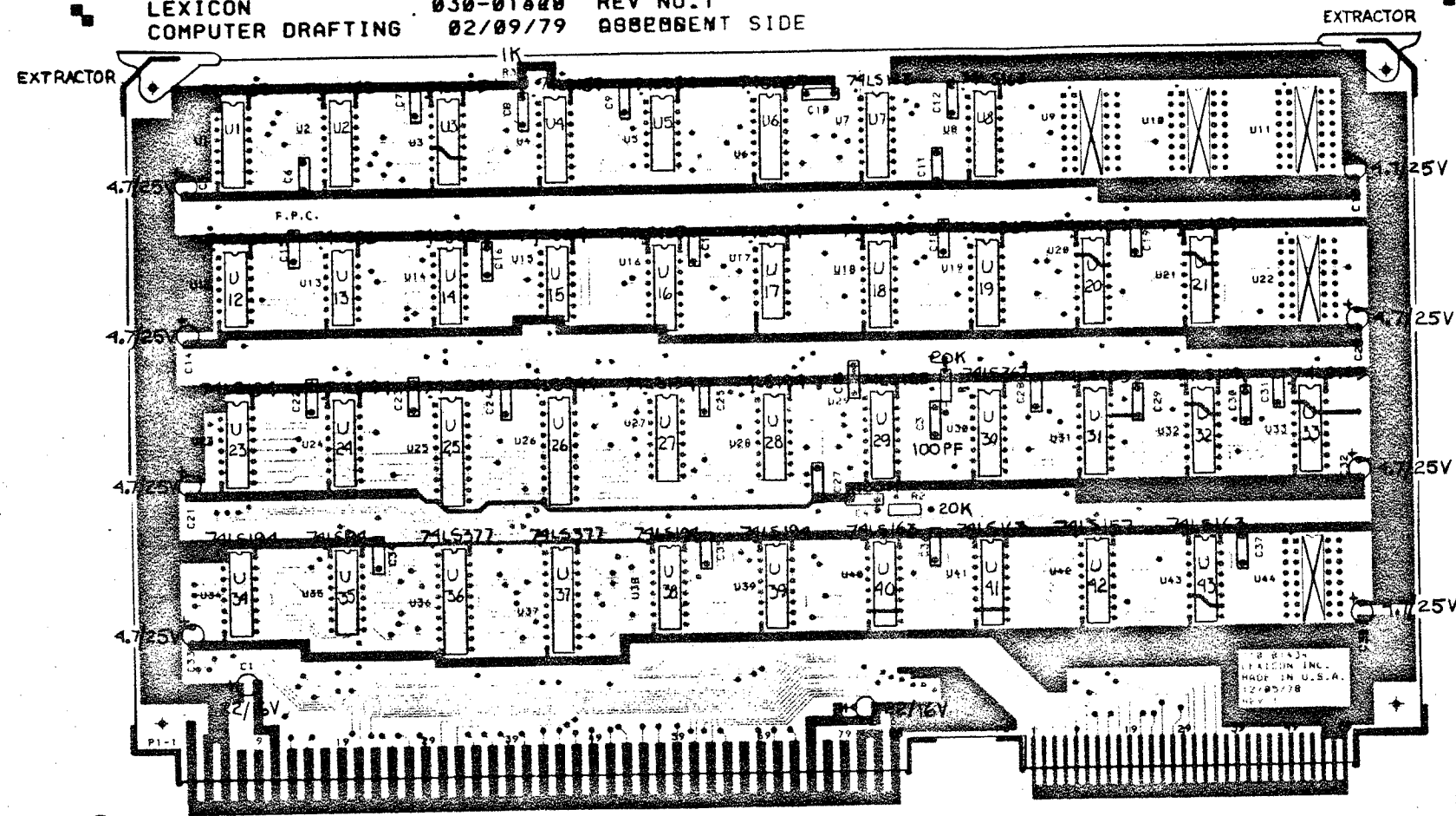
SPARE IC LOCATIONS:  
U9,10,11,22,44



REV.	DATE	DESCRIPTION	INIT.
2	8-14-79	LA9/ - LA0/ NOW LA0/-LA9/	JKS
3	5/26/82	CHANGE U43 TO U42	JB

LEXICON INC, WALTHAM MA 02154		
SCALE: NA	APPROVED BY: CB.	DRAWN BY: R. Kao
DATE: 8/27/78		REVISED: 5/26/82
FLOATING POINT CONVERTER - MODEL 224		
SHEET 2 OF 2		DRAWING NUMBER: 060-01320

LEXICON COMPUTER DRAFTING 030-01320 REV NO.1  
02/09/79 08820BENT SIDE

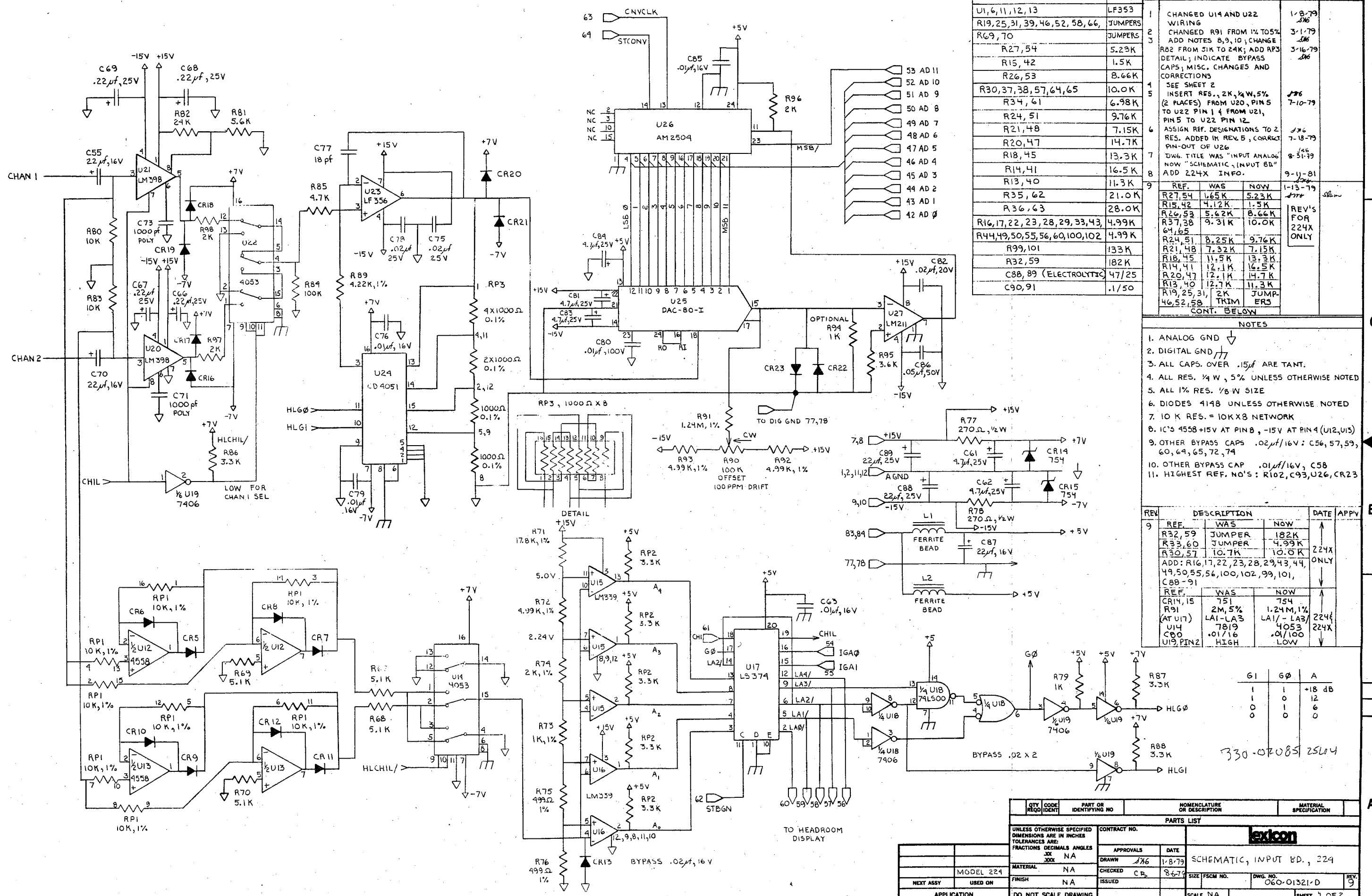


NOTES			
1. REF. PARTS LIST NO. 020-01334			
2. COMPONENT HEIGHT MAX. 3/8"			
3. SOLDER TAIL PROTRUSION MAX. 3/32"			
4. SOCKET ALL IC POSITIONS EXCEPT U9, U10, U11, U22 & U44.			
5. ALL RESISTORS IN OHMS			
6. ALL CAPACITORS IN $\mu$ F UNLESS OTHERWISE SPECIFIED.			
7. BYPASS CAPACITORS AT .01/16V ARE C6-12, 15-19, 22-31, 34-37			
REV.	DATE	REVISIONS	INIT.
1.	9-5-79	COMBINED NOTE 8 WITH NOTE 4	SAB

TOLERANCES UNLESS OTHERWISE SPECIFIED		lexicon Inc., WALTHAM, MA. 02154	
FRACTIONS	DEC	ANGLES	
$\pm$	$\pm$	$\pm$	
APPROVALS	DATE	ASS'Y DWG., FPC BOARD	
DRAWN JTB	3-29-79	MODEL 229	
CHECKED		SCALE	DRAWING NO.
CB	4-5-79	1:1	C 030-01420-C
REV. 1	9-5-79	RECORD OF CHANGES	SHEET 1 OF 1

WHEN MAKING BLUELINES OF THIS DWG., USE SETTING \*5-#6 ON PRINT MACHINE.

FPC



FOR 224X VERSION ONLY

REF.	PART
U1,6,11,12,13	LF353
R19,25,31,39,46,52,58,66	JUMPERS
R69,70	JUMPERS
R27,54	5.23K
R15,42	1.5K
R26,53	8.66K
R30,37,38,57,64,65	10.0K
R34,61	6.98K
R24,51	9.76K
R21,48	7.15K
R20,47	14.7K
R18,45	13.3K
R14,41	16.5K
R13,40	11.3K
R35,62	21.0K
R36,63	28.0K
R16,17,22,23,28,29,33,43	4.99K
R44,49,50,55,56,60,100,102	4.99K
R99,101	133K
R32,59	182K
C88,89 (ELECTROLYTIC)	47/25
C90,91	.1/50

REVISONS		DATE	APPROVED
1	CHANGED U14 AND U22 WIRING	1-8-79	
2	CHANGED R91 FROM 1% TO 5% ADD NOTES 8,9,10; CHANGE	3-1-79	
3	R82 FROM 51K TO 24K; ADD RP3 DETAIL; INDICATE BYPASS CAPS; MISC. CHANGES AND CORRECTIONS	3-16-79	
4	SEE SHEET 2		
5	INSERT RES., 2K, 1/4W, 5% (2 PLACES) FROM U20, PIN 5 TO U22 PIN 1 & FROM U21, PIN 5 TO U22 PIN 12	7-10-79	
6	ASSIGN REF. DESIGNATIONS TO 2 RES. ADDED IN REV. 5, CORRECT PIN-OUT OF U26	7-18-79	
7	DWG. TITLE WAS "INPUT ANALOG" NOW "SCHEMATIC, INPUT BD"	8-31-79	
8	ADD 224X INFO.	9-4-81	
9		1-13-79	

REF.	WAS	NOW
R27,54	6.65K	5.23K
R15,42	1.12K	1.5K
R26,53	5.42K	8.66K
R37,38	9.31K	10.0K
R24,51	8.25K	9.76K
R21,48	7.32K	7.15K
R18,45	11.5K	13.3K
R14,41	12.1K	16.5K
R20,47	12.1K	14.7K
R13,40	12.7K	11.3K
R19,25,31	2K	JUMP.
46,52,58	TRIM	ERS

CONT. BELOW

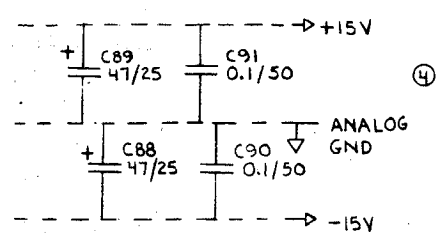
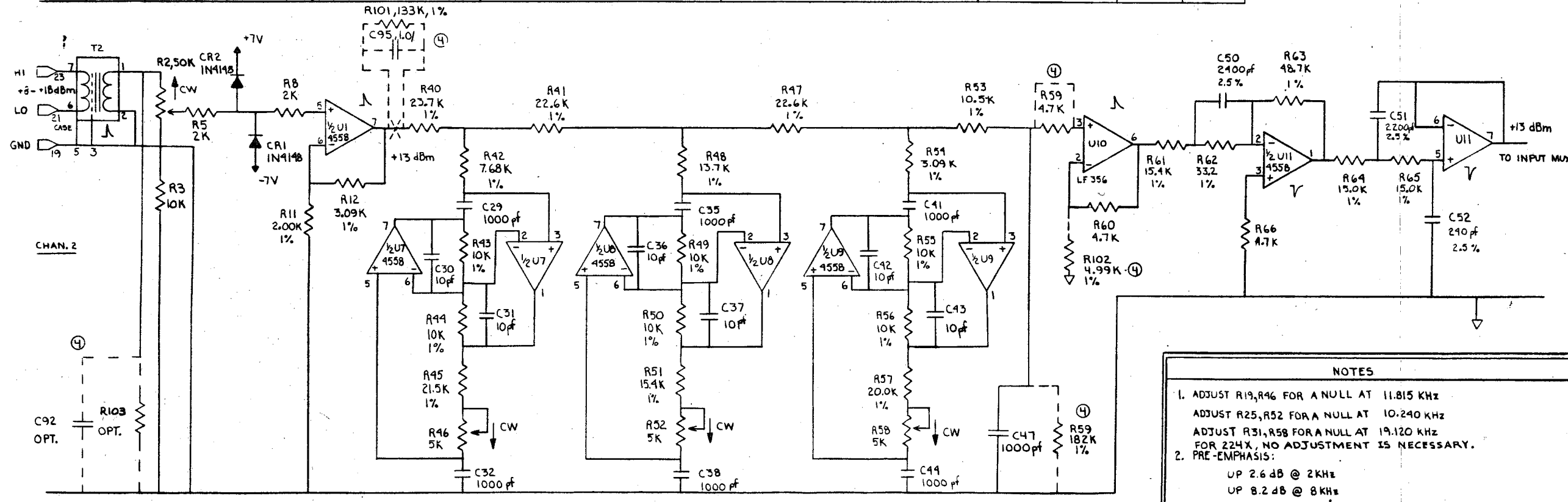
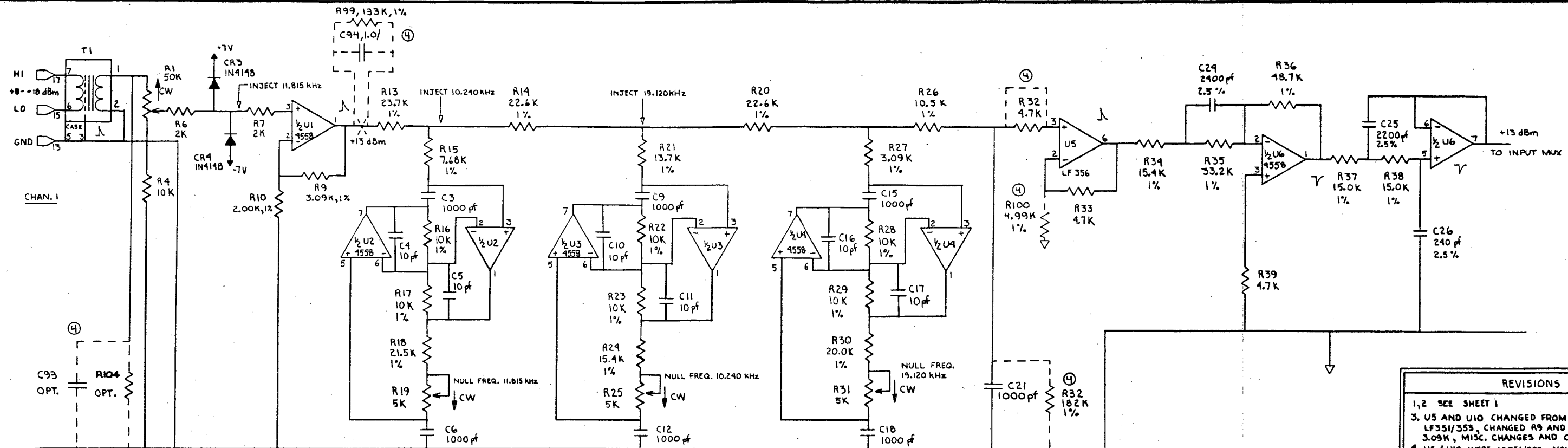
- NOTES
1. ANALOG GND
  2. DIGITAL GND
  3. ALL CAPS. OVER .15µF ARE TANT.
  4. ALL RES. 1/4 W, 5% UNLESS OTHERWISE NOTED
  5. ALL 1% RES. 1/8 W SIZE
  6. DIODES 4198 UNLESS OTHERWISE NOTED
  7. 10 K RES. = 10KX8 NETWORK
  8. IC'S 4558 +15V AT PIN 8, -15V AT PIN 4 (U12,U13)
  9. OTHER BYPASS CAPS .02µF/16V: C56,57,59,60,64,65,72,74
  10. OTHER BYPASS CAP .01µF/16V, C58
  11. HIGHEST REF. NO'S: R102,C93,U26,CR23

REV	DESCRIPTION	DATE	APPV
9	R32,59 JUMPER 182K		
	R33,60 JUMPER 4.99K		
	R30,57 10.7K 10.0K		
	ADD: R16,17,22,23,28,29,43,44,49,50,55,56,100,102,99,101, C88-91		
	REF. WAS NOW		
	CR14,15 751 754		
	R91 2M, 5% 1.24M, 1%		
	(AT U17) LA1-LA3 LA1-LA3		
	U14 7819 4053		
	C80 .01/16 .01/100		
	U19, PIN2 HIGH LOW		

QTY	CODE	PART OR IDENTIFYING NO	NOMENCLATURE OR DESCRIPTION	MATERIAL SPECIFICATION
1	0	0	0	0
1	0	0	0	0
1	0	0	0	0

330-07085 25L04

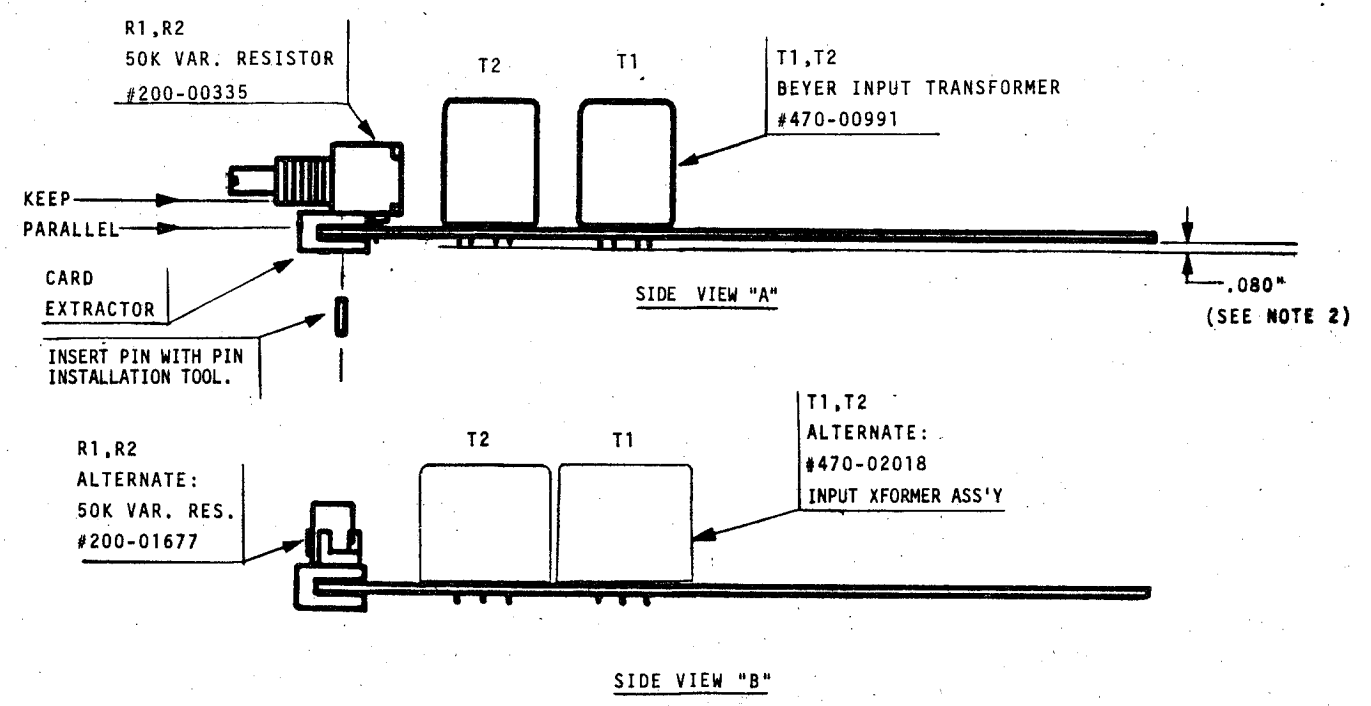
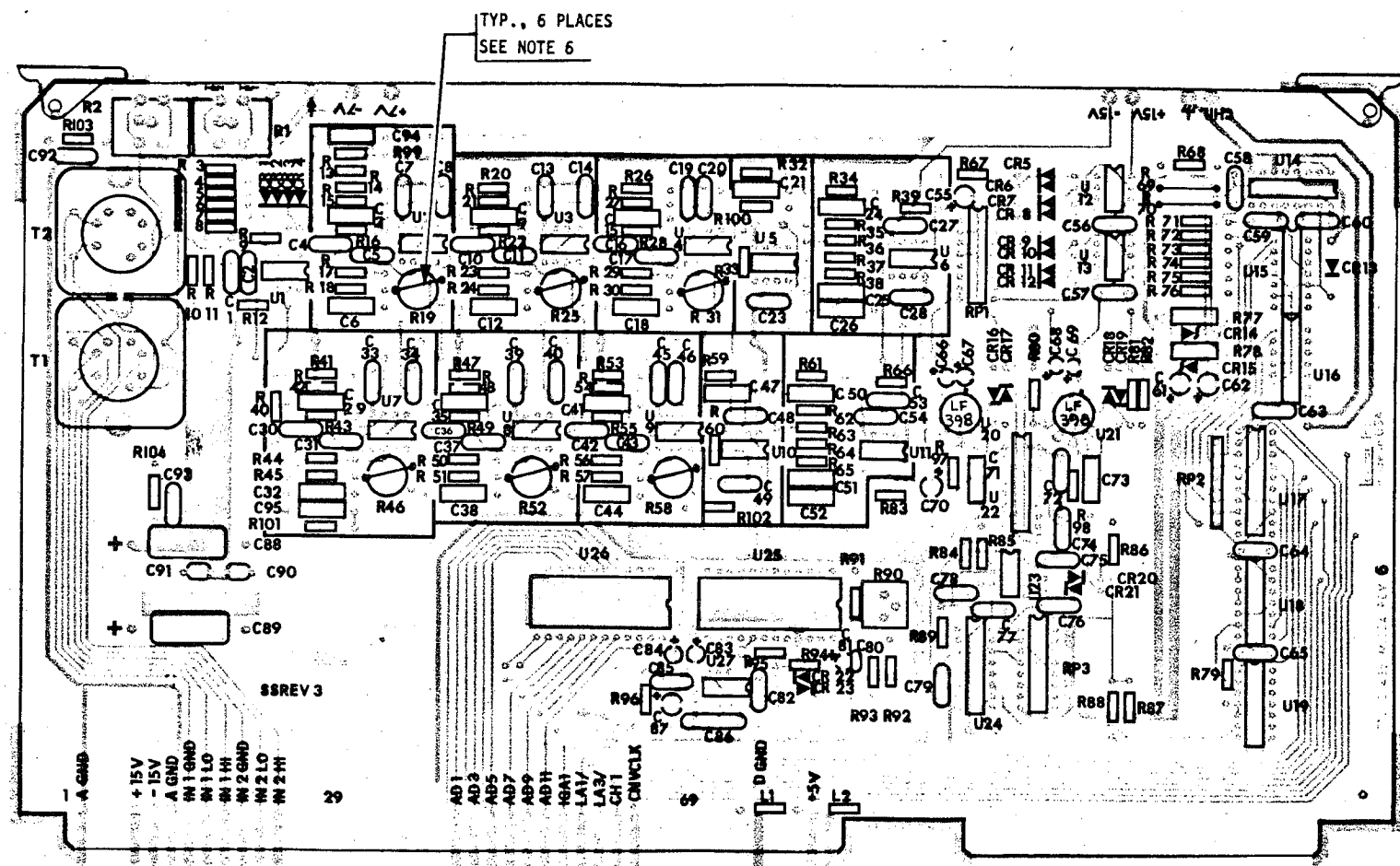
PARTS LIST		APPROVALS		DATE	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES FRACTIONS DECIMALS ANGLES	CONTRACT NO.	DRAWN	DATE	ISSUED	DATE
TOLERANCES ARE:		NA	1-8-79	CB	8-6-79
XXX NA					
MATERIAL NA					
FINISH NA					
DO NOT SCALE DRAWING					



REVISIONS	
1, 2	SEE SHEET 1
3.	U5 AND U10 CHANGED FROM LM711 TO LF351/353, CHANGED R9 AND R12 FROM 2K TO 3.09K, MISC. CHANGES AND CORRECTIONS 3-16-79
4.	U5 & U10 WERE LF351/353, NOW LF356 6-1-79
5.	SEE SHEET 1
6.	SEE SHEET 1
7.	SEE SHEET 1
8.	SEE SHEET 1
9.	ADD REV. 5 P.C. BD. MODIFICATIONS. 1/14/82
10.	CHANGED REFERENCE DESIGNATORS, R97 TO R105 AND R98 TO R104 PER ECO # 224-01982. see 1/14/82 26 12-10-83

- NOTES**
- ADJUST R19, R46 FOR A NULL AT 11.815 KHz  
ADJUST R25, R52 FOR A NULL AT 10.240 KHz  
ADJUST R31, R58 FOR A NULL AT 19.120 KHz  
FOR 224X, NO ADJUSTMENT IS NECESSARY.
  - PRE-EMPHASIS:  
UP 2.6 dB @ 2KHz  
UP 8.2 dB @ 8KHz
  - .02µf/16 BYPASS CAPS: C1, 2, 7, 8, 13, 14, 19, 20, 22, 23, 27, 28, 33, 34, 39, 40, 45, 46, 48, 49, 53, 54
  - Ⓞ DOTTED LINES INDICATE MODIFICATIONS FOR REV. 5 BD.





NOTES

1. REFER TO PARTS LIST NO. 020-02603.
2. SOLDER TAIL PROTRUSION MAX. .080"
3. SOCKET ALL IC POSITIONS EXCEPT U20 & U21.
4. EITHER ONE OF THE ALTERNATE PARTS SHOWN IN SIDE VIEW "B" MAY BE SUBSTITUTED ON THIS BOARD.
5. INSTALL LF398 SUCH THAT TAB ON IC CORRESPONDS WITH TAB ON SILKSCREEN. SEE DETAIL.
6. TRIM POTS REPLACED BY JUMPERS: R19, 25, 31, 46, 52, 58.
7. RESISTORS REPLACED BY JUMPERS: R69 & R70.
8. COMPONENT HEIGHT MAX. .425" EXCEPT POTS AND TRANSFORMERS

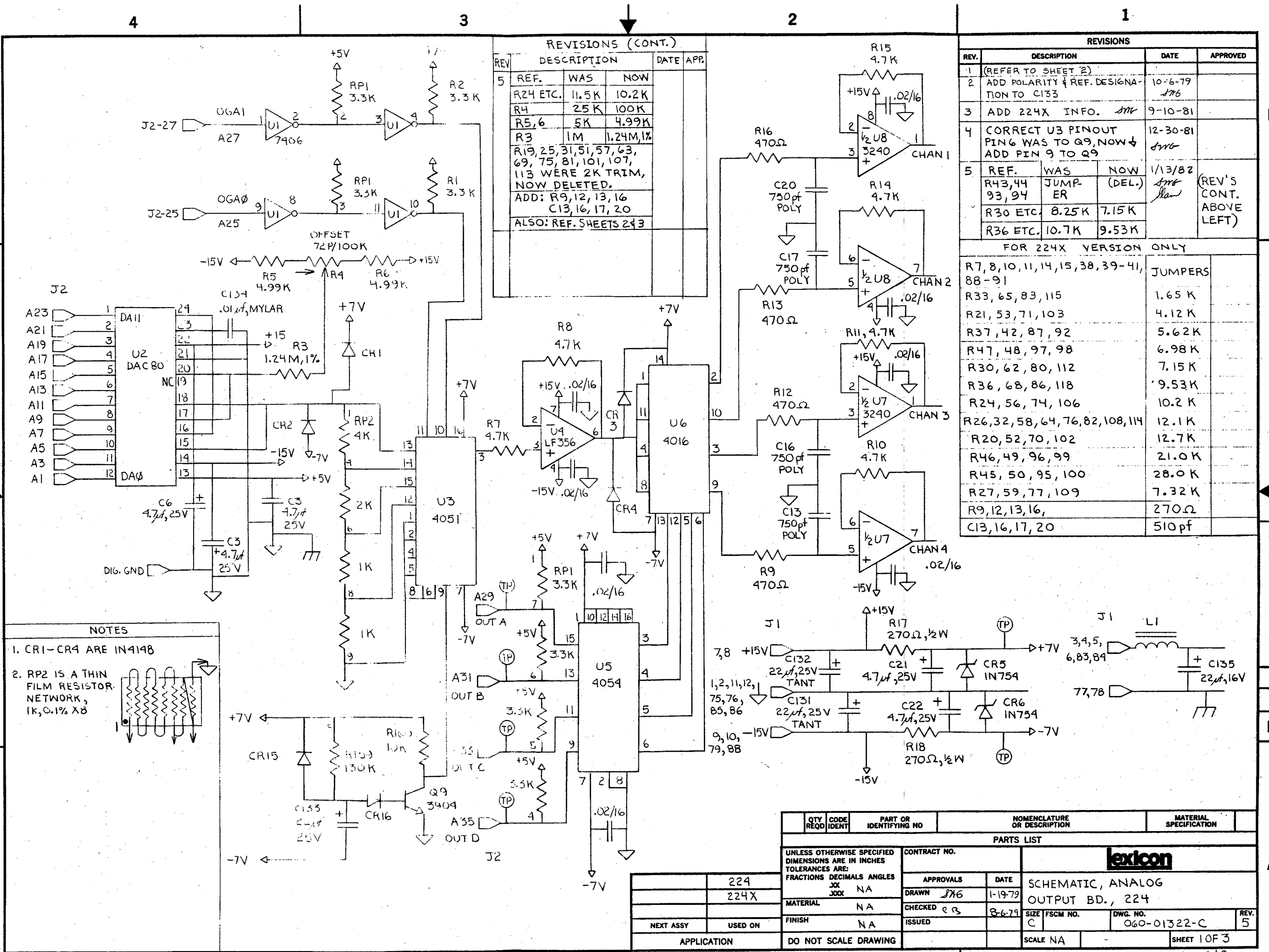


REV.	DATE	DESCRIPTION	INIT/APP'V'D
1	12/2/83 JCR	REVISED PER ECO NUMBER 224-011982.	SCAM 12/83 EG 12/20/83

**lexicon**

APPROVALS	DATE	PC DOC., ASS'Y DWG.,		REV.
DRAWN	11/20/81	ANALOG INPUT BD., 224X		1
CHECKED	1-7-81	SCALE	SIZE	DWG. NO.
ISSUED	12/1/81	1:1	C	030-02733
		SHEET		1 OF 1





REVISIONS (CONT.)

REV	DESCRIPTION	DATE	APP.
5	REF. WAS NOW		
	R24 ETC. 11.5K 10.2K		
	R4 25K 100K		
	R5,6 5K 4.99K		
	R3 1M 1.24M, 1%		
	R19, 25, 31, 51, 57, 63, 69, 75, 81, 101, 107, 113 WERE 2K TRIM, NOW DELETED.		
	ADD: R9, 12, 13, 16, C13, 16, 17, 20		
	ALSO: REF. SHEETS 243		

REVISIONS

REV.	DESCRIPTION	DATE	APPROVED
1	(REFER TO SHEET 2)		
2	ADD POLARITY & REF. DESIGNATION TO C133	10-6-79 JMG	
3	ADD 224X INFO.	9-10-81 JMG	
4	CORRECT U3 PINOUT PING WAS TO Q9, NOW & ADD PIN 9 TO Q9	12-30-81 JMG	
5	REF. WAS NOW	1/13/82 JMG	(REV'S CONT. ABOVE LEFT)
	R43,44 JUMP ER (DEL.)		
	R30 ETC. 8.25K 7.15K		
	R36 ETC. 10.7K 9.53K		

FOR 224X VERSION ONLY

REF.	WAS	NOW
R7, 8, 10, 11, 14, 15, 38, 39-41, 88-91		JUMPERS
R33, 65, 83, 115		1.65 K
R21, 53, 71, 103		4.12 K
R37, 42, 87, 92		5.62 K
R47, 48, 97, 98		6.98 K
R30, 62, 80, 112		7.15 K
R36, 68, 86, 118		9.53 K
R24, 56, 74, 106		10.2 K
R26, 32, 58, 64, 76, 82, 108, 114		12.1 K
R20, 52, 70, 102		12.7 K
R46, 49, 96, 99		21.0 K
R45, 50, 95, 100		28.0 K
R27, 59, 77, 109		7.32 K
R9, 12, 13, 16, C13, 16, 17, 20		270Ω 510pf

NOTES

1. CR1-CR4 ARE IN4148
2. RP2 IS A THIN FILM RESISTOR NETWORK, 1K, 0.1% X8

QTY REQD	CODE IDENT	PART OR IDENTIFYING NO	NOMENCLATURE OR DESCRIPTION	MATERIAL SPECIFICATION
PARTS LIST				
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE:		CONTRACT NO.		
FRACTIONS DECIMALS ANGLES		APPROVALS DATE		
XX NA		DRAWN JMG 1-19-79		
MATERIAL NA		CHECKED CB 8-6-79		
FINISH NA		ISSUED		
NEXT ASSY USED ON		SCALE NA		
APPLICATION		DO NOT SCALE DRAWING		

**lexicon**

SCHEMATIC, ANALOG  
OUTPUT BD., 224

DWG. NO. 060-01322-C  
SIZE FSCM NO. C

SHEET 1 OF 3

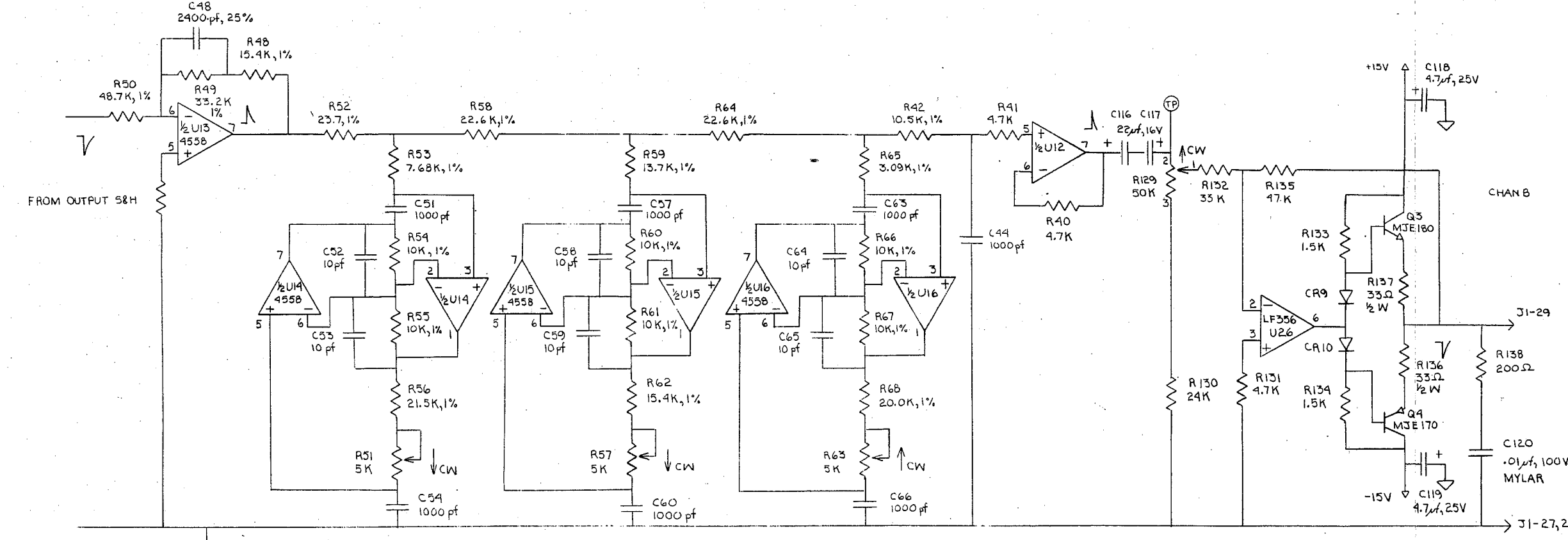
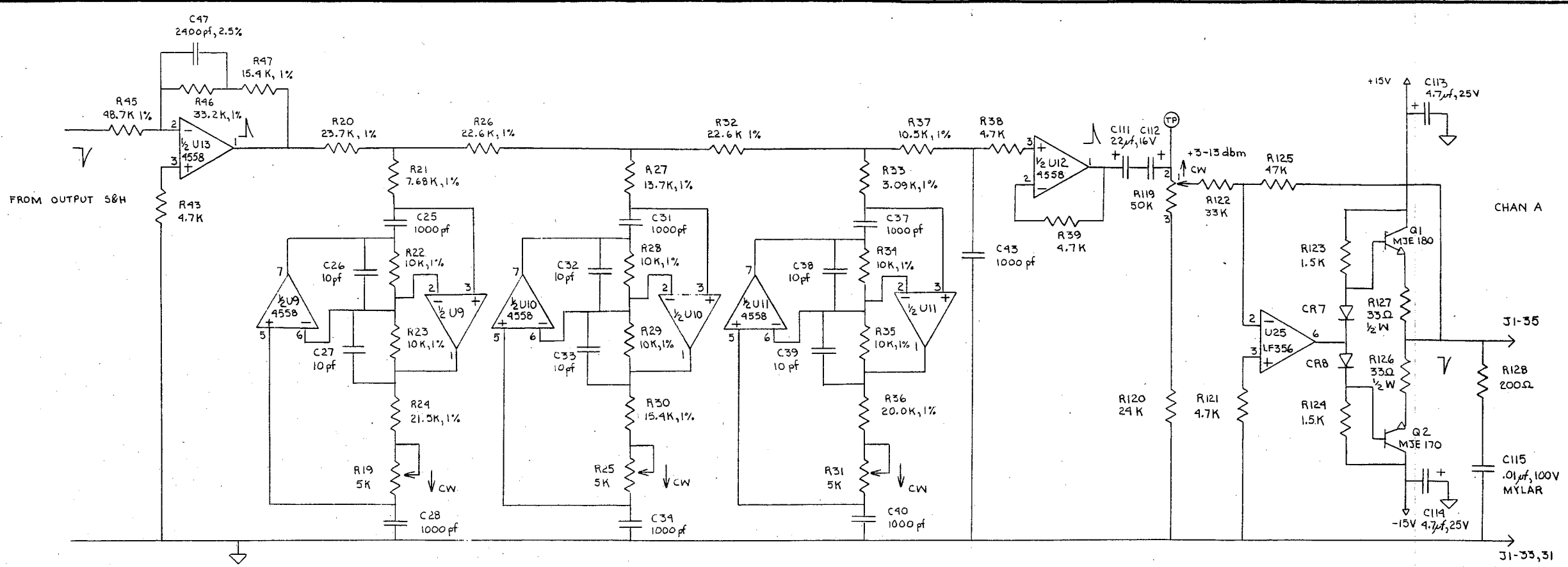
SHEET 1 OF 3

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
1.	DWG. TITLE WAS "OUTPUT FILTERS NOW" SCHEMATIC, OUTPUT BD. (REV. 2-4, SEE SHEET 1)	8-31-79	Jus.
5.	ADD NULL FREQ. FOR 224-X	1/13/82	Jm/Bar

- NOTES
1. ALL RESISTORS ARE 5%, 1/4W UNLESS OTHERWISE INDICATED.
  2. ALL 1% RESISTORS ARE 1/8W, METAL FILM.
  3. ALL 1000 pf CAPACITORS ARE POLYPROPYLENE.
  4. ALL DIODES ARE IN4148.
  5. ADJUST R19, R51 FOR A NULL AT 11.815 kHz  
 --- R25, R57 --- 10.2398 kHz  
 --- R31, R63 --- 19.1204 kHz  
 ADJUST R19, R51 FOR A NULL AT 22.153 kHz  
 --- R25, R57 --- 19.200 kHz  
 --- R31, R63 --- 35.850 kHz

\* SHEET 1 IS "C" SIZE

QTY	CODE	PART OR IDENTIFYING NO	NOMENCLATURE OR DESCRIPTION	MATERIAL SPECIFICATION
224				

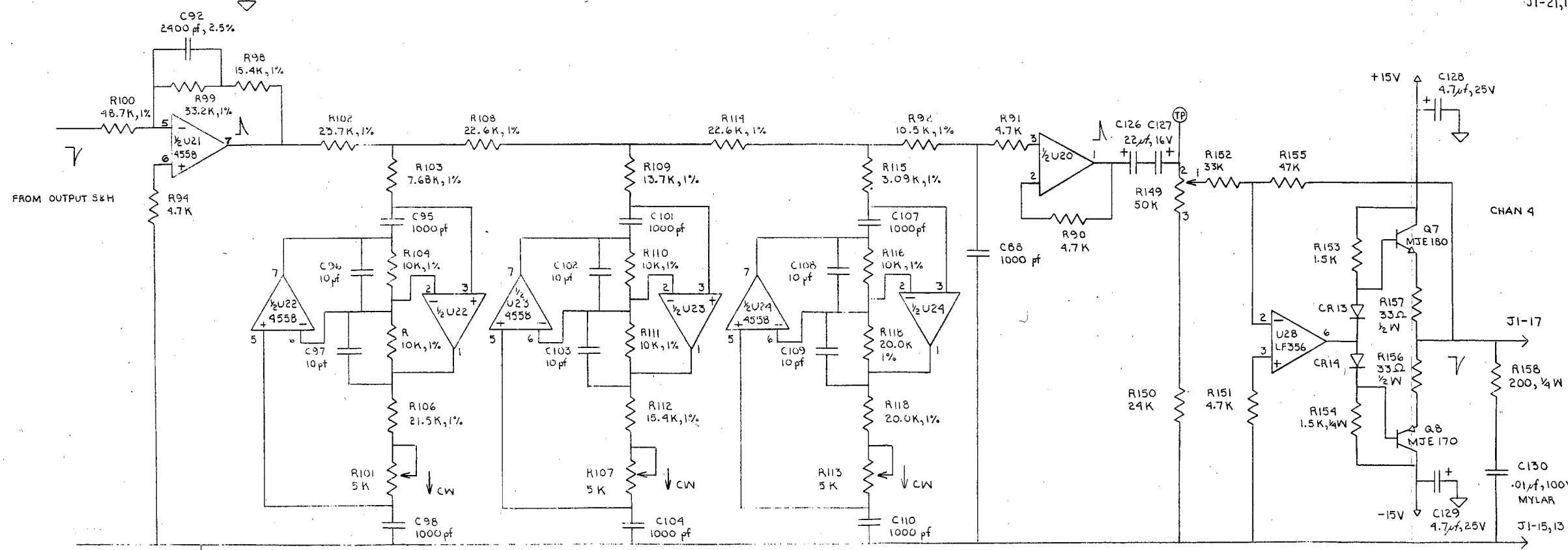
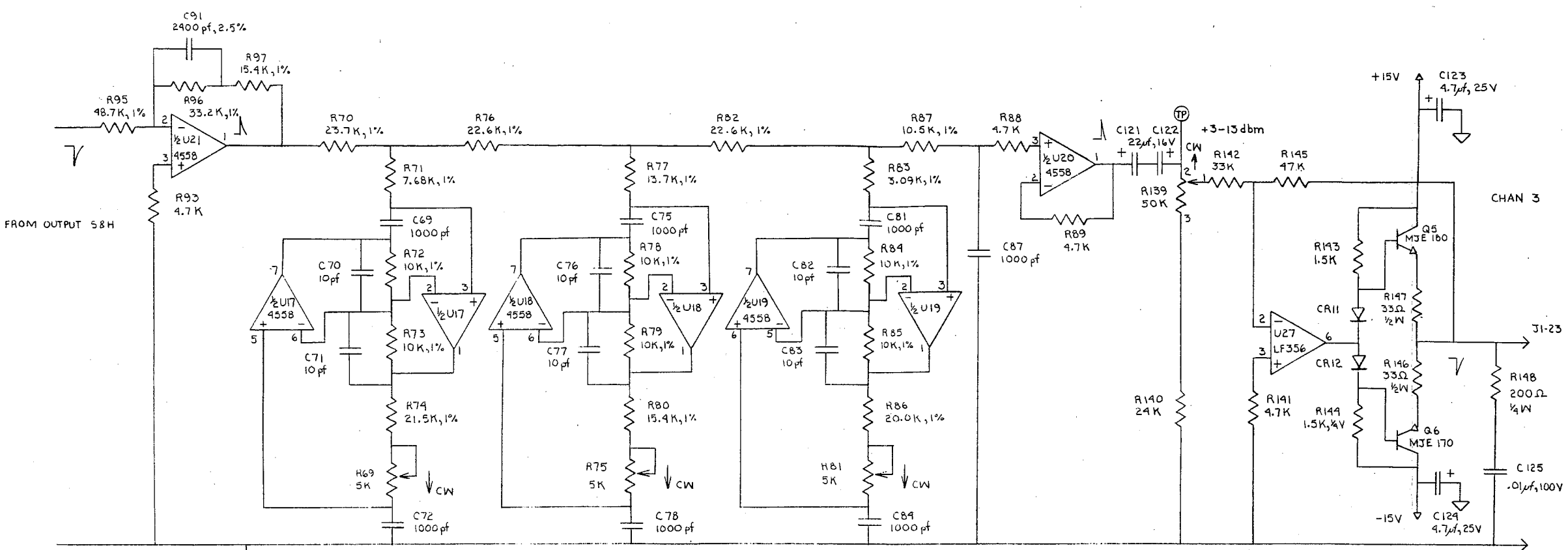


UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE FRACTIONS DECIMALS ANGLES		CONTRACT NO.		APPROVALS		DATE	
224				Jus.		8-23-79	
MATERIAL NA		CHECKED C.B.		ISSUED		7-26-79	
NEXT ASSY USED ON		FINISH NA		ISSUED		7-26-79	
APPLICATION		DO NOT SCALE DRAWING		SCALE		SHEET 2 OF 3	

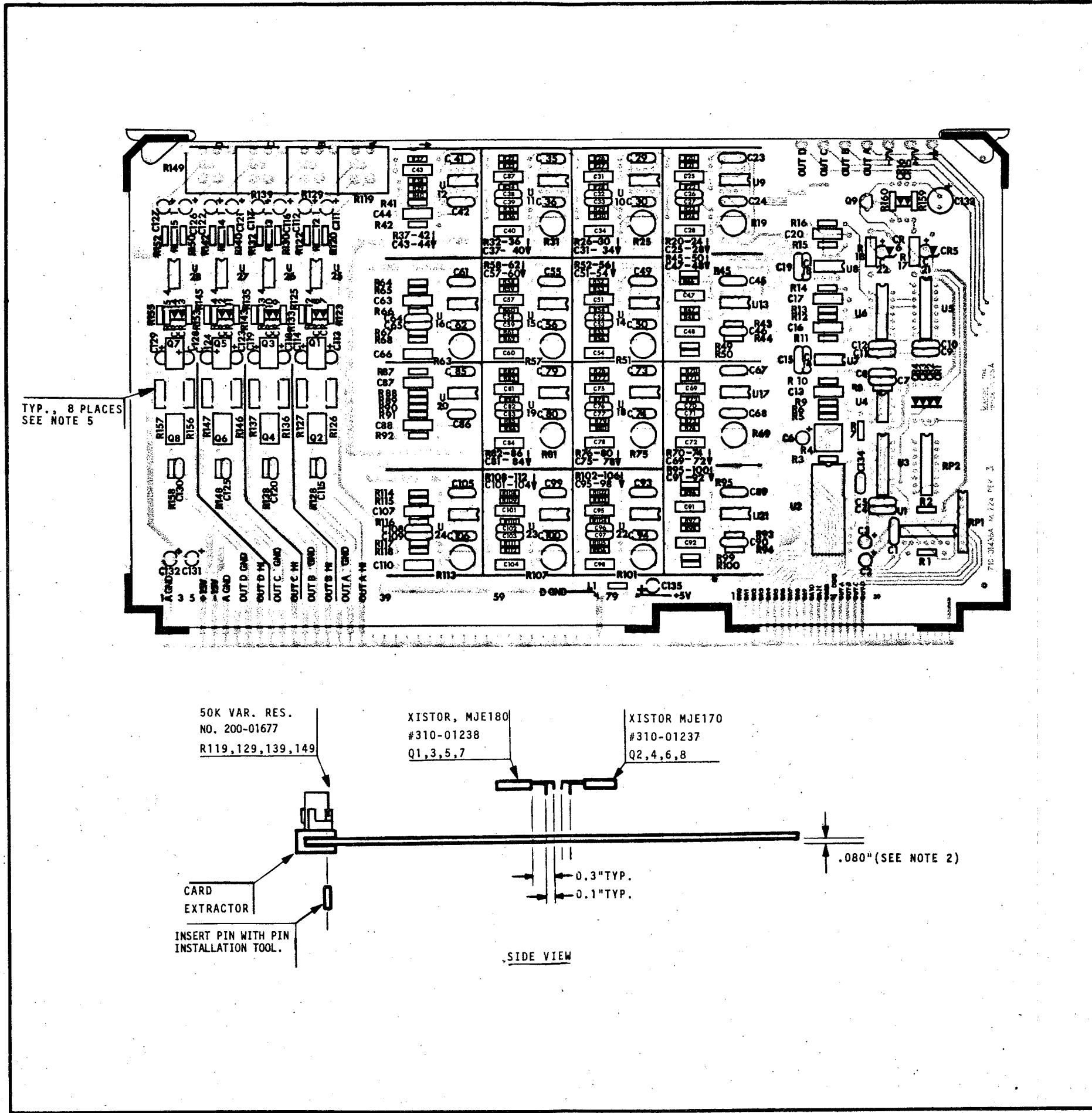
REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
1	(SEE SHEET 2)		
2-4	SEE SHEET 1		
5	ADD NULL FREQ. FOR 224K	1/13/82	JTG
6	REDESIGNATE PINS ON U21	7/24/82	AL

- NOTES
1. ALL RESISTERS ARE 5%, 1/4W UNLESS OTHERWISE INDICATED.
  2. ALL 1% RESISTERS ARE 1/8 W, METAL FILM.
  3. ALL 1000pf CAPACITORS ARE POLYPROPYLENE.
  4. ALL DIODES ARE IN4148.
  5. ADJUST R69, R101 FOR A NULL AT 11.815 KHZ  
 - - - R75, R107 - - - 10.2398 KHZ  
 - - - R81, R113 - - - 19.1204 KHZ  
 ADJUST R69, R101 FOR A NULL AT 22.153 KHZ  
 - - - R75, R107 - - - 19.200 KHZ  
 - - - R81, R113 - - - 35.850 KHZ

\* SHEET 1 IS "C" SIZE



QTY REQD	CODE IDENT	PART OR IDENTIFYING NO	NOMENCLATURE OR DESCRIPTION	MATERIAL SPECIFICATION
PARTS LIST				
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTIONS DECIMALS ANGLES		CONTRACT NO.		
DRAWN JTG		APPROVALS		
CHECKED CB		DATE 1-23-79		
ISSUED		7-1677		
NEXT ASSY USED ON		FINISH NA		
APPLICATION		DO NOT SCALE DRAWING		
SCALE NA		SHEET 3 OF 3		



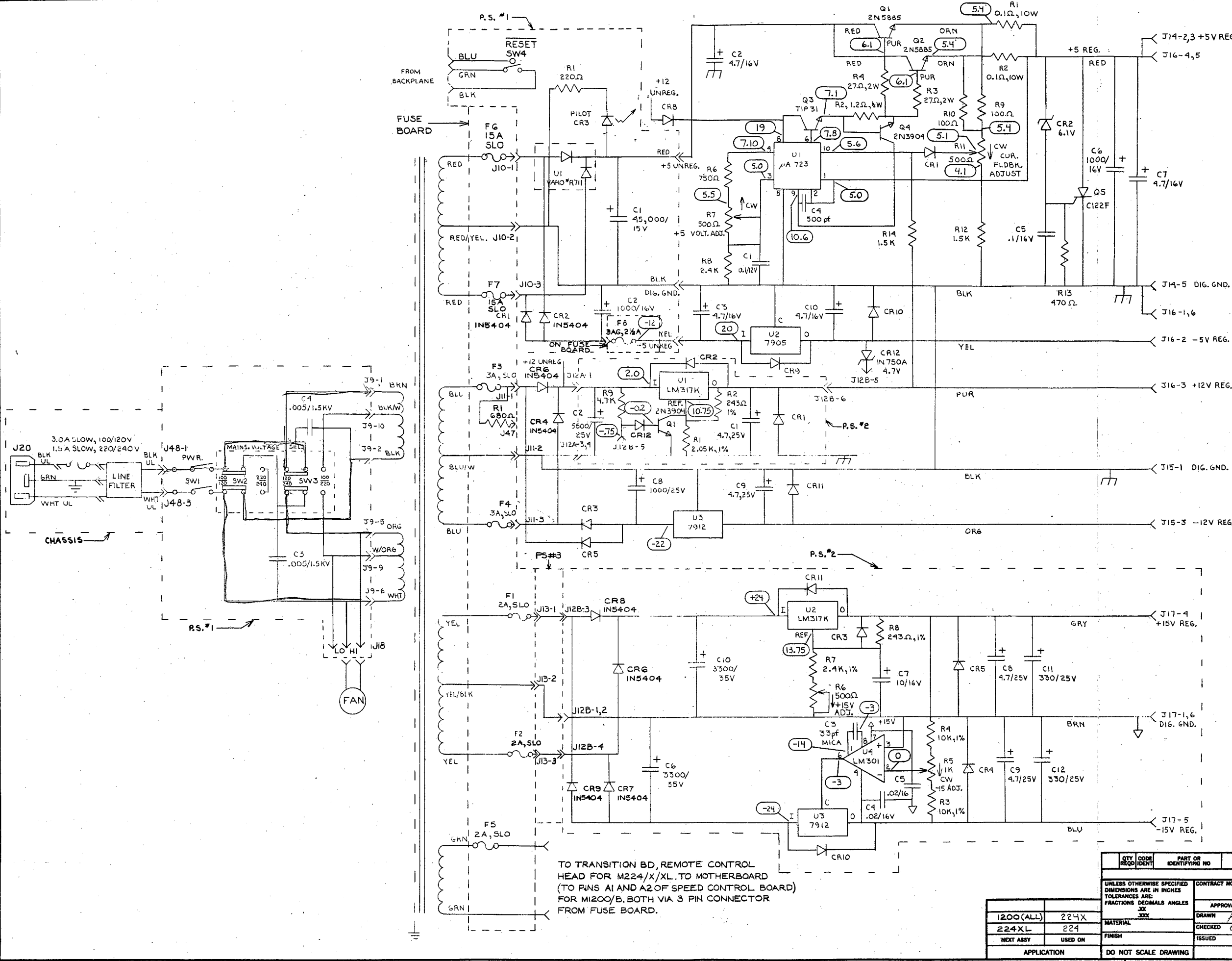
- NOTES
1. REFER TO PARTS LIST 020-02605
  2. SOLDER TAIL PROTRUSION MAX. .080"
  3. SOCKET ALL IC POSITIONS.
  4. RESISTORS REPLACED BY JUMPERS:  
R7,8,10,11,14,15,38-41,88-91.
  5. R126,127,136,137,146,147,156,157 SHALL BE RAISED .25" FROM THE SURFACE OF THE PC BOARD. SEE DETAIL.
- 
6. COMPONENT HEIGHT MAX. .425" EXCEPT POTS AND INPUT TRANSFORMERS

REV.	DATE	DESCRIPTION	INIT/APP'V'D

**lexicon**

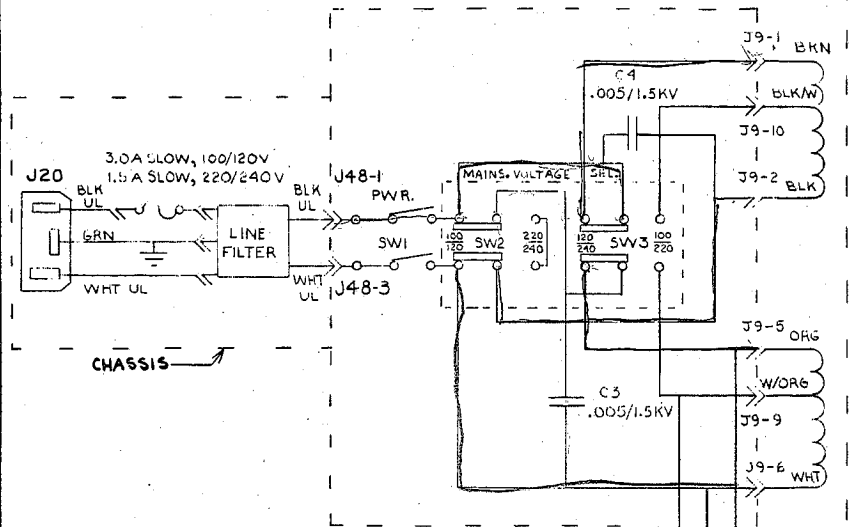
APPROVALS	DATE	PC DOC., ASS'Y DWG.,		
DRAWN	11/19/81	ANALOG OUTPUT BD., 224X		
CHECKED	12/1/81	SCALE	SIZE	DWG. NO.
ISSUED	12/1/81	1:1	C	030-02734
				REV. 0
				SHEET 1 OF 1

D  
C  
B  
A



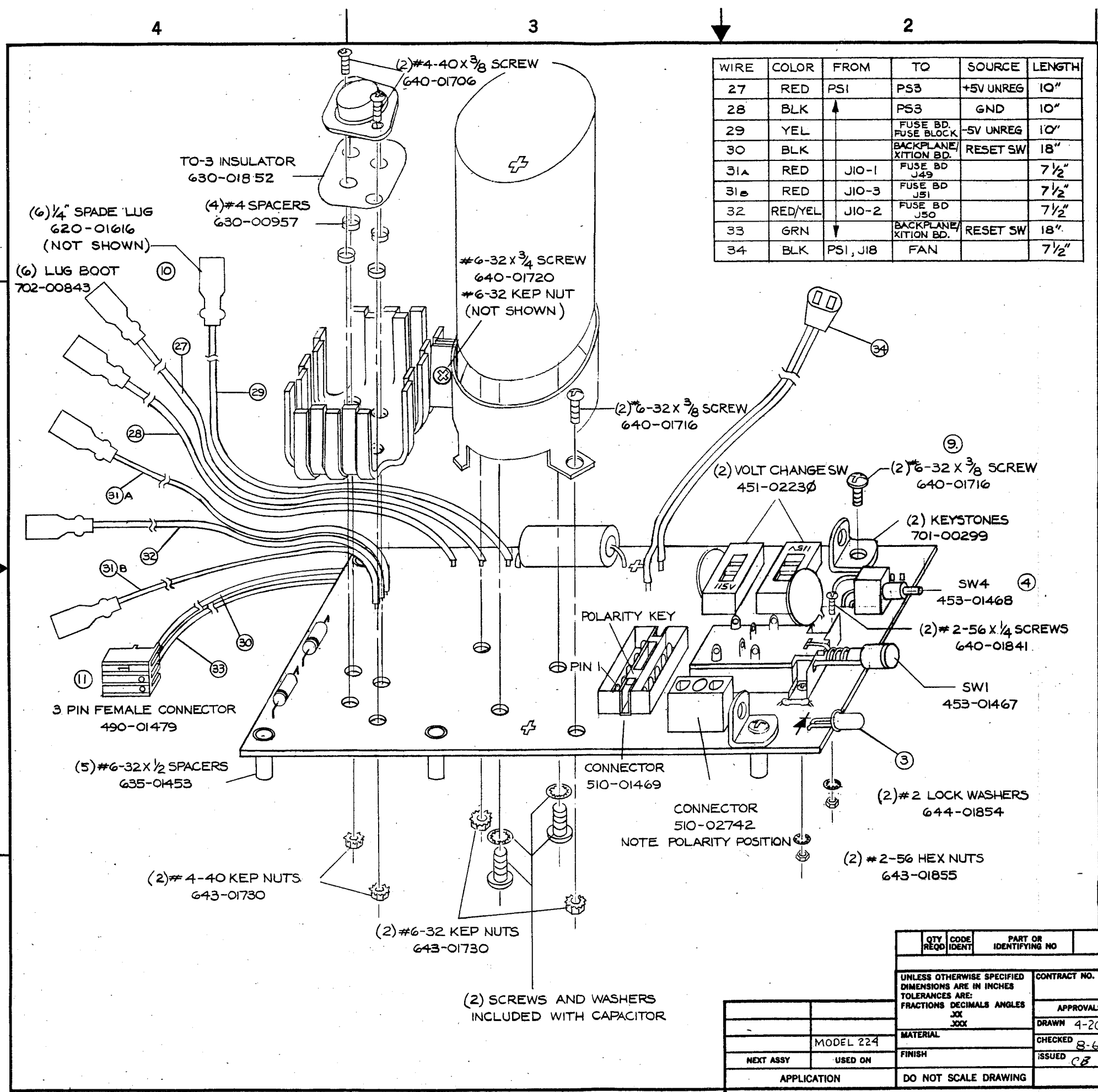
REVISIONS		
REV.	DESCRIPTION	DATE
1	WAS J15-2, NOW J15-1; WAS J15-1, NOW J15-3; +15V WIRE WAS BLU, NOW GRY; -15V WIRE WAS GRN, NOW BLU	7-18-79
2	CORRECT POLARITY ON CR3	8-5-79
3	CORRECT FAN PLUG CONN.	8-16-79
4	OMIT CR7; CR10, NOW CR2; CR10, NOW CR12	2-25-82
5	ADD VOLTAGE NOTATIONS; 5500/25 CAP WAS C8, NOW C2	5-20-82 JB
6	ADDED FUSE BOARD AND REVISED PS #1, PS #2 AND PS #3	4-21-83 JB
7	REVISED AS PER ECO # 831214-00	12-23-83 JB
8	UPDATE NOTES	2/27/84

NOTES		
1.	RESISTORS 5% UNLESS OTHERWISE IND.	
2.	CAPACITORS IN $\mu$ F UNLESS OTHERWISE IND.	
3.	DIODES ARE IN4004 UNLESS OTHERWISE IND.	
4.	ANALOG $\nabla$ CHASSIS GND. DIGITAL $\nabla$ DIGITAL GND.	
5.	AC WIRING & POWER SUPPLY #1 & #2 ARE ENCLOSED BY DOTTED BOXES; ALL ELSE LIES ON P.S.#3.	
6.	SEE LEXICON DWG. #080-01611, ASSEMBLY, POWER SUPPLY FOR SEMICONDUCTOR LOCATIONS AND CONN. IDENTIFICATION.	
7.	ALL VOLTAGES TAKEN WITH INPUT VOLTAGE AT 115V/60HZ AND STD 224 WITH NVS OPTION AS LOAD.	



TO TRANSITION BD, REMOTE CONTROL HEAD FOR M224/X/XL TO MOTHERBOARD (TO PINS A1 AND A2 OF SPEED CONTROL BOARD) FOR M1200/B, BOTH VIA 3 PIN CONNECTOR FROM FUSE BOARD.

QTY	CODE	PART OR IDENTIFYING NO	NOMENCLATURE OR DESCRIPTION	MATERIAL SPECIFICATION
PARTS LIST				
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTIONS DECIMALS ANGLES .XX .XXX .XXX				
1200(ALL)		224X	CONTRACT NO.	
224XL		224	APPROVALS DATE	
NEXT ASSY		USED ON	DRAWN <i>PH</i> 6-18-79	
APPLICATION		DO NOT SCALE DRAWING	CHECKED <i>CB</i> 6-20-79	
			ISSUED	
			SIZE FSCM NO. DWG. NO. 060-01324-D REV. B	
			SCALE NA SHEET 1 OF 1	



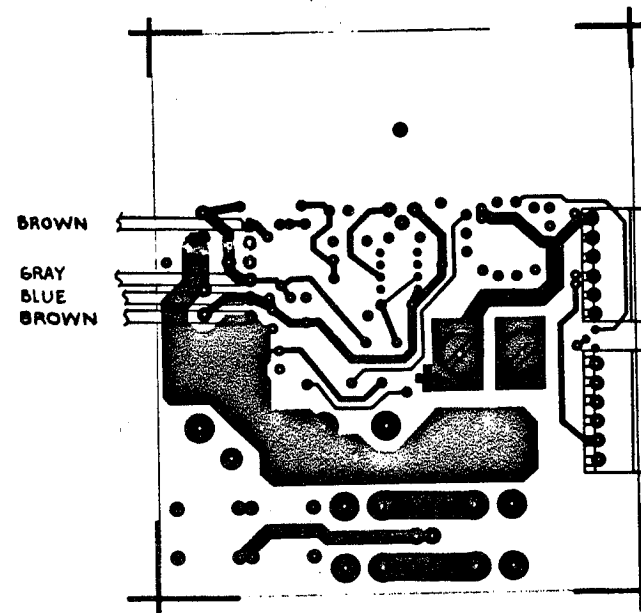
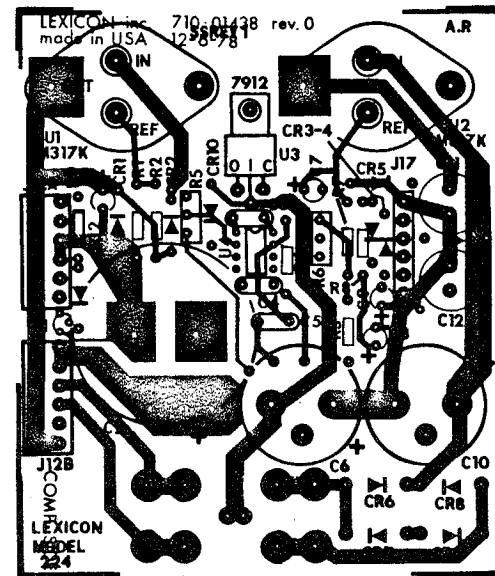
WIRE	COLOR	FROM	TO	SOURCE	LENGTH
27	RED	PS1	PS3	+5V UNREG	10"
28	BLK		PS3	GND	10"
29	YEL		FUSE BD. FUSE BLOCK	-5V UNREG	10"
30	BLK		BACKPLANE/KITTON BD.	RESET SW	18"
31A	RED	J10-1	FUSE BD J49		7 1/2"
31B	RED	J10-3	FUSE BD J51		7 1/2"
32	RED/YEL	J10-2	FUSE BD J50		7 1/2"
33	GRN		BACKPLANE/KITTON BD.	RESET SW	18"
34	BLK	PS1, J18	FAN		7 1/2"

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
1	DELETE SPADE LUGS AND COVERS FROM BLACK UL AND WHITE UL WIRES	11-16-79	JMS/A.P.
2	ADD MOLEX CONNECTOR, RELOCATE FAN PLUG. ADD 14 AWG WIRES.	4-12-83 JCR CHECKED 9/19/83	CB 9/19/83

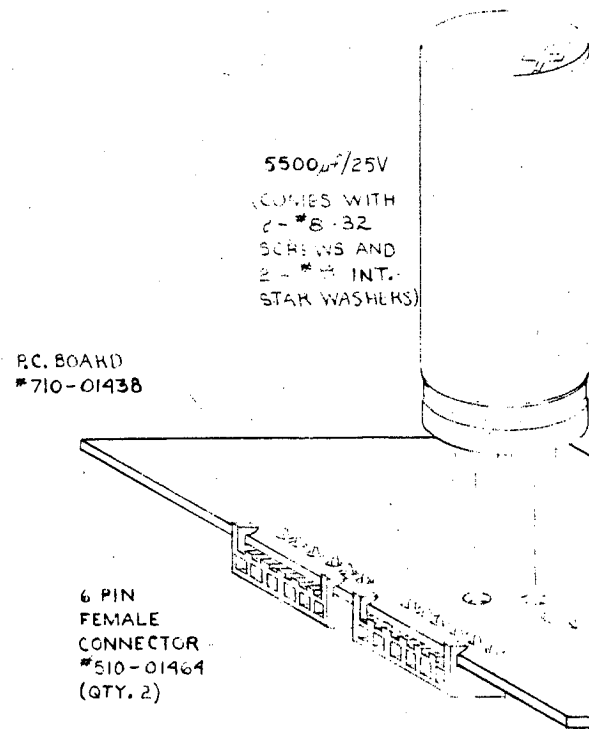
- NOTES**
- REFER TO BOM NO. 020-01337 AND ASSEMBLY NOTES FOR POWER SUPPLY BDS. DOC# 080-01802.
  - SOLDER JOINTS OF CONN. PINS MUST BE HOT, USE FLUX AND HIGH WATTAGE SOLDERING IRON
  - BEND LED LEADS ON LEXICON LED BENDING JIG. JIG IS INSCRIBED WITH THE LED PART NO., 430-00904.
  - MOUNT MOMENTARY SWITCH SO THAT THE SWITCH BUSHING IS PARALLEL TO THE P.C. BOARD SURFACE.
  - STRIP WIRE 3/8" FOR HARDWARE CONNECTIONS, STRIP TIN WIRE 1/4" FOR SOLDER CONNECTIONS.
  - BLACK OUT VOLTAGE CHANGEOVER SWITCHES (#451-02230) WITH BLACK INDELIBLE FELT-TIPPED MARKER
  - ALL UL WIRE IS UL #1015, 18 AWG, INSUL. .032" THK., RATED FOR 600V, MAX. AMBIENT TEMP. 105°C, TORQUE SPEC.:
  - TORQUE SPEC.:
 

*2-56 PNH M16. PWR. SWITCH	4	IN. LBS.
*4-40 " " DIODE BRIDGE	8	"
*6-32 " " STANDOFFS, KEYSTONE BRACKETS, LG. ELEC. CAP	18	"
*10-32 " M16. LG. ELEC. CAP	28	"
  - ADD A DROP OF "LOC-TITE" #242 TO THE 2 KEYSTONE BRACKET MTG. SCREWS
  - CRIMP TOOL: AMP #18-14 TYPE F.
  - CRIMP TOOL: MOLEX #11-20-0340.

QTY REQD	CODE IDENT	PART OR IDENTIFYING NO	NOMENCLATURE OR DESCRIPTION	MATERIAL SPECIFICATION
PARTS LIST				
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTIONS DECIMALS ANGLES .XX .XXX		CONTRACT NO.		
MATERIAL		<b>lexicon</b>		
FINISH		ASS'Y DWG., POWER SUPPLY BD. #1		
APPROVALS	DATE	SIZE	FSCM NO.	DWG. NO.
DRAWN 4-20-79 JMG		C		030-01423-C
CHECKED 8-6-79 CB				
ISSUED CB	9/19/83			
REVISIONS	DATE	BY	REV.	
1	4-20-79	JMG	2	
2	8-6-79	CB		
3	9/19/83	CB		
APPLICATION		DO NOT SCALE DRAWING		
SCALE 1:1		SHEET 1 OF 1		



ETCH SIDE—SHOWING BOTTOM VIEW OF COMPONENTS DRAWN BELOW.

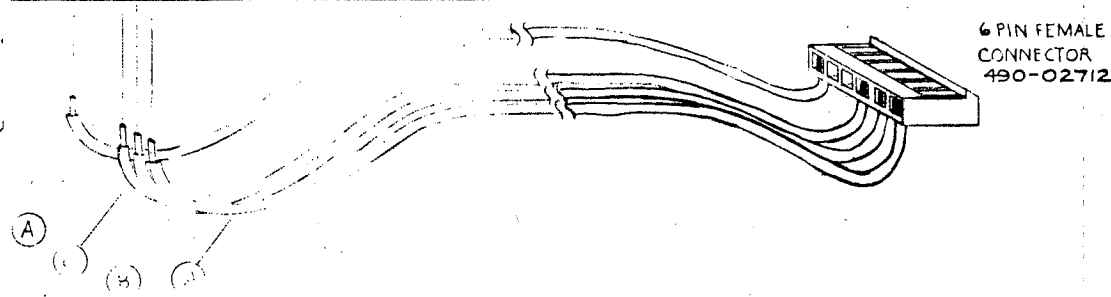


5500µf/25V  
(COMES WITH 2 - #8-32 SCREWS AND 2 - #8 INT. STAR WASHERS)

P.C. BOARD #710-01438

6 PIN FEMALE CONNECTOR #510-01464 (QTY. 2)

WIRE	COLOR	LENGTH	PART NO.	FROM/TYPE OF CONN.	TO/TYPE OF CONN.
(A)	BROWN	12" STRIP & TIN 1/4"	670-01686	POWER SUPPLY BOARD #2 / SOLDER CONN.	6 PIN FEMALE CONN. #490-02712 (USE CRIMP TOOL #11-20-0340)
(B)	BLUE		670-01688		
(C)	GRAY		670-01687		



6 PIN FEMALE CONNECTOR 490-02712

REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED
1	REVERSE BLUE & GRAY WIRE LOCATIONS	8-31-79	JAG
2	REMOVE FUSES. ADD 6 PIN CONN.	4-12-83 JCR	M.H. 8/23/83 CB 9/13/83

NOTES

- USE THIS ASS'Y DWG. ALONG WITH PARTS LIST #020-01338.
- TORQUE SPEC:  
#8-32 PNH MT6. C2 15 IN. LBS.

TOLERANCES UNLESS OTHERWISE SPECIFIED FRACTIONS DEC ANGLES * * *		<b>lexicon Inc.</b>	
APPROVALS	DATE	ASS'Y DWG., POWER SUPPLY #2	
DRAWN <i>M6</i>	6-14-79	SCALE 1:1	SIZE C DRAWING NO. 030-01424-C
CHECKED <i>CB</i>	8-31-79	RECORD OF CHANGES SHEET 1 OF 1	
REV 2			
DATE 224			

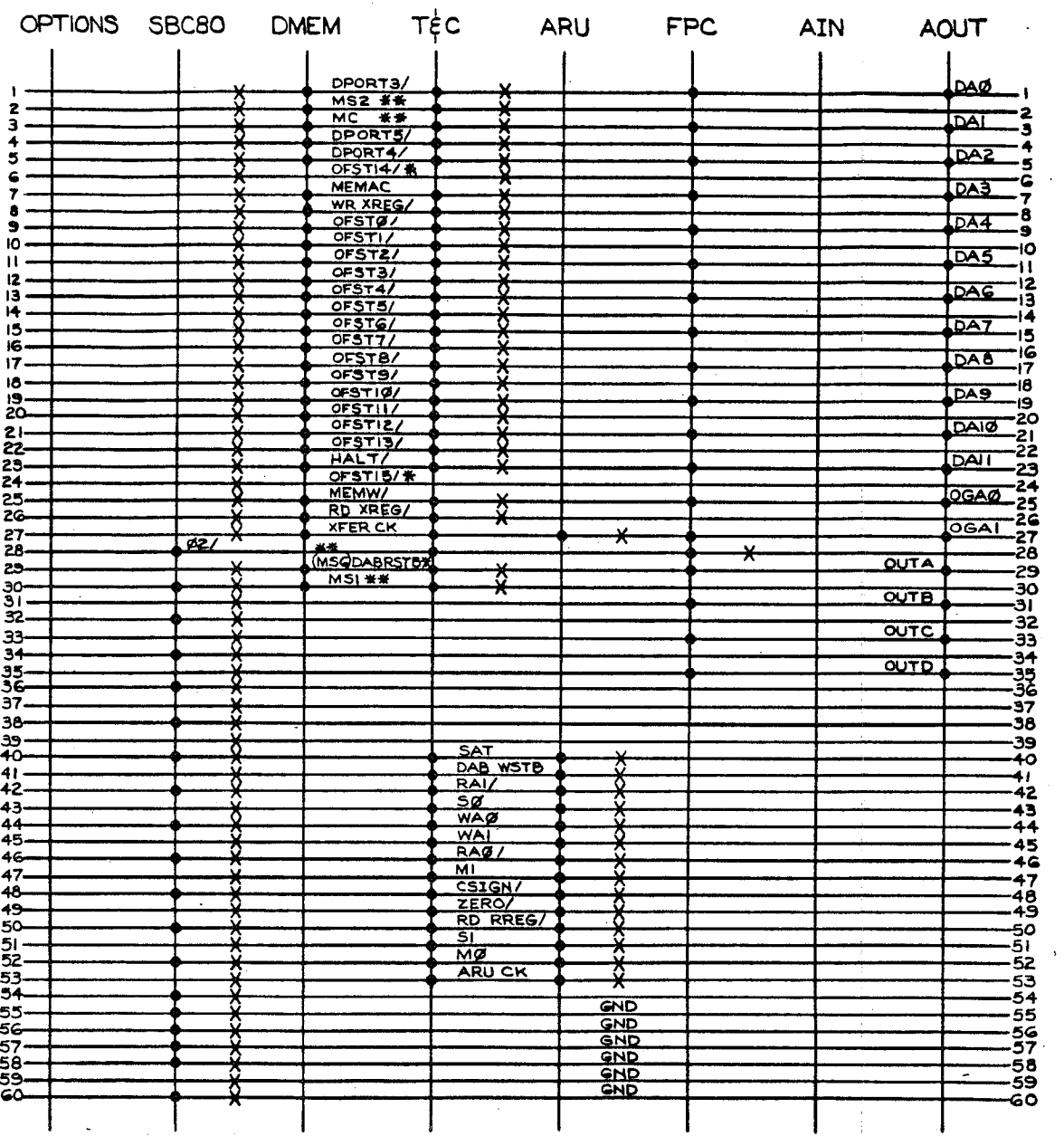
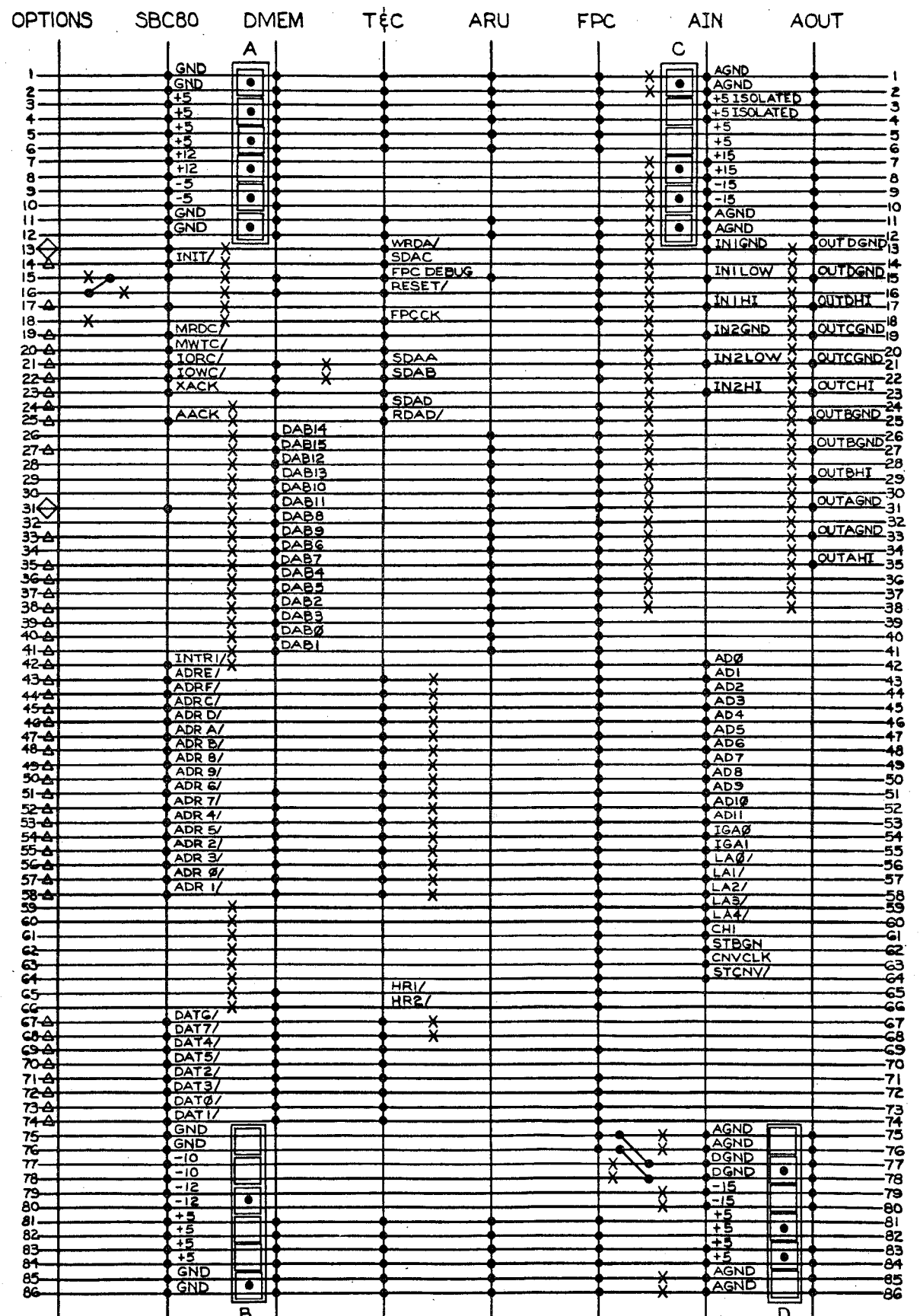




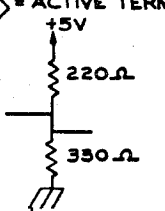
CONNECTOR P1

CONNECTOR P2

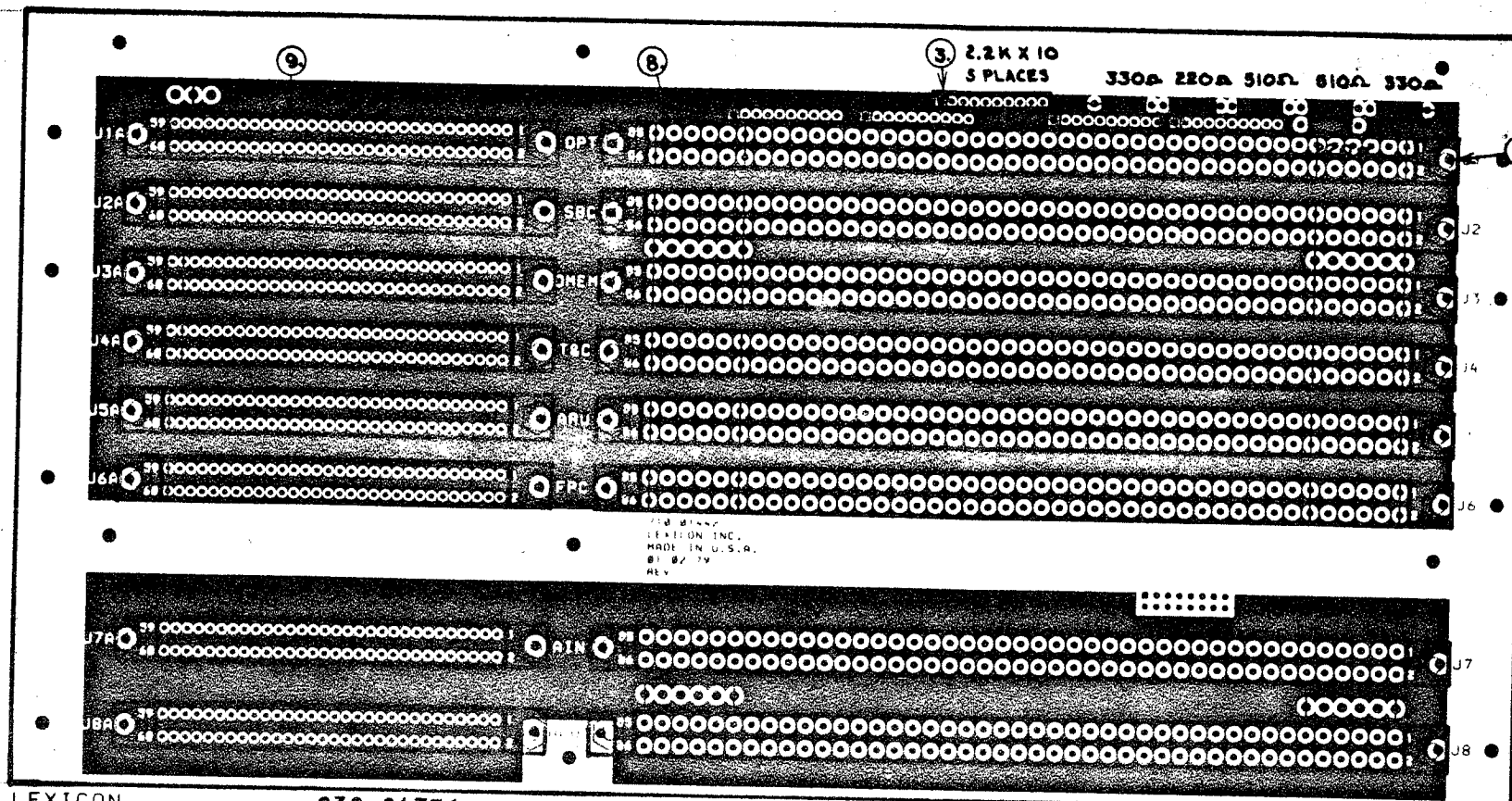
REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
2	REDRAWN AND CHANGED AS PER ECO #630909-00	9-20-83	JB CA 9/20/83



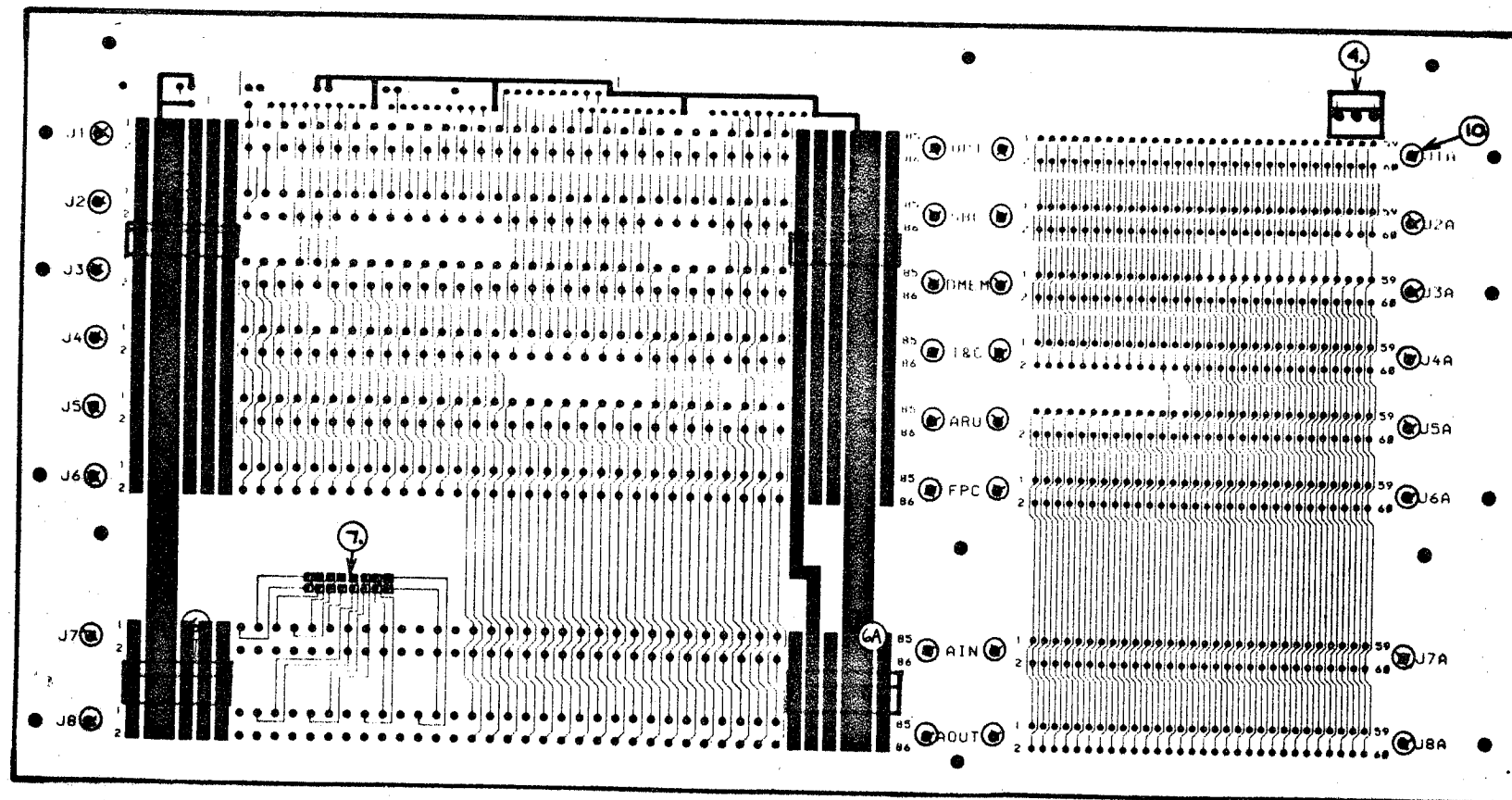
- NOTES
- # SIGNALS ADDED FOR 224X
  - \*\* SIGNALS DELETED FOR 224X
  - X INDICATES CUT IN BUS, BUS RUN MUST BE DELETED BETWEEN SLOTS.
  - = KK156 POST
  - Δ = 2.2K PULL UP, UNLESS OTHERWISE NOTED.
  - ◇ = ACTIVE TERMINATION 220/330 Ω
  - + OR • = CONNECTION TO EDGE CONNECTOR PIN.



QTY	CODE	PART OR IDENTIFYING NO	NOMENCLATURE OR DESCRIPTION	MATERIAL SPECIFICATION
PARTS LIST				
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTIONS DECIMALS ANGLES .010 .005 .005		CONTRACT NO.		
MATERIAL		APPROVALS	DATE	lexicon SCHEMATIC, MOTHERBOARD, MODEL 224/X
FINISH		DRAWN JB	9-20-83	
NEXT ASSY USED ON		CHECKED S LAM	9-21-83	SIZE FROM NO. DWG. NO. 060-01360
APPLICATION		ISSUED CA	7/8/83	REV. 2
DO NOT SCALE DRAWING		SCALE NA		SHEET 1 OF 1



LEXICON 030-01356  
 COMPUTER DRAFTING 01/02/78 GROUND PLANE SIDE  
 COMPONENT SIDE



LEXICON 030-01356  
 COMPUTER DRAFTING 01/02/78 SOLDER SIDE

REVISIONS			
REV.	DESCRIPTION	DATE	APPROV.
1	ADDED LEXICON PARTS LIST NOS., NOTES 10, 11, 12	3-20-78	JTG
2	J14 (6A) WAS 09-65-1062, NOW 09-65-1065	6/17/79	JG.

- APPLICABLE PARTS LIST: LEXICON #020-01342
- ETCH DOES NOT NEC. CONFORM TO CURRENT REV.
  - DO NOT SCALE PRINT.
  - INDICATES PIN 1 OF RES. NETWORK, 5 PLACES.
  - CONN., MALE, 3 PIN, MOLEX #09-65-1031, 1 PLACE.  
LEXICON #510-01480
  - CONN., MALE, 6 PIN, MOLEX #09-60-1065, 2 PLACES.  
LEXICON #490-00827
  - CONN., MALE, 6 PIN, MOLEX #09-65-1062, 1 PLACE.  
LEXICON #510-01481
  - CONN., MALE, 6 PIN, MOLEX #09-64-1065, 1 PLACE.  
LEXICON #490-00828
  - CONN., MALE, 8 PIN, MOLEX #22-03-2081, 2 PLACES.  
LEXICON #510-01514
  - CONN., EDGE, 43/86 PIN, ELFAB #BS1562 A-43 P88, 8 PLACES.  
LEXICON #500-01817
  - CONN., EDGE, 30/60 PIN, ELFAB #BS1020A-30 P88, 8 PLACES.  
LEXICON #500-01816
  - SCREW, 4-40 X 1/2, 88, RD. HD. PHIL., 32 PLACES.
  - NUT, KEP, #4, 32 PLACES.
- FOR ELFAB ASS'Y ONLY**
- PRESS-FIT .025" SQUARE PINS TO .280" EXTENSION ABOVE SURFACE OF BOARD, 16 PLACES. GOLD FINISH
  - PRESS-FIT CONN., EDGE, 43/86 PIN, 8 PLACES.
  - PRESS-FIT CONN., EDGE, 30/60 PIN, 8 PLACES.
  - ALL EDGE CONNECTORS 30μ" SELECTIVE GOLD PLATING.
  - CONNECTOR CONTACT TAILS MAY PROTRUDE 3/32" MAX. FROM BOARD
  - MATERIAL 1/8" FR4 LAMINATE - 20% CU (FINISHED LINE THICKNESS)

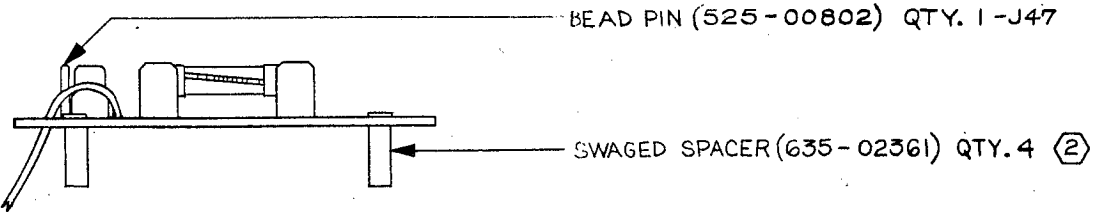
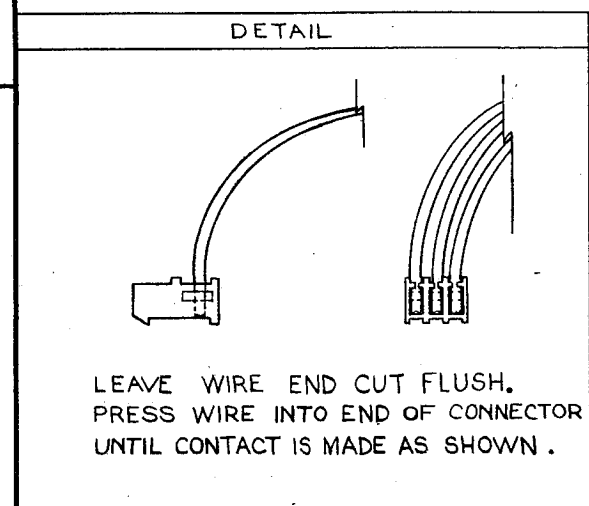
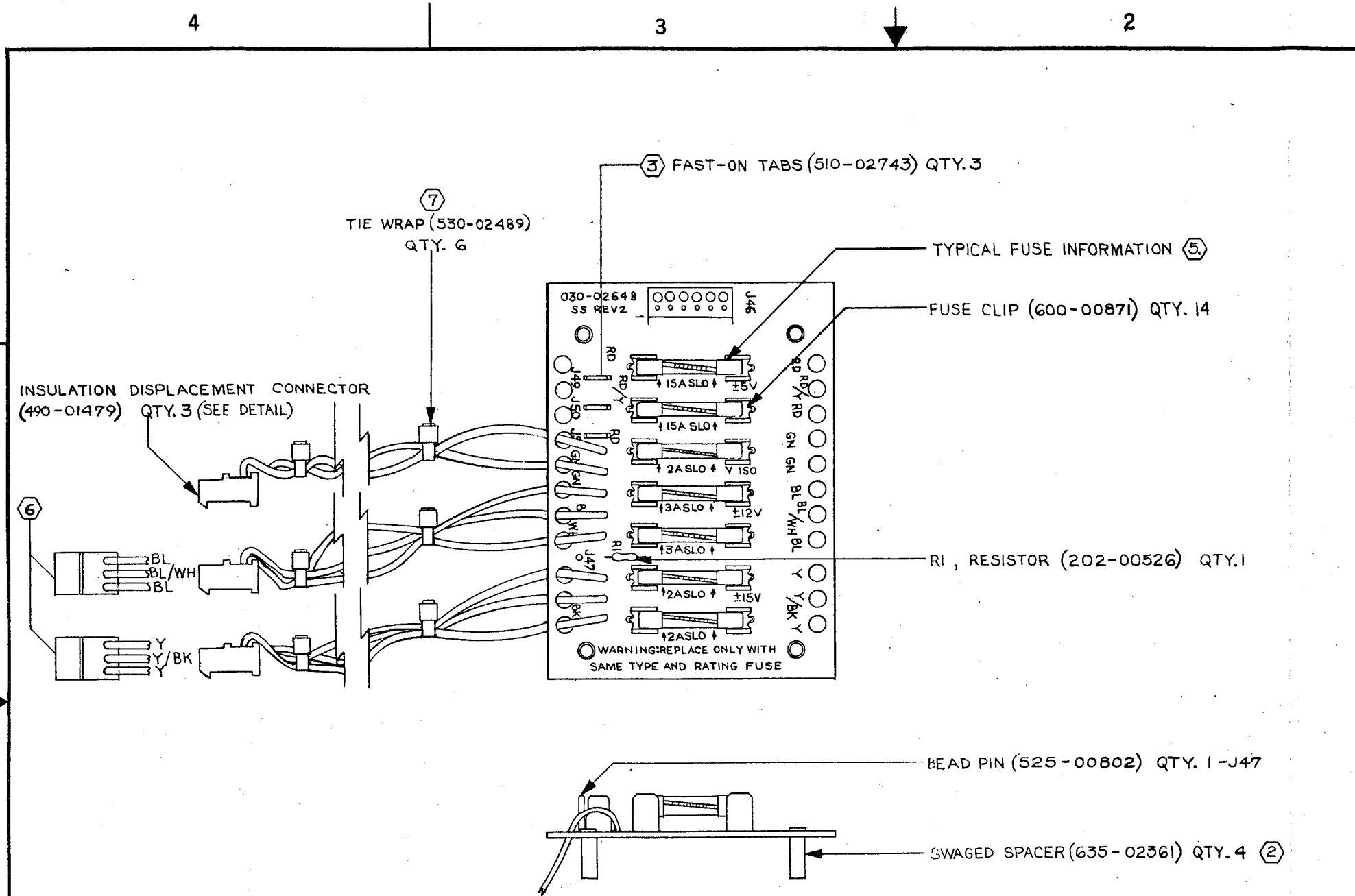
**Lexicon Inc. WALTHAM, MA. 02154**

SCALE: 1:1	APPROV.	DRAWN: JTG
DATE: 3/6/79		REV. 2

**MOTHERBOARD ASS'Y DW6.**

**MODEL 224** **030-01428**

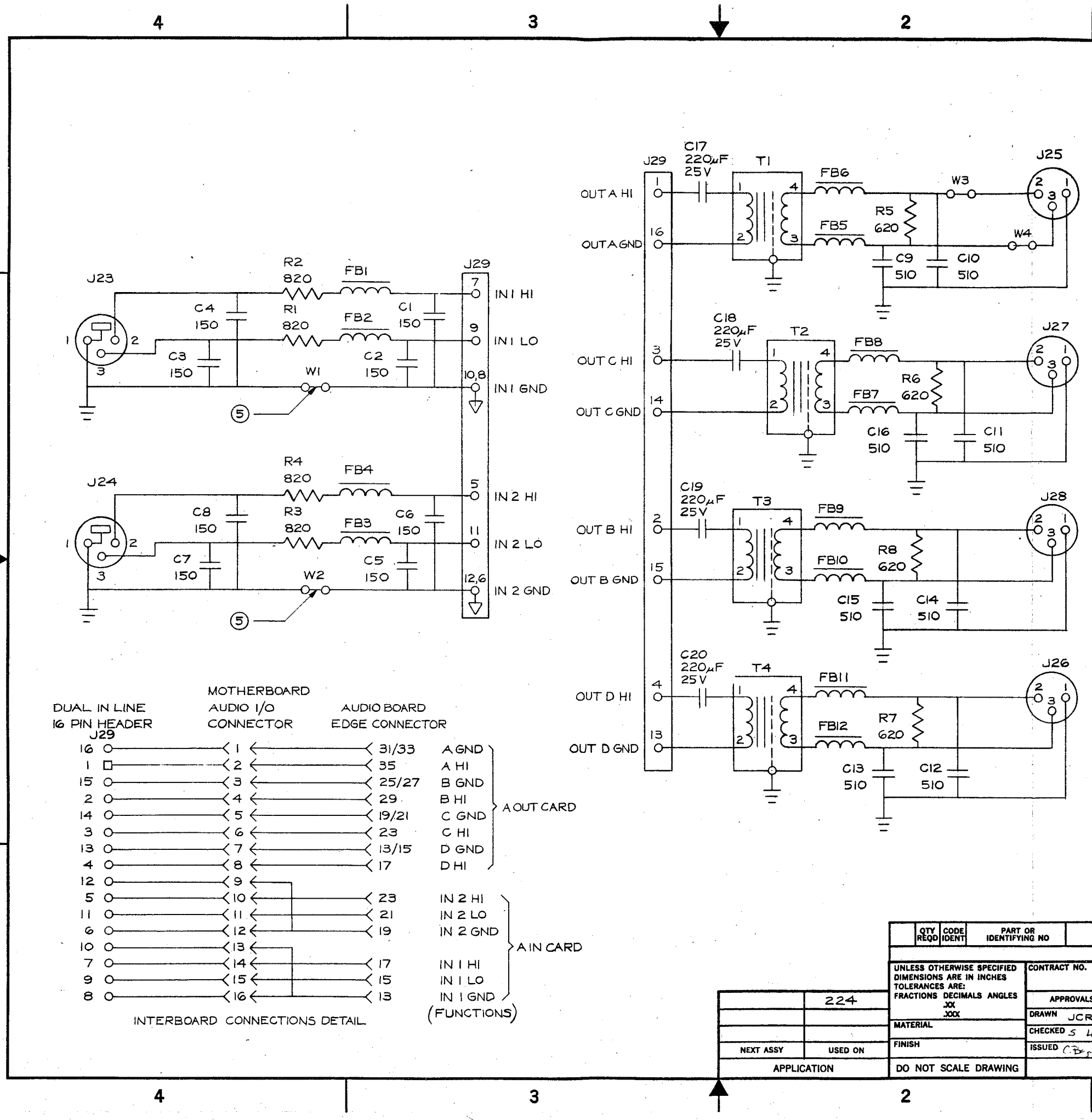
WHEN MAKING BLUELINES, USE SETTING #4 ON PRINT MACHINE.



REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED

- NOTES
- REFER TO PARTS LIST NO. 020-02644.
  - SWAGE PROCEDURE:
    - 4 SWAGE STANDOFFS
    - STAKING TOOL & ANVIL-KEystone TL-21
    - TORQUE: APPROX. 40 FT.-LBS. SPACER SHOULD BE FIRMLY SECURED IN PCBOARD.
  - INSTALL FAST-ON TABS USING KEystone TOOL NUMBER 1288 AT J49, J50 & J51.
  - NOTE PIN 1 LOCATION OF J46.
  - NOTE LOCATIONS OF 3 SEPARATE TYPES OF FUSES. FOLLOW SILKSCREENED INFORMATION ON PC BOARD.
  - FOLLOW PCBOARD SILKSCREENED INFORMATION FOR LOCATION OF WIRES ACCORDING TO COLOR.
  - USE 2 TIE WRAPS EVENLY SPACED TO BUNDLE EACH GROUP OF WIRES.

QTY REQD	CODE IDENT	PART OR IDENTIFYING NO	NOMENCLATURE OR DESCRIPTION	MATERIAL SPECIFICATION
PARTS LIST				
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTIONS DECIMALS ANGLES .XX .00X .00X			CONTRACT NO.	<b>lexicon</b>
APPROVALS			DATE	
DRAWN JB			5-20-82	P.C. DOC., ASSEMBLY DRAWING FUSE BOARD, 224 CHASSIS
CHECKED M/H			5/21/82	
MATERIAL			ISSUED C/B	SIZE FSCM NO. DWG. NO. 030-02647 REV. 0
NEXT ASSY USED ON			224	SCALE 1:1 SHEET 1 OF 1
APPLICATION			DO NOT SCALE DRAWING	



REVISIONS				
REV.	DESCRIPTION	DATE	APPROVED	
4	REDRAWN	3-24-82		
5	SYMBOL WAS	5-18-82		
	J23, J24	XLR-D5F	XLR-NEUTRIK	3FDV
	J25-J28	XLR-D3M	XLR-NEUTRIK	3MDV
			JB	MH. 5/17/82 OR 7/27/82

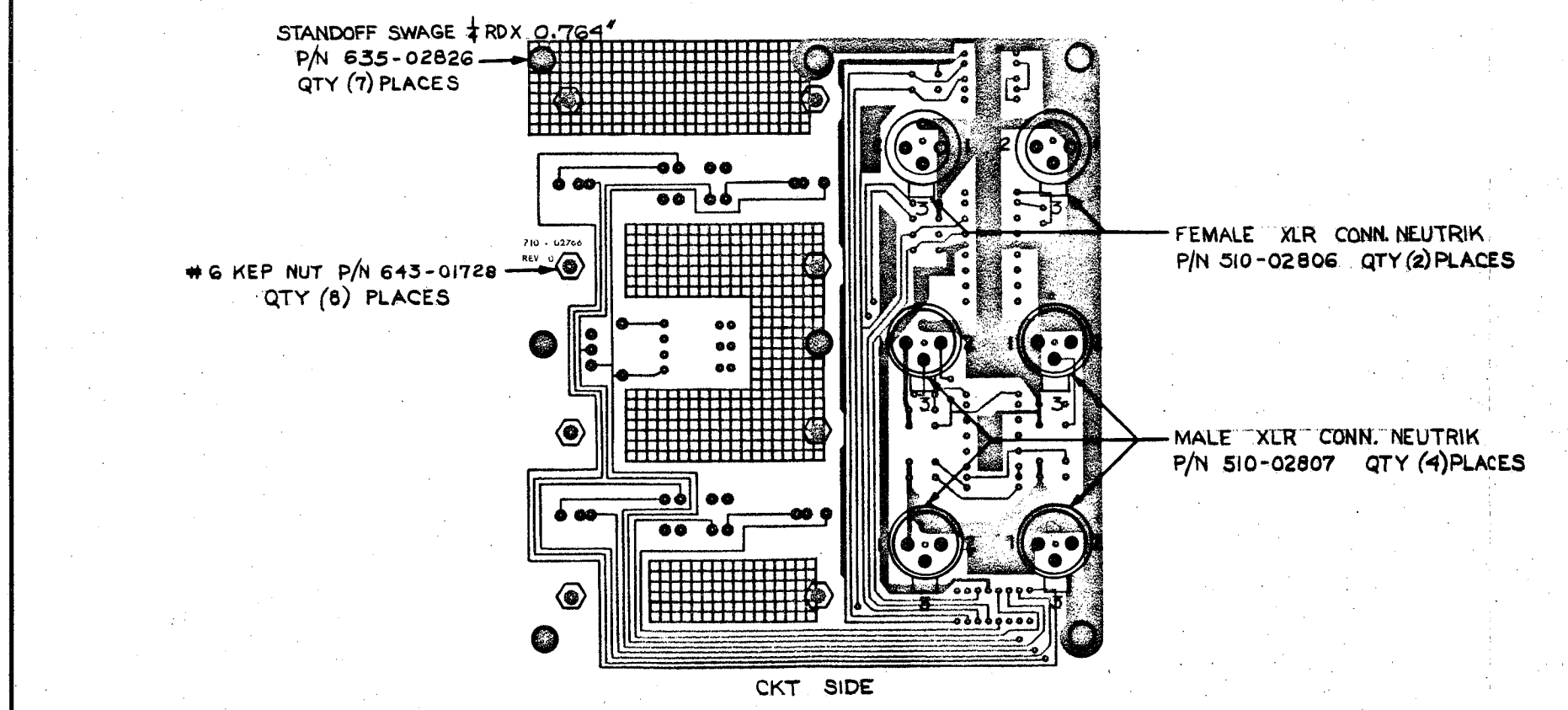
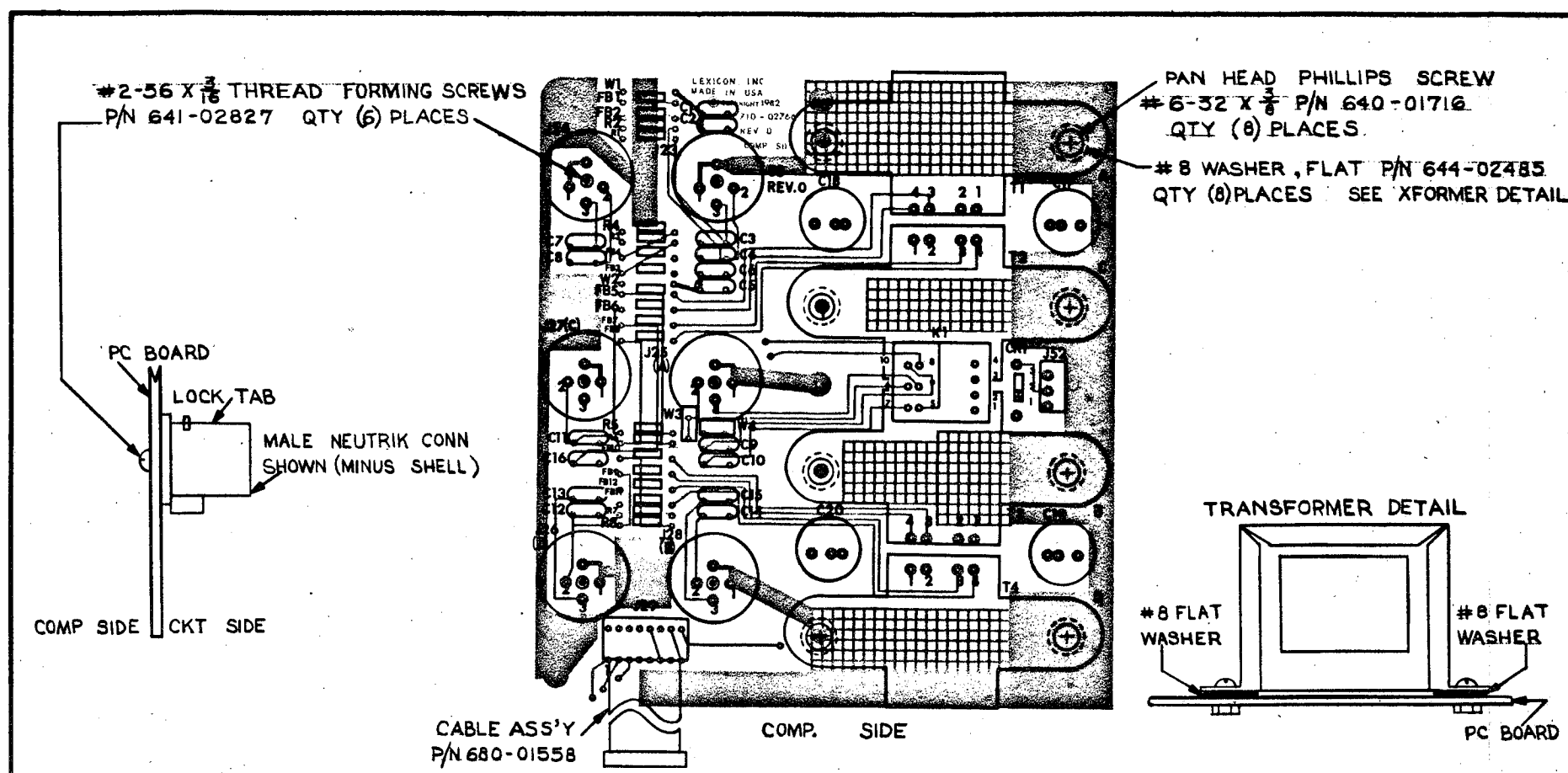
- NOTES**
1. ALL RESISTORS IN OHMS
  2. ALL CAPACITORS IN PF UNLESS INDICATED. CAPACITORS 17-20 ARE NONPOLARIZED.
  3. J29 IS ANSLEY # 609-M161 MASS TERM.
  4. J23, J24 ARE XLR-NEUTRIK -3FDV  
J25-J28 ARE XLR-NEUTRIK -3MDV
  5. LINK SHOWN IS THE ONLY GROUND LINK BETWEEN ANALOG GND AND CHASSIS.
  6.  $\perp$  CHASSIS GND       $\nabla$  ANALOG GND

DUAL IN LINE 16 PIN HEADER J29	MOTHERBOARD AUDIO I/O CONNECTOR	AUDIO BOARD EDGE CONNECTOR	(FUNCTIONS)
16 ○	1 ←	31/33	A GND
1 □	2 ←	35	A HI
15 ○	3 ←	25/27	B GND
2 ○	4 ←	29	B HI
14 ○	5 ←	19/21	C GND
3 ○	6 ←	23	C HI
13 ○	7 ←	13/15	D GND
4 ○	8 ←	17	D HI
12 ○	9 ←		
5 ○	10 ←	23	IN 2 HI
11 ○	11 ←	21	IN 2 LO
6 ○	12 ←	19	IN 2 GND
10 ○	13 ←		
7 ○	14 ←	17	IN 1 HI
9 ○	15 ←	15	IN 1 LO
8 ○	16 ←	13	IN 1 GND

INTERBOARD CONNECTIONS DETAIL

QTY REQD	CODE IDENT	PART OR IDENTIFYING NO	NOMENCLATURE OR DESCRIPTION	MATERIAL SPECIFICATION
224			OUTPUT TRANSFORMER BD. SCHEMATIC, 224	
PARTS LIST				
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTIONS DECIMALS ANGLES .XX .XXX .XXX		CONTRACT NO.		
APPROVALS		DATE		
DRAWN JCR		3-24-82		
CHECKED S LAM		3-25-82		
ISSUED C.B. mch.		4-13-82		
NEXT ASSY		USED ON		FINISH
APPLICATION		DO NOT SCALE DRAWING		SCALE NA
SIZE C		FSCM NO.		DWG. NO. 060-01359-C
REV. 5		SHEET 1 OF 1		





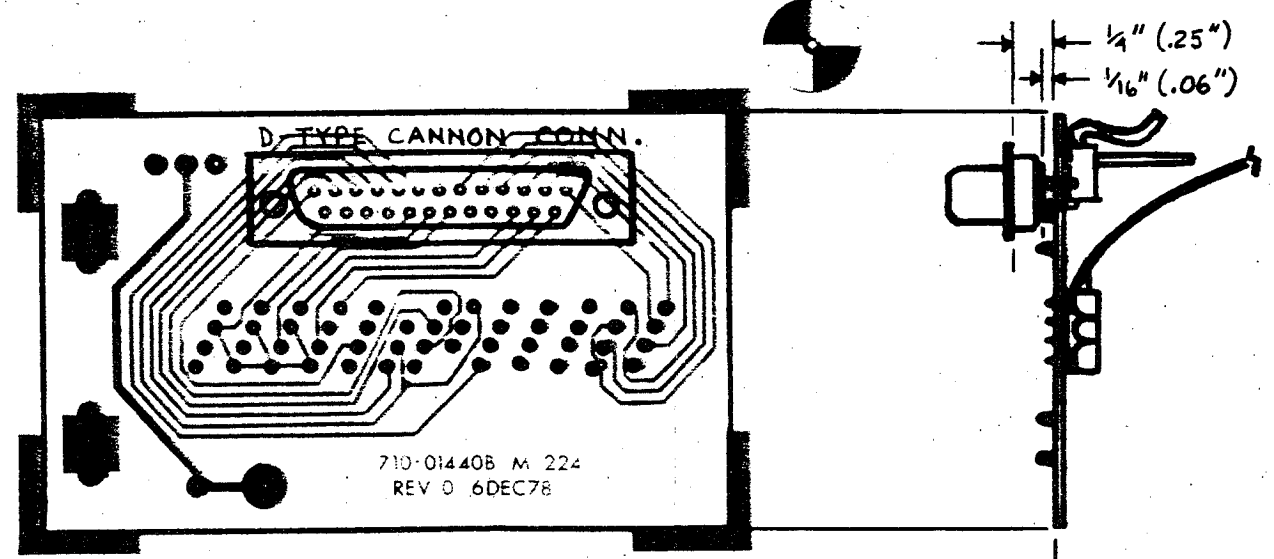
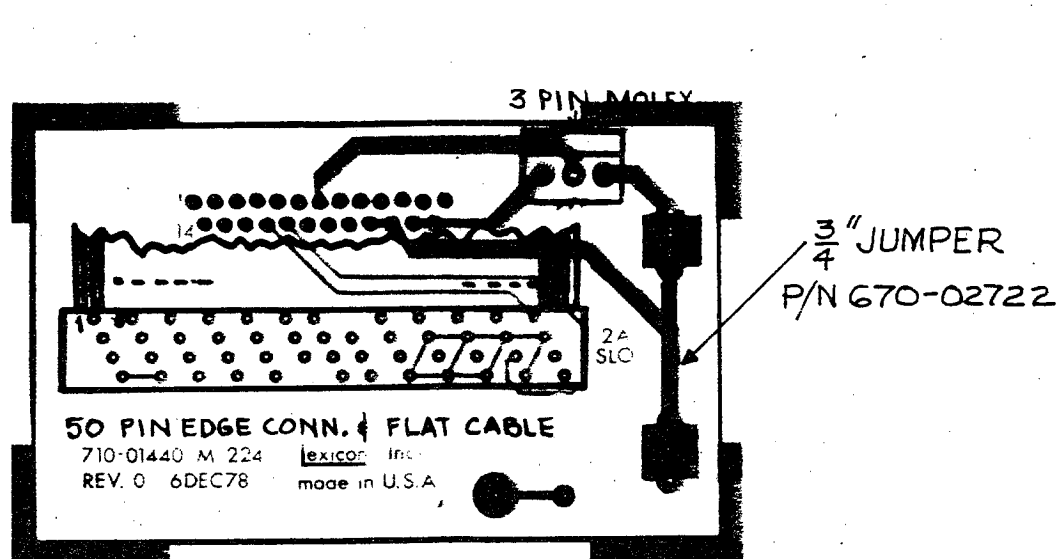
NOTES

1. REFER TO PARTS LIST #020-02767
2. PRE-ASSEMBLY INSPECTION
  - A. INSPECT FOR OVER OR UNDER-ETCHING, ETCH SHORTS OR OPENS, HOLE PLATING.
  - B. INSPECT FOR WARPAGE.
3. SWAGE PROCEDURE:
  - A. SWAGE STANDOFFS - QTY. 7 (635-02826)
  - B. STAKING TOOL (ANVIL-KEYSTONE TL-21)
  - C. TORQUE: APPROX. 40 FT-LBS. SPACER SHOULD BE FIRMLY SECURED IN PC BOARD.
4. XLR INSTALLATION (J23-J28)
  - A. REMOVE XLR INSERTS FROM SHELLS.
  - B. BAG SHELLS & ADD THEM TO CHASSIS KIT.
  - C. SECURE INSERTS TO PC BOARD USING SERREW #2-56 X 3/16 (641-02827) THEN SOLDER.
5. TRANSFORMER INSTALLATION (T1-T4)
  - A. ATTACH TRANSFORMERS ON COMP SIDE OF PC BOARD USING #6 HARDWARE AND #8 FLAT WASHERS.
  - B. POSITION FLAT WASHER BETWEEN XFORMER TAB AND PC BOARD, TIGHTEN THEN SOLDER LEADS.
6. W1 AND W2 ARE NOT INSTALLED.

REV.	DATE	DESCRIPTION	INIT/APP'Y'D



APPROVALS	DATE	PC DOC. ASSEMBLY DWG.		
DRAWN JB	5/18/82	OTPT XFORMER, 224		
CHECKED MH	5/19/82	SCALE	SIZE	DWG. NO.
ISSUED CB	6-15-82	1:1		030-02769
				REV. 0
				SHEET 1 OF 1



SHOOT THIS SIDE

REDUCE TO 4.500"

SHOOT THIS SIDE

0034 OF 50008

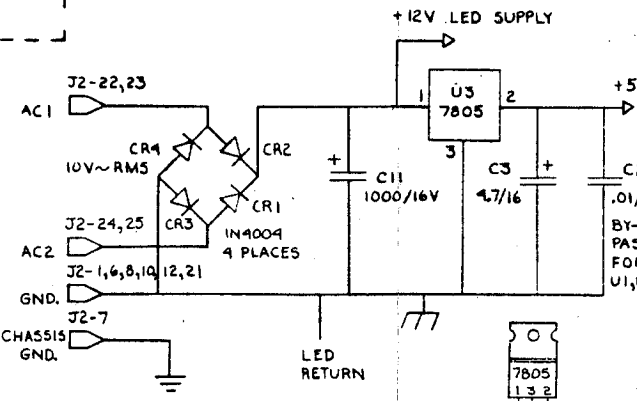
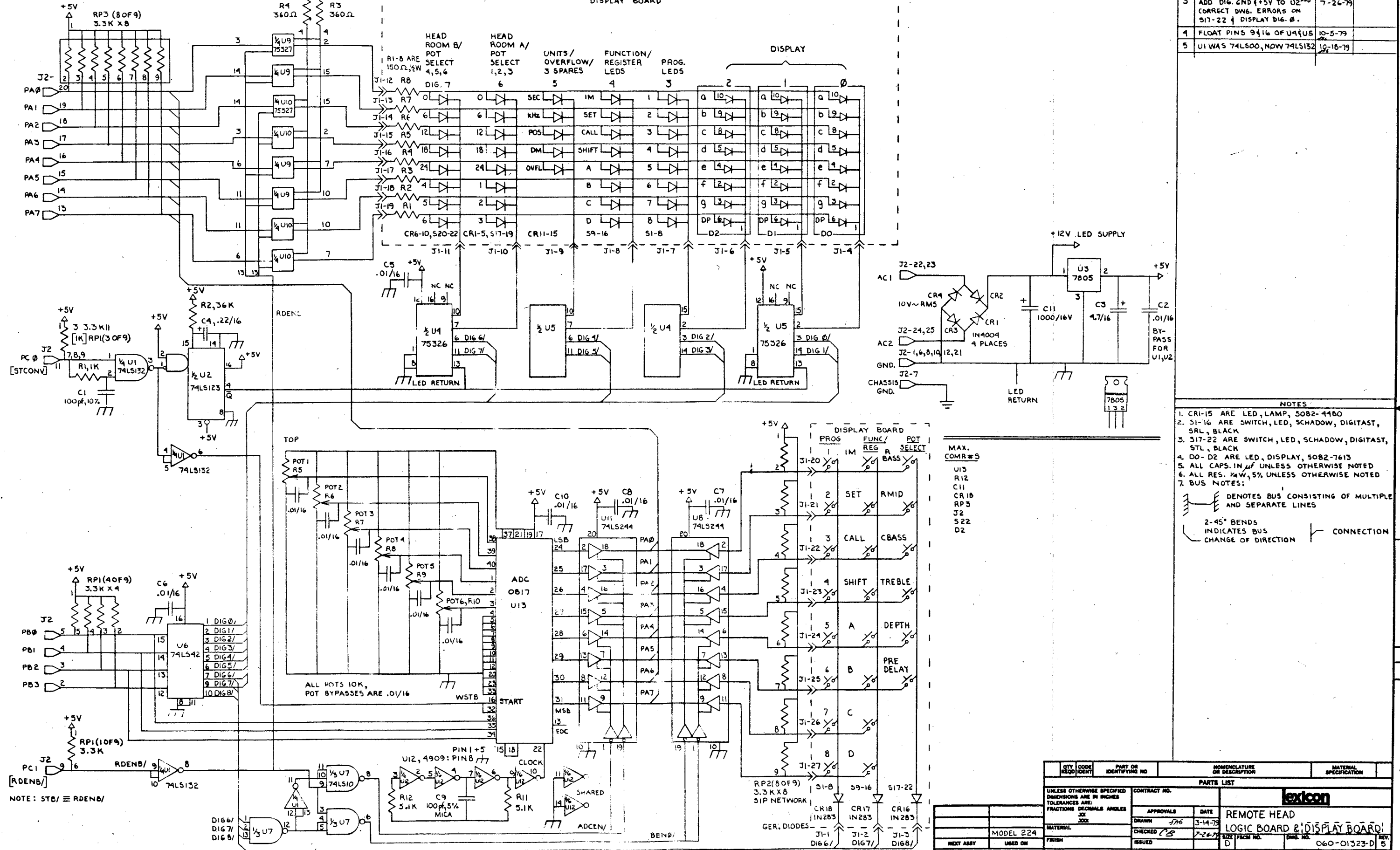
NOTES	DATE	REVISIONS	INIT.
1. REF. PARTS LIST NO. 020-01340 2. RED LINE ON CABLE CONNECTS TO '1' ON BOARD 3. SPACE THE D-TYPE CONNECTOR 1/16" (.06") OFF OF THE BOARD WHEN SOLDERING SO THAT THE DISTANCE FROM THE MOUNTING FLANGE TO THE P.C. BOARD IS 1/4" (.25").	12-1-82	REMOVED FUSE AND ADDED JUMPER	JB m.h. CB 12/1/82

TOLERANCES UNLESS OTHERWISE SPECIFIED FRACTIONS DEC ANGLES ± ± ±		<b>lexicon Inc., WALTHAM, MA.</b>	
APPROVALS DATE			
DRAWN <b>JWG</b>	<b>3-29-79</b>	<b>MODEL 224</b>	
CHECKED <b>CB</b>	<b>4-5-79</b>	SCALE <b>1:1</b>	SIZE <b>B</b>
REV. 1	<b>MH 12/1/82</b>	DRAWING NO. <b>030-01426</b>	<b>1 OF 1</b>
RECORD OF CHANGES		SHEET	



U9,U10: PINS 12 → +5V  
 75327 PIN 8 → GND  
 PINS 1,9,16 → +12V

DISPLAY BOARD



REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
1	REDRAWN	JHS 3-14-79	
2	REDREW U4,U5	JHS 4-20-79	
3	ADD DIG. GND (+5V) TO U2 <sup>NO</sup> CORRECT DWG. ERRORS ON S17-22 & DISPLAY DIG. #.	7-26-79	
4	FLOAT PINS 9&16 OF U4&U5	10-5-79	
5	U1 WAS 74LS00, NOW 74LS132	10-16-79	

- NOTES
- CR1-15 ARE LED, LAMP, 5082-4480
  - S1-16 ARE SWITCH, LED, SCHADOW, DIGITAST, SRL, BLACK
  - S17-22 ARE SWITCH, LED, SCHADOW, DIGITAST, STL, BLACK
  - D0-D2 ARE LED, DISPLAY, 5082-7613
  - ALL CAPS. IN  $\mu$ F UNLESS OTHERWISE NOTED
  - ALL RES.  $\frac{1}{4}$ W, 5% UNLESS OTHERWISE NOTED
  - BUS NOTES:  
 ⎓ DENOTES BUS CONSISTING OF MULTIPLE AND SEPARATE LINES  
 2-45° BENDS INDICATES BUS CHANGE OF DIRECTION CONNECTION

- MAX. COMR #3
- U13
  - R12
  - C11
  - CR16
  - J2
  - S22
  - D2

QTY	CODE	PART OR IDENTIFYING NO.	NOMENCLATURE OR DESCRIPTION	MATERIAL SPECIFICATION
PARTS LIST				
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTIONS DECIMALS ANGLES		CONTRACT NO.		
MATERIAL		APPROVALS		
FINISH		DATE		
NEXT ASSY		DRAWN		
USED ON		CHECKED		
APPLICATION		ISSUED		
DO NOT SCALE DRAWING		SCALE NA		

lexicon  
 REMOTE HEAD  
 LOGIC BOARD & DISPLAY BOARD  
 MODEL 224  
 060-01323-D  
 SHEET 1 OF 1

NOTE: STB/ ≡ RDENB/