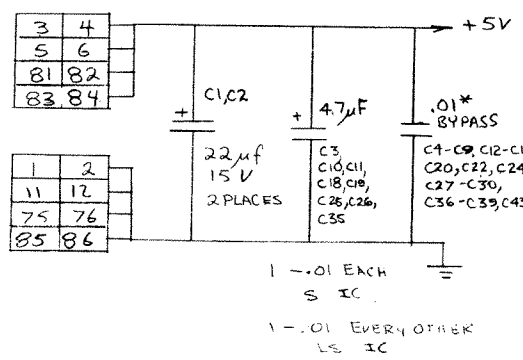


27B1 XFER >
 27B1 DP >
 ADRF/ 44
 ADR E/ 43
 ADR D/ 46
 ADR C/ 45
 ADR B/ 48
 ADR A/ 47
 ADR 9/ 50
 MRDC/ 19
 MWTC/ 20
 27B1 PROT >
 27B4 A25-HALT/ FPC DEBUG 15

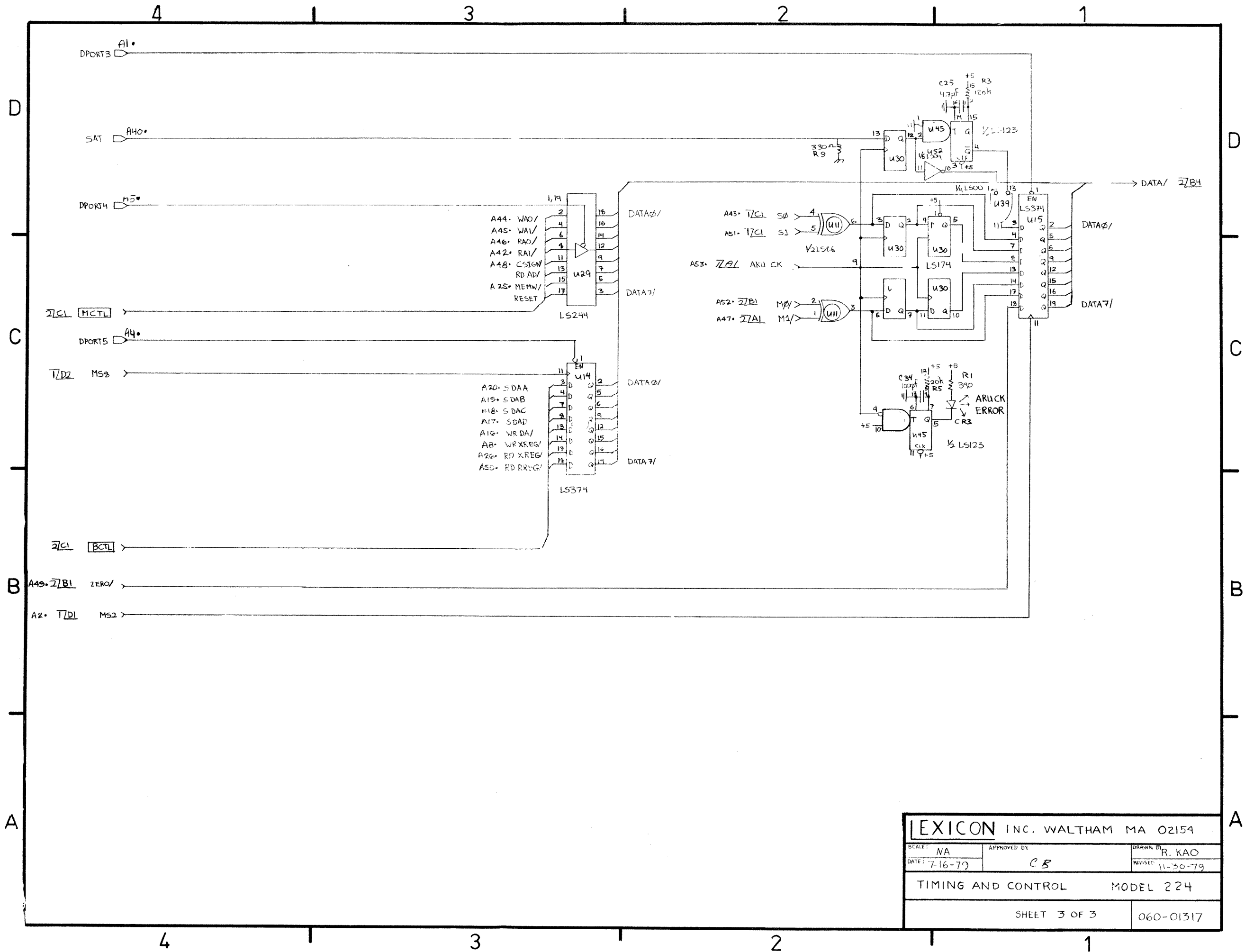


NOTES

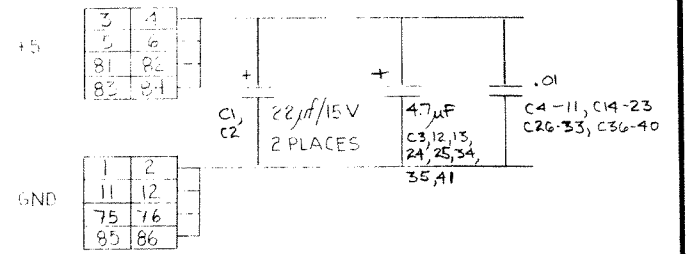
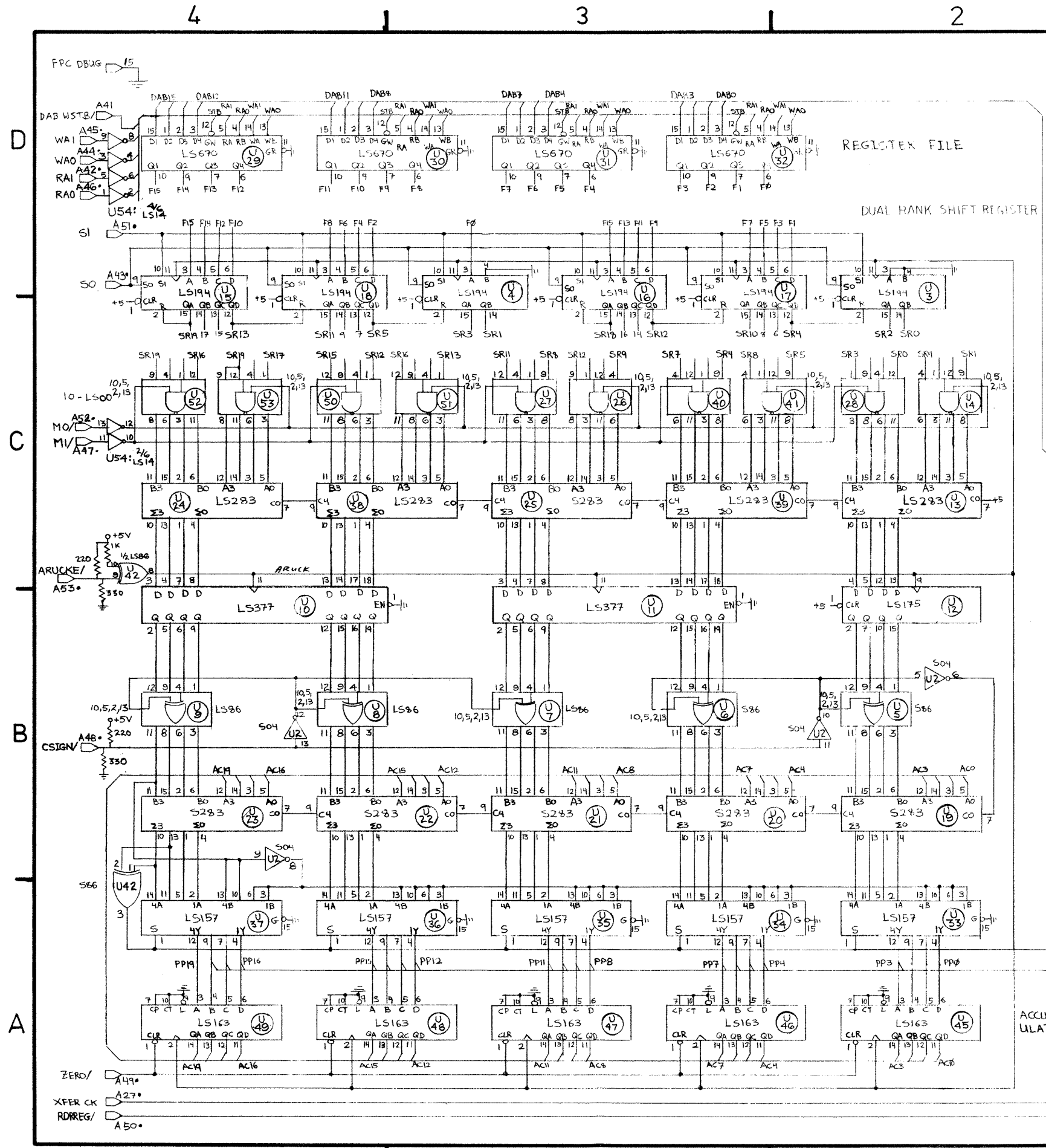
+	NO CONNECTION		DENOTES BUSS CONSISTING OF MULTIPLE AND SEPARATE LINES
+ OR OR OR	CONNECTION		
X X X / ←	NEGATION		
8	DESIGNATES NO. OF LINES IN BUSS		
	EDGE CONNECT		
	EDGE CONNECT		
	EDGE CONNECT		
A X X	DENOTES AUX. BUSS PIN NO.		
3 / A4	DENOTES INTERSECT COORDINATE & PRINT NO.		
8 / XXXXX	INDICATES 8 BIT BUSS WITH NAME - NAME IS NOT A SIGNAL MNEMONIC		
			DENOTES BUSS CONSISTING OF MULTIPLE AND SEPARATE LINES
			2-45° BENDS INDICATES BUSS CHANGE OF DIRECTION
XXXX			INDICATES BUSS NAME - THIS IS NOT A SINGLE SIGNAL MNEMONIC
X/Y			ON BOARD CONNECTION FROM
→			SOURCE (ON BOARD CONNECTION TO)

REV. 11-30-79, R3 WAS 200K NOW 120K
 REV. 10/30/78
 1. MS3, MS4, 1316
 REV. 2/6/79
 1. CAP added to PLL
 2. ARUCK buffered, ARUCKE+
 3. Prints + component designations to match P.C. layout

LEXICON INC, WALTHAM MA 02154	
SCALE: NA	APPROVED BY: <i>C.B.</i>
DATE: 7-16-78	DRAWN BY: R. KAO
TIMING AND CONTROL - MODEL 224	
SHEET 1 OF 3	
DRAWING NUMBER: 060-01317	



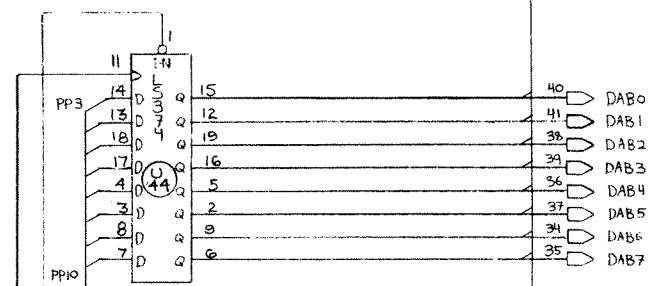
LEXICON INC. WALTHAM MA 02154		
SCALE: NA	APPROVED BY: CB	DRAWN BY: R. KAO
DATE: 7-16-79	REVISED: 11-30-79	
TIMING AND CONTROL		MODEL 224
SHEET 3 OF 3		060-01317



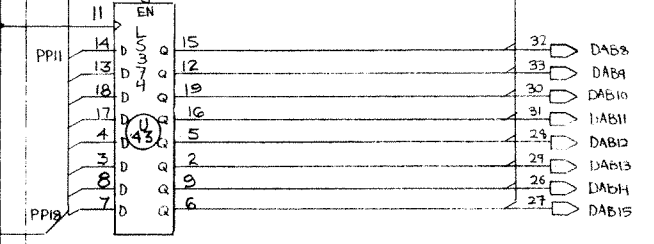
FOR 224X VERSION ONLY

REF.	PART
U13, U24, U25, U38, U39	745283
U10, U11, U43, U44	745374
U12	745175
U7, U9	74586
U33, U34, U35, U36, U37	745157
U45, U46, U47, U48, U49	745163
U54	74504

PARTIAL PRODUCT REGISTER



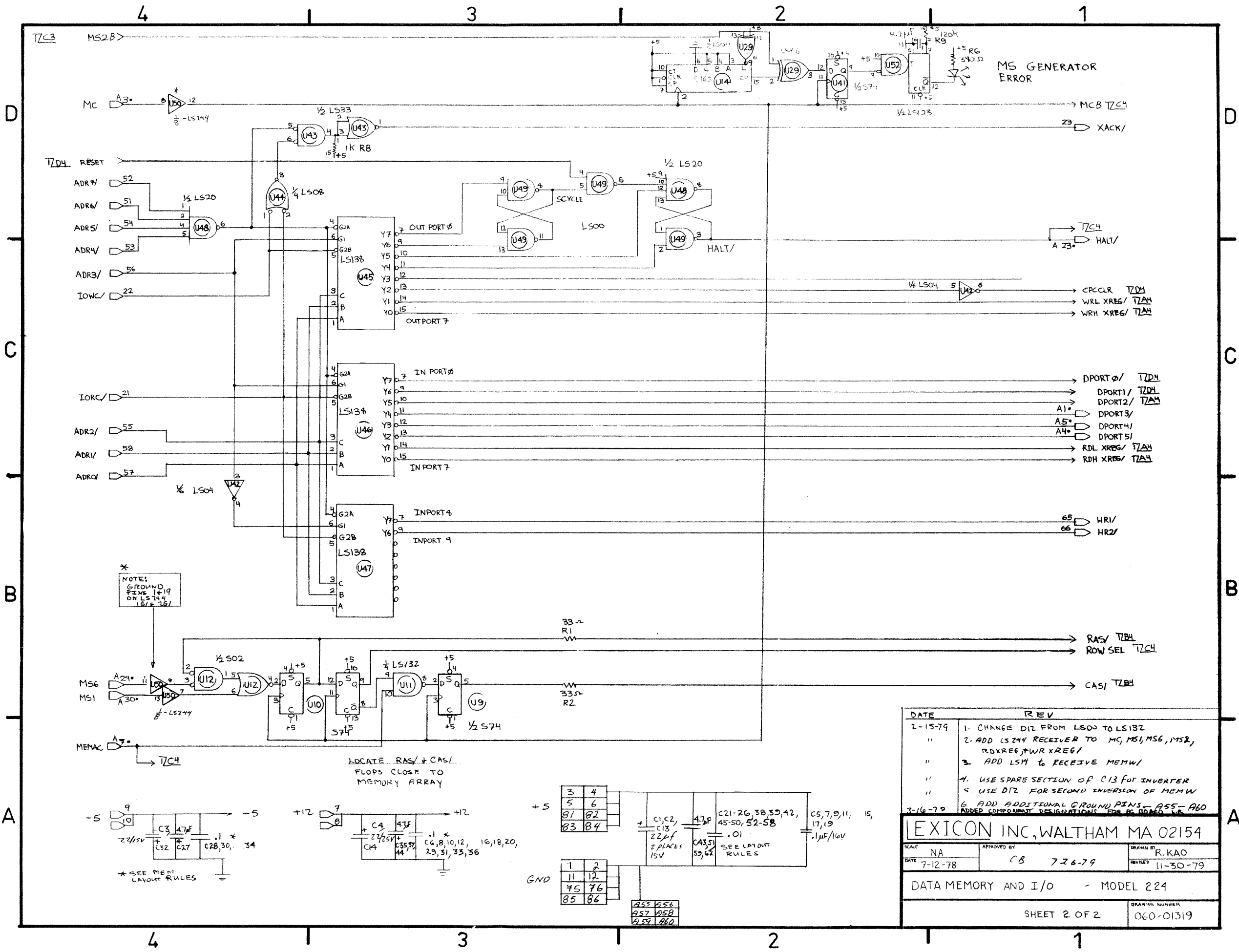
RESULT REGISTER



SPARE LOCATION:

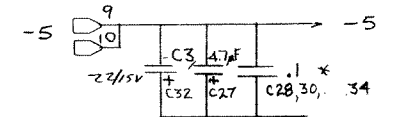
EXICON INC, WALTHAM MA 02154

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

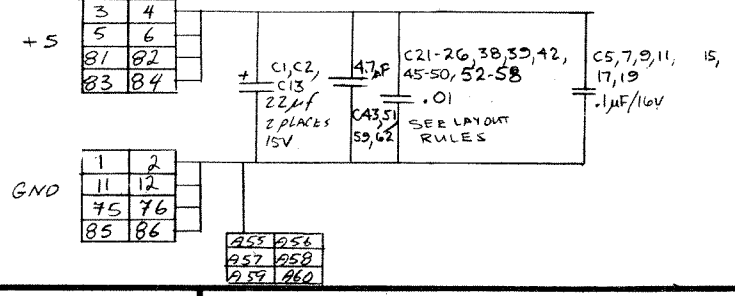
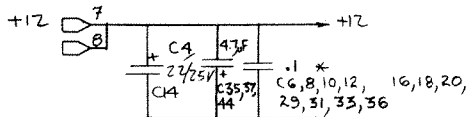


*
NOTE:
GROUND
PINS 1+19
ON LS244
16/17/16/1

LOCATE RAS/ CAS/
FLOPS CLOSE TO
MEMORY ARRAY

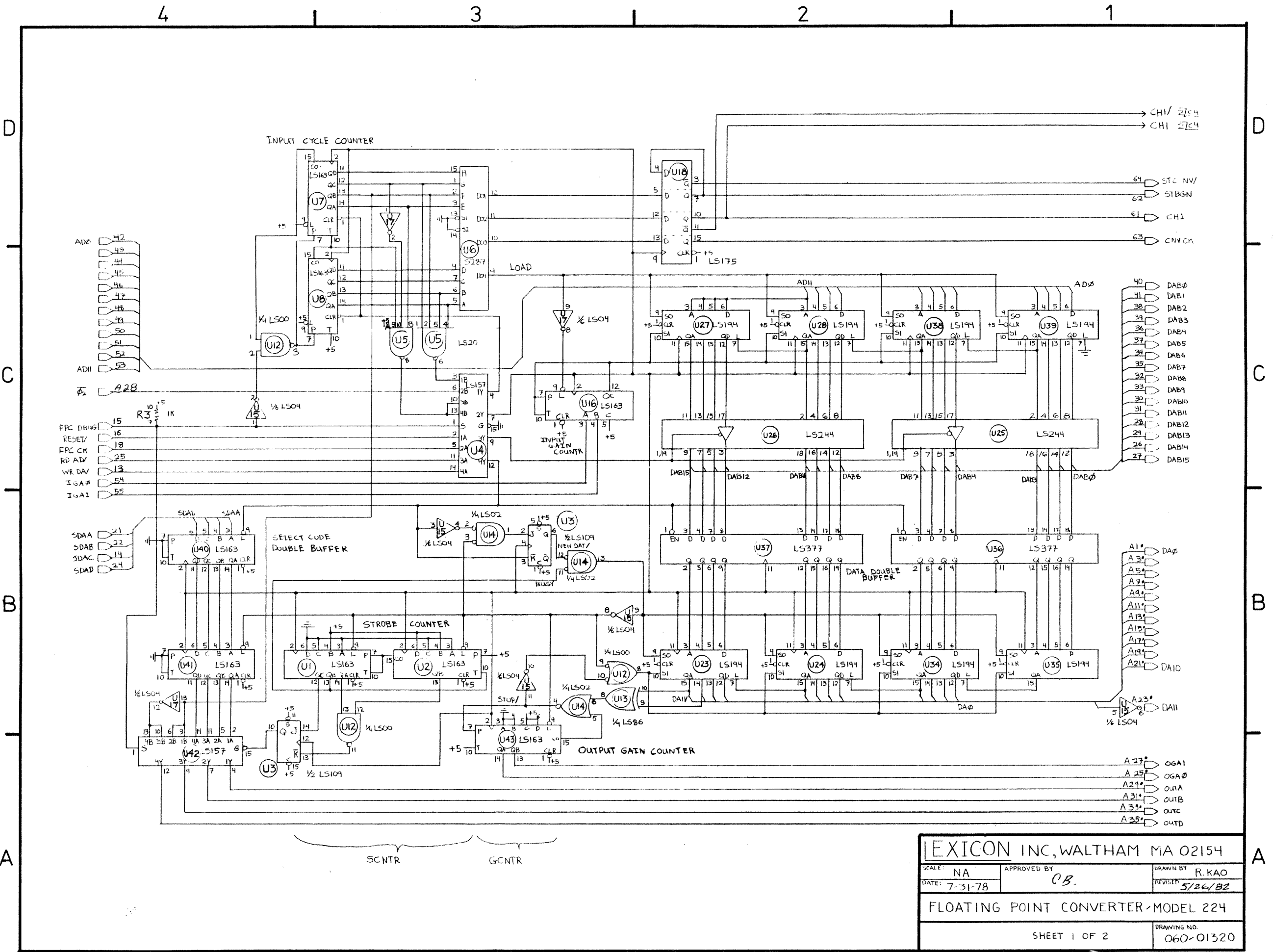


* SEE MEM LAYOUT RULES

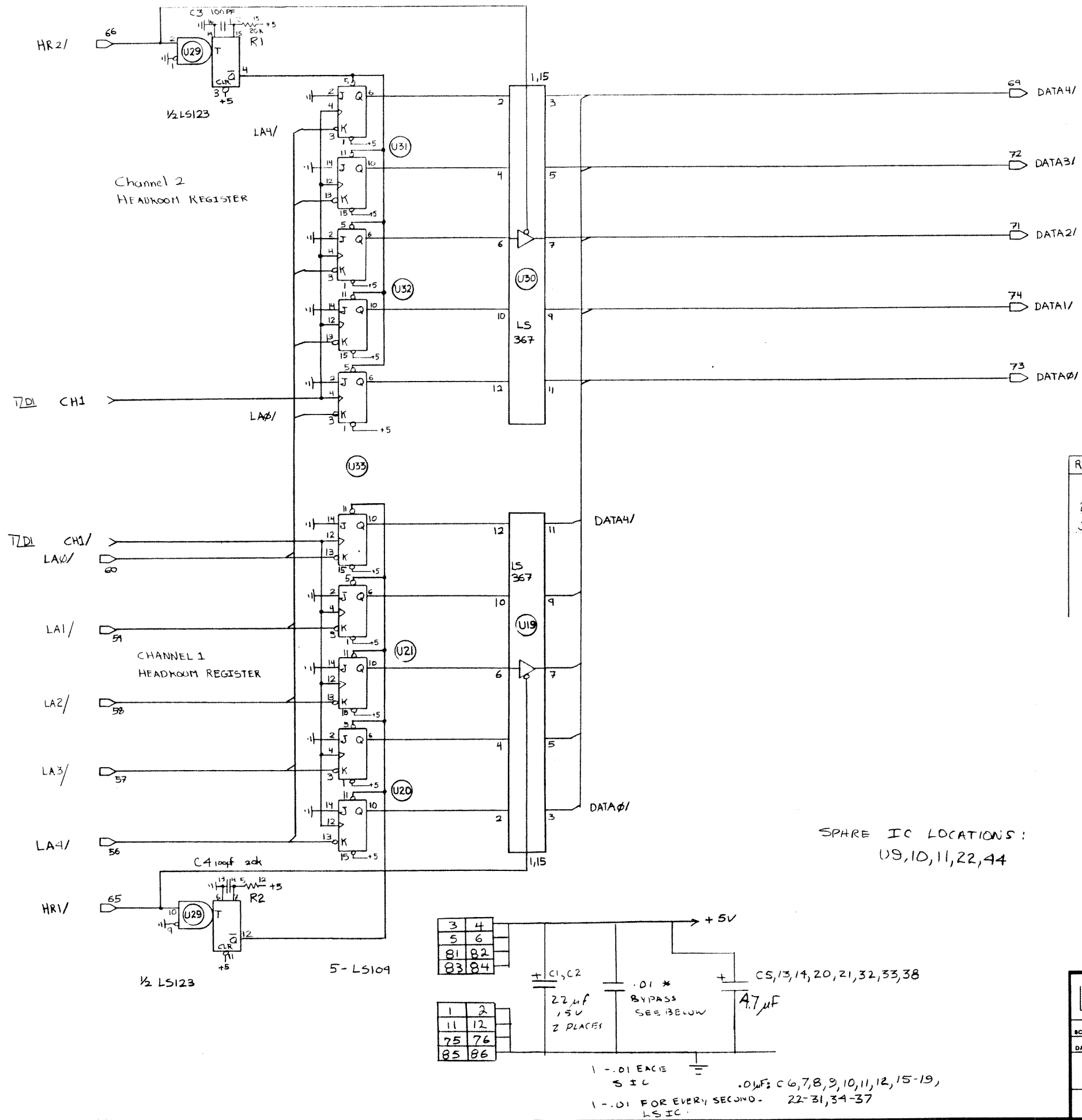


DATE	REV
2-15-79	1. CHANGE D12 FROM LS00 TO LS132
"	2. ADD LS244 RECEIVER TO MC, MS1, MS6, MS2, RDXREG, TWR XREG1
"	3. ADD LSH TO RECEIVE MEMW1
"	4. USE SPARE SECTION OF C13 FOR INVERTER
"	5. USE D12 FOR SECOND INVERSION OF MEMW
3-16-79	6. ADD ADDITIONAL GROUND PINS - A55-A60 ADDED COMPONENT DESIGNATIONS FOR RE-ROBED I/O

EXICON INC, WALTHAM MA 02154		
SCALE: NA	APPROVED BY: CB	DRAWN BY: R. KAO
DATE: 7-12-78	7-26-79	REVISED: 11-30-79
DATA MEMORY AND I/O - MODEL 224		
SHEET 2 OF 2		DRAWING NUMBER: 060-01319

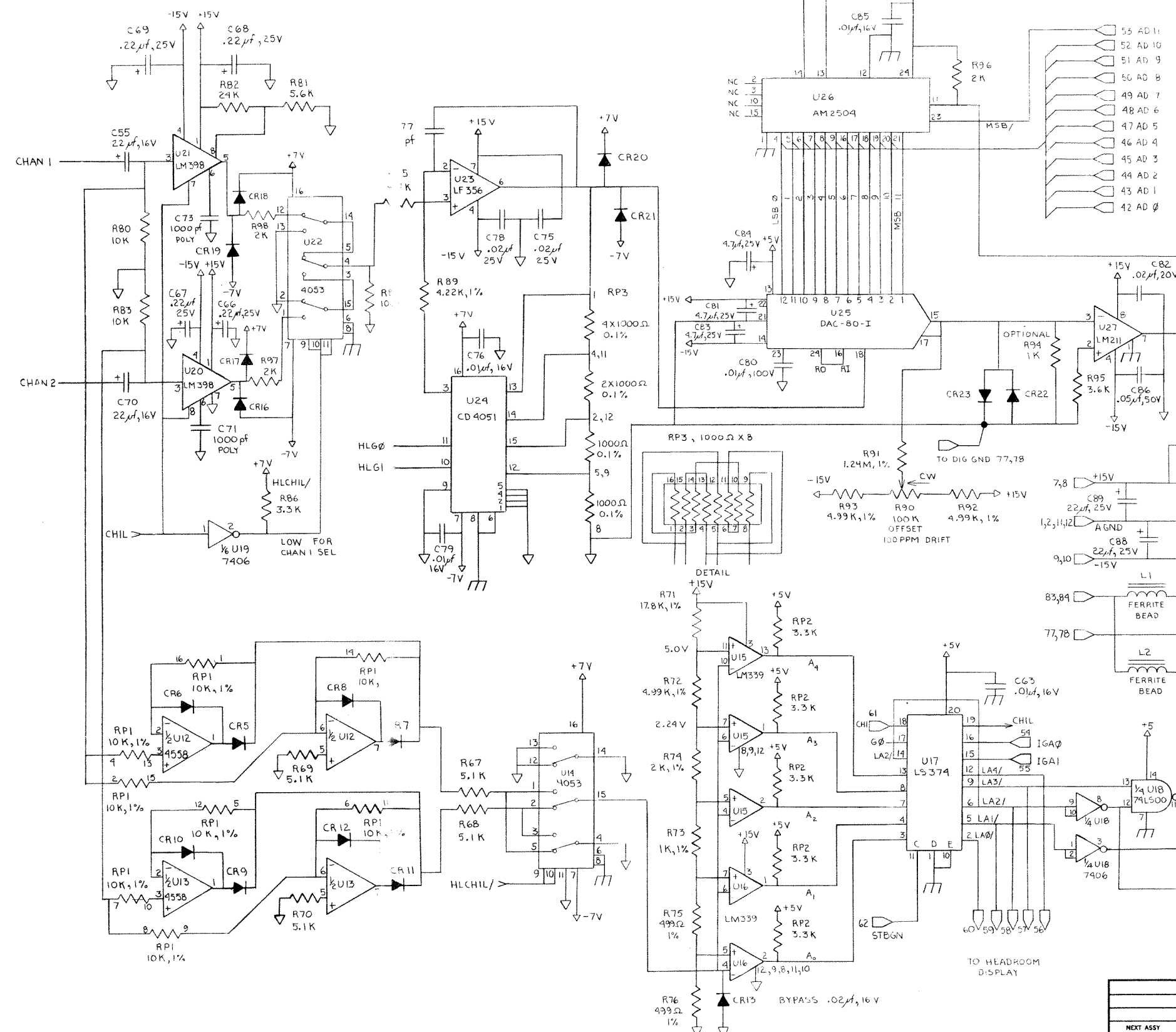


LEXICON INC, WALTHAM MA 02154		
SCALE: NA	APPROVED BY: <i>CB</i>	DRAWN BY: R. KAO
DATE: 7-31-78		REVISED: 5/26/82
FLOATING POINT CONVERTER MODEL 224		
SHEET 1 OF 2		DRAWING NO. 060-01320



REV.	DATE	DESCRIPTION	INIT.
2	8-14-79	LA4/ - LA0/ NOW LA0/-LA4/	JMO
3	5/24/82	CHANGE U43 TO U42	SB

LEXICON INC, WALTHAM MA 02154		
SCALE: NA	APPROVED BY: C.B.	DRAWN BY: R. Kao
DATE: 8/29/78		REVISED: 5/20/82
FLOATING POINT CONVERTER - MODEL 224		
SHEET 2 OF 2		DRAWING NUMBER: 060-01320



REV. DESCRIPTION DATE APPROVED		REVISIONS	
1	CHANGED U14 AND U22 WIRING	1/8-79	
2	CHANGED R91 FROM 100Ω TO 50Ω; ADD NOTES 8, 9, 10; CHANGE R22 FROM 5K TO 24K; ADD RPS DETAIL; INDICATE BYPASS CAPS; MISC. CHANGES AND CORRECTIONS	3-11-79	
3	SEE SHEET 2		
4	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	
5	ASSIGN REF. DESIGNATIONS TO 2 RES. ADDED IN REV. 5; CORRECT PIN-OUT OF U26		
6	U26 TITLE WAS "INTEGRAL ANALOG NOW "SCHEMATIC, INPUT ED." ADD 224X INFO.	8-13-79	
7			
8			
9			

REF.	WAS	NOW
R27,54	4.65K	5.23K
R15,42	4.12K	1.5K
R26,53	5.62K	8.66K
R37,38	9.31K	10.0K
R44,49,50,55,56,60,100,102		4.99K
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

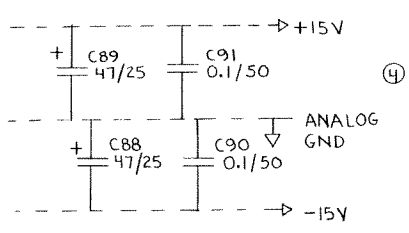
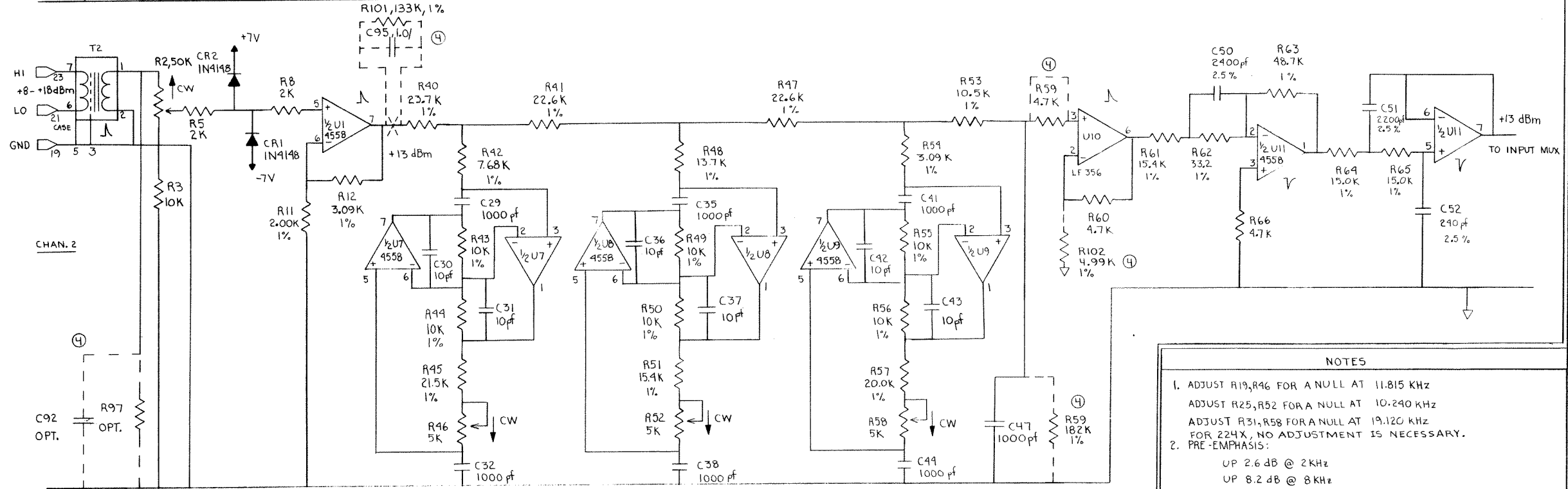
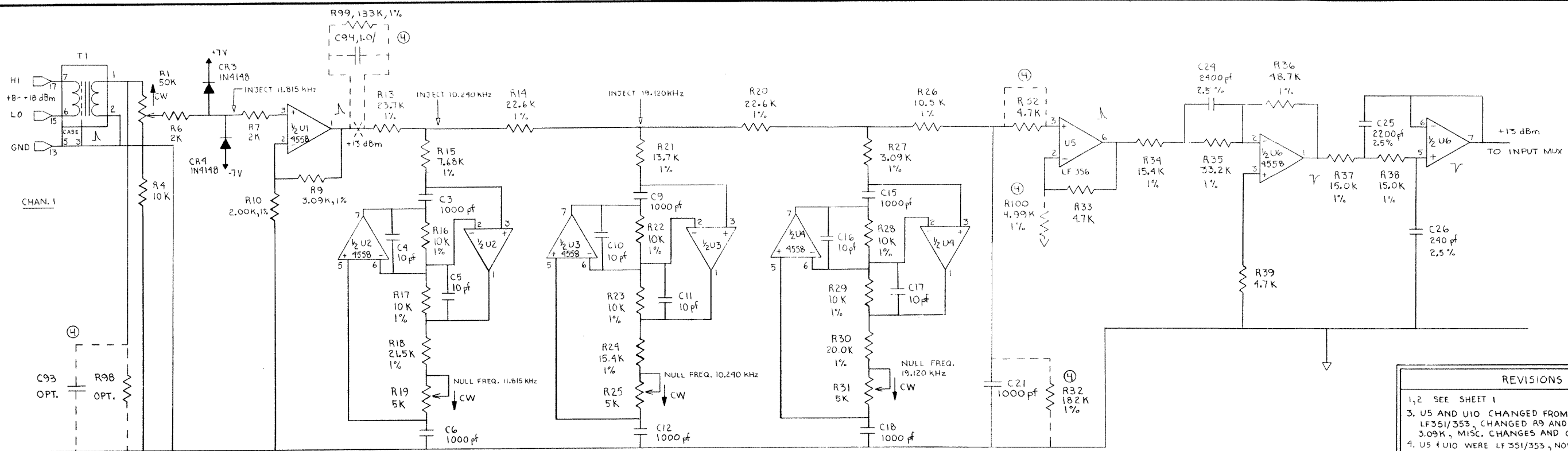
REV.	DESCRIPTION	DATE	APPV.
9	ADD: R16,17,22,23,28,29,43,44,49,50,55,56,100,102,99,101, C88-91		
	REF. WAS NOW		
	R32,59 JUMPER 182K		
	R33,60 JUMPER 4.99K		
	R30,57 10.7K		
	ADD: R16,17,22,23,28,29,43,44,49,50,55,56,100,102,99,101, C88-91		
	REF. WAS NOW		
	CR14,15 751		
	R91 (AT U17) 2M, 5%	1.24M,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

- NOTES
- ANALOG GND
 - DIGITAL GND
 - ALL CAPS. OVER .15μf ARE TANT.
 - ALL RES. 1/4 W, 5% UNLESS OTHERWISE NOTED
 - ALL 1% RES. 1/8 W SIZE
 - DIODES 4148 UNLESS OTHERWISE NOTED
 - 10 K RES. = 10KX8 NETWORK
 - IC'S 4558 +15V AT PIN 8, -15V AT PIN 4 (U12, U15)
 - OTHER BYPASS CAPS .02μf/16V: C56, 57, 59, 60, 64, 65, 72, 74
 - OTHER BYPASS CAP .01μf/16V, C58
 - HIGHEST REF. NO'S: R102, C93, U26, CR23

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

QTY	CODE	PART OR IDENTIFYING NO	NOMENCLATURE OR DESCRIPTION	MATERIAL SPECIFICATION
61	60	A		
1	1	+18 dB		
0	0	12		
0	0	6		
0	0	0		

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 JOX NA				
APPROVALS		DATE		
DRAWN JTB		1/8-79		
MATERIAL NA		CHECKED CR		
FINISH NA		ISSUED		
NEXT ASSY USED ON		SCALE NA		
APPLICATION		DO NOT SCALE DRAWING		
CONTRACT NO.		DATE		
LEXICON		SCHEMATIC, INPUT ED., 224		
MODEL 224		SIZE FSCM NO.		
FINISH NA		ISSUED		
NEXT ASSY USED ON		SCALE NA		
APPLICATION		DO NOT SCALE DRAWING		
CONTRACT NO.		DATE		
LEXICON		SCHEMATIC, INPUT ED., 224		
MODEL 224		SIZE FSCM NO.		
FINISH NA		ISSUED		
NEXT ASSY USED ON		SCALE NA		
APPLICATION		DO NOT SCALE DRAWING		



REVISIONS	
1,2	SEE SHEET 1
3	U5 AND U10 CHANGED FROM LM741 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

- 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
- ④ DOTTED LINES INDICATE MODIFICATIONS FOR REV. 5 BD.

LEXICON INC, WALTHAM MA 02154

SCALE: NA	APPROVED BY:	DRAWN BY: JRG
DATE: 12-28-78	DATE: CB 7-26-79	REVISED: 9
SCHEMATIC, INPUT BD., MODEL 224		
SHEET 2 OF 2		DRAWING NUMBER: 060-01321-0