

**MODEL TC-120/128 TAPE CONTROLLER  
LOGIC MANUAL**

**Publication Number  
120020 H**

**WESTERN PERIPHERALS  
1100 Claudina Place  
Anaheim, California 92805**

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## FUNCTIONAL INDEX (Continued)

DRAWING NO.

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c.

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SWITCH OPERATION DESCRIPTION:


GRAYHILL ON = TOGGLE DEPRESSED TO NUMBER SIDE  
 CTS ON = TOGGLE POSITIONED TO NUMBER SIDE

SWITCH POS. 10 & 20	SPEED SETTINGS						
	12.5 IPS	25 IPS	37.5 IPS	45 IPS	50 IPS	75 IPS	125 IPS
1	ON	OFF	ON	OFF	ON	OFF	OFF
2	OFF	OFF	OFF	OFF	OFF	ON	OFF
3	OFF	ON	ON	OFF	ON	ON	OFF
4	ON	ON	ON	ON	OFF	ON	ON
5	ON	OFF	ON	ON	ON	OFF	OFF
6	OFF	ON	OFF	OFF	OFF	OFF	OFF
7	ON	OFF	OFF	OFF	OFF	OFF	OFF
8	OFF	OFF	OFF	OFF	OFF	OFF	OFF

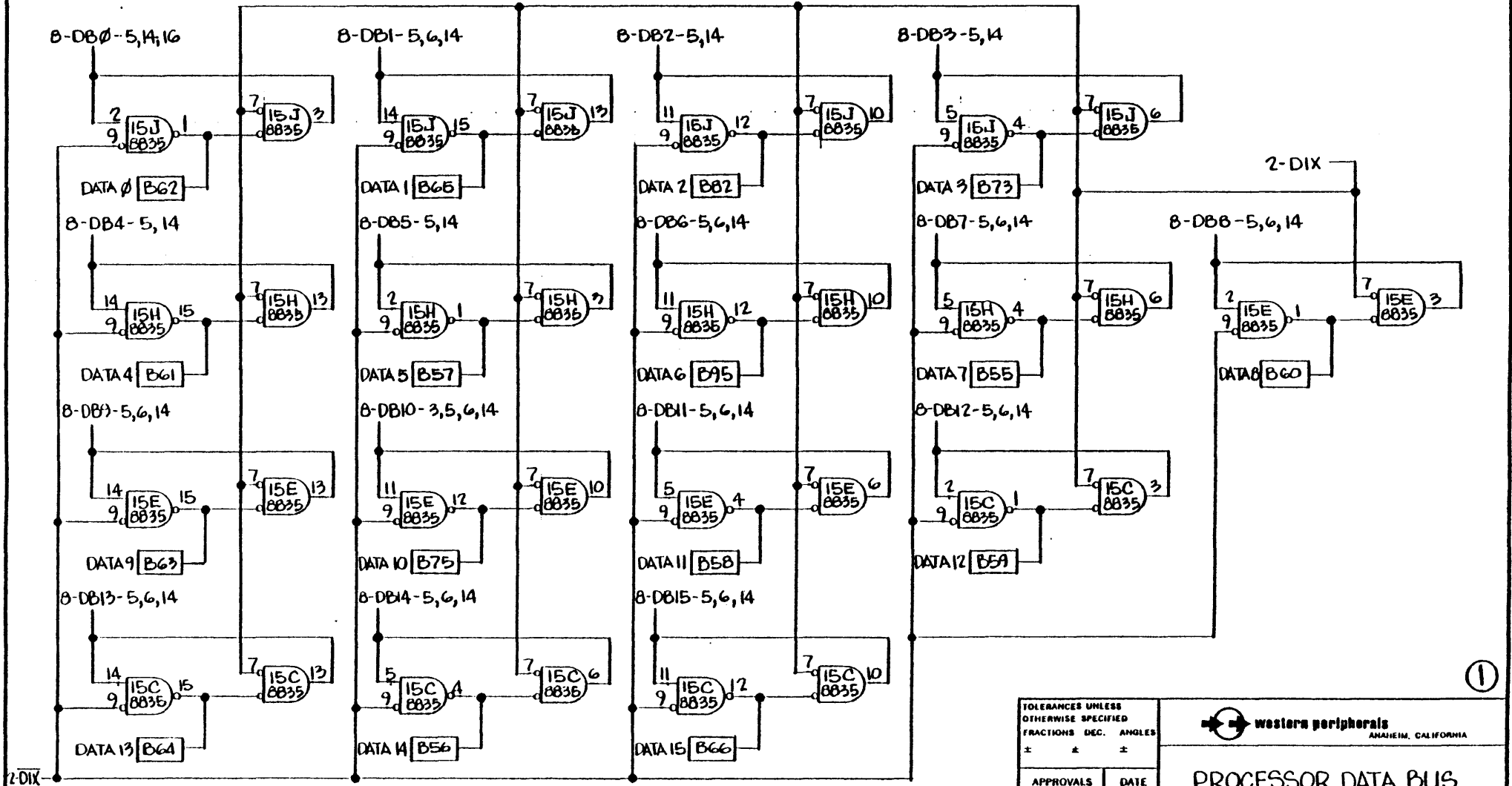
NOTES: UNLESS OTHERWISE SPECIFIED

1. ID IS PRIMARY SPEED SELECTION.
2. NEXT ASSEMBLY NO. 120024 OR 120025 (TC 12B)
- ③ CUTTING ETCH FROM M TO N CONFIGURES PROCESSOR INTERFACE FOR DEVICE CODE 62. SHOWN CONFIGURED FOR DEVICE CODE 22 (STANDARD).
- ④ CUT JUMPER C TO D AND ADD JUMPER D TO E MAKES WORD COUNT 16 BITS, SHOWN IN 12 BIT WORD COUNT REG. CONFIGURATION (STANDARD).
- ⑤ CUT JUMPERS A TO B AND G TO F, AND ADD JUMPER F TO H MAKES 16 BIT ADDRESS REG. CONFIGURATION. SHOWN IN 15 BIT ADDRESS REG. CONFIGURATION (STANDARD).
- ⑥ CUT JUMPER I TO K AND ADD JUMPER K TO L CONFIGURES FOR .3" GAP 7 TRACK HEAD. SHOWN CONFIGURED FOR .15" GAP TAPE HEAD FOR 7 TRACK TRANSPORT (STD).
- ⑦ FILTER COMPONENT VALUES VARY WITH SPEED OF TRANSPORT. SEE MANUAL FOR FURTHER INFORMATION.
- ⑧ SIGNAL ON PIN FOR USE AS FEEDTHROUGH ONLY.
9. LOGIC ELEMENTS SHADED IN THIS MANNER DO NOT EXIST ON THE TC12B, ASSEMBLY 120025 (NRZ ONLY).

REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED
A	PER ECO'S 0014 & 0018	1-28-76	John H.
B	PER ECO 0022	2-9-76	John H.
C	PER ECO 0044	2-28-76	John H.
D	PER ECO 0030	3-27-76	John H.
E	PER ECO 0029	3-30-76	John H.
F	PER ECO 0055	5-11-76	John H.
G	PER ECO 0062	5-25-76	John H.
H	PER ECO 0066	6-3-76	John H.
J	PER ECO 0108	9-9-76	John H.
K	PER ECO 0151 - REDRAWN FOR ADDED CLARITY	1-31-77	N.D.
L	PER ECO'S 0157 & 0160	3-30-77	N.D.
M	PER ECO'S 0176 & 0195	6-2-77	N.D.
N	PER ECO 0200	7-20-77	N.D.
P	PER ECO 0213	8-15-77	N.D.
	SHADED CIRCUITS NON-EXISTENT ON TC12B (RECORD CHANGE ONLY)	11-17-77	N.D. 11-17-77
R	PER ECO'S 227, 259, 260, & 315	5-9-79	N.D. 5-9-79
S	PER ECO No. 341	5-9-78	N.D. 5-9-78
T	REVISED PER E.C.O. 375	8-25-78	N.D. 8-25-78

TOLERANCES UNLESS OTHERWISE SPECIFIED		 <b>western peripherals</b> ANAHEIM, CALIFORNIA		
FRACTIONS	DEC. ANGLES			
±	± ±	SCHEMATIC TC 120 TAPE CONTROLLER		
APPROVALS	DATE			
DRAWN: HRP	1-31-77	SCALE	SIZE: <b>B</b>	DRAWING NO.: 120016
CHECKED		DO NOT SCALE DRAWING		SHEET 1 OF 37

REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED



TOLERANCES UNLESS OTHERWISE SPECIFIED	
FRACTIONS DEC.	ANGLES
±	±
APPROVALS	DATE
DRAWN HRB	1-21-77
CHECKED	

**western peripherals**  
ANAHEIM, CALIFORNIA

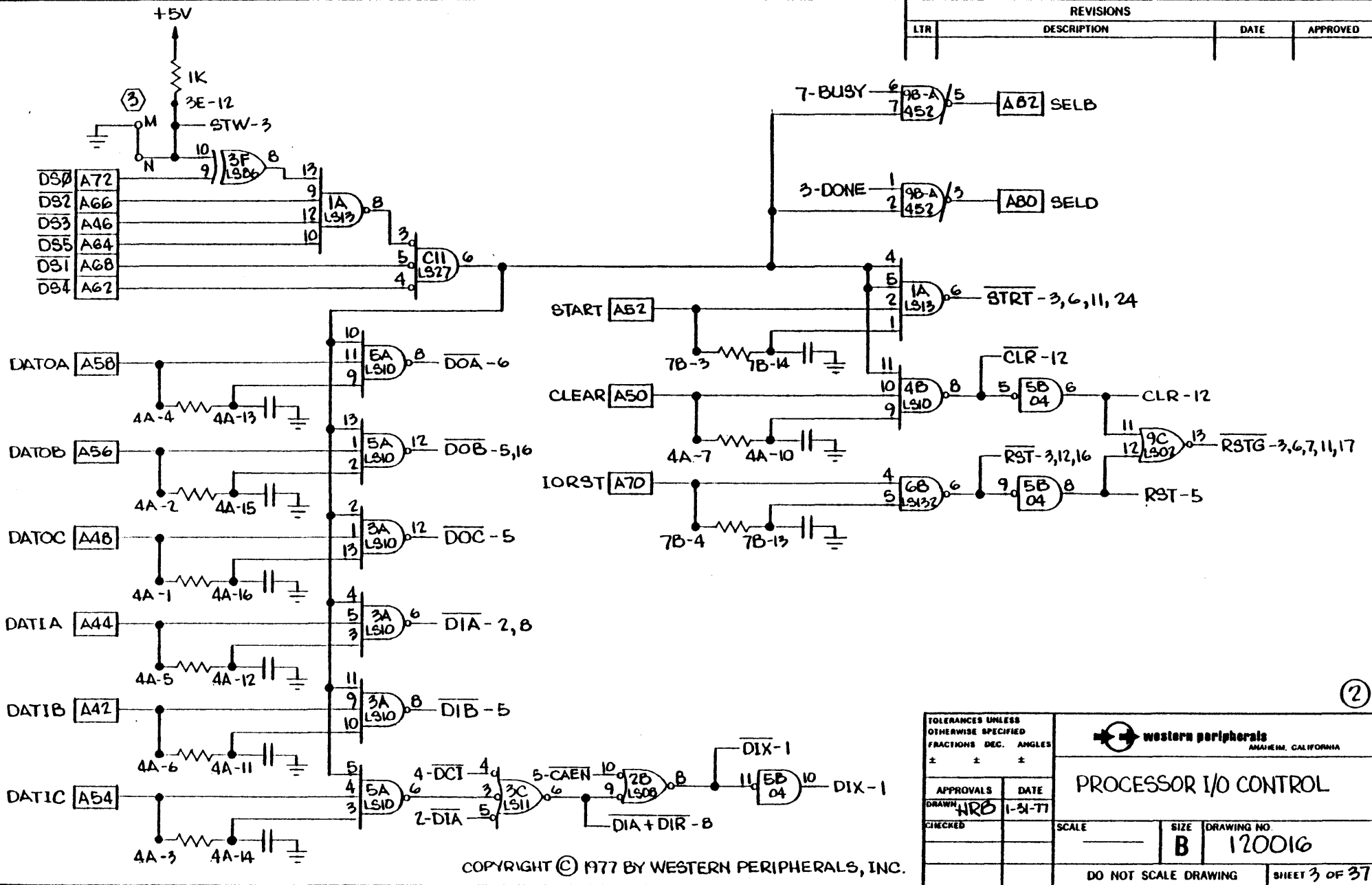
## PROCESSOR DATA BUS

SCALE	SIZE	DRAWING NO.
	<b>B</b>	120016

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REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED

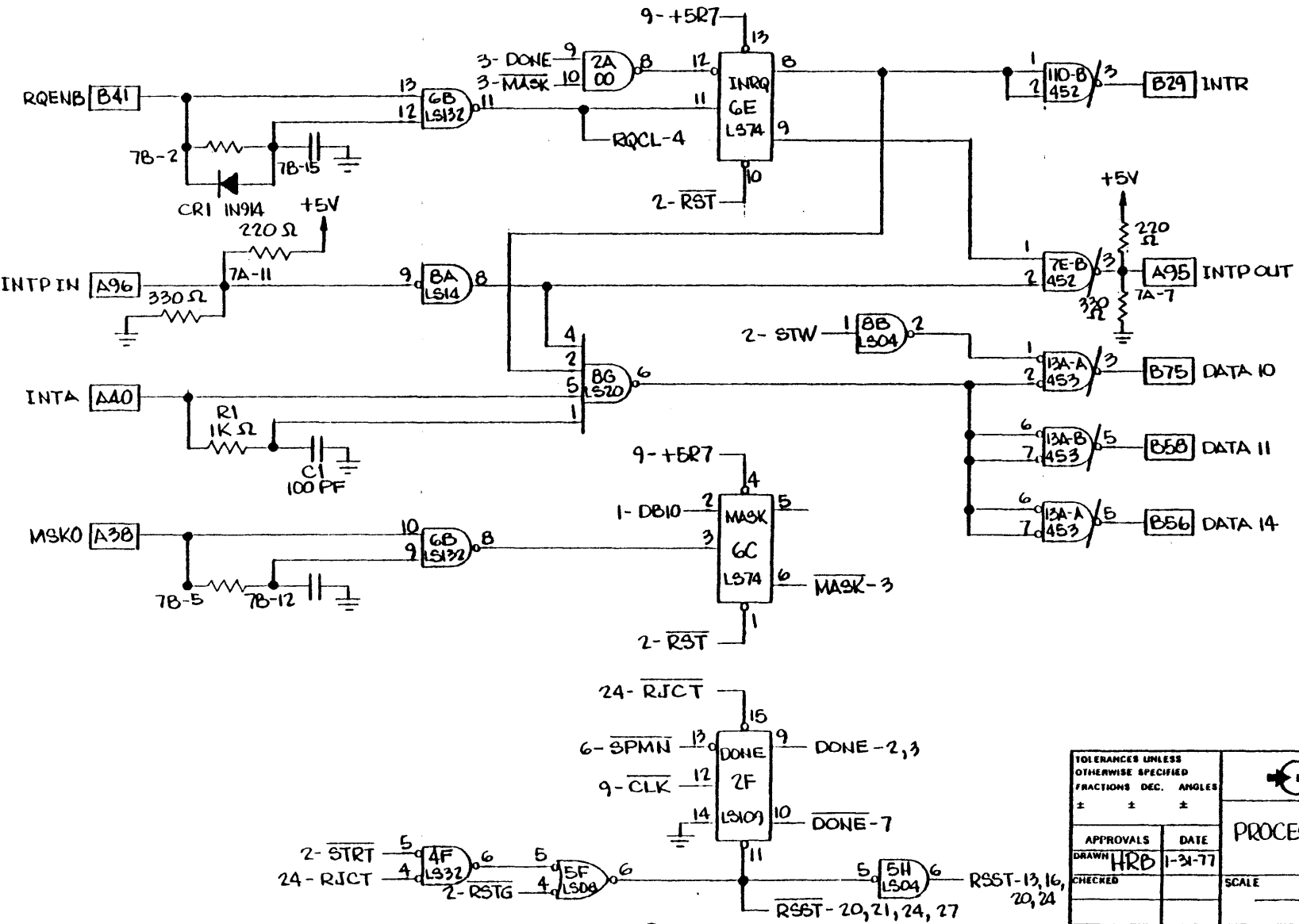


(2)

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APPROVALS		DATE	
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CHECKED		SCALE	SIZE B
		DRAWING NO. 120016	
DO NOT SCALE DRAWING			SHEET 3 OF 37


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LTR	DESCRIPTION	DATE	APPROVED



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±	±
APPROVALS	DATE
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CHECKED	

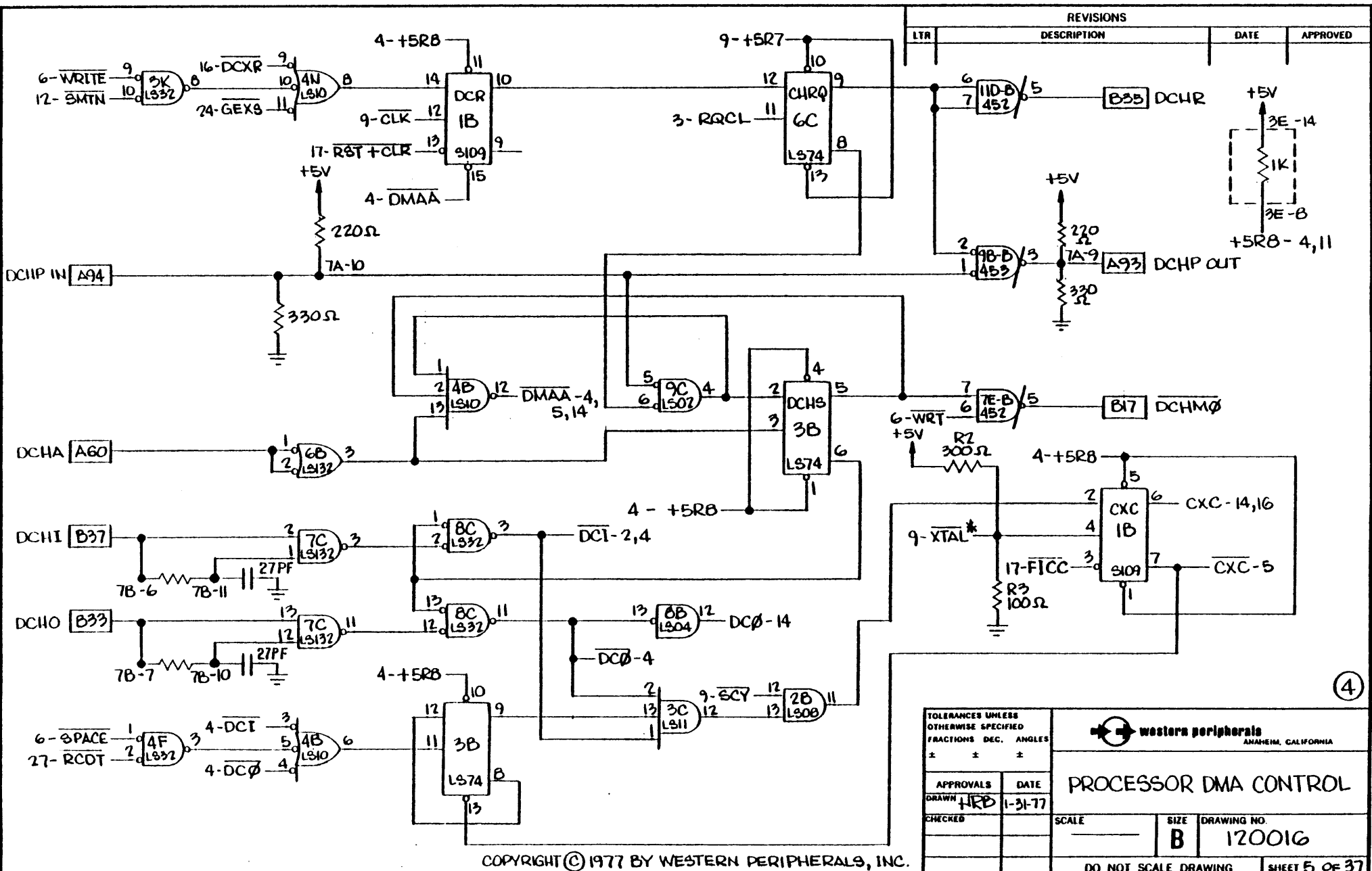

**western peripherals**  
ANAHEIM, CALIFORNIA

### PROCESSOR INTERRUPT CONTROL

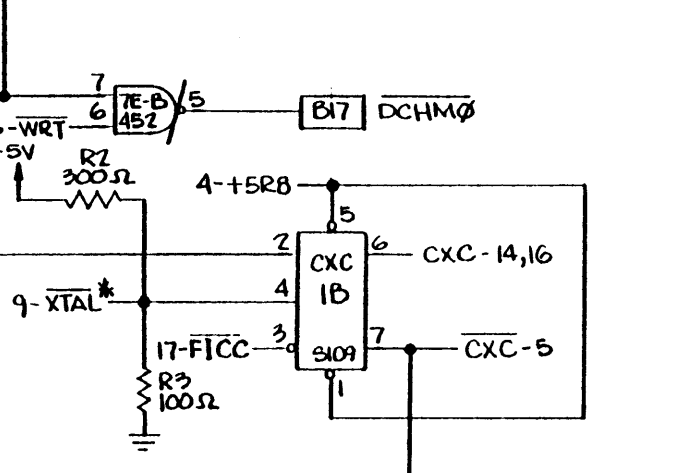
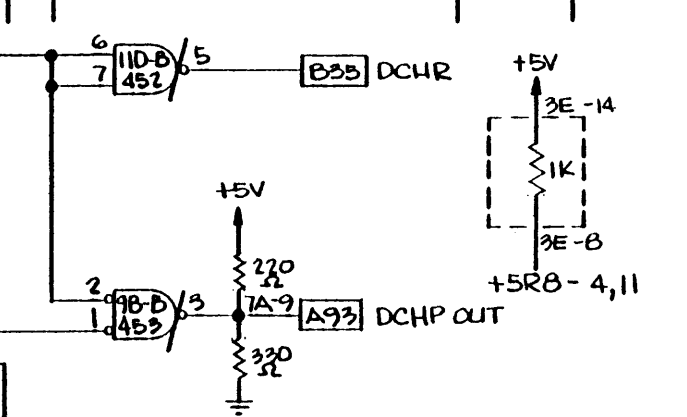
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(3)





REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED



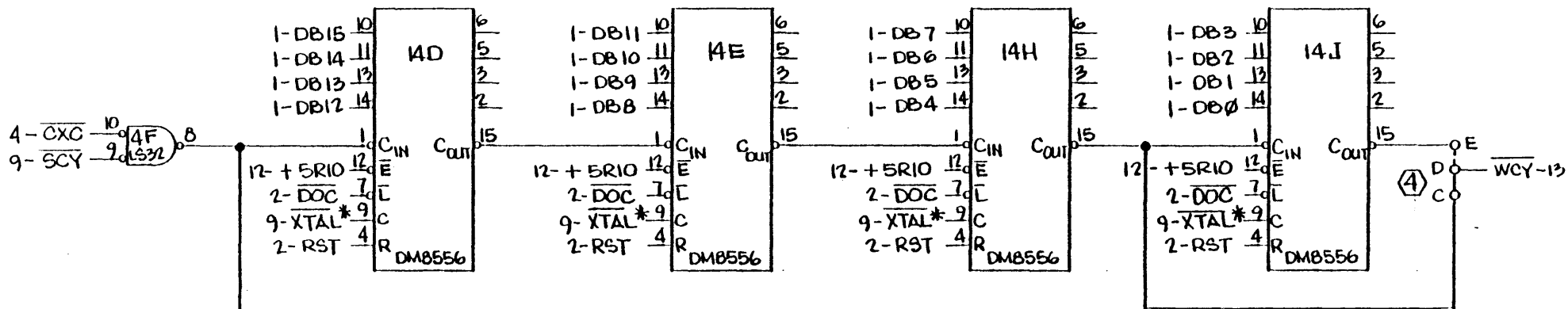
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TOLERANCES UNLESS OTHERWISE SPECIFIED FRACTIONS DEC. ANGLES		<b>western peripherals</b> <small>ANAHEIM, CALIFORNIA</small>	
APPROVALS	DATE	<b>PROCESSOR DMA CONTROL</b>	
DRAWN <b>HRB</b>	1-31-77	SCALE	SIZE <b>B</b> DRAWING NO. <b>120016</b>
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		SHEET 5 OF 37	

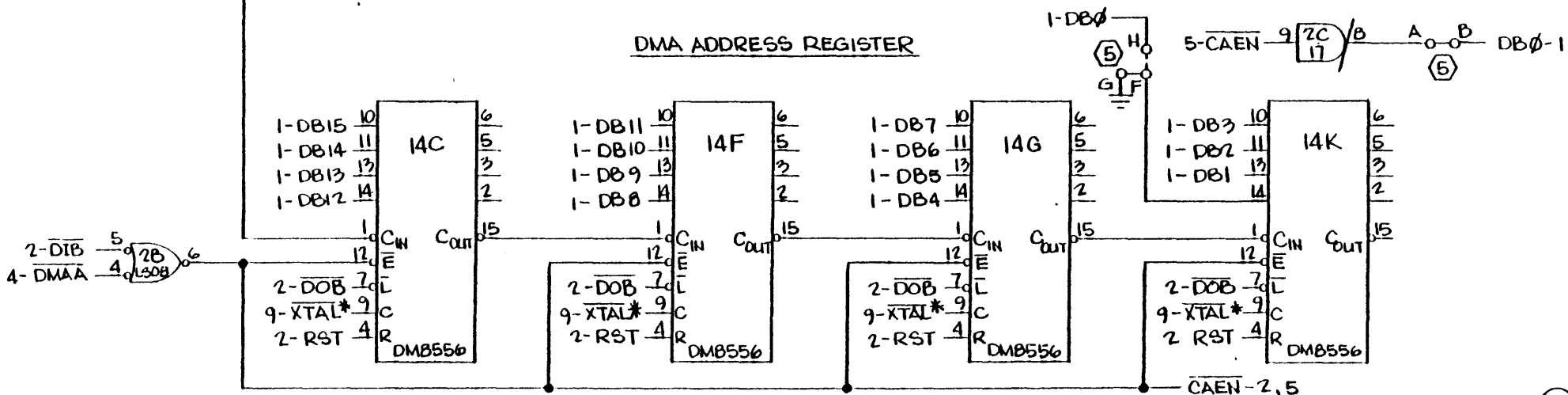
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### DMA WORD COUNT REGISTER

REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED



### DMA ADDRESS REGISTER



TOLERANCES UNLESS OTHERWISE SPECIFIED	
FRACTIONS DEC.	ANGLES
±	±
APPROVALS	DATE
DRAWN HRB	1-21-77
CHECKED	

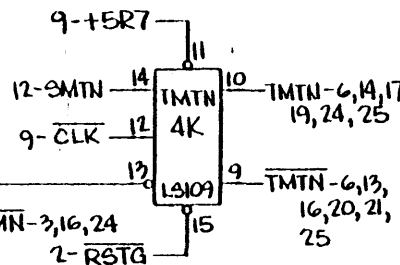
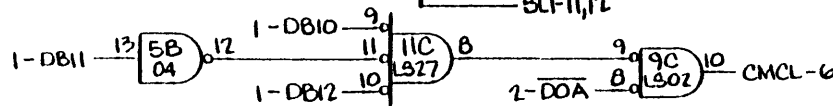
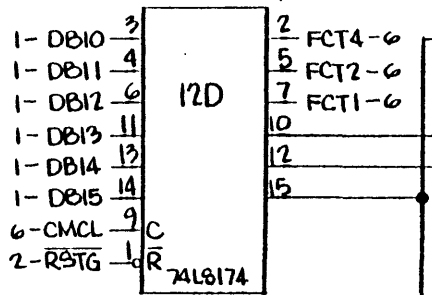
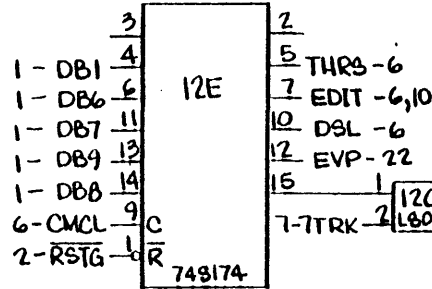
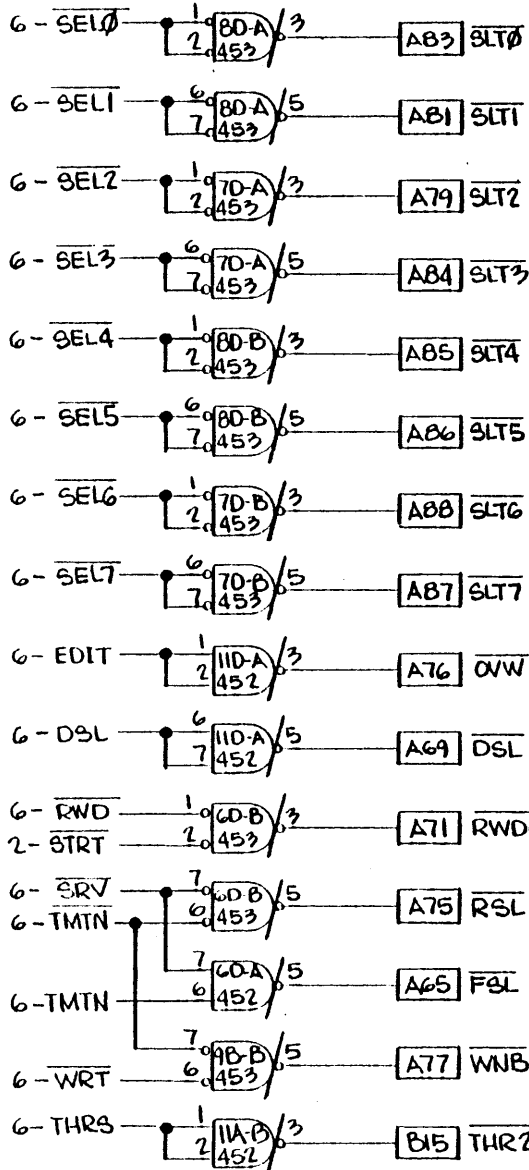
western peripherals  
ANAHEIM, CALIFORNIA

## DMA ADDRESS AND WORD COUNT REGISTERS

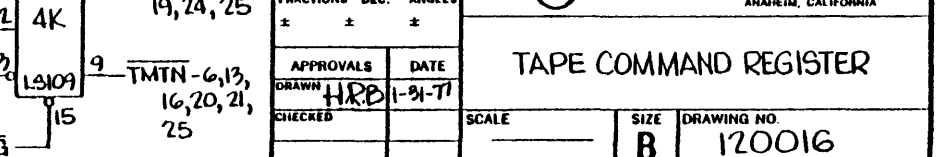
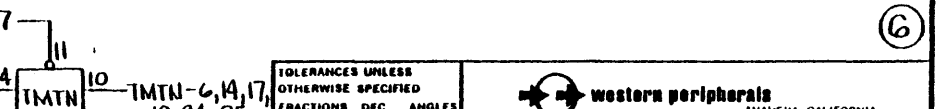
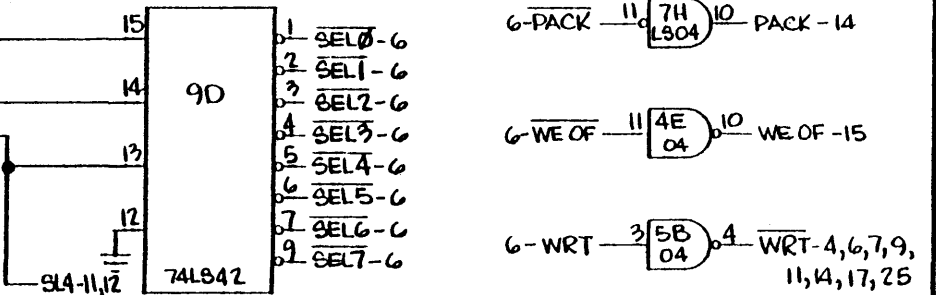
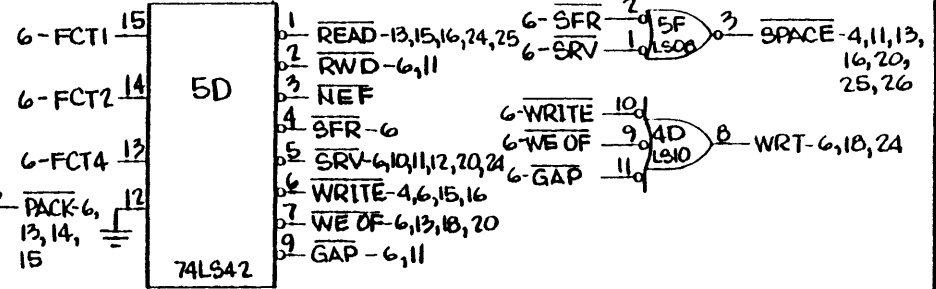
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**CONTROL**

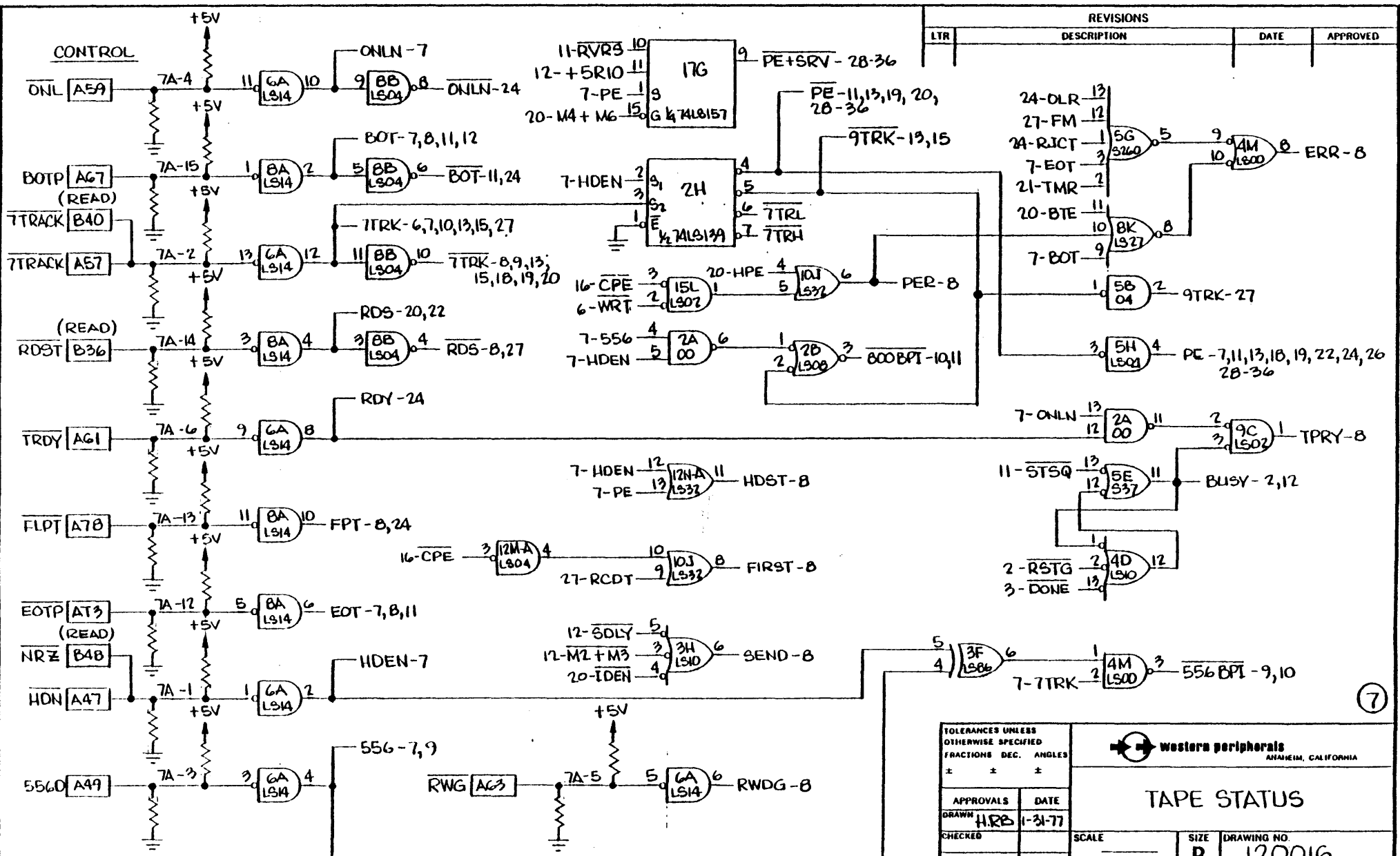


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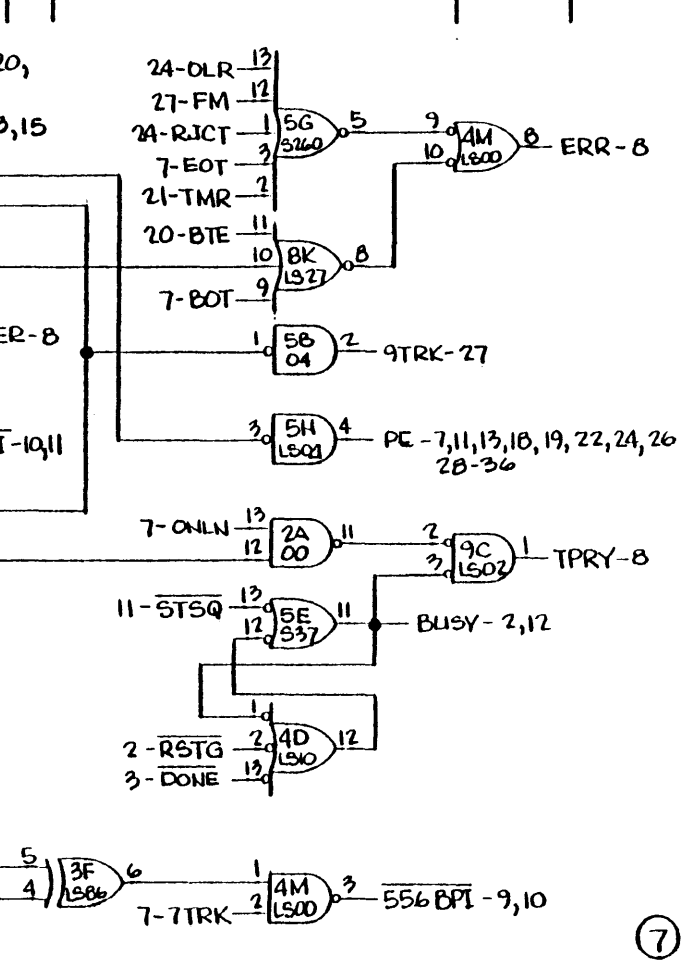


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TOLERANCES UNLESS OTHERWISE SPECIFIED FRACTIONS DEC. ANGLES ± ± ±		 western peripherals ANAHEIM, CALIFORNIA	
TAPE COMMAND REGISTER			
APPROVALS	DATE	SCALE	SIZE
DRAWN	1-21-77		B
CHECKED			DRAWING NO.
			120016
DO NOT SCALE DRAWING			SHEET 7 OF 37



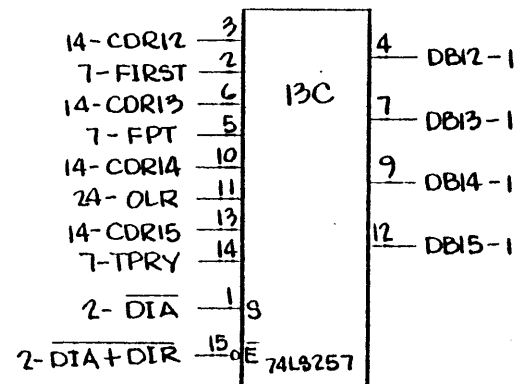
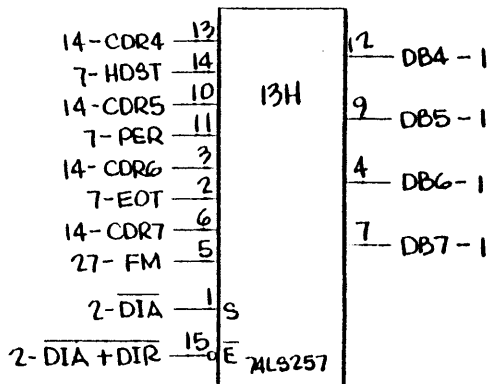
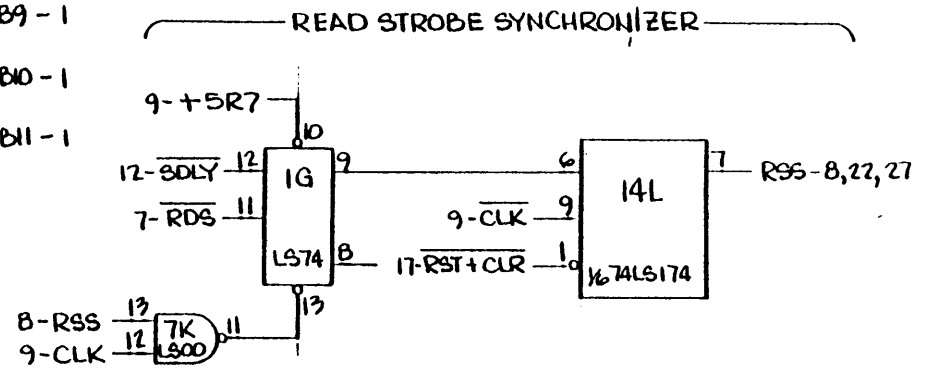
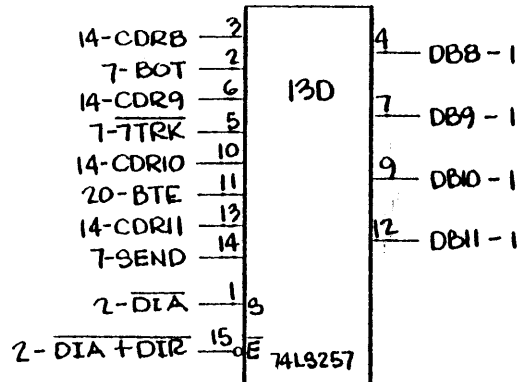
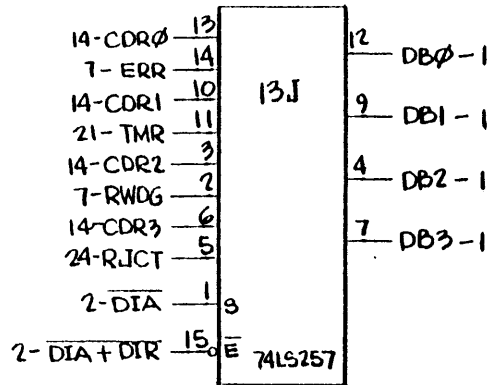
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LTR	DESCRIPTION	DATE	APPROVED



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APPROVALS		DATE	
DRAWN H.R.B.		1-31-77	
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		DRAWING NO. 120016	
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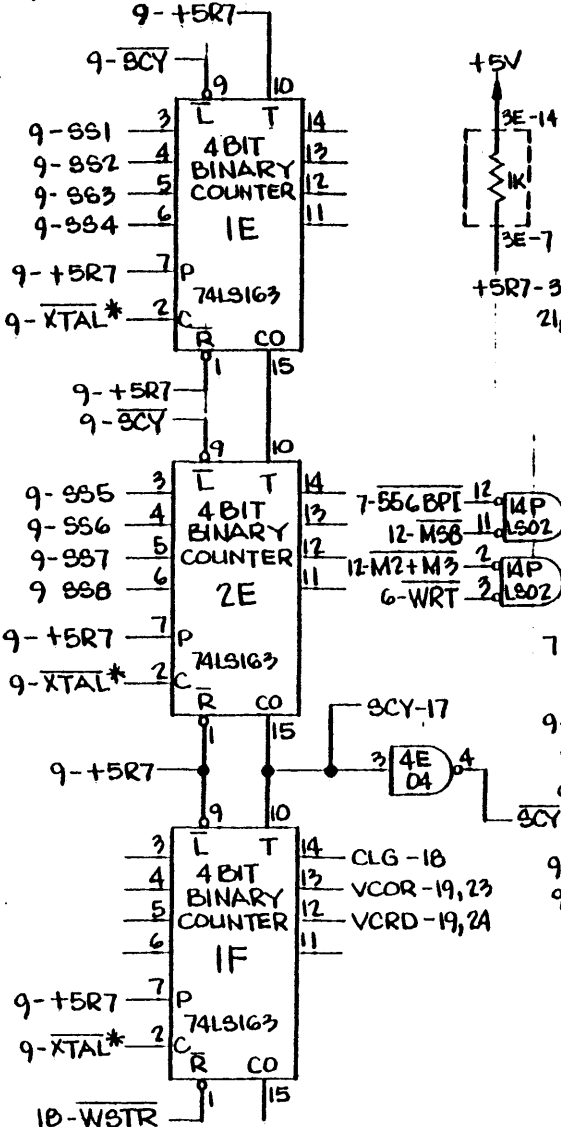
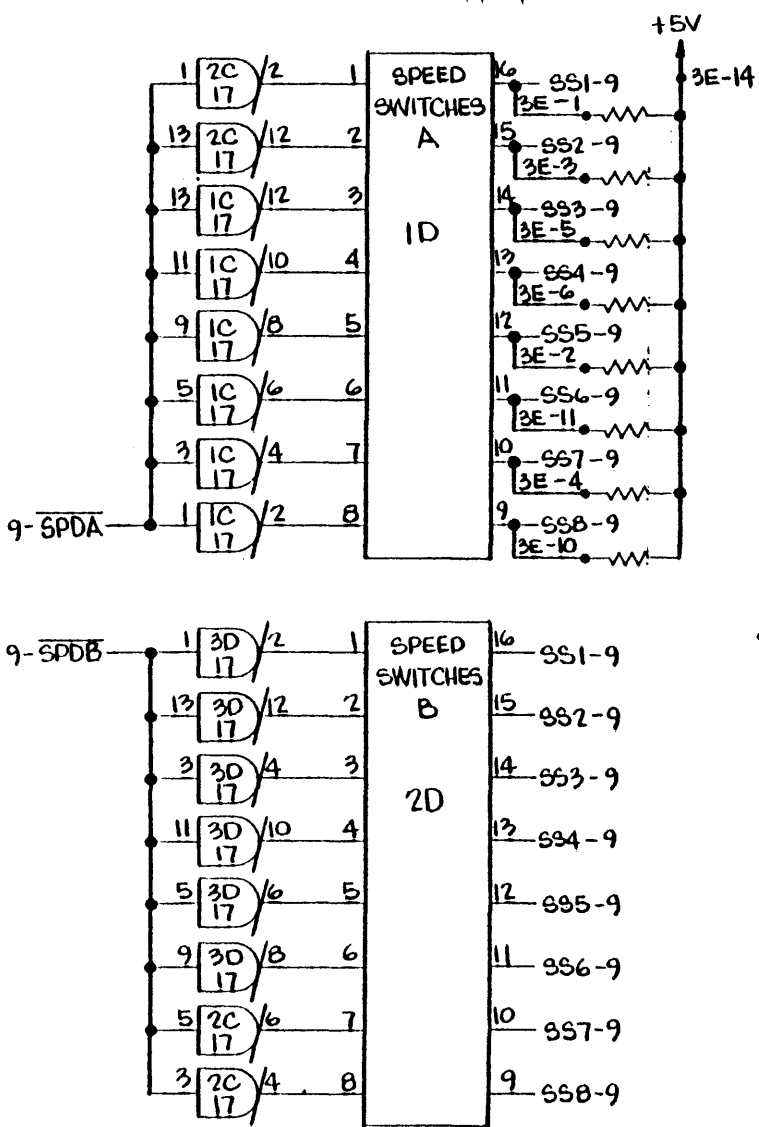


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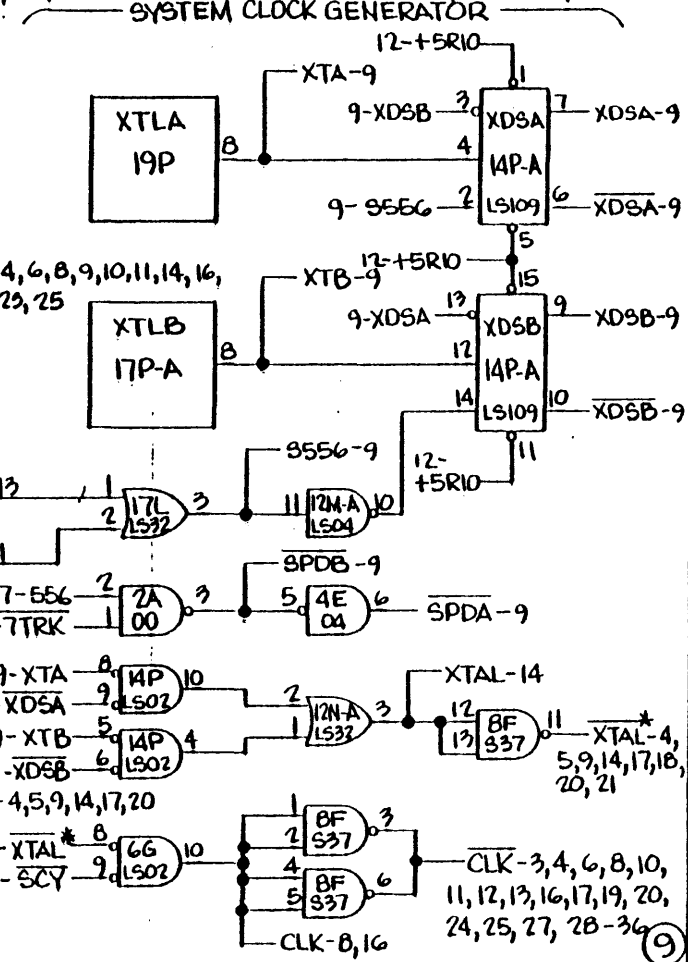
TOLERANCES UNLESS OTHERWISE SPECIFIED FRACTIONS DEC. ANGLES ± ± ±		 western peripherals ANAHIM, CALIFORNIA		
APPROVALS	DATE			TAPE STATUS/DATA MULTIPLEXER
DRAWN HRB	1-21-77	SCALE	SIZE B	DRAWING NO. 120016
CHECKED		DO NOT SCALE DRAWING		SHEET 9 OF 37

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**SPEED CLOCK GENERATOR**  
 FREQ = 6400 x SPEED(IP9)

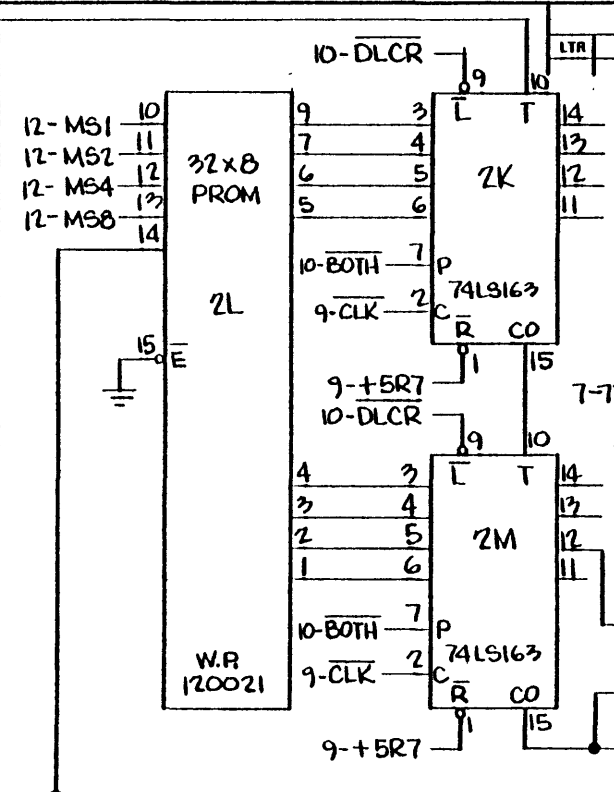
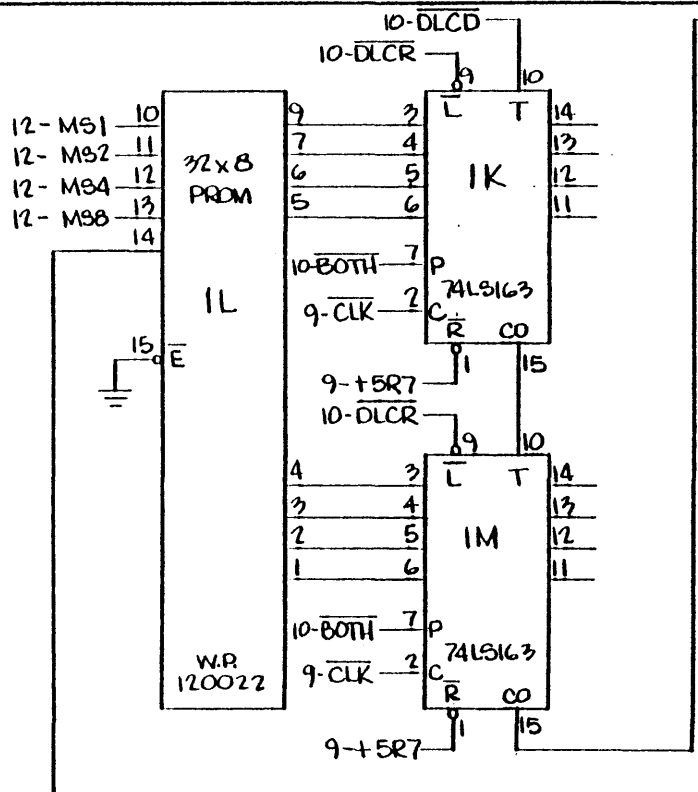


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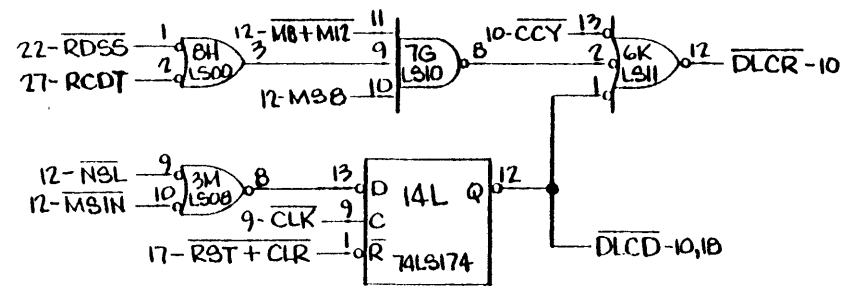
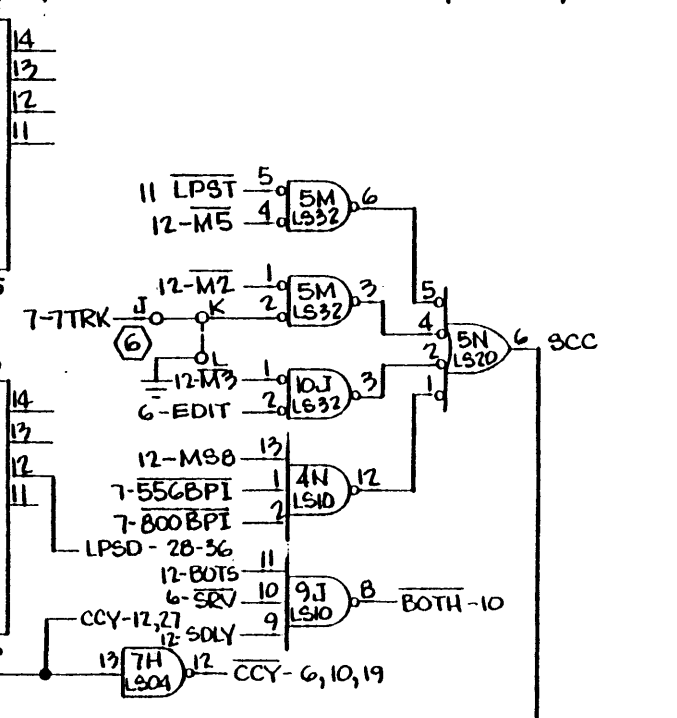


TOLERANCES UNLESS OTHERWISE SPECIFIED		WESTERN PERIPHERALS	
FRACTIONS DEC.	ANGLES	ANAHEIM, CALIFORNIA	
± ± ±		<b>CLOCK GENERATOR AND SPEED CONTROL</b>	
APPROVALS	DATE	SCALE	SIZE
DRAWN HRP	1-31-77		B
CHECKED		DRAWING NO.	120016
		DO NOT SCALE DRAWING	
		SHEET 10 OF 37	

BISHOP GRAPHICS/ACCIPRESS  
 REFURGER NO. A 5601



REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED



TOLERANCES UNLESS OTHERWISE SPECIFIED	
FRACTIONS DEC.	ANGLES
±	±
APPROVALS	DATE
CHECKED	

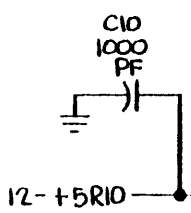
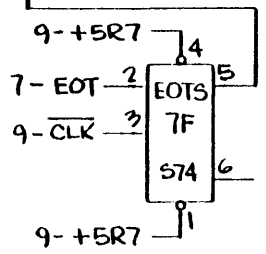
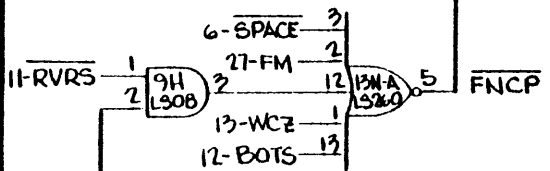
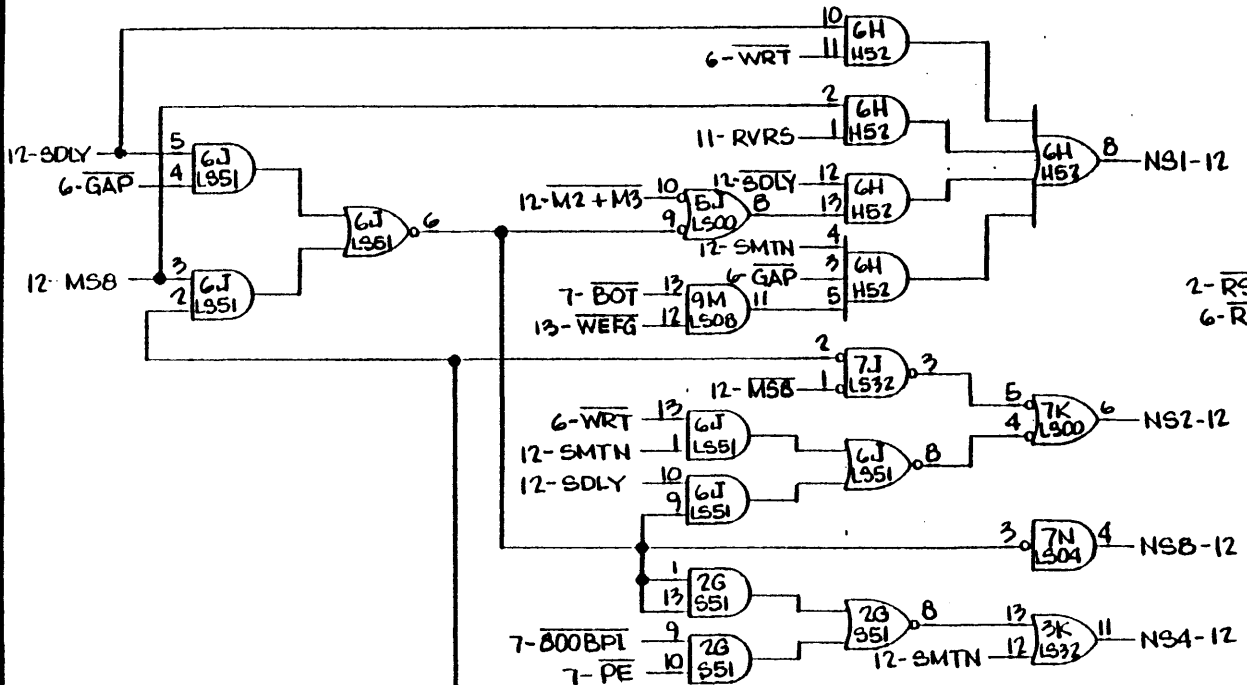
**western peripherals**  
ANAHEIM, CALIFORNIA

## DELAY GENERATOR

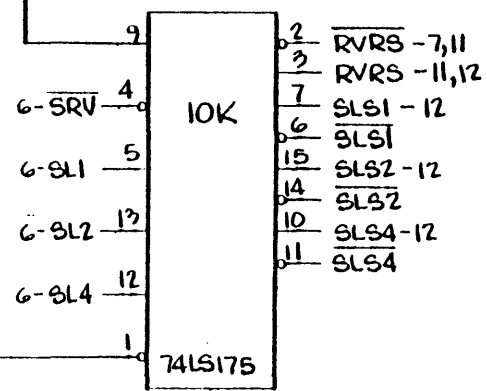
SCALE	SIZE	DRAWING NO.
	<b>B</b>	<b>120016</b>
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STATE CHANGE CONTROL



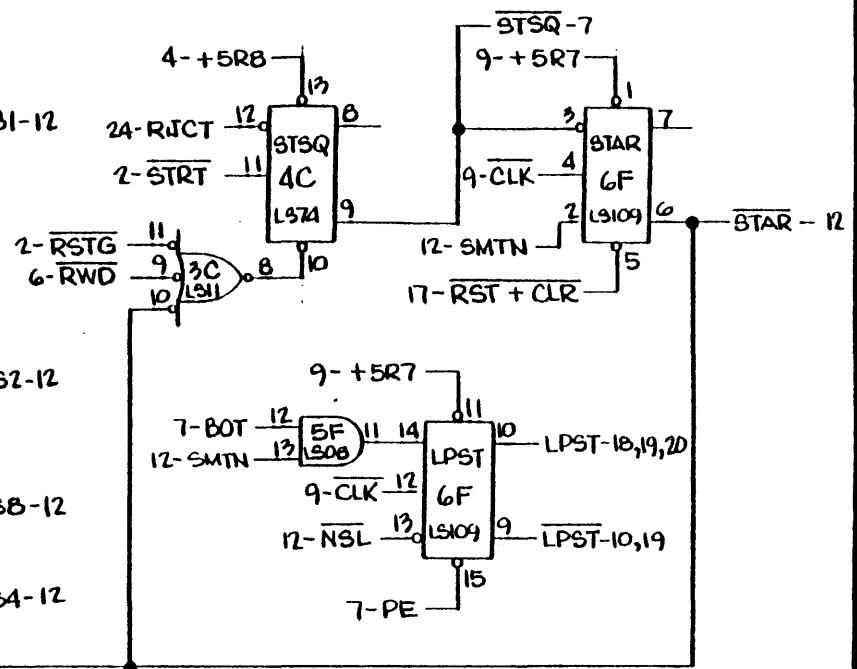
AUTOMATIC NON-STOP CONTROL



REVISIONS

LTR	DESCRIPTION	DATE	APPROVED

START SYNCHRONIZER



(11)

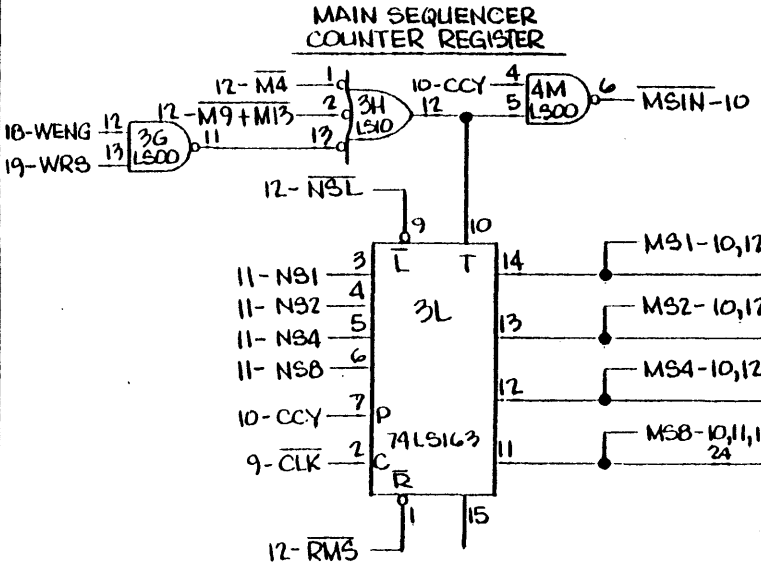
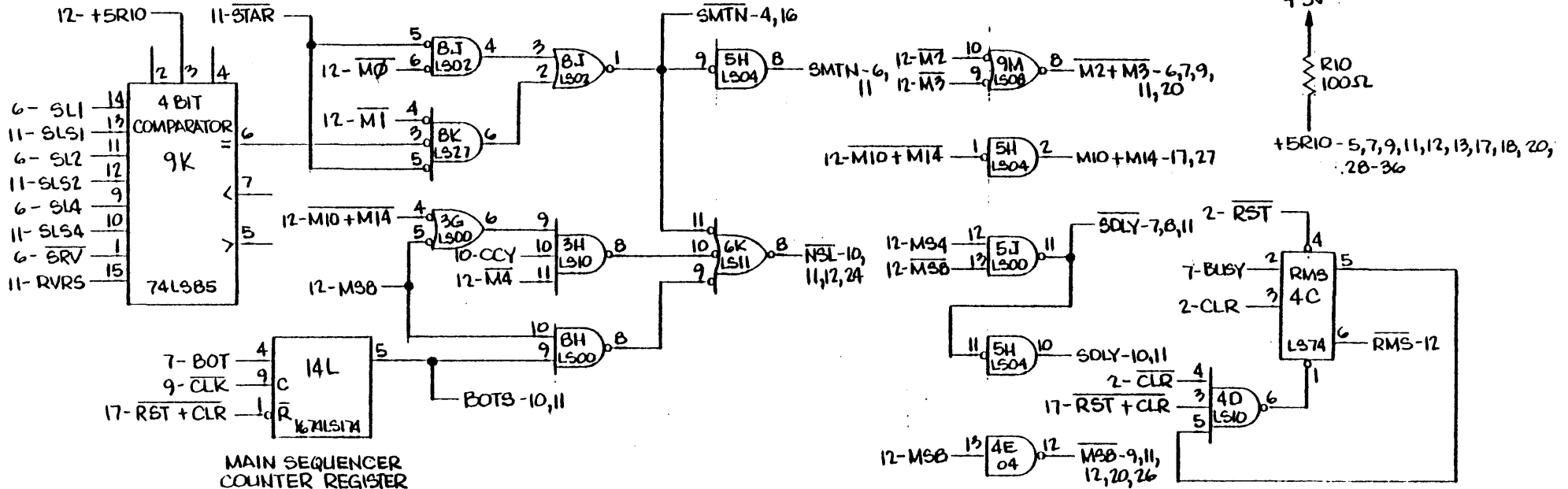
TOLERANCES UNLESS OTHERWISE SPECIFIED FRACTIONS DEC. ANGLES ± ± ±		 western peripherals ANAHEIM, CALIFORNIA	
MAIN SEQUENCER			
APPROVALS DRAWN CHECKED	DATE 1-21-77	SCALE	SIZE B
		DRAWING NO. 170016	
DO NOT SCALE DRAWING			SHEET 12 OF 37



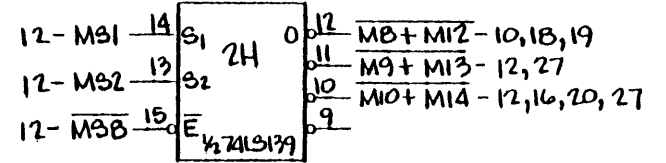
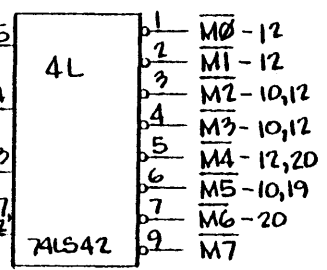
AUTOMATIC NON-STOP CONTROL

MAIN SEQUENCER CHANGE CONTROL

REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED



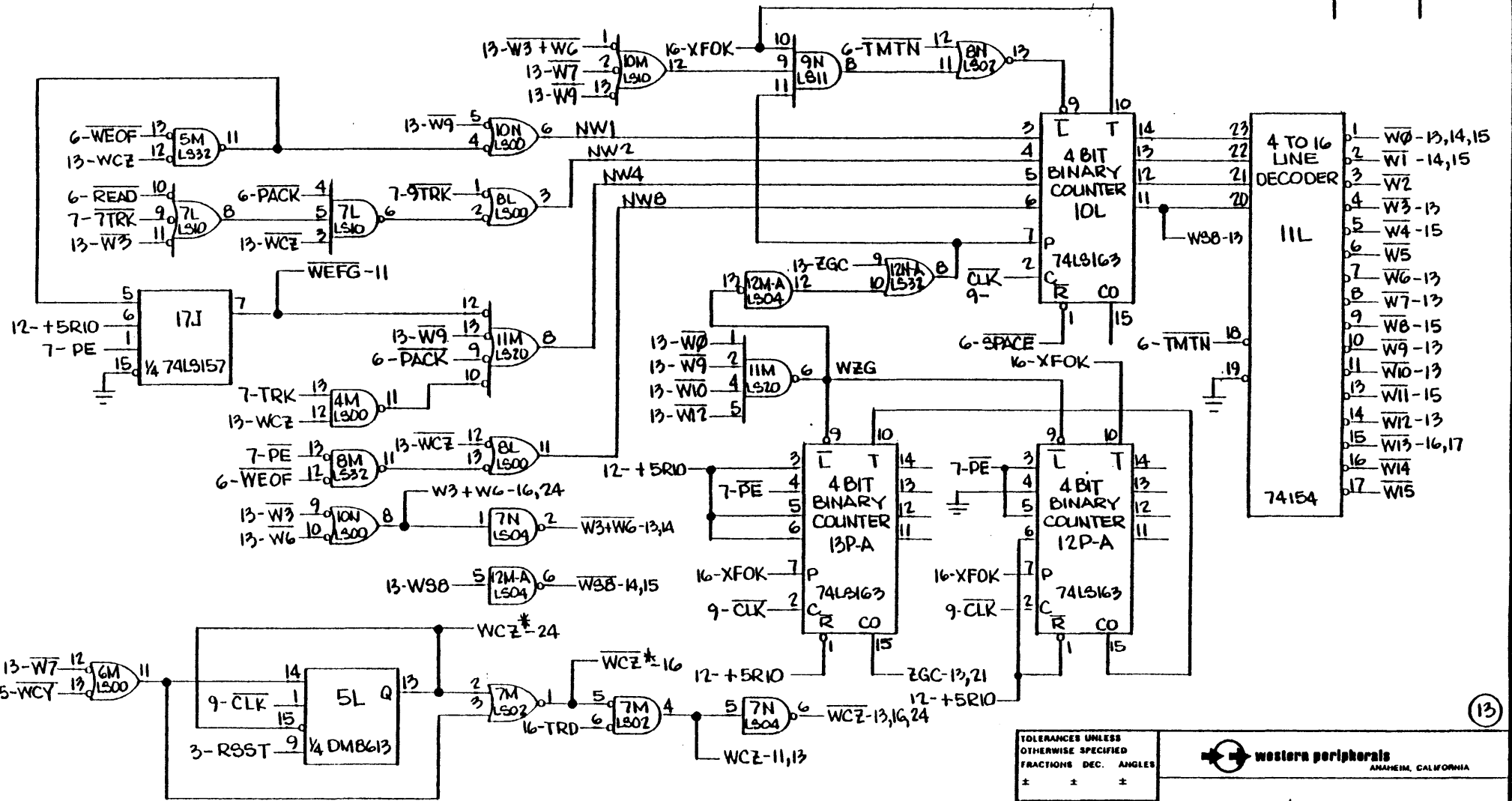
MAIN SEQUENCER STATE DECODES



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TOLERANCES UNLESS OTHERWISE SPECIFIED		FRACTIONS DEC. ANGLES		 western peripherals ANAHEIM, CALIFORNIA
±	±	±	±	
APPROVALS	DATE	<b>MAIN SEQUENCER</b>		
DRAWN <b>HRB</b>	1-31-77			
CHECKED				
SCALE		SIZE <b>B</b>	DRAWING NO. <b>120016</b>	
DO NOT SCALE DRAWING				SHEET 13 OF 37

REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED



(13)

TOLERANCES UNLESS OTHERWISE SPECIFIED	
FRACTIONS	DEC. ANGLES
±	±
APPROVALS	DATE
DRAWN <i>HDB</i>	1-31-77
CHECKED	

**western peripherals**  
ANAHEIM, CALIFORNIA

## WRITE/READ SEQUENCER

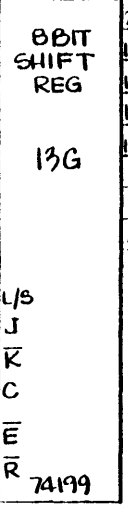
SCALE	SIZE	DRAWING NO.
	<b>B</b>	<b>120016</b>
DO NOT SCALE DRAWING		SHEET 14 OF 37

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COMPUTER DATA REGISTER

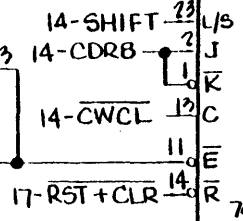
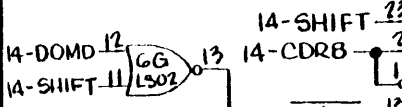
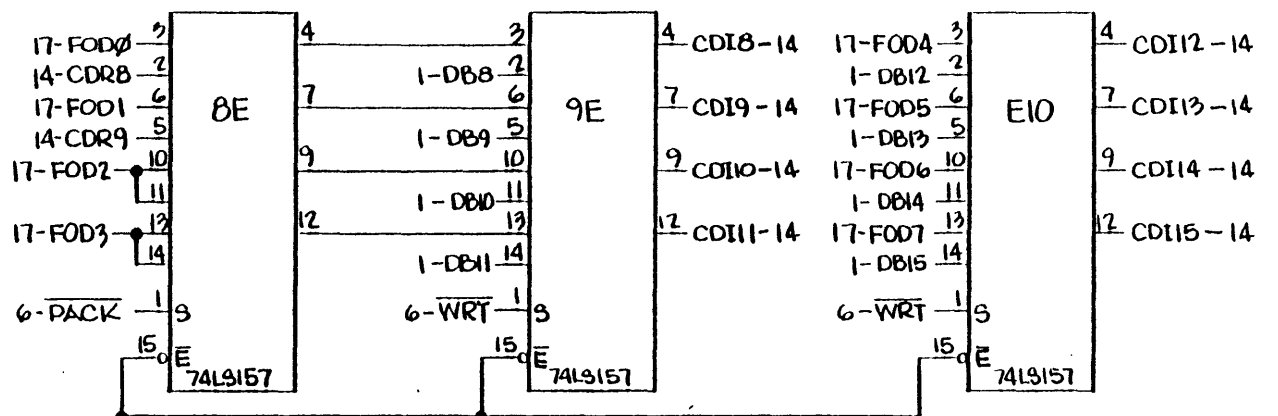
REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED

- 1-DB0 22
- 1-DB1 20
- 1-DB2 18
- 1-DB3 16
- 1-DB4 9
- 1-DB5 7
- 1-DB6 5
- 1-DB7 2

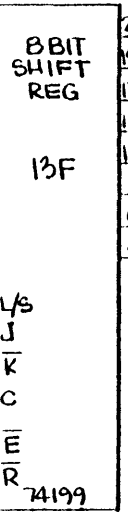


- 21-CDR0-8,14,15
- 19-CDR1-8,15
- 17-CDR2-8,15
- 15-CDR3-8,15
- 10-CDR4-8,15
- 8-CDR5-8,15
- 6-CDR6-8,15
- 4-CDR7-8,15

COMPUTER DATA REGISTER INPUT GATING

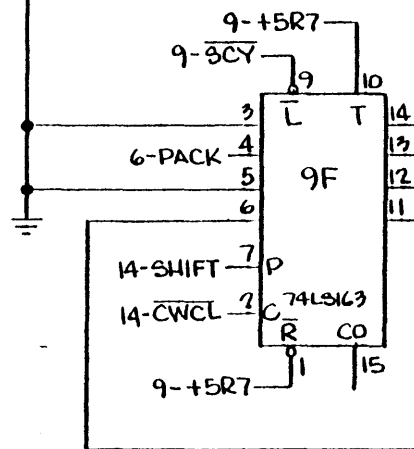


- 14-CDI8 22
- 14-CDI9 20
- 14-CDI10 18
- 14-CDI11 16
- 14-CDI12 9
- 14-CDI13 7
- 14-CDI14 5
- 14-CDI15 3

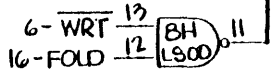
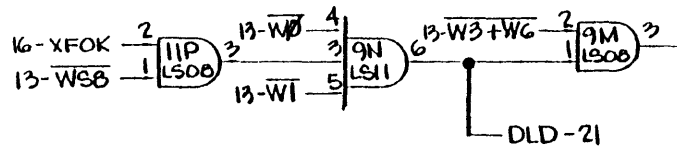
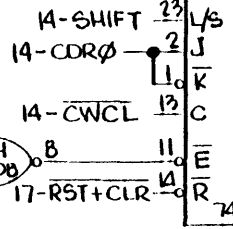
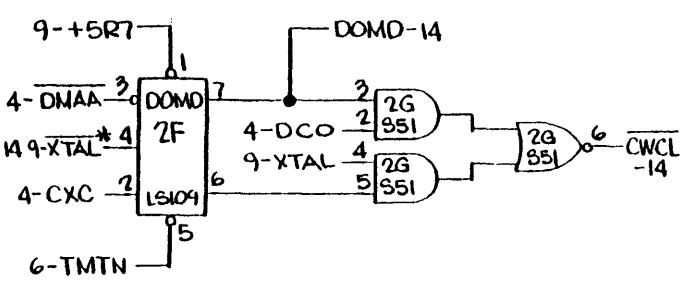


- 21-CDR8-8,14
- 19-CDR9-8,14
- 17-CDR10-8
- 15-CDR11-8
- 10-CDR12-8
- 8-CDR13-8
- 6-CDR14-8,15
- 4-CDR15-8,15

PACK SHIFT CONTROL



COMPUTER DATA REGISTER CLOCK CONTROL



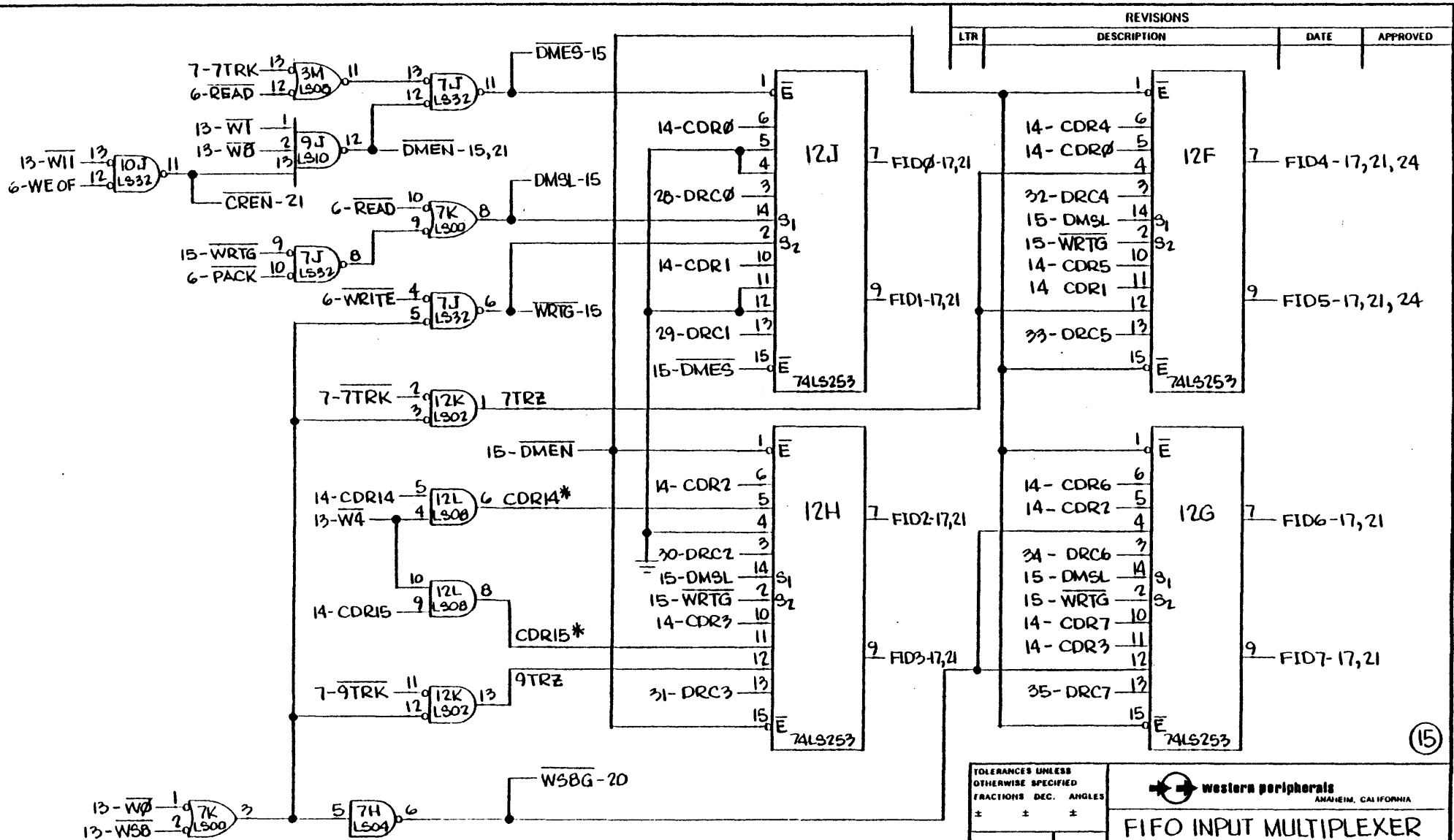
TOLERANCES UNLESS OTHERWISE SPECIFIED	
FRACTIONS DEC.	ANGLES
± ± ±	± ± ±
APPROVALS	DATE
DRAWN HRB	1-31-77
CHECKED	

western peripherals  
ANAHEIM, CALIFORNIA


### PROCESSOR DATA REGISTER AND CONTROL

SCALE	SIZE	DRAWING NO.
	B	120016

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TOLERANCES UNLESS OTHERWISE SPECIFIED	
FRACTIONS	DEC. ANGLES
±	± ±
APPROVALS	DATE
DRAWN HRD	1-21-77
CHECKED	

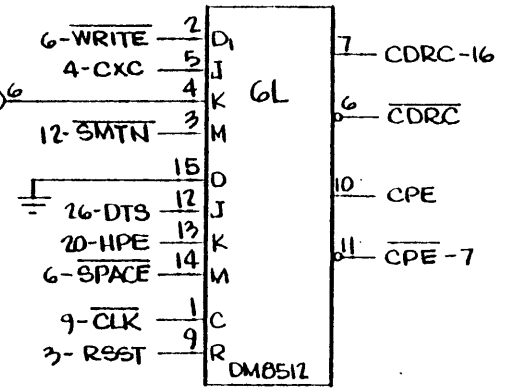
 <b>western peripherals</b> <small>ANAHEIM, CALIFORNIA</small>		
<b>FIFO INPUT MULTIPLEXER FILE MARK GENERATOR</b>		
SCALE	SIZE	DRAWING NO.
	<b>B</b>	<b>120016</b>
DO NOT SCALE DRAWING		SHEET 16 OF 37

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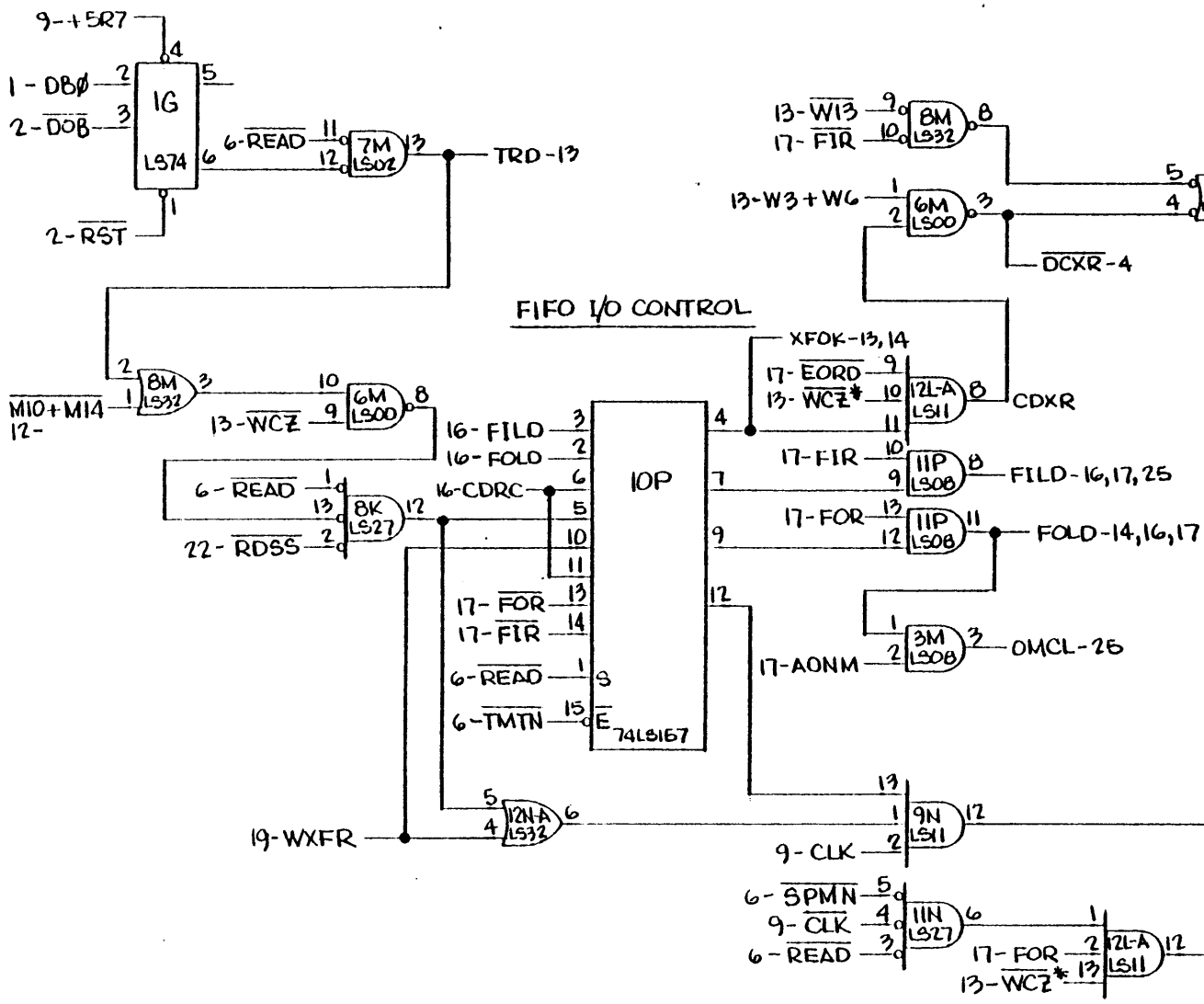
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REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED

COMPUTER DATA REGISTER CONTROL



FIFO I/O CONTROL



TOLERANCES UNLESS OTHERWISE SPECIFIED	
FRACTIONS	DEC. ANGLES
±	± ±
APPROVALS	DATE
DRAWN HRB	1-31-77
CHECKED	

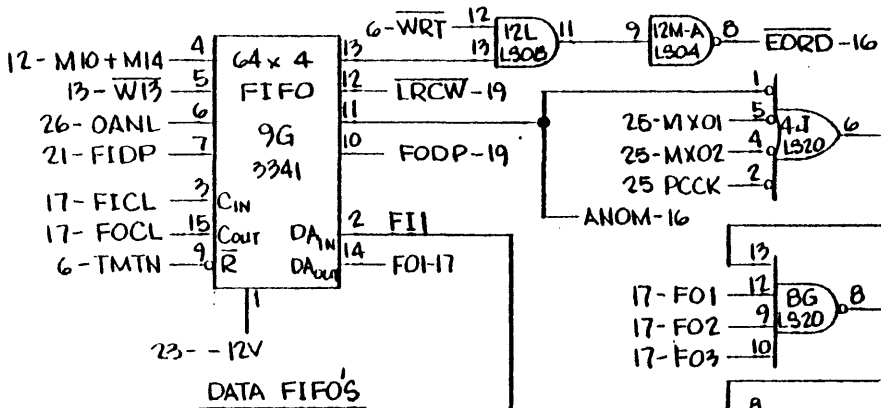
**western peripherals**  
ANAHEIM, CALIFORNIA

**FIFO I/O CONTROL**

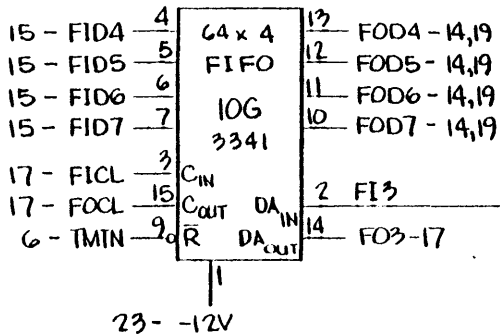
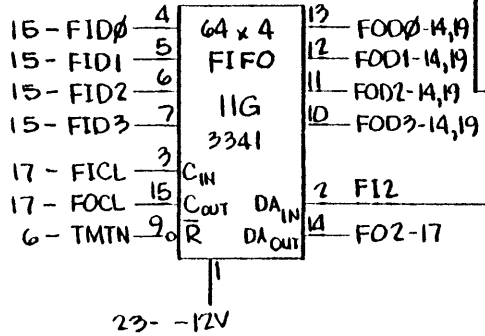
SCALE	SIZE <b>B</b>	DRAWING NO. 120016
DO NOT SCALE DRAWING		SHEET 17 OF 37

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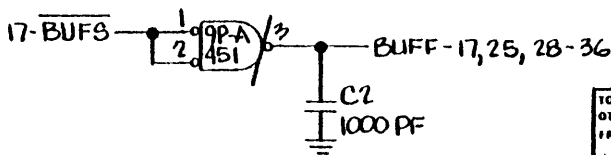
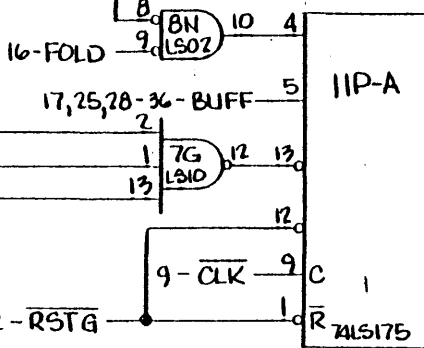
**CONTROL FIFO**



**DATA FIFOs**



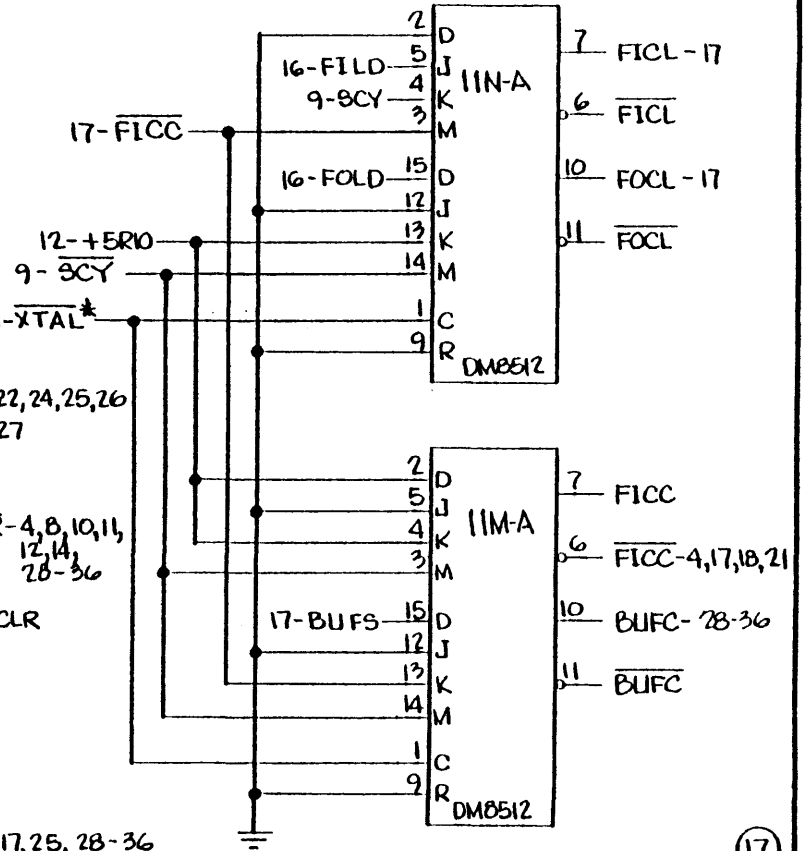
**FIFO STATUS SYNCHRONIZER**



**REVISIONS**

LTR	DESCRIPTION	DATE	APPROVED

**FIFO CLOCK GENERATOR**

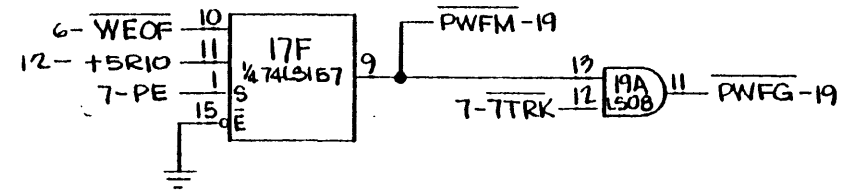
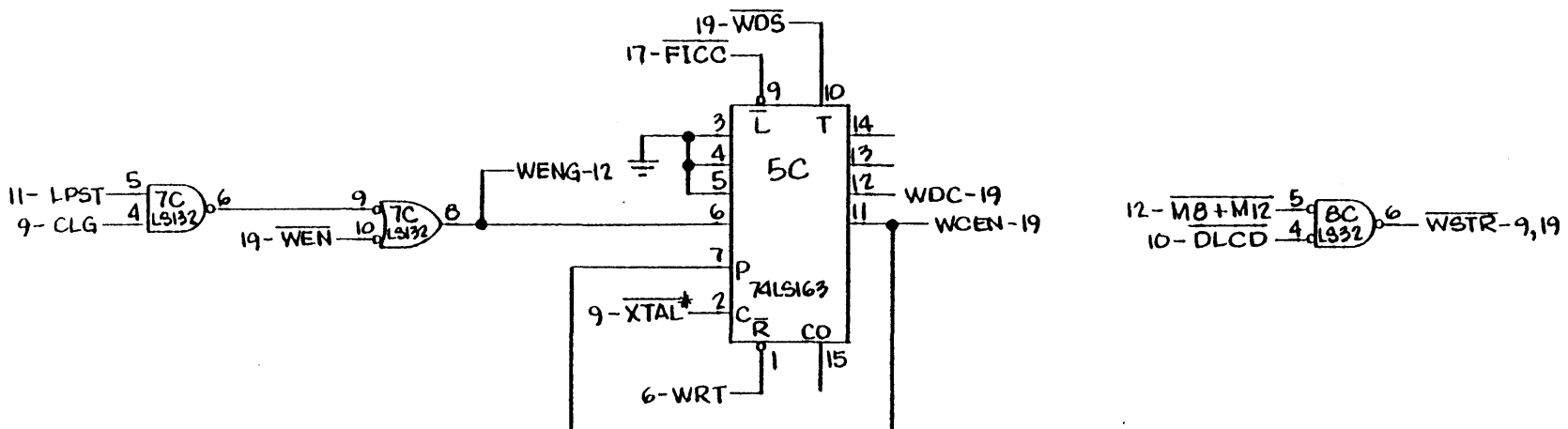


(17)


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APPROVALS DRAWN <i>HRB</i> CHECKED		DATE 1-31-77	
SCALE —		SIZE B	DRAWING NO. 120016
DO NOT SCALE DRAWING			SHEET 18 OF 37

REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED

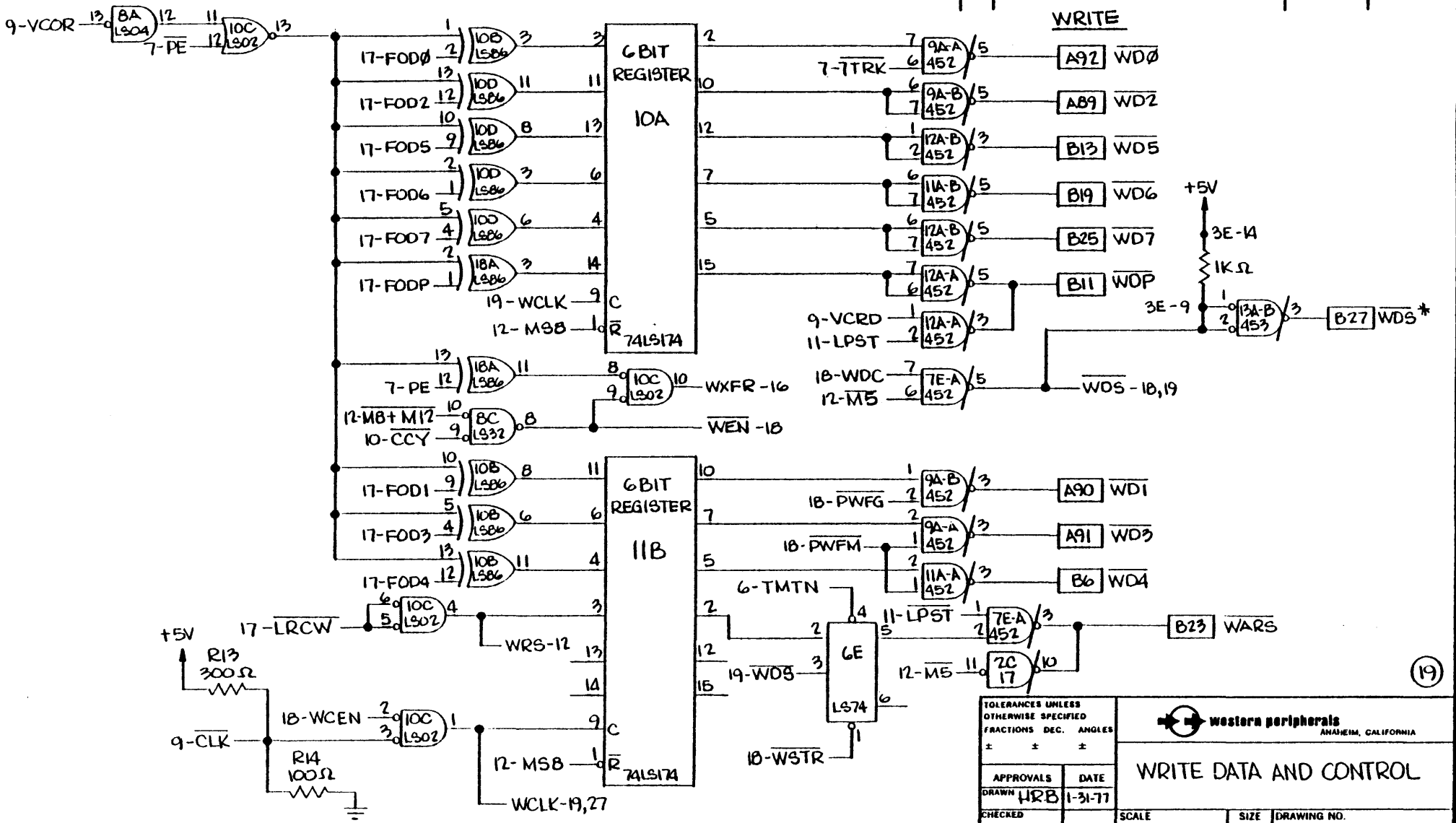


(18)

TOLERANCES UNLESS OTHERWISE SPECIFIED FRACTIONS DEC. ANGLES ± ± ±		 <b>western peripherals</b> ANAHEIM, CALIFORNIA	
APPROVALS DRAWN <u>H.R.P.</u>		DATE 1-31-77	
CHECKED  		SCALE  	SIZE <b>B</b>
		DRAWING NO. <b>120016</b>	
DO NOT SCALE DRAWING			SHEET 19 OF 37

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REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED



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TOLERANCES UNLESS OTHERWISE SPECIFIED	
FRACTIONS	DEC. ANGLES
±	±
APPROVALS	DATE
DRAWN HRB	1-31-77
CHECKED	

**western peripherals**  
ANAHEIM, CALIFORNIA

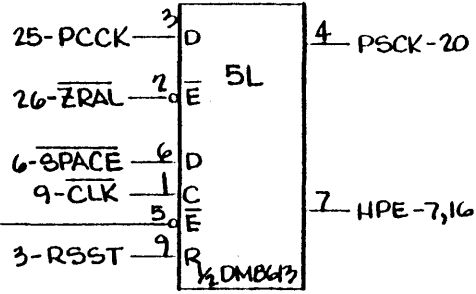
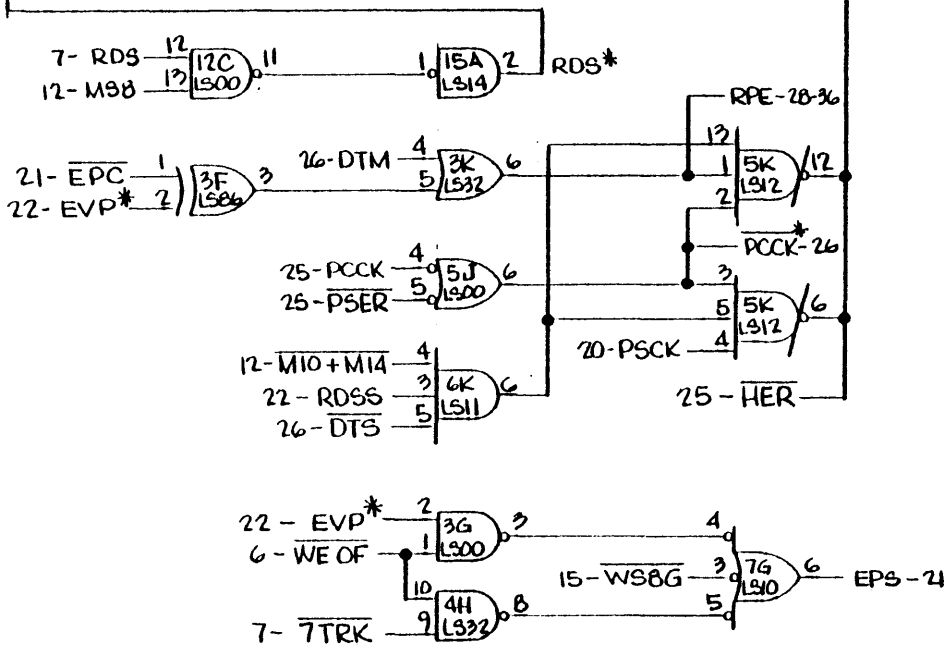
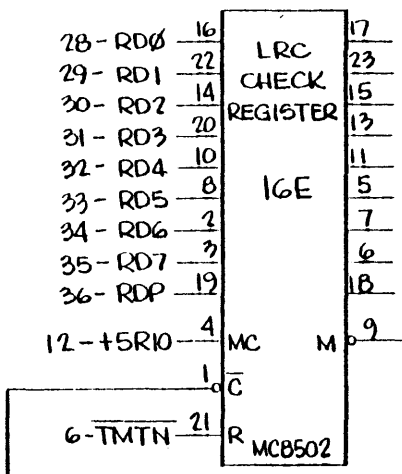
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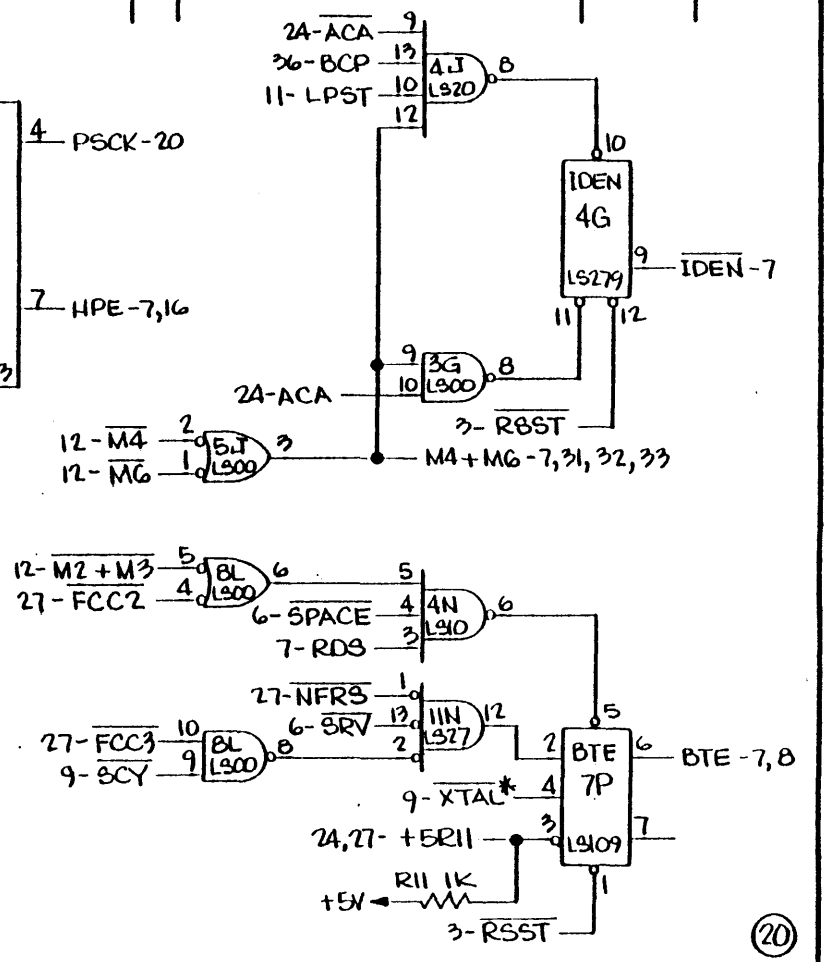
DO NOT SCALE DRAWING    SHEET 20 OF 37

(19)





REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED



TOLERANCES UNLESS OTHERWISE SPECIFIED		
FRACTIONS	DEC.	ANGLES
±	±	±
APPROVALS	DATE	
DRAWN: <b>HPB</b>	1-31-77	
CHECKED		

**western peripherals**  
ANAHEIM, CALIFORNIA

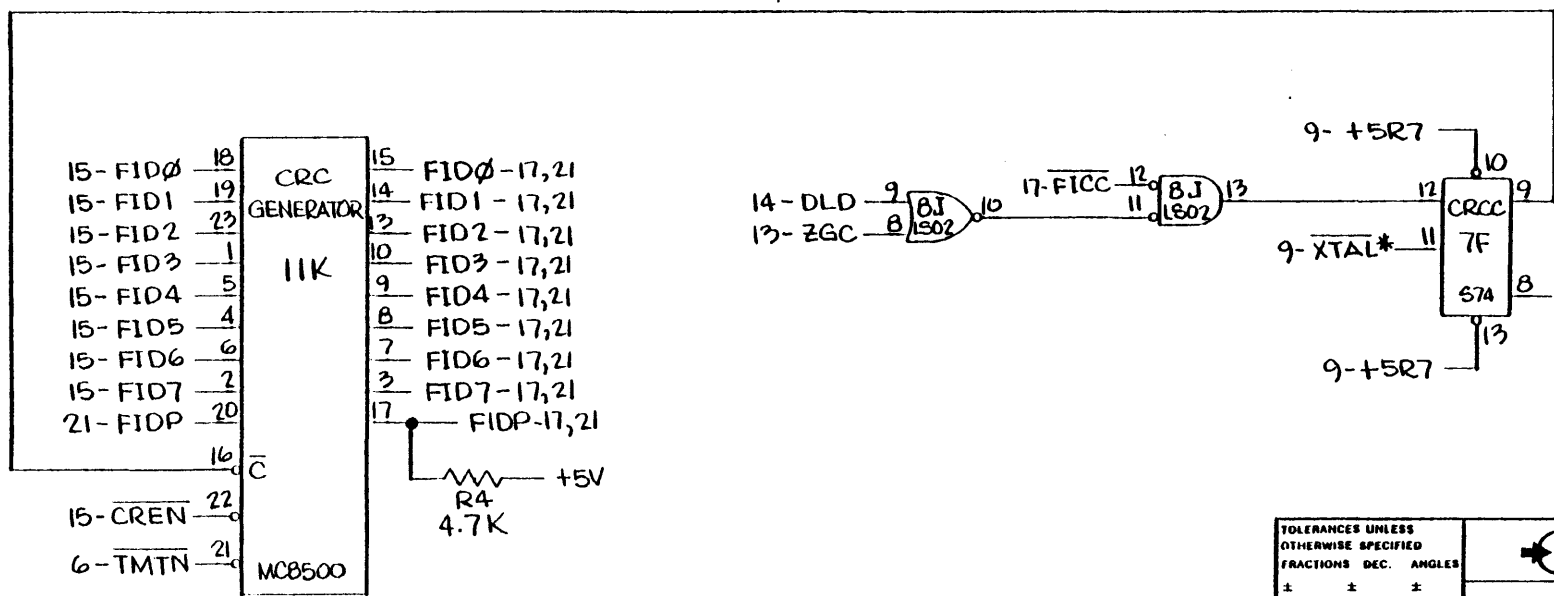
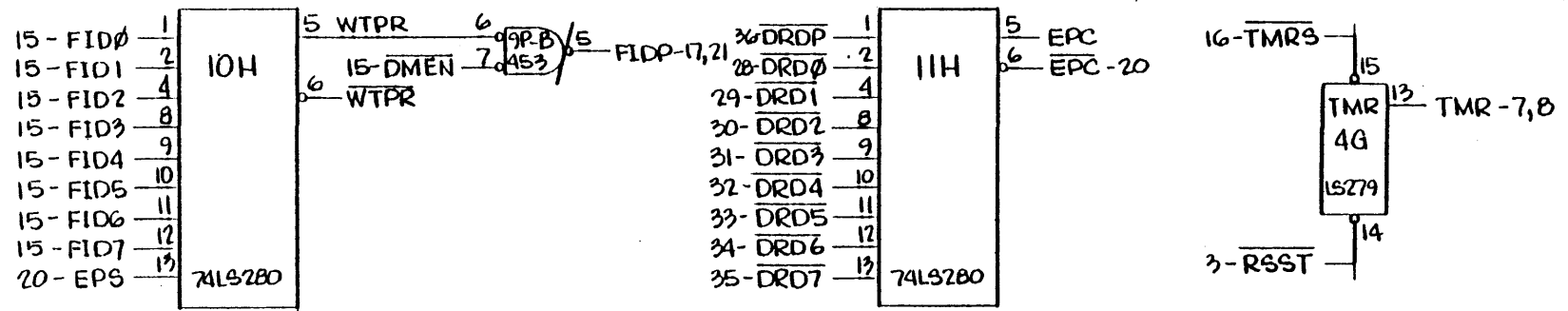
## PARITY CHECK

SCALE: \_\_\_\_\_ SIZE: **B** DRAWING NO.: **120016**

DO NOT SCALE DRAWING SHEET 21 OF 37

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REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED

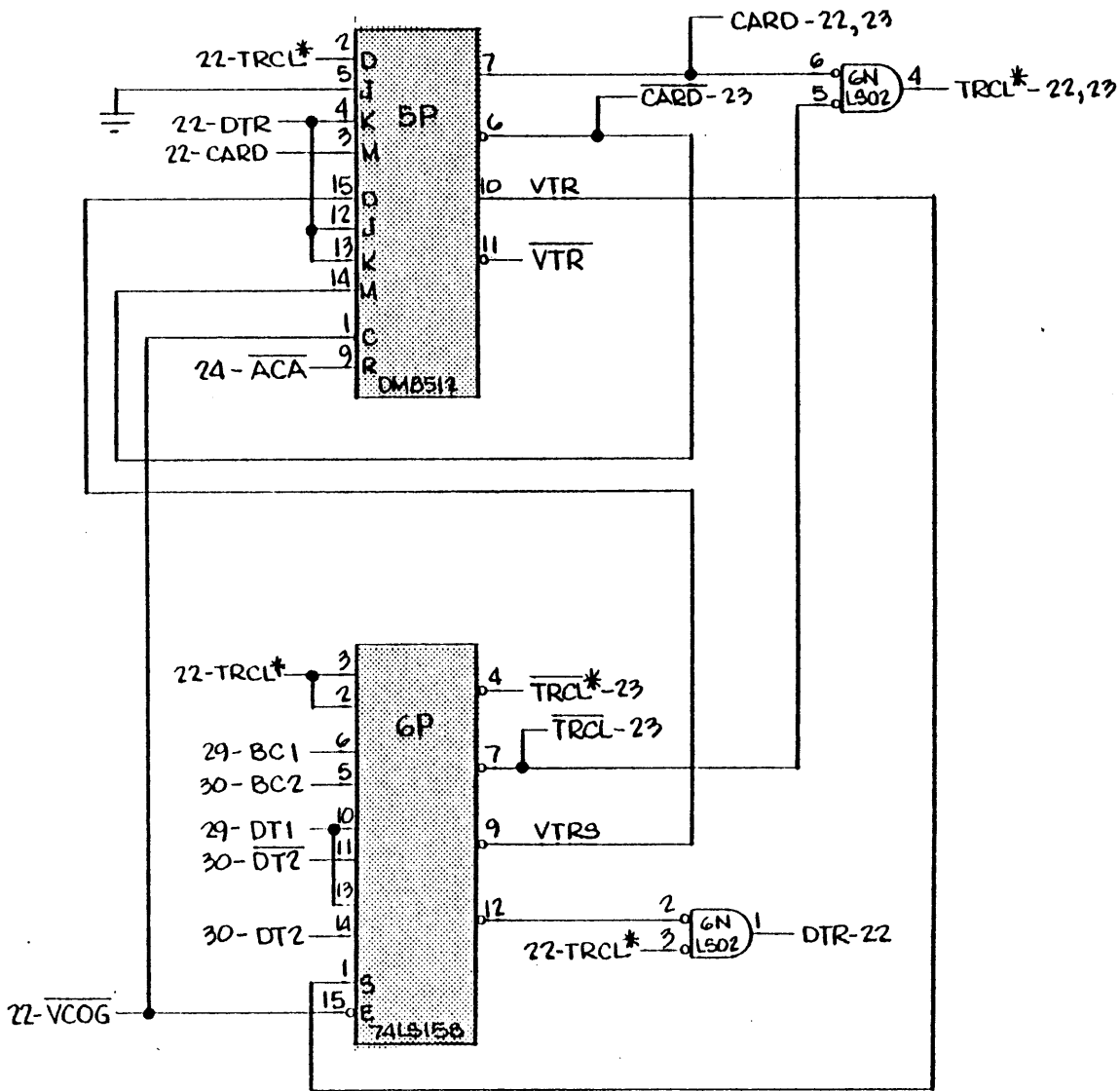


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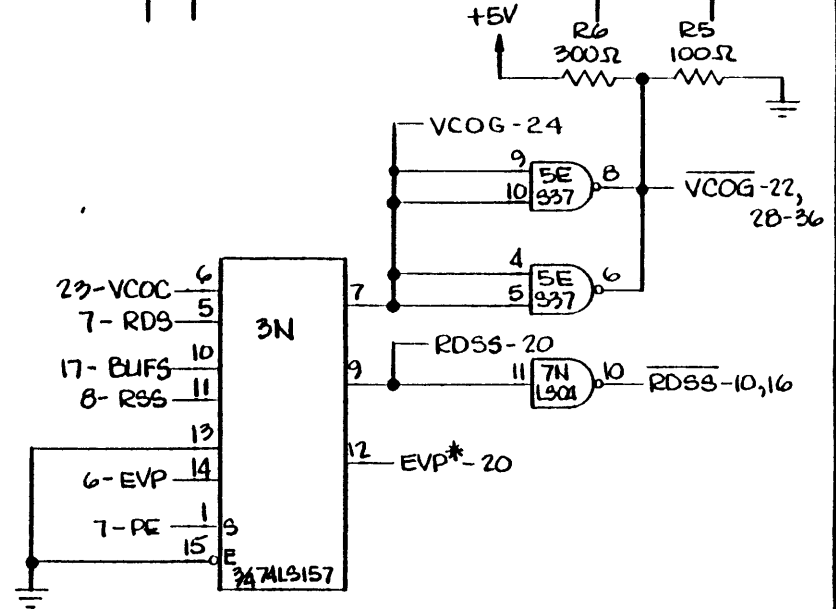
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TOLERANCES UNLESS OTHERWISE SPECIFIED		<b>western peripherals</b> ANAHEIM, CALIFORNIA	
FRACTIONS	DEC.		
±	±	±	<b>PARITY GENERATOR</b>
APPROVALS	DATE	SCALE	
DRAWN <b>HPB</b>	1-31-77	SIZE <b>B</b>	
CHECKED		DRAWING NO. <b>120016</b>	
		DO NOT SCALE DRAWING	SHEET 22 OF 37

REFERENCE TRACK SELECT



REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED

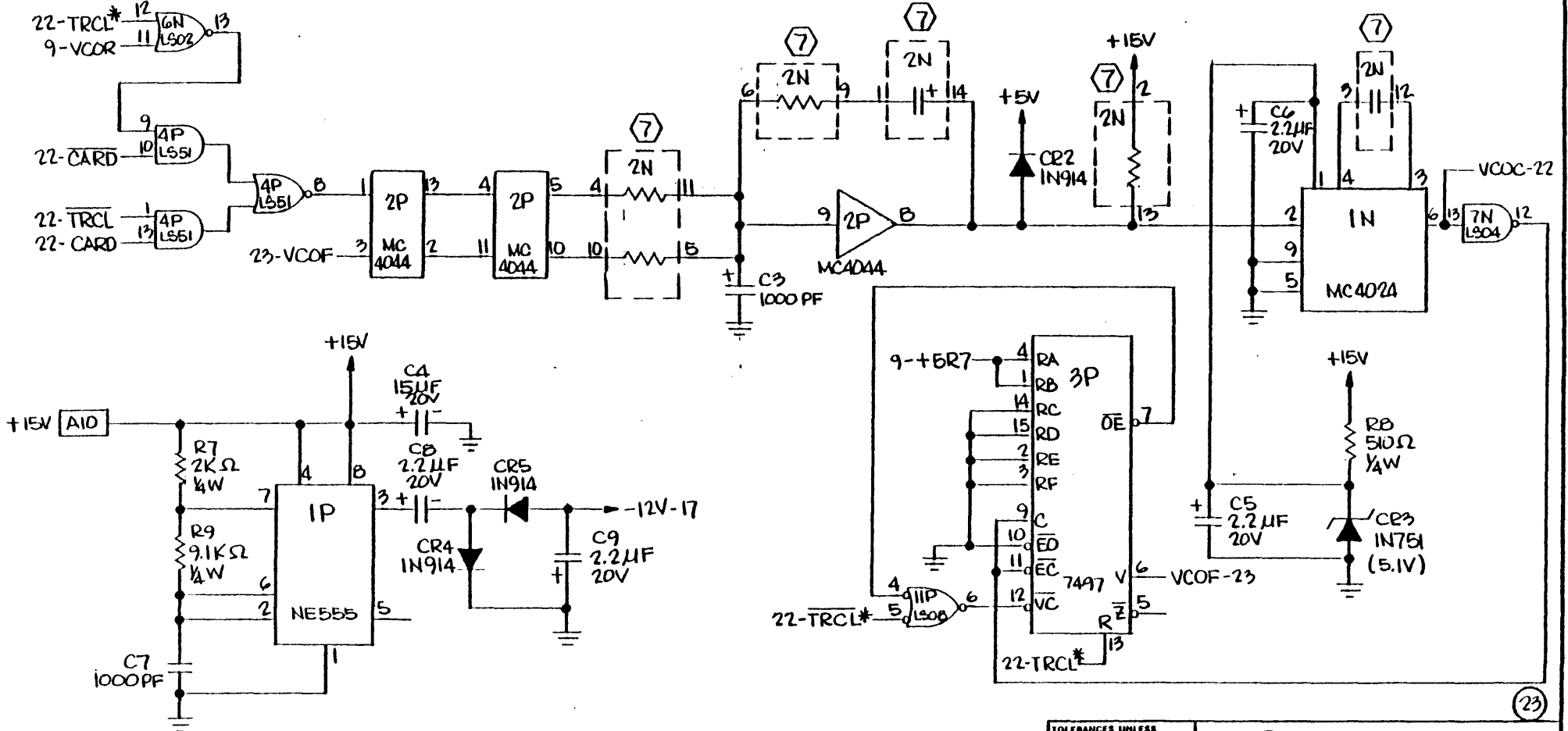


(27)

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SCALE		SIZE <b>B</b>	DRAWING NO. 120016
DO NOT SCALE DRAWING			SHEET 23 OF 37

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REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED



(23)

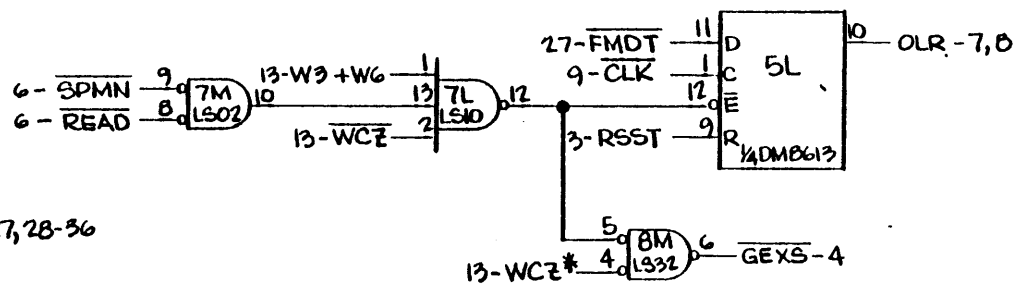
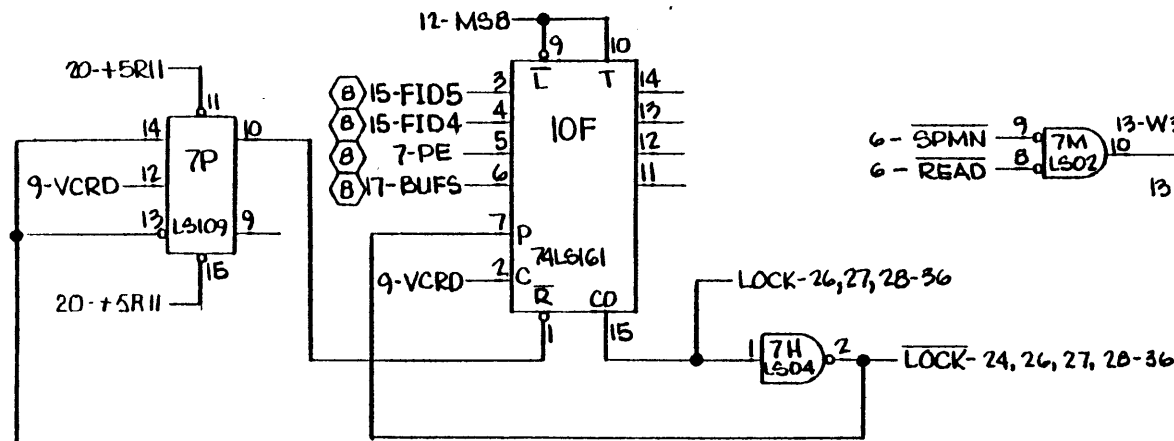
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FRACTIONS DEC. ANGLES	± ± ±		
APPROVALS	DATE	<h1>VCO</h1>	
DRAWN <i>H.R.B.</i>	1-31-77		
CHECKED			
SCALE		SIZE	DRAWING NO.
		<b>B</b>	120016
DO NOT SCALE DRAWING		SHEET 24 OF 37	

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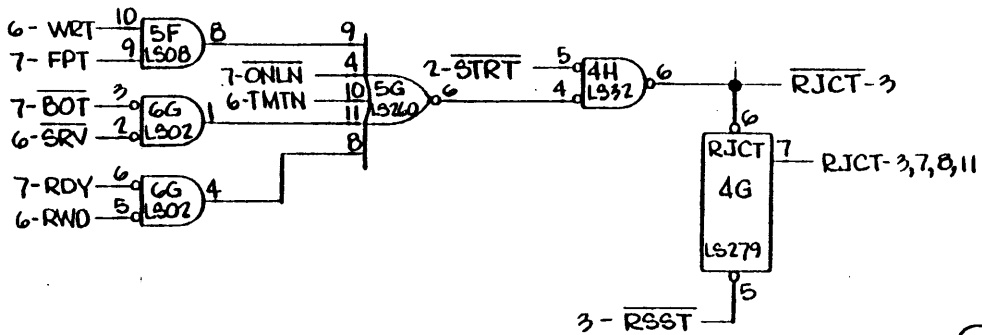
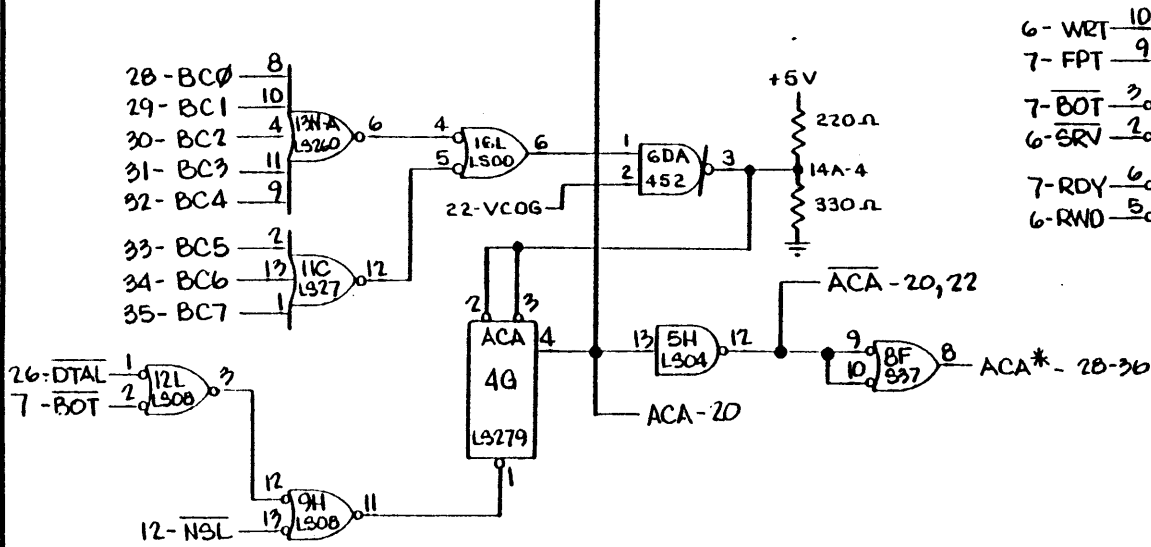
PREAMBLE DETECTOR

REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED

ODD LENGTH RECORD DETECTOR



REJECT CONTROL



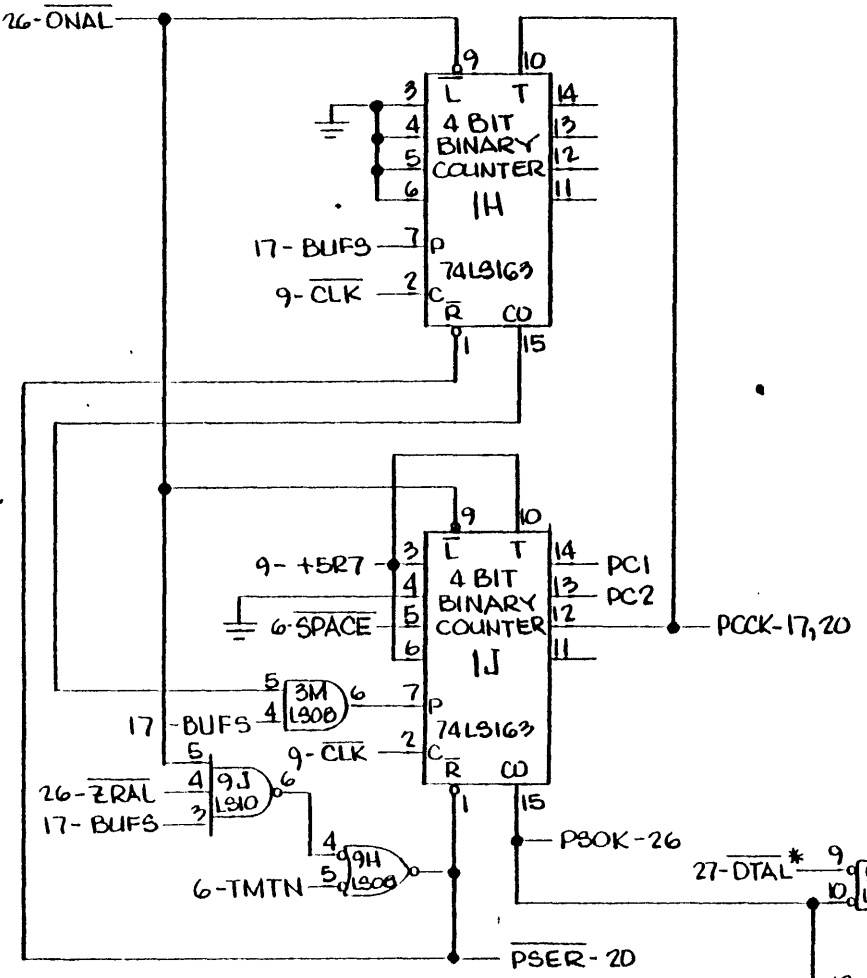
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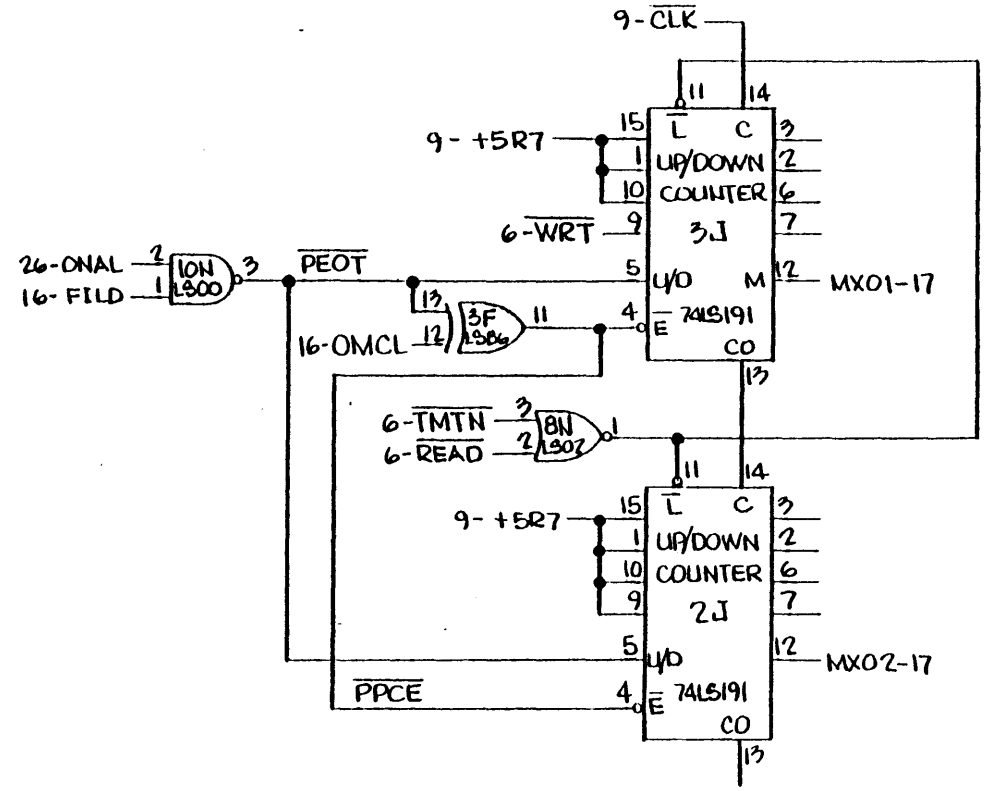
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FRACTIONS	DEC.		
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APPROVALS	DATE	SCALE	
DRAWN: HRP	1-31-77	SIZE: B	
CHECKED		DRAWING NO. 120016	
DO NOT SCALE DRAWING			SHEET 25 OF 37

REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED

POSSIBLE POSTAMBLE DETECTOR



POSSIBLE POSTAMBLE COUNTER



(25)

TOLERANCES UNLESS OTHERWISE SPECIFIED	
FRACTIONS	DEC. ANGLES
±	±
APPROVALS	DATE
DRAWN <i>H.R.D.</i>	1-31-77
CHECKED	

**western peripherals**  
ANAHEIM, CALIFORNIA

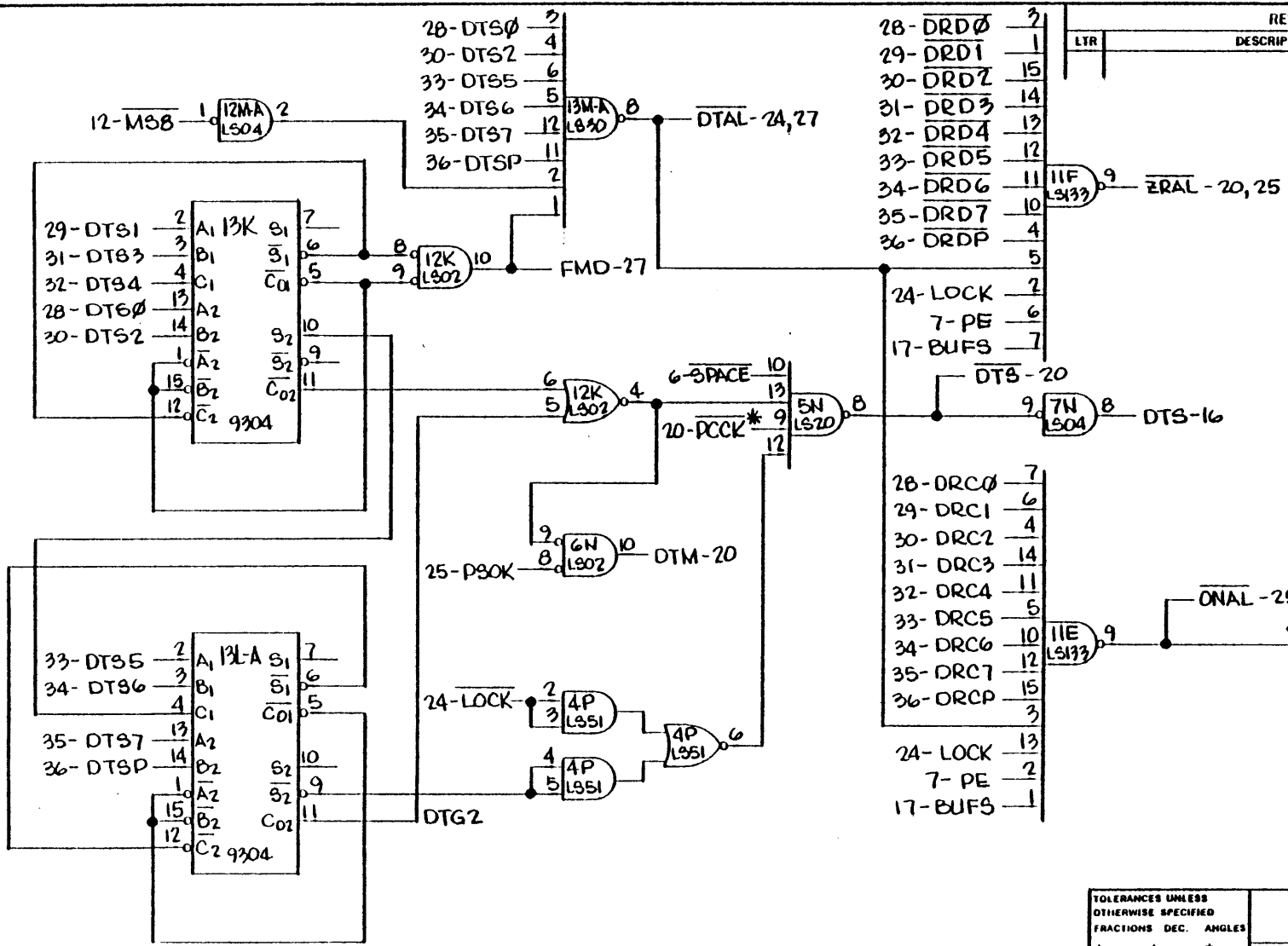
**POSTAMBLE DETECTOR**

SCALE	SIZE	DRAWING NO.
	<b>B</b>	120016

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REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED



- 28-DTSØ 2
- 30-DTS2 4
- 33-DTS5 6
- 34-DTS6 5
- 35-DTS7 12
- 36-DTSP 11
- 2 2

- 28-DRDØ 2
- 29-DRD1 1
- 30-DRD2 15
- 31-DRD3 14
- 32-DRD4 12
- 33-DRD5 12
- 34-DRD6 11
- 35-DRD7 10
- 36-DRDP 4
- 5

- 24-LOCK 2
- 7-PE 6
- 17-BUFS 7

- 28-DRCØ 7
- 29-DRC1 6
- 30-DRC2 4
- 31-DRC3 14
- 32-DRC4 11
- 33-DRC5 5
- 34-DRC6 10
- 35-DRC7 12
- 36-DRCP 15
- 3

- 24-LOCK 13
- 7-PE 2
- 17-BUFS 1

TOLERANCES UNLESS OTHERWISE SPECIFIED	
FRACTIONS DEC.	ANGLES
±	±
APPROVALS	DATE
DRAWN HRB	1-31-77
CHECKED	

**western peripherals**  
ANAHEIM, CALIFORNIA

## DEAD TRACK DETECTOR

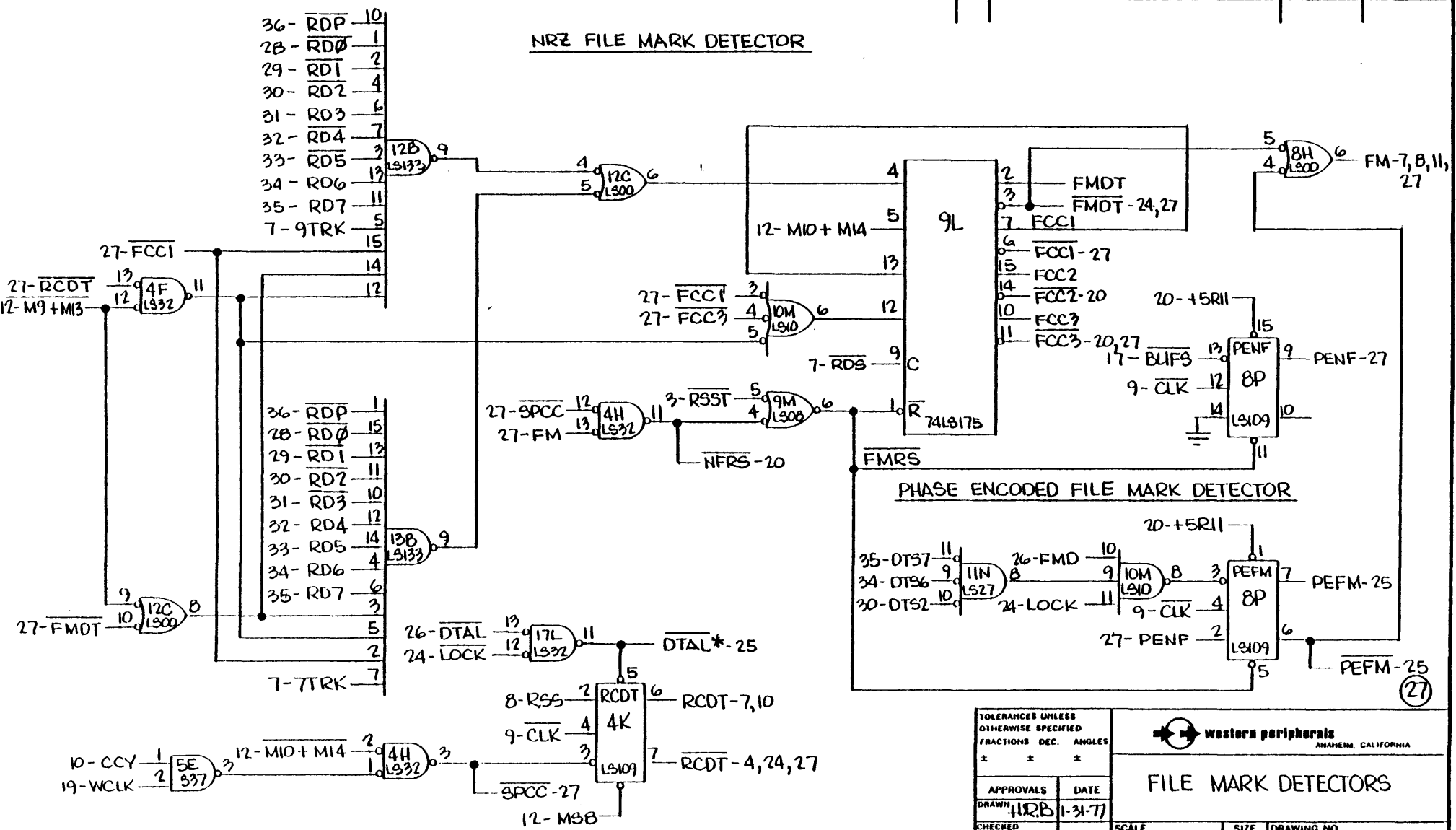
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BISHOP GRAPHICS/ACCUPRESS READER NO. A 5611

REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED

NRZ FILE MARK DETECTOR



TOLERANCES UNLESS OTHERWISE SPECIFIED	
FRACTIONS DEC.	ANGLES
± ± ±	± ± ±
APPROVALS	DATE
DRAWN: HRB	1-31-77
CHECKED	

**western peripherals**  
ANAHEIM, CALIFORNIA

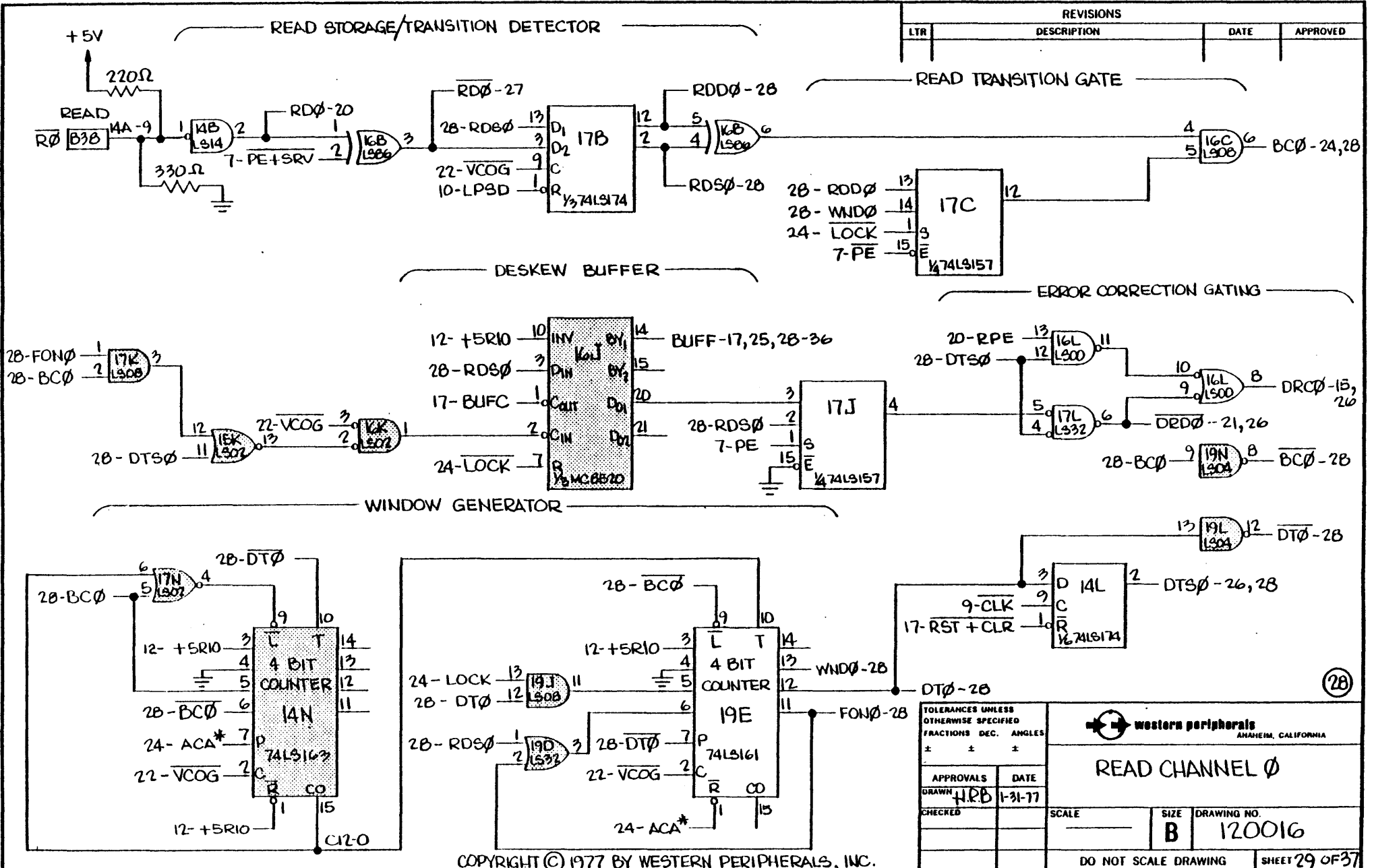
**FILE MARK DETECTORS**

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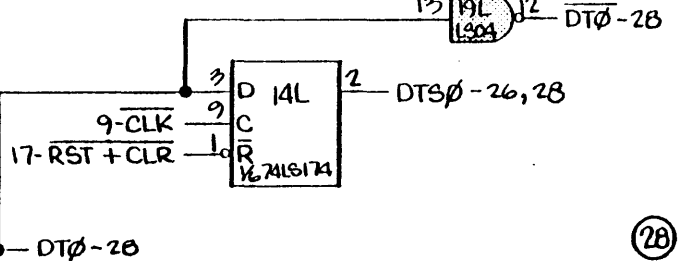
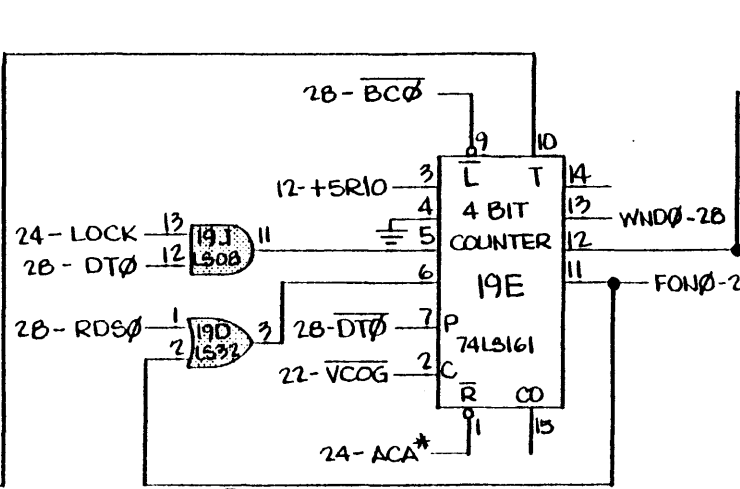
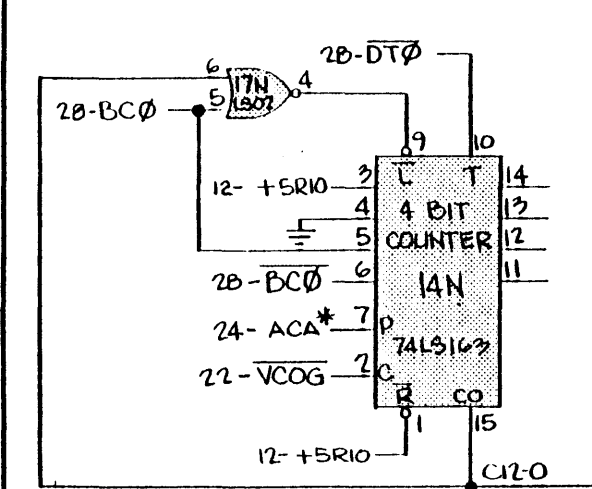
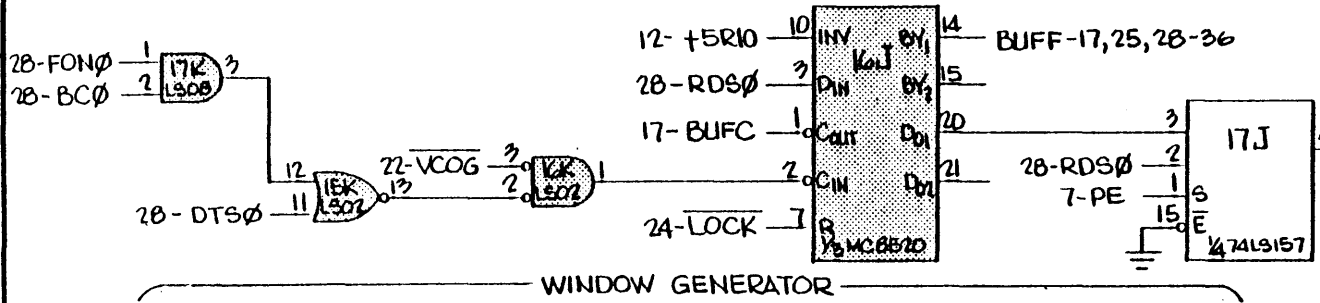
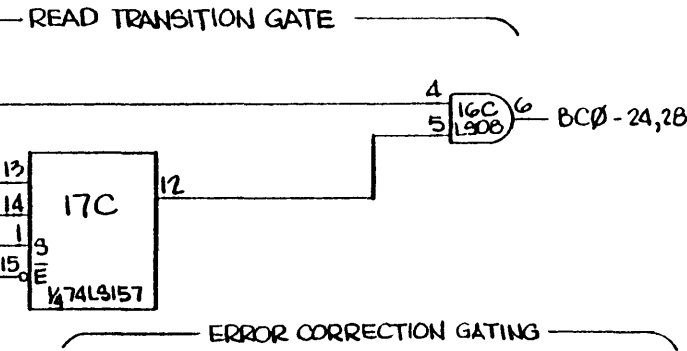
DO NOT SCALE DRAWING SHEET 28 OF 37

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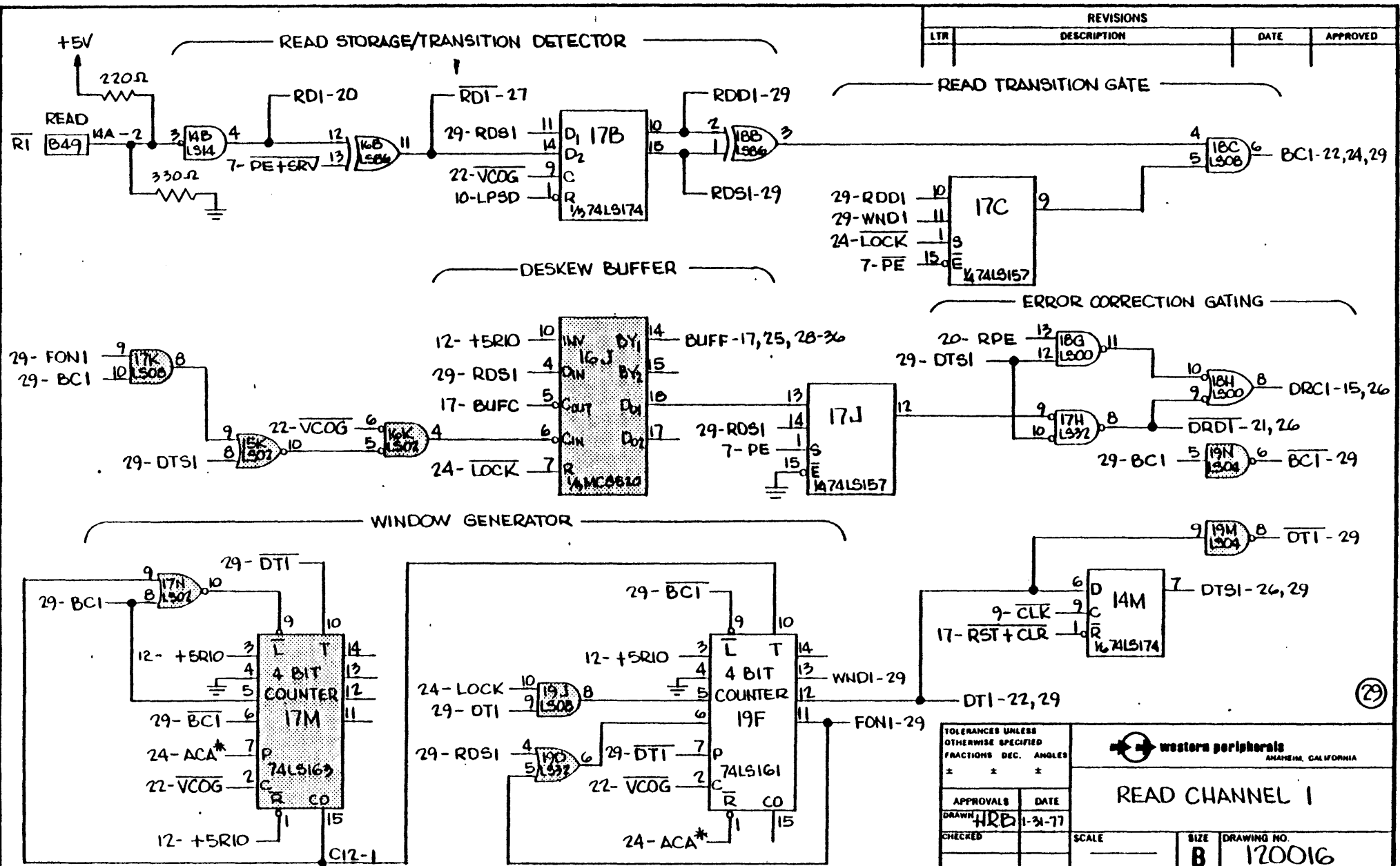


REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED

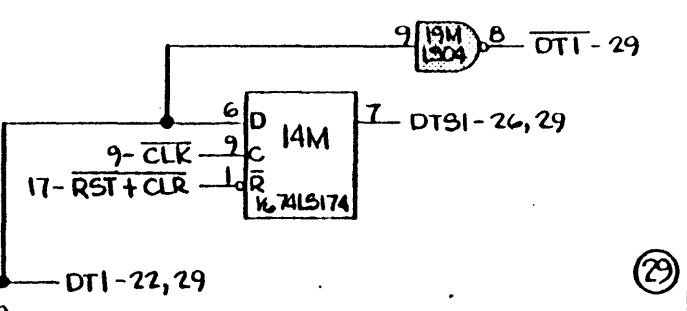
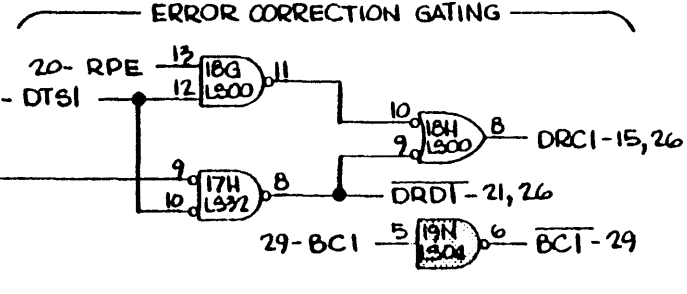
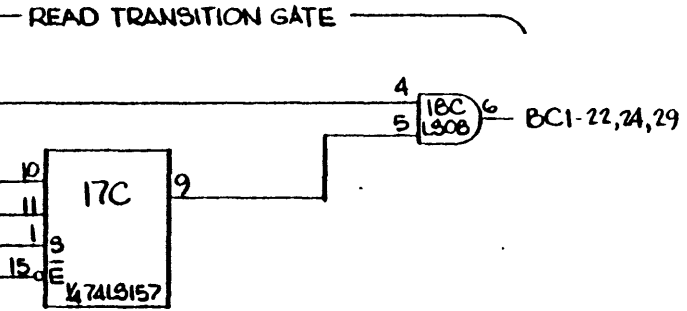


TOLERANCES UNLESS OTHERWISE SPECIFIED		FRACTIONS DEC. ANGLES	
±	±	±	±
APPROVALS	DATE	DRAWN	
		HRB 1-31-77	
CHECKED		SCALE	SIZE B
			DRAWING NO. 120016
DO NOT SCALE DRAWING			SHEET 29 OF 37

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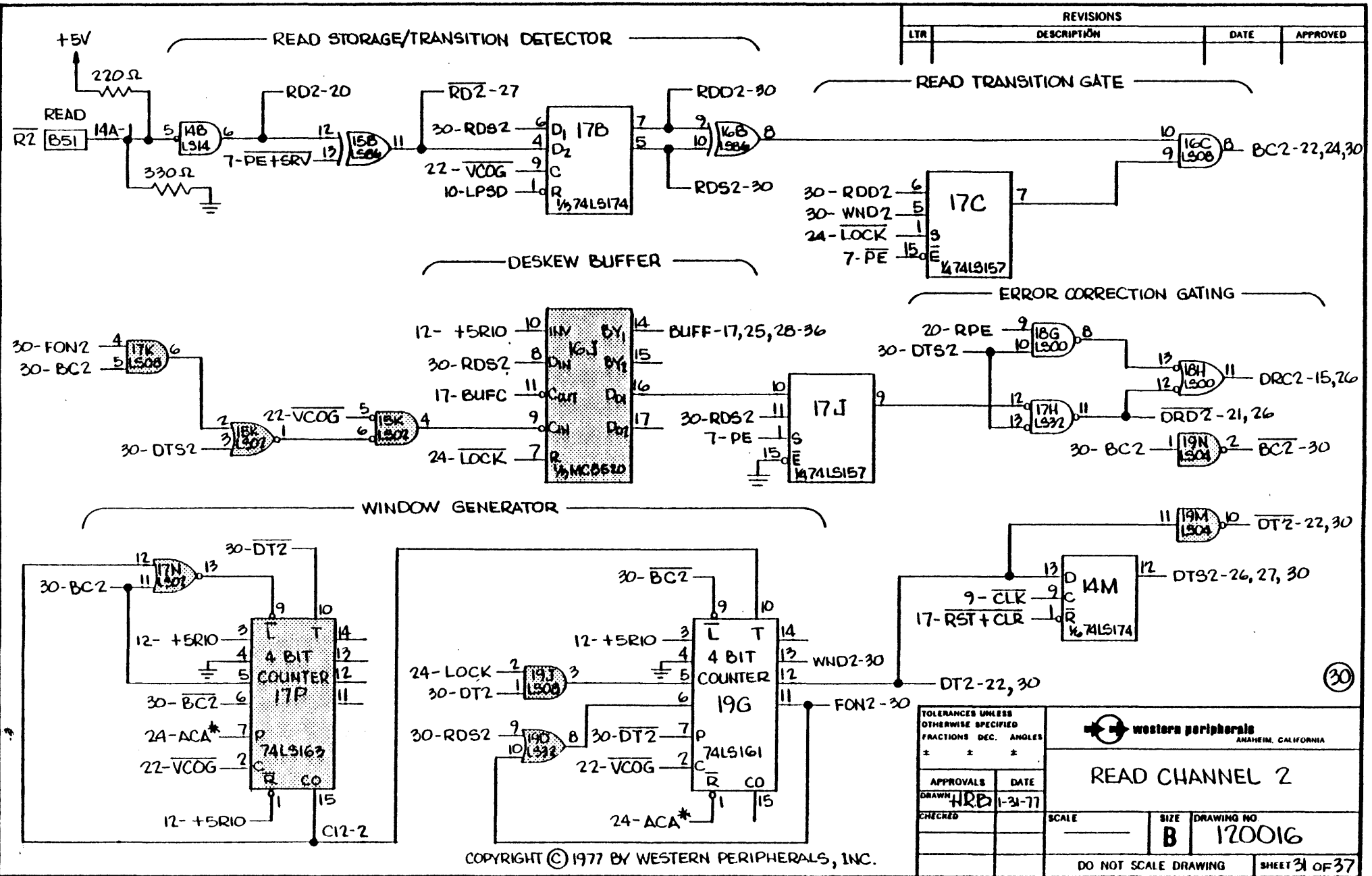


REVISIONS			
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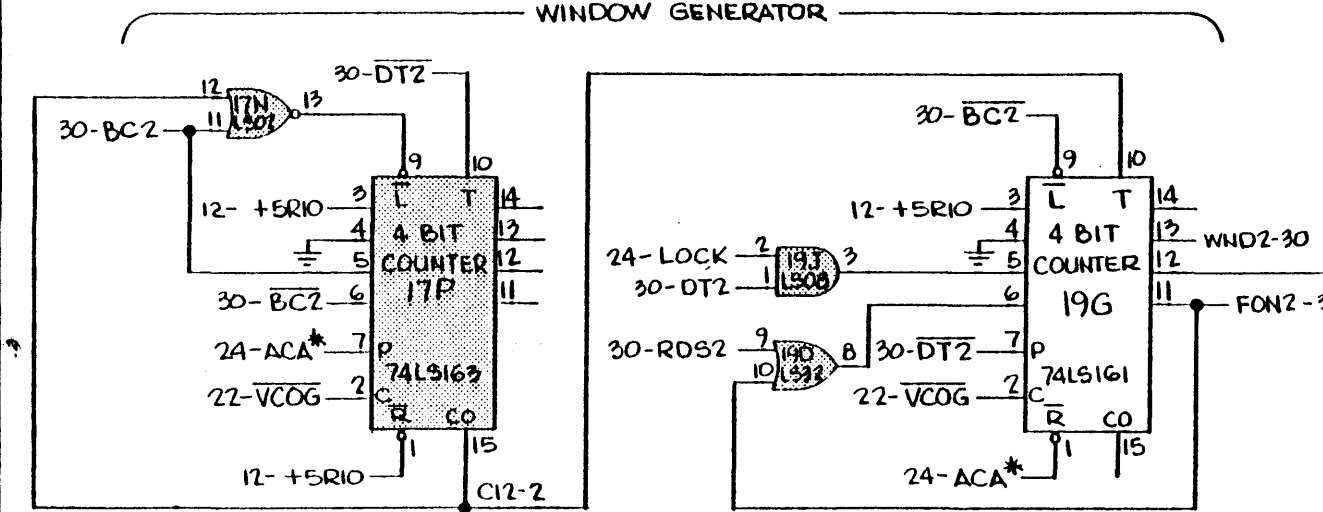
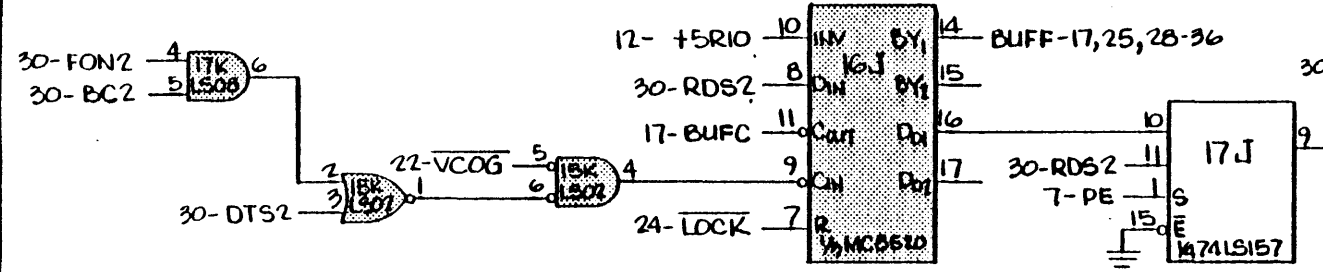
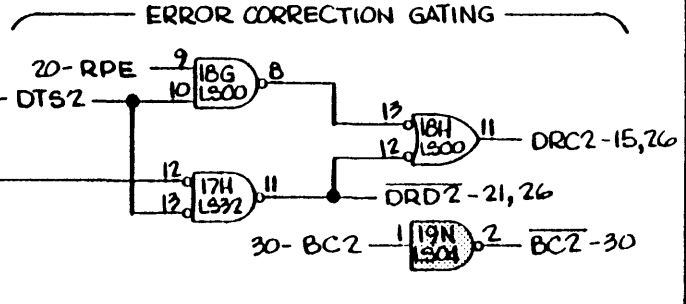
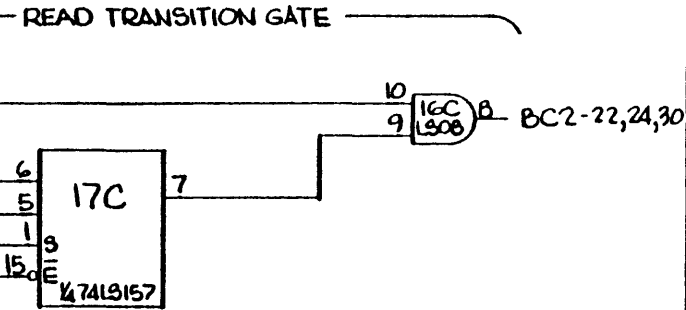


TOLERANCES UNLESS OTHERWISE SPECIFIED FRACTIONS DEC. ANGLES ± ± ±		western peripherals ANAHEIM, CALIFORNIA	
APPROVALS		DATE	
DRAWN HRE		1-31-77	
CHECKED		SCALE	SIZE B DRAWING NO. 170016
		DO NOT SCALE DRAWING	
		SHEET 30 OF 37	

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LTR	DESCRIPTION	DATE	APPROVED



TOLERANCES UNLESS OTHERWISE SPECIFIED  
FRACTIONS DEC. ANGLES  
± ± ±

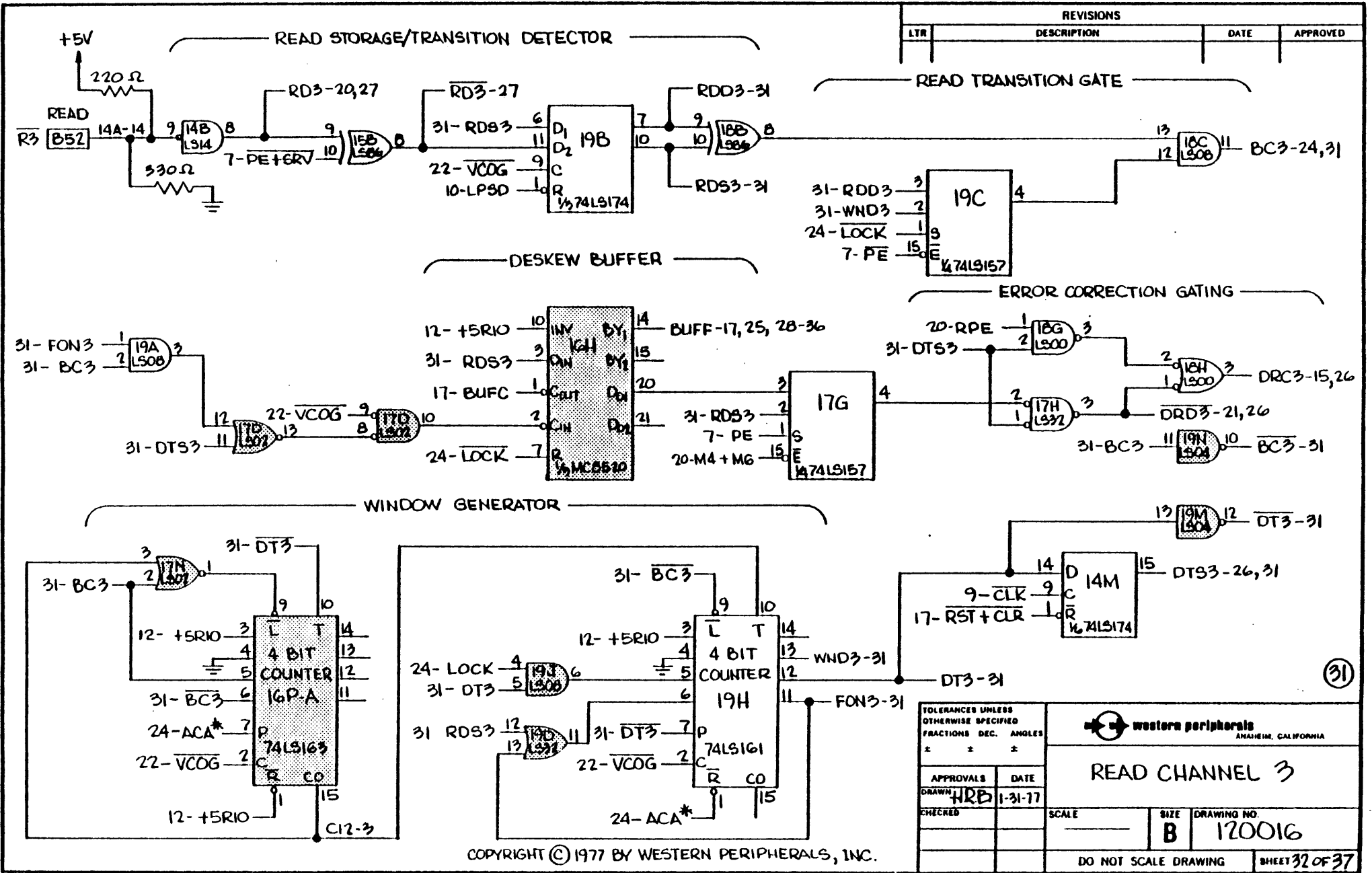
APPROVALS	DATE
DRAWN HRP	1-31-77
CHECKED	

**western peripherals**  
ANAHEIM, CALIFORNIA

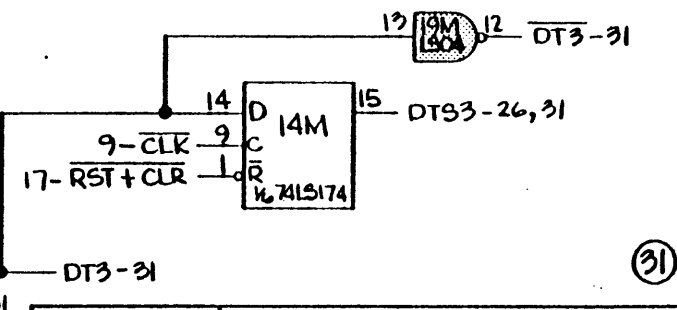
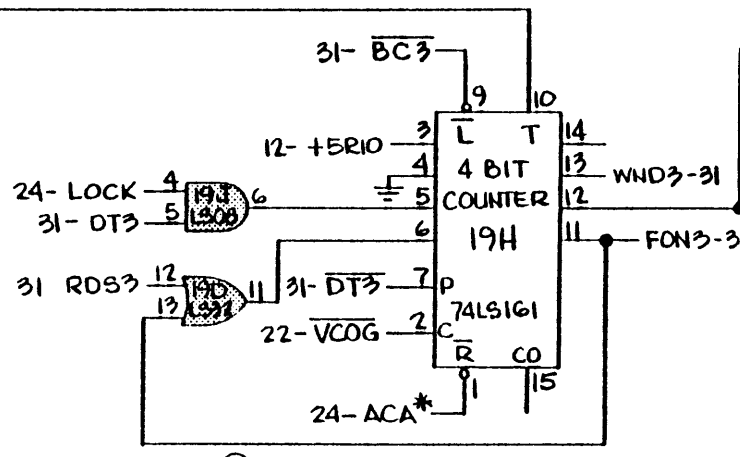
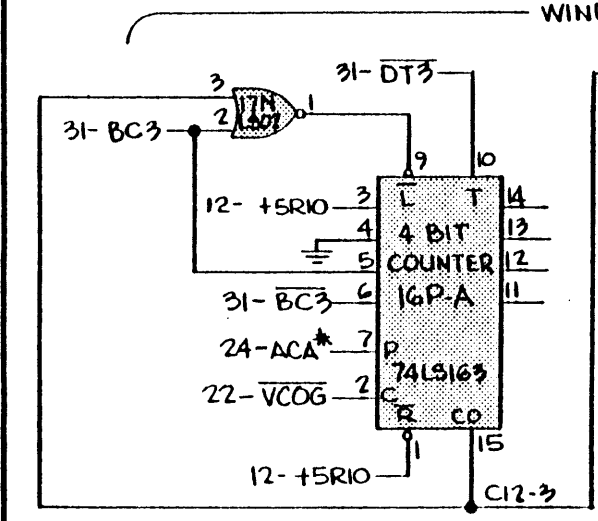
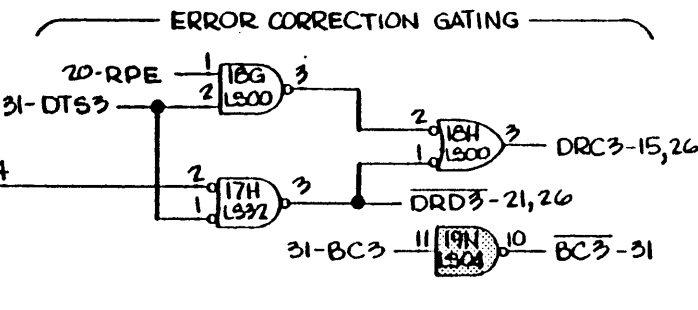
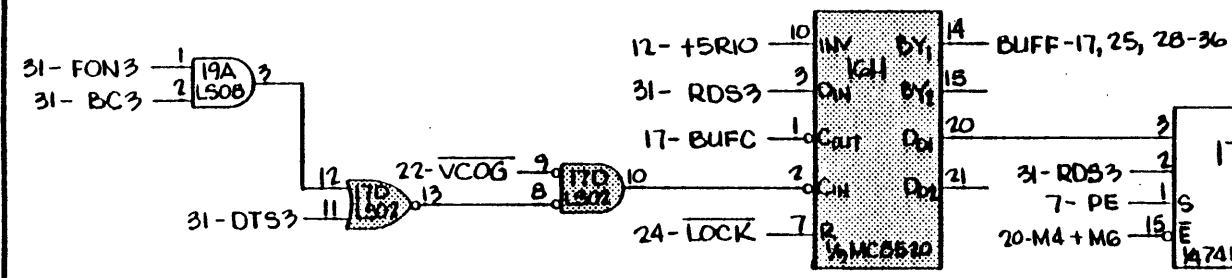
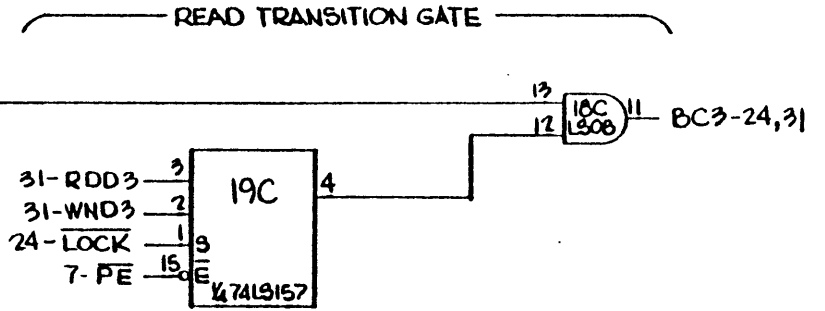
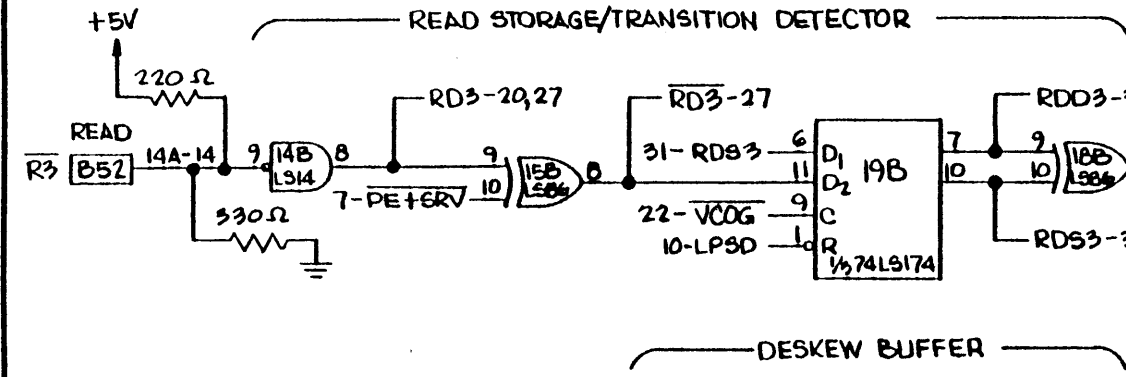
**READ CHANNEL 2**

SCALE	SIZE	DRAWING NO.
	B	120016
DO NOT SCALE DRAWING		SHEET 31 OF 37

COPYRIGHT © 1977 BY WESTERN PERIPHERALS, INC.

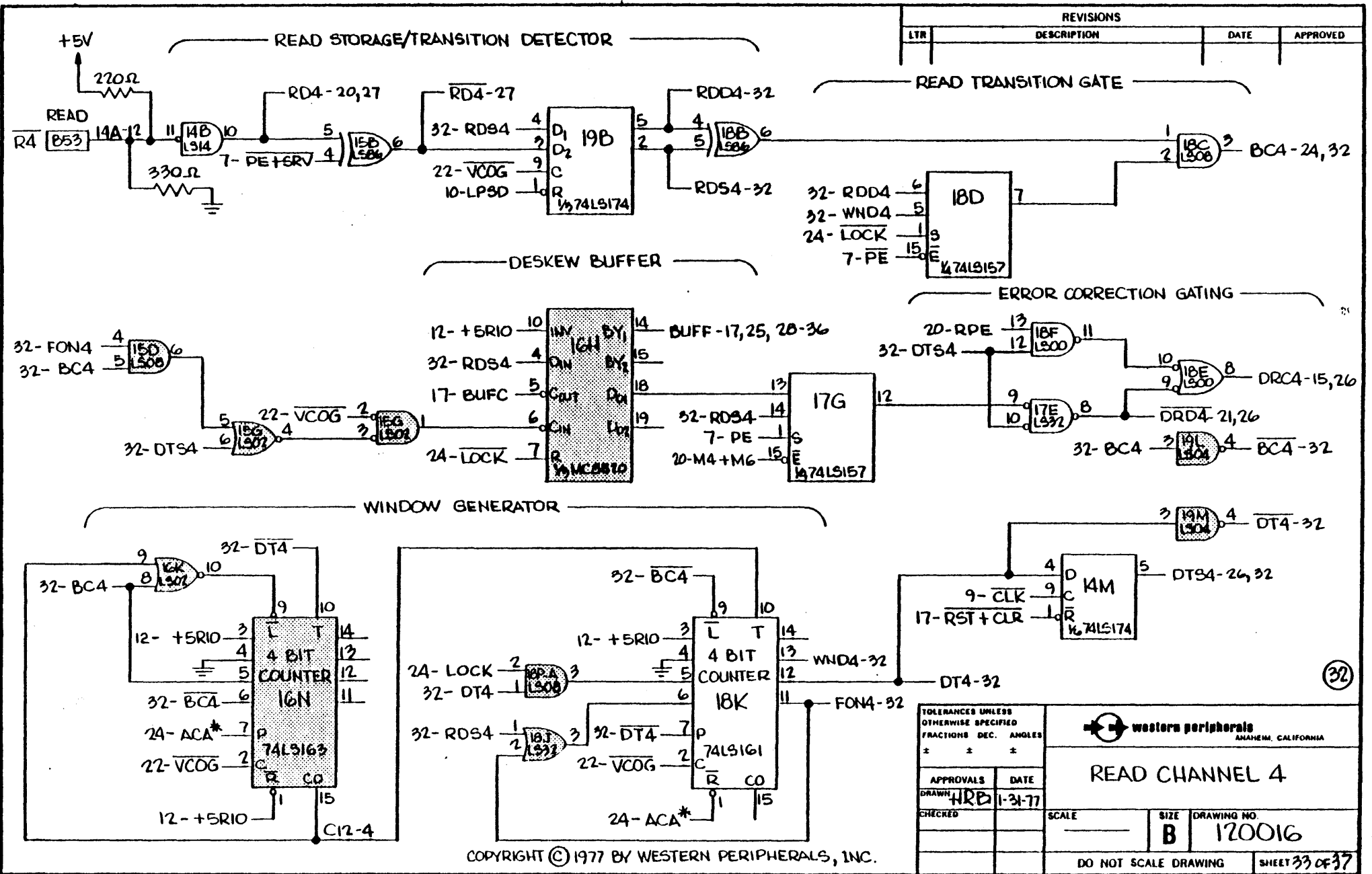


REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED

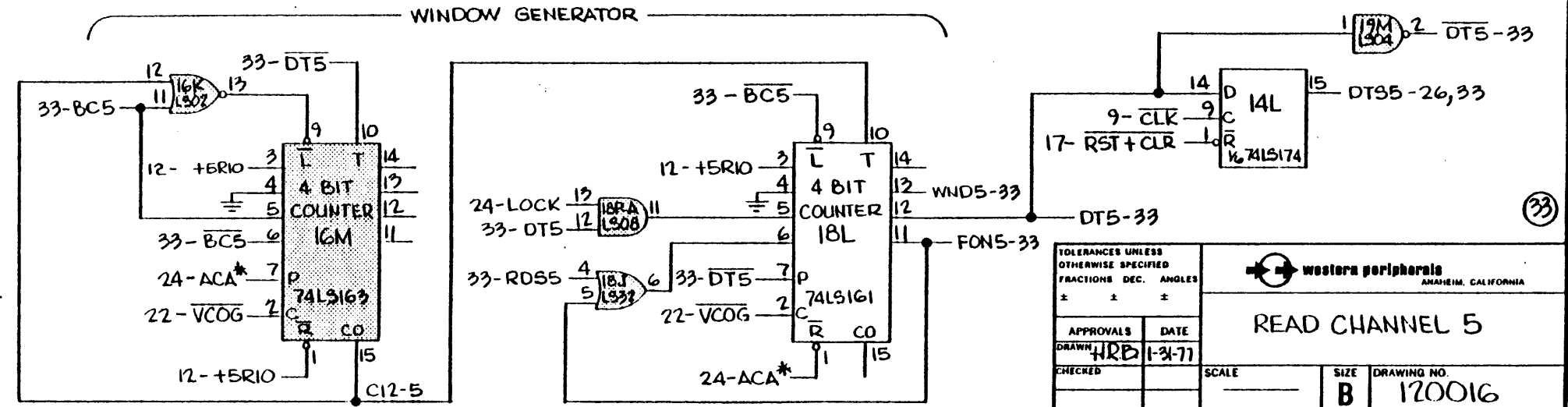
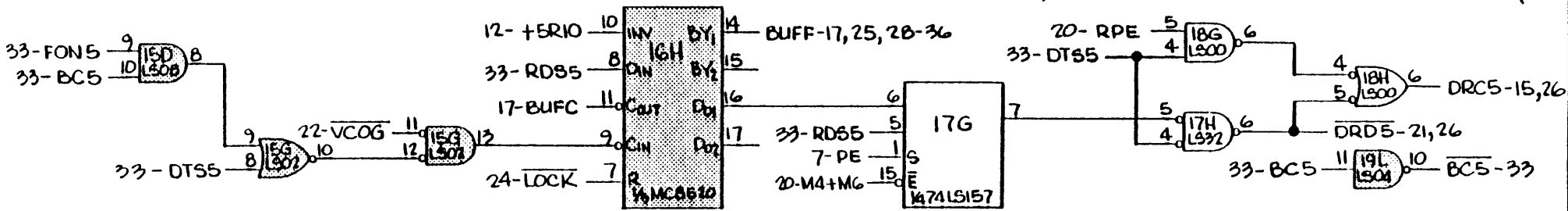
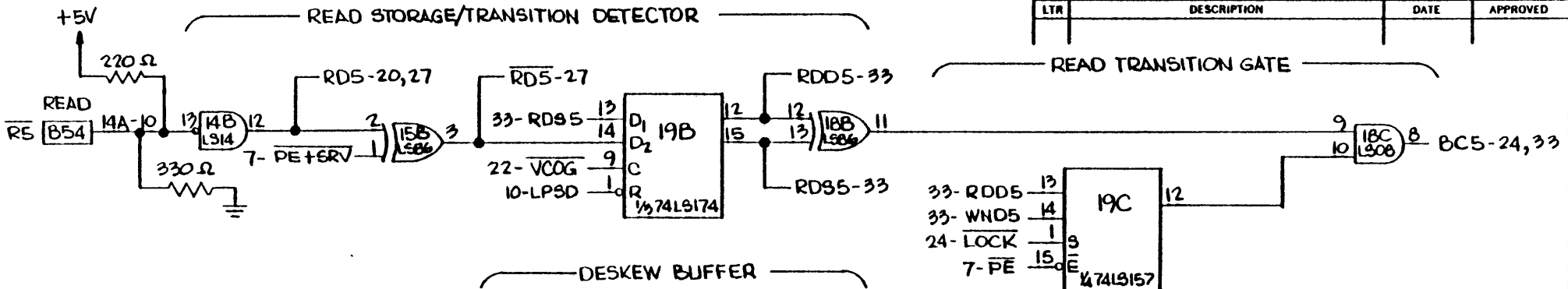


TOLERANCES UNLESS OTHERWISE SPECIFIED		FRACTIONS DEC. ANGLES		western peripherals ANAHEIM, CALIFORNIA	
±	±	±	±	READ CHANNEL 3	
APPROVALS	DATE	DRAWN HRP 1-31-77			
CHECKED	SCALE	SIZE	DRAWING NO.	170016	
DO NOT SCALE DRAWING			SHEET 32 OF 37		

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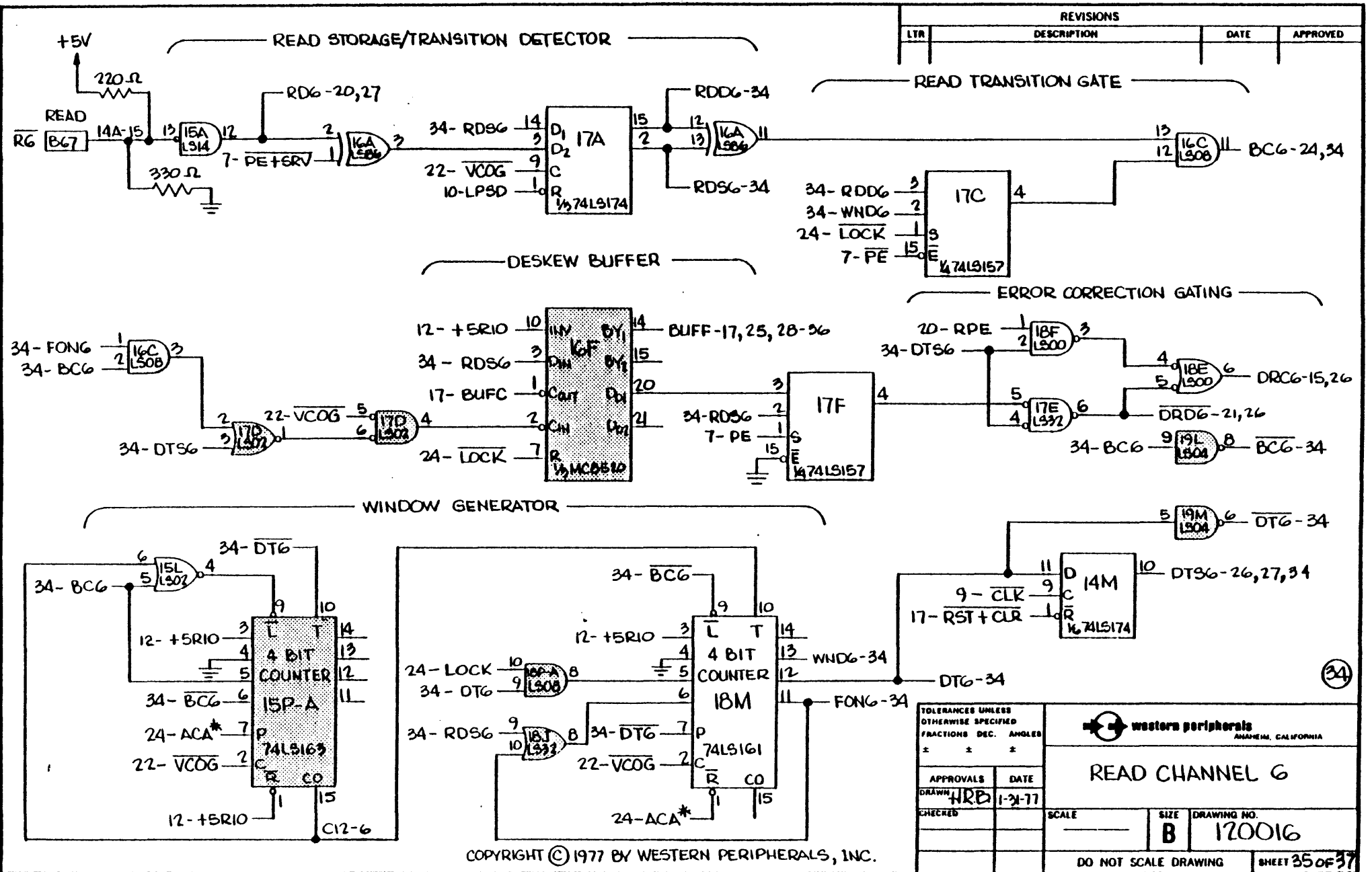


REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED



TOLERANCES UNLESS OTHERWISE SPECIFIED FRACTIONS DEC. ANGLES ± ± ±		western peripherals ANAHEIM, CALIFORNIA	
APPROVALS DRAWN: HRB CHECKED:		DATE: 1-31-77	
SCALE: _____		SIZE: B	DRAWING NO.: 120016
DO NOT SCALE DRAWING			SHEET 34 OF 37

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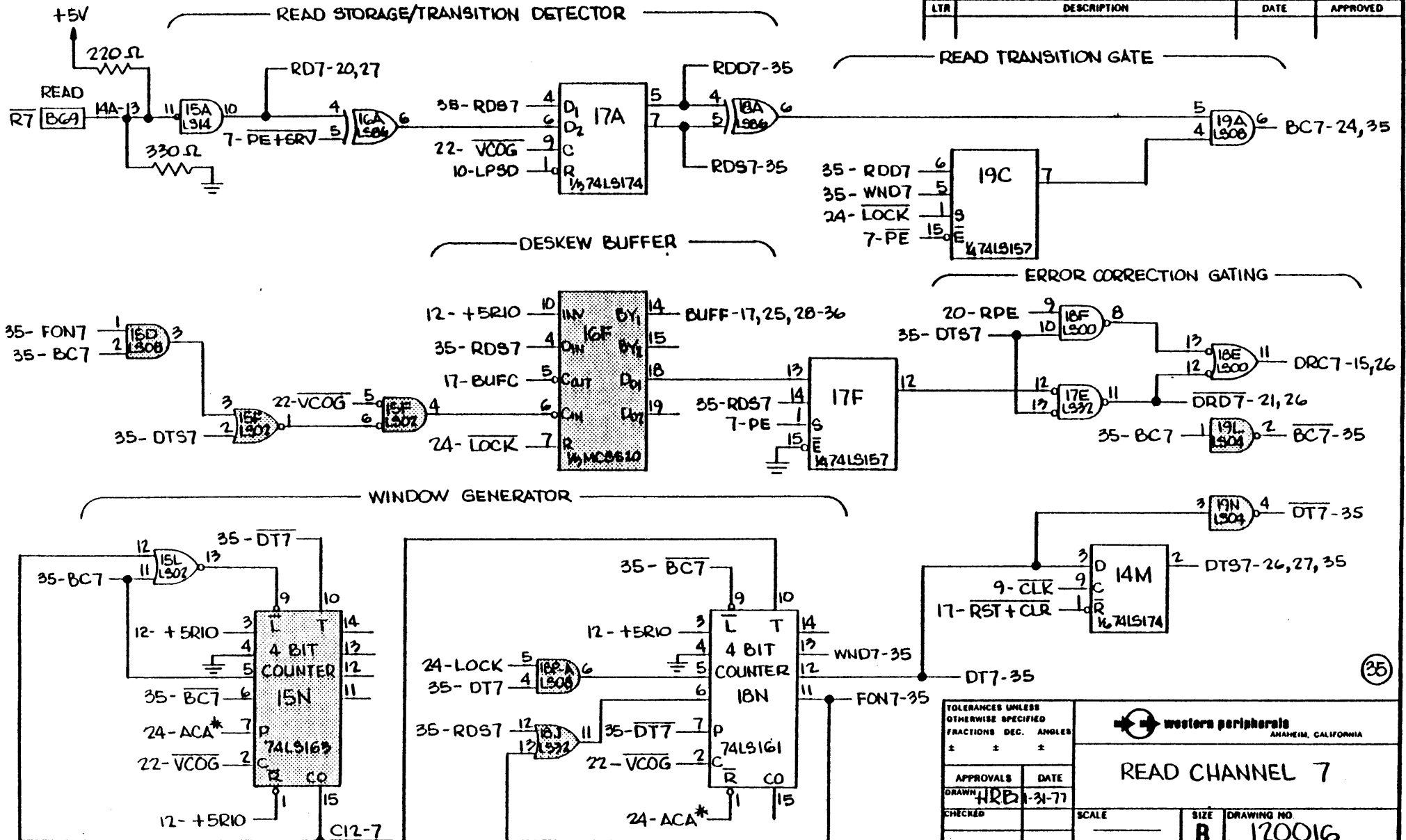
REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED

TOLERANCES UNLESS OTHERWISE SPECIFIED		western peripherals	
FRACTIONS DEC. ANGLES		ANAHEIM, CALIFORNIA	
± ± ±		READ CHANNEL G	
APPROVALS	DATE	SCALE	SIZE
DRAWN HRB	1-21-77		B
CHECKED		DRAWING NO.	170016
		DO NOT SCALE DRAWING	SHEET 35 OF 37

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REVISIONS

LTR	DESCRIPTION	DATE	APPROVED



TOLERANCES UNLESS OTHERWISE SPECIFIED  
 FRACTIONS DEC. ANGLES  
 ± ± ±



READ CHANNEL 7

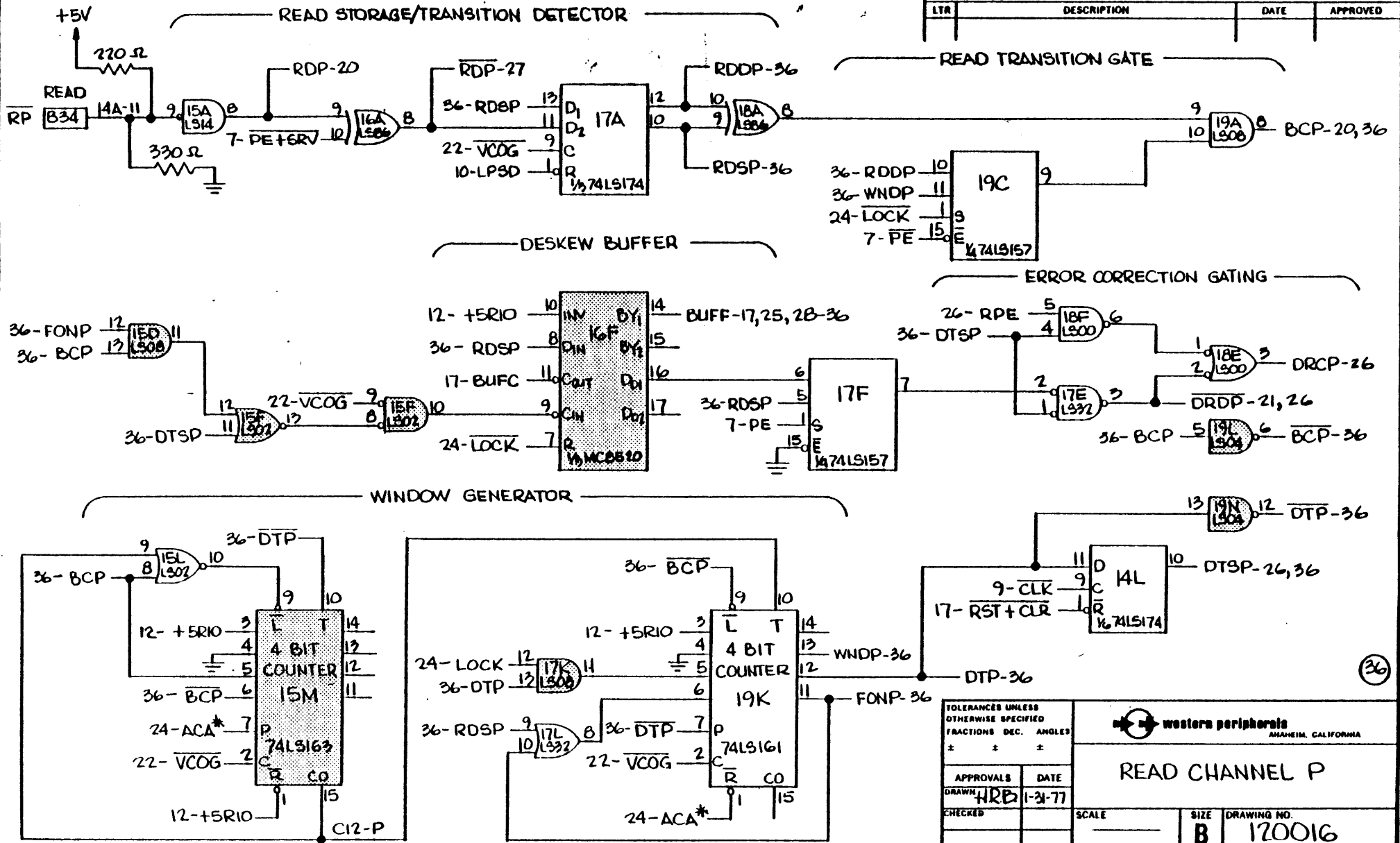
APPROVALS \_\_\_\_\_ DATE \_\_\_\_\_  
 DRAWN HRB 1-31-77  
 CHECKED \_\_\_\_\_

SCALE \_\_\_\_\_ SIZE **B** DRAWING NO. **120016**

DO NOT SCALE DRAWING SHEET 36 OF 37



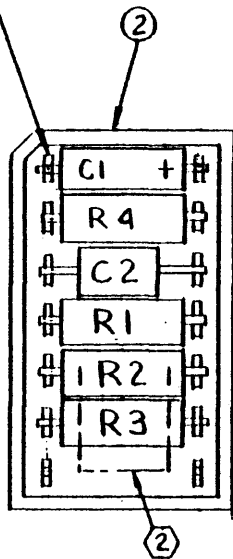
REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED



36

TOLERANCES UNLESS OTHERWISE SPECIFIED FRACTIONS DEC. ANGLES		western peripherals ANAHEIM, CALIFORNIA		
±	±			READ CHANNEL P
APPROVALS	DATE	SCALE	SIZE B	DRAWING NO. 170016
DRAWN: HRB	1-21-77			

PIN NO.1 (REF)



REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED

- NOTE: UNLESS OTHERWISE SPECIFIED
- FOR MATERIAL SEE P/L 120023
  - AFFIX ADHESIVE LABEL WITH PART NO. APPROPRIATE DASH NO. & LATEST REV LTR (FAR SIDE)
  - COMPONENT VALUES TABULATED ON P/L

PART NO.	OPERATING SPEED (IPS)		
	NOMINAL	MIN	MAX.
120023-1	12.5	4	19
120023-2	25	8	40
120023-3	37.5	12	59
120023-4	45	15	72
120023-5	75	22	100
120023-6	125	47	200

TOLERANCES UNLESS OTHERWISE SPECIFIED				
FRACTIONS	DEC. ANGLES			
±	± ±	ASSY-VCO FILTER CHIP		
APPROVALS	DATE	SCALE	SIZE	DRAWING NO.
DRAWN CORUM	11-11-76			
CHECKED V.L.	11-17-76	DO NOT SCALE DRAWING		SHEET 1 OF 1

LIST OF MATERIALS

ITEM	QTY	UNITS	PART NUMBER	DESCRIPTION	R: P DESIG	QUANTITY REQUIRED						DATE RELEASED	JOB ORDER NO.	DRAWN BY	DATE	CHECKED BY	DATE	NEXT ASSEMBLY	TITLE
						-1	-2	-3	-4	-5	-6								
1			120023	ASSY, VCO FILTER CHIP		REF	REF	REF	REF	REF	REF								
2			CA-14P-12	DIP PLUG, 14 PIN		1	1	1	1	1	1								
3			162D224X9035BC2	CAPACITOR, .22 uF	C1	1	1	1	1	1	1								
4			CK12BX102K	1000 PF, 100VDC	C2	1													
5			CK12BX471K	470			1												
6			CK12BX331K	330				1											
7			CK12BX271K	270					1										
8			CK12BX181K	180						1									
9			CK12BX820K	CAPACITOR, 82 PF, 100VDC	C2														
10			RC07G153J	RESISTOR, 15K, 1/4W, 5%	R1, R2	2													
11			752J	7.5K			2												
12			512J	5.1K				2											
13			432J	4.3K					2										
14			242J	2.4K						2									
15			152J	1.5K		R1, R2													
16			272J	2.7K		R3	1												
17			132J	1.3K				1											
18			911J	910Ω					1										
19			751J	750Ω					1										
20			431J	430Ω						1									
21			301J	300Ω		R3													
22			RC07G472J	RESISTOR 4.7K, 1/4W, 5%	R4	1	1	1	1	1	1								

DATE RELEASED: [ ]  
 JOB ORDER NO.: [ ]  
 DRAWN BY: CORUM  
 DATE: 11-17-76  
 CHECKED BY: M.D.  
 DATE: 11-17-76  
 SHEET 1 OF 1  
 ASSEMBLY NO. P/L 120023  
 TITLE: VCO FILTER CHIP (-1 THRU -6)  
 REV. 1

4

3

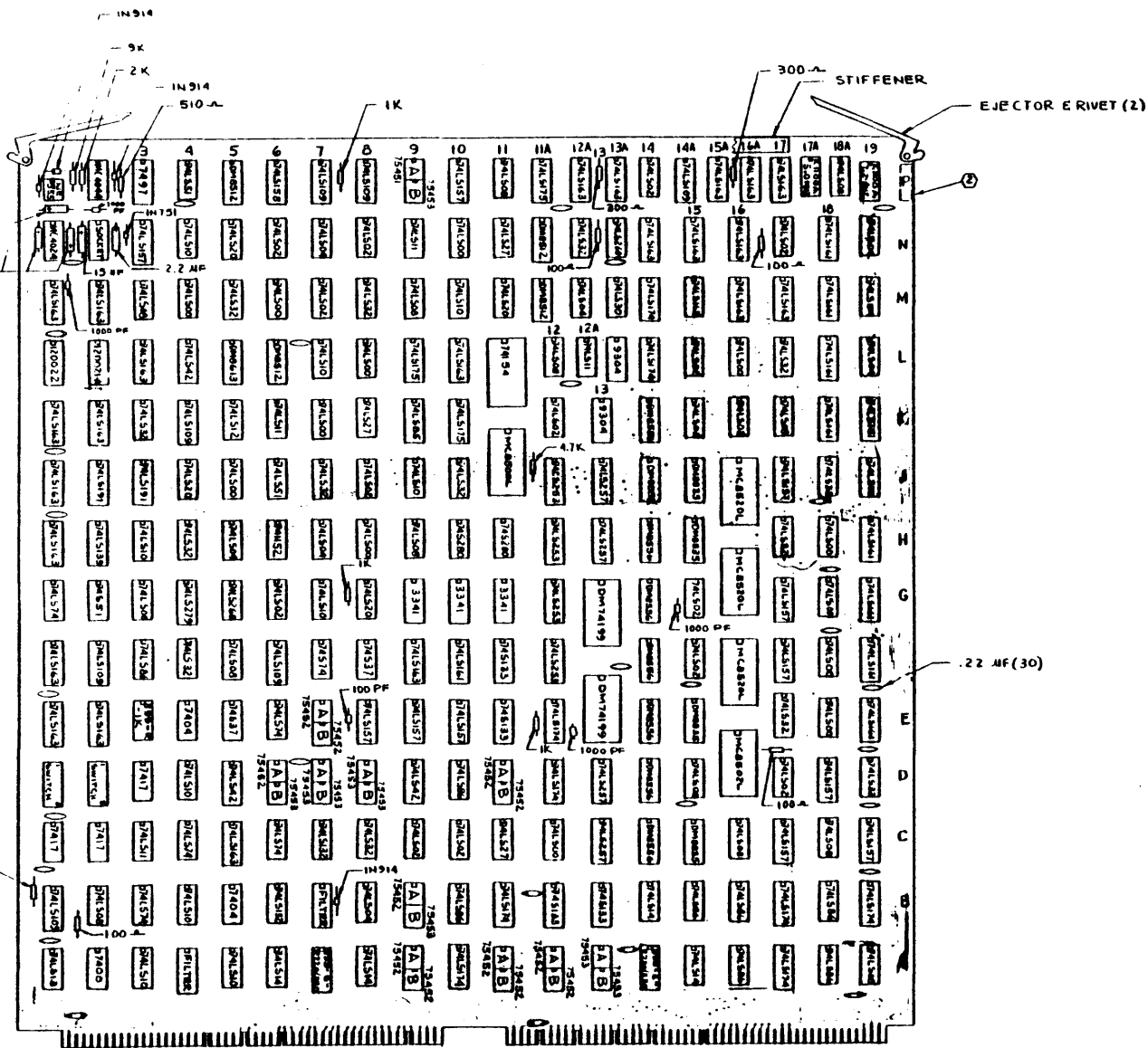
2

1

THIS DOCUMENT AND THE INFORMATION CONTAINED HEREIN IS PROPRIETARY TO WESTERN PERIPHERALS AND UNLESS OTHERWISE SPECIFIED UNDER A WRITTEN AGREEMENT, MAY NOT BE REPRODUCED, OR COPIED IN WHOLE OR IN PART, OR DISCLOSED TO OTHERS, WITH OR WITHOUT THE WRITTEN PERMISSION OF WESTERN PERIPHERALS. IT IS THE POLICY OF WESTERN PERIPHERALS TO MAINTAIN THE HIGHEST QUALITY STANDARDS IN THE MANUFACTURE OF ITS PRODUCTS WITHOUT THE WRITTEN PERMISSION OF WESTERN PERIPHERALS.

REVISIONS

ZONE	LTR	DESCRIPTION	BY	DATE	APPROVED
A		REF CO NO. 0014 & 0018			
B		REF CO NO. 0022			
C		REF CO NO. 0044			
D		REF CO NO. 0030			
E		REF CO NO. 0029			
F		REF CO NO. 0055			
G		REF CO NO. 0062 E 0085			
H		REF CO NO. 0066			
J		REF CO NO. 0108 REF PWB 12001-A REV REF FAB DWG 12001-A REV			
K		(1) INC CO'S LISTED IN CHG LTR'S A THRU J (2) REVISED (REDRAWN) INC PWB 12001-B REV / REF FAB DWG 12001-B REV ADD R12 (3) INCORP ECO NO. 0158 & REF FAB DWG 12001-C REV (PICTURE CHG ONLY)			



NOTE: UNLESS OTHERWISE SPECIFIED  
 1. MAXIMUM COMPONENT HEIGHT FROM SURFACE OF BOARD TO BE 0.40  
 2. RUBBER STAMP ASSY NO. WITH LATEST REVISION LETTER APPROX WHERE SHOWN  
 3. FOR MATERIAL SEE P/L 120024

APPLICATION		REF DOCUMENTS	
NEXT HIGHER ASSY	PRODUCT LINE	LOGIC DIAGRAM	PIN ASSIGNMENT
		120016	
CONTRACT/PROG/PROJ NO.		western peripherals™	
		WESTERN PERIPHERALS INC. 11400 S. CALIF. ST. SANTA ANA, CALIF. 92705	
OWN	CORUM	DATE	3/8/77
CHK		BY	
APP		REV	
ENGR		DATE	
MANUFACTURING REL	DATE	DATE	
		120024	K

4

3

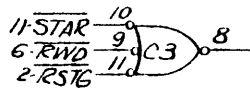
2

1

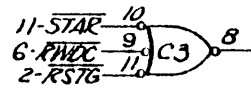
CONFIGURATION "D" SCHEMATIC VARIANCE TO SCHEMATIC 120016 SHEETS 6 & 11

STANDARD (120016)

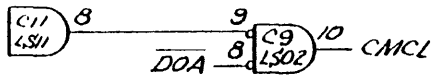
CONFIGURATION "D" (120016)



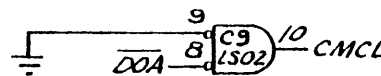
SHEET 11



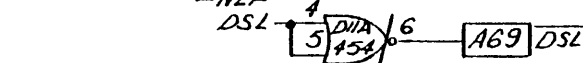
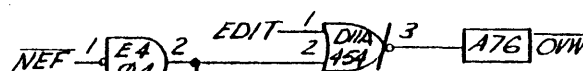
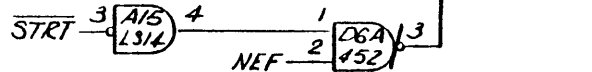
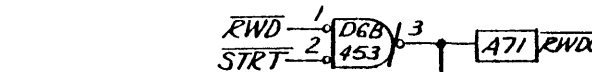
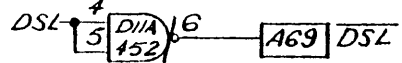
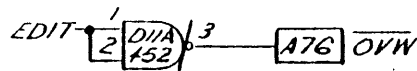
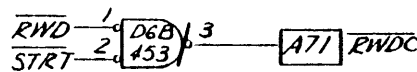
SHEET 11



SHEET 6



SHEET 6



REWORK INSTRUCTIONS:  
(REF ASSY 120024)

- (A) CUT ETCH ON SOLDER SIDE BETWEEN D11A-1 AND D11A-2, CUT ETCH ON COMPONENT SIDE AT C3-9, CUT ETCH ON COMPONENT SIDE AT C9-9.
- (B) REPLACE IC. D11A (WAS 75452) WITH A 75454.
- (C) JUMPER E4-2 TO D11A-2.
- (D) JUMPER D6B-2 TO A15-3.
- (E) JUMPER A15-4 TO D6A-1.
- (F) JUMPER E4-2 TO D6A-2.
- (G) JUMPER D6A-3 TO D6B-3.
- (H) JUMPER C3-9 TO D6B-3.
- (I) JUMPER C9-9 TO C9-7.
- (J) JUMPER D5-3 TO E4-1.
- (K) IDENTIFY, AT ASSY NO, WITH "CONF D", USE BLACK INK.

NOTE: THIS DWG CHANGES TC-120 TO IMPLEMENT OFFLINE COMMAND WITH "NO EFFECT" COMMAND FUNCTION.

REVISIONS

LTR	DESCRIPTION	DATE	APPROVED
NIC	THIS DWG CREATED BY ECO #041	6/22/77	W.D. 6-23-77
A	CLARIFIED STEP(A) PER ECO # 314	3-29-78	W.D. 3-30-78

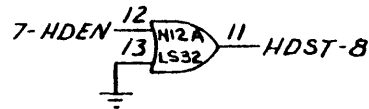
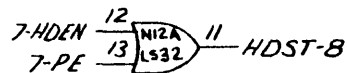
TOLERANCES UNLESS OTHERWISE SPECIFIED		western peripherals ANAHEIM, CALIFORNIA	
FRACTIONS DEC.	ANGLES	MODIFICATION DRAWING- TC-120, CONFIGURATION "D"	
± ± ±			
APPROVALS	DATE	SCALE	SIZE DRAWING NO.
DRAWN	6/23/77		B 120031
CHECKED	W.D. 6-23-77		
		DO NOT SCALE DRAWING SHEET 1 of 1	

CONFIGURATION "E" SCHEMATIC VARIANCE TO SCHEMATIC 120016 SHEET 7

REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED
N/C	THIS DWG CREATED BY ECO <sup>042</sup>	6/22/77	N.D. 6/23/77

STANDARD (120016)

CONFIGURATION "E" (120016)



REWORK INSTRUCTIONS:

(REF ASSY 120024)

(A) CUT ETCH AT N12A-13 (UNDER IC N12A)

(B) JUMPER N12A-13 TO N12A-7

(C) IDENTIFY, AT ASSY NO, WITH "CONF E", USE BLACK INK.

NOTE: THIS DRAWING CHANGES TC-120 TO HAVE LOW DENSITY STATUS WHEN OPERATING PHASE ENCODED.

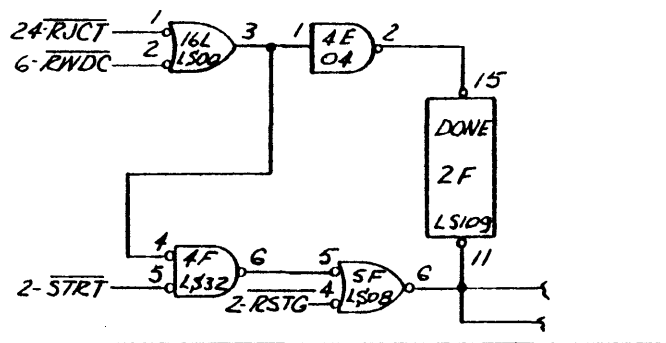
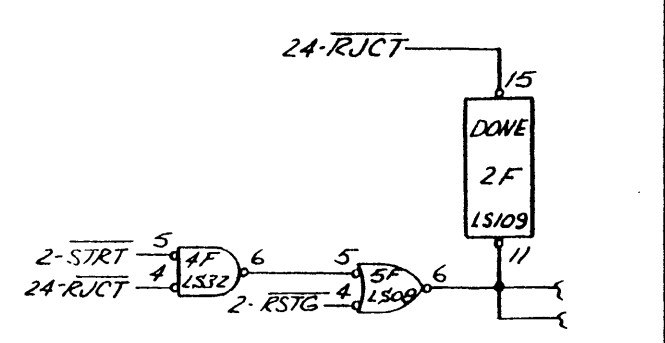
TOLERANCES UNLESS OTHERWISE SPECIFIED		 western peripherals ANAHEIM, CALIFORNIA	
FRACTIONS DEC.	ANGLES		
±	±	MODIFICATION DRAWING - TC120, CONFIGURATION "E"	
APPROVALS	DATE	SCALE	SIZE
DRAWN <i>[Signature]</i>	6/22/77		B
CHECKED N.D.	6-23-77		DRAWING NO. 120032
DO NOT SCALE DRAWING			SHEET / of /

CONFIGURATION "F" SCHEMATIC VARIANCE TO SCHEMATIC 120016 SHEET 3

REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED
N/C	THIS DWG CREATED BY ECO 43	6-23-77	H.D. 6-23-77

STANDARD (120016)

CONFIGURATION "F" (120016)

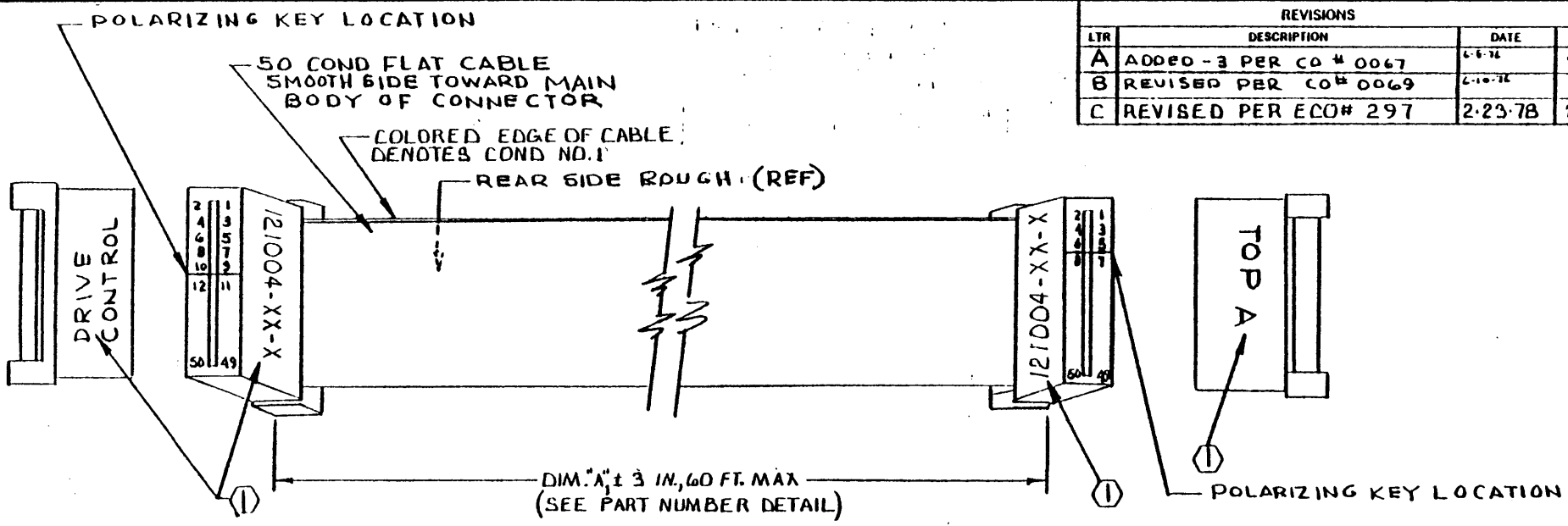


REWORK INSTRUCTIONS:

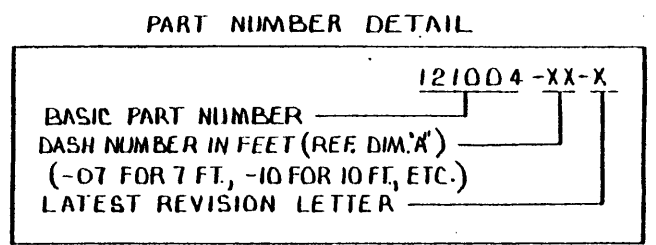
- (REF ASSY 120024)
- (A) CUT ETCH AT 2F-15, SOLDER SIDE. (RJCT)
- (B) CUT ETCH AT 4F-4, 2 PLACES, SOLDER SIDE. (STRT)
- (C) JUMPER 4E-2 TO 2F-15.
- (D) JUMPER 16L-3 TO 4E-1.
- (E) JUMPER 4E-1 TO 4F-4.
- (F) JUMPER 4G-6 TO 16L-1. (RJCT)
- (G) JUMPER 4C-12 TO 4G-7. (STRT)
- (H) JUMPER 6D-B-3 TO 16L-2. (RWDC)
- (I) IDENTIFY, AT ASSY NO, WITH "CONF F," USE BLACK INK.

NOTE: THIS DWG CHANGES TC-120 TO PROVIDE INTERRUPT UPON EXECUTION OF REWIND FOR DDOS COMPATABILITY.

TOLERANCES UNLESS OTHERWISE SPECIFIED		western peripherals ANAHEIM, CALIFORNIA	
FRACTIONS DEC. ANGLES	± ± ±		
APPROVALS		MODIFICATION DRAWING - TC-120, CONFIGURATION "F"	
DRAWN	DATE	SCALE	SIZE
	6/23/77	—	B
CHECKED	DATE	DRAWING NO.	
H.D.	6-23-77	120033	
DO NOT SCALE DRAWING			SHEET / OF /



REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED
A	ADDED - 3 PER CO # 0067	6-6-76	J.D.
B	REVISED PER CO # 0069	6-10-76	J.D.
C	REVISED PER ECO# 297	2-23-78	J.D., 9-10



NOTES.

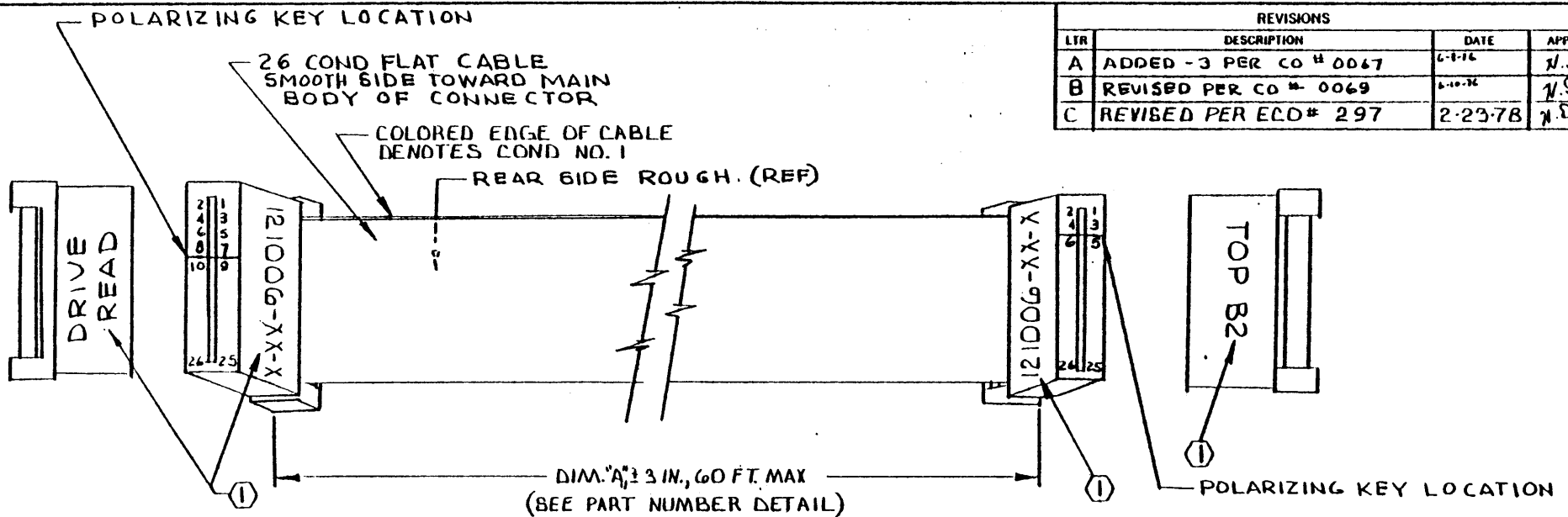
① MARK CHARACTERS SHOWN USING CONTRASTING COLOR INK.  
SEE PART NUMBER DETAIL FOR MARKING OF VARIABLE CHARACTERS (X's).

2. ASSEMBLY:
- USE 3M PRESS NO. 3440
  - USE LOCATOR PLATE NO. 3443-11
  - USE SETTING NO 9 OF GAUGE 3436-1
  - CUT CABLE USING SCOTCHFLEX CABLE SHEAR OR EQUIV.
  - SEAT CABLE INTO COVER USING SCOTCHFLEX TOOL NO. 3453, CHECK FOR ALIGNMENT
  - PLACE BODY ON LOCATOR PLATE
  - POSITION COVER AND CABLE OVER CONN BODY
  - LOWER HANDLE TO COMPLETE ASSY
  - REMOVE BY LIFTING ON CONNECTOR

FOR PARTS SEE PARTS LIST 121004

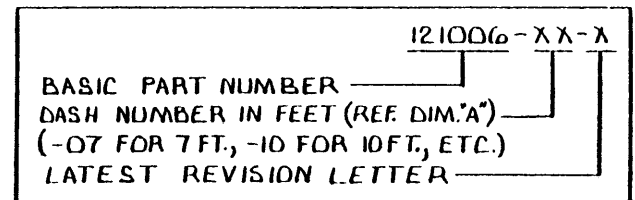
TOLERANCES UNLESS OTHERWISE SPECIFIED		<b>western peripherals</b> ANAHEIM, CALIFORNIA	
FRACTIONS	DEC.		
±	±	±	<b>ASSEMBLY- CABLE, CONTROL</b>
APPROVALS	DATE	SCALE	
DRAWN CORUM	6-1-76	SIZE NONE B	
CHECKED J.D.	6-1-76	DRAWING NO. 121004	
DO NOT SCALE DRAWING			SHEET





REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED
A	ADDED -3 PER CO # 0067	6-1-76	J.D.
B	REVISED PER CO # 0069	6-10-76	J.D.
C	REVISED PER ECD# 297	2-23-78	J.D., 1-78

PART NUMBER DETAIL



NOTES:

① MARK CHARACTERS SHOWN USING CONTRASTING COLOR INK.  
SEE PART NUMBER DETAIL FOR MARKING OF VARIABLE CHARACTERS (X's).

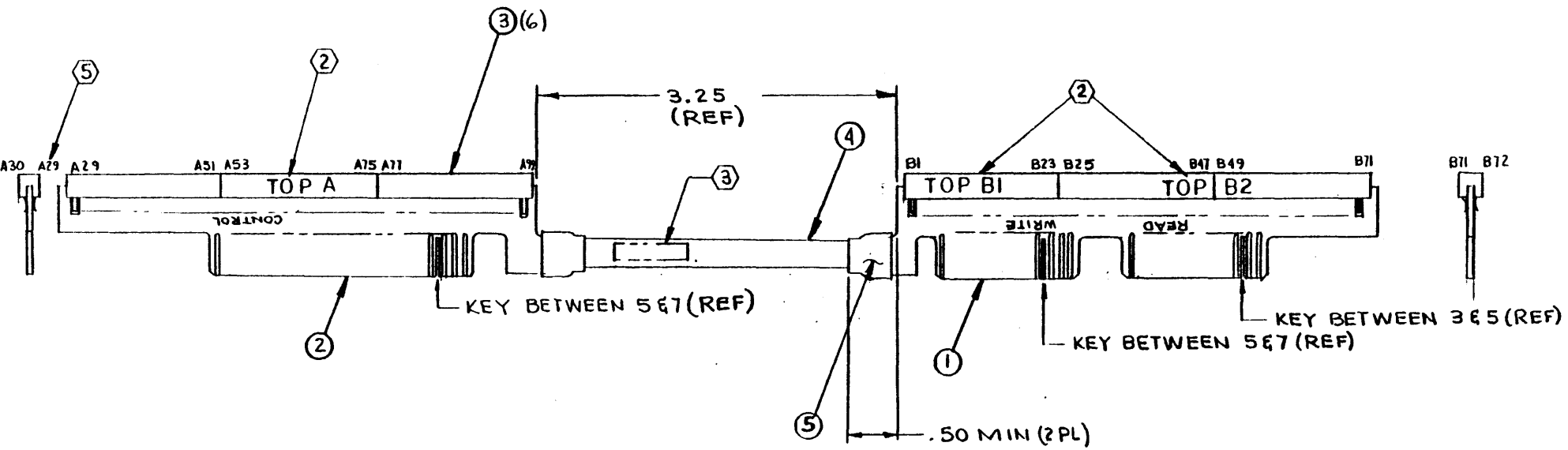
2. ASSEMBLY:

- USE 3M PRESS NO 3440
- USE LOCATOR PLATE NO. 3443-11
- USE SETTING NO. 9 OF GAUGE NO. 3436-1
- CUT CABLE USING SCOTCHFLEX CABLE SHEAR OR EQUIV.
- FEED CABLE INTO COVER USING SCOTCHFLEX TOOL NO 3453, CHECK FOR ALIGNMENT
- PLACE BODY ON LOCATOR PLATE
- POSITION COVER AND CABLE OVER CONN BODY
- LOWER HANDLE TO COMPLETE ASSY
- REMOVE BY LIFTING ON CONNECTOR

FOR PARTS SEE PARTS LIST 121006

TOLERANCES UNLESS OTHERWISE SPECIFIED		 western peripherals ANAHEIM, CALIFORNIA		
FRACTIONS DEC.	ANGLES			
* * *	* * *	<b>ASSEMBLY CABLE, READ</b>		
APPROVALS	DATE			
DRAWN CORUM	6-1-76	SCALE NONE	SIZE B	DRAWING NO. 121006
CHECKED J.D.	6-1-76	DO NOT SCALE DRAWING		SHEET

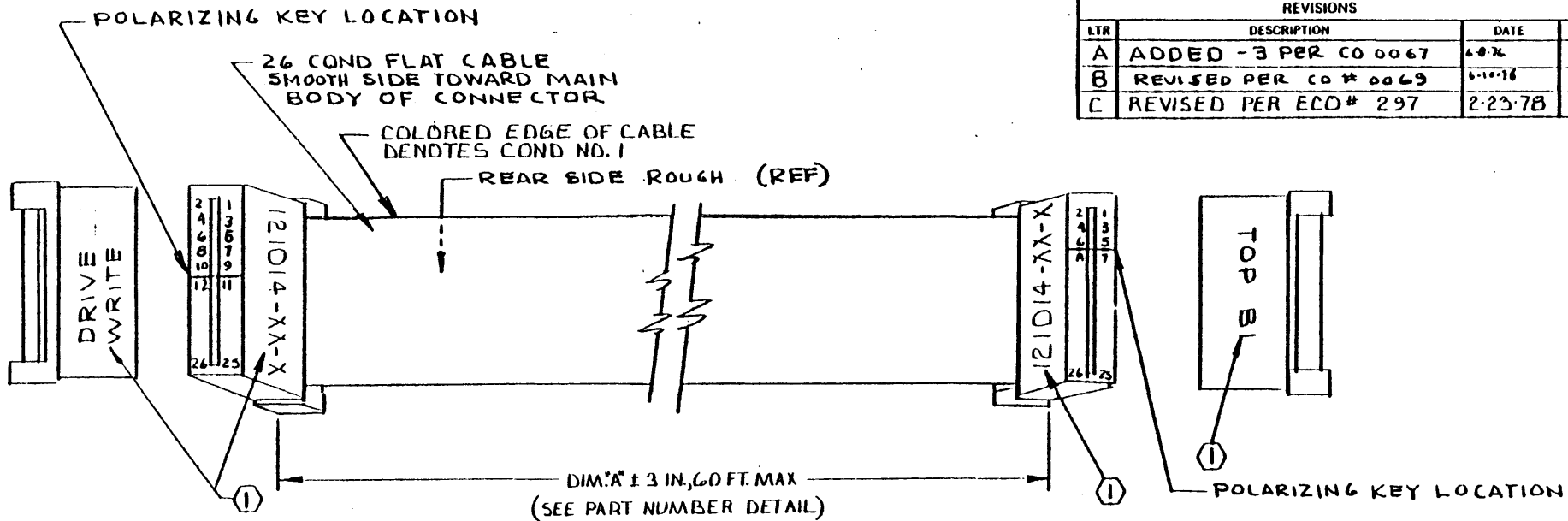
REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED
A	(1) REV 6 REDRAWN (2) INC ECONO. 163	M.T.C. 2-10-78	<i>H. Deutsch</i> 2-10-78



NOTE: UNLESS OTHERWISE SPECIFIED

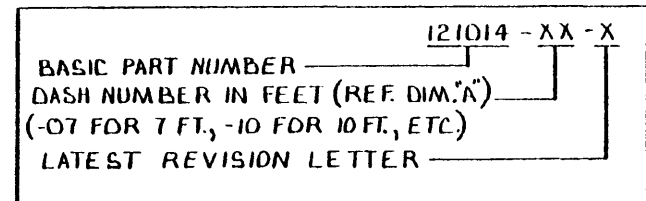
1. REF SCHEMATIC DWG NO. 122023
- ② RUBBER STAMP CHARACTERS SHOWN USING WHI INK APPROX WHERE SHOWN
- ③ RUBBER STAMP ASSY NO. WITH LATEST REV LTR APPROX WHERE SHOWN USING BLK INK
4. FOR MATERIAL SEE P/L 121011
- ⑤ A29 THRU A99 AND B1 THRU B72 ARE FOR REF ONLY AND DO NOT APPEAR ON PART

TOLERANCES UNLESS OTHERWISE SPECIFIED		<b>western peripherals</b> ANAHEIM, CALIFORNIA	
FRACTIONS	DEC.		
±	±	±	<b>ASSY DWG- ADAPTER, NOVA BACK PLANE</b>
APPROVALS	DATE	SCALE	
DRAWN CORUM	2-10-78	SIZE FULL	
CHECKED <i>H. Deutsch</i>	2-10-78	DRAWING NO. 121011	
		REV A	DO NOT SCALE DRAWING
		SHEET 1 OF 1	



REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED
A	ADDED -3 PER CO 0067	6-8-76	N.D.
B	REVISED PER CO # 0069	6-10-76	N.D.
C	REVISED PER ECO# 297	2-23-78	N.D. 11-18

PART NUMBER DETAIL



NOTE 6:

① MARK CHARACTERS SHOWN USING CONTRASTING COLOR INK.  
SEE PART NUMBER DETAIL FOR MARKING OF VARIABLE CHARACTERS (X'S).

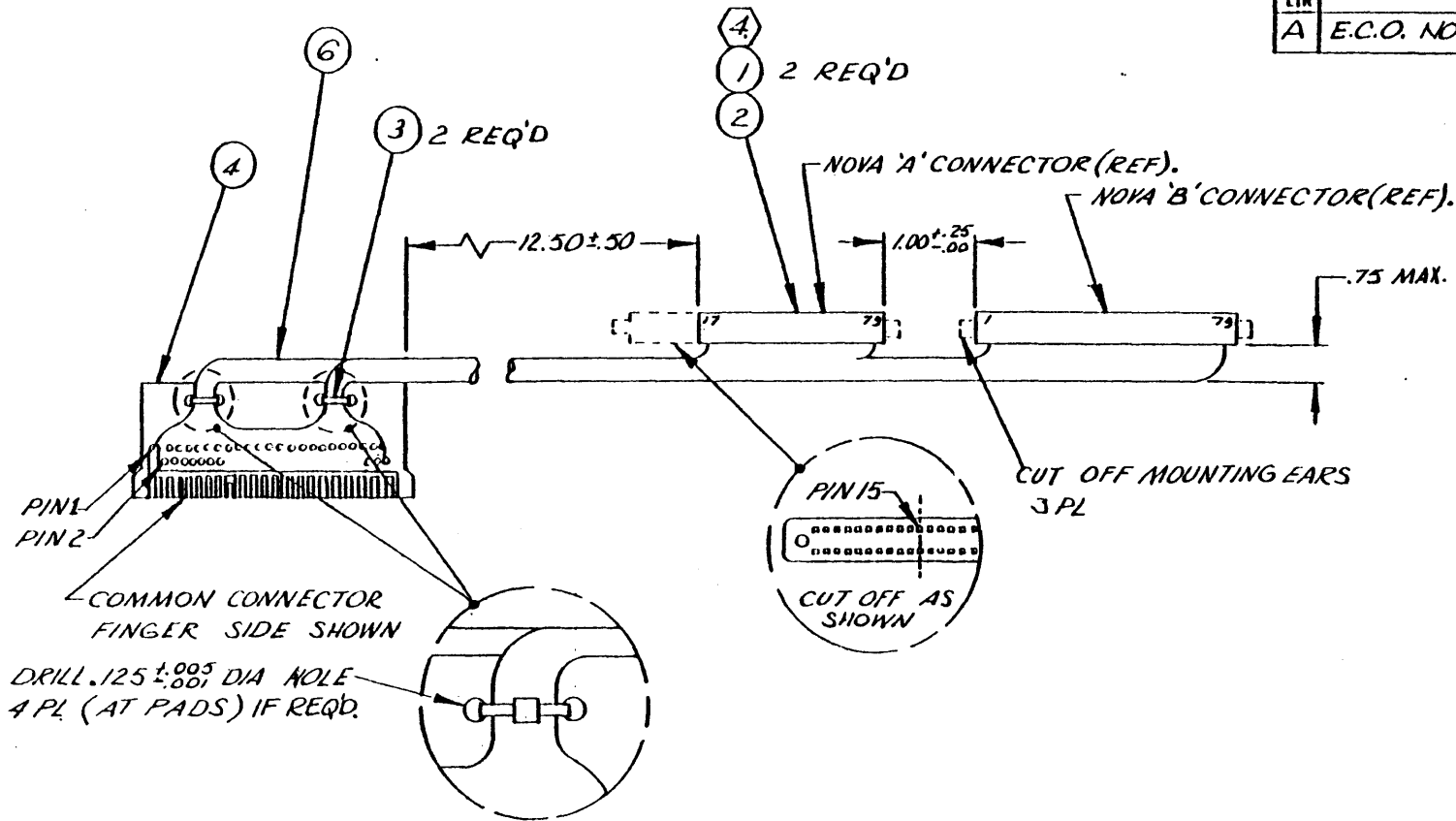
2. ASSEMBLY:

- USE 3M PRESS NO. 3440.
- USE LOCATOR PLATE NO 3443-11
- USE SETTING NO 9 OF GAUGE 3436-1
- CUT CABLE USING SCOTCHFLEX CABLE SHEAR OR EQUIV.
- SEAT CABLE INTO COVER USING SCOTCHFLEX TOOL NO 3453, CHECK FOR ALIGNMENT
- PLACE BODY ON LOCATOR PLATE
- POSITION COVER AND CABLE OVER CONN BODY
- LOWER HANDLE TO COMPLETE ASSY
- REMOVE BY LIFTING ON CONNECTOR

FOR PARTS SEE PARTS LIST 121014

TOLERANCES UNLESS OTHERWISE SPECIFIED		 western peripherals ANAHEIM, CALIFORNIA		
FRACTIONS	DEC. ANGLES			
±	±			
APPROVALS	DATE	<b>ASSEMBLY- CABLE, WRITE</b>		
DRAWN CORUM	6-1-76			
CHECKED N.D.	6-1-76			
		SCALE NONE	SIZE B	DRAWING NO. 121014
		DO NOT SCALE DRAWING		SHEET

REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED
A	E.C.O. NO. 0193	6-15-77	J. D. 6-15-77



④ USE SAE CRIMP TOOL #MC2500 & EXTRACTOR #ME-2500.

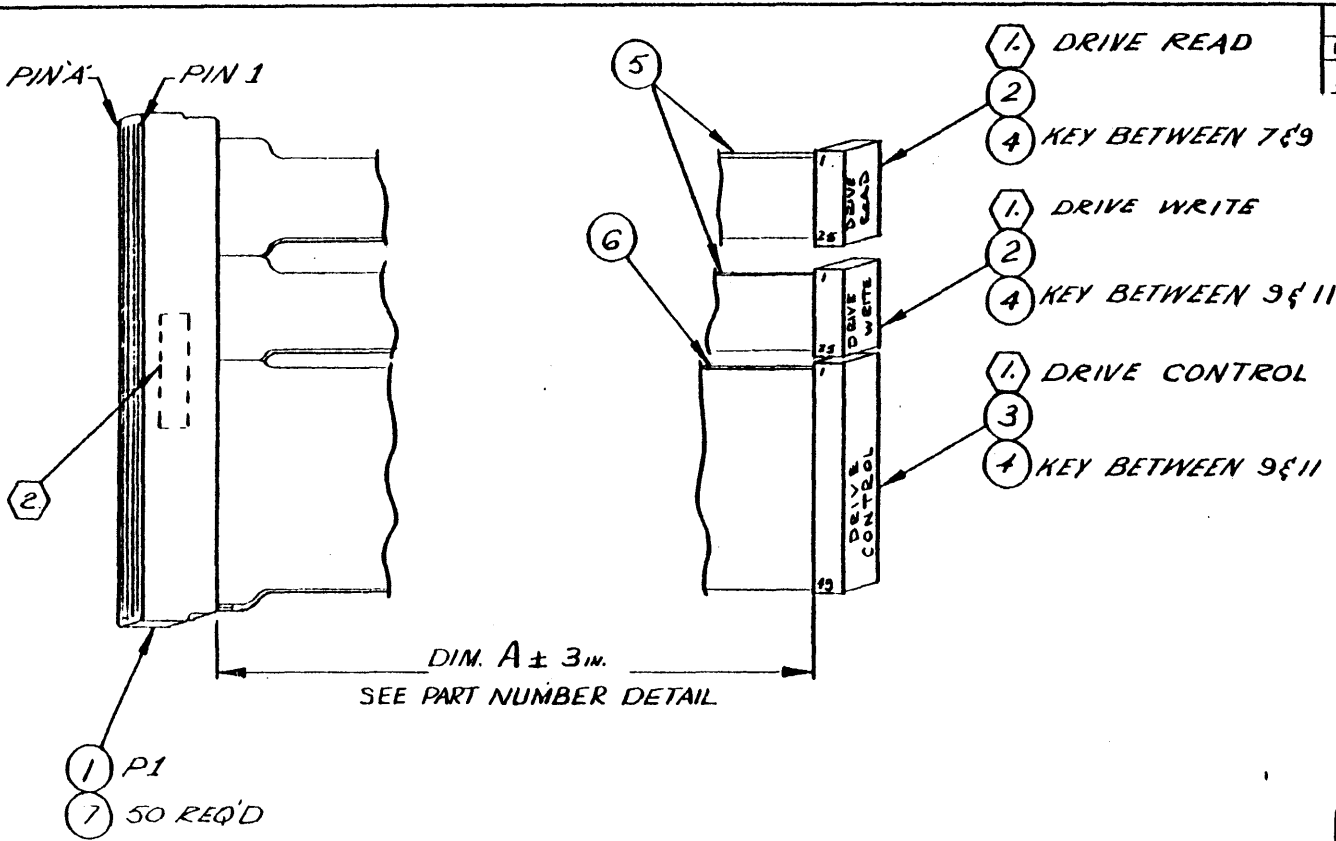
3. THIS ASSEMBLY USED IN CONJUNCTION WITH 121022.

2. RUBBER STAMP PART NO. ON FAR SIDE OF PADDLEBOARD.

1. WIRE PER WIRE LIST 121021.

NOTES: UNLESS OTHERWISE SPECIFIED.

TOLERANCES UNLESS OTHERWISE SPECIFIED		 western peripherals ANAHEIM, CALIFORNIA	
FRACTIONS	DEC.		
±	±	±	
APPROVALS	DATE	<b>ASSEMBLY - ADAPTER BACK PLANE/PADDLE BOARD (ECLIPSE)</b>	
DRAWN S.P.	5-24-77		
CHECKED N.P.	5-24-77	SCALE	SIZE <b>B</b>
		DRAWING NO. <b>121021-A</b>	
DO NOT SCALE DRAWING			SHEET 1 of 1



REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED
A	REV. PER ECO No. 335	4-19-78	N.D. 4-26-78

**PART NUMBER DETAIL**

121022 - XX - X

BASIC PART NUMBER \_\_\_\_\_

DASH NUMBER IN FEET REF. DIM. A \_\_\_\_\_  
 (07 FOR 7FT., 10 FOR 10FT., ETC.)

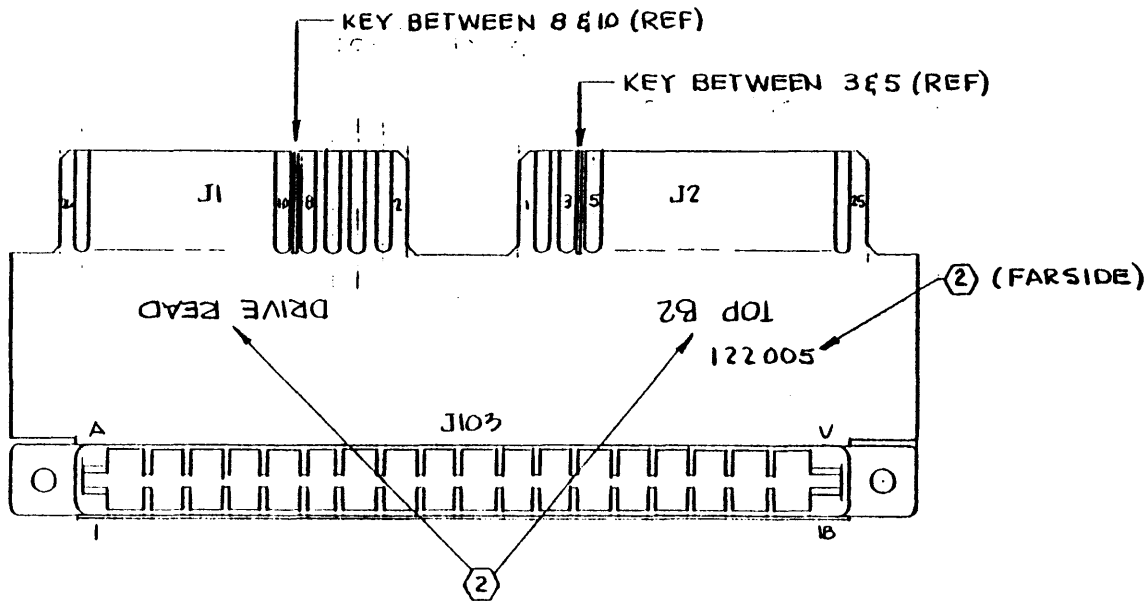
LATEST REVISION LETTER \_\_\_\_\_

- 4. USE IN CONJUNCTION WITH ADAPTER 121021
- 3. WIRE PER WIRE LIST: WL 121022.
- ② MARK PART NUMBER, DASH NUMBER AND LATEST REV. LTR. APPROX. WHERE SHOWN USING CONTRASTING INK. (SEE PART NUMBER DETAIL)
- ① RUBBER STAMP WITH BLACK INK AS SHOWN.

NOTES: UNLESS OTHERWISE SPECIFIED.

TOLERANCES UNLESS OTHERWISE SPECIFIED		<b>western peripherals</b> ANAHEIM, CALIFORNIA	
FRACTIONS	DEC.		
±	±	±	<b>ASSEMBLY - CABLE          TAPE/PADDLEBOARD          (ECLIPSE)</b>
APPROVALS	DATE	SCALE	
DRAWN N.D.	5-12-77	—	
CHECKED		SIZE	DRAWING NO.
		B	121022
DO NOT SCALE DRAWING			SHEET 1


REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED
A	REV PER CO NO. 0105	9-8-76	
B	E.C.O NO.-0190	6-6-77	<i>J.D.</i> -11-77



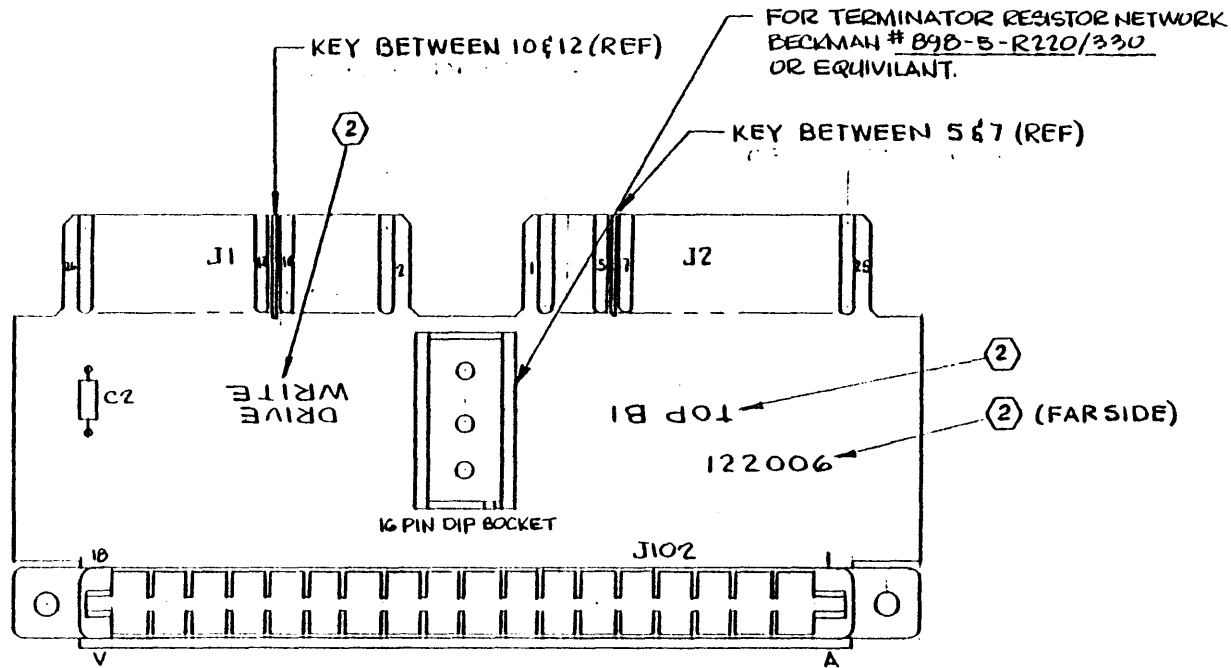
NOTE.

1. REF SCHEMATIC DWG NO. 122022
- ② RUBBER STAMP CHARACTERS SHOWN USING BLK INK
3. FOR MATL SEE P/L 122005

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TOLERANCES UNLESS OTHERWISE SPECIFIED FRACTIONS DEC. ANGLES ± ± ±		 <b>western peripherals</b> ANAHEIM, CALIFORNIA	
APPROVALS DRAWN <i>HRB</i> 2-13-76 CHECKED <i>at</i> 2-25-76		ASSEMBLY DWG. ADAPTER TAPE READ CONNECTOR	
SCALE 2:1		SIZE B	DRAWING NO. 122005-B
DO NOT SCALE DRAWING			SHEET 1 OF 1

REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED
A	E.C.O. NO-0190	6-6-77	J.D. 6-11-77

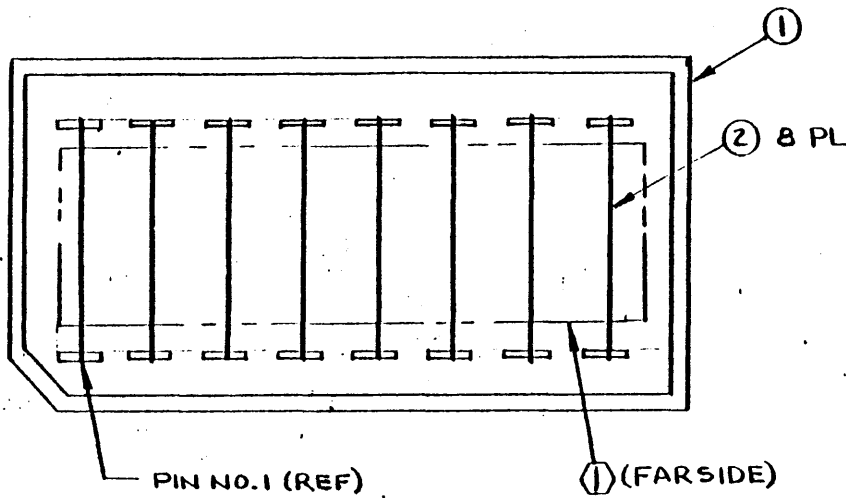


**NOTE:**

1. REF SCHEMATIC DWG. NO. 122021.
- ② RUBBER STAMP CHARACTERS SHOWN USING BLK INK
- 3 FOR MATL SEE P/L 122006

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TOLERANCES UNLESS OTHERWISE SPECIFIED		<b>western peripherals</b> <small>ANNHEIM, CALIFORNIA</small>	
FRACTIONS	DEC.		
±	±	±	<b>ASSEMBLY DWG.</b> <b>ADAPTER, TAPE WRITE CONNECTOR</b>
APPROVALS	DATE	SCALE	
DRAWN <i>HRB</i>	2-12-76	2:1	
CHECKED <i>WJ</i>	2-25-76	SIZE	DRAWING NO.
		B	122006-A
		DO NOT SCALE DRAWING	SHEET 1 OF 1



WIRE LIST		
WIRE NO.	FROM PIN NO.	TO PIN NO.
1	1	16
2	2	15
3	3	14
4	4	13
5	5	12
6	6	11
7	7	10
8	8	9

REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED

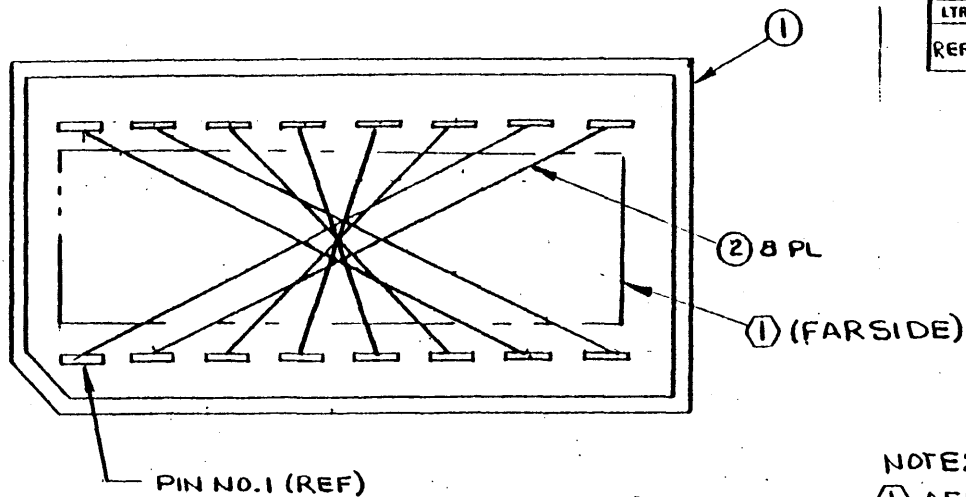
NOTE: UNLESS OTHERWISE SPECIFIED  
 ① AFFIX ADHESIVE LABEL WITH PART NO. & LATEST REV LTR WHERE SHOWN

**BILL OF MATERIALS**

ITEM	NO. REQD	PART NO.	DESCRIPTION	REMARKS
1	1	CA-16P-12	DIP PLUG, 16 PIN	CIRCUIT ASSY OR EQUIV
2	A/R		WIRE, INSULATED, #30 AWG SOLID	WIRE WRAP WIRE

TOLERANCES UNLESS OTHERWISE SPECIFIED FRACTIONS DEC. ANGLES ± ± ±		 western peripherals <small>ANNHEIM, CALIFORNIA</small>	
APPROVALS		DATE	
DRAWN CORUM		11-18-76	
CHECKED Z.D.		11-18-76	
SCALE NONE	SIZE B	DRAWING NO. 122010	
DO NOT SCALE DRAWING			SHEET 1 OF 1





REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED
REF	REC. CHG: ADD 'FARSIDE' TO (1) (ALL PARTS MADE CONFORM)		

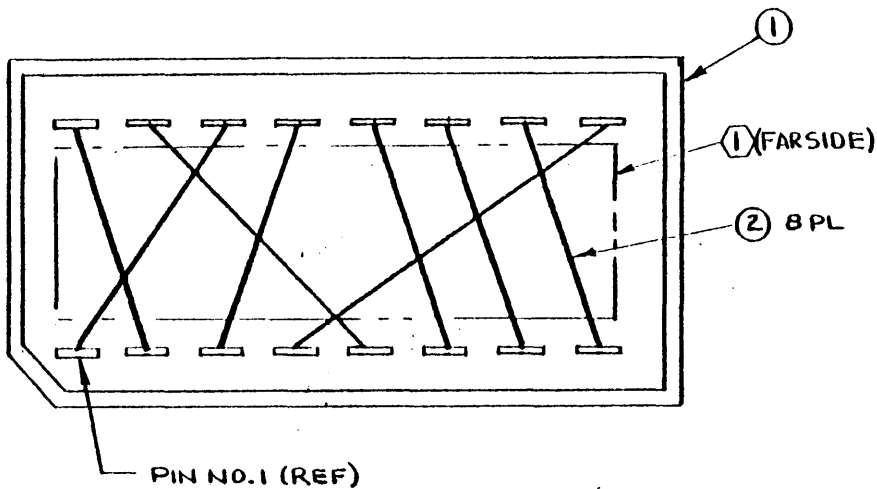
WIRE LIST		
WIRE NO.	FROM PIN NO.	TO PIN NO.
1	1	10
2	2	9
3	3	11
4	4	12
5	5	13
6	6	14
7	7	16
8	8	15

NOTE: UNLESS OTHERWISE SPECIFIED  
 (1) AFFIX ADHESIVE LABEL WITH PART NO. & LATEST REV LTR WHERE SHOWN

**BILL OF MATERIALS**

ITEM	NO. REQD	PART NO.	DESCRIPTION	REMARKS
1	1	CA-16P-12	DIP PLUG, 16-PIN	CIRCUIT ASSY OR EQUIV
2	A/R		WIRE, INSULATED, #30 AWG SOLID	WIRE WRAP WIRE

TOLERANCES UNLESS OTHERWISE SPECIFIED		FRACTIONS DEC. ANGLES		<b>western peripherals</b> <small>ANAHEIM, CALIFORNIA</small>			
±	±	±	±	<b>ASSY, JUMPER ARRAY,            SELECT SWITCH OPTION,            SPECIAL (4TH TRANSPORT)</b>			
APPROVALS	DATE					SCALE	SIZE
DRAWN CORUM	11-18-74					NONE	B
CHECKED V.D.	11-18-74			DRAWING NO. 122011			
				DO NOT SCALE DRAWING			
				SHEET 1 OF 1			



REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED

WIRE LIST		
WIRE NO.	FROM PIN NO.	TO PIN NO.
1	1	14
2	2	16
3	3	13
4	4	9
5	5	15
6	6	12
7	7	11
8	8	10

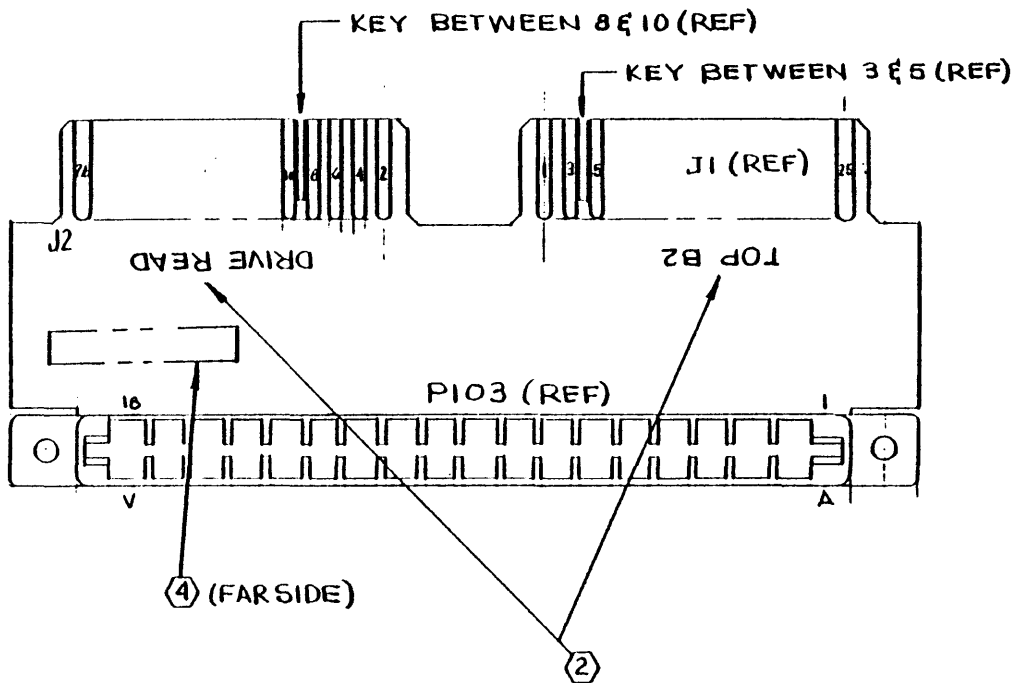
NOTE: UNLESS OTHERWISE SPECIFIED  
 ① AFFIX ADHESIVE LABEL WITH PART NO. & LATEST REV LTR WHERE SHOWN

BILL OF MATERIALS

ITEM	NO. REQD	PART NO.	DESCRIPTION	REMARKS
1	1	CA-16P-12	DIP PLUG, 16-PIN	CIRCUIT ASSY OR EQUIV
2	A/R		WIRE, INSULATED, #30 AWG SOLID	WIRE WRAP WIRE

TOLERANCES UNLESS OTHERWISE SPECIFIED		 western peripherals ANAHEIM, CALIFORNIA	
FRACTIONS	DEC.		
±	±	±	ASSY, JUMPER ARRAY, NON-SELECT SWITCH OPTION
APPROVALS	DATE	SCALE	
DRAWN CORUM	11-18-76	NONE	
CHECKED J.D.	11-18-76	SIZE	DRAWING NO.
		B	122012
DO NOT SCALE DRAWING			SHEET 1 OF 1

REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED
A	INCOMP. CO # 0145 <i>mc</i>	1-21-77	H.D. 1-24-77
B	E.C.O. NO. - 0190	6-6-77	H.D. 6-11-77

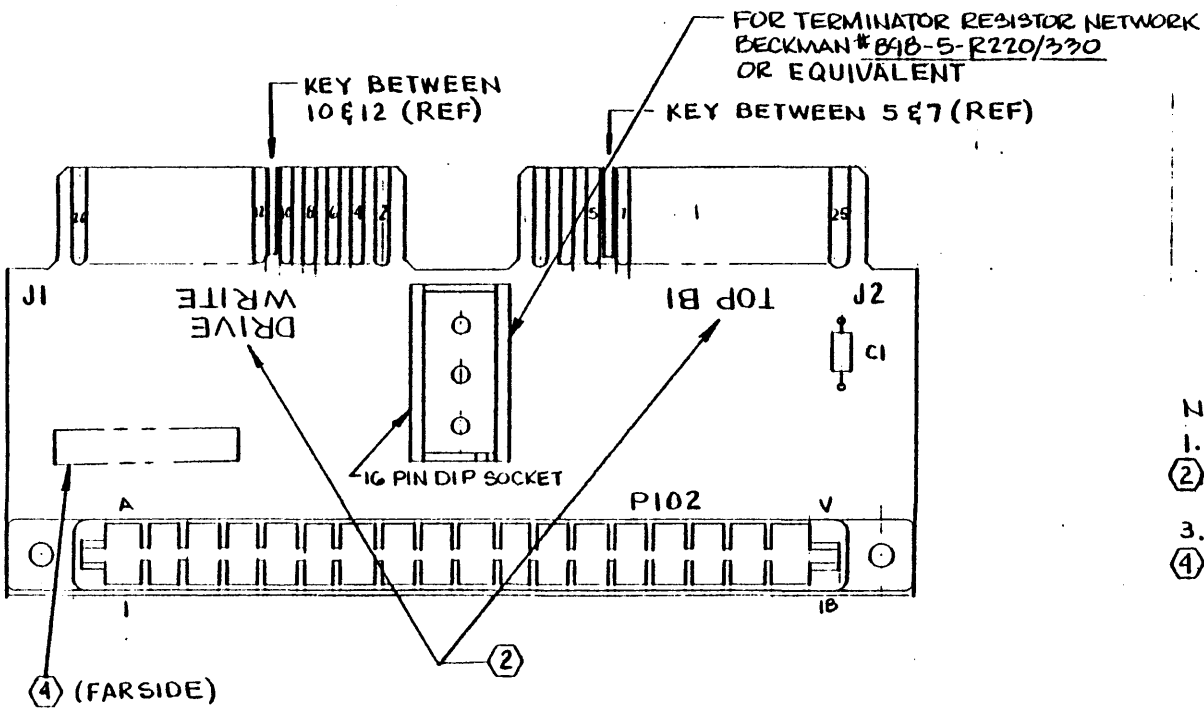


- NOTE: UNLESS OTHERWISE SPECIFIED
1. REF SCHEMATIC DWG NO. 122022
  - ② RUBBER STAMP CHARACTERS SHOWN USING BLK INK
  3. FOR MATERIAL SEE P/L 122018
  - ④ RUBBER STAMP ASSY NO. WITH LATEST REV LTR APPROX WHERE SHOWN

TOLERANCES UNLESS OTHERWISE SPECIFIED		<b>western peripherals</b> ANAHEIM, CALIFORNIA			
FRACTIONS	DEC. ANGLES				
± ± ±		ASSEMBLY DWG. ADAPTER, TAPE READ KENNEDY CIPHER			
APPROVALS	DATE	SCALE	SIZE	DRAWING NO.	REV
DRAWN					
CHECKED		2:1	B	122018	B
		DO NOT SCALE DRAWING		SHEET 1 of 1	

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REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED
A	INCORPORATE CO # 0146	1-11-77	J.D. 1-24-77
B	INCORP. ECO 172	5/11/77	J.D. 5-11-77
C	INCORP. ECO. NO. -090	6-6-77	J.D. 6-11-77

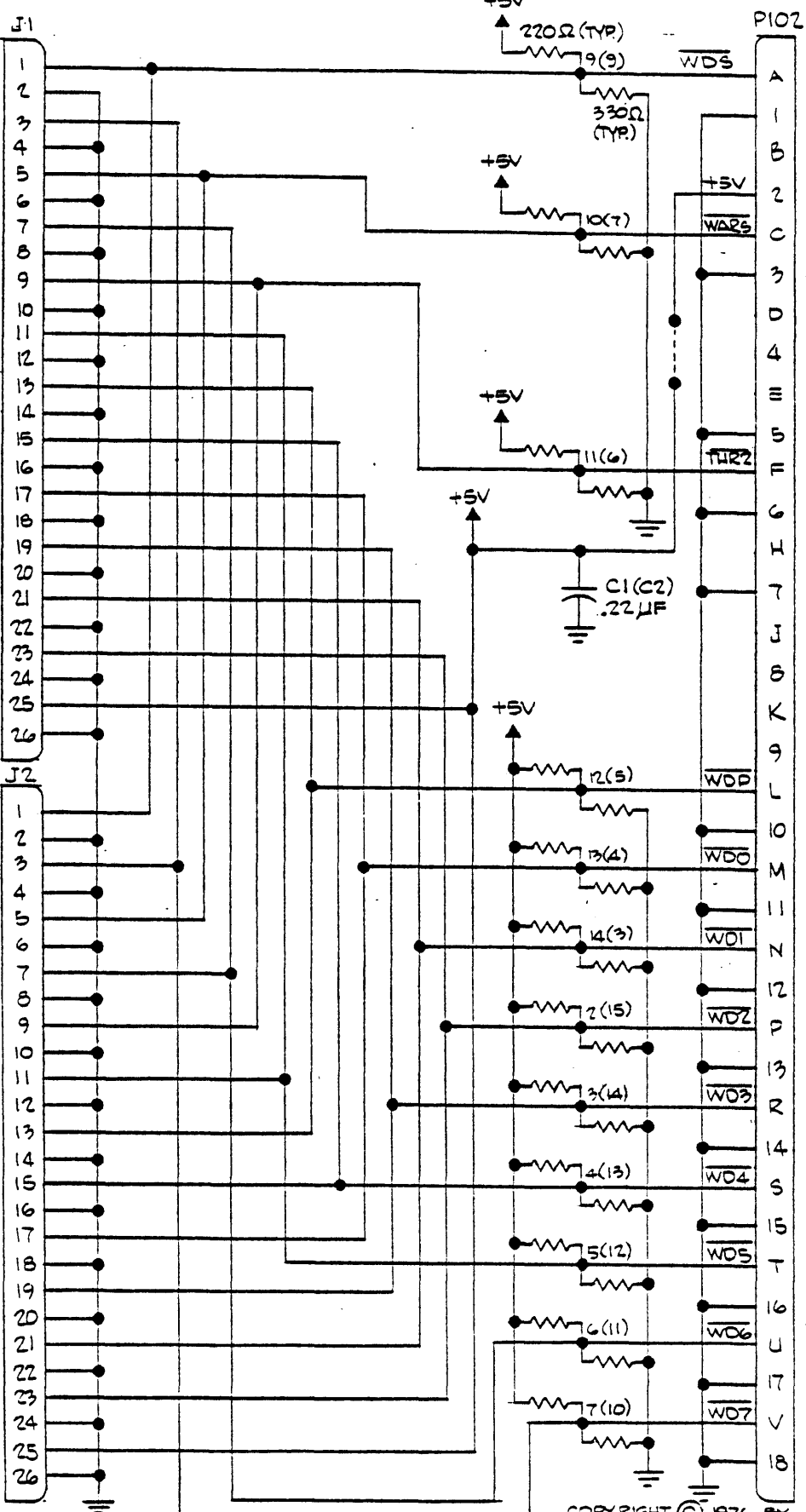


- NOTE: UNLESS OTHERWISE SPECIFIED
1. REF SCHEMATIC DWG NO. 122021
  2. RUBBER STAMP CHARACTERS SHOWN USING BLK INK
  3. FOR MATERIAL SEE P/L 122019
  4. RUBBER STAMP ASSY NO. WITH LATEST REV LTR APPROX WHERE SHOWN

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TOLERANCES UNLESS OTHERWISE SPECIFIED		<b>western peripherals</b> ANAHEIM, CALIFORNIA	
FRACTIONS	DEC.		
±	±	±	<b>ASSEMBLY DWG.</b> <b>ADAPTER, TAPE WRITE</b> <b>KENNEDY-CIPHER</b>
APPROVALS	DATE	SCALE	
DRAWN <b>HRB</b>	<b>2-12-76</b>	<b>2:1</b>	
CHECKED <b>RL</b>	<b>2-25-76</b>	SIZE <b>B</b>	DRAWING NO. <b>122019</b>
		DO NOT SCALE DRAWING	REV <b>C</b>
			SHEET <b>1</b> OF <b>1</b>

REVISIONS		DATE	APPROVED
DESCRIPTION		3-30-77	N.D.
LTR	ECO-0147		
A			
B INCORP ECO 172		5/10/77	N.D.



TOLERANCES UNLESS OTHERWISE SPECIFIED		FRACTIONS DEC. ANGLES	
±	±	±	±
APPROVALS	DATE		
DRAWN HRP	1-12-76		
CHECKED JLL	1-26-77		
western peripherals ANNHEIM, CALIFORNIA		SCHEMATIC ADPT. TAPE WRITE CONNECTOR	
SIZE	SCALE	DRAWING NO.	
B	NONE	122021-B.	
DO NOT SCALE DRAWING			SHEET 1 OF 1

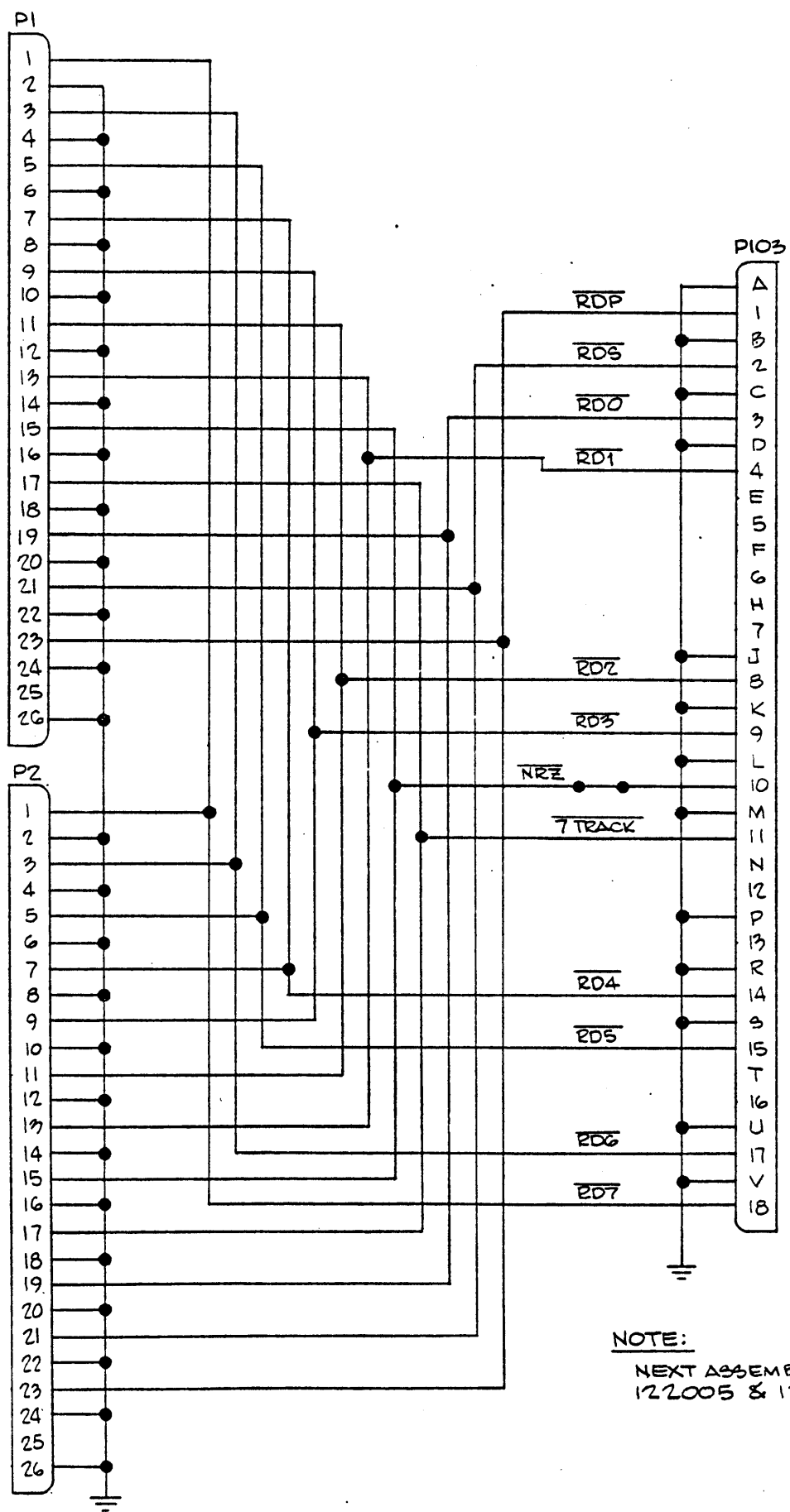
**NOTES:**

- NEXT ASSY. NO. 122006, 122019, 122024.
- PIN NUMBERS AND REFERENCE DESIGNATIONS SHOWN IN PARENTHESES APPLY TO ASSY. 122006, 122034.

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MINIOP GRAPHICS/ACCUPRESS  
REF ID: R NO. A 501

REVISIONS	DATE	APPROVED
	DESCRIPTION	
LTR		



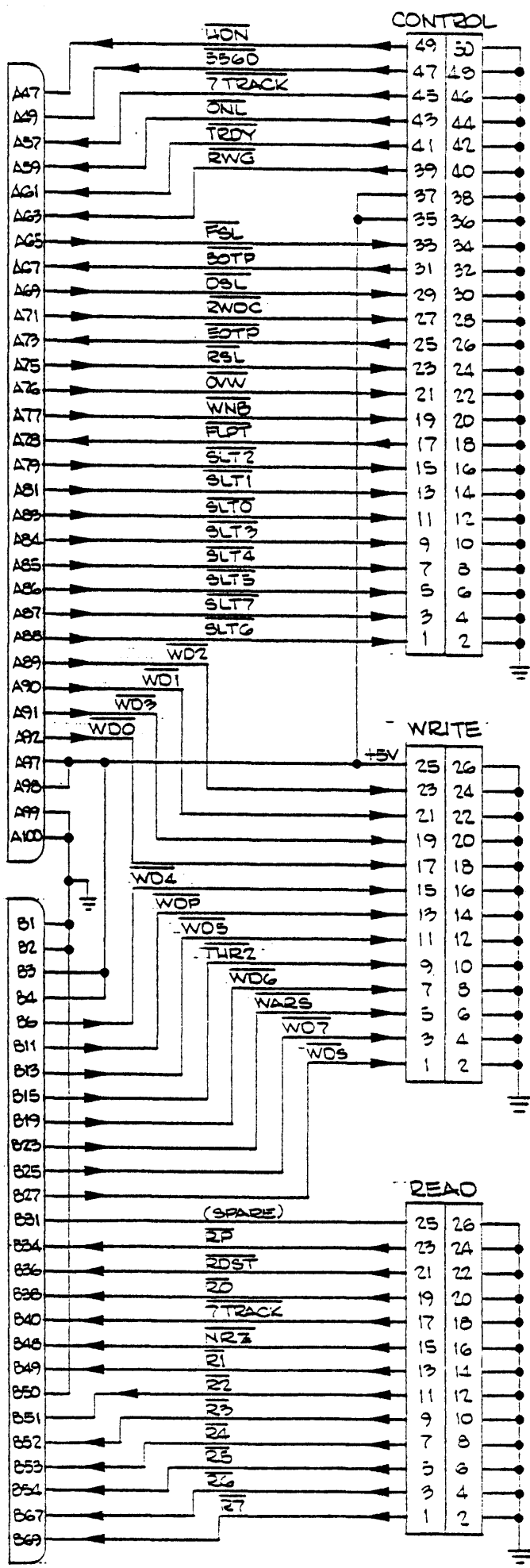
NOTE:  
NEXT ASSEMBLY NO.  
122005 & 122010.

TOLERANCES UNLESS OTHERWISE SPECIFIED FRACTIONS DEC. ANGLES	DATE	1-13-76
	APPROVALS	
DRAWN	NRZ	1-13-76
	CHECKED	1-13-76
western peripherals ANAHEIM, CALIFORNIA		
SCHEMATIC ADPTR., TAPE READ CONNECTOR		
SCALE	SIZE	DRAWING NO.
NONE	B	122022
DO NOT SCALE DRAWING		SHEET 1 OF 1

REVISIONS		
LTR	DESCRIPTION	DATE
A	REVISED & REDRAWN PER ECO # 0163	12-8-77
		APPROVED N.D. 12-8-77

TO COMPUTER  
"A"  
CONNECTOR

TO COMPUTER  
CONNECTOR

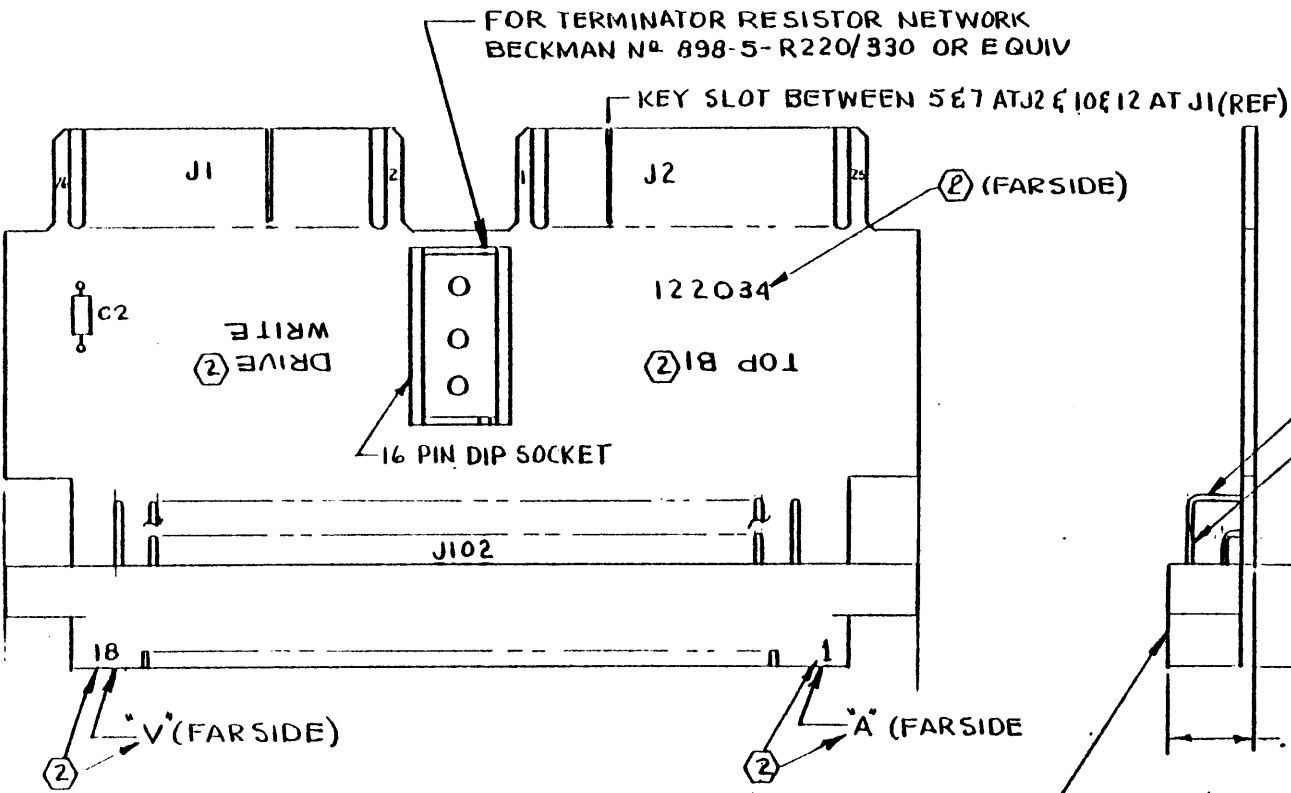


TOLERANCES UNLESS OTHERWISE SPECIFIED FRACTIONS DEC. ANGLES		APPROVALS DATE		SCALE	
		DRAWN 12-8-77		SIZE B	
		CHECKED 12-8-77		DRAWING NO. 122023	
				REV A	
				SHEET 1 OF 1	

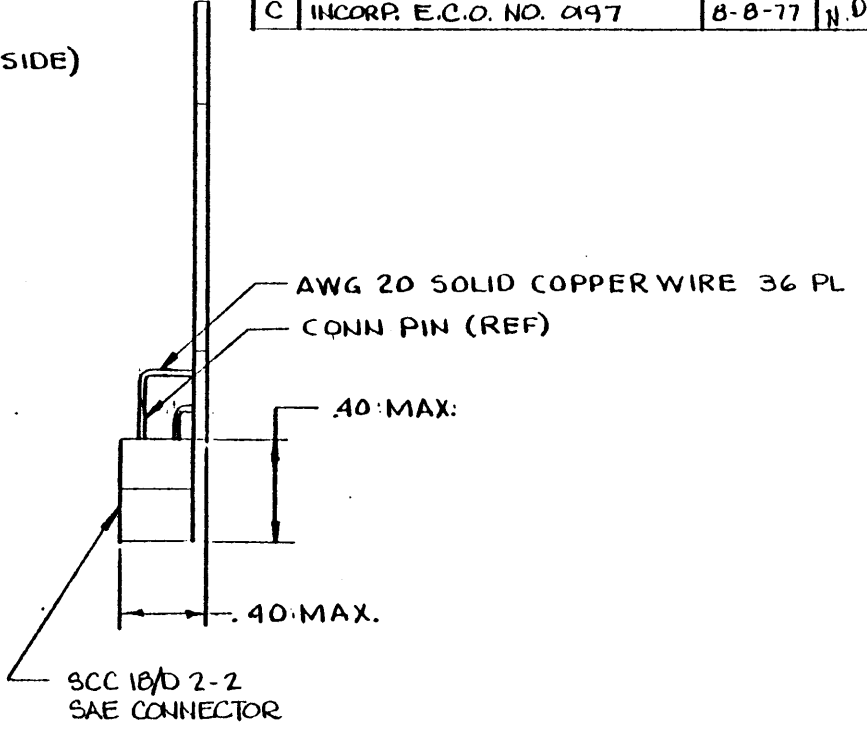


**SCHEMATIC -  
NOVA BACKPLANE  
ADAPTER**

NOTE:  
NEXT ASSY. 121011



REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED
A	INCORP ECO 172	3-11-77	N.D. 5-11-77
B	INCORP E.C.O. NO. 0190	6-6-77	N.D. 6-11-77
C	INCORP E.C.O. NO. 0197	8-8-77	N.D. 8-9-77



3 FOR MATL SEE P/L 122 034

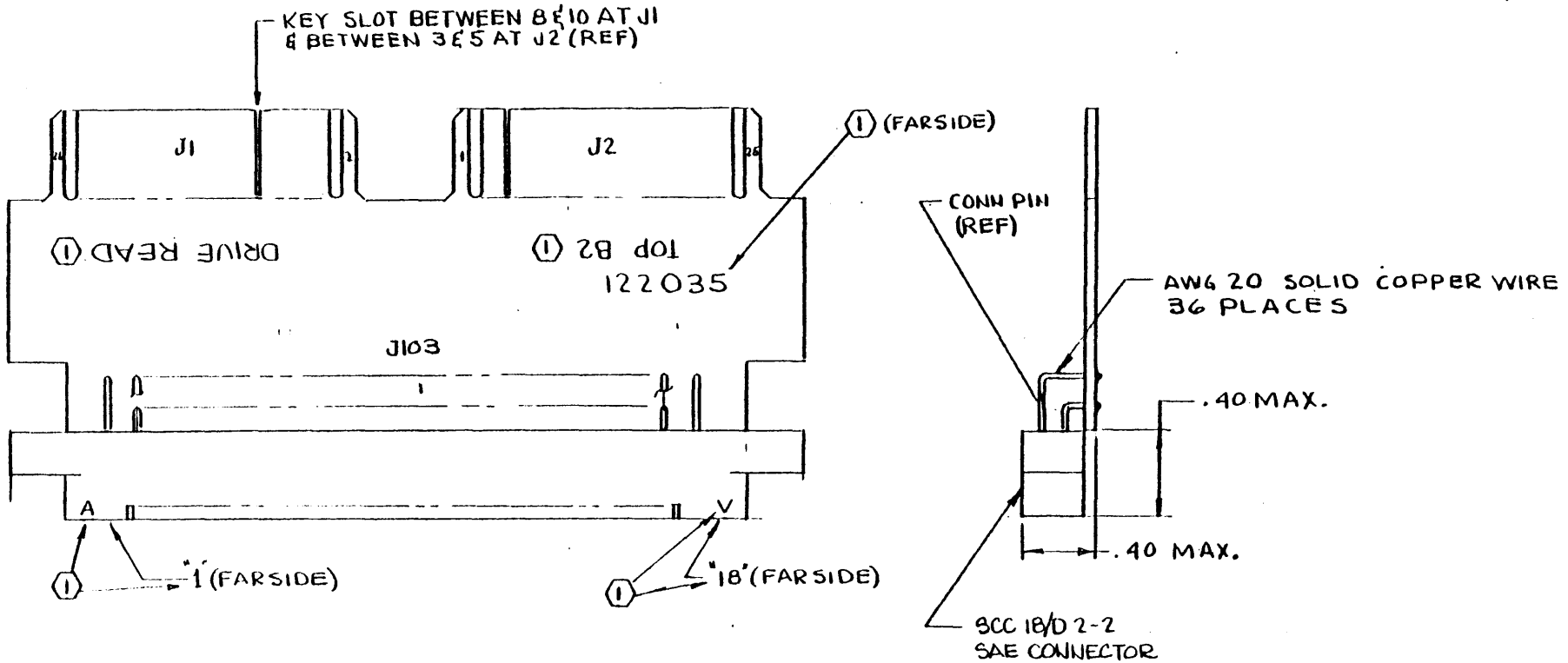
(2) RUBBER STAMP CHARACTER SHOWN WITH BLK INK  
1 REF SCHEMATIC DWG № 122 021

NOTE:

TOLERANCES UNLESS OTHERWISE SPECIFIED		<b>western peripherals</b> ANAHEIM, CALIFORNIA	
FRACTIONS	DEC.		
±	±	±	<b>ASSEMBLY- ADAPTER TAPE WRITE KENNEDY 9800</b>
APPROVALS	DATE	SCALE	
DRAWN C. RUM	6-11-76	2X	SIZE <b>B</b>
CHECKED		DRAWING NO. <b>122034-C</b>	
DO NOT SCALE DRAWING			SHEET 1 OF 1



REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED
A	E.C.O. NO.-0190	6-6-77	N.D. 11-77
B	E.C.O. NO.-0197	8-8-77	N.D. 8-9-77



NOTE S:  
 ① RUBBER STAMP CHARACTER\$ SHOWN WITH BLK INK  
 2 REF SCHEMATIC DWG NO 122022

TOLERANCES UNLESS OTHERWISE SPECIFIED		<b>western peripherals</b> ANAHEIM, CALIFORNIA	
FRACTIONS	DEC.		
±	±	±	<b>ASSEMBLY-ADAPTER          TAPE READ          KENNEDY 9800</b>
APPROVALS	DATE	SCALE	
DRAWN C. G. U. 1	6-11-76	SIZE 2 X	
CHECKED MLL		DRAWING NO. B 122035-B	
DO NOT SCALE DRAWING			SHEET 1 OF 1

**SWITCH OPERATION DESCRIPTION**

- |  |
|--|
| 1. GRAYHILL - ON = ROCKER DEPRESSED TO NUMBERED SIDE |
| 2. CTS - ON = TOGGLE POSITIONED TO NUMBERED SIDE     |

**CONFIGURATION SETTINGS**

	DESCRIPTION	SYSTEM CONSIDERATIONS
S-A1 ON	FOR DRIVES THAT REQUIRE REWIND COMMAND REMOVAL PRIOR TO BOT	1. REMOVE ALL PERIPHERAL TERMINATORS IN DAISY CHAIN
S-A1 OFF	FOR DRIVES THAT DO NOT REQUIRE REWIND COMMAND REMOVAL PRIOR TO BOT	2. INSTALL CONTROL TERMINATOR ONLY IN LAST DAISY CHAIN POSITION
S-A2 ON	FOR DRIVES THAT STORE EOT STATUS NOTE: A5 SHOULD BE OFF	3. CORRECTLY IDENTIFY CONFIGURATION & SET SWITCHES ACCORDINGLY
S-A2 OFF	FOR DRIVES THAT DO NOT STORE EOT STATUS NOTE: A5 SHOULD BE ON	
S-A3 ON	FOR 7 TRACK DRIVES	
S-A3 OFF	FOR 9 TRACK DRIVES	
S-A4 ON	FOR 7 TRACK 556/800 BPI DENSITY SELECTIONS OR 9 TRACK SECONDARY SPEED (SELECTION B)	
S-A4 OFF	FOR 7 TRACK 200/556 BPI DENSITY SELECTIONS OR 9 TRACK PRIMARY SPEED (SELECTION A)	
S-A5 ON	FOR DRIVES THAT DO NOT STORE EOT STATUS NOTE: A2 SHOULD BE OFF	
S-A5 OFF	FOR DRIVES THAT STORE EOT STATUS NOTE: A2 SHOULD BE ON	
S-A6 ON	FOR 9 TRACK NRZI DRIVE	
S-A6 OFF	FOR 7 TRACK DRIVES, 9 TRACK 1600 BPI DRIVES, OR 9 TRACK 800/1600 DUAL DENSITY	
S-A7 ON	FOR DRIVES THAT DO NOT PRESENT NRZ STATUS ON DRIVE READ CONNECTOR	
S-A7 OFF	FOR DRIVES THAT DO PRESENT NRZ STATUS ON DRIVE READ CONNECTOR	
S-A8 ON	FOR 7 TRACK DRIVES	
S-A8 OFF	FOR 9 TRACK DRIVES	

**NOTES:**

- FOR 7 TRACK DRIVES IN DRIVE DAISY CHAINS, ONLY PRIMARY SPEED SELECTION IS AVAILABLE.
- REF. ASSY. DWG. 122037, 122038, & 122039.
- 122010 INSTALLED WHEN TRANSPORT HAS 4-POSITION UNIT SELECT SWITCH (SEE EXCEPTION BELOW).  
122011 INSTALLED IN 4<sup>TH</sup> TRANSPORT IF MORE THAN 4 TRANSPORTS ARE DAISY CHAINED.  
122012 INSTALLED WHEN TRANSPORT DOES NOT HAVE UNIT SELECT SWITCH.
- FOR PERTEC COMPATIBLE UNIT SELECT OPTION: JUMPER E TO F, G TO H, AND M TO N.  
FOR EXTERNALLY CONNECTED UNIT SELECT SWITCH: CUT ETCH BETWEEN P & R AND CONNECT EXTERNAL SWITCH TO A, B, C, D, & L.
- FOR CONFIGURATION "L" SEE DWG. 130047.
- FOR CONFIGURATION "N" SEE DWG 122044

REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED
A	ECO-017B	3-4-77	N.D. 5-577
	RECORD CHANGE: ADD CONF. "L" (REV. LTR. CHANGE NOT REQD.)	8-9-77	N.D. 8-1-77
	RECORD CHG: ADD CONF. "N" (REV LTR CHG NOT REQD)	9-27-77	N.D. 9-27-77

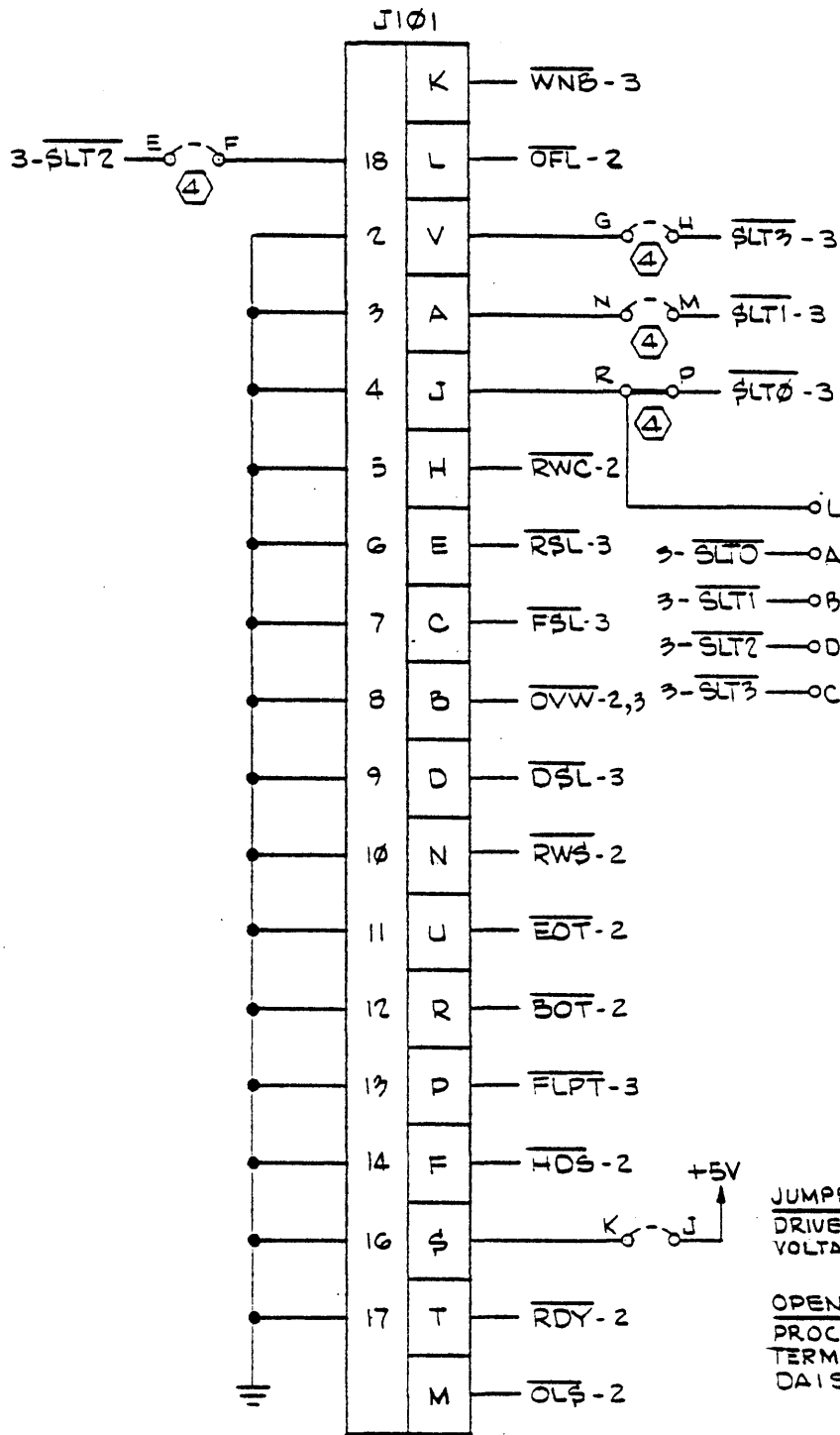
TOLERANCES UNLESS OTHERWISE SPECIFIED		
FRACTIONS	DEC.	ANGLES
±	±	±
APPROVALS	DATE	
DRAWN HRB	11-1-76	
CHECKED	DATE	
JOHN H. HARRIS	11-21-76	



**SCHEMATIC —  
TAPE CONTROL ADAPTER**

SCALE	SIZE	DRAWING NO.
—	B	122036
DO NOT SCALE DRAWING		SHEET 1 OF 4

REVISIONS	DATE	APPROVED
DESCRIPTION		
LTR		



①

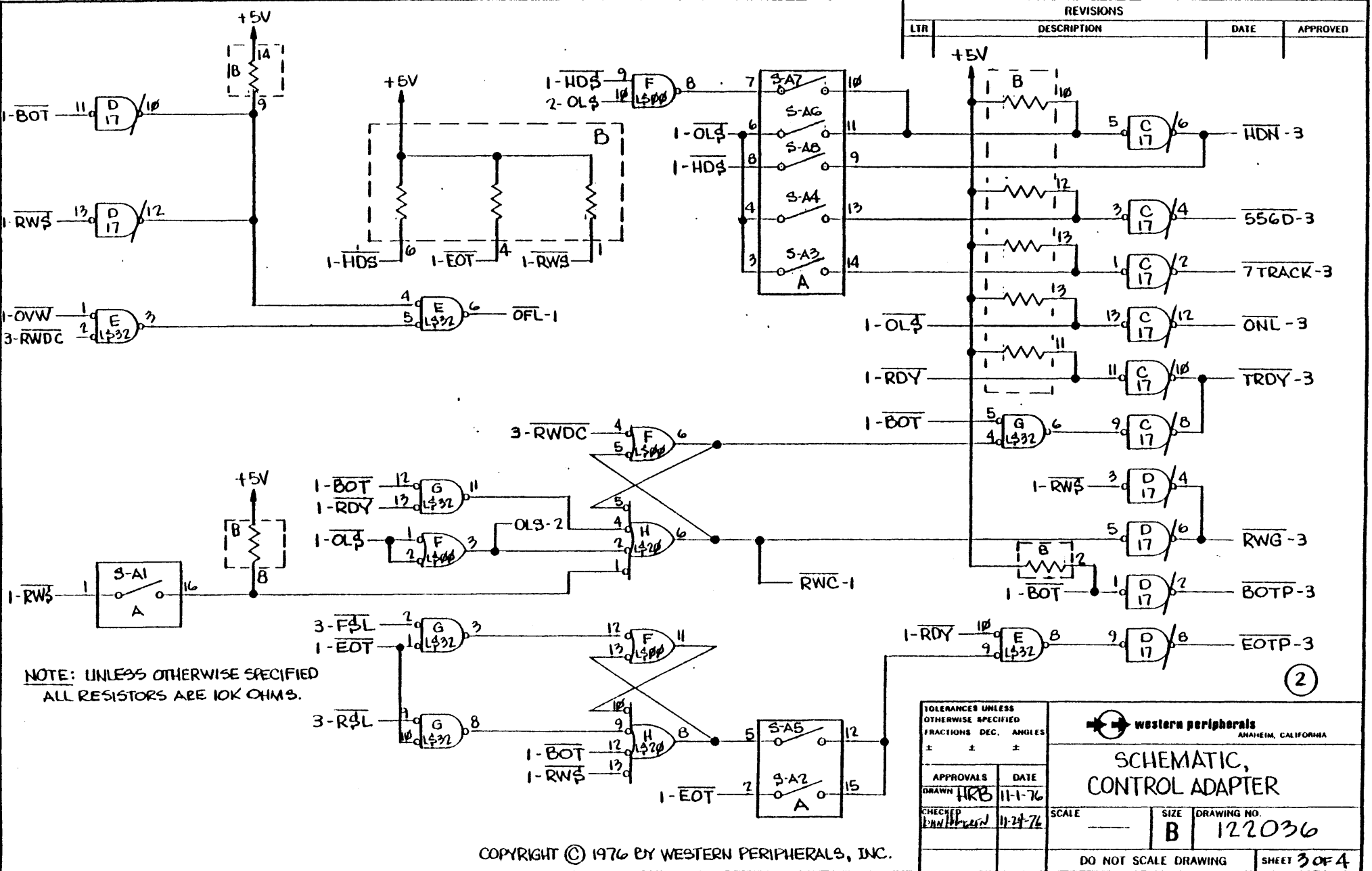
western peripherals ANHIERM, CALIFORNIA		TOLERANCES UNLESS OTHERWISE SPECIFIED FRACTIONS DEC. ANGLES	
TAPE CONNECTOR		DATE 11-1-76	SCALE B
DO NOT SCALE DRAWING		DRAWING NO. 122036	SHEET 2 OF 4

SELECT JUMPER TERMINALS AVAILABLE FOR THUMBWHEEL SELECTION ON DRIVES SO EQUIPPED

JUMPER J TO K:  
 DRIVE SUPPLIES +5V TERMINATOR VOLTAGE TO DAISY CHAIN

OPEN J TO K:  
 PROCESSOR SUPPLIES +5V TERMINATOR VOLTAGE TO DAISY CHAIN

WESTERN PERIPHERALS, INC. 122036



REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED

TOLERANCES UNLESS OTHERWISE SPECIFIED	
FRACTIONS	DEC. ANGLES
±	± ±
APPROVALS	DATE
DRAWN HRB	11-1-76
CHECKED [Signature]	11-24-76

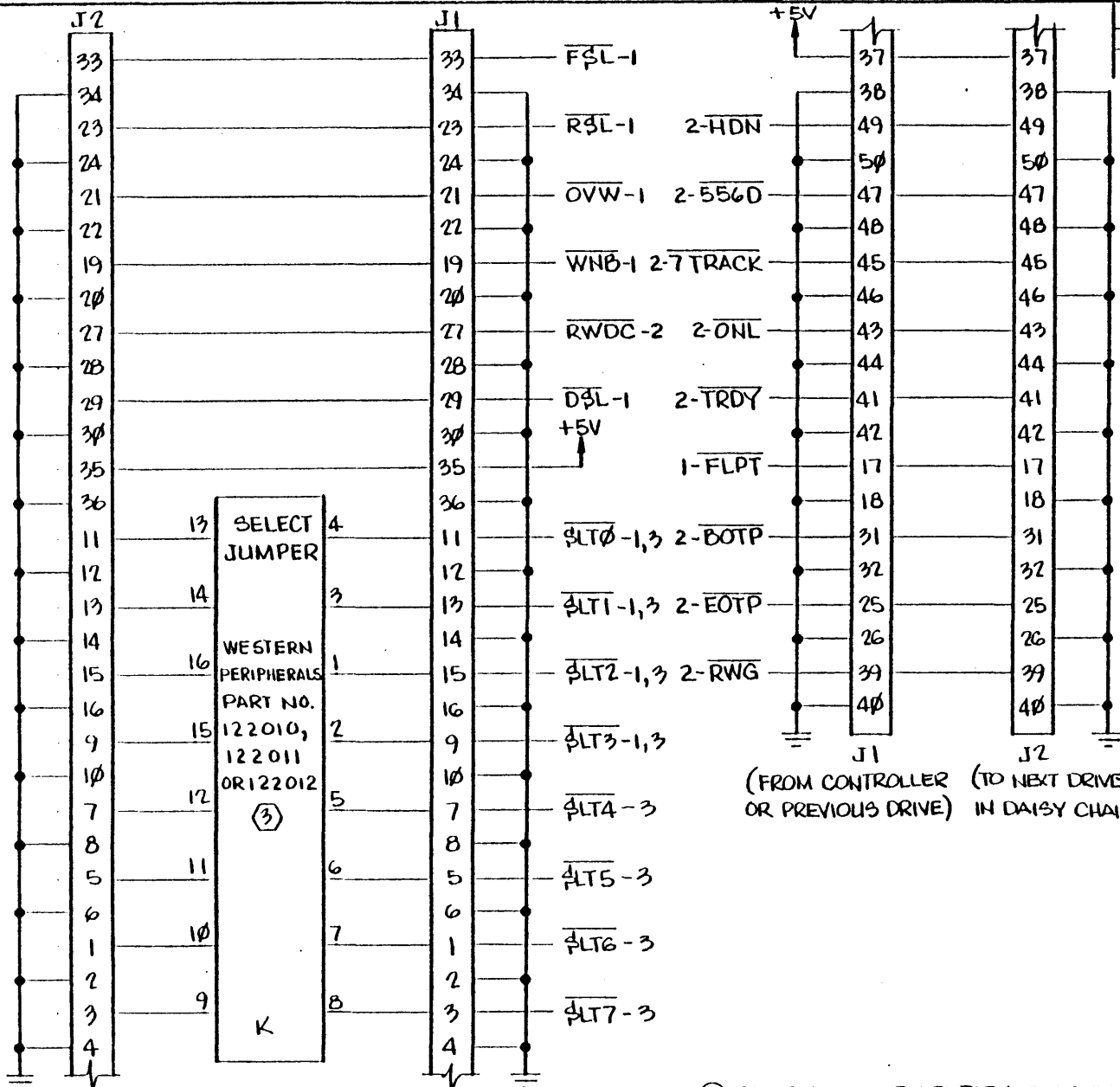
**western peripherals**  
 ANAHEIM, CALIFORNIA

## SCHEMATIC, CONTROL ADAPTER

SCALE	SIZE	DRAWING NO.
---	B	122036

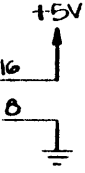
DO NOT SCALE DRAWING      SHEET 3 OF 4

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REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED

- |          |    |   |
|----------|----|---|
| 1 - FSL  | 3  | <b>TERMINATOR</b><br>BECKMAN<br>898-5-R220/<br>330 OR<br>EQUIV<br>J |
| 1 - RSL  | 6  |   |
| 1 - OVW  | 4  |   |
| 1 - WNB  | 1  |   |
| 3 - RWDC | 7  |   |
| 1 - DSL  | 5  |   |
| 3 - SLT0 | 13 |   |
| 3 - SLT3 | 15 |   |
| 3 - SLT2 | 2  |   |
| 3 - SLT1 | 14 |   |
| 3 - SLT4 | 12 |   |
| 3 - SLT5 | 11 |   |
| 3 - SLT6 | 10 |   |
| 3 - SLT7 | 9  |   |



INSTALLED FOR SINGLE  
 TRANSPORT OR LAST UNIT  
 IF UNITS ARE DAISY CHAINED

(3)

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TOLERANCES UNLESS OTHERWISE SPECIFIED  
 FRACTIONS DEC. ANGLES  
 ± ± ±

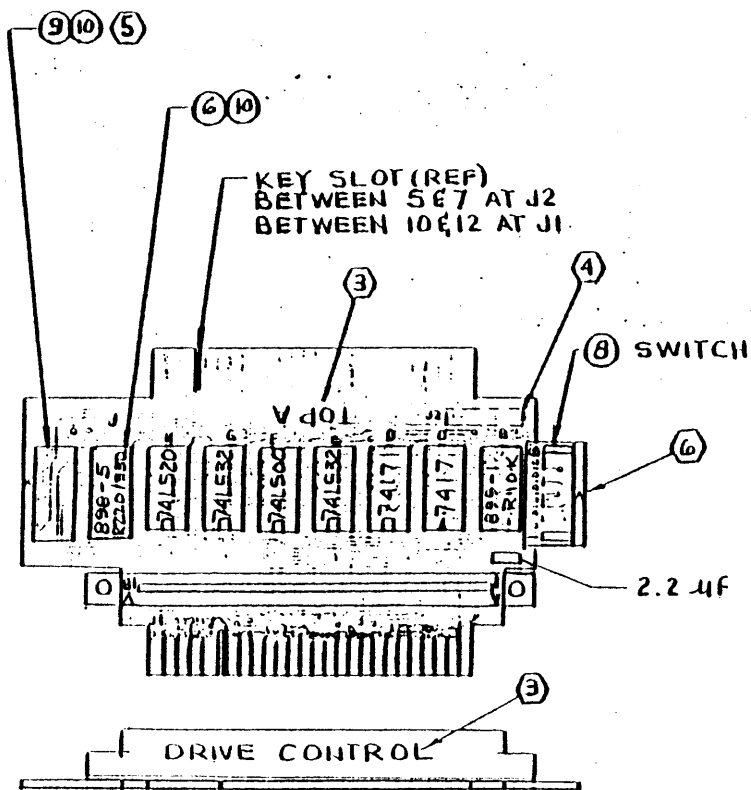
APPROVALS	DATE
DRAWN HRO	11-1-76
CHECKED [Signature]	11-24-76

**western peripherals**  
 ANAHEIM, CALIFORNIA

**CONTROL CONNECTOR  
 RIBBON CABLE**

SCALE	SIZE	DRAWING NO.
	B	122036

DO NOT SCALE DRAWING      SHEET 4 of 4



REVISIONS			
LR	DESCRIPTION	DATE	APPROVED
A	E.C.O. NO.-0143	1-18-77	
B	E.C.O. NO.-0190	6-3-77	N.D. 11-77
	RECORD CHANGE: ADD CONF. "L" (REV. LTR. CHANGE NOT REQD.)	8-9-77	N.D. 9-77
	RECORD CHG; ADD CONF "N" (REV LTR CHG NOT REQD)	9-28-77	N.D. 9-28-77
	RECORD CHG: ADD SH NO. 2 (ASSY. NO CHG TO BASIC AD SEE E.C.O.# 0254 (NO REV.LTR READ)		N.D. 11-22-77
	E.C.O # 2 99 (NO REV.LTR.CHANGE)	3-5-78	N.D. 3-9-78

8. FOR CONFIGURATION "N" SEE DWG. 122:044

7. FOR CONFIGURATION "L" SEE DWG. 130047

⑩ "A" AND "K" ARE COMPONENT LOCATION CODE; "B" THRU "J" ARE FOR REF ONLY & DO NOT APPEAR ON PART

⑤ FOR OPTIONAL JUMPERING AND/OR JUMPER ARRAYS, REF J.O.A. & SCHEMATIC

④ RUBBER STAMP ASSY NO. WITH LATEST REV LTR AND DASH NO. (IF REQD) APPROX WHERE SHOWN (FAR SIDE)

③ RUBBER STAMP CHARACTER SHOWN USING BLK INK

2. FOR MATERIAL SEE P/L NO. 122037

1. REF SCHEMATIC 122036

NOTE: UNLESS OTHERWISE SPECIFIED

BASIC ASSY SHOWN  
FOR -1 ASSY SEE SH NO. 2

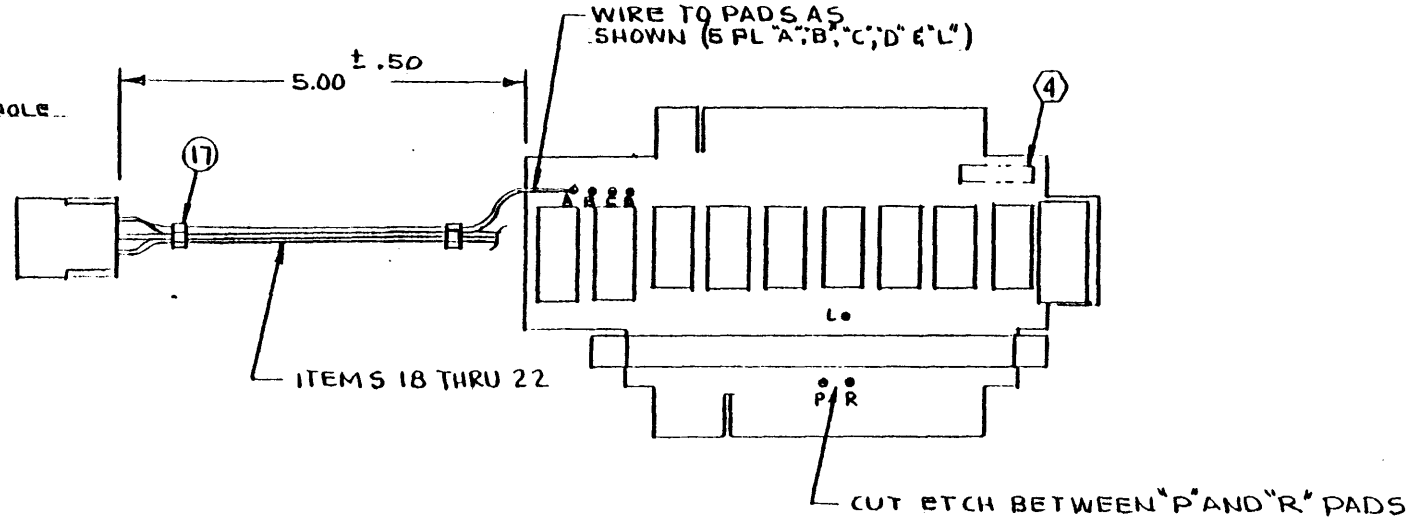
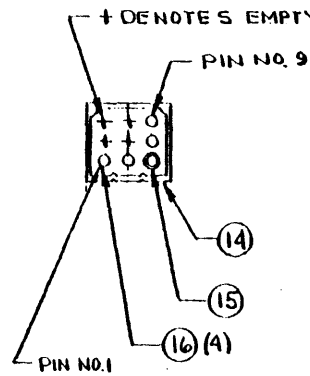
TOLERANCES UNLESS OTHERWISE SPECIFIED FRACTIONS DEC. ANGLES ± ± ±		 western peripherals ANAHEIM, CALIFORNIA	
APPROVALS DRAWN CORUM CHECKED Y.D.		DATE 11-8-76 12-16-76	
SCALE FULL		SIZE B	DRAWING NO. 122037
DO NOT SCALE DRAWING		REV B	SHEET 1 OF 2

0	3	YEL	(A)	122037-1
1	6	RED	(B)	
2	9	GRN	(D)	
3	2	ORG	(C)	
COM	1	BRN	(L)	

REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED

120037-1 WIRING DIAGRAM

ITEM NO.14  
(9 PIN MOLEX PLUG, REF)



NOTE:  
THE -1 ASSY IS USED ON PERTEC T9000 SERIES WITH OPTIONAL UNIT SELECT THUMBWHEEL SWITCH TERMINATED IN MOLEX CONNECTOR. COMPONENT REQUIREMENTS & MARKINGS ARE THE SAME AS FOR BASIC ASSY

-1 ASSY SHOWN  
FOR BASIC ASSY SEE SH NO. 1

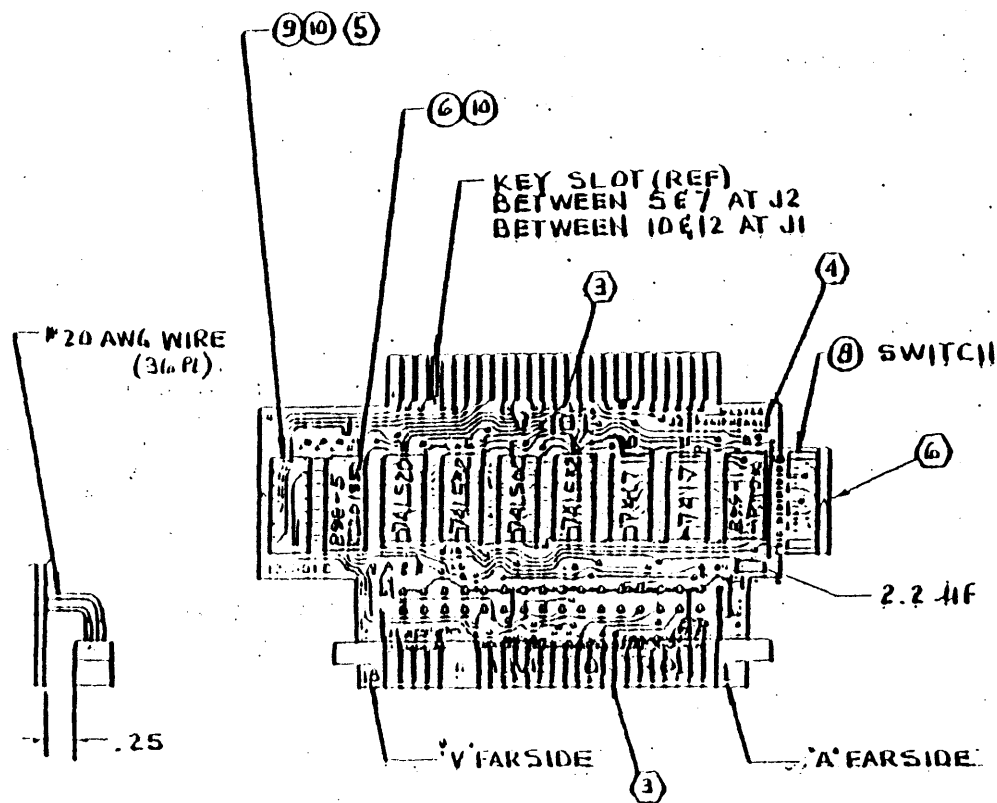
TOLERANCES UNLESS OTHERWISE SPECIFIED  
FRACTIONS DEC. ANGLES  
± ± ±



APPROVALS DATE  
DRAWN (CORUM) (11-19-77)  
CHECKED

SCALE	SIZE	DRAWING NO	REV
FULL	B	122037	B

DO NOT SCALE DRAWING SHEET 2 OF 2



REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED
A	E.C.O. NO. - 0143	1-10-77	
B	E.C.O. NO. - 0190	6-3-77	J.D. 11-77
C	E.C.O. NO. - 0197	8-8-77	J.D. 8-77
	E.C.O. NO. - 299 (NO REV. LTR. CHG.)	3-8-78	J.D. 3-78
	ADDED NOTE 7 PER E.C.O. 257 AND DELETED REQUIREMENT FOR SLEEVING WIRE AT CONNECTOR	3-21-78 EM1866	J.D. 3-78

7. FOR CONFIGURATION "N" SEE DWG. 122044

(6) "A" AND "K" ARE COMPONENT LOCATION CODE; "B" THRU "J" ARE FOR REF ONLY & DO NOT APPEAR ON PART

(5) FOR OPTIONAL JUMPERING AND/OR JUMPER ARRAYS, REF J.O.A. & SCHEMATIC

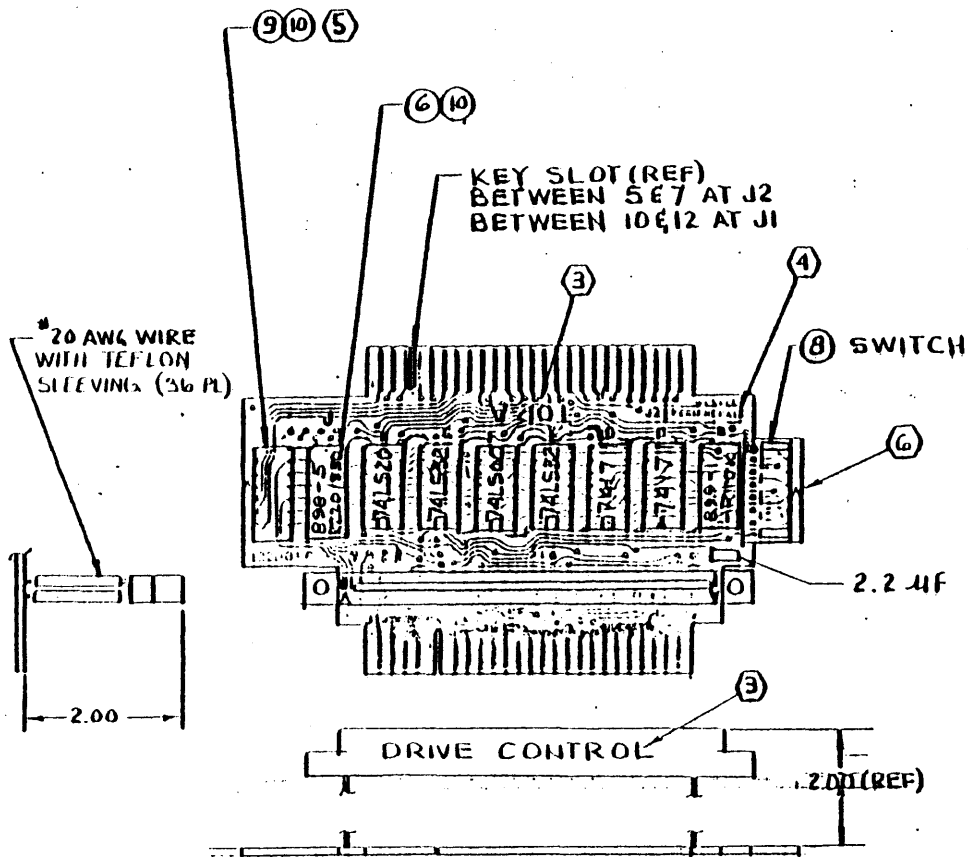
(4) RUBBER STAMP ASBY NO. WITH LATEST REV LTR LOCATED APPROX WHERE SHOWN (FAR SIDE)

(3) RUBBER STAMP CHARACTER SHOWN USING BLK INK  
2. FOR MATERIAL SEE P/L NO. 122038  
1. REF SCHEMATIC 122036

NOTE: UNLESS OTHERWISE SPECIFIED

TOLERANCES UNLESS OTHERWISE SPECIFIED		western peripherals	
FRACTIONS	DEC.	ANGLES	AMMEN, CALIFORNIA
*	*	*	
APPROVALS	DATE	ASSEMBLY ADAPTER TAPE CONTROL CONNECTOR 90° MOUNTING	
DRAWN C.M.M.	8-8-76	SCALE FULL	SIZE B
DESIGNED V.D.	12-11-76	DRAWING NO. 122038	REV C
DO NOT SCALE DRAWING			SHEET 1 OF 1





7. FOR CONFIGURATION "N" SEE DWG. 122044

(1) "A" AND "K" ARE COMPONENT LOCATION CODE; "B" THRU "J" ARE FOR REF ONLY & DO NOT APPEAR ON PART

(5) FOR OPTIONAL JUMPERING AND/OR JUMPER ARRAYS, REF J.O.A. & SCHEMATIC

(4) RUBBER STAMP ASBY NO. WITH LATEST REV LTR LOCATED APPROX WHERE SHOWN (FAR SIDE)

(3) RUBBER STAMP CHARACTER SHOWN USING BLK INK

2. FOR MATERIAL SEE P/L NO. 122039

1. REF SCHEMATIC 122036

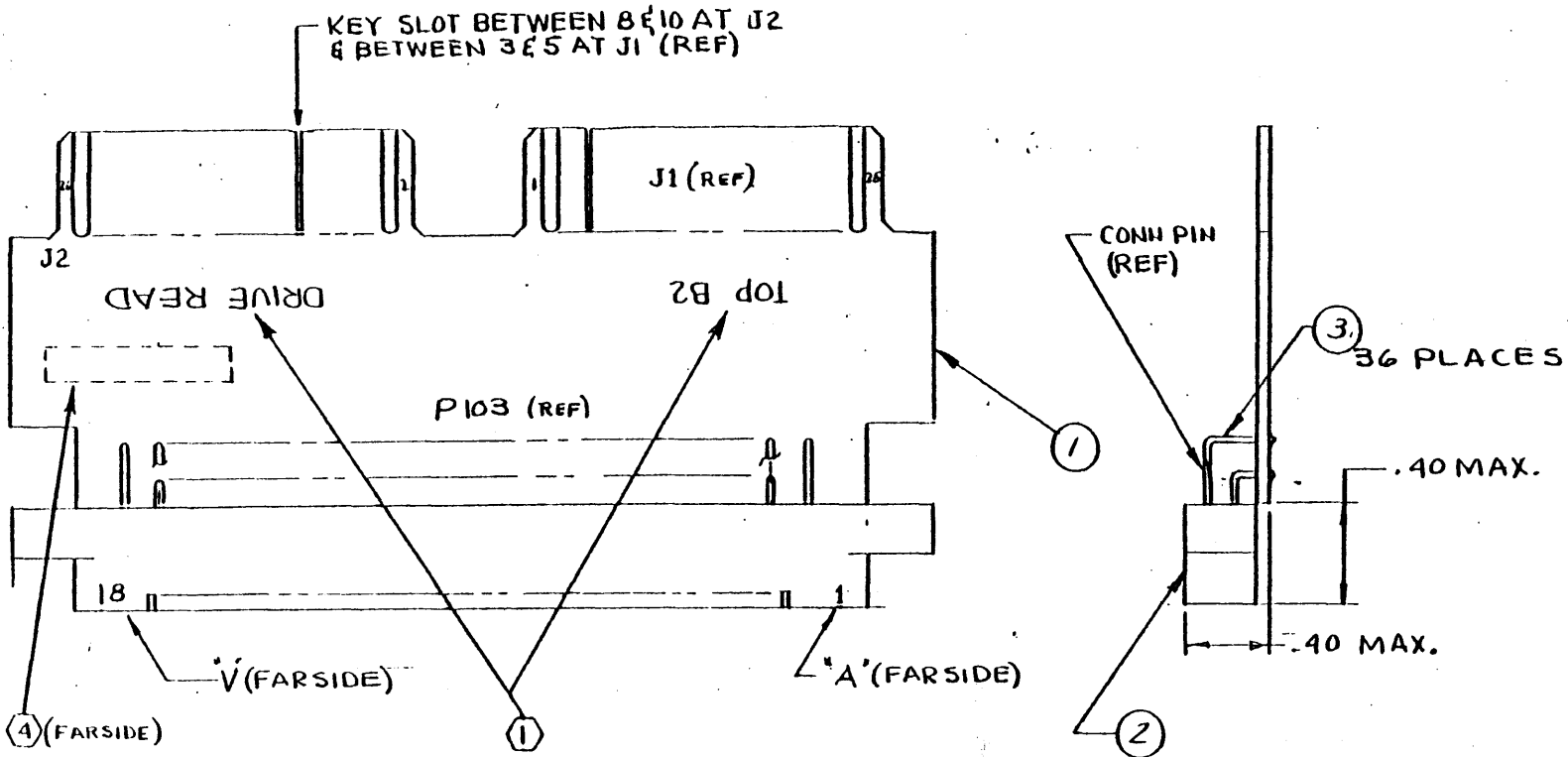
NOTE: UNLESS OTHERWISE SPECIFIED

REVISIONS

LTR	DESCRIPTION	DATE	APPROVED
A	E.C.O. NO.-0143	1-18-77	
B	E.C.O. NO.-0190	6-3-77	H.D. 11-77
C	E.C.O. NO.-0197	8-8-77	H.D. 8-9-77
	E.C.O. NO.-299 (NO REV. LTR. CHG.)	3-8-78	H.D. 3-9-78
	ADDED NOTE 7. PER E.C.O. 257	3-21-78	H.D. 3-21-78

TOLERANCES UNLESS OTHERWISE SPECIFIED FRACTIONS DEC. ANGLES ± * *		 western peripherals ANAHEIM, CALIFORNIA		
APPROVALS DRAWN CHECKED V.D.		DATE 11-8-76 11-8-76		ASSEMBLY ADAPTER TAPE CONTROL CONNECTOR 2 INCH STAND OFF
		SCALE FULL	SIZE B	DRAWING NO. 122039
				REV C
DO NOT SCALE DRAWING				SHEET 1 OF 1

REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED

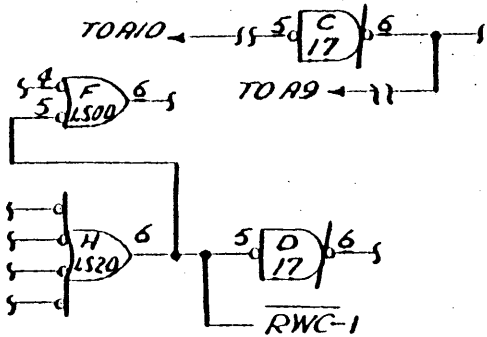


NOTES:

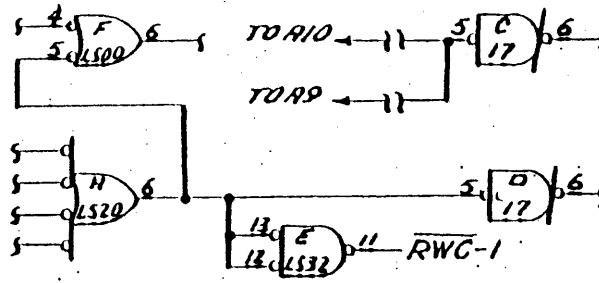
- ① RUBBER STAMP CHARACTERS SHOWN WITH BLK INK.
- ② REF SCHEMATIC DWG NO 122022.
- ③ SEE P/L 122043.
- ④ RUBBER STAMP ASSY. NO. WITH LATEST REV. LTR. APPROX. WHERE SHOWN.

TOLERANCES UNLESS OTHERWISE SPECIFIED		<b>western peripherals</b> <small>ANAHEIM, CALIFORNIA</small>	
FRACTIONS DEC. ANGLES			
±	±	±	±
APPROVALS	DATE	ASSEMBLY-ADAPTER, TAPE READ, REVERSE IMAGE, 90°	
DRAWN <i>[Signature]</i>	6/7/77	SCALE	SIZE
CHECKED <i>[Signature]</i>	6-11-77	2 X	B
DRAWING NO.		DRAWING NO.	
122043		122043	
DO NOT SCALE DRAWING			SHEET 1 OF 1

STANDARD CONTROL ADAPTER BD.



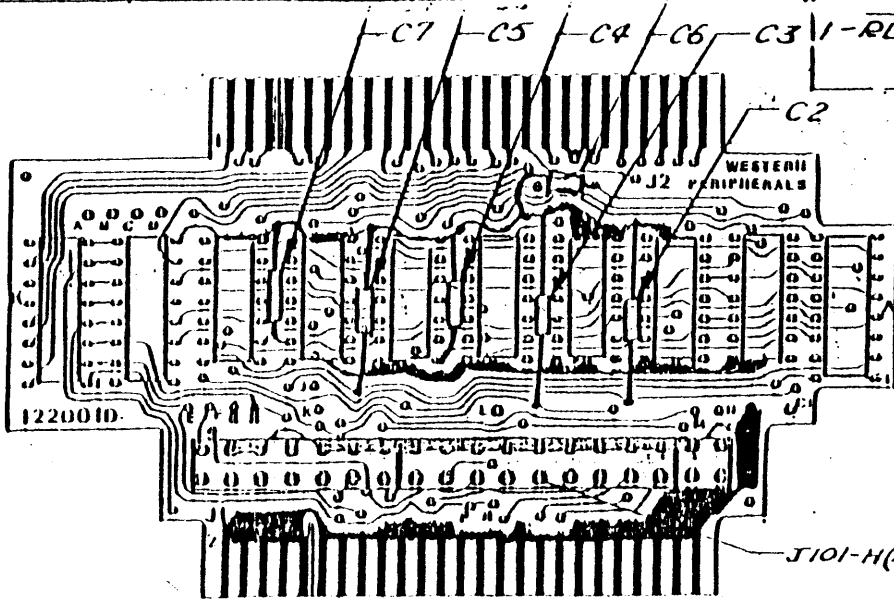
CONFIGURATION "N"  
CONTROL ADAPTER BD



CAPACITOR INSTALLATION CHART

CAP DESIG	FROM	TO	TERM	CAP DESIG	FROM	TO	TERM
C2	D3	GND	RW5	C5	G1	GND	EOT
C3	D11	GND	BOT	C6	F9	GND	HDS
C4	F1	GND	OLS	C7	G13	GND	RDY

1-RWS	C2	220PF
1-BOT	C3	220PF
1-OLS	C4	220PF
1-EOT	C5	220PF
1-HDS	C6	220PF
1-RDY	C7	220PF



REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED
A	REVISED & REDRAWN PER E.C.O. 0237	10-31-77 CJP	V.D. 10-27-77
B	REVISED PER E.C.O. # 257	3-21-78 JH	JH 3-21-78

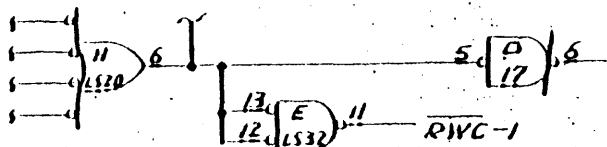
CONF "N" BOARD MOD PROCEDURES:  
(MODIFICATIONS NOTED APPLY TO ASSY'S 122037, 122038 & 122039)

- MODIFY CIRCUIT
  - CUT ETCH (SOLDER SIDE) AT J101-H
  - JUMPER H6 TO E12
  - JUMPER E12 TO E13
  - JUMPER E11 TO J101-H
  - CUT ETCH (COMPONENT SIDE) AT A9
  - JUMPER A9 TO A10
- COMPONENT ADDITION & MARKING
  - ADD (6) 220PF CAPACITORS (C2 THRU C7) AT LOCATIONS SHOWN
  - IDENTIFY AS CONF "N" AT ASSY; NO. USING BLK INK.
- THIS MOD PROVIDES ISOLATION & FILTERING FOR ADAPTER ELECTRONICS
- MATERIAL REQUIREMENTS:
  - BOMID ASSY. AS NOTED IN PROCEDURES ABOVE (1 REQD)
  - CK12BX221K, 220PF CAP (6 REQD)
- VERIFY PROPER CAPACITOR INSTALLATION BY PERFORMING CONTINUITY CHECK PER THE CAPACITOR INSTALLATION CHART.
- REFERENCE SCHEMATIC 122036

THIS SHEET APPLIES TO "D" REV. PWB ONLY

TOLERANCES UNLESS OTHERWISE SPECIFIED FRACTIONS DEC. ANGLES		western peripherals ANAHEIM, CALIFORNIA	
APPROVALS DRAWN BY: [Signature] CHECKED BY: [Signature]		DATE 10-27-77	
MODIFICATION DRAWING TAPE CONTROL ADAPTER (CONFIGURATION "N")		SCALE NONE	
SIZE B		DRAWING NO. 122044	
DO NOT SCALE DRAWING			SHEET 1 OF 2

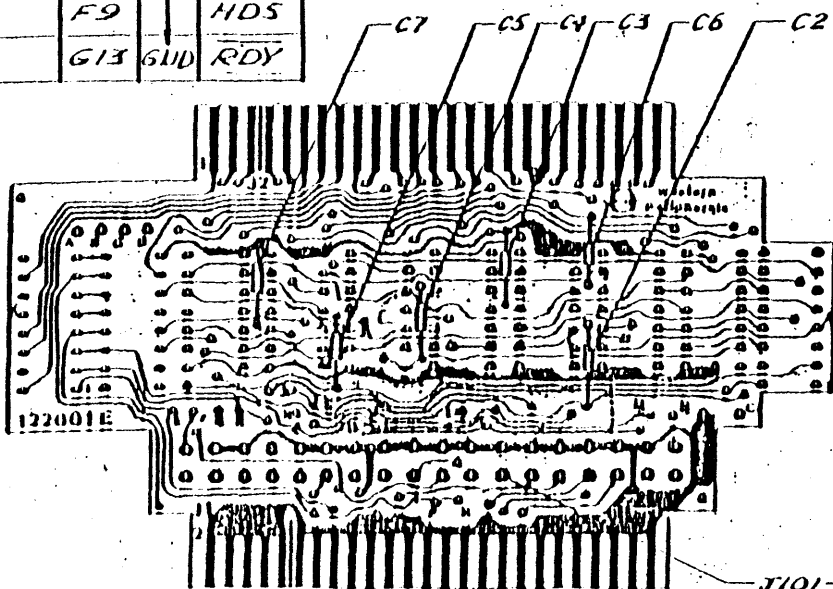
CONFIGURATION "N" CONTROL ADAPTER BD.



- 1-RWS C2 220PF
- 1-BOT C3 220PF
- 1-OLS C4 220PF
- 1-EOT C5 220PF
- 1-HDS C6 220PF
- 1-RDY C7 220PF

CAP INSTALLATION CHT.

CAP DESIG.	FROM	TO	TERM
C2	D3	GND	RWS
C3	D11		BOT
C4	F1		OLS
C5	G1		EOT
C6	F9		HDS
C7	G13	GND	RDY



J101-H (REF. NOTES 1A & 1C)

REVISIONS			
11R	DESCRIPTION	DATE	APPROVED

CONF "N" BOARD MOD PROCEDURES:  
(MODIFICATIONS NOTED APPLY TO ASSY'S  
122037, 122038 & 122039)

1. MODIFY CIRCUIT
  - A. CUT, ETCH (SOLDER SIDE) AT J101-H
  - B. JUMPER R6 TO E12 & 13 (SOLDER SIDE)
  - C. JUMPER E11 TO J101-H (SOLDER SIDE)
2. COMPONENT ADDITION & MARKING
  - A. ADD (6) 220PF CAPACITORS (C2 THRU C7) AT LOCATIONS SHOWN
  - B. IDENTIFY AS CONF "N" AT ASSY NO. USING BLK INK
3. THIS MOD PROVIDES ISOLATION & FILTERING FOR ADAPTER ELECTRONICS
4. MATERIAL REQUIREMENTS:
  - A. BOARD ASSY AS NOTED IN PROCEDURES ABOVE (1 REQD)
  - B. CK12BX221K, 220PF CAP (6 REQD)
5. VERIFY PROPER CAPACITOR INSTALLATION BY PERFORMING CONTINUITY CHECK PER THE CAPACITOR INSTALLATION CHART.
6. REFERENCE SCHEMATIC 122036

THIS SHEET APPLIES TO "E" REV. PWB ONLY

TOLERANCES UNLESS OTHERWISE SPECIFIED	
FRACTIONS	DEC. ANGLES
±	±
APPROVALS	DATE
DESIGNED BY	1/10/71
CHECKED BY	

 western peripherals  
ANN ARBOR, CALIFORNIA

MODIFICATION DRAWING  
TAPE CONTROL ADAPTER  
(CONFIGURATION "N")

SCALE	SIZE	DRAWING NO.
NONE	B	122044

DO NOT SCALE DRAWING SHEET 2 OF 2

## NOTES

MANUAL SUPPLEMENT

MANUAL NO. 120020

PRESENT REVISION H

DATE 5-9-78

SUPPLEMENT NO. 3

DESCRIPTION:

Includes change 120020 H 2

PIB 12003 (ECO 341)

Updates:

120031

121004

121006

121014

121022

122037

ADDED

112001

EFFECTIVITY:

120024 X , 120025 K

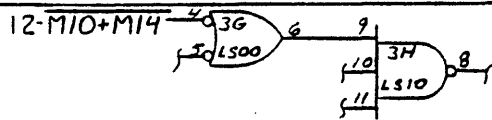


TITLE/DESCRIPTION Eliminate Parity Error While Rewinding			NUMBER 12003A
PRODUCT LINE Tape Controller	MODEL AFFECTED TC-120/128	EFFECTIVE DATE 4-26-78	REFERENCE ECO # 341A
DISPOSITION <input checked="" type="checkbox"/> IMPROVEMENT <input checked="" type="checkbox"/> RETROFIT ON FAILURE <input type="checkbox"/> RECOMMEND MANDATORY <input type="checkbox"/> INFORMATION ONLY		EFFECTIVITY This change updates assembly number: 120024 from REV W to X 120025 from REV H to J 1st SER. NO. 0739	

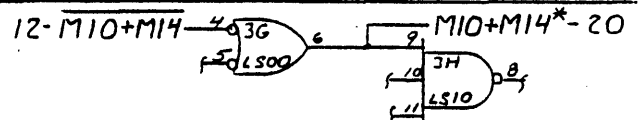
PREVENT SETTING OF PARITY ERROR STATUS WHEN REWINDING ON DRIVES THAT DO NOT INHIBIT READ STROBES DURING REWIND.

1. CHANGE SHEET 18 OF SCHEMATIC 120016 AS SHOWN BELOW

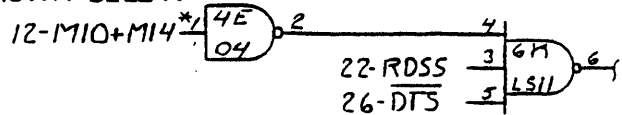
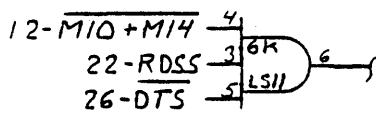
WAS



SHOULD BE



2. CHANGE SHEET 20 OF SCHEMATIC 120016 AS SHOWN BELOW



3. REWORK ASSY 120024 OR 120025 AS FOLLOWS:

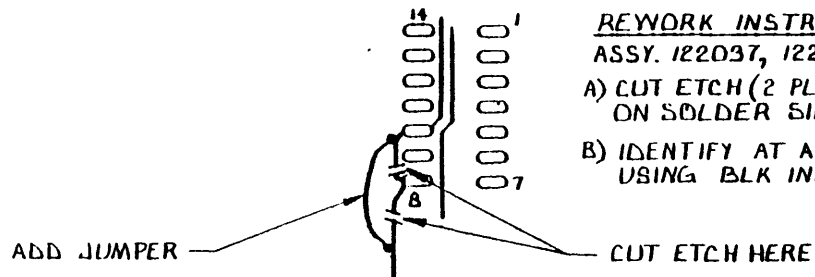
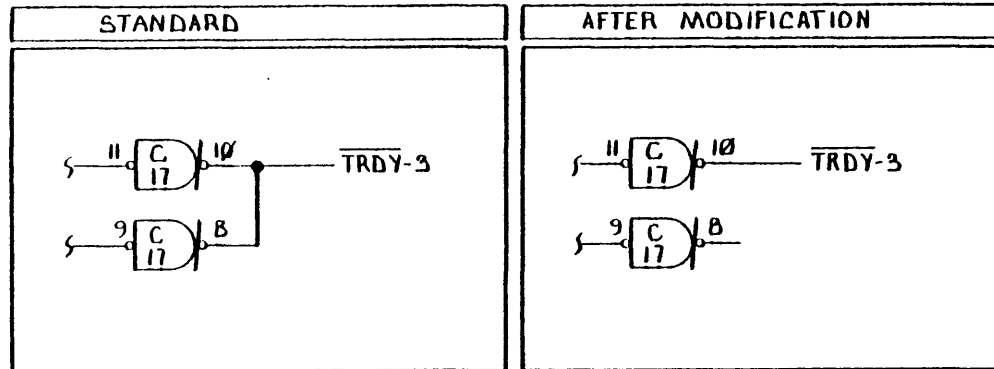
- A. CUT ETCH SOLDER SIDE AT 6K-4 (2 PLACES)
- B. JUMPER 4E-2 TO 6K-4
- C. JUMPER 4E-1 TO 3G-6
- D. JUMPER 8M-1 TO 5H-1

SHOULD ADDITIONAL INFORMATION BE REQUIRED - CONTACT

WESTERN PERIPHERALS, INC.  
1100 CLAUDINA PLACE  
ANAHEIM, CALIF. 92805  
PHONE: (714) 991-8700  
ATTN: MANAGER, FIELD SERVICE

REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED

CHANGES TO SCHEMATIC 122036.



- REWORK INSTRUCTIONS FOR  
 ASSY. 122037, 122038, OR 122039.
- A) CUT ETCH (2 PLACES) AND ADD JUMPER ON SOLDER SIDE OF 'C' CHIP AS SHOWN.
  - B) IDENTIFY AT ASSY. NO. WITH "CONF S" USING BLK INK.

THIS MODIFICATION REQUIRED FOR CONTROL OF QUANTEK TAPE DRIVES.

TOLERANCES UNLESS OTHERWISE SPECIFIED		 western peripherals ANAHEIM, CALIFORNIA	
FRACTIONS DEC.	ANGLES		
±	±	MODIFICATION DWG. —	
APPROVALS		DATE	TAPE CONT. ADAPTER, CONF. "S"
DRAWN BY: J.M. TAG		3-28-78	
CHECKED BY: J.D. H.		3-29-78	
SCALE		SIZE	DRAWING NO.
		B	112001
DO NOT SCALE DRAWING			SHEET 1 OF 1