

Model TC-131 Tape Controller Logic Manual



western peripherals™

PRODUCTS OF **WESPERCORP**

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MODEL TC-131
TAPE CONTROLLER
LOGIC MANUAL

Publication Number:

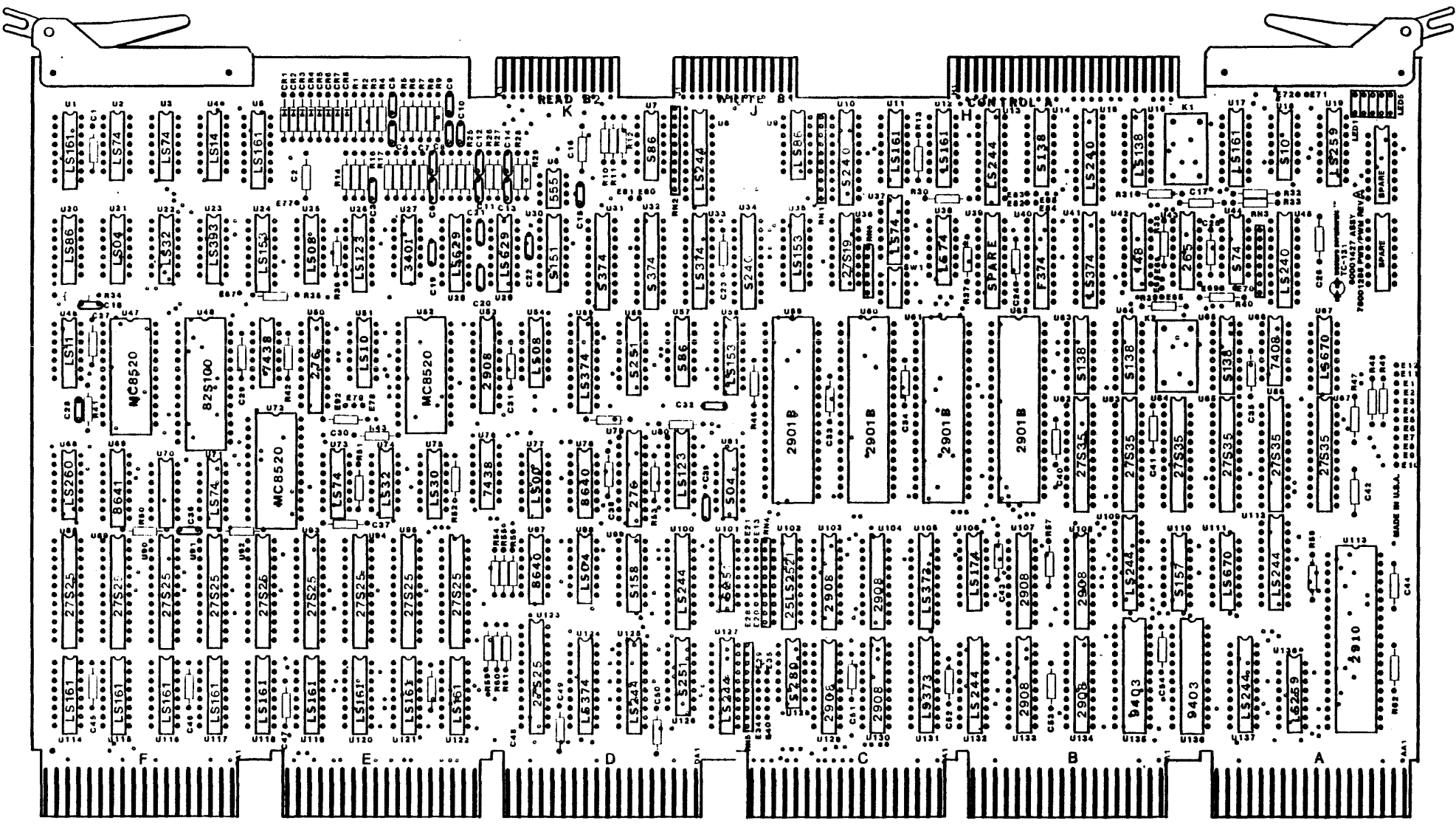
P91000489

Rev. B

Rev. Date 03/20/85

Applicable Assembly Number: P60001427

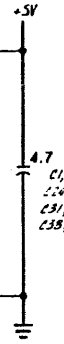
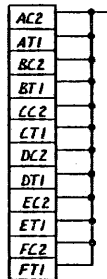
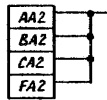
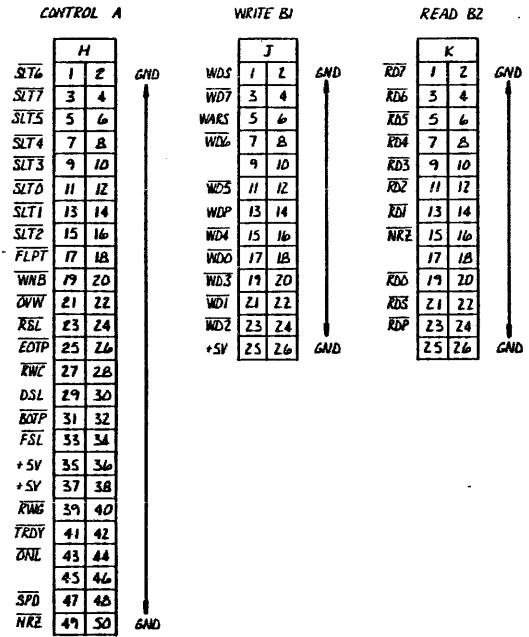
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MADE IN U.S.A.
 70001388 PRS/PWB REV A

8 7 6 5 4 3 2 1

REVISIONS				
ZONE	LTG	DESCRIPTION	DATE	APPROVED
X		RELEASE		
X1		REVISE & REDRAWN		T. W.
A		PRODUCTION RELEASE	1/31/55	T. W.
B		REVISED PER ECD 1342	1/14/55	R. B.



4.7
C1, C6, C16, C17, C23,
C24, C25, C26, C27, C28, C30,
C31, C33, C34, C35, C37,
C38, C40, C41, C42, C45-C54

INSTALLATION OF SELECTION OPTION JUMPERS FOR DEC/IBM PACKING MODES AND IBM/PE DENSITY MODES:

IBM/PE DENSITY MODE SELECTION OPTIONS:	DEC/IBM PACKING MODE SELECTION OPTIONS:	TC-131 JUMPERS REQUIRED:
	IBM PACKING MODE SELECTABLE BY SETTING BIT 10 (IBM) IN MTRD REGISTER (STANDARD)	E82 TO E83 E84 TO E85
	IBM PACKING MODE SELECTABLE BY SETTING BIT 10 (SEL 4) IN MFC REGISTER (OPTIONAL)	E83 TO E85 E84 TO E85 E80 TO E81
PE DENSITY MODE SELECTABLE BY SETTING DENSITY SWITCH ON DRIVE (STANDARD)	IBM PACKING MODE ONLY (OPTIONAL)	E82 TO E83 E84 TO E85 E78 TO E79
	IBM PACKING MODE SELECTABLE BY EXTERNAL SWITCH (OPTIONAL)	E82 TO E83 E84 TO E85 WIRE SWITCH FROM E78 TO E79
PE DENSITY MODE SOFTWARE SELECTABLE BY SETTING BIT 10 (SEL 4) IN MFC REGISTER (OPTIONAL)	IBM PACKING MODE SELECTABLE BY SETTING BIT 10 (IBM) IN MTRD REGISTER (STANDARD)	E83 TO E85 E82 TO E84
	IBM PACKING MODE ONLY (OPTIONAL)	E83 TO E85 E82 TO E84 E78 TO E79
	IBM PACKING MODE SELECTABLE BY EXTERNAL SWITCH (OPTIONAL)	E83 TO E85 E82 TO E84 WIRE SWITCH FROM E78 TO E79

SPEED SETTING

SW POS	125	125	125	75	75	75	45	45	37.5	SEL B
	75	45	37.5	25	45	37.5	25	37.5	25	SEL A
1	C	C	C	C	C	C	C	0	0	0
2	C	C	C	C	0	0	0	C	C	0
3	C	C	0	0	C	0	0	C	0	C
4	C	0	C	0	0	C	0	0	C	C

C = ON
0 = OFF

LAST DESIGNATION USED

RESISTOR	63
CAPACITOR	54
DIODE	8
LED	5
RESISTOR NETWORK	6
OSCILLATOR	2

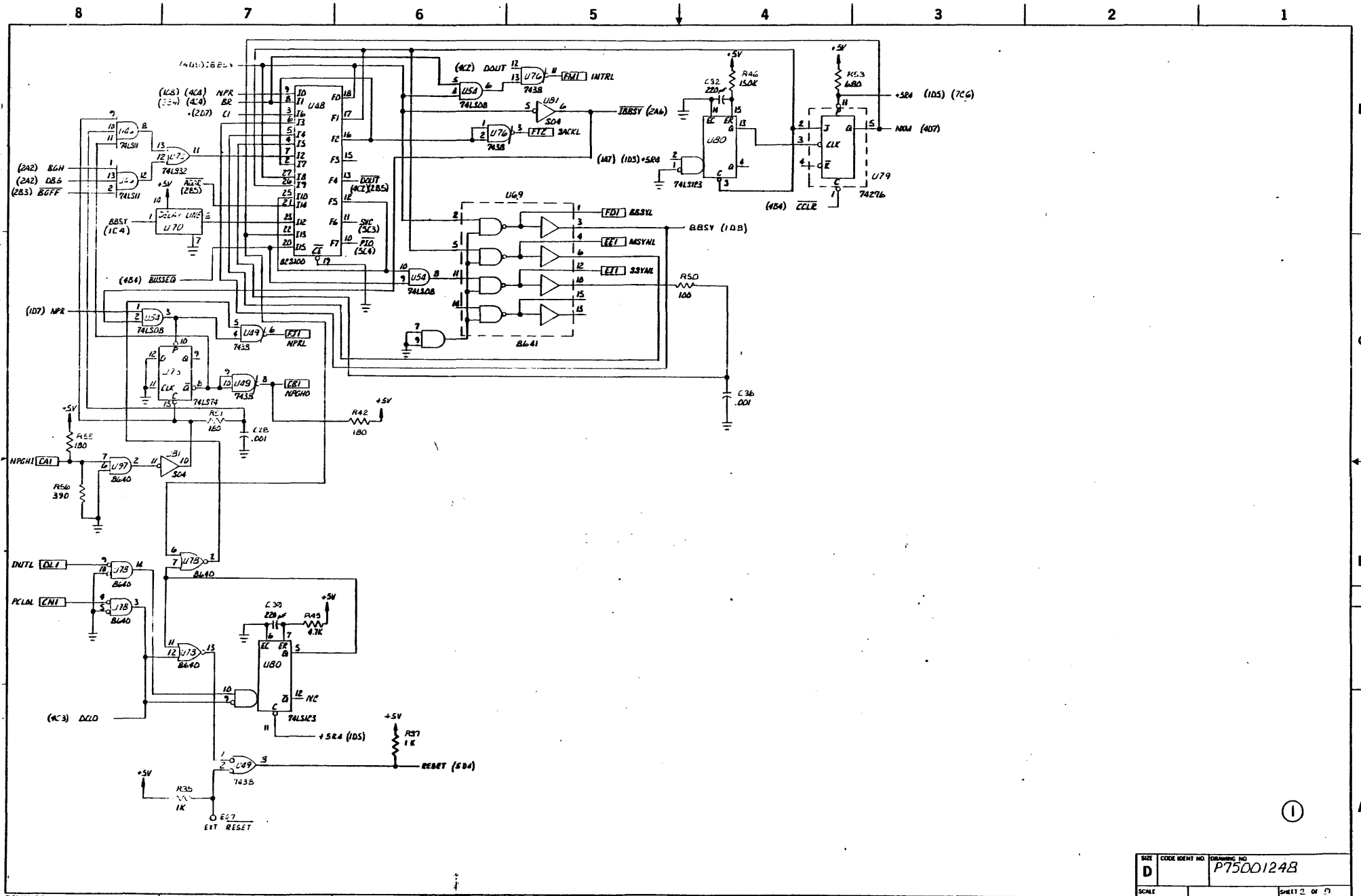
SPARES

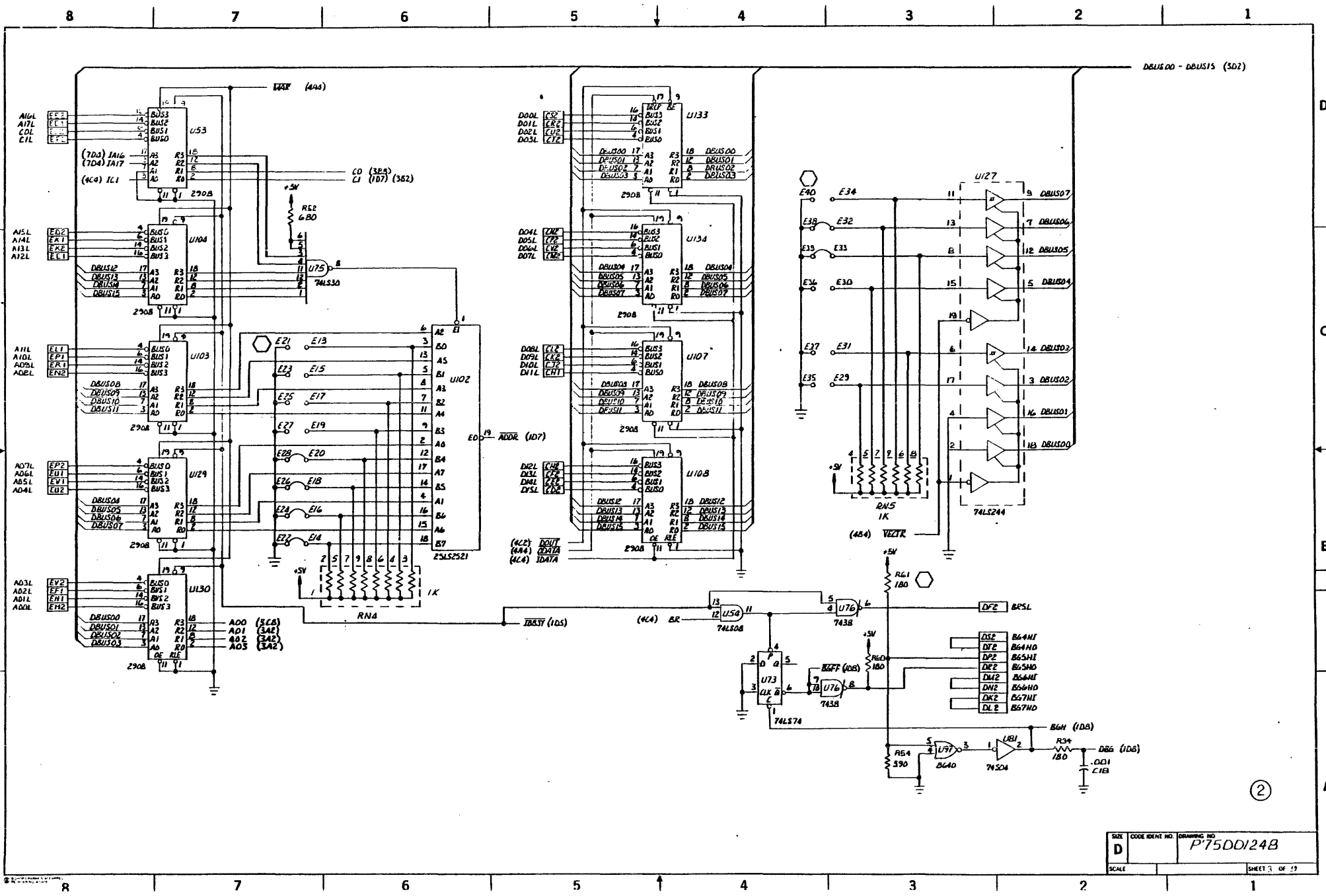
EQ. LOC.	DESCRIPTION	PIN NO.
	BLAD	9-14
	74LS11	3-6
	74LS32	1-3
	7438	11-13
	74276	
	74586	11-13

9. REFERENCE ASSY. P60001427
2. CAPACITOR VALUES ARE IN MICROFARADS.
1. RESISTOR VALUES ARE IN OHMS & ARE 1/4W 5%
NOTES: UNLESS OTHERWISE SPECIFIED.

QTY REQD	CODE IDENT	PART OR IDENTIFYING NO.	NOMENCLATURE OR DESCRIPTION
PARTS LIST			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES FRACTIONS DECIMALS ANGLES		CONTRACT NO.	
MATERIAL		APPROVALS DATE	
FINISH		DRAWN BY D. KENNEDY 7-26-55	
NEXT ASST		CHECKED BY T. E. 1/31/55	
USED ON APPLICATION		ENGR.	
DO NOT SCALE DRAWING		SCALE	
P60001427		DRAWING NO. P75001248	
WEST ASST		SIZE D	
APPLICATION		DRAWING NO. P75001248	
		SCALE	
		SHEET 1 OF 9	

8 7 6 5 4 3 2 1





8

7

6

5

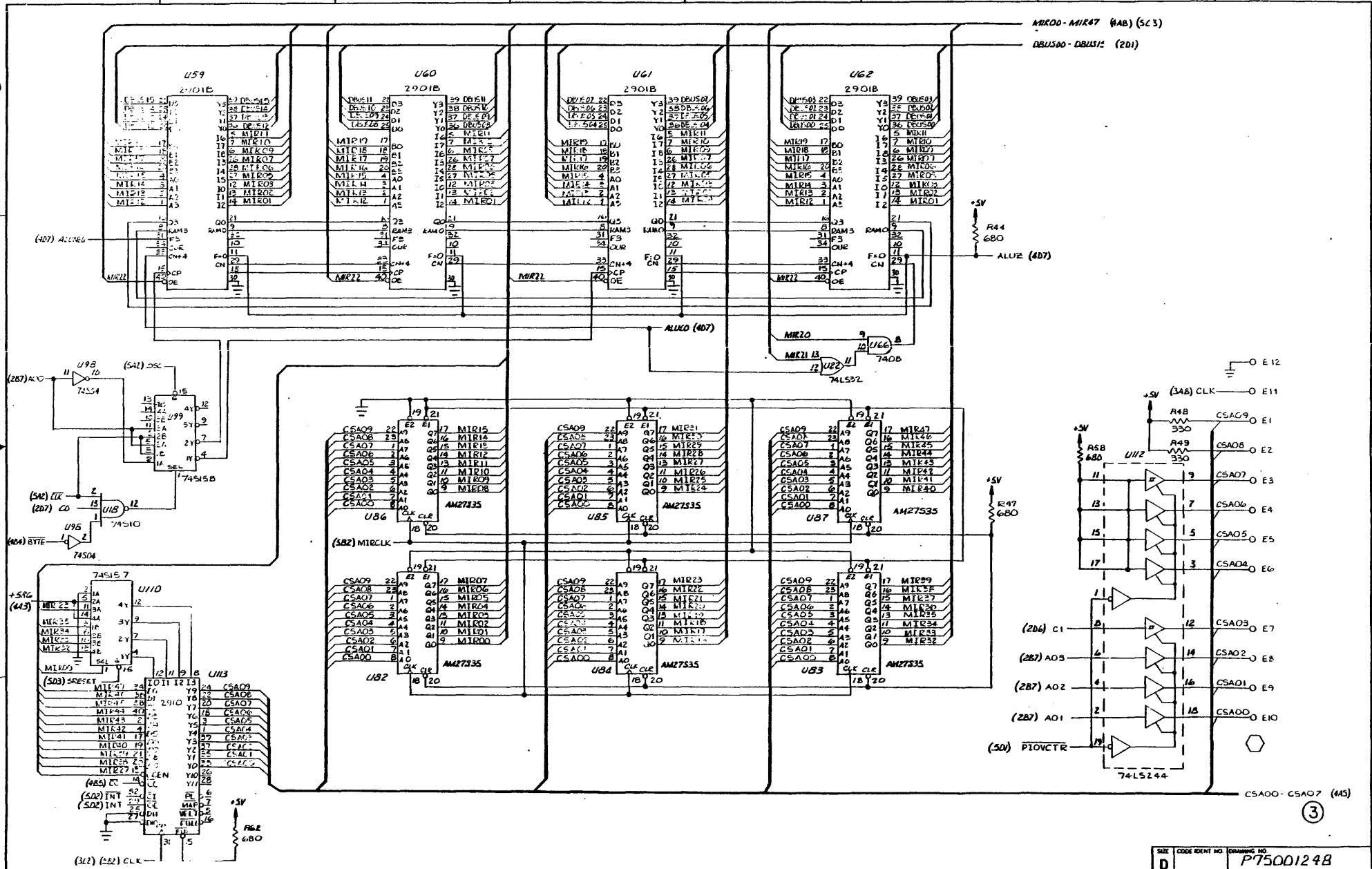
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3

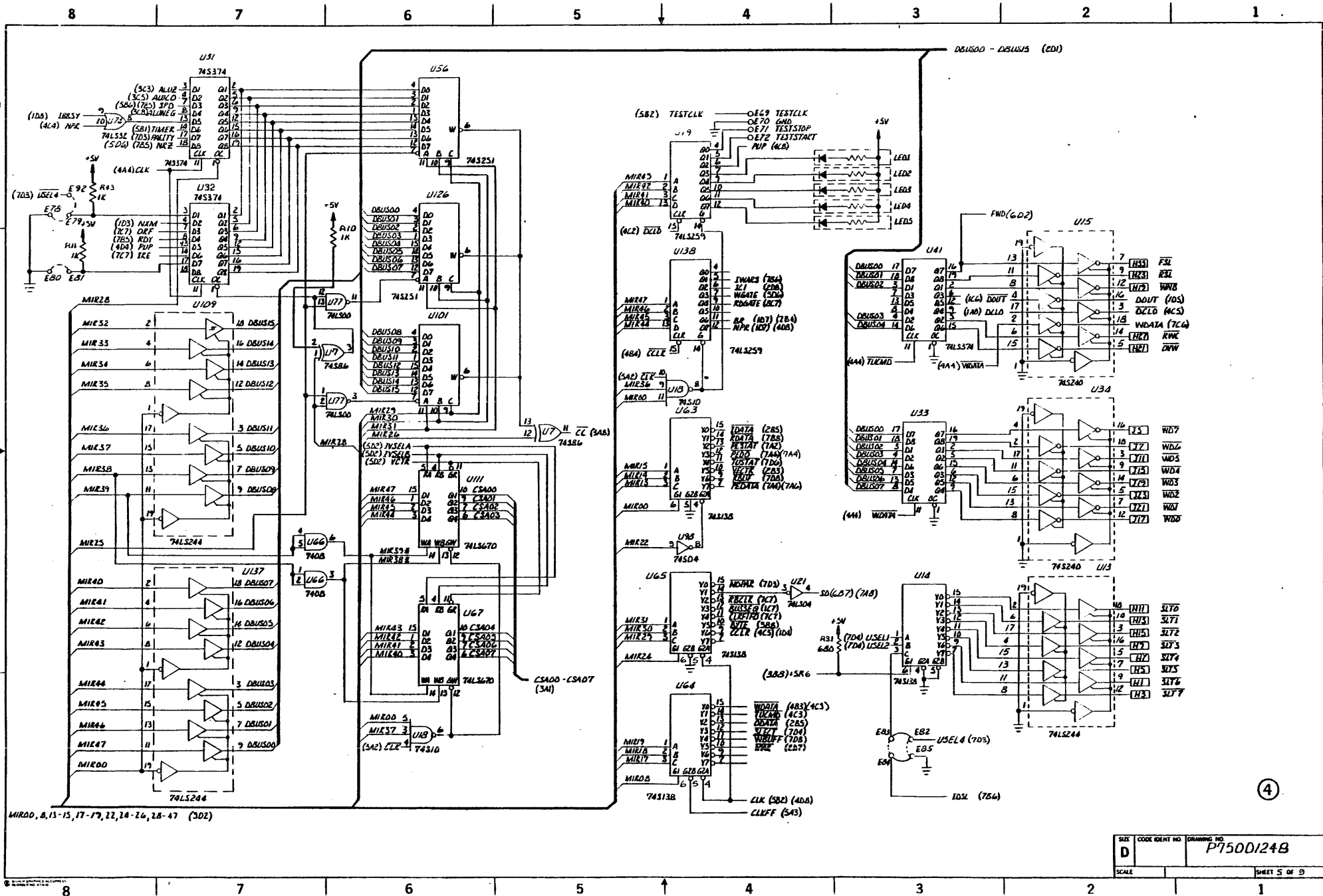
2

1

MIR00-MIR47 (4A8) (5C3)
DBUS00-DBUS11 (201)

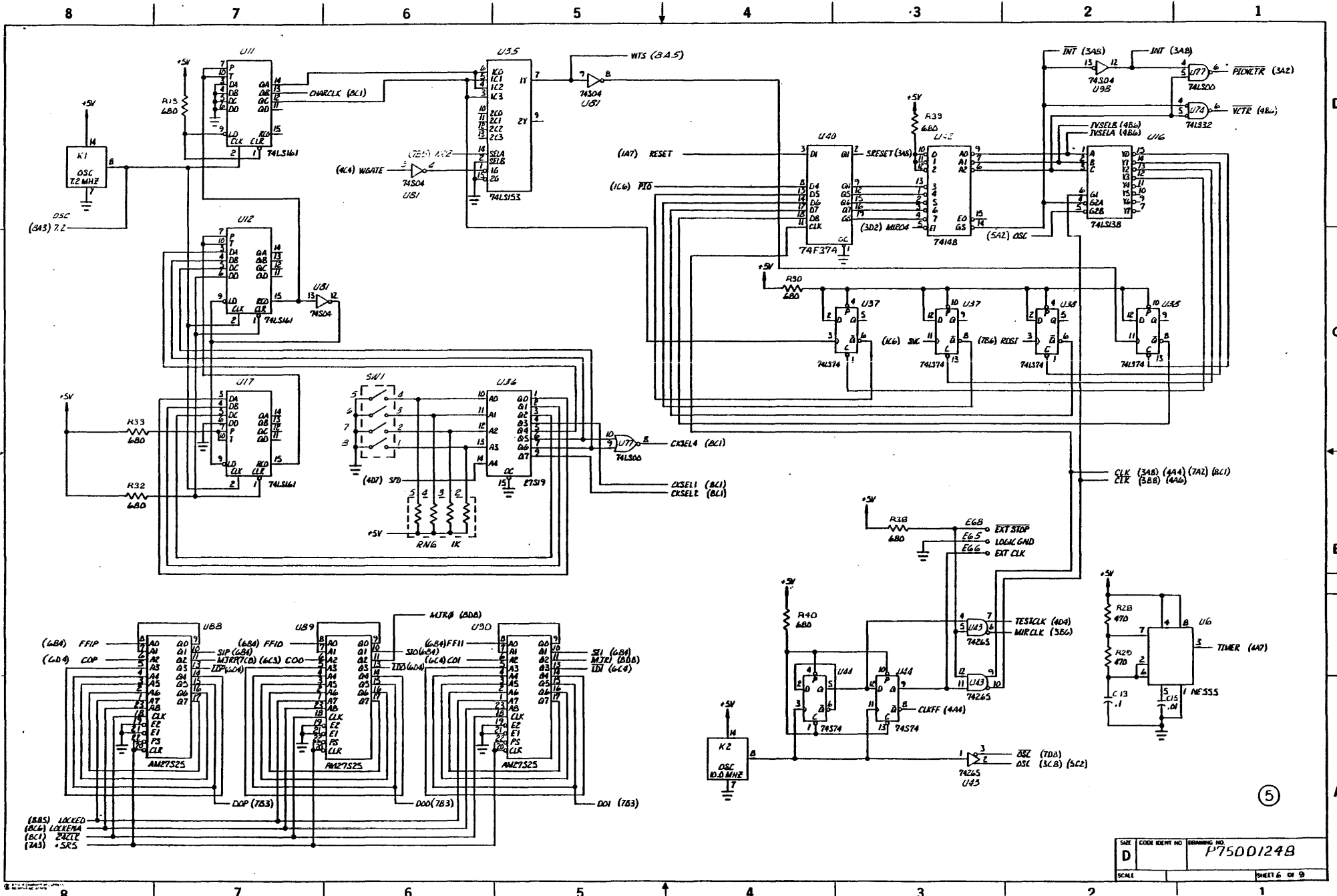


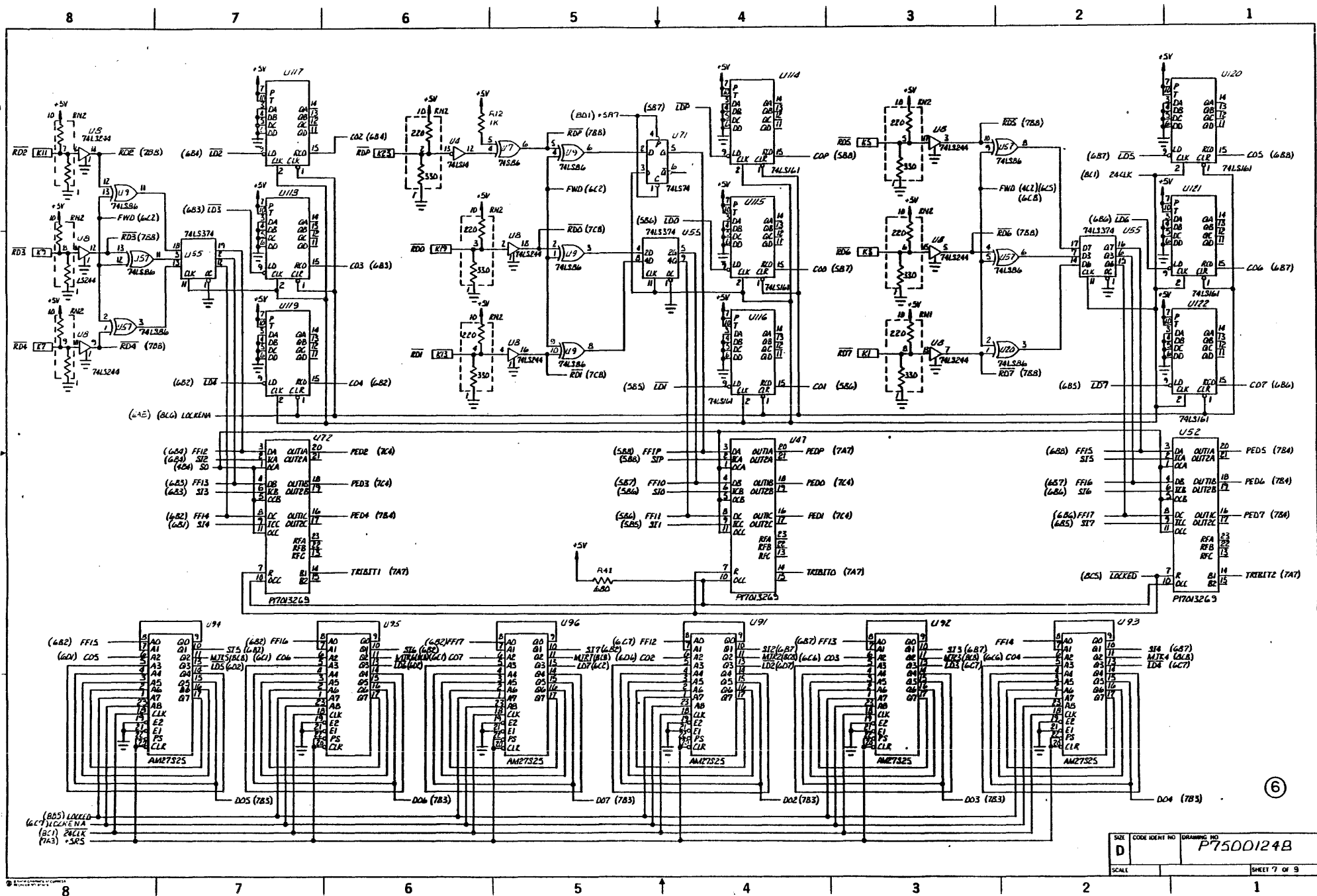
(3)



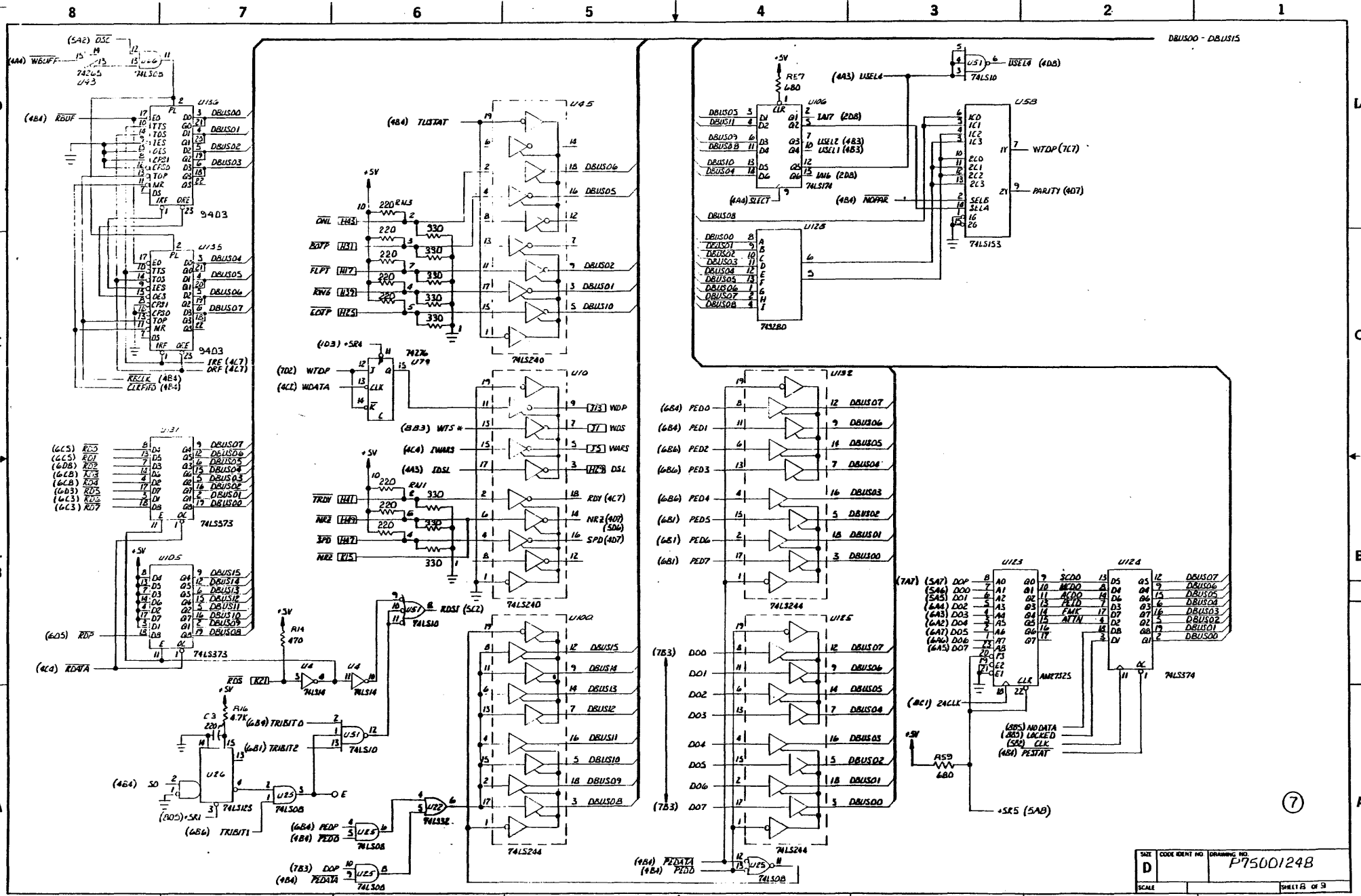
MIR00, 8, 15, 17, 19, 22, 24, 26, 47 (302)

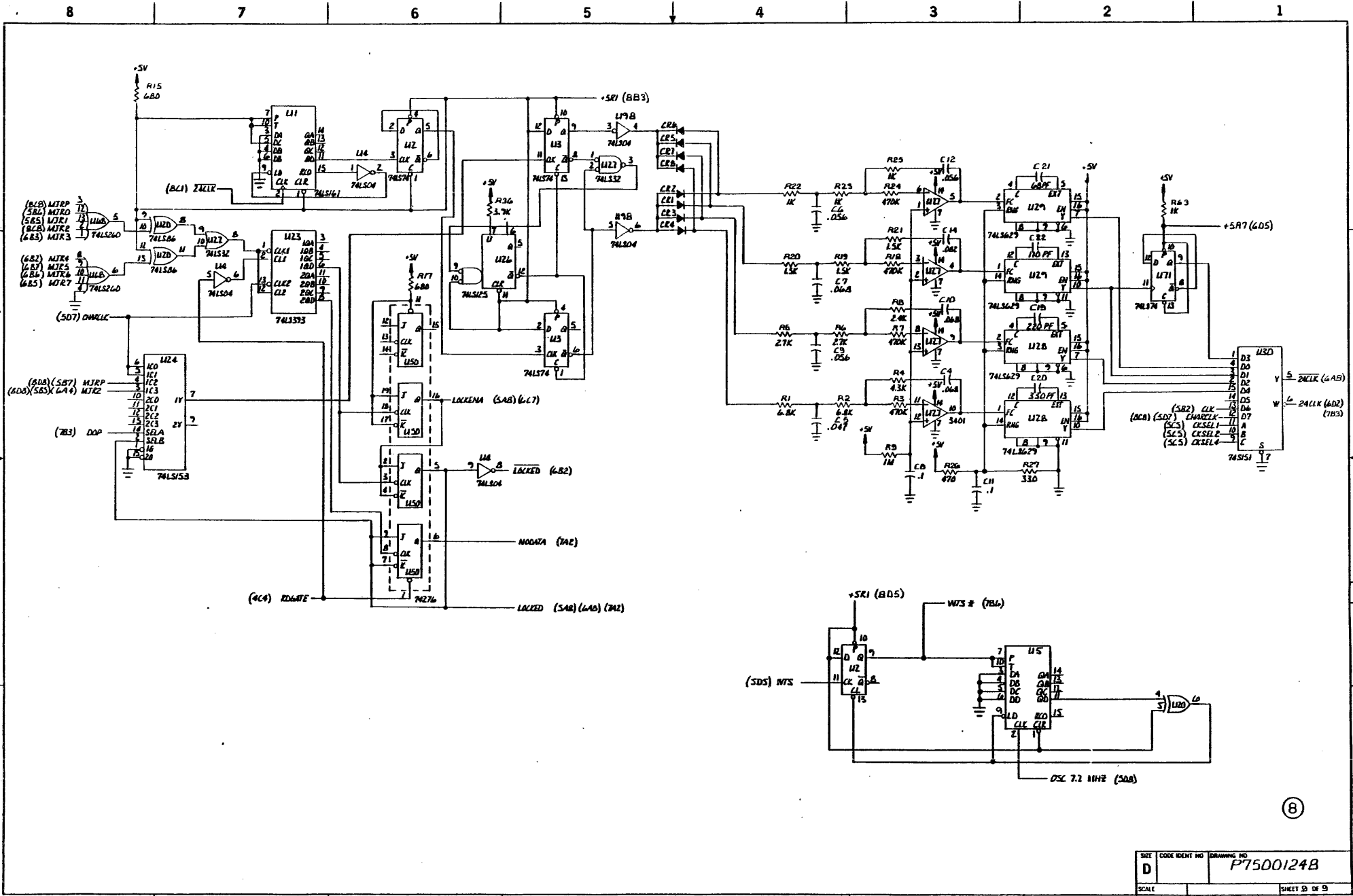
SIZE	CODE IDENT NO	DRAWING NO
D		P7500/24B
SCALE		SHEET 5 OF 10





SIZE: D
 CODE IDENT NO: P7500124B
 DRAWING NO: P7500124B
 SCALE: SHEET 7 OF 9





8

SIZE	CODE IDENT NO	DRAWING NO
D		P7500124B
SCALE		SHEET 02 OF 09

REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED
A	RELEASE	2-7-85	

TC-131 for Technicare:

This configuration corrects a problem where NPG, BG and NPR are not propagated correctly.

This configuration is to be performed on the following assembly only:

P60001427.

To update the above assembly to this configuration perform the rework as follows:

- A. Label the spare location just below the LED's 1-5 as "S1".
- B. Label the second spare location below the LED's 1-5 as "S2".
- C. Install a 74LS14 I.C. in spare location S1 with pin 1 of I.C. in pin 1 of the printed circuit board.
- D. Install the following components in spare location "S2":

COMPONENT	VALUE	LOCATION
P14000335	270 Resistor	S2-2 to S2-15
P15000102	82 PF Capacitor	S2-3 to S2-14
P14000335	270 Resistor	S2-7 to S2-10
P15000102	82 PF Capacitor	S2-8 to S2-9

- E. Lift pins:

U76-9, U76-10, U49-9, U49-10.

- F. Add Jumpers:

FROM	TO	TO
U73-6	S2-2	
U73-8	S2-7	
S2-3	S2-8	
S2-9	S2-10	S1-13
S2-14	S2-15	S1-1
S1-2	S1-3	
S1-4	U76-9	U76-10
S1-12	S1-11	
S1-10	U49-9	U49-10
S1-7	(S1-8) Pad on P.C.B.	GND

TOLERANCES UNLESS OTHERWISE SPECIFIED FRACTIONS DEC. ANGLES ± ± ±		western peripherals™ TUSTIN, CALIFORNIA	
APPROVALS		DATE	
DRAWN <i>G. FRENCH</i>		2-7-85	
CHECKED <i>R. Ellis</i>		2-7-85	
ENGB. <i>Z. Funn</i>		2-7-85	
SCALE NONE		SIZE A	DRAWING NO. P79001897
DO NOT SCALE DRAWING			SHEET 1 of 1

MANUAL REVISION HISTORY

<u>REVISION</u>	<u>DATE</u>	<u>DESCRIPTION</u>
B	03/20/85	BOARD LAYOUT CHANGED PLUS NEW SCHEMATIC REMOVED OBSOLETE DRAWINGS

4

APPENDIX A

STANDARD TAPE DRIVE
CABLES AND ADAPTERS

12-16-81

FUNCTIONAL INDEX

		DRAWING NO.
I.	RIBBON CABLES AND BACKPLANE CONNECTORS	
	Assembly - Cable, Control	121004
	Assembly - Cable, Read	121006
	Assembly - Cable, Write	121014
II.	ADAPTER PADDLEBOARDS	
I.	SCHEMATICS	
	Schematic - Tape Control Adapter	122036
	Schematic - Adapter, Tape Write Connector	122021
	Schematic - Adapter, Tape Read Connector	122022
2.	ASSEMBLY DRAWINGS	
	a. CONTROL	
	Assembly - Adapter, Tape Control Connector (Standard)	122037
	Assembly - Adapter, Tape Control Connector (90° Mount)	122038
	Assembly - Adapter, Tape Control Connector (2-inch Standoff)	122039
	b. WRITE	
	Assembly Drawing - Tape Write Connector (Standard)	122006
	Assembly Drawing - Adapter, Tape Writer (Reverse Image)	122019
	Assembly - Adapter, Tape Write (90° Mount)	122034
	c. READ	
	Assembly Drawing - Adapter, Tape Read Connector	122005
	Assembly Drawing - Adapter, Tape Read (Reverse Image)	122018
	Assembly - Adapter, Tape Read (90° Mount)	122035
	Assembly - Adapter, Tape Read (Reverse Image 90° Mount)	122043
	d. DRIVE SELECT JUMPERS	
	Assembly, Jumper Array, Select Switch Option	122010
	Assembly, Jumper Array, Select Switch Option (4th Drive)	122011
	Assembly, Jumper Array, Non-Select Switch Option	122012
III.	SPECIAL FEATURE MODIFICATIONS	
	Modification Drawing, Tape Control Adapter Configuration "S"	112001
	Modification Drawing - Tape Control Adapter Configuration "N"	122044
	Modification Drawing, Cipher 900X (Config. "A")	79000410
	Modification Drawing, Cipher 900X (Config. "B")	79000642

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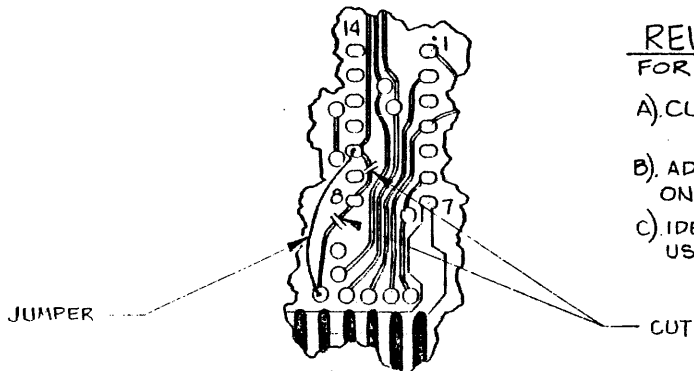
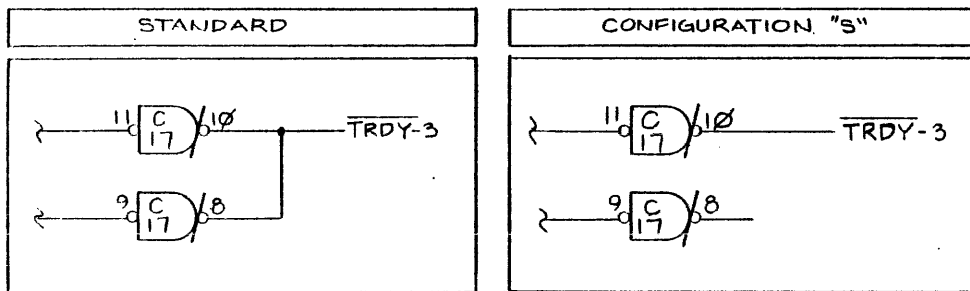
TITLE	DRAWING NO.
Modification Drawing, Tape Control Adapter (Config. "S")	112001
Assembly - Cable, Control	121004
Assembly - Cable, Read	121006
Assembly - Cable, Write	121014
Assembly Drawing - Adapter, Tape Read Connector	122005
Assembly Drawing - Tape Write Connector	122006
Assembly, Jumper Array, Select Switch Option	122010
Assembly, Jumper Array, Select Switch Option, Special	122011
Assembly, Jumper Array, Non-Select Switch Option	122012
Assembly Drawing - Adapter, Tape Read, Kennedy, Cipher	122018
Assembly Drawing - Adapter, Tape Write, Kennedy, Cipher	122019
Schematic - Adapter, Tape Write Connector	122021
Schematic - Adapter, Tape Read Connector	122022
Assembly, Adapter, Tape Write, Kennedy 9800	122034
Assembly, Adapter, Tape Read, Kennedy 9800	122035
Schematic - Tape Control Adapter	122036
Assembly - Adapter, Tape Control Connector	122037
Assembly - Adapter, Tape Control Connector, 90° Mounting	122038
Assembly - Adapter, Tape Control Connector, 2-inch Standoff	122039
Assembly - Adapter, Tape Read, Reverse Image, 90°	122043
Modification Drawing, Tape Control Adapter (Config. "N")	122044
Modification Drawing, Cipher 900X (Config. "A")	79000410
Modification Drawing, Cipher 900X (Config. "B")	79000642
Notes	

PURPOSE:

THIS MODIFICATION REQUIRED FOR CONTROL OF QUANTEX TAPE DRIVES.

REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED
A	REDRAWN TO CORRECT DETAIL FOR E OR F ARTWORK (REF E.C.Q. 780)	10-2-80	<i>Kip</i>

SHEET (2) OF SCHEMATIC 122036 IS ALTERED AS OUTLINED BELOW.



SOLDER SIDE VIEW
IC. LOCATION "C"

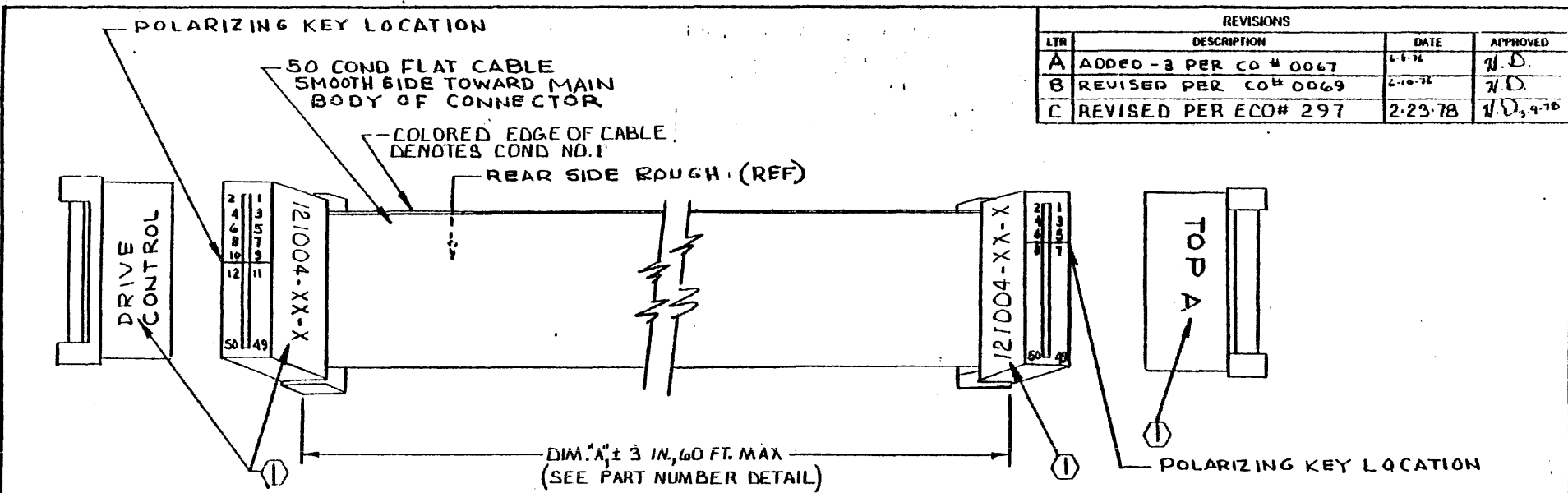
REWORK INSTRUCTIONS:

FOR ASSY. 122037, 122038, 122039

- A). CUT ETCH 2 PLCS AT C-8 (SOLDER SIDE)
- B). ADD JUMPER FROM C-10 TO FEED-THRU ON ETCH THAT WAS CONNECTED TO C-8
- C). IDENTIFY AT ASSY NO. WITH "CONF 5" USING BLACK INK.

OCT 2 1980

TOLERANCES UNLESS OTHERWISE SPECIFIED		western peripherals™ TUSTIN, CALIFORNIA	
FRACTIONS DEC	ANGLES		
±	±		
APPROVALS	DATE	MODIFICATION DWG- TAPE CONT. ADAPTER, CONF "S"	
<i>AMZ</i>	10-1-80	SCALE	SIZE DRAWING NO.
CHECKED	10-2-80	<i>W. Chubb</i>	B 112001
		DO NOT SCALE DRAWING SHEET 1 OF 1	



REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED
A	ADDED - 3 PER CO # 0067	6-1-76	J.D.
B	REVISED PER CO# 0069	2-10-76	J.D.
C	REVISED PER ECO# 297	2-23-78	J.D., 9-78

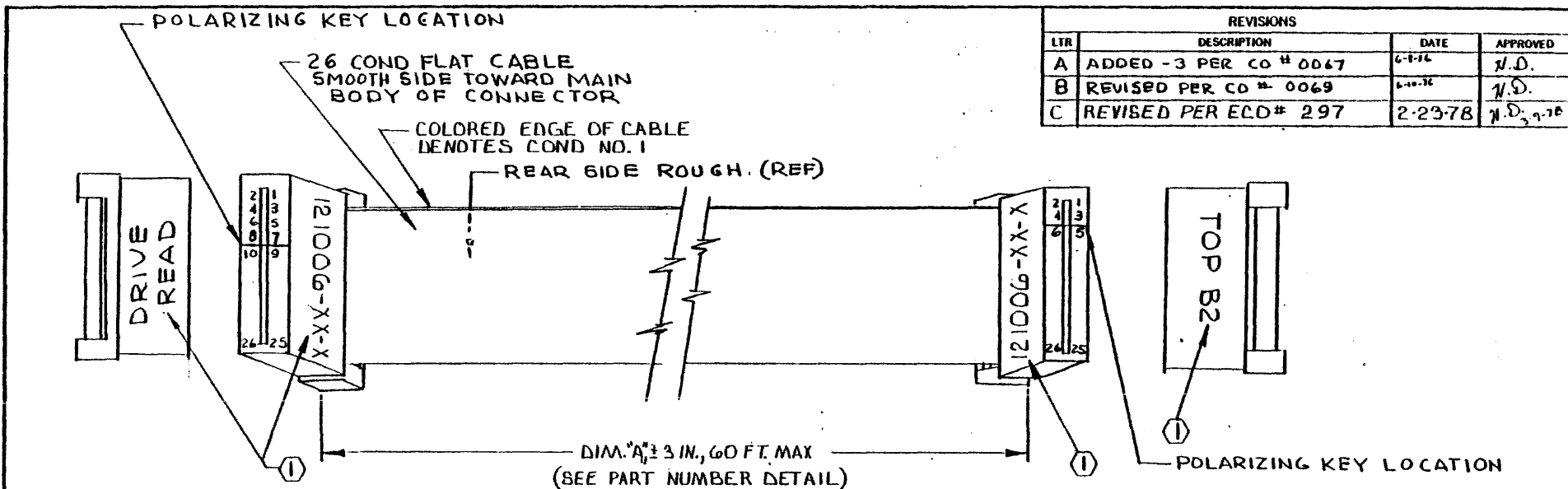
PART NUMBER DETAIL

121004-XX-X	
BASIC PART NUMBER	_____
DASH NUMBER IN FEET (REF. DIM. A)	_____
(-07 FOR 7 FT., -10 FOR 10 FT., ETC.)	
LATEST REVISION LETTER	_____

- 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-II
 - USE SETTING NO 9 OF GAUGE 3436-I
 - 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		 western peripherals ANN ARBOR, CALIFORNIA	
FRACTIONS	DEC.		
±	±	±	ASSEMBLY-CABLE, CONTROL
APPROVALS	DATE		
DRAWN CORUM	6-1-76		
CHECKED J.D.	6-1-76		
SCALE	SIZE	DRAWING NO.	
NONE	B	121004	
DO NOT SCALE DRAWING			SHEET



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 ECD# 297	2-23-78	N.D. 2-9-78

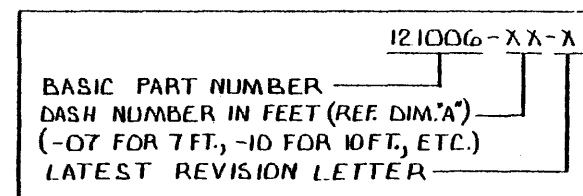
NOTES:

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-II
- USE SETTING NO. 9 OF GAUGE NO. 3436-I
- 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

PART NUMBER DETAIL



FOR PARTS SEE PARTS LIST 121006

TOLERANCES UNLESS OTHERWISE SPECIFIED		western peripherals ANAHEIM, CALIFORNIA	
FRACTIONS DEC.	ANGLES		
±	±		
APPROVALS	DATE	ASSEMBLY CABLE, READ	
DRAWN C. RUM	6-1-76	SCALE NONE	SIZE DRAWING NO. B 121006
CHECKED N.D.	6-1-76	DO NOT SCALE DRAWING SHEET	

POLARIZING KEY LOCATION

26 COND FLAT CABLE
SMOOTH SIDE TOWARD MAIN
BODY OF CONNECTOR

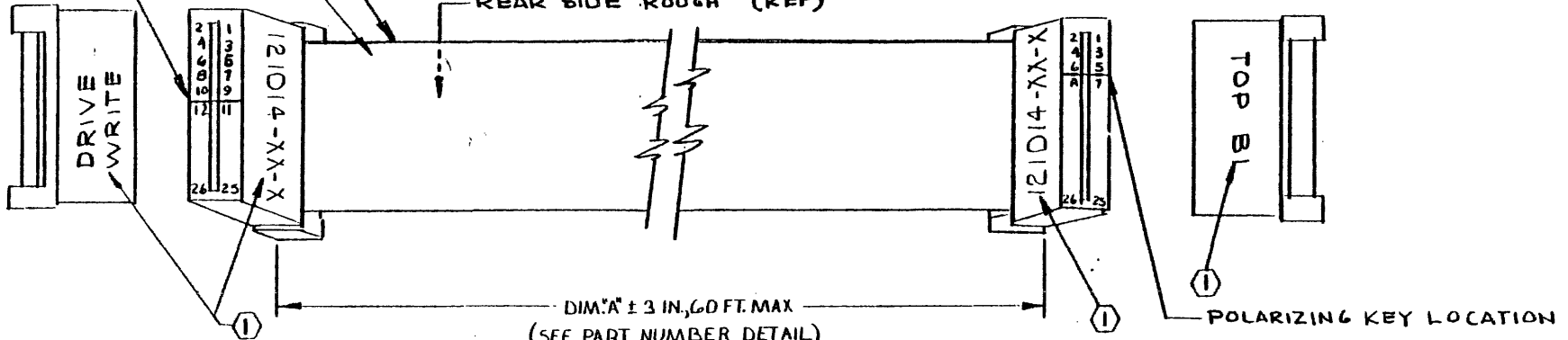
COLORLED EDGE OF CABLE
DENOTES COND NO. 1

REAR SIDE ROUGH (REF)

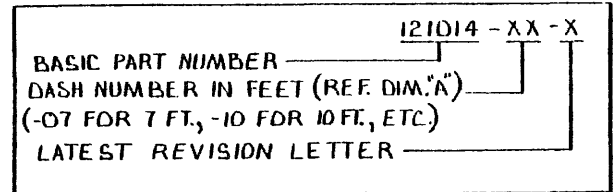
DIM. "A" ± 3 IN., 60 FT. MAX
(SEE PART NUMBER DETAIL)

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., 4-78



PART NUMBER DETAIL



NOTES:

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

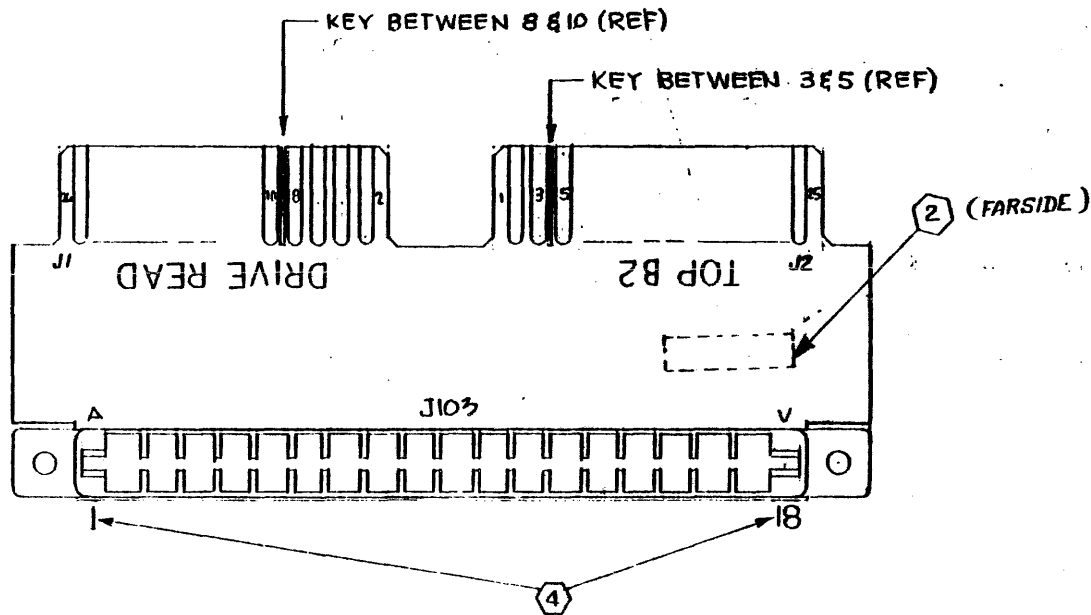
2. ASSEMBLY:

- USE 3M PRESS NO. 3440.
- USE LOCATOR PLATE NO 3443-11
- USE SETTING NO 9 OF GAUGE 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 <small>ANAHEIM, CALIFORNIA</small>	
FRACTIONS	DEC.	ANGLES	
±	±	±	
APPROVALS	DATE	ASSEMBLY- CABLE, WRITE	
DRAWN C. RUM	6-1-76		
CHECKED N.D.	6-1-76		
		SCALE	SIZE
		NONE	B
		DRAWING NO.	
		121014	
DO NOT SCALE DRAWING			SHEET

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> 11-11-77
C	REVISED NOTE 2 PER ECO.#415	2/2/79	<i>J.D.</i> 2-2-79
D	ADDED NOTE (4) PER ECO# 504	6-20-79	<i>K.M.C.</i> 6-20-79



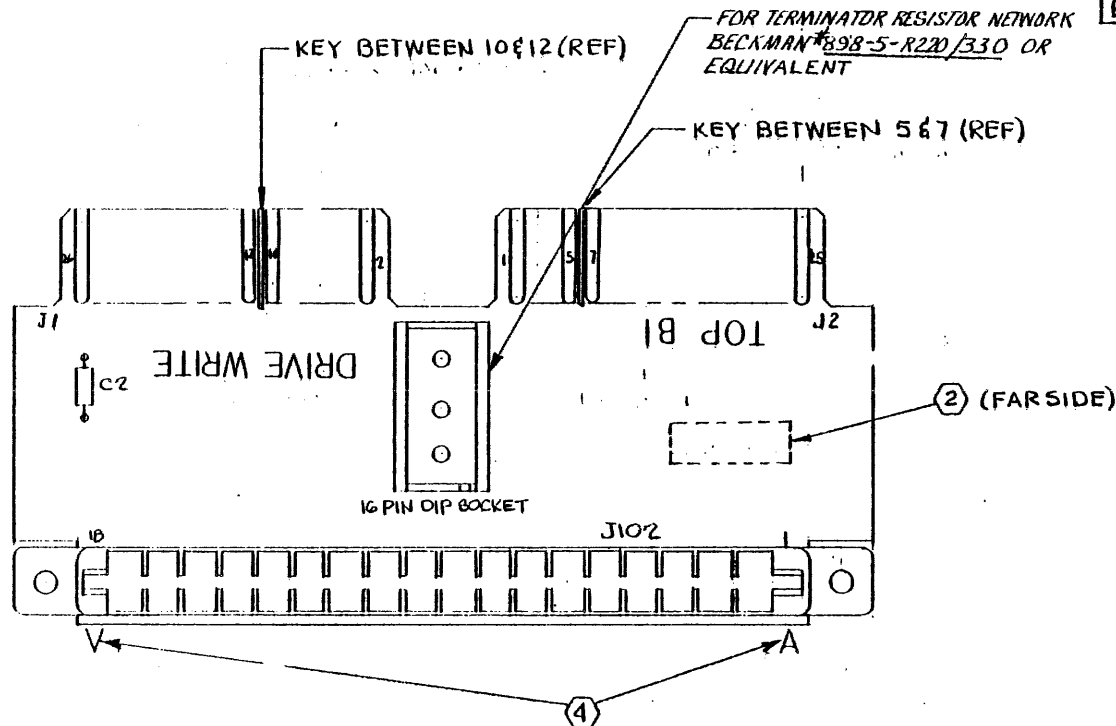
NOTE.

1. REF SCHEMATIC DWG NO. 122022
2. RUBBER STAMP ASBY NO. WITH LATEST REV. LTR AFFIX WHERE SHOWN USING BLK INK.
3. FOR MATL SEE P/L 122005
4. MARK CHARACTERS SHOWN (1&18) ON SIDE OF CONNECTOR USING CONTRASTING INK.

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TOLERANCES UNLESS OTHERWISE SPECIFIED FRACTIONS DEC. ANGLES ± ± ±		western peripherals ANAHEIM, CALIFORNIA	
APPROVALS		DATE	
DRAWN <i>HRB</i>		2-13-76	
CHECKED <i>at.</i>		2-25-76	
SCALE		SIZE	DRAWING NO.
2:1		B	122005
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
B/C	ADVANCED REV LTR TO AGREE WITH P/L	2/1/79 J.D.	J.H.N. 2-6-79
D	REVISED NOTE 2 PER ECO# 416	2/1/79 J.D.	J.H.N. 2-6-79
E	ADDED NOTE ④ PER ECO# 504	6-20-79 J.D.	J.H.N. 6-20-79

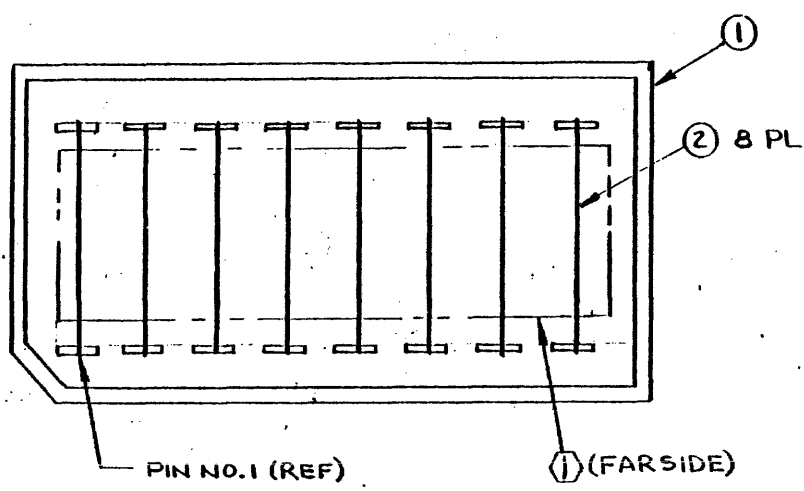


NOTE:

1. REF SCHEMATIC DWG. NO. 122021.
- ② RUBBER STAMP ASSY NO. WITH LATEST REV LTR APPROX. WHERE SHOWN USING BLK INK.
3. FOR MATL SEE P/L 122006.
- ④ MARK CHARACTERS SHOWN (A & V) ON SIDE OF CONNECTOR USING CONTRASTING INK.

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TOLERANCES UNLESS OTHERWISE SPECIFIED FRACTIONS DEC. ANGLES ± ± ±		western peripherals ANAHEIM, CALIFORNIA	
APPROVALS DRAWN HRB		DATE 2-12-76	
CHECKED HRB		DATE 2-15-76	
SCALE 2:1		SIZE B	DRAWING NO. 122006
DO NOT SCALE DRAWING			SHEET 1 OF 1



REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED

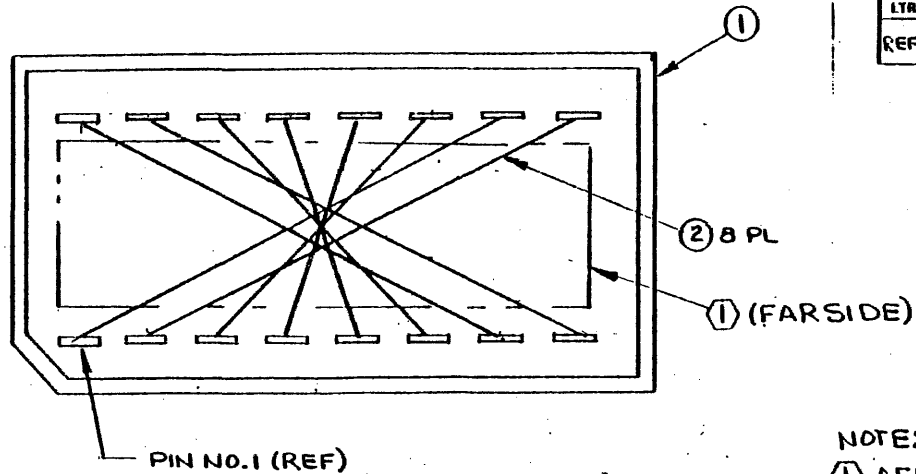
NOTE: UNLESS OTHERWISE SPECIFIED
 ① AFFIX ADHESIVE LABEL WITH PART NO. & LATEST REV LTR WHERE SHOWN

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

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 <small>IRVINE, CALIFORNIA</small>	
FRACTIONS	DEC.		
±	±	±	ASSY, JUMPER ARRAY, SELECT SWITCH OPTION
APPROVALS	DATE	SCALE	SIZE DRAWING NO.
DRAWN CORUM	11-18-76	NONE	B 122010
CHECKED T.O.	11-18-76	DO NOT SCALE DRAWING	
			SHEET 1 OF 1



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

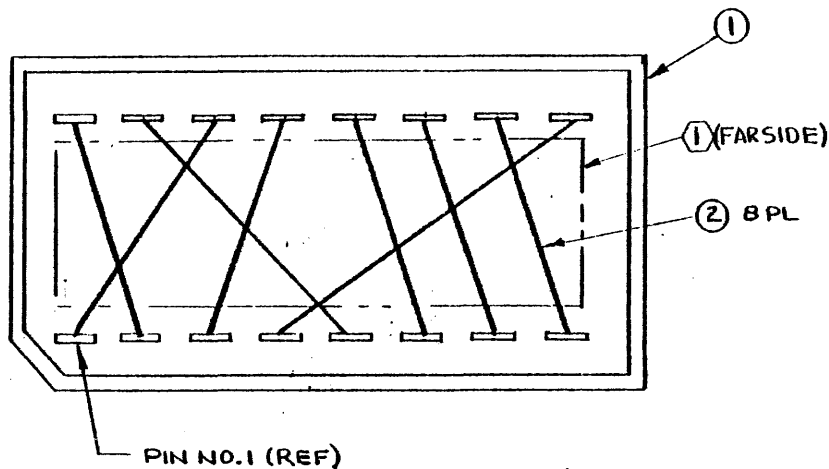
WIRE LIST		
WIRE NO.	FROM PIN NO.	TO PIN NO.
1	1	10
2	2	9
3	3	11
4	4	12
5	5	13
6	6	14
7	7	16
8	8	15

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		western peripherals <small>ANAHEIM, CALIFORNIA</small>			
±	±	±	±	ASSY, JUMPER ARRAY, SELECT SWITCH OPTION, SPECIAL (4TH TRANSPORT)			
APPROVALS	DATE	SCALE				SIZE	DRAWING NO.
DRAWN CORONA	11-18-76	NONE				B	122011
CHECKED V.D.	11-18-76	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

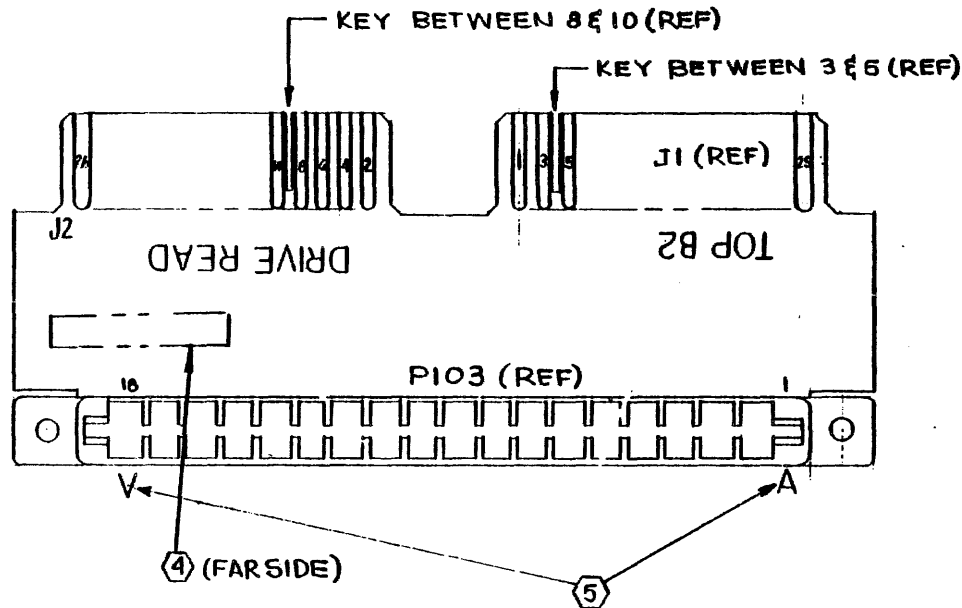
NOTE: UNLESS OTHERWISE SPECIFIED
 ① AFFIX ADHESIVE LABEL WITH PART NO. & LATEST REV LTR WHERE SHOWN

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 FRACTIONS DEC. ANGLES ± ± ±		 western peripherals <small>ANAHEIM, CALIFORNIA</small>	
APPROVALS		DATE	
DRAWN CORUM		11-18-76	
CHECKED J.D.		11-18-76	
SCALE NONE		SIZE B	DRAWING NO. 122012
DO NOT SCALE DRAWING			SHEET 1 OF 1

REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED
A	INCORP. CO # 0145 <i>mc</i>	1-21-77	N.D. 1-24-77
B	E.C.O. NO. - 0190	6-6-77	N.D. 6-11-77
C	DELETED NOTE 2 PER E.C.O. #417	<i>W. 11/79</i>	<i>7/17/79</i>
D	ADDED NOTE ⑤ PER ECO #504	6-20-79	<i>W. 11/79</i>




NOTE: UNLESS OTHERWISE SPECIFIED
1. REF SCHEMATIC DWG NO. 122022

2.

3. FOR MATERIAL SEE P/L 122018

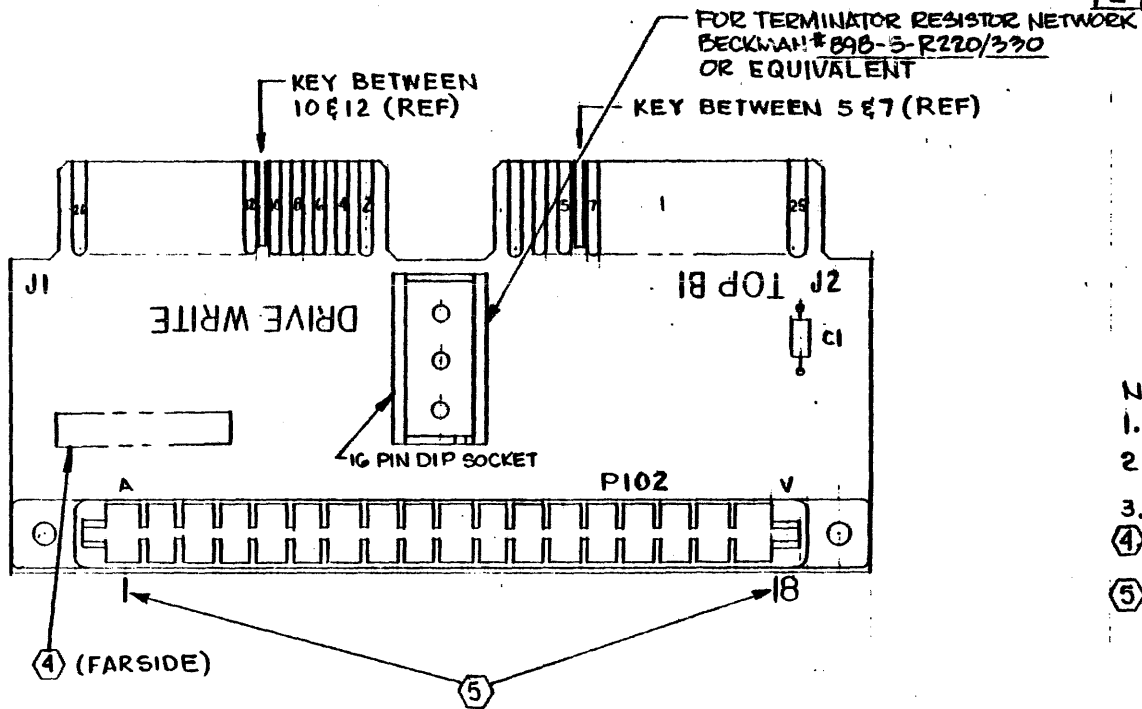
④ RUBBER STAMP ASSY NO. WITH LATEST REV LTR APPROX WHERE SHOWN USING BLK INK.

⑤ MARK CHARACTERS SHOWN (A&V) ON SIDE OF CONNECTOR USING CONTRASTING INK.

TOLERANCES UNLESS OTHERWISE SPECIFIED FRACTIONS DEC. ANGLES ± ± ±		 western peripherals ANAHEIM, CALIFORNIA	
APPROVALS	DATE	ASSEMBLY DWG. ADAPTER, TAPE READ KENNEDY CIPHER	
DRAWN <i>HRB</i>	2-15-76	SCALE	DRAWING NO.
CHECKED <i>AL</i>	2-15-76	2:1	B 122018
		DO NOT SCALE DRAWING	SHEET 1 of 1

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REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED
A	INCORPORATE CO # 0146	1-21-77	M.D. 1-24-77
B	INCORP. ECO 172	5/11/77	M.D. 5-11-77
C	INCORP. ECO. NO. -0190	6-6-77	M.D. 6-11-77
D	DELETED NOTE 2 & CALOUT PER ECO 418	2/2/79	M.D. 2-6-79
E	ADDED NOTE 5 PER ECO # 504	6-20-79	M.D. 6-20-79



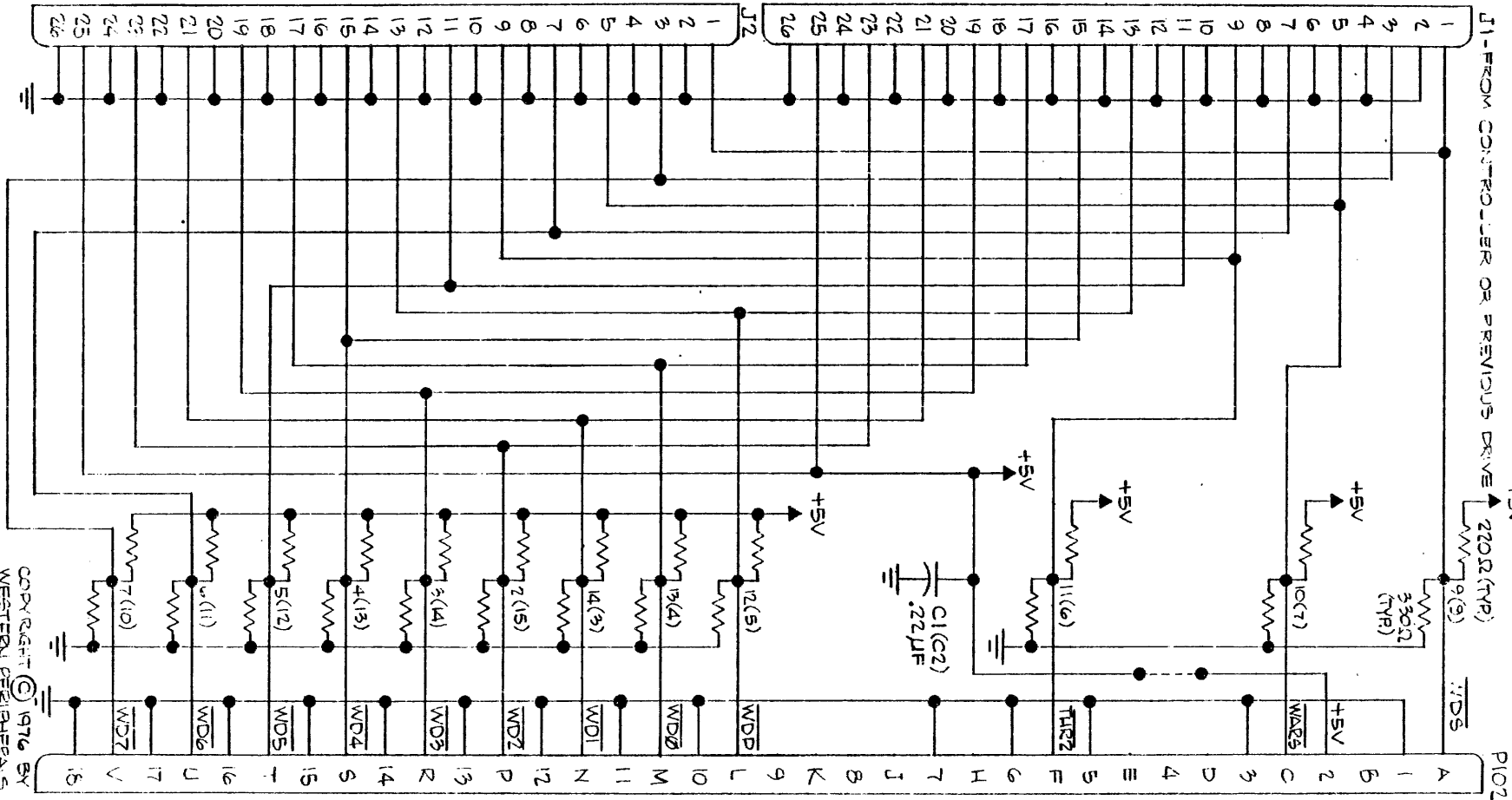
- NOTE: UNLESS OTHERWISE SPECIFIED
- REF SCHEMATIC DWG NO. 122021
 -
 - FOR MATERIAL SEE P/L 122019
 - RUBBER STAMP ASSY NO. WITH LATEST REV LTR APPROX WHERE SHOWN
 - MARK CHARACTERS (1 & 18) ON SIDE OF CONNECTOR USING CONTRASTING INK.

TOLERANCES UNLESS OTHERWISE SPECIFIED FRACTIONS DEC. ANGLES ± ± ±		western peripherals ANHEIM, CALIFORNIA	
APPROVALS DRAWN HRB 2-12-76		DATE 2-12-76	
CHECKED AL 2-15-76		SCALE 2:1	SIZE B
		DRAWING NO. 122019	
DO NOT SCALE DRAWING			SHEET 1 OF 1

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DAISY-CHAIN TO NEXT TAPE DRIVE

B	INCORP ECO 172	5/11/77	(H.D.)	REVISIONS		DATE	APPROVED
C	IDENTIFIED SIGNALS AND CONNECTORS PER ECO 149	9-18-80	(H.D.)	LTR	DESCRIPTION		
				A	ECO-0147	3-30-77	(H.D.)



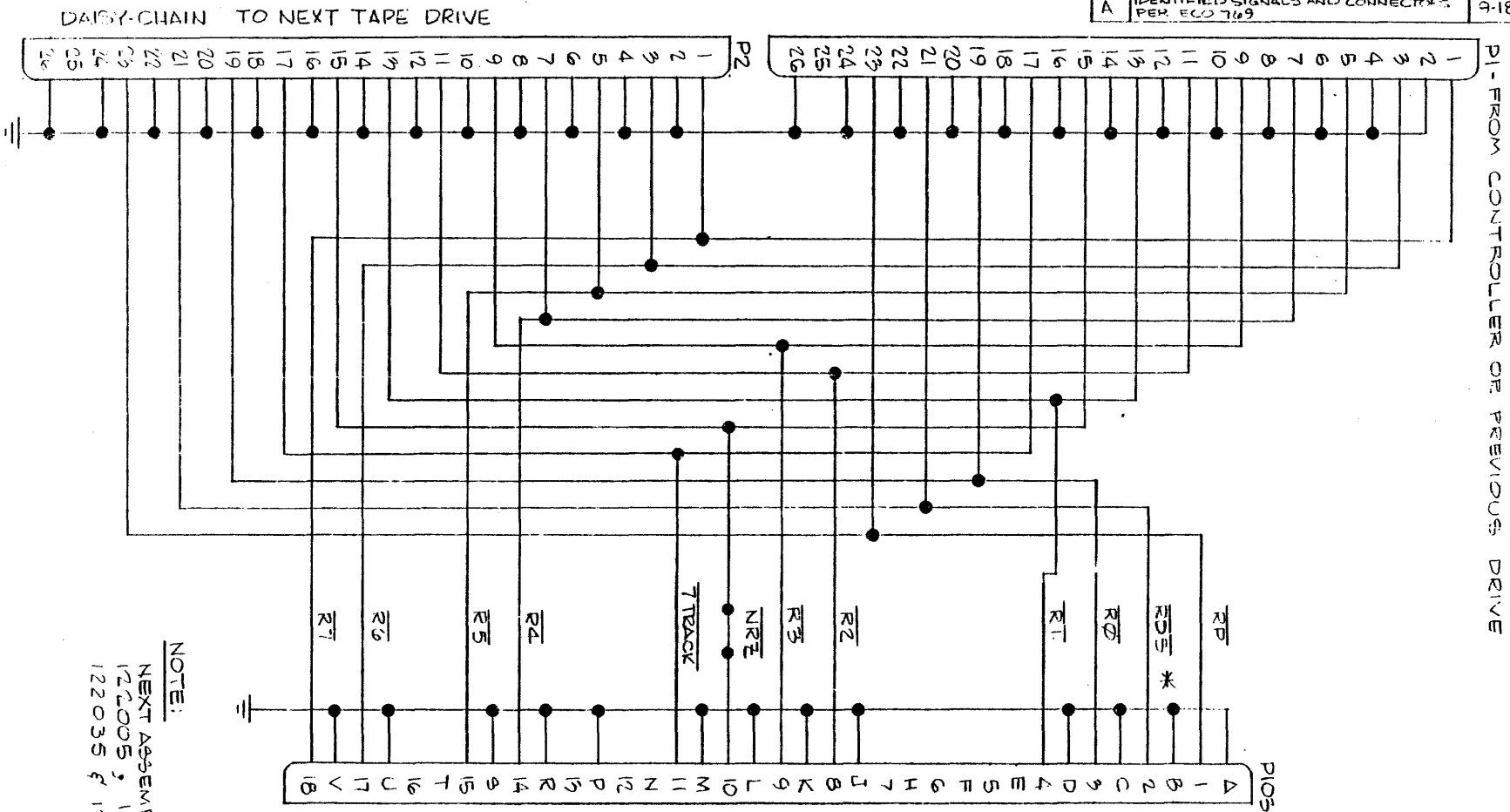
TO
TAPE
DRIVE

- NOTES:
1. NEXT ASSY. NO. 122006, 122019, 122034.
 2. PIN NUMBERS AND REFERENCE DESIGNATIONS SHOWN IN PARENTHESES APPLY TO ASSY. 122006, 122034.

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TOLERANCES UNLESS OTHERWISE SPECIFIED		FRACTIONS DEC. ANGLES		<p>western peripherals ANAHEIM, CALIFORNIA</p>
+	+	+	+	
APPROVALS	DATE	SCHEMATIC ADPTR. TAPE WRITE CONNECTOR		DRAWING NO.
DRAWN HRP	1-12-76	SCALE NONE		SIZE B
CHECKED JLL	1-26-76	DO NOT SCALE DRAWING		122021
				SHEET 1 OF 1

REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED
A	IDENTIFIED SIGNALS AND CONNECT#S PER ECO 7/69	9-18-80	



NOTE:
 NEXT ASSEMBLY NO.
 122005, 122018,
 122035 & 122043.

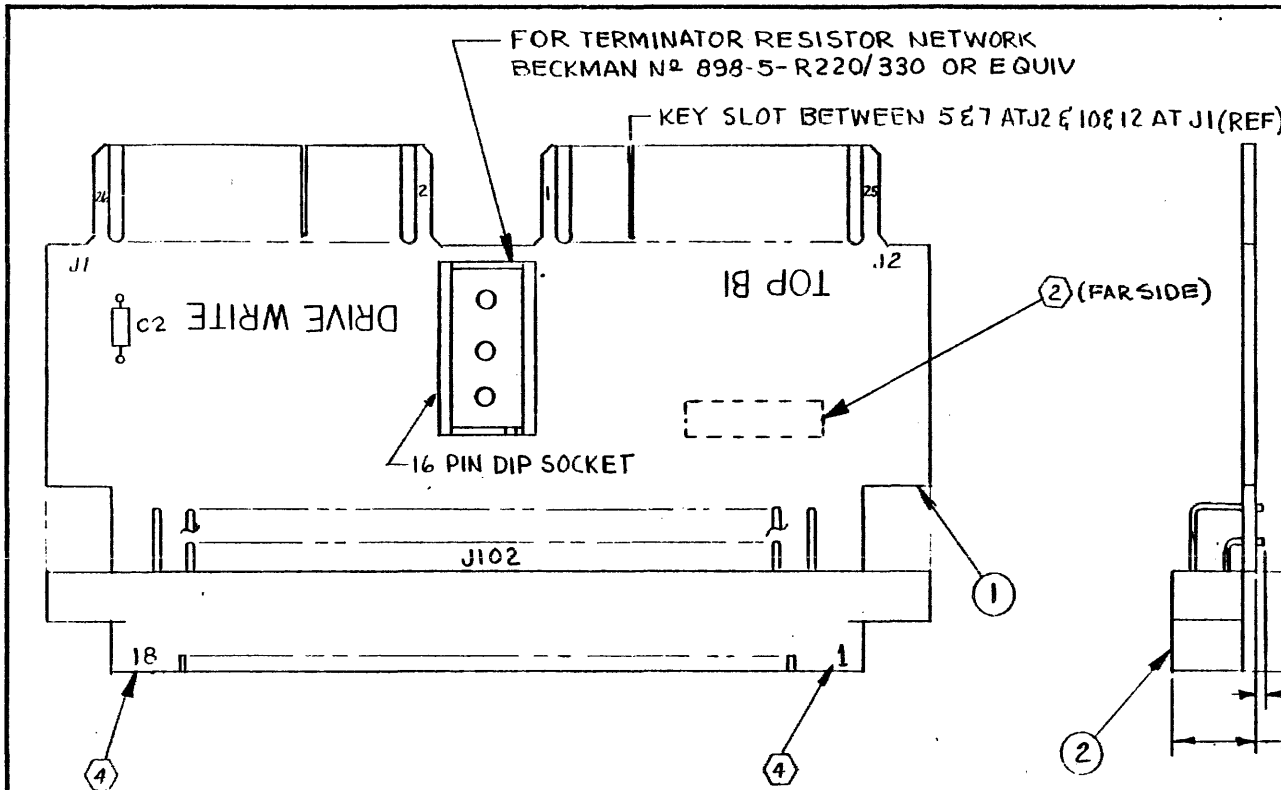
TOLERANCES UNLESS OTHERWISE SPECIFIED	
FRACTIONS DEC.	ANGLES
±	±
APPROVALS	DATE
DRAWN HRB	1-13-76
CHECKED PL	1-26-76

western peripherals
 ANAHEIM, CALIFORNIA

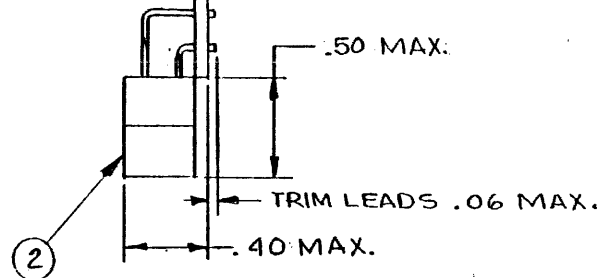
**SCHEMATIC
 ADPTR., TAPE READ
 CONNECTOR**

SCALE NONE	SIZE B	DRAWING NO. 122022
---------------	-----------	-----------------------

DO NOT SCALE DRAWING SHEET 1 of 1



REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED
A	INCORP ECO 172	5/11/77	N.S. 5-11-77
B	INCORP E.C.O. NO. 0190	6-6-77	N.S. 6-11-77
C	INCORP. E.C.O. NO. 0197	8-8-77	N.S. 8-11-77
D	ADD NOTE 4 PER ECO 355	11/15/77	N.S. 11-15-77
E	ADVANCE REV LTR TO AGREE WITH P/L	1/11/78	N.S. 1-11-78
F	CHANGED NOTE 2 PER ECO 416	1/11/78	N.S. 1-11-78
G	INC ECO # 852 AND CHG ASSY NO. LOCATION	3-24-81	1-4-81



MAR 27 1981

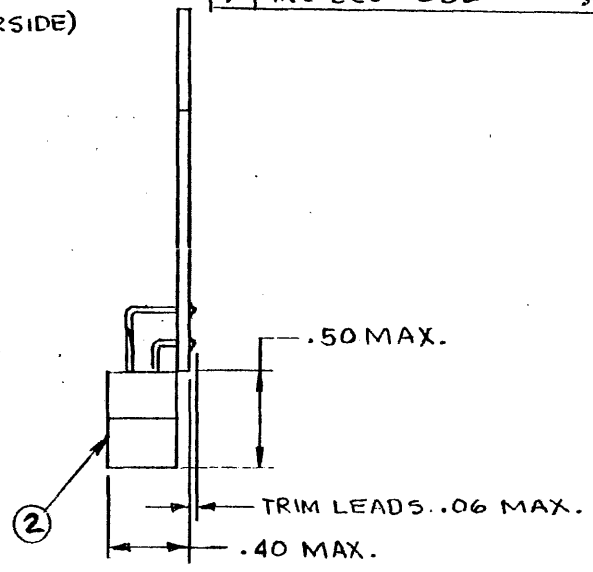
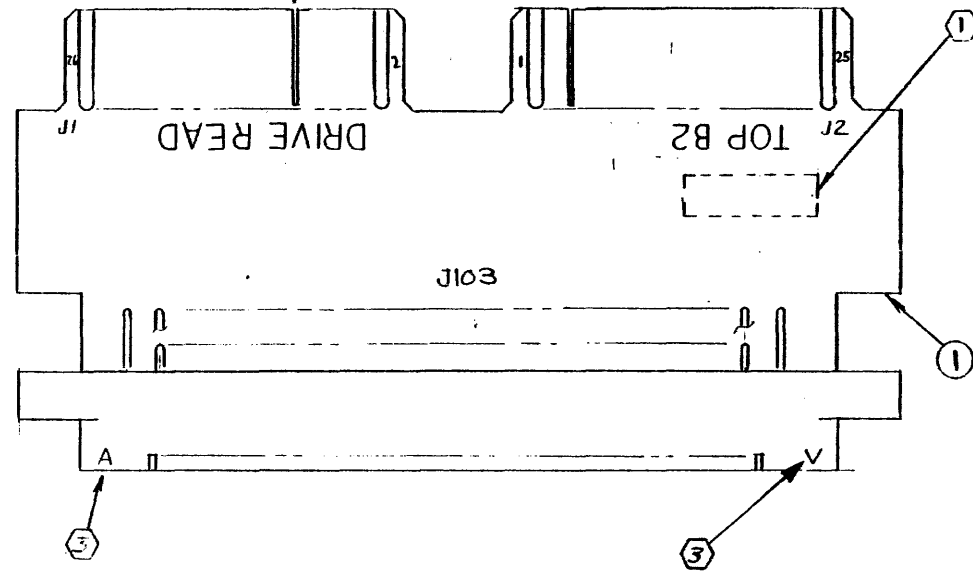
- ④ RUBBER STAMP CHARACTERS SHOWN USING WHITE INK.
 - ③ FOR MATERIAL LIST SEE P/L 122034.
 - ② RUBBER STAMP ASSY NO. & LATENT REV LTR APPROX WHERE SHOWN USING BLK INK.
 - 1. REF. SCHEMATIC DWG NO. 122021.
- NOTE : UNLESS OTHERWISE SPECIFIED.

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

REVISIONS

LTR	DESCRIPTION	DATE	APPROVED
A	E.C.O. NO. 0190	6-6-77	N.S. 6-11-77
B	E.C.O. NO. 0197	8-8-77	N.S. 8-9-77
C	ADDED NOTE 3 PER ECO #355	11/2/77	11/2/77
D	ADVANCED REV LTR TO M:REE WITH P/L	11/2/77	11/2/77
E	CHANGED NOTE 1 PER ECO #415	11/2/77	11/2/77
F	INC ECO # 852	11/2/77	11/2/77

KEY SLOT BETWEEN 8 & 10 AT J1
& BETWEEN 3 & 5 AT J2 (REF)



MAR 27 1981

3 RUBBER STAMP CHARACTERS SHOWN USING WHITE INK.
 2 REF SCHEMATIC DWG NO. 122032.
 1 RUBBER STAMP ASSY NO. & LATI ST SLV LTR
 APPROX WHEN SHOWN USING BIK INK.
 NOTE: UNLESS OTHERWISE SPECIFIED.


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

REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED
A	CORRECTED SWITCH SETTING CHART FOR SA4 PER ECO 178.	5-4-77	
B	REDRAWN PER ECO 236.	5-16-78	H.D. 5-11-78
C	CHANGED I.C. LOC'H PER ECO 806	12-9-90	[Signature]

SWITCH A	SWITCH SETTINGS	SYSTEM CONSIDERATIONS
1	ON	FOR DRIVES THAT REQUIRE REWIND COMMAND REMOVAL PRIOR TO BOT
	OFF	FOR DRIVES THAT DO NOT REQUIRE REWIND COMMAND REMOVAL PRIOR TO BOT
2	ON	FOR DRIVES THAT STORE EOT STATUS NOTE: A5 SHOULD BE OFF
	OFF	FOR DRIVES THAT DO NOT STORE EOT STATUS NOTE: A5 SHOULD BE ON
3	ON	FOR 7 TRACK DRIVES
	OFF	FOR 9 TRACK DRIVES
4	ON	FOR 7 TRACK 556/800 BPI DENSITY SELECTIONS OR 9 TRACK SECONDARY SPEED (SELECTION B)
	OFF	FOR 7 TRACK 200/556 BPI DENSITY SELECTIONS OR 9 TRACK PRIMARY SPEED (SELECTION A)
5	ON	FOR DRIVES THAT DO NOT STORE EOT STATUS NOTE: A2 SHOULD BE OFF
	OFF	FOR DRIVES THAT STORE EOT STATUS NOTE: A2 SHOULD BE ON
6	ON	FOR 9 TRACK NRZI ONLY DRIVE
	OFF	FOR 7 TRACK DRIVES, 9 TRACK 1600 BPI DRIVES, OR 9 TRACK 800/1600 DUAL DENSITY
7	ON	FOR DUAL DENSITY 9 TRACK DRIVES THAT DO NOT PRESENT NRZ STATUS ON DRIVE READ CONNECTOR
	OFF	FOR DUAL DENSITY 9 TRACK DRIVES THAT DO PRESENT NRZ STATUS ON DRIVE READ CONNECTOR
8	ON	FOR 7 TRACK DRIVES
	OFF	FOR 9 TRACK DRIVES

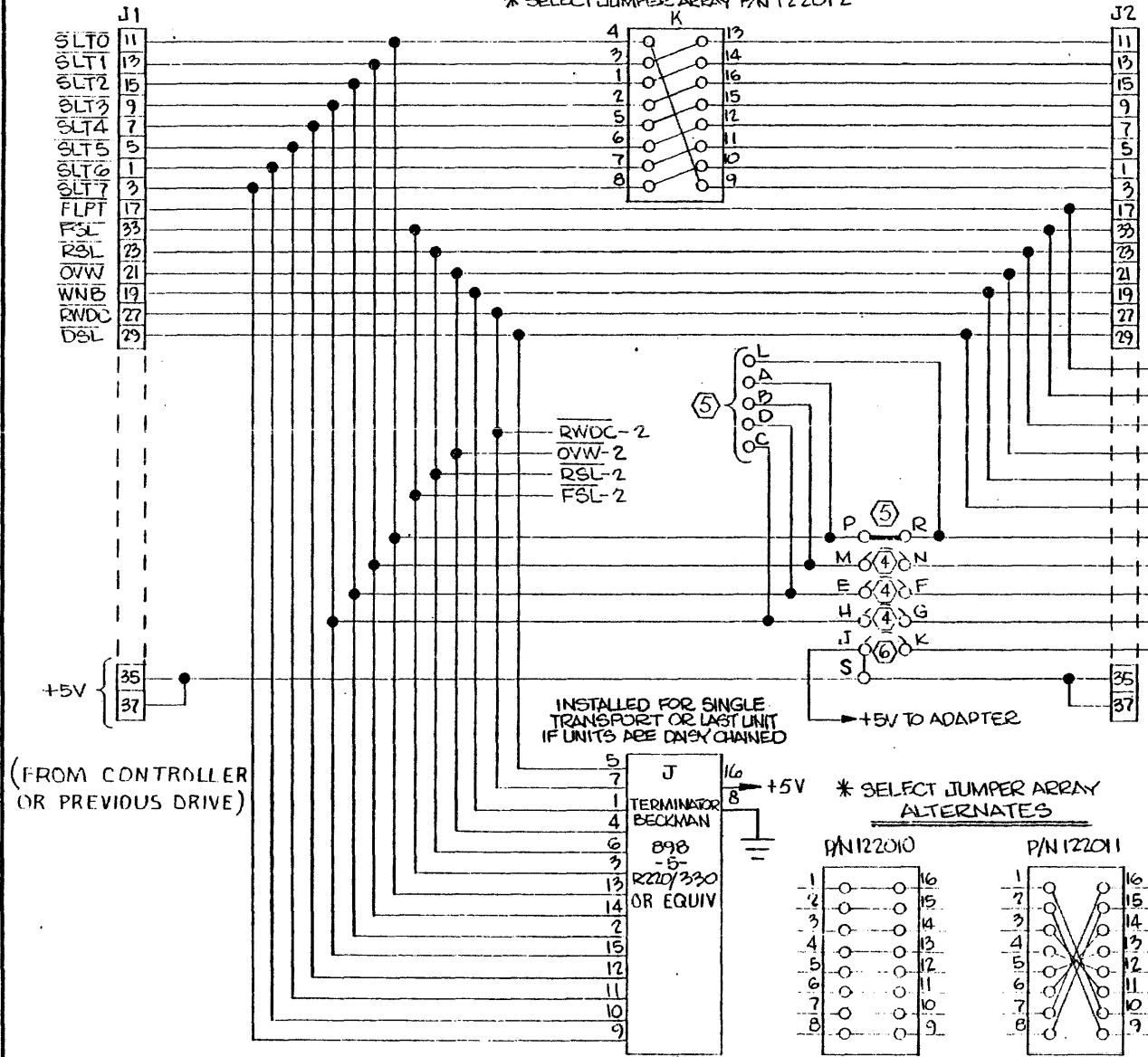
NOTES:

1. FOR 7 TRACK DRIVES IN DRIVE DAISY CHAINS, ONLY PRIMARY SPEED SELECTION IS AVAILABLE.
2. REF. ASSY. DWG. 122037, 122038, & 122039.
- ③ 122010 INSTALLED WHEN TRANSPORT HAS 4- POSITION UNIT SELECT SWITCH (SEE EXCEPTION BELOW).
122011 INSTALLED IN 4TH TRANSPORT IF MORE THAN 4 TRANSPORTS ARE DAISY CHAINED.
122012 INSTALLED WHEN TRANSPORT DOES NOT HAVE UNIT SELECT SWITCH.
- ④ FOR PERTEC COMPATIBLE UNIT SELECT OPTION: JUMPER E TO F, G TO H, AND M TO N.
- ⑤ FOR EXTERNALLY CONNECTED UNIT SELECT SWITCH: CUT ETCH BETWEEN P & R AND CONNECT EXTERNAL SWITCH TO A, B, C, D, & L.
- ⑥ TO POWER ADAPTER FROM TAPE TRANSPORT, CUT ETCH BETWEEN J & S AND JUMPER J TO K.
7. FOR CONFIGURATION "L" SEE DWG. 130047.
8. FOR CONFIGURATION "N" SEE DWG. 122044.
9. FOR CONFIGURATION "S" SEE DWG. 112001.

TOLERANCES UNLESS OTHERWISE SPECIFIED		 western peripherals ANAHEIM, CALIFORNIA	
FRACTIONS	DEC.		
±	±	±	SCHEMATIC -- TAPE CONTROL ADAPTER
APPROVALS	DATE	SCALE	
DRAWN T.M.	2-15-78	SIZE	
CHECKED H.D.	5-11-78	DRAWING NO.	
		B	122036
DO NOT SCALE DRAWING			SHEET 1 OF 3

*SELECT JUMPER ARRAY P/N 122012

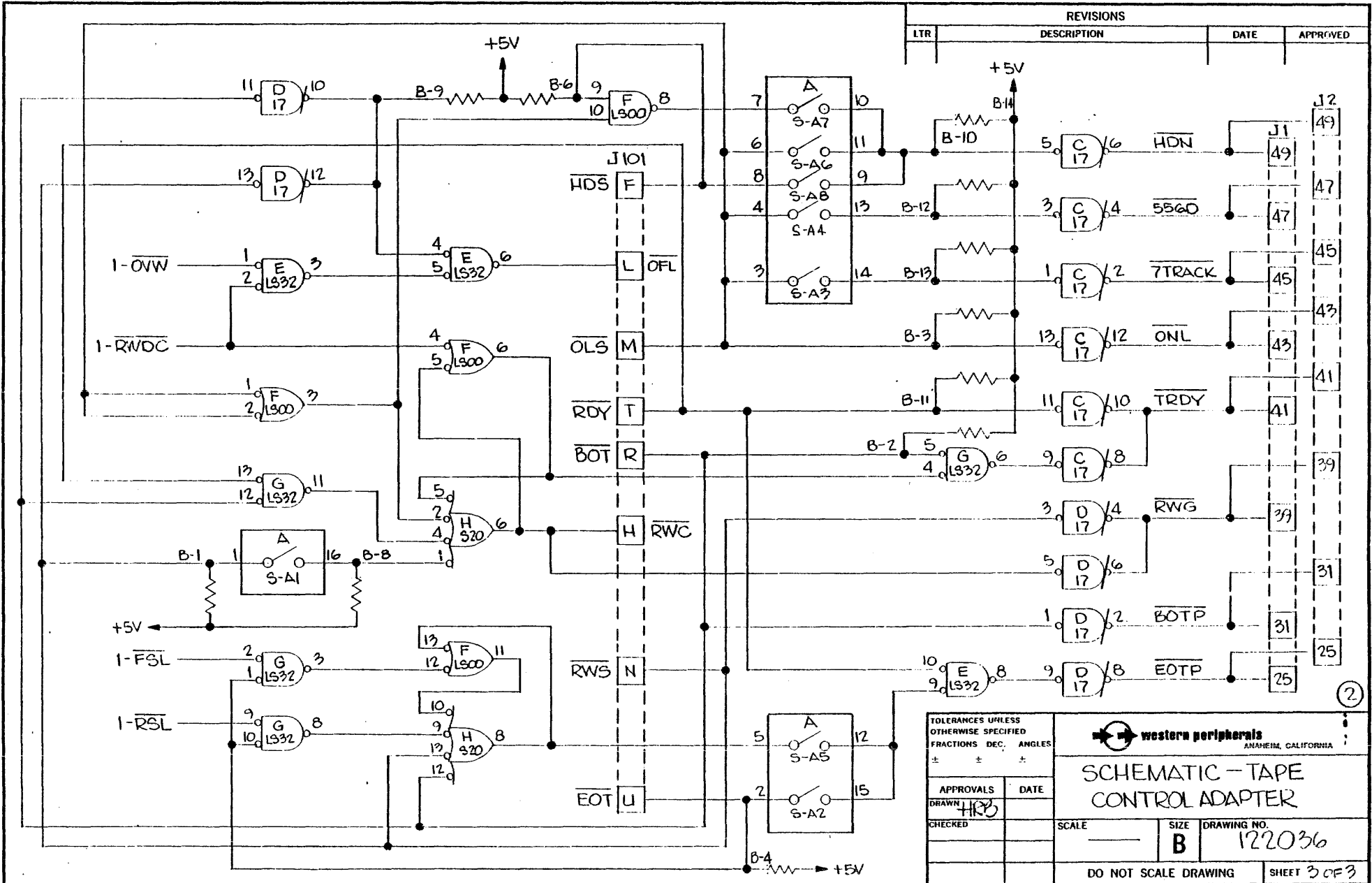
REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED



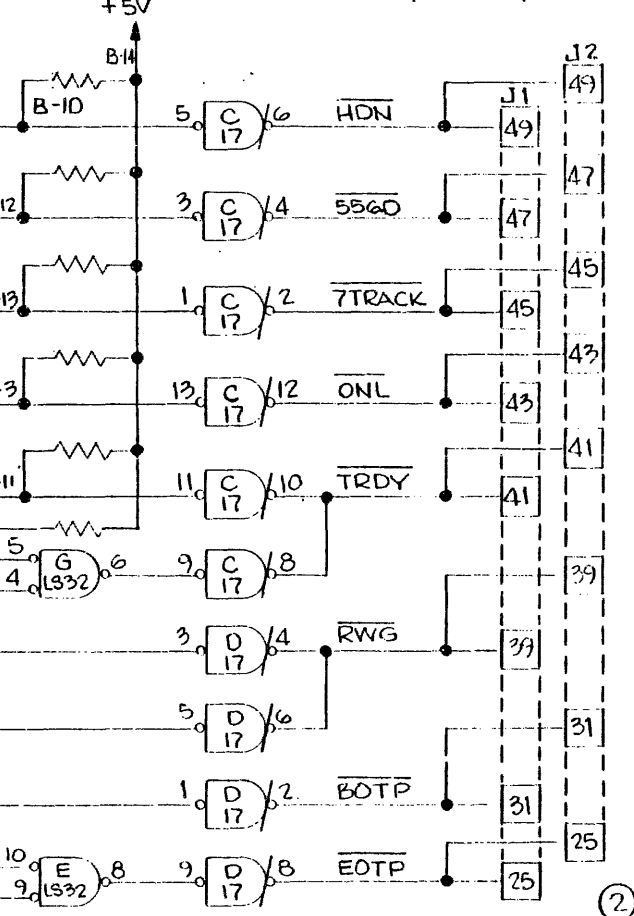
(TO NEXT DRIVE IN DAISY CHAIN)

- NOTES: UNLESS OTHERWISE SPECIFIED
1. J1 & J2 HAVE ALL EVEN NUMBERED GROUND PINS.
 2. J101 GROUND PINS ARE 2-14, 16 & 17.
 3. ALL RESISTORS ARE 10K OHMS.

TOLERANCES UNLESS OTHERWISE SPECIFIED FRACTIONS DEC. ANGLES ± ± *		 western peripherals ANAHEIM, CALIFORNIA	
APPROVALS DRAWN <i>HCP</i>		DATE	
CHECKED		SCALE	SIZE B
		DRAWING NO. 122036	
DO NOT SCALE DRAWING			SHEET 2 of 3



REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED

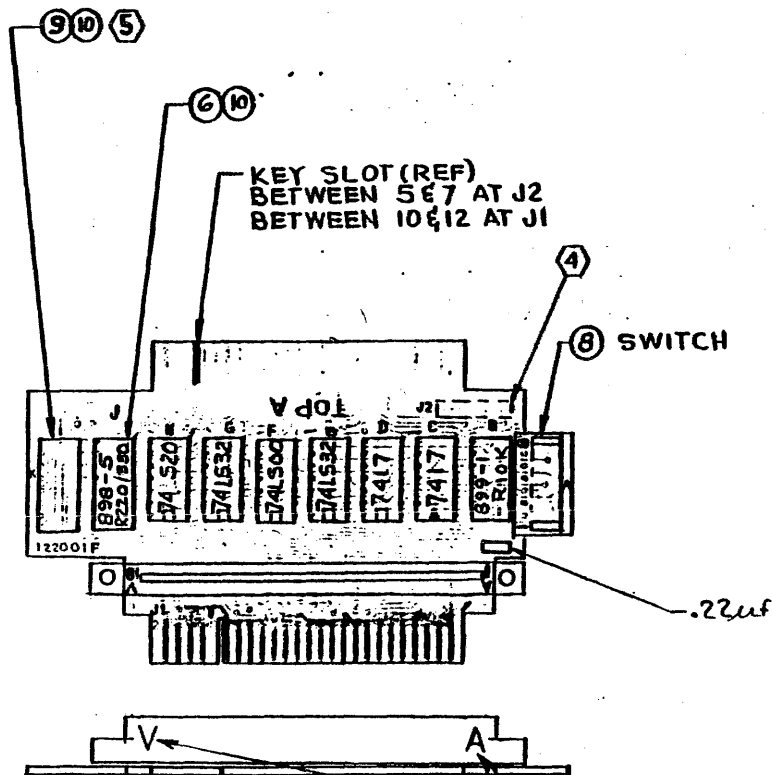


TOLERANCES UNLESS OTHERWISE SPECIFIED		
FRACTIONS	DEC.	ANGLES
±	±	±
APPROVALS	DATE	
DRAWN <i>HRS</i>		
CHECKED		

western peripherals
ANAHEIM, CALIFORNIA

SCHEMATIC - TAPE CONTROL ADAPTER

SCALE	SIZE B	DRAWING NO. 122036
DO NOT SCALE DRAWING		SHEET 3 OF 3



9. FOR CONFIGURATION 'S' SEE DWG. 112001
 8. FOR CONFIGURATION 'N' SEE DWG. 122044
 7. FOR CONFIGURATION 'L' SEE DWG. 130047

- ⑥ MARK CHARACTERS SHOWN (A & V) ON SIDE OF CONNECTOR USING CONTRASTING INK.
 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.
 2. FOR MATERIAL SEE P/L NO. 122037
 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	6-5-77	N.D. 11-77
	RECORD CHANGE: ADD CONF. "L" (REV. LTR. CHANGE NOT REQD.)	8-9-77	N.D. 9-25-77
	RECORD CHG: ADD CONF "N" (REV LTR CHG NOT REQD)	9-21-77	N.D. 9-25-77
	RECORD CHG: ADD SH NO. 2 (TASSY, NO CHG TO BASIC 80) SEE ECO # 0254 (NO REV LTR REQD)	11-18-77	N.D. 11-22-77
	E.C.O. # 299 (NO REV. LTR. CHANGE)	3-8-78	N.D. 5-7-78
C	USE "F" REV. PWB, REF. ECON. 236A	5-16-78	N.D. 5-16-78
D	DELETED NOTES 3 & 6 PER ECO 44	7-24-79	N.D. 7-24-79
E	CORRECT VALUE SHOWN FOR CAPACITOR PER ECO No. 460	3-6-79	N.D. 7-24-79
F	ADDED NOTE ⑥ PER ECO # 504	6-20-79	N.D. 6-20-79

G IC "H" S/B 74520 ECO 806

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

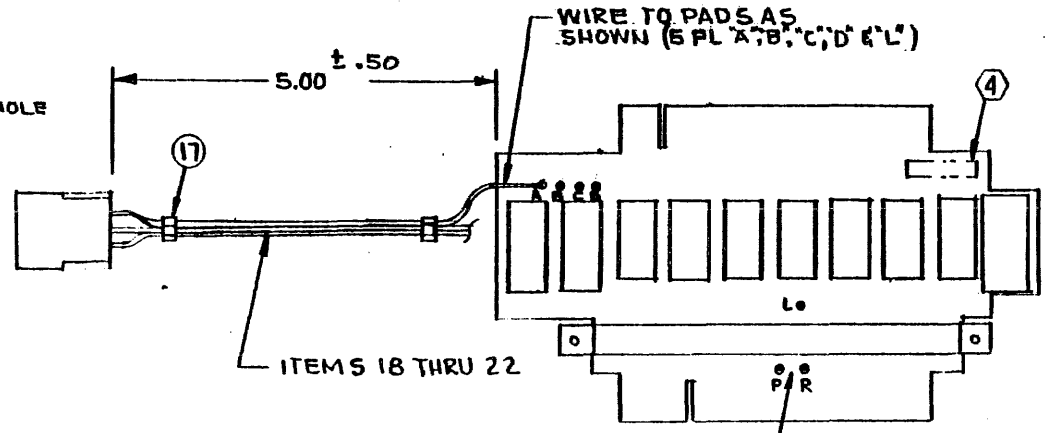
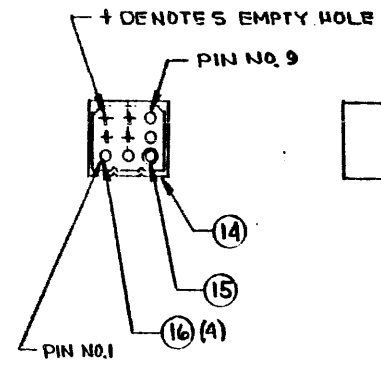
TOLERANCES UNLESS OTHERWISE SPECIFIED		FRACTIONS DEC. ANGLES		western peripherals ANAHEIM, CALIFORNIA	
±	±	±	±	ASSEMBLY ADAPTER TAPE CONTROL CONNECTOR	
APPROVALS	DATE	SCALE	SIZE	DRAWING NO.	
DRAWN CORUM	11-8-76	FULL	B	122037	
CHECKED 7.D.	12-16-76	DO NOT SCALE DRAWING		SHEET 1 OF 2	

REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED

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

120037-1 WIRING DIAGRAM

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

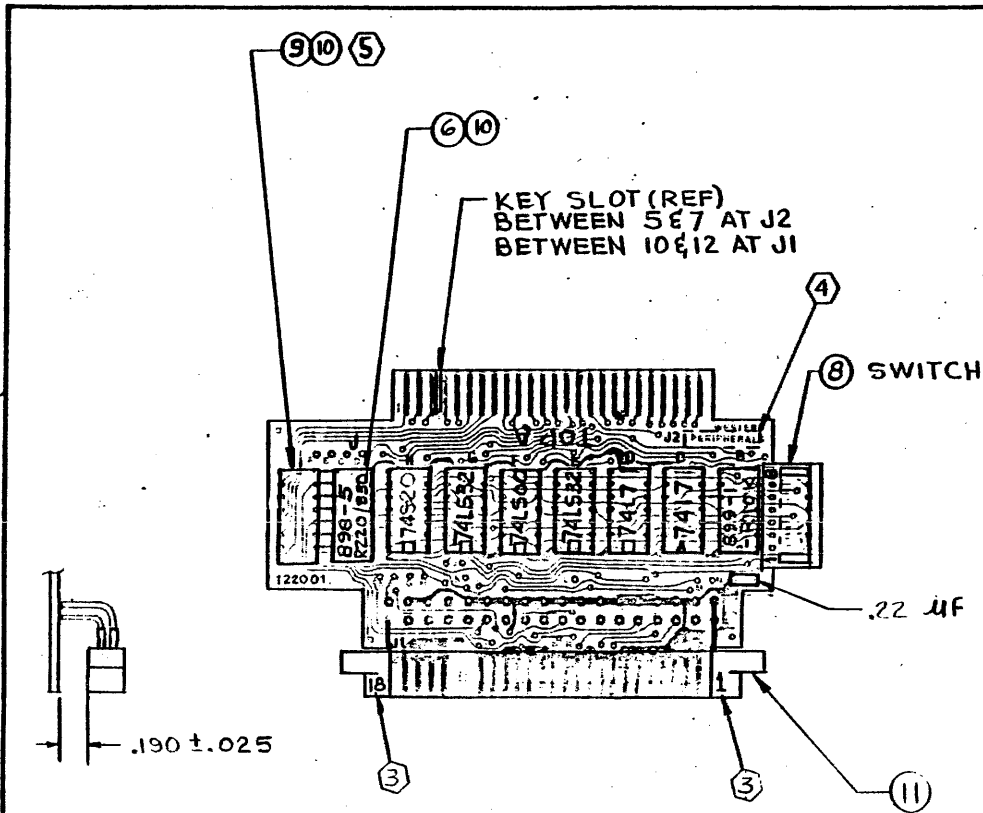


CUT ETCH BETWEEN "P" AND "R" PADS

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 5H NO.1

TOLERANCES UNLESS OTHERWISE SPECIFIED		western peripherals	
FRACTIONS	DEC.	ANAHEIM, CALIFORNIA	
±	±	ASSEMBLY - ADAPTER	
APPROVALS	DATE	TAPE CONTROL CONNECTOR	
DRAWN	11-19-77	SCALE	DRAWING NO.
CHECKED		FULL	B 122037 1
		DO NOT SCALE DRAWING	
		SHEET 2 OF 2	



8. FOR CONFIGURATION "S" SEE DWG. 112001

7. FOR CONFIGURATION "N" SEE DWG. 1122044

6.

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

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

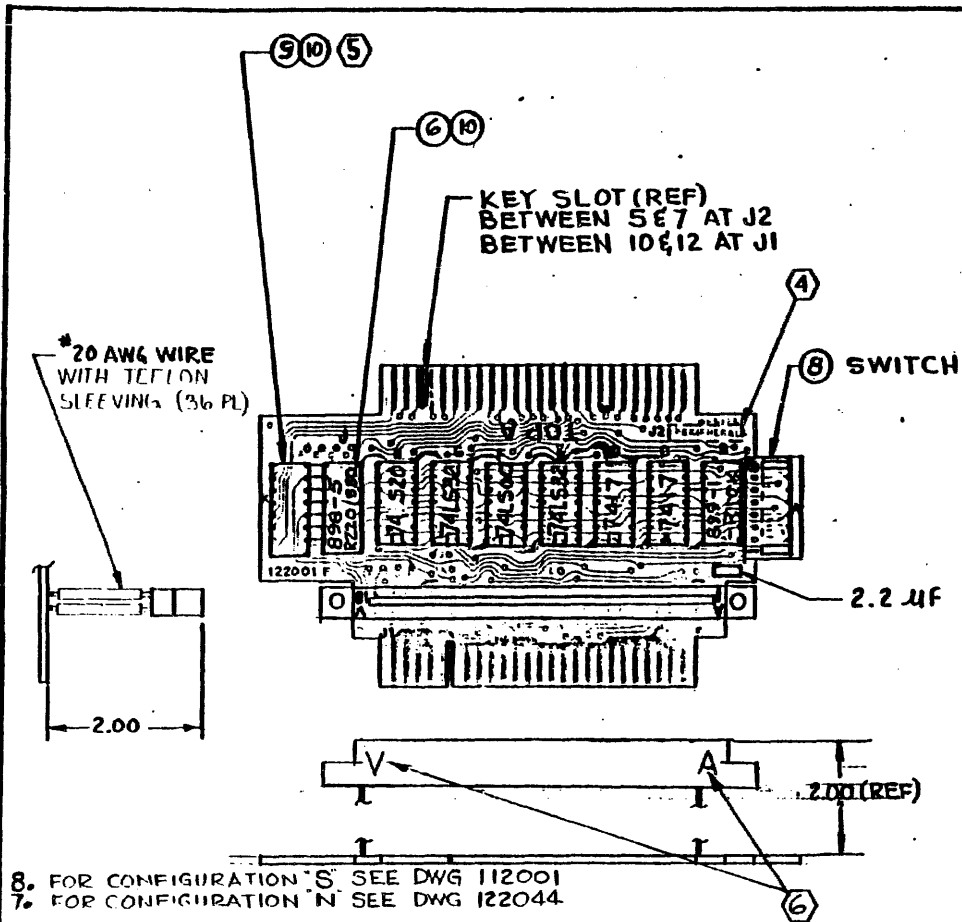
③ RUBBER STAMP CHARACTER SHOWN USING WHITE INK
2. FOR MATERIAL SEE P/L NO. 122038
1. REF SCHEMATIC 122036

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	N.D. 6-11-77
C	E.C.O. NO. - 0197	8-8-77	N.D. 8-9-77
	E.C.O. NO. - 299 (NO REV. LTR. CHG.)	3-8-78	N.D. 3-9-78
	ADDED NOTE 7 PER E.C.O. 257 AND DELETED REQUIREMENT FOR SLEEVING WIRE AT CONNECTOR	3-21-78	T.M. TAGG
D	USE "F" REV. PWB, REF. ECO NO. 236A	5-16-78	N.D. 5-16-78
E	REVISED NOTE 3 PER E.C.O. 355	11-4-78	
F	DELETED NOTE 6 PER E.C.O. 414	11-4-78	
G	CHANGED I.C. AT LOC H PER E.C.O. 806	12-9-80	
H	INC ECO NO. 852	7-13-81	

27 1981

TOLERANCES UNLESS OTHERWISE SPECIFIED FRACTIONS DEC. ANGLES ± ± ±		 western peripherals ANAHEIM, CALIFORNIA	
APPROVALS		DATE	
DRAWN CORUM		11-8-76	
CHECKED J.D.		12-18-76	
SCALE FULL		SIZE B	DRAWING NO. 122038
DO NOT SCALE DRAWING			SHEET 1 OF 1



8. FOR CONFIGURATION 'S' SEE DWG 112001
 7. FOR CONFIGURATION 'N' SEE DWG 122044

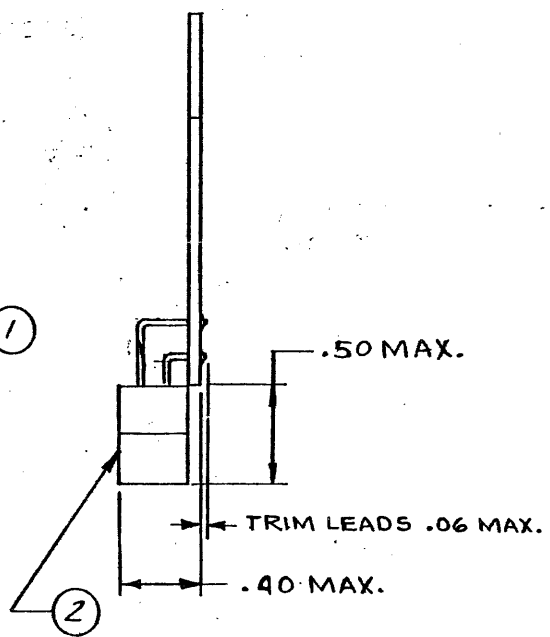
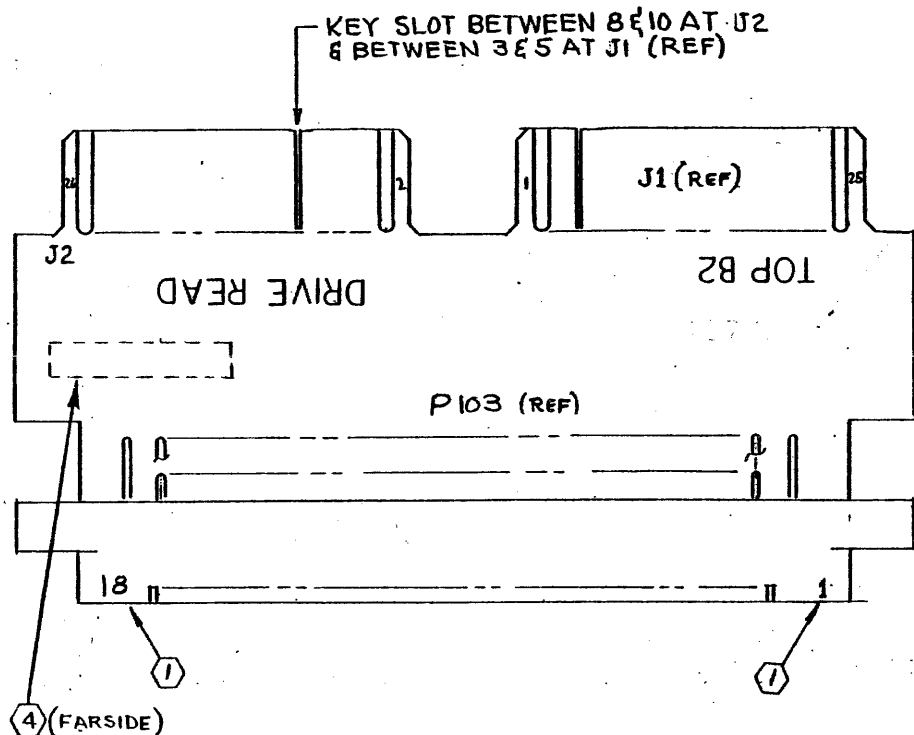
6. MARK CHARACTERS SHOWN (A&V) ON SIDE OF CONNECTOR USING CONTRASTING INK.
5. FOR OPTIONAL JUMPERING AND/OR JUMPER ARRAYS, REF J.O.A. & SCHEMATIC
4. RUBBER STAMP ASSY NO. WITH LATEST REV LTR LOCATED APPROX WHERE SHOWN (FAR SIDE)
- 3.
2. FOR MATERIAL SEE P/L NO. 122039
1. REF SCHEMATIC 122036
- NOTE: 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. 6-11-77
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. 3-21-78
	ADDED NOTE 7. PER E.C.O. 257	3-21-78	H.D. 3-21-78
D	USE 'F' REV. PWB, REF. ECO No. 236A	5-16-78	H.D. 5-16-78
E	DELETED NOTES 3 & 6 PER ECO #14	11/21/79	H.D. 11-21-79
F	ADDED NOTE 6 PER ECO # 504	6-20-79	H.D. 6-20-79

G I.C. "H" S/B 74520 ECD 806

TOLERANCES UNLESS OTHERWISE SPECIFIED		FRACTIONS DEC. ANGLES		western peripherals <small>ANAHEIM, CALIFORNIA</small>	
±	±	±	±	ASSEMBLY ADAPTER TAPE CONTROL CONNECTOR 2 INCH STANDOFF	
APPROVALS	DATE	SCALE	SIZE	DRAWING NO.	
CORR M	11-8-78	FULL	B	122039	
CHECKED	V.D.	12-8-78			
DO NOT SCALE DRAWING				SHEET 1 OF 1	

REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED
A	REVISED NOTE 1 PER E.C.O.#355	2/2/79	W.H.P. 2-9-79
B	ADVANCED REV LTR TO AGREE WITH P/L	2/2/79	W.H.P. 2-9-79
C	REVISED PER E.C.O.#417	2/2/79	W.H.P. 2-9-79
D	INC ECO NO. 852	MAR-3-79	3/24/81

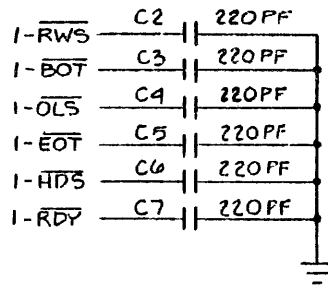
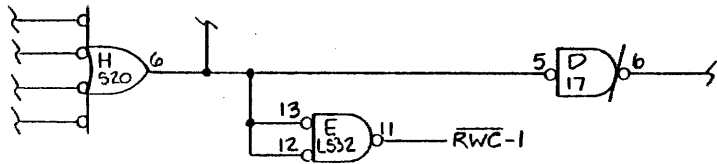


MAR 27 1981

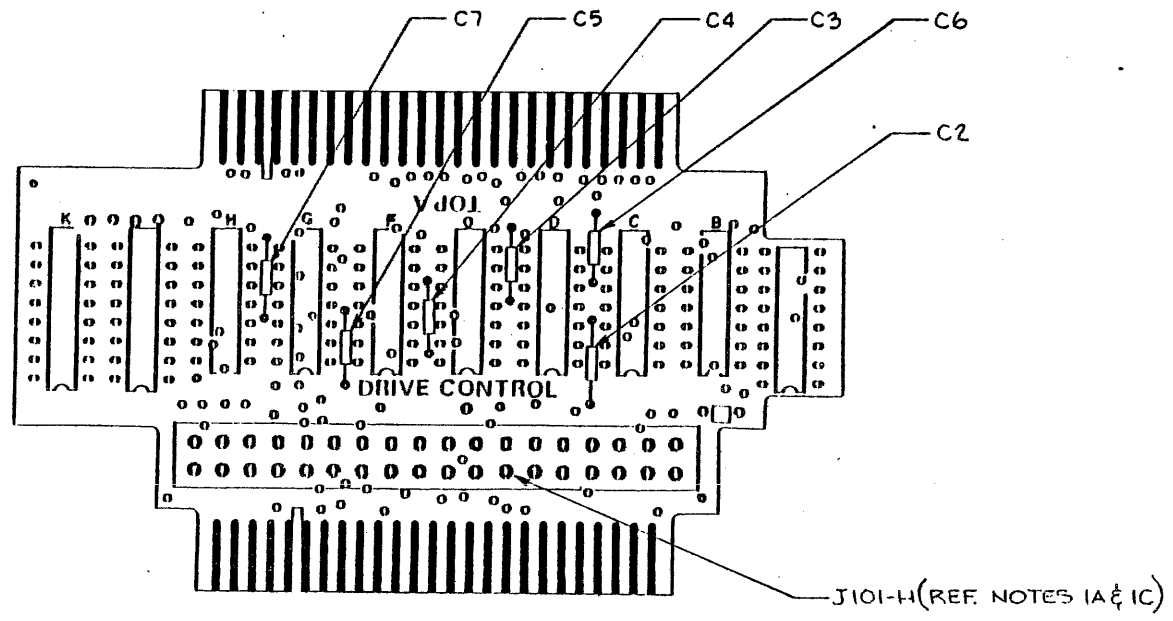
- ④ RUBBER STAMP ASSY. NO. WITH LATEST REV LTR APPROX. WHERE SHOWN.
 - 3. SEE P/L 122043.
 - ②. REF. SCHEMATIC DNG NO. 122022.
 - ① RUBBER STAMP CHARACTERS SHOWN WITH WHITE INK.
- NOTE : UNLESS OTHERWISE SPECIFIED.

TOLERANCES UNLESS OTHERWISE SPECIFIED		western peripherals ANAHEIM, CALIFORNIA	
FRACTIONS	DEC.		
±	±	±	ASSEMBLY-ADAPTER, TAPE READ, REVERSE IMAGE, 90°
APPROVALS	DATE	SCALE	
DRAWN A.D.	6/7/77	2 X	
CHECKED A.D.	6-11-77	SIZE B	
			DRAWING NO. 122043
			SHEET 1 of 1

CONFIGURATION "N" CONTROL ADAPTER BOARD



CAP. INSTALLATION CHART			
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



REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED
A	REDRAWN PER E.C.O. 237	10-27-77	
B	REVISE PER E.C.O. 257	3-21-78	
C	REVISE PER E.C.O. 236-A	5-16-78	
D	DELETE REWORK FOR "D" REV PWB PER E.C.O. 761	10-15-80	<i>[Signature]</i>
E	CHANGED I.C. LOC'H' PER ECO ROW	12-2-80	<i>[Signature]</i>

REWORK INSTRUCTIONS: (REF ASSY'S 122037, 122038 & 122039)

- 1) MODIFY CIRCUIT
 - A. CUT ETCH (SOLDER SIDE) AT J101-H
 - B. JUMPER F5 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 NUMBER USING BLACK INK
- 3) THIS MOD PROVIDES ISOLATION & FILTERING FOR ADAPTER ELECTRONICS
- 4) MATERIAL REQUIREMENTS:
 - A. (1 REQ.) BOARD ASSY. AS NOTED IN PROCEDURES ABOVE
 - B. (6 REQ.) 220PF CAPACITORS (WPI5000195)
- 5) VERIFY PROPER CAPACITOR INSTALLATION BY PERFORMING CONTINUITY CHECK PER THE CAPACITOR INSTALLATION CHART
- 6) REF. SCHEMATIC 122036
- 7) APPLICABLE TO "F" (OR LATER) REV PWB ONLY. TO RETROFIT OLDER ASSEMBLIES WITH "D" REV PWB, REFER TO "C" REV HISTORY COPY OF THIS DRAWING

DEC 24 1980

TOLERANCES UNLESS OTHERWISE SPECIFIED FRACTIONS DEC ANGLES		western peripherals™ TUSTIN, CALIFORNIA	
±	±		
APPROVALS	DATE	MODIFICATION DWG-TAPE CONTROL ADAPTER CONFIGURATION "N"	
DRAWN BY AMMERSON	10-16-80	SCALE	SIZE B
CHECKED E. J. WILSON	10-14-80	DRAWING NO.	122044
DO NOT SCALE DRAWING		SHEET 1 OF 1	

REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	9-15-80	<i>[Signature]</i>


PURPOSE: TO PROVIDE START-UP AT 1600 B.P.I.

In order to initialize in the 1600 B.P.I. mode of operation, PROM's U45 and U56 in the upper-left corner of the Control Board must be of the proper type. A jumper must be installed.

1. The Prom Part Numbers can be 754013810 and 754013811 with revision levels of "G" or higher, or they may have part numbers beginning with 154 with any revision level.
2. A jumper must be installed between Pads "BP" and "BR" which are located below the PROMs and directly above U55.
3. After modification, install an adhesive label inside the front panel of the drive near the upper reel motor and Cipher label. The adhesive label should read: "Modified per Western Peripherals Configuration "A", Dwg. 79000410.

TAPE DRIVE MODIFICATION

SEP 15 1980

TOLERANCES UNLESS OTHERWISE SPECIFIED FRACTIONS DEC. ANGLES ± ± ±		 western peripherals ™ TUSTIN, CALIFORNIA	
APPROVALS		DATE	
DRAWN H. DEUTSCH		9-15-80	
CHECKED <i>D. Stally</i>		9-15-80	
SCALE		SIZE A	DRAWING NO. 79000410
DO NOT SCALE DRAWING			SHEET 1 OF 1


MODIFICATION DRAWING -
CIPHER 900X, CONFIGURATION "A"

REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	12-30-80	

PURPOSE: TO ELIMINATE WRITE AND/OR READ ERRORS WHEN TAPE IS AT B.O.T. AND DRIVE IS OFF-LINE.

When Cipher 900X Tape Drives are received from vendor, they have the jumpers set in such a way that if the drive is off-line and at B.O.T., the computer receives a tape unit ready status and Write/Read errors are detected if the CPU attempts any Write/Read operation.

1. To prevent the above from happening, remove jumper BD to BC and install jumper BA to BB located in the vicinity of IC U52 on the Control/Servo PCB of the Cipher 900X type drive.
2. After modification, install an adhesive label inside the front panel of the drive near the upper reel motor and Cipher label. The adhesive label should read: Modified per Western Peripherals Configuration "B", Dwg. 79000642.
3. Reference Cipher Control/Servo Schematic 355012-300.

TOLERANCES UNLESS OTHERWISE SPECIFIED		 western peripherals™ TUSTIN, CALIFORNIA	
FRACTIONS	DEC.		
±	±	±	
APPROVALS		DATE	
DRAWN <i>E. F. ...</i>		12-30-80	
CHECKED <i>H. ...</i>		12-30-80	
		SCALE	SIZE A
		DRAWING NO. 79000642	
DO NOT SCALE DRAWING			SHEET 1 of 1

NOTES

INSTALLATION CHECKLIST - CIPHER 100X

1. Open carton.
2. Turn over and lift off carton.
3. Remove corner pads.
4. Open inner carton.
5. Turn over and lift off carton from drive.
6. Locate manual and mounting hardware.
7. Inspect the drive - Contact the carrier if any concealed shipping damage is discovered.
8. On some cabinets, a mounting frame is required to mount the drive because the door swings against the edge of the cabinet. Mount the extender frame at the appropriate location in the cabinet. Be sure the hinge holes are on the correct side.
9. Refer to the tape drive manual.
10. Mount the tape drive hinges at an appropriate location on the cabinet. Place the longer hinge at the top. Place nylon washers on hinge pins.
11. Place drive on its back and remove screw from shipping frame.
12. Mount drive on hinges and secure with hinge safety block. Secure drive latch.