

Model TC-131 Tape Controller Logic Manual



western peripherals™

PRODUCTS OF **WESPERCORP**

1821 E. Dyer Road
Santa Ana, California 92705
(714) 261-0606 • Telex: 4720629 • Cable: WESPER

MODEL TC-131
TAPE CONTROLLER
LOGIC MANUAL

Publication Number:

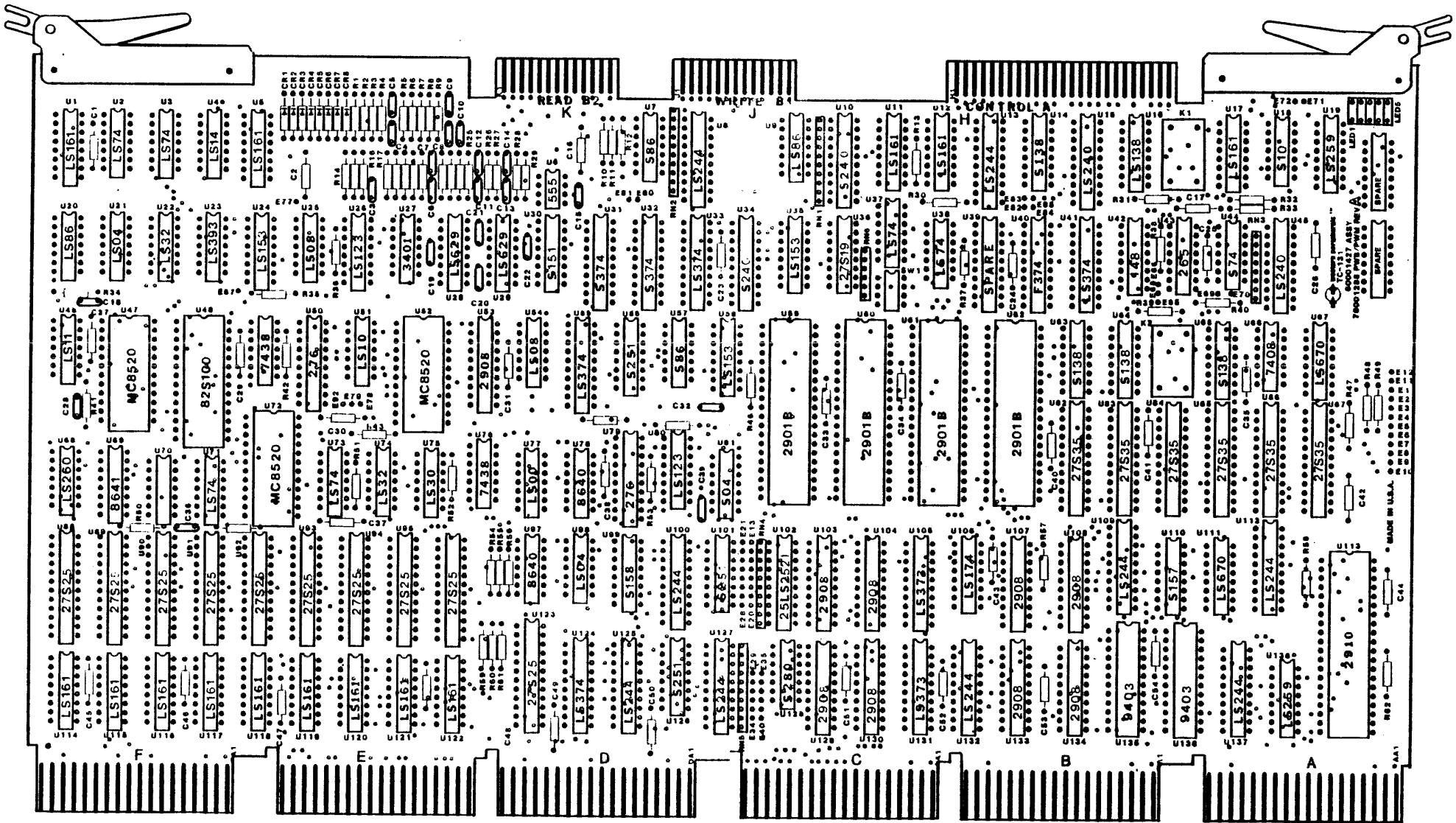
P91000489

Rev. B

Rev. Date 03/20/85

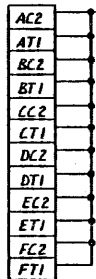
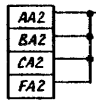
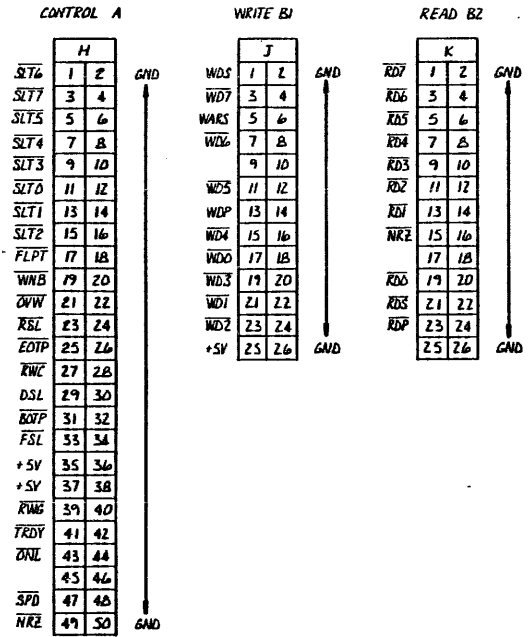
Applicable Assembly Number: P60001427

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8 7 6 5 4 3 2 1

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED
X		RELEASE		
X1		REVISE & REDRAWN		T. W.
A		PRODUCTION RELEASE	11/31/55	T. W.
B		REVISED PER ECD 1342	11/1/55	R. W.



+5V
4.7
C1, C2, C16, C17, C23,
C24, C25, C26, C27, C28, C30,
C31, C33, C34, C35, C37,
C38, C40, C41, C42, C43, C54

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

IBM/FE DENSITY MODE SELECTION OPTIONS:	DEC/IBM PACKING MODE SELECTION OPTIONS:	TC-131 JUMPERS REQUIRED:
	IBM PACKING MODE SELECTABLE BY SETTING BIT 10 (10M) IN HTSD REGISTER (STANDARD)	E82 TO E83 E84 TO E85
	IBM PACKING MODE SELECTABLE BY SETTING BIT 10 (SEL 4) IN HPC REGISTER (OPTIONAL)	E83 TO E85 E84 TO E85 E80 TO E81
FE 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
FE DENSITY MODE SOFTWARE SELECTABLE BY SETTING BIT 10 (SEL 4) IN HPC REGISTER (OPTIONAL)	IBM PACKING MODE SELECTABLE BY SETTING BIT 10 (10M) IN HTSD 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	45	32.5	25	15	37.5	25	32.5	25	25	SEL B
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

LOC.	DESCRIPTION	PIN NO.
	BLAD	9-14
	74LS11	3-6
	74LS32	1-3
	7438	11-13
	74276	
	74S86	11-13

9. REFERENCE ASSY. P.0001427
E. CAPACITOR VALUES ARE IN MICROFARADS.
I. RESISTOR VALUES ARE IN OHMS & ARE 1/4W 5%
NOTES: UNLESS OTHERWISE SPECIFIED.

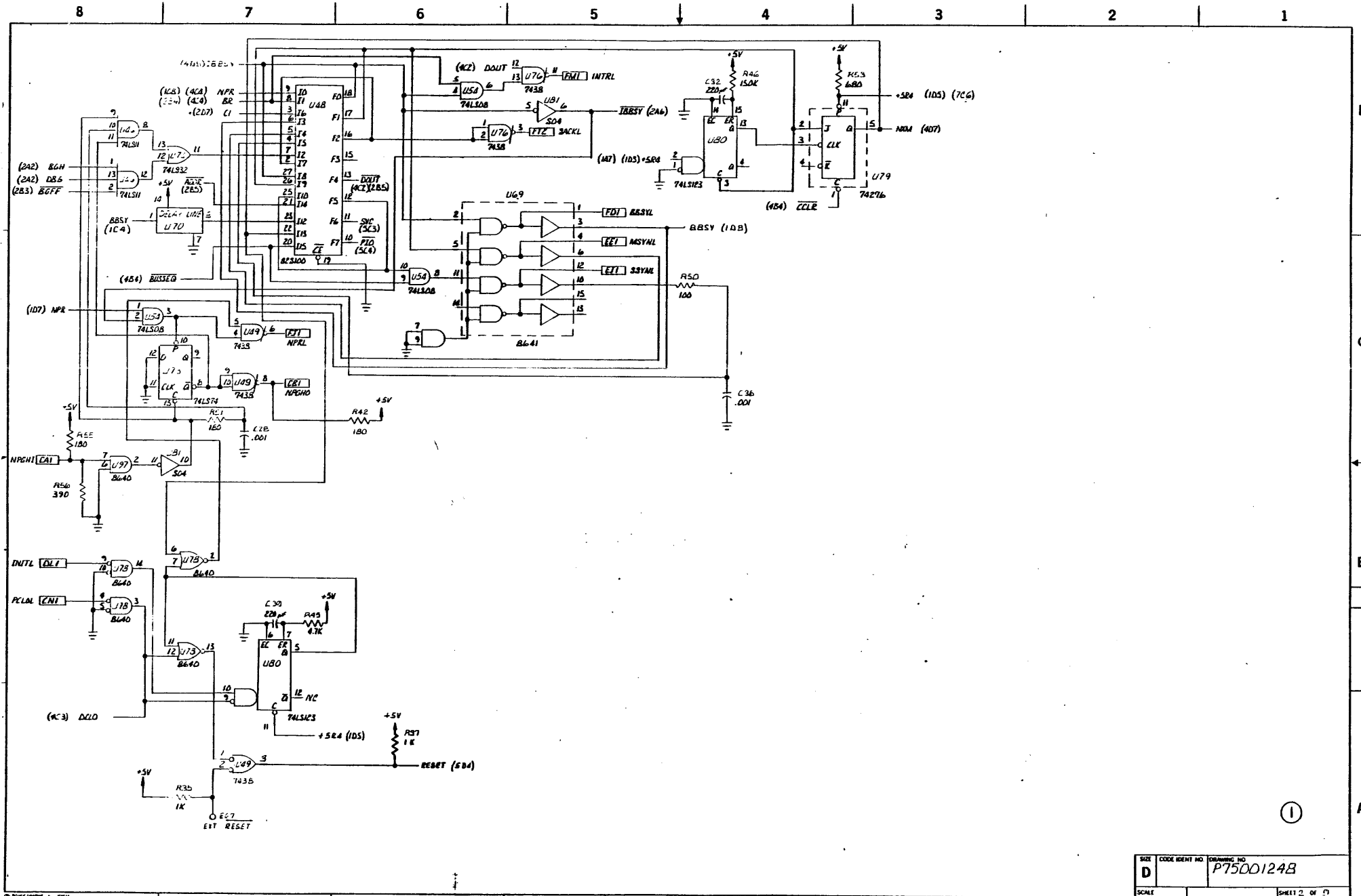
QTY REQD	CODE IDENT	PART OR IDENTIFYING NO.	NOMENCLATURE OR DESCRIPTION
PARTS LIST			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE FRACTIONS DECIMALS ANGLES		CONTRACT NO.	
MATERIAL		APPROVALS	
FINISH		DATE	
NEXT ASST		DRAWN BY	
USED ON		CHECKED BY	
APPLICATION		ENGR.	
DO NOT SCALE DRAWING		SCALE	
P.0001427		SHEET 1 OF 9	

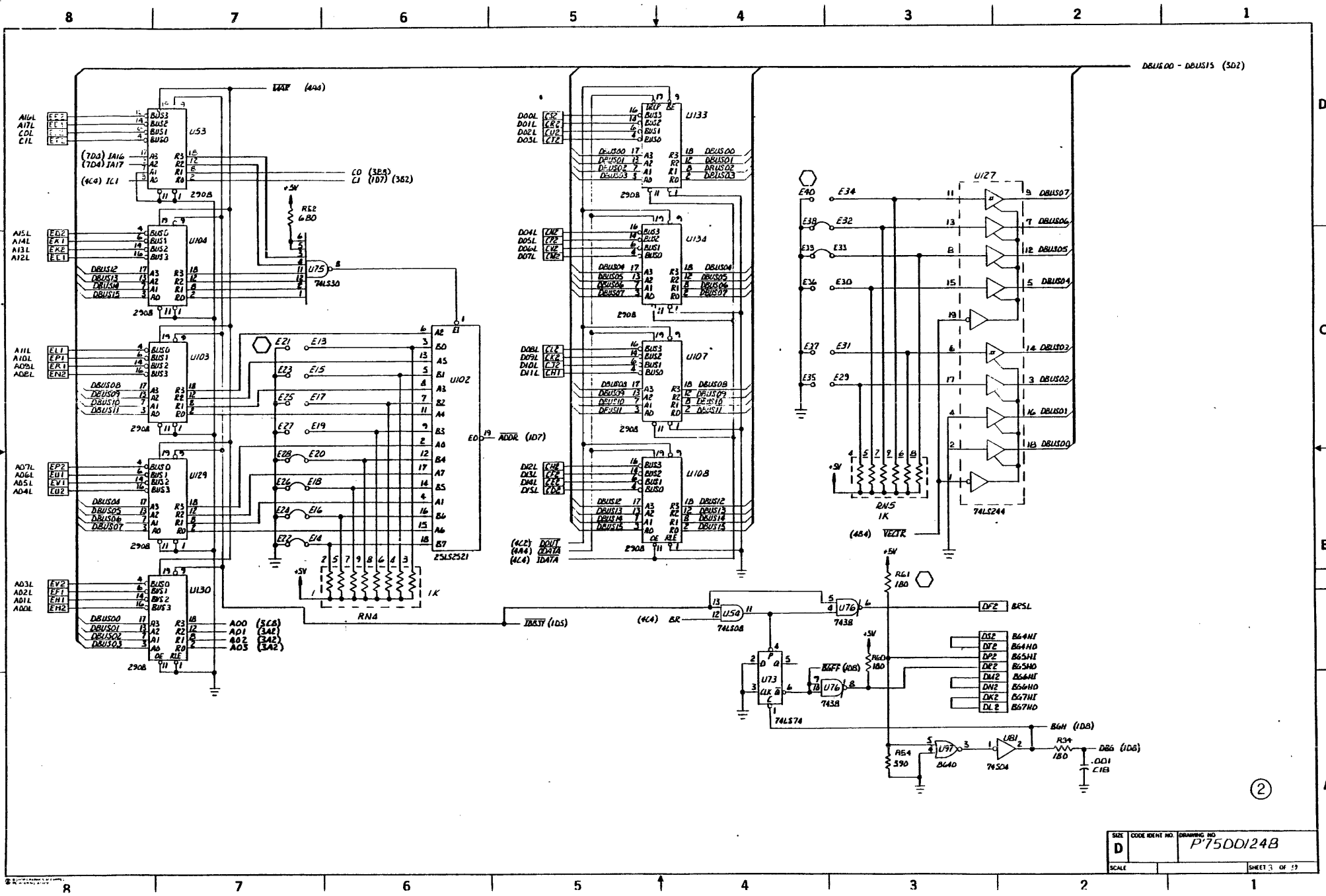
western peripherals™
SOUTH CALIFORNIA

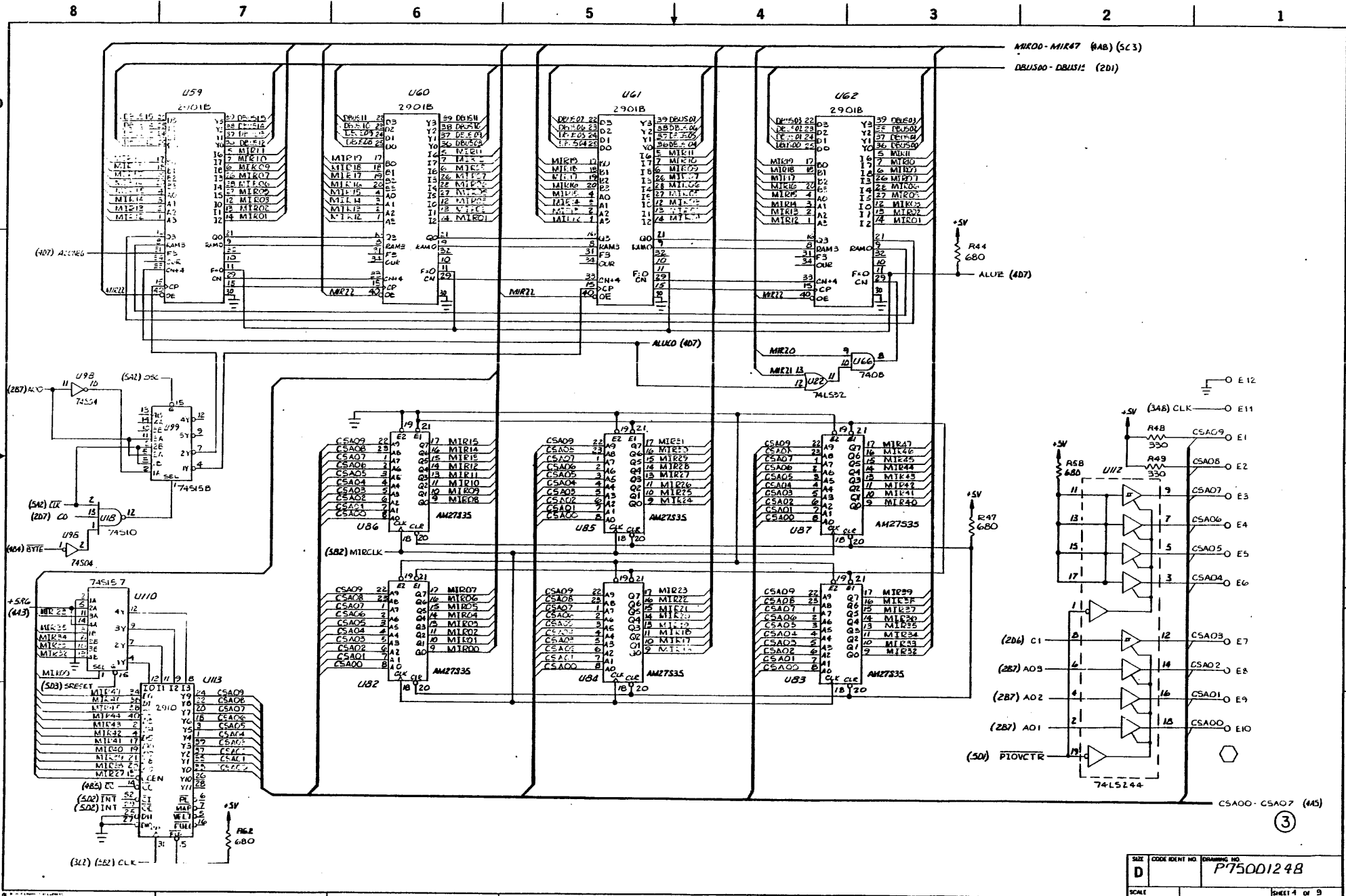
SCHEMATIC DIAGRAM
TC-131 TAPE CONTROLLER

SIZE **D** CODE IDENT NO. **P75001248**

8 7 6 5 4 3 2 1



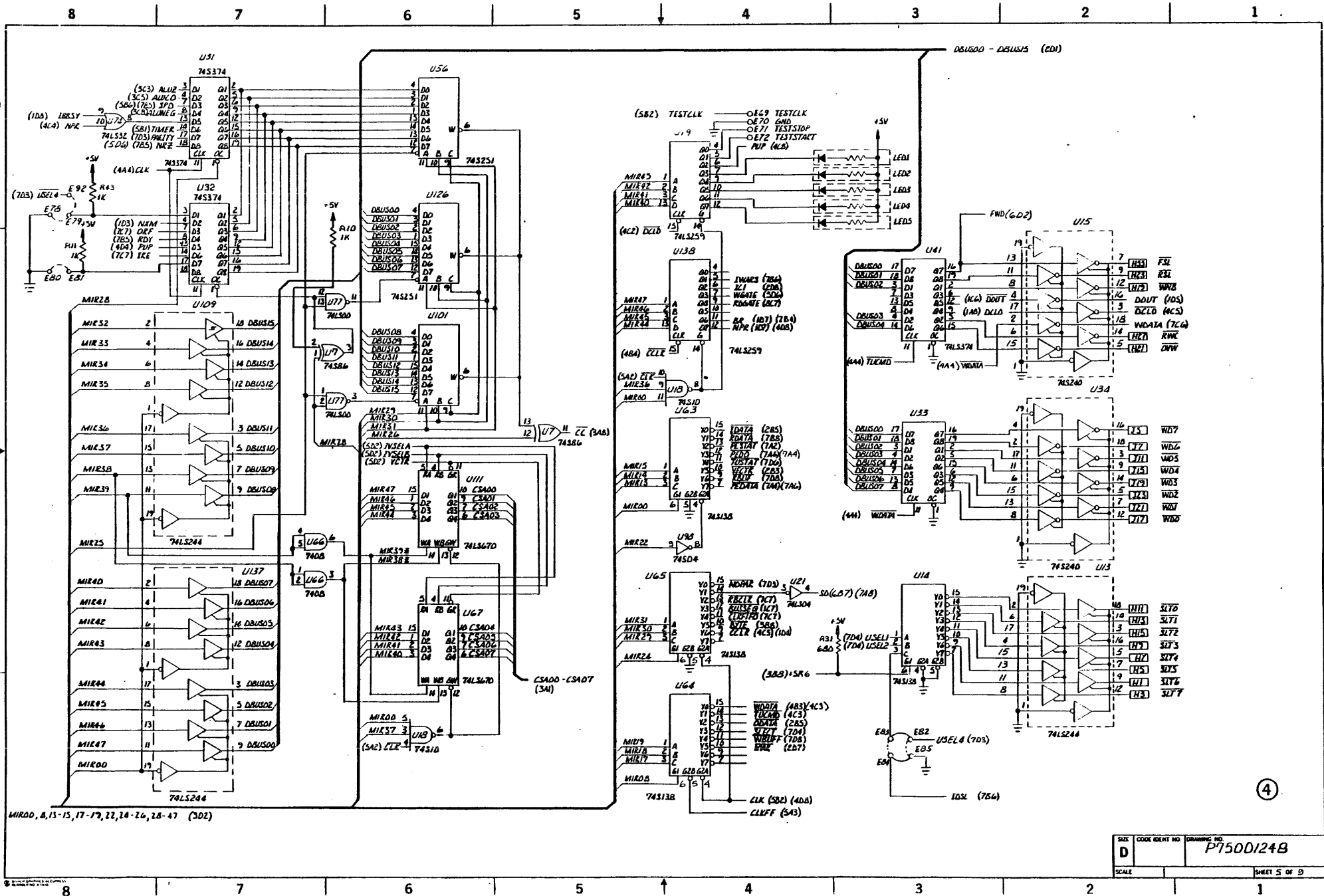


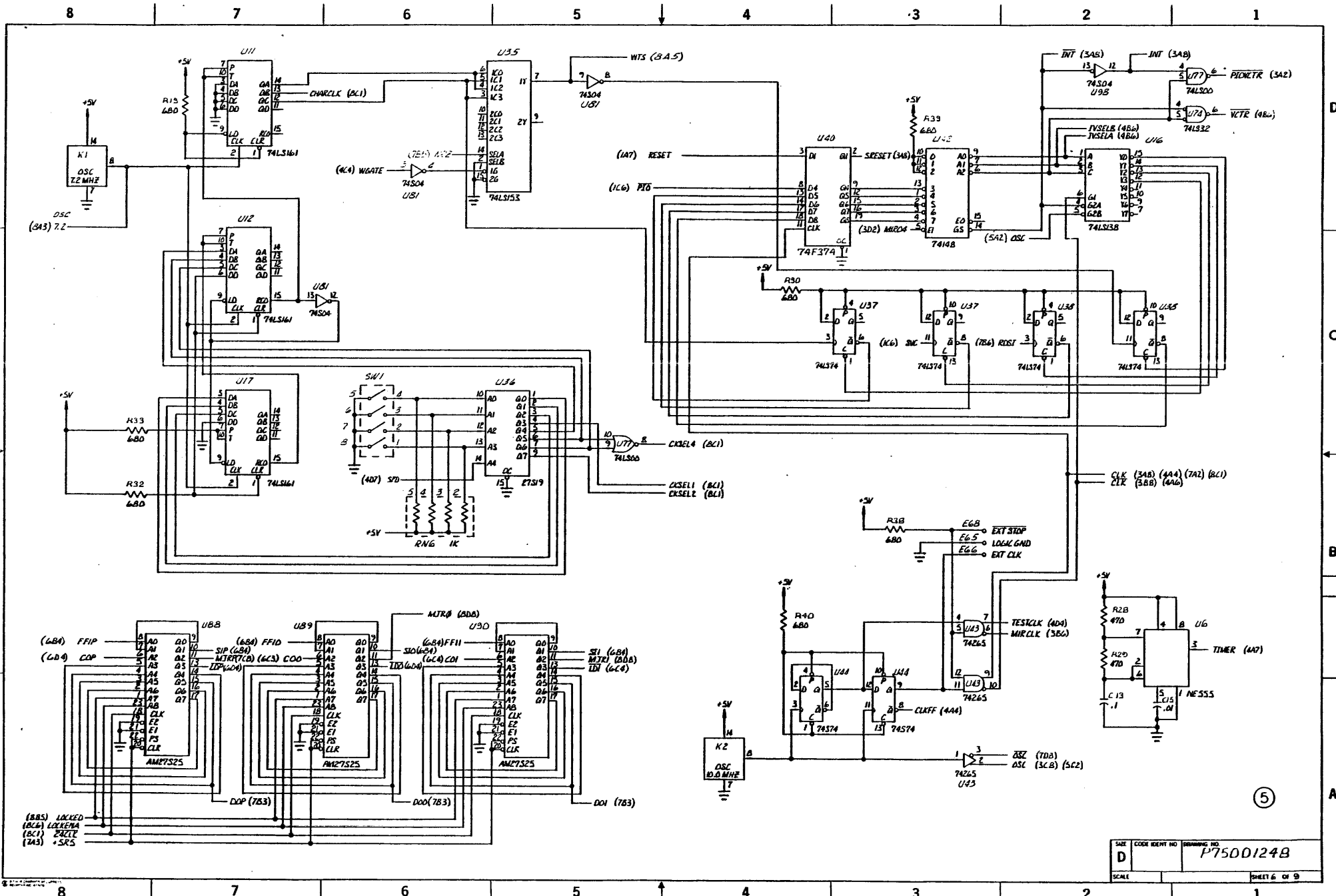


MIR00-MIR47 (48) (5C3)
 DBUS00-DBUS12 (20)

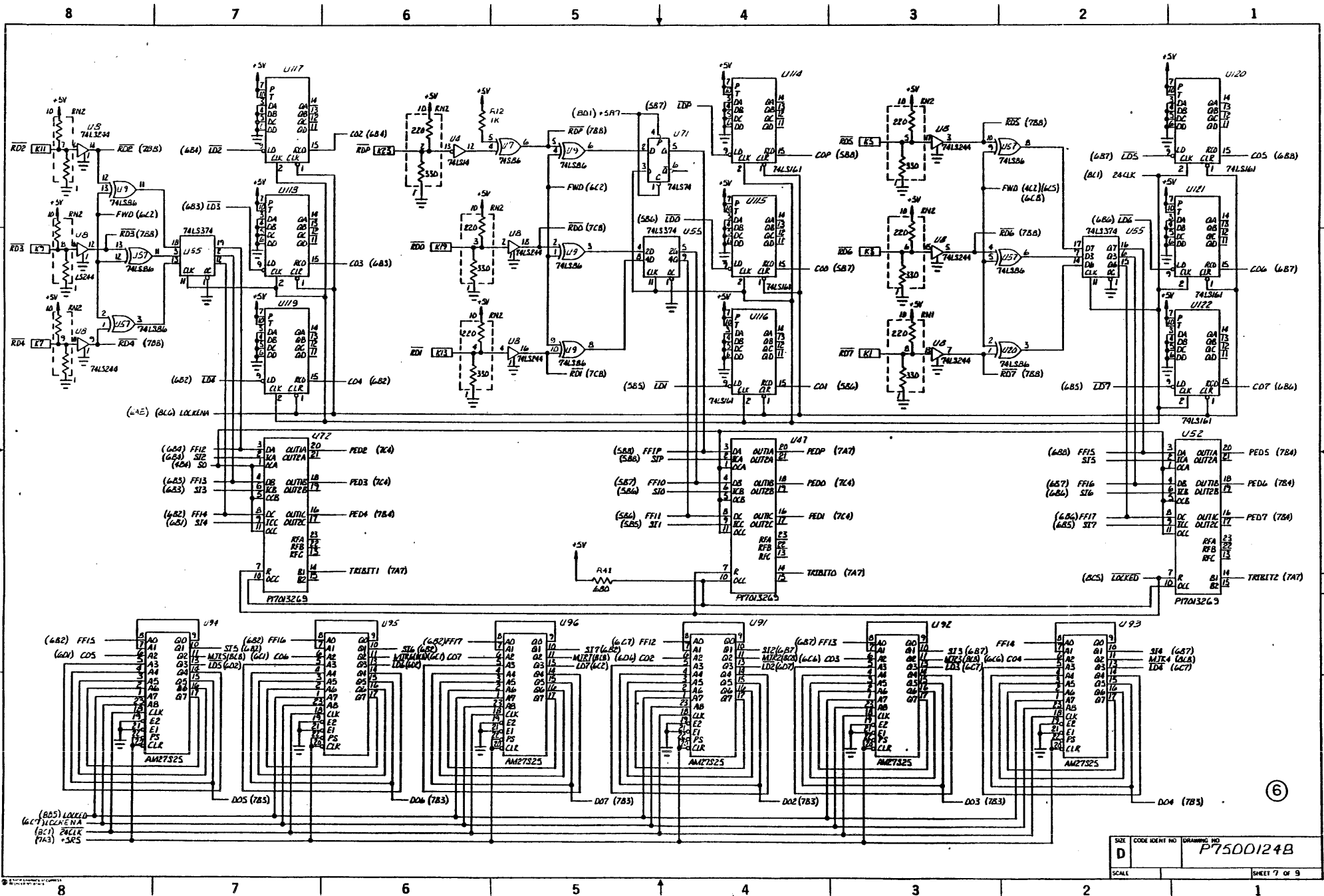
CSA00-CSA07 (445)

(3)



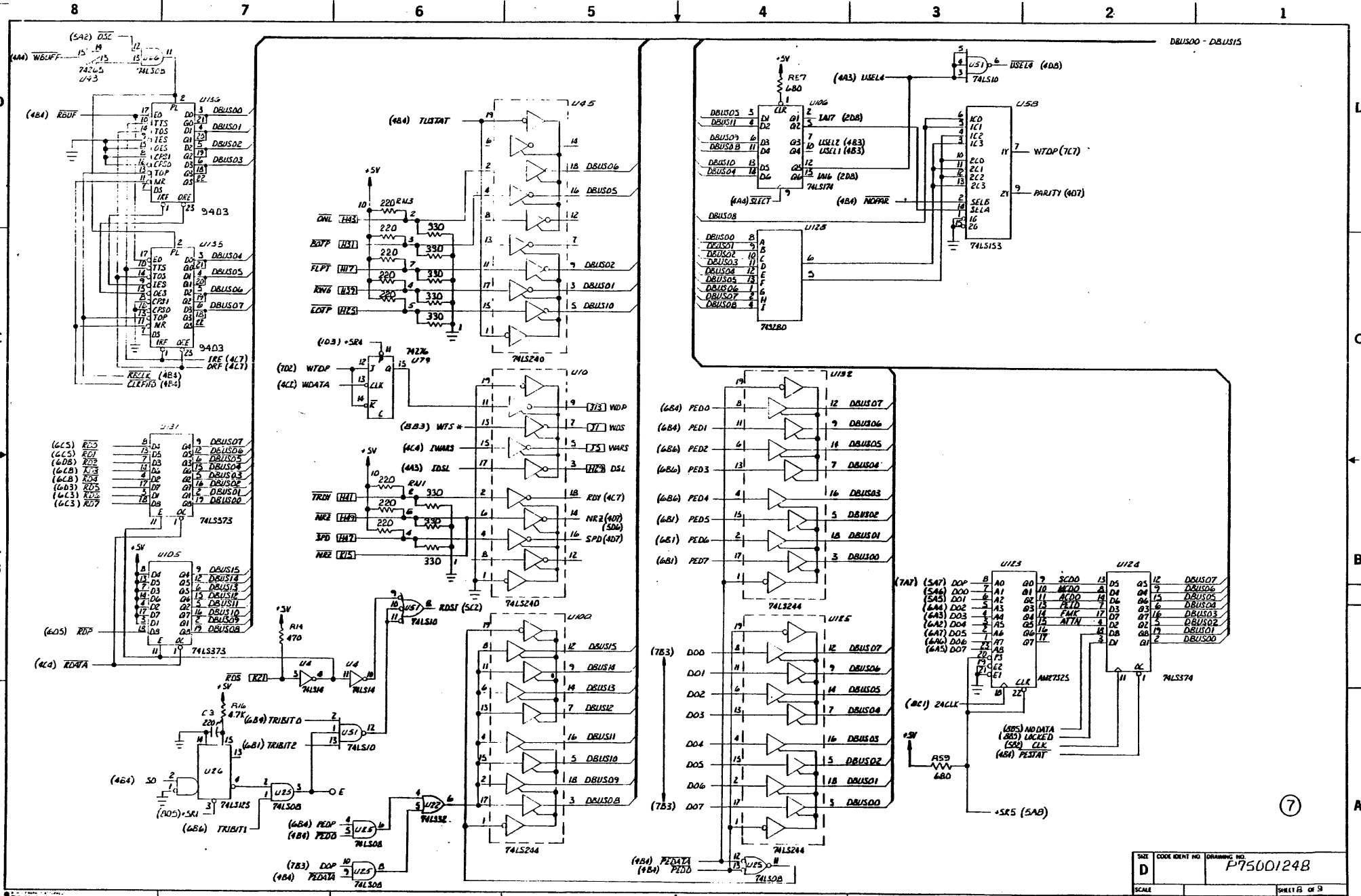


5



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

6



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 G. FRENCH		2-7-85	
CHECKED R. Elia		2-7-85	
ENGR. Z. Funn		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	
1. 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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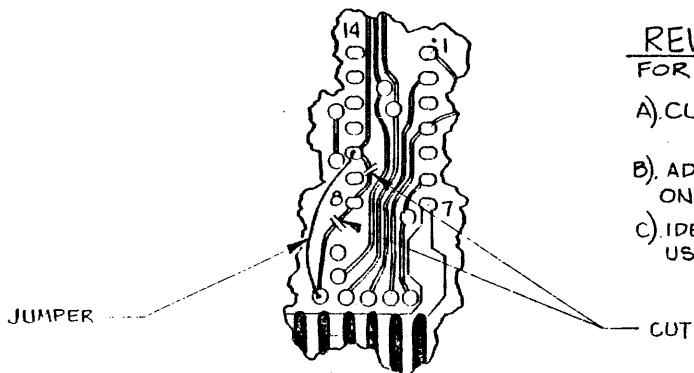
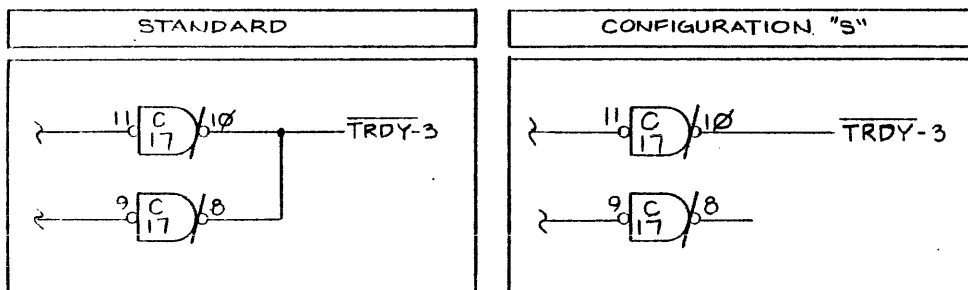
TITLE	DRAWING NO.
Modification Drawing, Tape Control Adapter (Config. "S")	112001
Assembly - Cable, Control	121004
Assembly - Cable, Read	121006
Assembly - Cable, Write	121014
Assembly Drawing - Adapter, Tape Read Connector	122005
Assembly Drawing - Tape Write Connector	122006
Assembly, Jumper Array, 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 ECQ 780)	10-2-80	<i>Kip</i>

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



SOLDER SIDE VIEW
IC. LOCATION "C"

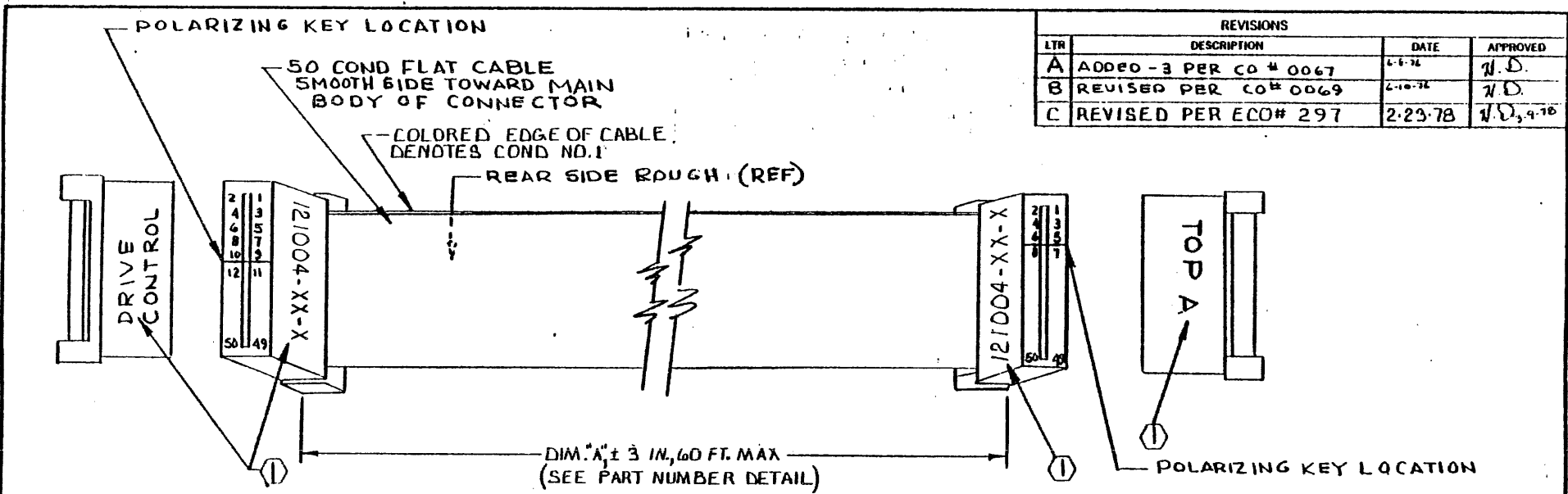
REWORK INSTRUCTIONS:

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>W. L. ...</i>	10-1-80	SCALE	SIZE DRAWING NO.
CHECKED	10-2-80	<i>W</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	N.D.
B	REVISED PER CO# 0069	2-10-76	N.D.
C	REVISED PER ECO# 297	2-23-78	N.D., 9-78

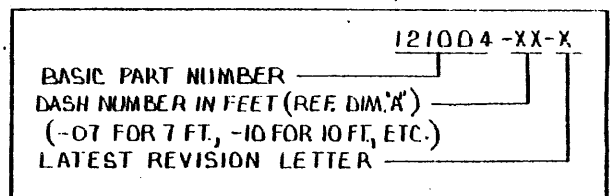
NOTES.

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

2. ASSEMBLY:

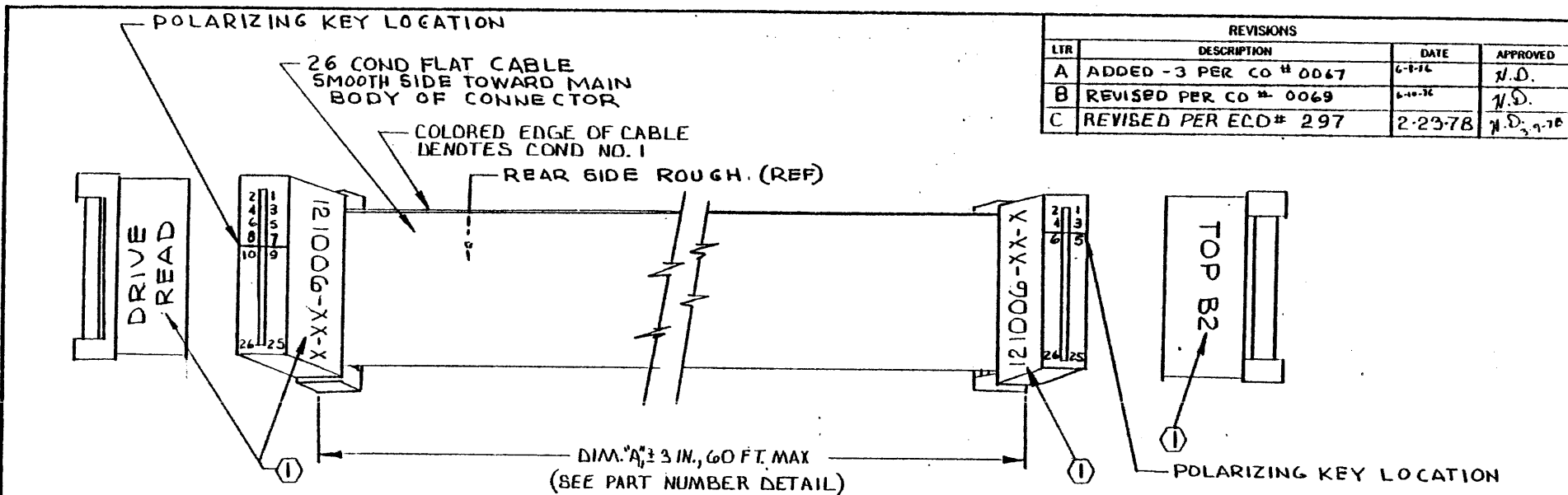
- USE 3M PRESS NO. 3440
- USE LOCATOR PLATE NO. 3443-II
- USE SETTING NO 9 OF GAUGE 3436-I
- CUT CABLE USING SCOTCHFLEX CABLE SHEAR OR EQUIV.
- SEAT CABLE INTO COVER USING SCOTCHFLEX TOOL NO. 3453, CHECK FOR ALIGNMENT
- PLACE BODY ON LOCATOR PLATE
- POSITION COVER AND CABLE OVER CONN BODY
- LOWER HANDLE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

PART NUMBER DETAIL



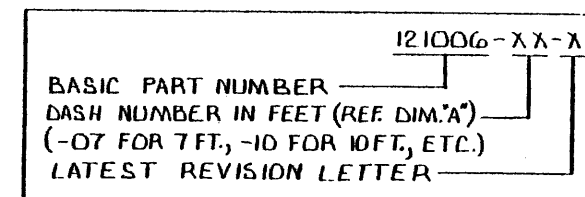
FOR PARTS SEE PARTS LIST 121004

TOLERANCES UNLESS OTHERWISE SPECIFIED		FRACTIONS DEC. ANGLES		 western peripherals ANNHEIM, CALIFORNIA			
±	±	±	±	ASSEMBLY- CABLE, CONTROL			
APPROVALS	DATE	SCALE				SIZE	DRAWING NO.
DRAWN CORUM	6-1-76	NONE				B	121004
CHECKED N.D.	6-1-76						
				DO NOT SCALE DRAWING			
				SHEET			



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

PART NUMBER DETAIL



NOTES:

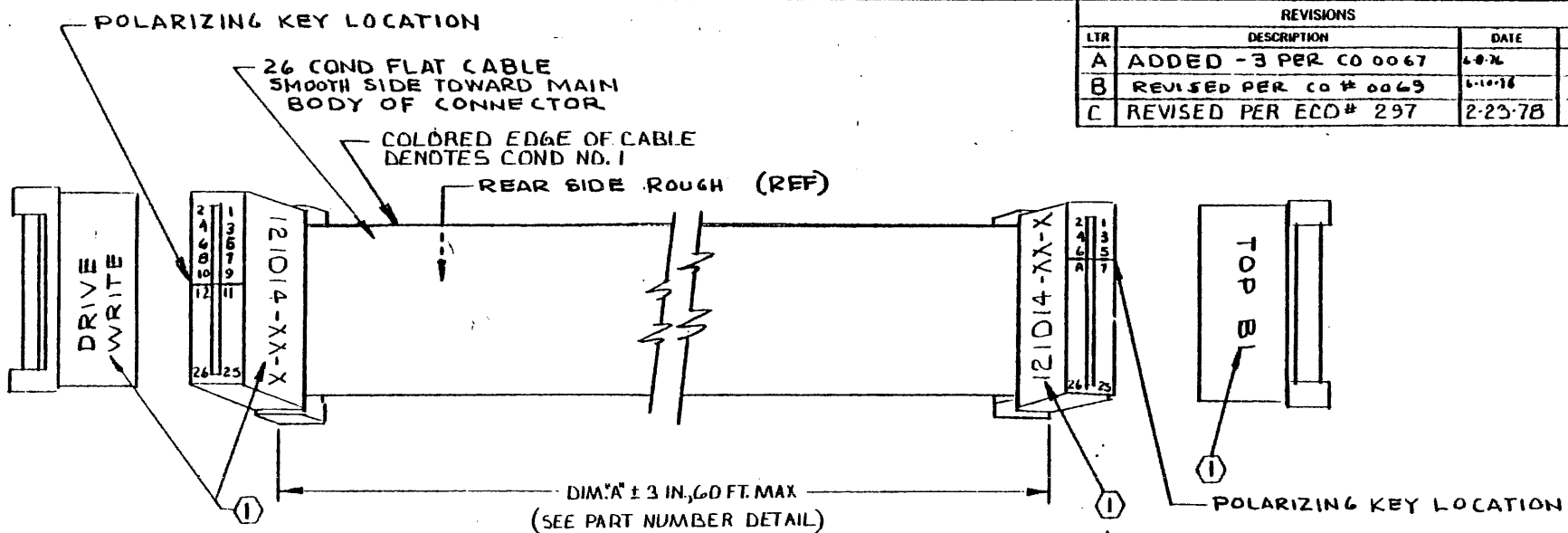
① MARK CHARACTERS SHOWN USING CONTRASTING COLOR INK.
SEE PART NUMBER DETAIL FOR MARKING OF VARIABLE CHARACTERS (X's).

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.
- 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 121006

TOLERANCES UNLESS OTHERWISE SPECIFIED		western peripherals ANAHEIM, CALIFORNIA		
FRACTIONS DEC. ANGLES	± ± ±			
APPROVALS	DATE	SCALE	SIZE	DRAWING NO.
DRAWN C. O. RUM	6-1-76			
CHECKED N.D.	6-1-76	DO NOT SCALE DRAWING		SHEET

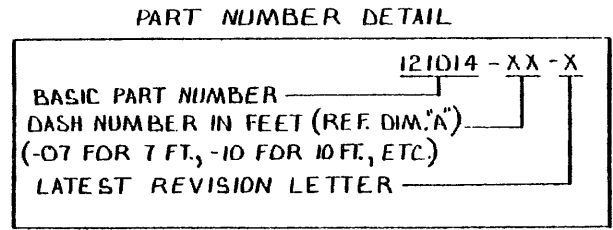


REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED
A	ADDED -3 PER CO 0067	6-8-76	N.D.
B	REVISED PER CO # 0069	6-10-76	N.D.
C	REVISED PER ECO # 297	2-23-78	N.D., 4-78

NOTES:

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

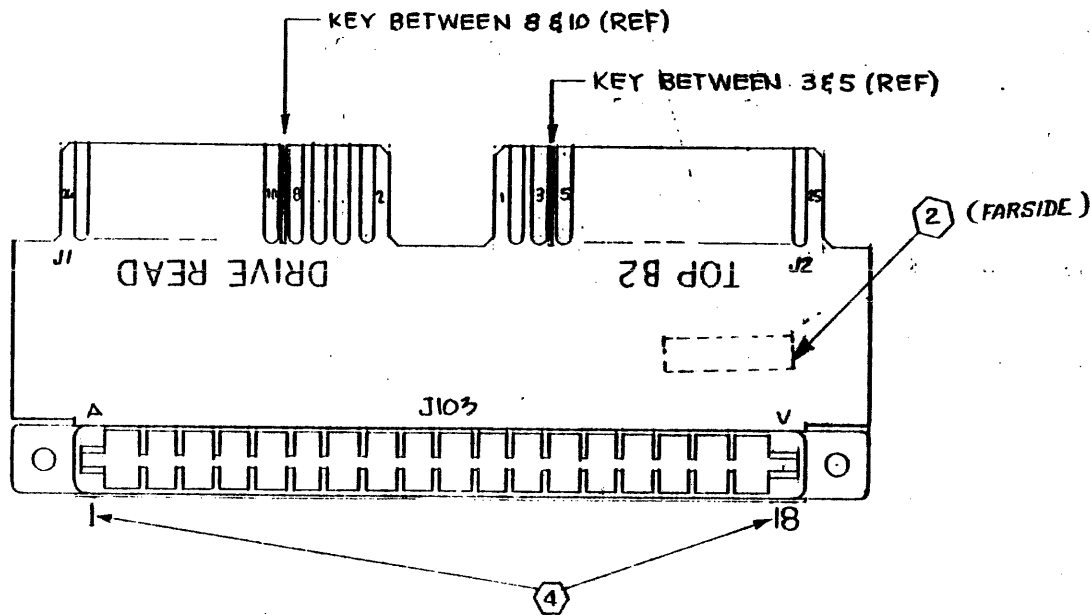
2. ASSEMBLY:
- USE 3M PRESS NO. 3440.
 - USE LOCATOR PLATE NO 3443-11
 - USE SETTING NO 9 OF GAUGE 3436-1
 - CUT CABLE USING SCOTCHFLEX CABLE SHEAR OR EQUIV.
 - SEAT CABLE INTO COVER USING SCOTCHFLEX TOOL NO 3453, CHECK FOR ALIGNMENT
 - PLACE BODY ON LOCATOR PLATE
 - POSITION COVER AND CABLE OVER CONN 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.		
±	±	±	ASSEMBLY- CABLE, WRITE
APPROVALS	DATE		
DRAWN CORUM	6-1-76	SCALE	
CHECKED N.D.	6-1-76	SIZE	
		NONE	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> 11-77
C	REVISED NOTE 2 PER ECO.#415	2/2/79	<i>J.D.</i> 2-79
D	ADDED NOTE ④ PER ECO# 504	6-20-79	<i>K.H.C.</i> 6-79



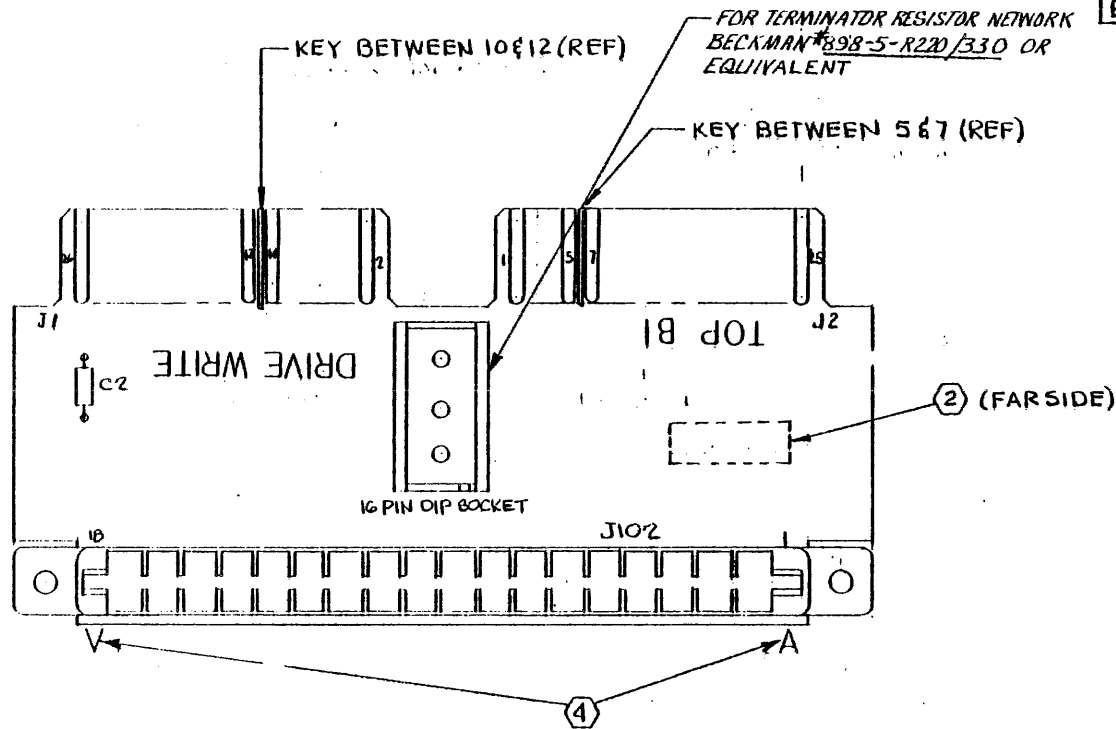
NOTE.

1. REF SCHEMATIC DWG NO. 122022
- ② REFER STAMP ASSY NO. WITH LATEST REV. LTR APPDIX 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>AL</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.P.A.	J.H.N. 2-6-79
D	REVISED NOTE 2 PER ECO# 416	2/1/79 J.P.A.	J.H.N. 2-6-79
E	ADDED NOTE ④ PER ECO# 504	6-20-79 J.S.	J.H.N. 6-20-79

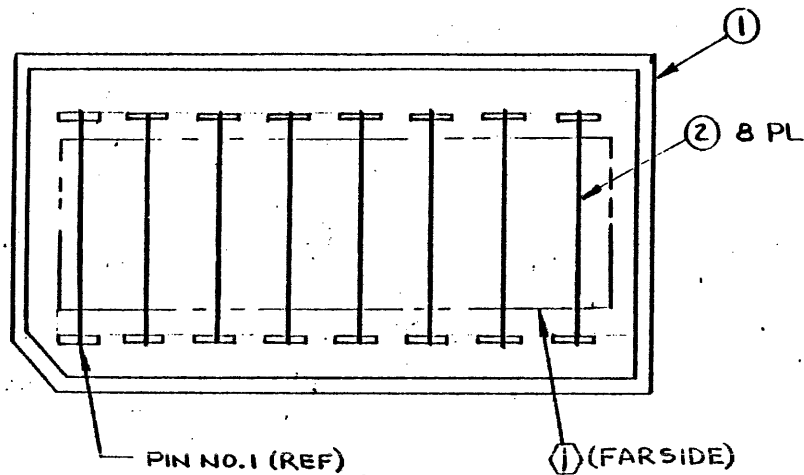


NOTE:

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		western peripherals <small>ANN ARBOR, CALIFORNIA</small>		
FRACTIONS DEC.	ANGLES			
±	±	ASSEMBLY DWG. ADAPTER, TAPE WRITE CONNECTOR		
APPROVALS	DATE			
DRAWN <i>HRB</i>	2-12-76	SCALE 2:1	SIZE B	DRAWING NO. 122006
CHECKED <i>HRB</i>	2-15-76			
		DO NOT SCALE DRAWING		SHEET 1 OF 1



REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED

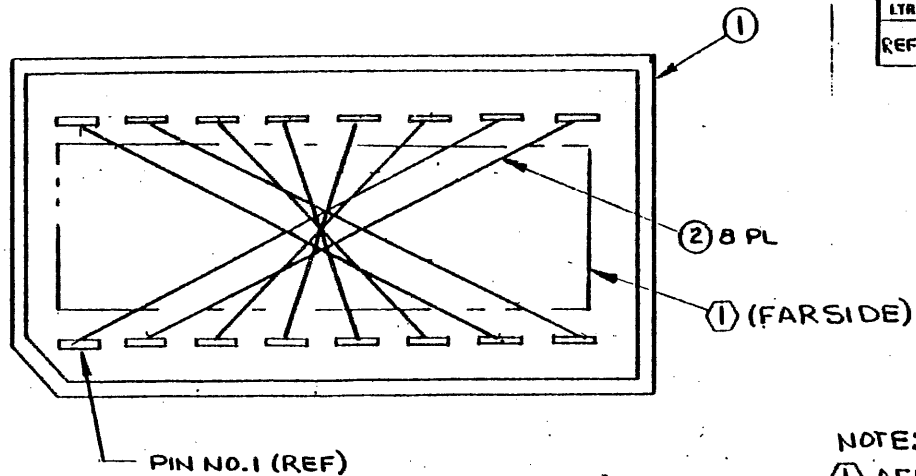
NOTE: UNLESS OTHERWISE SPECIFIED
 ① AFFIX ADHESIVE LABEL WITH PART NO. & LATEST REV LTR WHERE SHOWN

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 FRACTIONS DEC. ANGLES ± ± ±		western peripherals ANAHEIM, CALIFORNIA	
APPROVALS		DATE	
DRAWN CORUP		11-18-76	
CHECKED N.O.		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

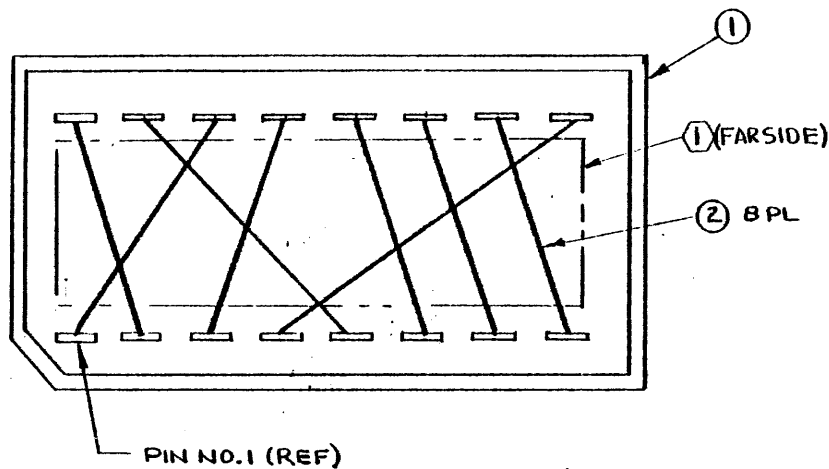
BILL OF MATERIALS

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	
±	±	±	±
APPROVALS		DATE	
DRAWN CORONA		11-18-76	
CHECKED V.D.		11-18-76	
SCALE NONE		SIZE B	DRAWING NO. 122011
DO NOT SCALE DRAWING			SHEET 1 OF 1



**ASSY, JUMPER ARRAY,
 SELECT SWITCH OPTION,
 SPECIAL (4TH TRANSPORT)**




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

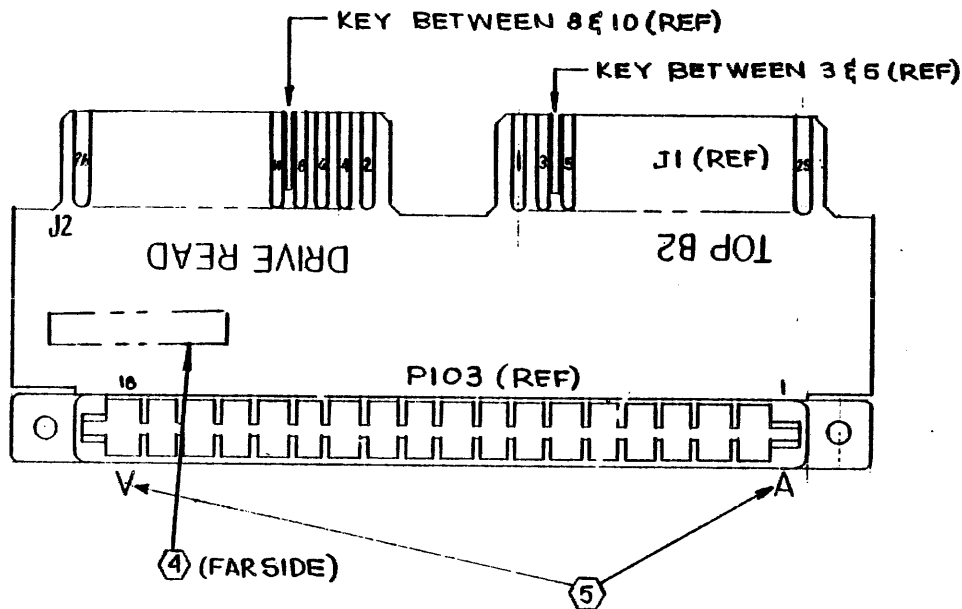
NOTE: UNLESS OTHERWISE SPECIFIED
 ① AFFIX ADHESIVE LABEL WITH PART NO. & LATEST REV LTR WHERE SHOWN

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		11-18-76	
CHECKED		11-18-76	
SCALE		SIZE	DRAWING NO.
NONE		B	122012
DO NOT SCALE DRAWING			SHEET 1 OF 1

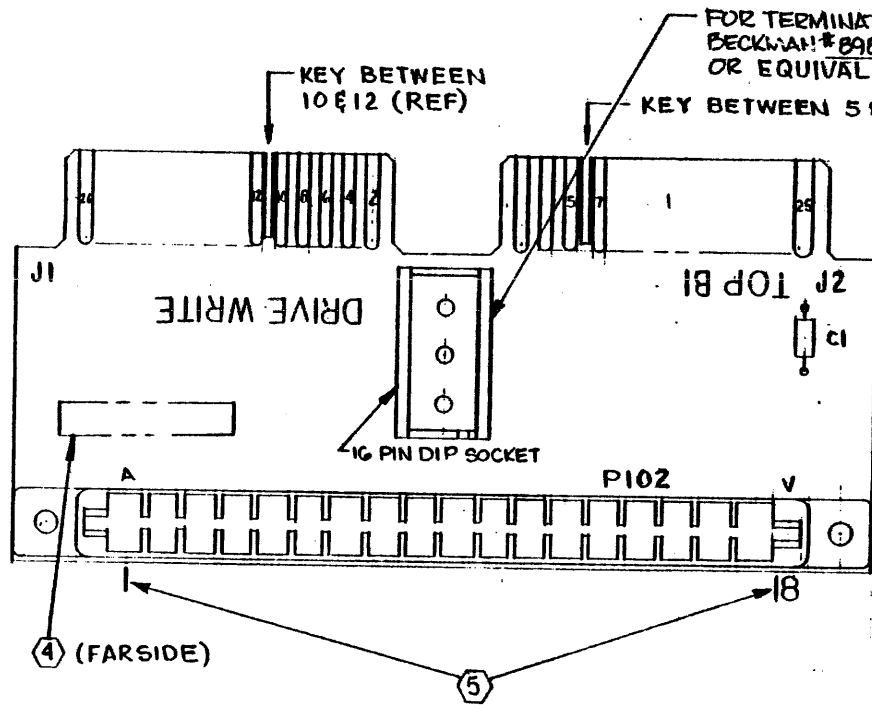
REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED
A	INCORP. CO # 0145	1-21-77	H.D. 1-24-77
B	E.C.O. NO. - 0190	6-6-77	H.D. 6-11-77
C	DELETED NOTE 2 PER E.C.O. #417	11-24-79	H.H. 11-28-79
D	ADDED NOTE 5 PER ECO #504	6-20-79	H.H. 6-20-79



- NOTE: UNLESS OTHERWISE SPECIFIED
- REF SCHEMATIC DWG NO. 122022
 -
 - FOR MATERIAL SEE P/L 122018
 - RUBBER STAMP ASSY NO. WITH LATEST REV LTR APPROX WHERE SHOWN USING BLK INK.
 - MARK CHARACTERS SHOWN (A&V) ON SIDE OF CONNECTOR USING CONTRASTING INK.

TOLERANCES UNLESS OTHERWISE SPECIFIED		western peripherals ANAHEIM, CALIFORNIA	
FRACTIONS	DEC.		
±	±	±	ASSEMBLY DWG. ADAPTER, TAPE READ KENNEDY CIPHER
APPROVALS	DATE	SCALE	SIZE DRAWING NO.
DRAWN HRB	2-15-76	2:1	B 122018
CHECKED AL	2-25-76		
		DO NOT SCALE DRAWING	SHEET 1 OF 1

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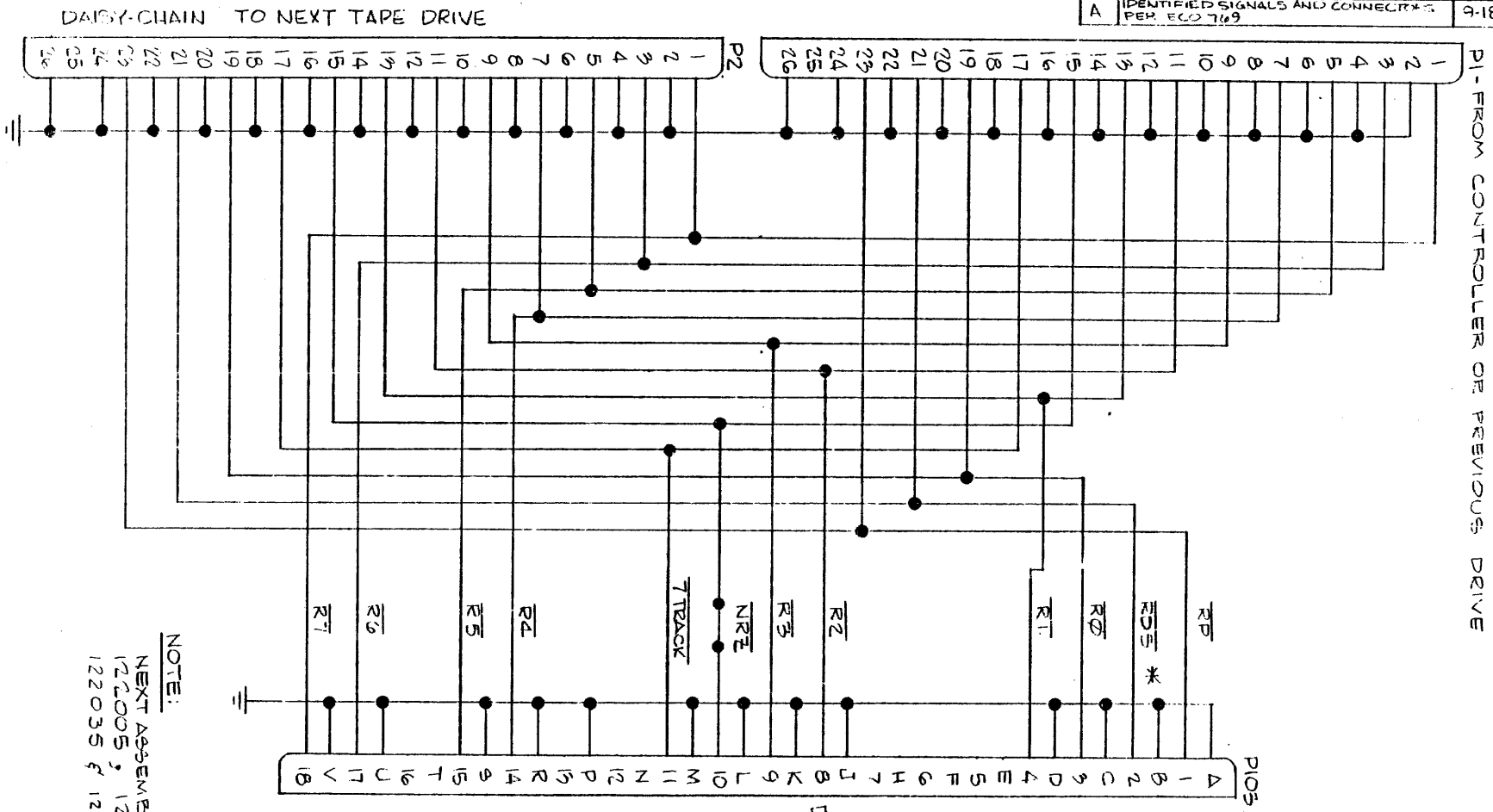
REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED
A	INCORPORATE CO # 0146	1-21-77	J.D. 1-24-77
B	INCORP. ECO 172	5/11/77	J.D. 5-11-77
C	INCORP. ECO. NO. -0190	6-6-77	J.D. 6-11-77
D	DELETED NOTE 2 & CANCELLED PER ECO #118	11/24/79	J.H. #2 1-19
E	ADDED NOTE (5) PER ECO #504	6-20-79	W.C. 6-20-79

- 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 ANAHEIM, CALIFORNIA	
APPROVALS DRAWN <i>HRB</i> 2-12-76 CHECKED <i>RL</i> 2-25-76		ASSEMBLY DWG. ADAPTER, TAPE WRITE KENNEDY-CIPHER	
SCALE 2:1		SIZE B	DRAWING NO. 122019
DO NOT SCALE DRAWING			SHEET 01

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REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED
A	IDENTIFIED SIGNALS AND CONNECTORS PER ECO 769	9-18-80	



NOTE:
 NEXT ASSEMBLY NO.
 122005, 122015,
 122035 & 122043.

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

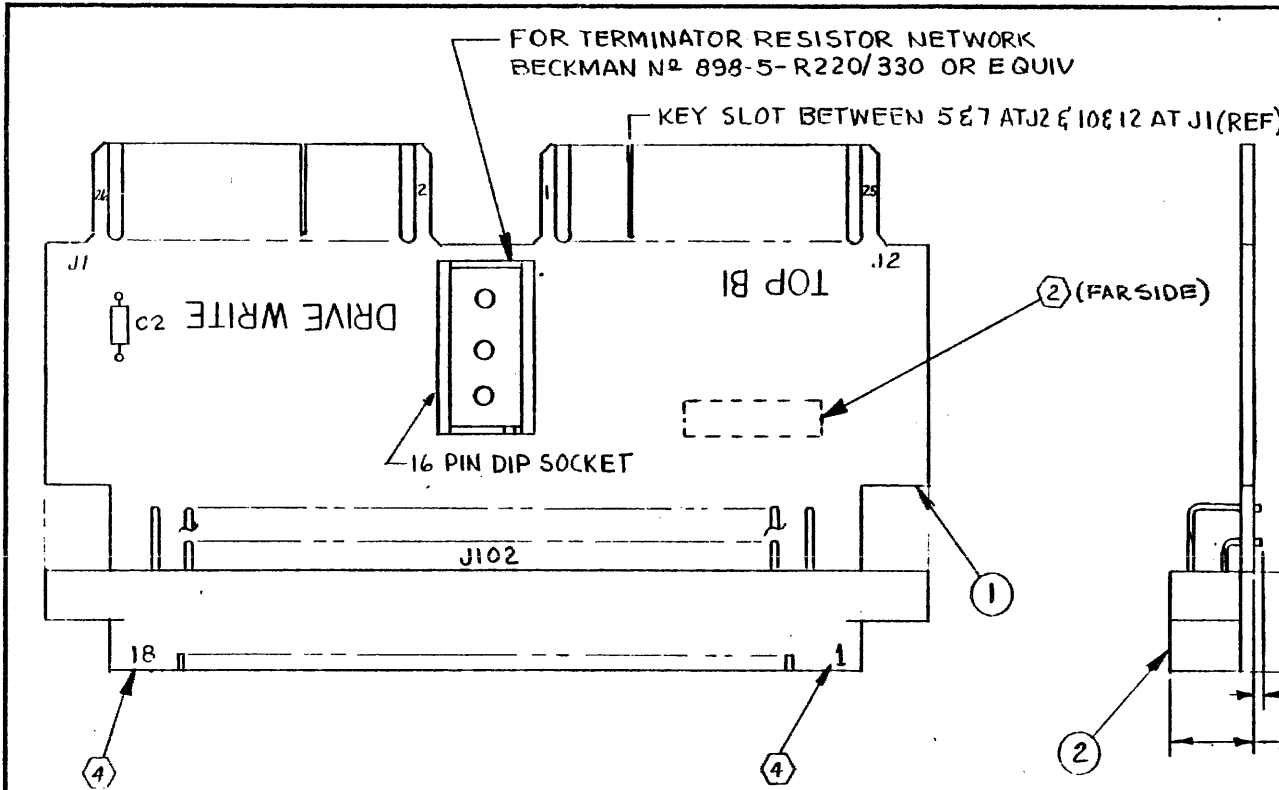
western peripherals
 ANAHEIM, CALIFORNIA

SCHMATIC ADPTR., TAPE READ CONNECTOR

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

DO NOT SCALE DRAWING SHEET 1 OF 1

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REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED
A	INCORP ECO 172	3-11-77	N.S. 5-11-77
B	INCORP E.C.O. NO. 0190	6-6-77	N.S. 11-77
C	INCORP. E.C.O. NO. 0197	8-8-77	N.S. 8-1-77
D	ADD NOTE 4 PER ECO 355	3-10-81	
E	ADVANCE REV LTR TO AGREE WITH P/L	11-11-77	
F	CHANGED NOTE 2 PER ECO 416	11-11-77	
G	INC ECO # 852 AND CHG ASSY NO. LOCATION	3-10-81	3-24-81

MAR 27 1981

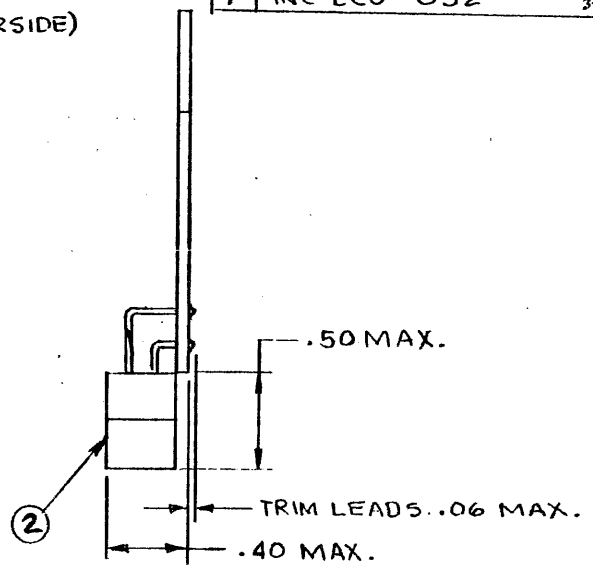
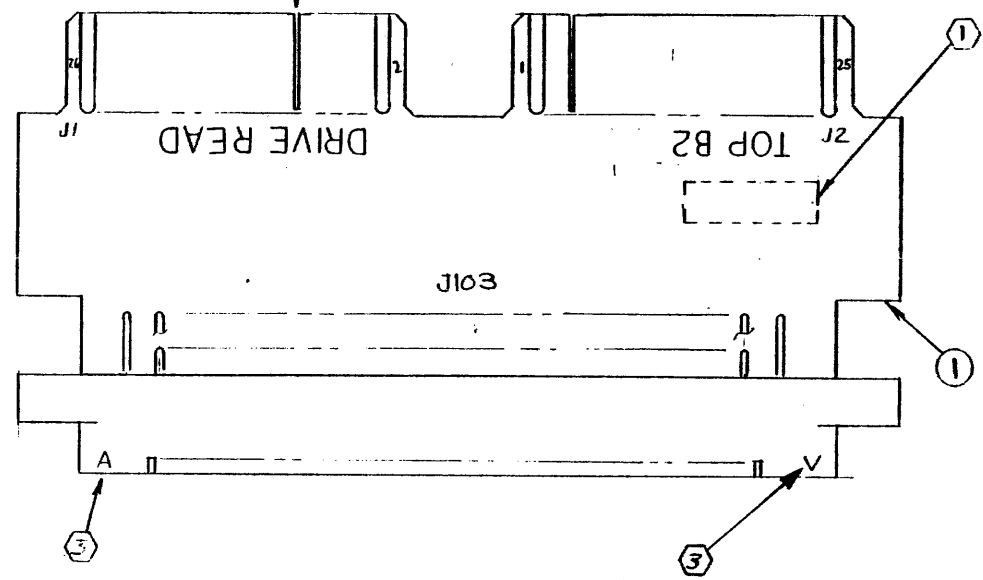
- ④ RUBBER STAMP CHARACTERS SHOWN USING WHITE INK.
 - ③ FOR MATERIAL LIST SEE P/L 122034.
 - ② RUBBER STAMP ASSY NO. & LATEST REV LTR APPROX WHERE SHOWN USING PLK INK.
 - 1. REF. SCHEMATIC DWG NO. 122021.
- NOTE : UNLESS OTHERWISE SPECIFIED.

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

REVISIONS

LTR	DESCRIPTION	DATE	APPROVED
A	E.C.O. NO.-0190	6-6-77	N.D. 6-11-77
B	E.C.O. NO.-0197	8-8-77	N.D. 8-9-77
C	ADDED NOTE 3 PER ECO #355	11/2/77	11/2/77
D	ADVANCED REV LTR TO AGREE 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	3-13-81	3-13-81

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. 122035.
① RUBBER STAMP ASSY NO. 4 LATE ST REV LTR
APPROX WHERE SHOWN USING BLACK INK.
NOTE : UNLESS OTHERWISE SPECIFIED.


TOLERANCES UNLESS OTHERWISE SPECIFIED		western peripherals ANAHEIM, CALIFORNIA	
FRACTIONS	DEC.		
±	±	±	
APPROVALS	DATE	ASSEMBLY-ADAPTER TAPE READ KENNEDY 9800	
DRAWN C.C. BURNETT	6-11-76		
CHECKED M.C.			
SCALE		SIZE	DRAWING NO.
2 X		B	122035
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. 5-16-78
C	CHANGED I.C. LOC'N PER ECO 806	12-9-78	[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

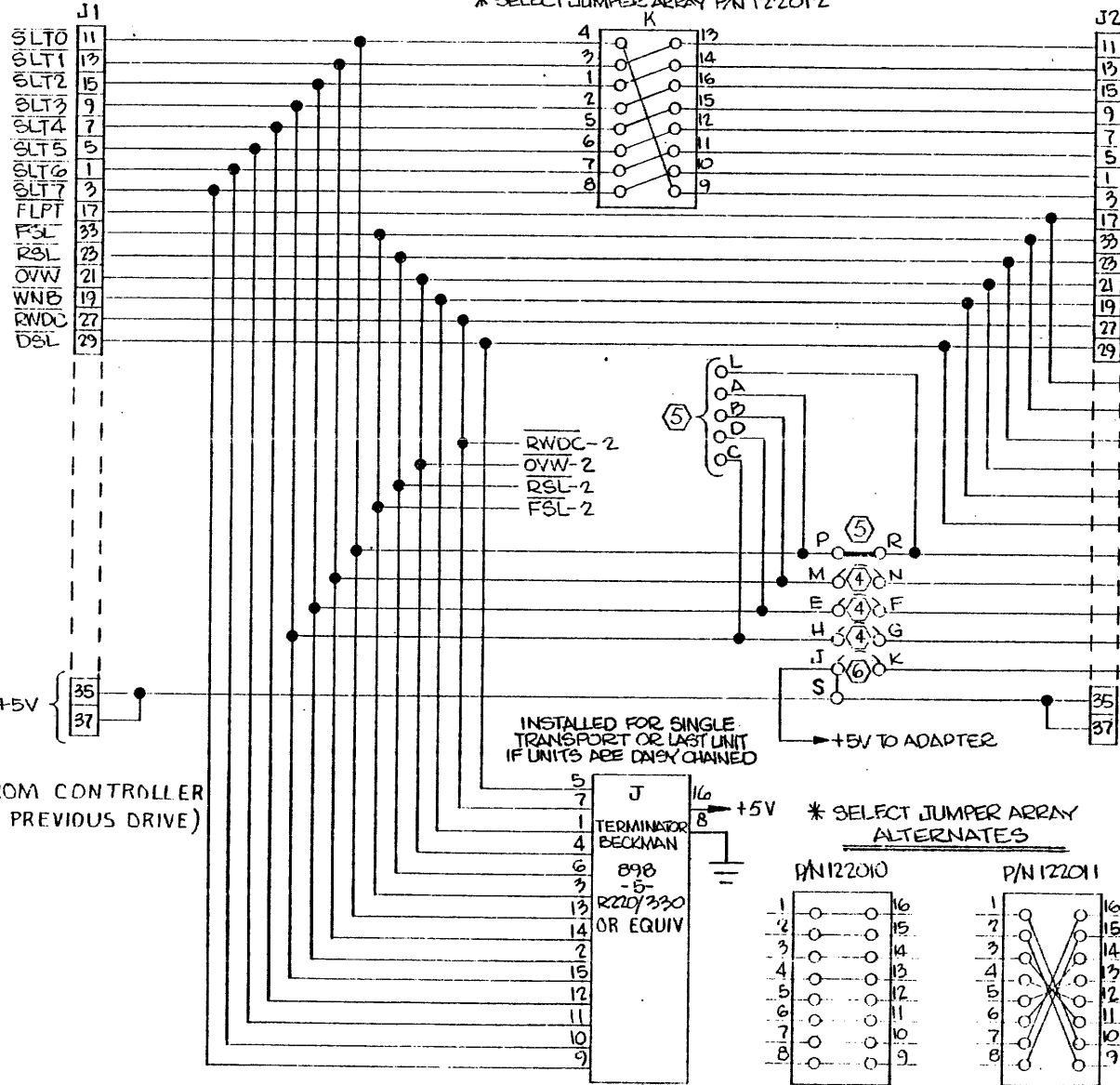
NOTES:

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		
CHECKED N.D.	5-16-78	SIZE	DRAWING NO.
		B	122036
DO NOT SCALE DRAWING			SHEET 1 OF 3

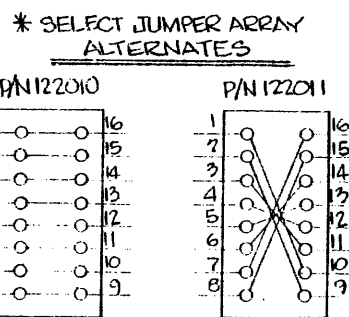
*SELECT JUMPER ARRAY P/N 122012

REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED



(TO NEXT DRIVE IN DAISY CHAIN)

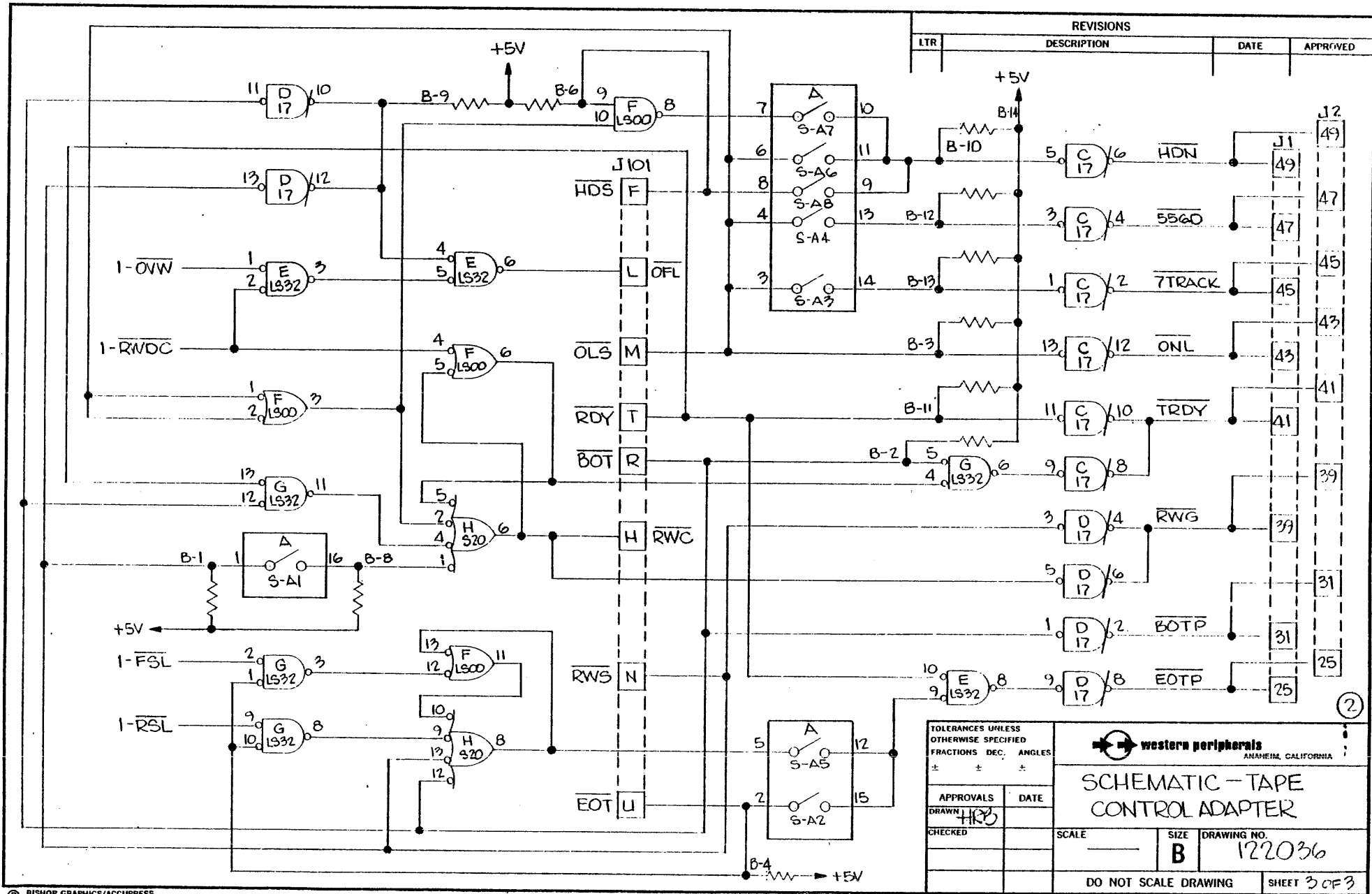
INSTALLED FOR SINGLE TRANSPORT OR LAST UNIT IF UNITS ARE DAISY CHAINED



- 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.

(FROM CONTROLLER OR PREVIOUS DRIVE)

TOLERANCES UNLESS OTHERWISE SPECIFIED FRACTIONS DEC. ANGLES		western peripherals ANAHEIM, CALIFORNIA	
APPROVALS DRAWN <i>HRD</i>		SCHEMATIC - TAPE CONTROL ADAPTER	
CHECKED		SCALE	SIZE B
		DRAWING NO. 122036	
		DO NOT SCALE DRAWING	SHEET 2 OF 3



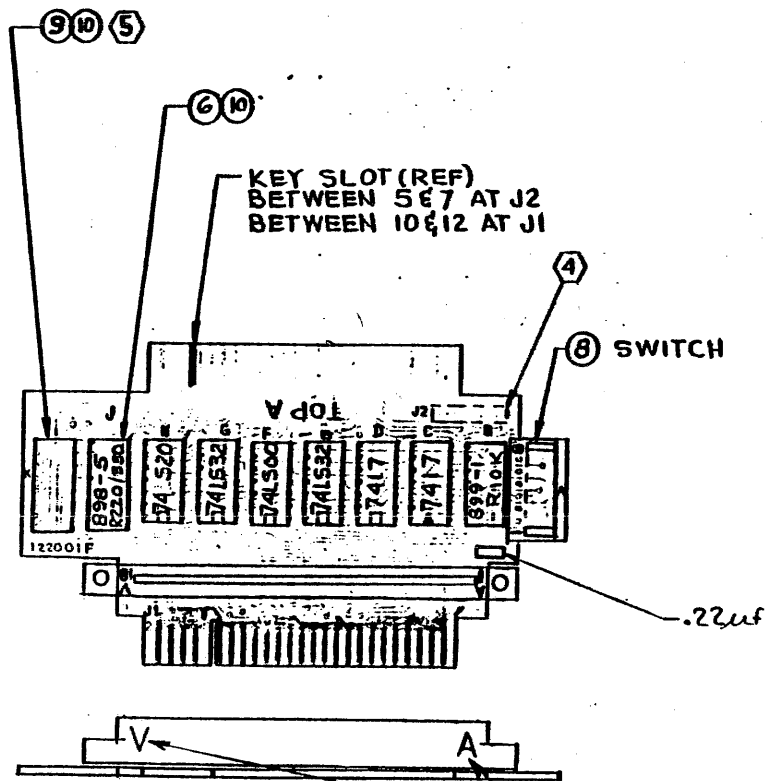
REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED

TOLERANCES UNLESS OTHERWISE SPECIFIED	
FRACTIONS	DEC. ANGLES
±	±
APPROVALS	DATE
DRAWN <i>HRB</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. 8-9-77
	RECORD CHG: ADD CONF "N" (REV LTR CHG NOT REQD)	9-18-77	N.D. 9-18-77
	RECORD CHG: ADD SH NO. 2 (CLASSYING CHG TO BASIC BD) SEE ECO # 0254 (NO REV LTR REQD)	11-10-77	N.D. 11-22-77
	ECO # 2 99 (NO REV. LTR. CHANGE)	3-8-78	N.D. 3-7-78
C	USE "F" REV. PWB, REF. ECON. 236A	5-16-78	N.D. 5-16-78
D	DELETED NOTES 3 & 6 PER ECO 411	11-21-79	N.D. 11-21-79
E	CORRECT VALUE SHOWN FOR CAPACITOR PER ECO No. 460	3-6-79	N.D. 3-6-79
F	ADDED NOTE 6 PER ECO # 504	6-20-77	N.D. 6-20-77

G IC "H" S/B 74520 ECO 806

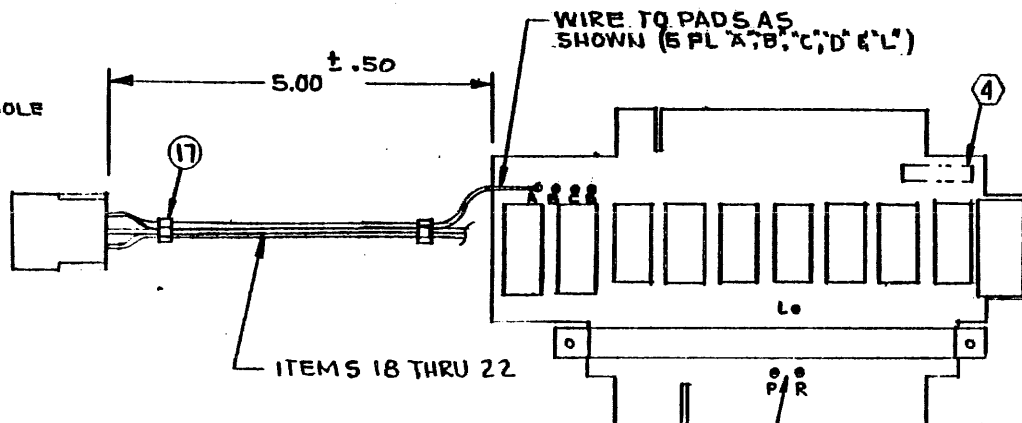
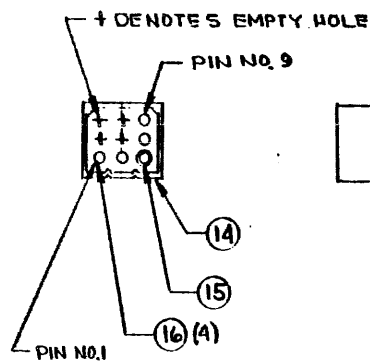
BASIC ASSY SHOWN
 FOR -1 ASSY SEE SH NO. 2

TOLERANCES UNLESS OTHERWISE SPECIFIED FRACTIONS DEC. ANGLES		western peripherals ANAHEIM, CALIFORNIA	
±	±	±	ASSEMBLY ADAPTER TAPE CONTROL CONNECTOR
APPROVALS	DATE	SCALE	SIZE DRAWING NO.
FRANK COLUMB	11-8-76	FULL	B 122037
CHECKED	12-76-76		
		DO NOT SCALE DRAWING	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)	

120037-1 WIRING DIAGRAM

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



CUT ETCH BETWEEN "P" AND "R" PADS

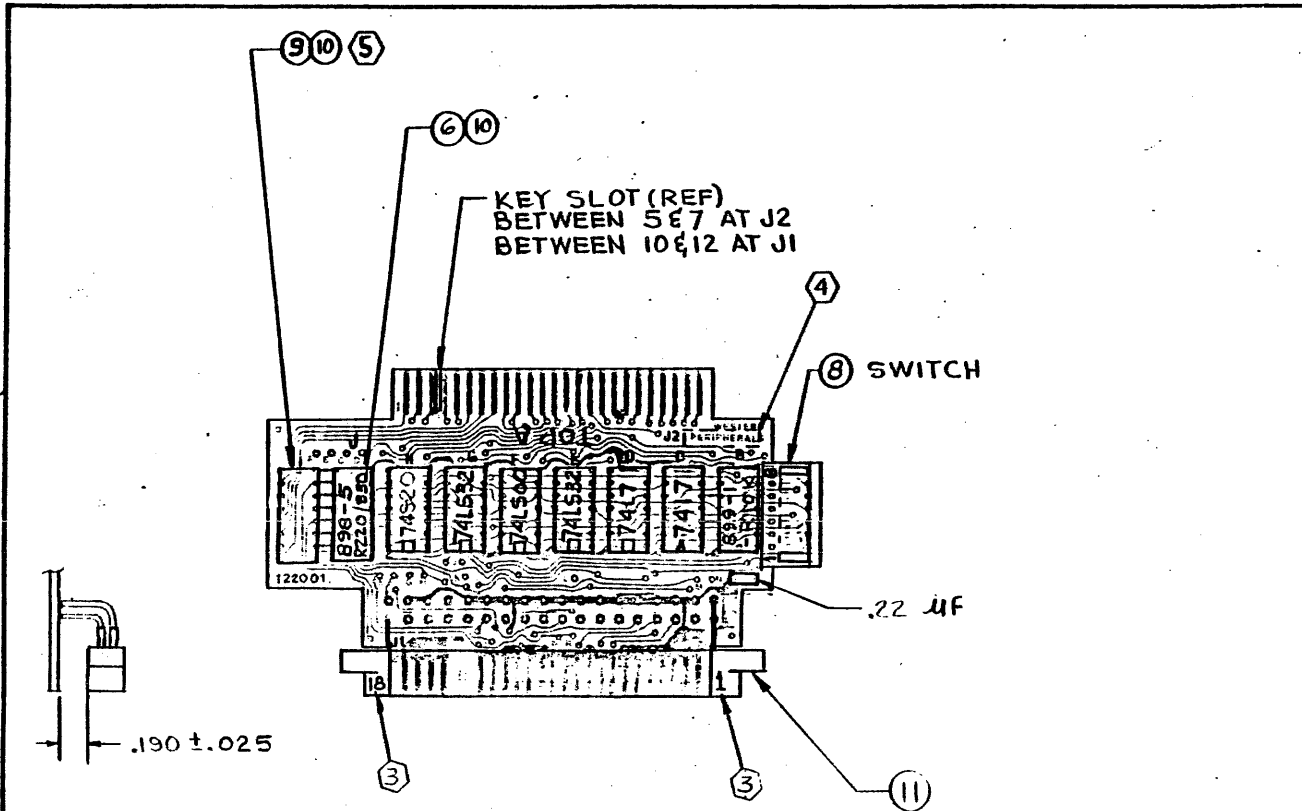
NOTE:

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

REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED

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



REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED
A	E.C.O. NO. - 0143	1-18-77	
B	E.C.O. NO. - 0190	6-3-77	J.D. 6-11-77
C	E.C.O. NO. - 0197	8-8-77	J.D. 8-9-77
	E.C.O. NO. - 299 (NO REV. LTR. CHG.)	3-8-78	J.D. 3-9-78
	ADDED NOTE 7 PER E.C.O. 257 AND DELETED REQUIREMENT FOR SLEEVING WIRE AT CONNECTOR	3-21-78	J.D. 3-21-78
D	USE "F" REV. PWB, REF. ECO NO. 236A	5-16-78	J.D. 5-16-78
E	REVISED NOTE 3 PER E.C.O. 355	11-2-78	
F	DELETED NOTE 6 PER E.C.O. 414	11-2-78	
G	CHANGED I.C. AT LOC H PER E.C.O. 806	12-9-80	
H	INC ECO NO. 852	7-13-81	

8. FOR CONFIGURATION "S" SEE DWG. 112001

7. FOR CONFIGURATION "N" SEE DWG. 122044

6.

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

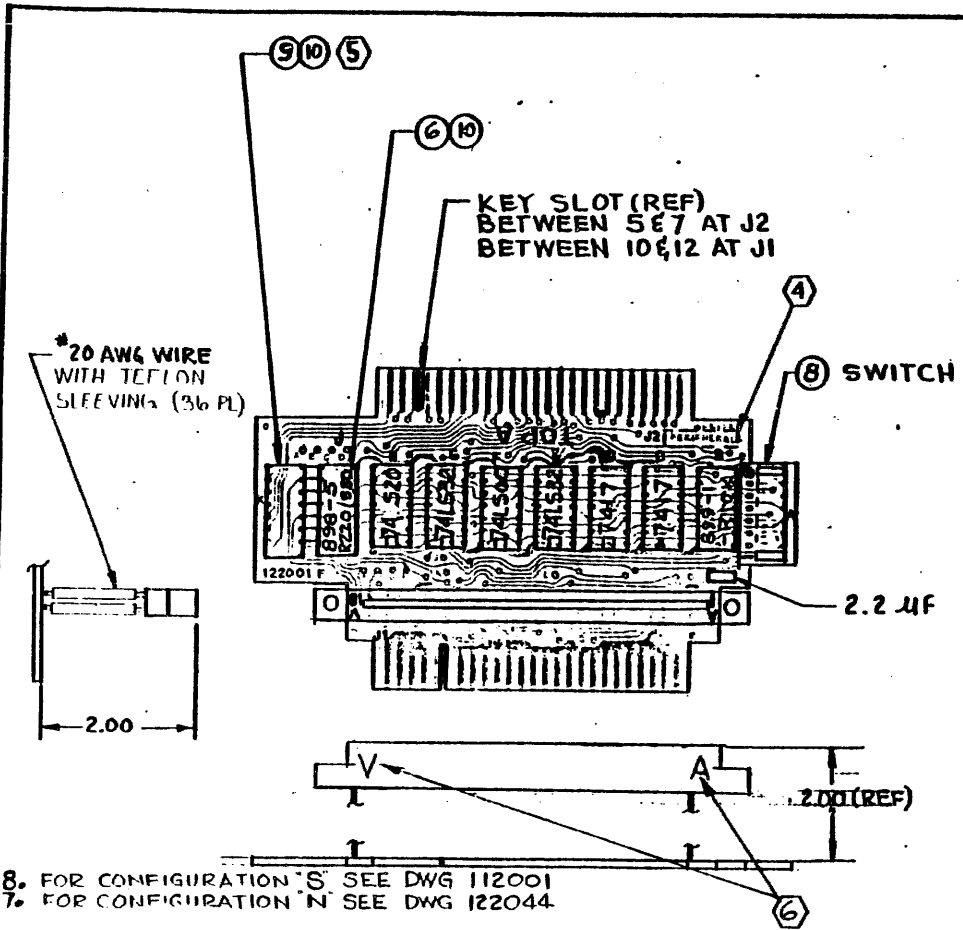
4) RUBBER STAMP ASSY NO. WITH LATEST REV LTR LOCATED APPROX WHERE SHOWN (FAR SIDE)

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

NOTE: UNLESS OTHERWISE SPECIFIED

REV 27 1981

TOLERANCES UNLESS OTHERWISE SPECIFIED		FRACTIONS DEC. ANGLES		western peripherals ANAHEIM, CALIFORNIA	
±	±	±	±		
APPROVALS	DATE	ASSEMBLY ADAPTER TAPE CONTROL CONNECTOR			
DRAWN CORUM	11-8-76	90° MOUNTING			
CHECKED J.D.	12-18-76	SCALE	SIZE	DRAWING NO.	
		FULL	B	122038	
DO NOT SCALE DRAWING				SHEET 1 OF 1	



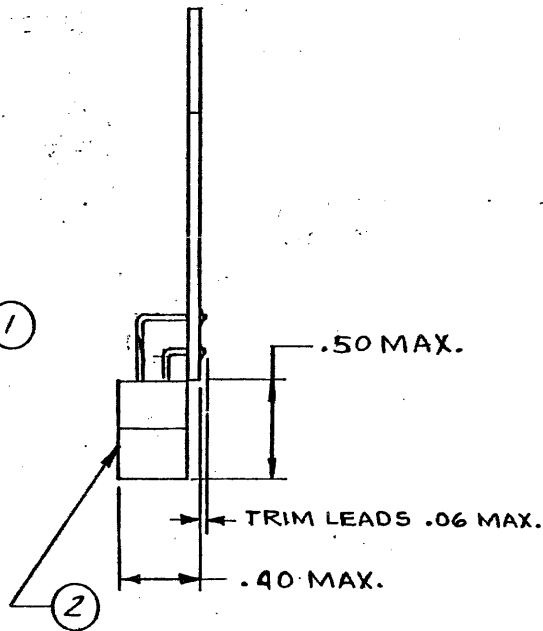
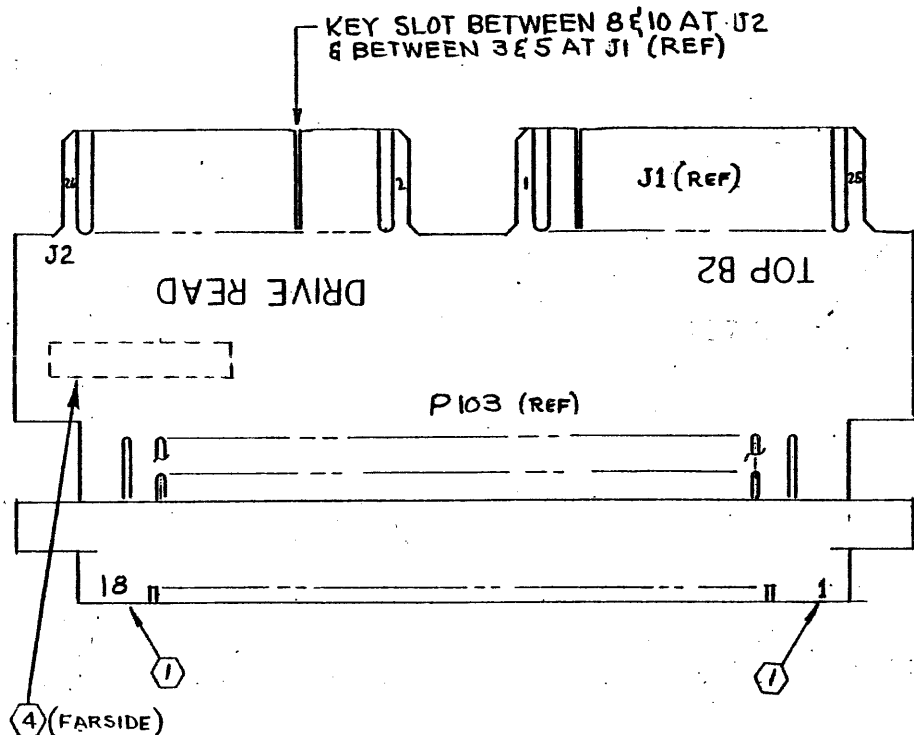
8. FOR CONFIGURATION 'S' SEE DWG 112001
7. FOR CONFIGURATION 'N' SEE DWG 122044

- 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. 3-9-78
	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 PULCHANNAN	H.D. 5-16-78
E	DELETED NOTES 3 & 6 PER ECO# 314	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 7452D		E.C.O. 806	

TOLERANCES UNLESS OTHERWISE SPECIFIED FRACTIONS DEC. ANGLES		 western peripherals ANAHIM, CALIFORNIA	
±	±	±	
APPROVALS	DATE	ASSEMBLY ADAPTER TAPE CONTROL CONNECTOR 2 INCH STANDOFF	
DRAWN CORG AM	11-8-76	SCALE	SIZE
CHECKED V.D.	12-8-76	FULL	B
		DRAWING NO. 122039	
DO NOT SCALE DRAWING			SHEET 1 OF 1

REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED
A	REVISED NOTE 1 PER E.C.O.#355	11/26/79	W.H.P. 2-9-79
B	ADVANCED REV LTR TO AGREE WITH P/L	11/22/79	W.H.P. 2-9-79
C	REVISED PER E.C.O.#417	11/22/79	W.H.P. 2-9-79
D	INC ECO NO. 852	MAR-3-79-81	3/24/81 (K. Lee)

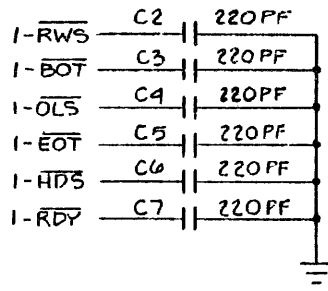
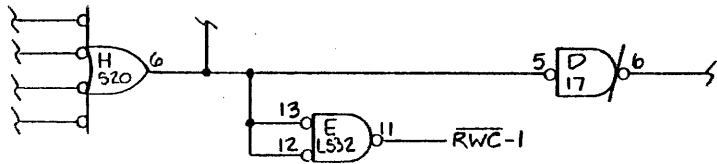


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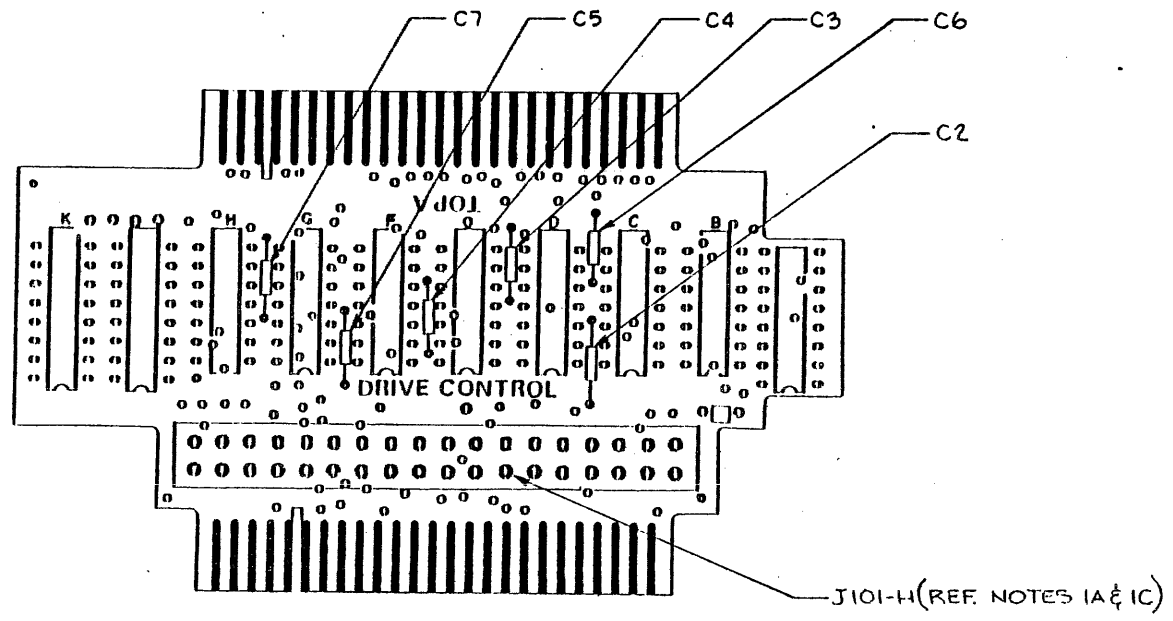
- ④ RUBBER STAMP ASSY. NO. WITH LATEST REV LTR APPROX. WHERE SHOWN.
 - 3. SEE P/L 122043.
 - ②. REF. SCHEMATIC DWG NO. 122022.
 - ① RUBBER STAMP CHARACTERS SHOWN WITH WHITE INK.
- NOTE : UNLESS OTHERWISE SPECIFIED.

TOLERANCES UNLESS OTHERWISE SPECIFIED		western peripherals ANAHEIM, CALIFORNIA	
FRACTIONS DEC.	ANGLES	ASSEMBLY-ADAPTER, TAPE READ, REVERSE IMAGE, 90°	
± ± ±		APPROVALS	DATE
		6/7/77	6/7/77
CHECKED	SCALE	SIZE	DRAWING NO.
W.D.	2X	B	122043
DO NOT SCALE DRAWING			SHEET 1 of 1

CONFIGURATION "N" CONTROL ADAPTER BOARD



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



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. 781	10-15-80	<i>[Signature]</i>
E	CHANGED I.C. LOC'H' PER ECO 806	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 AMERSON	10-16-80	SCALE	SIZE B
CHECKED L. WILSON	10-16-80	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.