MODEL TC-131
TAPE CONTROLLER
LOGIC MANUAL

Publication Number:
P91000489
Rev. B
Rev. Date 03/20/85
Applicable Assembly Number: P60001427
(This page intentionally left blank.)
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":

<table>
<thead>
<tr>
<th>COMPONENT</th>
<th>VALUE</th>
<th>LOCATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>P140000335</td>
<td>270 Resistor</td>
<td>S2-2 to S2-15</td>
</tr>
<tr>
<td>P15000102</td>
<td>82 PF Capacitor</td>
<td>S2-3 to S2-14</td>
</tr>
<tr>
<td>P14000335</td>
<td>270 Resistor</td>
<td>S2-7 to S2-10</td>
</tr>
<tr>
<td>P15000102</td>
<td>82 PF Capacitor</td>
<td>S2-8 to S2-9</td>
</tr>
</tbody>
</table>

E. Lift pins:

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

F. Add Jumpers:

<table>
<thead>
<tr>
<th>FROM</th>
<th>TO</th>
<th>TO</th>
</tr>
</thead>
<tbody>
<tr>
<td>U73-6</td>
<td>S2-2</td>
<td></td>
</tr>
<tr>
<td>U73-8</td>
<td>S2-7</td>
<td></td>
</tr>
<tr>
<td>S2-3</td>
<td>S2-8</td>
<td></td>
</tr>
<tr>
<td>S2-9</td>
<td>S2-10</td>
<td>S1-13</td>
</tr>
<tr>
<td>S2-14</td>
<td>S2-15</td>
<td>S1-1</td>
</tr>
<tr>
<td>S1-2</td>
<td>S1-3</td>
<td></td>
</tr>
<tr>
<td>S1-4</td>
<td>U76-9</td>
<td>U76-10</td>
</tr>
<tr>
<td>S1-12</td>
<td>S1-11</td>
<td></td>
</tr>
<tr>
<td>S1-10</td>
<td>U49-9</td>
<td>U49-10</td>
</tr>
<tr>
<td>S1-7</td>
<td>(S1-8) Pad on P.C.B. GND</td>
<td></td>
</tr>
<tr>
<td>REVISION</td>
<td>DATE</td>
<td>DESCRIPTION</td>
</tr>
<tr>
<td>----------</td>
<td>----------</td>
<td>--------------------------------------------------</td>
</tr>
<tr>
<td>B</td>
<td>03/20/85</td>
<td>BOARD LAYOUT CHANGED PLUS NEW SCHEMATIC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>REMOVED OBSOLETE DRAWINGS</td>
</tr>
</tbody>
</table>
APPENDIX A

STANDARD TAPE DRIVE
CABLES AND ADAPTERS
FUNCTIONAL INDEX

I. RIBBON CABLES AND BACKPLANE CONNECTORS
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   Assembly - Cable, Read 121006
   Assembly - Cable, Write 121014

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      Assembly - Adapter, Tape Control Connector (90° Mount) 122038
      Assembly - Adapter, Tape Control Connector (2-inch Standoff) 122039
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   Modification Drawing, Cipher 900X (Config. "B") 79000642
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<table>
<thead>
<tr>
<th>TITLE</th>
<th>DRAWING NO.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modification Drawing, Tape Control Adapter (Config. &quot;S&quot;)</td>
<td>112001</td>
</tr>
<tr>
<td>Assembly - Cable, Control</td>
<td>121004</td>
</tr>
<tr>
<td>Assembly - Cable, Read</td>
<td>121006</td>
</tr>
<tr>
<td>Assembly - Cable, Write</td>
<td>121014</td>
</tr>
<tr>
<td>Assembly Drawing - Adapter, Tape Read Connector</td>
<td>122005</td>
</tr>
<tr>
<td>Assembly Drawing - Tape Write Connector</td>
<td>122006</td>
</tr>
<tr>
<td>Assembly, Jumper Array, Select Switch Option</td>
<td>122010</td>
</tr>
<tr>
<td>Assembly, Jumper Array, Select Switch Option, Special</td>
<td>122011</td>
</tr>
<tr>
<td>Assembly, Jumper Array, Non-Select Switch Option</td>
<td>122012</td>
</tr>
<tr>
<td>Assembly Drawing - Adapter, Tape Read, Kennedy, Cipher</td>
<td>122013</td>
</tr>
<tr>
<td>Assembly Drawing - Adapter, Tape Write, Kennedy, Cipher</td>
<td>122019</td>
</tr>
<tr>
<td>Schematic - Adapter, Tape Write Connector</td>
<td>122021</td>
</tr>
<tr>
<td>Schematic - Adapter, Tape Read Connector</td>
<td>122022</td>
</tr>
<tr>
<td>Assembly, Adapter, Tape Write, Kennedy 9800</td>
<td>122034</td>
</tr>
<tr>
<td>Assembly, Adapter, Tape Read, Kennedy 9800</td>
<td>122035</td>
</tr>
<tr>
<td>Schematic - Tape Control Adapter</td>
<td>122036</td>
</tr>
<tr>
<td>Assembly - Adapter, Tape Control Connector</td>
<td>122037</td>
</tr>
<tr>
<td>Assembly - Adapter, Tape Control Connector, 90° Mounting</td>
<td>122038</td>
</tr>
<tr>
<td>Assembly - Adapter, Tape Control Connector, 2-inch Standoff</td>
<td>122039</td>
</tr>
<tr>
<td>Assembly - Adapter, Tape Read, Reverse Image, 90°</td>
<td>122043</td>
</tr>
<tr>
<td>Modification Drawing, Tape Control Adapter (Config. &quot;N&quot;)</td>
<td>122044</td>
</tr>
<tr>
<td>Modification Drawing, Cipher 900X (Config. &quot;A&quot;)</td>
<td>79000410</td>
</tr>
<tr>
<td>Modification Drawing, Cipher 900X (Config. &quot;B&quot;)</td>
<td>79000642</td>
</tr>
</tbody>
</table>

Notes
PURPOSE:

This modification required for control of Quantex TAPE DRIVES.

SHEET 2 OF SCHEMATIC 122039 IS ALTERED AS OUTLINED BELOW.

STANDARD

1. C
2. C

TRDY-3

CONFIGURATION "S"

1. C
2. C

TRDY-3

REWORK INSTRUCTIONS:

FOR ASSY 122037, 122038, 122039

A) CUT ETCH 2 PINCS 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 S" USING BLACK INK.

OCT 2 1980
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 GUAGE 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

REVISIONS

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>DATE</th>
<th>APPROVED</th>
</tr>
</thead>
<tbody>
<tr>
<td>A ADDED-3 PER CO # 0047</td>
<td>1-11-74</td>
<td>D</td>
</tr>
<tr>
<td>B REVISED PER CO # 0049</td>
<td>2-23-74</td>
<td>D</td>
</tr>
<tr>
<td>C REVISED PER ECON # 297</td>
<td>2-23-78</td>
<td>Y, v, 9-76</td>
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PART NUMBER DETAIL

121004-XX-X

BASIC PART NUMBER
DASH NUMBER IN FEET (REF DIM X)
(-0 FT FOR 7 FT, -10 FOR 10 FT, ETC.)

LATEST REVISION LETTER

ASSEMBLY-CABLE, CONTROL

FACTORIES DEC. ANGLES
X
X
X

APPROVALS

<table>
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<tr>
<th>APPROVALS</th>
<th>DATE</th>
</tr>
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<tbody>
<tr>
<td>THESE</td>
<td>7-1-74</td>
</tr>
<tr>
<td>THESE</td>
<td>7-1-74</td>
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SCALE 1:50

DRAWING NO. B 121004

DO NOT SCALE DRAWING SHEET
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 GUAGE 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 ASY
   REMOVE BY LIFTING ON CONNECTOR

FOR PARTS SEE PARTS LIST 121006

ASSEMBLY
CABLE, READ

BASIC PART NUMBER
121006-XX-XX

DASH NUMBER IN FEET (REF. DIM. A) (-07 FOR 7 FT, -10 FOR 10 FT, ETC.)
LATEST REVISION LETTER

WESTERN PERIPHERALS
MONTEAL, CALIFORNIA

TOILENCE UNLESS OTHERWISE SPECIFIED
FRACTIONS DEG. ANGLES

APPROVALS

DRAWING

DO NOT SCALE DRAWING

SHEET
NOTE 6:

(1) MARK CHARACTERS SHOWN USING CONTRASTING COLOR INK.

SEAL PART NUMBER DETAIL FOR MARKING OF VARIABLE CHARACTERS ($x$).

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.
- SEAL 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.

REVISIONS

<table>
<thead>
<tr>
<th>LTR</th>
<th>DESCRIPTION</th>
<th>DATE</th>
<th>APPROVED</th>
</tr>
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<tbody>
<tr>
<td>A</td>
<td>ADDED -3 PER CO 00467</td>
<td>4/4/78</td>
<td>Y J.J.</td>
</tr>
<tr>
<td>B</td>
<td>REVISED PER CO # 00465</td>
<td>1/1/78</td>
<td>Y B.</td>
</tr>
<tr>
<td>C</td>
<td>REVISED PER ECO # 297</td>
<td>2/25/78</td>
<td>Y D.</td>
</tr>
</tbody>
</table>

PART NUMBER DETAIL

121014 - $xx$ - X

BASIC PART NUMBER
DASH NUMBER IN FEET (REF. DIM. $X$)
(-07 FOR 1 FT, -10 FOR 10 FT, ETC)

LATEST REVISION LETTER

FOR PARTS SEE PARTS LIST 121014

ASSEMBLY - CABLE, WRITE

TOLERANCES UNLESS OTHERWISE SPECIFIED

FRACTIONS DEC. ANGLES

APPROVALS

CHECKED: B 12/14

SHEET

NONE

SIZE DRAWING NO.

B 121014

DO NOT SCALE DRAWING
NOTE:
1. REF SCHEMATIC DWG NO. 122022.
2. REFER STAMP ASS'T NO. WITH LATEST REV LTD.
3. FOR MATL SEE PL 122005.
4. MARK CHARACTERS SHOWN (18 & 1B) ON SIDE OF CONNECTOR USING CONTRASTING INK.
NOTE:

1. REF SCHEMATIC DWG. NO. 122021.
2. MARK CHARACTERS SHOWN (a,e,v) ON SIDE OF CONNECTOR USING CONTRASTING INK.
3. FOR MATL. SEE P/N 122006.
4. MARK CHARACTERS SHOWN (A,E,V) ON SIDE OF CONNECTOR USING CONTRASTING INK.
NOTE: UNLESS OTHERWISE SPECIFIED

1) AFFIX ADHESIVE LABEL WITH PART NO. 6 LATEST
REV LTR WHERE SHOWN

WIRE LIST

<table>
<thead>
<tr>
<th>WIRE NO.</th>
<th>FROM PIN NO.</th>
<th>TO PIN NO.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>15</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>14</td>
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<tr>
<td>4</td>
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<td>13</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
<td>12</td>
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<tr>
<td>6</td>
<td>6</td>
<td>11</td>
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<tr>
<td>7</td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td>8</td>
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</table>

BILL OF MATERIALS

<table>
<thead>
<tr>
<th>ITEM</th>
<th>NO. REGD</th>
<th>PART NO.</th>
<th>DESCRIPTION</th>
<th>REMARKS</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>CA-16P-12</td>
<td>DIP PLUG, 16 PIN</td>
<td>CIRCUIT ASSY OR R.GUARD</td>
</tr>
<tr>
<td>2</td>
<td>A/R</td>
<td></td>
<td>WIRE, INSULATED, 30 AWG SOLID</td>
<td>WIRE WRAP WIRE</td>
</tr>
</tbody>
</table>

ASSY, JUMPER ARRAY, SELECT SWITCH OPTION

DO NOT SCALE DRAWING  SHEET 1 OF 1
NOTE: UNLESS OTHERWISE SPECIFIED
1 AFFIX ADHESIVE LABEL WITH PART NO. & LATEST REV LTR WHERE SHOWN.

WIRE LIST

<table>
<thead>
<tr>
<th>WIRE NO.</th>
<th>FROM PIN NO.</th>
<th>TO PIN NO.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>2</td>
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<td>9</td>
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<td>3</td>
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<td>11</td>
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<td>16</td>
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<td>8</td>
<td>8</td>
<td>15</td>
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BILL OF MATERIALS

<table>
<thead>
<tr>
<th>ITEM</th>
<th>NO. REQD</th>
<th>PART NO.</th>
<th>DESCRIPTION</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>CA-16P-12</td>
<td>DIP PLUG, 16-PIN</td>
<td>CIRCUIT ASSY OR EQUIV</td>
</tr>
<tr>
<td>2</td>
<td>A/R</td>
<td></td>
<td>WIRE, INSULATED, 30 MG SOLID</td>
<td>WIRE WRAP WIRE</td>
</tr>
</tbody>
</table>
NOTE: UNLESS OTHERWISE SPECIFIED
(1) AFFIX ADHESIVE LABEL WITH PART NO.
& LATEST REV LTR WHERE SHOWN
NOTE: UNLESS OTHERWISE SPECIFIED
1. REF SCHEMATIC DWG NO. 122022
2.
3. FOR MATERIAL SEE PL 122018
4. RUBBER STAMP ASSEMBLY NO. WITH LATEST REV.
   LTR APPROX WHERE SHOWN USING BLK. INK.
5. MARK CHARACTERS SHOWN (A&S) ON SIDE OF
   CONNECTOR USING CONTRASTING INK.
NOTE: UNLESS OTHERWISE SPECIFIED
1. REF SCHEMATIC DWG NO. 122021
2. FOR MATERIAL SEE PL 122019
4 RUBBER STAMP ASSEMBLY NO. WITH LATEST REV LTR APPROX WHERE SHOWN
5 MARK CHARACTERS (14B) ON SIDE OF CONNECTOR USING CONTRASTING INK.
FOR TERMINATOR RESISTOR NETWORK
BECKMAN N° 898-5-R220/330 OR EQUIV

KEY SLOT BETWEEN 5 & 7 AT J2 & 10 & 12 AT J1 (REF)

16 PIN DIP SOCKET

DRIVE WRITE

TOP

MARK 50 MAX.

TRIM LEADS .06 MAX.

40 MAX.

4. RUBBER STAMP CHARACTER SHOWN USING WHITE INK.
3. FOR MATERIAL LIST SEE P/L 122034.
2. RUBBER STAMP ASSY NO. 8 LATEST REV. LTR APPROX WHERE SHOWN USING RED INK.
1. REF. SCHEMATIC Dwg. N° 122021.
NOTE: UNLESS OTHERWISE SPECIFIED.
<table>
<thead>
<tr>
<th>SWITCH A</th>
<th>SWITCH SETTINGS</th>
<th>SYSTEM CONSIDERATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ON</td>
<td>FOR DRIVES THAT REQUIRE REWIND COMMAND REMOVAL PRIOR TO BOT</td>
<td>1. REMOVE ALL INTERFACE TERMINATORS FROM TRANSPORT (S)</td>
</tr>
<tr>
<td>OFF</td>
<td>FOR DRIVES THAT DO NOT REQUIRE REWIND COMMAND REMOVAL PRIOR TO BOT</td>
<td>2. INSTALL CONTROL TERMINATOR ONLY IN LAST DAISY CHAIN POSITION</td>
</tr>
<tr>
<td>ON</td>
<td>FOR DRIVES THAT STORE EOT STATUS NOTE: A5 SHOULD BE OFF</td>
<td>3. CORRECTLY IDENTIFY CONFIGURATION AND SET SWITCHES ACCORDINGLY</td>
</tr>
<tr>
<td>OFF</td>
<td>FOR DRIVES THAT DO NOT STORE EOT STATUS NOTE: A5 SHOULD BE ON</td>
<td></td>
</tr>
<tr>
<td>ON</td>
<td>FOR 7 TRACK DRIVES</td>
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</tr>
<tr>
<td>OFF</td>
<td>FOR 9 TRACK DRIVES</td>
<td></td>
</tr>
<tr>
<td>ON</td>
<td>FOR 7 TRACK 556/800 BPI DENSITY SELECTIONS OR 9 TRACK SECONDARY SPEED (SELECTION B)</td>
<td></td>
</tr>
<tr>
<td>OFF</td>
<td>FOR 7 TRACK 200/556 BPI DENSITY SELECTIONS OR 9 TRACK PRIMARY SPEED (SELECTION A)</td>
<td></td>
</tr>
<tr>
<td>ON</td>
<td>FOR DRIVES THAT DO NOT STORE EOT STATUS NOTE: A2 SHOULD BE OFF</td>
<td></td>
</tr>
<tr>
<td>OFF</td>
<td>FOR DRIVES THAT STORE EOT STATUS NOTE: A2 SHOULD BE ON</td>
<td></td>
</tr>
<tr>
<td>ON</td>
<td>FOR 9 TRACK NR21 ONLY DRIVE</td>
<td></td>
</tr>
<tr>
<td>OFF</td>
<td>FOR 7 TRACK DRIVES, 9 TRACK 1600 BPI DRIVES, OR 9 TRACK 800/1600 DUAL DENSITY</td>
<td></td>
</tr>
<tr>
<td>ON</td>
<td>FOR DUAL DENSITY 9 TRACK DRIVES THAT DO NOT PRESENT NR21 STATUS ON DRIVE READ CONNECTOR</td>
<td></td>
</tr>
<tr>
<td>OFF</td>
<td>FOR DUAL DENSITY 9 TRACK DRIVES THAT DO PRESENT NR21 STATUS ON DRIVE READ CONNECTOR</td>
<td></td>
</tr>
<tr>
<td>ON</td>
<td>FOR 7 TRACK DRIVES</td>
<td></td>
</tr>
<tr>
<td>OFF</td>
<td>FOR 9 TRACK DRIVES</td>
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</tr>
</tbody>
</table>

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).
4. 122011 INSTALLED IN 4-POSITION TRANSPORT IF MORE THAN 4 TRANSPORTS ARE DAISY CHAINED.
5. 122012 INSTALLED WHEN TRANSPORT DOES NOT HAVE UNIT SELECT SWITCH.
6. FOR PER EXE, COMPATIBLE UNIT SELECT OPTION: JUMPER E TO F, G TO H, AND M TO N.
7. 122013 INSTALLED.
8. FOR EXTERMINALLY CONNECTED UNIT SELECT SWITCH: CUT ETCH BETWEEN PER AND CONNECT EXTERNAL SWITCH TO ABCD.
9. 122014 INSTALLED.
10. 122015 INSTALLED.
11. FOR CONFIGURATION "N" SEE DWG. 122044.
12. 122016 INSTALLED.
13. 122017 INSTALLED.
14. 122018 INSTALLED.
15. 122019 INSTALLED.
16. 122020 INSTALLED.
17. 122021 INSTALLED.
18. 122022 INSTALLED.
19. 122023 INSTALLED.
20. 122024 INSTALLED.
21. 122025 INSTALLED.
22. 122026 INSTALLED.
23. 122027 INSTALLED.
24. 122028 INSTALLED.
25. 122029 INSTALLED.
26. 122030 INSTALLED.
27. 122031 INSTALLED.
28. 122032 INSTALLED.
29. 122033 INSTALLED.
30. 122034 INSTALLED.
31. 122035 INSTALLED.
32. 122036 INSTALLED.
**NOTES:** UNLESS OTHERWISE SPECIFIED
1. J1 & J2 HAVE ALL EVEN NUMBERED GROUND PINS.
2. J10 GROUND Pins ARE 2, 14, 16 & 17.
3. ALL RESISTORS ARE 10K OHMS.

**SCHEMATIC—TAPE CONTROL ADAPTER**
1. For configuration 'S' see DWG. 112001
2. For configuration 'N' see DWG 122044
3. For configuration 'L' see DWG. 150047

- Characters shown (A/E) on side of connector using contrasting ink.
- For optional jumpering and/or jumper arrays, refer J.O.A. & schematic.
- Rubber stamp Assy no. with latest rev ltr and dash no. (if reqd) approx where shown (far side)
- For material see p/l no. 122037
- Ref schematic 122036

Note: Unless otherwise specified

---

**BASIC ASSY SHOWN**

For -1 ASSY see sh no. 2

---

**ASSEMBLY - ADAPTER TAPE CONTROL CONNECTOR**

Western Peripherals

Assembly, California

- Approvals
- Date

---

Reference: Schematic 122036

---

Dale: 01-21-78

Design: 01-18-77

Drawing: 01-18-77

---

[Diagram with various parts and markings: 805, 8D, 4, 8 Switch, 6 Key Slot (Ref) between 5 & 7 at J2, between 10 & 12 at J1, 0.22 mF, V, A, 1C "H" 5/12 74520 ECO 806]
**120037-1 Wiring Diagram**

**Item No. 14**
- 9 Pin Molex Plug, Ref)

![Diagram](image)

**Note:**
- The ASSY is used on Peratec T9000 Series with optional unit select thumbwheel switch terminated in molex connector. Component requirements & markings are the same as for basic ASSY

**Wire to pads as shown (see fig. 4-5)**
- Items 18 thru 22

**Cut etch between P & R pads**

**ASSY Shown**
- For basic ASSY see SH No. 1
8. For configuration 'C' see DWG. 112001
7. For configuration 'N' see DWG. 122044

6. 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 pl no. 122038
1. Ref schematic 122036

Note: Unless otherwise specified

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ASSEMBLY- ADAPTER TAPE CONTROL CONNECTOR
90° MOUNTING

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FULL

B 122038

Do not scale drawing
4. MARK CHARACTERS SHOWN (A & V) ON SIDE OF CONNECTOR USING CONTRASTING INK.

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

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

2. FOR MATERIAL SEE P/L NO. 122039
1. REF SCHEMATIC 122036

NOTE: UNLESS OTHERWISE SPECIFIED

6. I.C. "H" S/B 74520 ECO 80B
KEY SLOT BETWEEN 8 to 10 AT J2 & BETWEEN 3 & 5 AT J1 (REF)

DRIVE READ

P103 (REF)

4.(FAR SIDE)

1

TRIM LEADS .06 MAX.

.50 MAX.

.40 MAX.

NOTE: UNLESS OTHERWISE SPECIFIED.

1. RUBBER STAMP CHARACTERS SHOWN WITH WHITE INK.
2. REF. SCHEMATIC DMG NO. 122022.
3. SEE P/L 122043.
4. RUBBER STAMP ASSY. NO. WITH LATEST KEV LTR APPROX. WHERE SHOWN.

REVISIONS

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ASSEMBLY-ADAPTER, TAPE READ, REVERSE IMAGE, 90°
MODIFICATION DWG-
TAPE CONTROL ADAPTER
CONFIGURATION "N"

REWORK INSTRUCTIONS:
(REF ASSY'S 122037, 122038
& 122059)

1) MODIFY CIRCUIT
   A. CUT ETCH (SOLDER SIDE) AT J101-H
   B. JUMPER P5 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 (WP1500X155)

5) VERIFY PROPER CAPACITOR INSTALLATION BY
   PERFORMING CONTINUITY CHECK PER THE
   CAPACITOR INSTALLATION CHART

6) REF SCHEMATIC (122056)

7) APPLICABLE TO "D" (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

MODIFICATION Dwg-
TAPE CONTROL ADAPTER
Configuration "N"

APPROVALS

1122044
DO NOT SCALE DRAWING

GBCRF

DO NOT SCALE DRAWING

SHEET 1 OF 1
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

MODIFICATION DRAWING - CIPHER 900 X; CONFIGURATION "A"

western peripherals™
TUSTIN, CALIFORNIA
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.

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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.
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.