DIGITAL	FCO	CATEGORY [F]	PAGE 1 OF 7

FIELD CHANGE ORDER	NUMBER: TU81E-F001

APPLICABILITY: The FCO applies to TU81+ tape drives that experience position lost or serious exception errors caused by a failure to write or retry written tape marks while performing backup operations.

PROBLEM & SYMPTOM: When performing a backup operation the customer can experience intermittent position lost errors or serious exception erors. Position lost errors can be determined in errorlog by status event code 11, serious exception errors can be identified by a status event code 12. A failure to write or retry a tape mark will be identified in the errorlog extended sense data information as a write tape mark check error, byte 9 of the extended sense data will indicate a 08 status.

SOLUTION: Replace the Buffer TMSCP module (29-25797-00) below Revision D01 with Revision E01.

QUICK CHECK: 29-25797-00 Rev. D01 and below do not feature the microcode changes.

PRE/CO-REQUISITE FCO: None	MTTI HRS .5 Hrs.

TOOL/TEST EQUIPMENT: N/A

FCO PARTS INFORMATION

FCO KIT NO.	DESCRIPTION OF CONTENTS	EQ KIT VARIATION APPLICABILITY
EQ-01625-02	1 29-25797-00 TMSCP Module	
FA-04959-02	1 FCO Document	

FCO CHARGING INFORMATION

WARRANTY/CONTRACT				NONWARRANTY/NONCONTRACT				
ON-SITE		OFF-SITE		ON-SITE		OFF-SITE		MATERIAL ONLY
TRAVEL/ INSTALL	EQ KIT	INSTALL	EQ KIT	TRAVEL/ INSTALL	EQ KIT	INSTALL	EQ KIT	ORDER-ADMIN,HANDLING PKG,SHIPPING & EQ KIT
DEC	DEC	DEC	DEC	CUS	CUS	CUS	CUS	CUS

APPROVALS

CSSE	CSL LOGISTICS	CS PRODUCT SAFETY

Eric Wilbon	Joe Michalski	Robert Brister
_____	_____	_____
CSSE MANAGER	This document is published	FCO RELEASE DATE
Rick Leslie	on multiple media including	30 October 1991
_____	hardcopy, Customer Services	_____
MICROMEDIA	Microfiche Libraries,	FCO REVISION
Diane MacDonald	Customer Services CD-ROM and	A
_____	MDS Microfiche Libraries.	_____
POPULATION		PARTS AVAILABILITY
700		October, 1991
_____	_____	_____

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INSTALLATION AND TEST PROCEDURE FOR FCO TU81E-F001

Installation Procedure:

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    ***********************************************************************
    *                        C A U T I O N                               *
    *  Please use antistatic wrist strap while working on equipment.     *
    *  Before proceeding, make sure the voltage to the TU81E tape        *
    *  drive transport deck is off.  Set the power switch to the         *
    *  off position (0) located on the back right hand corner of the     *
    *  tape deck.  (Reminder: The 874 power controller located at        *
    *  the bottom rear of the transport cabinet will still               *
    *  supply voltage to the cooling fan and pneumatic pump).            *
    *                                                                    *
    ***********************************************************************
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   Tools Required:

    Phillips screwdriver, flat blade screwdriver, 5/32 inch allen wrench

    1. The major tape drive components are located on the underside of
       the tape deck. The tape deck must be placed in the maintenance
       position. Before proceeding insure that all shipping brackets are
       removed. The shipping and safety brackets on the logic cage must be
       removed and the retaining latch released from the shipping position.
       (See Figure 1)

    2. Open the top cover, and use a 5/32 inch allen wrench to open the
       front door.

    3. Using a flat blade screwdriver rotate the pawl fastener located on

the front left corner of the tape deck one quarter turn
counterclockwise to release the deck. Rotate the fastener around six
more turns counterclockwise to disengage the pawl fully.
(See Figure 1)

4. While pressing down on the front of the tape deck, pull the
   spring loaded tape deck latch out. With the latch extended
   pull the tape deck upward and allow the front of the tape deck
   to rise. Release the tape deck latch and manually tilt the
   front of the tape deck up until the latch engages and the
   tape deck is lifted in the vertical (maintenance position).

   Caution Be careful not to snag or chafe the control panel
   cable or any other cables when positioning the tape deck in the
   maintenance position.

5. Loosen the mounting screws and remove the lower shipping bracket
   from the logic cage if necessary. Using a flat blade
   screwdriver pull the retaining latch from the shipping position to
   the operating (middle) position. On the top of the logic cage,
   release the mounting nut and remove the holding safety brackets.
   (See Figure 2)

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6. Loosen the top and bottom logic cage lockscrews and slide the cage
   out until the upper and lower guards engage. Loosen the upper and
   lower thumbscrews located on the right hand side of the TMSCP
   interface module (29-25797-00) attached to the formatter write module.
   (See Figure 3)

7. Remove the top and bottom small phillips head screws from the small
   plastic board clip brackets used to secure the TMSCP interface module
   to the formatter write module. Swing out the module and remove the
   I/O cable W18(J2), and connectors W17P1(J4), W15P1(J5), W11P(A1) and
   power connector W7P9. The module can then be removed from the logic
   cage. (Reminder: Before installing EQKIT# EQ-01625-02 make sure
   the baud rate jumpers are in the same positions as the replaced
   module). (See Figure 4)

8. Begin to install EQ-KIT# EQ-01625-02 (Remember to verify the
   baud rate jumpers are in the same position as the module being
   replaced).

9. Begin by re-installing the cable connectors as follows
   W7P9 TO (J1), W18 TO (J2), W11P TO (A1), W17P1 TO (J4), W151 TO (J5)

10. Install the TMSCP module between the upper and lower plastic board
    clip brackets, re-install the two small phillips head screws that

secure the TMSCP module to the formatter write board.

11. Tighten the upper and lower thumbscrews to secure the interface
    module to the formatter write module.

12. Release the upper and lower guards and slide the logic cage into the
    frame. Tighten the top and bottom cage lockscrews.

13. Return the tape deck to the operating position by pulling the tape
    deck latch out and manually place the deck in the horizontal position
    until the latch engages. Secure the tape deck by turning the pawl
    fasteners clockwise.

14. To verify the EQ kit is installed correctly apply power to
    the tape drive. Set the power switch to the on position (1) located
    on the back right hand corner of the tape deck. The tape drive will
    execute the power on self test. A successful completion of the
    self test will display normal operating conditions and show the
    unit number in the three-digit display. If the test is unsuccessful
    start performing standard TU81 trouble shooting procedures.

        NOTE: Internal diagnostic test 01 is not required to verify the
                installation of this EQ_KIT. Test 01 is a optional test
                that can be ran to check basic tape drive functions. The
                test take about 10 minutes to run. Test 01 was not included
                in the installation time of this FCO. If you decide to
                run optional test 01 use a known good quality scratch tape
                for this test.

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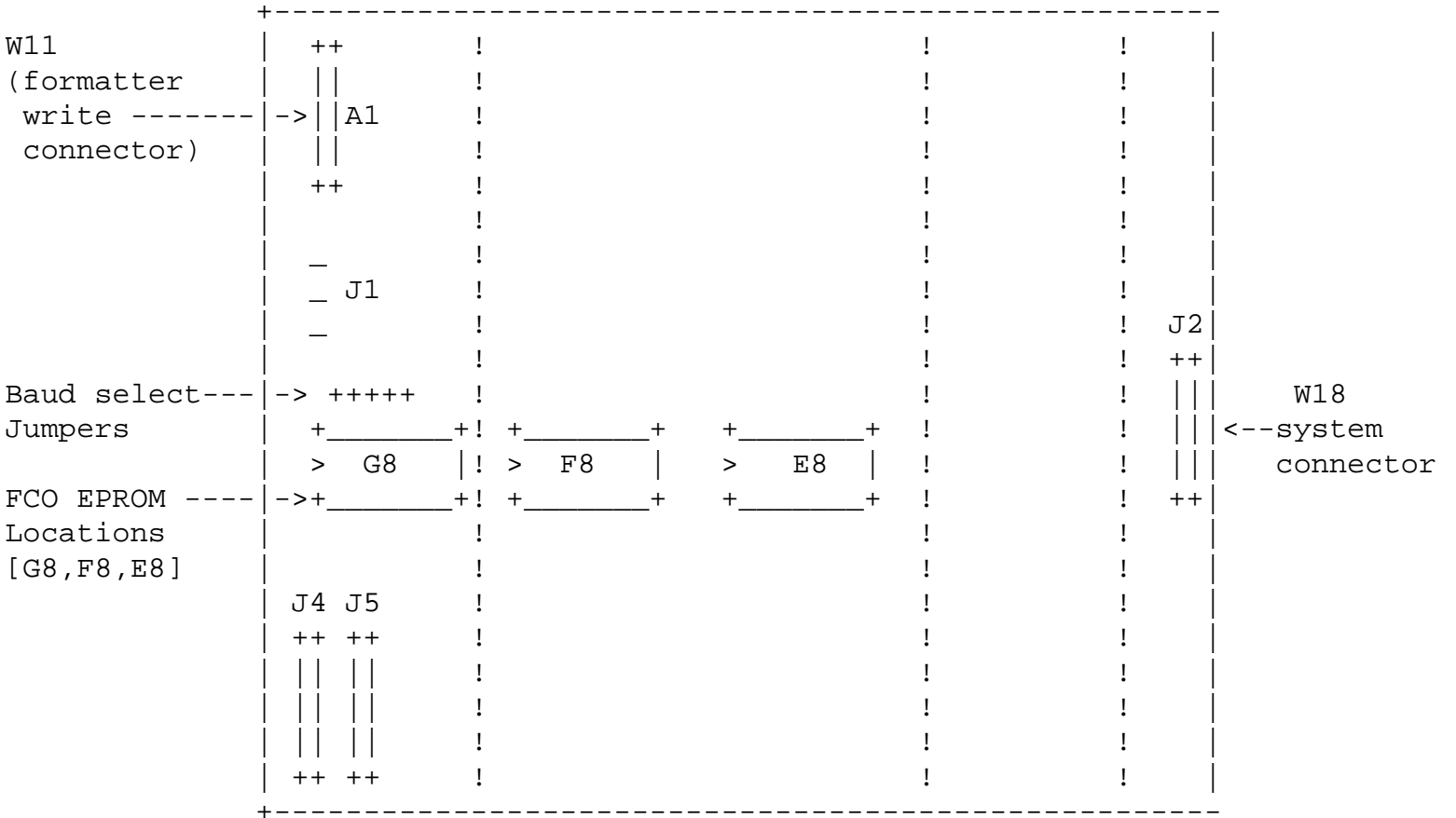
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                                 FIGURE 4

                 +----------------------------------------------------
W11              |   ++              !                 !          !    |
(formatter       |   ||              !                 !          !    |
 write  --------->||A1            !                 !          !    |
 connector)      |   ||              !                 !          !    |
                 |   ++              !                 !          !    |
                 |                   !                 !          !    |
                 |   _               !                 !          !    |
                 |   _  J1           !                 !          !    |
                 |   _               !                 !        J2|    |
                 |                   !                 !        ++|    |
Baud select---|-> +++++    !                 !        |||    W18
Jumpers          |   +_____+! +_____+    +_____+  !        |||<--system
                 |   >   G8   |! >   F8   |    >    E8  |  !        |||  connector
FCO EPROM ----|->+_____+! +_____+    +_____+  !        ++|
Locations        |                   !                 !          !    |
[G8,F8,E8]       |                   !                 !          !    |
                 |   J4 J5           !                 !          !    |
                 |   ++ ++           !                 !          !    |
                 |   || ||           !                 !          !    |
                 |   || ||           !                 !          !    |
                 |   || ||           !                 !          !    |
                 |   ++ ++           !                 !          !    |
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  CHANGE

EPROM 77031478 to 77031479 location G8
EPROM 77031458 to 77031459 Location F8
EPROM 77031468 to 77031469 Location E8
\\TU81E
\^ TU81
\\FCO_DOCS
\\1991
\\OCT
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