Signal Processor 2
Terminal Interface Equipment

1. General

1.001 This addendum supplements TOP 234-151-032, Issue 4.

1.002 This addendum is being issued to incorporate field comments.

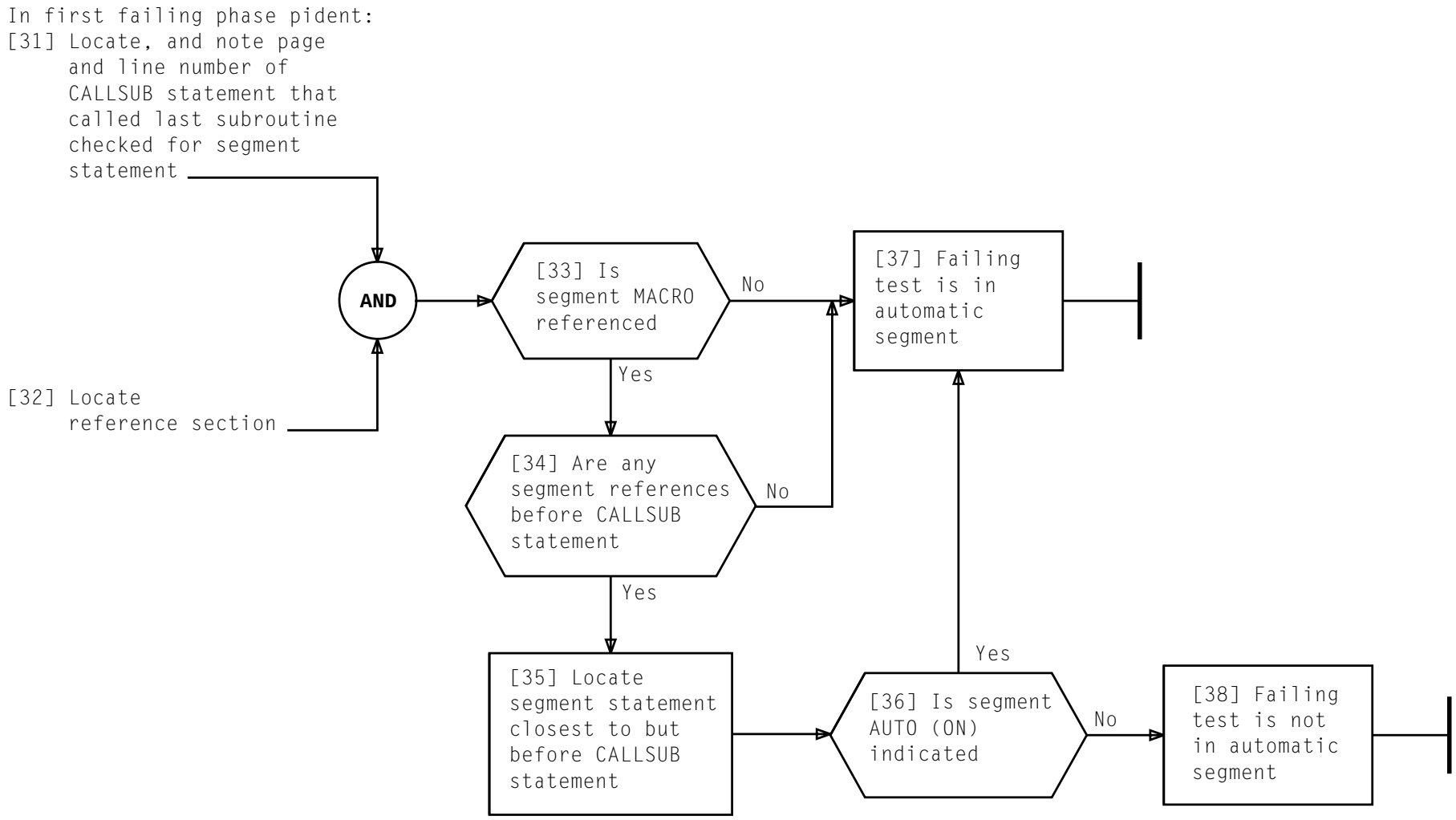
2. Attachments

2.001 Place the pink sheet in front of the practice. Insert the attached pages in place of the corresponding numbered pages or file added pages as follows:

- DLP-510, Page 4 (Reissued) and DLP-511, Page 1 (Reissued)
- DLP-512, Page 1 (Revised) and DLP-512, Page 2 (Revised)
- DLP-512, Page 3 (Revised) and DLP-512, Page 4 (Revised)
- DLP-524, Page 1 (Reissued) and DLP-524, Page 2 (Revised)
- DLP-524, Page 3 (Revised) and DLP-525, Page 1 (Reissued)

3. Developed by:

The Lucent Technologies Network Systems Information Services *4ESS*™ Switch Organization.



DETERMINE IF FAILING TEST IS IN AUTOMATIC SEGMENT

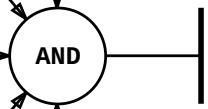
[1] Locate segment statement that determined failing test
was not in automatic segment

[2] Note segment statement index word address for later
use (loop start address)

[3] Locate first segment statement after first failing
test

[4] Note index word address of DIAL statement that follows
segment statement located in Step 3 (loop end address)

[5] Type **EX:SP** a**;RPT 2:PH** b**,ADR** c-d!
a = failing SP member number
b = first failing phase
c = loop start address [Step 2]
d = loop end address [Step 4]



SET UP LOOP OVER FIRST FAILING TEST WHEN TEST IS IN FORCE SEGMENT

[1] See CAUTION 1. Identify matrix point types associated with matrix pack by typing
VER:SPMTXPK:SP a,EQPTLOC bcc-dd!
a = member number
b = bay number
cc = level
dd = horizontal position

[2] Repeat for each circuit pack associated with fault circuit pack or blown fuse

[3] See Figure 1. Determine MSNs or MDNs associated with matrix pack, using SP member number, bay, row and column

[4] See TABLE A. Determine required action for each unit type (UTMN) associated with miscellaneous point

AND

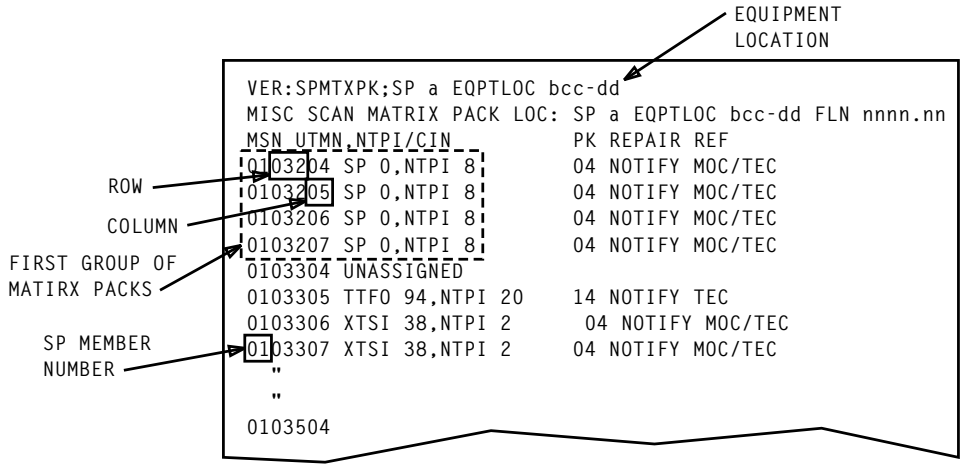


FIGURE 1 - Typical VER:SPMTXPK **Message**

CAUTION 1
Take extreme care to ensure that these procedures are used. Restoral of a bad controller with the matrix pested can affect all matrix points depending on fault location

REMOVE SP MATRIX POINTS FROM SERVICE

TABLE A	
UNIT TYPE	**REQUIRED ACTION**
Alarm grid (miscellaneous A and B frame)	1. Miscellaneous SD points (MDN) associated with GRID unit type in miscellaneous A or B frame — MOC and TEC work centers should be notified. They should retire any existing alarms, remove any alarm transfers or grouping between maintenance centers, and remove any foreign alarm transfers which exist. These can be reestablished when SP repair work is completed. 2. Miscellaneous scan points associated with GRID unit type in miscellaneous A or B frame — Office alarm system will not work to full capacity when the scan pack is removed. The MOC (and TECs) should be notified that GRID is disabled during repair activity. Effects could be loss of grid report messages (but retention of frame alarm messages when provided), inability to retire alarms via alarm retire keys (but OK via TTY), and loss of alarm messages from a foreign alarm system. Audible and visual indicators will still be present. Remove any transfer grouping or foreign alarm for each point involved At TTY, for transfers type: **STOP:CFR;ALMGRP[MC** a]! (a = maintenance center) At TTY, type for stopping alarm routing: **STOP:RTE;ALM [MC** a]! (a = maintenance center)
Ring and tone	Miscellaneous scan and SD points associated with the ringing and tone plant — MOC and TEC work centers should be notified giving them unit type and member number information. When pack replacement is complete, audit 20 should be requested (**AUD: NUM**). Obtain unit status and retain for restoral. At TTY, type **OP:TONESTAT!**
51-A test position	Miscellaneous scan and SD points associated with 51A test positions (TPOS) — Loss of scan or SD points at the test position will disable some of the testing capabilities. Notify TOC to suspend testing and place the position in the **"position unattended"** state to prevent incoming 101 calls at the positions involved until the SP repair work is complete. Request TOC to suspend tests and verify MTC DSA and TRAF (OOSI). At TTY, for each trunk involved, type **OP:TRKSTAT, CIN** e! (e = Trunk identity)
DOCT or NMDR power	Miscellaneous scan points associated with power for DOCT and NMDR units — MOC, MAC, and NMC work centers should be notified that acknowledgment failures on DOC transmitters may be caused by SP repair activity. These work centers should evaluate the need for manual action while SP repair activity is in progress

REMOVE SP MATRIX POINTS FROM SERVICE

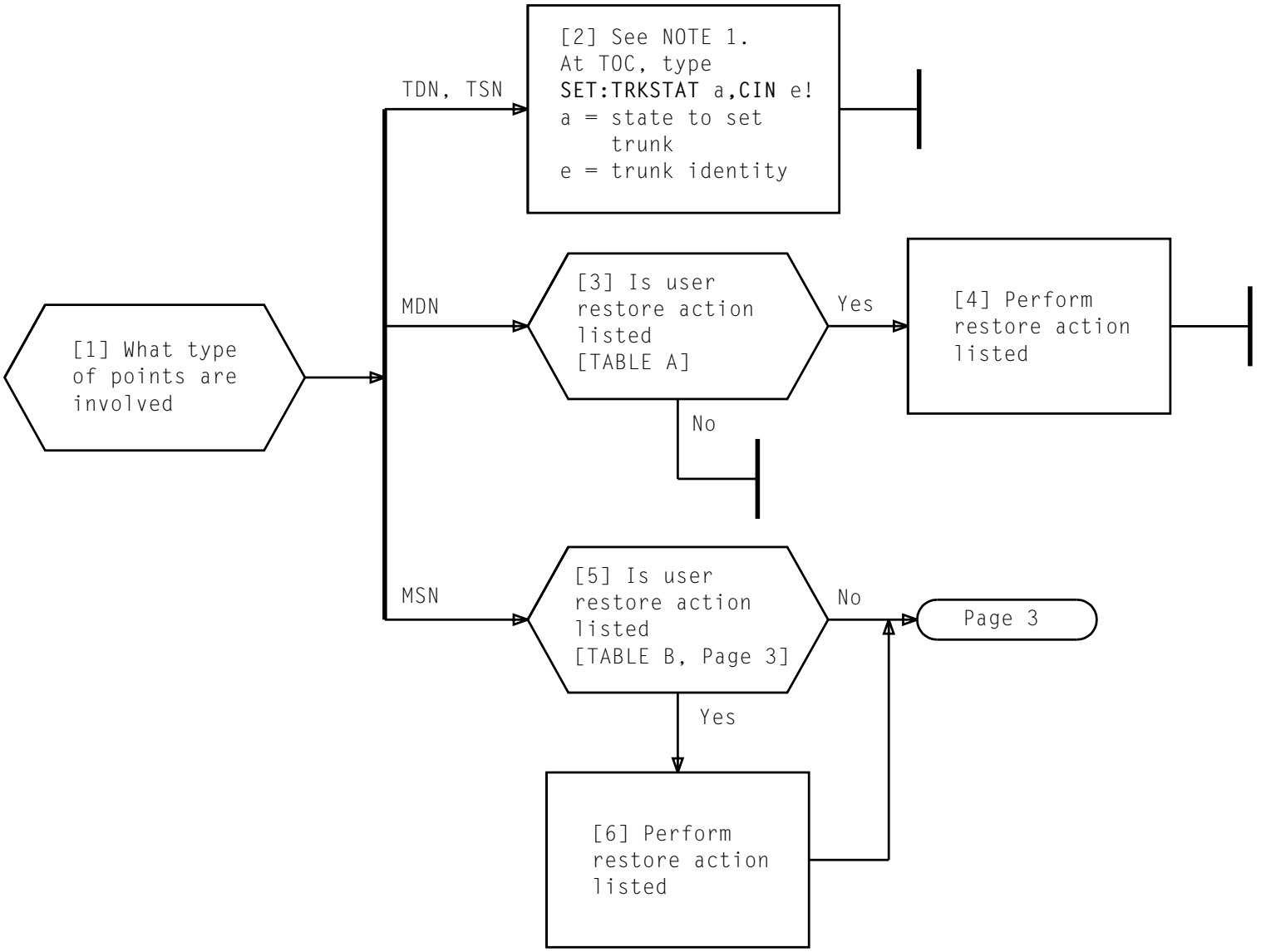
TABLE A (Contd)	
UNIT TYPE	**REQUIRED ACTION**
TTF frame	Miscellaneous scan points associated with TTF frames — TEC should be notified that alarm TTY messages will not be printed for units involved if an alarm sounds for the frame. Aisle pilot lamps will have to be used to locate the trouble
Network management	Miscellaneous scan and SD points related to network management units — for SD points, DOC signals and acknowledgments cannot be sent; for scan points, DOC signals and acknowledgments cannot be received. Notify MAC and NMC work centers giving them the unit type and member number involved, and MSN or MDN number so he can determine the CIN of the affected TSG. (This determination can be done from paper records or via verification of unit-type translator, and DOCT to TSG and DOCR to TSG translators.)
Recorded announcement	1. Miscellaneous SD points associated with the recorded announcement frame — the MOC and TEC work centers should be notified. When the pack replacement work is complete, audit 47 should be requested (**AUD: NUM**). 2. Miscellanous scan points associated with the RA frame — the recorded announcement frame should be removed if scan pack replacement is being done. A 100-ms closure required every 4 seconds for the message phase update function may be missing and will cause customers to be connected to the wrong phase of a message. The MOC should be notified that RA frame needs to be taken out of service in connection with an SP matrix repair procedure. Obtain unit status and retain for restoral. At TTY, type **OP:RASTAT** a! (a = member number)
Signal processor	Associated with all duplicated pulse points (MDNs) — the only action required is to remove the pulse points from service and power unit down via **PPL 0** or **PPR 0** switch. If the mate pulse cannot be accessed (ie, by VIF), out-of-service request will be denied.
Trunk and service circuits	On all universal scan and SD points, and on miscellaneous scan SD or pulse points associated with circuits — CIN of the circuit should be identified and all circuits should be turned down (maintenance disabled) by TOC or MOC before any packs are removed. At TTY, for each trunk involved, type **SET:TRKSTAT MTC,DSA,CIN** e! (e = trunk identity) and verify MTC DSA and TRAF (OOSI) **OP:TRKSTAT, CIN** e!

TABLE A (Contd)	
UNIT TYPES	**REQUIRED ACTION**
DOC transmitter and NMDC frame	Only for miscellaneous scan points associated with the peripheral unit report, ignore NTPI, for DOC transmitter and NMDC frame — MOC should be notified that SP repair activity may affect status of units involved. Unit type and member number information should be passed to the MOC
Automatic Distribution Group (International Operator Center)	Automatic Distribution Group (ADG) is associated with International Operator Center (IOC) for gateway offices. If this is a scan point, notify ADG management for the DG member number specified. ADG distribution must not be changed during repair procedures since changes will not be processed by the ***4ESS***™ switch during that time. Obtain the base scan point for this unit-type member number from the unit-type translator. Set the T-bits for the base point to ignore using ORD:TBITS;IGNORE:MSH ---! After pack has been replaced, set T-bits for the base point to NORM. If this is an SD point, then the ADG management should be notified that acknowledgments will not be sent during the repair process time
Unit types other than above	The MOC and TEC work centers should be notified of the sort of SP repair procedure being performed, and should be given the unit type and member number of each unit implicated. At TTY, type INH:AUD:NUM 28! for each MSN involved; type ORD:TBITS;IGNORE:MSN e! e = scan number identity. While MSNs are set to ignore, any state changes on these scan points will not be acknowledged until MSNs are set back to normal If this is a base SP and these points are associated with the **ACK/OS/OFF** switch on peripheral unit frames, there are no T-bits to set. For base SP, see WARNING 1.

WARNING 1

If this is a base SP and the points associated with the FA605 pack or power converter are for **ACK/OS/OFF** *switches on peripheral units, you will receive* REPT POWER ALARM FAILURES *on removal. This is a normal condition.*

REMOVE SP MATRIX POINTS FROM SERVICE



NOTE 1
Trunk status was noted when SP matrix points were removed from service; set the trunks to those states

Reissued

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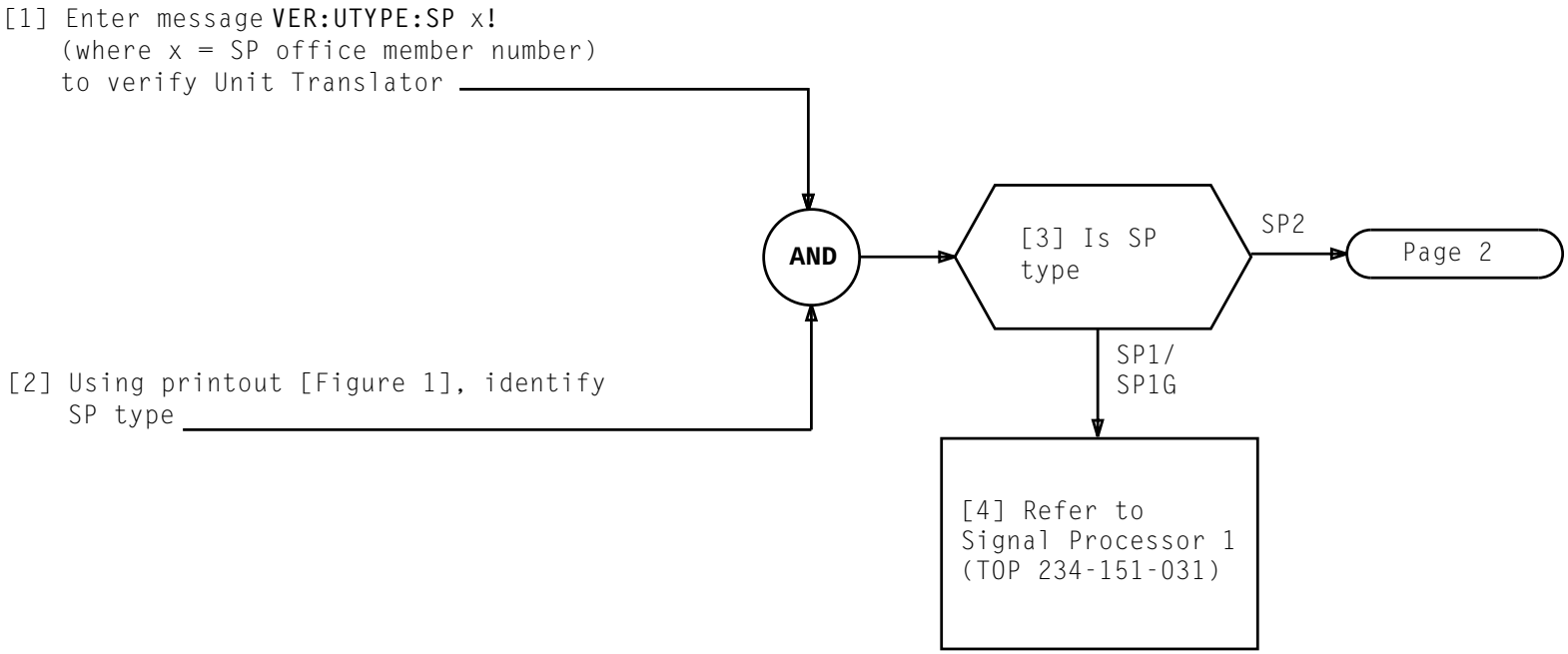
RESTORE SP MATRIX POINTS TO SERVICE

TABLE A	
USER	**RESTORE ACTION**
Trunk circuits	At TOC,for each trunk involved, type: SET:TRKSTAT ACT,CINe! (e = trunk identity)
Recorded announcements	At MOC, type: AUD:NUM 47! and take whatever manual action needed to restore RA frame to prior status before pack is replaced
Ringing and tone	At MOC, type: AUD:NUM 20! and take whatever actions needed to restore frame to prior status before pack is replaced
Alarm transfer or grouping	At MOC, for transfer, type: STOP:RTE:ALM [,MC a]! (a = maintenance center to be transferred from) or for grouping, type: STOP:CFR:ALM GRP [,MC a]!
Service circuits	At MOC for each service circuit involved, type: SET:TRKSTAT ACT,CIN e! (e = service circuit identity)
51A test position	Notify TOC points are restored to service and for each trunk removed from service type: SET:TRKSTAT ACT,CIN e! (e = trunk identity)



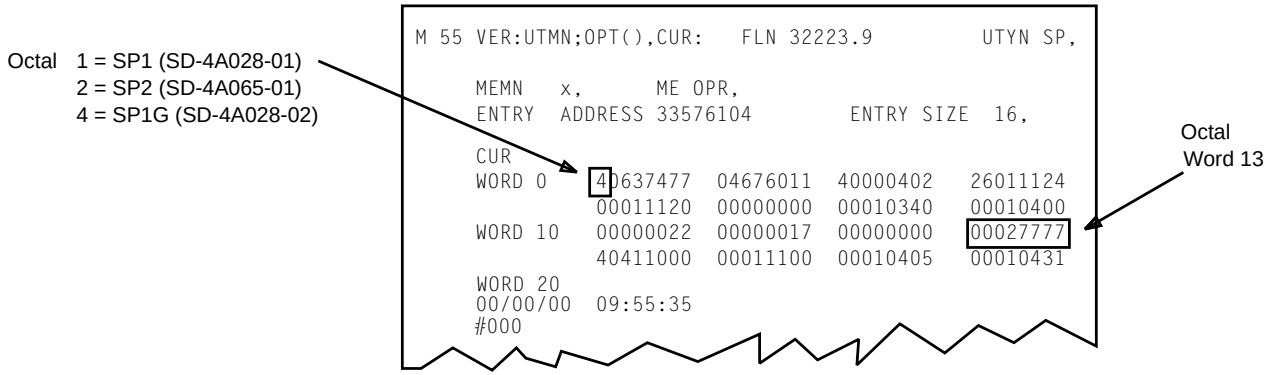


Figure 1. Typical VER:UTMN:OPT Message Printout

REMOVAL OF PULSE POINT DURING MAINTENANCE ACTIVITY ON SP-TYPE FRAME

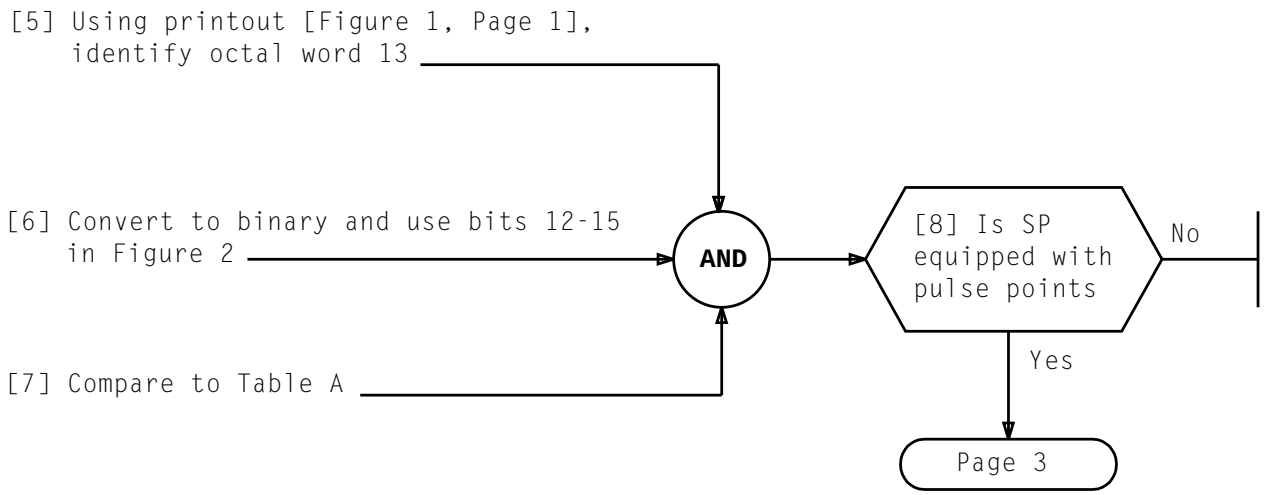


TABLE A	
2-DIGIT CODE	**POINT CODE**
00	No pulse points
01	256 pulse points
10	512 pulse points

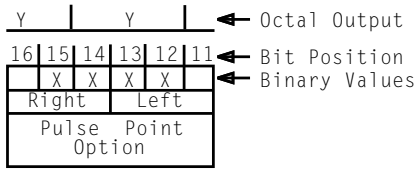


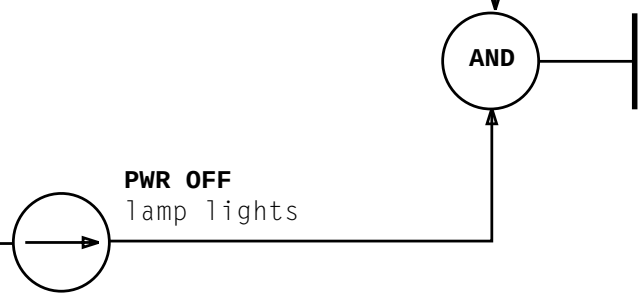
Figure 2. Layout of Partial Entry Data Word 13

REMOVAL OF PULSE POINT DURING MAINTENANCE ACTIVITY ON SP-TYPE FRAME

[9] At **PPL/PPR** switch [TABLE B], rotate ROS/OFF **switch clockwise** to ROS position

OFF NORM lamp lights and **ACK** lamp lights momentarily; then **OS** lamp lights

TABLE B			
	SWITCH LOCATIONS		
NAME	BAY	VERT	HOR
PPL	0	52	69



[10] See CAUTION 1. Depress **ROS/OFF** switch

PWR OFF lamp lights

CAUTION 1
If OS lamp does not light, delay until duplicate pulse points are returned to service

REMOVAL OF PULSE POINT DURING MAINTENANCE ACTIVITY ON SP-TYPE FRAME

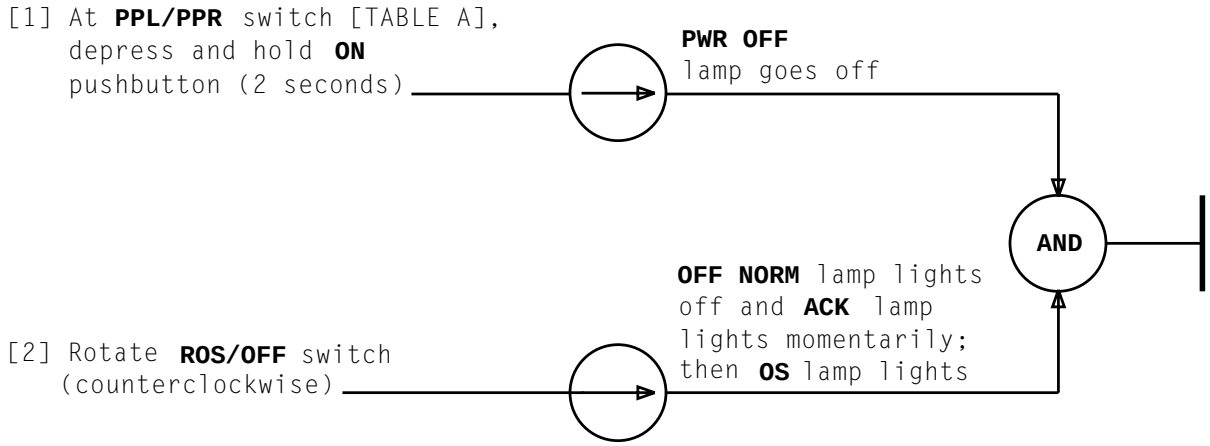


TABLE A			
	SWITCH LOCATION		
NAME	BAY	VERT	HOR
PPL	0	52	69

RESTORE OF PULSE POINT DURING MAINTENANCE ACTIVITY ON SP-TYPE FRAME