AT&T PRACTICE

Task Oriented Practice
(TOP)

4ESS™ SWITCH

1B PROCESSOR

STAND-ALONE AND LIMITED ACCESS TESTS

TOP Comments Hot Line:
Monday through Friday
8:00 a.m. - 4:00 p.m. Eastern Time
Call: 1-800-334-0404
Or FAX to: 1-910-727-3043

Developed by
AT&T Network Systems Customer Education & Training

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FIND YOUR JOB IN THE LIST BELOW . . . . . THEN GO TO

Acceptance NTP-002

Set Up Configuration for 1B Processor Soak (Performed by Installer) DLP-612

TASK INDEX LIST

GENERAL

Acceptance procedures in this practice support the conversion of 1A Processor to 1B Processor into an in-service *4ESS*™ switch. These tasks are performed at two points in the conversion interval (1B Processor stand-alone and after the 1A Processor is connected to conversion switch units). Acceptance procedures verify the 1B Processor and conversion switches are installed and operating as designed.

If for any reason the system becomes unstable, the test being performed must be terminated until stability is obtained.

Refer any failed test(s) to the installation force. After installation resolves the problem, rerun failed test(s). Acceptance is not complete until all acceptance tests pass.

ADDITIONAL DOCUMENTATION

This TOP does not cover every problem that might be encountered during acceptance testing. Therefore, it is recommended that following types of information be available:

- Input/Output Manuals (IM/OMs)
- Schematic Drawings (SDs)
- Program Applications (PAs)
- Program Listings (PRs)
- AT&T Practices (TOPs)

PRETEST REQUIREMENTS

The following requirement must be satisfied before performing acceptance tasks:

Next higher technical support group has been contacted to inquire about supplemental information which is required, or helpful (for example, item on exception list).

STAND-ALONE ACCEPTANCE SEQUENCE

After the 1B Processor is installed and connected to the conversion switch units, but before 1A Processor is connected:

Perform 1B Processor stand-alone acceptance — NTP-003

Perform 1B Processor stand-alone dead start test — NTP-009

LIMITED ACCESS ACCEPTANCE SEQUENCE

After 1A Processor is connected to conversion switch units, the following tests are performed jointly by installation force and office technician. The tests are not a quality check of the installers' work, but are considered acceptance of 1B Processor's ability to operate with the *4ESS* switch upon successful completion. A preferred sequence is listed in TABLE A.

TABLE A

TITLE	PROCEDURE
1B Processor to *4ESS* Switch Periphery Limited Access Tests	NTP-005
1B Processor to AUB 0 and 1 Limited Access Tests	NTP-004
API Stream Exerciser Tests	NTP-006
Tape Access Tests	NTP-007
1B Processor Alarm Tests	NTP-008

DO THE ITEMS BELOW IN THE ORDER LISTED	FOR DETAILS, GO TO
	NOTES: 1. This procedure is to be performed after 1B Processor is installed and connected to conversion switch units 2. No connections from 1A Processor side to conversion switch units are allowed until successful completion of this procedure 3. Any problem unit that goes out of service during this test must be repaired and restored to service before continuing 4. At MCC terminal, No MUP forces allowed on 106 page or EAI page 5. This procedure is performed by installation force with office technician observing 6. All input messages are to be entered at utility system workstation	
1	Ensure 1B Processor Is Running in Stable State	DLP-566
2	Allow Utility Interfering Actions	DLP-570
	NOTE: If I/O message process stops during this procedure, Item 3 will have to be repeated	
3	At 1B Processor Utility System Workstation, Start I/O Message Process, if Required	DLP-578
4	Enter Message **INH:MACLI,CLASS MTCE;ALL!** To Inhibit 1B Processor REX	—
5	Enable 1B Utility Paging Administration (UPAD) Processes **(ALW:UPAD!)**	DLP-514
6	Verify All 1B Processor Units Are In-service **(OP:OOSUNITS!)**. Listed Units Must Be Restored to Service	DLP-528
	NOTE: Items 7 through 11 are being performed to diagnose CC 0 and CC 1	
7	At 1B Processor MCC Terminal, if 1B Processor Status Page (118) Is Not Displayed, Enter **118**	—
8	On 118 Page, Determine Which CC Is Standby (MATCH)	—
9	Diagnose Standby CC (Item 8) Using Power Control Switch on Circuit Pack **KLW11**	DLP-529
10	Switch CCs **(SW:CC!)**	DLP-530
11	Diagnose Standby CC Using Power Control Switch on Circuit Pack **KLW11**	DLP-529
12	Diagnose CS 0 Through CS 9, PS 0 Through PS 3, SSD 0, and SSD 1 Using Appropriate Power Control Switch on Circuit Pack	DLP-531
13	Diagnose CSB 0 and CSB 1 Using Appropriate Power Control Switch on Circuit Pack	DLP-588
14	Diagnose XPWR 0 and XPWR 1 Using Power Control Switch on Circuit Pack **KLW23**	DLP-589
	(Continued on Page 2)	

DO THE ITEMS BELOW IN THE ORDER LISTED . . . . . FOR DETAILS, GO TO		
	NOTE: Items 15 through 20 are being performed to diagnose MUP 0 and MUP 1	
15	At 1B Processor MCC Terminal, if 1B Processor Status Page (118) Is Not Displayed, Enter **118**	—
16	On 118 Page, Ensure IFB 0 and IFB 1 Are Duplex (Both IFBs ACT)	—
17	On 118 Page, Determine Which MUP Is Standby	—
18	Diagnose Standby MUP (Item 15) Using Power Control Switch on Circuit Pack **KLW25**	DLP-532
19	Switch MUPs **(SW:MUP!)**	DLP-548
20	Diagnose Standby MUP Using Power Control Switch on Circuit Pack **KLW25**	DLP-532
21	On 118 Page, Determine Which AUI Is Standby	—
22	Diagnose Standby AUI (Step 21) Using Power Control Switch on Circuit Pack **KLW18**	DLP-579
23	Switch AUIs **(SW:AUI!)**	DLP-580
24	Diagnose Standby AUI (Step 21) Using Power Control Switch on Circuit Pack **KLW18**	DLP-579
25	Diagnose PSB 0 **(RST:PSB 0!)** Using Restore Message	DLP-549
26	Diagnose PSB 1 **(RST:PSB 1!)** Using Restore Message	DLP-549
27	Diagnose IFB 0 **(RST:IFB 0!)** Using Restore Message	DLP-549
28	Diagnose IFB 1 **(RST:IFB 1!)** Using Restore Message	DLP-549
29	Diagnose Miscellaneous Power	DLP-553
	NOTE: Items 30 through 36 are being performed to test PC functions	
30	At 1B Processor MCC Terminal, if 1B Processor Status Page (118) Is Not Displayed, Enter **118**	—
31	On 118 Page, Determine Which CC Is Standby (MATCH)	—
32	Run 1B Processor CC Diagnostic Phase 95 on Standby CC To Test PC Function	DLP-550
33	Restore Standby CC to Service **(RST:CC a!)**	DLP-549
34	Switch CCs **(SW:CC!)**	DLP-530
35	Run 1B Processor CC Diagnostic Phase 95 on Standby CC To Test PC Function	DLP-550
36	Restore Standby CC to Service **(RST:CC a!)**	DLP-549

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO
36	Test Fan System	DLP-608
37	Verify Base API, DUS, TUC, and PUBB Unit Type Translators for 1A Processor and 1B Processor	DLP-555
38	At 1B Processor Utility System Workstation, Enter Message **ALW:MACLI,CLASS MTCE!** To Allow REX	—
39	Exit I/O Message Process	DLP-613
40	Set MUP Back to Non-Interference	DLP-576
41	On Status Sheet in AT&T 234-185-019, Initial and Date Completion of This Procedure	—

DO THE ITEMS BELOW IN THE ORDER LISTED . . . . . FOR DETAILS, GO TO			
		RESPONSIBILITY	
	WARNING: No other growth or maintenance activity is allowed during this procedure		
	NOTES: 1. AUB conversion switches and indicator/remote control unit must be installed and switched to 1A Processor bus access 2. Input messages are entered at MTC terminal, APS MCRT, or utility system workstation. Terminal/workstation will be given at first occurrence and message(s) must be entered there until procedure indicates different terminal/workstation 3. If AU conversion switch switches back, procedure must be totally repeated 4. Appropriate Input/Output Manuals must be used if clarification of input message or output message is necessary 5. This procedure must be performed during light traffic periods		
1	At 3B MCRT, Enter Message **DUMP:BWM!**; Ensure **BWM 94-0026** Is Listed. If This BWM Is Not Listed, Stop Procedure and Contact Next Higher Technical Support Group. Procedure MUST NOT Be Continued	TELCO	—
2	Set Up Storage Oscilloscope	INST	DLP-536
3	Ensure Stand-Alone Acceptance Has Been Successfully Completed Before Performing This Procedure [NTP-003]	TELCO/INST	—
4	Ensure No API Interjects or Interrupts Have Occurred Within 24 Hours of Performing This Procedure	TELCO	—
5	Ensure Any 1A Processor Problems Have Been Cleared Before Performing This Procedure	TELCO	—
6	Ensure All 1A Processor and Peripheral Units Are Operating in Normal Duplex Mode. Listed Units Must Be Restored to Service	TELCO	DLP-500
7	Ensure ***4ESS***™ Switch Is in Stable Condition	TELCO	DLP-556
8	Allow Utility Interfering Actions	INST	DLP-570
	NOTE: If I/O message process stops during this procedure, Item 9 will have to be repeated		
9	At 1B Processor Utility System Workstation, Start I/O Message Process, if Required	INST	DLP-578
10	Enable Utility-Paging Administration (UPAD) Processes (**ALW:UPAD!**)	INST	DLP-514
11	Ensure Stand-Alone 1B Processor Is in Stable Condition, and 1B Processor and 3B Clocks Have Same Time	INST	DLP-566

DO THE ITEMS BELOW IN THE ORDER LISTED . . . . . FOR DETAILS, GO TO			
12	Ensure 1B Processor Units Are In-Service (**OP:OOSUNITS!**)	INST	DLP-528
13	At 1B Processor Indicator/Remote Control Unit, Ensure All Switches Associated With Equipped Office Equipment Are Set to 1A Processor Position (Associated LEDs On Green) and Permit Bus Access	TELCO	DLP-557
14	At MCRT, Verify API-DLN Stream (**OP:DLNCM;STREAM!**)	TELCO	DLP-501
15	Enter Following Messages To Inhibit APS Automatic Diagnostics: • **INH:DMQ;SRC REX!** • **INH:DMQ;SRC ADP!**	TELCO	—
16	At MTC Terminal, Enter Message **INH:MACLI,CLASS MTCE;REX!** To Inhibit 1A Processor REX	TELCO	—
17	At 1B Processor Utility System Workstation, Enter Message **INH:MACLI,CLASS MTCE;ALL!** To Inhibit 1B Processor REX	INST	—
18	At MTC Terminal, Determine Which API Is Standby **(OP:APSTATUS!)**	TELCO	DLP-509
19	Diagnose Standby API (Item 18) Using Restore Message (**RST:API a!**) (Expect CATP Bit 33)	TELCO	DLP-507
20	Switch APIs To Make Other API Standby **(SW:APS 0!)**	TELCO	DLP-510
21	Diagnose New Standby API Using Restore Message (**RST:API a!**) (Expect CATP Bit 33)	TELCO	DLP-507
22	Diagnose DUS 0 Using Restore Message **(RST:DUS 0!)**	TELCO	DLP-507
23	Diagnose DUS 1 Using Restore Message **(RST:DUS 1!)**	TELCO	DLP-507
	NOTE: Items 24 through 60 are being performed to test AUB 0 limited access		
24	Notify Next Higher Technical Support Group That AUB 0 Conversion Switch Is Going To Be Switched to 1B Processor Bus Access	TELCO	—
25	Determine Which API Is Standby (**OP:APSTATUS!**)	TELCO	DLP-509
26	If API 1 Is Standby, Switch APIs To Make API 0 Standby (**SW:APS 0!**)	TELCO	DLP-510
27	Remove API 0 From Service (**RMV:API 0!**)	TELCO	DLP-511
28	Remove DUS 0 From Service (**RMV:DUS 0!**)	TELCO	DLP-511
29	Clear Assigned ADS Function(s) (**CLR:ADSFUNC a!**)	TELCO	DLP-609

DO THE ITEMS BELOW IN THE ORDER LISTED . . . . . FOR DETAILS, GO TO			
30	Remove All In-Service Equipped TUCs From Service (**RMV:TUC a!**)	TELCO	DLP-511
31	Remove AUB 0 From Service (**RMV:AUB 0!**)	TELCO	DLP-511
32	Set API Being Tested to Off-Line State (**ALW:APSTEST!**)	TELCO	DLP-512
	CAUTION: Care must be taken to ensure only AUB 0 conversion switch is being operated		
	NOTES: 1. If 1A Processor system fault occurs while conversion switch is set to 1B Processor bus access, conversion switch will automatically switch back to 1A Processor bus access 2. While running following tests, 1A and 1B Processors operation must be closely monitored		
33	This DLP Must Be Followed. Prepare to Switch AU0; Then At Indicator/Remote Control Unit, Switch AUB 0 to 1B Bus Access	TELCO	DLP-513
34	At 1B Processor Utility System Workstation, Enter Message **INH:APS 0;AUTORCVY!**	INST	—
35	Enter Message **INH:AUD:NUM (43,44,45)!**	INST	—
36	Restore AUB 0 to Service (**RST:AUB 0;UCL!**)	INST	DLP-515
	NOTE: If phase 7, 8, or 9 failure occurs during diagnostic (Items 37 through 40), Items 54 through 56 must be performed and procedure repeated from Item 1		
37	Diagnose API 0 (**DGN:API 0:PH (2,4-9)!**)	INST	DLP-517
38	Switch AUIs (**SW:AUI!**)	INST	DLP-580
39	Switch CCs (**SW:CC!**) (It Will Take Approximately 3 Minutes for CCs To Switch)	INST	DLP-530
40	Diagnose API 0 (**DGN:API 0:PH (2,4-9)!**)	INST	DLP-517
41	At 1B Processor Utility System Workstation, Restore API 0 to Service Unconditionally (**RST:API 0;UCL!**)	INST	DLP-515
42	At 1B Processor MCC Terminal, if 1B Processor Status (118) Is Not Displayed, Enter **118**	INST	—
43	If AUI 0 Is Active, Switch AUIs To Make AUI 1 Active (**SW:AUI!**)	INST	DLP-580
44	Diagnose AUI 0 Using Restore Message (**RST:AUI 0!**)	INST	DLP-611
45	Switch AUIs To Make AUI 0 Active (**SW:AUI!**)	INST	DLP-580

DO THE ITEMS BELOW IN THE ORDER LISTED . . . . . FOR DETAILS, GO TO			
46	Diagnose Standby AUI 1 Using Restore Message (**RST:AUI 1!**)	INST	DLP-611
47	At 1B Processor MCC Terminal, if 1B Processor Status Page (118) Is Not Displayed, Enter **118**	INST	—
48	Ensure 118 Page Displays API 0 Active	INST	—
49	Wait 1 Minute Before Continuing To Ensure No Interrupts Received for Either 1A or 1B Processor	TELCO/INST	—
50	Enter Execute Messages for Looping on AU Reply Bus (**EX:AUB 0;START!** Then **EX:AUB 0:PH 99,ADR 120-163!**)	INST	DLP-535
51	Scope AU Reply Bus Bits 0 to 23 at AUB 0 Conversion Switch Unit	INST	DLP-537
52	Enter Stop Looping Message (**EX:AUB 0!**)	INST	—
53	Stop Maintenance Control Program Client	INST	DLP-538
	CAUTION: Care must be taken to ensure only AUB 0 conversion switch is being operated		
	NOTE: When conversion switch is switched back to 1A Processor bus access, 1B Processor will interject and DUS will fail		
54	This DLP Must Be Followed. Prepare to Switch AU0; Then At Indicator/Remote Control Unit, Switch AUB 0 to 1A Bus Access	TELCO/INST	DLP-518
55	Notify Next Higher Technical Support Group That AUB 0 Conversion Switch Was Switched Back to 1A Processor Bus Access	TELCO	—
56	At MTC Terminal, Clear API Being Tested From Off-Line State (**INH:APSTEST!**)	TELCO	DLP-534
57	At MTC Terminal, Restore AUB 0 to Service (**RST:AUB 0!**)	TELCO	DLP-507
58	Restore API 0 to Service (**RST:API 0!**)	TELCO	DLP-507
59	Restore DUS 0 to Service (**RST:DUS 0!**)	TELCO	DLP-507
60	Restore TUCs That Were Removed From Service in Item 30 (**RST:TUC a!**)	TELCO	DLP-507
61	Safe Point To Temporarily Stop This Procedure. If Stopping, Perform Items 62 Through 67; Otherwise, Go to Item 85	TELCO/INST	—
62	At 1B Processor Utility System Workstation, Enter Message **ALW:AUD:NUM (43,44,45)!**	INST	—
63	Enter Message **ALW:MACLI,CLASS MTCE!** To Allow 1B Processor REX	INST	—
64	Set MUP Back to Non-Interference	INST	DLP-576

DO THE ITEMS BELOW IN THE ORDER LISTED . . . . . FOR DETAILS, GO TO			
65	At MTC Terminal, Enter Message **ALW:MACLI,CLASS MTCE!** To Allow 1A Processor REX	TELCO	—
66	At MCRT, Enter Following Messages To Allow Automatic Diagnostics: • **ALW:DMQ;SRC REX!** • **ALW:DMQ;SRC ADP!**	TELCO	—
67	Stop Now Until Resuming	TELCO/INST	—
68	Set Up Storage Oscilloscope (if Not Set Up)	INST	DLP-536
69	Ensure No API Interjects or Interrupts Have Occurred Within 24 Hours of Performing This Procedure	TELCO	—
70	Ensure Any 1A Processor Problems Have Been Cleared Before Performing This Procedure	TELCO	—
71	Ensure All 1A Processor and Peripheral Units Are Operating in Normal Duplex Mode	TELCO	DLP-500
72	Ensure *4ESS* Switch Is in Stable Condition	TELCO	DLP-556
73	Ensure Stand-Alone 1B Processor Is in Stable Condition	INST	DLP-566
74	Allow Utility Interfering Actions	INST	DLP-570
75	At 1B Processor Utility System Workstation, Start I/O Message Process, if Required	INST	DLP-578
76	Enable Utility Paging Administration (UPAD) Processes (**ALW:UPAD!**)	INST	DLP-514
77	Ensure 1B Processor Units Are Inservice (**OP:OOSUNITS!**)	INST	DLP-528
78	At 1B Processor Utility System Workstation, Enter Message **INH:APS 0;AUTORCVY!**	INST	—
79	Enter Message **INH:AUD:NUM (43,44,45)!**	INST	—
80	At 1B Processor Indicator/Remote Control Unit, Ensure All Switches Associated With Equipped Office Equipment Are Set to 1A Processor Position (Associated LEDs On Green) and Permit Bus Access	TELCO	DLP-557
81	At MCRT, Verify API-DLN Stream (**OP:DLNCM;STREAM!**)	TELCO	DLP-501
82	Enter Following Messages To Inhibit APS Automatic Diagnostics: • **INH:DMQ;SRC REX!** • **INH:DMQ;SRC ADP!**	TELCO	—
83	At MTC Terminal, Enter Message **INH:MACLI,CLASS MTCE;REX!** To Inhibit 1A Processor REX	TELCO	—

DO THE ITEMS BELOW IN THE ORDER LISTED . . . . . FOR DETAILS, GO TO			
84	At 1B Processor Utility System Workstation, Enter Message **INH:MACLI,CLASS MTCE;ALL!** To Inhibit 1B Processor REX	INST	—
85	At MTC Terminal, Determine Which API Is Standby (**OP:APSTATUS!**)	TELCO	DLP-509
86	Diagnose Standby API (Item 85) Using Restore Message (**RST:API a!**) (Expect CATP Bit 33)	TELCO	DLP-507
87	Switch APIs To Make Other API Standby (**SW:APS 0!**)	TELCO	DLP-510
88	Diagnose New Standby API Using Restore Message (**RST:API a!**) (Expect CATP Bit 33)	TELCO	DLP-507
	NOTE: Items 89 through 124 are being performed to test AUB 1 limited access		
89	Notify Next Higher Technical Support Group That AUB 1 Conversion Switch Is Going To Be Switched to 1B Processor Bus Access	TELCO	—
90	Determine which API Is Standby (**OP:APSTATUS!**)	TELCO	DLP-509
91	If API 0 Is Standby, Switch APIs To Make API 1 Standby (**SW:APS 0!**)	TELCO	DLP-510
92	Remove API 1 From Service (**RMV:API 1!**)	TELCO	DLP-511
93	Remove DUS 1 From Service (**RMV:DUS 1!**)	TELCO	DLP-511
94	Clear Assigned ADS Function(s) (**CLR:ADSFUNC a!**)	TELCO	DLP-609
95	Remove All In-Service Equipped TUCs From Service (**RMV:TUC a!**)	TELCO	DLP-511
96	Remove AUB 1 From Service (**RMV:AUB 1!**)	TELCO	DLP-511
97	Set API Being Tested to Off-Line State (**ALW:APSTEST!**)	TELCO	DLP-512
	CAUTION: Care must be taken to ensure only AUB 1 conversion switch is being operated		
	NOTES: 1. If 1A Processor system fault occurs while conversion switch is set to 1B Processor bus access, conversion switch will automatically switch back to 1A Processor bus access 2. While running following tests, 1A and 1B Processors operation must be closely monitored		
98	The DLP Must Be Followed. Prepare to Switch AU1; Then At Indicator/Remote Control Unit, Switch AUB 1 to 1B Bus Access	TELCO	DLP-525
99	At 1B Processor Utility System Workstation, Restore AUB 1 to Service (**RST:AUB 1;UCL!**)	INST	DLP-515

DO THE ITEMS BELOW IN THE ORDER LISTED . . . . . FOR DETAILS, GO TO			
	NOTE: If phase 7, 8, or 9 failure occurs during diagnostic (Items 100 through 103), Items 117 through 119 must be performed and procedure repeated from Item 1		
100	Diagnose API 1 (**DGN:API 1:PH (2,4-9)!**)	INST	DLP-517
101	Switch AUIs (**SW:AUI!**)	INST	DLP-580
102	Switch CCs (**SW:CC!**) (It Will Take Approximately 3 Minutes for CCs To Switch)	INST	DLP-530
103	Diagnose API 1 (**DGN:API 1:PH (2,4-9)!**)	INST	DLP-517
104	At 1B Processor Utility System Workstation, Restore API 1 to Service Unconditionally (**RST:API 1;UCL!**)	INST	DLP-515
105	At 1B Processor MCC Terminal, if 1B Processor Status Page (118) Is Not Displayed, Enter **118**	INST	—
106	If AUI 1 Is Active, Switch AUIs To Make AUI 0 Active (**SW:AUI!**)	INST	DLP-580
107	Diagnose AUI 1 Using Restore Message (**RST:AUI 1!**)	INST	DLP-611
108	Switch AUIs To Make AUI 1 Active (**SW:AUI!**)	INST	DLP-580
109	Diagnose Standby AUI 0 Using Restore Message (**RST:AUI 0!**)	INST	DLP-611
110	At 1B Processor MCC Terminal, if 1B Processor Status Page (118) Is Not Displayed, Enter **118**	INST	—
111	Ensure 118 Page Displays API 1 Active	INST	—
112	Wait 1 Minute Before Continuing To Ensure No Interrupts Received for Either 1A or 1B Processor	TELCO/INST	—
113	Enter Execute Messages for Looping on AU Reply Bus (**EX:AUB 1;START!** Then **EX:AUB 1:PH 99,ADR 274-337!**)	INST	DLP-535
114	Scope AU Reply Bus Bits 0 to 23 at AUB 1 Conversion Switch Unit	INST	DLP-537
115	Enter Stop Looping Message (**EX:AUB 1!**)	INST	—
116	Stop Maintenance Control Program Client	INST	DLP-538
	CAUTION: Care must be taken to ensure only AUB 1 conversion switch is being operated		
	NOTE: When conversion switch is switched back to 1A Processor bus access, 1B Processor will interject		

DO THE ITEMS BELOW IN THE ORDER LISTED . . . . . FOR DETAILS, GO TO			
117	The DLP Must Be Followed. Prepare to Switch AU1; Then At Indicator/Remote Control Unit, Switch AUB 1 to 1A Bus Access	TELCO/INST	DLP-526
118	Notify Next Higher Technical Support Group That AUB 1 Conversion Switch Was Switched Back to 1A Processor Bus Access	TELCO	—
119	At MTC Terminal, Clear API Being Tested From Off-Line State (**INH:APSTEST!**)	TELCO	DLP-534
120	At MTC Terminal, Restore AUB 1 to Service (**RST:AUB 1!**)	TELCO	DLP-507
121	Restore API 1 to Service (**RST:API 1!**)	TELCO	DLP-507
122	Restore DUS 1 to Service (**RST:DUS 1!**)	TELCO	DLP-507
123	Restore TUCs That Were Removed From Service in Item 95 (**RST:TUC a!**)	TELCO	DLP-507
124	At 1B Processor Utility System Workstation, Enter Message **ALW:AUD:NUM (43,44,45)!**	INST	—
125	Enter Message **ALW:MACLI,CLASS MTCE!** To Allow 1B Processor REX	INST	—
126	At 1B Processor Utility System Workstation, Exit Output Message Window (Input Message Window Must Remain Open for Monitoring)	INST	—
127	At MTC Terminal, Enter Message **ALW:MACLI,CLASS MTCE!** To Allow 1A Processor REX	TELCO	—
128	At MCRT, Enter Following Messages to Allow Automatic Diagnostics: • **ALW:DMQ;SRC REX!** • **ALW:DMQ;SRC ADP!**	TELCO	—
129	On Status Sheet in AT&T 234-185-019, *1B Processor, Scheduling and Planning Guide 4E18-4E19,* Initial and Date Completion of This Procedure	TELCO/INST	—

DO THE ITEMS BELOW IN THE ORDER LISTED . . . . . FOR DETAILS, GO TO

		RESPONSIBILITY	
	WARNING: No other growth or maintenance activity is allowed during this procedure		
	NOTES: 1. PUB conversion switch units and indicator/remote control unit must be installed and switched to 1A Processor bus access 2. Input messages are to be entered at either MTC terminal or utility system workstation 3. If PU conversion switch switches back, procedure must be totally repeated 4. Appropriate Input/Output Manuals must be used if clarification of input message or output message is necessary 5. This procedure must be performed during light traffic periods		
1	Set Up Storage Oscilloscope	INST	DLP-543
2	Verify PUB Looping Addresses	INST	DLP-539
3	Ensure Stand-Alone Acceptance Has Been Successfully Completed Before Performing This Procedure [NTP-003]	TELCO/INST	—
4	Ensure No API Interjects or Interrupts Have Occurred Within 24 Hours of Performing This Procedure	TELCO	—
5	Ensure Any 1A Processor Problems Have Been Cleared Before Performing This Procedure	TELCO	—
6	Ensure *4ESS*™ Switch Is in Stable Condition	TELCO	DLP-556
7	Ensure All 1A Processor and Peripheral Units Are Operating in Normal Duplex Mode	TELCO	DLP-500
8	Allow Utility Interfering Actions	INST	DLP-570
	NOTE: If I/O message process stops during this procedure, Item 9 will have to be repeated		
9	At 1B Processor Utility System Workstation, Start I/O Message Process, if Required	INST	DLP-578
10	Enable Utility Paging Administration (UPAD) Processes (ALW:UPAD!)	INST	DLP-514
11	Ensure Stand-Alone 1B Processor Is in Stable Condition, and 1B Processor and 3B Clocks Have Same Time	INST	DLP-566
12	Ensure 1B Processor Units Are In-Service (OP:OOSUNITS!)	INST	DLP-528

DO THE ITEMS BELOW IN THE ORDER LISTED . . . . . FOR DETAILS, GO TO			
13	At 1B Processor Indicator/Remote Control Unit, Ensure All Switches Associated With Equipped Office Equipment Are Set to 1A Processor Position (Associated LEDs On Green) and Permit Bus Access	TELCO	DLP-557
14	At MTC Terminal, Enter Message **INH:MACLI,CLASS MTCE;REX!** To Inhibit 1A Processor REX	TELCO	—
15	At 1B Processor Utility System Workstation, Enter Message **INH:MACLI,CLASS MTCE;ALL!** To Inhibit 1B Processor REX	INST	—
16	Notify Next Higher Technical Support Group That PUB 0 Conversion Switch Unit Is Going To Be Switched to 1B Processor Bus Access	TELCO	—
17	At MTC Terminal, Diagnose PUB 0 Using Restore Message **(RST:PUB 0!)**	TELCO	DLP-507
18	Diagnose PUB 1 Using Restore Message **(RST:PUB 1!)**	TELCO	DLP-507
	CAUTION: Care must be taken to ensure only PUB 0 conversion switch is being operated		
	NOTES: 1. If problems occur between Items 19 and 31 with 1A peripheral equipment, 1B Processor must be suspended and 1A faults cleared. Once cleared, continue 2. If 1A Processor system fault occurs while conversion switch is set to 1B Process bus access, conversion switch will automatically switch back to 1A Processor bus access 3. While running following tests, 1A and 1B Processors' operation must be closely monitored		
19	At Indicator/Remote Control Unit, Switch PUB 0 Conversion Switch to 1B Processor Bus Access	TELCO	DLP-540
20	Diagnose PUB 0 Specifying Phase 2 on Both CCs (**DGN:PUB 0:PH 2!**)	INST	DLP-541
21	Advance Program and Set Up Loop To Observe Bit 0 on PU Reply Bus	INST	DLP-542
22	Scope Bit 0 on PU Reply Bus at PUB 0 Conversion Switch Unit	INST	DLP-565
23	At 1B Processor Utility System Workstation, Enter Stop Looping Message (**EX:PUB 0!**)	INST	—
24	Advance Program and Set Up Loop To Observe Bits 1 to 23 on PU Reply Bus	INST	DLP-542
25	Scope Bits 1 to 23 on PU Reply Bus at PUB 0 Conversion Switch Unit	INST	DLP-544
26	At 1B Processor Utility System Workstation, Enter Stop Looping Message (**EX:PUB 0!**)	INST	—
27	Set Up Loop To Observe PU Control and Miscellaneous Bus Bits	INST	DLP-558

DO THE ITEMS BELOW IN THE ORDER LISTED . . . . . FOR DETAILS, GO TO			
28	Scope PU Control and Miscellaneous Bus Bit PUB 0 Conversion Switch Unit	INST	DLP-559
29	At 1B Processor Utility System Workstation, Enter Stop Looping Message (**EX:PUB 0!**)	INST	—
30	Stop Maintenance Control Program Client	INST	DLP-538
	CAUTION: Care must be taken to ensure only PUB 0 conversion switch is being operated		
31	At Indicator/Remote Control Unit, Switch PUB 0 Conversion Switch to 1A Processor Bus Access	TELCO	DLP-545
32	Notify Next Higher Technical Support Group That PUB 0 Conversion Switch Was Switched Back to 1A Processor Bus Access	TELCO	—
33	At MTC Terminal, Restore PUB 0 to Service (**RST:PUB 0!**)	TELCO	DLP-507
34	At 1B Processor Utility System Workstation, Restore PUB 0 to Service Unconditionally (**RST:PUB 0;UCL!**)	TELCO	DLP-515
35	Disconnect Storage Oscilloscope From PUB 0 Conversion Switch Unit	INST	—
36	Safe Point To Temporarily Stop This Procedure, If Stopping, Perform Items 37 Through 40; Otherwise, Go to Item 55		
37	Set MUP Back to Non-Interference	INST	DLP-576
38	At MTC Terminal, Enter Message **ALW:MACLI,CLASS MTCE!** To Allow 1A Processor REX	TELCO	—
39	At 1B Processor Utility System Workstation, Enter Message **ALW:MACLI,CLASS MTCE!** To Allow 1B Processor REX	INST	—
40	Stop Procedure for Now. Resume at Item 41 When Continuing	TELCO/INST	—
41	Set Up Storage Oscilloscope (if Not Set Up)	INST	DLP-543
42	Verify PUB Looping Addresses	INST	DLP-539
43	Ensure No API Interjects or Interrupts Have Occurred Within 24 Hours of Performing This Procedure	TELCO	—
44	Ensure Any 1A Processor Problems Have Been Cleared Before Performing This Procedure	TELCO	—
45	Ensure *4ESS* Switch Is in Stable Condition	TELCO	DLP-556
46	Ensure All 1A Processor and Peripheral Units Are Operating in Normal Duplex Mode	TELCO	DLP-500
47	Ensure Stand-Alone 1B Processor Is in Stable Condition	INST	DLP-566
48	Allow Utility Interfering Actions	INST	DLP-570

DO THE ITEMS BELOW IN THE ORDER LISTED . . . . . FOR DETAILS, GO TO			
49	At 1B Processor Utility Workstation, Start I/O Message Process, if Required	INST	DLP-578
50	Enable UPAD Processes **(ALW:UPAD!)**	INST	DLP-514
51	Ensure 1B Processor Units Are In-Service (**OP:OOSUNITS!**)	TELCO	DLP-528
52	At 1B Processor Indicator/Remote Control Unit, Ensure All Switches Associated With Equipped Office Equipment Are Set to 1A Processor Position (Associated LEDs On Green) and Permit Bus Access	TELCO	DLP-557
53	At MTC Terminal, Enter Message **INH:MACLI,CLASS MTCE;REX!** To Inhibit 1A Processor REX	TELCO	—
54	At 1B Processor Utility System Workstation, Enter Message **INH:MACLI,CLASS MTCE;ALL!** To Inhibit 1B Processor REX	INST	—
55	Notify Next Higher Technical Support Group That PUB 1 Conversion Switch Unit Is Going To Be Switched to 1B Processor Bus Access	TELCO	—
56	At MTC Terminal, Diagnose PUB 1 Using Restore Message (**RST:PUB 1!**)	TELCO	DLP-507
57	Diagnose PUB 0 Using Restore Message (**RST:PUB 0!**)	TELCO	DLP-507
	CAUTION: Care must be taken to ensure only PUB 1 conversion switch is being operated		
	NOTES: 1. If problems occur between Items 58 and 70 with 1A peripheral equipment, 1B Processor must be suspended and 1A faults cleared. Once cleared, continue 2. If 1A Processor system fault occurs while conversion switch is set to 1B Processor bus access, conversion switch will automatically switch back to 1A Processor bus access 3. While running following tests, 1A and 1B Processors' operation must be closely monitored		
58	At Indicator/Remote Control Unit, Switch PUB 1 Conversion Switch to 1B Processor Bus Access	TELCO	DLP-546
59	Diagnose PUB 1 Specifying Phase 2 on Both CCs (**DGN:PUB 1:PH 2!**)	INST	DLP-541
60	Advance Program and Set Up Loop To Observe Bit 0 on PU Reply Bus	INST	DLP-542
61	Scope Bit 0 on PU Reply Bus at PUB 1 Conversion Switch Unit	INST	DLP-565
62	At 1B Processor Utility System Workstation, Enter Stop Looping Message (**EX:PUB 1!**)	INST	—
63	Advance Program to Bus Branch A and B and Set Up Loop To Observe Bits 1 to 23 on PU Reply Bus	INST	DLP-542

DO THE ITEMS BELOW IN THE ORDER LISTED . . . . . FOR DETAILS, GO TO			
64	Scope Bits 1 to 23 on PU Reply Bus at PUB 1 Conversion Switch Unit	INST	DLP-544
65	At 1B Processor Utility System Workstation, Enter Stop Looping Message (**EX:PUB 1!**)	INST	—
66	Set Up Loop To Observe PU Control and Miscellaneous Bus Bits	INST	DLP-558
67	Scope PU Control and Miscellaneous Bus Bits PUB 1 Conversion Switch Unit	INST	DLP-559
68	At 1B Processor Utility System Workstation, Enter Stop Looping Message **(EX:PUB 1!)**	INST	—
69	Stop Maintenance Control Program Client	INST	DLP-538
	CAUTION: Care must be taken to ensure only PUB 1 conversion switch is being operated		
70	At Indicator/Remote Control Unit, Switch PUB 1 Conversion Switch to 1A Processor Bus Access	TELCO	DLP-547
71	Notify Next Higher Technical Support Group That PUB 1 Conversion Switch Was Switched Back to 1A Processor Bus Access	TELCO	—
72	At MTC Terminal, Restore PUB 1 to Service (**RST:PUB 1!**)	TELCO	DLP-507
73	At 1B Processor Utility System Workstation, Restore PUB 1 to Service Unconditionally (**RST:PUB 1;UCL!**)	INST	DLP-515
74	Disconnect Storage Oscilloscope From PUB 1 Conversion Switch Unit	INST	—
75	Enter Message **ALW:MACLI,CLASS MTCE!** To Allow 1A Processor REX	TELCO	—
76	At 1B Processor Utility System Workstation, Exit Output Message Window (Input Message Window Must Remain Open for Monitoring)	INST	—
77	At 1B Processor Utility System Workstation, Enter Message **ALW:MACLI,CLASS MTCE!** To Allow 1B Processor REX	INST	—
78	On Status Sheet in AT&T 234-185-019, Initial and Date Completion of This Procedure	TELCO/INST	—

DO THE ITEMS BELOW IN THE ORDER LISTED . . . . . FOR DETAILS, GO TO

		RESPONSIBILITY	
	WARNING: No other growth or maintenance activity is allowed during this procedure		
	NOTES: 1. Input messages are to be entered at MTC terminal, 3B MCRT, or 1B Processor utility system workstation. Terminal/workstation will be given at first occurrence and message(s) must be entered there until procedure indicates different terminal/workstation 2. If AU conversion switch switches back, procedure must be totally repeated 3. Appropriate Input/Output Manuals must be used if clarification of input message or output message is necessary 4. This procedure must be performed during light traffic periods		
1	At 3B MCRT, Enter Message **DUMP:BWM!;** Ensure **BWM 94-0026** is Listed. If This BWM Is NOT Listed, Stop Procedure and Contact Next Higher Technical Support Group. Procedure MUST NOT Be Continued	TELCO	—
2	Ensure No API Interjects or Interrupts Have Occurred Within 24 Hours of Performing This Procedure	TELCO	—
3	Ensure Any 1A Processor Problems Have Been Cleared Before Performing This Procedure	TELCO	—
4	Ensure All 1A Processor and Peripheral Units Are Operating in Normal Duplex Mode	TELCO	DLP-500
5	Ensure *4ESS*™ Switch Is in Stable Condition	TELCO	DLP-556
6	Allow Utility Interfering Actions	INST	DLP-570
	NOTE: If I/O message process stops during this procedure, Item 7 will have to be repeated		
7	At 1B Processor Utility System Workstation, Start I/O Message Process, if Required	INST	DLP-578
8	Enable Utility Paging Administration (UPAD) Processes **(ALW:UPAD!)**	INST	DLP-514
9	Ensure Stand-Alone 1B Processor Is in Stable Condition, and 1B Processor and 3B Clocks Have Same Time	INST	DLP-566
10	Ensure 1B Processor Units Are In-Service (**OP:OOSUNITS!**)	INST	DLP-528
11	Ensure 1B Processor to AUB 0 and 1 Limited Access Tests Have Been Performed Before Performing This Procedure [NTP-004]	TELCO/INST	—
12	At 1B Processor Indicator/Remote Control Unit, Ensure All Switches Associated With Equipped Office Equipment Are Set to 1A Processor Position (Associated LEDs On Green) and Permit Bus Access	TELCO	DLP-557

DO THE ITEMS BELOW IN THE ORDER LISTED . . . . . FOR DETAILS, GO TO			
13	At 3B MCRT, Verify API-DLN Stream (**OP:DLNCM;STREAM!**)	TELCO	DLP-501
14	Enter Following Messages To Inhibit APS Automatic Diagnostics: • **INH:DMQ;SRC REX!** • **INH:DMQ;SRC ADP!**	TELCO	—
15	At MTC Terminal, Enter Message **INH:MACLI,CLASS MTCE;REX!** To Inhibit 1A Processor REX	TELCO	—
16	At 1B Processor Utility System Workstation, Enter Message **INH:MACLI,CLASS MTCE;ALL!** To Inhibit 1B Processor REX	INST	—
17	At MTC Terminal, Determine Which API Is Standby (**OP:APSTATUS!**)	TELCO	DLP-509
18	Diagnose Standby API (Item 17) Using Restore Message (**RST:API a!**)	TELCO	DLP-507
19	Switch APIs To Make Other API Standby (**SW:APS 0!**)	TELCO	DLP-510
20	Diagnose Standby API Using Restore Message (**RST:API a!**)	TELCO	DLP-507
	NOTE: Items 21 through 57 are being performed to test API 0 stream exerciser limited access		
21	Notify Next Higher Technical Support Group That AUB 0 Conversion Switch Is Going To Be Switched to 1B Processor Bus Access	TELCO	—
22	Determine Which API Is Standby (**OP:APSTATUS!**)	TELCO	DLP-509
23	If API 1 Is Standby, Switch APIs To Make API 0 Standby (**SW:APS 0!**)	TELCO	DLP-510
24	Remove API 0 From Service (**RMV:API 0!**)	TELCO	DLP-511
25	Remove DUS 0 From Service (**RMV:DUS 0!**)	TELCO	DLP-511
26	Clear Assigned ADS Function(s) (**CLR:ADSFUNC a!**)	TELCO	DLP-609
27	Remove All In-Service Equipped TUCs From Service (**RMV:TUC a!**)	TELCO	DLP-511
28	Remove AUB 0 From Service (**RMV:AUB 0!**)	TELCO	DLP-511
29	Set API Being Tested to Off-Line State (**ALW:APSTEST!**)	TELCO	DLP-512
	CAUTION: Care must be taken to ensure only AUB 0 conversion switch is being operated		
	(Continued on Page 3)		

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
	NOTES: 1. If 1A Processor system fault occurs while conversion switch is set to 1B Processor bus access, conversion switch will automatically switch back to 1A Processor bus access 2. While running following tests, 1A and 1B Processors' and 3B APS operation must be closely monitored		
30	This DLP Must Be Followed. Prepare to Switch AUO; Then At Indicator/Remote Control Unit, Switch AUB 0 to 1B Bus Access	TELCO	DLP-513
31	At 1B Processor Utility System Workstation, Restore AUB 0 to Service (**RST:AUB 0;UCL!**)	INST	DLP-515
	NOTES: 1. If phase 7, 8, or 9 failure occurs during diagnostic (Items 32 through 38), Items 51 through 53 must be performed and procedure repeated from Item 1 2. If failure occurs during Items 32 through 38, Items 32 through 38 must be repeated		
32	Diagnose API 0 (**DGN:API 0:PH (2,4-9)!**)	INST	DLP-517
33	Switch AUIs (**SW:AUI!**)	INST	DLP-580
34	Diagnose API 0 (**DGN:API 0:PH (2,4-9)!**)	INST	DLP-517
35	Switch CCs (**SW:CC!**) (It Will Take Approximately 3 Minutes for CCs To Switch)	INST	DLP-530
36	Diagnose API 0 (**DGN:API 0:PH (2,4-9)!**)	INST	DLP-517
37	Switch AUIs (**SW:AUI!**)	INST	DLP-580
38	Diagnose API 0 (**DGN:API 0:PH (2,4-9)!**)	INST	DLP-517
39	At 1B Processor Utility System Workstation, Restore API 0 to Service Unconditionally (**RST:API 0;UCL!**)	INST	DLP-515
40	At 1B Processor MCC Terminal, if 1B Processor Status (118) Is Not Displayed, Enter **118**	INST	—
41	If AUI 0 Is Active, Switch AUIs To Make AUI 1 Active (**SW:AUI!**)	INST	DLP-580
42	Diagnose AUI 0 Using Restore Message (**RST:AUI 0!**)	INST	DLP-611
43	Switch AUIs To Make AUI 0 Active (**SW:AUI!**)	INST	DLP-580
44	Diagnose Standby AUI 1 Using Restore Message (**RST:AUI 1!**)	INST	DLP-611
45	At 1B Processor MCC Terminal, if 1B Processor Status Page (118) Is Not Displayed, Enter **118**	INST	—
46	Ensure 118 Page Displays API 0 Active	INST	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
47	Wait 1 Minute Before Continuing To Ensure No Interrupts Received for Either 1A or 1B Processor	TELCO/INST	—
48	Test Capability To Exchange Test Messages Between 1B Processor and APS	INST	DLP-516
49	Switch AUIs (**SW:AUI!**)	INST	DLP-580
50	Test Capability To Exchange Test Messages Between 1B Processor and APS	INST	DLP-516
	CAUTION: Care must be taken to ensure only AUB 0 conversion switch is being operated		
	NOTE: When conversion switch is switched back to 1A Processor bus access, 1B Processor will interject		
51	This DLP Must Be Followed. Prepare to Switch AUO; Then At Indicator/Remote Control Unit, Switch AUB 0 to 1A Bus Access	TELCO/INST	DLP-518
52	Notify Next Higher Technical Support Group That AUB 0 Conversion Switch Was Switched Back to 1A Processor Bus Access	TELCO	—
53	At MTC Terminal, Clear API Being Tested From Off-Line State (**INH:APSTEST!**)	TELCO	DLP-534
54	At MTC Terminal, Restore AUB 0 to Service (**RST:AUB 0!**)	TELCO	DLP-507
55	Restore API 0 to Service (**RST:API 0!**)	TELCO	DLP-507
56	Restore DUS 0 to Service (**RST:DUS 0!**)	TELCO	DLP-507
57	Restore TUCs That Were Removed From Service in Item 27(**RST:TUC a!**)	TELCO	DLP-507
58	Safe Point To Temporarily Stop This Procedure. If Stopping, Perform Steps 59 Through 63; Otherwise, Go to Item 78	TELCO/INST	—
59	At 1B Processor Utility System Workstation, Enter Message **ALW:MACLI,CLASS MTCE!** To Allow 1B Processor REX	INST	—
60	At MTC Terminal, Enter Message **ALW:MACLI,CLASS MTCE!** To Allow 1A Processor REX	TELCO	—
61	Set MUP Back to Non-Interference	INST	DLP-576
62	At MCRT, Enter Following Messages To Allow Automatic Diagnostics: • **ALW:DMQ;SRC REX!** • **ALW:DMQ;SRC ADP!**	TELCO	—
63	Stop Now Until Resuming	TELCO/INST	—

DO THE ITEMS BELOW IN THE ORDER LISTED . . . . . FOR DETAILS, GO TO			
64	Ensure No API Interjects or Interrupts Have Occurred Within 24 Hours of Performing This Procedure	TELCO	—
65	Ensure Any 1A Processor Problems Have Been Cleared Before Performing This Procedure	TELCO	—
66	Ensure All 1A Processor and Peripheral Units Are Operating in Normal Duplex Mode	TELCO	DLP-500
67	Ensure *4ESS* Switch Is in Stable Condition	TELCO	DLP-556
68	Ensure Stand-Alone 1B Processor Is in Stable Condition	INST	DLP-566
69	Allow Utility Interfering Actions	INST	DLP-570
70	At 1B Processor Utility System Workstation, Start I/O Message Process, if Required	INST	DLP-578
71	Enable Utility-Paging Administration (UPAD) Processes (**ALW:UPAD!**)	INST	DLP-514
72	Ensure 1B Processor Units Are Inservice (**OP:OOSUNITS!**)	INST	DLP-528
73	At 1B Processor Indicator/Remote Control Unit, Ensure All Switches Associated With Equipped Office Equipment Are Set to 1A Processor Position (Associated LEDs On Green) and Permit Bus Access	TELCO	DLP-557
74	At 3B MCRT, Verify API-DLN Stream (**OP:DLNCM;STREAM!**)	TELCO	DLP-501
75	Enter Following Messsages To Inhibit APS Automatic Diagnostics: • **INH:DMQ;SRC REX!** • **INH:DMQ;SRC ADP!**	TELCO	—
76	At MTC Terminal, Enter Message **INH:MACLI,CLASS MTCE;REX!** To Inhibit 1A Processor REX	TELCO	—
77	At 1B Processor Utility System Workstation, Enter Message **INH:MACLI,CLASS MTCE;ALL!** To Inhibit 1B Processor REX	INST	—
78	At MTC Terminal, Determine Which API Is Standby (**OP:APSTATUS!**)	TELCO	DLP-509
79	Diagnose Standby API (Item 78) Using Restore Message (**RST:API a!**)	TELCO	DLP-507
80	Switch APIs To Make Other API Standby (**SW:APS 0!**)	TELCO	DLP-510
81	Diagnose Standby API Using Restore Message (**RST:API a!**)	TELCO	DLP-507
	NOTE: Items 82 through 118 are being performed to test AUB 1 limited access		

DO THE ITEMS BELOW IN THE ORDER LISTED . . . . . FOR DETAILS, GO TO			
82	Notify Next Higher Technical Support Group That AUB 1 Conversion Switch Is Going To Be Switched to 1B Processor Bus Access	TELCO	—
83	Determine Which API Is Standby (**OP:APSTATUS!**)	TELCO	DLP-509
84	If API 0 Is Standby, Switch APIs To Make API 1 Standby (**SW:APS 0!**)	TELCO	DLP-510
85	Remove API 1 From Service (**RMV:API 1!**)	TELCO	DLP-511
86	Remove DUS 1 From Service (**RMV:DUS 1!**)	TELCO	DLP-511
87	Clear Assigned ADS Function(s) (**CLR:ADSFUNC a!**)	TELCO	DLP-609
88	Remove All In-Service Equipped TUCs From Service (**RMV:TUC a!**)	TELCO	DLP-511
89	Remove AUB 1 From Service (**RMV:AUB 1!**)	TELCO	DLP-511
90	Set API Being Tested to Off-Line State (**ALW:APSTEST!**)	TELCO	DLP-512
	CAUTION: Care must be taken to ensure only AUB 1 conversion switch is being operated		
	NOTES: 1. If 1A Processor system fault occurs while conversion switch is set to 1B Processor bus access, conversion switch will automatically switch back to 1A Processor bus access 2. While running following tests, 1A and 1B Processors' and 3B APS operation must be closely monitored		
91	This DLP Must Be Followed. Prepare to Switch AU1; Then At Indicator/Remote Control Unit, Switch AUB 1 to 1B Bus Access	TELCO	DLP-525
92	At 1B Processor Utility System Workstation, Restore AUB 1 to Service (**RST:AUB 1;UCL!**)	INST	DLP-515
	NOTES: 1. If phase 7, 8, or 9 failure occurs during diagnostic (Items 93 through 99), Items 112 through 114 must be performed and procedure repeated from Item 1 2. If failure occurs during Items 93 through 99, Items 93 through 99 must be repeated		
93	Diagnose API 1 (**DGN:API 1:PH (2,4-9)!**)	INST	DLP-517
94	Switch AUIs (**SW:AUI!**)	INST	DLP-580
95	Diagnose API 1 (**DGN:API 1:PH (2,4-9)!**)	INST	DLP-517
96	Switch CCs (**SW:CC!**) (It Will Take Approximately 3 Minutes for CCs To Switch)	INST	DLP-530
97	Diagnose API 1 (**DGN:API 1:PH (2,4-9)!**)	INST	DLP-517

DO THE ITEMS BELOW IN THE ORDER LISTED . . . . . FOR DETAILS, GO TO			
98	Switch AUIs (**SW:AUI!**)	INST	DLP-580
99	Diagnose API 1 (**DGN:API 1:PH (2,4-9)!**)	INST	DLP-517
100	At 1B Processor Utility System Workstation, Restore API 1 to Service Unconditionally (**RST:API 1;UCL!**)	INST	DLP-515
101	At 1B Processor MCC Terminal, if 1B Processor Status (118) Is Not Displayed, Enter **118**	INST	—
102	If AUI 1 Is Active, Switch AUIs To Make AUI 0 Active (**SW:AUI!**)	INST	DLP-580
103	Diagnose AUI 1 Using Restore Message (**RST:AUI 1!**)	INST	DLP-611
104	Switch AUIs To Make AUI 1 Active (**SW:AUI!**)	INST	DLP-580
105	Diagnose Standby AUI 0 Using Restore Message (**RST:AUI 0!**)	INST	DLP-611
106	At 1B Processor MCC Terminal, if 1B Processor Status Page (118) Is Not Displayed, Enter **118**	INST	—
107	Ensure 118 Page Displays API 1 Active	INST	—
108	Wait 1 Minute Before Continuing To Ensure No Interrupts Received for Either 1A or 1B Processor	TELCO/INST	—
109	Test Capability To Exchange Messages Between 1B Processor and APS	INST	DLP-516
110	Switch AUIs (**SW:AUI!**)	INST	DLP-580
111	Test Capability To Exchange Messages Between 1B Processor and APS	INST	DLP-516
	CAUTION: Care must be taken to ensure only AUB 1 conversion switch is being operated		
	NOTE: When Conversion Switch is switched back to 1A Processor bus access, 1B Processor APIs will interject		
112	This DLP Must Be Followed. Prepare to Switch AU1; Then At Indicator/Remote Control Unit, Switch AUB 1 to 1A Bus Access	TELCO/INST	DLP-526
113	Notify Next Higher Technical Support Group That AUB 1 Conversion Switch Was Switched Back to 1A Processor Bus Access	TELCO	—
114	At MTC Terminal, Clear API Being Tested From Off-Line State (**INH:APSTEST!**)	TELCO	DLP-534
115	At MTC Terminal, Restore AUB 1 to Service (**RST:AUB 1!**)	TELCO	DLP-507

DO THE ITEMS BELOW IN THE ORDER LISTED . . . . . FOR DETAILS, GO TO			
116	Restore API 1 to Service (**RST:API 1!**)	TELCO	DLP-507
117	Restore DUS 1 to Service (**RST:DUS 1!**)	TELCO	DLP-507
118	Restore TUCs That Were Removed From Service in Item 88 (**RST:TUC a!**)	TELCO	DLP-507
119	At 1B Processor Utility System Workstation, Enter Message **ALW:MACLI,CLASS MTCE!** To Allow 1B Processor REX	INST	—
120	At 1B Processor Utility System Workstation, Exit Output Message Window (Input Message Window Must Remain Open for Monitoring)	INST	—
121	At MTC Terminal, Enter Message **ALW:MACLI,CLASS MTCE!** To Allow 1A Processor REX	TELCO	—
122	At 3B MCRT, Enter Following Messages To Allow Automatic Diagnostics: • **ALW:DMQ;SRC REX!** • **ALW:DMQ;SRC ADP!**	TELCO	—

DO THE ITEMS BELOW IN THE ORDER LISTED . . . . . FOR DETAILS, GO TO

		RESPONSIBILITY	
	WARNING: No other growth or maintenance activity is allowed during this procedure		
	NOTES: 1. This procedure must be performed during light traffic periods 2. Input messages are to be entered at either MTC terminal, APS MCRT, or 1B Processor utility system workstation 3. If AU conversion switch switches back, procedure must be repeated 4. Appropriate Input/Output Manuals must be used if clarification of input message or output message is necessary 5. AUB conversion switches and indicator/remote control unit must be installed and switched to 1A Processor bus access		
1	Ensure Stand-Alone Acceptance Has Been Successfully Completed Before Performing This Procedure [NTP-003]	TELCO/INST	—
2	Ensure AUB Limited Access Tests Have Been Successfully Completed Before Performing This Procedure [NTP-004]	TELCO/INST	—
3	At 3B MCRT, Enter Message **DUMP:BWM!**; Ensure **BWM 94-0026** Is Listed. If This BWM is NOT Listed, Stop Procedure and Contact Next Higher Technical Support Group. Procedure MUST NOT Be Continued	TELCO	—
4	Ensure No API Interjects or Interrupts Have Occurred Within 24 Hours of Performing This Procedure	TELCO	—
5	Ensure Any 1A Processor Problems Have Been Cleared Before Performing This Procedure	TELCO	—
6	Ensure All 1A Processor and Peripheral Units Are Operating in Normal Duplex Mode	TELCO	DLP-500
7	Ensure *4ESS*™ Switch Is in Stable Condition	TELCO	DLP-556
8	At 1B Processor Utility System Workstation, Start I/O Message Process, if Required	INST	DLP-578
9	Enable 1B Processor Utility Paging Administration (UPAD) Processes **(ALW:UPAD!)**	INST	DLP-514
10	Ensure Stand-Alone 1B Processor Is in Stable State, and 1B Processor and 3B Clocks Have Same Time	INST	DLP-566
11	Ensure 1B Processor Units Are In-Service (**OP:OOSUNITS!**)	INST	DLP-528

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
12	At 1B Processor Indicator/Remote Control Unit, Ensure All Switches Associated With Equipped Office Equipment Are Set to 1A Processor Position (Associated LEDs On Green) and Permit Bus Access	TELCO	DLP-557
13	At 3B MCRT, Verify API-DLN Stream (**OP:DLNCM;STREAM!**)	TELCO	DLP-501
14	Enter Following Messages To Inhibit APS Automatic Diagnostics: • **INH:DMQ;SRC REX!** • **INH:DMQ;SRC ADP!**	TELCO	—
15	At MTC Terminal, Enter Message **INH:MACLI,CLASS MTCE;REX!** To Inhibit REX	TELCO	—
16	At 1B Processor Utility System Workstation, Enter Message **INH:MACLI,CLASS MTCE;ALL!** To Inhibit REX	INST	—
17	At 1A Processor MCC, Ensure No Lamps Are On in **UPDATE**, **OVERRIDE CONTROL**, **SYSTEM REINITIALIZATION**, or **PROCESSOR CONFIGURATION SEQUENCER** Panels, Except **PROCESSOR CONFIG COMPLETE** Lamp	TELCO	—
18	At MTC Terminal, Determine Which API Is Standby (**OP:APSTATUS!**)	TELCO	DLP-509
19	Diagnose Standby API (Item 18) Using Restore Message (**RST:API a!**)	TELCO	DLP-507
20	Switch APIs To Make Other API Standby (**SW:APS 0!**)	TELCO	DLP-510
21	Diagnose Standby API Using Restore Message (**RST:API a!**)	TELCO	DLP-507
	NOTE: Items 22 through 88 are being performed to ensure tape unit SR hardware is functional		
22	At MTC Terminal, Determine an In-Service and Unassigned TUC (**OP:DUSTATUS!**)	TELCO	—
23	Determine Which API Is Standby (**OP:APSTATUS!**)	TELCO	DLP-509
24	If API 0 Is Standby, Switch APIs To Make API 1 Standby (**SW:APS 0!**)	TELCO	DLP-510
25	Remove API 1 From Service (**RMV:API 1!**)	TELCO	DLP-511
26	Remove DUS 1 From Service (**RMV:DUS 1!**)	TELCO	DLP-511
27	Remove AUB 1 From Service (**RMV:AUB 1!**)	TELCO	DLP-511
28	At Power Switch on TUC (Item 22), Depress **TEST** Key and Ensure All Lamps On	TELCO	—
29	At TUC (Item 22), Mount Blank or Erasable Tape With Write Ring Installed	TELCO	DLP-521

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
30	At MTC Terminal, Diagnose TUC (Item 22) Using Restore Message (**RST:TUC a!**)	TELCO	DLP-507
31	Set TUC (Item 22) to UTL Function (**SET:TUC a;FUNCTION UTL!**)	TELCO	DLP-581
32	Allow TUC (Item 22) and Write Header to Tape (**ALW:TUC a:RW,WVH,VSN APSTST!**)	TELCO	DLP-582
33	Enter Verify Unit Type Message and Record Entry Address for Later Use (**VER:UTYPE:TUC a!**)	TELCO	DLP-590
34	Copy TUC (Item 22) Unit Type Data to Tape (**COPY:PSS,ADR a ,L 6;TAPE,BOT,FN APSTSTF1!**)	TELCO	DLP-591
35	Dump Tape Copy and Compare With Verify Unit Type Printout (Item 32) (**DUMP:TAPE,FN APSTSTF1!**)	TELCO	DLP-592
36	Clear ADS Function and Verify **OK DMT** Lamp at TUC (Item 22) Is On (**CLR:ADSFUNC UTL!**)	TELCO	DLP-593
37	At 1A Processor MCC **SYSTEM DISPLAY** Panel, Momentarily Depress **LAMP TEST 2** Key and Ensure All Lamps In **SYSTEM REINITIALIZATION** Section On	TELCO	—
38	At 1A Processor MCC **SYSTEM REINITIALIZATION** Panel, Ensure **ENABLE DATA UNIT** and **READY** Lamps Are Off	TELCO	—
39	Depress **ENABLE DATA UNIT** Key and Ensure Lamp Is Off	TELCO	—
40	At TUC (Item 22), Depress **SR** Key and Ensure **SR, ACT, RO,** and **FC** Lamps Are On	TELCO	—
41	At 1A Processor MCC **SYSTEM REINITIALIZATION** Panel, Ensure **READY** Lamp Is On	TELCO	—
42	At MTC Terminal, Ensure TUC (Item 22) Is Set to SRM (**OP:DUSTATUS!**)	TELCO	DLP-594
43	At 1A Processor MCC **SYSTEM REINITIALIZATION** Panel, Depress **ENABLE DATA UNIT** Key and Ensure Lamp Is On	TELCO	—
44	Depress **ENABLE DATA UNIT** Key and Ensure Lamp Is Off	TELCO	—
45	At TUC (Item 22), Demount Tape	TELCO	DLP-520
46	At TUC (Item 22), Ensure **SR, ACT, RO,** and **FC** Lamps Are Off and **UNA** Lamp Is On	TELCO	—
47	At 1A Processor MCC **SYSTEM REINITIALIZATION** Panel, Ensure **READY** Lamp Is Off	TELCO	—
48	At MTC Terminal, Restore AUB 1 to Service (**RST:AUB 1!**)	TELCO	DLP-507
49	Restore API 1 to Service (**RST:API 1!**)	TELCO	DLP-507
50	Restore DUS 1 to Service (**RST:DUS 1!**)	TELCO	DLP-507
51	Switch APIs To Make API 0 Standby (**SW:APS 0!**)	TELCO	DLP-510

DO THE ITEMS BELOW IN THE ORDER LISTED . . . . . FOR DETAILS, GO TO			
52	Remove API 0 From Service (**RMV:API 0!**)	TELCO	DLP-511
53	Remove DUS 0 From Service (**RMV:DUS 0!**)	TELCO	DLP-511
54	Remove AUB 0 From Service (**RMV:AUB 0!**)	TELCO	DLP-511
55	Clear Assigned ADS Function(s) (**CLR:ADSFUNC a!**)	TELCO	DLP-609
56	Remove All In-Service Equipped TUCs From Service (**RMV:TUC a!**)	TELCO	DLP-511
	NOTE: All TUCs must remain out-of-service from 1A side until procedure completed; otherwise, interrupts could occur		
57	Set API Being Tested to Off-Line State (**ALW:APSTEST!**)	TELCO	DLP-512
58	At TUC (Item 22), Mount Blank or Erasable Tape With Write Ring Installed	TELCO	DLP-521
59	Notify Next Higher Technical Support Group That AUB 0 Conversion Switch Unit Is Going To Be Switched to 1B Processor Bus Access	TELCO	—
60	At Indicator/Remote Control Unit, Ensure **ALL-1A** and **ALL-1B** Keys in **OFF** Position	TELCO	—
	CAUTION: Care must be taken to ensure only AUB 0 converison switch is being operated		
	NOTES: 1. If 1A Processor system fault occurs while conversion switch is set to 1B Processor bus access, conversion switch will automatically switch back to 1A Processor bus access 2. While running following tests, 1A and 1B Processors' and 3B APS operation must be closely monitored		
61	This DLP Must Be Followed. Prepare to Switch AU0; Then At Indicator/Remote Control Unit Switch AUB 0 to 1B Bus Access	TELCO	DLP-513
62	At 1B Processor Utility System Workstation, Restore AUB 0 to Service Unconditionally (**RST:AUB 0;UCL!**)	INST	DLP-515
63	At 1B Processor MCC Terminal, if 1B Processor Status (118) Is Not Displayed, Enter **118**	INST	—
64	If AUI 1 Is Active, Switch AUIs to Make AUI 0 Active (**SW:AUI!**)	INST	DLP-580
65	Diagnose DUS 0 (**DGN:DUS 0:PH (11-17)!**)	INST	DLP-595
66	Switch AUIs To Make AUI 1 Active (**SW:AUI!**)	INST	DLP-580
67	Diagnose DUS 0 (**DGN:DUS 0:PH (11-17)!**)	INST	DLP-595
68	Restore DUS 0 to Service Unconditionally (**RST:DUS 0;UCL!**)	INST	DLP-515

DO THE ITEMS BELOW IN THE ORDER LISTED . . . . . FOR DETAILS, GO TO			
69	Diagnose AUI 0 Using Restore Message (**RST:AUI 0!**)	INST	DLP-611
70	Switch AUIs To Make AUI 0 Active (**SW:AUI!**)	INST	DLP-580
71	Diagnose AUI 1 Using Restore Message (**RST:AUI 1!**)	INST	DLP-611
72	Diagnose TUC (Item 22) (**DGN:TUC a:PH (21-56)!**)	INST	DLP-596
73	Restore TUC (Item 22) to Service Unconditionally (**RST:TUC a;UCL!**)	INST	DLP-515
74	Set TUC (Item 22) to UTL Function (**SET:TUC a;FUNCTION UTL!**)	INST	DLP-522
75	Allow TUC (Item 22) and Write Header to Tape (**ALW:TUC a:RW,WVH,VSN APSTST!**)	INST	DLP-523
76	Enter Verify Unit Type Message and Record Entry Address for Later Use (**VER:UTYPE:TUC a!**)	INST	DLP-597
77	Copy TUC (Item 22) Unit Type Data to Tape (**COPY:PSS,ADR a,L 6;TAPE,BOT,FN APSTSTF1!**)	INST	DLP-598
78	Dump Tape Copy and Compare With Verify Unit Type Printout (Item 76) (**DUMP:TAPE,FN APSTSTF1!**)	INST	DLP-599
79	Clear ADS Function and Verify **OK DMT** Lamp at TUC (Item 22) Is On (**CLR:ADSFUNC UTL!**)	INST	DLP-600
80	Verify SR Tape Access to 1B Processor MCC Terminal	INST	DLP-586
	CAUTION: Care must be taken to ensure only AUB 0 Conversion Switch is being operated		
81	This DLP Must Be Followed. Prepare to Switch AU0; Then At Indicator/Remote Control Unit Switch AUB 0 to 1A Bus Access	TELCO/INST	DLP-518
82	Notify Next Higher Technical Support Group That AUB 0 Conversion Switch Unit Was Switched Back to 1A Processor Bus Access	TELCO	—
	Note: Item 83 will cause 1B Processor to interject and API 0 will not be restored. The interject is being created to clear out DUS 1 from 1B Processor		
83	At 1B Processor Utility System Workstation, Enter Message **RST:API 0;UCL!;** API 0 Will Not Restore to Service	TELCO	—
84	At MTC Terminal, Clear API Being Tested From Off-Line State (**INH:APSTEST!**)	TELCO	DLP-534
85	Restore AUB 0 to Service (**RST:AUB 0!**)	TELCO	DLP-507
86	Restore API 0 to Service (**RST:API 0!**)	TELCO	DLP-507
87	Restore DUS 0 to Service (**RST:DUS 0!**)	TELCO	DLP-507

DO THE ITEMS BELOW IN THE ORDER LISTED . . . . . FOR DETAILS, GO TO			
88	Restore All TUCs to Service That Were Removed in Item 56 (**RST:TUC a!**)	TELCO	DLP-507
89	Safe Point to Temporarily Stop This Procedure. If Stopping, Perform Items 90 Through 93; Otherwise, Go to Item 107	TELCO/INST	—
90	At MTC Terminal, Enter Message **ALW:MACLI,CLASS MTCE!** To Allow REX	TELCO	—
91	At 1B Processor Utility System Workstation, Enter Message **ALW:MACLI,CLASS MTCE!** To Allow REX	INST	—
92	At 3B MCRT, Enter Following Messages To Allow APS Automatic Diagnostics: • **ALW:DMQ;SRC REX!** • **ALW:DMQ;SRC ADP!**	TELCO	—
93	Stop Now Until Resuming	TELCO/INST	—
94	Ensure No API Interjects or Interrupts Have Occurred Within 24 Hours of Performing This Procedure	TELCO	—
95	Ensure Any 1A Processor Problems Have Been Cleared Before Performing This Procedure	TELCO	—
96	Ensure All 1A Processor and Peripheral Units Are Operating in Normal Duplex Mode	TELCO	DLP-500
97	Ensure *4ESS* Switch Is in Stable Condition	TELCO	DLP-556
98	Ensure Stand-Alone 1B Processor Is in Stable State	INST	DLP-566
99	At 1B Processor Utility System Workstation, Start I/O Message Process, if Required	INST	DLP-578
100	Enable 1B Processor Utility Paging Administration (UPAD) Processes (**ALW:UPAD!**)	INST	DLP-514
101	Ensure 1B Processor Units Are In-Service (**OP:OOSUNITS!**)	INST	DLP-528
102	At 1B Processor Indicator/Remote Control Unit, Ensure All Switches Associated With Equipped Office Equipment Are Set to 1A Processor Position (Associated LEDs On Green) and Permit Bus Access	TELCO	DLP-557
103	At 3B MCRT, Verify API-DLN Stream (**OP:DLNCM;STREAM!**)	TELCO	DLP-501
104	Enter Following Messages To Inhibit APS Automatic Diagnostics: • **INH:DMQ;SRC REX!** • **INH:DMQ;SRC ADP!**	TELCO	—
105	At MTC Terminal, Enter Message **INH:MACLI,CLASS MTCE;REX!** To Inhibit REX	TELCO	—

DO THE ITEMS BELOW IN THE ORDER LISTED . . . . . FOR DETAILS, GO TO			
106	At 1B Processor Utility System Workstation, Enter Message **INH:MACLI,CLASS MTCE;ALL!** To Inhibit REX	INST	—
107	At 1A Processor MCC, Ensure No Lamps Are On in **UPDATE, OVERRIDE CONTROL, SYSTEM REINITIALIZATION,** and **PROCESSOR CONFIGURATION SEQUENCER** Panels, Except **PROCESSOR CONFIG COMPLETE** Lamp	TELCO	—
108	At MTC Terminal, Determine Which API Is Standby (**OP:APSTATUS!**)	TELCO	DLP-509
109	Diagnose Standby API (Item 108) Using Restore Message (**RST:API a!**)	TELCO	DLP-507
110	Switch APIs To Make Other API Standby (**SW:APS 0!**)	TELCO	DLP-510
111	Diagnose Standby API Using Restore Message (**RST:API a!**)	TELCO	DLP-507
	NOTE: Items 112 through 177 are being performed to ensure tape unit SR hardware is functional		
112	At MTC Terminal, Determine Which API Is Standby (**OP:APSTATUS!**)	TELCO	DLP-509
113	If API 1 Is Standby, Switch APIs To Make API 0 Standby (**SW:APS 0!**)	TELCO	DLP-510
114	Remove API 0 From Service (**RMV:API 0!**)	TELCO	DLP-511
115	Remove DUS 0 From Service (**RMV:DUS 0!**)	TELCO	DLP-511
116	Remove AUB 0 From Service (**RMV:AUB 0!**)	TELCO	DLP-511
117	At Power Switch on TUC (Item 22), Depress **TEST** Key and Ensure All Lamps On	TELCO	—
118	At TUC (Item 22), Mount Blank or Erasable Tape With Write Ring Installed	TELCO	DLP-521
119	At MTC Terminal, Diagnose TUC (Item 22) Using Restore Message (**RST:TUC a!**)	TELCO	DLP-507
120	Set TUC (Item 22) to UTL Function (**SET:TUC a;FUNCTION UTL!**)	TELCO	DLP-581
121	Allow TUC (Item 22) and Write Header to Tape (**ALW:TUC a:RW,WVH,VSN APSTST!**)	TELCO	DLP-582
122	Enter Verify Unit Type Message and Record Entry Address for Later Use (**VER:UTYPE:TUC a!**)	TELCO	DLP-590
123	Copy TUC (Item 22) Unit Type Data to Tape **(COPY:PSS,ADR a,L 6;TAPE,BOT,FN APSTSTF1!)**	TELCO	DLP-591
124	Dump Tape Copy and Compare With Verify Unit Type Printout (Item 122) **(DUMP:TAPE,FN APSTSTF1!)**	TELCO	DLP-592

DO THE ITEMS BELOW IN THE ORDER LISTED . . . . . FOR DETAILS, GO TO			
125	Clear ADS Function and Verify **OK DMT** Lamp at TUC (Item 22) Is On (CLR:ADSFUNC UTL!)	TELCO	DLP-593
126	At 1A Processor MCC **SYSTEM DISPLAY** Panel, Momentarily Depress **LAMP TEST 2** Key and Ensure All Lamps in **SYSTEM REINITIALIZATION** Section Are On	TELCO	—
127	At 1A Processor MCC **SYSTEM REINITIALIZATION** Panel, Ensure **ENABLE DATA UNIT** and **READY** Lamps Are Off	TELCO	—
128	Depress **ENABLE DATA UNIT** Key and Ensure Lamp Is Off	TELCO	—
129	At TUC (Item 22), Depress **SR** Key and Ensure **SR, ACT, RO,** and **FC** Lamps Are On	TELCO	—
130	At 1A Processor MCC **SYSTEM REINITIALIZATION** Panel, Ensure **READY** Lamp Is On	TELCO	—
131	At MTC Terminal, Ensure TUC (Item 22) Is Set to SRM (OP:DUSTATUS!)	TELCO	DLP-594
132	At 1A Processor MCC **SYSTEM REINITIALIZATION** Panel, Depress **ENABLE DATA UNIT** Key and Ensure Lamp Is On	TELCO	—
133	Depress **ENABLE DATA UNIT** Key and Ensure Lamp Is Off	TELCO	—
134	At TUC (Item 22), Demount Tape	TELCO	DLP-520
135	At TUC (Item 22), Ensure **SR, ACT, RO,** and **FC** Lamps Are Off and **UNA** Lamp Is On	TELCO	—
136	At 1A Processor MCC **SYSTEM REINITIALIZATION** Panel, Ensure **READY** Lamp Is Off	TELCO	—
137	At MTC Terminal, Restore AUB 0 to Service (RST:AUB 0!)	TELCO	DLP-507
138	Restore API 0 to Service (RST:API 0!)	TELCO	DLP-507
139	Restore DUS 0 to Service (RST:DUS 0!)	TELCO	DLP-507
140	Switch APIs To Make API 1 Standby (SW:APS 0!)	TELCO	DLP-510
141	Remove API 1 From Service (RMV:API 1!)	TELCO	DLP-511
142	Remove DUS 1 From Service (RMV:DUS 1!)	TELCO	DLP-511
143	Remove AUB 1 From Service (RMV:AUB 1!)	TELCO	DLP-511
144	Clear Assigned ADS Function(s) (CLR:ADSFUNC a!)	TELCO	DLP-609
145	Remove All In-Service Equipped TUCs From Service (RMV:TUC a!)	TELCO	DLP-511

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
	NOTE: All TUCs must remain out-of-service from 1A side until procedure completed; otherwise, interrupts could occur		
146	Set API Being Tested to Off-Line State (**ALW:APSTEST!**)	TELCO	DLP-512
147	At TUC (Item 22), Mount Blank or Erasable Tape With Write Ring Installed	TELCO	DLP-521
148	Notify Next Higher Technical Support Group That AUB 1 Conversion Switch Unit Is Going To Be Switched to 1B Processor Bus Access	TELCO	—
149	At Indicator/Remote Control Unit, Ensure **ALL-1A** and **ALL-1B** Keys in **OFF** Position	TELCO	—
	CAUTION: Care must be taken to ensure only AUB 1 conversion switch is being operated		
	NOTES: 1. If 1A Processor system fault occurs while conversion switch is set to 1B Processor bus access, conversion switch will automatically switch back to 1A Processor bus access 2. While running following tests, 1A and 1B Processors' and 3B APS operation must be closely monitored		
150	The DLP Must Be Followed. Prepare to Switch AU1; Then At Indicator/Remote Control Unit Switch AUB 1 to 1B Bus Access	TELCO	DLP-525
151	At 1B Processor Utility System Workstation, Restore AUB 1 to Service Unconditionally (**RST:AUB 1;UCL!**)	INST	DLP-515
152	At 1B Processor MCC Terminal, if 1B Processor Status (118) Is Not Displayed, Enter **118**	INST	—
153	If AUI 0 Is Active, Switch AUIs to Make AUI 1 Active (**SW:AUI!**)	INST	DLP-580
154	Diagnose DUS 1 (**DGN:DUS 1:PH (11-17)!**)	INST	DLP-595
155	Switch AUIs To Make AUI 0 Active (**SW:AUI!**)	INST	DLP-580
156	Diagnose DUS 1 (**DGN:DUS 1:PH (11-17)!**)	INST	DLP-595
157	Restore DUS 1 to Service Unconditionally (**RST:DUS 1;UCL!**)	INST	DLP-515
158	Diagnose AUI 1 Using Retore Message (**RST:AUI 1!**)	INST	DLP-611
159	Switch AUIs To Make AUI 1 Active (**SW:AUI!**)	INST	DLP-580
160	Diagnose AUI 0 Using Restore Message (**RST:AUI 0!**)	INST	DLP-611
161	Diagnose TUC (Item 22) (**DGN:TUC a:PH (21-56)!**)	INST	DLP-596

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
162	Restore TUC (Item 22) to Service Unconditionally (**RST:TUC a;UCL!**)	INST	DLP-515
163	Set TUC (Item 22) to UTL Function (**SET:TUC a;FUNCTION UTL!**)	INST	DLP-522
164	Allow TUC (Item 22) and Write Header to Tape (**ALW:TUC a:RW,WVH,VSN APSTST!**)	INST	DLP-523
165	Enter Verify Unit Type Message and Record Entry Address for Later Use (**VER:UTYPE:TUC a!**)	INST	DLP-597
166	Copy TUC (Item 22) Unit Type Data to Tape (**COPY:PSS,ADR a,L 6;TAPE,BOT,FN APSTSTF1!**)	INST	DLP-598
167	Dump Tape Copy and Compare With Verify Unit Type Printout (Item 165) (**DUMP:TAPE,FN APSTSTF1!**)	INST	DLP-599
168	Clear ADS Function and Verify **OK DMT** Lamp at TUC (Item 22) Is On (**CLR:ADSFUNC UTL!**)	INST	DLP-600
169	Verify SR Tape Access to 1B Processor MCC Terminal	INST	DLP-586
	CAUTION: Care must be taken to ensure only AUB 1 conversion switch is being operated		
170	The DLP Must Be Followed. Prepare to Switch AU1; Then At Indicator/Remote Control Unit Switch AUB 1 to 1A Bus Access	TELCO/INST	DLP-526
171	Notify Next Higher Technical Support Group That AUB 1 Conversion Switch Unit Was Switched Back to 1A Processor Bus Access	TELCO/INST	—
	NOTE: Item 172 will cause 1B Processor to interject and API 0 will not be restored. The interject is being created to clear out DUS 1 from 1B Processor		
172	At 1B Processor Utility System Workstation, Enter Message **RST:API 0;UCL!**; API 0 Will Not Restore to Service	INST	—
173	At MTC Terminal, Clear API Being Tested From Off-Line State (**INH:APSTEST!**)	TELCO	DLP-534
174	Restore AUB 1 to Service (**RST:AUB 1!**)	TELCO	DLP-507
175	Restore API 1 to Service (**RST:API 1!**)	TELCO	DLP-507
176	Restore DUS 1 to Service (**RST:DUS 1!**)	TELCO	DLP-507
177	Restore All TUCs to Service That Were Removed in Item 145 (**RST:TUC a!**)	TELCO	DLP-507
178	At MTC Terminal, Enter Message **ALW:MACLI,CLASS MTCE!** To Allow REX	TELCO	—
179	At 1B Processor Utility System Workstation, Enter Message **ALW:MACLI,CLASS MTCE!** To Allow REX	INST	—

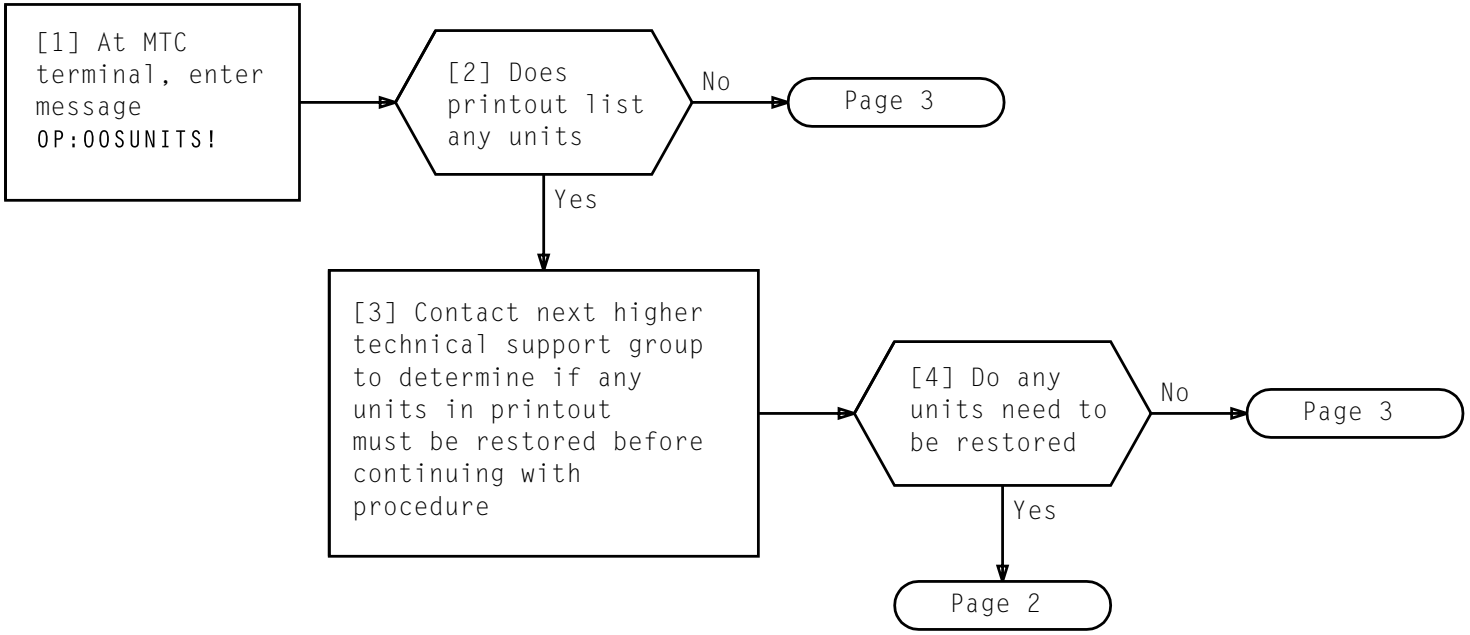
DO THE ITEMS BELOW IN THE ORDER LISTED . . . . . FOR DETAILS, GO TO			
180	At 1B Processor Utility System Workstation, Exit Output Message Window (Input Message Window Must Remain Open for Monitoring)	INST	—
181	At 3B MCRT, Enter Following Messages To Allow APS Automatic Diagnostics: • ALW:DMQ;SRC REX! • ALW:DMQ;SRC ADP!	TELCO	—
182	On Status Sheet in AT&T 234-185-019, Initial and Date Completion of This Procedure	TELCO/INST	—

DO THE ITEMS BELOW IN THE ORDER LISTED . . . . . FOR DETAILS, GO TO		
	NOTES: 1. Input messages are to be entered at 1B Processor utility system workstation 2. Appropriate Input/Output Manual must be used if clarification of input message or output message is necessary 3. This procedure is performed by installation force with office technician observing	
1	At 1B Processor Indicator/Remote Control Unit, Ensure All Switches Associated With Equipped Office Equipment Are Set to 1A Processor Position (Associated LEDs On Green) and Permit Bus Access	DLP-557
2	Allow Utility Interfering Actions	DLP-570
3	At 1B Processor Utility System Workstation, Start I/O Message Process, if Required	DLP-578
4	Enable 1B Processor Utility Paging Administration (UPAD) Processes **(ALW:UPAD!)**	DLP-514
5	Ensure 1B Processor Is Running in Stable State, and 1B Processor and 3B Clocks Have Same Time	DLP-566
6	Ensure 1B Processor Units Are Inservice **(OP:OOSUNITS!)**. Listed Units Must Be Restored to Service	DLP-528
7	At 1B Processor MCC Terminal, if Minor Alarm Is Indicated, Depress **ALM RLS** Key	—
8	Test Software Minor Alarm (Leave REX Inhibited)	DLP-562
9	At 1B Processor MCC Terminal, if Major Alarm Is Indicated, Depress **ALM RLS** Key	—
10	Test Software Major Alarm	DLP-561
11	Test Hardware Major −48V Alarm	DLP-563
12	Test Software Critical Alarm	DLP-564
13	At 1B Processor Utility System Workstation, Enter Message **ALW:MACLI,CLASS MTCE!** To Allow **REX**	—
14	At 1B Processor Utility System Workstation, Exit Output Message Window (Input Message Window Must Remain Open for Monitoring)	—
15	On Status Sheet in AT&T 234-185-019, Initial and Date Completion of This Procedure	—

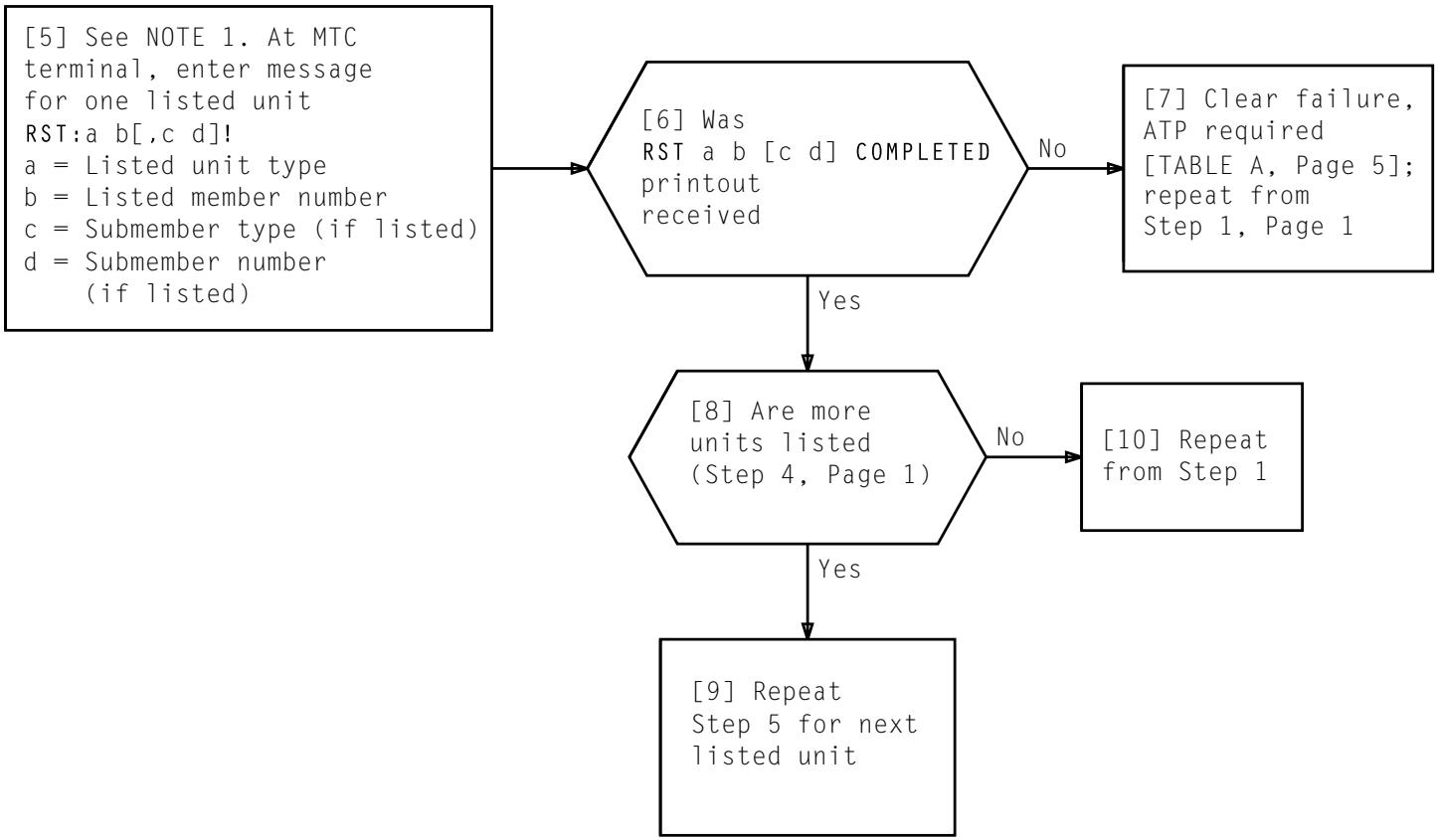
DO THE ITEMS BELOW IN THE ORDER LISTED . . . . . FOR DETAILS, GO TO		
	NOTES: 1. This procedure is performed by installation force with office technician observing 2. All MCC functions are entered at 1B Processor MCC terminal 3. After entering poke command, wait for response to be received before proceeding	
1	Ensure 1B Processor Stand-Alone Acceptance Tests Have Been Performed [NTP-003]	—
2	Ensure 1B Processor Is Running in Stable State	DLP-566
3	Allow Utility Interfering Actions	DLP-570
4	At 1B Processor MCC Terminal, if EAI Page Is Not Displayed, Depress **EA DISP** Key	—
5	Force 1B Processor to 0 Side and Suspend	DLP-606
6	At 1B Processor MCC Terminal, Depress **ESC** Key; Then Simultaneously Depress **CONTROL** and **X** Keys To Force MCC	—
7	If MUP 1 Is Active, Depress **ESC** Key; Then Simultaneouly Depress **CONTROL** and **X** Keys To Switch MUPs (MUP 0 Active)	—
8	Enter **106** To Obtain MUP Status and Control Page (106)	—
9	Enter **613** (UAS INTF ALW); Ensure **UAS:INTERFERING** Colored White on Red	—
10	Enter **1990** To Obtain Dead Start Page (1990)	—
11	Diagnose MUP	DLP-577
12	Enter **106** To Obtain MUP Status and Control Page (106)	—
13	Enter **613** (UAS INTF ALW); Ensure **UAS:INTERFERING** Colored White on Red	—
14	Enter **1990** To Obtain Dead Start Page (1990)	—
15	Diagnose MUP/MUI Interface	DLP-567
16	Enter **106** To Obtain MUP Status and Control Page (106)	—
17	Enter **613** (UAS INTF ALW); Ensure **UAS:INTERFERING** Colored White on Red	—
18	Enter **1990** To Obtain Dead Start Page (1990)	—
19	Verify Ability To Force Active MUP	DLP-568
20	At 1B Processor Utility System Workstation, Verify Communications to MUP	DLP-569
21	Enter **1990** To Obtain Dead Start Page (1990)	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO
22	Verify CC Buffer Bus Access Read and Write Function	DLP-571
23	Verify Single Step Capability	DLP-572
	NOTE: Items 24 Through 43 are being performed to verify Dead Start Page (1990) using MUP 1	
24	At 1B Processor MCC Terminal, Depress **ESC** Key; Then Simultaneously Depress **CONTROL** and **X** Keys To Switch MUPs (MUP 1 Active)	–
25	At 1B Processor MCC Terminal, If EAI Page Is Not Displayed, Depress **EA DISP** Key	–
26	Force 1B Processor to 1 Side and Suspend	DLP-607
27	Enter **106** To Obtain MUP Status and Control Page (106)	–
28	Enter **613** (UAS INTF ALW); Ensure **UAS:INTERFERING** Colored White on Red	–
29	Enter **1990** To Obtain Dead Start Page (1990)	–
30	Diagnose MUP	DLP-577
31	Enter **106** To Obtain MUP Status and Control Page (106)	–
32	Enter **613** (UAS INTF ALW); Ensure **UAS:INTERFERING** Colored White on Red	–
33	Enter **1990** To Obtain Dead Start Page (1990)	–
34	Diagnose MUP/MUI Interface	DLP-567
35	Enter **106** To Obtain MUP Status and Control Page (106)	–
36	Enter **613** (UAS INTF ALW); Ensure **UAS:INTERFERING** Colored White on Red	–
37	Enter **1990** To Obtain Dead Start Page (1990)	–
38	Verify Ability To Force Active MUP	DLP-568
39	At 1B Processor Utility System Workstation, Verify Communications to MUP	DLP-569
40	Enter **1990** To Obtain Dead Start Page (1990)	–
41	Verify CC Buffer Bus Access Read and Write Function	DLP-571
42	Verify Single Step Capability	DLP-572
43	Perform Utility System Reinitialization (SR)	DLP-575

DO THE ITEMS BELOW IN THE ORDER LISTED . . . . . FOR DETAILS, GO TO		
44	At 1B Processor Utility System Workstation, Exit Output Message Window (Input Message Window Must Remain Open for Monitoring)	_
45	On Status Sheet in AT&T 234-185-019, Initial and Date Completion of This Procedure	_



ENSURE ALL UNITS ARE IN-SERVICE



NOTE 1
Variables c and d are only to be used if submember is listed

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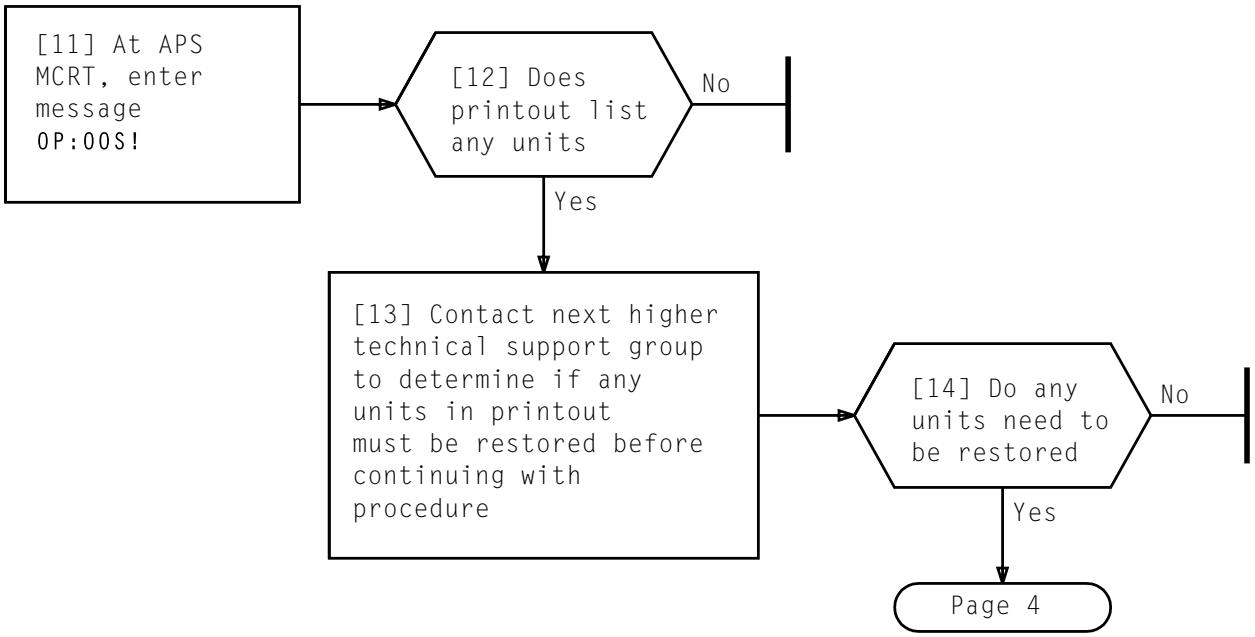
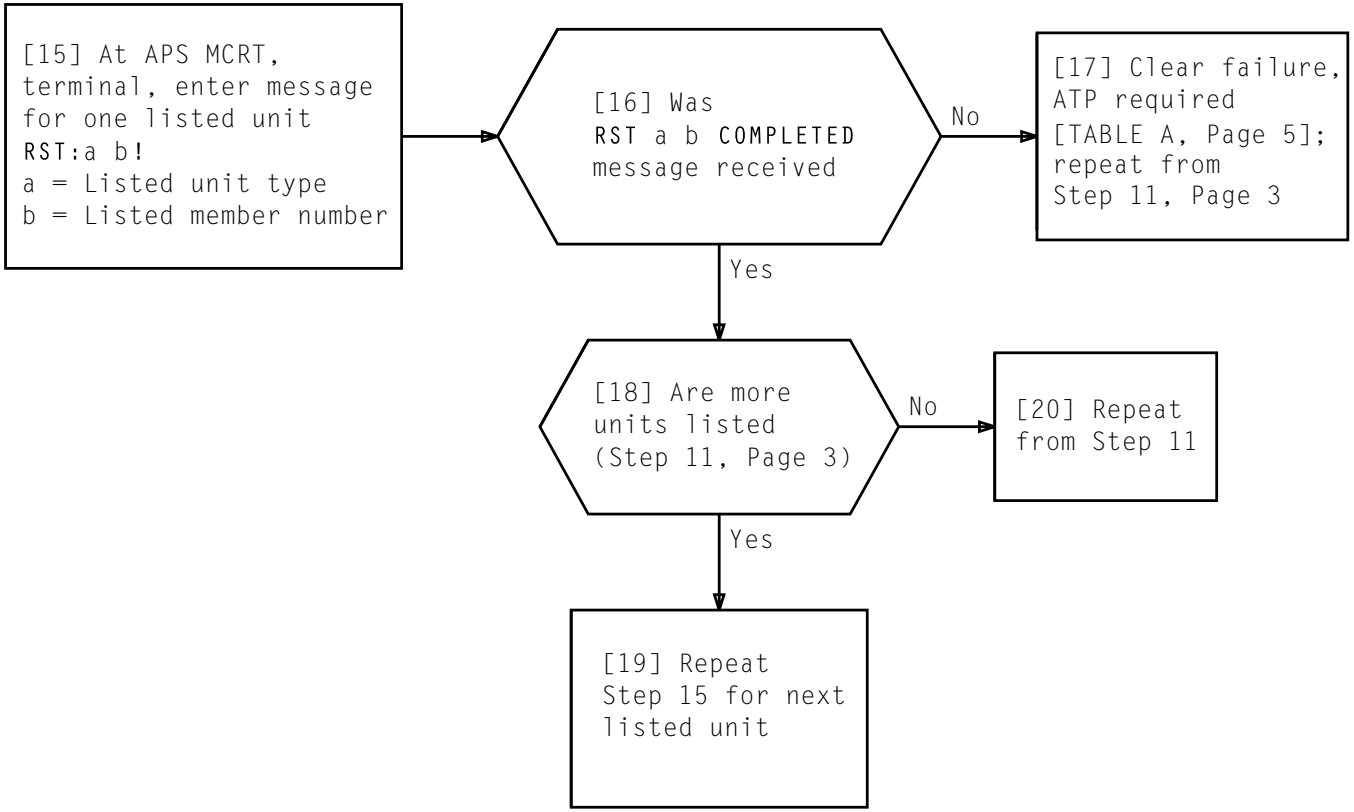
ENSURE ALL UNITS ARE IN-SERVICE



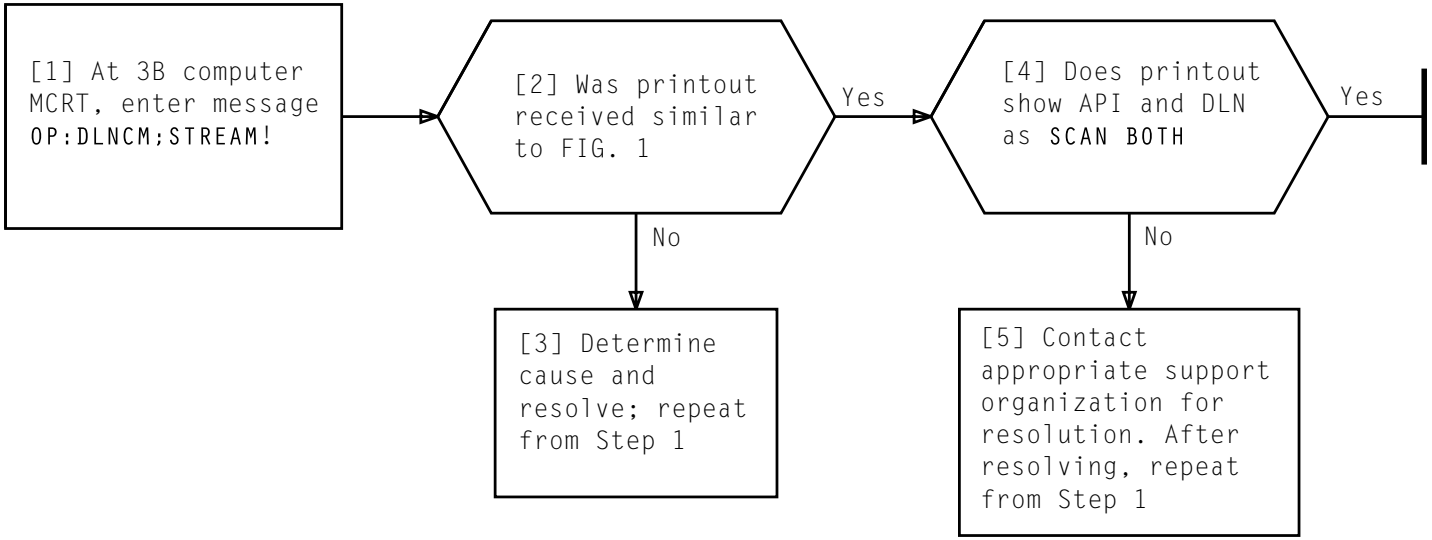
ENSURE ALL UNITS ARE IN-SERVICE



ENSURE ALL UNITS ARE IN-SERVICE

TABLE A			
UNIT TYPE	**TROUBLE CLEARING VOLUME**	**UNIT TYPE**	**TROUBLE CLEARING VOLUME**
3B Computer Model 1	254-301-812 254-301-813	MCC/PPI	234-151-006
		MFS	234-151-041
3B Computer Model 2/3	254-302-812	MISC A, B, C	234-151-043
ADS (TUC and DUS)	254-251-010	NCLK	234-151-013
API	254-251-016	PCDF J5A007B	254-251-025
AUB	254-251-010	PCDF J5A007C	254-251-026
CC	254-251-001	PS	254-251-005
CNI	234-151-120	PUBB	234-151-015
CS and ECS	254-251-005	SCS	234-151-077
DIF	234-151-055	SP1	234-151-031
DT	234-151-045	SP2	234-151-032
EST	234-151-050	TGR	234-151-033
IO J5A006A	254-251-020	TMS	234-151-011
IO J5A006C	254-251-021	TSI	234-151-012
IO J5A006D	254-251-022	VIF	234-151-025

ENSURE ALL UNITS ARE IN-SERVICE




```
OP DLNCM STREAM COMPLETED

API-DLN STREAM STATUS

API: SCAN BOTH                      DLN: SCAN BOTH

INCOMING BUFFER                     OUTGOING BUFFER
   START             X'--------'        START             X'--------'
   END               X'--------'        END               X'--------'
   LOAD POINTER      X'--------'        LOAD POINTER      X'--------'
   UNLOAD POINTER    X'--------'        UNLOAD POINTER    X'--------'
   END POINTER       X'--------'        END POINTER       X'--------'
   -------- = VARIABLE HEX DATA
```

FIG. 1 — Sample OP:DLNCM Printout

VERIFY API-DLN STREAM STATUS

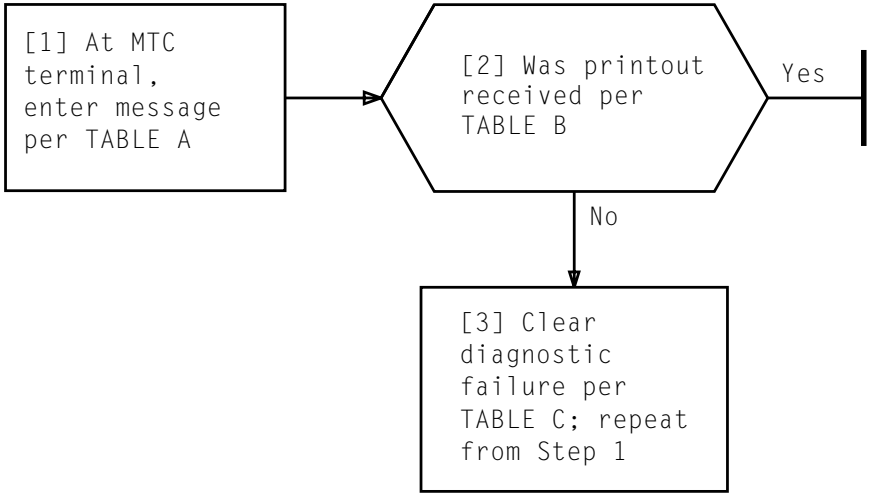


TABLE A

MESSAGE NUMBER	INPUT MESSAGE
1	RST:a b!

a = API or AUB or CC or DUS or PUB or TUC
b = Member number

TABLE B

MESSAGE NUMBER	OUTPUT MESSAGE
1	RST: a b COMPLETED OR RST: a b COMPL

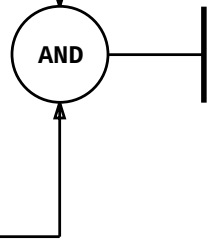
a = API or AUB or CC or DUS or PUB or TUC
b = Member number

TABLE C

UNIT TYPE	TROUBLE-CLEARING VOLUME
API	254-251-016
AUB	254-251-010
CC	254-251-001
DUS	254-251-010
PUB	234-151-015
TUC	254-251-010

RESTORE 1A PROCESSOR API, AUB, CC, DUS, PUB, OR TUC TO SERVICE

[1] At MTC terminal,
enter message
OP:APSTATUS!



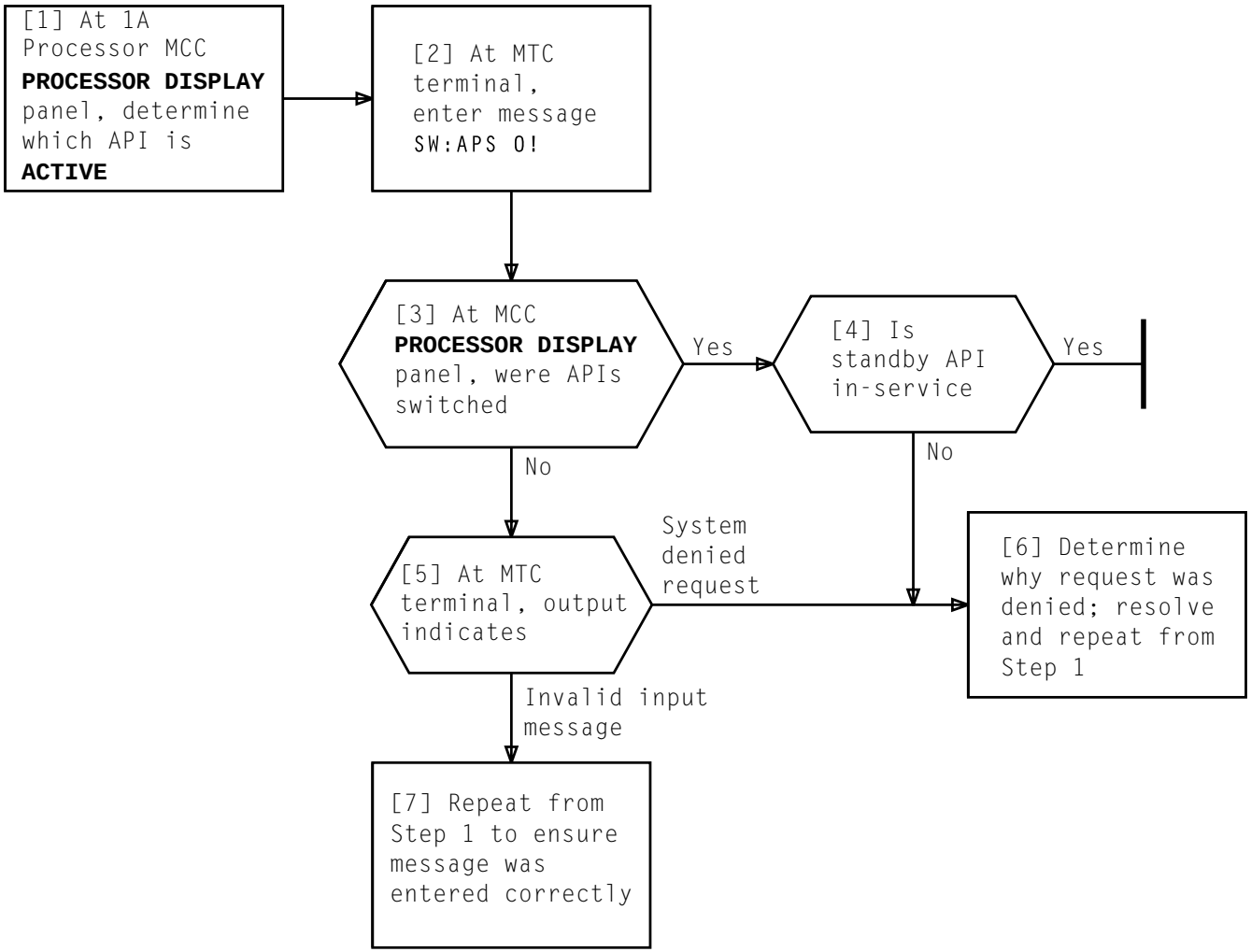
[2] Using printout and FIG. 1,
determine API member number
assigned SBY and record
as standby for later use

APS 0 API 0 a API 1 b

a = ACT or SBY
b = SBY or ACT

FIG. 1 - Sample OP:APSTATUS Printout

DETERMINE STANDBY API


[1] At 1A Processor MCC **PROCESSOR DISPLAY** panel, determine which API is **ACTIVE**
[2] At MTC terminal, enter message SW:APS 0!
[3] At MCC **PROCESSOR DISPLAY** panel, were APIs switched
Yes
[4] Is standby API in-service
Yes
No
No
System denied request
[5] At MTC terminal, output indicates
[6] Determine why request was denied; resolve and repeat from Step 1
Invalid input message
[7] Repeat from Step 1 to ensure message was entered correctly

SWITCH APIs

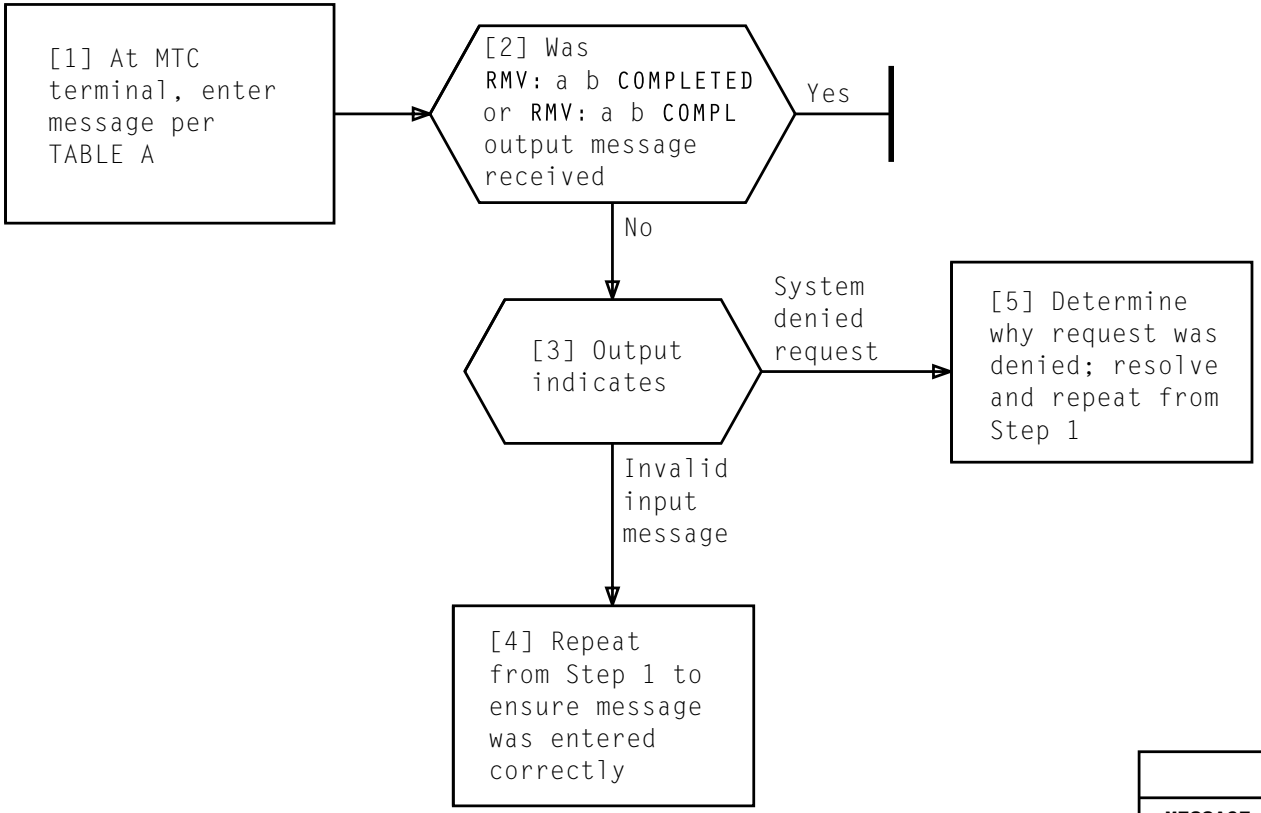


TABLE A	
MESSAGE NUMBER	**INPUT MESSAGE**
1	RMV:a b!
a = API or AUB or CC or DUS or PUB or TUC	
b = Member number	

REMOVE API, AUB, CC, DUS, PUB, OR TUC FROM SERVICE

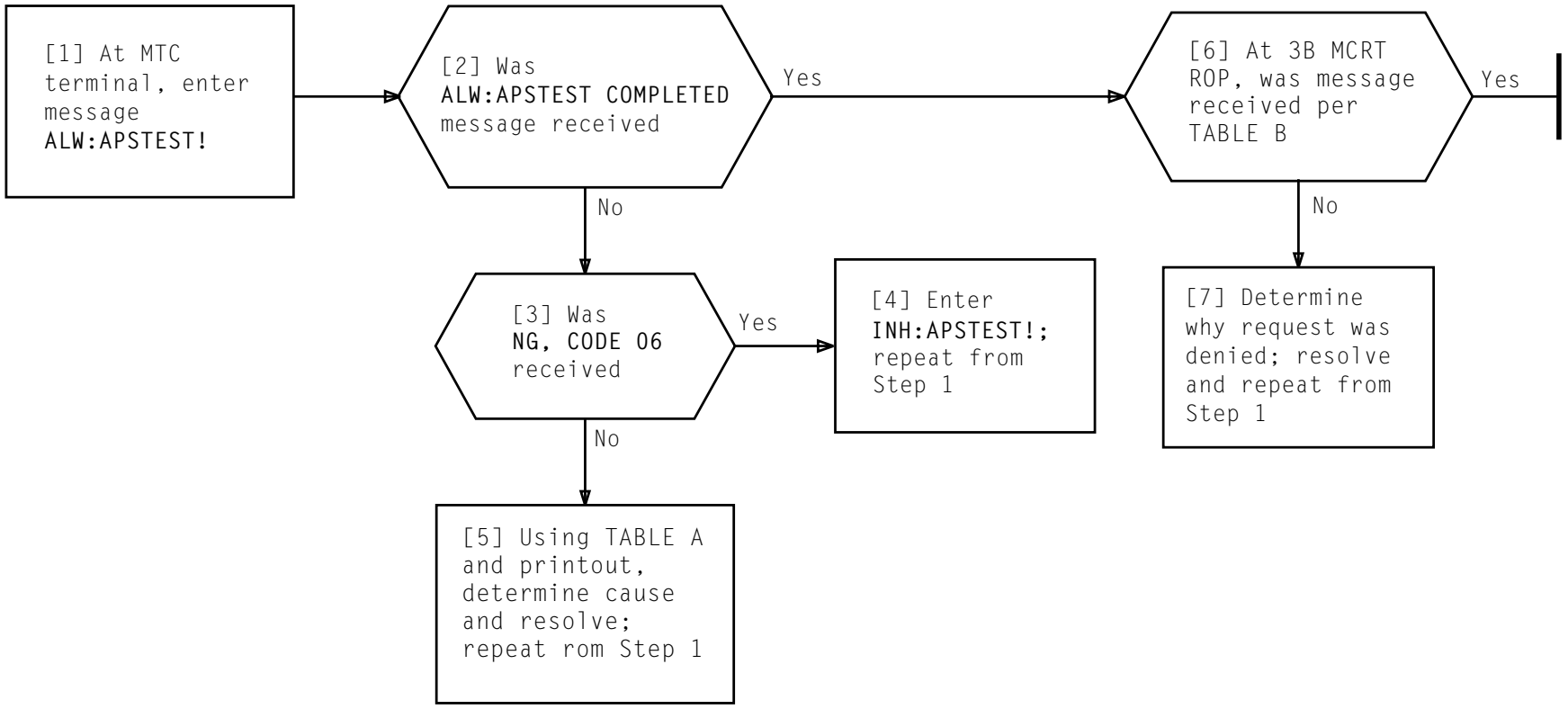


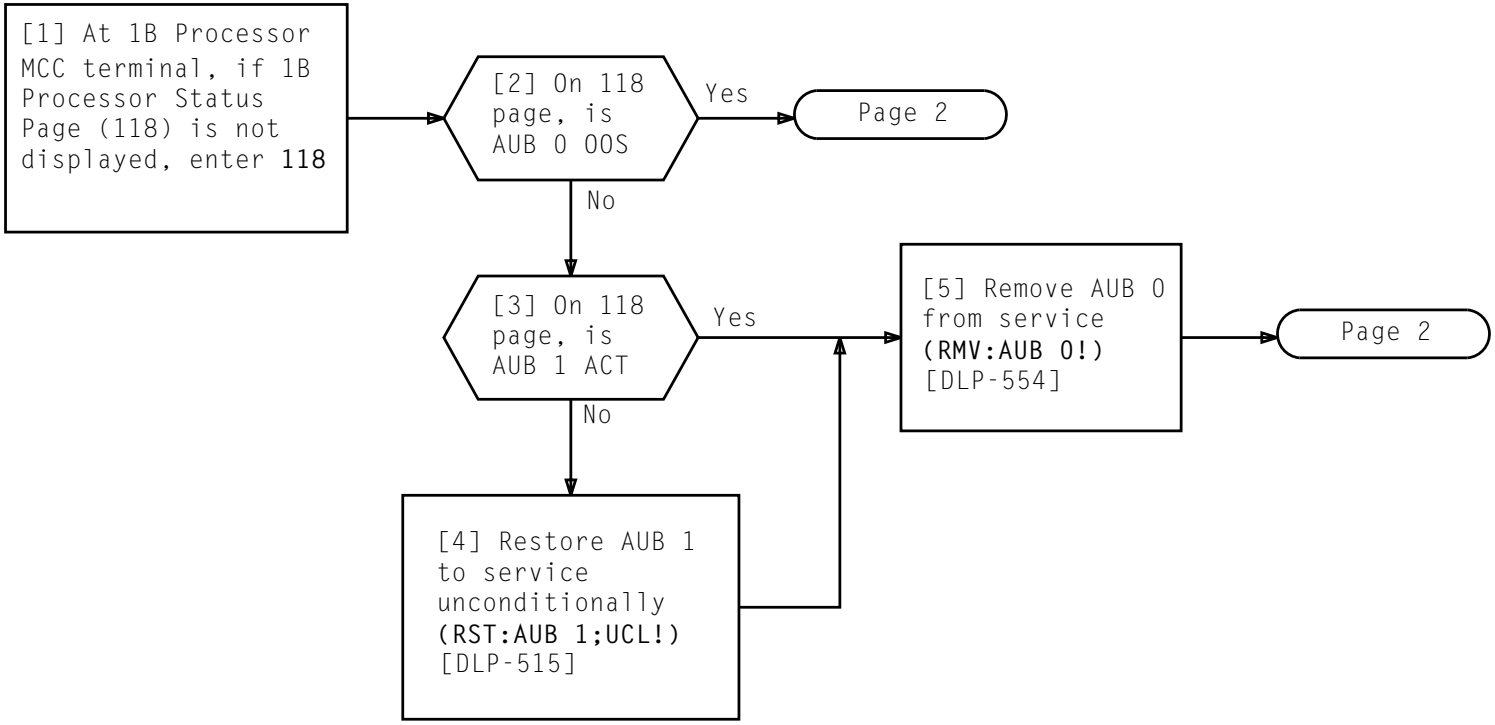
TABLE A

NG, CODE	REASON
01	API is not operational
02	API is duplex failed
03	One API must be OOS for testing
04	OOS API must be ATP for testing
06	APS test was already allowed
07	One AUB must be OOS for testing

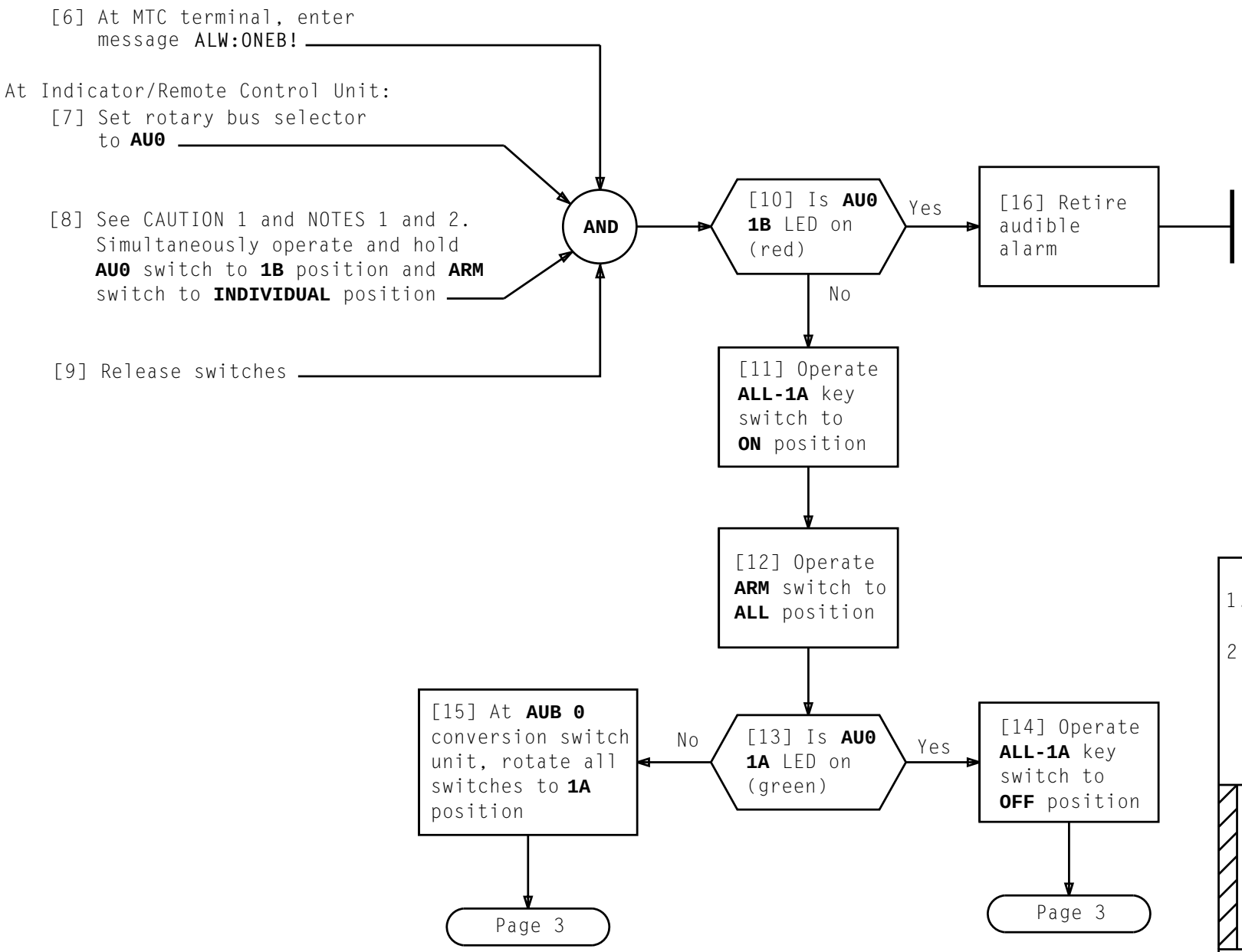
TABLE B

MESSAGE NUMBER	OUTPUT MESSAGE
1	REPT: APDRV STARTS STREAM EXERCISER TESTING - BSTATE: 4 RTC: xxxxxxxx REPT: TESTLOOP TO ACTIVATE NEW xxxxxx OF xxxx DO INIT CNI RTC: xxxxxxx REPT: APDRV CREATE TESTLOOP PROCESS BSTATE:4 RTC: xxxxxxxx

SET API BEING TESTED TO OFF-LINE STATE



SWITCH AUB 0 CONVERSION SWITCH FROM 1A PROCESSOR BUS ACCESS TO 1B PROCESSOR BUS ACCESS

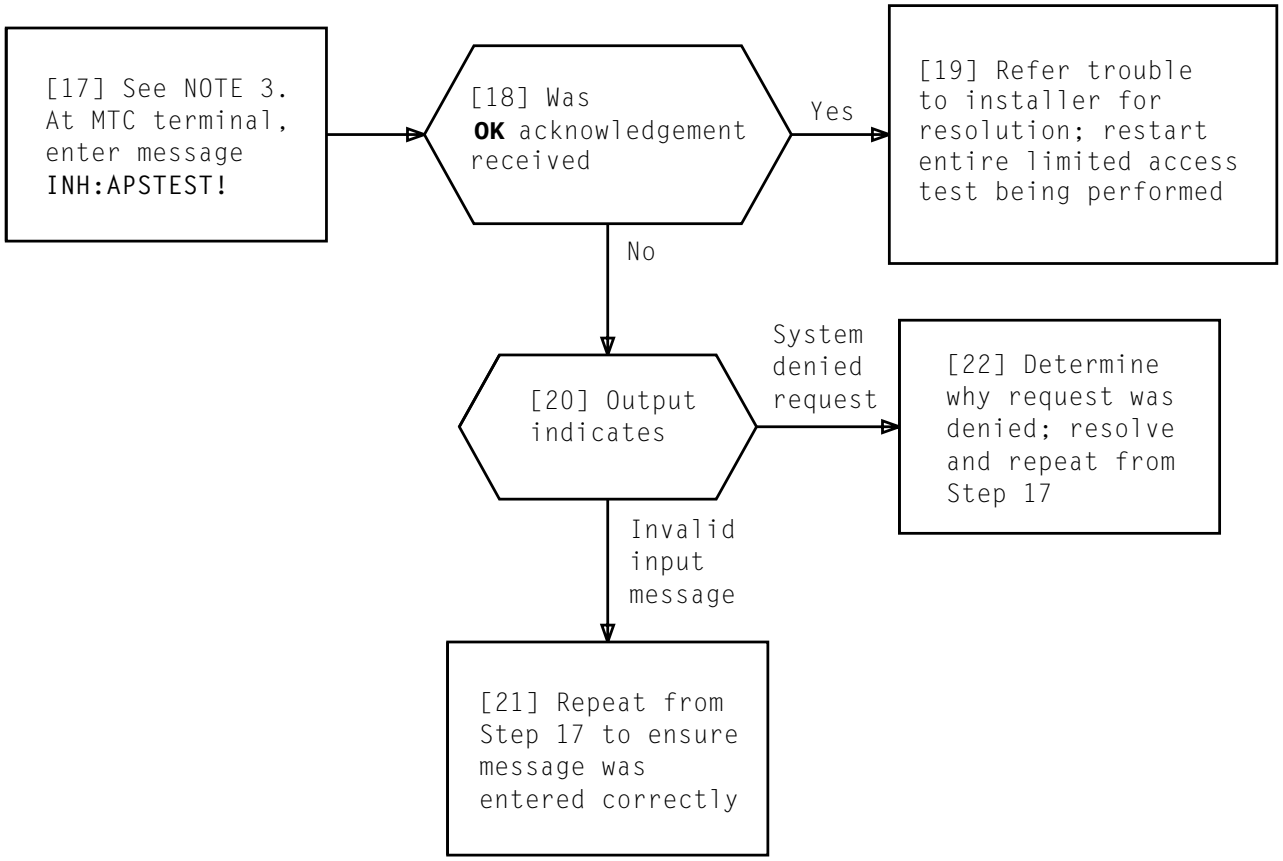


NOTES

1. Audible alarm will be received
2. REPT: OA xx 1B CVSW OFNL ACTIVATED, FLOOR x message will be received at MTC terminal

CAUTION 1
Care must be taken to ensure that only **AU0** *and* **ARM** *switches are being operated*

SWITCH AUB 0 CONVERSION SWITCH FROM 1A PROCESSOR BUS ACCESS TO 1B PROCESSOR BUS ACCESS



NOTE 3
After 1 minute, expect BLM messages from 1B processor and APIs to duplex fail

SWITCH AUB 0 CONVERSION SWITCH FROM 1A PROCESSOR BUS ACCESS TO 1B PROCESSOR BUS ACCESS

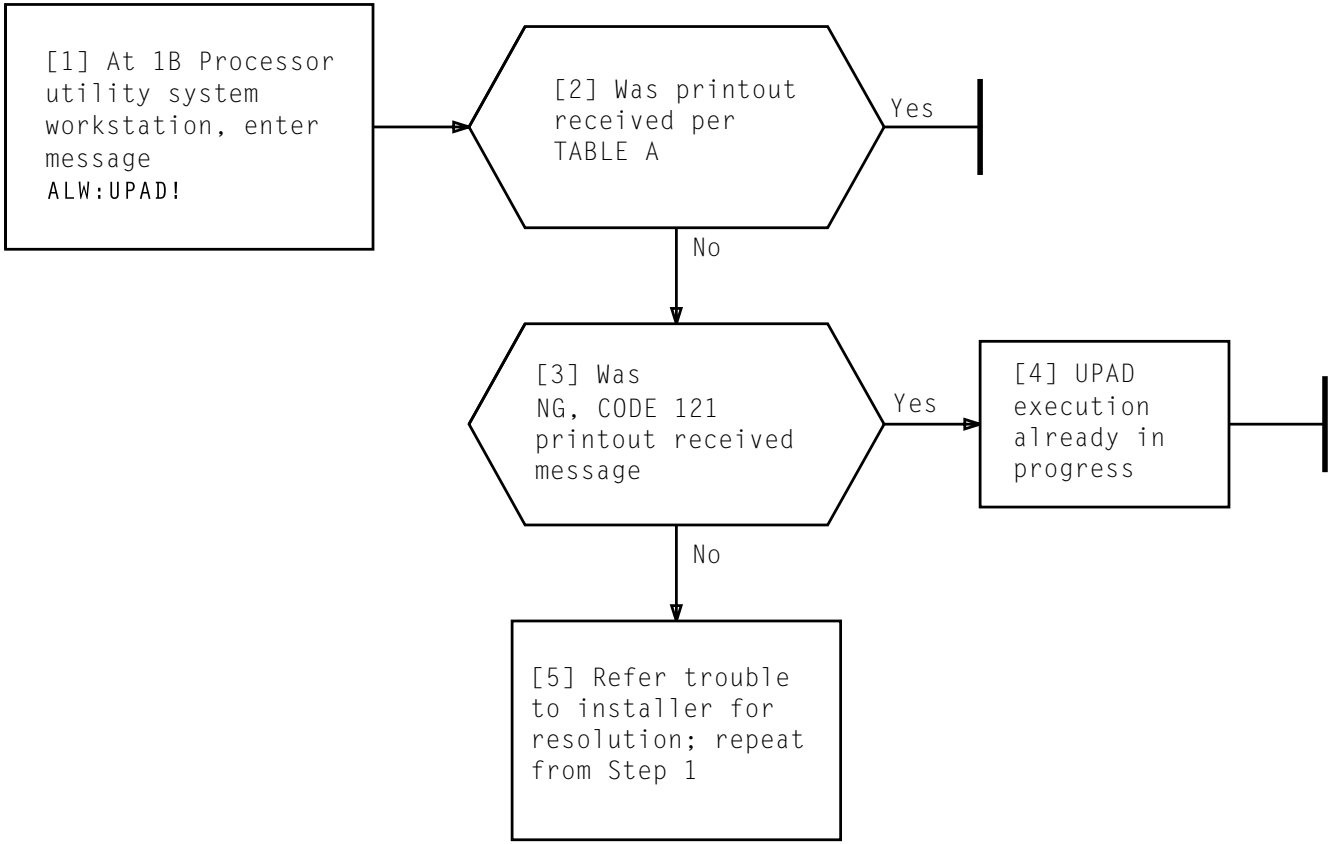
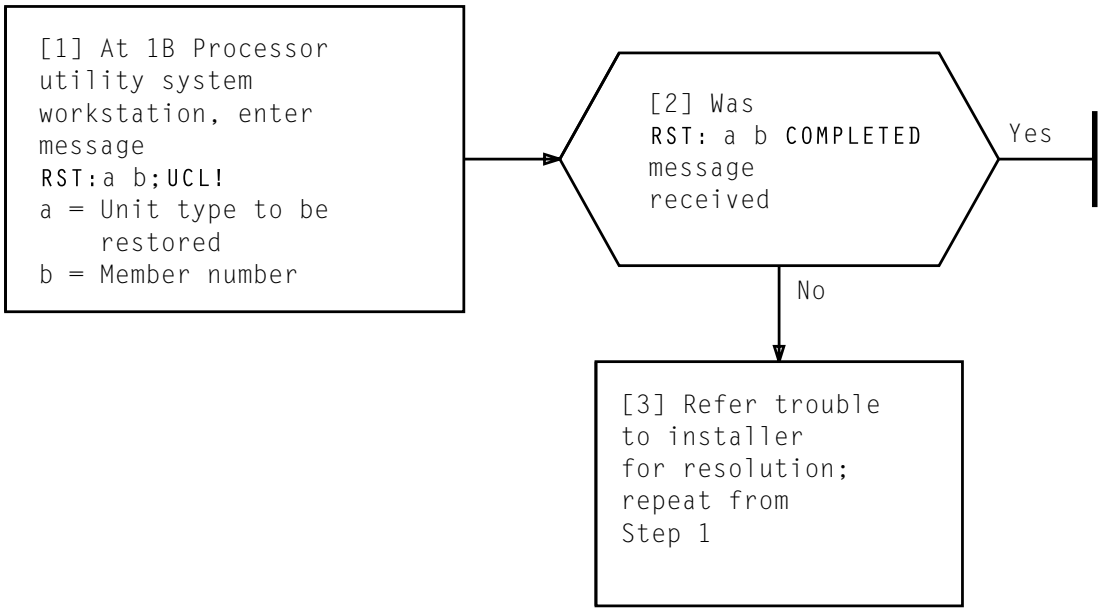


TABLE A

MESSAGE NUMBER	OUTPUT MESSAGE
1	REPT:UPAD INITIALIZING ENTIRE LBKC MEMORY (CS35) ANY PREVIOUS UPAD DATA HAS BEEN REINITIALIZED

ENABLE 1B PROCESSOR UPAD PROCESSES



RESTORE UNIT UNCONDITIONALLY

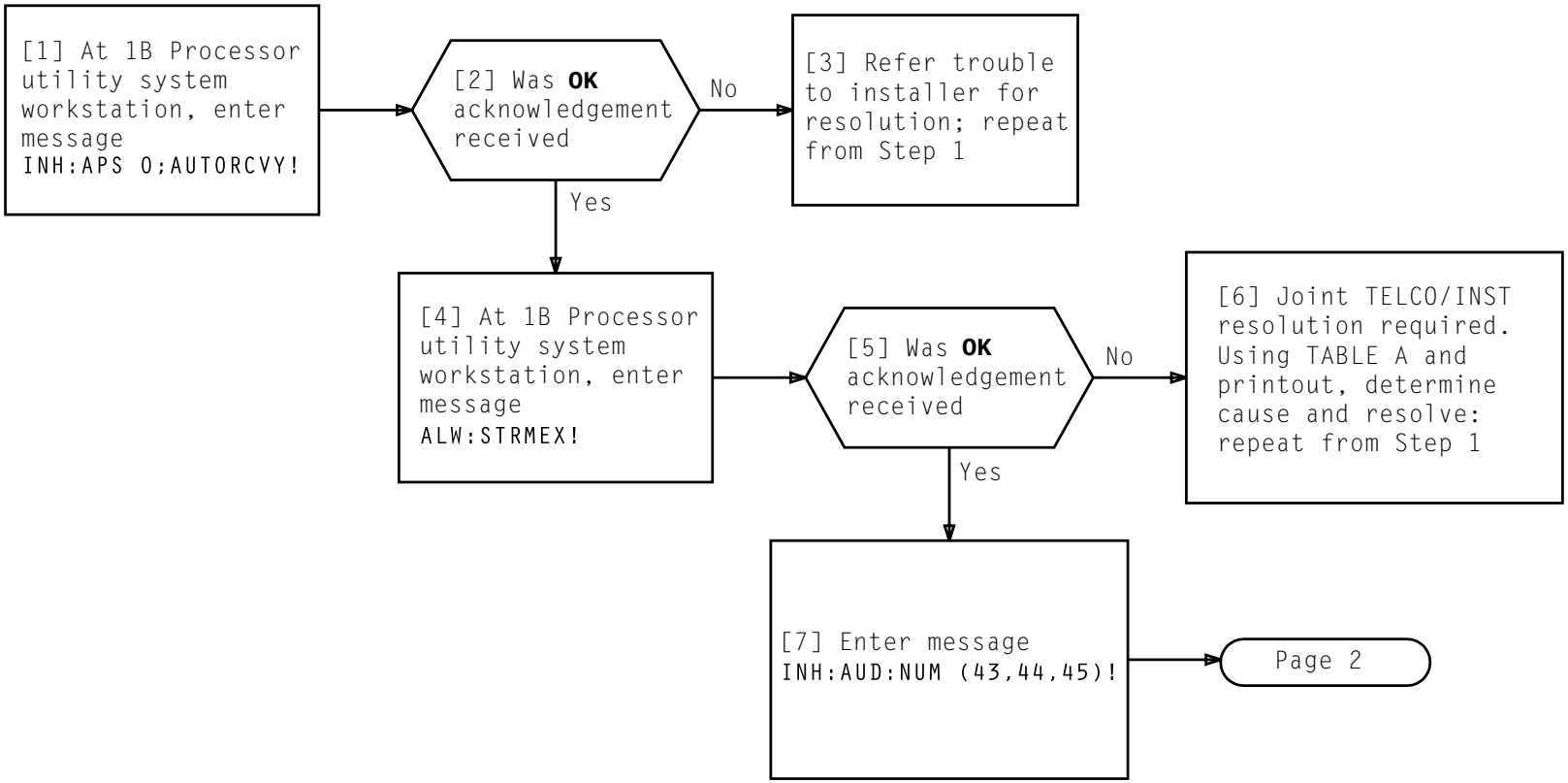


TABLE A

NG, CODE	REASON
01	API is OOS
02	CNI is not provided in office
03	API is not operational in office
04	Attempt to bring test stream up failed
09	Test stream already up. Test stream must be down to start test. Enter INH:STRMEX! and repeat from Step 4

PERFORM STREAM EXERCISER TEST

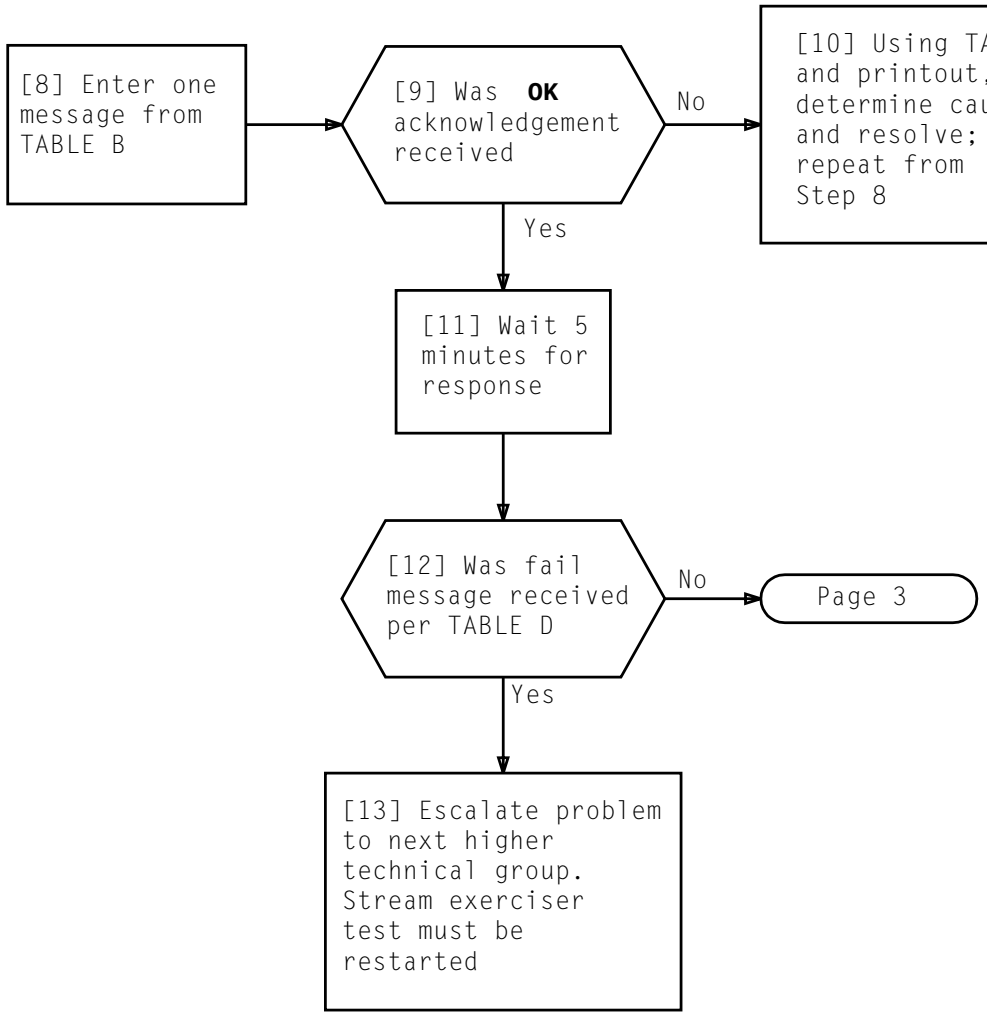


TABLE B

MESSAGE NUMBER	INPUT MESSAGES
1	SET:STRMEX 1!
2	SET:STRMEX 5!
3	SET:STRMEX 10!

TABLE C

NG, CODE	REASON
05	Stream exerciser was not enabled. ALW:STRMEX message must be used prior to this input message
10	Invalid input parameter. Valid values are 1 through 10

TABLE D

MESSAGE NUMBER	FAIL MESSAGES
1	REPT STRMEX PROGRAM FOUND INVALID . . . . .
2	REPT STRMEX LOST MSG
3	REPT STRMEX LOAD FAIL CODE

PERFORM STREAM EXERCISER TEST

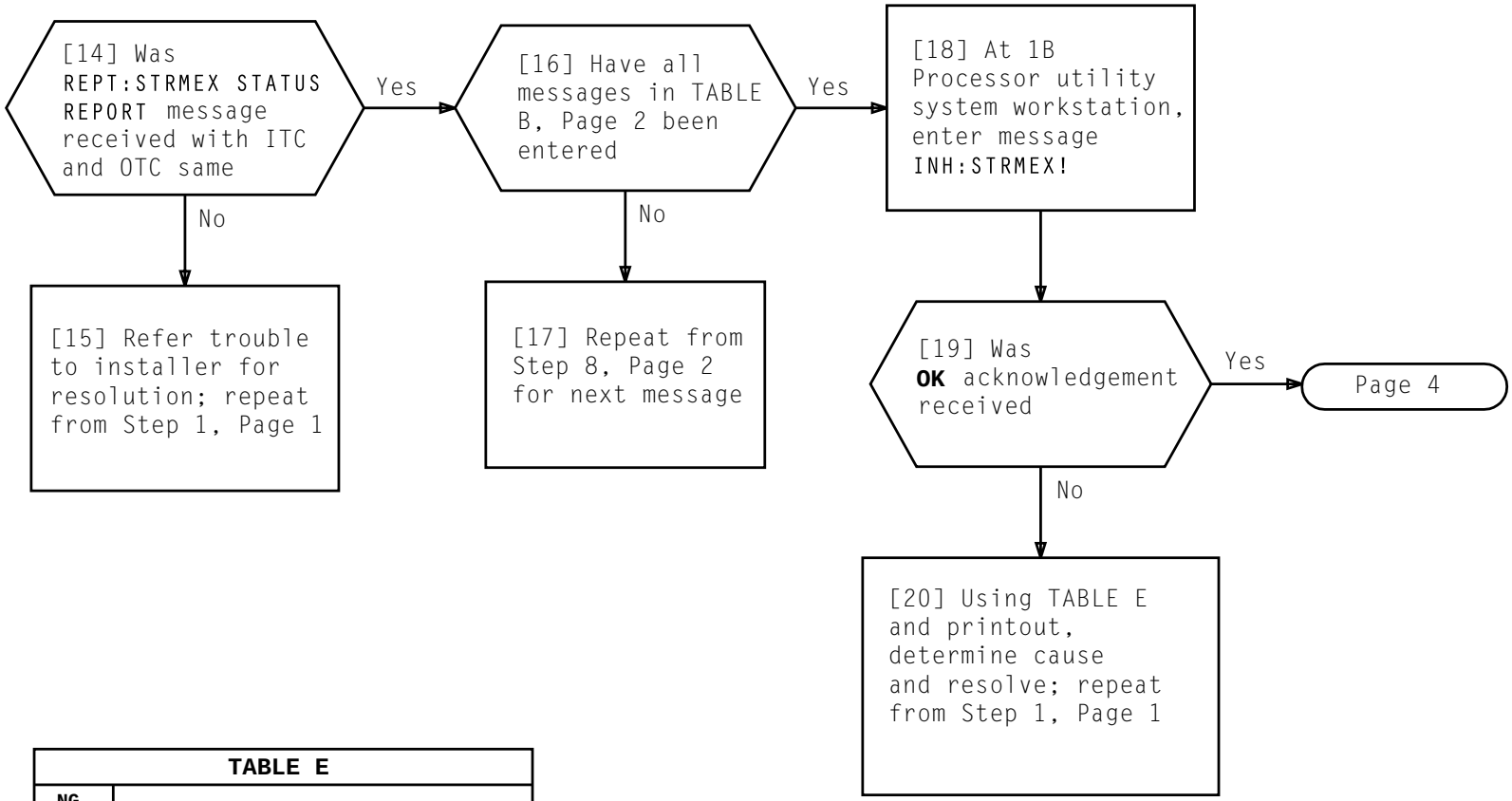
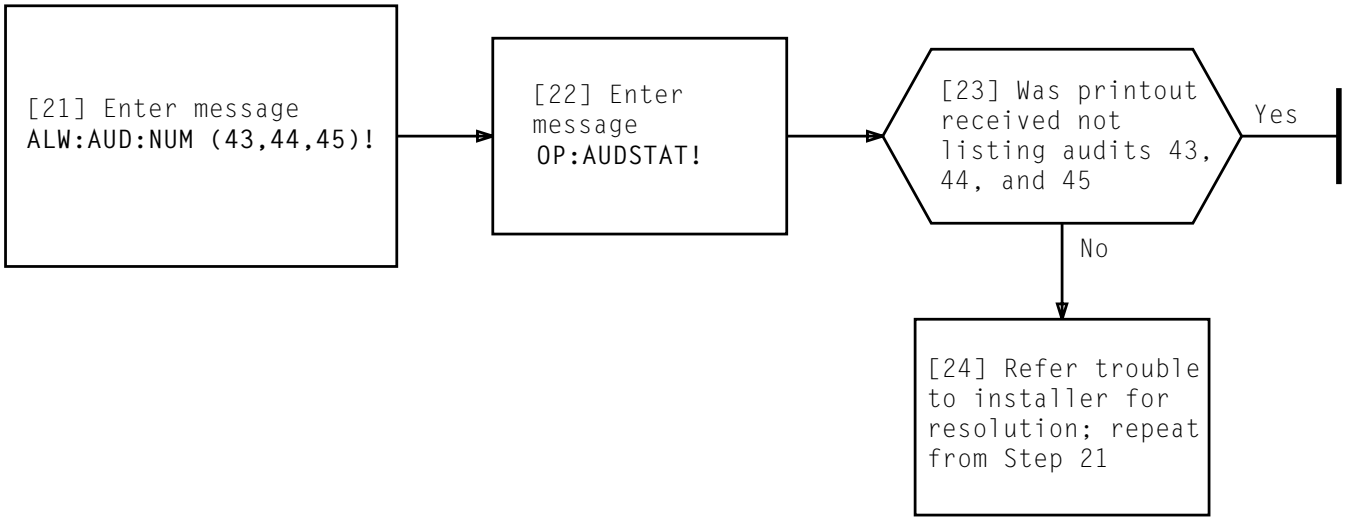


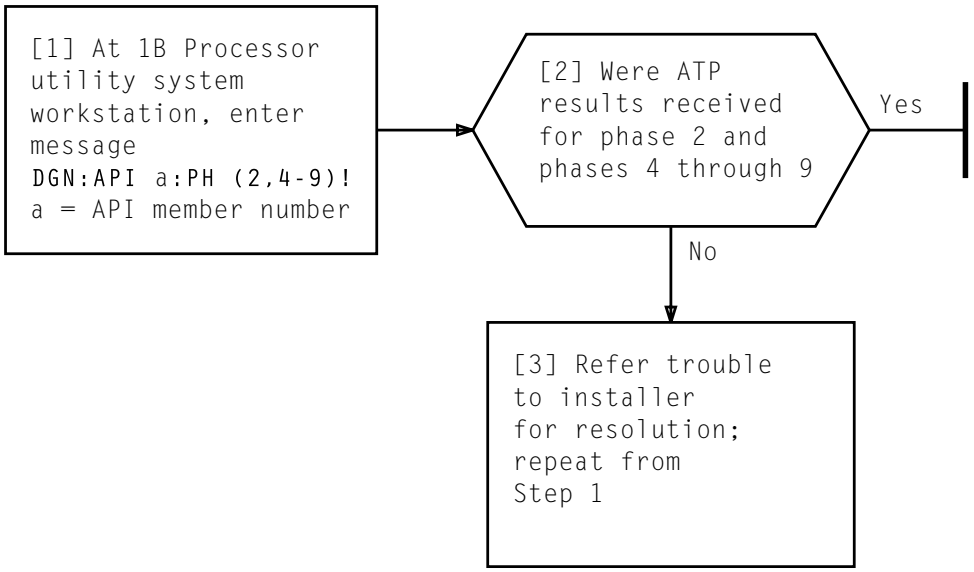
TABLE E

NG, CODE	REASON
07	Stream exerciser was not allowed to run
08	Stream exerciser has not finished sending messages

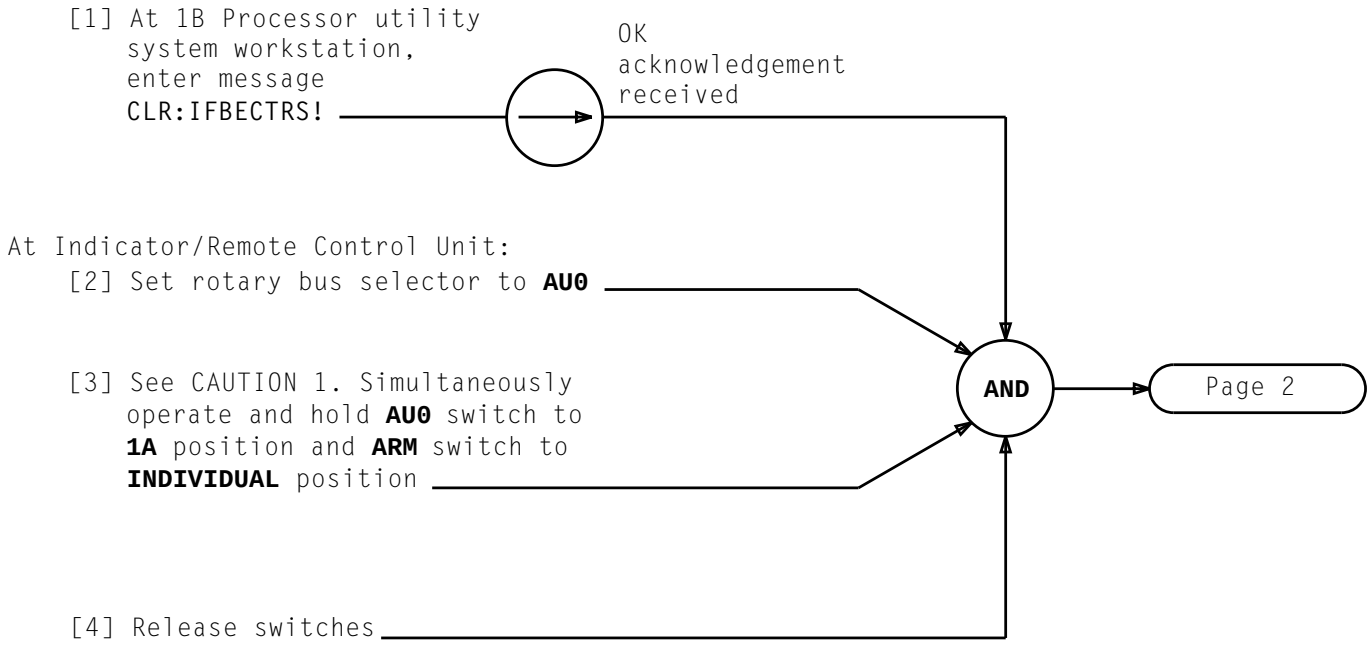
PERFORM STREAM EXERCISER TEST



PERFORM STREAM EXERCISER TEST

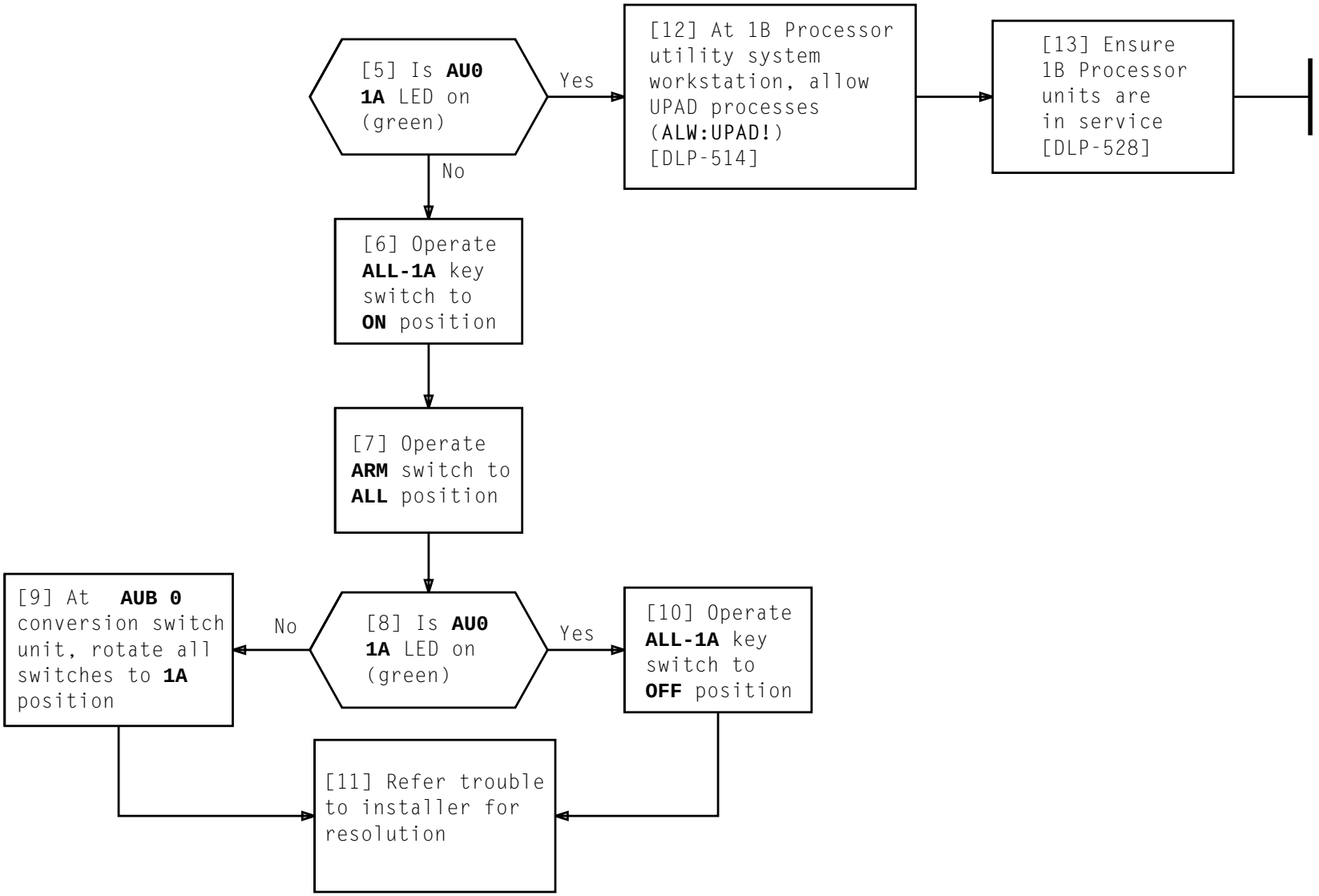


DIAGNOSE API FROM 1B PROCESSOR

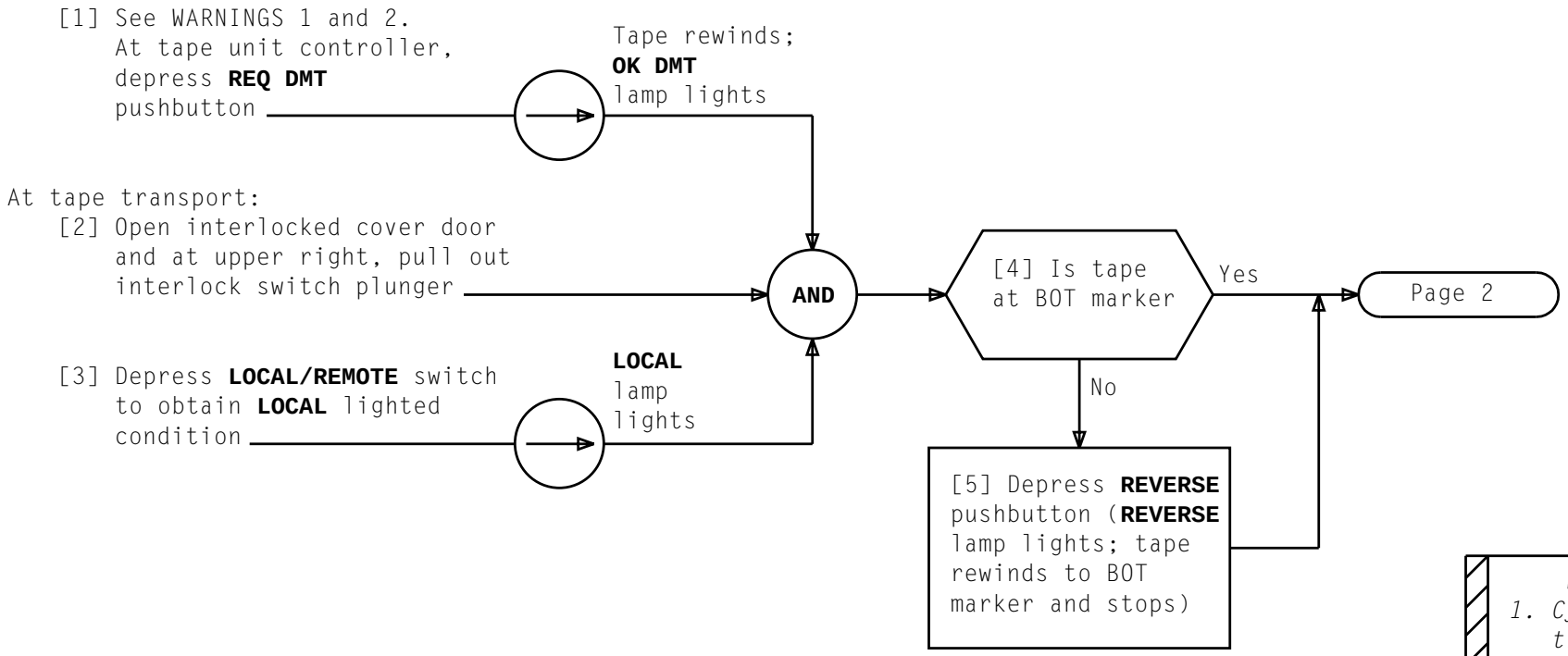


CAUTION 1
Care must be taken to ensure that only **AU0** *and* **ARM** *switches are being operated*

SWITCH AUB 0 CONVERSION SWITCH FROM 1B PROCESSOR BUS ACCESS TO 1A PROCESSOR BUS ACCESS



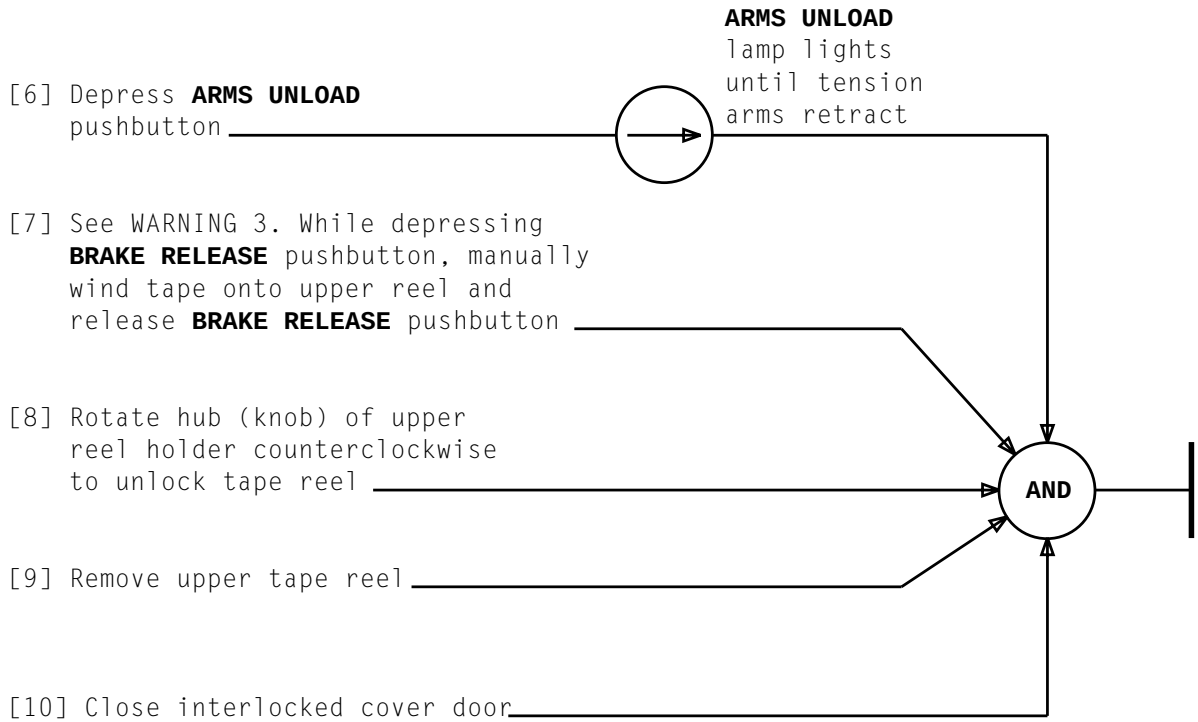
SWITCH AUB 0 CONVERSION SWITCH FROM 1B PROCESSOR BUS ACCESS TO 1A PROCESSOR BUS ACCESS



WARNINGS

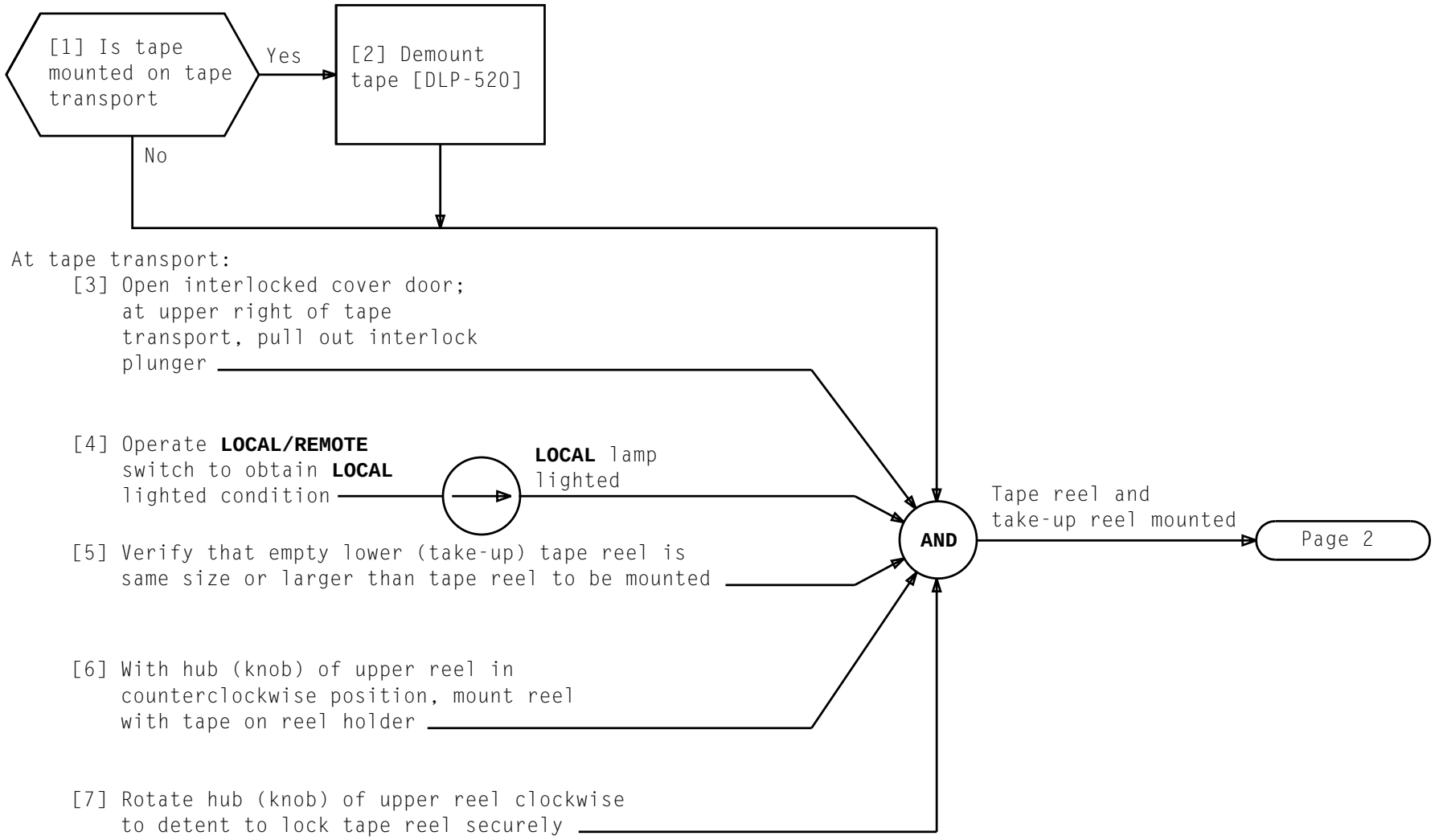
1. *Cycling tape transport or tape unit controller with tape over read/write heads may garbage tape*
2. *If tape is being demounted due to faulty tape unit, proper tape unit maintenance documentation should be used*

DEMOUNT TAPE ON TAPE TRANSPORT

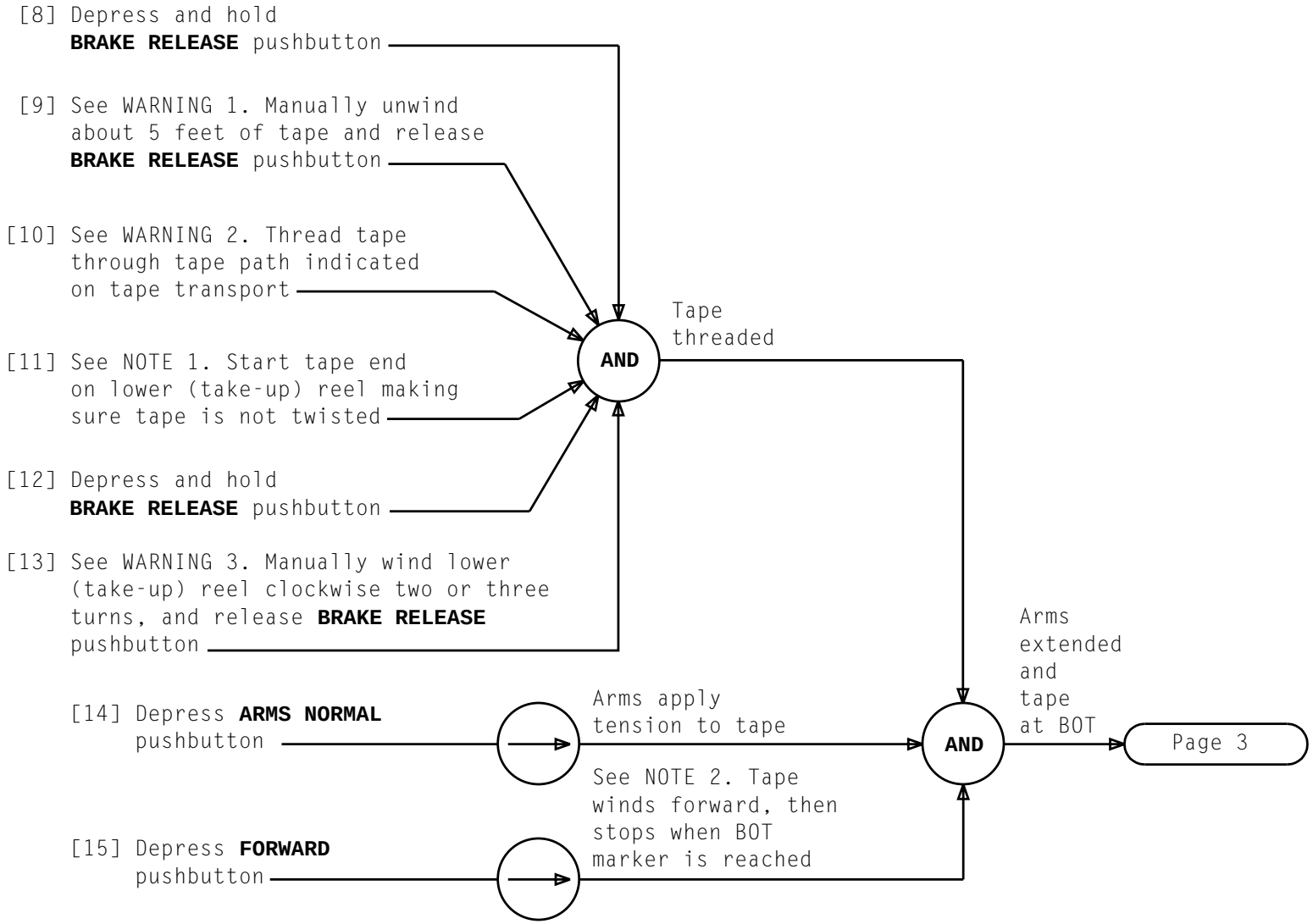


WARNING 3
Pulling or dragging last 2 feet of tape across heads may contaminate heads

DEMOUNT TAPE ON TAPE TRANSPORT



MOUNT TAPE ON TAPE TRANSPORT



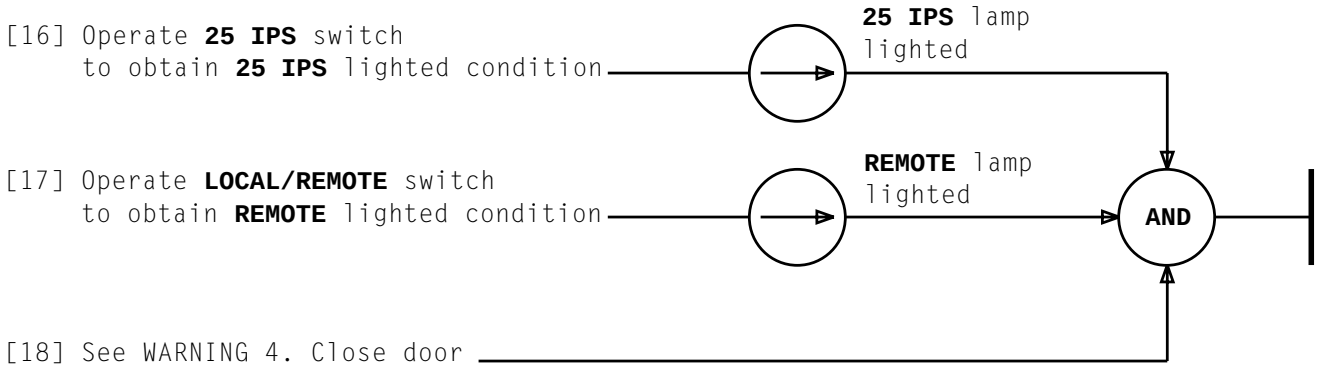
NOTES

1. To start tape on take-up reel, it may help to moisten tape end (moistened fingers) and stick it to reel axle
2. Tape may not stop at BOT marker if fast forward is depressed

WARNINGS

1. *Contamination of tape by contact with floor will damage tape heads*
2. *Do not touch tape head surfaces; body oils will contaminate tape*
3. *If tape is not properly aligned along rollers and guides or is too loose, it may be damaged*

MOUNT TAPE ON TAPE TRANSPORT



WARNING 4
Closing tape transport door in harsh manner may upset alignment

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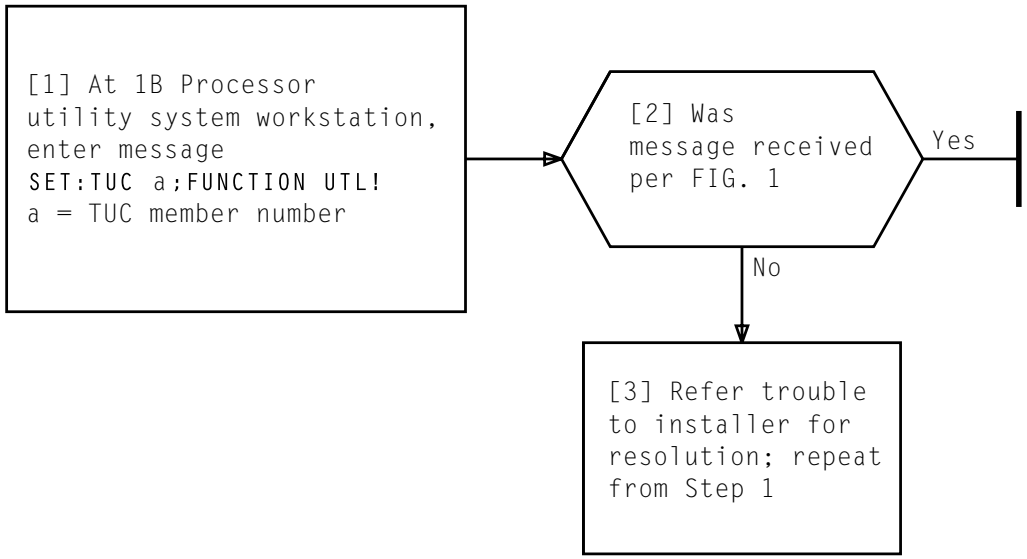
MOUNT TAPE ON TAPE TRANSPORT




```
SET:TUC a
TAPE MOUNTED ON TUC
TAPE TYPE: BLANK
. . . . .
. . . . .
. . . . .
OK TO PROCESS TAPE?
a = TUC member number
```

FIG. 1 - Sample SET FUNCTION Printout

SET TUC TO UTL FUNCTION

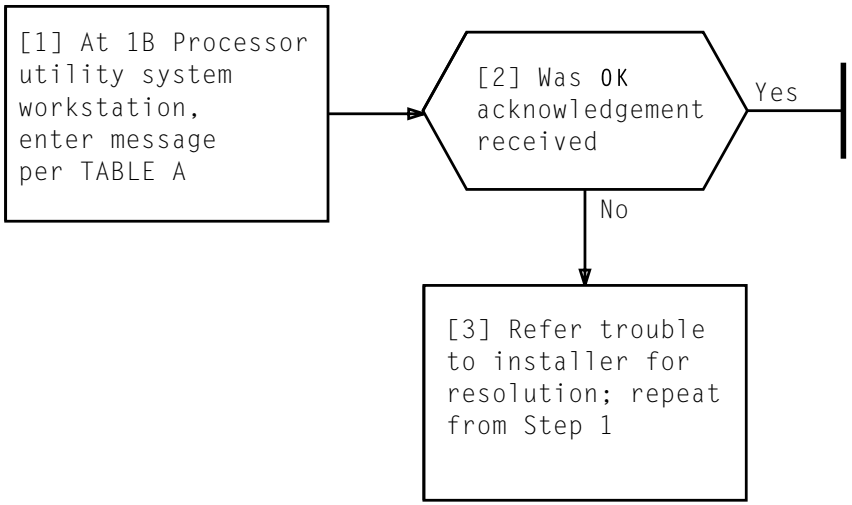
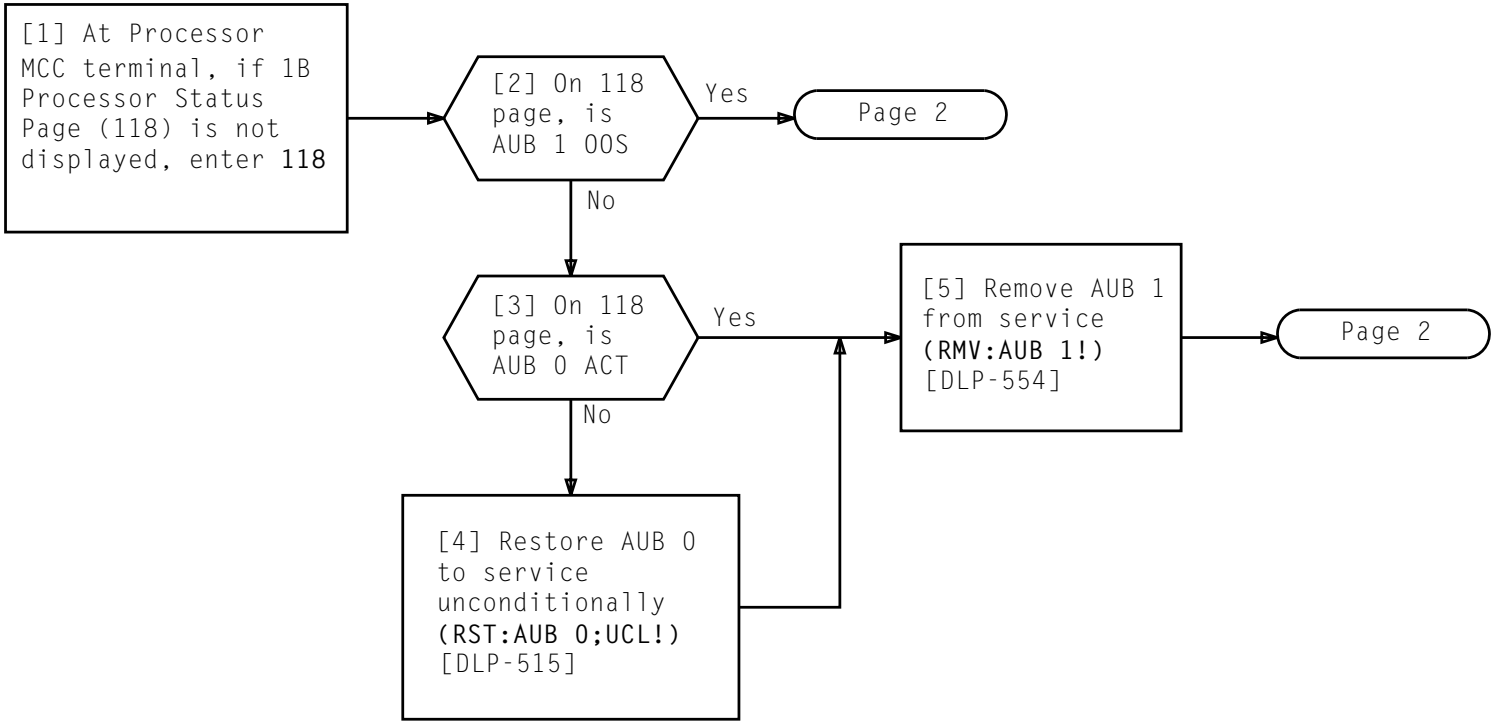
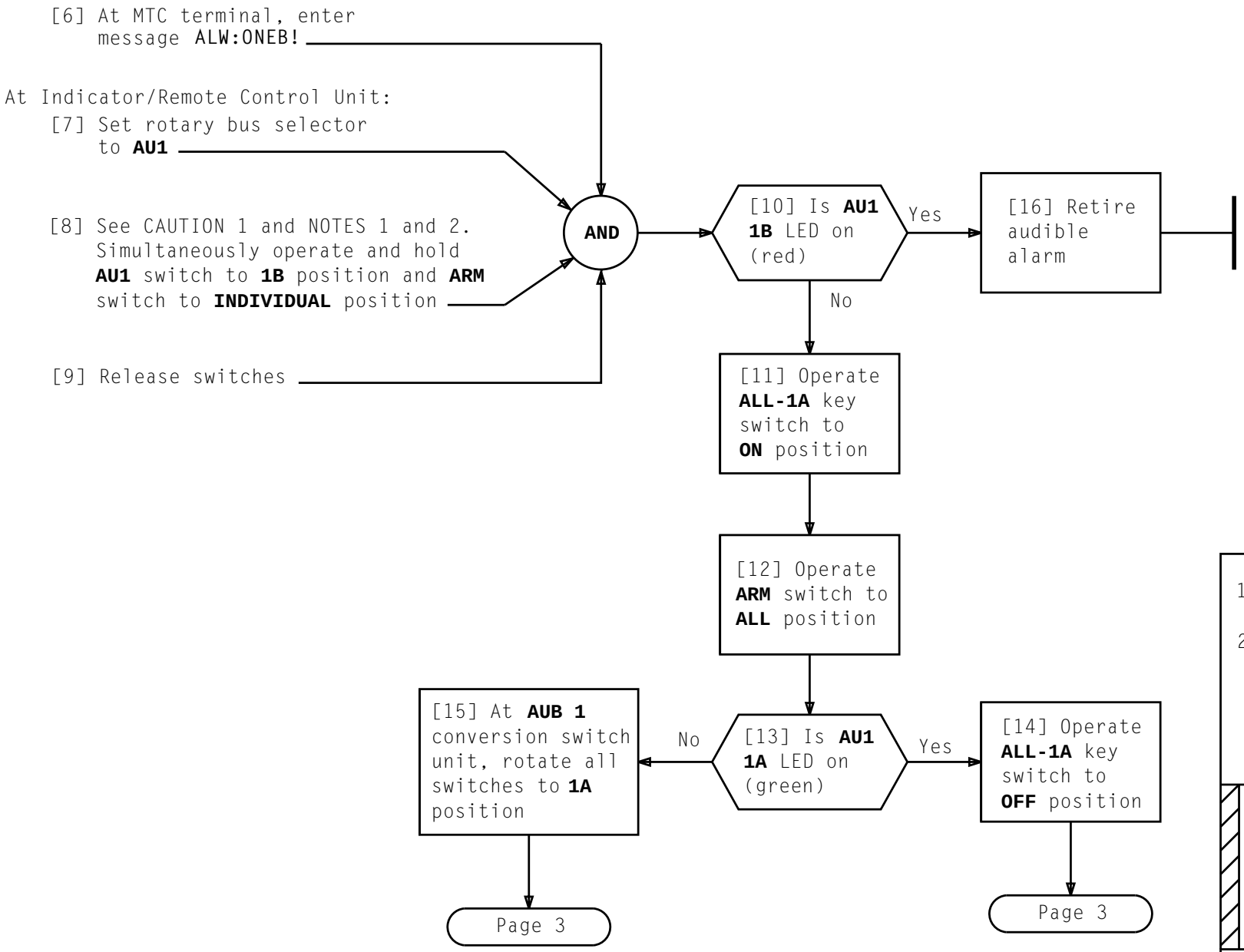


TABLE A	
MESSAGE NUMBER	**INPUT MESSAGES**
1	ALW:TUC a:RW,WVH,VSN APSTST!
a = TUC member number	

ALLOW TUC READ-WRITE ACCESS



SWITCH AUB 1 CONVERSION SWITCH FROM 1A PROCESSOR BUS ACCESS TO 1B PROCESSOR BUS ACCESS



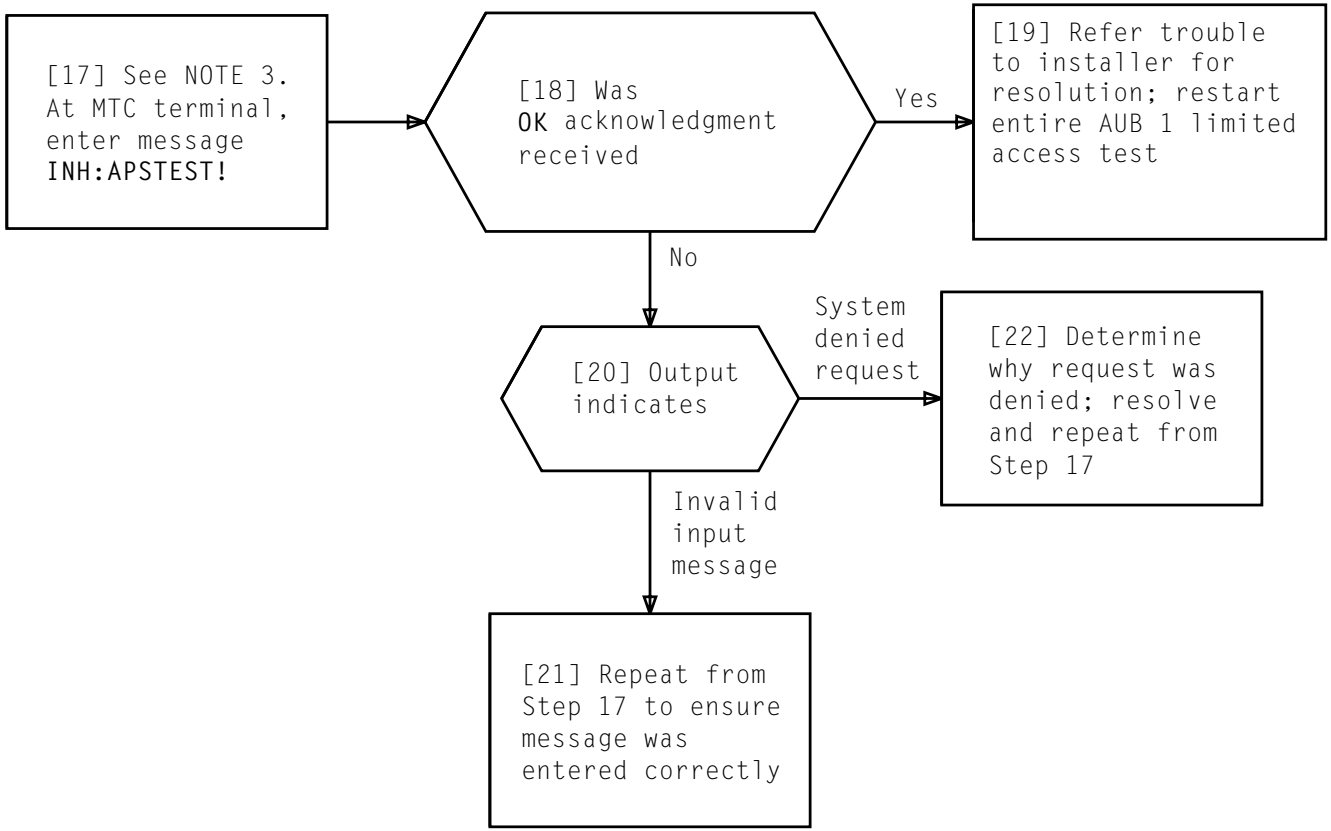
NOTES

1. Audible alarm will be received
2. REPT: OA xx 1B CVSW OFNL ACTIVATED, FLOOR x message will be received at MTC terminal

CAUTION 1

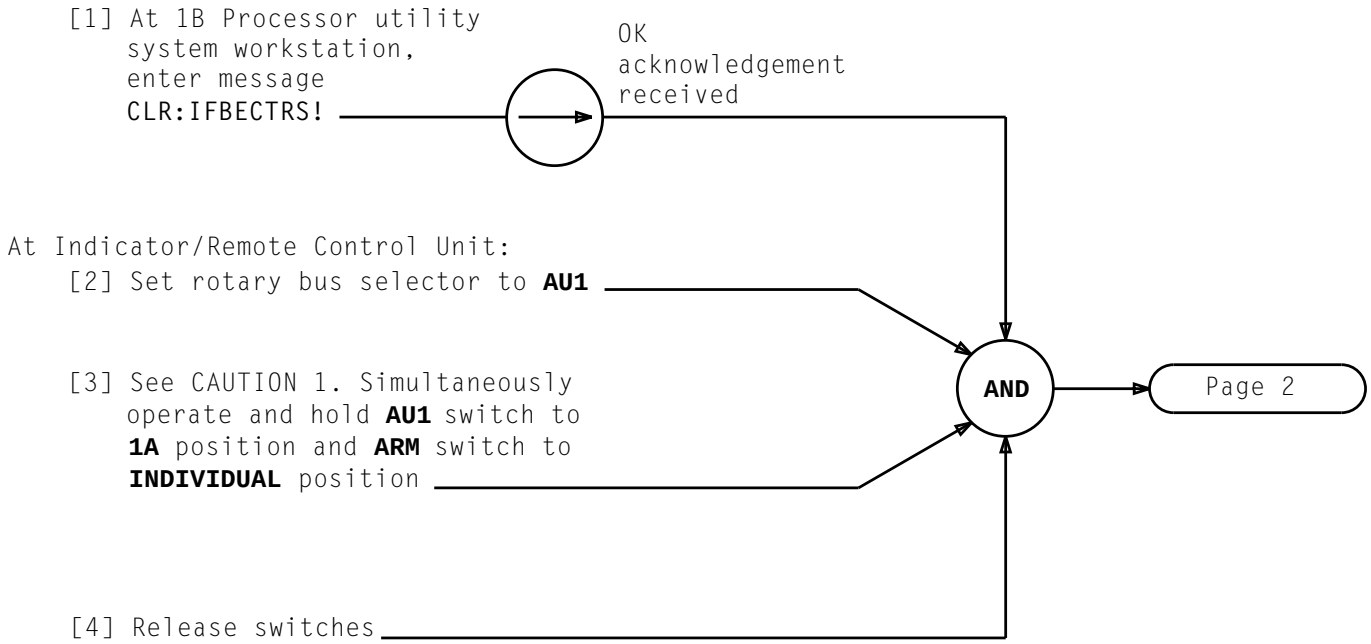
Care must be taken to ensure that only **AU1** *and* **ARM** *switches are being operated*

SWITCH AUB 1 CONVERSION SWITCH FROM 1A PROCESSOR BUS ACCESS TO 1B PROCESSOR BUS ACCESS



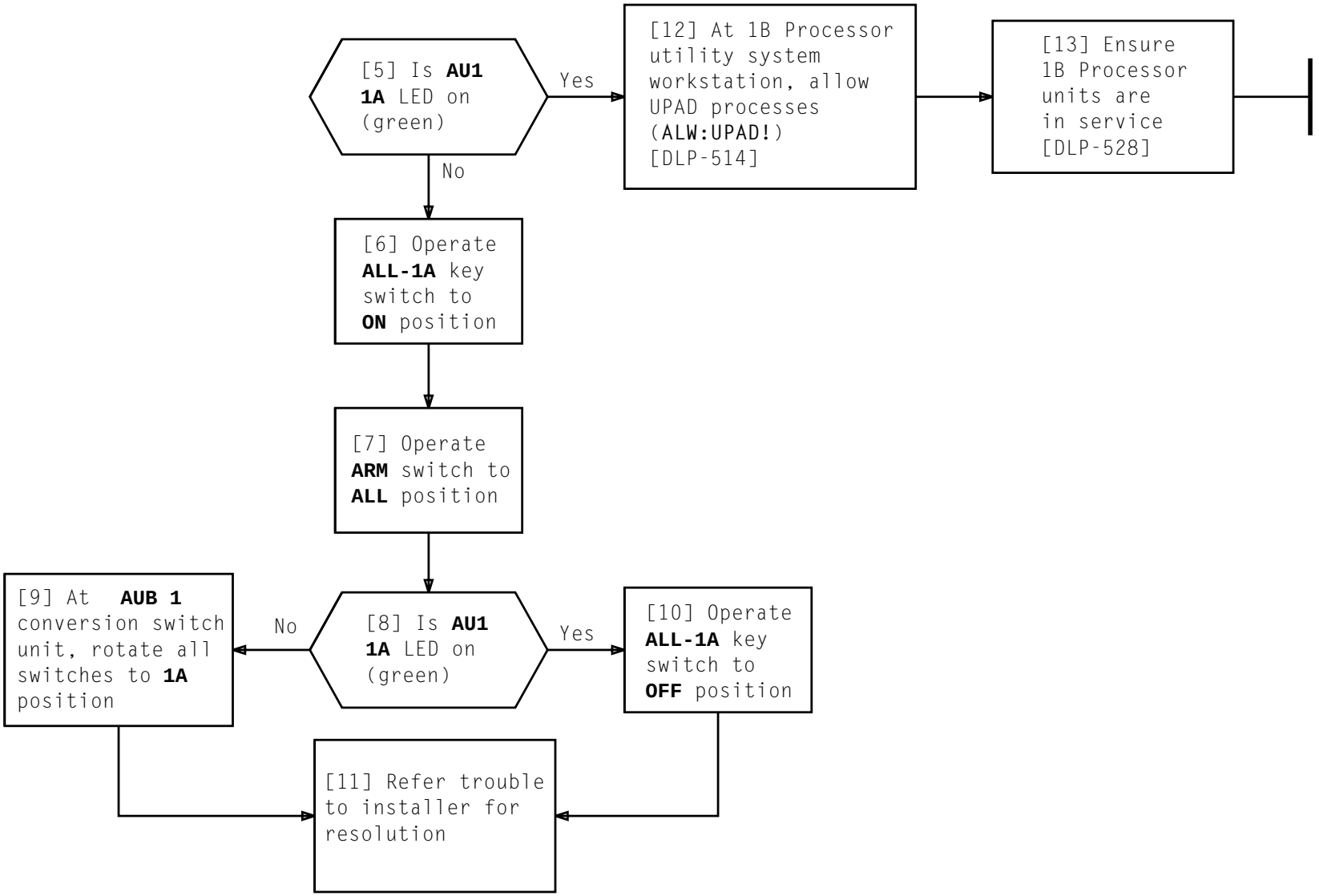
NOTE 3
After 1 minute, expect BLM messages from 1B Processor and APIs to duplex fail

SWITCH AUB 1 CONVERSION SWITCH FROM 1A PROCESSOR BUS ACCESS TO 1B PROCESSOR BUS ACCESS



CAUTION 1
Care must be taken to ensure that only **AU1** *and* **ARM** *switches are being operated*

SWITCH AUB 1 CONVERSION SWITCH FROM 1B PROCESSOR BUS ACCESS TO 1A PROCESSOR BUS ACCESS



SWITCH AUB 1 CONVERSION SWITCH FROM 1B PROCESSOR BUS ACCESS TO 1A PROCESSOR BUS ACCESS

VERIFY ALL 1B PROCESSOR UNITS ARE IN-SERVICE

[1] At 1B Processor utility system workstation, enter message
OP:OOSUNITS!

[2] Using printout, determine if any units in 1B Processor Cabinets are listed as out-of-service [TABLE A]

AND

[3] Are any units in 1B Processor Cabinets out-of-service

No → Page 2

Yes

[4] See NOTE 1. At 1B Processor utility system workstation, enter message
RST: a b!
a = Unit type
b = Member number

[5] Using printout, determine if **RST: a b COMPLETED** message was received

AND

[6] Was **RST: a b COMPLETED** message received

No → [7] Refer trouble to installer for resolution; repeat from Step 4

Yes

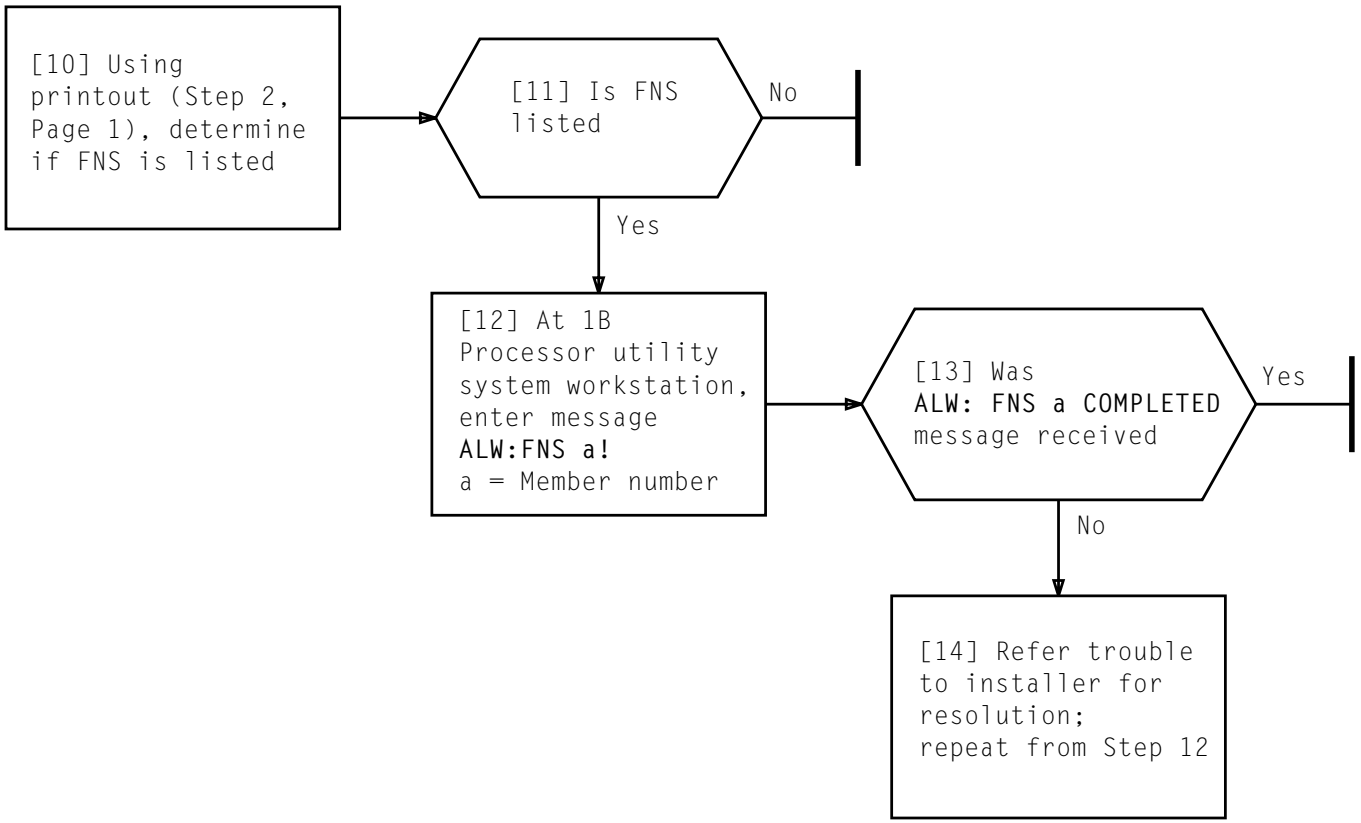
[8] Are more units listed in printout (Step 2)

Yes → [9] Repeat from Step 4 for next unit

No → Page 2

TABLE A	
AUI	MUP
CC	PS
CS	PSB
CSB	SSD
IFB	XPWR

NOTE 1
IFB must be restored before restoring AUI, MUP, or SSD



VERIFY ALL 1B PROCESSOR UNITS ARE IN-SERVICE

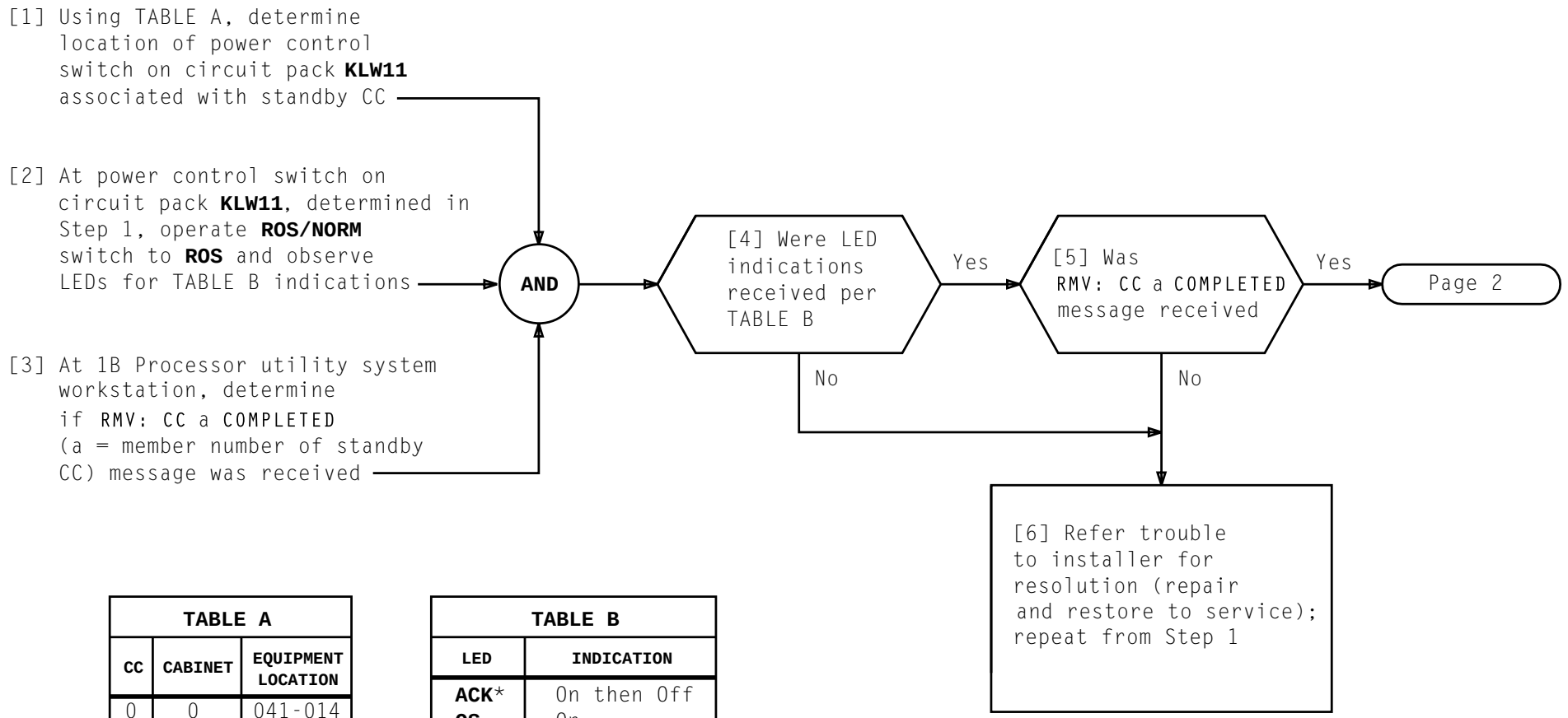


TABLE A

CC	CABINET	EQUIPMENT LOCATION
0	0	041-014
1	1	141-014

TABLE B

LED	INDICATION
ACK*	On then Off
OS	On

* expected indication may take a short period of time to be received

DIAGNOSE STANDBY 1B PROCESSOR CC

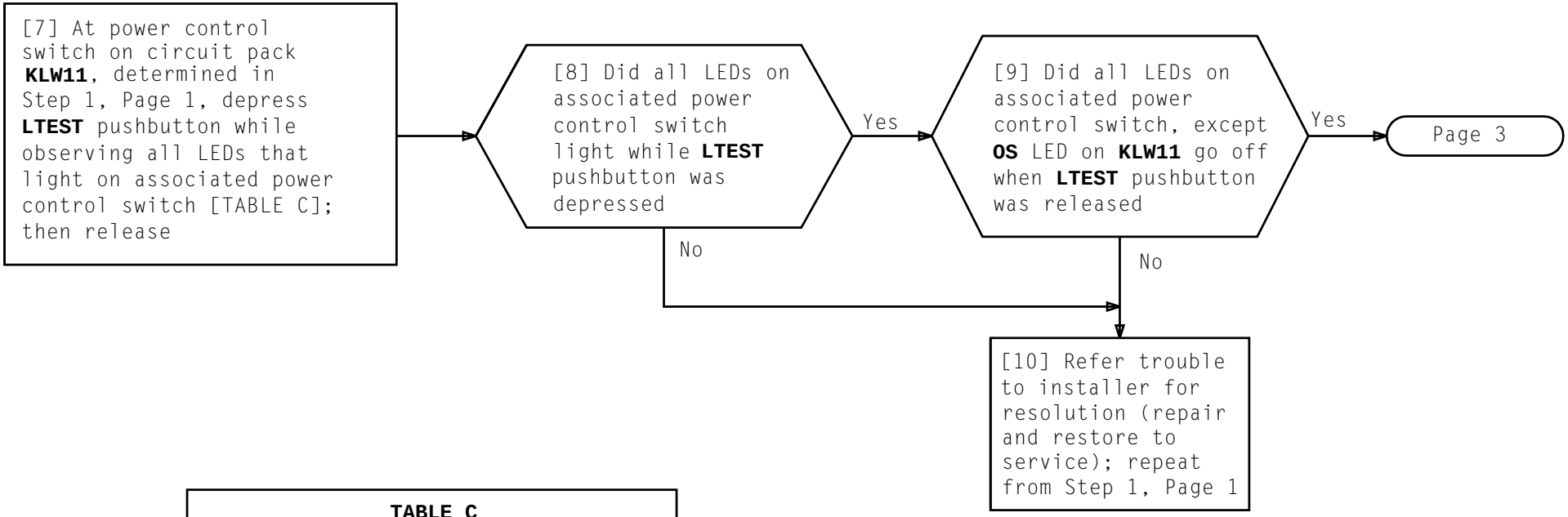
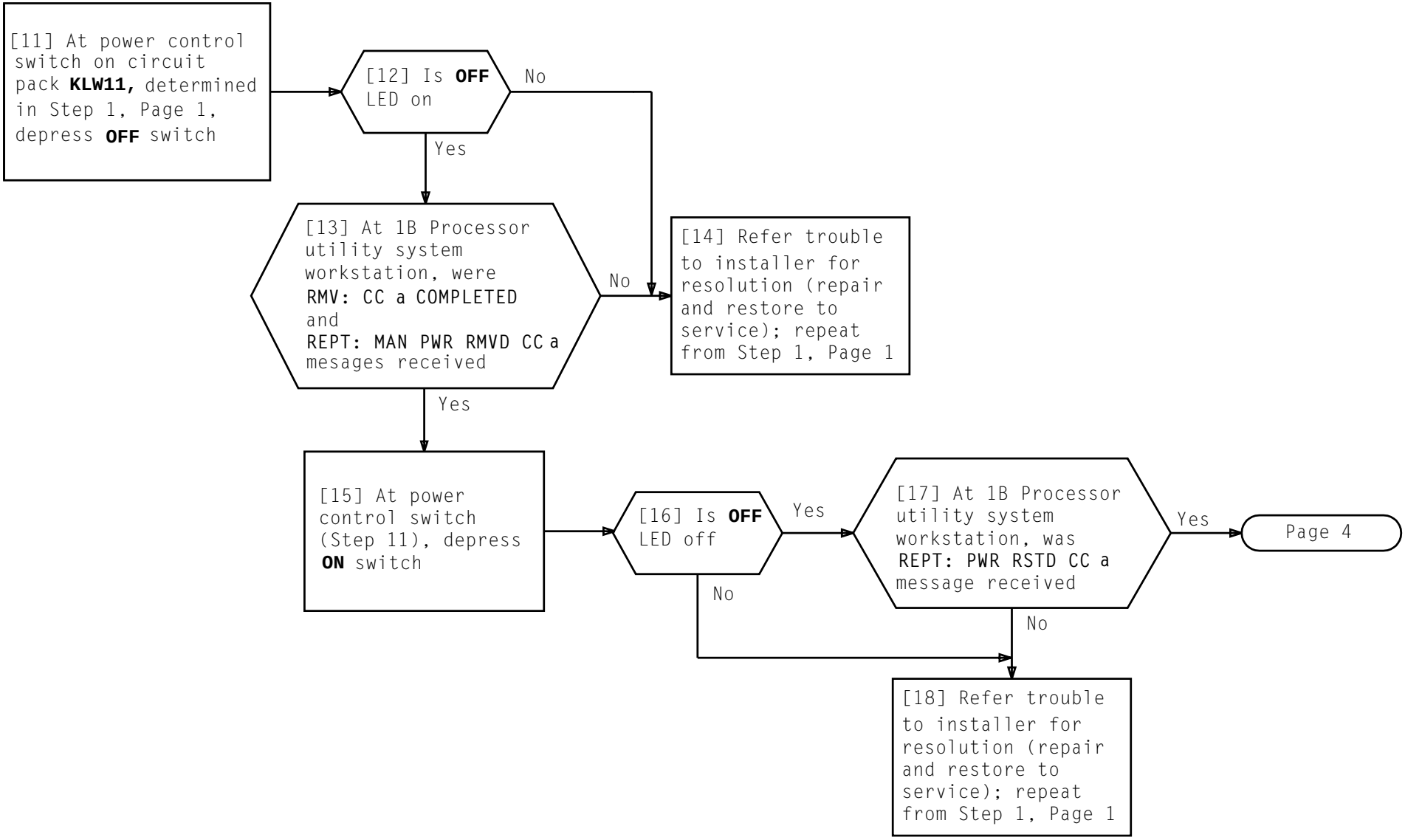


TABLE C

CIRCUIT PACK CONTAINING LEDS	CIRCUIT PACK LOCATION	NUMBER OF LEDS ON CIRCUIT PACK
KLW11	41-014	19
KLW12	58-014	16
KLW03	41-104	1
KLW04	41-112	1
KLW22	41-120	1

DIAGNOSE STANDBY 1B PROCESSOR CC



DIAGNOSE STANDBY 1B PROCESSOR CC

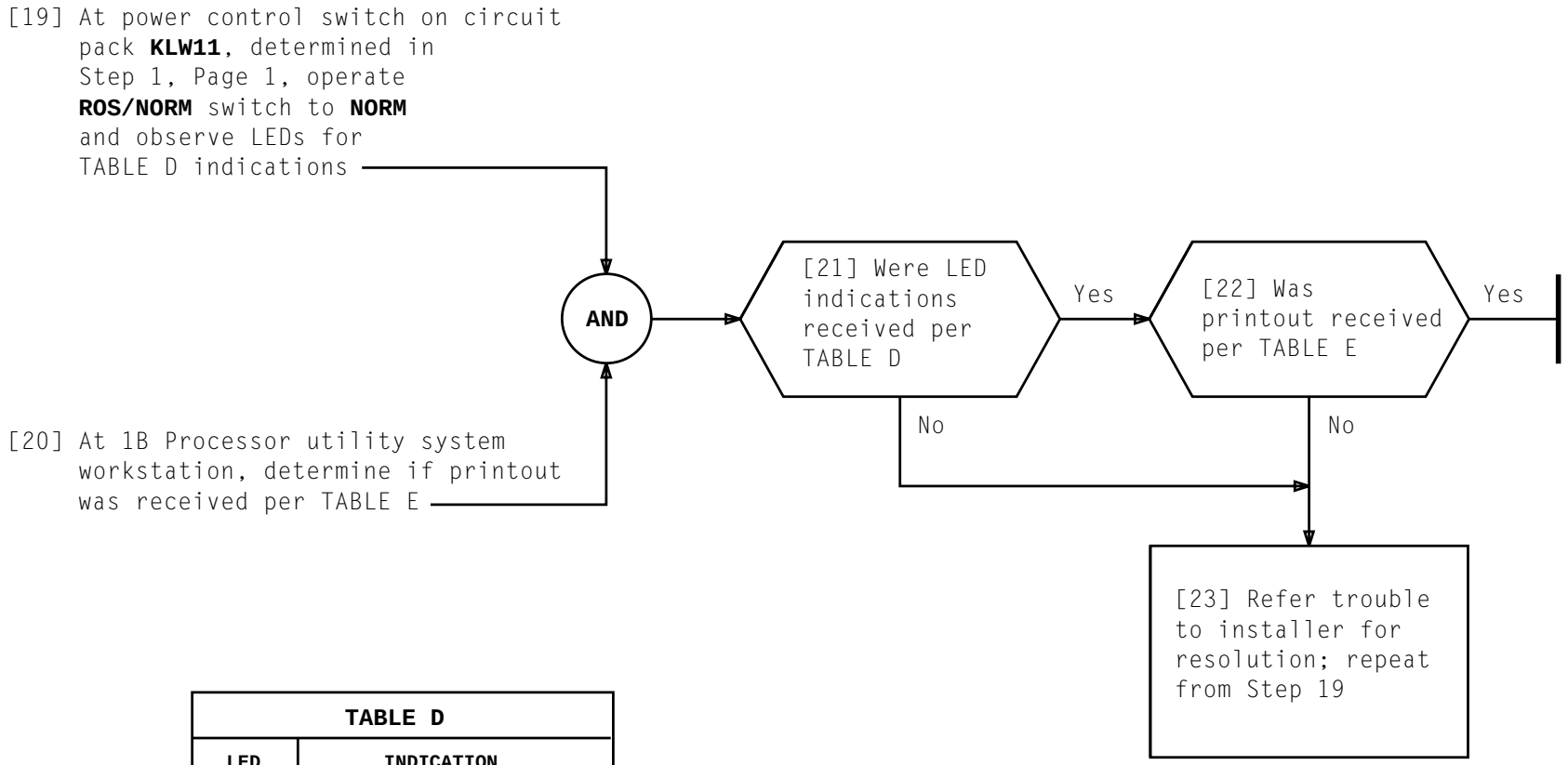


TABLE D	
LED	**INDICATION**
ACK*	On then Off
OS**	Off

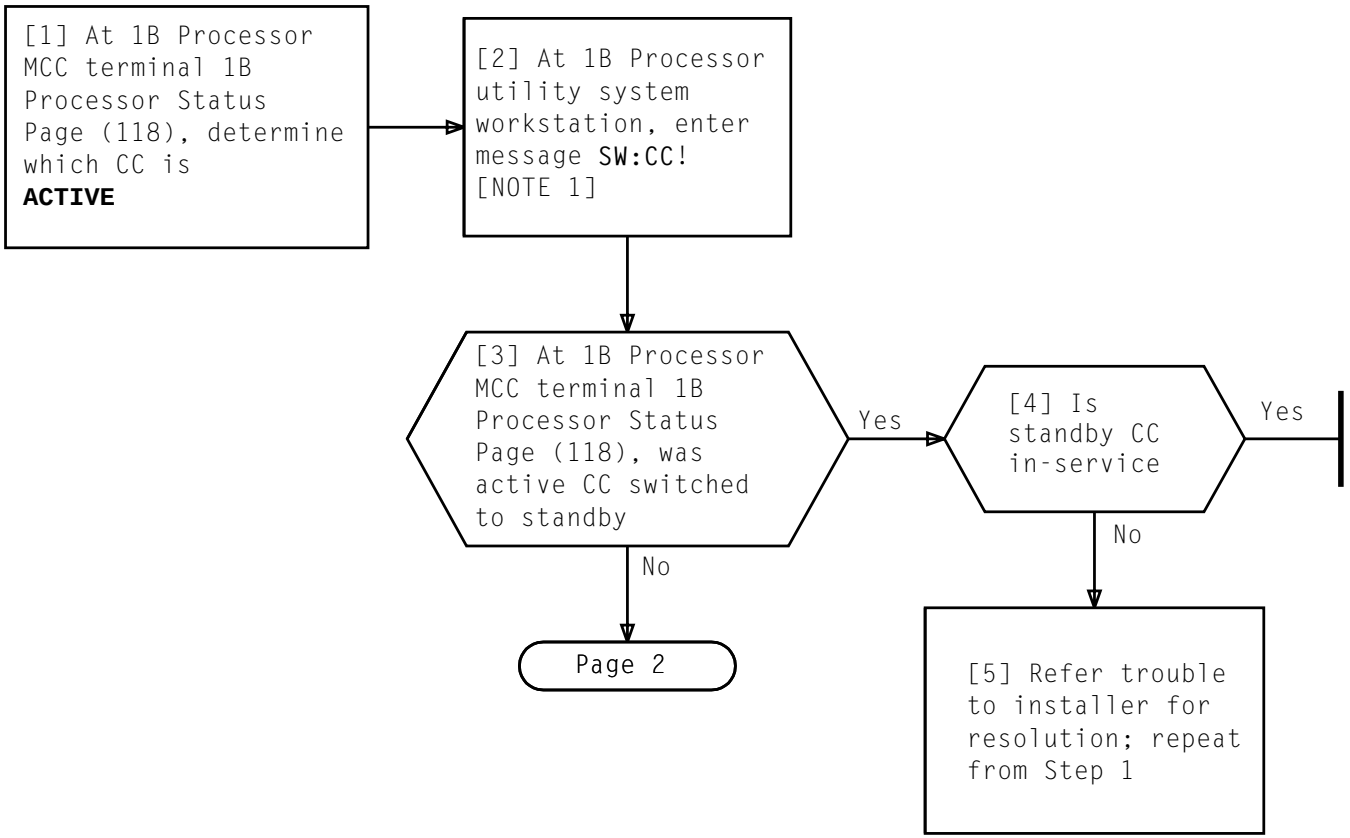
* **ACK** LED will go off approximately 15 minutes after operating **ROS/NORM** switch

** this will not occur until restore is complete

TABLE E	
MESSAGE NUMBER	**OUTPUT MESSAGES**
1	DGN:CC a COMPLETED CATP (20000000 00000000) MSG COMPL TEST:CC a DFR ATP RST:CC a COMPLETED

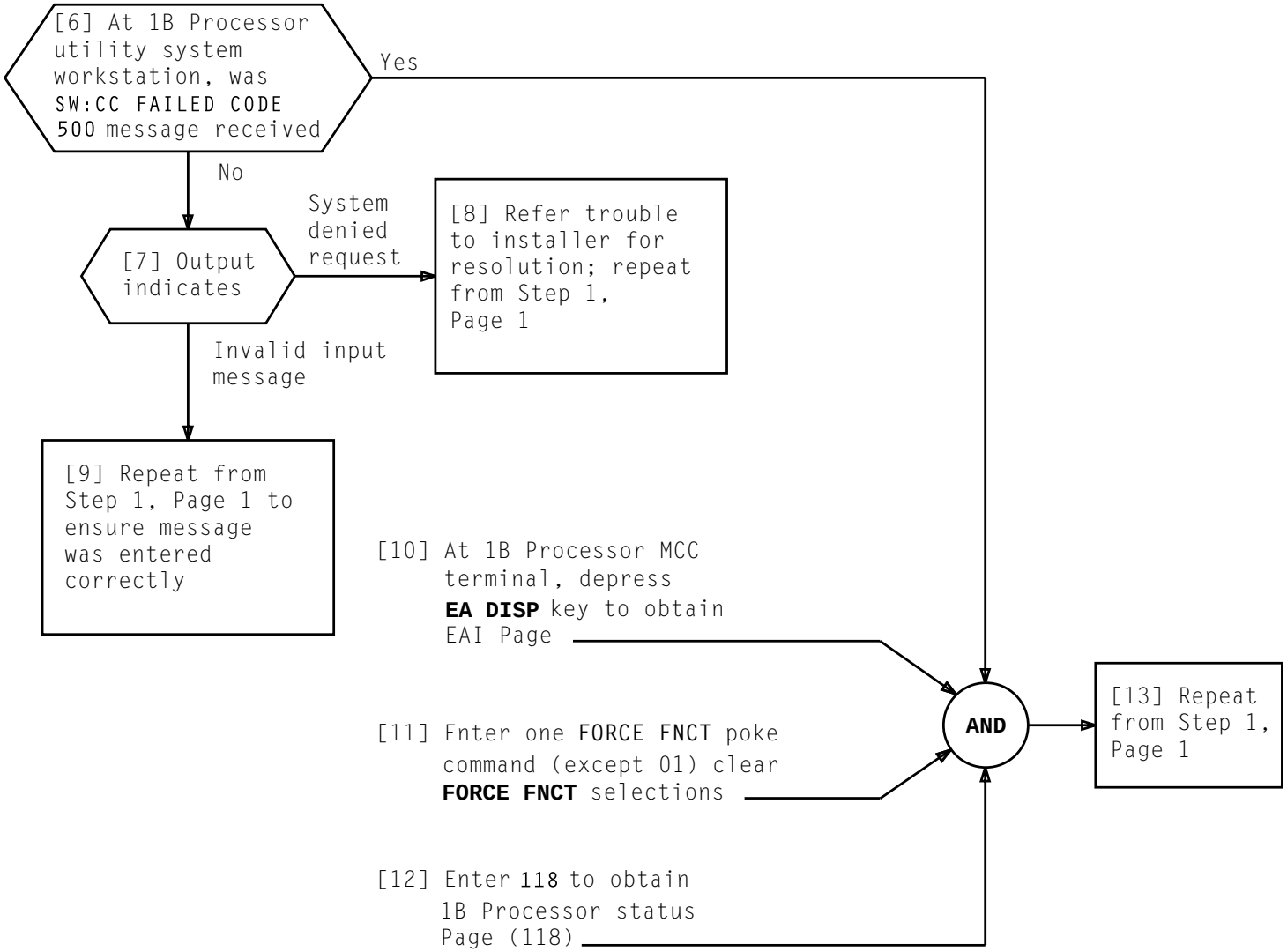
a = member number of standby CC

DIAGNOSE STANDBY 1B PROCESSOR CC



SWITCH 1B PROCESSOR CENTRAL CONTROLS (CCs)

NOTE 1
It will take approximately 3 minutes for CCs to switch



SWITCH 1B PROCESSOR CENTRAL CONTROLS (CCs)

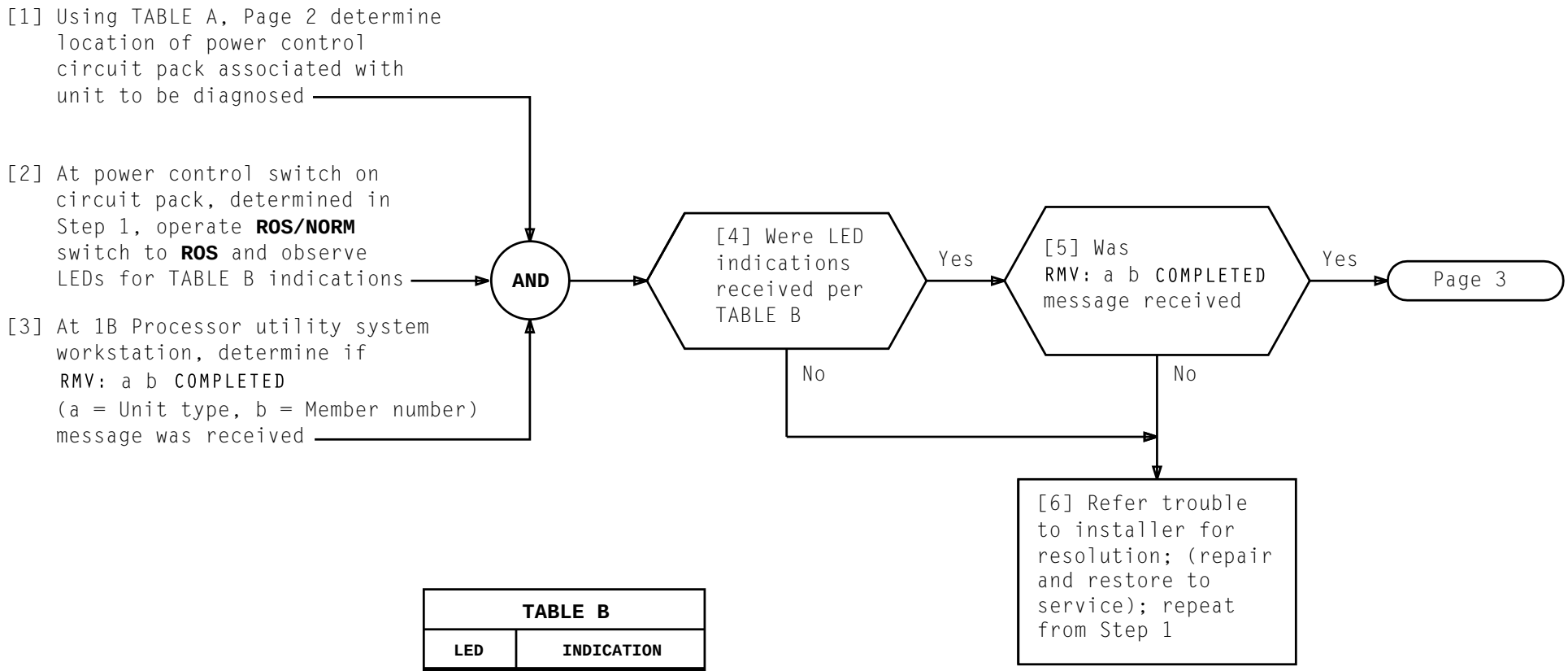
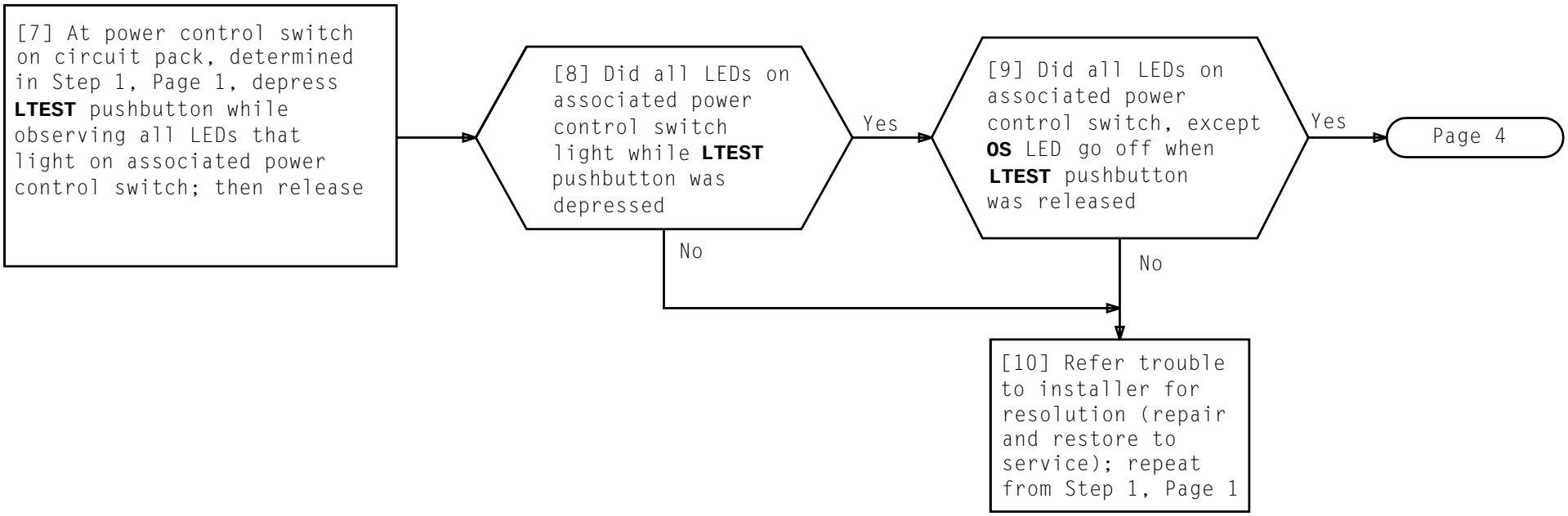


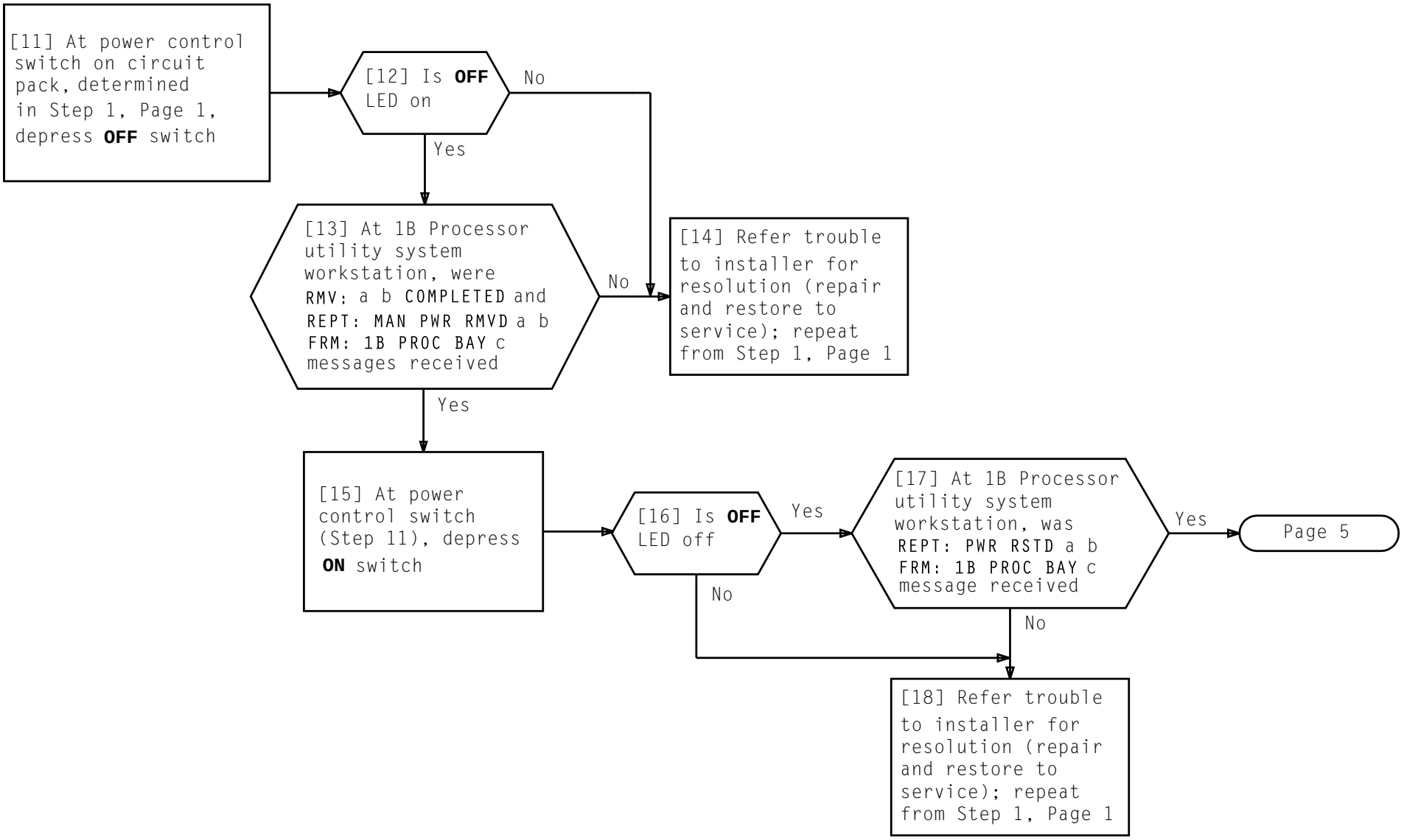
TABLE B	
LED	**INDICATION**
ACK*	On then Off
OS	On

* expected indication may take a short period of time to be received

DIAGNOSE CS 0 THROUGH CS 9, PS 0 THROUGH PS 3, SSD 0, AND SSD 1

TABLE A			
UNIT	POWER CONTROL CP	CABINET	EQUIPMENT LOCATION
CS 0	KLW01	0	024-006
CS 1	KLW01	1	124-006
CS 2	KLW01	0	024-176
CS 3	KLW01	1	124-176
CS 4	KLW01	0	024-014
CS 5	KLW01	1	124-014
CS 6	KLW01	0	024-168
CS 7	KLW01	1	124-168
CS 8	KLW01	0	024-022
CS 9	KLW01	1	124-022
PS 0	KLW02	0	041-128
PS 1	KLW02	1	141-128
PS 2	KLW02	0	041-136
PS 3	KLW02	1	141-136
SSD 0	KLW15	0	058-168
SSD 1	KLW15	1	158-168


[7] At power control switch on circuit pack, determined in Step 1, Page 1, depress **LTEST** pushbutton while observing all LEDs that light on associated power control switch; then release
[8] Did all LEDs on associated power control switch light while **LTEST** pushbutton was depressed
Yes
No
[9] Did all LEDs on associated power control switch, except **OS** LED go off when **LTEST** pushbutton was released
Yes
No
Page 4
[10] Refer trouble to installer for resolution (repair and restore to service); repeat from Step 1, Page 1



DIAGNOSE CS 0 THROUGH CS 9, PS 0 THROUGH PS 3, SSD 0, AND SSD 1

[19] At power control switch on circuit pack, determined in Step 1, Page 1, operate **ROS/NORM** switch to **NORM** and observe LEDs for TABLE C indications

[20] At 1B Procesor utility system workstation, determine if printout was received per TABLE D

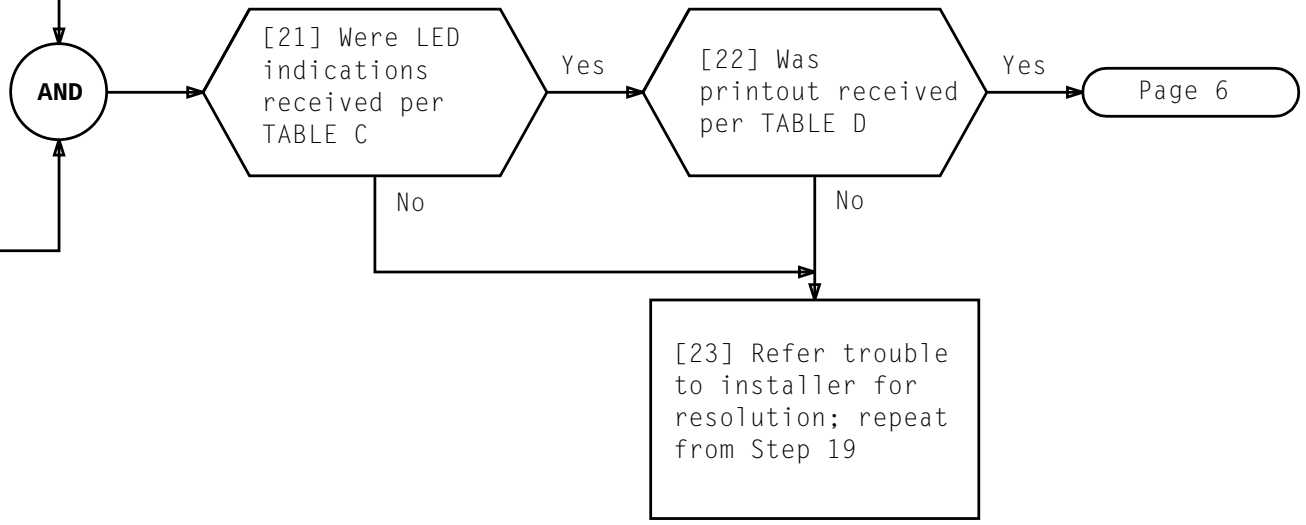


TABLE C	
LED	**INDICATION**
ACK*	On then Off
OS**	Off

* expected indication may take a short period of time to be received

** this will not occur until restore is complete

TABLE D	
MESSAGE NUMBER	**OUTPUT MESSAGES**
1	DGN: a b COMPLETED CATP (20000000 00000000) MSG COMPL TEST: a b ATP* RST: a b [MCODE c]** COMPLETED

* message will be received for SSD

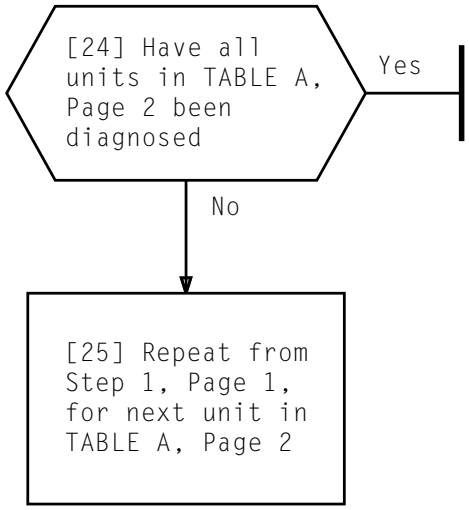
** MCODE will be received for CSs AND PSs

a = unit type being tested

b = member number of unit type being tested

c = MCODE value

DIAGNOSE CS 0 THROUGH CS 9, PS 0 THROUGH PS 3, SSD 0, AND SSD 1


[24] Have all units in TABLE A, Page 2 been diagnosed
Yes
No
[25] Repeat from Step 1, Page 1, for next unit in TABLE A, Page 2

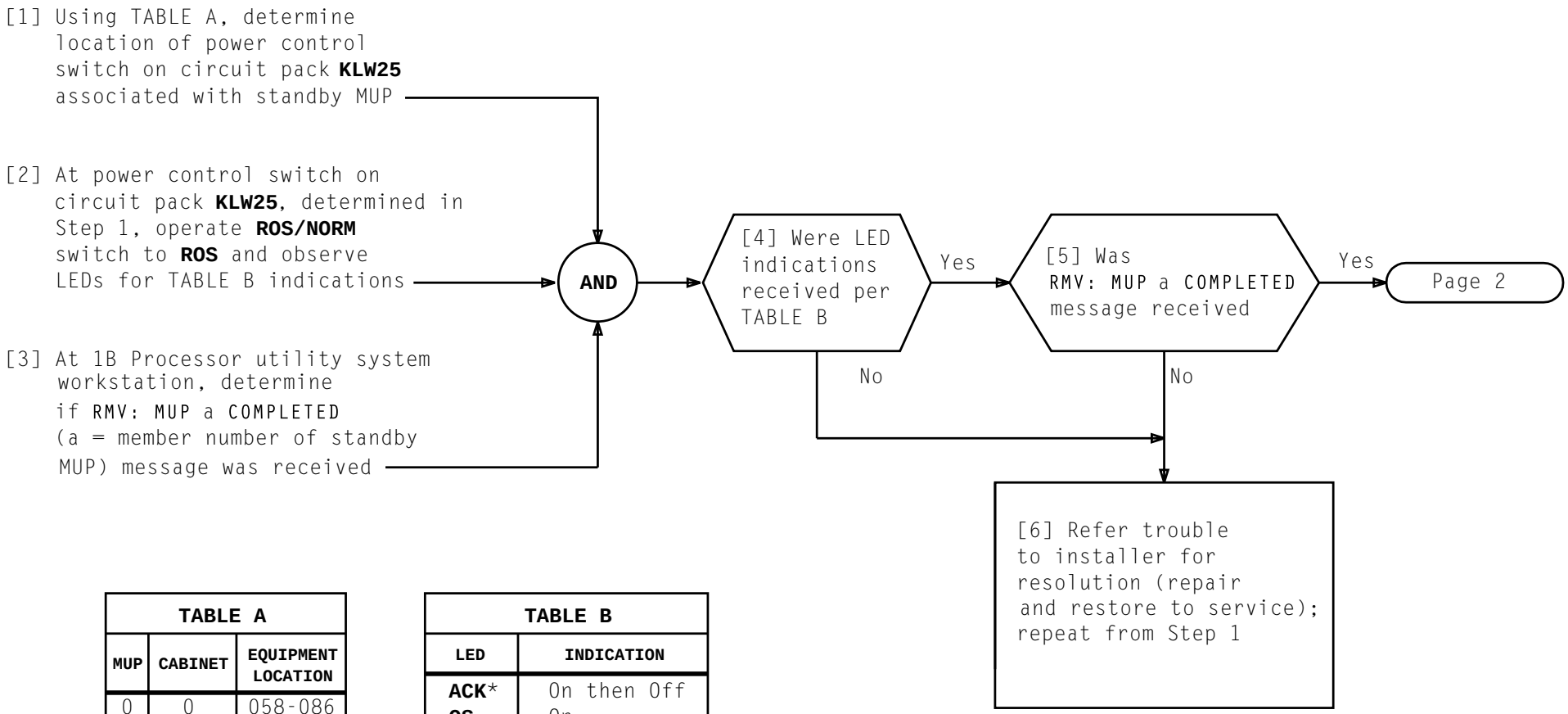


TABLE A

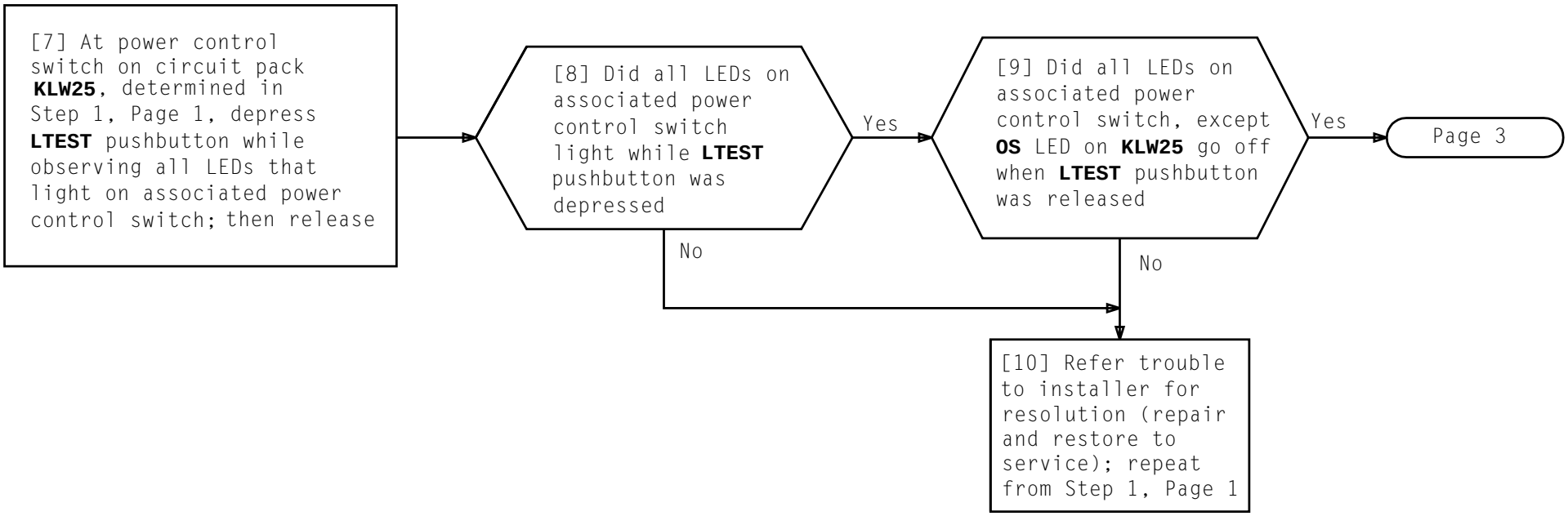
MUP	CABINET	EQUIPMENT LOCATION
0	0	058-086
1	1	158-086

TABLE B

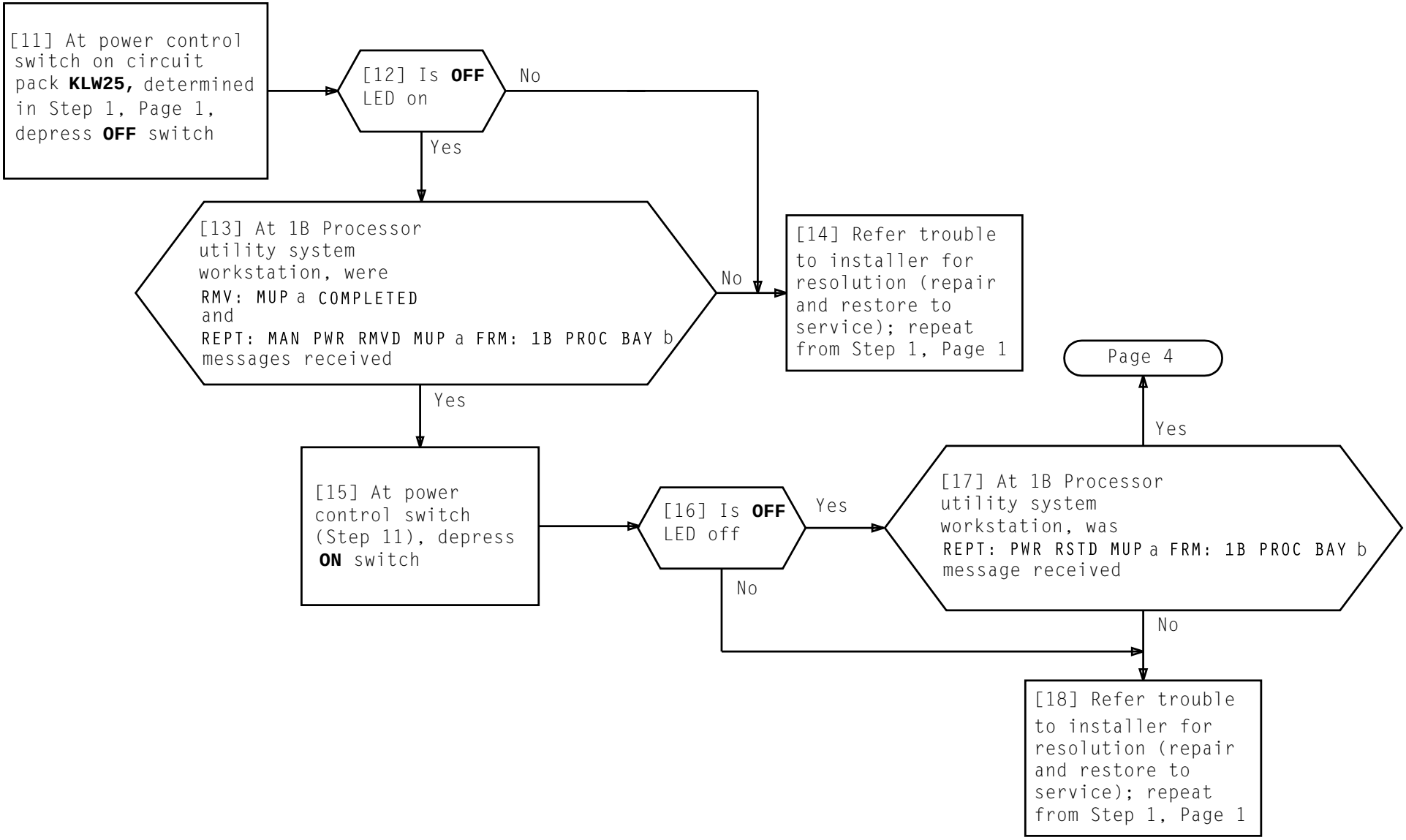
LED	INDICATION
ACK*	On then Off
OS	On

* expected indication may take a short period of time to be received

DIAGNOSE STANDBY 1B PROCESSOR MUP



DIAGNOSE STANDBY 1B PROCESSOR MUP



DIAGNOSE STANDBY 1B PROCESSOR MUP

[19] At power control switch on circuit pack **KLW25**, determined in Step 1, Page 1, operate **ROS/NORM** switch to **NORM** and observe LEDs for TABLE C indications

[20] At 1B Processor utility system workstation, determine if printout was received per TABLE D

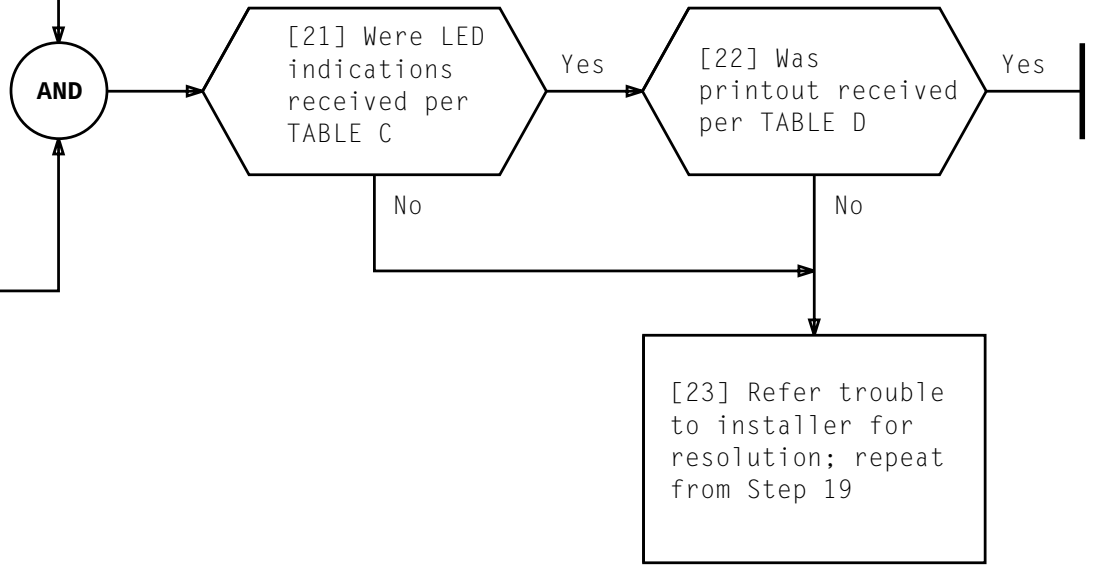


TABLE C	
LED	**INDICATION**
ACK* **OS****	On then Off Off

* **ACK** LED will go off when **OS** LED goes off

** this will not occur until restore is complete

TABLE D	
MESSAGE NUMBER	**OUTPUT MESSAGES**
1	DGN: MUP a COMPLETED CATP (20000000 00000000) MSG COMPL TEST: MUP a ATP RST: MUP a COMPLETED

a = member number of standby MUP

DIAGNOSE STANDBY 1B PROCESSOR MUP

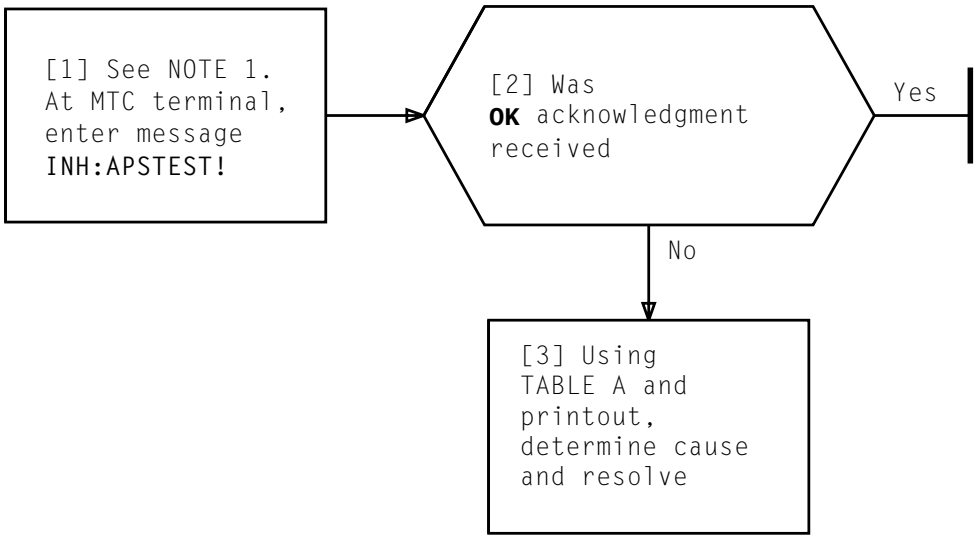
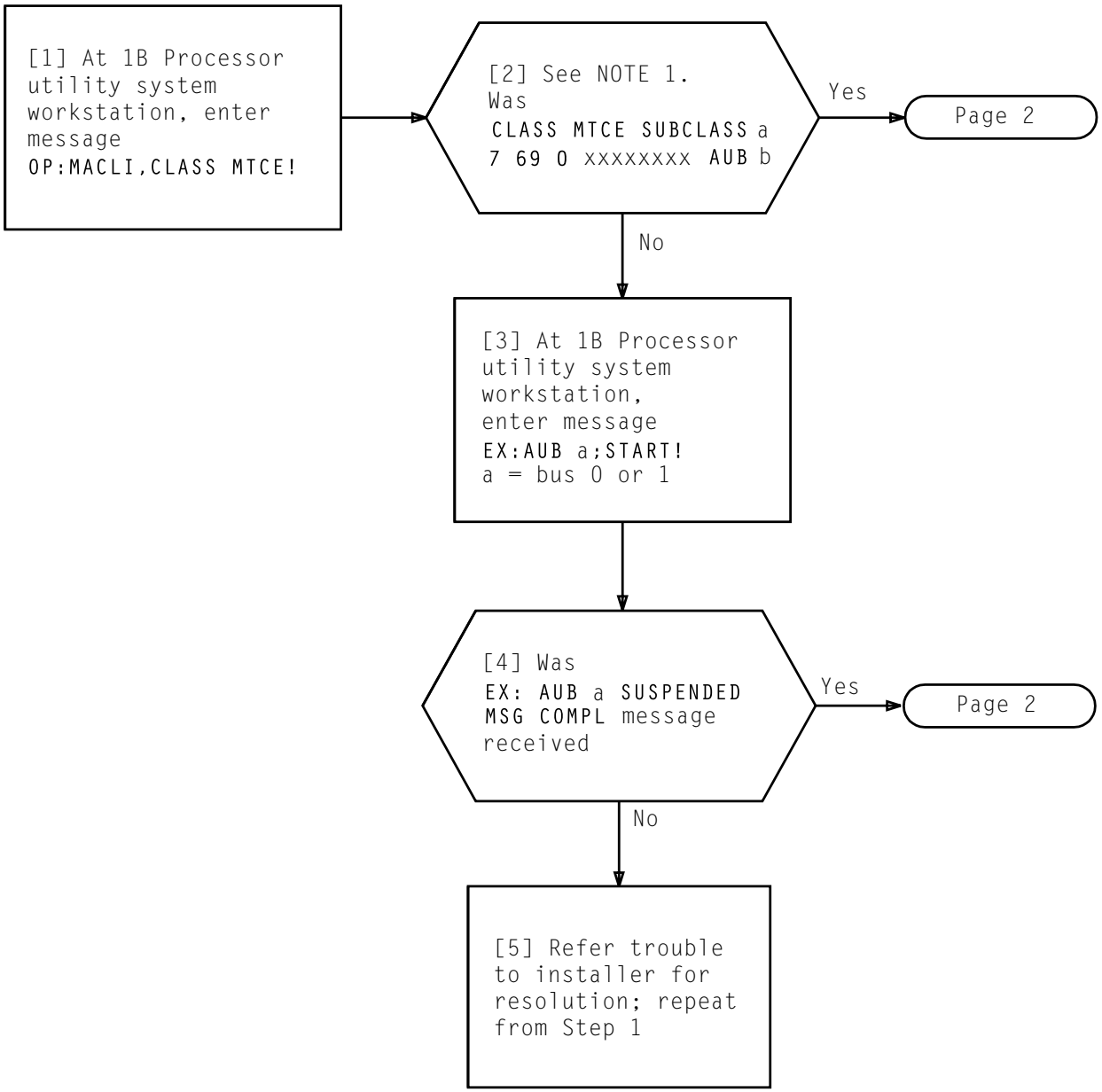


TABLE A

NG, CODE	REASON
05	APS test was not allowed to run. ALW:APSTEST message was not input or request could not be sent to APS to allow test. Since test was not previously allowed, INH:APSTEST does not need to be entered

NOTE 1
After 1 minute, expect BLM messages from 1B Processor and APIs to duplex fail

CLEAR API BEING TESTED FROM OUT-OF-SERVICE STATE



NOTE 1
If problem occurs when setting up loop, use program listing ABDG99 (PR-5A737)

ENTER EXECUTE MESSAGES FOR LOOPING ON AU REPLY BUS

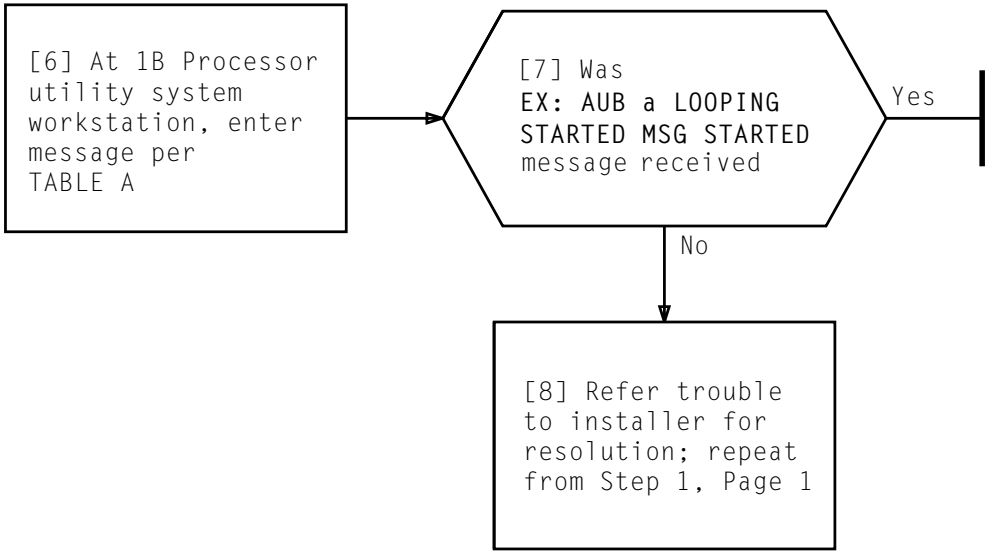
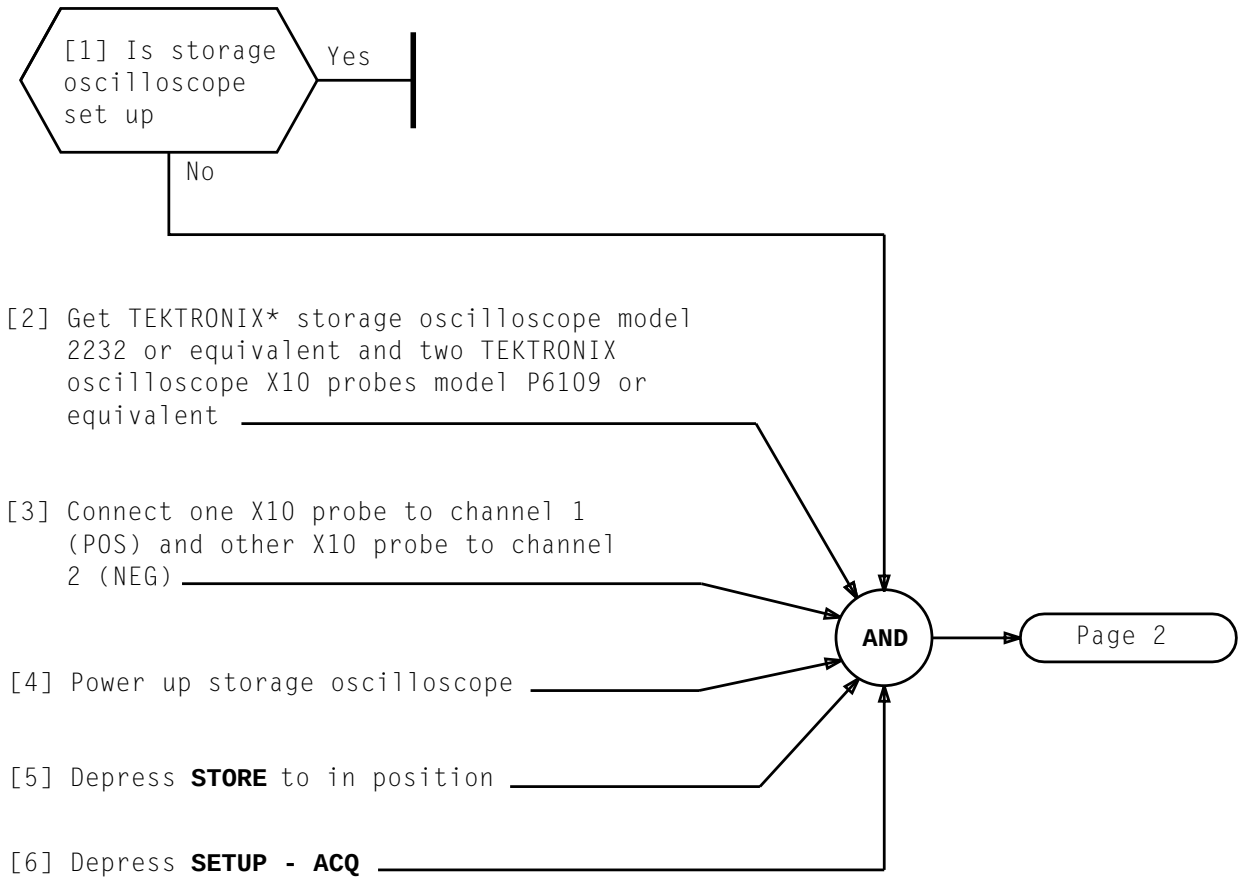


TABLE A	
MESSAGE NUMBER	**INPUT MESSAGE**
1	EX:AUB a:PH 99,ADR b!
a = Bus 0 or 1 b = 120-163 (for bus 0) or 274-337 (for bus 1)	

ENTER EXECUTE MESSAGES FOR LOOPING ON AU REPLY BUS



SET UP STORAGE OSCILLOSCOPE FOR SCOPING AU BUS

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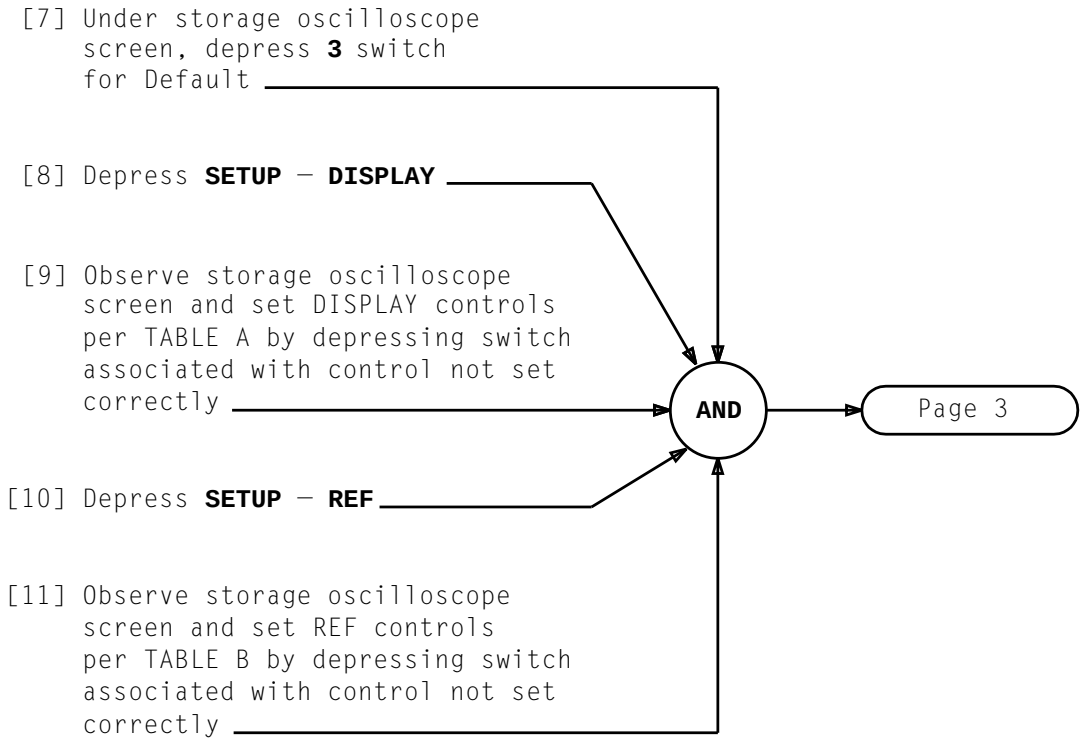


TABLE A

COLUMN	CONTROLS	SWITCH*
1	ΔT	SAVE REF
2	ON	1
3	ON	2

*Switches under display screen are associated with column that they are under

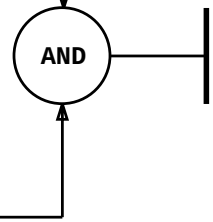
TABLE B

COLUMN	CONTROLS	SWITCH*
1	Format	SAVE REF
2	Ref1	1
3	CH1	2
4	X1	3
5	Vert Gain: 0.2V	4K (for Vert Gain:) and adjust CURSORS to obtain 0.2V

*Switches under display screen are associated with column that they are under

SET UP STORAGE OSCILLOSCOPE FOR SCOPING AU BUS

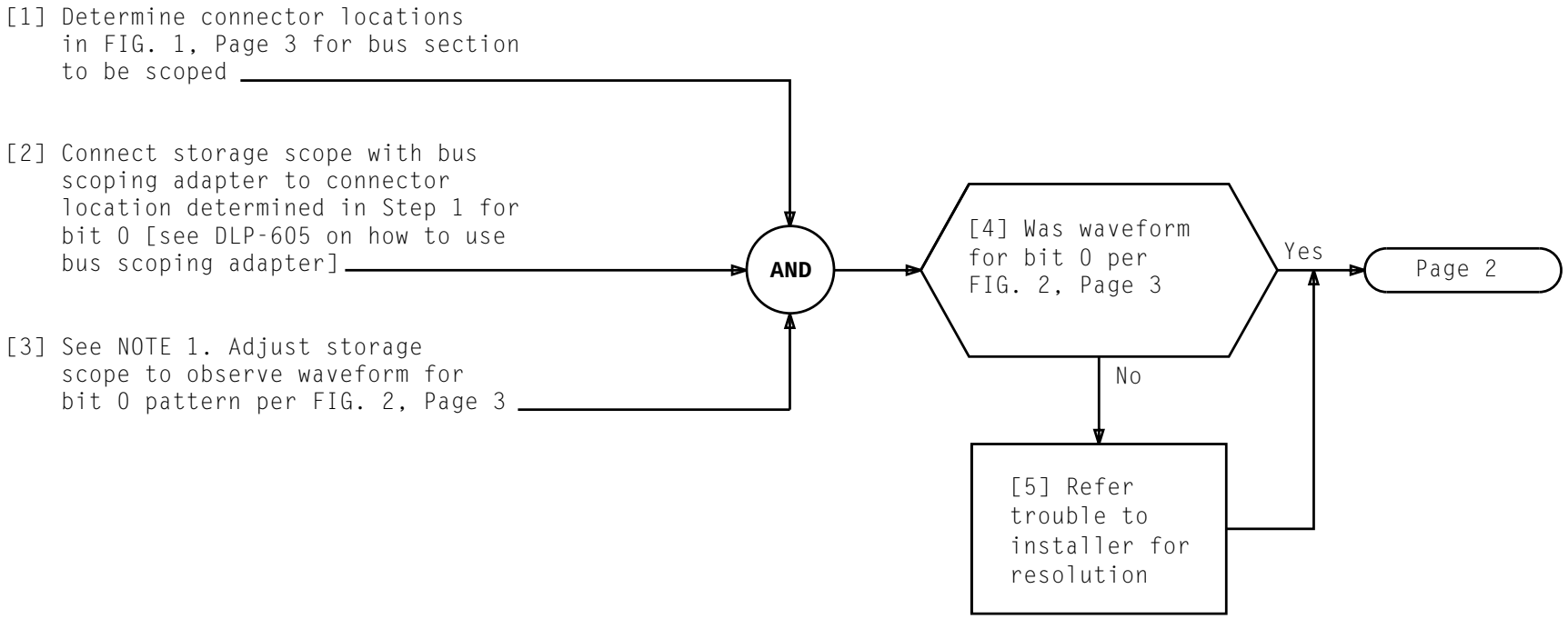
[12] Depress **SETUP - REF**
to return to screen



[13] Set 2232 storage oscilloscope
controls per TABLE C, Page 4

SET UP STORAGE OSCILLOSCOPE FOR SCOPING AU BUS

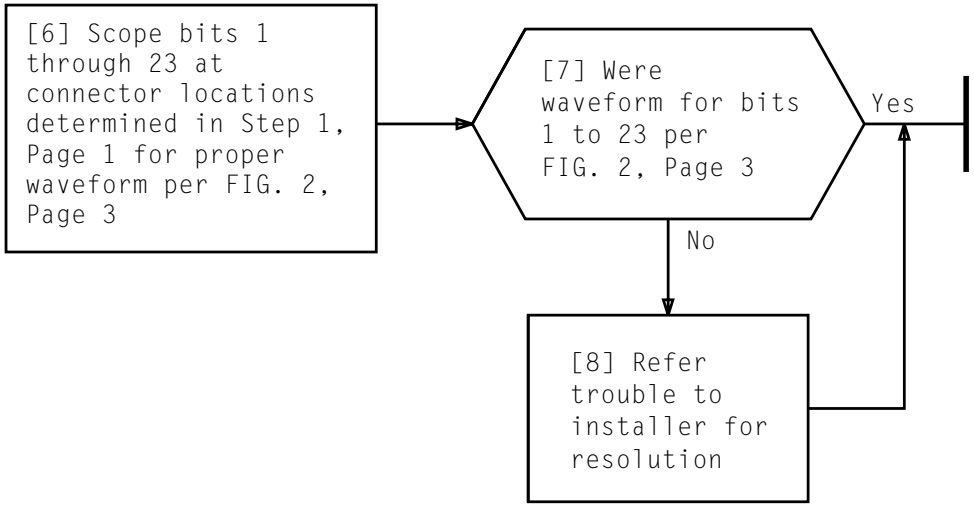
TABLE C — OSCILLOSCOPE CONTROL SETTINGS FOR MODEL 2232	
CONTROLS	**POSITION**
CURSORS	Don't Care
SAVE/CONT	Depress until SAVE is not displayed
STORE	Depress (in)
VAR HOLDOFF	Don't Care
VERTICAL — POSITION (left)	Rotate to 11 o'clock position
VERTICAL — A/B SWP SEP	Don't Care
VERTICAL — POSITION (right)	Rotate to 12 o'clock position
VERTICAL MODE — CH 1 BOTH CH 2	BOTH
VERTICAL MODE — X-Y	Out position
VERTICAL MODE — BW LIMIT	Out position
VERTICAL MODE — ADD ALT CHOP	ADD
VERTICAL — CH 1 VOLTS/DIV	2
VERTICAL — CH 1 VOLTS/DIV — AC GND DC	DC
VERTICAL — INVERT	Depress (in)
VERTICAL — CH 2 VOLTS/DIV	2
VERTICAL — CH 2 VOLTS/DIV — AC GND DC	DC
HORIZONTAL — POSITION	Rotate to 1 o'clock position
HORIZONTAL — MODE	A
HORIZONTAL — A and B SEC/DIV	.1 μs
B TRIGGER — SLOPE	Don't Care
B TRIGGER — LEVEL	Don't Care
A TRIGGER — TV FIELD — NORM	Depress (in)
A TRIGGER — SLOPE	Out position
A TRIGGER — LEVEL	Rotate to 1 o'clock position
A TRIGGER — A & B SOURCE	A EXT CH 1
A TRIGGER — A COUPL	NORM
A TRIGGER — A EXT COUPL	Don't Care



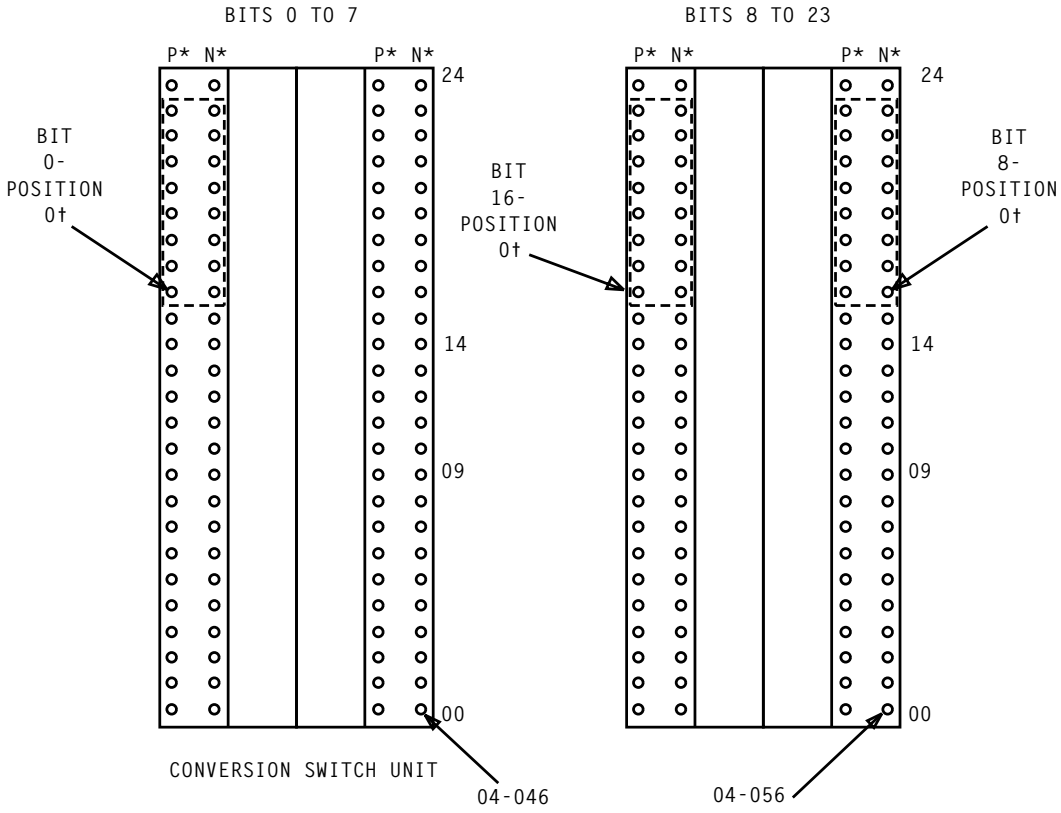
NOTES

1. **CURSORS** may need to be adjusted to observe bit pattern
2. Width of valid AU reply bus pulse can be 70 ns to 180 ns (DMA) or 300 ns to 600 ns (GCP). FIG. 3, Page 2 shows a typical reply pulse (DMA) which is 100 ns wide

SCOPE AU REPLY BUS BITS 0 TO 23



SCOPE AU REPLY BUS BITS 0 TO 23



* P FOR POSITIVE LEAD AND
N FOR NEGATIVE LEAD

† POSITION 0 IS ON BUS SCOPING ADAPTER

FIG. 1

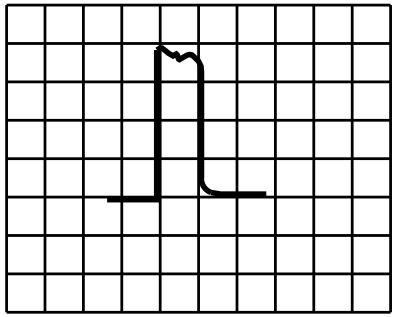


FIG. 2 – Typical Waveform

SCOPE AU REPLY BUS BITS 0 TO 23

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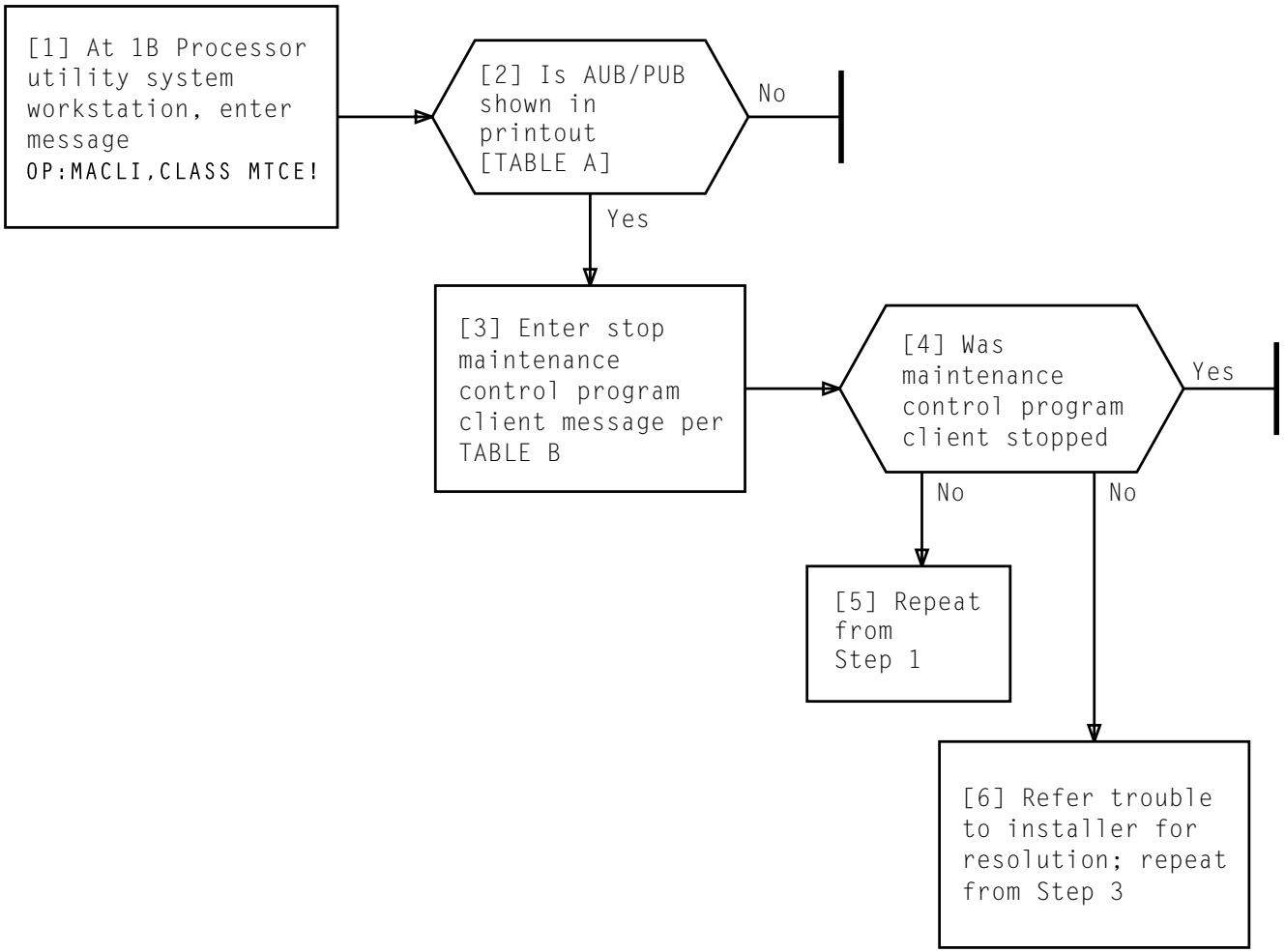


TABLE A

OP:MACLI

CLASS MTCE SUBCLASS 0	a - d e f
CLASS MTCE SUBCLASS 1	a - d e f
CLASS MTCE SUBCLASS 2	a - d e f

a - d = NONE or variable data

e = Unit type

f = Member number

TABLE B

STOP:MACLI,CLASS MTCE,SUBCLASS a!

a = CLASS MTCE SUBCLASS number from output message assigned to AUB or PUB diagnostics

STOP MAINTENANCE CONTROL PROGRAM CLIENT

1. Get program listings PR-4A510 (PUDGPBGR) and PR-4A512 (PUDGPB02) (See FIG. 1)

2. Using PR-4A512, verify address of ITEM 1 in TABLE A

3. Using PR-4A510, verify addresses of ITEMS 2 through 6 in TABLE A

TABLE A

ITEM	STATEMENT LABEL	ADDRESS
1	STM10600	543
2	PBTS2600	200
3	PBTS2900	207
4	PBTS3600	246
5	PBTS4400	616
6	PBTS13800	1675

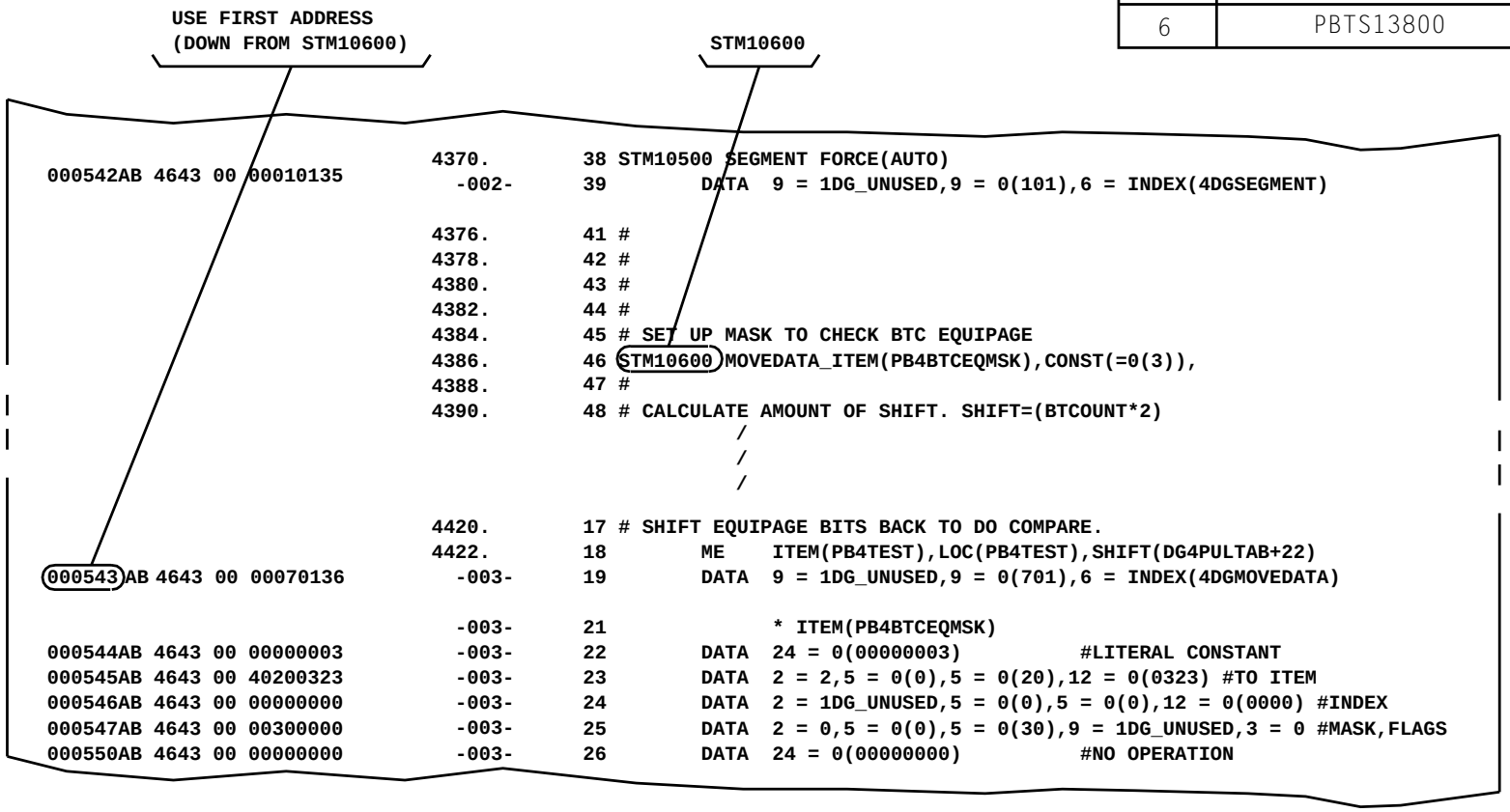
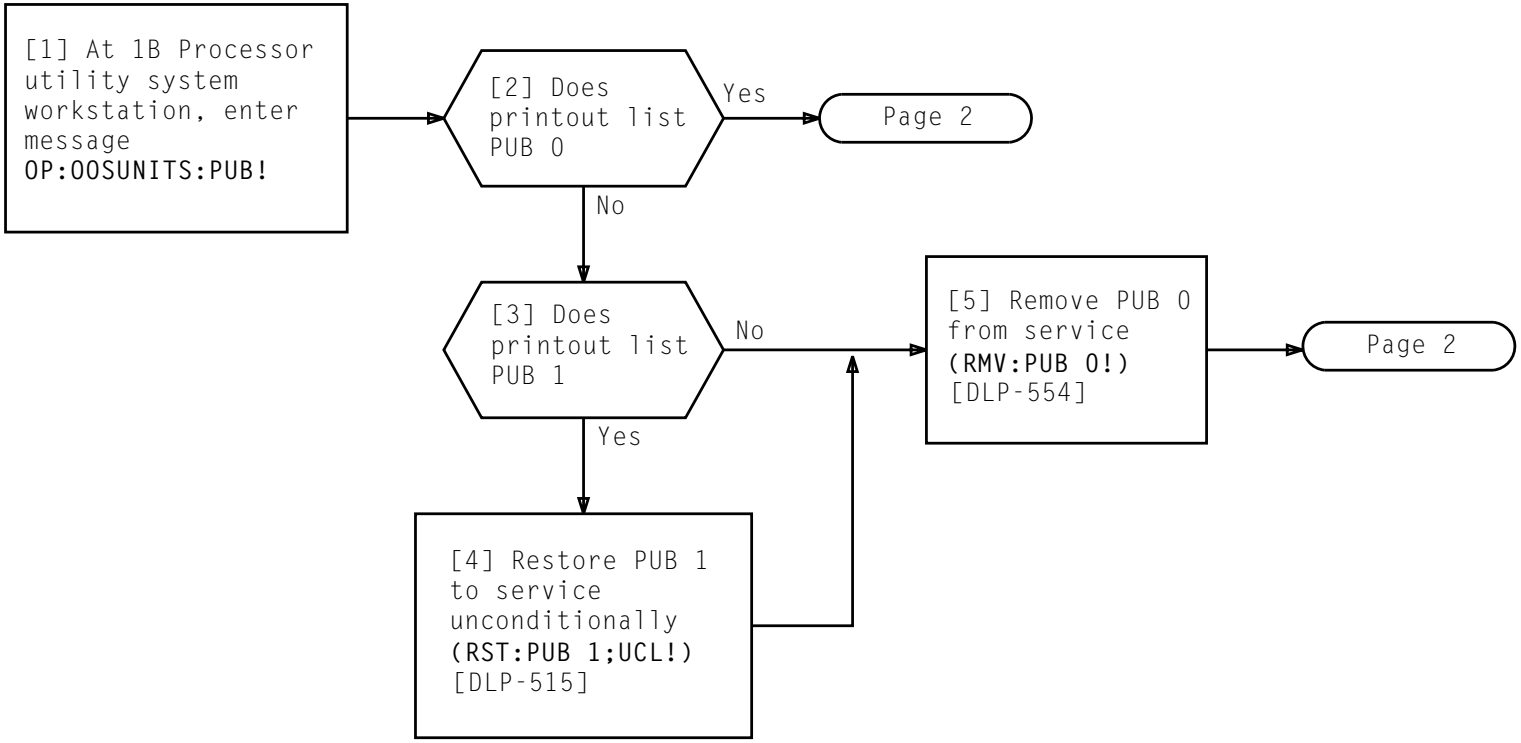
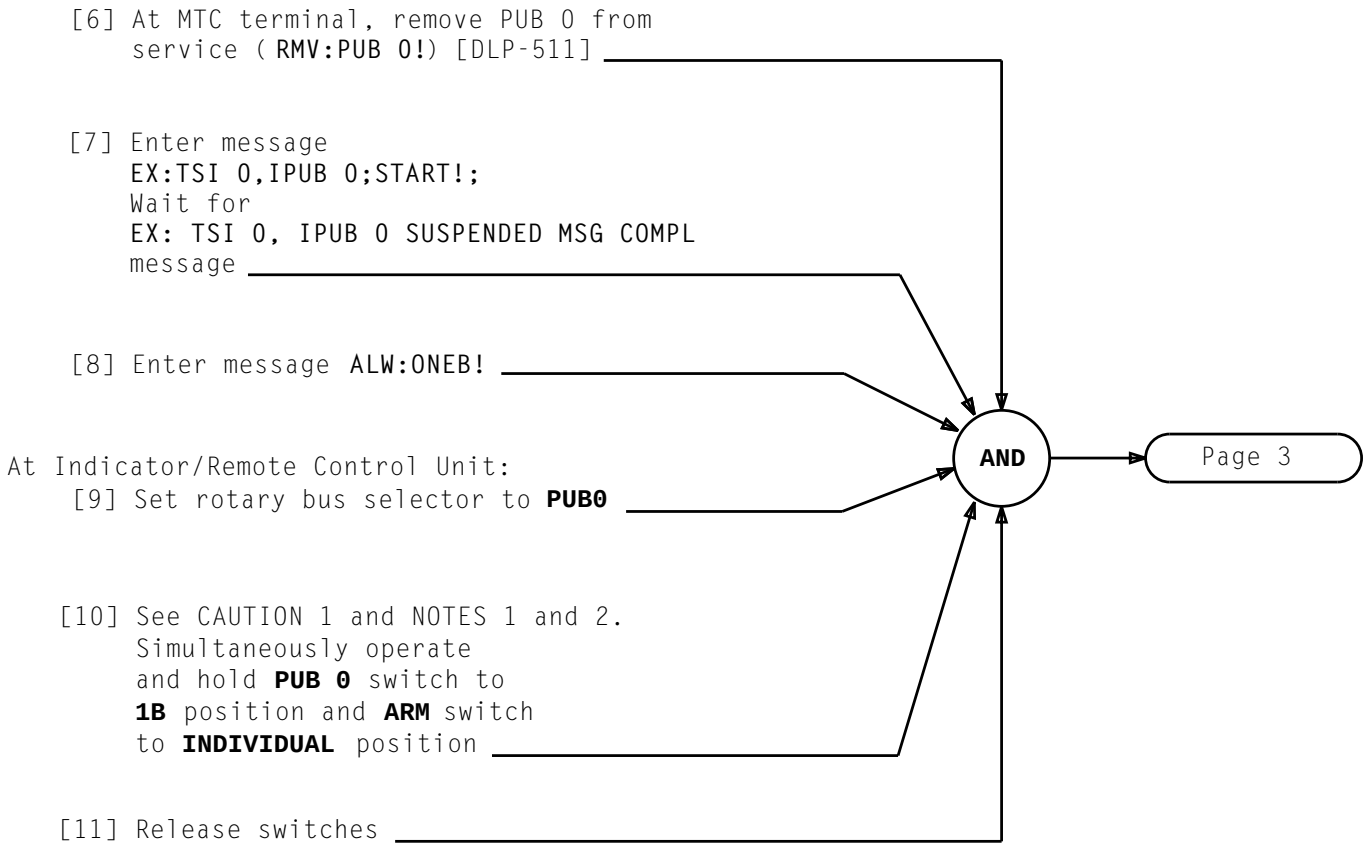


FIG. 1 — Location of STM10600 and Address to Use

VERIFY PUB LOOPING ADDRESSES



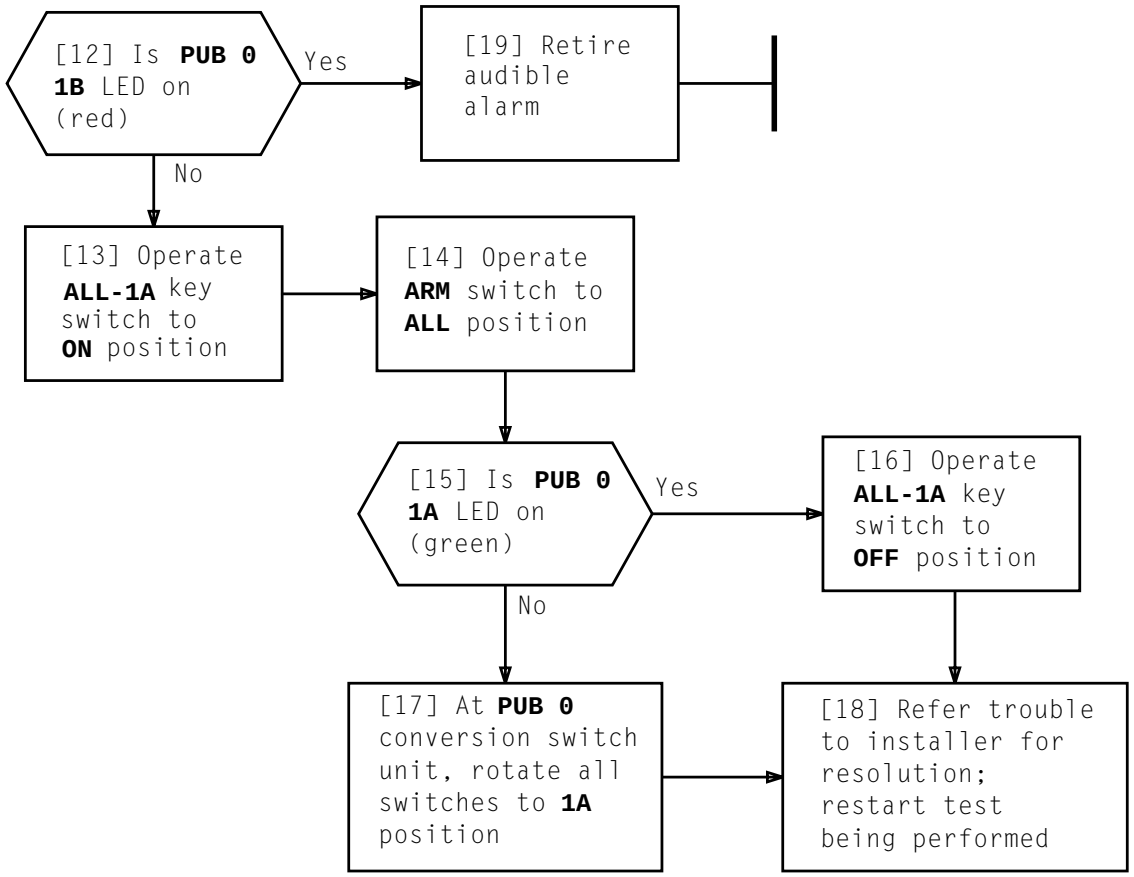
SWITCH PUB 0 CONVERSION SWITCH FROM 1A PROCESSOR BUS ACCESS TO 1B PROCESSOR BUS ACCESS



NOTES
1. Audible alarm will be received
2. REPT: OA xx 1B CVSW OFNL ACTIVATED, FLOOR x message will be received at MTC terminal

CAUTION 1
Care must be taken to ensure that only **PUB 0** *and* **ARM** *switches are being operated*

SWITCH PUB 0 CONVERSION SWITCH FROM 1A PROCESSOR BUS ACCESS TO 1B PROCESSOR BUS ACCESS



SWITCH PUB 0 CONVERSION SWITCH FROM 1A PROCESSOR BUS ACCESS TO 1B PROCESSOR BUS ACCESS

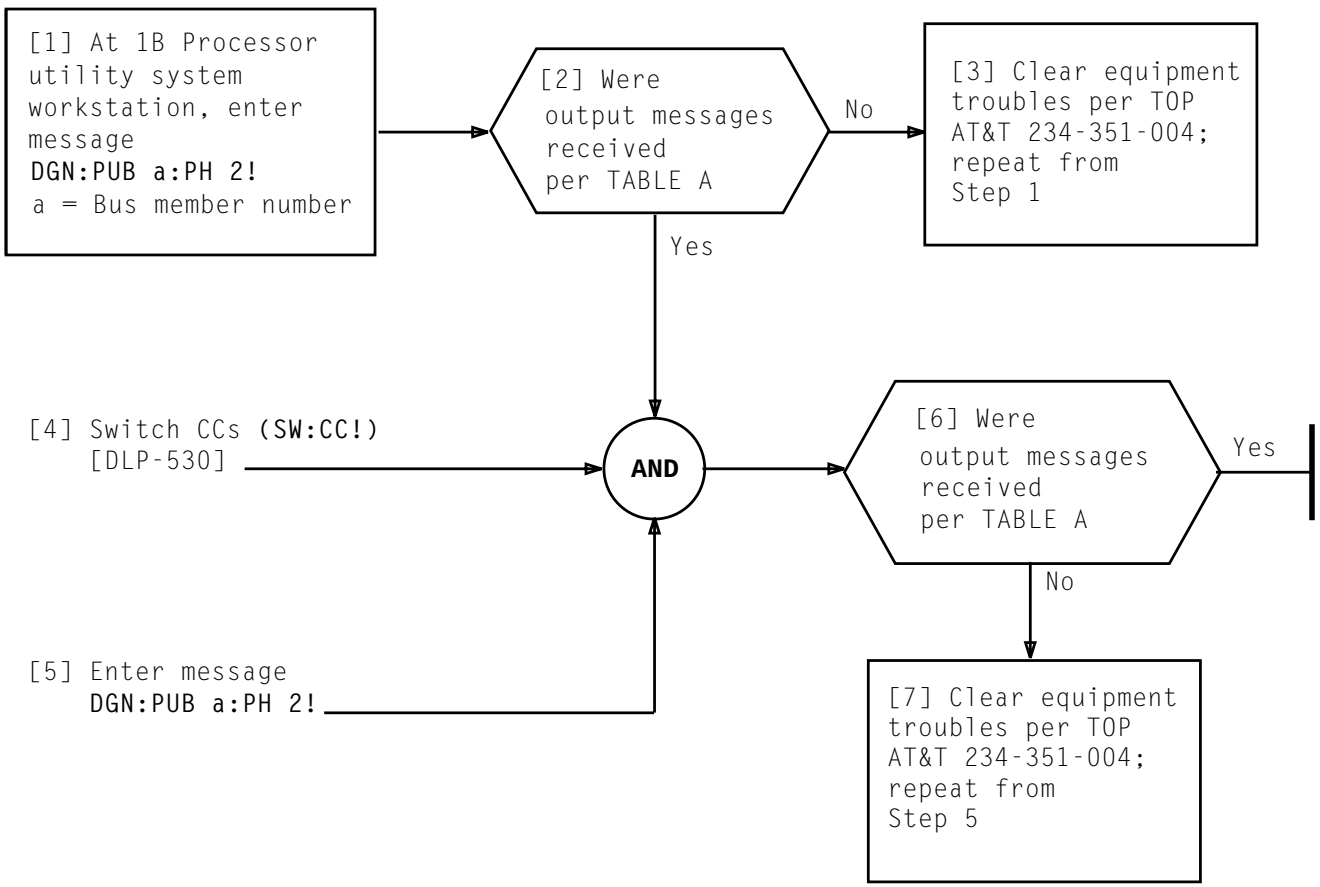


TABLE A

MESSAGE NUMBER	OUTPUT MESSAGES
1	DGN: PUB a PH 2 ATP MSG STARTED DGN: PUB a COMPLETED ATP MSG COMPL

DIAGNOSE PERIPHERAL UNIT BUS FROM 1B PROCESSOR SPECIFYING PHASE 2

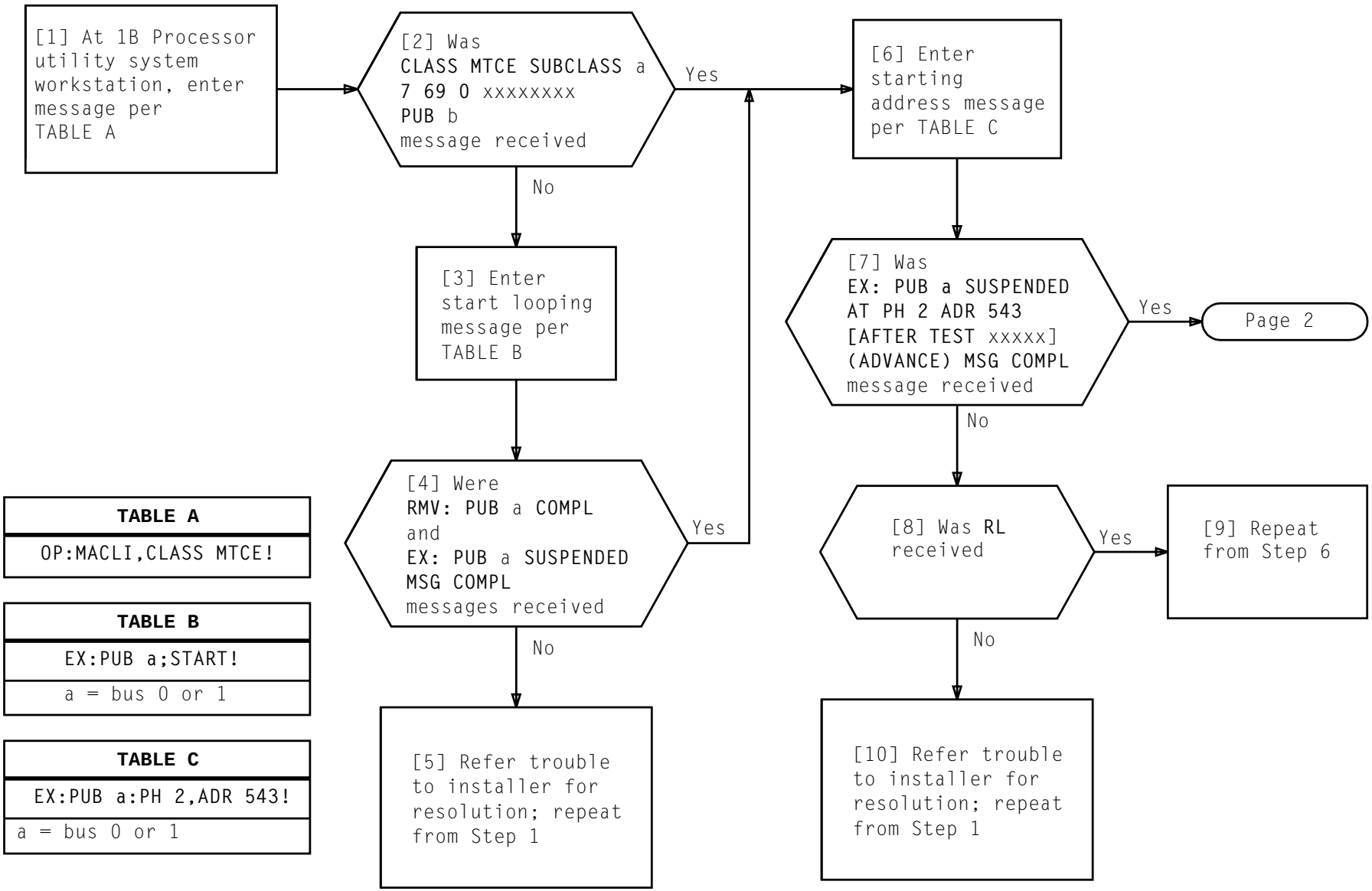


TABLE A
OP:MACLI,CLASS MTCE!

TABLE B
EX:PUB a;START!
a = bus 0 or 1

TABLE C
EX:PUB a:PH 2,ADR 543!
a = bus 0 or 1

ADVANCE PROGRAM AND SET UP LOOP TO OBSERVE PU REPLY BUS

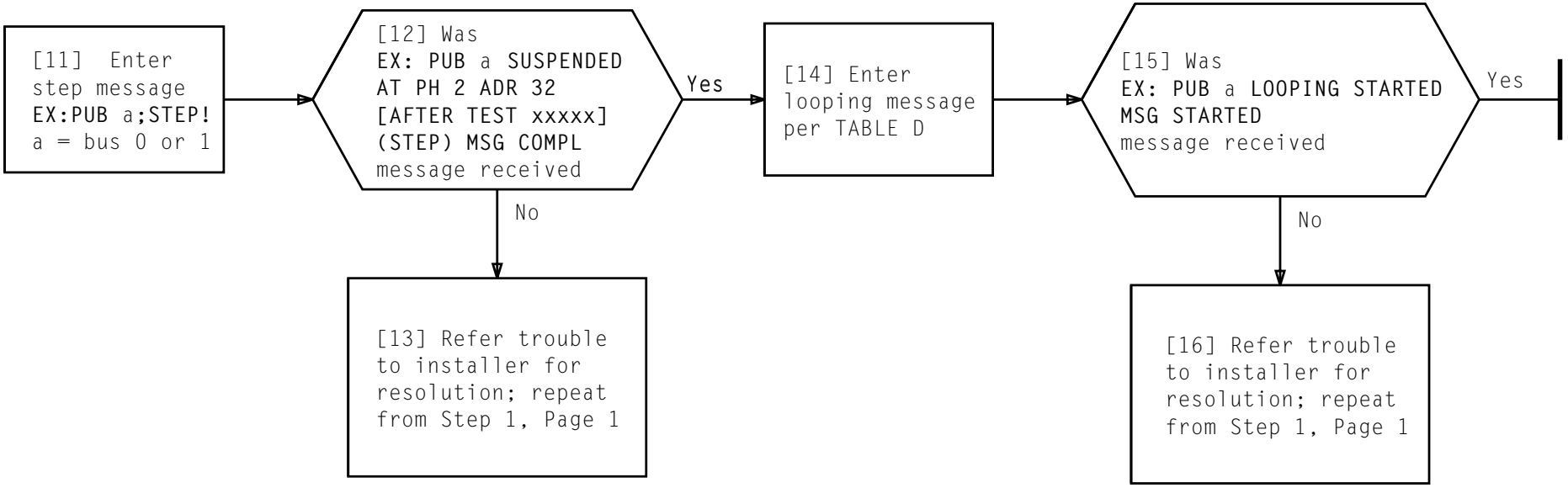
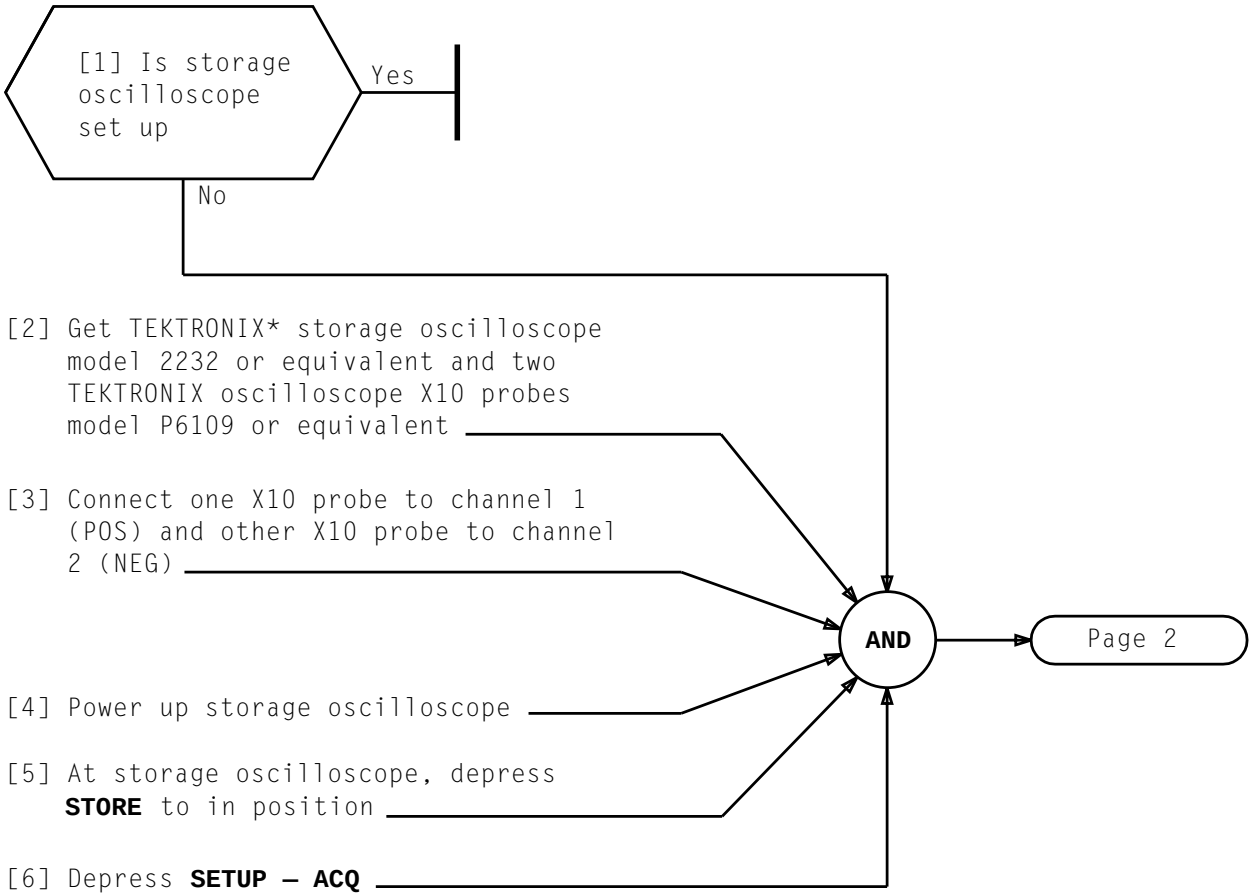


TABLE D
EX:PUB a:ADR b-c!
a = bus 0 or 1 b = 200 for bit 0 PU reply bus or 207 for other bits c = 207 for bit 0 PU reply bus or 246 for other bits

ADVANCE PROGRAM AND SET UP LOOP TO OBSERVE PU REPLY BUS



* Registered trademark of TEKTRONIX, Inc.

SET UP STORAGE OSCILLOSCOPE FOR PUB LOOPING TEST

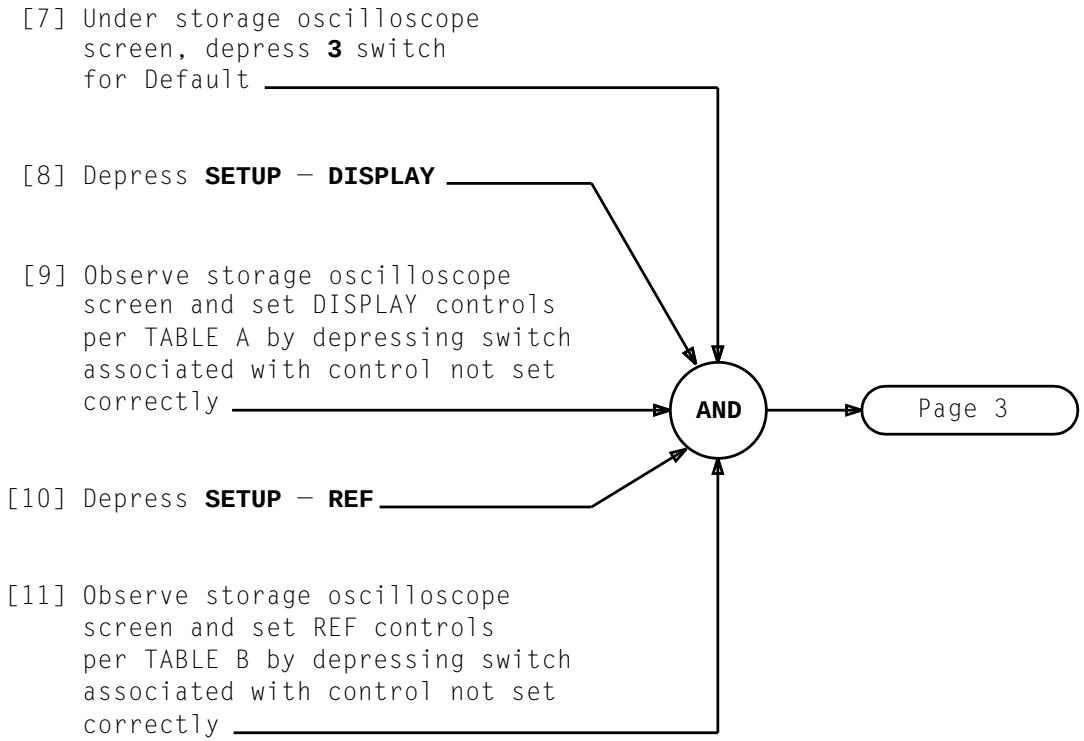


TABLE A

COLUMN	CONTROLS	SWITCH*
1	ΔT	SAVE REF
2	ON	1
3	ON	2

*Switches under display screen are associated with column that they are under

TABLE B

COLUMN	CONTROLS	SWITCH*
1	Format	SAVE REF
2	Ref1	1
3	CH1	2
4	X1	3
5	Vert Gain: 0.2V	4K (for Vert Gain:) and adjust CURSORS to obtain 0.2V

*Switches under display screen are associated with column that they are under

SET UP STORAGE OSCILLOSCOPE FOR PUB LOOPING TEST

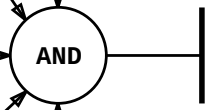
[12] Depress **SETUP** – **REF** to return to screen

[13] Determine one location in FIG. 1, Page 5 where bus scoping adapter can be connected

[14] Connect storage scope with bus scoping adapter to connector location determined in Step 13 [see DLP-605 on how to use bus scoping adapter]

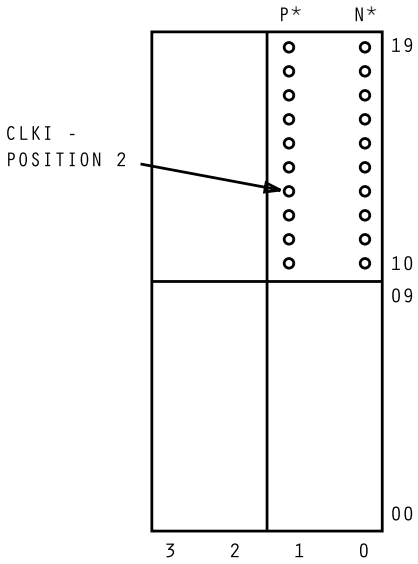
[15] Set bus scoping adapter to position 2

[16] Adjust storage scope per TABLE C, Page 4 for waveform in FIG. 2, Page 5



SET UP STORAGE OSCILLOSCOPE FOR PUB LOOPING TEST

TABLE C OSCILLOSCOPE CONTROL SETTINGS FOR MODEL 2232	
CONTROLS	**POSITION**
CURSORS	Don't Care
SAVE/CONT	Depress until SAVE is not displayed
STORE	Depress (out)
VAR HOLDOFF	Don't Care
VERTICAL — POSITION (left)	Rotate to 2 o'clock position
VERTICAL — A/B SWP SEP	Don't Care
VERTICAL — POSITION (right)	Rotate to 10 o'clock position
VERTICAL MODE — CH 1 BOTH CH 2	BOTH
VERTICAL MODE — X-Y	Out position
VERTICAL MODE — BW LIMIT	Out position
VERTICAL MODE — ADD ALT CHOP	ADD
VERTICAL — CH 1 VOLTS/DIV	2
VERTICAL — CH 1 VOLTS/DIV — AC GND DC	DC
VERTICAL — INVERT	Depress (in)
VERTICAL — CH 2 VOLTS/DIV	2
VERTICAL — CH 2 VOLTS/DIV — AC GND DC	DC
HORIZONTAL — POSITION	Rotate to 1 o'clock position
HORIZONTAL — MODE	A
HORIZONTAL — A and B SEC/DIV	.2μs
B TRIGGER — SLOPE	Don't Care
B TRIGGER — LEVEL	Don't Care
A TRIGGER — TV FIELD — NORM	Depress (in)
A TRIGGER — SLOPE	Out position
A TRIGGER — LEVEL	Rotate to 12 o'clock position
A TRIGGER — A & B SOURCE	CH 1
A TRIGGER — A COUPL	NORM
A TRIGGER — A EXT COUPL	Don't Care

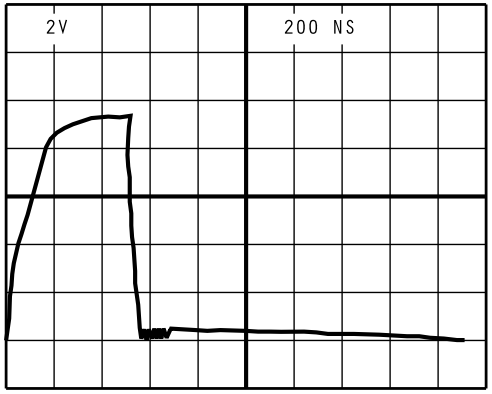


FRAME	
IO	
BUS 0	080-10
BUS 1	080-35
IOP	
BUS 0	080-29
BUS 1	076-29

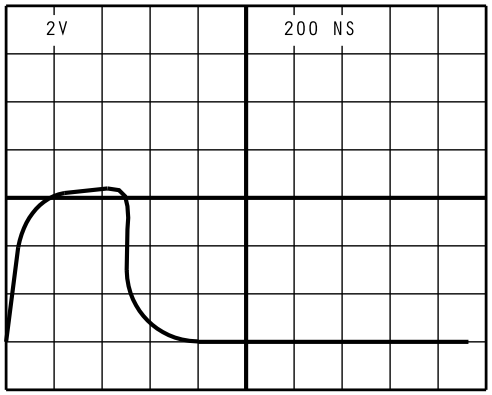
* P FOR POSITIVE LEAD AND
N FOR NEGATIVE LEAD

≤ POSITION 2 IS ON BUS SCOPING ADAPTER

FIG. 1



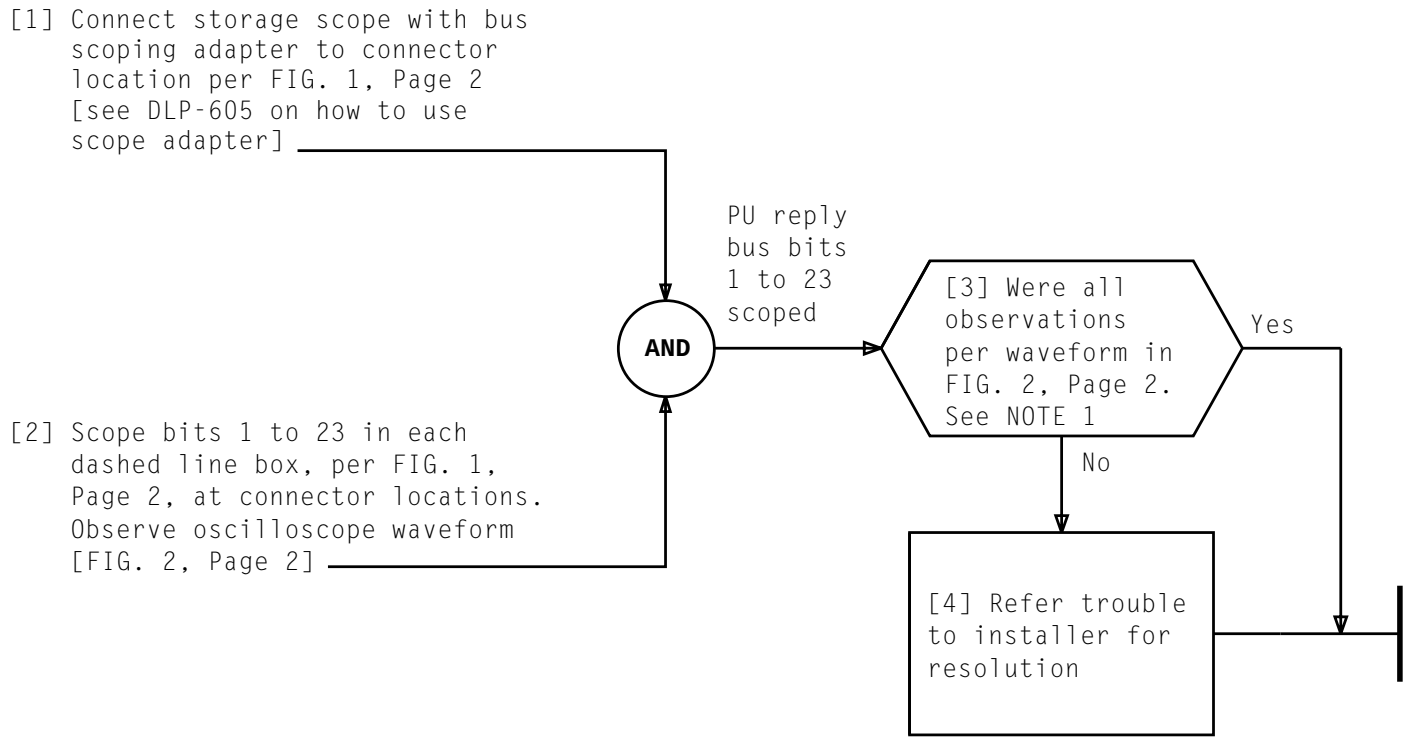
NORMAL PULSE AT DRIVER



NORMAL PULSE 500 FEET FROM DRIVER

FIG. 2

SET UP STORAGE OSCILLOSCOPE FOR PUB LOOPING TEST



NOTE 1
Pulse waveform will vary, depending on distance away from driver. Waveform measurements should be similar to examples shown in FIG. 2, Page 2

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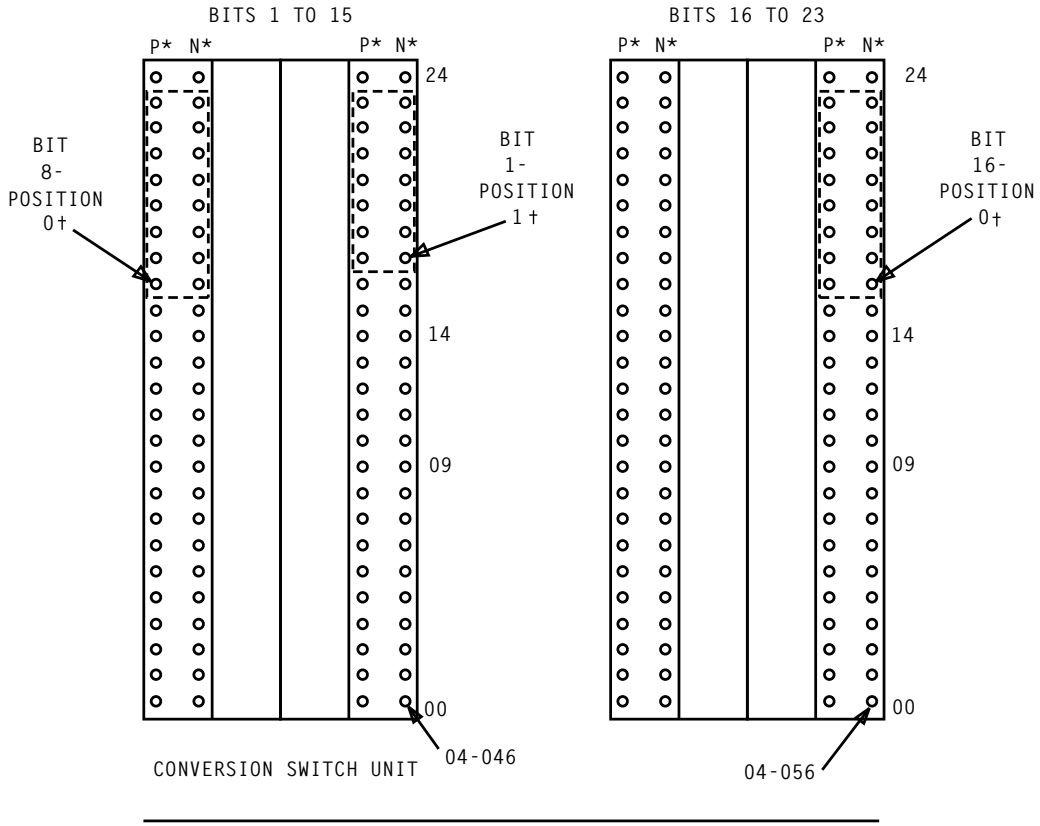
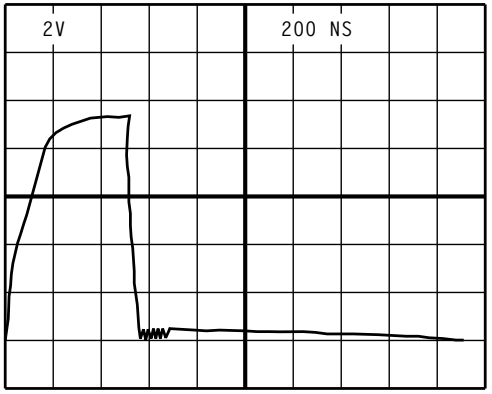
SCOPE PU REPLY BUS BITS 1 TO 23



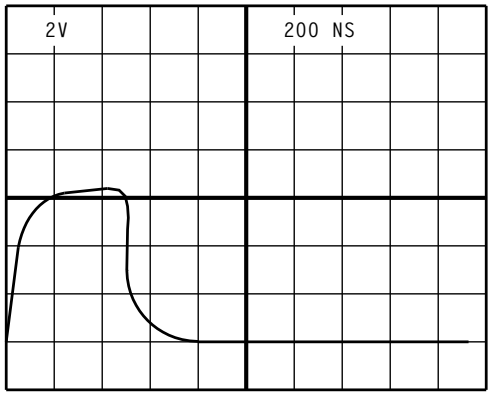
* P FOR POSITIVE LEAD AND
N FOR NEGATIVE LEAD

† POSITIONS GIVEN ARE ON BUS SCOPING ADAPTER

FIG. 1



NORMAL PULSE AT DRIVER



NORMAL PULSE 500 FEET FROM DRIVER

FIG. 2

SCOPE PU REPLY BUS BITS 1 TO 23

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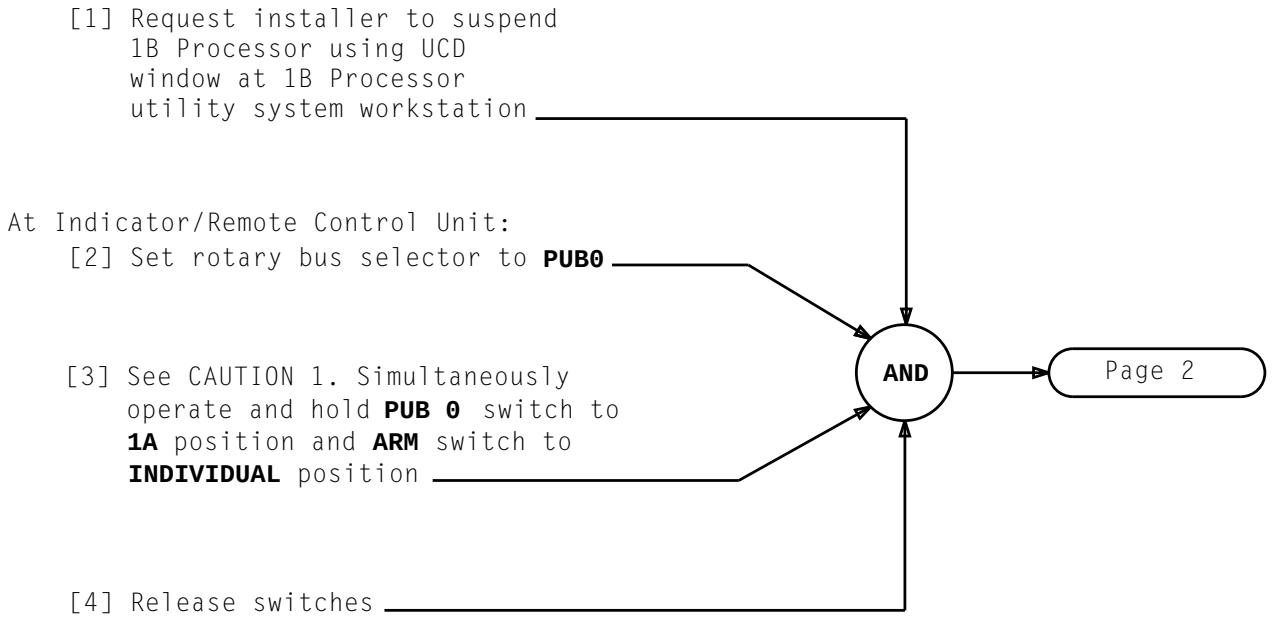
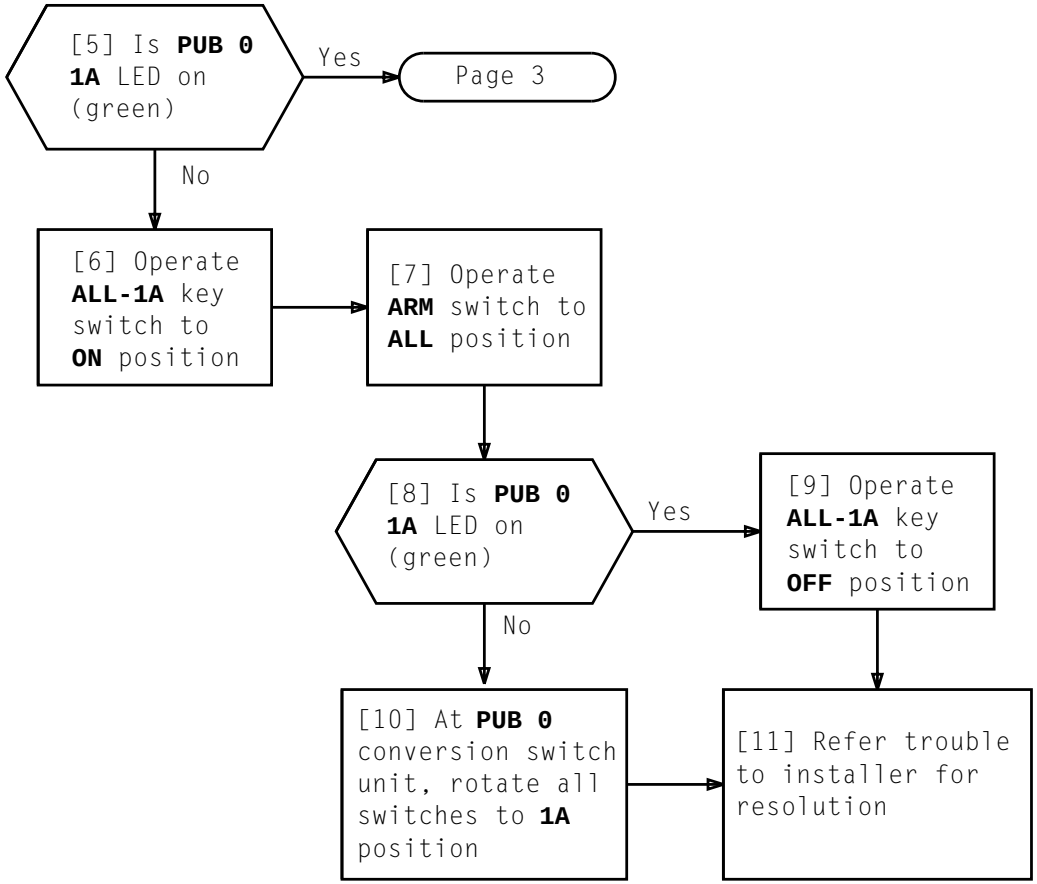


CAUTION 1
Care must be taken to ensure that only **PUB 0** *and* **ARM** *switches are being operated*

SWITCH PUB 0 CONVERSION SWITCH FROM 1B PROCESSOR BUS ACCESS TO 1A PROCESSOR BUS ACCESS



SWITCH PUB 0 CONVERSION SWITCH FROM 1B PROCESSOR BUS ACCESS TO 1A PROCESSOR BUS ACCESS

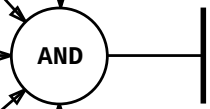
[12] At MTC terminal, enter message
OP:MACLI,CLASS MTCE!

[13] Using printout (Step 12), determine
subclass number for TSI looping

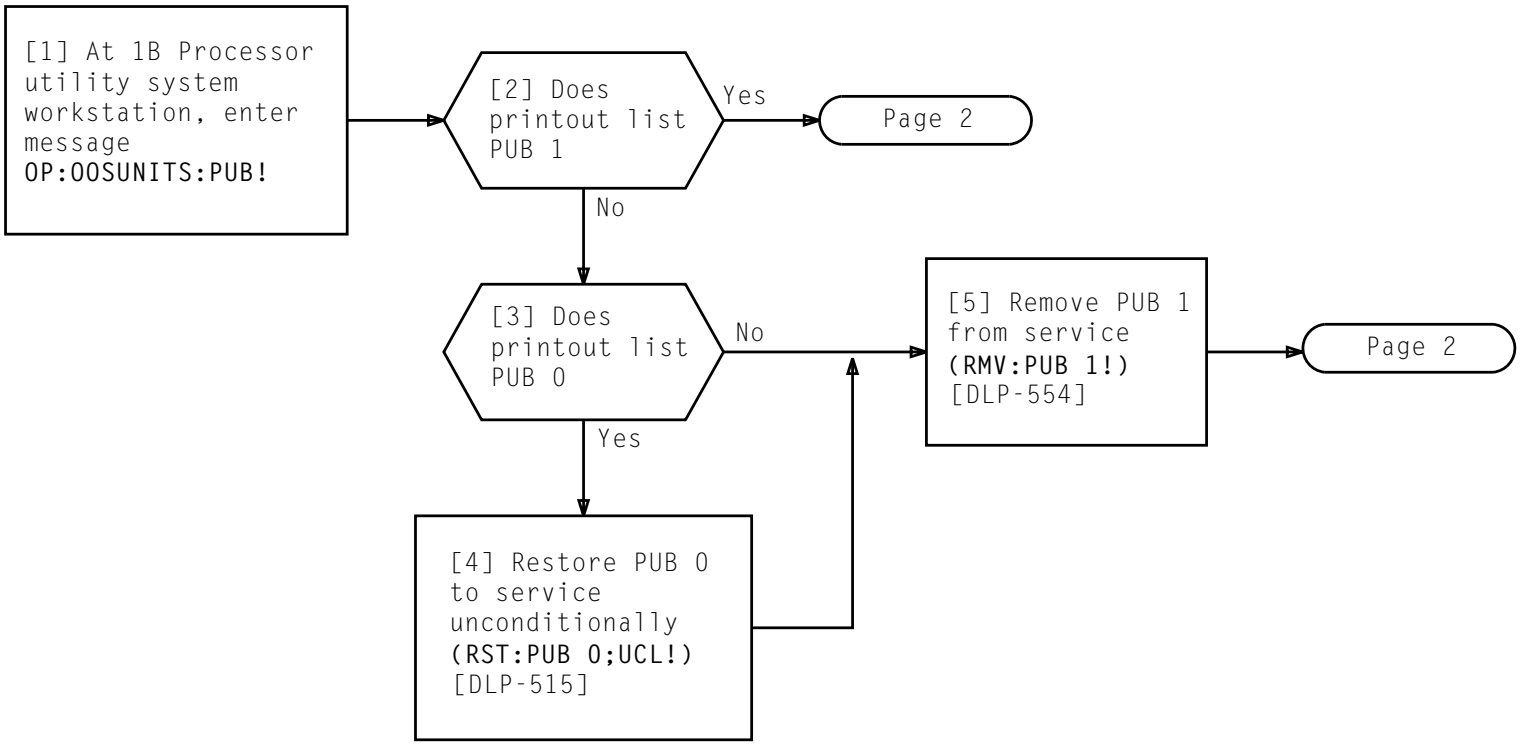
[14] At MTC terminal, enter message
STOP:MACLI,CLASS MTCE,SUBCLASS a!;
Wait for
EX:TSI 0, IPUB 0 ABORTED NTR MSG COMPL
message

[15] Enter message RST:TSI 0,IPUB 0!;
Wait for RST: TSI 0, IPUB 0 COMPLETED
message (CATP message will be
received with bit 25 set)

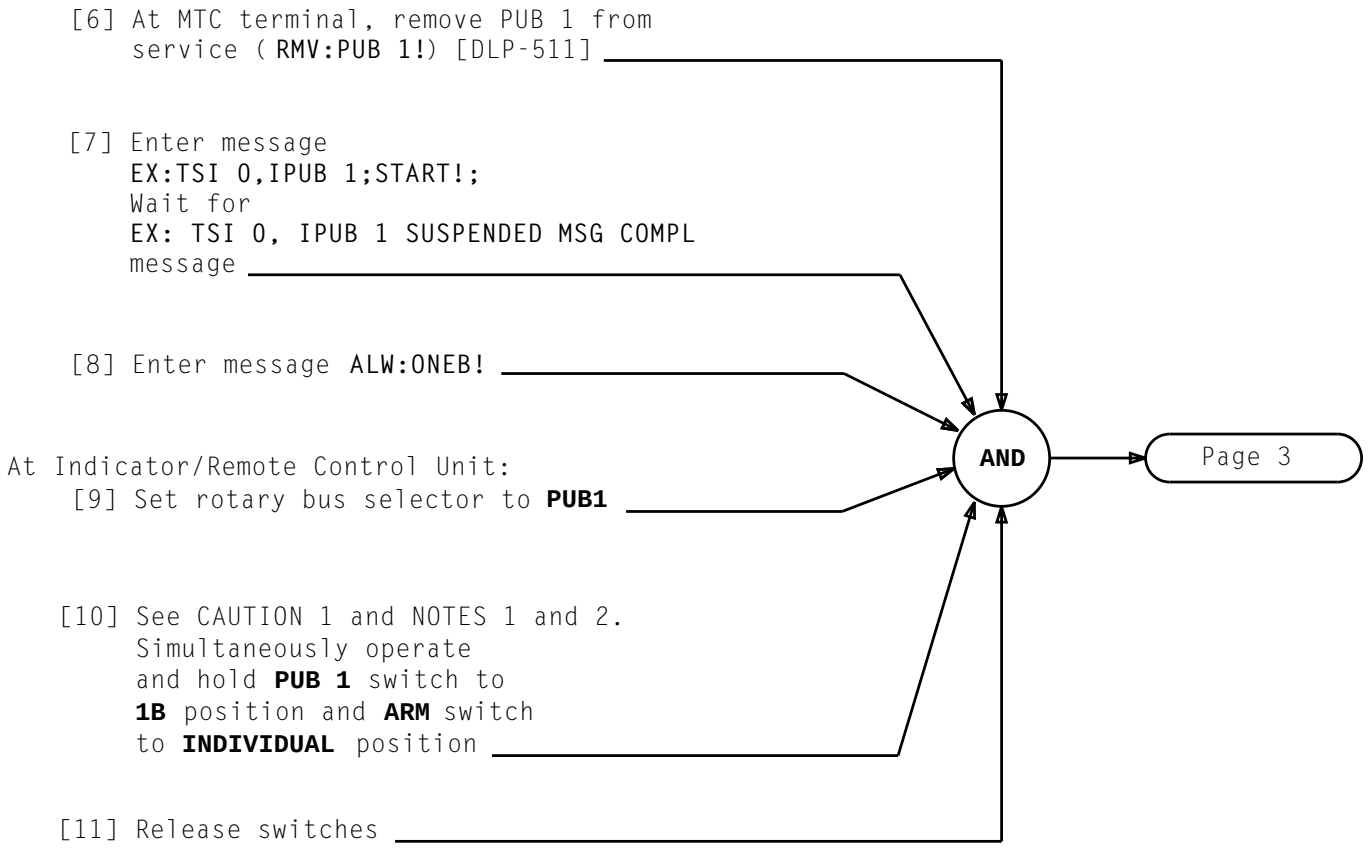
[16] Request installer to restart
1B Processor using UCD window at
1B Processor utility system
workstation; then quit UCD window



SWITCH PUB 0 CONVERSION SWITCH FROM 1B PROCESSOR BUS ACCESS TO 1A PROCESSOR BUS ACCESS



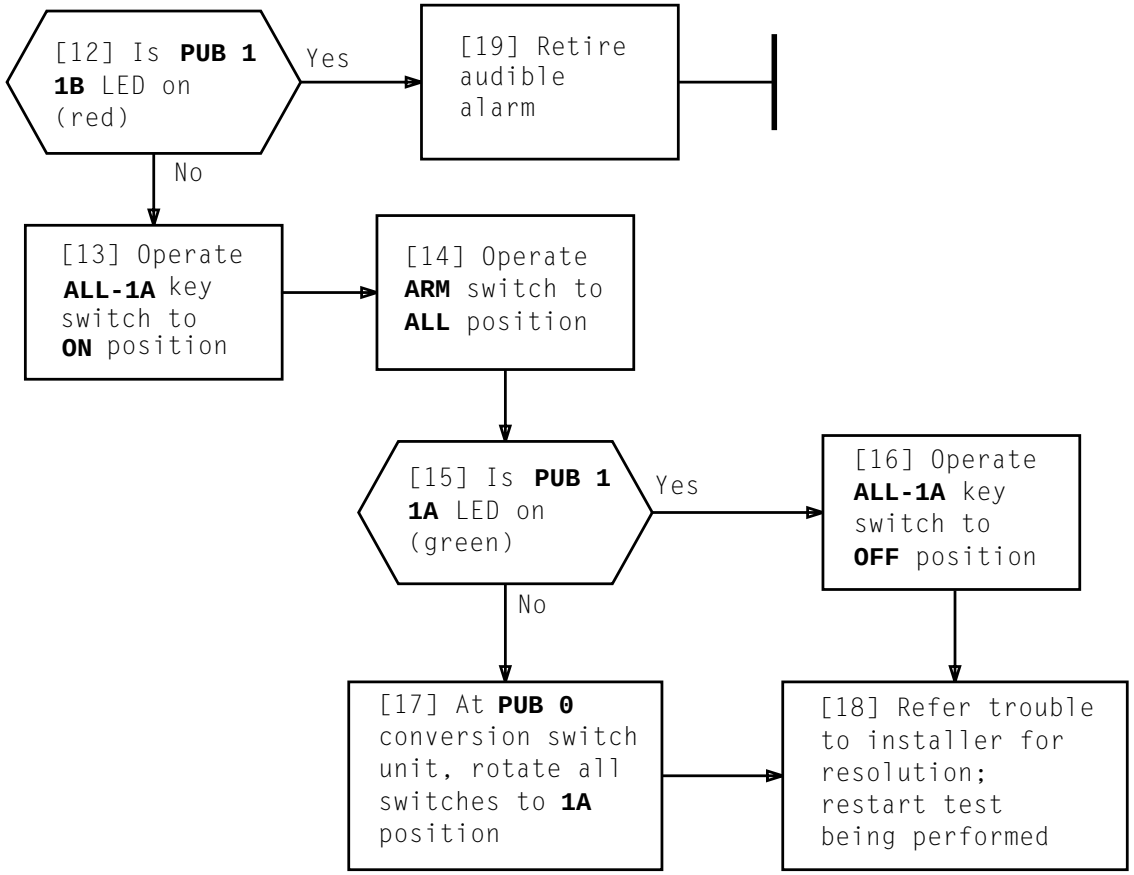
SWITCH PUB 1 CONVERSION SWITCH FROM 1A PROCESSOR BUS ACCESS TO 1B PROCESSOR BUS ACCESS



NOTES
1. Audible alarm will be received
2. REPT: OA xx 1B CVSW OFNL ACTIVATED, FLOOR x message will be received at MTC terminal

CAUTION 1
Care must be taken to ensure that only **PUB 1** *and* **ARM** *switches are being operated*

SWITCH PUB 1 CONVERSION SWITCH FROM 1A PROCESSOR BUS ACCESS TO 1B PROCESSOR BUS ACCESS



SWITCH PUB 1 CONVERSION SWITCH FROM 1A PROCESSOR BUS ACCESS TO 1B PROCESSOR BUS ACCESS

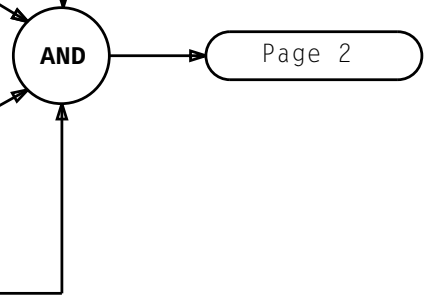
[1] Request installer to suspend 1B Processor using UCD window at 1B Processor utility system workstation

At Indicator/Remote Control Unit:

[2] Set rotary bus selector to **PUB 1**

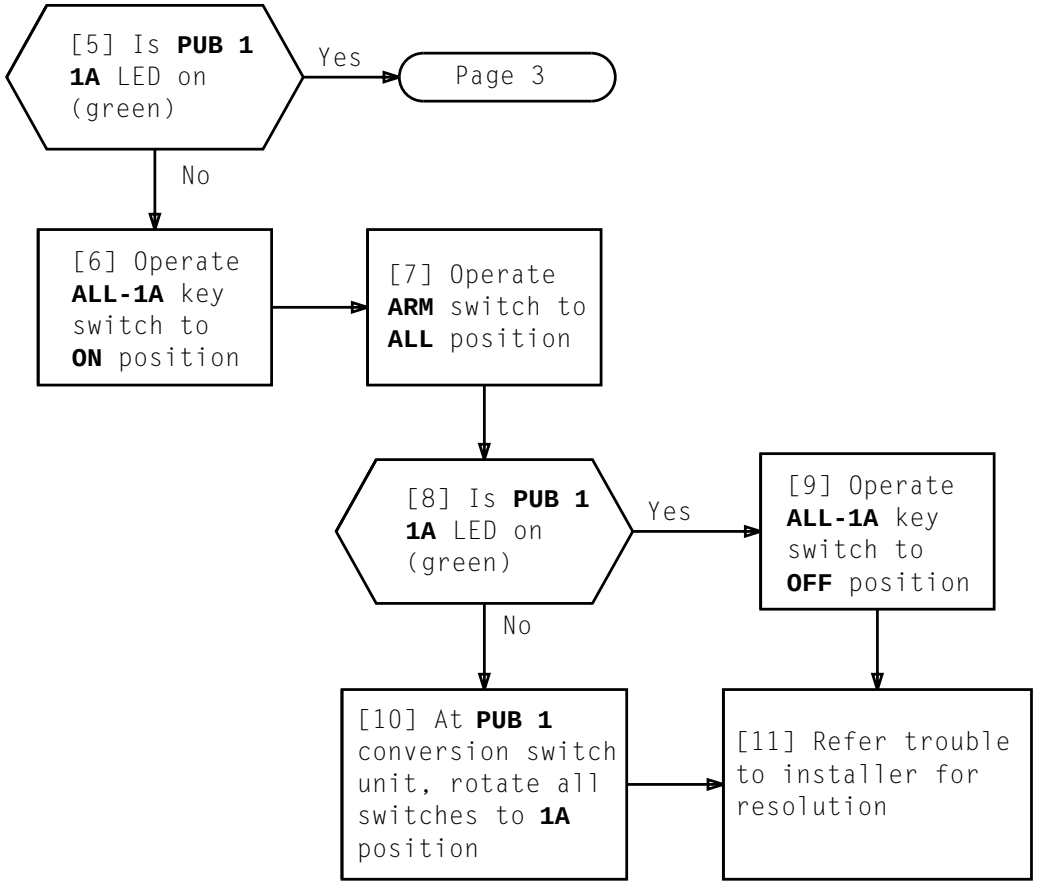
[3] See CAUTION 1. Simultaneously operate and hold **PUB 1** switch to **1A** position and **ARM** switch to **INDIVIDUAL** position

[4] Release switches



CAUTION 1
Care must be taken to ensure that only **PUB 1** *and* **ARM** *switches are being operated*

SWITCH PUB 1 CONVERSION SWITCH FROM 1B PROCESSOR BUS ACCESS TO 1A PROCESSOR BUS ACCESS

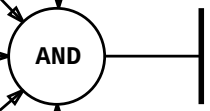


SWITCH PUB 1 CONVERSION SWITCH FROM 1B PROCESSOR BUS ACCESS TO 1A PROCESSOR BUS ACCESS

[12] At MTC terminal, enter message
OP:MACLI,CLASS MTCE!

[13] Using printout (Step 12), determine
subclass number for TSI looping

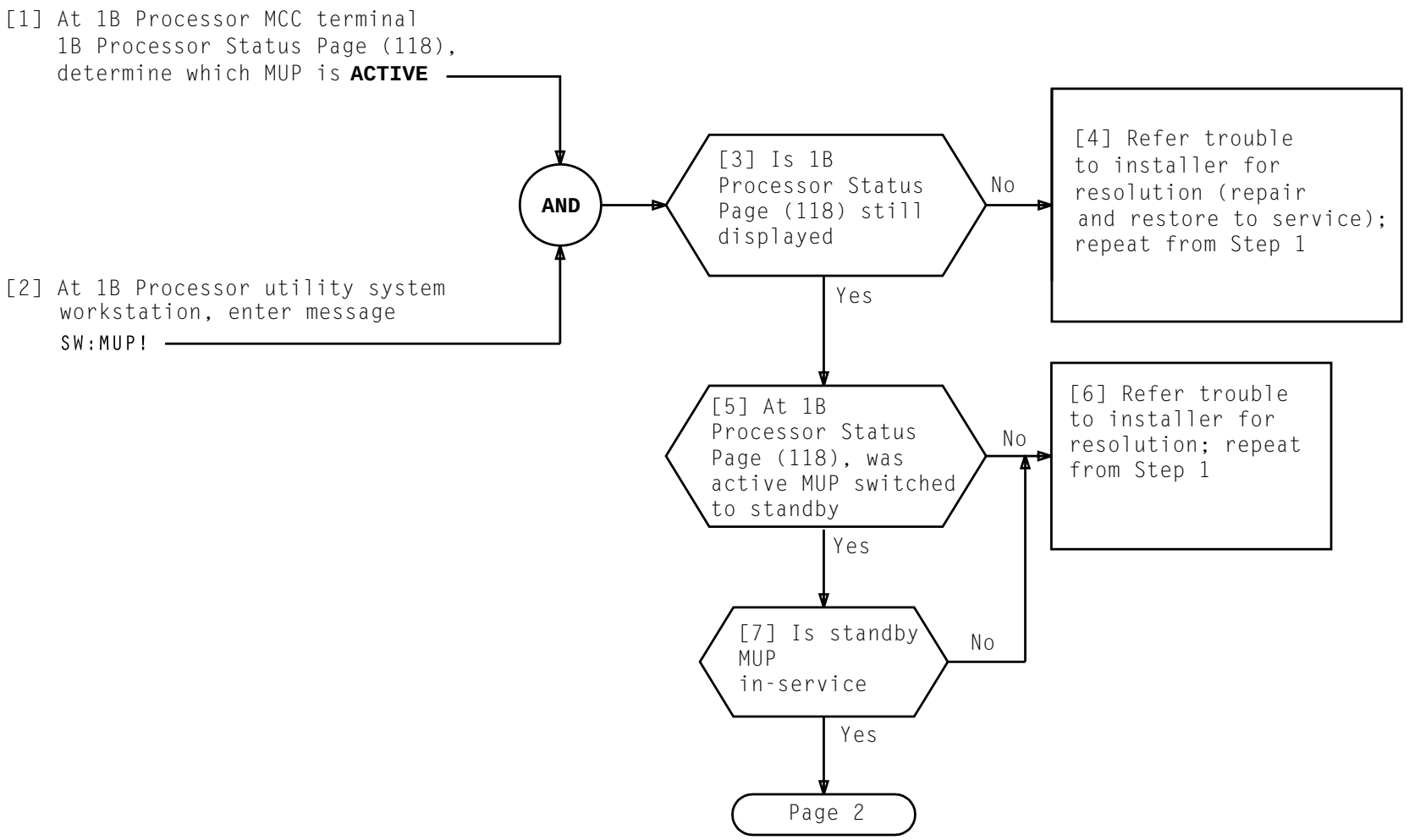
[14] At MTC terminal, enter message
STOP:MACLI,CLASS MTCE,SUBCLASS a!;
Wait for
EX:TSI 0, IPUB 1 ABORTED NTR MSG COMPL
message



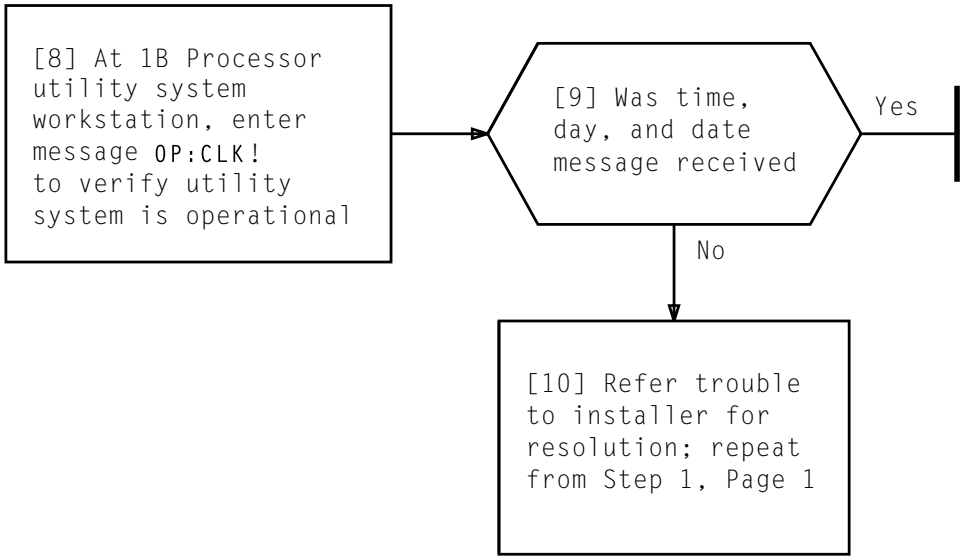
[15] Enter message RST:TSI 0,IPUB 1!;
Wait for RST: TSI 0, IPUB 1 COMPLETED
message (CATP message may be
received with bit 25 set)

[16] Request installer to restart
1B Processor using UCD window at
1B Processor utility system
workstation; then quit UCD window

SWITCH PUB 1 CONVERSION SWITCH FROM 1B PROCESSOR BUS ACCESS TO 1A PROCESSOR BUS ACCESS


[1] At 1B Processor MCC terminal 1B Processor Status Page (118), determine which MUP is **ACTIVE**
[2] At 1B Processor utility system workstation, enter message SW:MUP!
AND
[3] Is 1B Processor Status Page (118) still displayed
No
[4] Refer trouble to installer for resolution (repair and restore to service); repeat from Step 1
Yes
[5] At 1B Processor Status Page (118), was active MUP switched to standby
No
[6] Refer trouble to installer for resolution; repeat from Step 1
Yes
[7] Is standby MUP in-service
No
Yes
Page 2

SWITCH MUPs


[8] At 1B Processor utility system workstation, enter message OP:CLK! to verify utility system is operational
[9] Was time, day, and date message received
Yes
No
[10] Refer trouble to installer for resolution; repeat from Step 1, Page 1

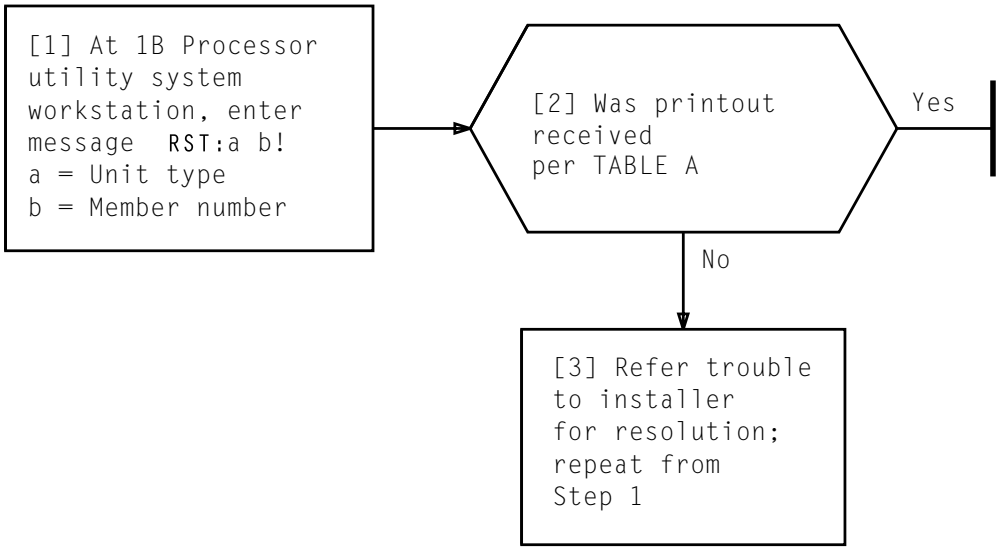


TABLE A

MESSAGE NUMBER	OUTPUT MESSAGES
1	DGN: a b COMPLETED c* MSG COMPL TEST: a b c** RST: a b COMPLETED

* CATP results will be received for AUB
** This message will not be received for some units
a = unit type
b = member number
c = ATP, CATP, or NTR

RESTORE 1B PROCESSOR API, AUB, AUI, CC, CS, CSB, IFB, MUP, PS, PSB, PUB, SSD, OR XPWR

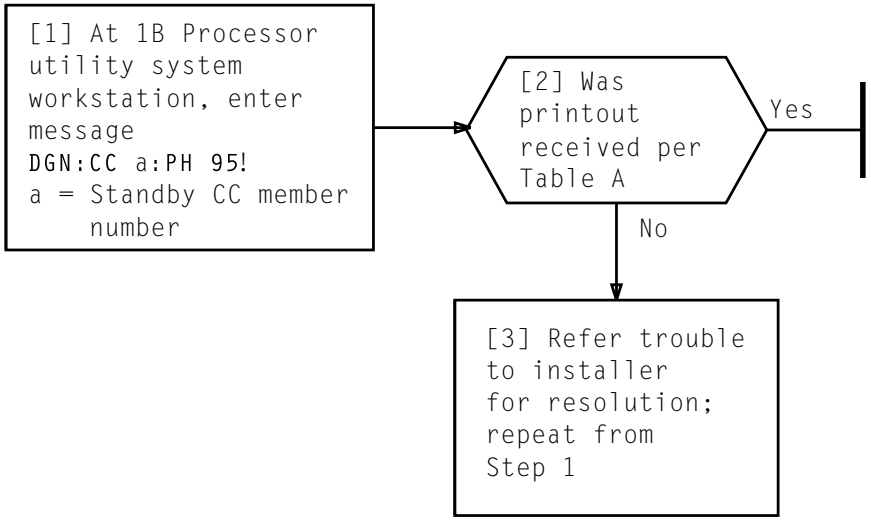
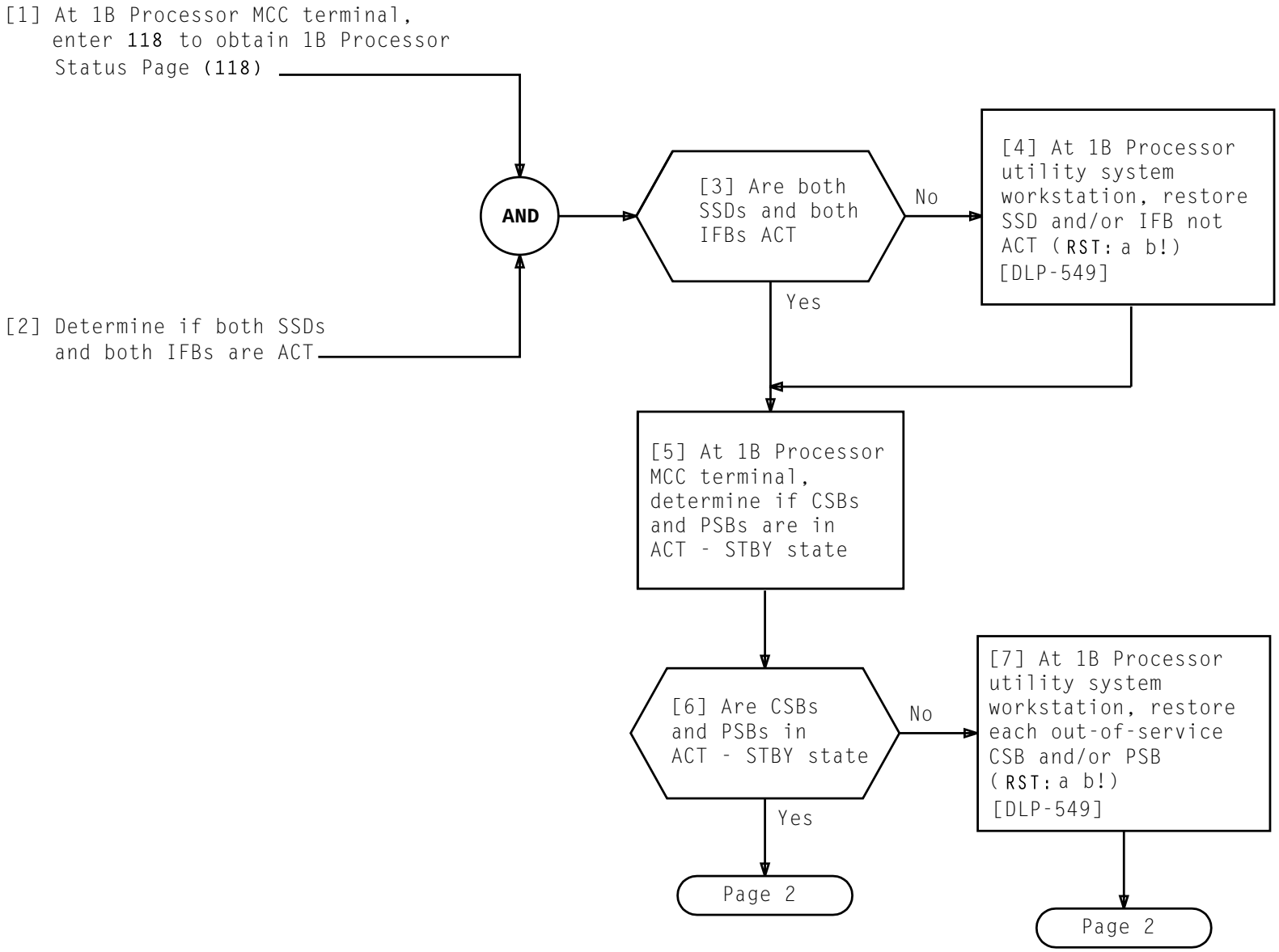


TABLE A

MESSAGE NUMBER	OUTPUT MESSAGES
1	DGN:CC a PH 95 ATP DGN:CC a COMPLETED ATP MSG COMPL TEST:CC a DFR ATP

RUN 1B PROCESSOR CC DIAGNOSTIC PHASE 95 TO TEST PC FUNCTION



DIAGNOSE MISCELLANEOUS POWER (XPWR)

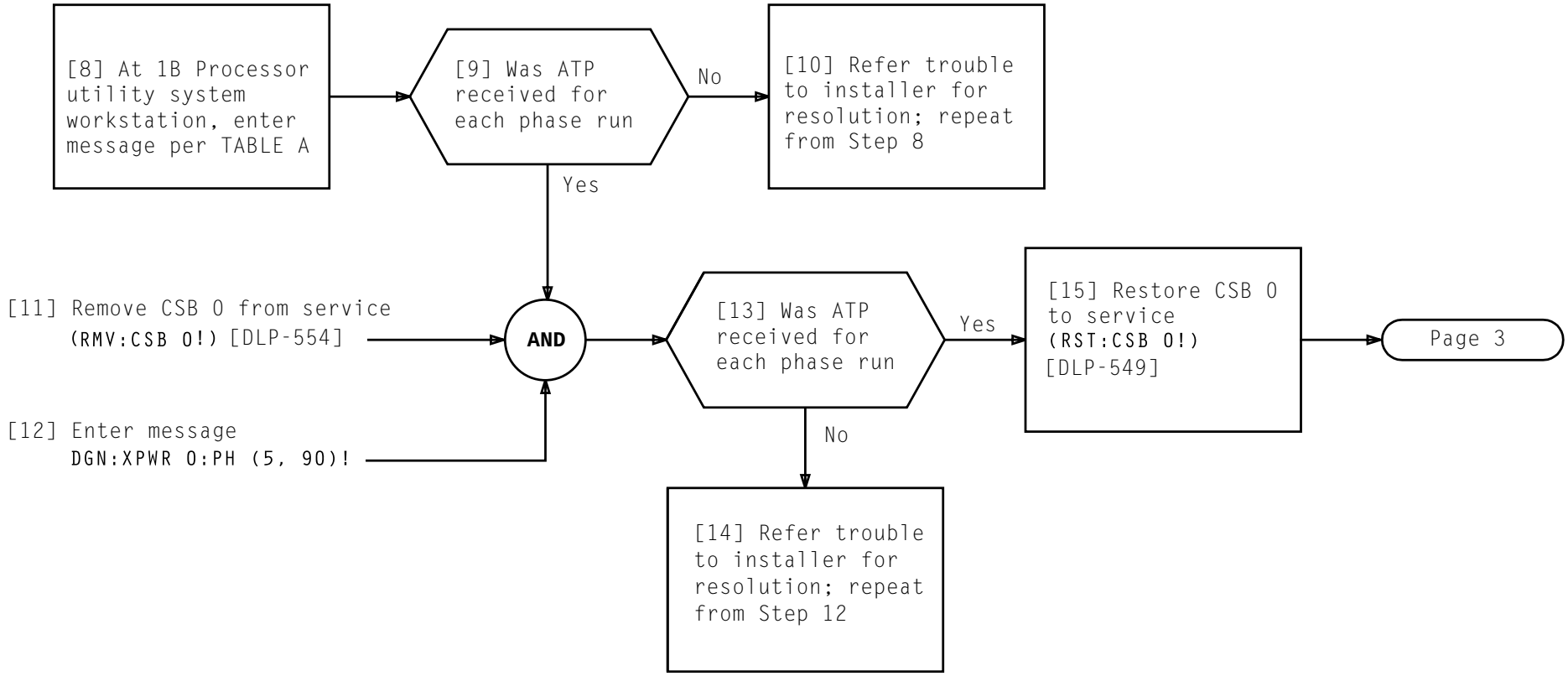
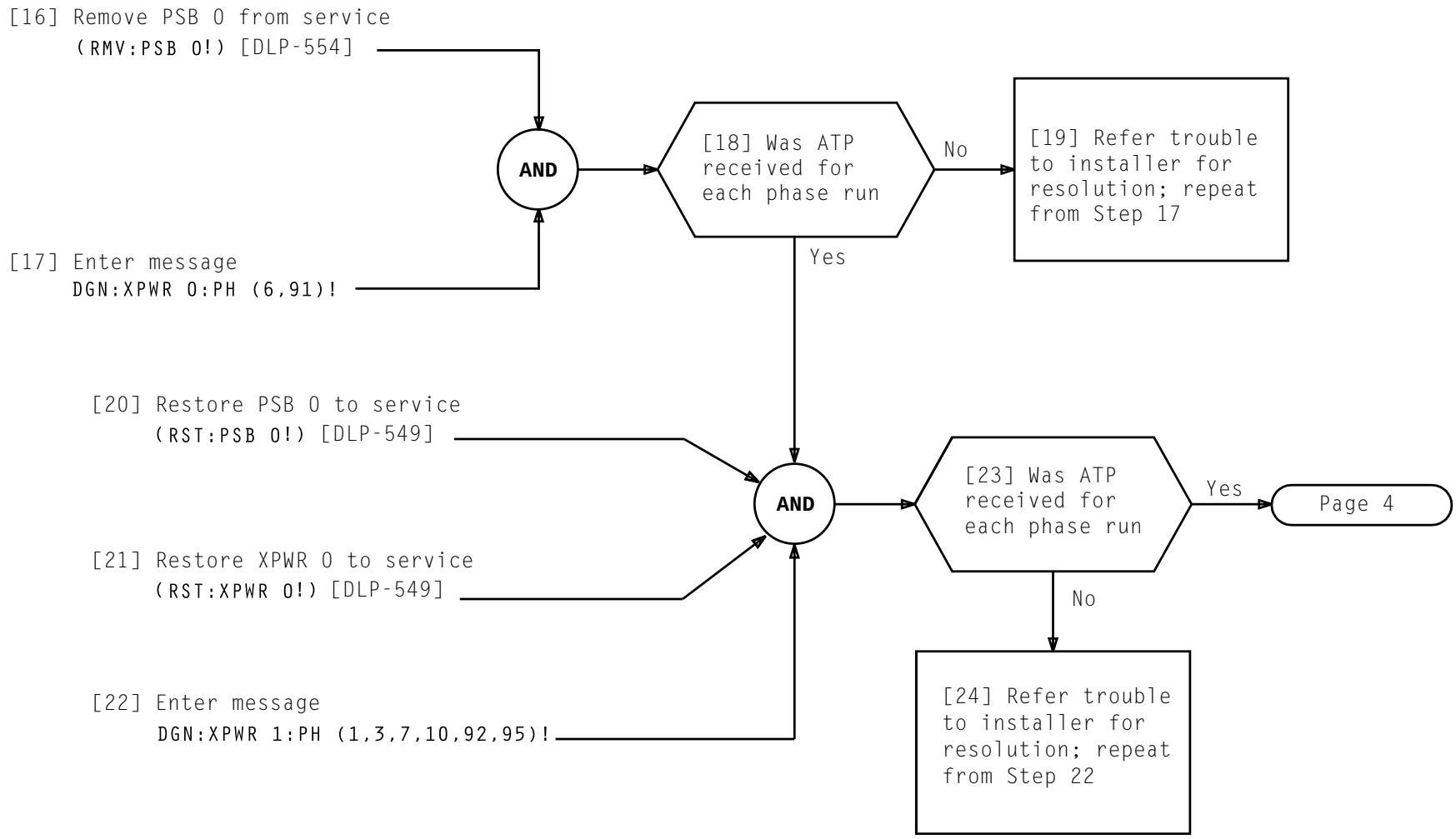
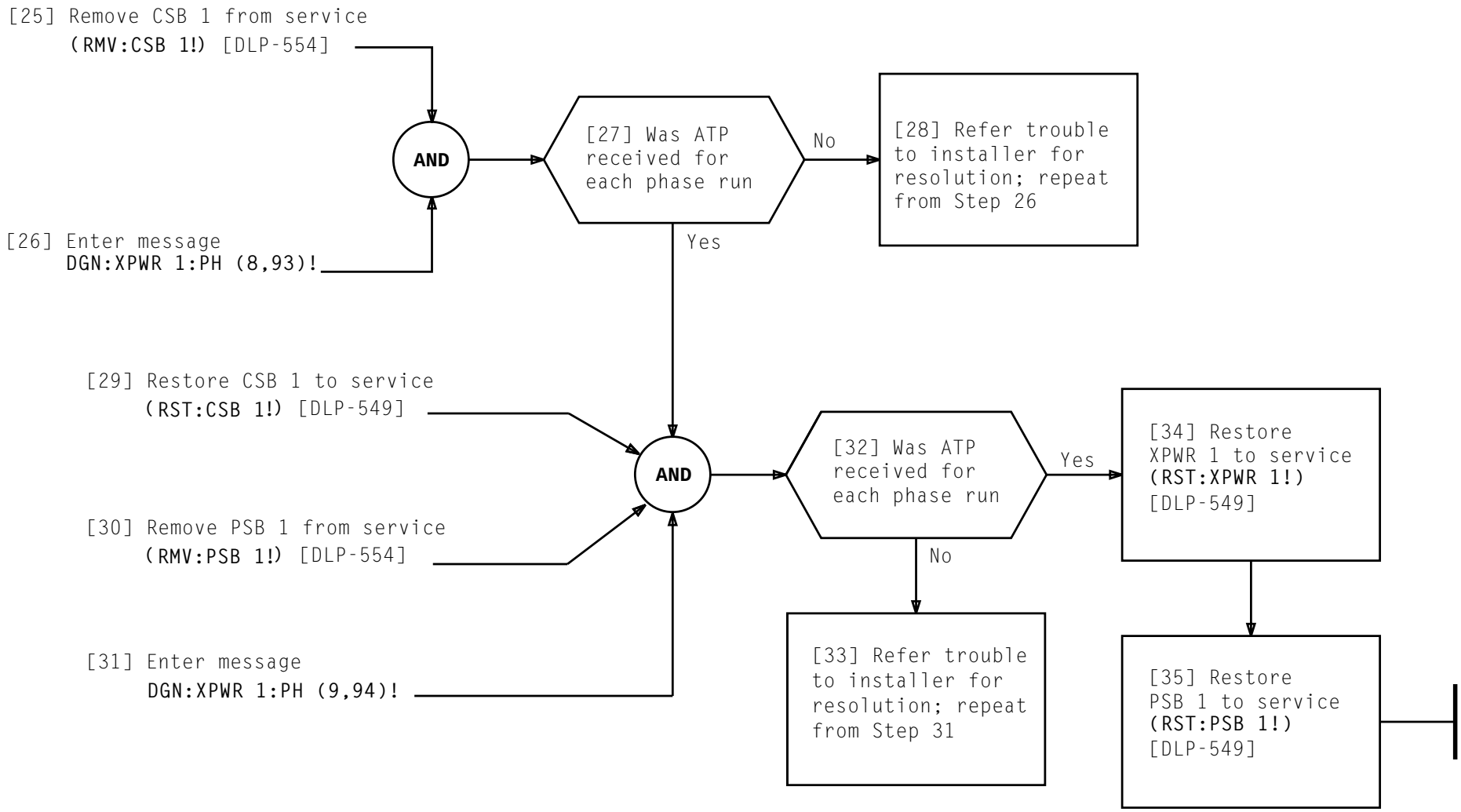


TABLE A	
MESSAGE NUMBER	**INPUT MESSAGE**
1	DGN:XPWR 0:PH (1,3,7,10,92,95)!

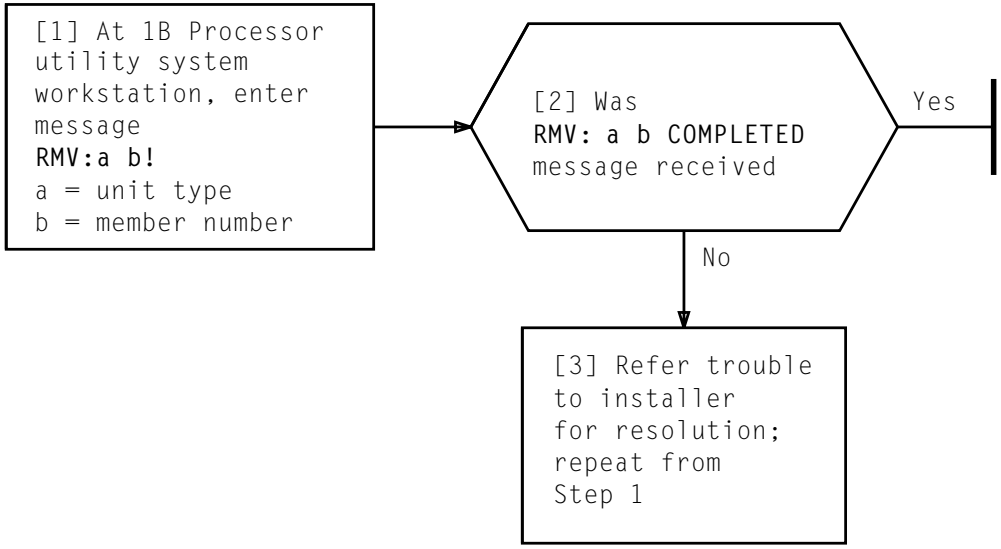
DIAGNOSE MISCELLANEOUS POWER (XPWR)



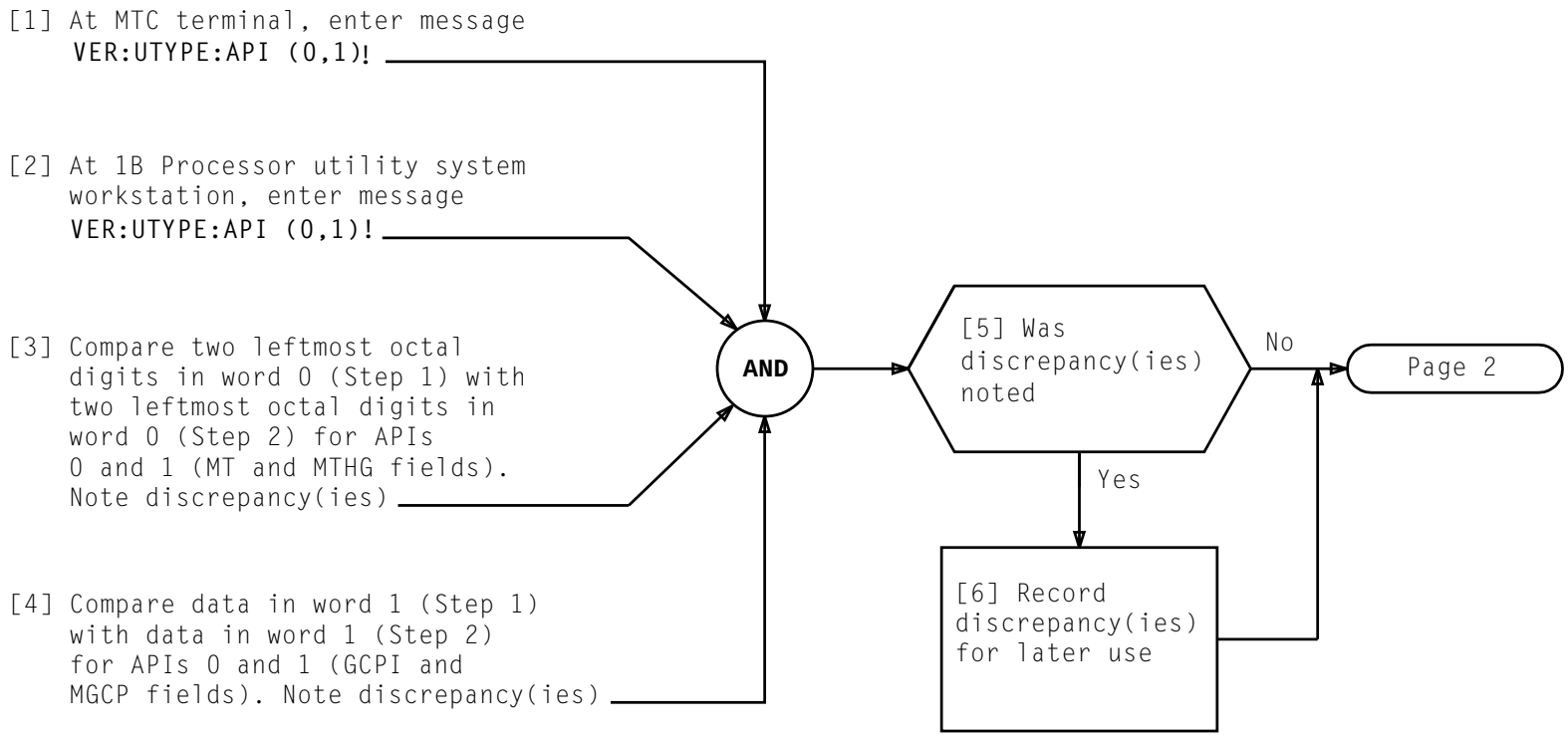
DIAGNOSE MISCELLANEOUS POWER (XPWR)



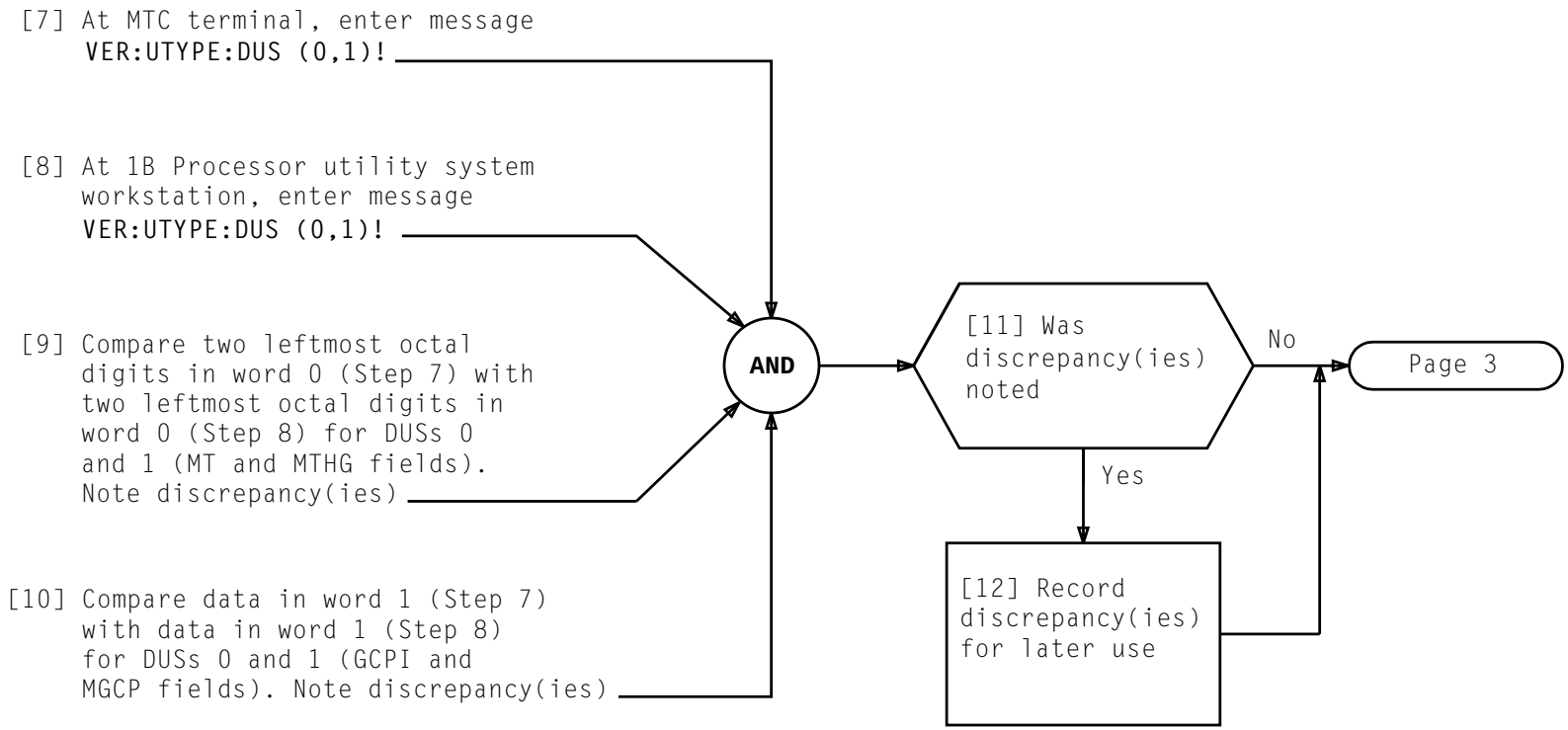
DIAGNOSE MISCELLANEOUS POWER (XPWR)



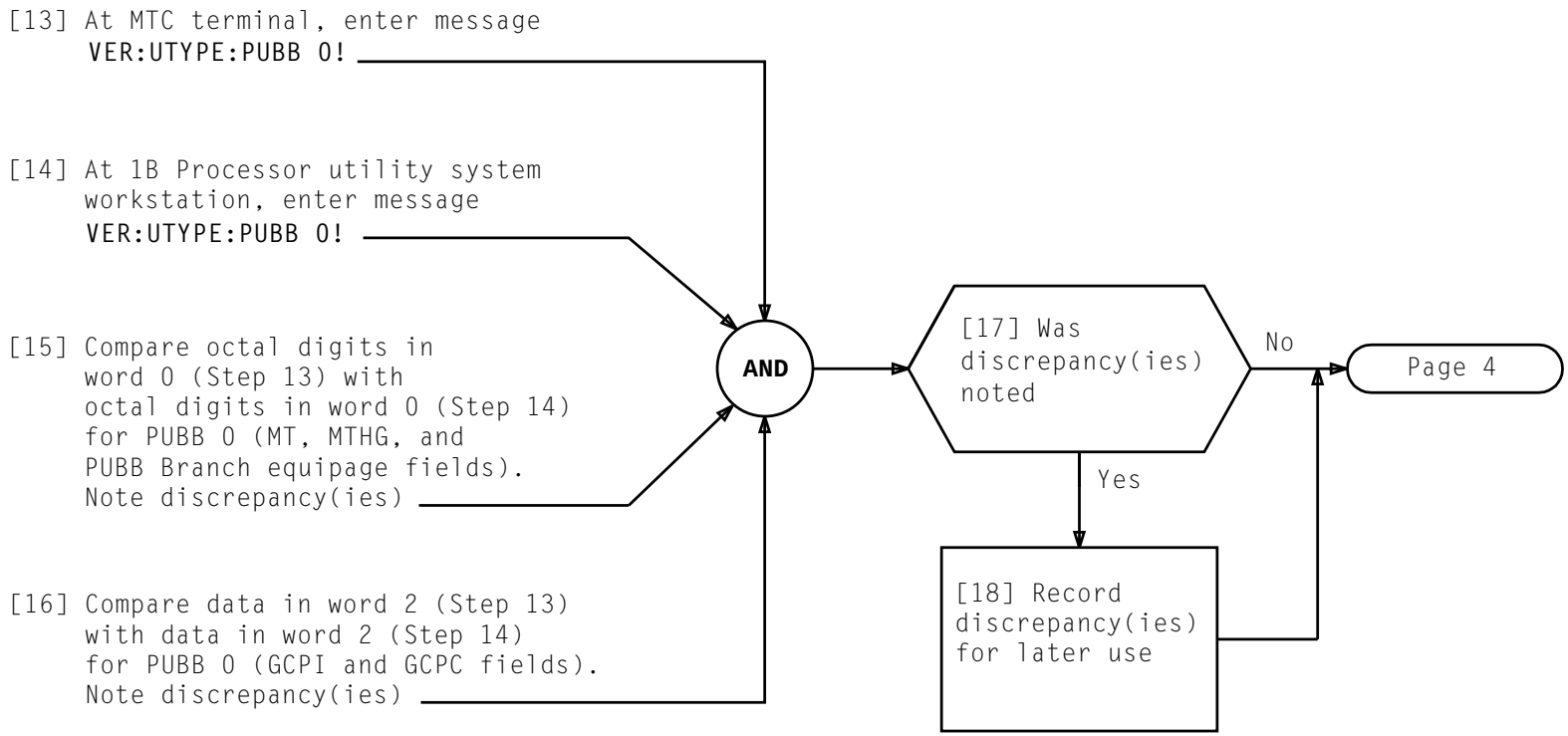
REMOVE 1B PROCESSOR AUB, CC, CSB, IFB, TUC, PS, PSB, OR PUB



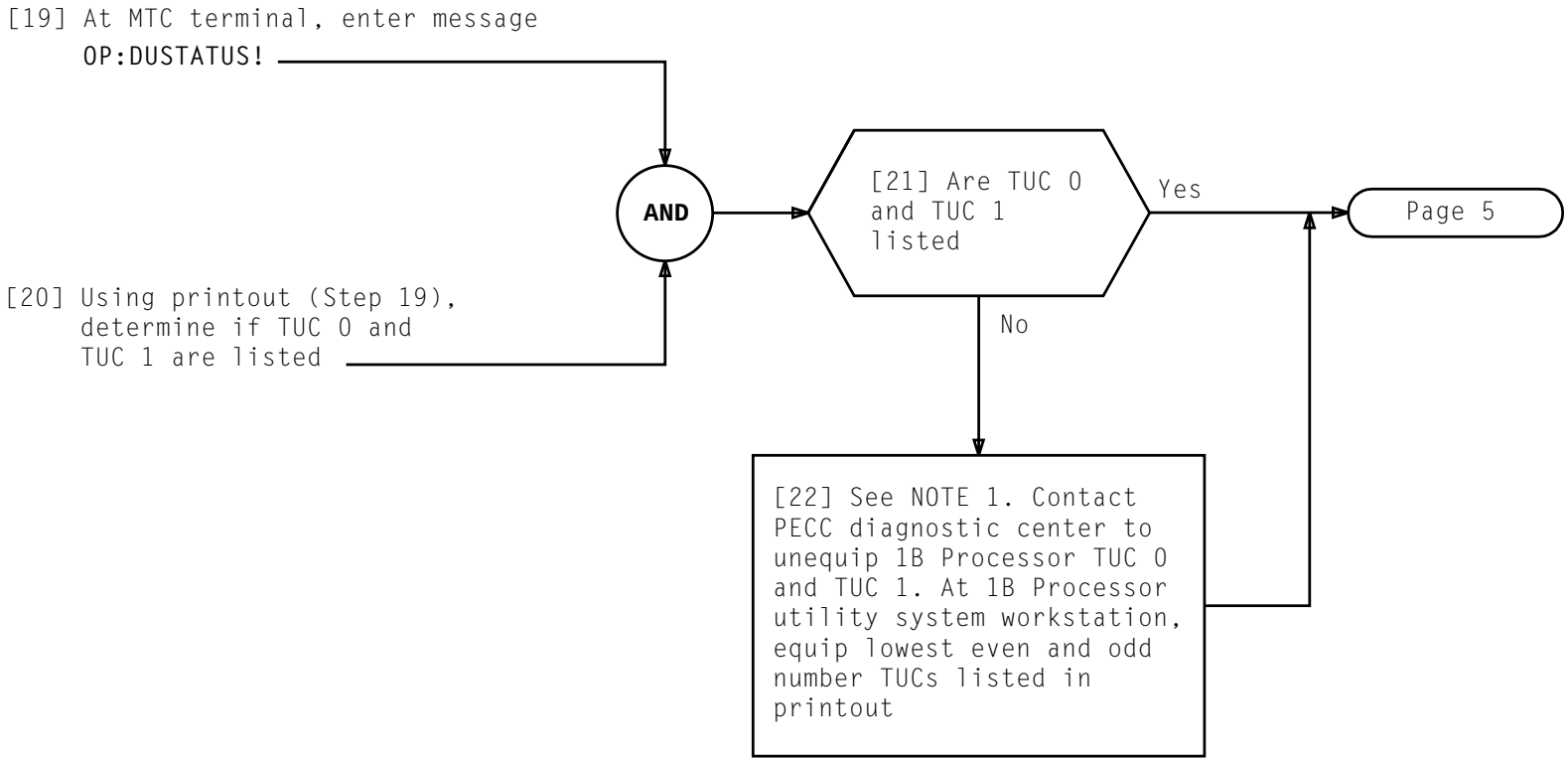
VERIFY API, DUS, TUC, AND PUBB UNIT-TYPE TRANSLATORS FOR 1A PROCESSOR AND 1B PROCESSOR



VERIFY API, DUS, TUC, AND PUBB UNIT-TYPE TRANSLATORS FOR 1A PROCESSOR AND 1B PROCESSOR

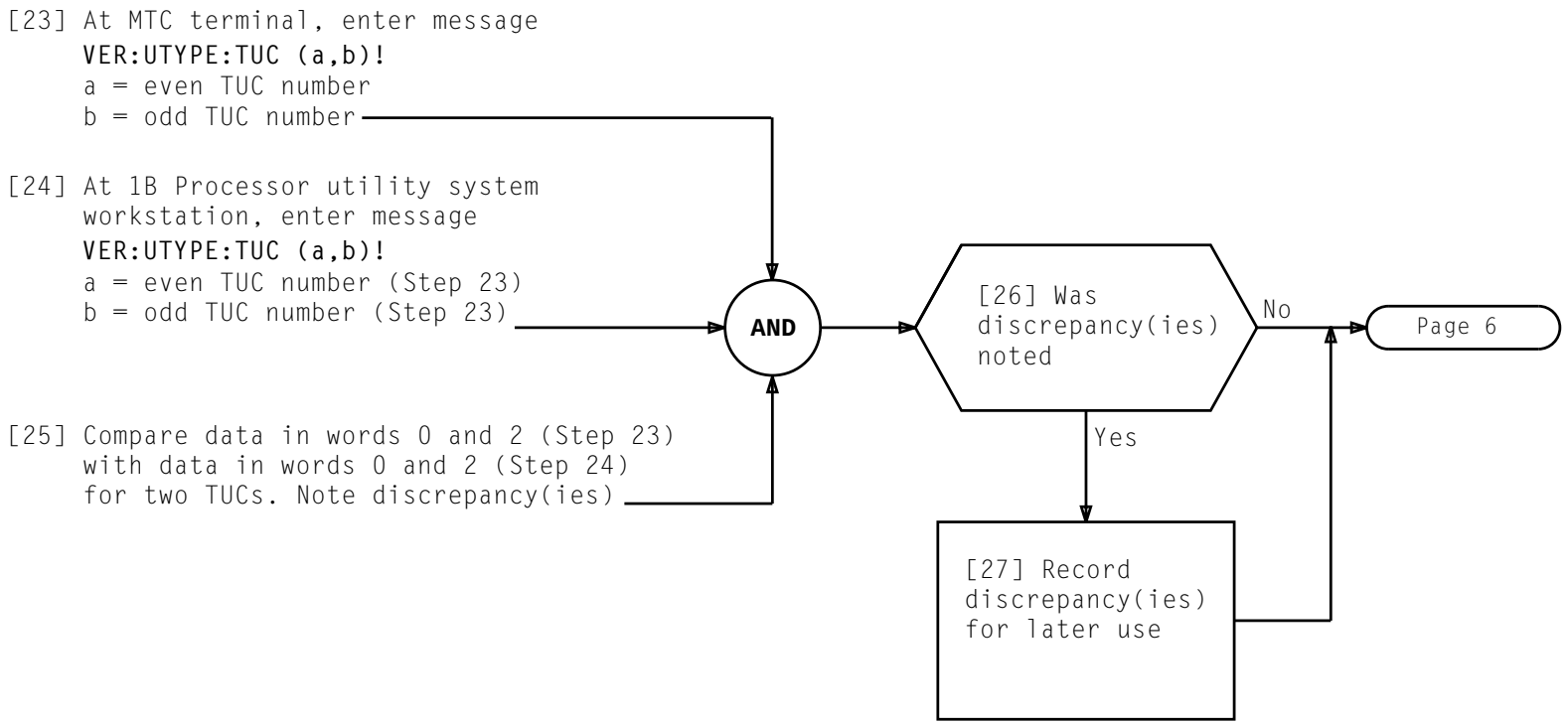


VERIFY API, DUS, TUC, AND PUBB UNIT-TYPE TRANSLATORS FOR 1A PROCESSOR AND 1B PROCESSOR

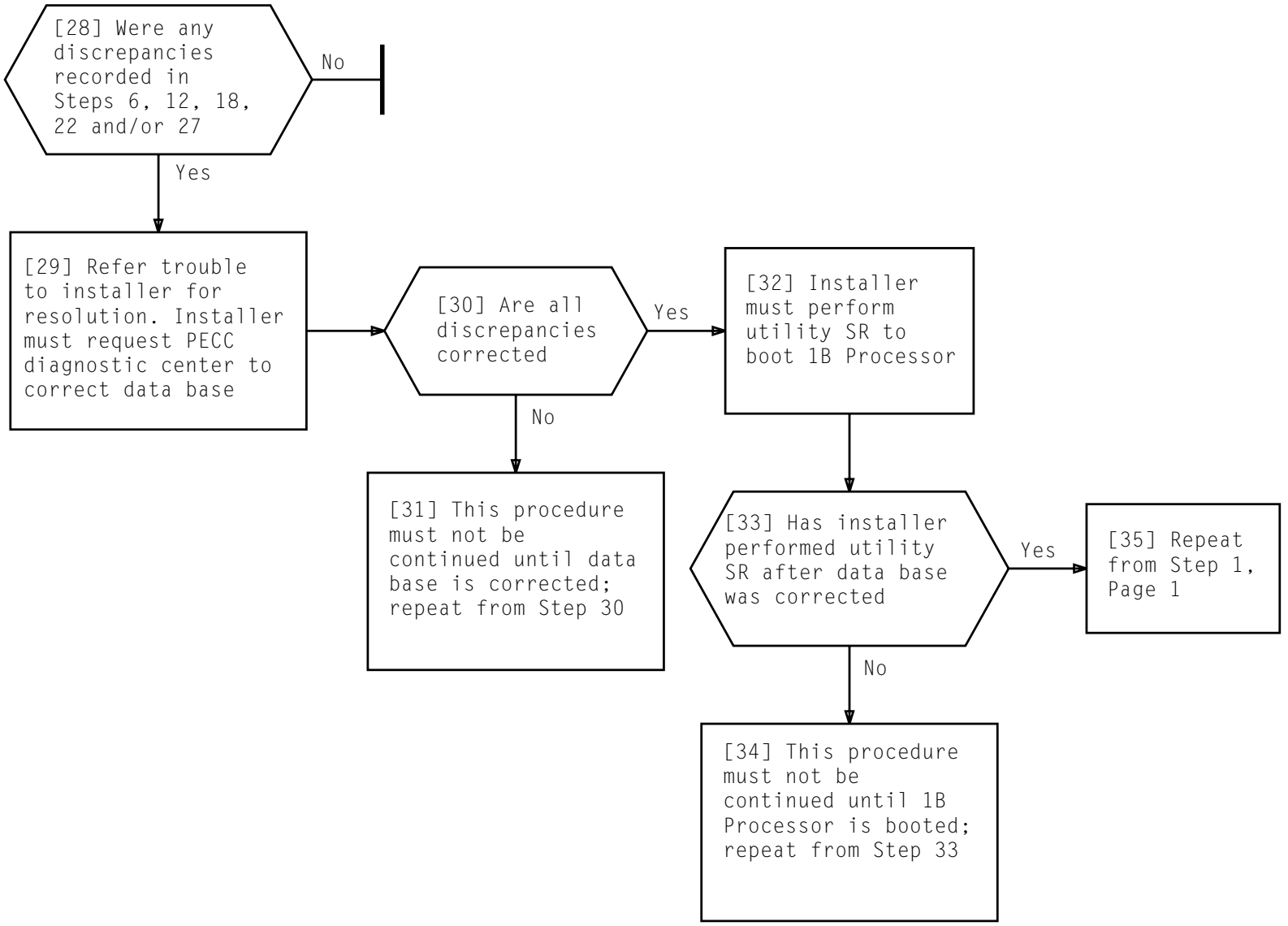


NOTE 1
TUC 0 and TUC 1 are equipped in ODA for 1B Processor utility system workstation. If other than TUC 0 and TUC 1 are equipped in office, ODA in 1B Processor utility system workstation must be changed to equip lowest even number TUC and lowest odd number TUC equipped in office

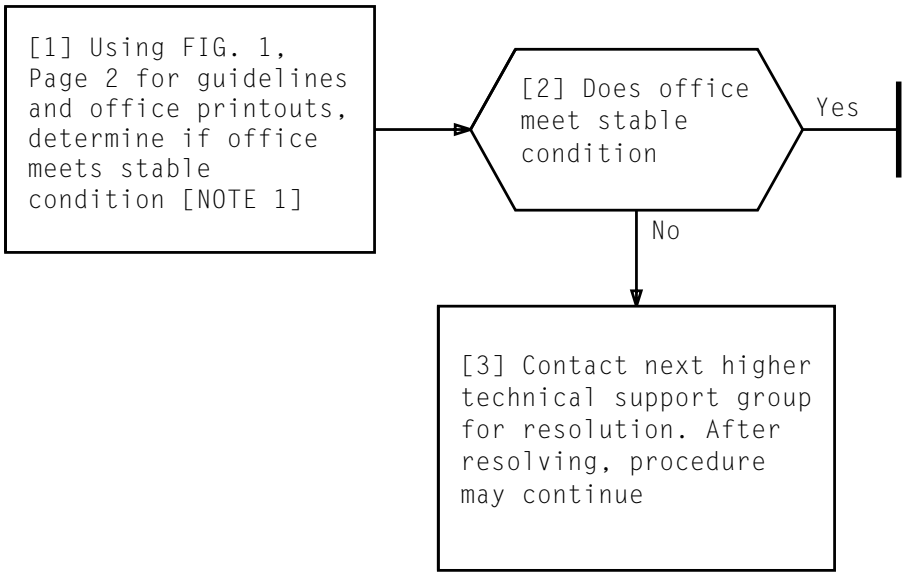
VERIFY API, DUS, TUC, AND PUBB UNIT-TYPE TRANSLATORS FOR 1A PROCESSOR AND 1B PROCESSOR



VERIFY API, DUS, TUC, AND PUBB UNIT-TYPE TRANSLATORS FOR 1A PROCESSOR AND 1B PROCESSOR



VERIFY API, DUS, TUC, AND PUBB UNIT-TYPE TRANSLATORS FOR 1A PROCESSOR AND 1B PROCESSOR



NOTE 1
FIG. 1 is based on 7-day rolling average for all per-day measures; all other measures are as indicated. All resolved troubles are discounted from measures

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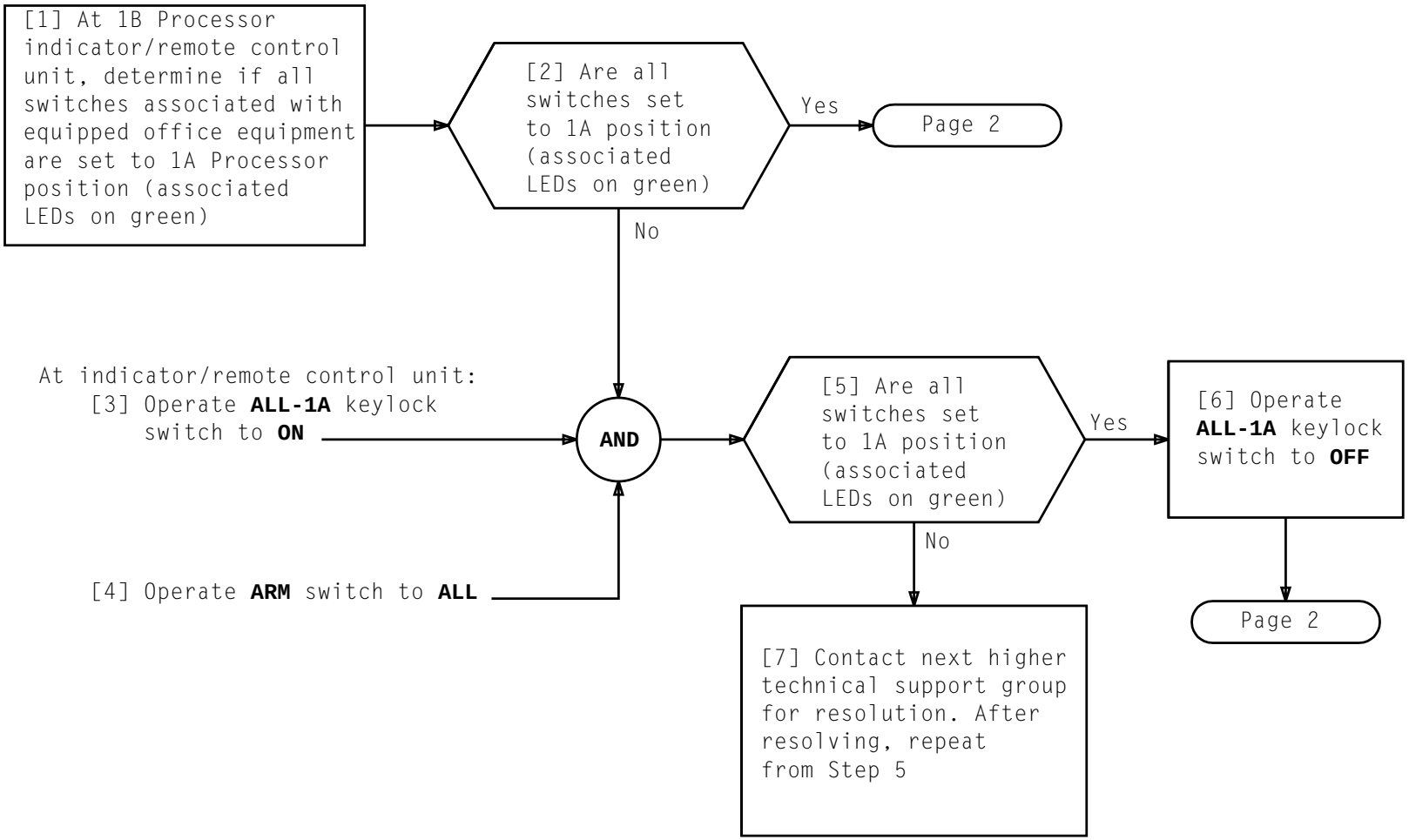
DETERMINE IF OFFICE IS STABLE

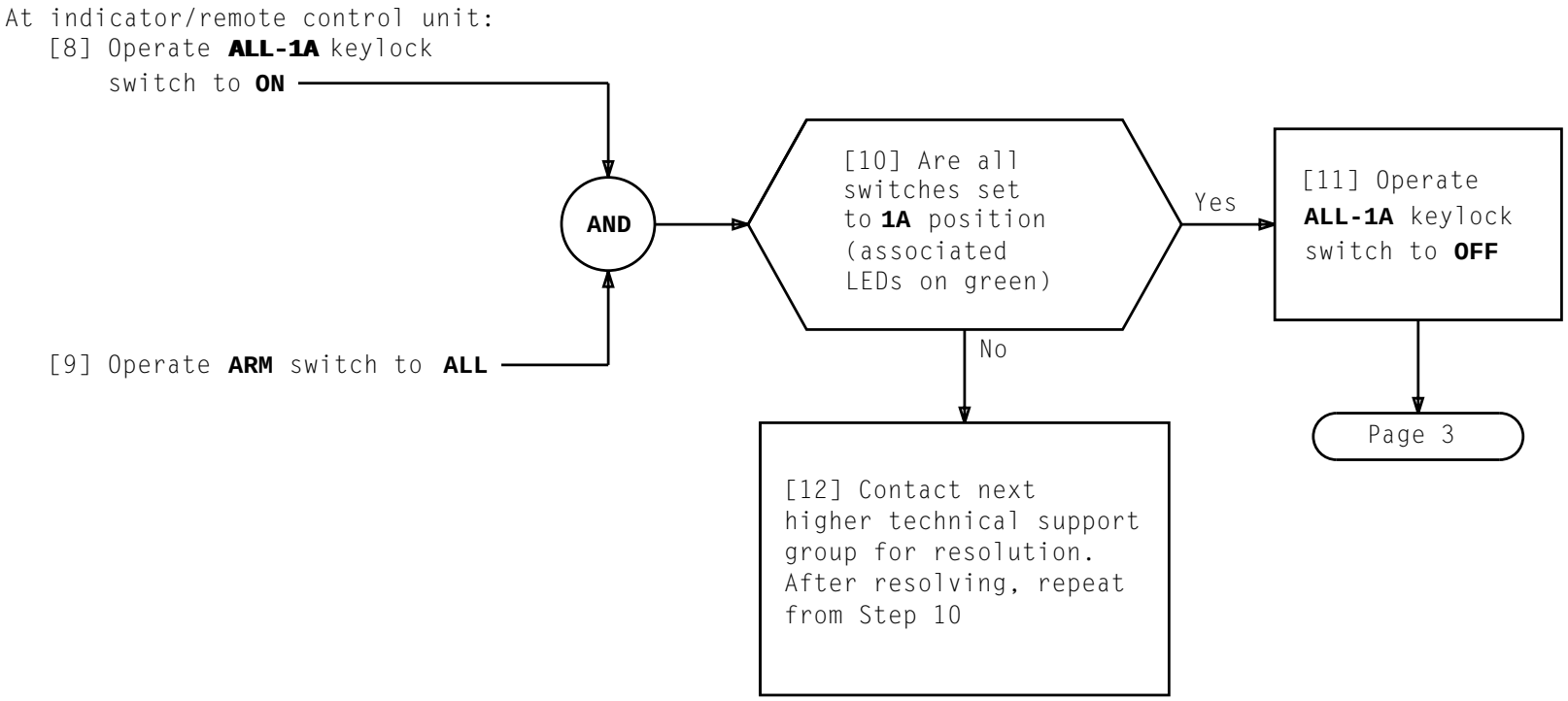
• INTERRUPTS	
1A PROCESSOR	≤ 1 PER MEMBER NUMBER PER DAY ≤ 3 PER DAY TOTAL
TMS, NC, PUB, IO, CCIS	≤ 2 PER MEMBER NUMBER PER DAY ≤ 4 PER DAY TOTAL
PERIPHERY, PER OPERATIONAL SP CORE (SP, DT, TSI) OR DIF (DIF, TSI COMPLEX) (THE ALLOWABLE DAILY INTERRUPT COUNT SHALL NOT EXCEED 25, REGARDLESS OF OFFICE SIZE)	≤ 3 PER DAY
PBFRs	≤ 1 PER DAY
• INTERJECTS	≤ 2 PER MEMBER NUMBER PER DAY ≤ 5 PER DAY TOTAL
• BASE LEVEL	
ANALYZED, CORRECTED AND/OR UNDERSTOOD	
• PHASES/DUPLEX FAILURES	
DIRECTED PHASE 1	≤ 1 IN 2 WEEKS
SYSTEM PHASE 1	≤ 1 IN 1 WEEK
PHASE 2 OR 3	≤ 1 IN 4 WEEKS
DT, VIF, OR EST	≤ 1 IN 4 WEEKS
TGR/TER LINK PAIR	≤ 1 IN 2 WEEKS
• OUT-OF-SERVICE UNITS	
NUMBER OUT-OF-SERVICE	≤ 5 AT ANYTIME
CRITICAL UNITS: CC DIF PS TMSP CS LN PUB TSI CU NCLK SP	
• 3B COMPUTER	
INTERRUPTS	≤ 3 PER DAY
PHASE 1	≤ 1 IN 4 WEEKS
PHASE 2 OR 3	≤ 1 IN 4 WEEKS
CNI RING INIT	≤ 1 IN 2 WEEKS
CNI RING TRANSPORT ERRORS	≤ 2 PER DAY
DLNE ERRORS	≤ 1 PER DAY

FIG. 1 - Office Stability Guidelines

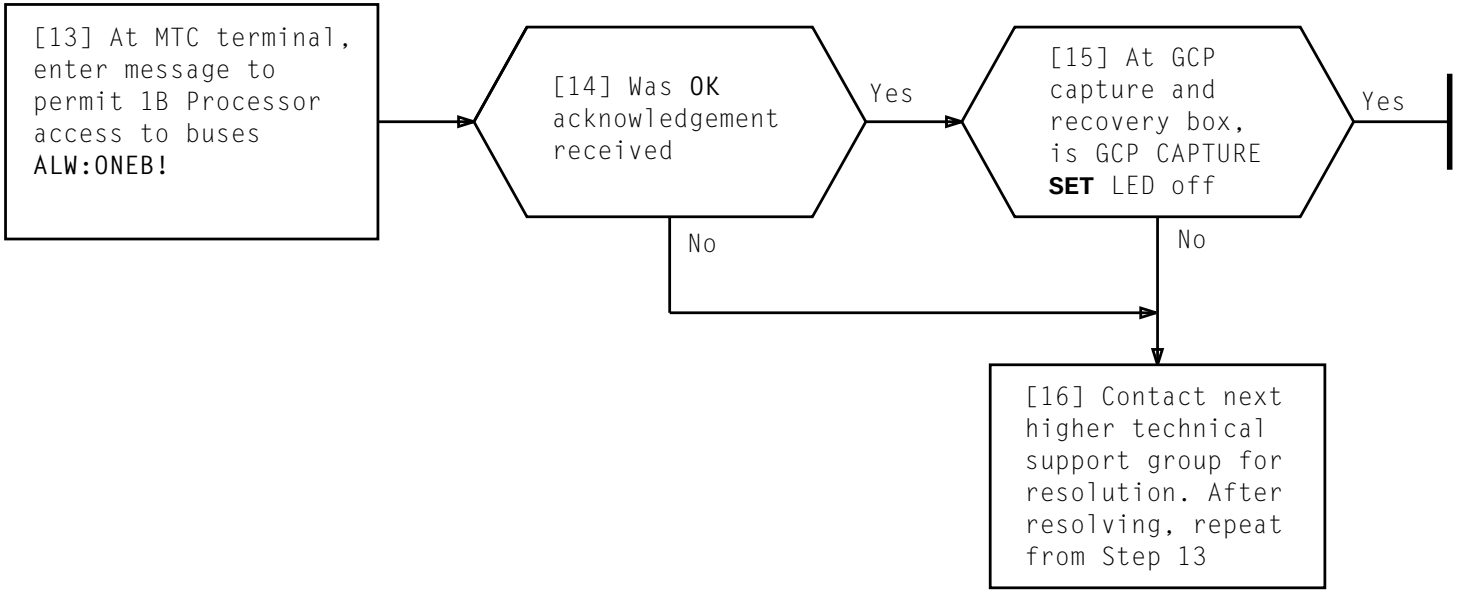
DETERMINE IF OFFICE IS STABLE



ENSURE 1B PROCESSOR INDICATOR/REMOTE CONTROL UNIT SWITCHES SET TO 1A PROCESSOR POSITION AND CLEAR GCP REQUESTS



ENSURE 1B PROCESSOR INDICATOR/REMOTE CONTROL UNIT SWITCHES SET TO 1A PROCESSOR POSITION AND PERMIT BUS ACCESS



ENSURE 1B PROCESSOR INDICATOR/REMOTE CONTROL UNIT SWITCHES SET TO 1A PROCESSOR POSITION AND PERMIT BUS ACCESS

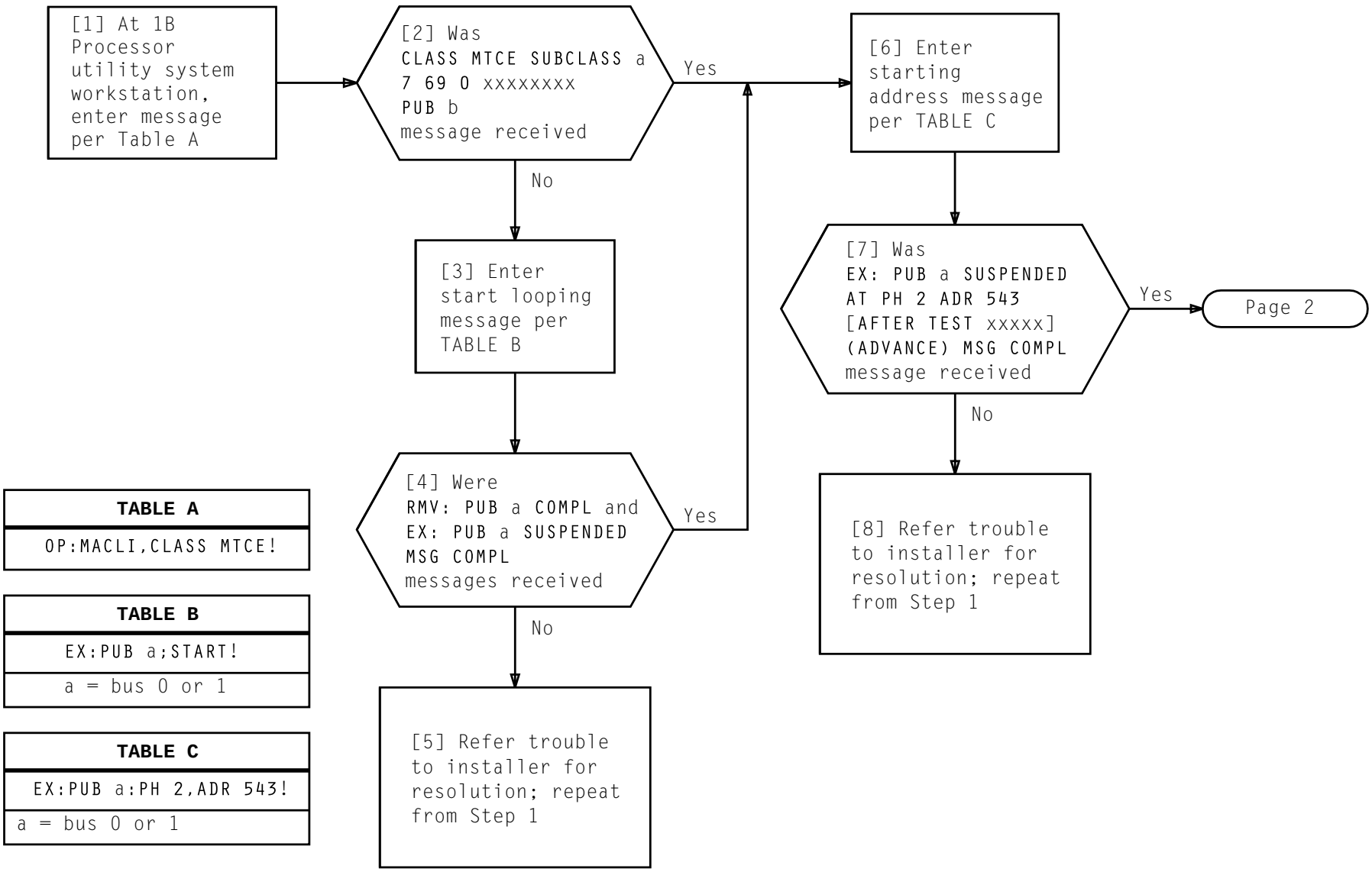


TABLE A
OP:MACLI,CLASS MTCE!

TABLE B
EX:PUB a;START!
a = bus 0 or 1

TABLE C
EX:PUB a:PH 2,ADR 543!
a = bus 0 or 1

ADVANCE PROGRAM AND SET UP LOOP TO OBSERVE PU CONTROL BUS AND MISCELLANEOUS BUS BITS

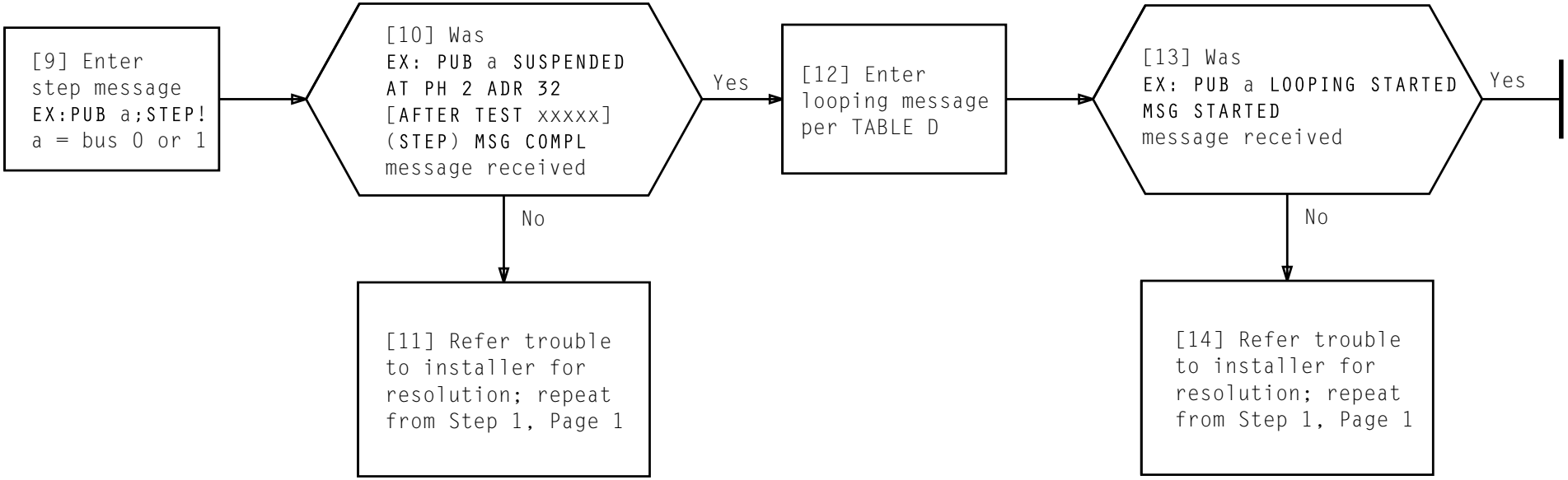


TABLE D
EX:PUB a:ADR 616-1675!
a = bus 0 or 1

ADVANCE PROGRAM AND SET UP LOOP TO OBSERVE PU CONTROL BUS AND MISCELLANEOUS BUS BITS

[1] Ensure that scope probes are wrapped around each other with positive lead connected to Channel 1 and negative lead connected to Channel 2 and that ground leads are attached together

[2] Scope P- and N-pins in dashed line box of connector 1, per FIG. 1, Page 2, at connector location. Observe oscilloscope waveform [FIG. 2, Page 3]. See NOTE 1. If problem occurs in seeing bit, use external trigger on scope and connect to trigger bit associated with faulty bit. See TABLE B and FIG. 1, Page 2

AND

PU control bus and miscellaneous bus bits scoped

[3] Were all observations per waveform in FIG. 2, Page 3. See NOTE 1

Yes

No

[4] Refer trouble to installer for resolution

TABLE B	
FAULTY BIT	TRIGGER BIT
APUB	PSZ
APUF	CLKI
APUT	PLP
PUASW	MI
PURP	GI

NOTE 1
Pulse waveform will vary, depending on distance away from driver. Waveform measurements should be similar to examples shown in FIG. 2, Page 3

SCOPE PU CONTROL BUS AND MISCELLANEOUS BUS BITS

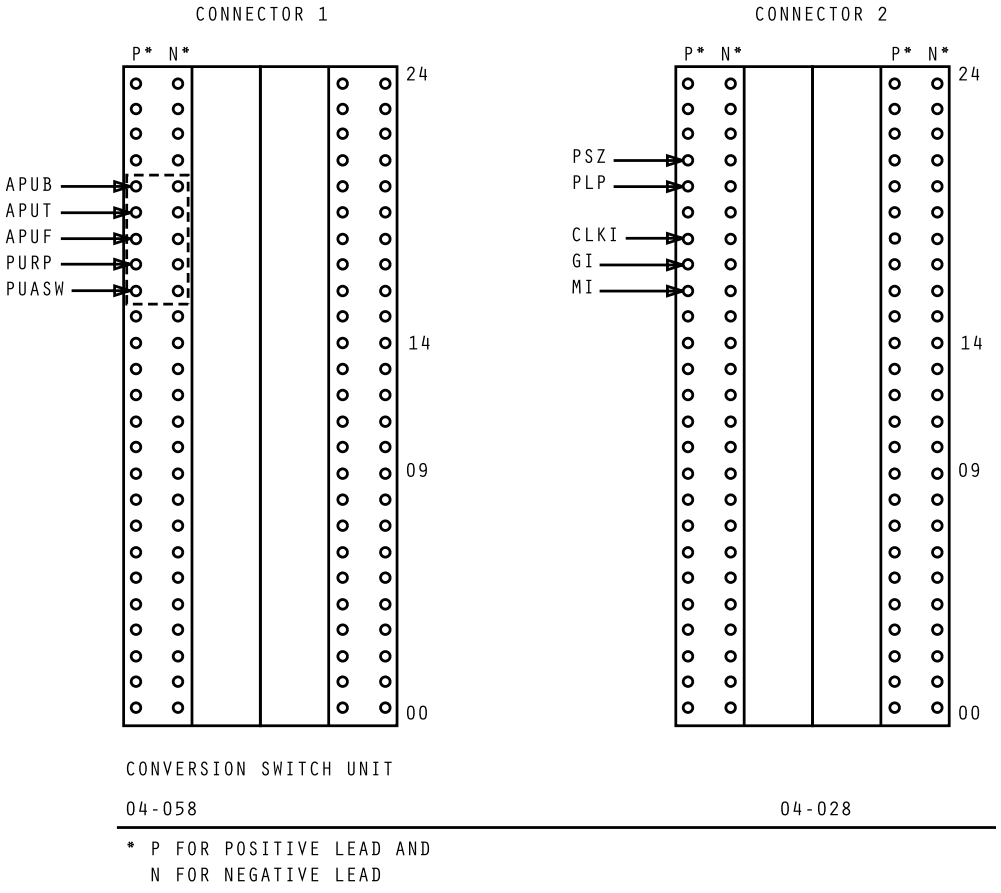
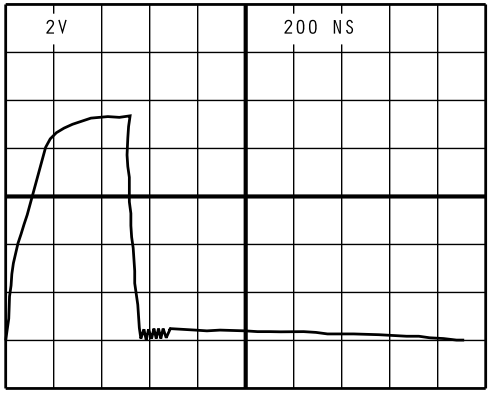
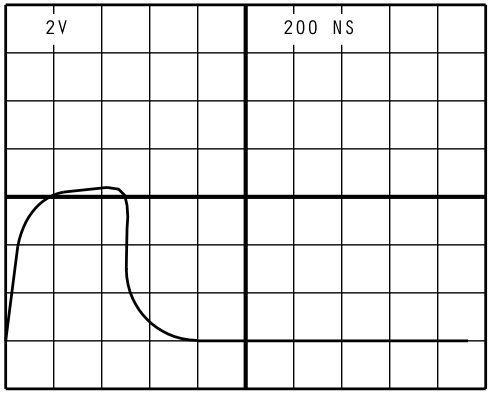


FIG. 1

SCOPE PU CONTROL BUS AND MISCELLANEOUS BUS BITS



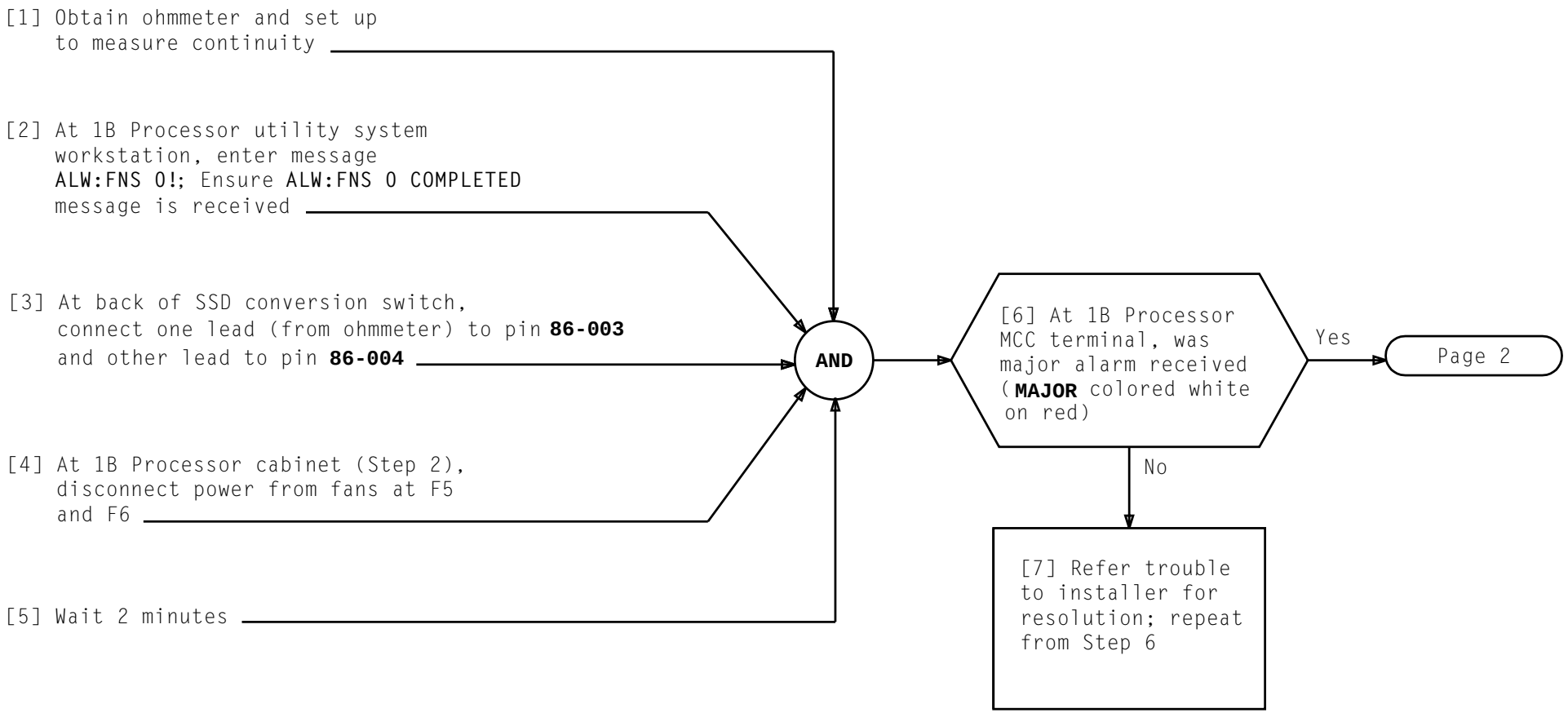
NORMAL PULSE AT DRIVER



NORMAL PULSE 500 FEET FROM DRIVER

FIG. 3

SCOPE PU CONTROL BUS AND MISCELLANEOUS BUS BITS



TEST 1B PROCESSOR SOFTWARE MAJOR ALARM

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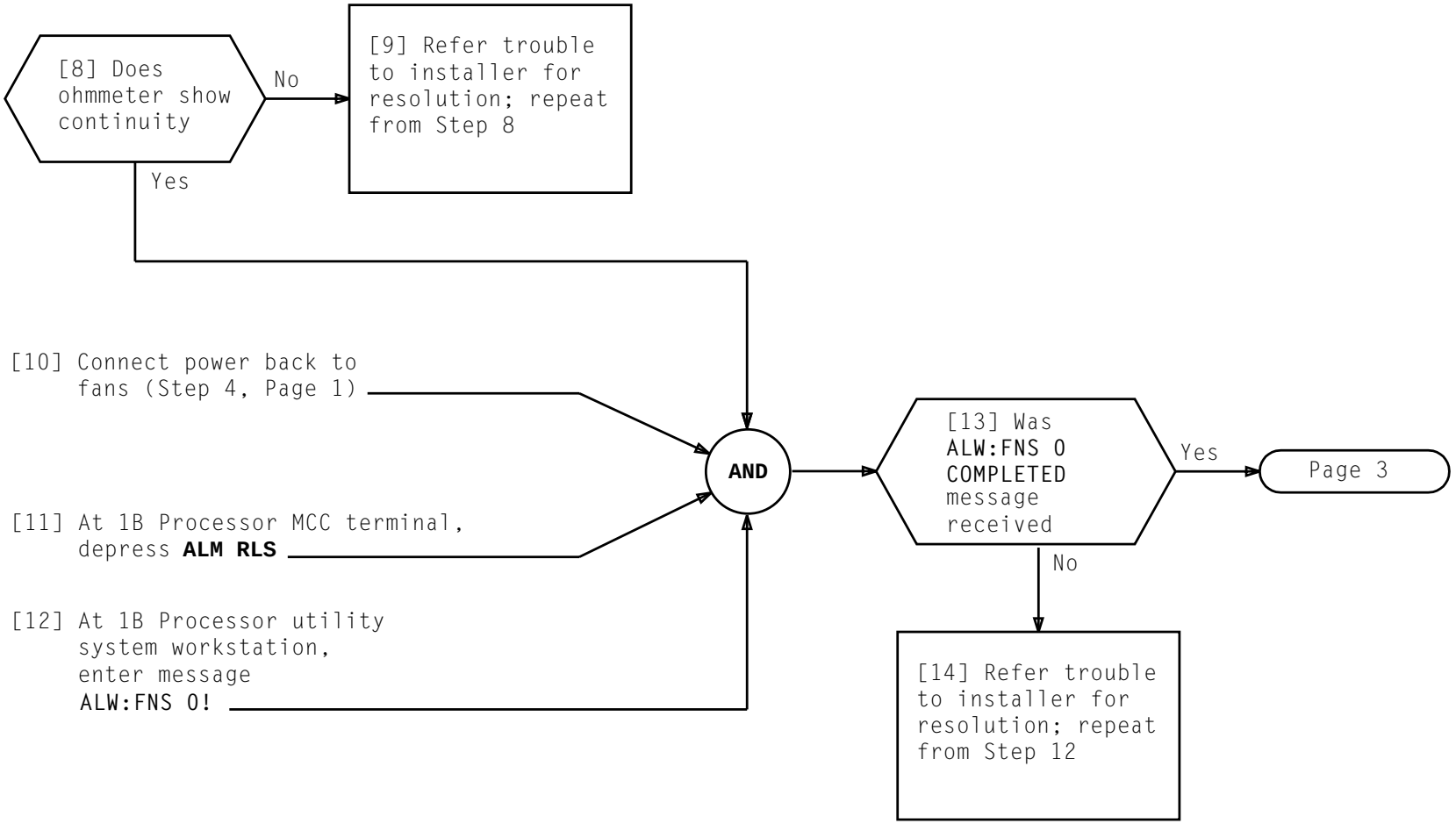
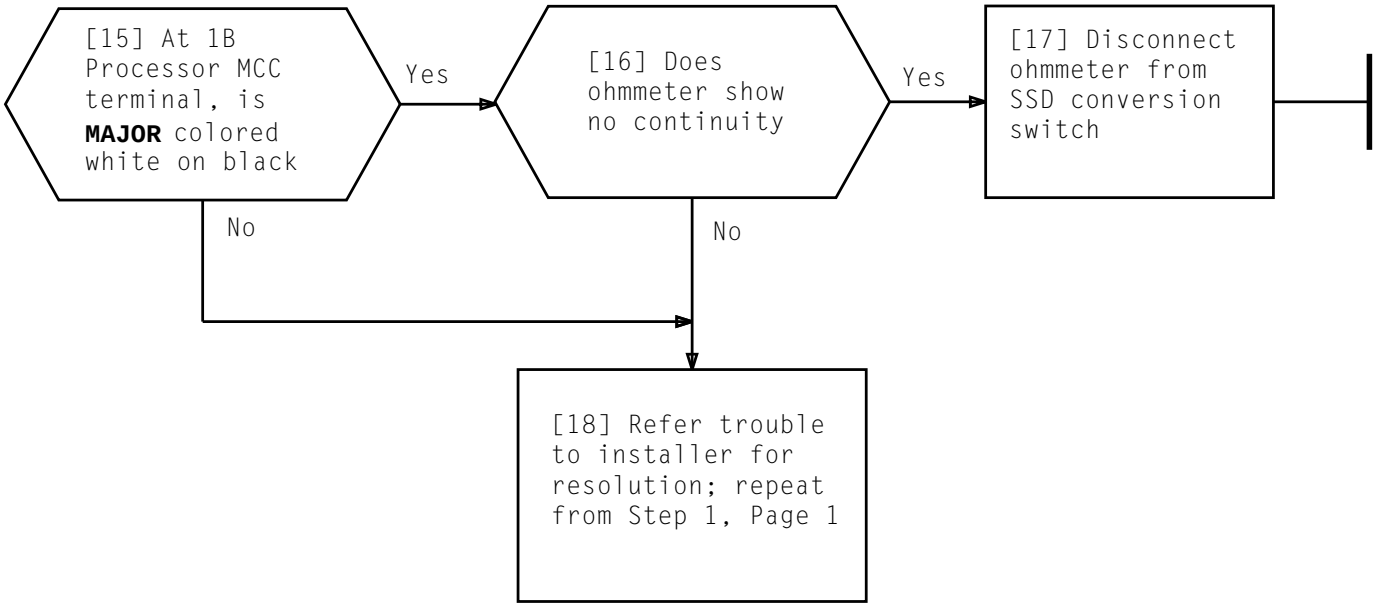


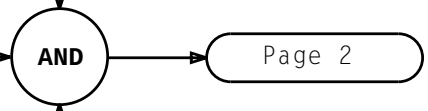
TEST 1B PROCESSOR SOFTWARE MAJOR ALARM



TEST 1B PROCESSOR SOFTWARE MAJOR ALARM

[1] At 1B Processor utility system workstation, enter message
ALW:MACLI,CLASS MTCE!

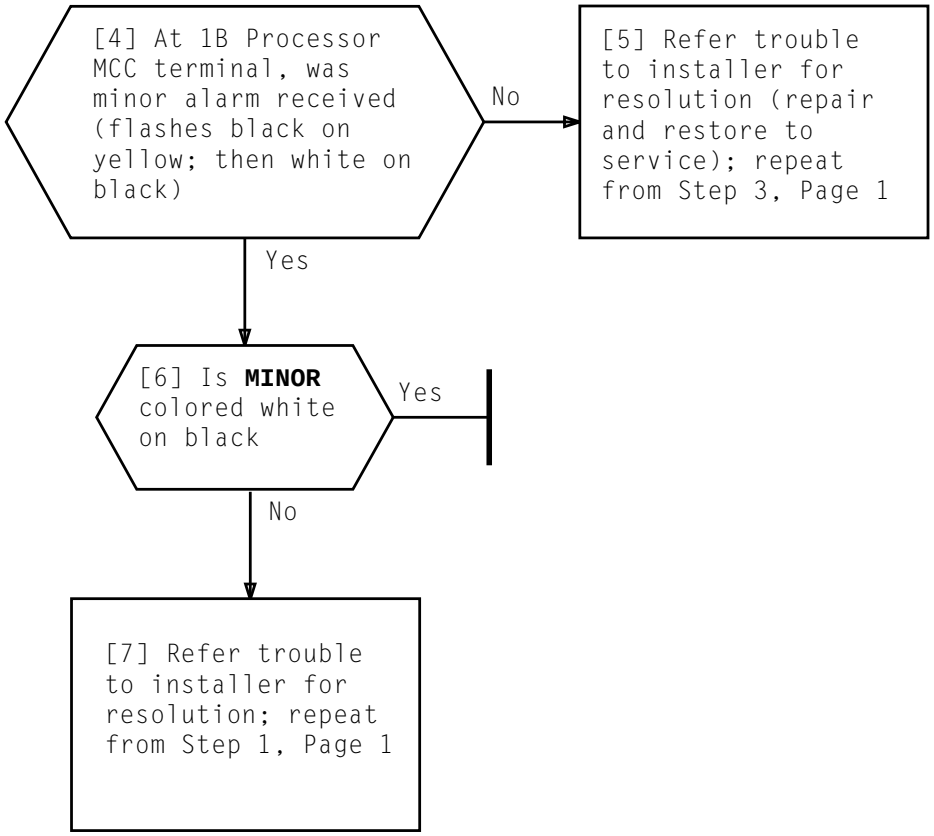
[2] At 1B Processor MCC terminal, depress **ALM RLS** to clear alarms



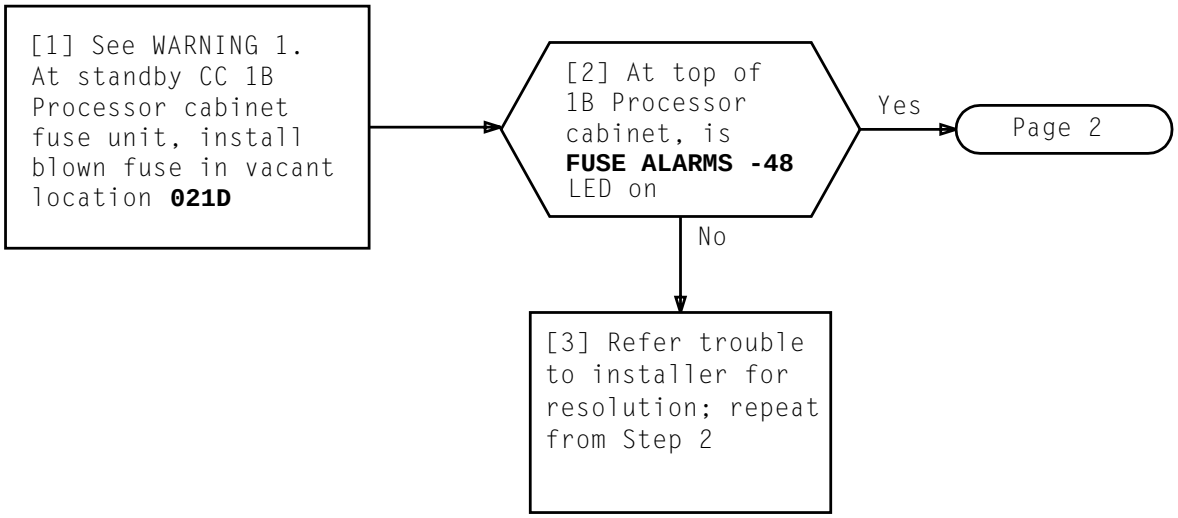
[3] See NOTE 1. At 1B Processor utility system workstation, enter message
INH:MACLI,CLASS MTCE;ALL!

TEST 1B PROCESSOR SOFTWARE MINOR ALARM

NOTE 1
Minor alarm should be received when INH message is entered

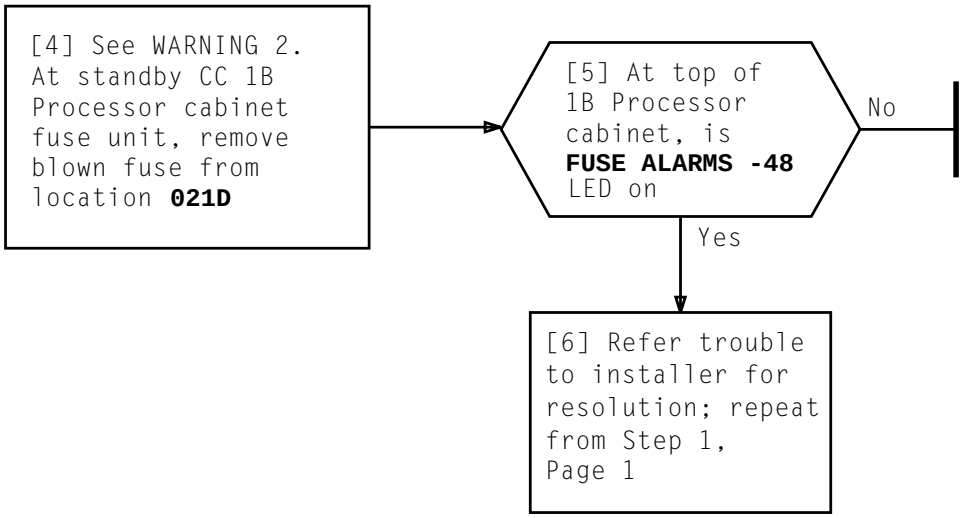


TEST 1B PROCESSOR SOFTWARE MINOR ALARM



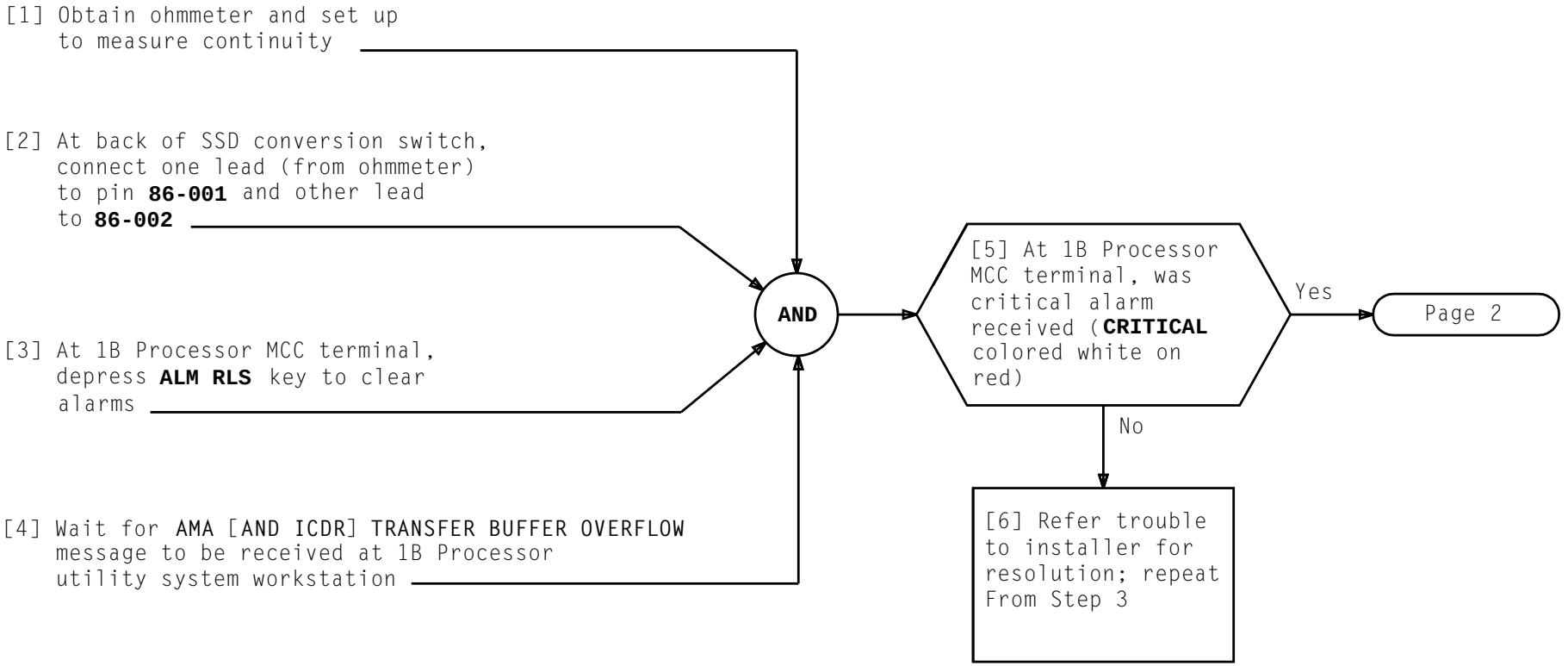
WARNING 1
Care must be taken when inserting blown fuse. Fuse may break off in fuse unit if not inserted straight

TEST 1B PROCESSOR HARDWARE MAJOR ALARM

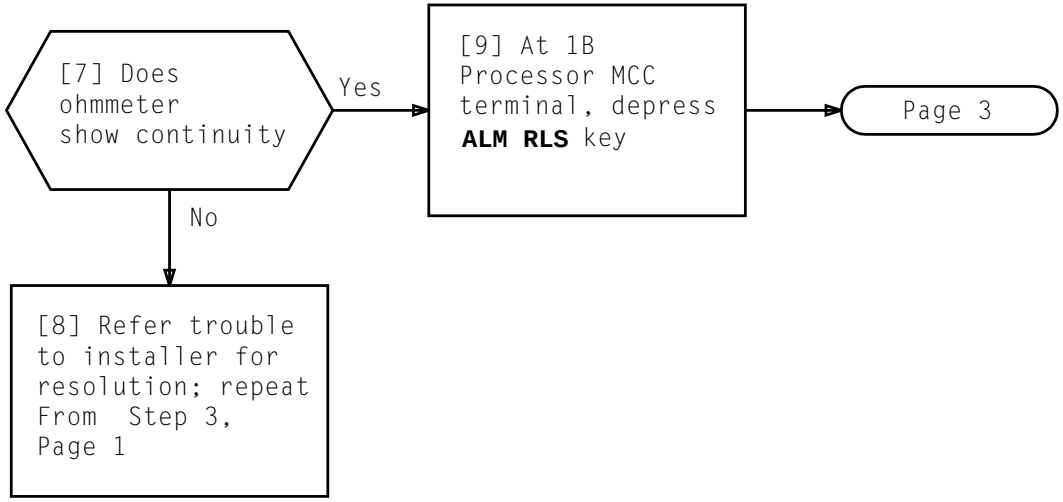


WARNING 2
Care must be taken when removing blown fuse. Fuse may break off in fuse holder if not inserted straight

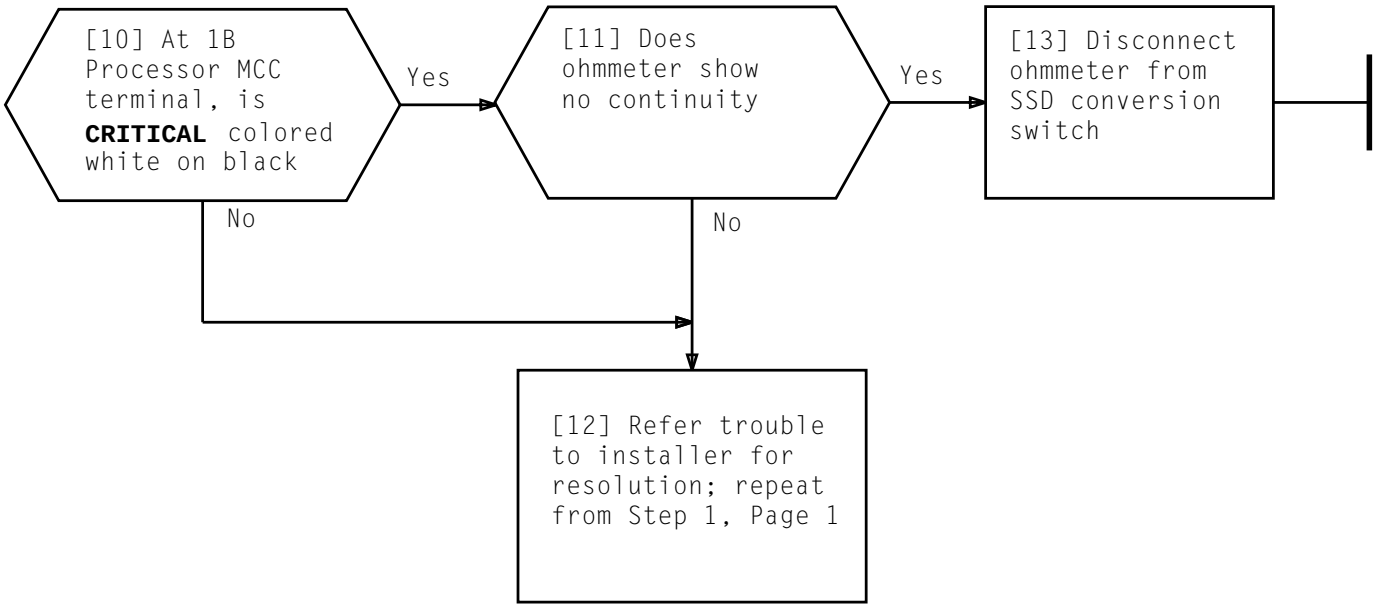
TEST 1B PROCESSOR HARDWARE MAJOR ALARM



TEST 1B PROCESSOR SOFTWARE CRITICAL ALARM



TEST 1B PROCESSOR SOFTWARE CRITICAL ALARM



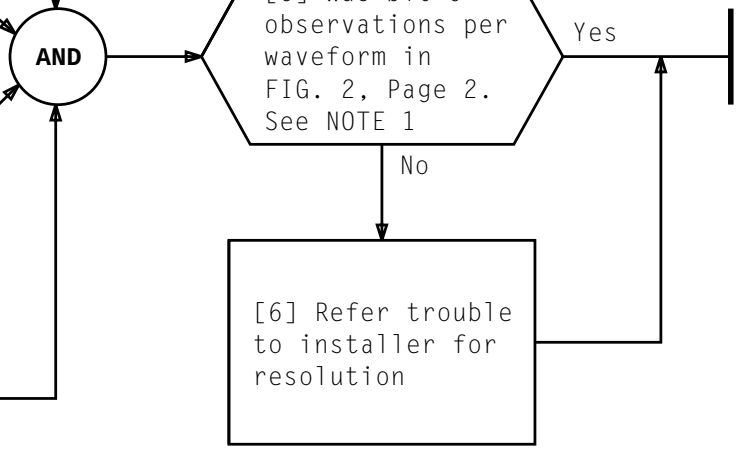
TEST 1B PROCESSOR SOFTWARE CRITICAL ALARM

[1] Obtain TEKTRONIX* oscilloscope model 2232 or equivalent that was set up earlier with two identical X10 (times 10) probes

[2] Using FIG. 1, Page 2, determine location to be scoped

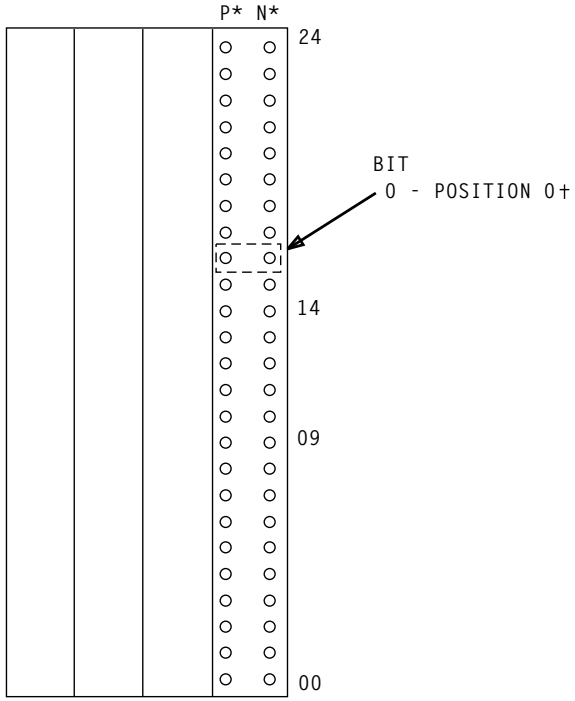
[3] Connect storage scope with scoping adapter to connector location determined in Step 2 [see DLP-605 on how to use scope adapter]

[4] Scope for bit 0 in dashed line box, per FIG. 1, Page 2 at connector location in Step 2



NOTE 1
Pulse waveform will vary, depending on distance away from driver. Waveform measurements should be similar to examples shown in FIG. 1, Page 2

SCOPE PU REPLY BUS BIT 0



CONVERSION SWITCH UNIT

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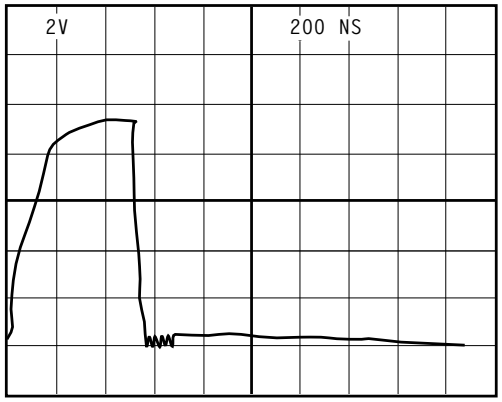
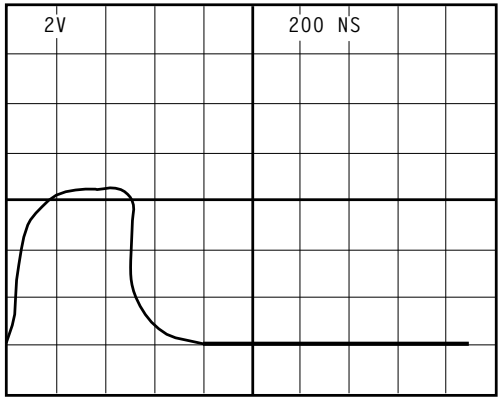
* P FOR POSITIVE LEAD AND
N FOR NEGATIVE LEAD
† POSITION 0 IS ON BUS SCOPING ADAPTER

FIG. 1



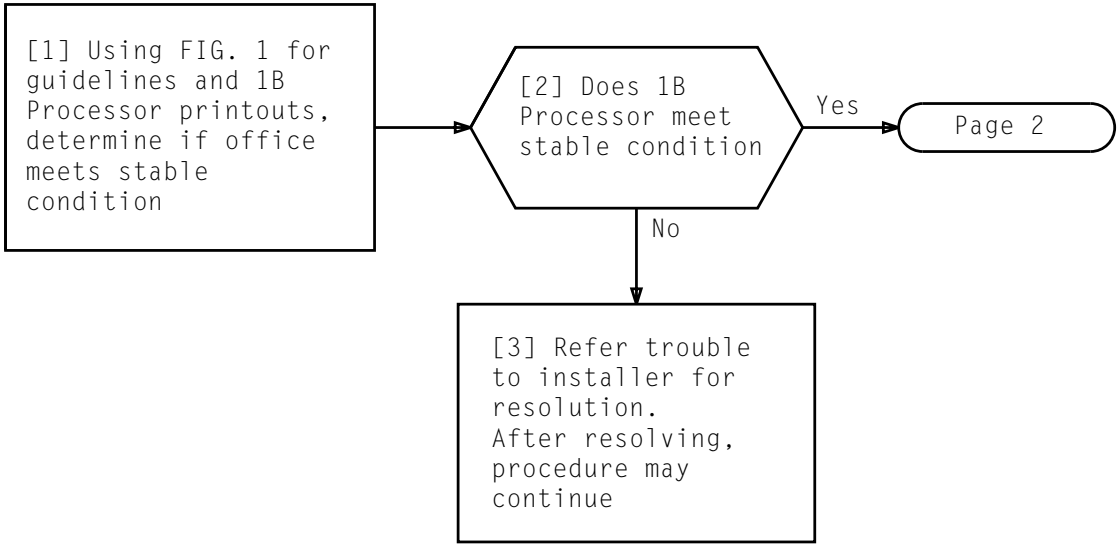
NORMAL PULSE AT DRIVER



NORMAL PULSE 500 FEET FROM DRIVER

FIG. 2

SCOPE PU REPLY BUS BIT 0



- INTERRUPTS

(AUB, AUI, CC, CS CSB, IFB, MUP, PS, PSB, SSD)	NONE ALLOWED [NOTE 1]

- PHASES, DUPLEX FAILURES, OR ZERO STARTS

1. PHASE 1	NONE ALLOWED
2. DIRECTED PHASE 1	NONE ALLOWED
3. PHASES 2 AND 3	NONE ALLOWED
4. MULTIPLE UNIT FAILURE	NONE ALLOWED
5. PHASE 4	NONE ALLOWED

NOTE 1: Interrupts caused by documented hardware/software-related problems or installer errors must be evaluted to determine if they can be deleted from stability requirements interrupts caused by documented hardware-related problems which are a measure of equipment quality, cannot be deleted from stability requirements

FIG. 1 - 1B Processor Stability Guidelines

DETERMINE 1B PROCESSOR STABILITY AND CLOCK TIME

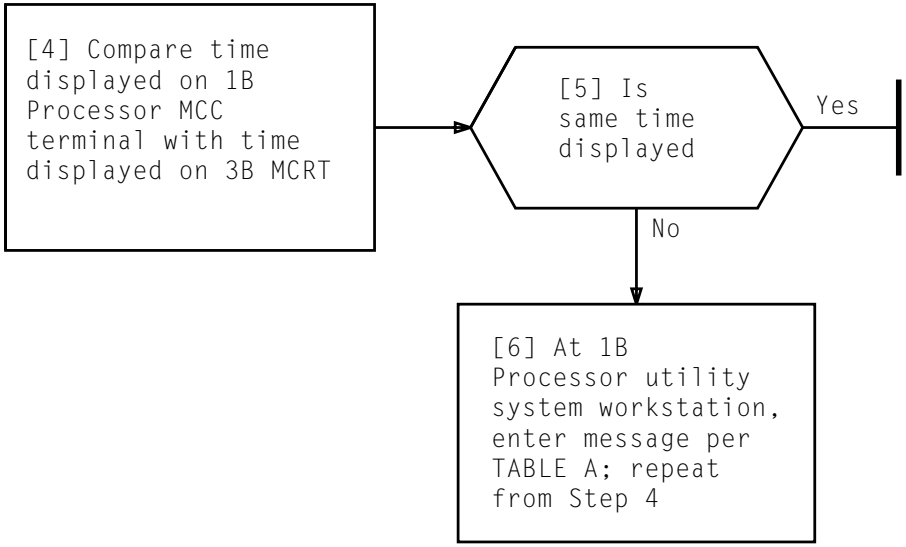
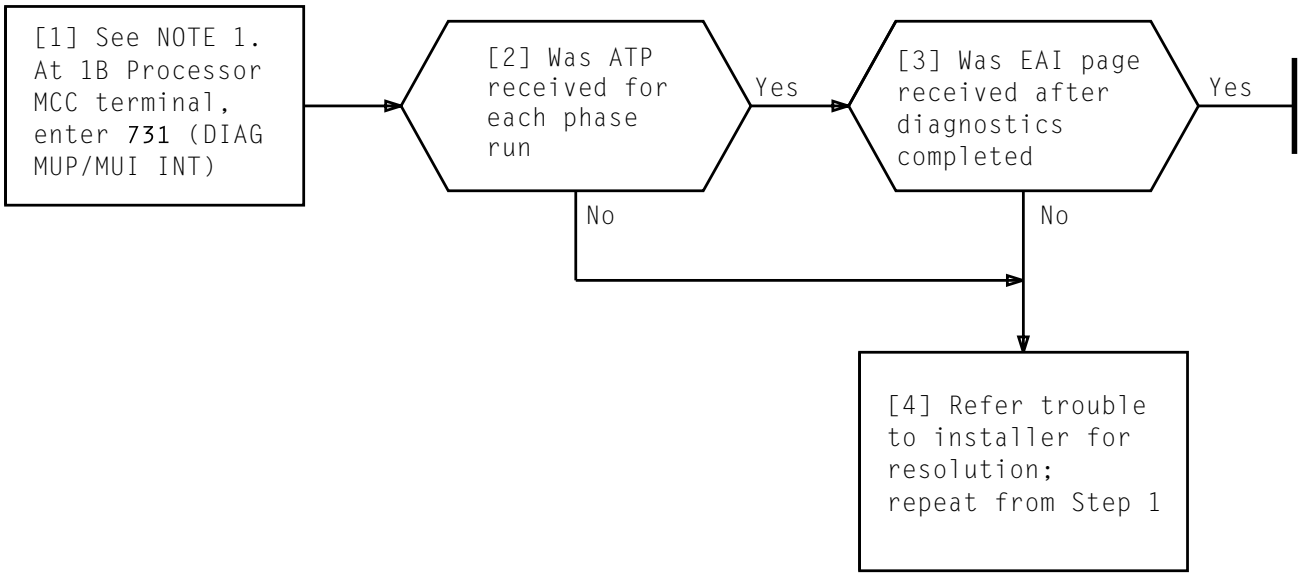


TABLE A

MESSAGE NUMBER	INPUT MESSAGE
1	SET:CLK:DAY a,DATE b,TIME ccdd!

a = day (MON, TUE, WED, and so on)
b = date (6-digit number - mmddyy)
cc = hour
dd = minute

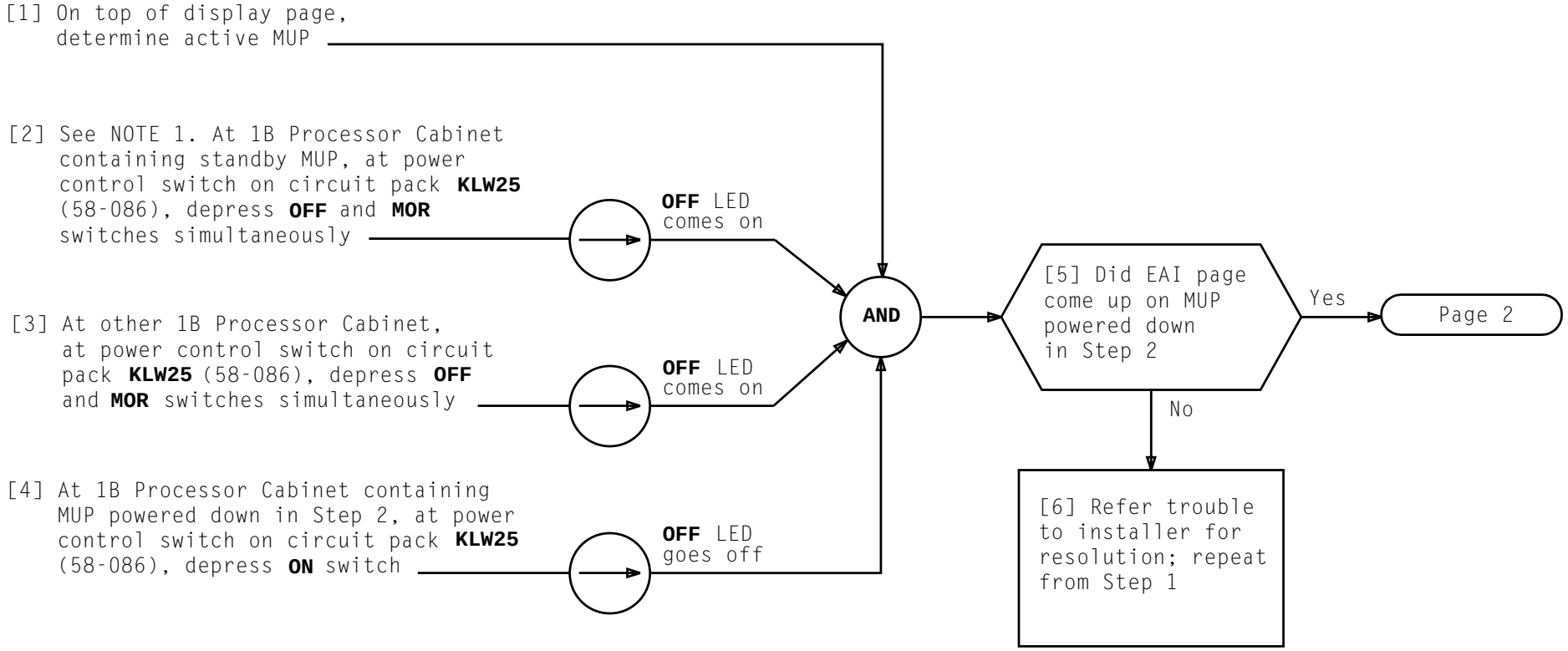
DETERMINE 1B PROCESSOR STABILITY AND CLOCK TIME



NOTE 1

After MUP/MUI interface diagnostics complete, Emergency Action Display page (EAI) will be displayed

DIAGNOSE MUP/MUI INTERFACE



VERIFY MUP HARDWARE FORCE ACTIVITY

NOTE 1

Standby MUP is opposite of active MUP.

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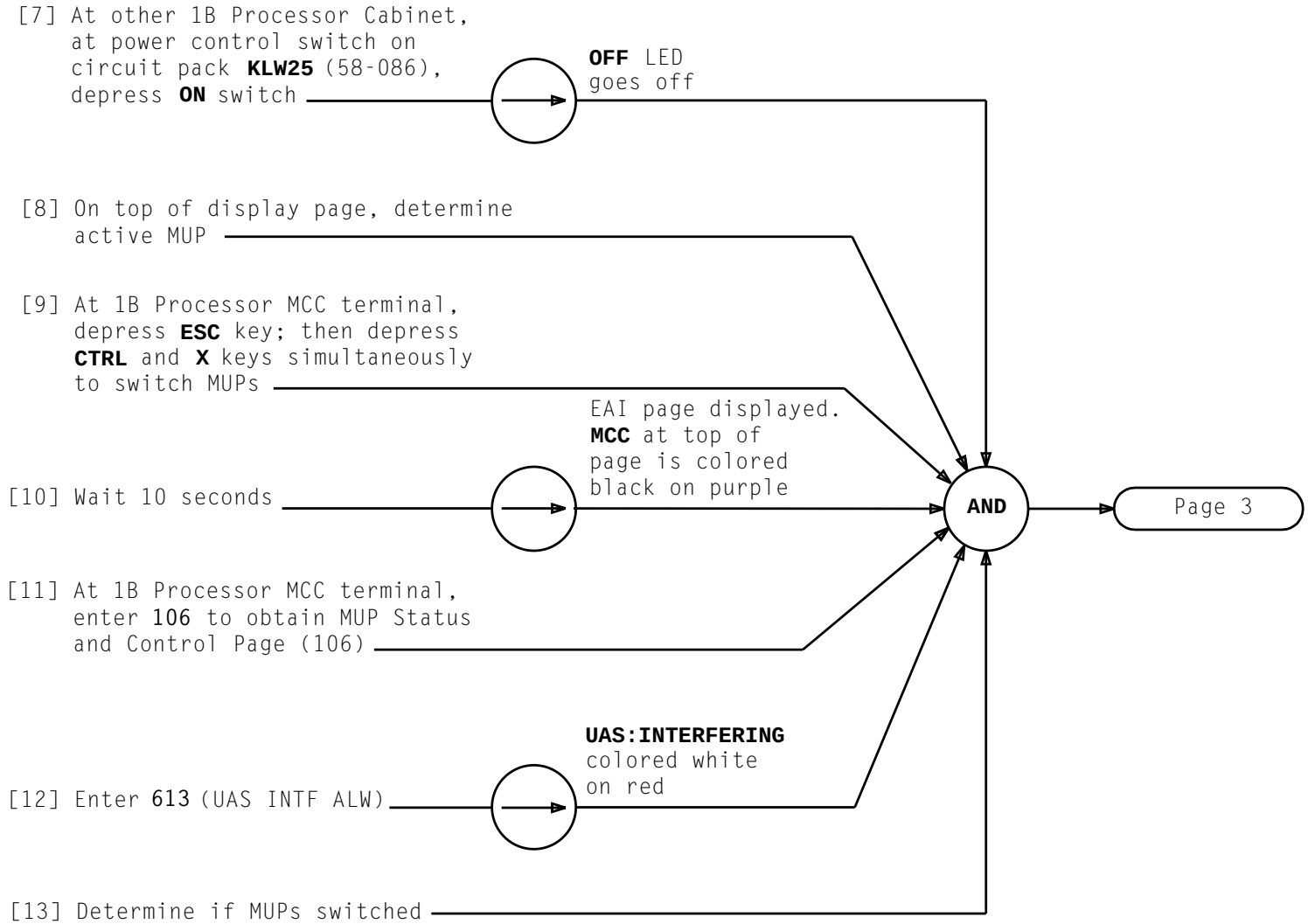
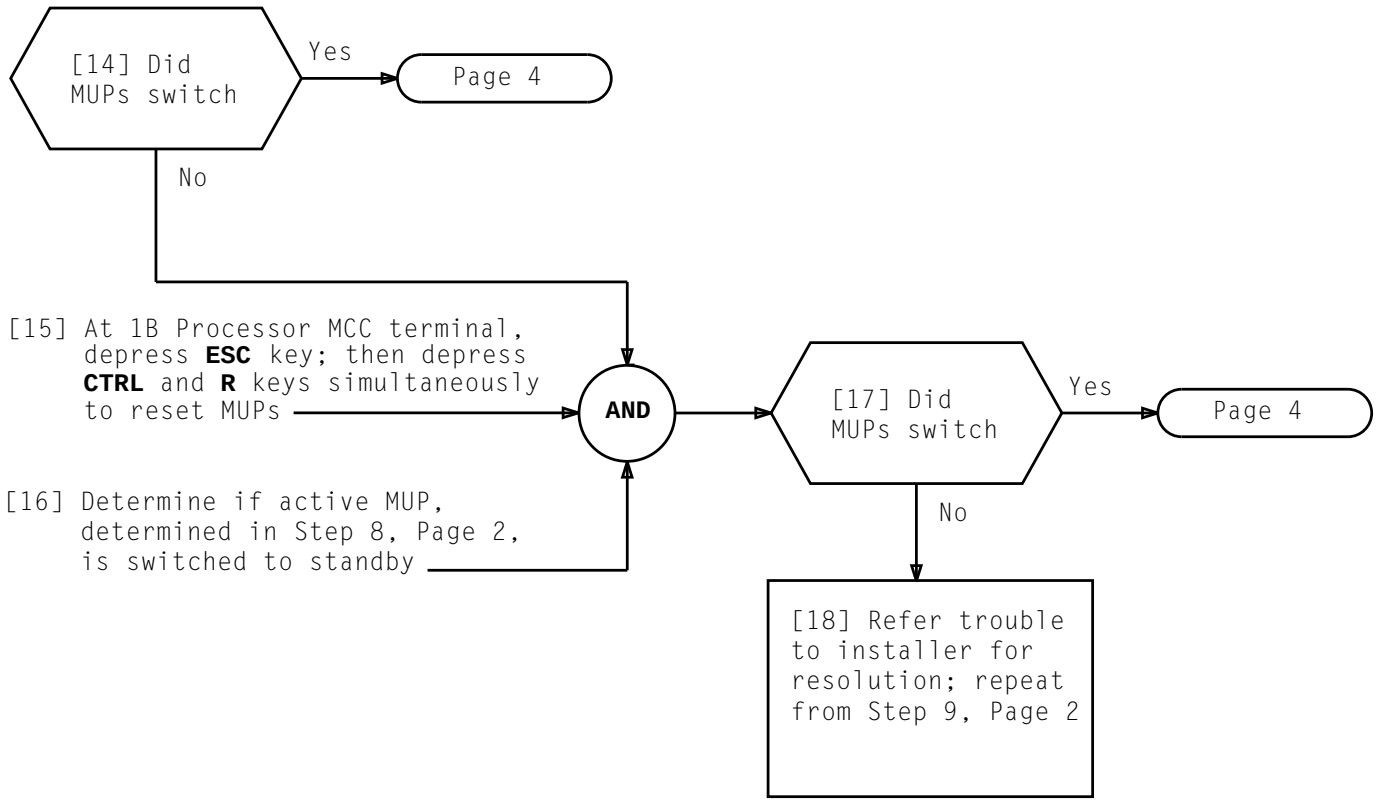
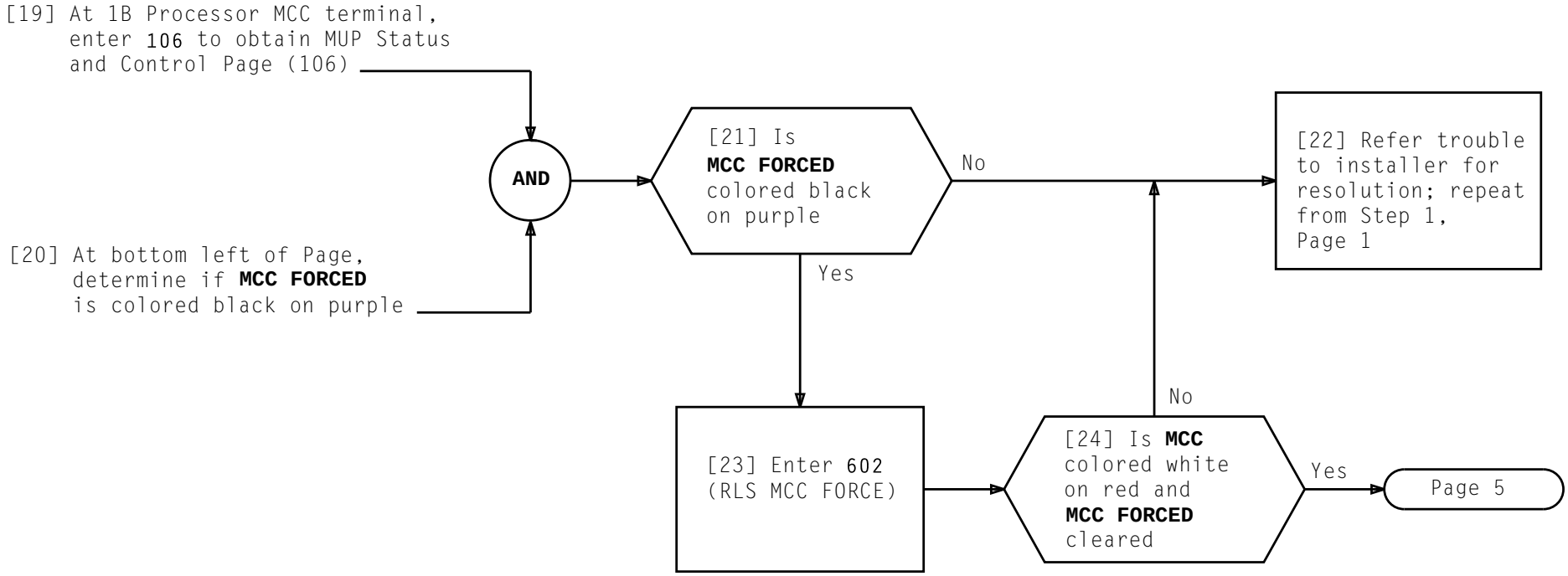


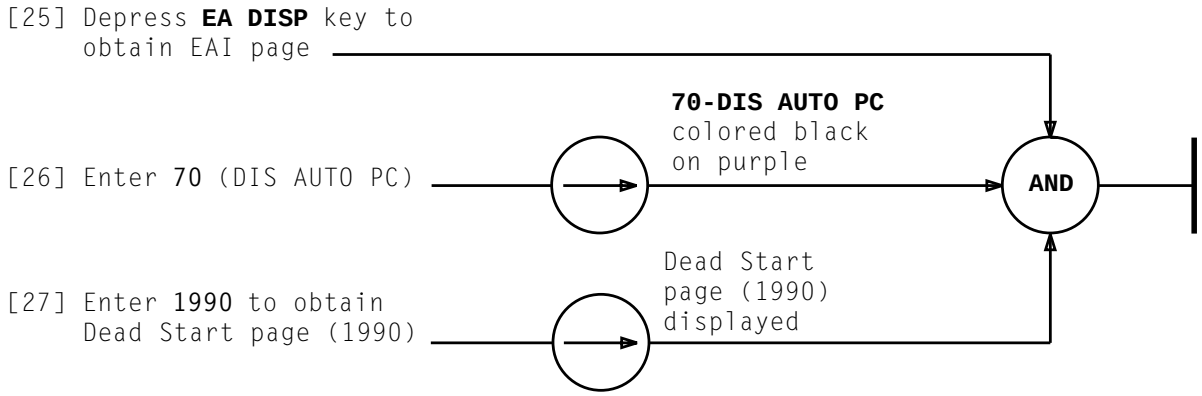
VERIFY MUP HARDWARE FORCE ACTIVITY



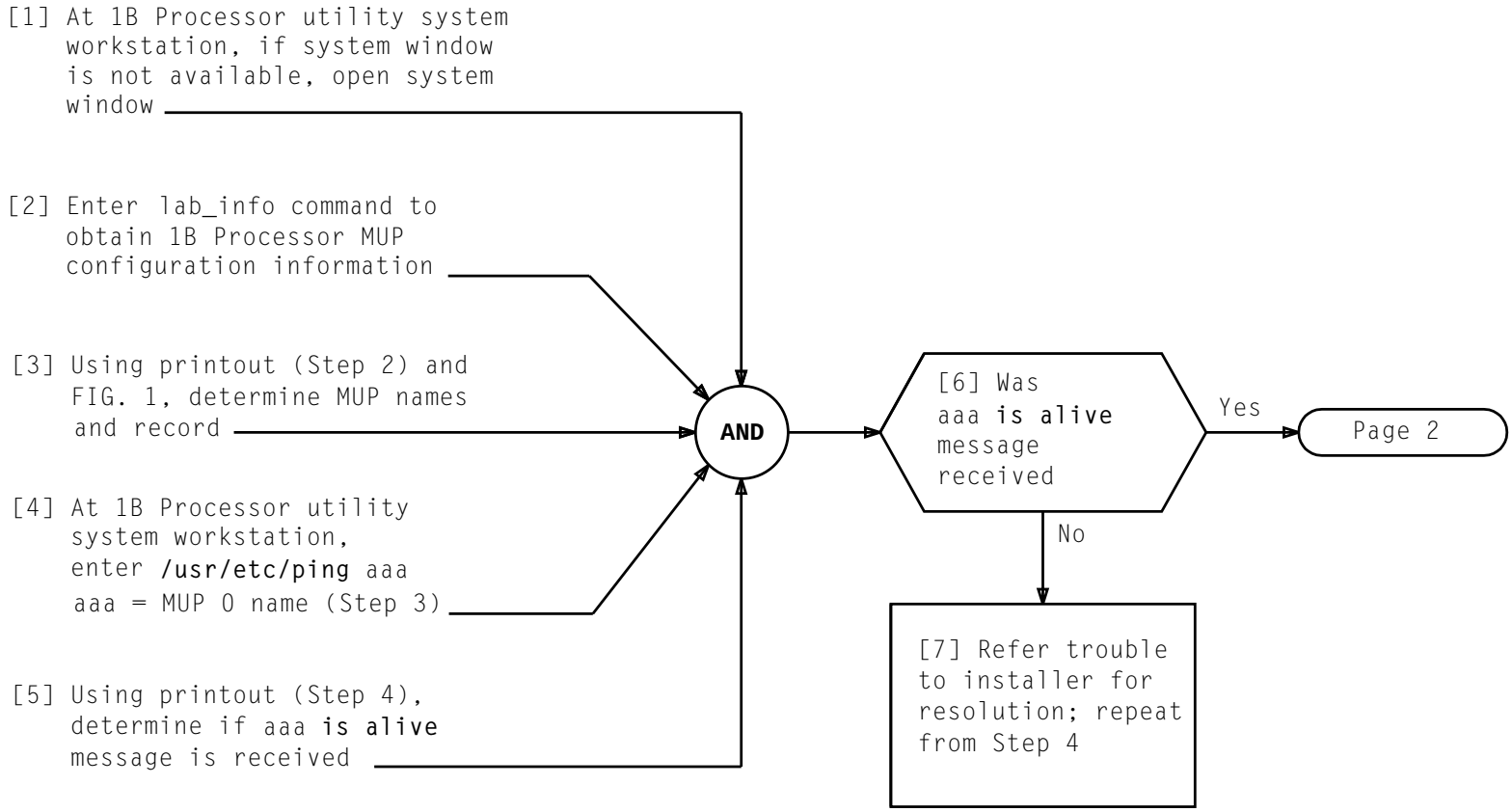
VERIFY MUP HARDWARE FORCE ACTIVITY



VERIFY MUP HARDWARE FORCE ACTIVITY



VERIFY MUP HARDWARE FORCE ACTIVITY



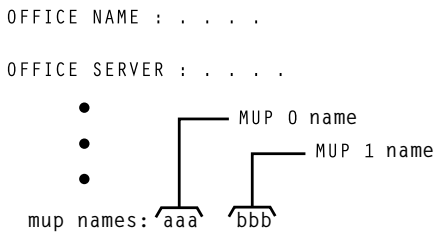
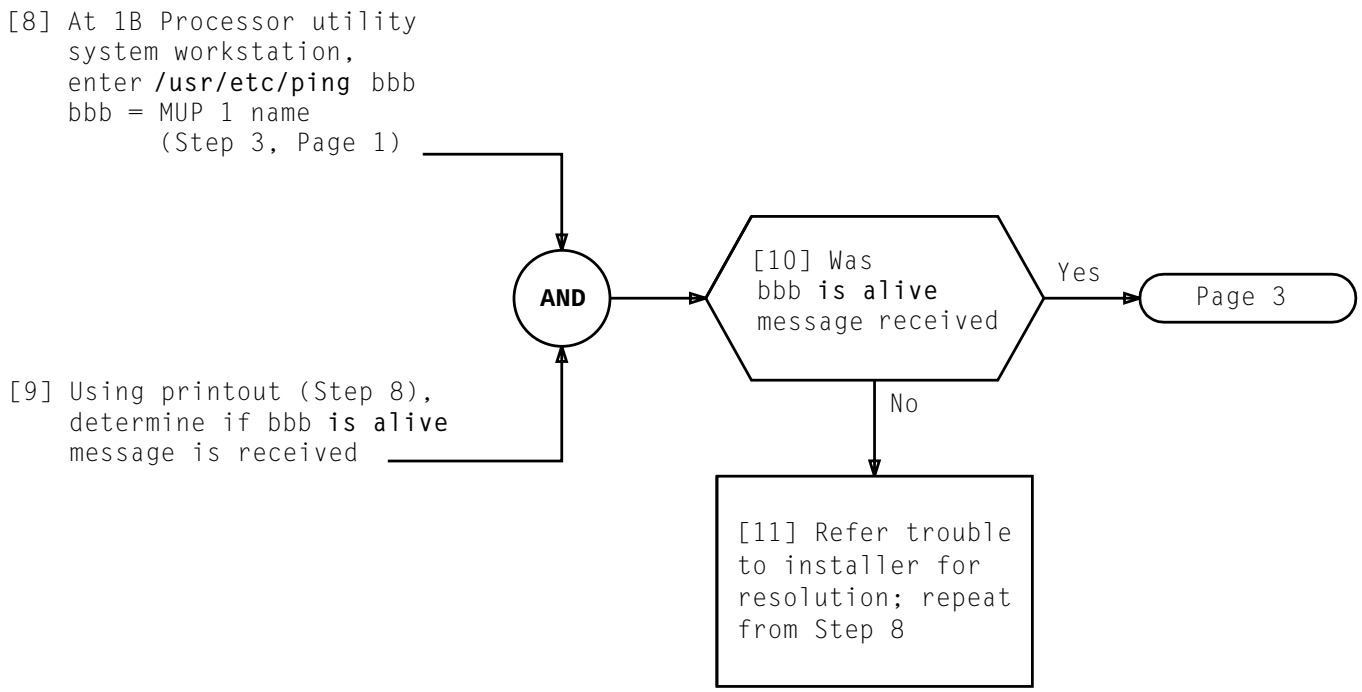
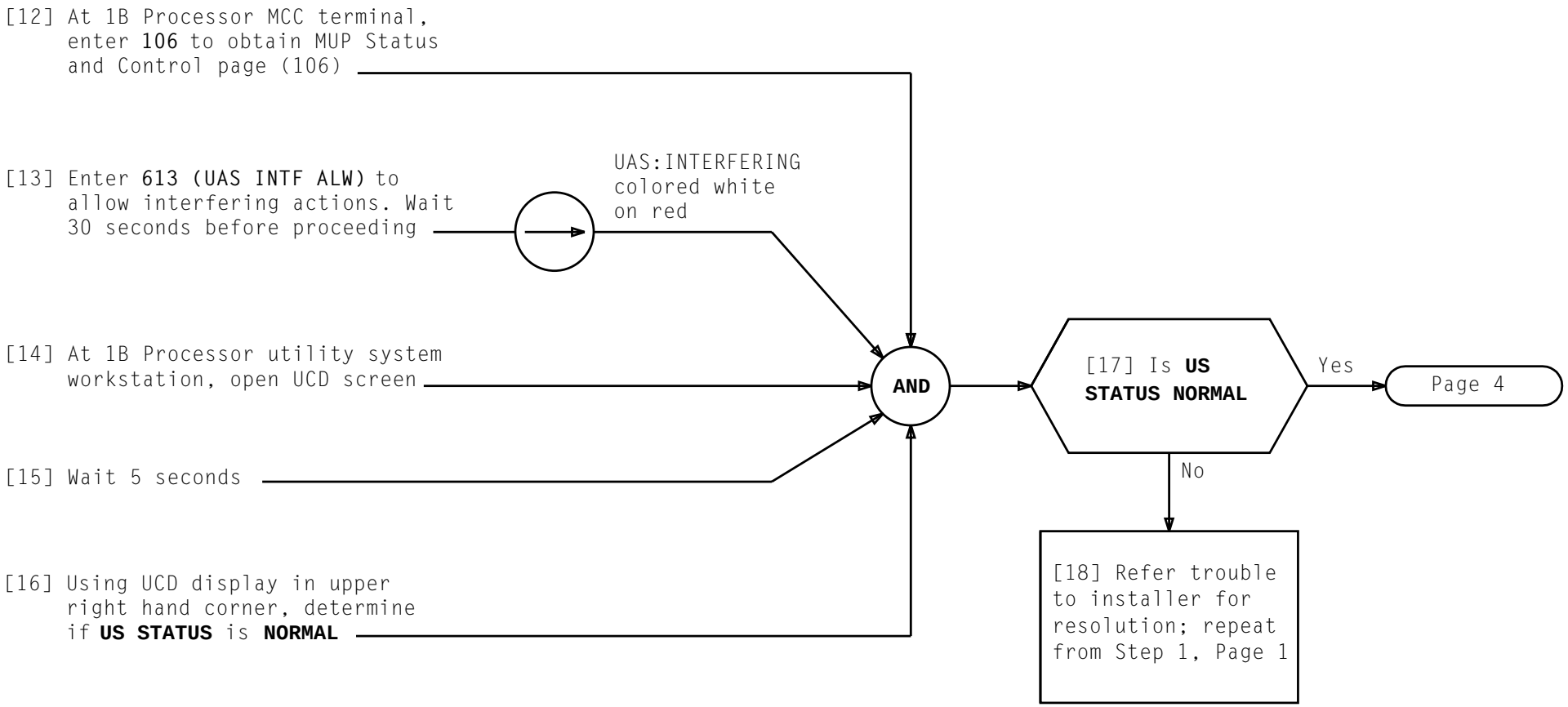


FIG. 1

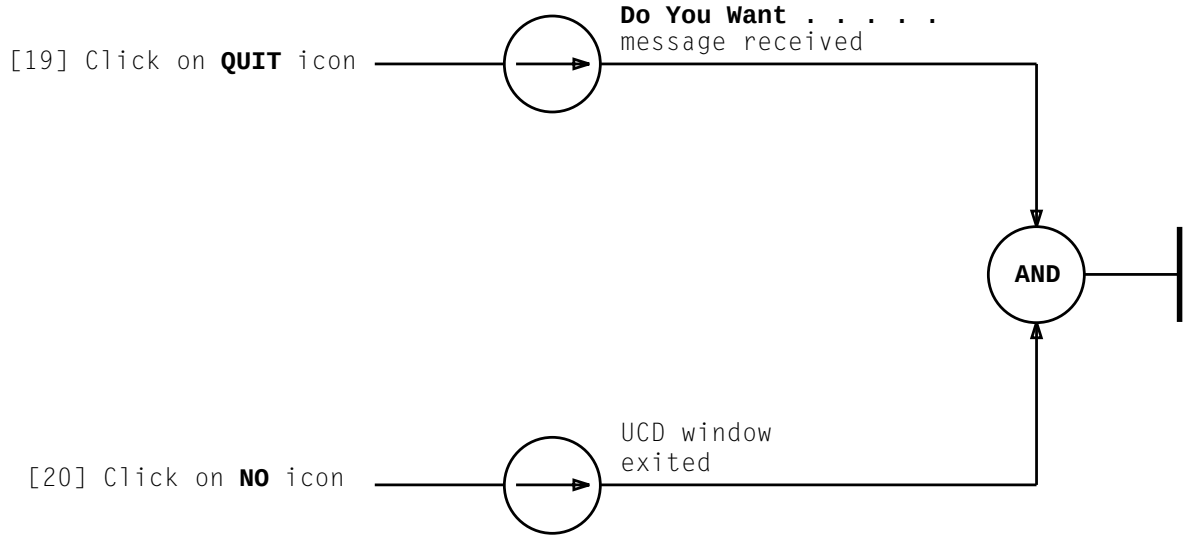
VERIFY UTILITY SYSTEM WORKSTATION TO MUP COMMUNICATION



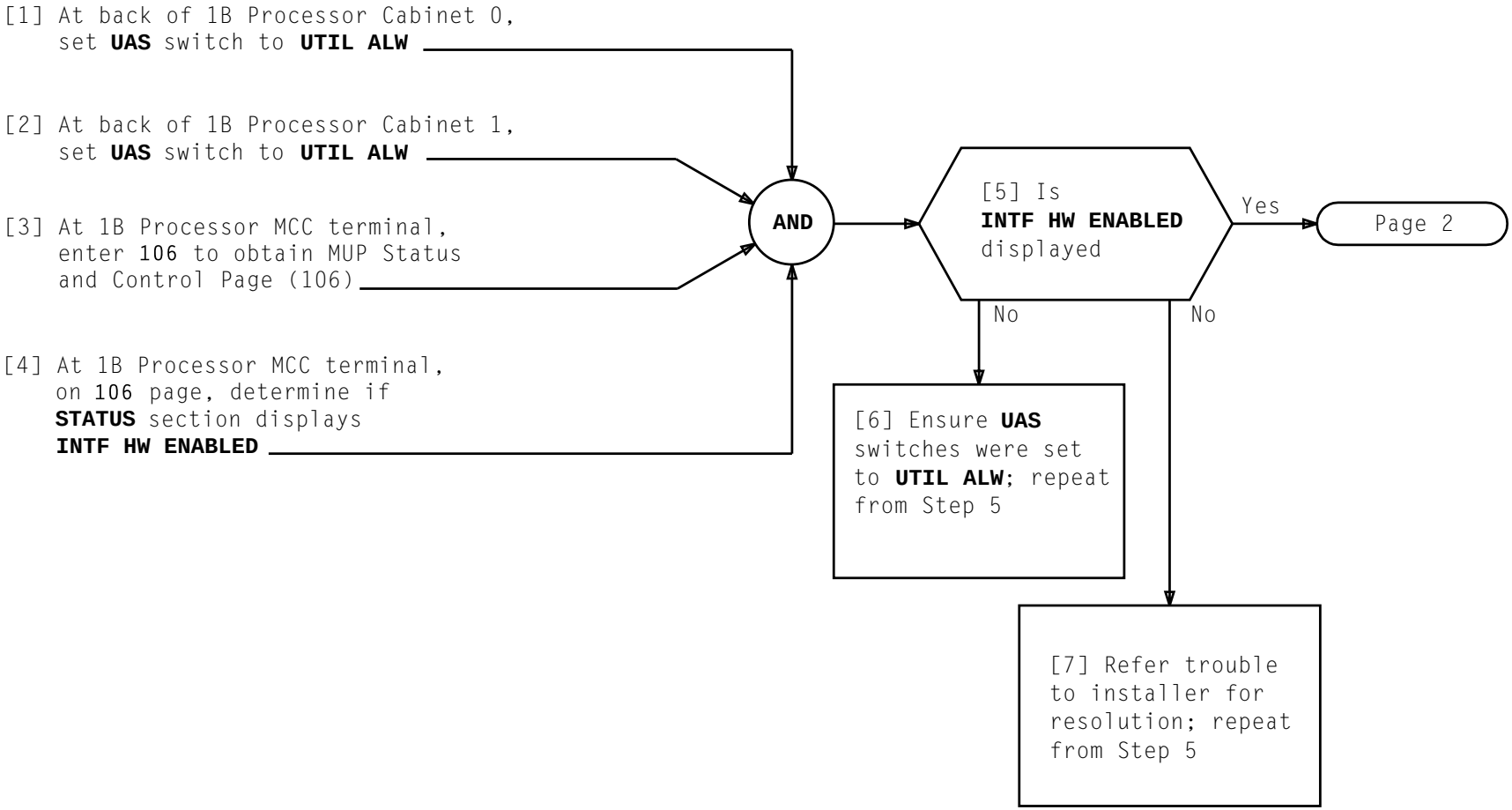
VERIFY UTILITY SYSTEM WORKSTATION TO MUP COMMUNICATION



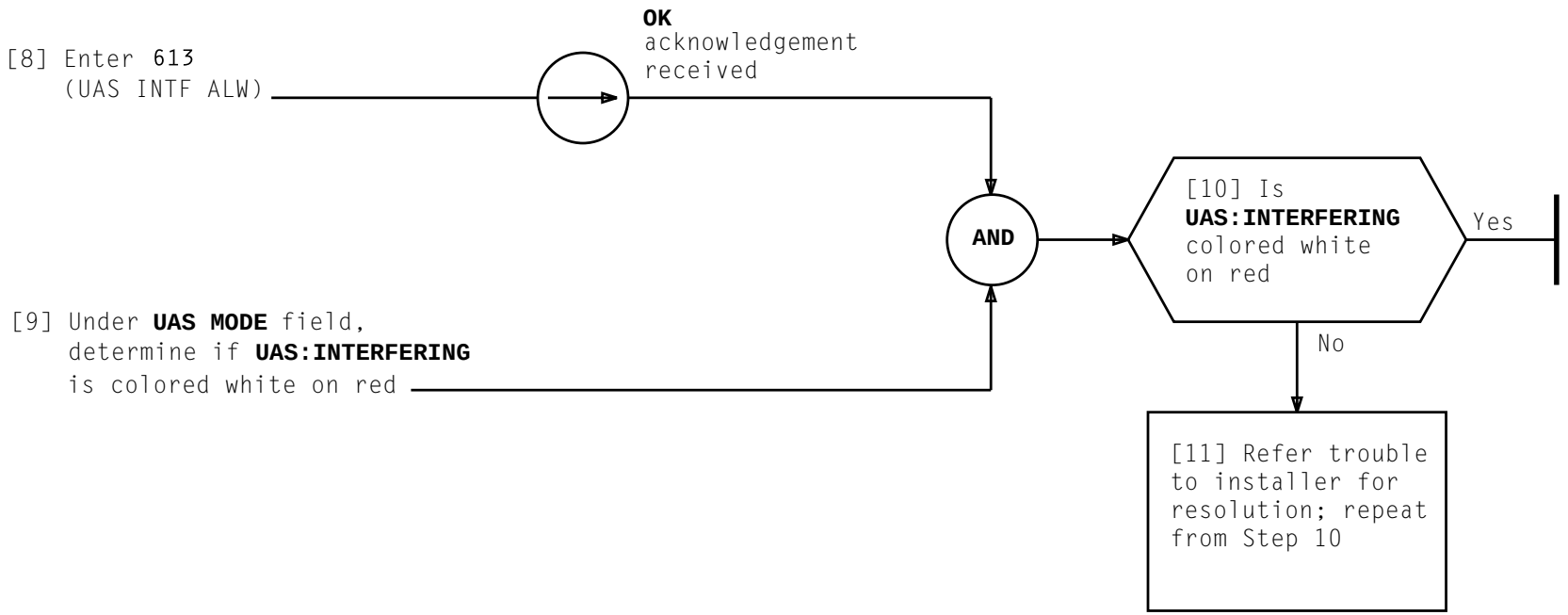
VERIFY UTILITY SYSTEM WORKSTATION TO MUP COMMUNICATION



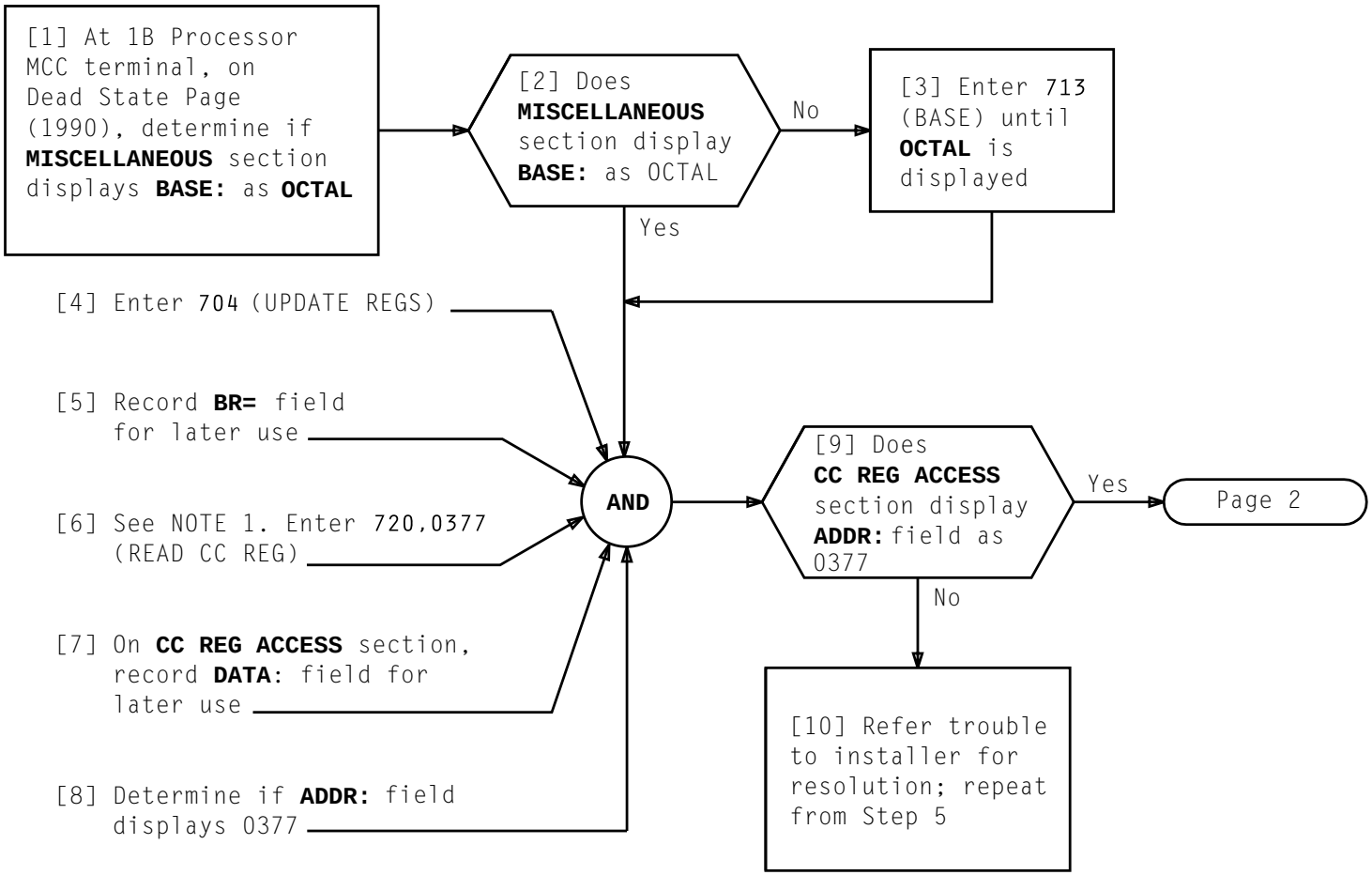
VERIFY UTILITY SYSTEM WORKSTATION TO MUP COMMUNICATION



ALLOW UTILITY INTERFERING ACTIONS



ALLOW UTILITY INTERFERING ACTIONS



VERIFY CC BUFFER BUS ACCESS READ AND WRITE FUNCTION

NOTE 1
Leading zero is required for data parameter

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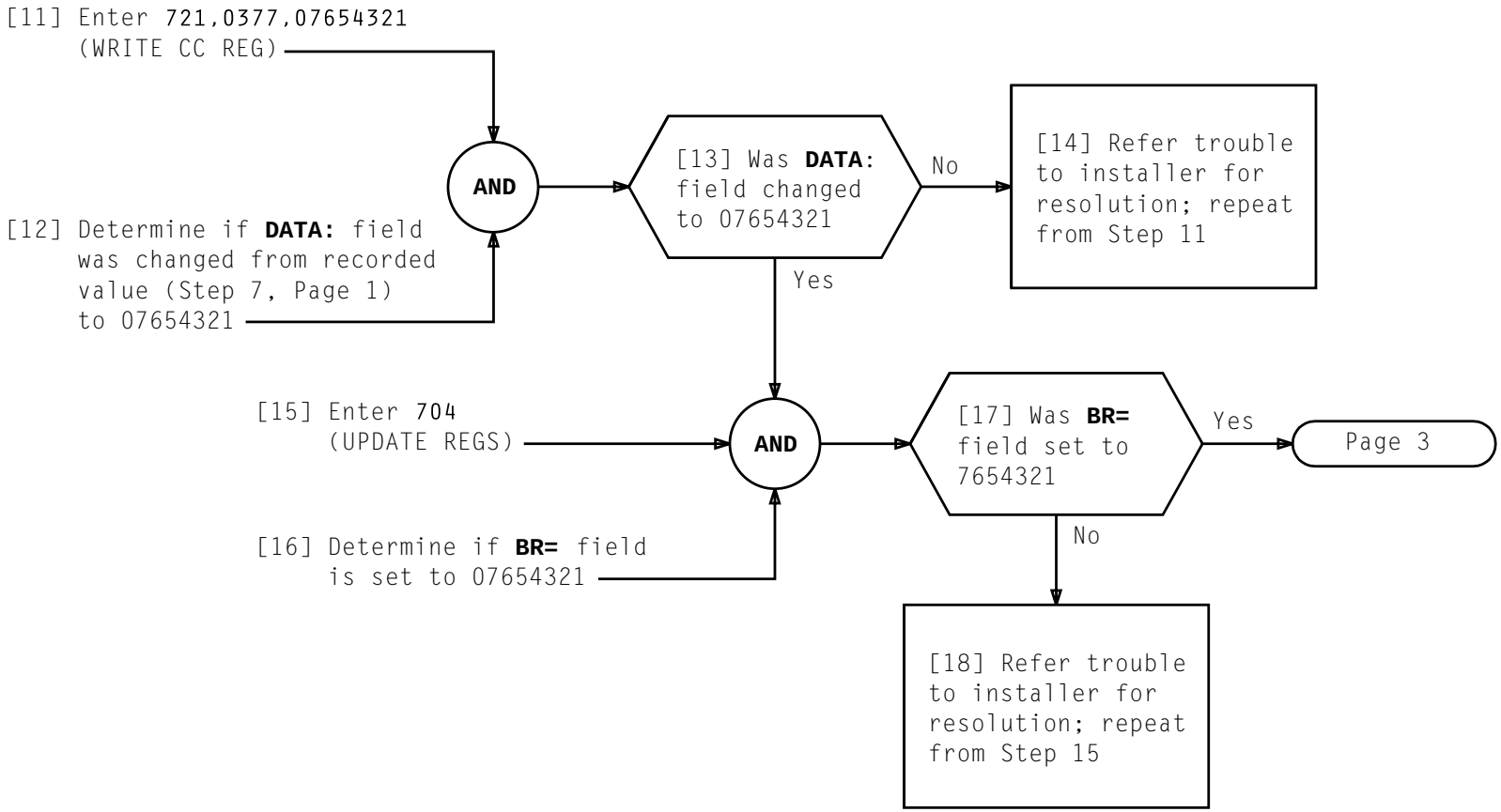
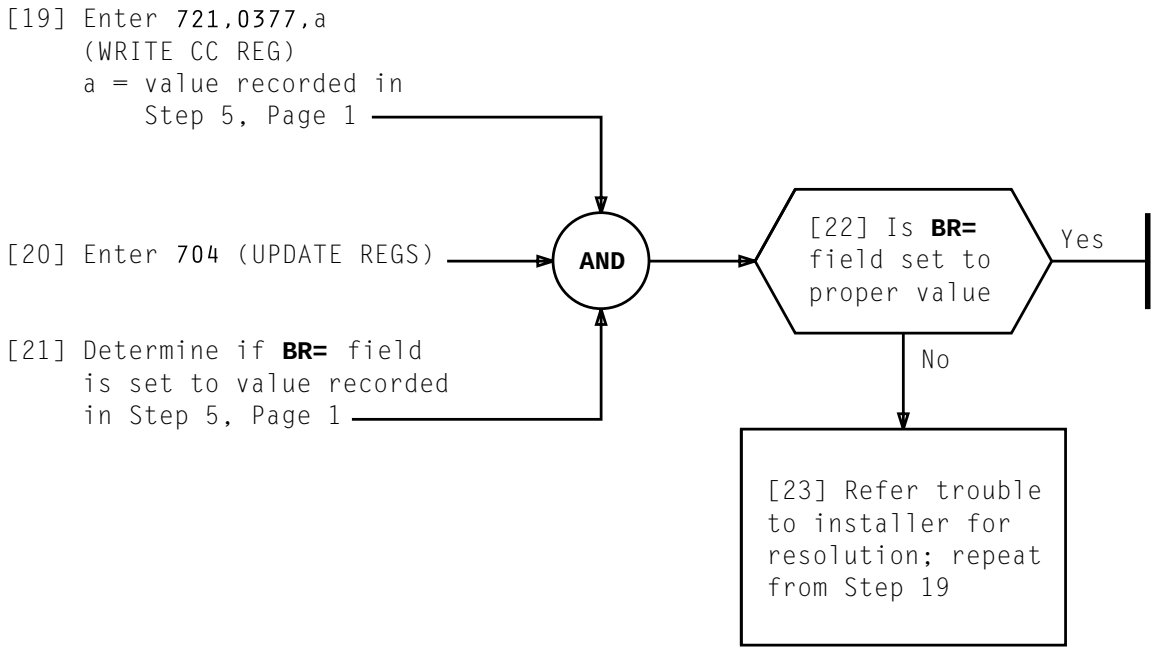
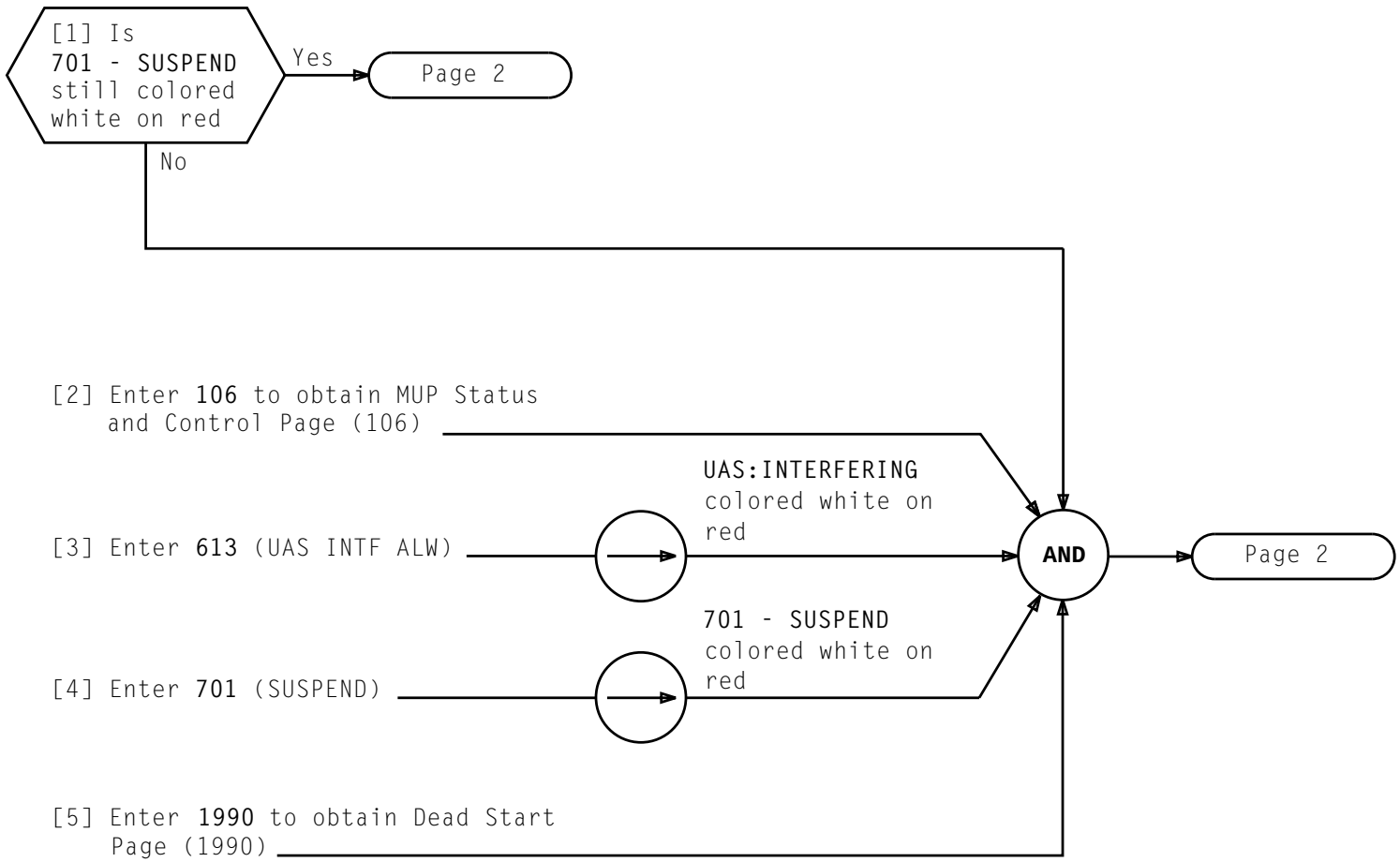


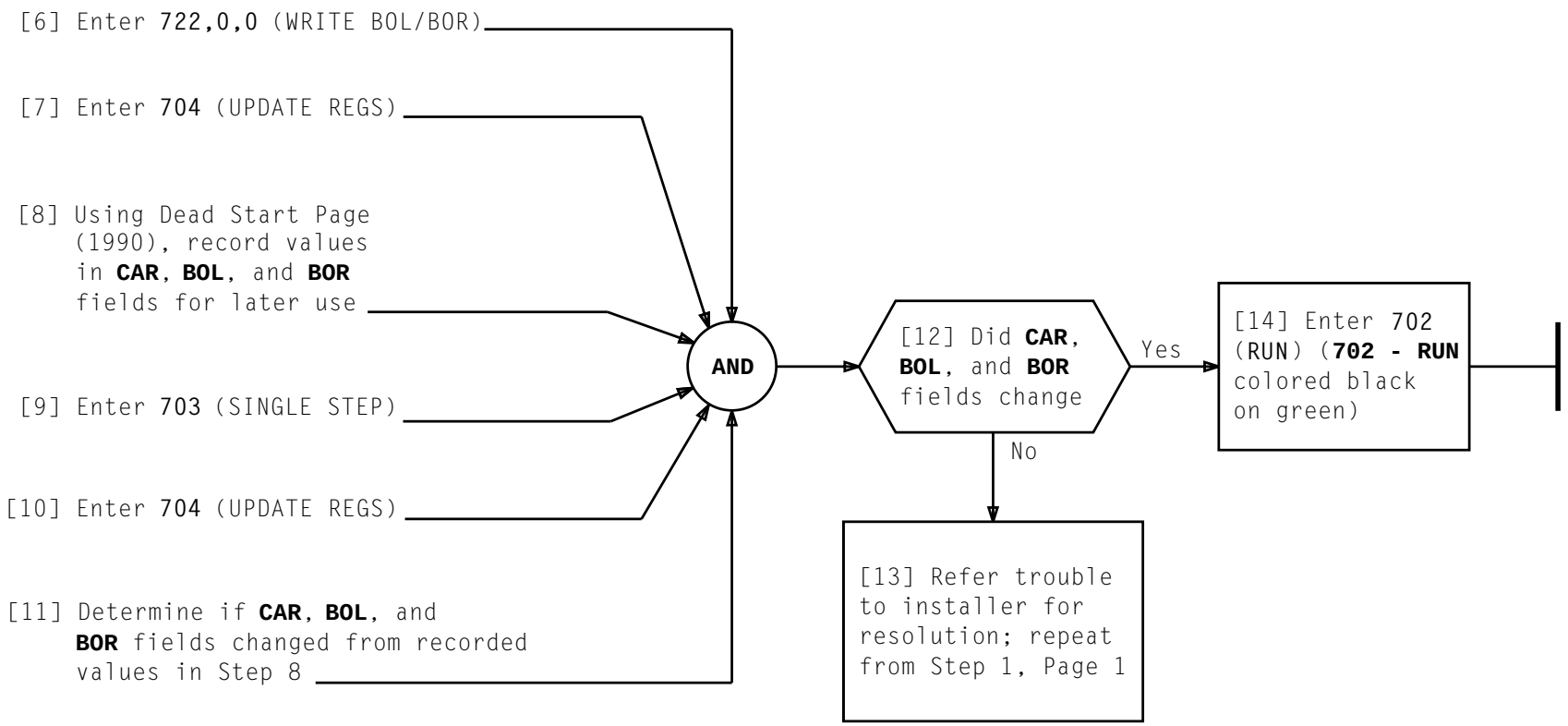
VERIFY CC BUFFER BUS ACCESS READ AND WRITE FUNCTION



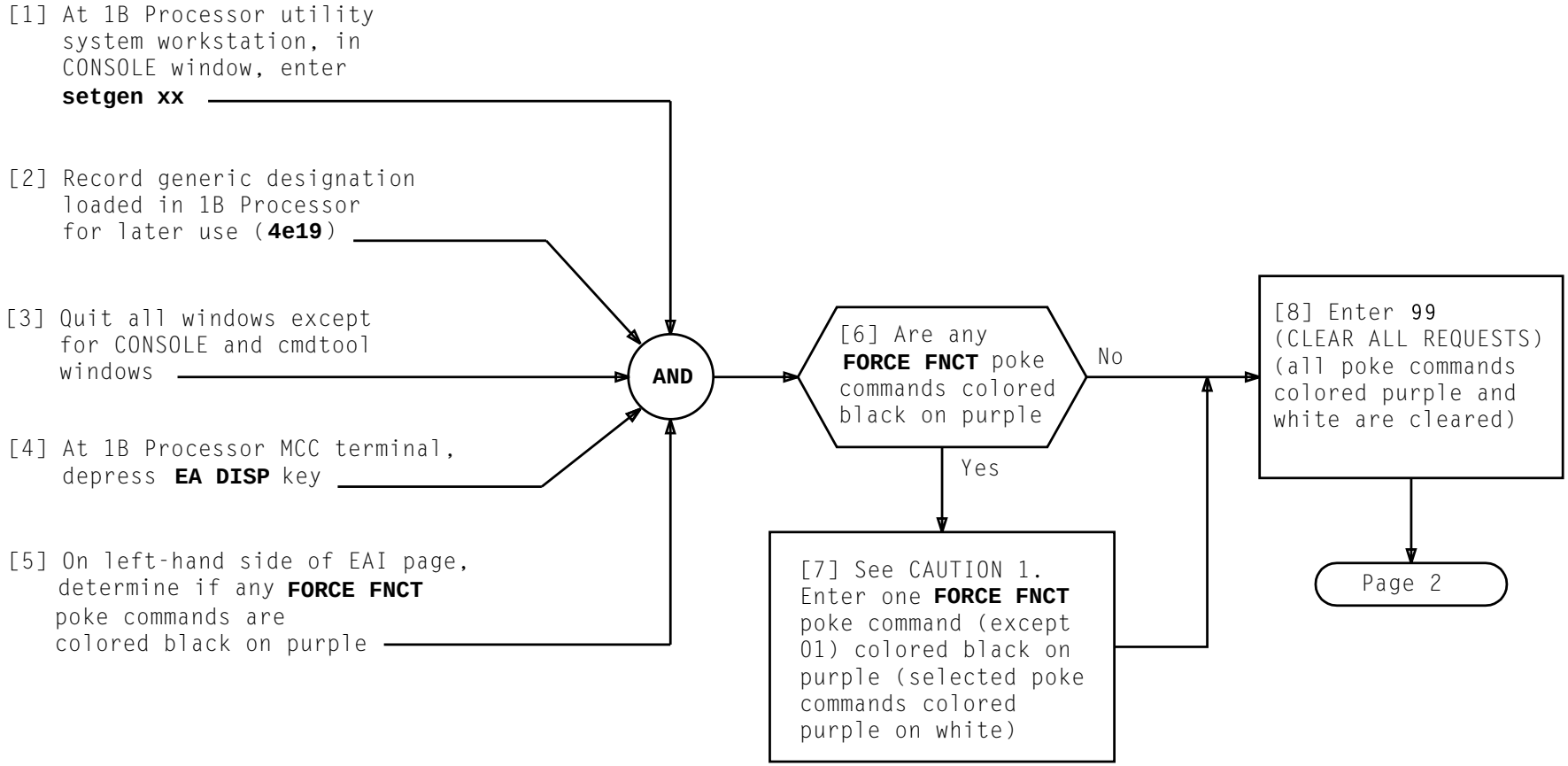
VERIFY CC BUFFER BUS ACCESS READ AND WRITE FUNCTION



VERIFY SINGLE STEP CAPABILITY



VERIFY SINGLE STEP CAPABILITY



CAUTION 1
01 must not be entered

PERFORM UTILITY SYSTEM REINITIALIZATION

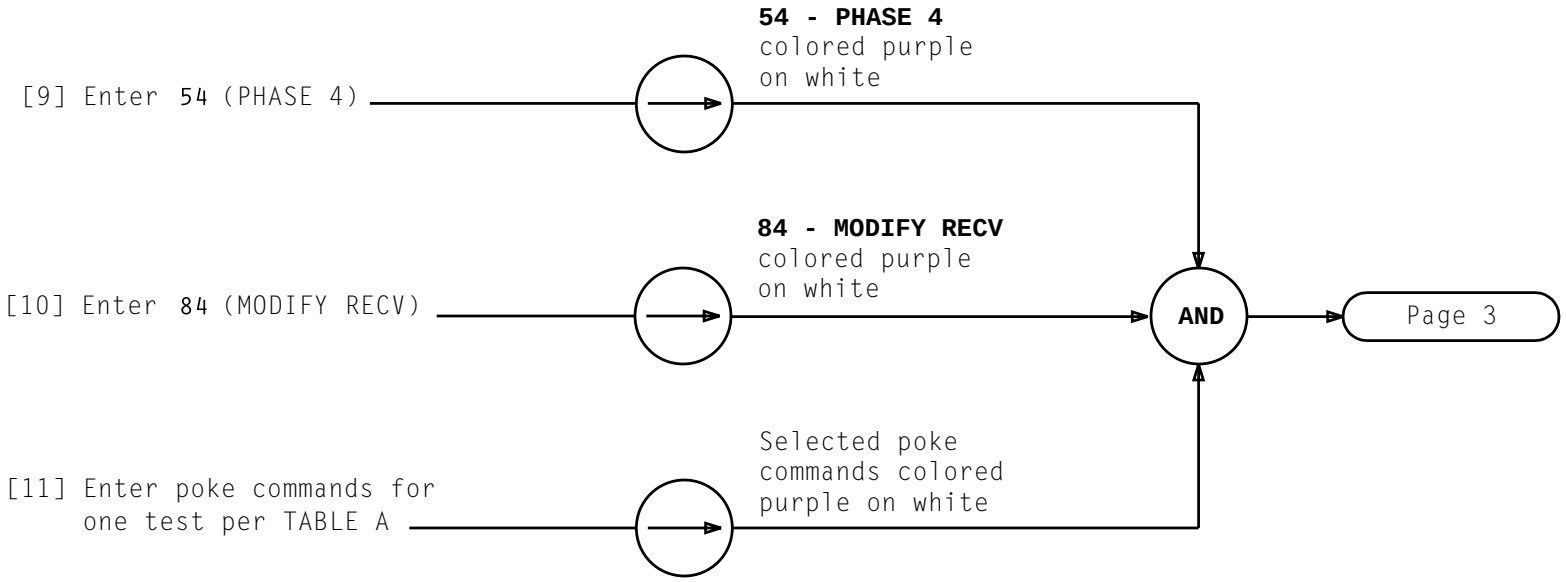


TABLE A

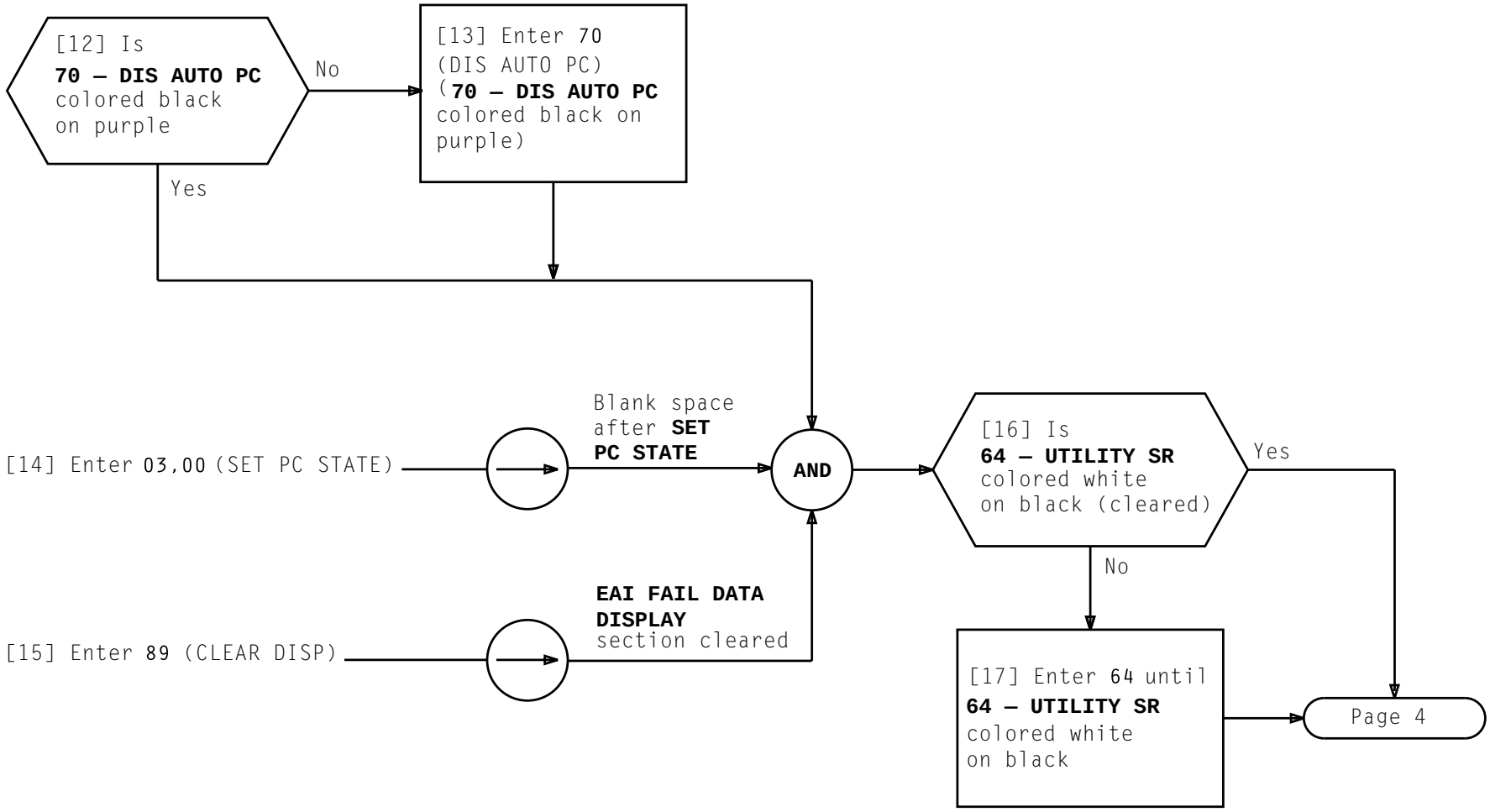
POKE COMMANDS

TEST	10 (CC 0)	11 (CC 1)	20 (PS 0)	21 (PS 1)	22 (PSB 0)	23 (PSB 1)	30 (CSB 0)	31 (CSB 1)	40 (IFB 0)	41 (IFB 1)	42 (AUB 0)	43 (AUB 1)
1		x		x		x		x		x		x
2	x		x			x		x		x	x	
3		x		x	x		x		x			x
4*	x		x		x		x		x		x	

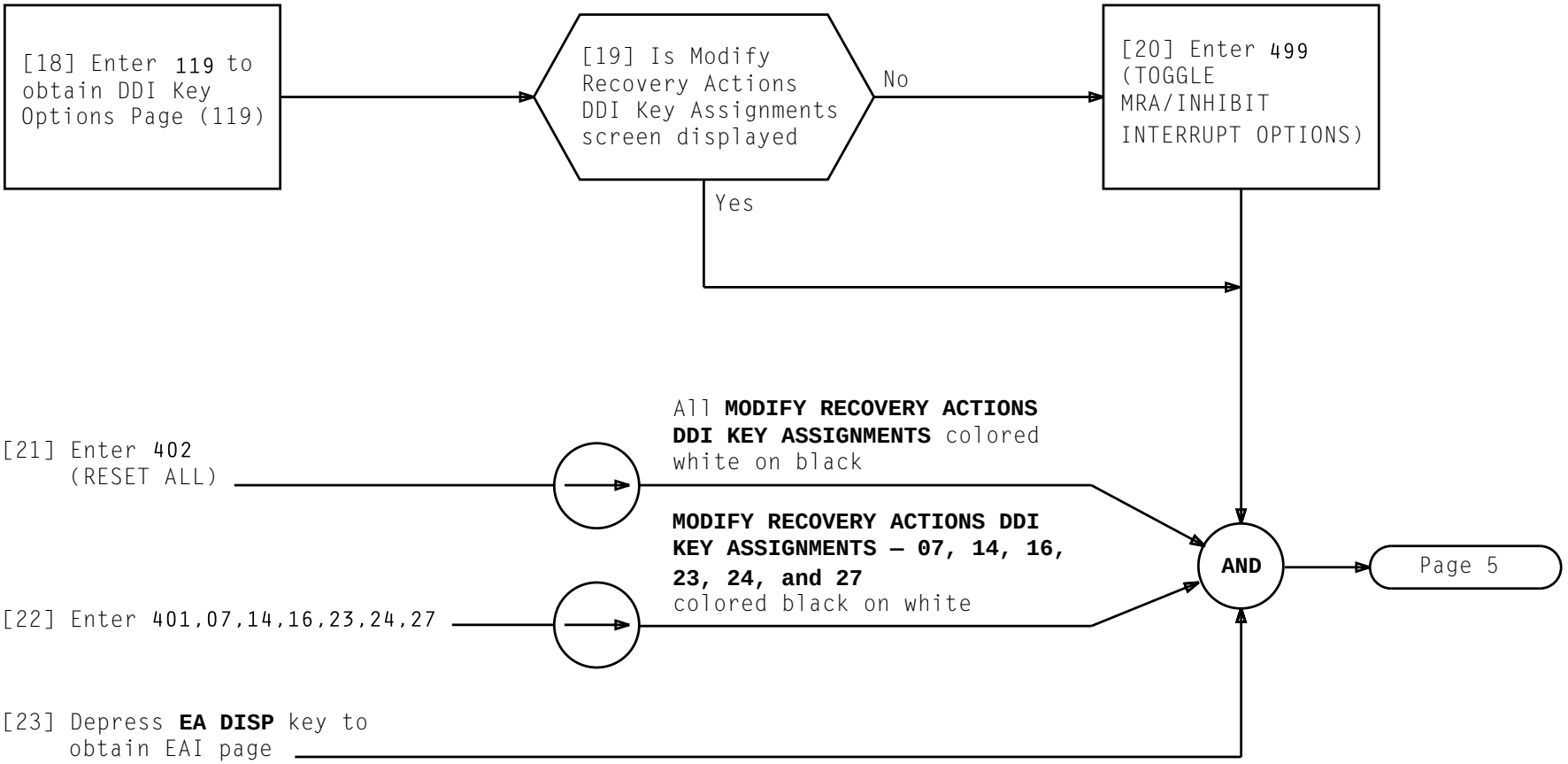
x = Force to be selected

* Test 4 must be performed last to setup 1B Processor for later configuration testing

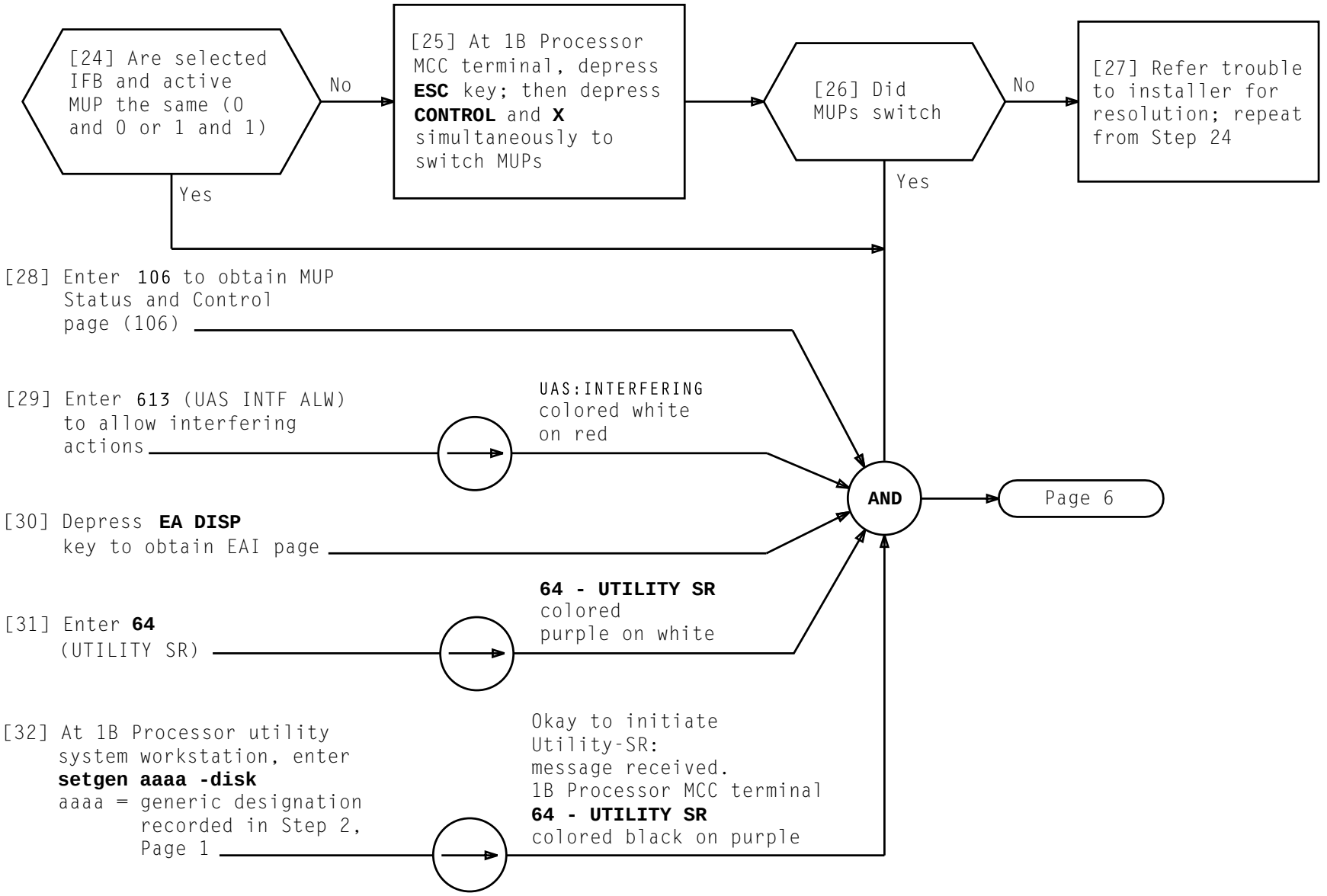
PERFORM UTILITY SYSTEM REINITIALIZATION



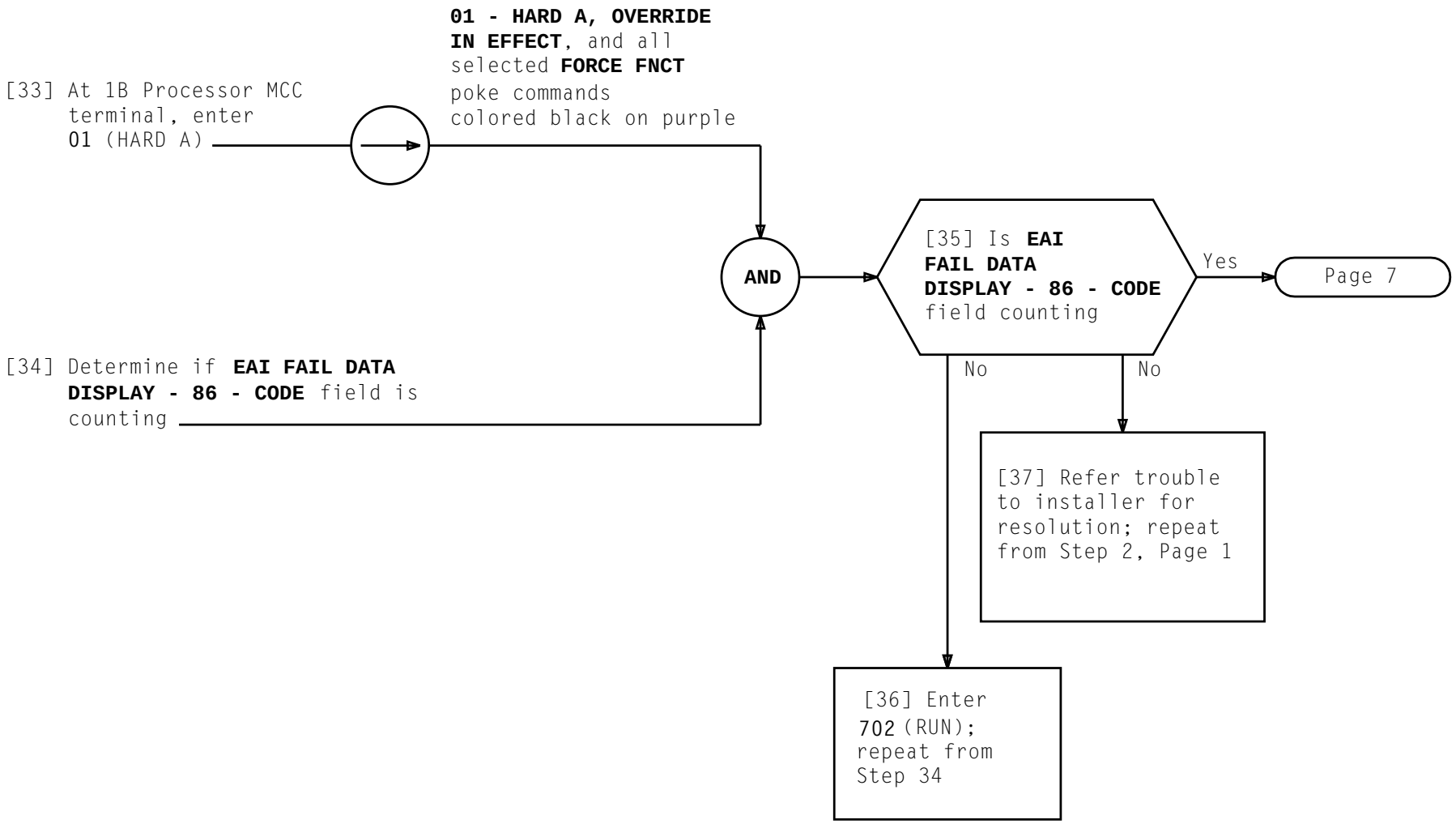
PERFORM UTILITY SYSTEM REINITIALIZATION



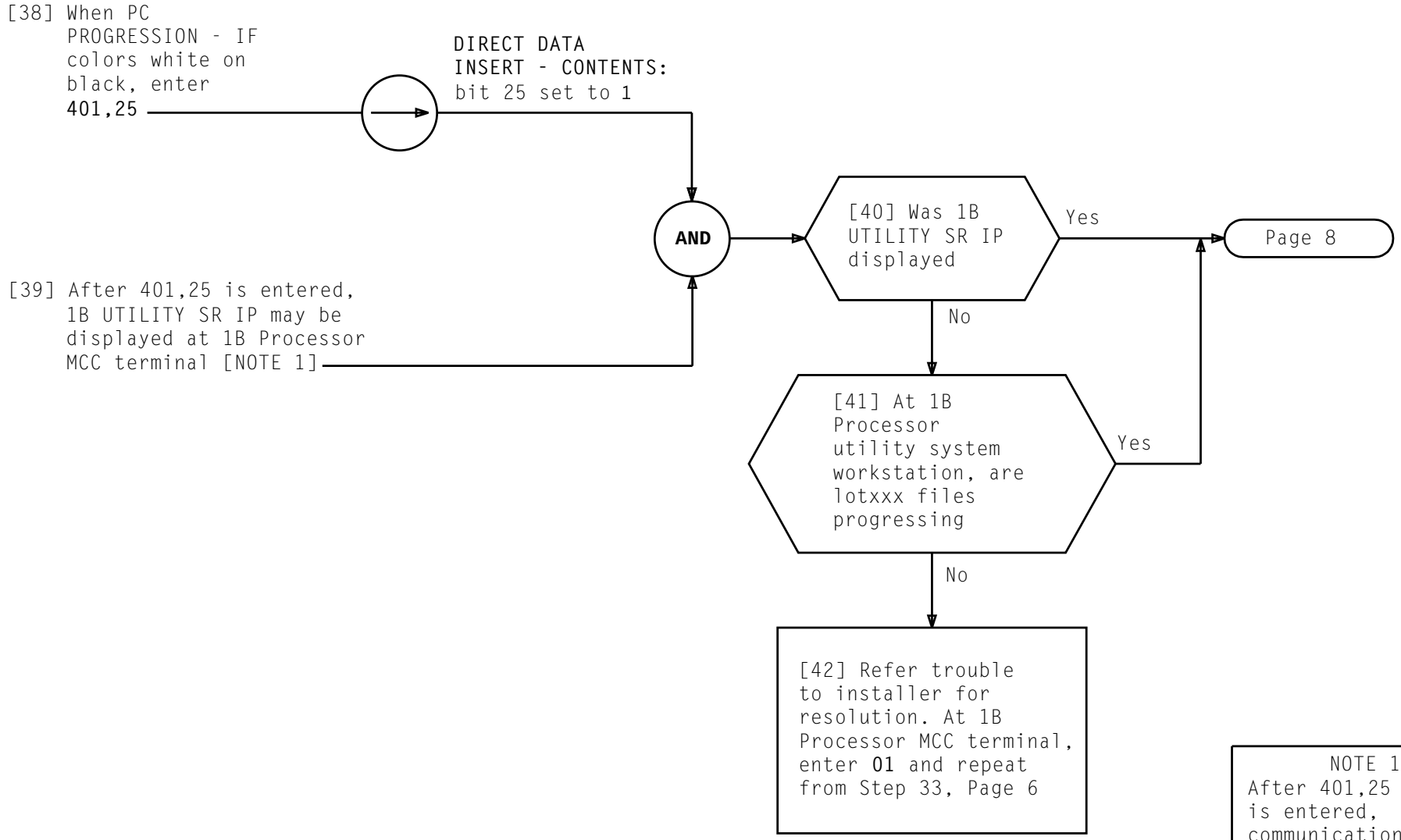
PERFORM UTILITY SYSTEM REINITIALIZATION



PERFORM UTILITY SYSTEM REINITIALIZATION

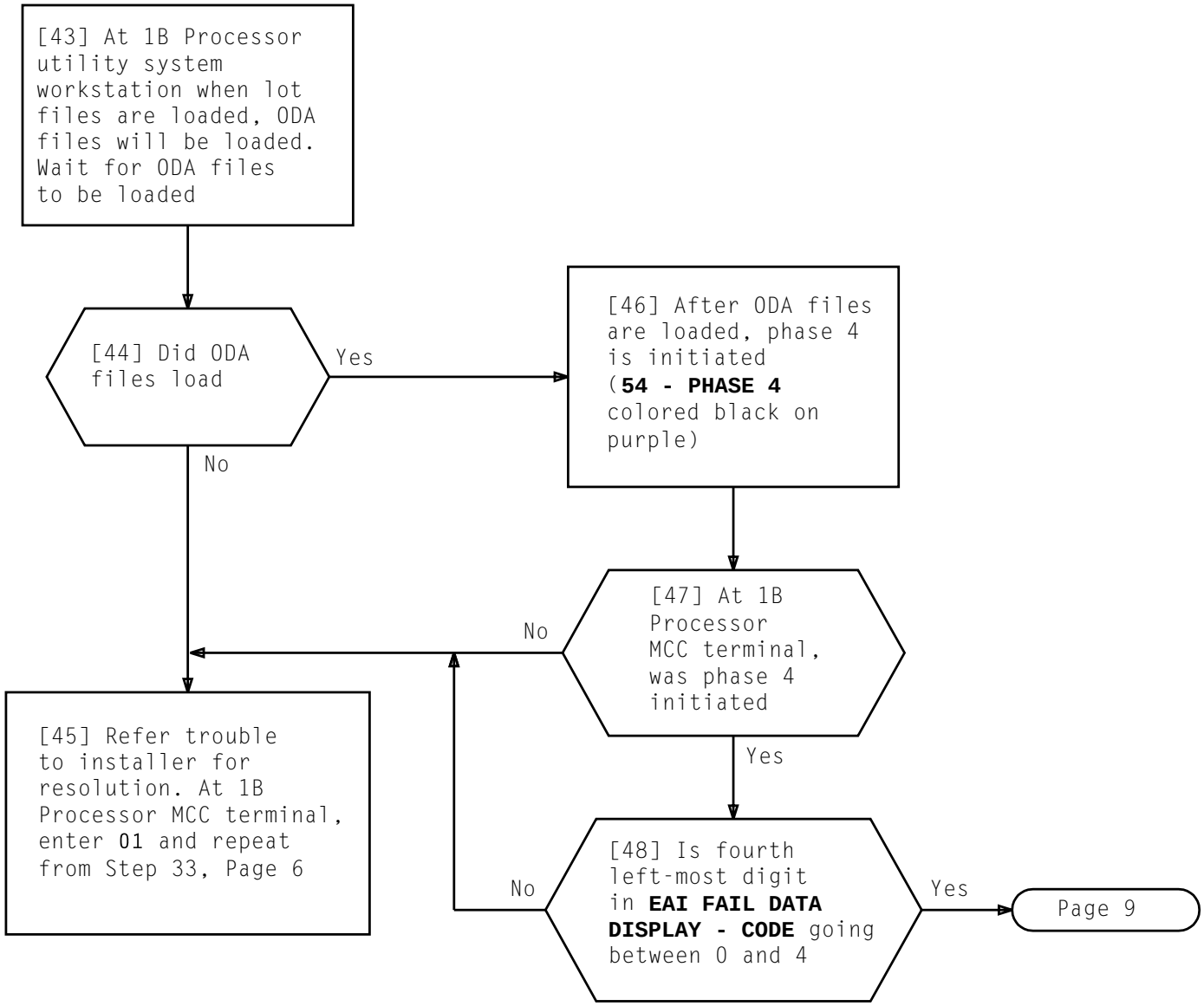


PERFORM UTILITY SYSTEM REINITIALIZATION

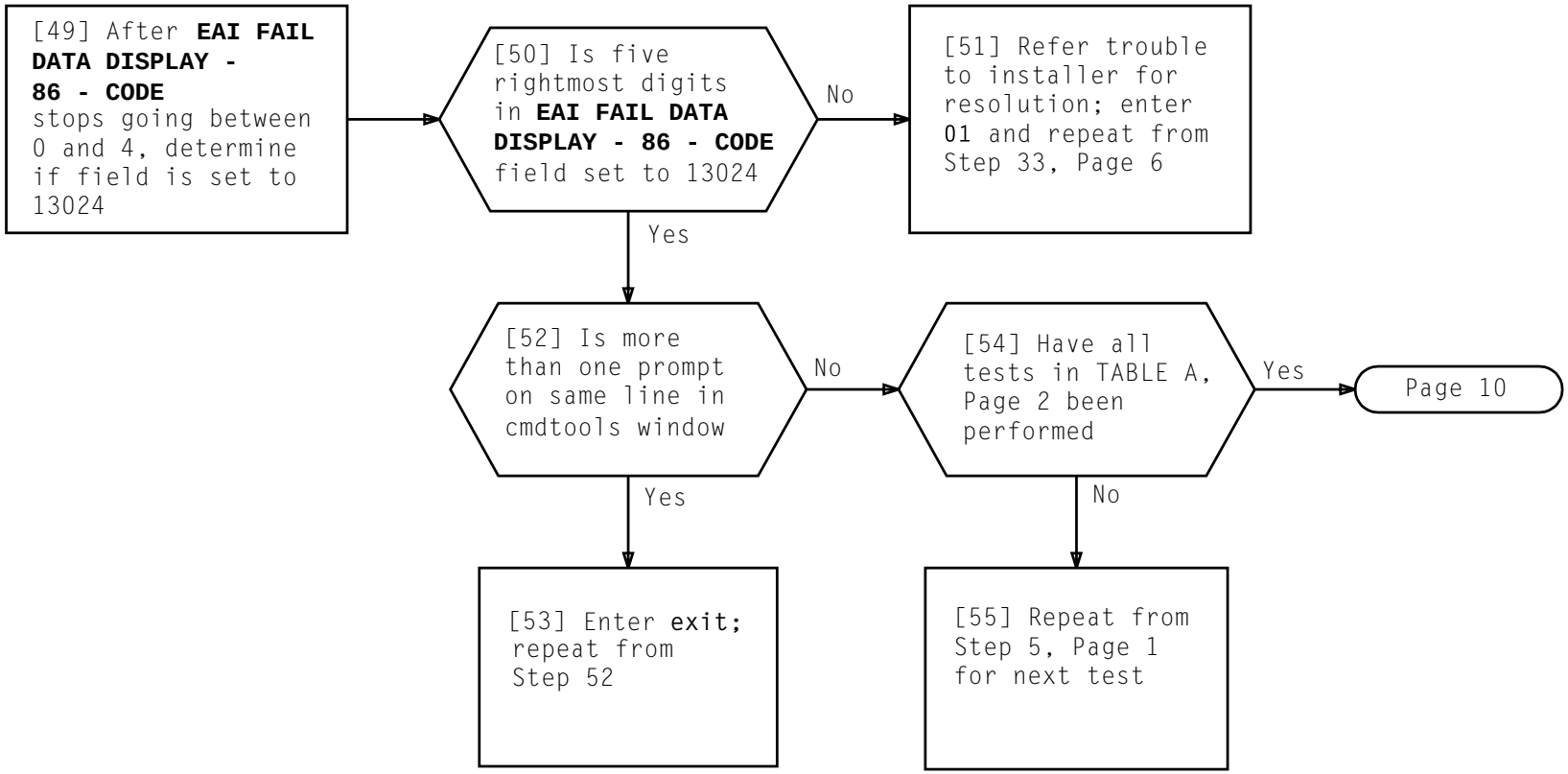


NOTE 1
After 401,25 is entered, communication to 1B Processor MCC terminal will stop until phase 4 is initiated

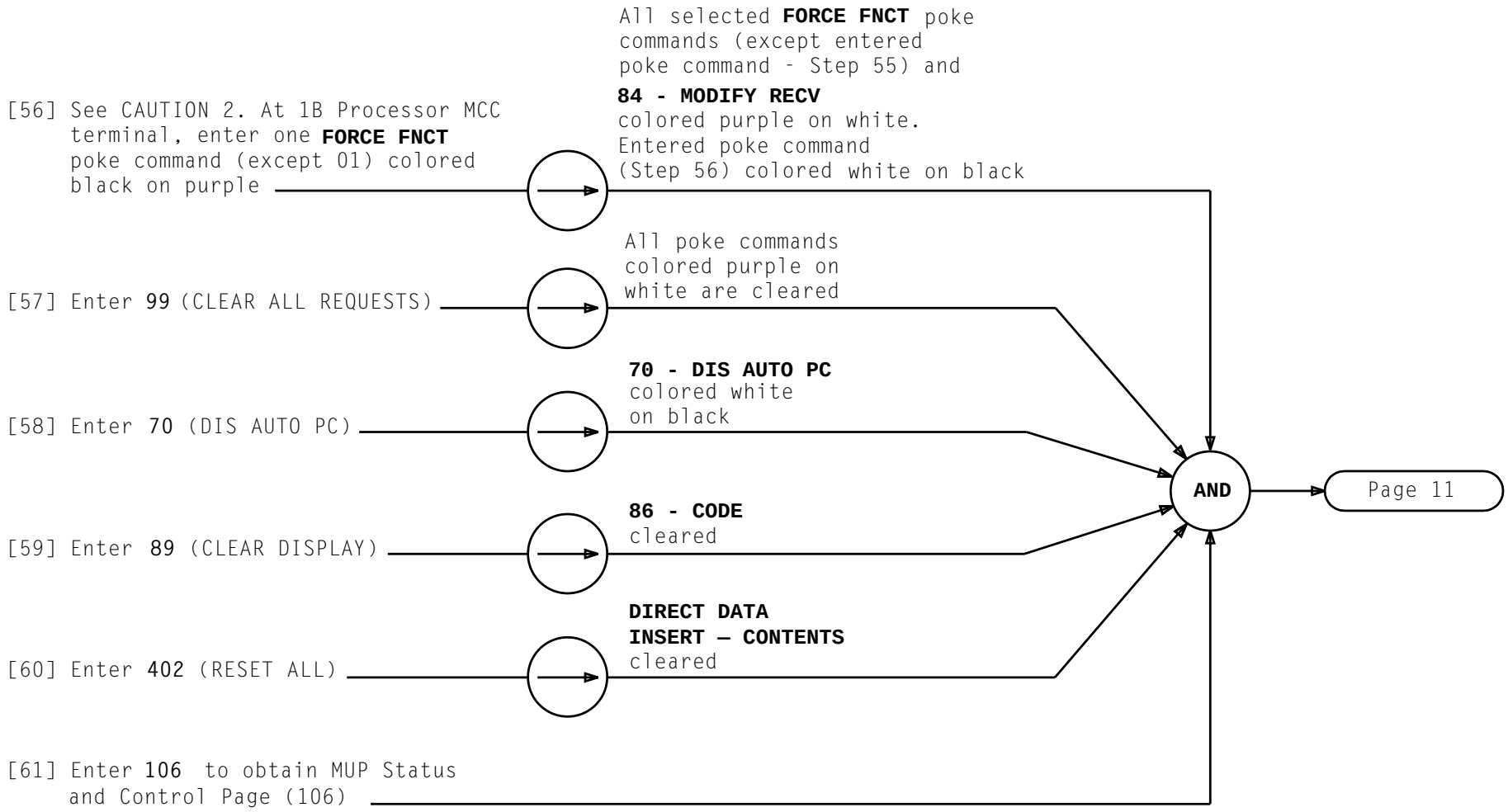
PERFORM UTILITY SYSTEM REINITIALIZATION



PERFORM UTILITY SYSTEM REINITIALIZATION



PERFORM UTILITY SYSTEM REINITIALIZATION



CAUTION 2
01 must not be entered

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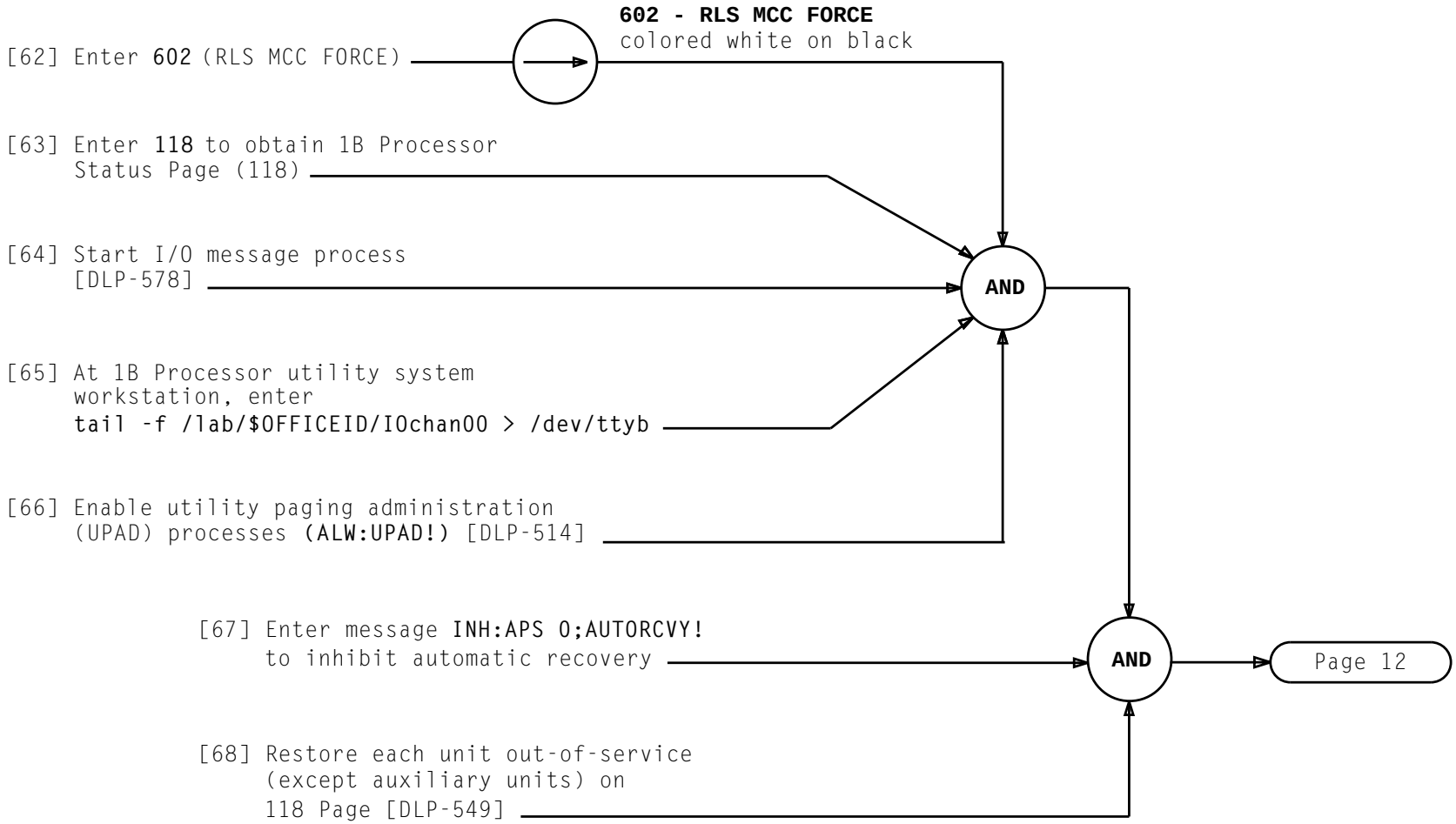
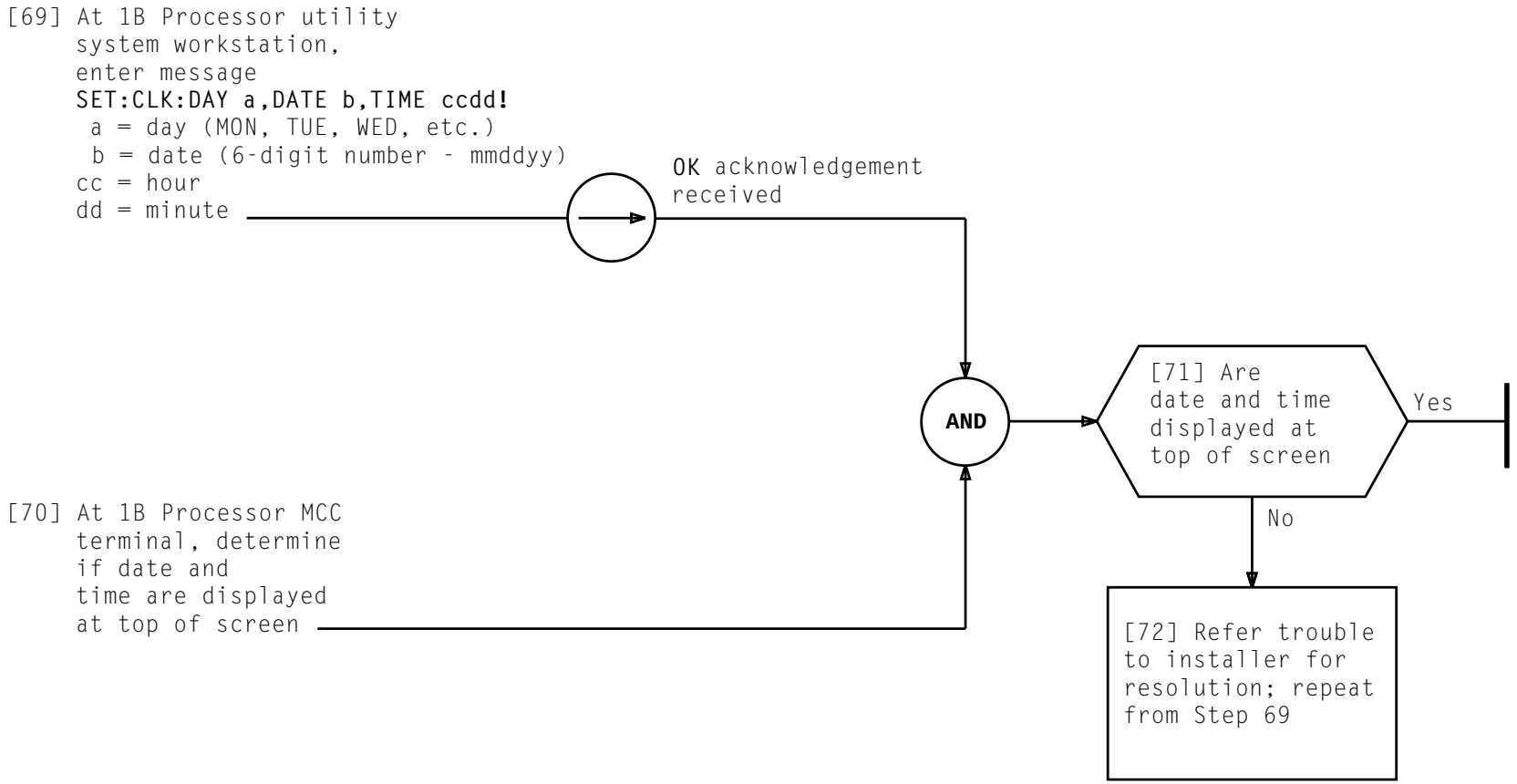
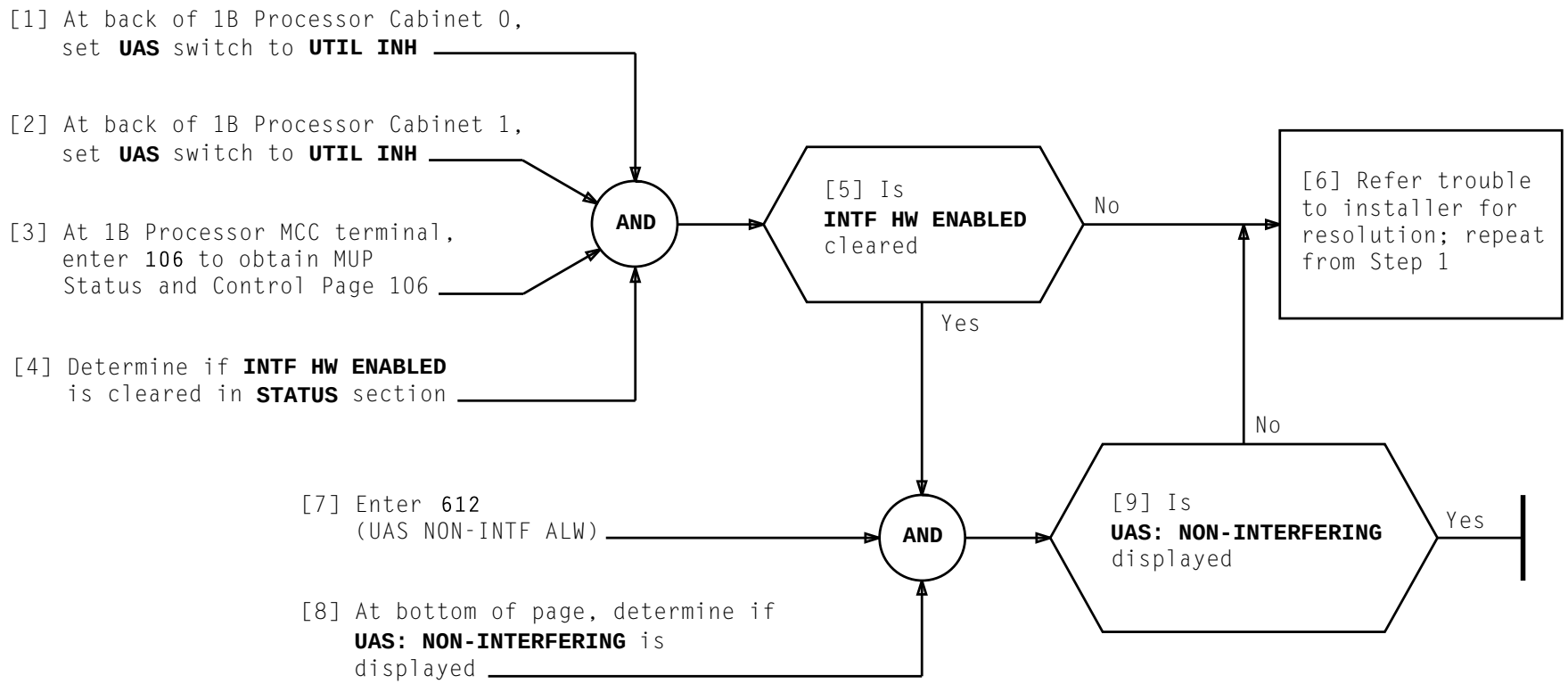
PERFORM UTILITY SYSTEM REINITIALIZATION



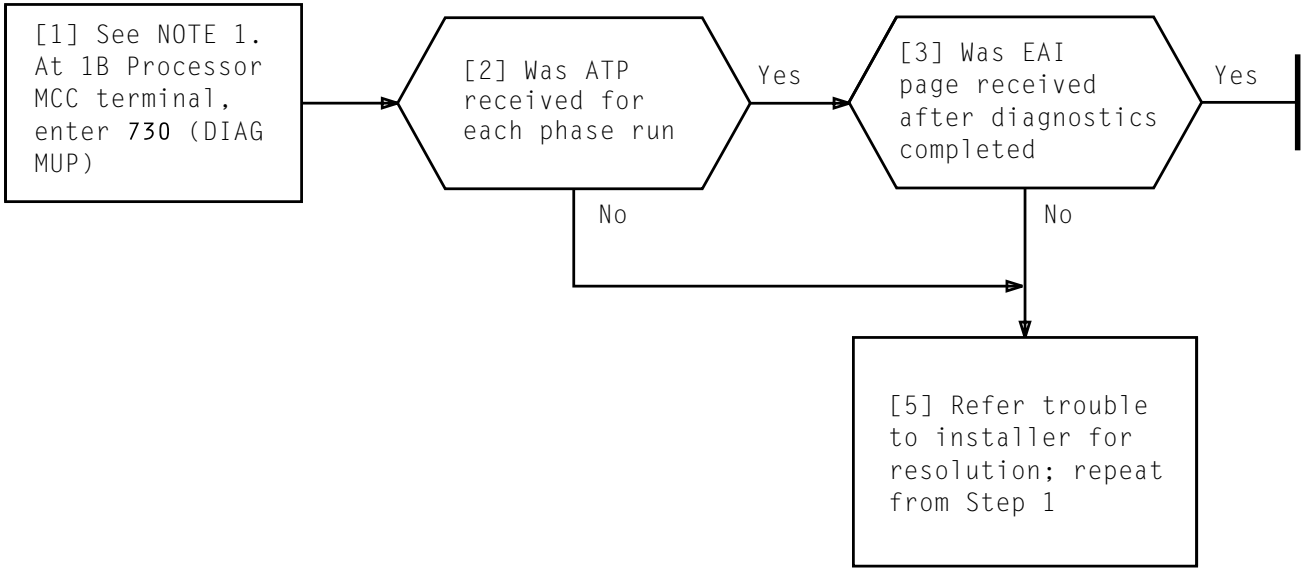
PERFORM UTILITY SYSTEM REINITIALIZATION



PERFORM UTILITY SYSTEM REINITIALIZATION

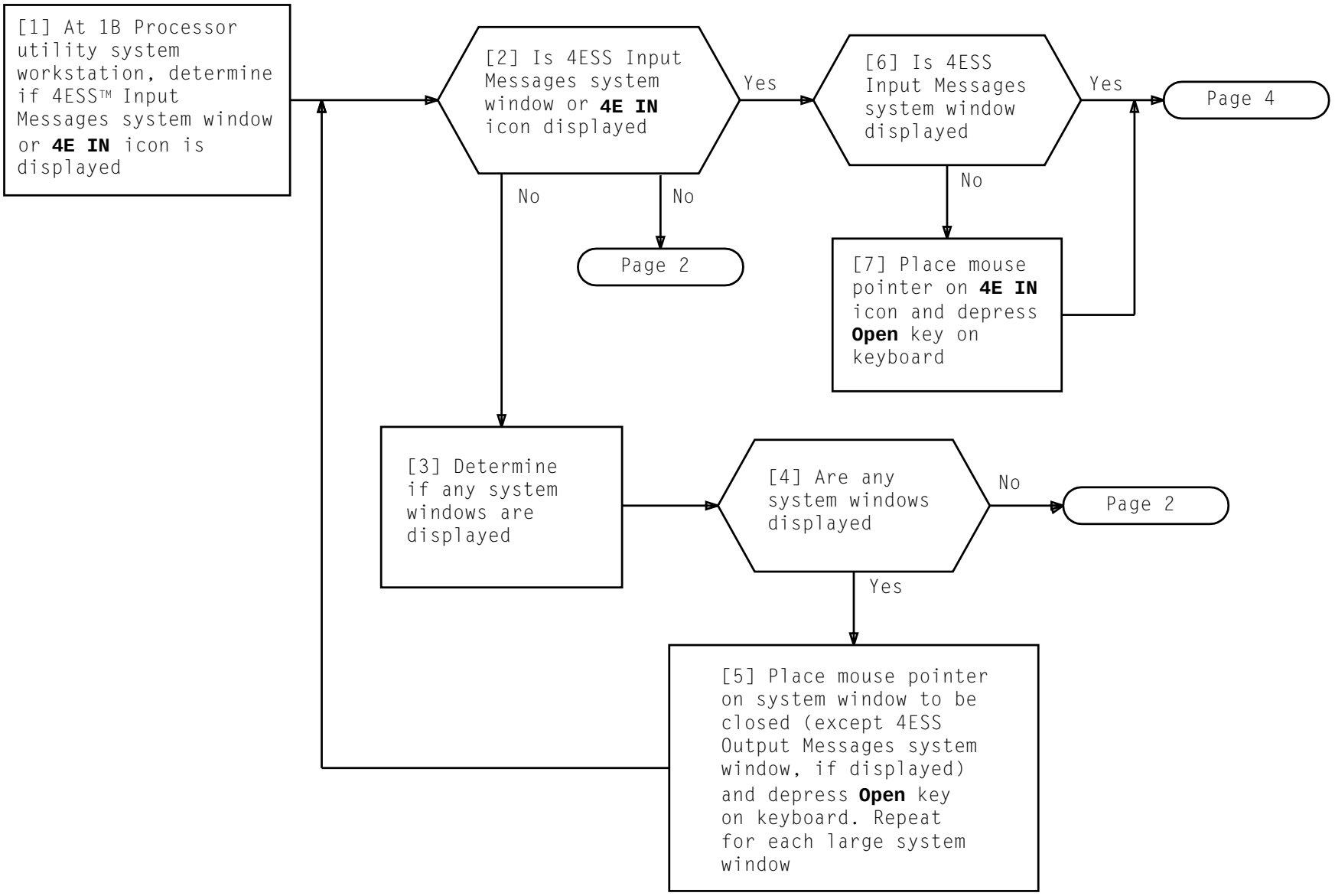


SET MUP BACK TO NON-INTERFERING

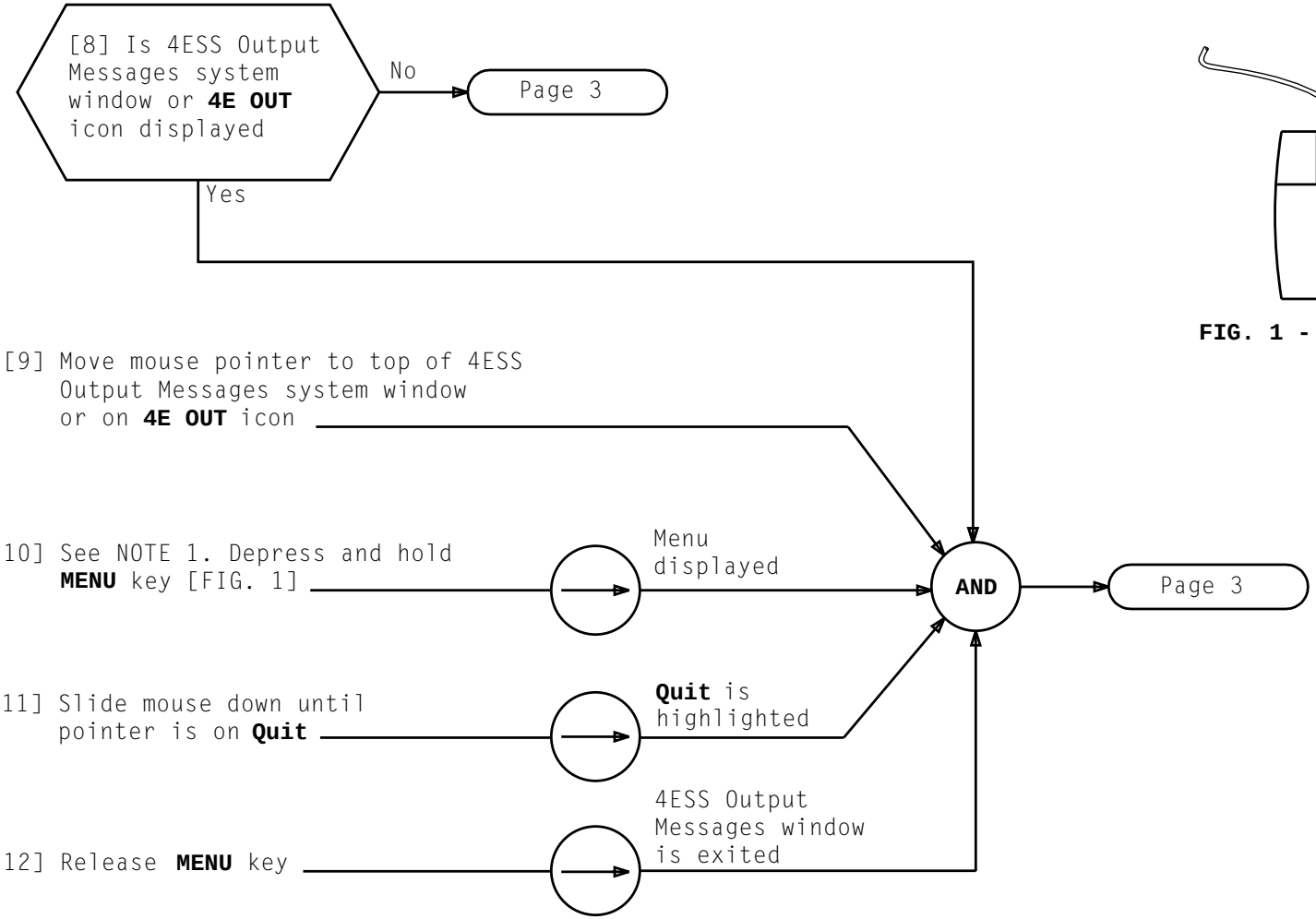


NOTE 1
After MUP diagnostics complete, Emergency Action Display page (EAI) will be displayed

DIAGNOSE MUP



START I/O MESSAGE PROCESS



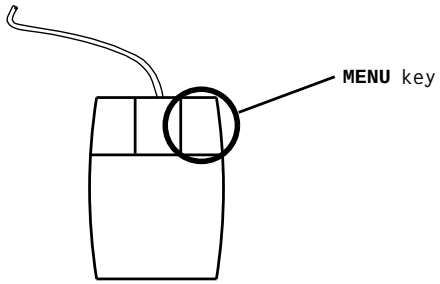


FIG. 1 - Mouse layout

NOTE 1 **MENU** key on mouse must be depressed and held for Steps 10 and 11	
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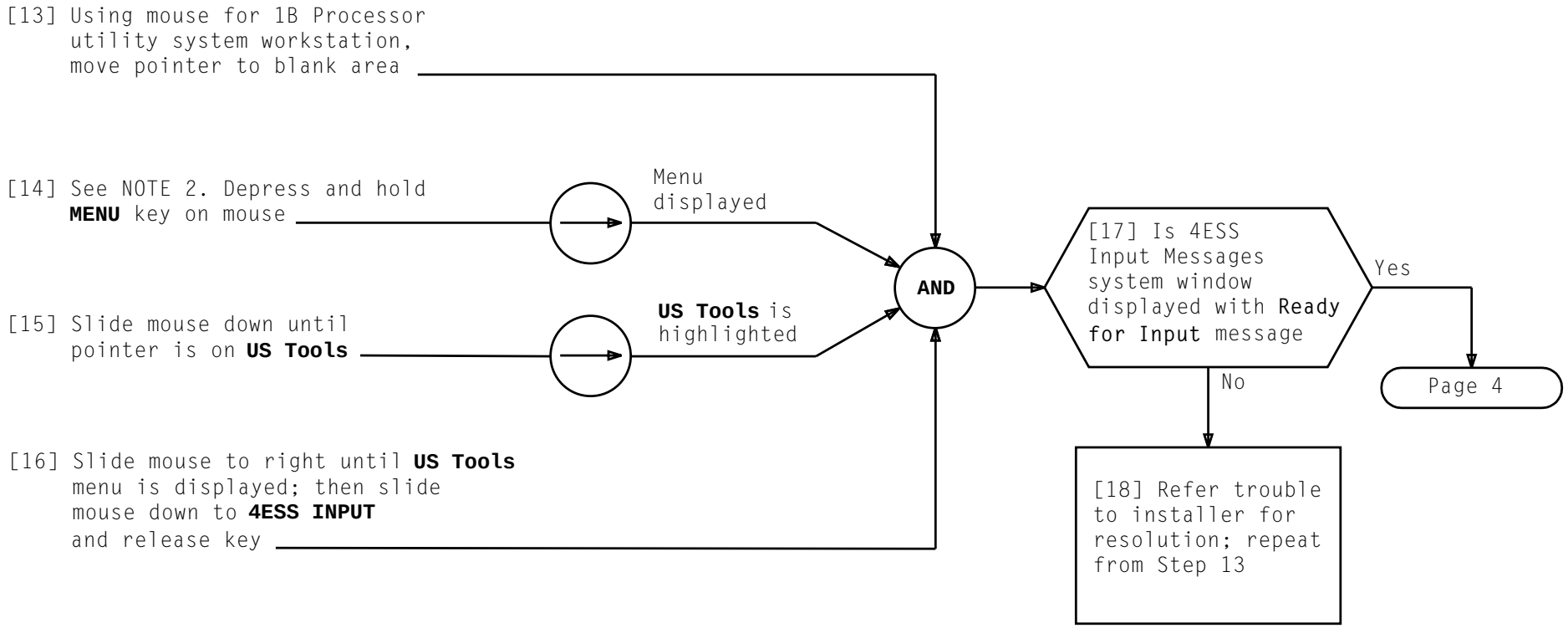
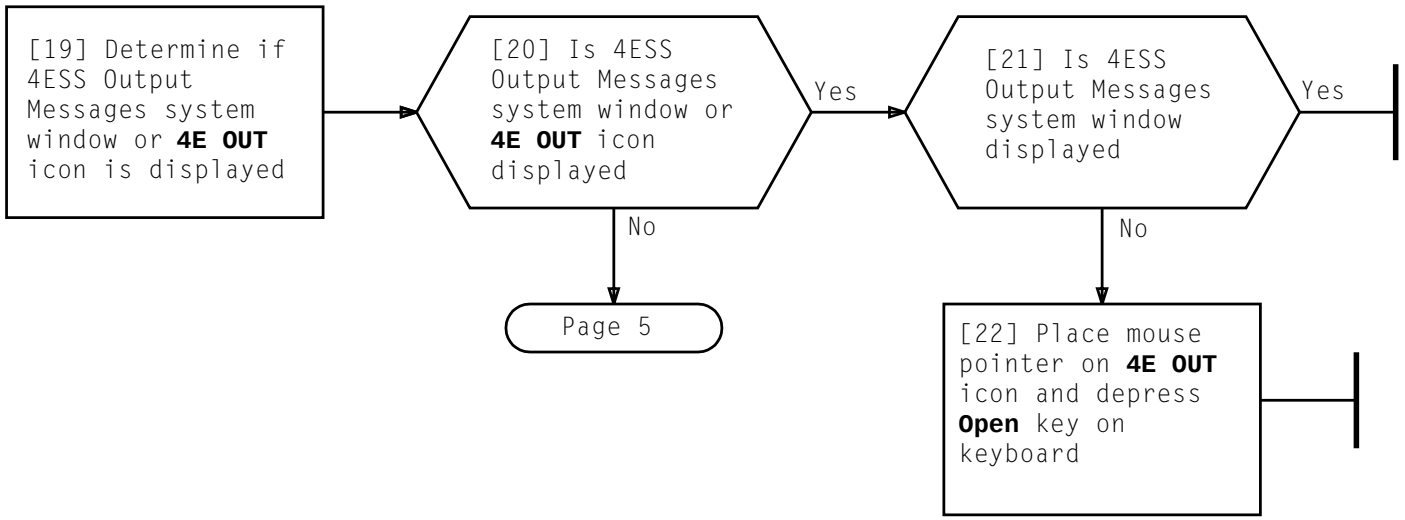
START I/O MESSAGE PROCESS

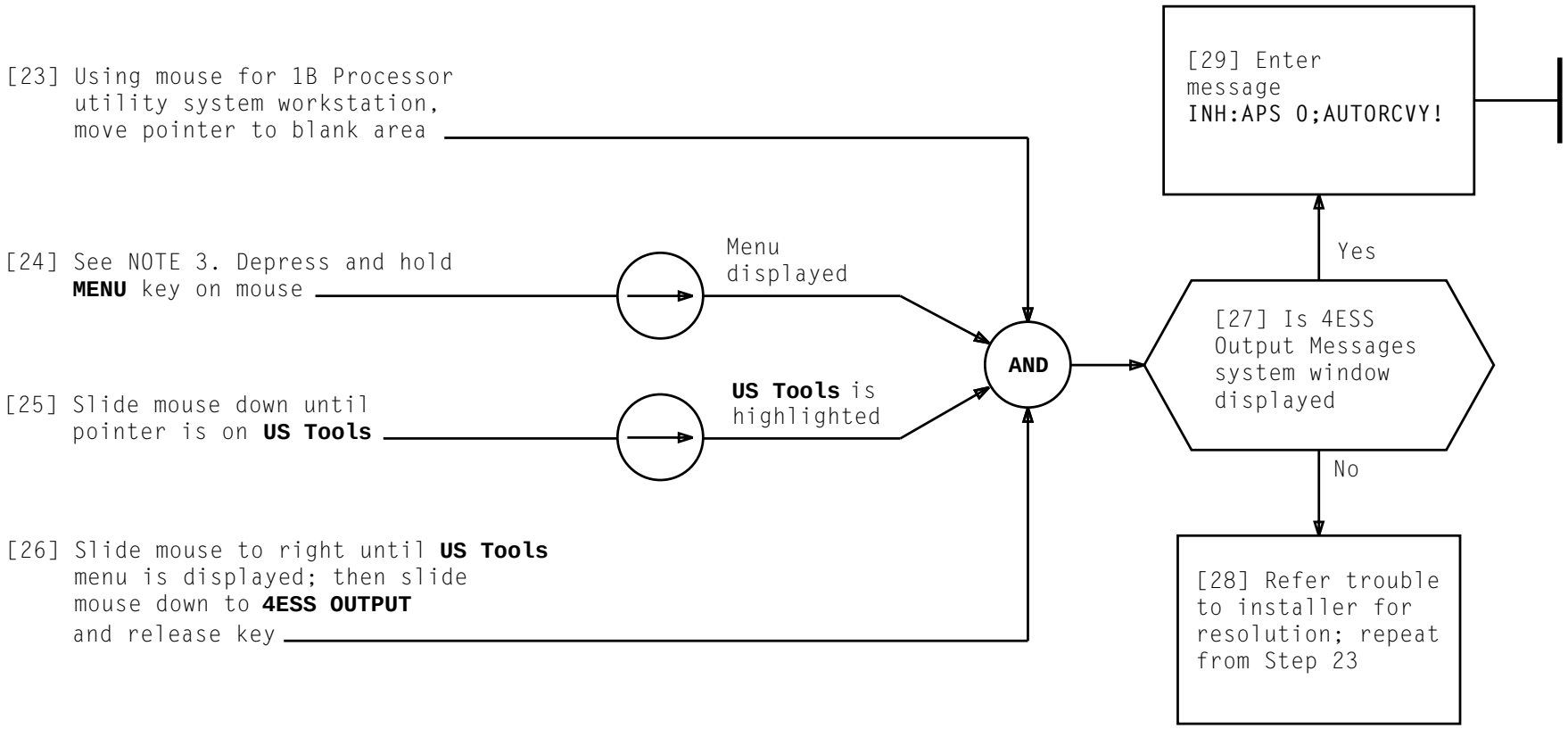


NOTE 2
MENU key on mouse must be depressed and held for Steps 15 and 16

START I/O MESSAGE PROCESS



START I/O MESSAGE PROCESS



NOTE 3
MENU key on mouse must be depressed and held for Steps 25 and 26

START I/O MESSAGE PROCESS

[1] Using TABLE A, determine location of power control switch on circuit pack **KLW18** associated with standby AUI

[2] At power control switch on circuit pack **KLW18**, determined in Step 1, operate **ROS/NORM** switch to **ROS** and observe LEDs for TABLE B indications

[3] At 1B Processor utility system workstation, determine if **RMV: AUI a COMPLETED** (a = member number of standby AUI) message was received

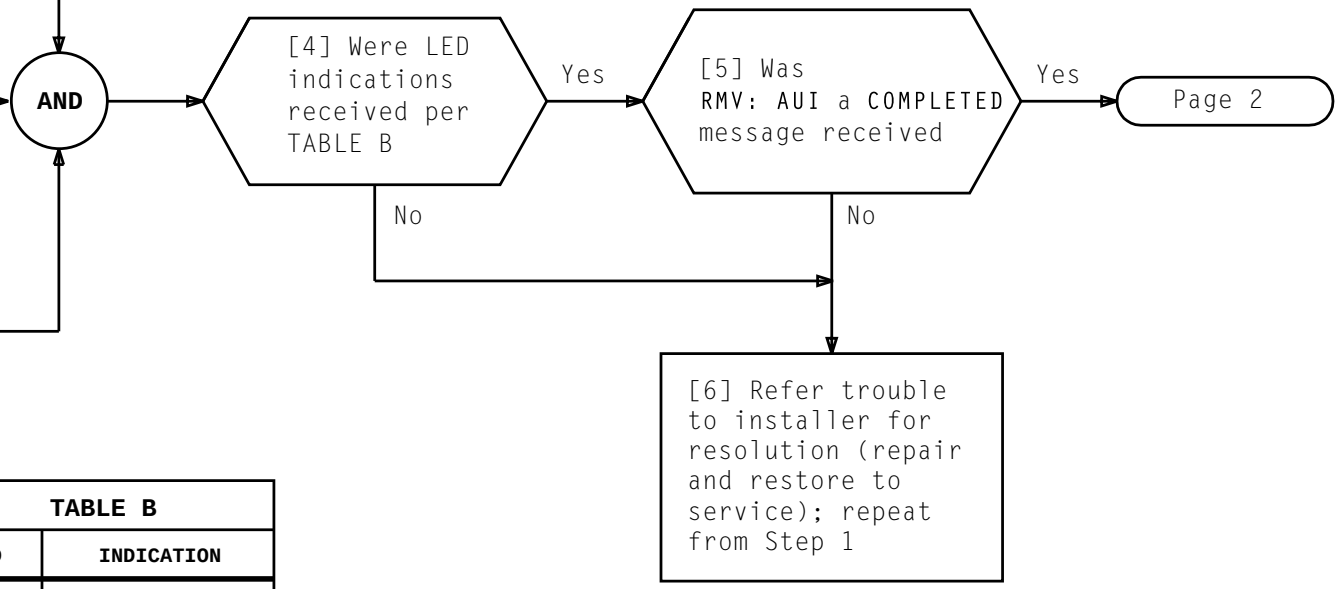
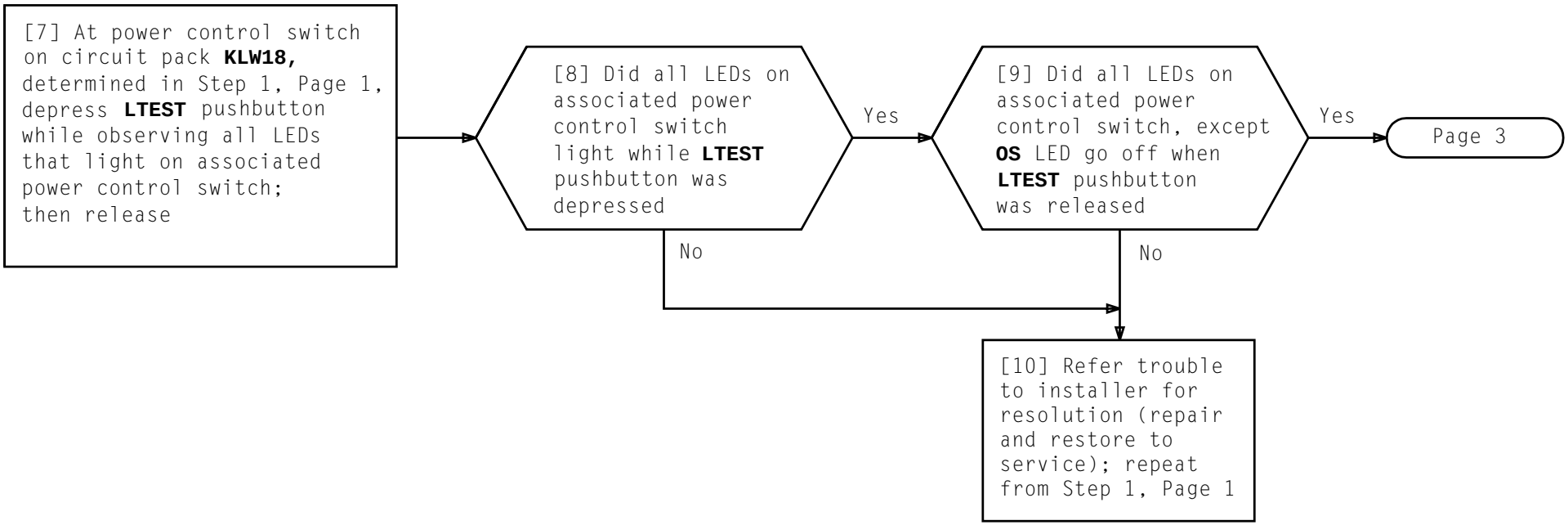


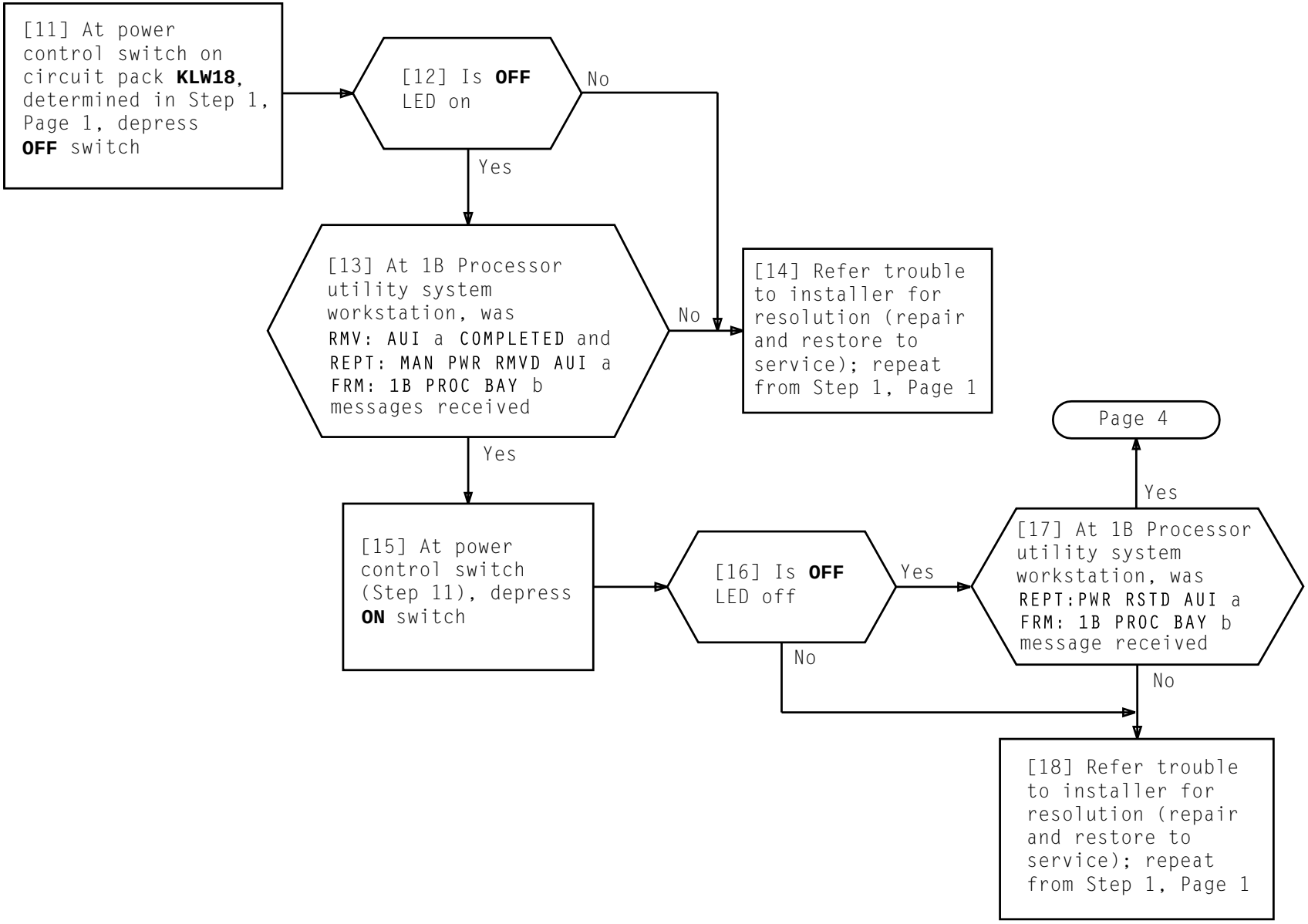
TABLE A		
AUI	**CABINET**	**EQUIPMENT LOCATION**
0	0	058-120
1	1	158-120

TABLE B	
LED	**INDICATION**
ACK*	On then Off
OS	On

* expected indication may take a short period of time to be received

DIAGNOSE STANDBY 1B PROCESSOR AUXILIARY UNIT INTERFACE (AUI)


[7] At power control switch on circuit pack **KLW18,** determined in Step 1, Page 1, depress **LTEST** pushbutton while observing all LEDs that light on associated power control switch; then release
[8] Did all LEDs on associated power control switch light while **LTEST** pushbutton was depressed
Yes
No
[9] Did all LEDs on associated power control switch, except **OS** LED go off when **LTEST** pushbutton was released
Yes
No
Page 3
[10] Refer trouble to installer for resolution (repair and restore to service); repeat from Step 1, Page 1



DIAGNOSE STANDBY 1B PROCESSOR AUXILIARY UNIT INTERFACE (AUI)

[19] At power control switch on circuit pack **KLW18**, determined in Step 1, Page 1, operate **ROS/NORM** switch to **NORM** and observe LEDs for TABLE D indications

[20] At 1B Processor utility system workstation, determine if printout was received per Table E

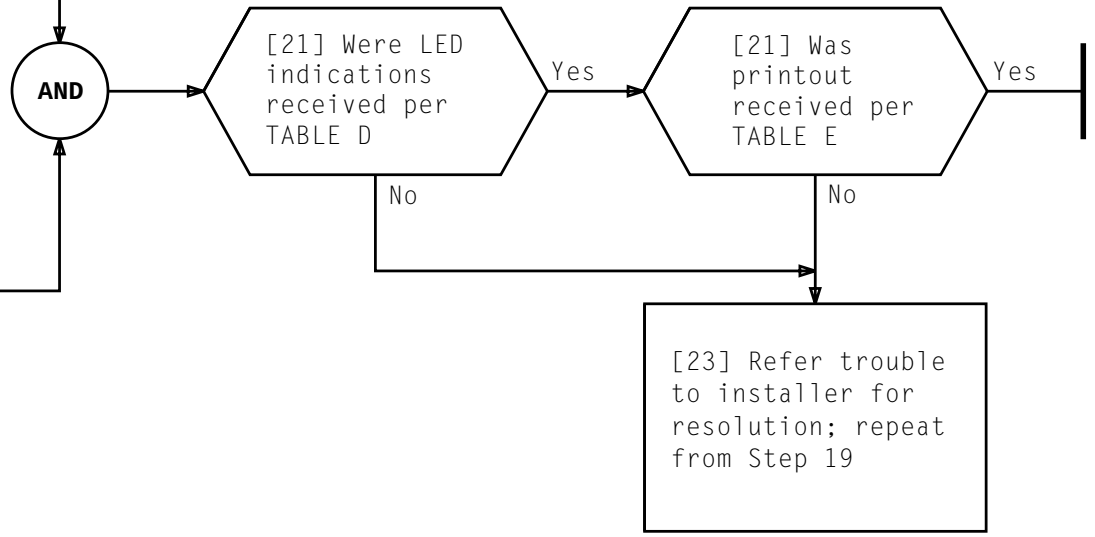


TABLE D	
LED	**INDICATION**
ACK*	On then Off
OS**	Off

* **ACK** LED will go off when **OS** LED goes off

** this will not occur until restore is complete

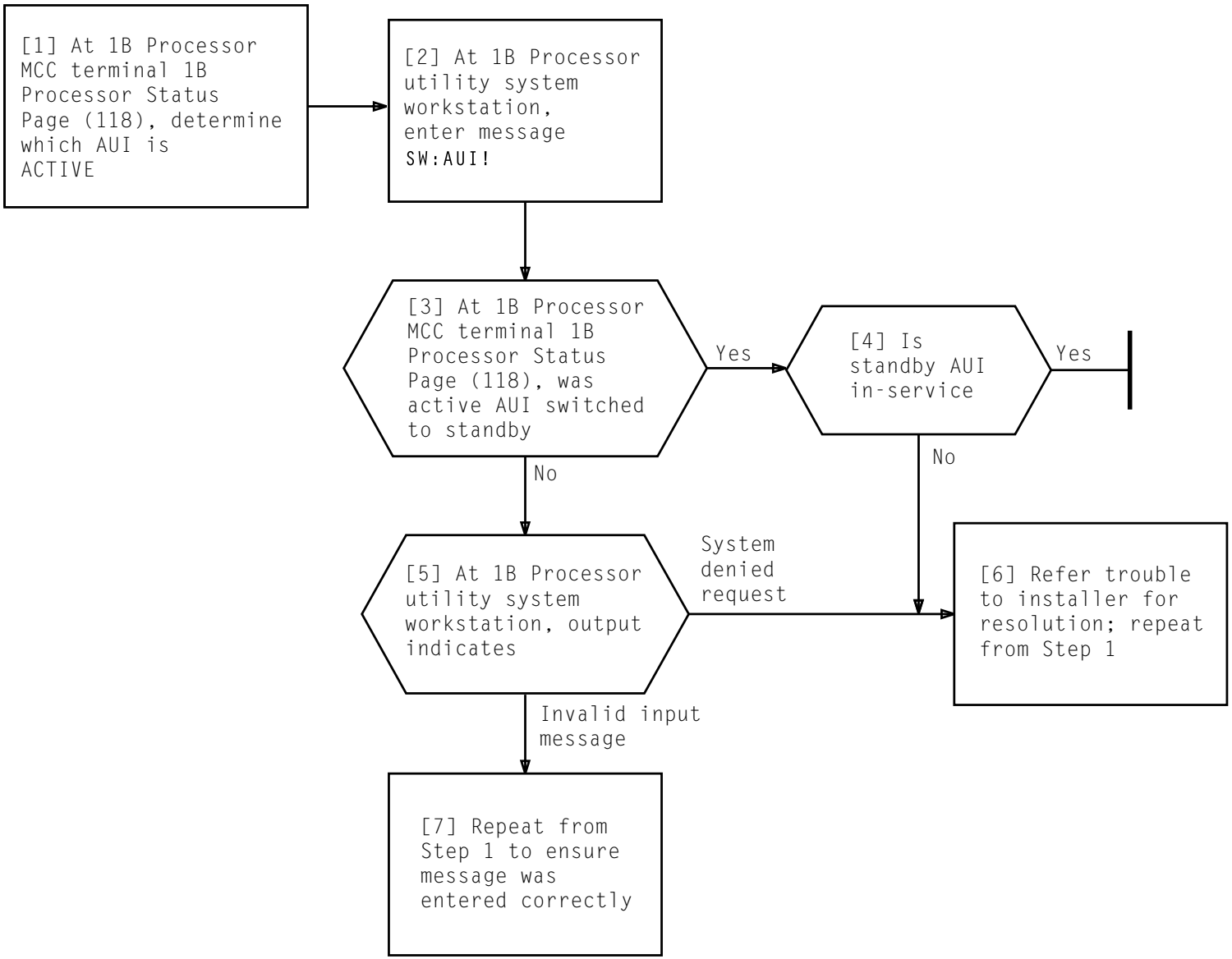
TABLE E	
MESSAGE NUMBER	**OUTPUT MESSAGES**
1	DGN: AUI a COMPLETED CATP (20000000 000b0c00) MSG COMPL TEST: AUI a ATP RST: AUI a COMPLETED

a = member number of standby AUI

b = 2 (if API 0 or DUS 0 not available) or
4 (if API 1 or DUS 1 not available)

c = 1 (if AUB 0 OOS) or
2 (if AUB 1 OOS)

DIAGNOSE STANDBY 1B PROCESSOR AUXILIARY UNIT INTERFACE (AUI)



SWITCH 1B PROCESSOR AUXILIARY UNIT INTERFACES (AUIs)

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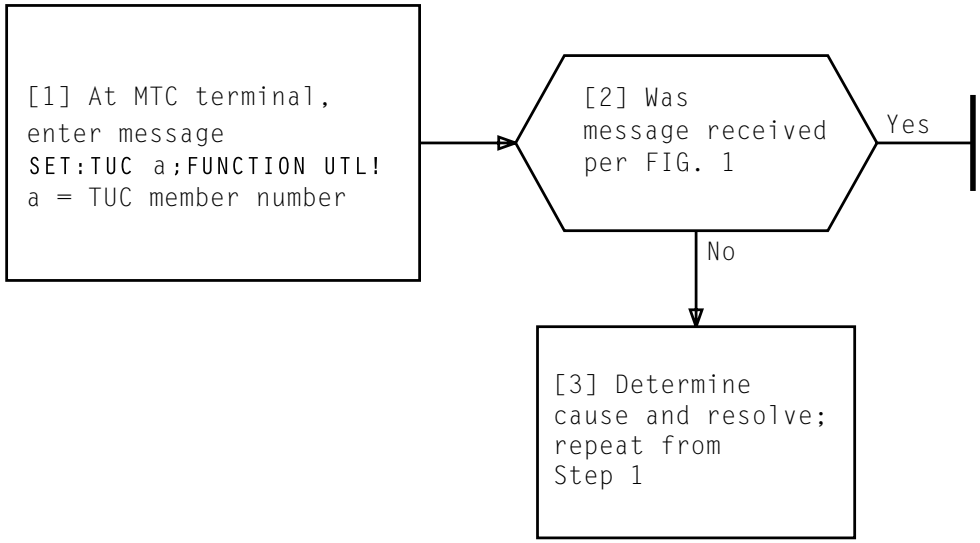



```
SET:TUC a
TAPE MOUNTED ON TUC
TAPE TYPE: . . . . .
. . . . .
. . . . .
. . . . .
OK TO PROCESS TAPE?
a = TUC member number
```

FIG. 1 - Sample SET FUNCTION Printout

SET TUC TO UTL FUNCTION

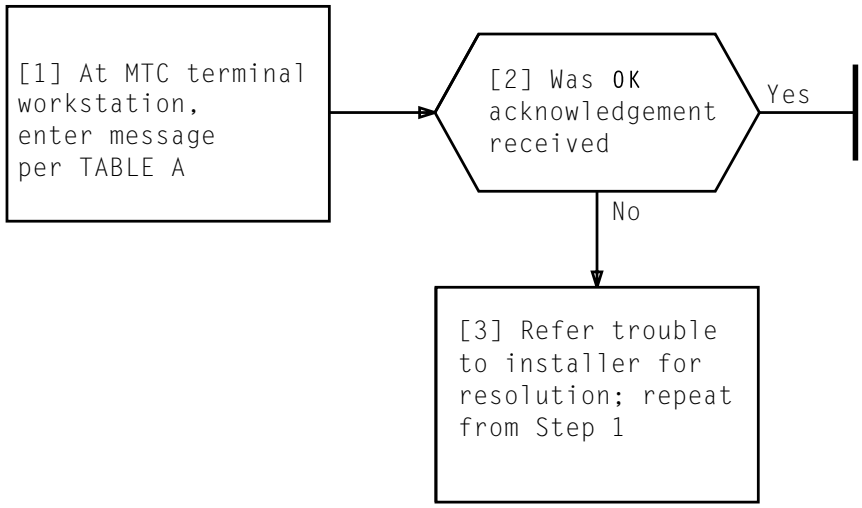
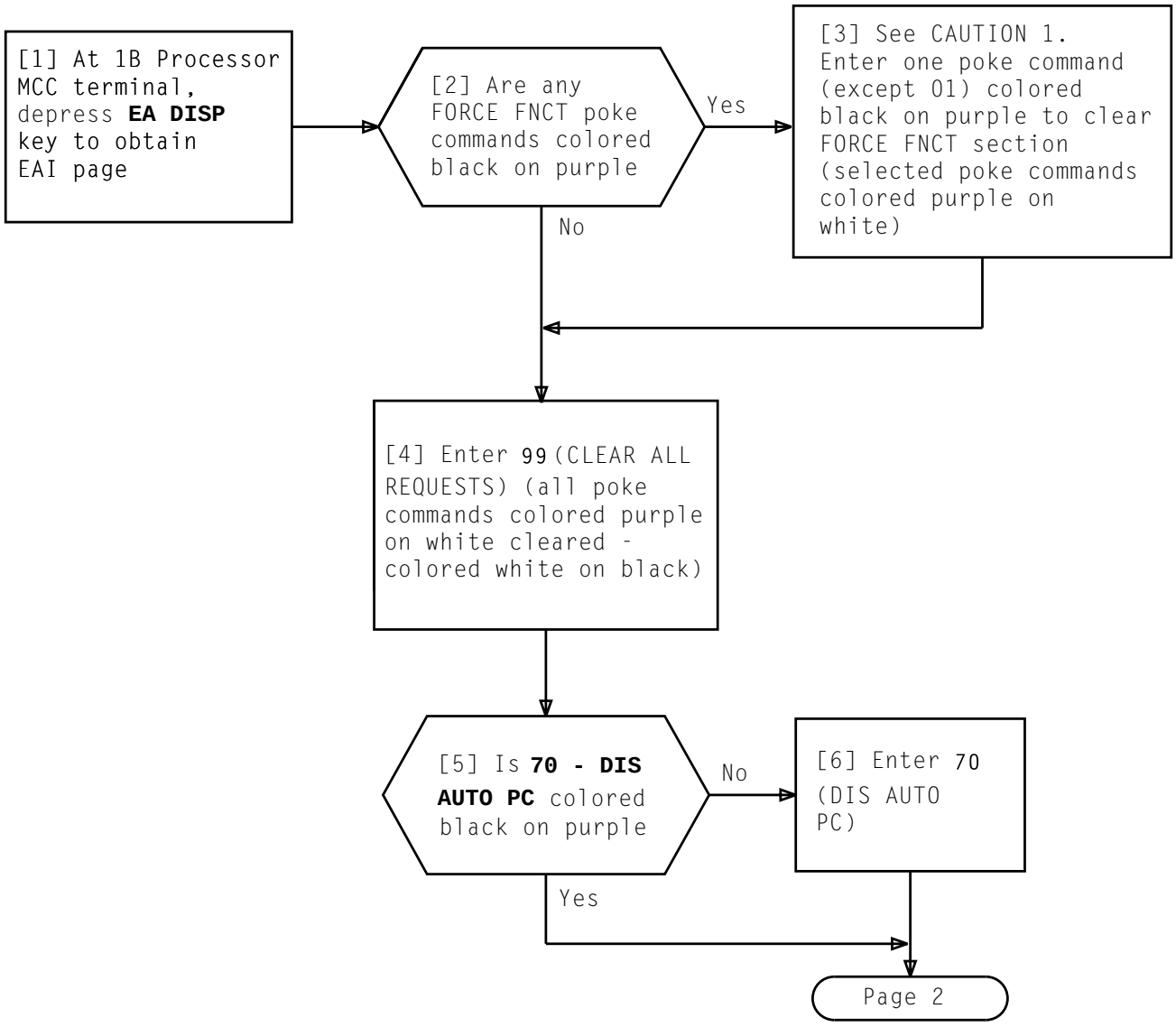


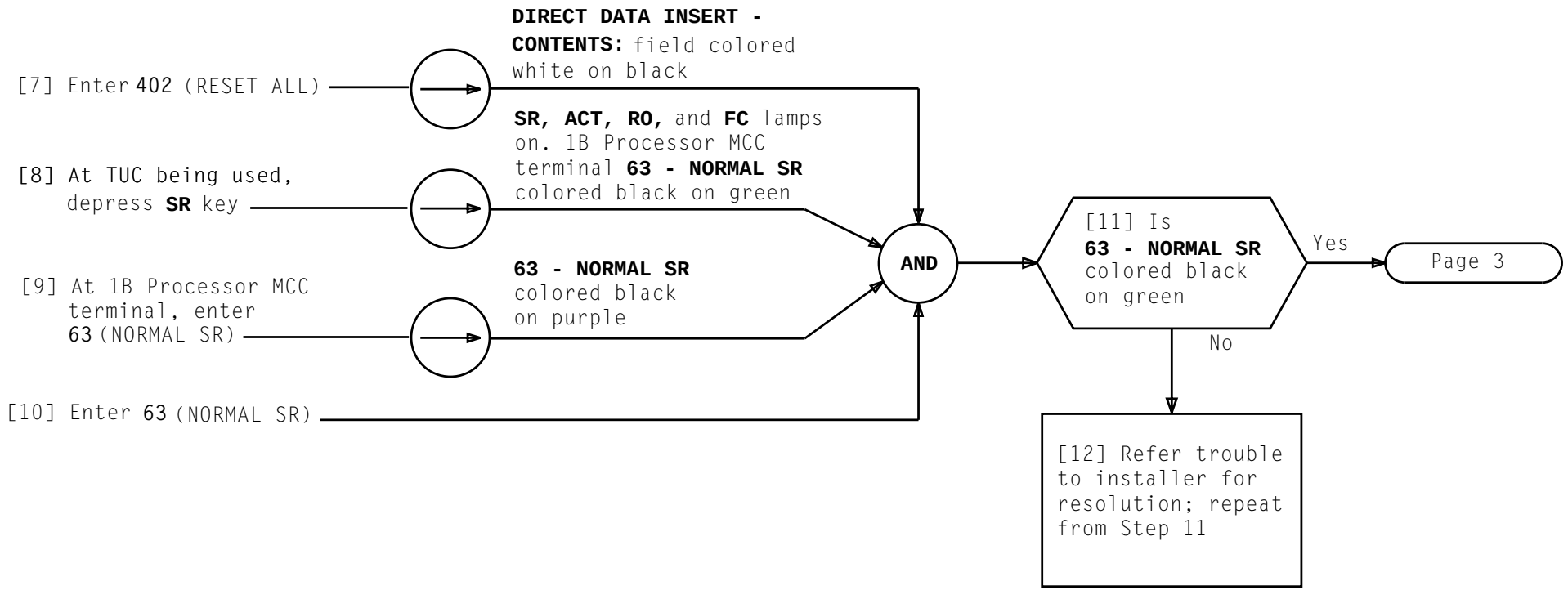
TABLE A	
MESSAGE NUMBER	**INPUT MESSAGES**
1	ALW:TUC a:RW,WVH,VSN APSTST!
a = TUC member number	

ALLOW TUC READ-WRITE ACCESS



CAUTION 1
01 must not be entered

VERIFY SR TAPE ACCESS TO 1B PROCESSOR MCC TERMINAL



VERIFY SR TAPE ACCESS TO 1B PROCESSOR

[13] At 1B Processor utility system workstation, enter message
OP:DUSTATUS!

AND

[15] Is TUC being used set to SRM function

Yes → Page 4

No

[16] Determine cause and resolve; repeat from Step 13

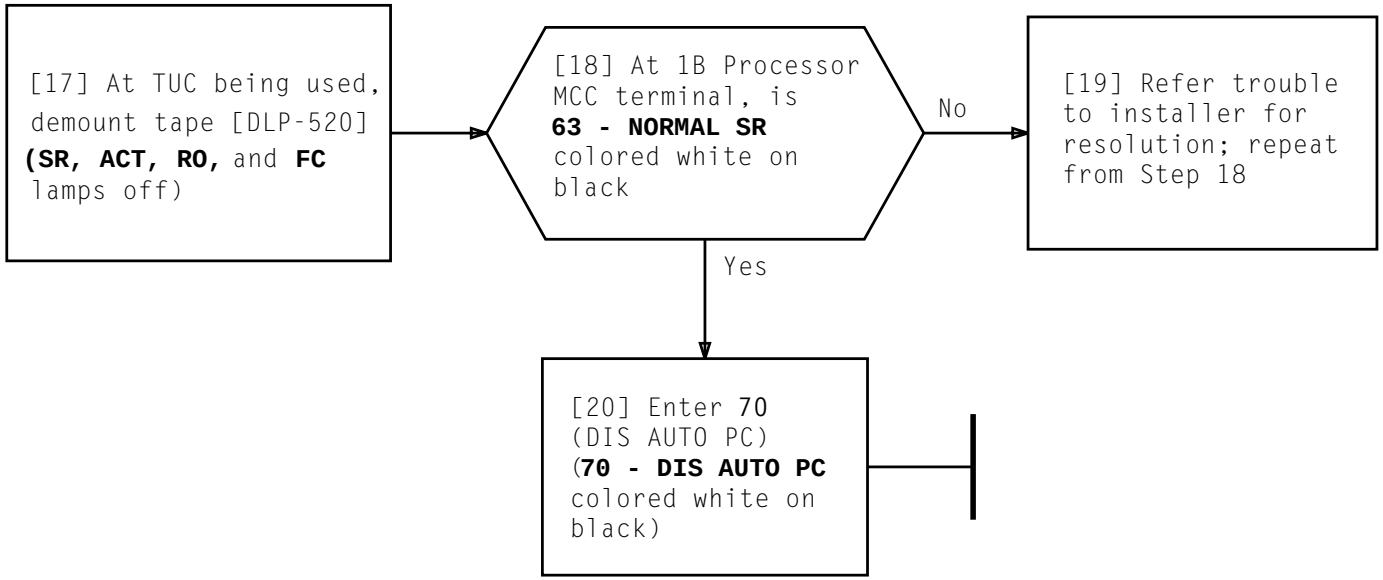
[14] Using printout and FIG. 1, determine if SRM function is set for TUC being used

```
OP:DUSTATUS: COMMUNITY: 0
TYPE MEMN STATUS RAW STATUS
DUS   0   INS 00000000
DUS   1   OOS 00000005
TYPE MEMN FUNCTION STATE STATUS DUS RAW STATUS
TUC   0   UNA     NLK    OOS        00000744
TUC   1   UNA     NLK    INS    0   30000500
TUC   2   SRM     ACT    INS    0   00000500
```

TUC set to SRM function

FIG. 1 – Sample OP:DUSTATUS Printout

VERIFY SR TAPE ACCESS TO 1B PROCESSOR



VERIFY SR TAPE ACCESS TO 1B PROCESSOR

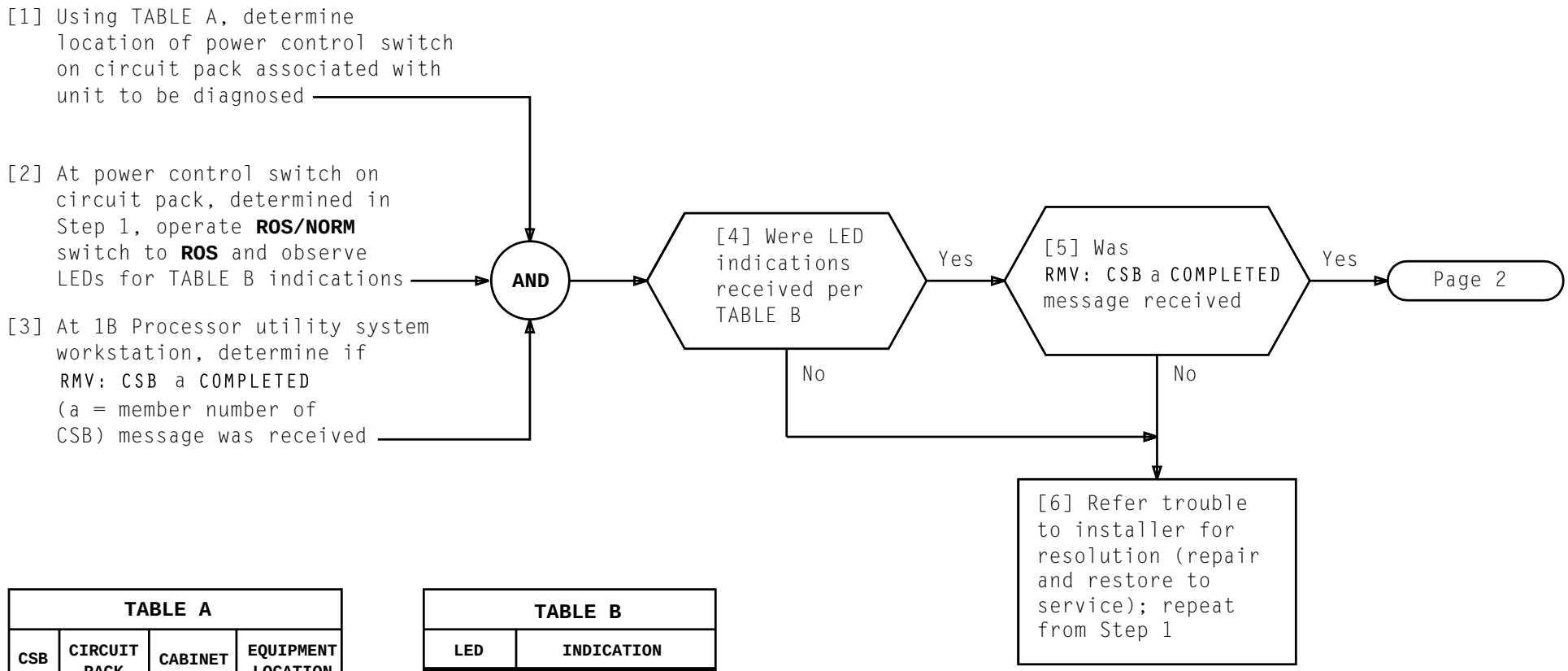


TABLE A

CSB	CIRCUIT PACK	CABINET	EQUIPMENT LOCATION
0	KLW26	0	024-086
0	KLW26	1	124-086
1	KLW27	0	024-096
1	KLW27	1	124-096

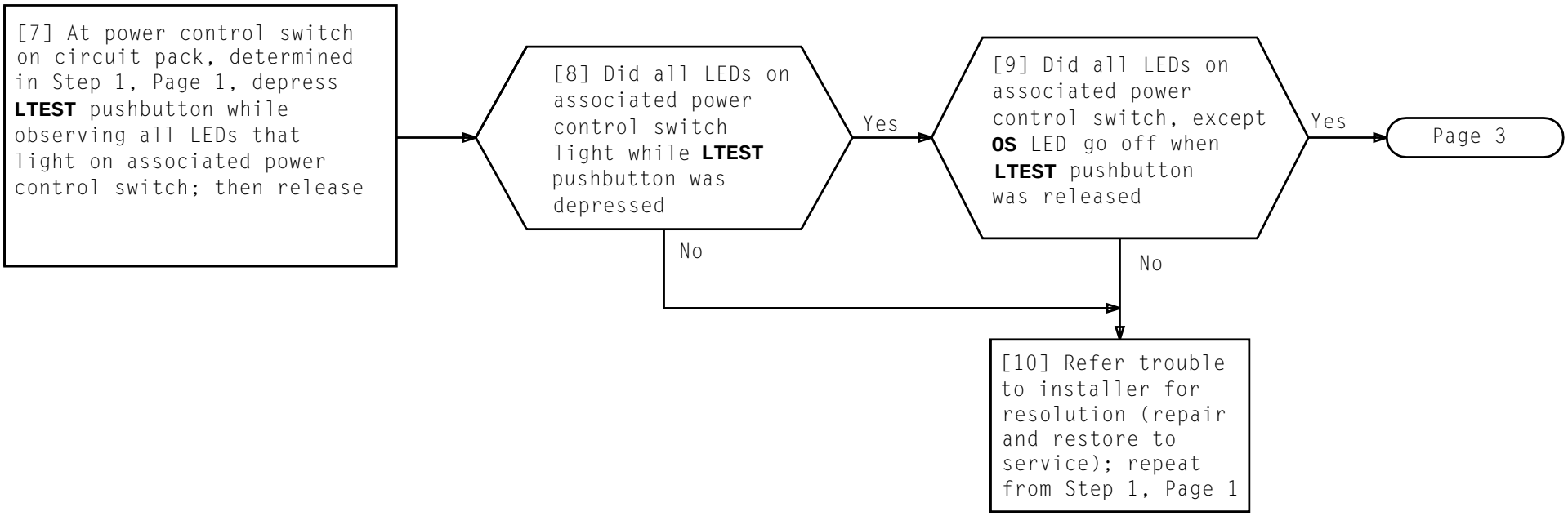
TABLE B

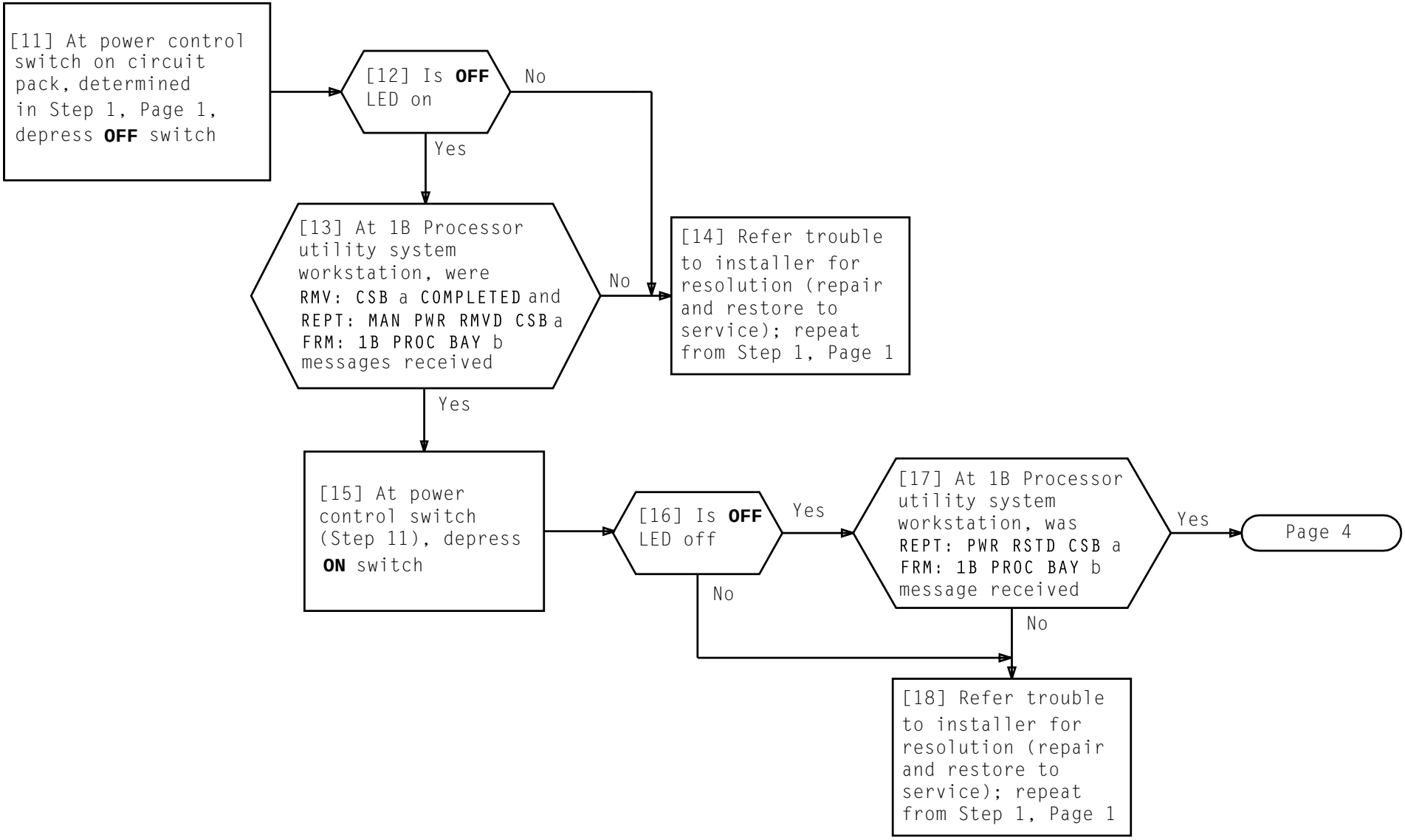
LED	INDICATION
ACK*	On then Off
OS**	On

* expected indication may take a short period of time to be received

** indication will occur at same pack in both cabinets

DIAGNOSE 1B PROCESSOR CSB


[7] At power control switch on circuit pack, determined in Step 1, Page 1, depress **LTEST** pushbutton while observing all LEDs that light on associated power control switch; then release
[8] Did all LEDs on associated power control switch light while **LTEST** pushbutton was depressed
Yes
No
[9] Did all LEDs on associated power control switch, except **OS** LED go off when **LTEST** pushbutton was released
Yes
No
Page 3
[10] Refer trouble to installer for resolution (repair and restore to service); repeat from Step 1, Page 1



DIAGNOSE 1B PROCESSOR CSB

[19] At power control switch on circuit pack, determined in Step 1, Page 1, operate **ROS/NORM** switch to **NORM** and observe LEDs for TABLE C indications

[20] At 1B Processor utility system workstation, determine if printout was received per TABLE D

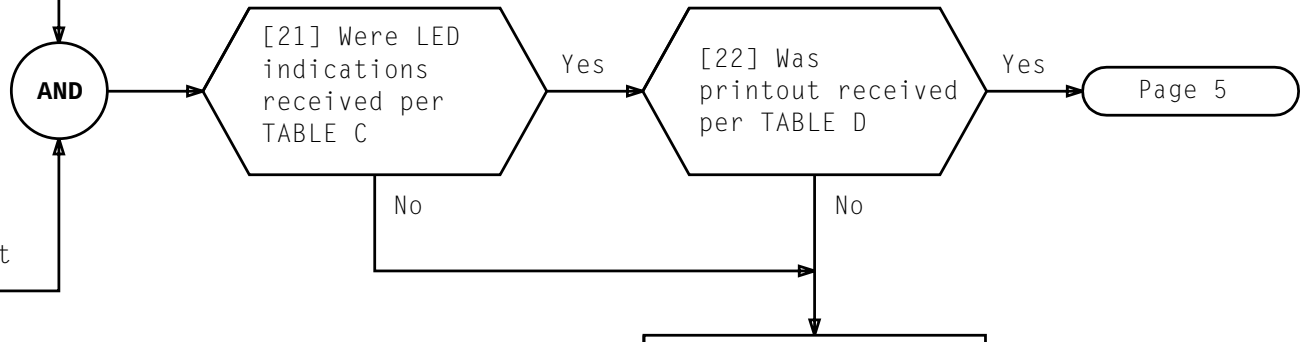


TABLE C	
LED	**INDICATION**
ACK*	On then Off
OS**	Off

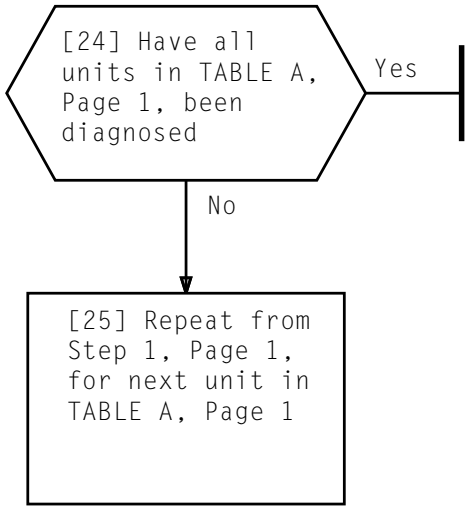
* expected indication may take a short period of time to be received

** this will not occur until restore is complete. Indication will occur at same pack in both cabinets

TABLE D	
MESSAGE NUMBER	**OUTPUT MESSAGES**
1	DGN:CSB a,b : CS c COMPLETED ATP MSG COMPL RST:CSB a COMPLETED

a = member number of CSB
b = processor number
c = member number of helper CS

DIAGNOSE 1B PROCESSOR CSB



DIAGNOSE 1B PROCESSOR CSB

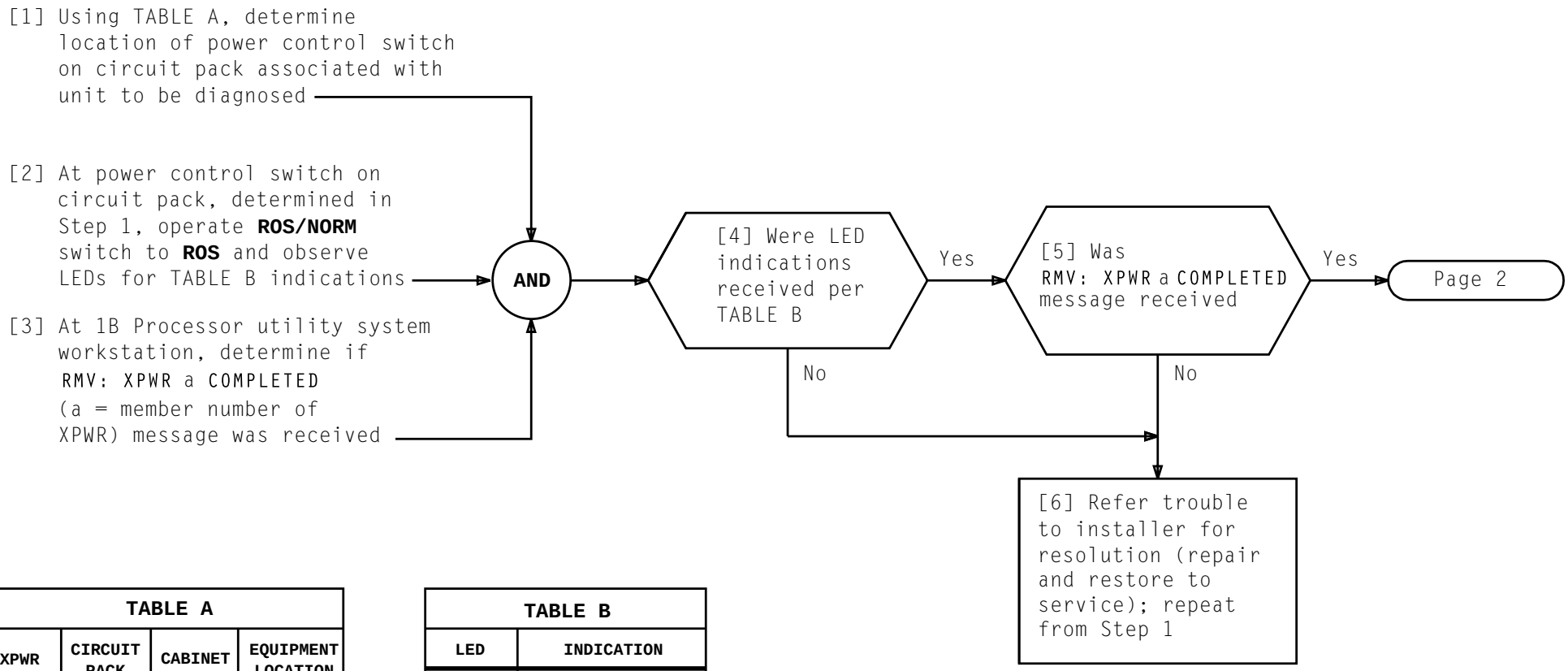


TABLE A

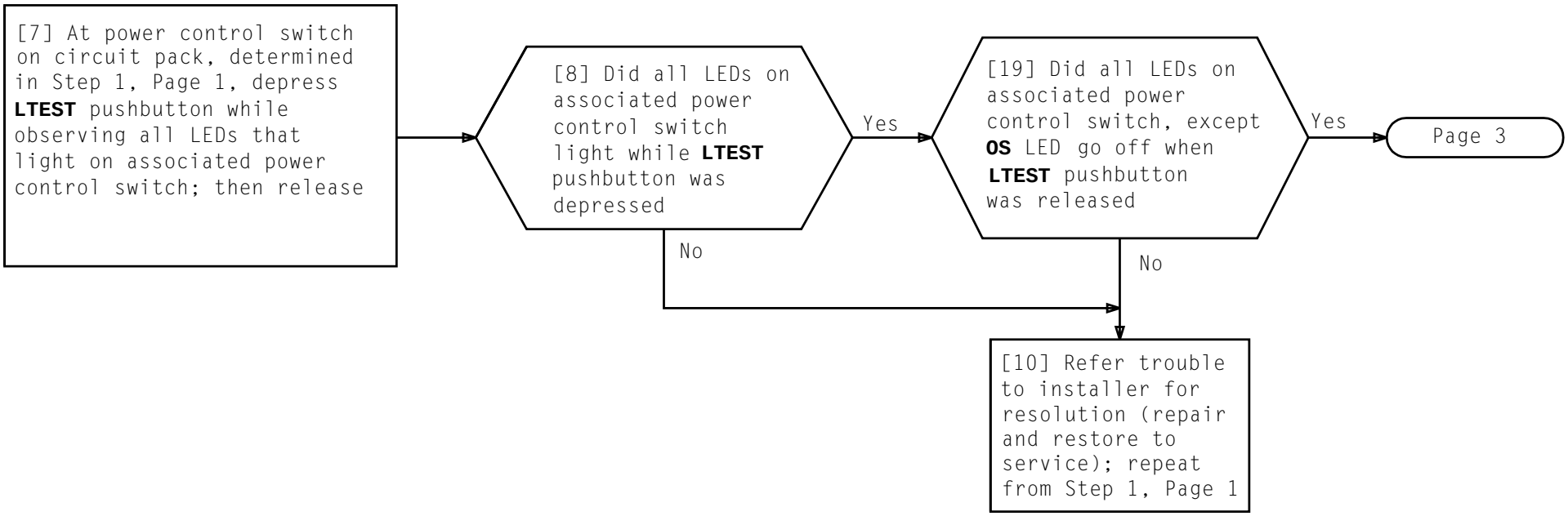
XPWR	CIRCUIT PACK	CABINET	EQUIPMENT LOCATION
0	KLW23	0	058-030
0	KLW23	1	158-030

TABLE B

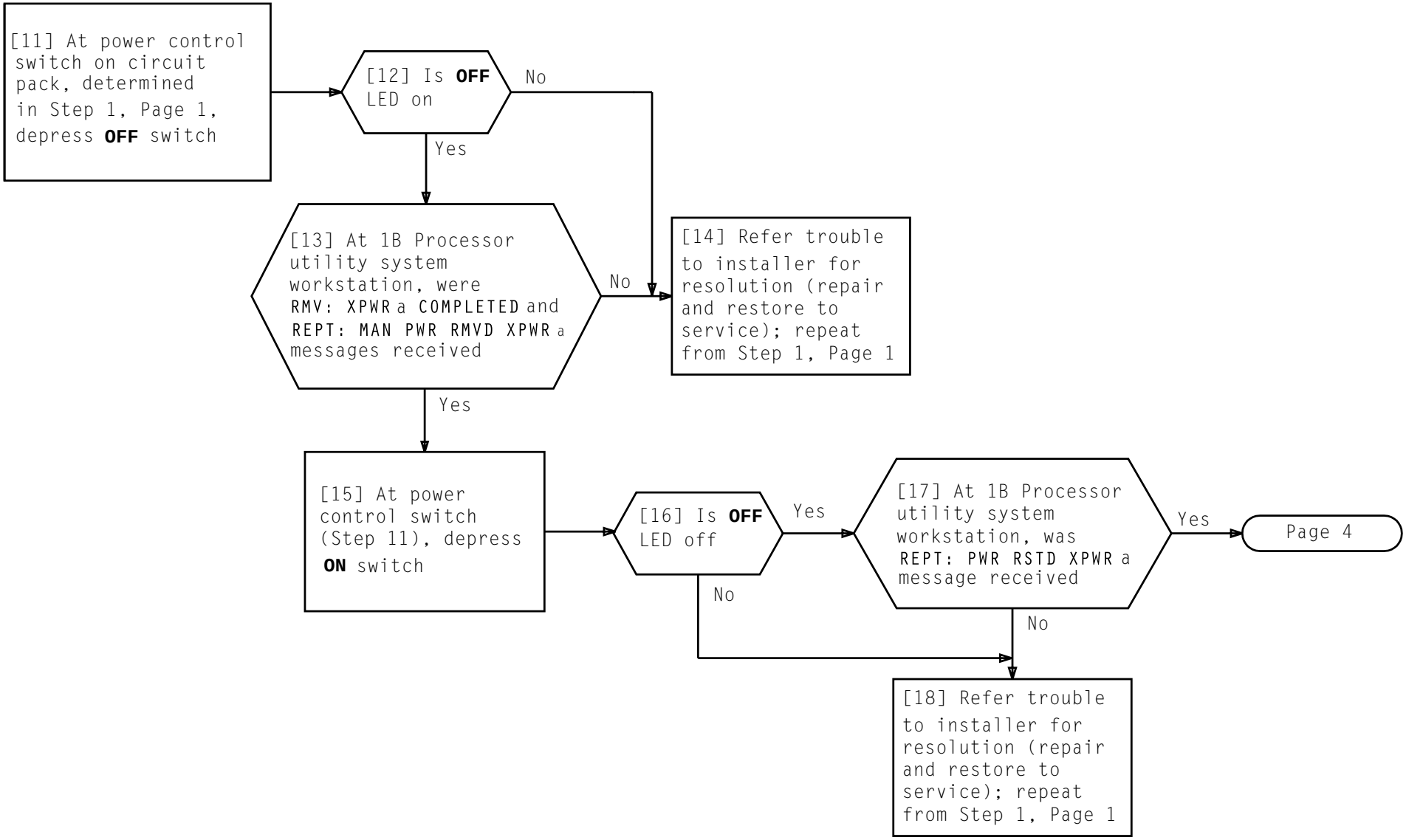
LED	INDICATION
ACK*	On then Off
OS	On

* expected indication may take a short period of time to be received

DIAGNOSE 1B PROCESSOR XPWR



DIAGNOSE 1B PROCESSOR XPWR



DIAGNOSE 1B PROCESSOR XPWR

[19] At power control switch on circuit pack, determined in Step 1, Page 1, operate **ROS/NORM** switch to **NORM** and observe LEDs for TABLE C indications

[20] At utility system workstation, determine if printout was received per TABLE D

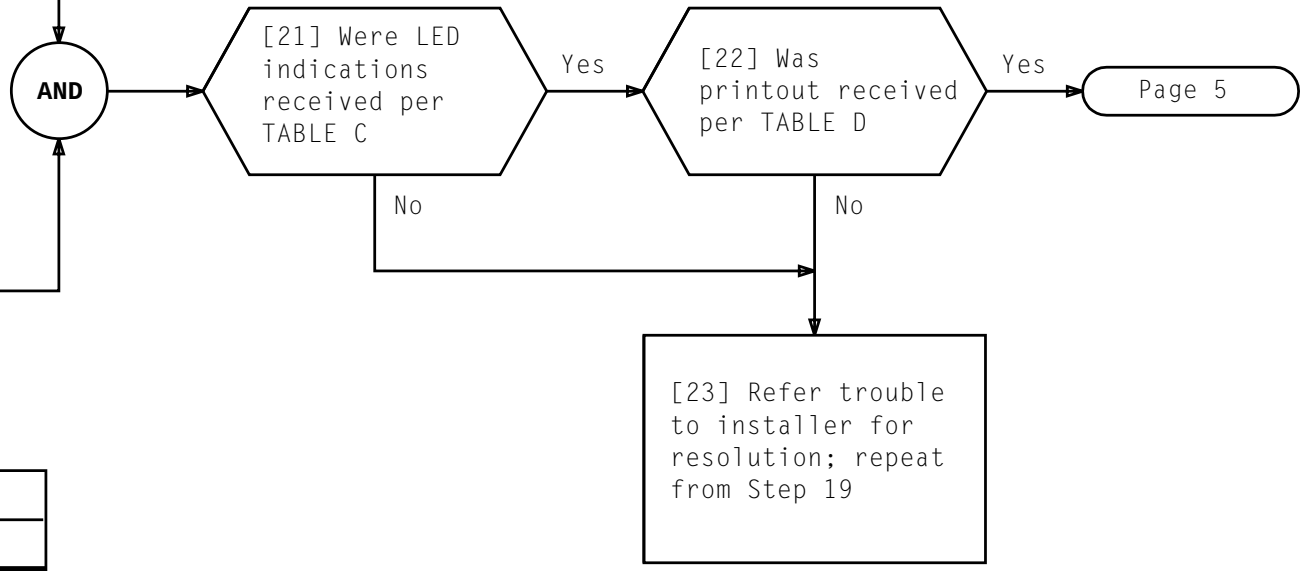
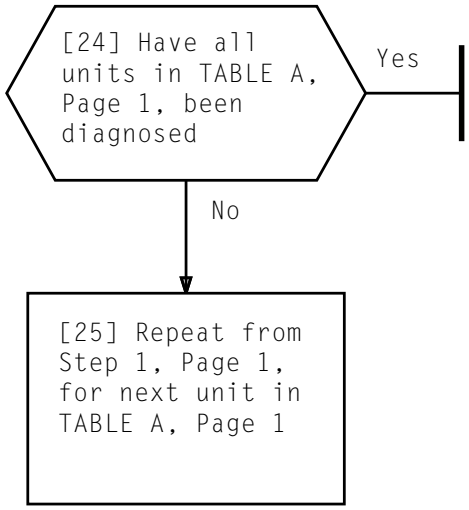


TABLE C	
LED	**INDICATION**
ACK*	On then Off
OS**	Off
* expected indication may take a short period of time to be received	
** this will not occur until restore is complete	

TABLE D	
MESSAGE NUMBER	**OUTPUT MESSAGES**
1	DGN: XPWR a,COMPLETED ATP MSG COMPL RST: XPWR a COMPLETED
a = member number of standby XPWR	

DIAGNOSE 1B PROCESSOR XPWR



DIAGNOSE 1B PROCESSOR XPWR

[1] At MTC terminal, enter message
VER:UTYPE:TUC a!
a = TUC member number

AND

[2] Using printout and FIG. 1, record ENTRY ADDRESS for later use. Save printout for later use

Record This Address

```
VER:UTMN;OPT( ),CUR:       FLN 01007.00,              UTYN TUC,
MEMN   2,      ME OPR,
ENTRY  ADDRESS 14022316,   ENTRY SIZE   5,
CUR
WORD 0   40600000 00000000 61007604 00000000
         04016000
WORD 10
```

FIG. 1 – Sample VER:UTYPE Printout

RECORD ENTRY ADDRESS

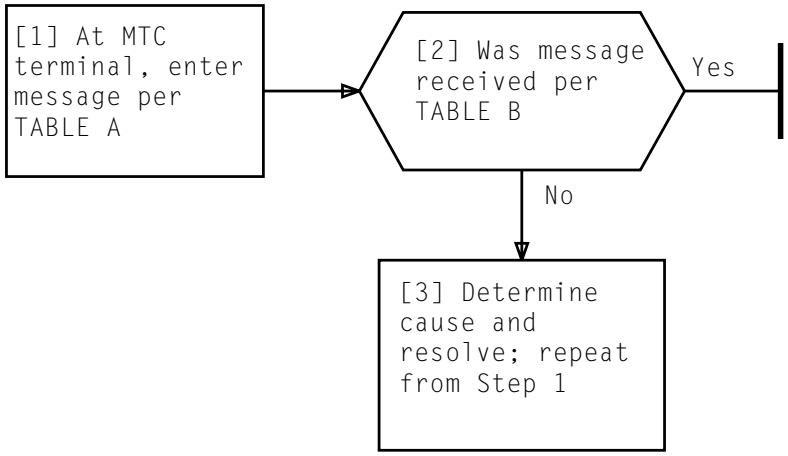
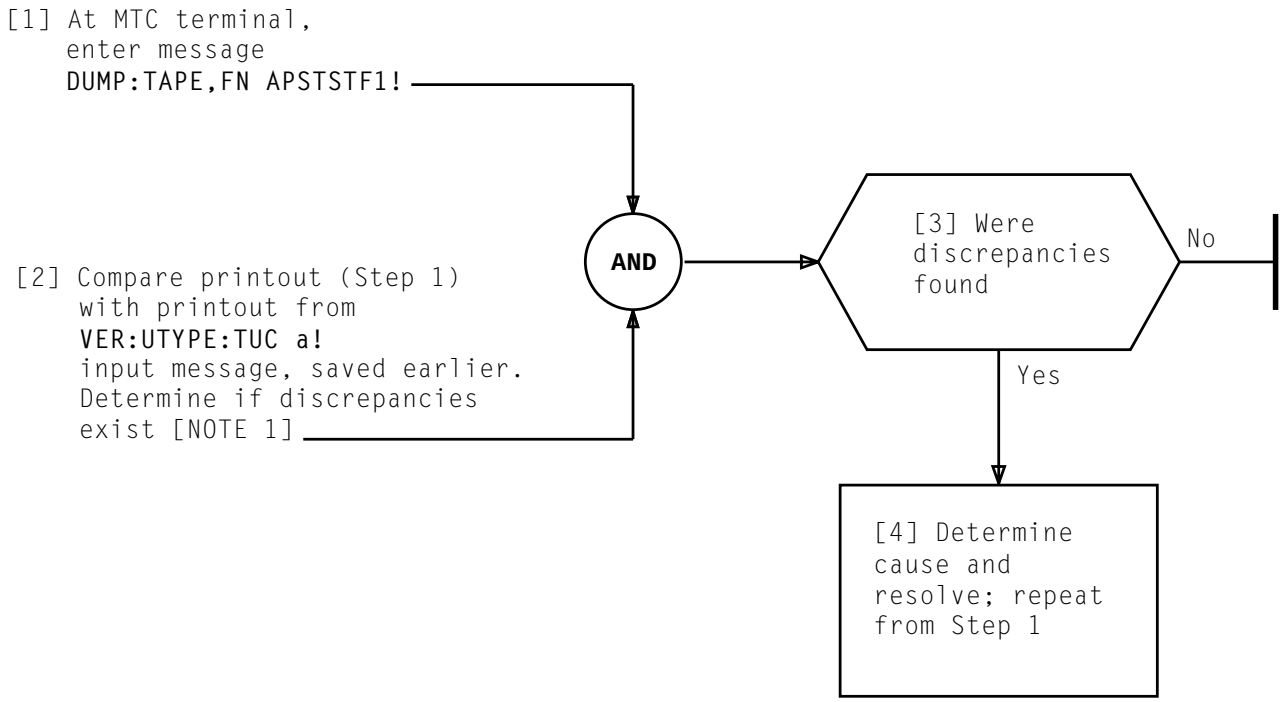


TABLE A	
MESSAGE NUMBER	**INPUT MESSAGE**
1	COPY:PSS,ADR a,L 6;TAPE,BOT,FN APSTSTF1!
a = Entry address recorded earlier	

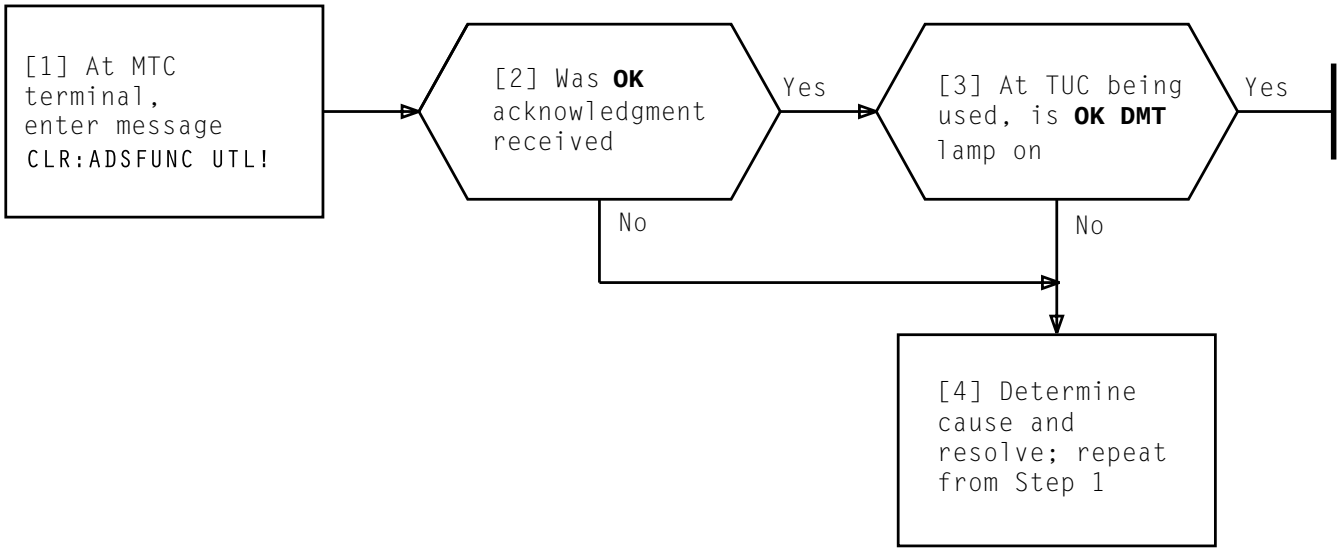
TABLE B	
MESSAGE NUMBER	**OUTPUT MESSAGE**
1	REPT:ADS FUNCTION UTL ACTIVE TYPE MEMN FUNCTION STATE STATUS DUS RAW STATUS TUC a UTL ACT INS b xxxxxxxx COPY:PSS,INDIR 0,ADR c,INC +0;TAPE,FN APSTST1 COMPLETED
a = TUC member number b = DUS member number c = Entry address recorded earlier	

COPY TUC UNIT TYPE DATA TO TAPE

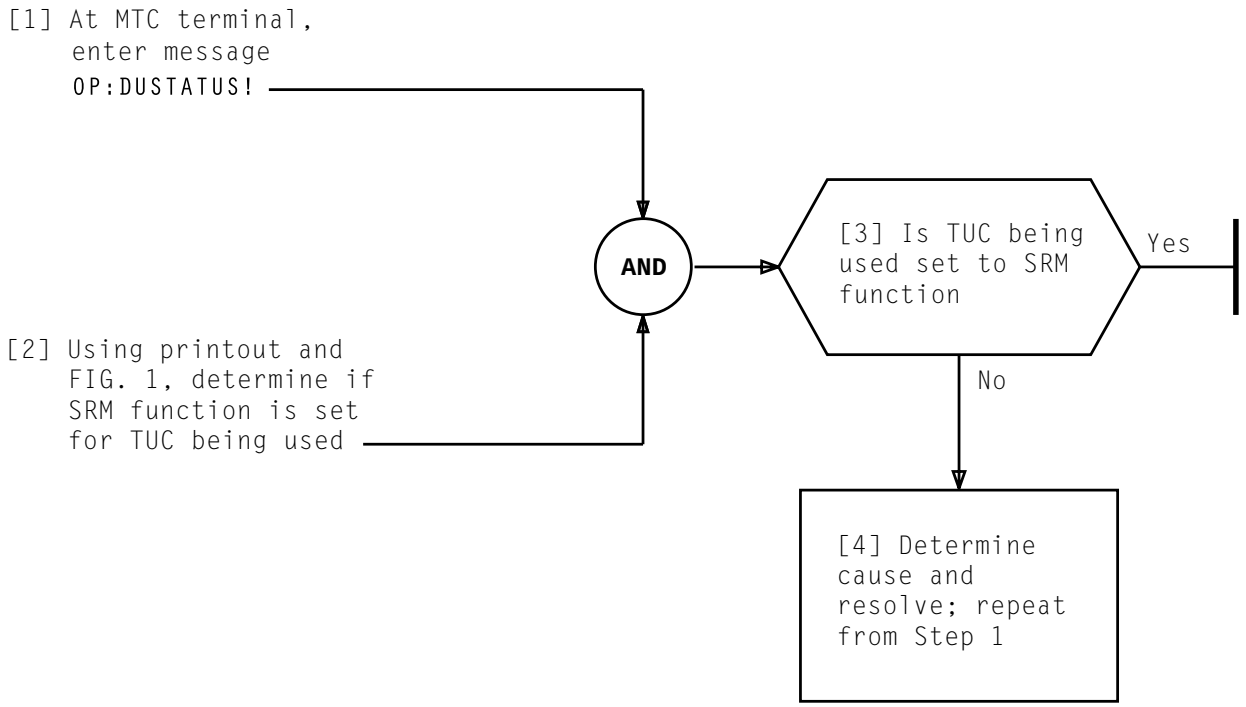


COMPARE TAPE COPY WITH VERIFY UNIT TYPE PRINTOUT

NOTE 1
Dump printout will have six octal data words. Disregard first rightmost data word



CLEAR ADS FUNCTION

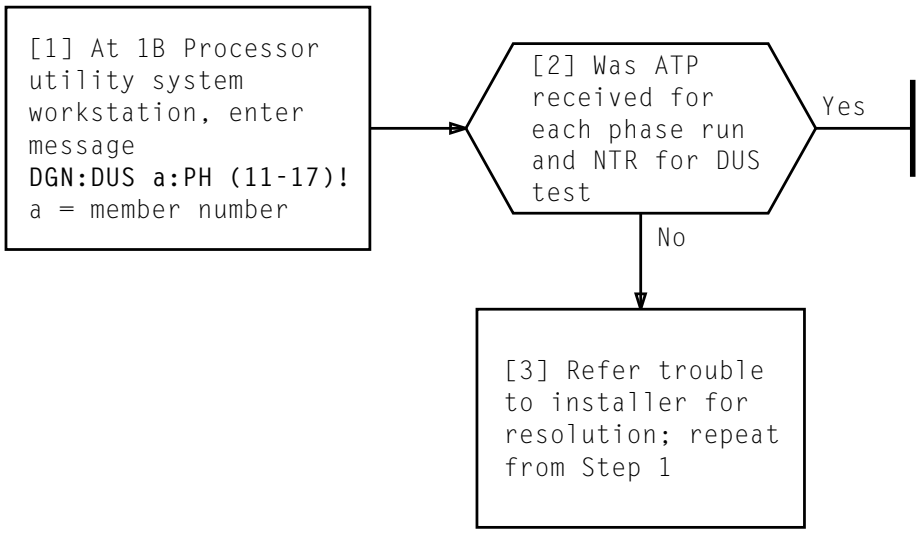



```
OP:DUSTATUS: COMMUNITY: 0
TYPE MEMN STATUS RAW STATUS
DUS   0    INS   00000000
DUS   1    OOS   00000005
TYPE MEMN FUNCTION STATE STATUS DUS RAW STATUS
TUC   0   UNA      NLK    OOS       00000744
TUC   1   UNA      NLK    INS    0  30000500
TUC   2   SRM      ACT    INS    0  00000500
```

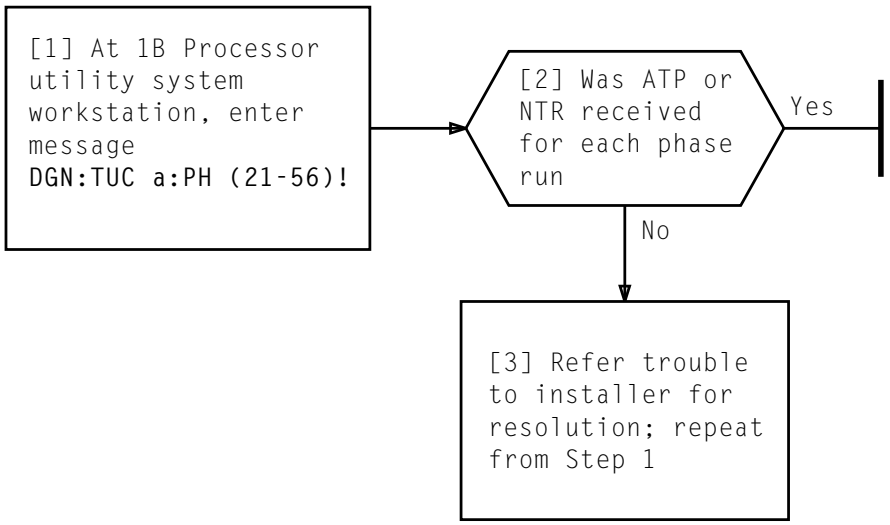
TUC set to SRM function

FIG. 1 – Sample OP:DUSTATUS Printout

ENSURE TUC SET TO SRM



DIAGNOSE DUS SPECIFYING PHASES 11 THROUGH 17



DIAGNOSE TUC SPECIFYING PHASES 21 THROUGH 56

[1] At 1B Processor utility system workstation, enter message
VER:UTYPE:TUC a!
a = TUC member number

AND

[2] Using printout and FIG. 1, record ENTRY ADDRESS for later use. Save printout for later use

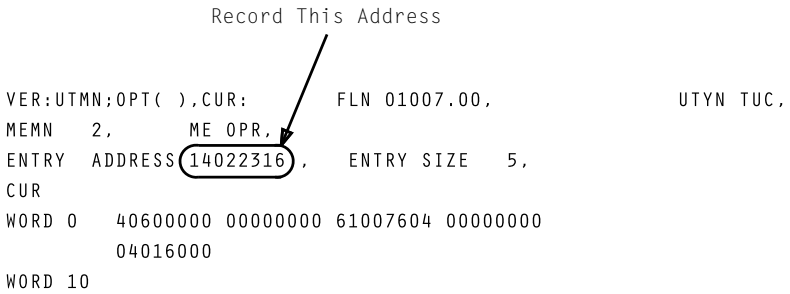


FIG. 1 – Sample VER:UTYPE Printout

RECORD ENTRY ADDRESS

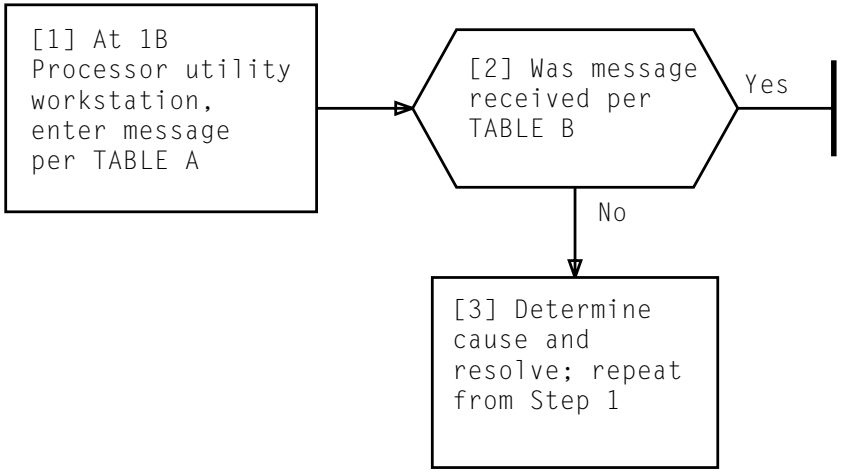
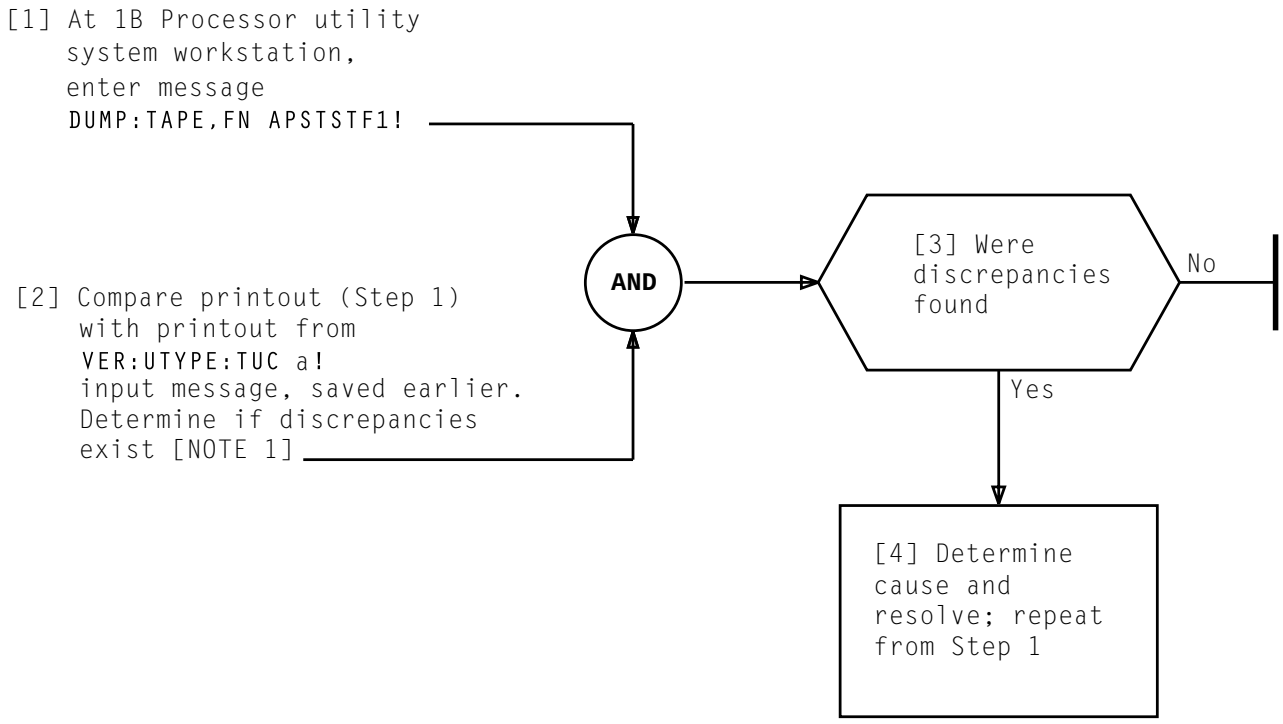


TABLE A	
MESSAGE NUMBER	**INPUT MESSAGE**
1	COPY:PSS,ADR a,L 6;TAPE,BOT,FN APSTSTF1!
a = Entry address recorded earlier	

TABLE B	
MESSAGE NUMBER	**OUTPUT MESSAGE**
1	REPT:ADS FUNCTION UTL ACTIVE TYPE MEMN FUNCTION STATE STATUS DUS RAW STATUS TUC a UTL ACT INS b xxxxxxxx COPY:PSS,INDIR 0,ADR c,INC +0;TAPE,FN APSTSTF1 COMPLETED
a = TUC member number b = DUS member number c = Entry address recorded earlier	

COPY TUC UNIT TYPE DATA TO TAPE



COMPARE TAPE COPY WITH VERIFY UNIT TYPE PRINTOUT

NOTE 1
Dump printout will have six octal data words. Disregard first rightmost data word

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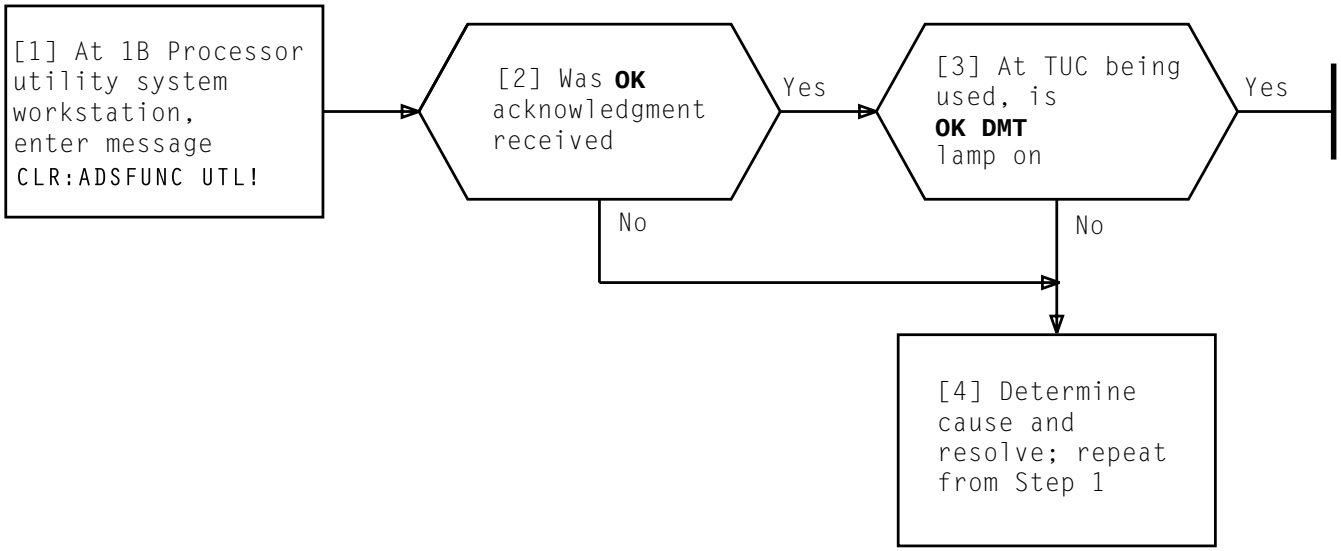


CLEAR ADS FUNCTION

HOW TO USE BUS SCOPING ADAPTER

[1] Ensure scope probes from storage scope are wrapped around each other with positive lead connected to channel 1 and negative lead connected to channel 2 and ground leads are attached together

[2] See FIG. 1, Page 2. At bus scoping adapter, connect probe from channel 1 to P connector and channel 2 to N connector

[3] Connect bus scoping adapter connector to connector at unit/frame to be scoped [FIG. 1, Page 2]

[4] Using bus scoping adapter, starting at position 0, scope each bit, as required through range 0 to 7

[5] If more than one connector is to be scoped, disconnect bus scoping adapter connector and reconnect to another connector to be scoped. Repeat Steps 4 and 5 for each connector to be scoped. See TABLE A for scope adapter position to associated bit

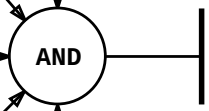


TABLE A

BIT	ASSOCIATED SCOPE ADAPTER POSITION	BIT	ASSOCIATED SCOPE ADAPTER POSITION
0	0	16	0
1	1	17	1
2	2	18	2
3	3	19	3
4	4	20	4
5	5	21	5
6	6	22	6
7	7	23	7
8	0		
9	1		
10	2		
11	3		
12	4		
13	5		
14	6		
15	7		

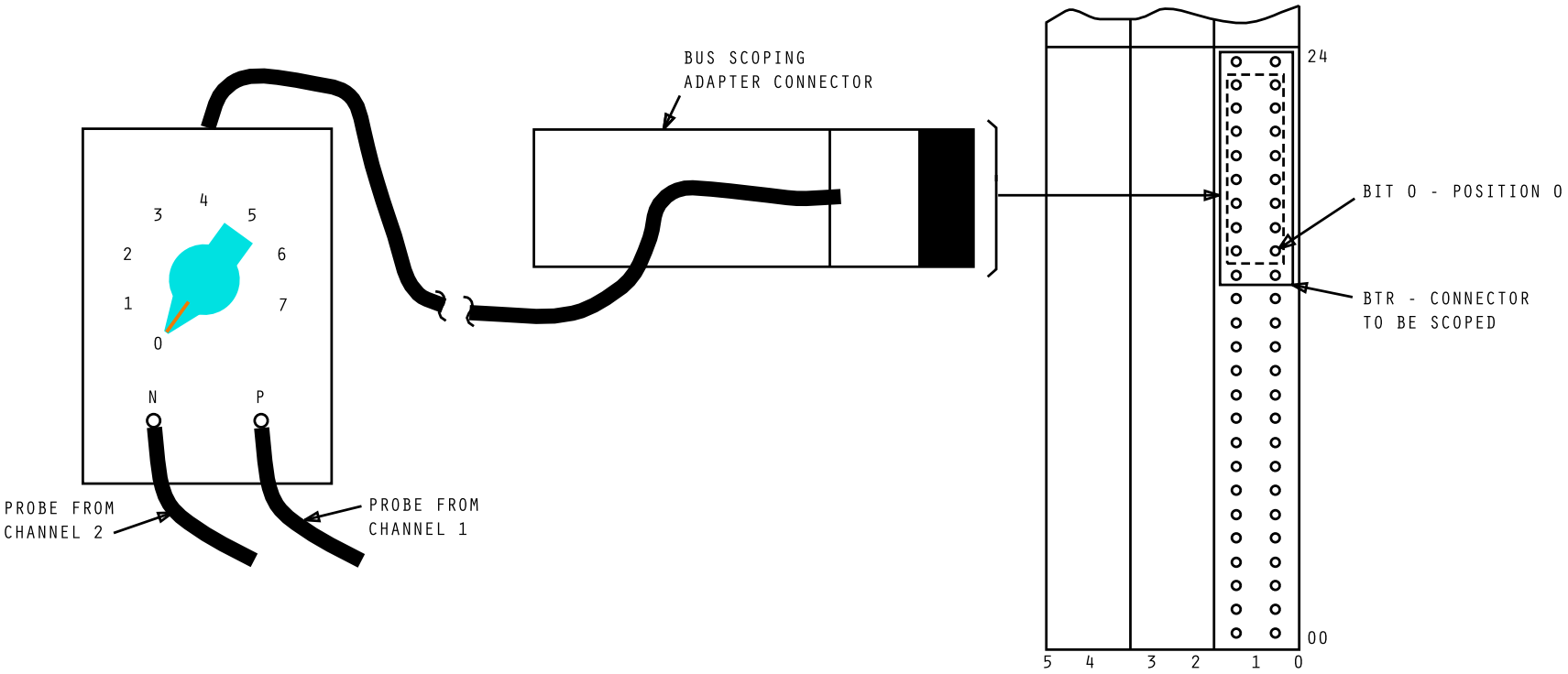
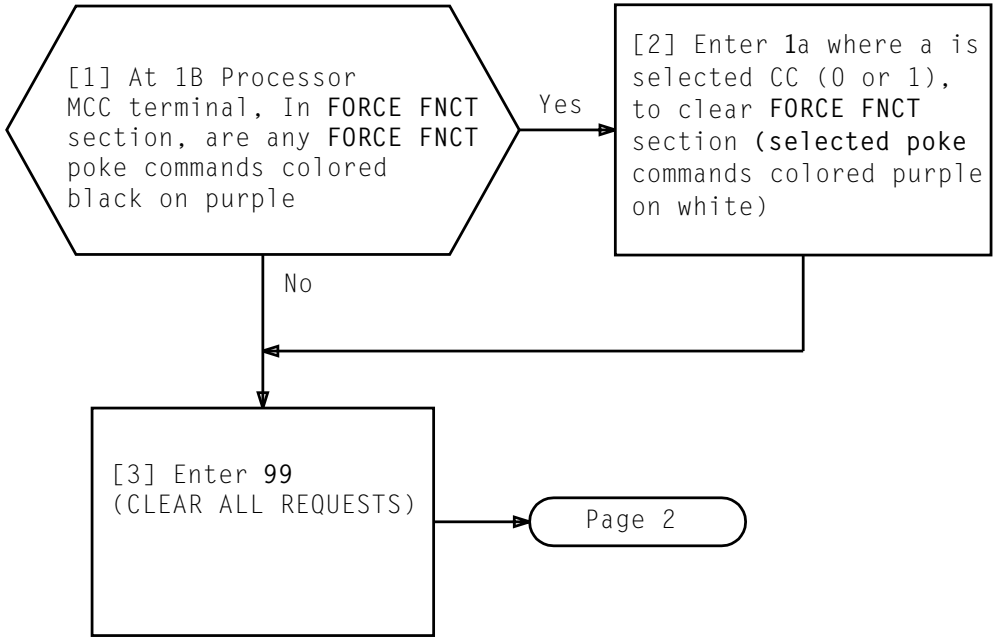
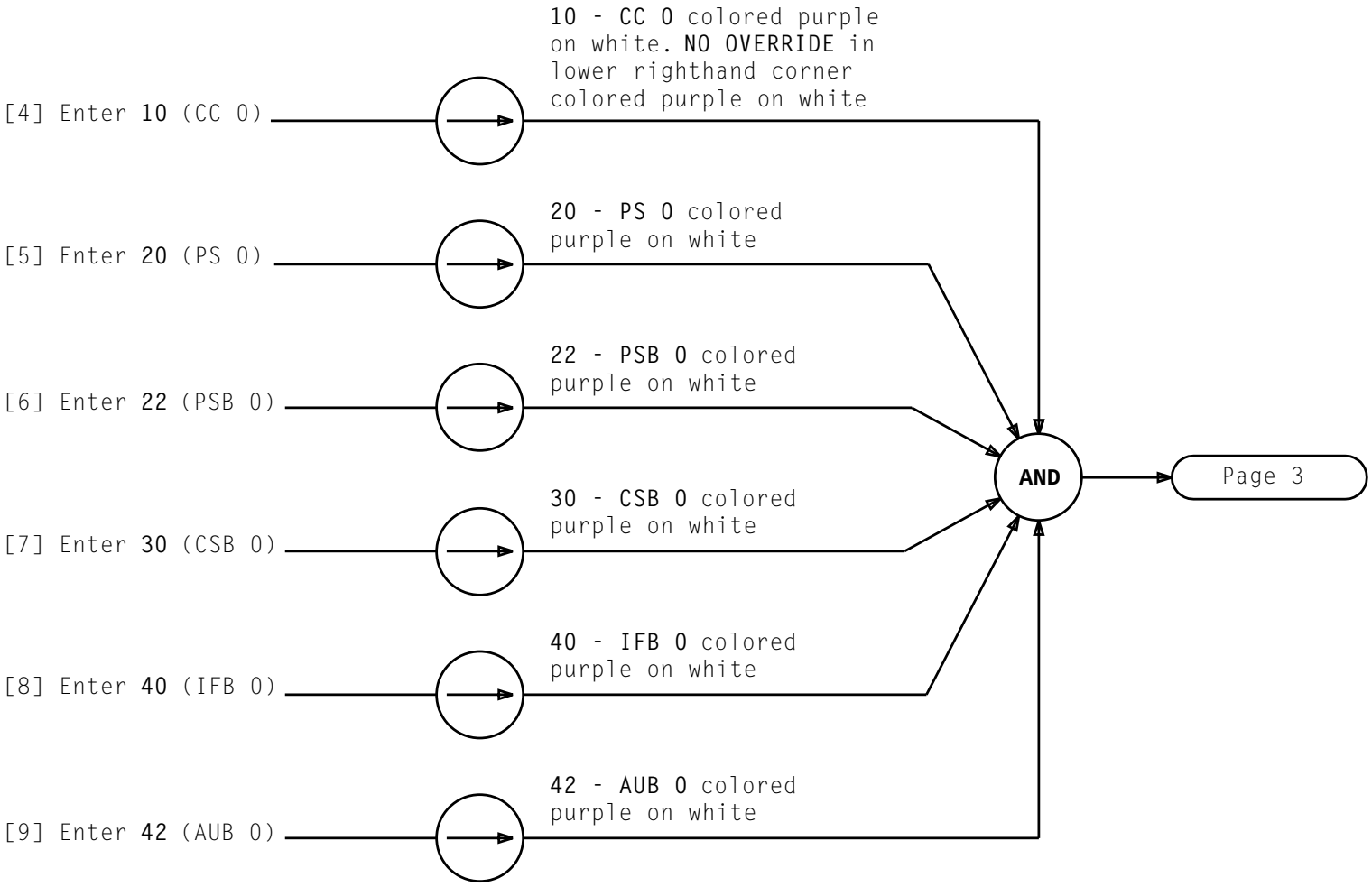


FIG. 1 — Bus Scoping Adapter Connections

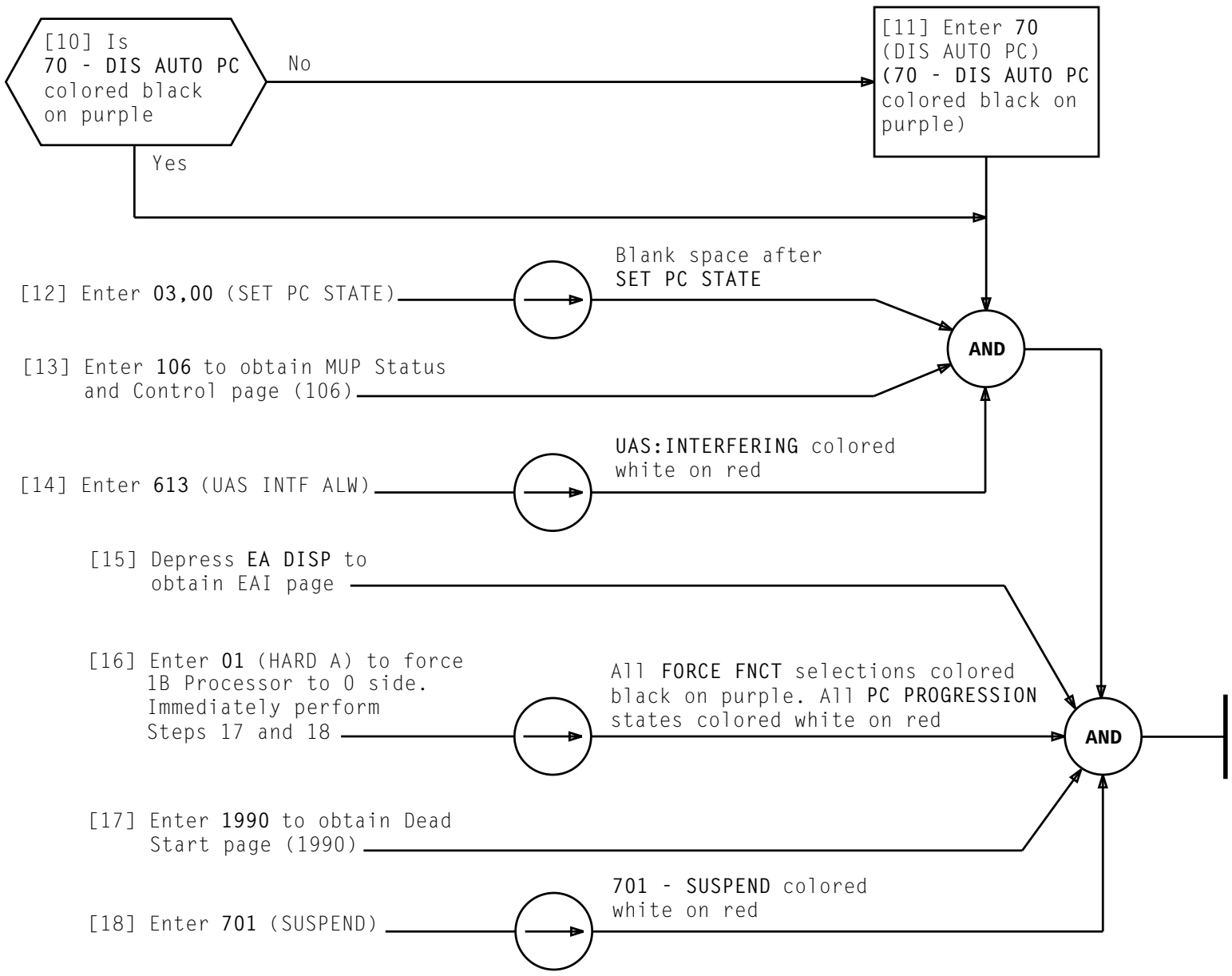
HOW TO USE BUS SCOPING ADAPTER



FORCE 1B PROCESSOR TO 0 SIDE AND SUSPEND



FORCE 1B PROCESSOR TO 0 SIDE AND SUSPEND



FORCE 1B PROCESSOR TO 0 SIDE AND SUSPEND

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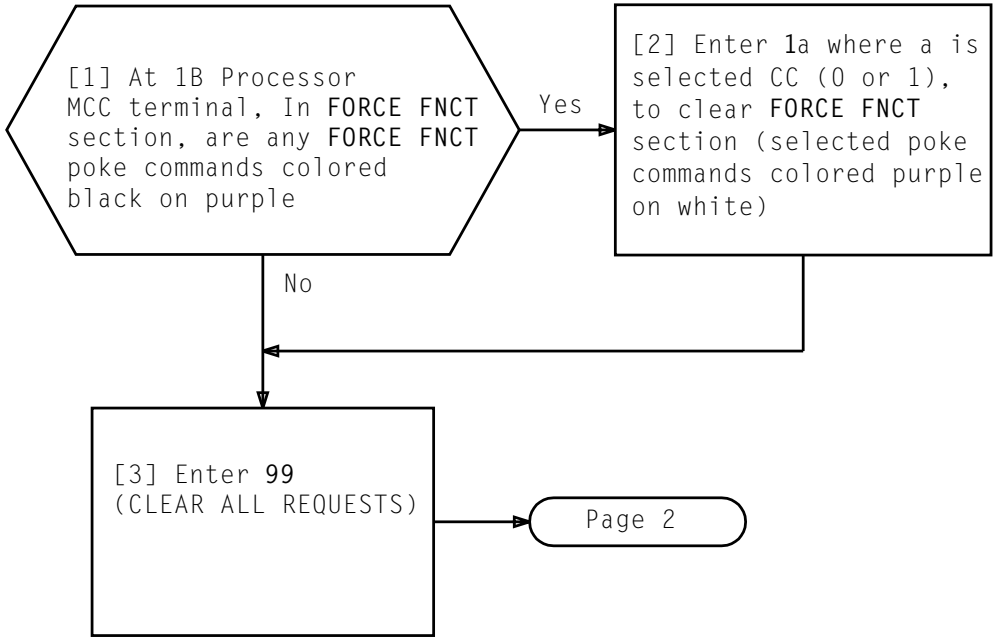
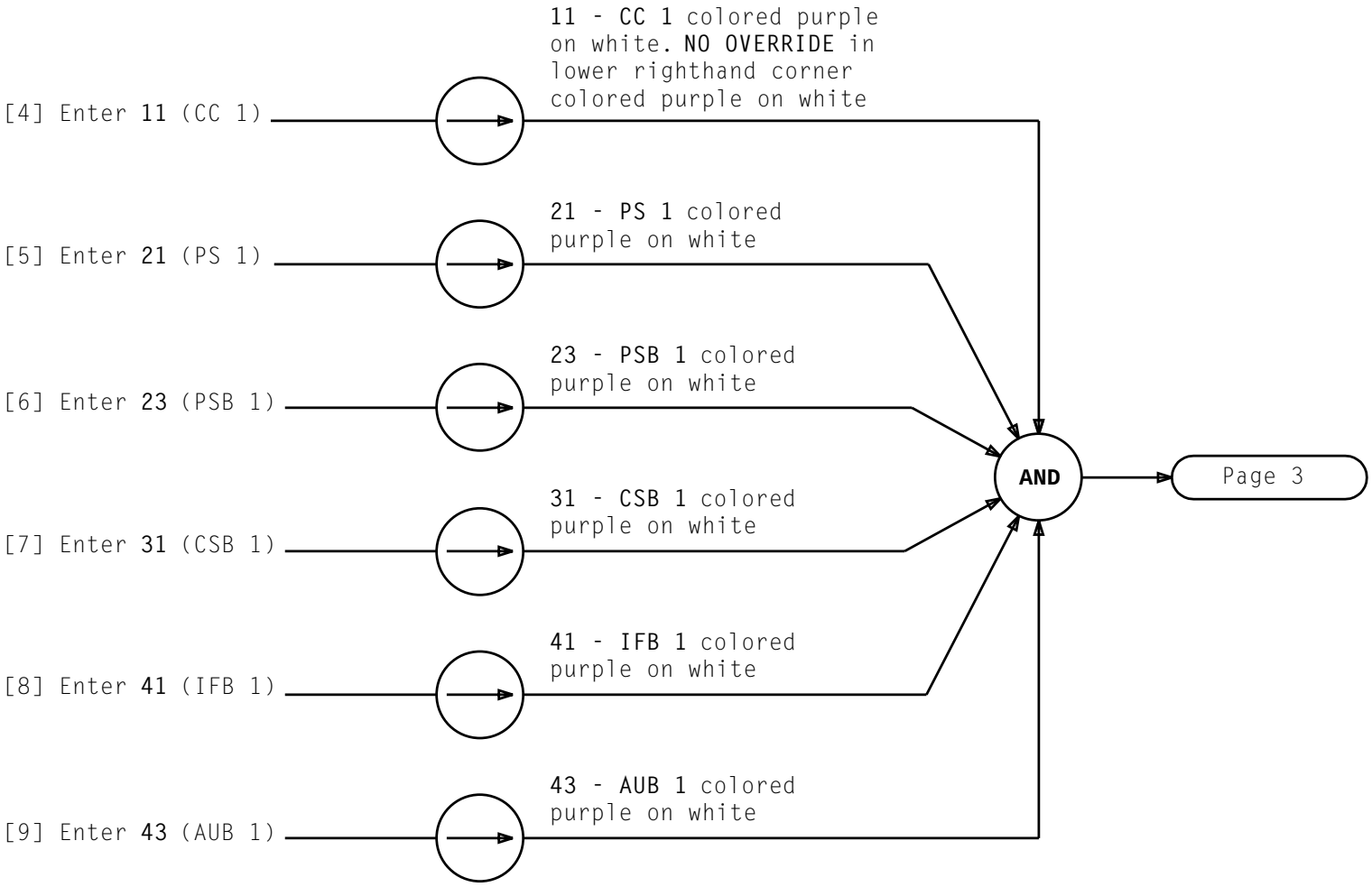
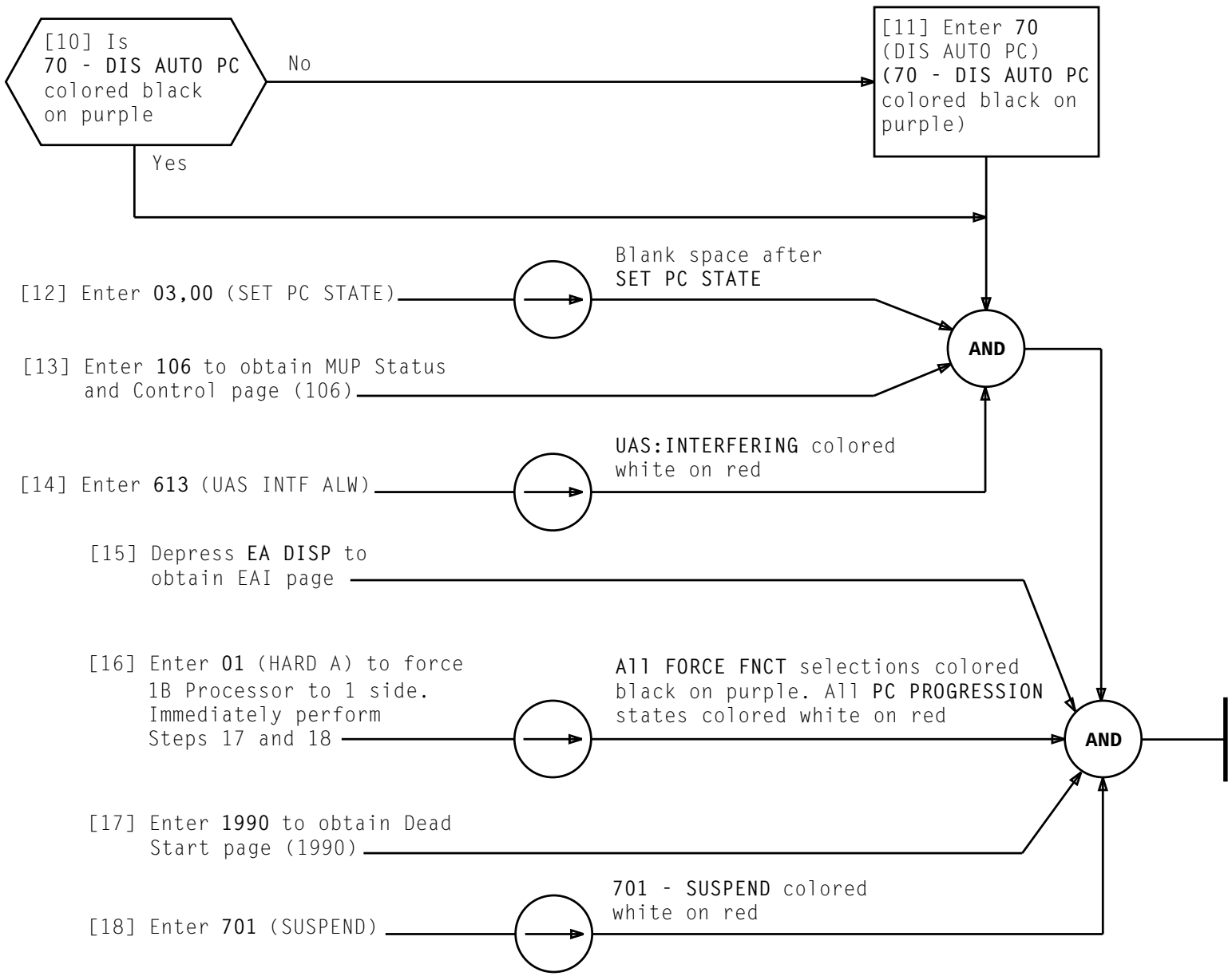


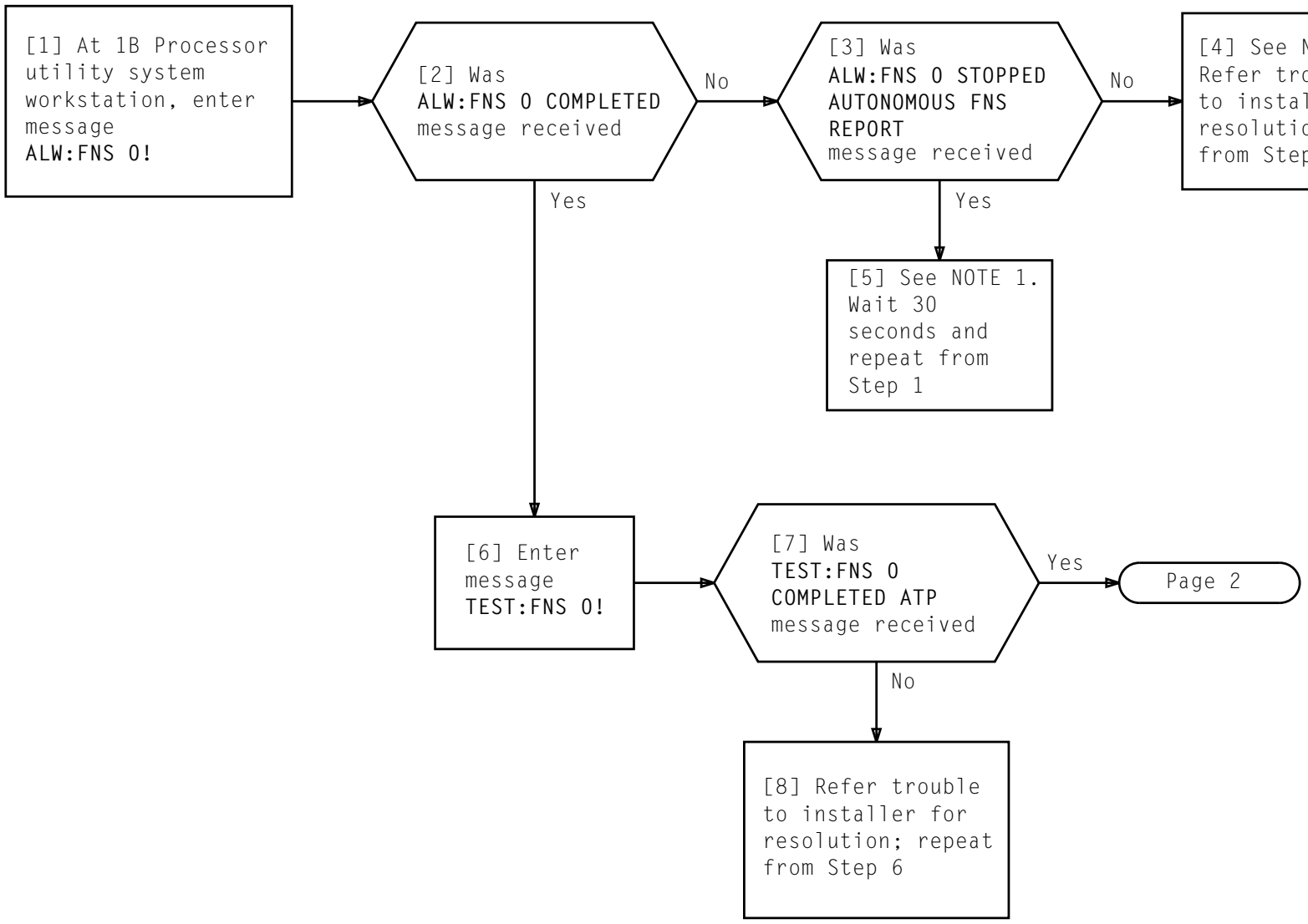
FORCE 1B PROCESSOR TO 1 SIDE AND SUSPEND



FORCE 1B PROCESSOR TO 1 SIDE AND SUSPEND



FORCE 1B PROCESSOR TO 1 SIDE AND SUSPEND



NOTE 1
INH:FNS 0!
message may need to be entered before repeating from Step 1

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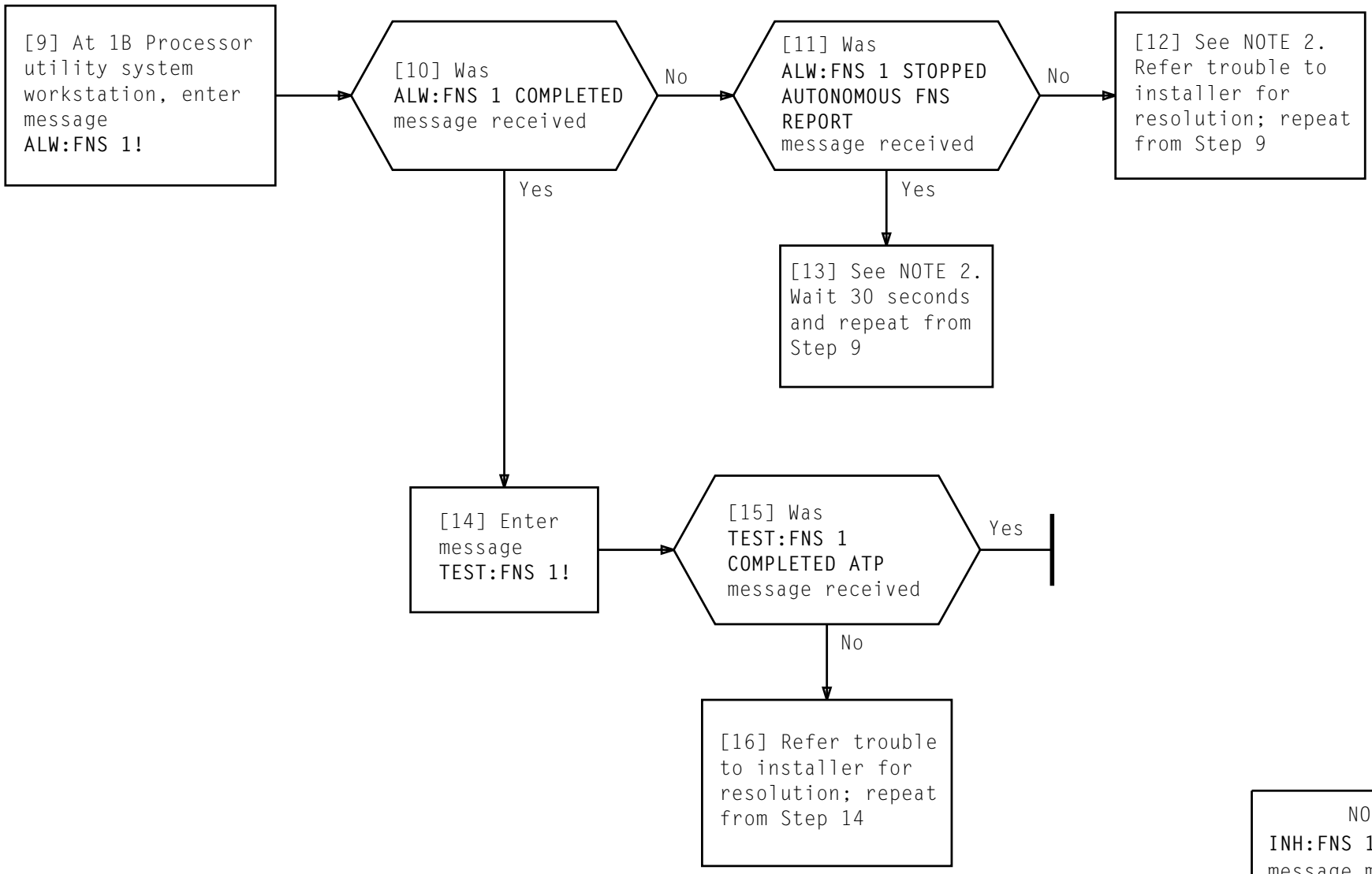
TEST FAN SYSTEM



NOTE 2

INH:FNS 1! message may need to be entered before repeating from Step 9

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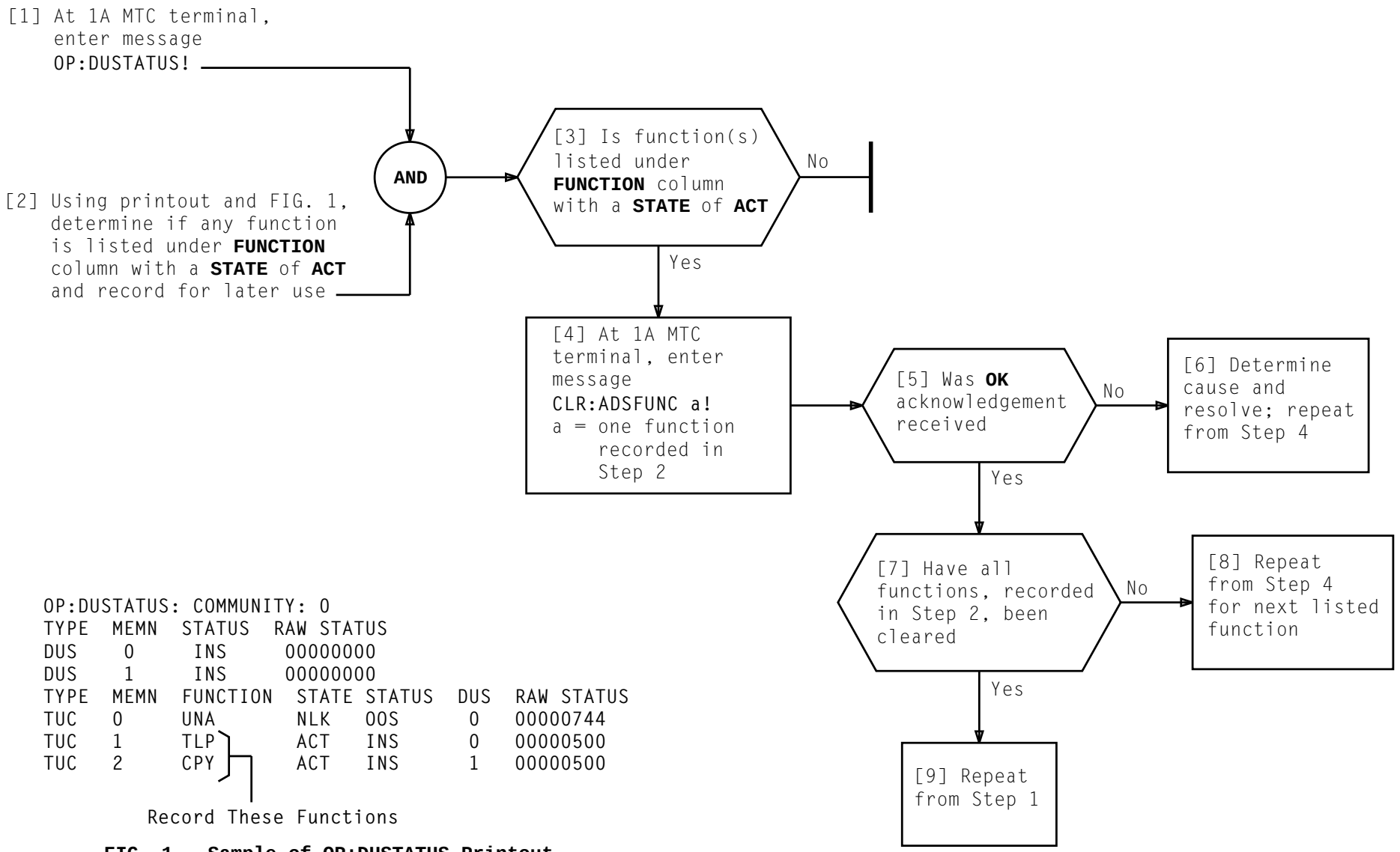
TEST FAN SYSTEM




```
OP:DUSTATUS: COMMUNITY: 0
TYPE  MEMN  STATUS  RAW STATUS
DUS    0     INS     00000000
DUS    1     INS     00000000
TYPE  MEMN  FUNCTION  STATE STATUS  DUS  RAW STATUS
TUC   0     UNA       NLK   OOS     0    00000744
TUC   1     TLP       ACT   INS     0    00000500
TUC   2     CPY       ACT   INS     1    00000500
```

Record These Functions

FIG. 1 - Sample of OP:DUSTATUS Printout

CLEAR ADS FUNCTION

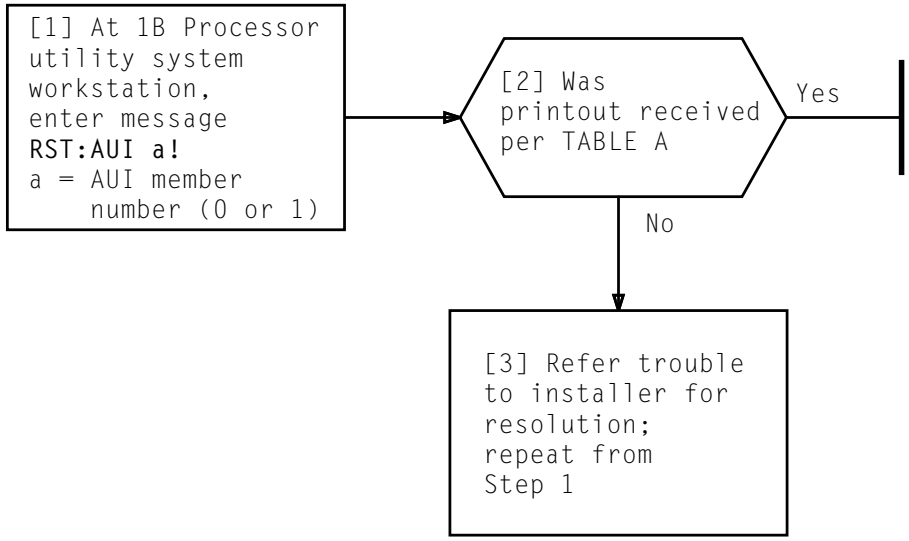
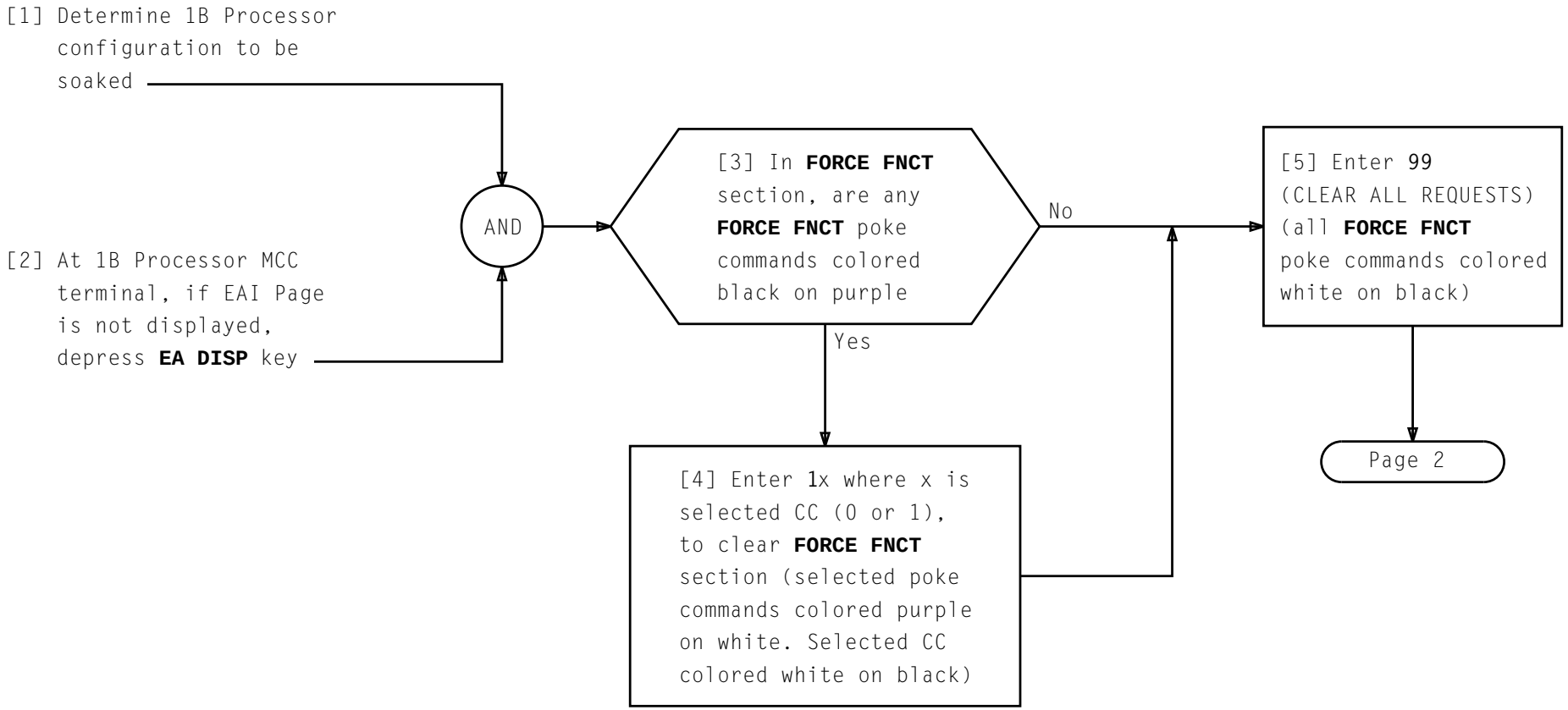


TABLE A

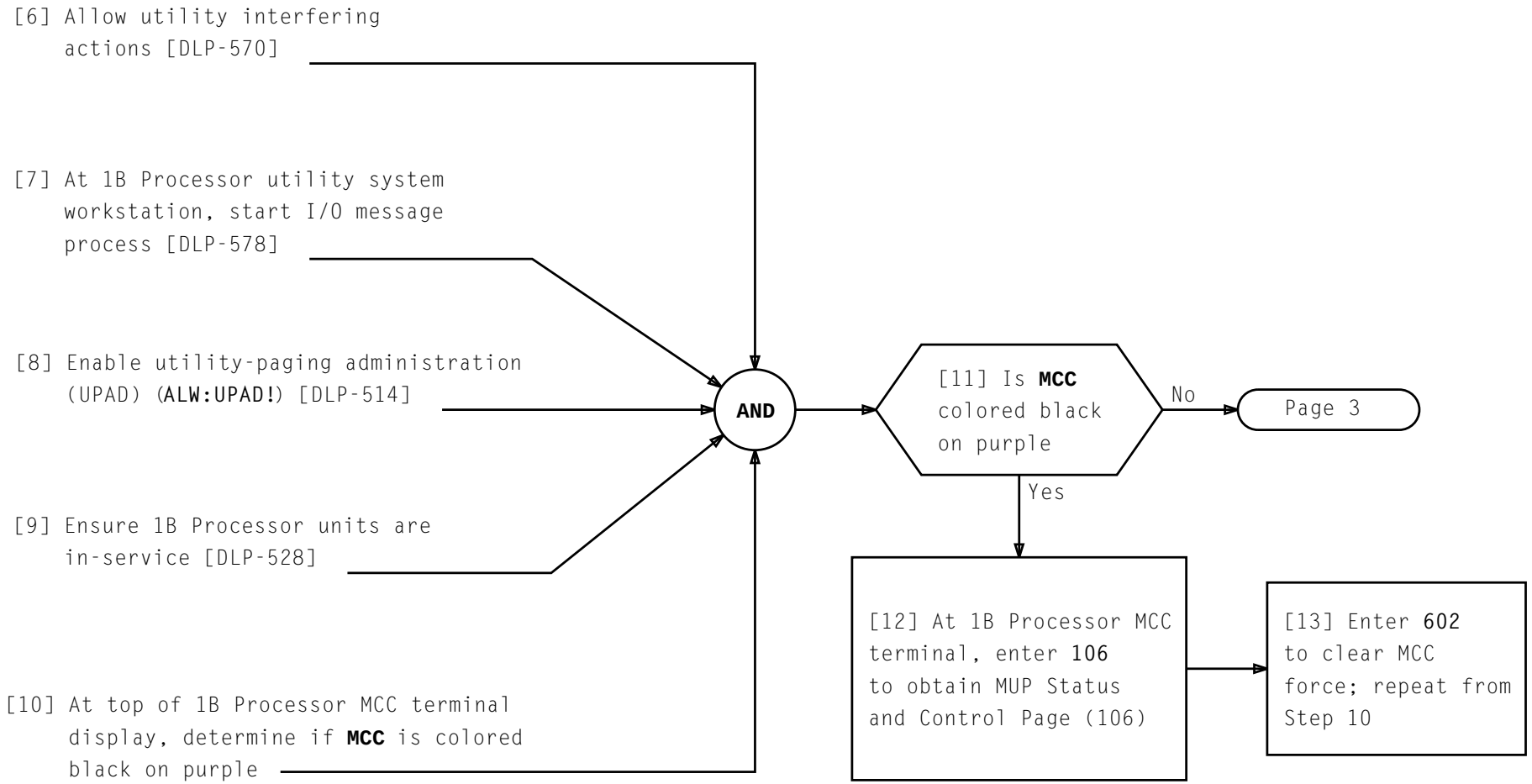
MESSAGE NUMBER	OUTPUT MESSAGES
1	DGN: AUI a COMPLETED CATP (00000000 00060b00) MSG COMPL TEST: AUI a ATP RST:AUI a COMPLETED

a = AUI member number (0 or 1)
b = 0 (if no AUBs are OOS) or
1 (if AUB 0 is OOS) or
2 (if AUB 1 is OOS)

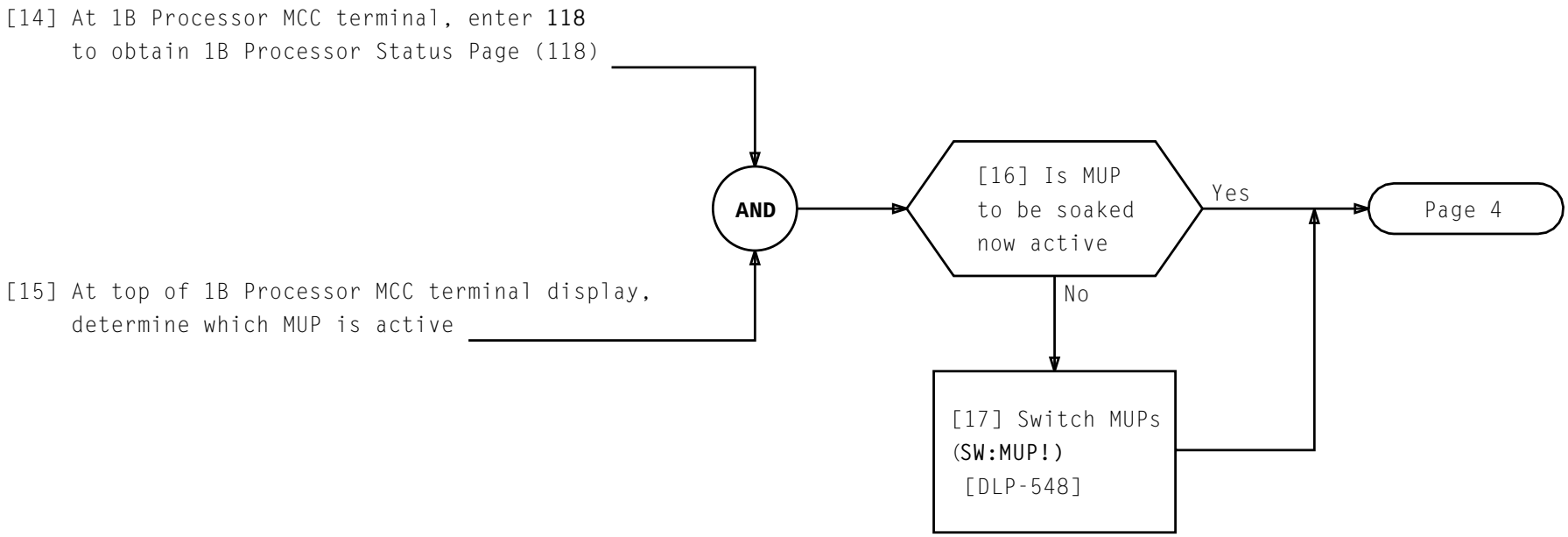
DIAGNOSE AUI USING RESTORE MESSAGE



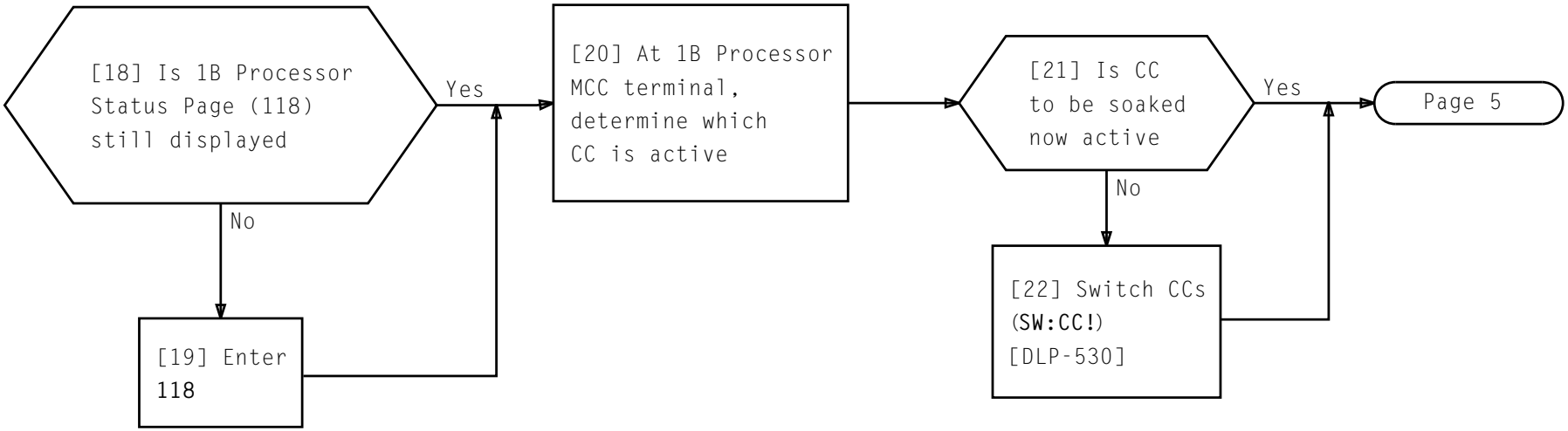
SET UP CONFIGURATION FOR 1B PROCESSOR SOAK (PERFORMED BY INSTALLER)



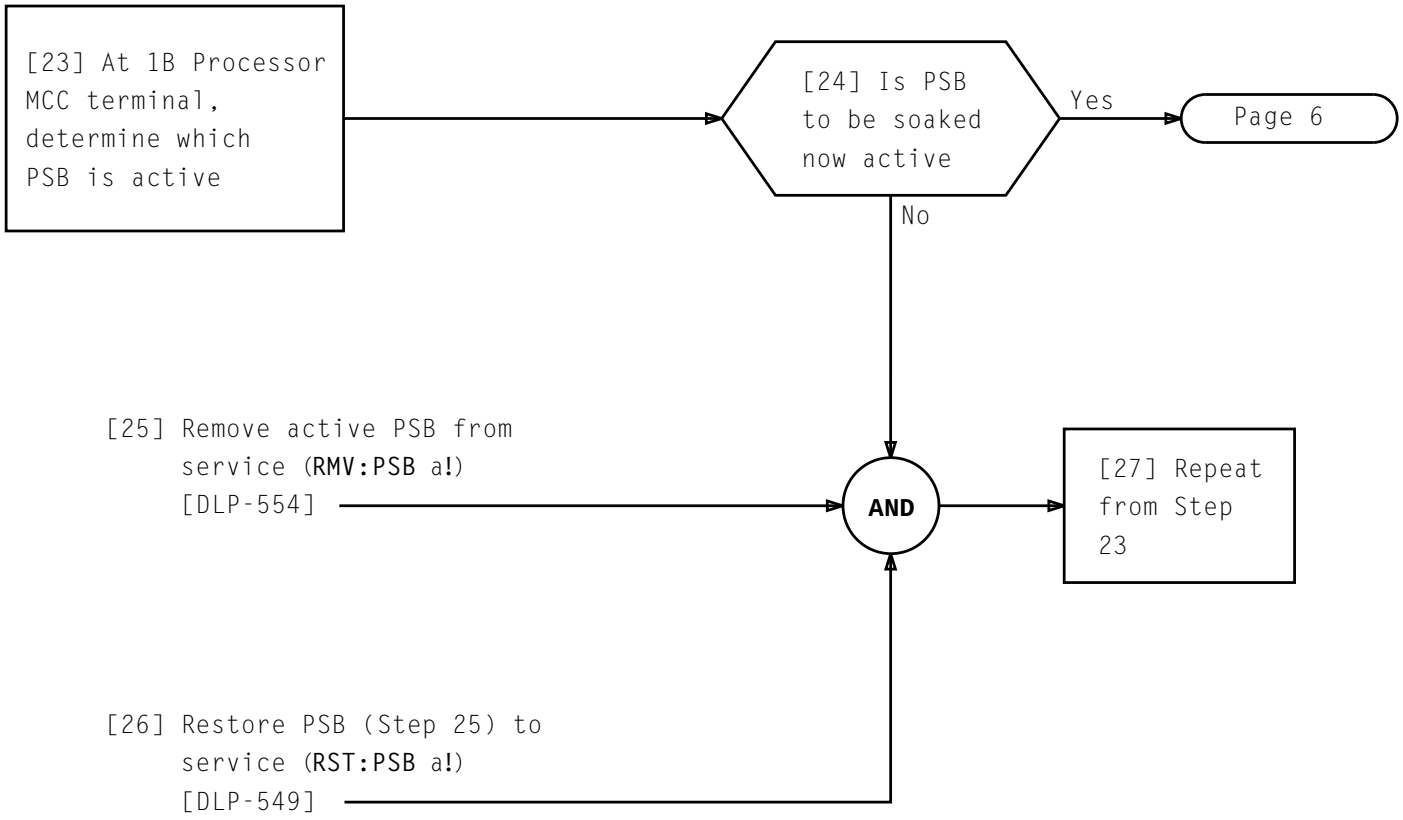
SET UP CONFIGURATION FOR 1B PROCESSOR SOAK (PERFORMED BY INSTALLER)



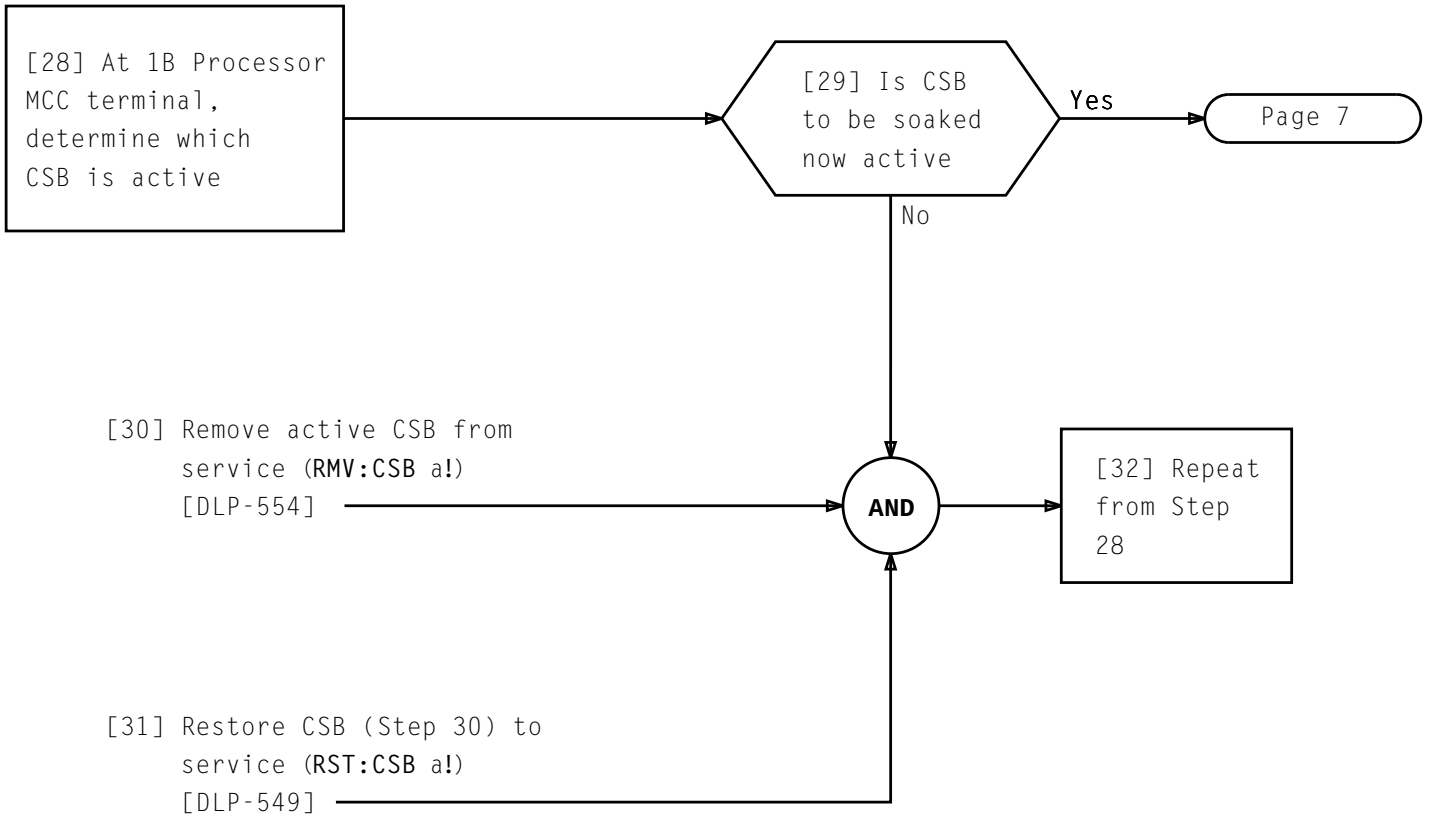
SET UP CONFIGURATION FOR 1B PROCESSOR SOAK (PERFORMED BY INSTALLER)



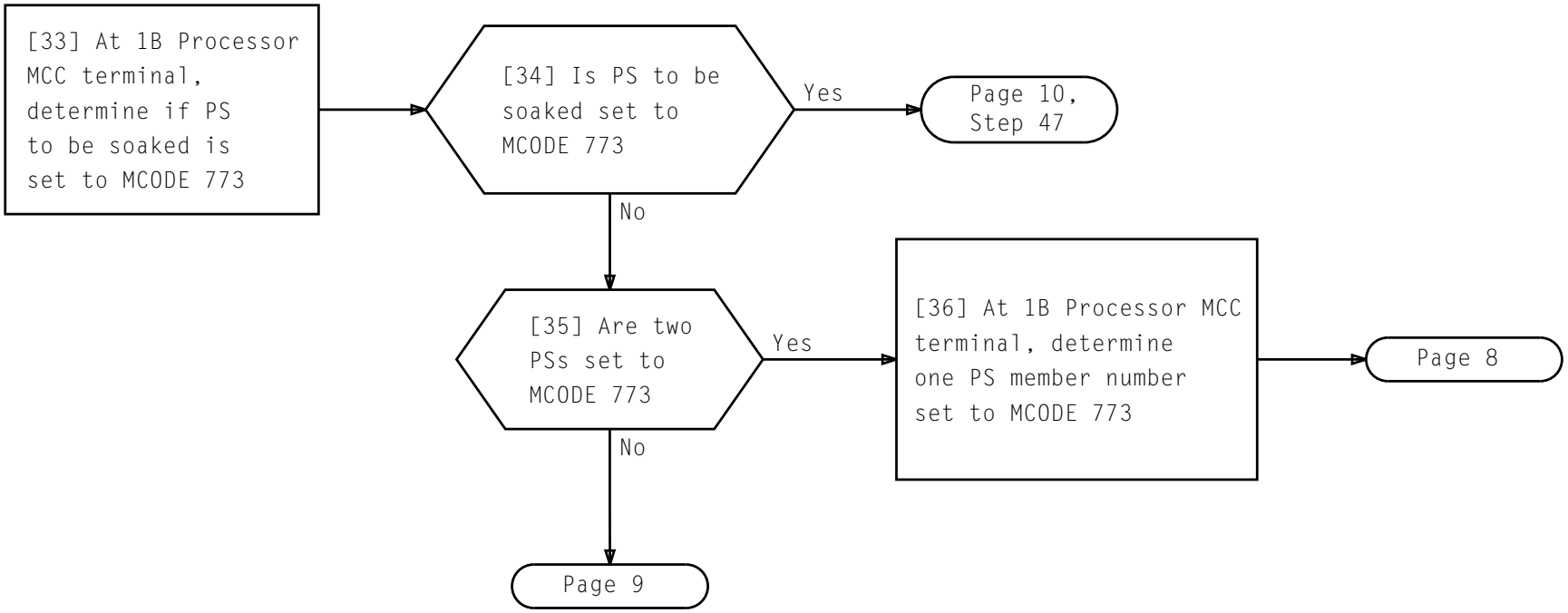
SET UP CONFIGURATION FOR 1B PROCESSOR SOAK (PERFORMED BY INSTALLER)



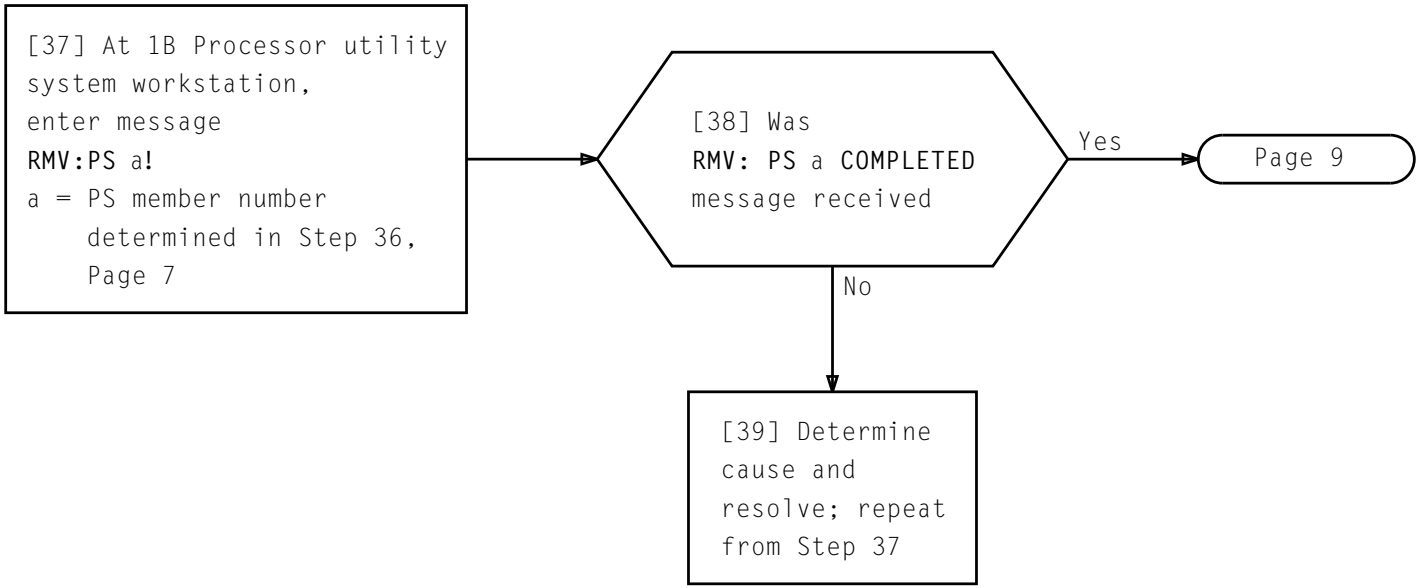
SET UP CONFIGURATION FOR 1B PROCESSOR SOAK (PERFORMED BY INSTALLER)



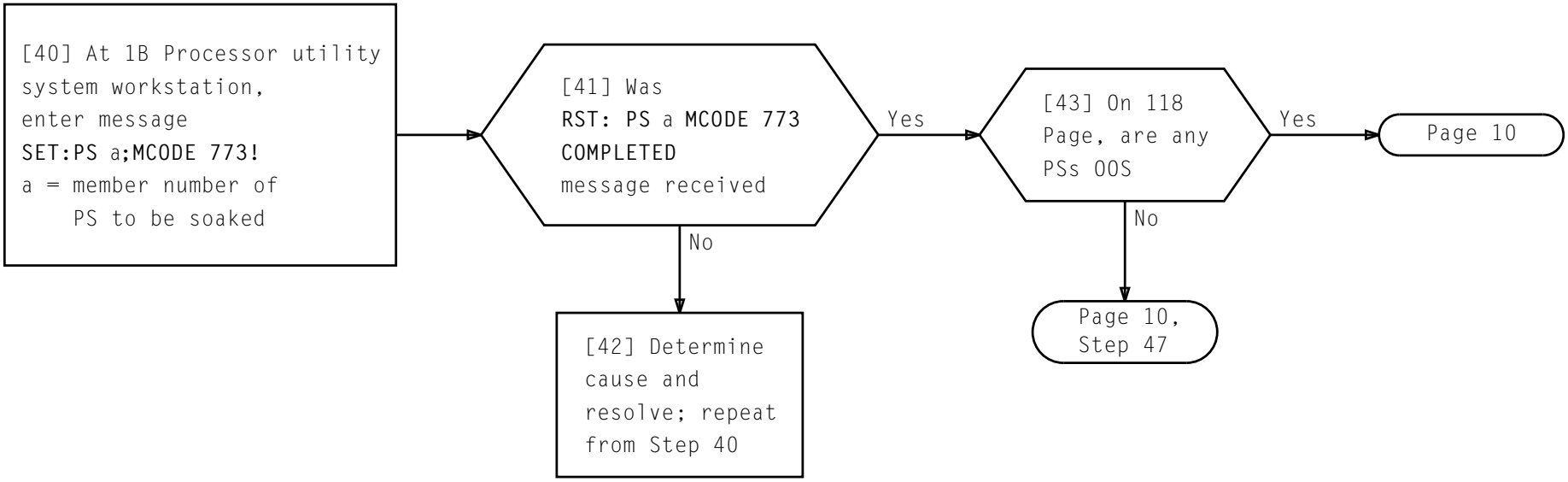
SET UP CONFIGURATION FOR 1B PROCESSOR SOAK (PERFORMED BY INSTALLER)



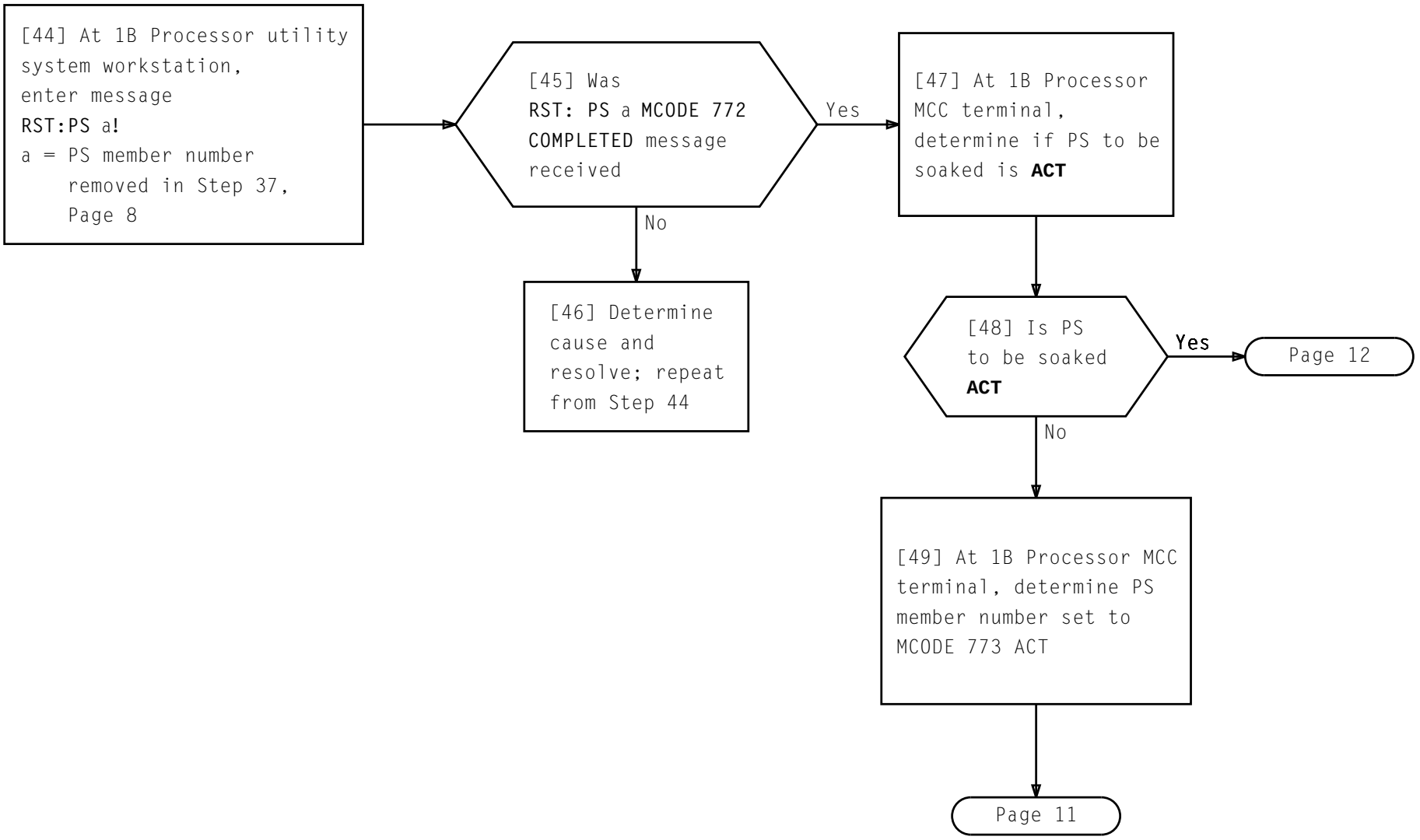
SET UP CONFIGURATION FOR 1B PROCESSOR SOAK (PERFORMED BY INSTALLER)



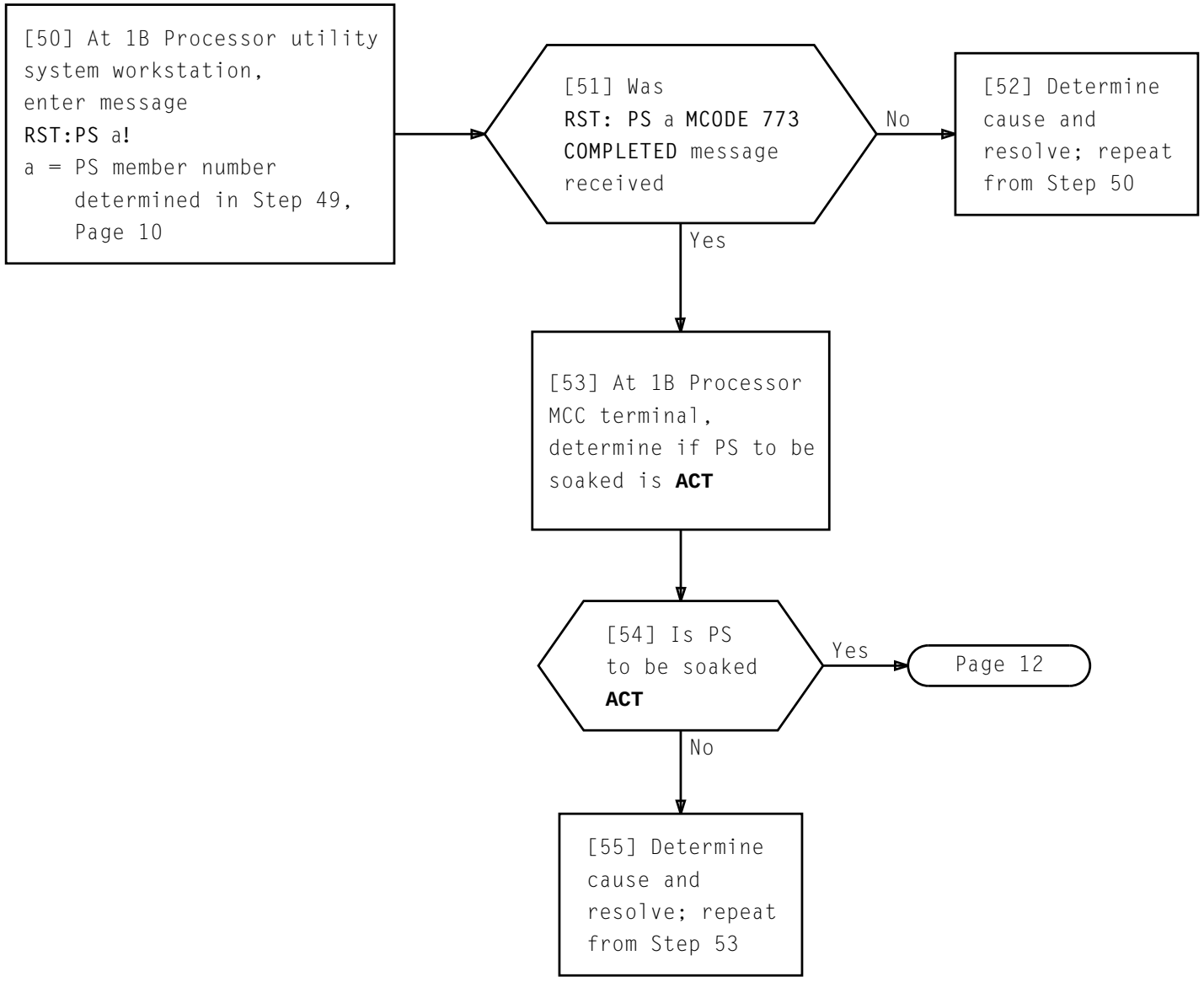
SET UP CONFIGURATION FOR 1B PROCESSOR SOAK (PERFORMED BY INSTALLER)



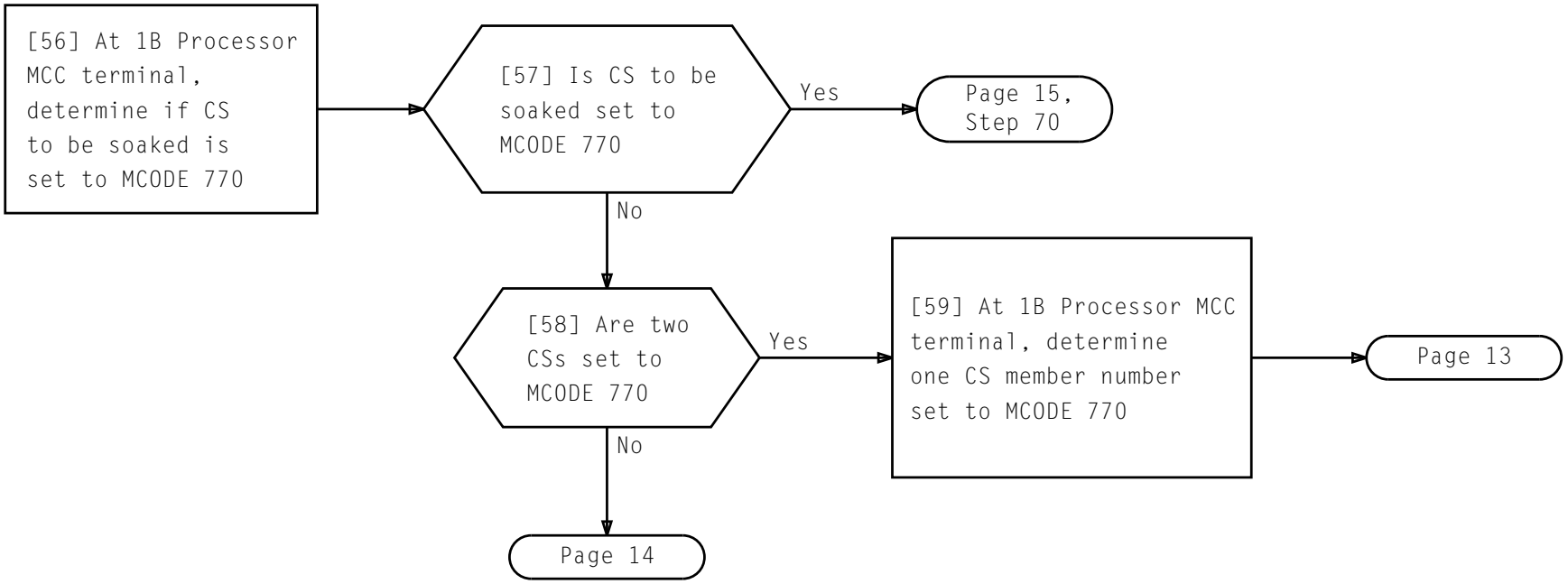
SET UP CONFIGURATION FOR 1B PROCESSOR SOAK PERFORMED BY INSTALLER)



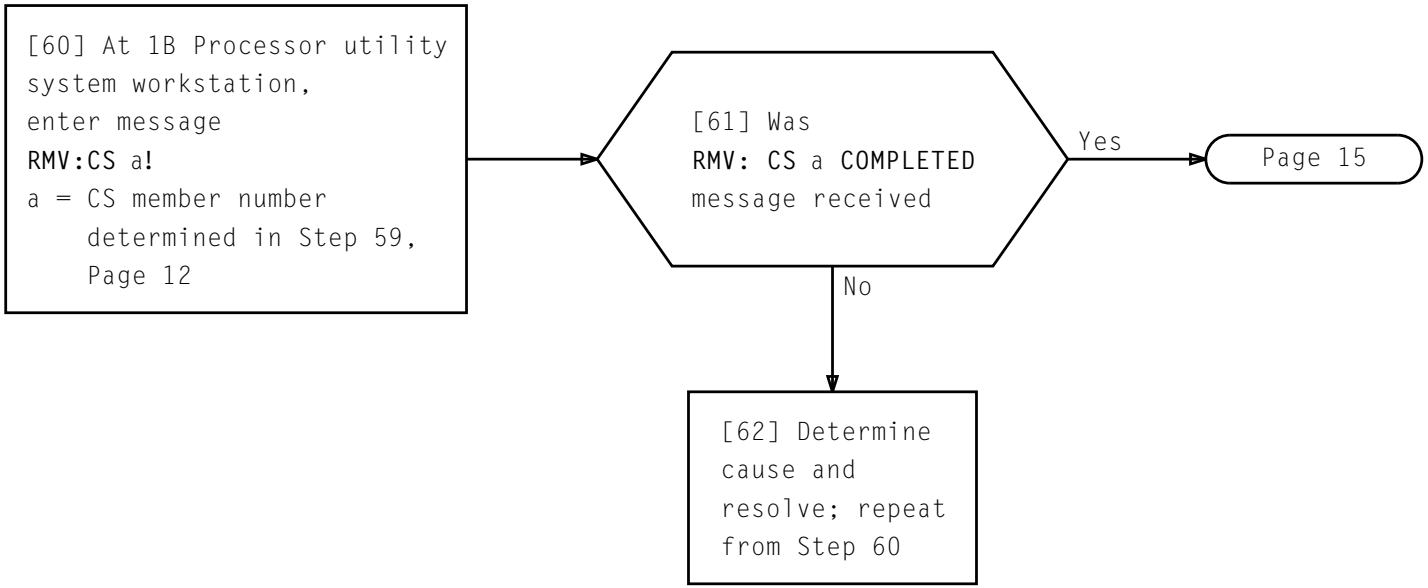
SET UP CONFIGURATION FOR 1B PROCESSOR SOAK (PERFORMED BY INSTALLER)



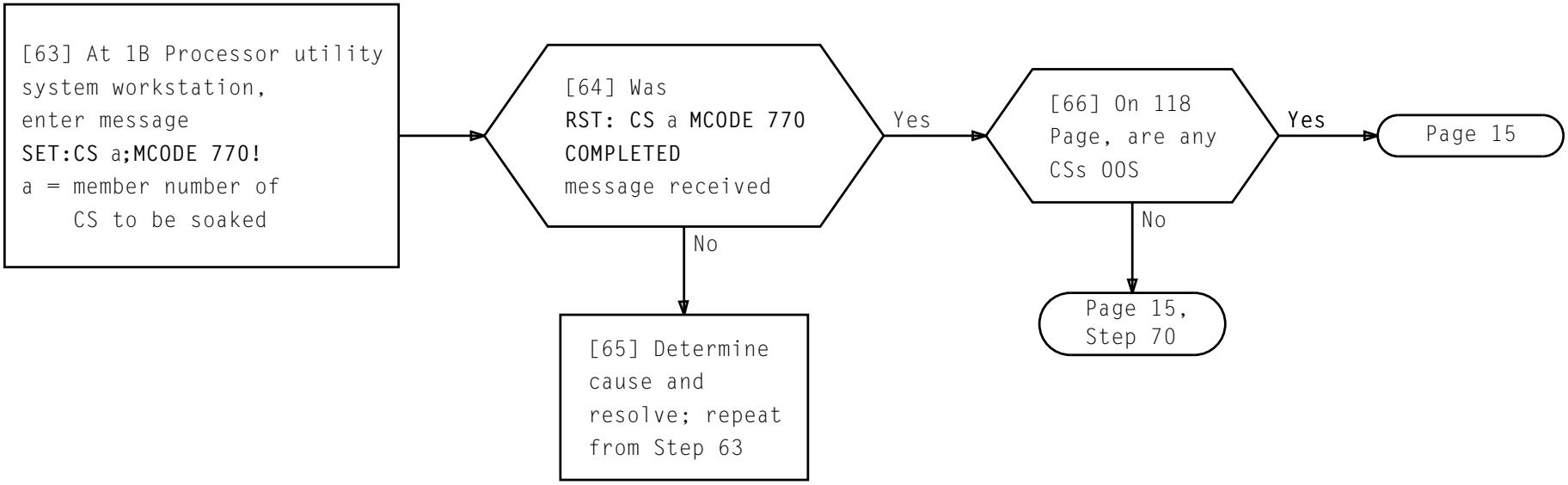
SET UP CONFIGURATION FOR 1B PROCESSOR SOAK (PERFORMED BY INSTALLER)



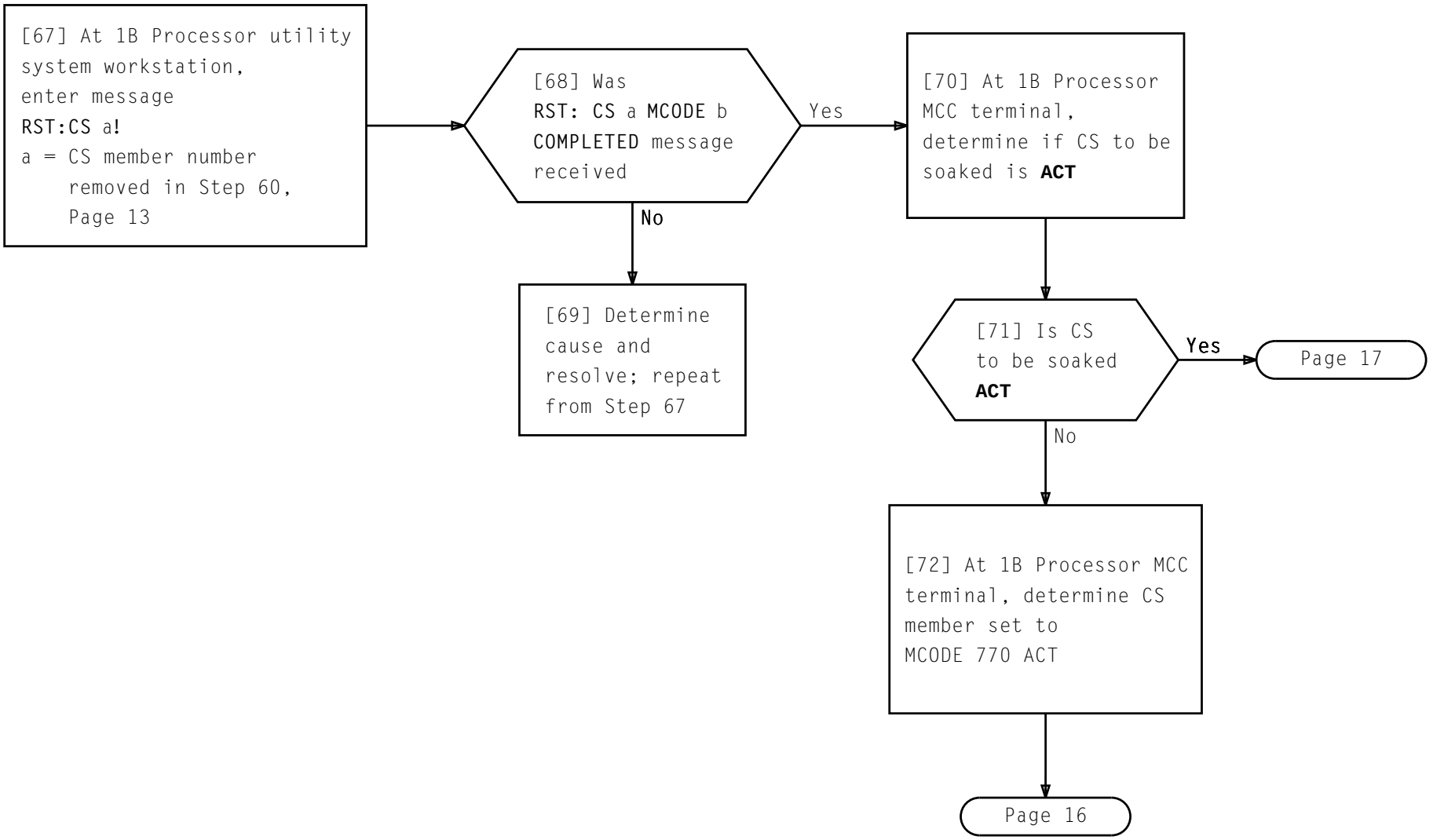
SET UP CONFIGURATION FOR 1B PROCESSOR SOAK (PERFORMED BY INSTALLER)



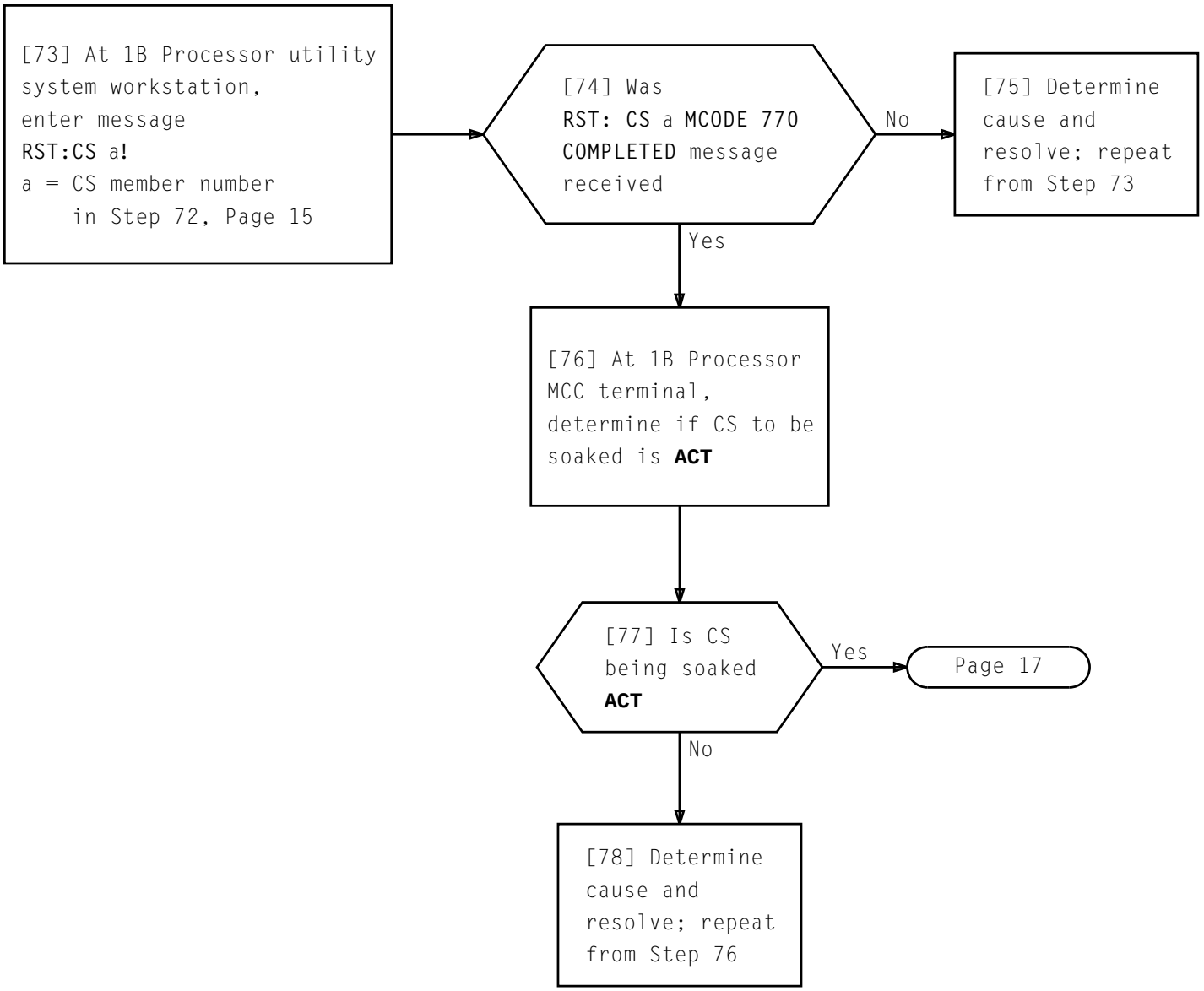
SET UP CONFIGURATION FOR 1B PROCESSOR SOAK (PERFORMED BY INSTALLER)



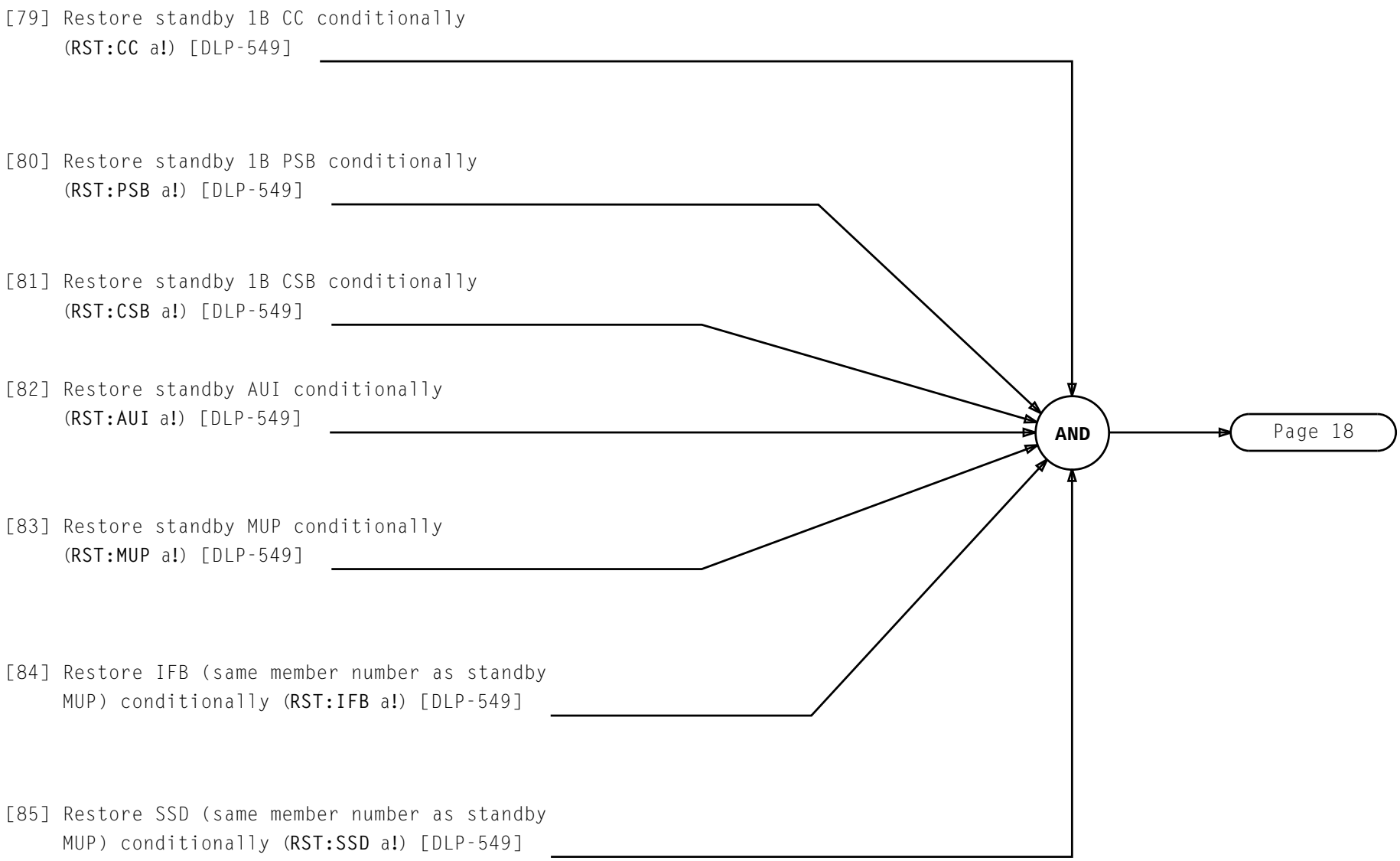
SET UP CONFIGURATION FOR 1B PROCESSOR SOAK (PERFORMED BY INSTALLER)



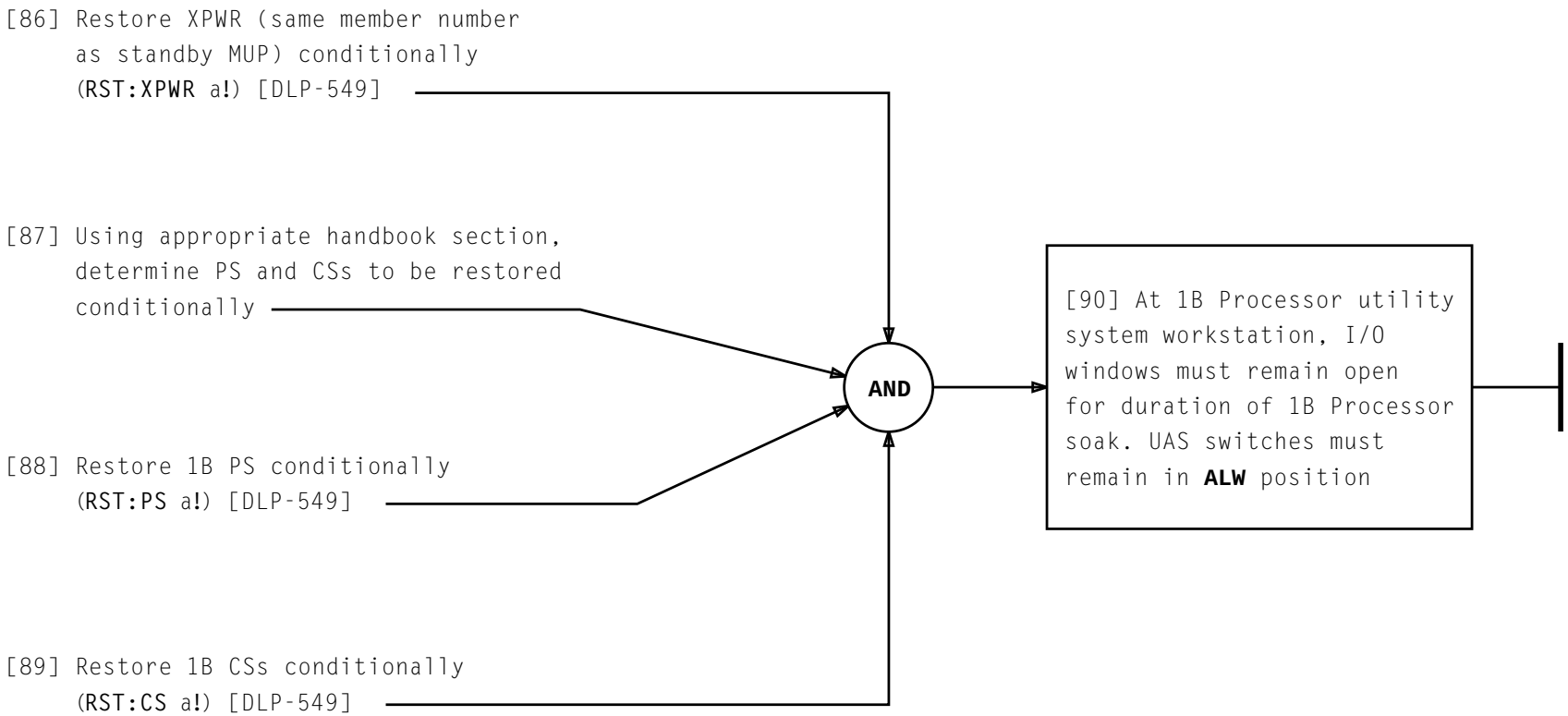
SET UP CONFIGURATION FOR 1B PROCESSOR SOAK (PERFORMED BY INSTALLER)



SET UP CONFIGURATION FOR 1B PROCESSOR SOAK (PERFORMED BY INSTALLER)



SET UP CONFIGURATION FOR 1B PROCESSOR SOAK (PERFORMED BY INSTALLER)



SET UP CONFIGURATION FOR 1B PROCESSOR SOAK (PERFORMED BY INSTALLER)

EXIT I/O MESSAGE PROCESS

[1] At 1B Processor utility system workstation, enter **exit** in 4ESS Input Messages window

4ESS Input Messages window is exited

[2] Move pointer to top of 4ESS Output Messages window

[3] See NOTE 1. Depress and hold **MENU** key [FIG. 1]

Menu displayed

AND

[4] Slide mouse down until pointer is on **Quit**

Quit is highlighted

[5] Release **MENU** key

4ESS Output Messages window is exited

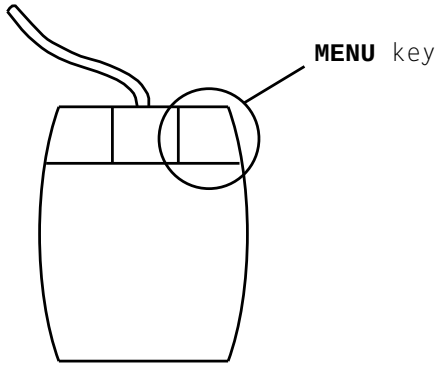


FIG. 1 - Mouse Layout

NOTE 1

MENU key on mouse must be depressed and held for Steps 3 and 4

ITEM	ISSUE	ITEM	ISSUE	ITEM	ISSUE	ITEM	ISSUE	ITEM	ISSUE	ITEM	ISSUE
IXL-001		DLP-536		DLP-576							
NTP-002		DLP-537		DLP-577							
NTP-003		DLP-538		DLP-578							
NTP-004		DLP-539		DLP-579							
NTP-005		DLP-540		DLP-580							
NTP-006		DLP-541		DLP-581							
NTP-007		DLP-542		DLP-582							
NTP-008		DLP-543		DLP-586							
NTP-009		DLP-544		DLP-588							
DLP-500		DLP-545		DLP-589							
DLP-501		DLP-546		DLP-590							
DLP-507		DLP-547		DLP-591							
DLP-509		DLP-548		DLP-592							
DLP-510		DLP-549		DLP-593							
DLP-511		DLP-550		DLP-594							
DLP-512		DLP-553		DLP-595							
DLP-513		DLP-554		DLP-596							
DLP-514		DLP-555		DLP-597							
DLP-515		DLP-556		DLP-598							
DLP-516		DLP-557		DLP-599							
DLP-517		DLP-558		DLP-600							
DLP-518		DLP-559		DLP-605							
DLP-520		DLP-561		DLP-606							
DLP-521		DLP-562		DLP-607							
DLP-522		DLP-563		DLP-608							
DLP-523		DLP-564		DLP-609							
DLP-525		DLP-565		DLP-611							
DLP-526		DLP-566		DLP-612							
DLP-528		DLP-567		DLP-613							
DLP-529		DLP-568		CKL-891							
DLP-530		DLP-569		TNG-893							
DLP-531		DLP-570									
DLP-532		DLP-571									
DLP-534		DLP-572									
DLP-535		DLP-575									