Lucent Technologies
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Service Circuit System (SCS) Growth/Degrowth

4ESS™ Switch

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Lucent Technologies Customer Information Center
2855 North Franklin Road
P.O. Box 19901
Indianapolis, Indiana 46219-1385

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Preface

How to Use This Document

Detailed instructions on how to use this document are provided on procedure TNG-893 located in the back of this document.

Application

This document provides step-by-step instructions for the following tasks:

- Bringing a newly installed Service Circuit System (SCS) into the live network for the purpose of Mass Announcement Storage (MAS) replacement and final handling announcements.
- Degrowing an SCS for controller unit replacement.
- Growing an SCS after controller unit replacement.
- Degrowing an SCS complex or Service Circuit Unit (SCU).
- Updating SCS system files.
- Adding SCUs.
- Increasing Disk Pair Capacity for SCU 0-15.
- Adding an SCU Cabinet (SCUC).
- Adding SCU(s) with Automatic Speech Recognition (ASR) - Phase 1.
- Adding a Custom Data Services Unit-I (CDSU-I) to a Service Circuit Unit (SCU) with ASR Phase 1.
- Degrowing CDSU-I (4, 3, 2, or 1).
- Adding optional Multifaceted Signal Processor (MSP) circuit packs.
- Degrowing a Service Circuit Unit (SCU) with Announcement Set S for conversion to an Automatic Speech Recognition (ASR) SCU.
- Degrowing CDSU-II (4, 3, 2, or 1).
- Adding SCU(s) with Automatic Speech Recognition (ASR) - Phase 2.
- Adding a Custom Data Services Unit-II (CDSU-II) to a Service Circuit Unit (SCU) with ASR Phase 2.

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Acceptance

Acceptance tests are not required for verification of the growth procedures contained in this volume. The readiness of a frame or unit to become a part of the operating system is established by the successful completion of the particular growth procedure in its entirety.

Add Service Circuit System (SCS) With Service Circuit Units (SCUs)

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
	4ESS*™ *SWITCH OFFICE PRELIMINARY CHECK ***Note:*** A simplified block diagram of the Service Circuit System (SCS) is shown in Figure 1 at the end of this NTP.		
1	Ensure that the *4ESS* switch is currently running the 4E22 R4 Generic or later.	Telco	—
2	Ensure that within the last 24 hours the Processor has not experienced any TTY terminal suspends, bootstraps, diagnostic failures, or overloads.	Telco	—

3	Ensure that disks and Input/Output Processors (IOPs) are in duplex and that 3B Control Units (CUs) are in ACTIVE-STANDBY mode. Routine Exercise (REX) and the Peripheral Unit System Execiser (PUSYS) should be inhibited, and should remain inhibited during the entire growth process. This is accomplished by entering the following at the 1B Maintenance (MTC) terminal:
	
	1. **INH:MACLI,CLASS MTCE;REX!**
	
	Response: `MACLI,CLASS MTCE INHIBITED`
	`AUTOMATIC JOB SCHEDULING`
	`DISALLOWED`
	
	2. **STOP:TEST;PUSYS!**
	
	Response: `OK`
		Telco	—

4	Ensure that diagnostics on the duplexed 3B CUs have been run to completion within the last 24 hours.	Telco	—
5	Ensure that all processor and/or system problems have been cleared.	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
6	If this is the **first installation of SCS hardware** in this *4ESS* switch office, perform the following two steps. 1. Apply any SCS Broadcast Warning Messages (BWMs) compatible with SCS growth hardware prior to beginning growth. (The BWMs will supply all necessary information concerning required compatible hardware). This will ensure the use of the latest software available which is compatible with the hardware being installed. Coordinated changes to software and hardware may follow at a later time. 2. Ensure that no Software Updates (SUs)/BWMs for SCS system files are applied during SCS growth. Contact the Network Control Center (NCC) to have NCC ensure that no Software Updates (SUs) or Broadcast Warning Messages (BWMs) for SCS system files will be applied during growth/conversion. Also, have NCC ensure that Centralized Announcement Update Control System (CAUCS) has been inhibited from updating announcements to this 4ESS switch office for the affected Announcement Set(s) during growth/conversion.	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS. GO TO
7	Ensure that the AAP/SCS Local Area Network (LAN) connection is present and active, if applicable. A. At the AAP console, log in as **aapusr** and select option 2 from the menu. B. Poke **118** for link status. Response: LAN links are displayed as active. C. Enter **q** to quit. D. If the LAN is out of service, resolve the problem and contact the next level of support, if necessary. **Do not continue to the next step until the LAN is present and active.** Also ensure that the Announcement Administration Processor (AAP) (if it is operational) has no announcement updates queued for this SCU's Announcement Set by selecting option 4 at the AAP console and entering: **OP:ANNUPD** Response: `OP:ANNUPD AAP System Error, #1149` `Database empty` ***Note:*** If not empty, have announcement updates stored in AAP moved to the proper SCU(s) and verify the ANNUPD database is cleared before proceeding.	Telco	—
8	Ensure that an Extended Polling Peripheral Unit Bus (PUB) Branch is available for SCS growth.	Telco/Inst	—
9	Check office records/Pre Condition Order (PCO)/Main Material Order (MMO) /Telephone Equipment Order (TEO) to confirm the following for each growth SCU/disk pair: • Type of Service Circuit (0-7) • Disk Capacity (0-3) • Announcement Set (A-Z) • AT&T Trigger Platform (Yes or No) • Optional MSP Circuit Pack (1, 2, and/or 3). Retain this information for future use in this procedure.	Telco/Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
10	Verify the SCS Unit Type (UT) Translator and compare the SCU Subunit Data for each growth SCU against office records/PCO/ MMO/TEO. Also compare each growth SCU to Time Slot Interchange(TSI) Port assignment against office wiring records. Similarly, check that all translation information matches the growth SCU's hardware. ***Note:*** The SCU Subunit Data and the associated TSI Port assignments are contained in the three words specified by the SCS UT Translator for each SCU.	Telco/Inst	DLP-512
11	Verify the associated TSI UT Translator(s) and compare the assignment/equipage of the TSI Port to each growth SCU against office wiring records.	Telco/Inst	DLP-516
12	Ensure that diagnostics on the associated Time Slot Interchange Frames have been run to completion within the last 24 hours.	Telco	—
	CIRCUIT PACK INSTALLATION		
13	If the circuit packs for the growth SCU(s) and the associated disk pair(s) are not present, continue to Step 14. If circuit packs are present, continue to Step 18. ***Note:*** SCU for Announcement Expansion will have a TN9001 in place of TN1977 and a TN9002 in place of TN1983.	Inst	—
14	If this SCU is to provide Announcement Expansion, verify that the white wire (required when TN9001 and TN9002 circuit packs are to be used) is installed at the SCU backplane. If not already installed, install the white wire.	Inst	—
15	Install growth SCU circuit packs. ***Note:*** SCU for Announcement Expansion will have a TN9001 in place of a TN1977 and a TN9002 in place of TN1983.	Inst	—
16	Install Hard Disk Unit (HDU) circuit packs associated with growth SCU(s).	Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
17	Verify that fuses are installed in the Fuse and Filter Unit for each growth SCU and associated disk pair(s). (See the labeling on the fuse panel cover for fuse locations and sizes.)	Inst	—
	4ESS SWITCH TO SERVICE CIRCUIT SYSTEM PRELIMINARY INTERCONNECT		
18	Ensure that the SCS frame has been bolted down and the SCS power controller connections from the dedicated *4ESS* switch Power Distribution Frame are completed and tested.	Inst	—
19	Ensure that all Scan Point, Signal Distributor (SD) Point, Maintenance Access (MA) Pulse Point, and Emergency Cutoff (EC) Pulse Point connections from the SCS complex to the *4ESS* switch Signal Processor (SP) are completed.	Inst	—
20	Ensure that the SCS Alarm connection to the *4ESS* switch Power Alarm Grid is completed.	Inst	—
21	Ensure that the SCS TTY A, TTY B, and Telephone Jack connections to the *4ESS* switch are completed.	Inst	—
22	Ensure that the DS-120 cables from the growth SCUs to the associated TSI Ports have been set in place but not connected.	Inst	—
23	Ensure that K-Code jumper plugs for both Controller 0 and Controller 1 are properly installed for the growth member number.	Inst	DLP-518
24	Ensure that the Extended Bus cable from the Optical Cross-Connect Panel (OCCP) to the backplane of the KCN4 circuit pack of each growth SCU has been installed. Non-growth SCUs should have Fiber Shorting Contacts (CC# 846832087) in place at the OCCP. ***Note:*** The OCCP has 2 rows of SCU connectors with 8 SCU connectors in each row. The bottom row of connectors is for SCUs 0-7 and the top row of connectors is for SCUs 8-15. If a whole row of 8 SCU connectors is not being grown, fiber shorting contacts are not required for that row.	Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
25	Ensure that the Local Area Network (LAN) cabling is complete. The LAN cable is daisy-chained between all SCUs (horizontal location 024 on the backplane) on the growth frame and terminated at both ends.	Inst	—
26	Ensure that the DS-120 looping cables and the associated straps (pins 023 to 024) are **not** present on any of the growth SCU backplanes at the TN1588 circuit pack locations.	Inst	—
27	If an Office-dependent Alarm (OA) is associated with the growth SCS complex, update its ASCII text in accordance with local practice.	Telco/Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
	SCS LAN CONSIDERATIONS ***Note:*** If no AAP is present, go to Step 35. If the AAP is present and active, ensure that the AAP to SCS Local Area Network (LAN) connection has been completed by performing Steps 28 through 34. ***Caution: All preparations for this section, such as acquiring LAN cables/terminators, should be completed prior to inhibiting the LAN. The LAN should not stay inhibited for long periods of time.***		
28	Contact the Advanced Features Service Center (AFSC) at 314-658-1304 (tech beeper 314-424-8661) and notify them that the LAN will be taken out of service and that announcement updates to this site will be delayed.	Telco/Inst	—
29	Inhibit the LAN by entering the following input messages: 1. At the AAP console, enter: **STOP:AAP "LANCMD"!** Response: `STOP:AAP "LANCMD" COMPLETED` 2. At the 1B MTC terminal, enter: **INH:SCS 0,LAN!** Response: The screen returns `Code 091` followed by `INH:SCS 0, LAN`	Telco/Inst	—
30	Re-route the LAN cable to add the growth SCS complex to the SCS/AAP series LAN connection. This daisy-chain connection exists between all SCS complexes and the AAP. **If adding an SCS complex to the end of a lineup**, remove the LAN terminator at the end of the last SCS complex. Then, extend the LAN cable to include the growth SCS complex and insert the LAN terminator at the end of the growth SCS complex. **If inserting an SCS complex into a lineup**, interrupt the LAN cable between existing SCS complexes and insert the growth SCS complex in between two existing SCS complexes.	Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
	LAN CONTINUITY CHECK ***Note:*** For proper LAN functionality there must be continuity between the LAN Terminator at the AAP and the LAN Terminator located at the highest member number SCS complex (all other complexes being in between).		
31	At the 1B MTC terminal, enter: **DGN:SCS *x*,SCU *y*:PH 10!** where *x* = First existing LAN-connected SCS Member Number (0-7) (which contains SCU *y*) *y* = Lowest number SCU (0-15) connected to the LAN Response: `RMV SCS x SCU y COMPL,` `DGN SCS x SCS y COMPL ATP` ***Note:*** This diagnostic phase checks LAN continuity for all SCS complexes. If Phase 10 diagnostics fail, appropriate action should be taken to find the "open" in the daisy-chained LAN.	Telco/Inst	—
32	At the 1B MTC terminal, restore the SCU by entering: **RST:SCS *x*,SCU *y*!** where *x* = First LAN-connected SCS Member Number (0-7) (which contains SCU *y*) *y* = Lowest numbered SCU (0-15) connected to LAN Response: `ATP` `ANN UPD STARTED` (if AAP is present and active) `RST:SCSx, SCUy COMPL`	Telco/Inst	—
33	Enable the LAN by entering the following messages: 1. At the AAP console, enter: **STOP:AAP "LANCMD"!** Response: `STOP:AAP "LANCMD" COMPLETED` 2. At the 1B MTC terminal, enter: **ALW:SCS 0,LAN!** Response: The screen returns `Code 091` followed by `ALW:SCS 0,LAN`	Telco/Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
34	Contact the Advanced Features Service Center (AFSC) at 314-658-1304 (tech beeper 314-424-8661) and notify them that the LAN is back in service and that announcement updates may be resumed.	Telco/Inst	—
	SERVICE CIRCUIT SYSTEM GROWTH		
35	Power-up the growth SCS cabinets. 1. At IPUB 0 and 1, press the **ON** button to power the Integrated Power Controller (IPC) TN1671 circuit pack. 2. At SCC 0 and 1, press the **ON** button to power the Master Power Controller (MPC) TN1984 circuit pack. 3. At all growth Hard Drive Units, press the **ON** button to power the Disk Power Controller (DPC) UN356 circuit pack. ***Caution: Wait at least 60 seconds before proceeding with the next step. This allows the disk drives to spin up to operational speed.*** 4. At all growth SCUs, press the **ON** button to power the Master Power Controller (MPC) TN1984 circuit pack.	Inst	—
36	Recent change SCS member equipage from UNEQ to GROW using RC Form 700.	Telco	DLP-500
37	This is a **Safe Stop Point**. If stopping, perform Steps 38 and 39. Otherwise, go to Step 41.	Telco/Inst	—
38	At the 1B MTC terminal, allow REX by entering: **ALW:MACLI,CLASS MTCE!** Response: `AUTOMATIC JOB SCHEDULING RESUMED`	Telco	—
39	Stop procedure for now. Resume at Step 40 when continuing.	Telco/Inst	—
40	Perform Steps 2 through 8 of this procedure. Then continue to the next step.	Telco/Inst	—
41	Extend or insert PUB per 234-153-045. After connecting the SCS cabinet to the Extended Polling Peripheral Unit Bus (PUB) Branch, continue with the next step.	Telco/Inst	—
42	This is a **Safe Stop Point**. If stopping, perform Steps 43 and 44. Otherwise, go to Step 46.	Telco/Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
43	At the 1B MTC terminal, allow REX by entering: **ALW:MACLI,CLASS MTCE!** Response: `AUTOMATIC JOB SCHEDULING RESUMED`	Telco	—
44	Stop procedure for now. Resume at Step 45 when continuing.	Telco/Inst	—
45	Perform Steps 2 through 7 of this procedure. Then continue to the next step.	Telco/Inst	—

46	At the 1B Maintenance (MTC) terminal, remove PUB 0 from service by entering:
	RMV:PUB 0!
	Response:
	`PF`
	`RMV:PUB 0 COMPL`
		Telco	—

47	Ensure that power is applied to growth SCS IPUB 0 and Controllers 0 and 1.	Inst	—
48	Power-down IPUB 1 by simultaneously pressing the **OFF** and **MOR** buttons on the Integrated Power Controller (IPC) TN1671 circuit pack at IPUB 1.	Inst	—
49	At the 1B MTC terminal, diagnose SCS Controller 0, Phases 1 and 2, using PUB 0, by entering: **DGN:SCS *x*,CONTR 0:PUB 0,PH 1-2!** where *x* = Member Number (0-7) Response: The screen returns an output message with `CATP`. Bits **1** and **11** should be **set** in the CATP **reason word** indicating that PUB 1 is out of service and the PUB is not duplex. This is the only allowable exception (no other bits in the CATP reason word should be set).	Telco/Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
50	At the 1B MTC terminal, diagnose SCS Controller 1, Phases 1 and 2, using PUB 0, by entering: **DGN:SCS *x*,CONTR 1:PUB 0,PH 1-2!** where *x* = Member Number (0-7) Response: The screen returns an output message with CATP. Bits **1** and **11** should be **set** in the CATP **reason word** indicating that PUB 1 is out of service and the PUB is not duplex. This is the only allowable exception (no other bits in the CATP reason word should be set).	Telco/Inst	—
51	At the 1B MTC terminal, diagnose SCS Controller 0, Phases 1 through 9, using PUB 0, by entering: **DGN:SCS *x*,CONTR 0:PUB 0,PH 1-9!** where *x* = Member Number (0-7) Response: The screen returns an output message with CATP. Bits **1** and **11** should be **set** in the CATP **reason word** indicating that PUB 1 is out of service and the PUB is not duplex. This is the only allowable exception (no other bits in the CATP reason word should be set).	Telco/Inst	—
52	At the 1B MTC terminal, diagnose SCS Controller 1, Phases 1 through 9, using PUB 0, by entering: **DGN:SCS *x*,CONTR 1:PUB 0,PH 1-9!** where *x* = Member Number (0-7) Response: The screen returns an output message with CATP. Bits **1** and **11** should be **set** in the CATP **reason word** indicating that PUB 1 is out of service and the PUB is not duplex. This is the only allowable exception (no other bits in the CATP reason word should be set).	Telco/Inst	—
53	Remove power from SCS IPUB 0.	Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
54	At the 1B MTC terminal, restore PUB 0 to service by entering: **RST:PUB 0!** Response: PF RST:PUB 0 COMPL	Telco/Inst	—
55	At the 1B MTC terminal, remove PUB 1 from service by entering: **RMV:PUB 1!** Response: PF RMV:PUB 1 COMPL	Telco	—
56	Apply power to SCS IPUB 1.	Inst	—
57	At the 1B MTC terminal, diagnose SCS Controller 0, Phases 1 and 2, using PUB 1, by entering: **DGN:SCS *x*,CONTR 0:PUB 1,PH 1-2!** where *x* = Member Number (0-7) Response: The screen returns an output message with CATP. Bits **0** and **11** should be **set** in the CATP **reason word** indicating that PUB 0 is out of service and the PUB is not duplex. This is the only allowable exception (no other bits in the CATP reason word should be set).	Telco/Inst	—
58	At the 1B MTC terminal, diagnose SCS Controller 1, Phases 1 and 2, using PUB 1, by entering: **DGN:SCS *x*,CONTR 1:PUB 1,PH 1-2!** where *x* = Member Number (0-7) Response: The screen returns an output message with CATP. Bits **0** and **11** should be **set** in the CATP **reason word** indicating that PUB 0 is out of service and the PUB is not duplex. This is the only allowable exception (no other bits in the CATP reason word should be set).	Telco/Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
59	At the 1B MTC terminal, diagnose SCS Controller 0, Phases 1 through 9, using PUB 1, by entering: **DGN:SCS *x*,CONTR 0:PUB 1,PH 1-9!** where *x* = Member Number (0-7) Response: The screen returns an output message with CATP. Bits **0** and **11** should be **set** in the CATP **reason word** indicating that PUB 0 is out of service and the PUB is not duplex. This is the only allowable exception (no other bits in the CATP reason word should be set).	Telco/Inst	—
60	At the 1B MTC terminal, diagnose SCS Controller 1, Phases 1 through 9, using PUB 1, by entering: **DGN:SCS *x*,CONTR 1:PUB 1,PH 1-9!** where *x* = Member Number (0-7) Response: The screen returns an output message with CATP. Bits **0** and **11** should be **set** in the CATP **reason word** indicating that PUB 0 is out of service and the PUB is not duplex. This is the only allowable exception (no other bits in the CATP reason word should be set).	Telco/Inst	—
61	At the 1B MTC terminal, restore PUB 1 to service by entering: **RST:PUB 1!** Response: PF RST:PUB 1 COMPL	Telco/Inst	—
62	Apply power to SCS IPUB 0. Response: REPT: SCS 0, IPUB 0 GROWTH UNIT PCS TRANSITION	Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
63	At the 1B MTC terminal, diagnose SCS Controller 0, Phases 1 through 9, by entering: **DGN:SCS *x*,CONTR 0:PH 1-9!** where *x* = Member Number (0-7) Response: The screen returns output messages with ATP for each valid phase.	Telco/Inst	—
64	At the 1B MTC terminal, diagnose SCS Controller 1, Phases 1 through 9, by entering: **DGN:SCS *x*,CONTR 1:PH 1-9!** where *x* = Member Number (0-7) Response: The screen returns output messages with ATP for each valid phase.	Telco/Inst	—
65	Recent change SCS member equipage from GROW to SGRO using RC Form 700.	Telco	DLP-501
66	At the 1B MTC terminal, diagnose SCS Controller 0, Phases 1 through 9, by entering: **DGN:SCS *x*,CONTR 0:PH 1-9!** where *x* = Member Number (0-7) Response: The screen returns output messages with ATP for each valid phase.	Telco/Inst	—
67	At the 1B MTC terminal, diagnose SCS Controller 1, Phases 1 through 9, by entering: **DGN:SCS *x*,CONTR 1:PH 1-9!** where *x* = Member Number (0-7) Response: The screen returns output messages with ATP for each valid phase.	Telco/Inst	—
68	This is a **Safe Stop Point**. If stopping, perform Steps 69 and 70. Otherwise, go to Step 72.	Telco/Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
69	At the 1B MTC terminal, allow REX by entering: **ALW:MACLI,CLASS MTCE!** Response: `AUTOMATIC JOB SCHEDULING RESUMED`	Telco	—
70	Stop procedure for now. Resume at Step 71 when continuing.	Telco/Inst	—
71	Perform Steps 2 through 7 of this procedure. Then continue to the next step.	Telco/Inst	—
	SCS-RELATED TSI GROWTH		
72	Recent change and verify all TSI submember equipage from UNEQ to GROW using RC Form 700.	Telco	DLP-506
73	Recent change and verify all TSI submember equipage from GROW to SGRO using RC Form 700.	Telco	DLP-507
74	This is a **Safe Stop Point**. If stopping, perform Steps 75 and 76. Otherwise, go to Step 78, being sure to read the heading and note preceeding Step 78.	Telco/Inst	—
75	At the 1B MTC terminal, allow REX by entering: **ALW:MACLI,CLASS MTCE!** Response: `AUTOMATIC JOB SCHEDULING RESUMED`	Telco	—
76	Stop procedure for now. Resume at Step 77 when continuing.	Telco/Inst	—
77	Perform Steps 2 through 7 of this procedure. Then continue to the next step.	Telco/Inst	—
	SCU/DISK PAIR GROWTH ***Note:*** In Steps 81 and 84, the SCU diagnostics must be run twice in order to utilize both Controller 0 and 1.		
78	Recent change and verify SCU 0 disk pair capacity and hardware version using RC Form 703.	Telco	DLP-562
79	Recent change and verify each growth SCU equipage from UNEQ to GROW using RC Form 700.	Telco	DLP-502
80	Recent change and verify each associated disk pair and MSP equipage from UNEQ to GROW using RC Form 703.	Telco	DLP-503

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
81	At the 1B MTC terminal, diagnose each growth SCU and the associated disk pair twice (consecutively) using Phases 1 through 7 by entering: **DGN:SCS** *x*,**SCU z:PH 1-7!** where *x* = Member Number (0-7) *z* = Submember Number (0-15) Response: The screen returns output messages with ATP for each valid phase.	Telco/Inst	—
82	Recent change and verify each growth SCU equipage from GROW to SGRO using RC Form 700.	Telco	DLP-504
83	Recent change and verify each associated disk pair and MSP equipage from GROW to SGRO using RC Form 703.	Telco	DLP-505
84	At the 1B MTC terminal, diagnose each growth SCU and the associated disk pair twice (consecutively) using Phases 1 through 7 by entering: **DGN:SCS** *x*,**SCU** *z*:**PH 1-7!** where *x* = Member Number (0-7) *z* = Submember Number (0-15) Response: The screen returns output messages with ATP for each valid phase.	Telco/Inst	—
85	At the 1B MTC terminal, diagnose SCS Controller 0 by entering: **DGN:SCS** *x*,**CONTR 0!** where *x* = Member Number (0-7) Response: The screen returns an output message with CATP. Bit **4** should be **set** in the CATP **reason word** indicating that the MATE UNIT IS OUT OF SERVICE. This is the only allowable exception (no other bits in the CATP reason word should be set).	Telco/Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
86	At the 1B MTC terminal, diagnose SCS Controller 1 by entering: **DGN:SCS *x*,CONTR 1!** where *x* = Member Number (0-7) Response: The screen returns an output message with `CATP`. Bit **4** should be **set** in the CATP **reason word** indicating that the `MATE UNIT IS OUT OF SERVICE`. This is the only allowable exception (no other bits in the CATP reason word should be set).	Telco/Inst	—
87	This is a **Safe Stop Point**. If stopping, perform Steps 88 and 89. Otherwise, go to Step 91, being sure to read the heading and note before Step 91.	Telco/Inst	—
88	At the 1B MTC terminal, allow REX by entering: **ALW:MACLI,CLASS MTCE!** Response: `AUTOMATIC JOB SCHEDULING RESUMED`	Telco	—
89	Stop procedure for now. Resume at Step 90 when continuing.	Telco/Inst	—
90	Perform Steps 2 through 7 of this procedure. Then continue to the next step.	Telco/Inst	—
	DOWNLOADING OF SCS SYSTEM FILES FROM THE ATTACHED PROCESSOR SYSTEM (APS) ***Note:*** The downloading of the SCS system files is accomplished via the COPY command. This command is used once for each of the SCS System File Types: TONES, SCCSFT, SCUOPR, SCUDGN, MSPROV, MSPFIX, MSP1, MIP0FIL, and MIP1FIL. These files reside in the /scs directory of the 3B20D computer and may have up to 2 vintages of files labeled 0 or 1. Both a Source Version Number (SVN) (the correct and up-to-date file location on the 3B20D computer disk) and a Destination Version Number (DVN) (the next location on each Disk Pair 0) are needed for each COPY command. These numbers ensure that a particular SCS file type is read from and written to the proper disk location.		

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
91	If the *4ESS* switch office **already has an in-service SCS complex**, go to Step 92. If the *4ESS* switch office **does NOT already have an in-service SCS complex**, go to Step 94.	Telco/Inst	—
92	Determine the latest SCS system file version numbers from translations for in-service disk pairs.	Telco/Inst	DLP-545
93	Copy the correct and up-to-date SCS system files from the APS to all growth disk pair 0. Then go to Step 95.	Telco/Inst	DLP-524
94	At the 1B MTC terminal, copy the correct and up-to-date SCS system files from the APS to all growth disk pair 0 by entering the following input messages, one at a time, **being sure to wait for the successful completion of each message before continuing to the next**: **COPY:SCS *x*, SCCSFT,SVN 0,DVN 0; UCL!** **COPY:SCS *x*, SCUOPR,SVN 0,DVN 0; UCL!** **COPY:SCS *x*, SCUDGN,SVN 0,DVN 0; UCL!** **COPY:SCS *x*, MSPFIX,SVN 0,DVN 0; UCL!** **COPY:SCS *x*, MSPROV,SVN 0,DVN 0; UCL!** **COPY:SCS *x*, TONES,SVN 0,DVN 0; UCL!** **COPY:SCS *x*, MSP1,SVN 0,DVN 0; UCL!** **COPY:SCS *x*, MIP0FIL,SVN 0,DVN 0; UCL!** **COPY:SCS *x*, MIP1FIL,SVN 0,DVN 0; UCL!** where *x* = Member Number (0-7) ***Note:*** Each of the above **COPY** commands could take up to 15 minutes to run. If any input message should fail, enter the message a second time before escalating the problem.	Telco/Inst	—
95	If the *4ESS* switch office **already has an in-service SCS complex**, go to Step 96. If the *4ESS* switch office **does NOT already have an in-service SCS complex**, go to Step 97.	Telco/Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
96	Update version numbers in the growth SCS Unit Type Translator.	Telco/Inst	DLP-523
97	At the 1B MTC terminal, diagnose each growth SCU and the associated disk pair(s) by entering: **DGN:SCS** *a*,**SCU** *b*:**PH (1-10,***c***)!** where *a* = Member Number (0-7) *b* = SCU Number (0-15) *c* = Phase Number(s) for SCU MSP test: **12** for SCUs with MSP 0 **12-13** for SCUs with MSPs 0 and 1 **12-14** for SCUs with MSPs 0 through 2 **12-15** for SCUs with MSPs 0 through 3 Response: The screen returns output messages with ATP for each valid phase.	Telco/Inst	—
98	This is a **Safe Stop Point**. If stopping, perform Steps 99 and 100. Otherwise, go to Step 102.	Telco/Inst	—
99	At the 1B MTC terminal, allow REX by entering: **ALW:MACLI,CLASS MTCE!** Response: `AUTOMATIC JOB SCHEDULING RESUMED`	Telco	—
100	Stop procedure for now. Resume at Step 101 when continuing.	Telco/Inst	—
101	Perform Steps 2 through 7 of this procedure. Then continue to the next step.	Telco/Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
	MAKE OPERATIONAL AND RESTORE SCS CONTROLLERS 0 AND 1		
102	At the 1B MTC terminal, diagnose SCS Controller 0 by entering: **DGN:SCS *x*,CONTR 0!** where *x* = Member Number (0-7) Response: The screen returns an output message with `CATP`. Bit **4** should be **set** in the CATP **reason word** indicating that the `MATE UNIT IS OUT OF SERVICE`. This is the only allowable exception (no other bits in the CATP reason word should be set).	Telco/Inst	—
103	At the 1B MTC terminal, diagnose SCS Controller 1 by entering: **DGN:SCS *x*,CONTR 1!** where *x* = Member Number (0-7) Response: The screen returns an output message with `CATP`. Bit **4** should be **set** in the CATP **reason word** indicating that the `MATE UNIT IS OUT OF SERVICE`. This is the only allowable exception (no other bits in the CATP reason word should be set).	Telco/Inst	—
104	At the 1B MTC terminal, run a Peripheral Unit Status audit by entering: **AUD:PUSTAT!** Response: `MSG COMPL`	Telco/Inst	—
105	Recent change and verify SCS member equipage from SGRO to OPER using RC Form 700.	Telco	DLP-508

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
	TN4000 SECOND DISK PACK INITIALIZATION		
	Note: Steps 106 through 111 should be completed only if TN4000 (4 Gb) circuit packs are being grown. Steps 106 through 111 must be completed for each growth SCU equipped with TN4000 circuit packs, beginning with the lowest-numbered growth SCU. These steps must be completed in their entirety for each applicable growth SCU before continuing with the next growth SCU. ***Caution: TN4000 circuit packs can only be installed in disk pair location 0. See Table A at the end of this procedure for allowable disk pair locations.***		
106	With the **ROS** switch on the TN1984 circuit pack in the NORMAL position at SCC 0, restore and initialize SCC 0 by entering the following input message at the 1B MTC terminal: **RST:SCS** *x*,**CONTR 0!** where *x* = Member Number (0-7) Response: The screen returns an output message with `CATP`, then `RESTORE COMPLETE`. Bit **21** will be **set** in the CATP **reason word** (unless the SCS is equipped with one or more SCUs in the SCU8 to SCU15 range), indicating that the `unused EBI link test skipped`. Bit **4** should also be **set** in the CATP **reason word** indicating that the `MATE UNIT IS OUT OF SERVICE`. These are the only allowable exceptions (no other bits in the CATP reason word should be set).	Telco/Inst	—
107	Are TN4000 circuit packs being grown in location 0? If **YES**, continue to Step 108. If **NO**, continue to Step 109.	Telco/Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
108	At the 1B MTC terminal, perform a soft initialization of Disk Pair 1, by entering the commands given below. ***Note:*** When populating a Type 2 (TN4000 - 4 Gb) disk pair at an SCU Disk Pair 0 location in the SCS Unit Type Translator, the adjacent location Disk Pair 1 will also be populated. In order to ensure proper operation, a Soft Initialization (TYP 1) on both Bus 0 and Bus 1 is necessary for Disk Pair 1. 1. **INIT:SCS** *x*,**SCU** *y*,**DSK 1,BUS 0,TYP 1!** where *x* = Member Number (0-7) *y* = Submember Number (0-15) Response: `INIT:SCS` *x*, `SCU` *y* `COMPLETE` 2. **INIT:SCS** *x*,**SCU** *y*,**DSK 1,BUS 1,TYP 1!** where *x* = Member Number (0-7) *y* = Submember Number (0-15) Response: `INIT:SCS` *x*, `SCU` *y* `COMPLETE`	Telco/Inst	—
109	Have Steps 105 through 108 been completed for all applicable growth SCUs? If **YES**, continue to Step 110. If **NO**, repeat Steps 105 through 108 for the next applicable growth SCU.	Telco/Inst	—
110	Degrow SCS member equipage from OPER to SGRO using Recent Change Form 701.	Telco	DLP-514
111	With the **ROS** switch on the TN1984 circuit pack in the ROS position at SCC 0, remove SCC 0 from service by entering the following input message at the 1B MTC terminal: **RMV:SCS** *a*,**CONTR 0!** where *a* = Member Number (0-7) Response: PF followed by: `RMV:SCS` *a*, `CONTR 0 COMPL`	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
112	Recent change and verify SCS member equipage from SGRO to OPER using RC Form 700.	Telco	DLP-508
113	Verify alarms for the Service Circuit Controller Cabinet, SCC 0, SCC 1, IPUB 0, IPUB 1, and all associated Service Circuit Unit Cabinets.	Inst	—
114	With the **ROS** switch on the TN1984 circuit pack in the NORMAL position at SCC 0, restore and initialize SCC 0 by entering the following input message at the 1B MTC terminal: **RST:SCS *x*,CONTR 0!** where *x* = Member Number (0-7) Response: The screen returns an output message with `CATP`, then `RESTORE COMPLETE`. Bit **21** will be **set** in the CATP **reason word** (unless the SCS is equipped with one or more SCUs in the SCU8 to SCU15 range), indicating that the `unused EBI link test skipped`. Bit **4** should also be **set** in the CATP **reason word** indicating that the `MATE UNIT IS OUT OF SERVICE`. These are the only allowable exceptions (no other bits in the CATP reason word should be set).	Telco/Inst	—
115	With the **ROS** switch on the TN1984 circuit pack in the NORMAL position at SCC 1, restore and initialize SCC 1 by entering the following input message at the 1B MTC terminal: **RST:SCS *x*,CONTR 1!** where *x* = Member Number (0-7) Response: The screen returns an output message with `CATP`, then `RESTORE COMPLETE`. Bit **21** will be **set** in the CATP **reason word** (unless the SCS is equipped with one or more SCUs in the SCU8 to SCU15 range), indicating that the `unused EBI link test skipped`. This is the only allowable exception (no other bits in the CATP reason word should be set).	Telco/Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
116	At the growth SCS Cabinet, toggle the Request Out of Service (**ROS**) switch on the TN1984 circuit pack from NORMAL to ROS, then back to NORMAL, for both SCC 0 and 1. ***Note:*** When switches are toggled to ROS, the controllers are removed from SERVICE. When switched back to NORMAL, the controllers are diagnosed and successfully returned to SERVICE. ***Caution: SCC 0 must be RESTORED and IN-SERVICE prior to removing SCC 1.***	Inst	—
117	This is a **Safe Stop Point**. If stopping, perform Steps 118 and 119. Otherwise, go to Step 121, being sure to read the heading and note preceding Step 121.	Telco/Inst	—
118	At the 1B MTC terminal, allow REX by entering: **ALW:MACLI,CLASS MTCE!** Response: `AUTOMATIC JOB SCHEDULING RESUMED`	Telco	—
119	Stop procedure for now. Resume at Step 120 when continuing.	Telco/Inst	—
120	Perform Steps 2 through 7 of this procedure. Then continue to the next step.	Telco/Inst	—
	ACTIVATION OF SCU/HDU EQUIPMENT ***Note:*** The SCUs and their associated TSI Ports are to be made operational and restored one at a time, beginning with the lowest-numbered SCU. **Steps 121 through 141 must be repeated for all growth SCUs and their TSI Ports.**		
121	At the 1B MTC terminal, apply port pest to an associated TSI Port by entering: **INH:TSI** *x*,**SPC** *y*,**PORT** *z*! where *x* = TSI Member Number (0-63) *y* = SPC within TSI (0-1) *z* = Port within SPC (0-6) Response: The input message is echoed when the pesting is done.	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
122	Remove the output loop cables from the associated TSI Port. Then connect signal cables between the associated TSI Port and the growth SCU.	Inst	—
123	At the 1B MTC terminal, diagnose the SCU and the associated disk pair(s) using Phase 11 by entering: **DGN:SCS** *x*,**SCU** *z*:**PH 11!** where *x* = Member Number (0-7) *z* = Submember Number (0-15) Response: The screen returns an output message with ATP for Phase 11.	Telco/Inst	—
124	At the 1B MTC terminal, diagnose the TSI Frame Controller 0 by entering: **DGN:TSI** *x*,**CONTR 0:PH** *y*,**GROWTH!** where *x* = Member Number (0-63) *y* = 13 (for J4A001A) or 20 (for J4A001B) Response: The screen returns an output message with RMV: TSI *x*, CONTR 0 COMPL, *then* ATP for all tests run.	Telco/Inst	—
125	At the 1B MTC terminal, restore TSI *x*, Controller 0 by entering: **RST:TSI** *x*,**CONTR 0!** where *x* = Member Number (0-63) Response: The screen returns an output message with ATP for all tests run, then RESTORE COMPLETE.	Telco/Inst	—
126	At the 1B MTC terminal, diagnose the TSI Frame Controller 1 by entering: **DGN:TSI** *x*,**CONTR 1:PH** *y*,**GROWTH!** where *x* = Member Number (0-63) *y* = 13 (for J4A001A) or 20 (for J4A001B) Response: The screen returns an output message with COMPLETED, then ATP for all tests run.	Telco/Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
127	At the 1B MTC terminal, restore TSI x, Controller 1 by entering: **RST:TSI *x*,CONTR 1!** where *x* = Member Number (0-63) Response: The screen returns an output message with ATP for all tests run, then `RESTORE COMPLETE`.	Telco/Inst	—
128	Recent change and verify TSI submember equipage from SGRO to OPER using RC Form 700.	Telco	DLP-511
129	At the 1B MTC terminal, diagnose the SCU and the associated disk pair(s) using Phase 11 by entering: **DGN:SCS *x*,SCU *z*:PH 11!** where *x* = Member Number (0-7) *z* = Submember Number (0-15) Response: The screen returns an output message with ATP for Phase 11.	Telco/Inst	—
130	Recent change and verify the disk pair and MSP equipage of the associated growth SCU from SGRO to OPER using RC Form 703.	Telco	DLP-509
131	Recent change and verify the associated SCU equipage from SGRO to OPER using RC Form 700.	Telco	DLP-510
132	Verify alarms for the appropriate SCU(s) 0-15 and associated Disk Power Controllers.	Inst	—
133	At the 1B MTC terminal, run a Peripheral Unit Status audit by entering: **AUD:PUSTAT!** Response: `MSG COMPL`	Telco/Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
134	At the 1B MTC terminal, diagnose the growth SCU and the associated disk pair(s) using demand phases of equipped disk pairs by entering the following input message: **DGN:SCS** *a*,**SCU** *b*:**PH** *c*-*d*! where *a* = Member Number (0-7) *b* = SCU Number (0-15) *c* = Beginning Phase Number (see Note) *d* = Ending Phase Number (see Note) ***Caution: For any SCU 0-15, if Type 3 (9GB) disk pair is being diagnosed, demand phases 90-91 must be run. For any SCU 0-15, if a Type 2 (4 Gb) TN4000 Disk Pair is being grown in the Disk Pair 0 location, diagnostic demand Phases 90, 91, 92, and 93 must be run sequentially within the same message. For Type 0 (422 Mb TN1672) and Type 1 (2 Gb TN1972), follow the format below.*** **90** and **91** for Disk Pair 0 **92** and **93** for Disk Pair 1 (SCU 0 only) Response: The screen returns output messages with ATP for each valid phase. ***Note:*** The number of phases in the input message depends on the number of disk pairs equipped. This DGN message takes approximately 10 minutes per phase. Type 3 DGN messages take approximately 1 hour and 40 minutes per phase.	Telco/Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
135	***Note:*** If disk pair has no announcement, continue to Step 137. If disk pair has announcements go to Step 138. At the 1B MTC terminal, perform a soft initialization of SCU 0 Disk Pair 0, by entering the commands given below. ***Note:*** When populating a Type 3 (TN9000 - 9 Gb) disk pair at an SCU Disk Pair 0 location in the SCS Unit Type Translator, the adjacent location Disk Pair 1 will also be populated. In order to ensure proper operation, a Soft Initialization (TYP 1) on both Bus 0 and Bus 1 is necessary for Disk Pair 0. 1. **INIT:SCS *x*,SCU *y*,DSK 0,BUS 0,TYP 1!** where *x* = Member Number (0-7) *y* = Submember Number (0-15) Response: `INIT:SCS x, SCU y COMPLETE` 2. **INIT:SCS *x*,SCU *y*,DSK 0,BUS 1,TYP 1!** where *x* = Member Number (0-7) *y* = Submember Number (0-15) Response: `INIT:SCS x, SCU y COMPLETE`	Telco/Inst	—
136	If an AAP **is not** present, go to Step 137. If an AAP **is** present and active, go to Step 138.	Telco/Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
137	At the 1B MTC terminal, inhibit the Local Area Network (LAN) by entering: **INH:SCS 0,LAN!** Response: The screen will return `CODE 091` followed by: `INH:SCS 0,LAN` ***Note:*** After completion, proceed to Step 139.	Telco/Inst	—
138	Add the growth SCU to the AAP's SCU equipment database, if applicable.	Telco/Inst	DLP-521
139	With the **ROS** switch on the TN1984 circuit pack in the NORMAL position at the SCU, restore and initialize the SCU and the associated disk pair by entering the following input message at the 1B MTC terminal: **RST:SCS** *x*,**SCU** *z***!** where *x* = Member Number (0-7) *z* = Submember Number (0-15) Response: `ATP` `ANN UPD STARTED` (if AAP is present and active) `RST:SCS` *x*, `SCU` *z* `COMPL`	Telco/Inst	—
140	At the growth SCS cabinet, toggle the SCU's **ROS** switch on the TN1984 circuit pack from NORMAL to ROS, then back to NORMAL. ***Note:*** This will remove the SCU from SERVICE. When switched back to NORMAL, the SCU will be diagnosed and successfully returned to SERVICE.	Inst	—
141	Contact NCC to inform that: A. Growth /Conversion of this SCU is complete. B. There are currently no announcements contained on this SCU. C. Trunks to this SCU are in CAD.DSA state (if any exist). D. CAUCS is probably inhibited from updating announcements to this 4ESS switch office for the specific Announcement Set(s).	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
142	This is a **Safe Stop Point**. If stopping, perform Steps 143 and 144. Otherwise, go to Step 146.	Telco/Inst	—
143	At the 1B MTC terminal, allow REX by entering: **ALW:MACLI,CLASS MTCE!** Response: `AUTOMATIC JOB SCHEDULING RESUMED`	Telco	—
144	Stop procedure for now. Resume at Step 145 when continuing.	Telco/Inst	—
145	Perform Steps 2 through 7 of this procedure. Then continue to the next step.	Telco/Inst	—
146	Repeat Steps 121 through 142 for each growth SCU.	Telco	—

TABLE A Allowable Disk Pair Configurations for Circuit Packs With SCU 0

Allowable Disk Pair Types	
Location 0	**Location 1**
2	X
0	0
0	1
1	0
3	X
Where "X" indicates disk pair locations that **must be unpopulated**.	

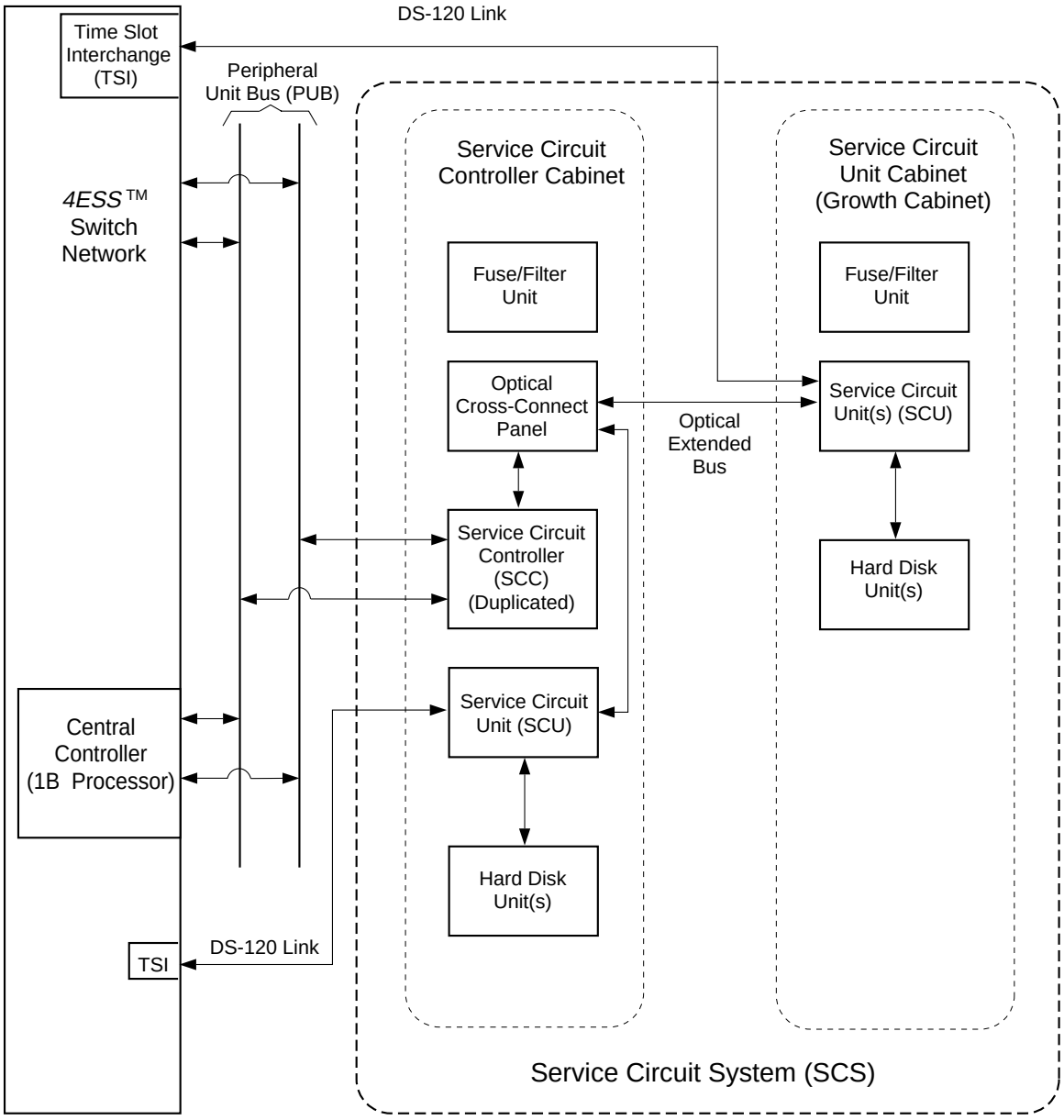

Figure 1. SCS Interface

Degrow Service Circuit System for Controller Unit/IPUB Replacement

Note: This degrow procedure is for replacing the Service Circuit System (SCS) controller unit integrated backplane. This degrow procedure assumes that the SCS complex is operational, in service, and, if applicable, connected to the Announcement Administrative Processor (AAP).

Caution: Do not use this procedure as a stand-alone procedure. This procedure should only be used when referenced from DLP-522 of 234-151-077AC, Service Circuit System (SCS) Maintenance.

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
1	Ensure that all responsible parties and organizations are aware of this degrowth before it starts. The appropriate *4ESS*™ switch support organizations must be contacted for instructions and/or assistance prior to this degrowth.	Telco	—
2	Ensure that within the last 24 hours the Processor has not experienced any TTY terminal suspends, bootstraps, diagnostic failures, or overloads.	Telco	—

3	Ensure that the AT&T 3B20 APS System, the APIs, and the 1B Processor are in the duplex mode, and that the 3B Control Units (CUs) are in ACTIVE-STANDBY mode. Routine Exercise (REX) and the Peripheral Unit System Exerciser (PUSYS) should be disabled, and should remain disabled during the entire degrowth process. This is accomplished by entering the following at the 1B Maintenance (MTC) terminal:
	
	1. **INH:MACLI,CLASS MTCE;REX!**
	
	Response: `MACLI,CLASS MTCE INHIBITED`
	`AUTOMATIC JOB SCHEDULING`
	`DISALLOWED`
	
	2. **STOP:TEST;PUSYS!**
	
	Response: `OK`
		Telco	—

4	Ensure that diagnostics on the duplexed 3B CUs have been run to completion within the last 24 hours.	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
5	Verify Unit Type (UT) Translator to determine and record TSI information, MSP equipage, and disk pair equipage **for each SCU to be degrown**. ***Note:*** This information will be used later in Steps 15, 16, and 18 of this NTP.	Telco/Inst	DLP-542
6	Ensure that diagnostics on the associated Time Slot Interchange (TSI) Frames have been run to completion within the last 24 hours.	Telco	—
7	Ensure that all processor and/or system problems have been cleared.	Telco	—
8	Ensure that no Software Updates (SUs)/Broadcast Warning Messages (BWMs) for SCS system files are applied during SCS degrowth.	Telco	—
9	Ensure that the AAP/SCS LAN connection is present and active, if applicable. A. At the AAP console, log in as **aapusr** and select option 2 from the menu. B. Poke **118** for link status. Response: LAN links are displayed as active. C. Enter **q** to quit. D. If the LAN is out of service, resolve the problem and contact the next level of support, if necessary. **Do not continue to the next step until the LAN is present and active.**	Telco	—
10	Notify the TCC that the SCS complex will be removed from service for controller backplane replacement.	Telco/Inst	—
11	Contact the Advanced Features Service Center (AFSC) at 314-658-1304 (tech beeper 314-424-8661) and notify them that the LAN will be taken out of service.	Telco/Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
12	If the *4ESS* switch office has **only one SCS complex**, and the AAP is present and active, inhibit the LAN by entering the following input messages. Otherwise, continue to Step 13, being sure to read the heading and note preceeding Step 13. 1. At the AAP console, enter: **STOP:AAP "LANCMD"!** Response: The screen returns `Code 091` followed by `STOP:AAP "LANCMD"` 2. At the 1B MTC terminal, enter: **INH:SCS 0,LAN!** Response: The screen returns `Code 091` followed by `INH:SCS 0, LAN`	Telco/Inst	—
	SCU DEGROWTH ***Note:*** The SCUs are to be degrown one at a time, starting with the lowest SCU number. Steps 13 through 20 should be completed in their entirety for one SCU before they are repeated for another SCU.		
13	At the 1B MTC terminal, take the appropriate SCU out of service by entering: **RMV:SCS** *a*,**SCU** *b*! where *a* = Member Number (0-7) *b* = SCU Number (0-15) Response: `PF` followed by: `RMV:SCS` *a*,`SCU` *b* `COMPL` ***Note:*** When taking an SCU out of service, office alarms may sound. Pressing the appropriate key at the MCC will retire these alarms.	Telco	—
14	At the 1B MTC terminal, apply port pest to the associated TSI Port by entering: **INH:TSI** *x*,**SPC** *y*,**PORT** *z*! where *x* = TSI Member Number (0-63) *y* = SPC within TSI (0-1) *z* = Port within SPC (0-6) Response: Input message is echoed when pesting is done.	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
15	At the 1B MTC terminal, determine which trunks are assigned to the degrowth SCU by entering: **VER:TRK:TSI** *a*,**SPC** *b*,**LVL** *c*,**FTS (1-120)!** where *a* = Associated Time Slot Interchange (TSI) Member Number (recorded in Step 5) *b* = Associated Switching and Permuting Circuits (SPC) Number (recorded in Step 5) *c* = Associated Level Number (Port Number) (recorded in Step 5) Response: The screen returns up to five `VER:TRK` messages followed by: `VERIFY PROCESSING COMPLETE` **Record** the First Traffic Number (FTFN), the Trunk Subgroup (TSG) data, and the Quantity of Trunks (QTRK) value from each of the `VER:TRK` messages. FTFN TSG Data QTRK _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
16	Disable the trunks assigned to the degrowth SCU by entering the following input message **once for each of the FTFNs recorded in Step 15**: **SET:TRKSTAT CAD.DSA,CIN** *ab*;**SUM:NUM** *c*! where *a* = FTFN (recorded in Step 15) *b* = TSG associated with FTFN *a* (recorded in Step 15) The TSG will have one of the following three values (the **zzz** value is an office dependent code, and was recorded in Step 15 as part of the TSG): **SVC*SCNS*****zzz** **SVC*SCAN*****zzz** **SVC*SCBN*****zzz** *c* = QTRK value associated with FTFN (recorded in Step 15) Example: If the FTFN is **72**, the TSG is **SVC*SCAN***07T**, and the QTRK is 24, then the input message would be: SET:TRK CAD.DSA,CIN 72SVC*SCAN***07T;SUM:NUM 24! Response: `SET:TRK CAD.DSA CIN ab,SUM COMPLETED TRK COUNT c` ***Note:*** During trunk removal, office alarms will sound. Pressing the appropriate key at the MCC will retire these alarms.	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
17	Recent change and verify subunit data (disk pair and MSP equipage) for appropriate SCU from OPER to SGRO using Recent Change Form 703. ***Note:*** The current disk pair and MSP equipage was recorded in Step 5. After completion of this step, all disk pairs and MSP circuit packs for degrowth SCU(s) should be in the **SGRO** state.	Telco	DLP-519
18	Recent change and verify subunit data (disk pair and MSP equipage) for appropriate SCU from SGRO to GROW using Recent Change Form 703. ***Note:*** The current disk pair and MSP equipage was recorded in Step 5. After completion of this step, all disk pairs and MSP circuit packs for degrowth SCU(s) should be in the **GROW** state.	Telco	DLP-530
19	Recent change and verify SCU equipage from OPER to SGRO using Recent Change Form 701.	Telco	DLP-513
20	Recent change and verify SCU equipage from SGRO to GROW using Recent Change Form 701.	Telco	DLP-535
21	This is a **Safe Stop Point**. If stopping, perform Steps 22 and 23. Otherwise, go to Step 25.	Telco/Inst	—
22	At the 1B MTC terminal, allow REX by entering: **ALW:MACLI,CLASS MTCE!** Response: `AUTOMATIC JOB SCHEDULING RESUMED`	Telco	—
23	Stop procedure for now. Resume at Step 24 when continuing.	Telco/Inst	—
24	Perform Steps 2 through 4 and Steps 6 through 9 of this procedure. Then continue to the next step.	Telco/Inst	—
25	If Steps 13 through 20 have not been completed for each SCU to be degrown, repeat these steps, as applicable, for the remaining degrowth SCUs.	Telco/Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
	SCS MEMBER DEGROWTH ***Caution: All SCUs must be in the* GROW *state prior to member degrowth.***		
26	Degrow member equipage from OPER to SGRO using Recent Change Form 701. ***Note:*** The switch will automatically run an Audit 32 indicating the changed status of the SCS frame.	Telco	DLP-514
27	Degrow member equipage from SGRO to GROW using Recent Change Form 701. ***Note:*** The switch will automatically run an Audit 32 indicating the changed status of the SCS frame.	Telco	DLP-537
28	At the 1B MTC terminal, run a Peripheral Unit Status audit by entering: **AUD:PUSTAT!** Response: `MSG COMPL` ***Note:*** The response will show the old status and the new status. The appropriate SCS Complex will be out of service.	Telco/Inst	—
29	At the 1B MTC terminal, run Audit 32 by entering: **AUD:NUM 32!** Response: The response shows the old mask and the new mask or `NUM 32 COMPLETE 0 ERRORS DETECTED`. Both are valid responses.	Telco/Inst	—
30	This is a **Safe Stop Point**. If stopping, perform Steps 31 and 32. Otherwise, go to Step 34.	Telco/Inst	—
31	At the 1B MTC terminal, allow REX by entering: **ALW:MACLI,CLASS MTCE!** Response: `AUTOMATIC JOB SCHEDULING RESUMED`	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
32	Stop procedure for now. Resume at Step 33 when continuing.	Telco/Inst	—
33	Perform Steps 2 through 4 and Steps 6 through 9 of this procedure. Then continue to the next step.	Telco/Inst	—
34	Remove the degrown SCS complex from the PUB using TOP 234-153-045.	Telco/Inst	—
35	Power-down the SCS complex. 1. At all Hard Drive Units (HDUs), simultaneously press the **OFF** and **MOR** buttons on the UN356 circuit pack. 2. At all SCUs, simultaneously press the **OFF** and **MOR** buttons on the TN1984 circuit pack. 3. At IPUB 0 and 1, simultaneously press the **OFF** and **MOR** buttons on the TN1671 circuit pack. 4. At SCC 0 and 1, simultaneously press the **OFF** and **MOR** buttons on the TN1984 circuit pack.	Inst	—
36	Disconnect/defuse the power between the Power Distribution Frame (PDF) and the degrown SCS frame.	Inst	—
37	At the 1B MTC terminal, allow REX by entering: **ALW:MACLI,CLASS MTCE!** Response: `AUTOMATIC JOB SCHEDULING RESUMED`	Telco	—

Grow Service Circuit System After Controller Unit Replacement

Caution: Do not use this procedure as a stand-alone procedure. This procedure should only be used when referenced from 234-151-077AC, Service Circuit System (SCS) Maintenance.

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
1	Ensure that within the last 24 hours the Processor has not experienced any TTY terminal suspends, bootstraps, diagnostic failures, or overloads.	Telco	—
2	Ensure that the AT&T 3B20 APS System, the APIs, and the 1B Processor are in the duplex mode, and that the 3B Control Units (CUs) are in ACTIVE-STANDBY mode. Routine Exercise (REX) and the Peripheral Unit System Exerciser (PUSYS) should be disabled, and should remain disabled during the entire growth process. This is accomplished by entering the following at the 1B Maintenance (MTC) terminal: 1. **INH:MACLI,CLASS MTCE;REX!** Response: `MACLI,CLASS MTCE INHIBITED AUTOMATIC JOB SCHEDULING DISALLOWED` 2. **STOP:TEST;PUSYS!** Response: `OK`	Telco	—
3	Ensure that diagnostics on the duplexed 3B CUs have been run to completion within the last 24 hours.	Telco	—
4	Verify Unit Type (UT) Translator to determine and record TSI information, MSP equipage, and disk pair equipage **for each SCU to be grown**. ***Note:*** This information will be used later in other steps of this NTP.	Telco/Inst	DLP-542
5	Ensure that diagnostics on the associated Time Slot Interchange (TSI) Frames have been run to completion within the last 24 hours. For diversity, a minimum of two TSI Frames will be used when assigning TSI Ports to Service Circuit Units (SCUs).	Telco	—
6	Ensure that all processor and/or system problems have been cleared.	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
7	Ensure that no Software Updates (SUs)/Broadcast Warning Messages (BWMs) for SCS system files are applied during SCS Growth.	Telco	—
8	Ensure that the AAP/SCS LAN connection is present and active, if applicable. A. At the AAP console, log in as **aapusr** and select option 2 from the menu. B. Poke **118** for link status. Response: LAN links are displayed as active. C. Enter **q** to quit. D. If the LAN is out of service, resolve the problem and contact the next level of support, if necessary. **Do not continue to the next step until the LAN is present and active.**	Telco	—
9	Connect/fuse the power between the Power Distribution Frame (PDF) and the degrown SCS frame.	Inst	—
10	Verify that the controller backplane has -48V at each set of power lugs. ***Caution: Make sure the voltage has the proper polarity.***	Inst	—
11	Install circuit packs in SCC 0 and SCC 1, using current Electro-Static Discharge (ESD) practices.	Inst	—
12	Power-up the SCS cabinets. 1. At IPUB 0 and 1, press the **ON** button on the Integrated Power Controller (IPC) TN1671 circuit pack. 2. At SCC 0 and 1, press the **ON** button on the Master Power Controller (MPC) TN1984 circuit pack. 3. At all Hard Drive Units, press the **ON** button on the Disk Power Controller (DPC) UN356 circuit pack. ***Caution: Wait at least 60 seconds before proceeding with the next step. This allows the disk drives to spin up to operational speed.*** 4. At all SCUs, press the **ON** button on the MPC TN1984 circuit pack.	Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
13	Verify that member equipage, submember equipage, and subunit data equipage are in the GROW state.	Telco	DLP-520
14	This is a **Safe Stop Point**. If stopping, perform Steps 15 and 16. Otherwise, go to Step 18.	Telco/Inst	—
15	At the 1B MTC terminal, allow REX by entering: **ALW:MACLI,CLASS MTCE!** Response: `AUTOMATIC JOB SCHEDULING RESUMED`	Telco	—
16	Stop procedure for now. Resume at Step 17 when continuing.	Telco/Inst	—
17	Perform Steps 1 through 3 and Steps 5 through 8 of this procedure. Then continue to the next step.	Telco/Inst	—
18	Extend or insert PUB per TOP 234-153-045.	Telco/Inst	—
19	This is a **Safe Stop Point**. If stopping, perform Steps 20 and 21. Otherwise, go to Step 23.	Telco/Inst	—
20	At the 1B MTC terminal, allow REX by entering: **ALW:MACLI,CLASS MTCE!** Response: `AUTOMATIC JOB SCHEDULING RESUMED`	Telco	—
21	Stop procedure for now. Resume at Step 22 when continuing.	Telco/Inst	—
22	Perform Steps 1 through 3 and Steps 5 through 8 of this procedure. Then continue to the next step.	Telco/Inst	—

23	At the 1B Maintenance (MTC) terminal, remove PUB 0 from service by entering: **RMV:PUB 0!**
	
	Response:
	`PF`
	`RMV:PUB 0 COMPL`
		Telco	—

24	Ensure that power is applied to Growth SCS IPUB 0 and Controllers 0 and 1.	Inst	—
25	Power-down IPUB 1 by simultaneously pressing the **OFF** and **MOR** buttons on the Integrated Power Controller (IPC) TN1671 circuit pack at IPUB 1.	Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
26	At the 1B MTC terminal, diagnose SCS Controller 0, Phases 1 and 2, using PUB 0, by entering: **DGN:SCS x,CONTR 0:PUB 0,PH 1-2!** where *x* = Member Number (0-7) Response: The screen returns an output message with CATP. Bits **1** and **11** should be **set** in the CATP **reason word** indicating that PUB 1 is out of service and the PUB is not duplex. This is the only allowable exception (no other bits in the CATP reason word should be set).	Telco/Inst	—
27	At the 1B MTC terminal, diagnose SCS Controller 1, Phases 1 and 2, using PUB 0, by entering: **DGN:SCS x,CONTR 1:PUB 0,PH 1-2!** where *x* = Member Number (0-7) Response: The screen returns an output message with CATP. Bits **1** and **11** should be **set** in the CATP **reason word** indicating that PUB 1 is out of service and the PUB is not duplex. This is the only allowable exception (no other bits in the CATP reason word should be set).	Telco/Inst	—
28	At the 1B MTC terminal, diagnose SCS Controller 0, Phases 1 through 9, using PUB 0, by entering: **DGN:SCS x,CONTR 0:PUB 0,PH 1-9!** where *x* = Member Number (0-7) Response: The screen returns an output message with CATP. Bits **1** and **11** should be **set** in the CATP **reason word** indicating that PUB 1 is out of service and the PUB is not duplex. This is the only allowable exception (no other bits in the CATP reason word should be set).	Telco/Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
29	At the 1B MTC terminal, diagnose SCS Controller 1, Phases 1 through 9, using PUB 0, by entering: **DGN:SCS x,CONTR 1:PUB 0,PH 1-9!** where *x* = Member Number (0-7) Response: The screen returns an output message with CATP. Bits **1** and **11** should be **set** in the CATP **reason word** indicating that PUB 1 is out of service and the PUB is not duplex. This is the only allowable exception (no other bits in the CATP reason word should be set).	Telco/Inst	—
30	Remove power from SCS IPUB 0.	Inst	—
31	At the 1B MTC terminal, restore PUB 0 to service by entering: **RST:PUB 0!** Response: PF RST:PUB 0 COMPL	Telco/Inst	—
32	At the 1B MTC terminal, remove PUB 1 from service by entering: **RMV:PUB 1!** Response: PF RMV:PUB 1 COMPL	Telco	—
33	Apply power to SCS IPUB 1.	Inst	—
34	At the 1B MTC terminal, diagnose SCS Controller 0, Phases 1 and 2, using PUB 1, by entering: **DGN:SCS x,CONTR 0:PUB 1,PH 1-2!** where *x* = Member Number (0-7) Response: The screen returns an output message with CATP. Bits **0** and **11** should be **set** in the CATP **reason word** indicating that PUB 0 is out of service and the PUB is not duplex. This is the only allowable exception (no other bits in the CATP reason word should be set).	Telco/Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
35	At the 1B MTC terminal, diagnose SCS Controller 1, Phases 1 and 2, using PUB 1, by entering: **DGN:SCS x,CONTR 1:PUB 1,PH 1-2!** where *x* = Member Number (0-7) Response: The screen returns an output message with CATP. Bits **0** and **11** should be **set** in the CATP **reason word** indicating that PUB 0 is out of service and the PUB is not duplex. This is the only allowable exception (no other bits in the CATP reason word should be set).	Telco/Inst	—
36	At the 1B MTC terminal, diagnose SCS Controller 0, Phases 1 through 9, using PUB 1, by entering: **DGN:SCS x,CONTR 0:PUB 1,PH 1-9!** where *x* = Member Number (0-7) Response: The screen returns an output message with CATP. Bits **0** and **11** should be **set** in the CATP **reason word** indicating that PUB 0 is out of service and the PUB is not duplex. This is the only allowable exception (no other bits in the CATP reason word should be set).	Telco/Inst	—
37	At the 1B MTC terminal, diagnose SCS Controller 1, Phases 1 through 9, using PUB 1, by entering: **DGN:SCS x,CONTR 1:PUB 1,PH 1-9!** where *x* = Member Number (0-7) Response: The screen returns an output message with CATP. Bits **0** and **11** should be **set** in the CATP **reason word** indicating that PUB 0 is out of service and the PUB is not duplex. This is the only allowable exception (no other bits in the CATP reason word should be set).	Telco/Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
38	At the 1B MTC terminal, restore PUB 1 to service by entering: **RST:PUB 1!** Response: `PF` `RST:PUB 1 COMPL`	Telco/Inst	—
39	Apply power to SCS IPUB 0. Response: `REPT: SCS 0, IPUB 0 GROWTH UNIT PCS TRANSITION`	Inst	—
40	At the 1B MTC terminal, diagnose SCS Controller 0, Phases 1 through 9, by entering: **DGN:SCS x,CONTR 0:PH 1-9!** where *x* = Member Number (0-7) Response: The screen returns output messages with `ATP` for each valid phase.	Telco/Inst	—
41	At the 1B MTC terminal, diagnose SCS Controller 1, Phases 1 through 9, by entering: **DGN:SCS x,CONTR 1:PH 1-9!** where *x* = Member Number (0-7) Response: The screen returns output messages with `ATP` for each valid phase.	Telco/Inst	—
42	Recent change SCS member equipage from GROW to SGRO using RC Form 700.	Telco	DLP-501
43	At the 1B MTC terminal, diagnose Controller 0 by entering the following input message: **DGN:SCS x,CONTR 0!** where *x* = Member Number (0-7) Response: The screen returns an output message with `CATP`. Bit **4** should be **set** in the CATP **reason word** indicating that the `MATE UNIT IS OUT OF SERVICE`. No other bits in the CATP reason word should be set.	Telco/Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
44	At the 1B MTC terminal, diagnose Controller 1 by entering the following input message: **DGN:SCS x,CONTR 1!** where *x* = Member Number (0-7) Response: The screen returns an output message with `CATP`. Bit **4** should be **set** in the CATP **reason word** indicating that the `MATE UNIT IS OUT OF SERVICE`. No other bits in the CATP reason word should be set.	Telco/Inst	—
45	At the 1B MTC terminal, run a Peripheral Unit Status audit by entering: **AUD:PUSTAT!** Response: `MSG COMPL` ***Note:*** The response will show the old status and the new status.		
46	Recent change SCS member equipage from SGRO to OPER using RC Form 700.	Telco	DLP-508
47	At the 1B MTC terminal, restore SCS Controller 0 by entering: **RST:SCS x,CONTR 0!** where *x* = Member Number (0-7) Response: The screen returns an output message with `CATP`, then `RESTORE COMPLETE`. Bits **4** and **19** should be **set** in the CATP **reason word** indicating, respectively, that the `MATE UNIT IS OUT OF SERVICE` and the `UNUSED EBI LINK TEST SKIPPED`. No other bits in the CATP reason word should be set.	Telco/Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
48	At the 1B MTC terminal, restore SCS Controller 1 by entering: **RST:SCS x,CONTR 1!** where *x* = Member Number (0-7) Response: The screen returns an output message with `CATP`, then `RESTORE COMPLETE`. Bit **19** should be **set** in the CATP **reason word**, indicating that the `UNUSED EBI LINK TEST SKIPPED`. No other bits in the CATP reason word should be set.	Telco/Inst	—
49	At each of the controllers (0 and 1), toggle the Request Out-of-Service (ROS) switch on the TN1984 circuit pack from NORMAL to ROS position, then back to the NORMAL position. ***Note:*** When switches are toggled to ROS, the controllers are removed from service. When switched back to NORMAL, the controllers are diagnosed and successfully returned to service. **SCC 0 must be restored and in service prior to removing SCC 1.**	Inst	—
50	This is a **Safe Stop Point**. If stopping, perform Steps 51 and 52. Otherwise, go to Step 54, being sure to read the heading and note preceeding Step 54.	Telco/Inst	—
51	At the 1B MTC terminal, allow REX by entering: **ALW:MACLI,CLASS MTCE!** Response: `AUTOMATIC JOB SCHEDULING RESUMED`	Telco	—
52	Stop procedure for now. Resume at Step 53 when continuing.	Telco/Inst	—
53	Perform Steps 1 through 3 and Steps 5 through 8 of this procedure. Then continue to the next step.	Telco/Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
	SCU GROWTH ***Note:*** The SCUs are to be grown one at a time, starting with the lowest SCU number. Steps 54 through 61 should be completed in their entirety for one SCU before they are repeated for another SCU.		
54	Recent change and verify the SCU's subunit data from GROW to SGRO using RC Form 703. ***Note:*** The current number of disk pairs and MSP circuit packs, associated with each growth SCU, was recorded in Step 4.	Telco	DLP-505
55	Recent change and verify the SCU equipage from GROW to SGRO using Recent Change Form 700.	Telco	DLP-504
56	At the 1B MTC terminal, diagnose each growth SCU and the associated disk pair(s) by entering: **DGN:SCS** *a*,**SCU** *b*:**PH 1-***c*! where *a* = Member Number (0-7) *b* = SCU Number (0-15) *c* = Phase Number for SCU MSP test: **12** for SCUs with MSP 0 **13** for SCUs with MSPs 0 and 1 **14** for SCUs with MSPs 0 through 2 **15** for SCUs with MSPs 0 through 3 Response: The screen returns output messages with ATP for each valid phase.	Telco/Inst	—
57	Recent change and verify the SCU's subunit data from SGRO to OPER using RC Form 703. ***Note:*** The current number of disk pairs and MSP circuit packs, associated with each growth SCU, was recorded in Step 4. Ensure that all disk pairs and MSPs are grown at this time.	Telco	DLP-509

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
58	Recent change and verify the SCU equipage from SGRO to OPER using Recent Change Form 700.	Telco	DLP-510
59	At the 1B MTC terminal, run a Peripheral Unit Status audit by entering: **AUD:PUSTAT!** Response: `MSG COMPL` ***Note:*** The response shows the old status and new status.	Telco/Inst	—
60	At the 1B MTC terminal, restore the SCU and the associated disk pair(s) by entering: **RST:SCS x,SCU z!** where *x* = Member Number (0-7) *z* = Submember Number (0-15) Response: `DGN COMPLETED ATP` `ANN UPD STARTED` (if AAP is present and active) `RESTORE COMPLETE` ***Note:*** This restore could take some time, depending on the length of the AAP updates.	Telco/Inst	—
61	At the growth SCS cabinet, toggle the SCU's **ROS** switch on the TN1984 circuit pack from NORMAL to ROS, then back to NORMAL. ***Note:*** This will remove the SCU from SERVICE. When switched back to NORMAL, the SCU will be diagnosed and successfully returned to SERVICE.	Inst	—
62	This is a **Safe Stop Point**. If stopping, perform Steps 63 and 64. Otherwise, go to Step 66.	Telco/Inst	—
63	At the 1B MTC terminal, allow REX by entering: **ALW:MACLI,CLASS MTCE!** Response: `AUTOMATIC JOB SCHEDULING RESUMED`	Telco	—
64	Stop procedure for now. Resume at Step 65 when continuing.	Telco/Inst	—
65	Perform Steps 1 through 3 and Steps 5 through 8 of this procedure. Then continue to the next step.	Telco/Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
66	Repeat Steps 54 through 61 for all appropriate SCUs. If Steps 54 through 61 have already been completed for all appropriate SCUs, continue to Step 67.	Telco/Inst	—
67	Verify Unit Type (UT) Translator to determine TSI information **for each growth SCU**. This information is necessary for enabling trunks. ***Note:*** This information will be used later in other steps of this NTP.	Telco	DLP-522
	ENABLING TRUNKS ***Note:*** Steps 68 and 69 are to be completed for each growth SCU. These steps should both be completed for one SCU before they are repeated for another SCU. Begin with the lowest SCU number.		
68	At the 1B MTC terminal, determine which trunks are assigned to the growth SCU by entering: **VER:TRK:TSI *a*,SPC *b*,LVL *c*,FTS (1-120)!** where *a* = Associated Time Slot Interchange (TSI) Member Number (recorded in Step 67) *b* = Associated Switching and Permuting Circuits (SPC) Number (recorded in Step 67) *c* = Associated Level Number (Port Number) (recorded in Step 67) Response: The screen returns up to five `VER:TRK` messages followed by: `VERIFY PROCESSING COMPLETE` Record the First Traffic Number (FTFN), Trunk Subgroup (TSG), and Quantity of Trunks (QTRK) data from each of the `VER:TRK` messages. FTFN TSG Data QTRK _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
69	Enable the trunks assigned to the growth SCU by entering the following input message at the 1B MTC terminal, **once for each of the FTFNs recorded in Step 68**. **SET:TRKSTAT ACT,CIN** *ab*;**SUM:NUM** *c*! where *a* = FTFN (recorded in Step 68) *b* = TSG associated with FTFN *a* (recorded in Step 68). *c* = QTRK value associated with FTFN (recorded in Step 68) Example: If the FTFN is `72`, and the TSG is `SVC*SCAN***07T`, then the input message would be: **SET:TRKSTAT ACT,CIN 72SVC*SCAN***07T;SUM:NUM 24!** Response: `SET:TRKSTAT ACT CIN` *ab*`,SUM COMPLETED` `TRK COUNT` *c*	Telco	—
70	Repeat Steps 68 and 69 for all appropriate SCUs.	Telco/Inst	—
71	If the *4ESS* switch office has **only one SCS complex**, the AAP is present and active, and the Local Area Network (LAN) has been inhibited, enable the LAN by entering the following messages. Otherwise, continue to Step 72. 1. At the AAP console, enter: **INIT:AAP "LANCMD"!** Response: `INIT:AAP "LANCMD" COMPLETED` 2. At the 1B MTC terminal, enter: **ALW:SCS 0,LAN!** Response: The screen returns `Code 091` followed by `ALW:SCS 0, LAN`	Telco/Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
72	At the 1B MTC terminal, allow REX by entering: **ALW:MACLI,CLASS MTCE!** Response: `AUTOMATIC JOB SCHEDULING RESUMED`	Telco	—
73	Contact the Advanced Features Service Center (AFSC) at 314-658-1304 (tech beeper 314-424-8661) and notify them that the backplane replacement is complete and that the SCS is back up and available.	Telco/Inst	—
74	Notify the TCC/NCC that the backplane replacement is complete and that the SCS is back up and available.	Telco/Inst	—

Degrow Service Circuit System (SCS) Complex or Service Circuit Unit (SCU)

Note: This degrow procedure can be used to degrow a single SCU, multiple SCUs, or an entire SCS complex. This degrow procedure assumes that the SCS complex is operational, in service, and connected to the Announcement Administrative Processor (AAP), if applicable.

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
1	Ensure that all responsible parties and organizations are aware of this degrowth before it starts. The appropriate *4ESS* switch support organizations must be contacted for instructions and/or assistance prior to the degrowth of the SCS complex.	Telco	—
2	Ensure that within the last 24 hours the Processor has not experienced any TTY terminal suspends, bootstraps, diagnostic failures, or overloads.	Telco	—

3	Ensure that disks and Input/Output Processors (IOPs) are in duplex and that 3B Control Units (CUs) are in ACTIVE-STANDBY mode. Routine Exercise (REX) should be disabled and should remain disabled during the entire growth process. This is accomplished by entering the following at the 1B Maintenance (MTC) terminal:
	
	1. **INH:MACLI,CLASS MTCE;REX!**
	
	Response: `MACLI,CLASS MTCE INHIBITED`
	`AUTOMATIC JOB SCHEDULING`
	`DISALLOWED`
	
	2. **STOP:TEST;PUSYS!**
	
	Response: `OK`
		Telco	—

4	Ensure that diagnostics on the duplexed 3B CUs have been run to completion within the last 24 hours.	Telco	—
5	Verify SCS Unit Type (UT) Translator to determine Time Slot Interchange (TSI) information, MSP equipage, and disk pair equipage **for each SCU to be degrown**. ***Note:*** This information will be used later in other steps of this NTP.	Telco/Inst	DLP-542

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
6	Ensure that diagnostics on the associated TSI Frames have been run to completion within the last 24 hours.	Telco	—
7	Ensure that all processor and/or system problems have been cleared.	Telco	—
8	Ensure that no Software Updates (SUs)/Broadcast Warning Messages (BWMs) for SCS system files are applied during SCS degrowth.	Telco	—
9	Ensure that the AAP/SCS Local Area Network (LAN) connection is present and active, if applicable. A. At the AAP console, log in as **aapusr** and select option **2** from the menu. B. Poke **118** for link status. Response: LAN links are displayed as Active. C. Enter **q** to quit. D. If the LAN is out of service, resolve the problem and contact the next level of support, if necessary. **Do not continue to the next step until the LAN is present and active.**	Telco	—
10	If the *4ESS* switch office has only one SCS complex, the AAP is present and active, and the entire complex is being degrown, enter the following input messages. Otherwise, continue to Step 11, being sure to read the heading and note preceeding Step 11. A. Contact the Advanced Features Service Center (AFSC) at 314-658-1304 (tech beeper 314-424-8661) and notify them that the LAN will be taken out of service and that announcement updates to this site will be delayed. B. At the 1B MTC terminal, enter: **INH:SCS 0,LAN!** Response: `INH:SCS 0, LAN` C. At the AAP console, log in as **aapusr** and select option **4**. D. At the AAP console, enter: **STOP:AAP "LANCMD"!** Response: `STOP:AAP "LANCMD" completed` E. At the AAP console, enter: **EXIT**.	Telco/Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
	SCU DEGROWTH ***Note:*** When degrowing more than one SCU, the SCUs are to be degrown one at a time, starting with the lowest-numbered SCU of those being degrown. (Repeat Steps 11 through 15 for each SCU.)		
11	At the 1B MTC terminal, take the appropriate SCU out of service by entering: **RMV:SCS** *a*,**SCU** *b*! where *a* = Member Number (0-7) *b* = SCU Number (0-15) Response: PF followed by: `RMV:SCS` *a*, `SCU` *b* `COMPL` ***Note:*** When taking an SCU out of service, office alarms may sound. Pressing the appropriate key at the MCC will retire these alarms.	Telco	—
12	At the 1B MTC terminal, determine which trunks are assigned to the degrowth SCU by entering: **VER:TRK:TSI** *a*,**SPC** *b*,**LVL** *c*,**FTS (1-120)!** where *a* = Associated Time Slot Interchange (TSI) Member Number (recorded in Step 5) *b* = Associated Switching and Permuting Circuits (SPC) Number (recorded in Step 5) *c* = Associated Level Number (Port Number) (recorded in Step 5) Response: The screen returns up to five `VER:TRK` messages followed by: `VERIFY PROCESSING COMPLETE` Record the First Traffic Number (FTFN), the Trunk Subgroup (TSG) data, and the Quantity of Trunks (QTRK) value from each of the `VER:TRK` messages. FTFN TSG Data QTRK _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
13	Disable the trunks assigned to the degrowth SCU by entering the following input message **once for each of the FTFNs recorded in Step 12**: **SET:TRKSTAT CAD.DSA,CIN** *ab*;**SUM:NUM** *c*! where *a* = FTFN (recorded in Step 12) *b* = TSG associated with FTFN *a* (recorded in Step 12). *c* = QTRK value associated with FTFN (recorded in Step 12) Example: If the FTFN is 72, the TSG is SVC*SCAN***07T, and the QTRK is 24, then the input message would be: **SET:TRKSTAT CAD.DSA,CIN 72SVC*SCAN***07T;SUM:NUM 24!** Response: SET:TRKSTAT CAD.DSA CIN *ab*,SUM COMPLETED TRK COUNT *c* ***Note:*** During trunk removal, office alarms will sound. These alarms can be retired at the MCC. ***Caution: If the SCU is being degrown to change service circuit type, the associated trunks must be removed from service.***	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
14	Degrow SCU subunit data [disk pair, MSP, and Multifunctional Interface Processor (MIP) equipage] from OPER to SGRO using Recent Change Form 703. ***Note:*** The current disk pair and MSP equipage was recorded in Step 5.	Telco	DLP-519
15	Degrow SCU from OPER to SGRO using Recent Change Form 701. ***Note:*** An SCU can be degrown and remain in the SGRO state.	Telco	DLP-513
16	This is a **Safe Stop Point**. If stopping, perform Steps 17 and 18. Otherwise, go to Step 20.	Telco/Inst	—
17	At the 1B MTC terminal, allow REX by entering: **ALW:MACLI,CLASS MTCE!** Response: `AUTOMATIC JOB SCHEDULING RESUMED`	Telco	—
18	Stop procedure for now. Resume at Step 19 when continuing.	Telco/Inst	—
19	Perform Steps 2 through 4 and Steps 6 through 9 of this procedure. Then continue to the next step.	Telco/Inst	—
20	Repeat Steps 11 through 15 for each SCU to be degrown.	Telco	—
	Note: If the entire SCS complex is to be degrown, proceed to Step 21. If not, proceed to Step 28, being sure to read the note preceeding Step 28.		
21	***Caution: All SCUs must be degrown prior to member degrowth.*** Degrow member equipage from OPER to SGRO using Recent Change Form 701. ***Note:*** The switch will automatically run an Audit 32 indicating the changed status of the SCS frame.	Telco	DLP-514

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
22	At the 1B MTC terminal, run a Peripheral Unit Status audit by entering: **AUD:PUSTAT!** Response: `MSG COMPL` ***Note:*** The response shows old status and new status. The appropriate SCS Complex will be out of service.	Telco/Inst	—
23	At the 1B MTC terminal, run Audit 32 by entering: **AUD:NUM 32!** Response: The response shows the old mask and the new mask or `NUM 32 COMPLETE 0 ERRORS DETECTED`. Both are valid responses.	Telco/Inst	—
24	This is a **Safe Stop Point**. If stopping, perform Steps 25 and 26. Otherwise, go to Step 28, being sure to read the note preceeding Step 28.	Telco/Inst	—
25	At the 1B MTC terminal, allow REX by entering: **ALW:MACLI,CLASS MTCE!** Response: `AUTOMATIC JOB SCHEDULING RESUMED`	Telco	—
26	Stop procedure for now. Resume at Step 27 when continuing.	Telco/Inst	—
27	Perform Steps 2 through 4 and Steps 6 through 9 of this procedure. Then continue to the next step.	Telco/Inst	—
	Note: Steps 28 through 58 must be completed for each SCU being degrown, beginning with the lowest SCU number. These steps should be completed in their entirety for one SCU, then the next SCU, and so forth.		
28	Degrow TSI submember equipage (of the TSI recorded in Step 5) from OPER to SGRO using Recent Change Form 701.	Telco	DLP-529

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
29	At the 1B MTC terminal, apply port pest to the associated TSI Port (of the TSI recorded in Step 5) by entering: **INH:TSI** *x*,**SPC** *y*,**PORT** *z*! where *x* = TSI Member Number (0-63) *y* = SPC within TSI (0-1) *z* = Port within SPC (0-6) Response: Input message is echoed when pesting is done.	Telco	—
30	Degrow SCU subunit data (disk pair, MSP, and MIP equipage) from SGRO to GROW using Recent Change Form 703.	Telco	DLP-530
31	Degrow SCU subunit data (disk pair, MSP, and MIP equipage) from GROW to UNEQ using Recent Change Form 703.	Telco	DLP-531
32	Degrow SCU equipage from SGRO to GROW using Recent Change Form 701.	Telco	DLP-535
33	Degrow SCU equipage from GROW to UNEQ using Recent Change Form 701.	Telco	DLP-536
34	Degrow TSI submember equipage from SGRO to GROW using Recent Change Form 701.	Telco	DLP-532
35	Degrow TSI submember equipage from GROW to UNEQ using Recent Change Form 701.	Telco	DLP-533
36	Remove the DS-120 cable at the TSI Port and install its looping cable/plug.	Inst	—
37	At the 1B MTC terminal, remove the pest from the degrown TSI Port by entering: **ALW:TSI x,SPC y,PORT z!** where *x* = TSI Member Number (0-63) *y* = SPC within TSI (0-1) *z* = Port within SPC (0-6) Response: `PF` `ALW:TSI x,SPC y,PORT z!`	Telco/Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
38	At the 1B MTC terminal, diagnose the TSI Frame Controller 0 by entering: **DGN:TSI x,CONTR 0!** where *x* = TSI Member Number (0-63) Response: The screen returns an output message with REMOVE COMPLETE, then ATP for tests run.	Telco/Inst	—
39	At the 1B MTC terminal, restore TSI x, Controller 0 by entering: **RST:TSI x,CONTR 0!** where *x* = TSI Member Number (0-63) Response: The screen returns an output message with ATP for all tests run, then RESTORE COMPLETE.	Telco/Inst	—
40	At the 1B MTC terminal, diagnose the TSI Frame Controller 1 by entering: **DGN:TSI x,CONTR 1!** where *x* = TSI Member Number (0-63) Response: The screen returns an output message with REMOVE COMPLETE, then ATP for tests run.	Telco/Inst	—
41	At the 1B MTC terminal, restore TSI x, Controller 1 by entering: **RST:TSI x,CONTR 1!** where *x* = TSI Member Number (0-63) Response: The screen returns an output message with ATP for all tests run, then RESTORE COMPLETE.	Telco/Inst	—
42	Power down the disk pair(s) associated with the SCU by pressing the **OFF** button on the Disk Power Controller (DPC) UN356 circuit pack(s) associated with the disk pair(s).	Inst	—
43	Power down the SCU being degrown by pressing the **OFF** button on the SCU's TN1984 circuit pack.	Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
44	Remove the degrown SCU reference from the AAP database, if applicable.	Telco	DLP-543
45	If the entire SCS complex is being degrown, continue to Step 46. If the entire SCS complex is **not** being degrown, disconnect the optical cable at the Optical Cross-Connect Panel (OCCP) for the SCU being degrown, and install a fiber shorting contact at the OCCP where the optical cable was removed.	Inst	—
46	Remove the fuses associated with the degrowth SCU and HDU. (See the labeling on the fuse panel cover for fuse locations and sizes.)	Inst	—
47	Degrowth of this SCU is now complete. With the exception of the LAN cable, cabling can now be disconnected. Circuit packs can now be removed from the degrown SCU and stored according to safe Electro-Static Discharge (ESD) procedures.	Inst	—
48	If this degrowth SCU has ASR functionality, go to Step 49. If this degrowth SCU does **not** have ASR functionality, go to Step 58.	Telco/Inst	—
49	Remove all associated CDSUs from the AAP CDSU database. (This step should be repeated for each CDSU associated with the SCU being degrown.) A. At the AAP console, select option **1** (CRAFT-SHELL). B. At the AAP console, enter: **OP:CDSU:FORM=SHORT** Response: The screen will return a list of CDSUs within the database with their associated KEY Numbers. Use this list to determine the KEY Number of the CDSU being removed. C. At the AAP console, enter: **UPD:CDSU:UPD=DLT:"KEY=*a*"** where *a* = Database KEY Number (0-99999, determined in Step B) Response: `UPD:CDSU Completed`	Telco	—

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

50	Reconfigure and power down the appropriate CDSU as follows: (This step should be repeated for each CDSU associated with the SCU being degrown.)
	
	A. At the rear of CDSU, connect the keyboard cable/adapter and the monitor cable. For the CDSU-I, the keyboard cable/adapter is connected to the upper connector at location A18 and the monitor cable to the connector at location A02. For the CDSU-II, the keyboard cable/adapter is connected at the lower right corner of the unit and the monitor cable connects at the connector at location P2.
	B. Log into the CDSU as **root**.
	C. If using CDSU-I, go to Step D.
	If using CDSU-II, go to Step F.
	D. At the CDSU terminal, enter: **pkgrm -n cdsu**
	Response:
	`Removal of <cdsu> was successful`
	E. At the CDSU terminal, enter: **pkgrm -n cdsconfig**
	Response:
	`Removal of <cdsconfig> was successful`
	F. At the CDSU terminal, enter: **/etc/init 0**
	Response:
	`System Is Coming Down`
	`System Is Down` (CDSU-I)
	or
	`Press any key to reboot` (CDSU-II)
	
	Do not press a key at this time.
	G. Power down the appropriate CDSU using the ON/OFF switch at the front of the CDSU.
	H. At the rear of CDSU, remove the keyboard cable/adapter and the monitor cable.
		Telco/Inst	—

51	Remove all associated fuses from the fuse and filter panel.	Inst	—
52	Disconnect appropriate cables from the CDSC/CDSU(s). ***Caution: If the CDSC being degrown houses a LAN HUB, DO NOT disconnect the LAN connection between the AAP and the LAN HUB. Contact the next level of support for further instructions.***	Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
53	Remove the CDSC from the lineup.	Inst	—
54	This is a **Safe Stop Point**. If stopping, perform Steps 55 and 56. Otherwise, go to Step 58.	Telco/Inst	—
55	At the 1B MTC terminal, allow REX by entering: **ALW:MACLI,CLASS MTCE!** Response: `AUTOMATIC JOB SCHEDULING RESUMED`	Telco	—
56	Stop procedure for now. Resume at Step 57 when continuing.	Telco/Inst	—
57	Perform Steps 2 through 4 and Steps 6 through 9 of this procedure. Then continue to the next step.	Telco/Inst	—
58	If this was the last SCU to be degrown, go to Step 59. If additional SCUs are to be degrown, go to Step 62.	Telco/Inst	—
59	If the entire SCS complex is **not** to be degrown, go to Step 60. If the entire SCS complex is to be degrown, go to Step 67. ***Caution: All SCUs must be degrown prior to member degrowth.***	Telco/Inst	—
60	At the 1B MTC terminal, allow REX by entering: **ALW:MACLI,CLASS MTCE!** Response: `AUTOMATIC JOB SCHEDULING RESUMED`	Telco	—
61	**Stop! You have completed this procedure.**	Telco/Inst	—
62	This is a **Safe Stop Point**. If stopping, perform Steps 63 and 64. Otherwise, go to Step 66.	Telco/Inst	—
63	At the 1B MTC terminal, allow REX by entering: **ALW:MACLI,CLASS MTCE!** Response: `AUTOMATIC JOB SCHEDULING RESUMED`	Telco	—
64	Stop procedure for now. Resume at Step 65 when continuing.	Telco/Inst	—
65	Perform Steps 2 through 4 and Steps 6 through 9 of this procedure. Then continue to the next step.	Telco/Inst	—
66	Repeat Steps 28 through 58 for the next SCU to be degrown.	Telco/Inst	—
67	Degrow member equipage from SGRO to GROW using Recent Change Form 701.	Telco	DLP-537
68	This is a **Safe Stop Point**. If stopping, perform Steps 69 and 70. Otherwise, go to Step 72.	Telco/Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
69	At the 1B MTC terminal, allow REX by entering: **ALW:MACLI,CLASS MTCE!** Response: `AUTOMATIC JOB SCHEDULING RESUMED`	Telco	—
70	Stop procedure for now. Resume at Step 71 when continuing.	Telco/Inst	—
71	Perform Steps 2 through 4 and Steps 6 through 9 of this procedure. Then continue to the next step.	Telco/Inst	—
72	Remove the degrown SCS complex from the Peripheral Unit Bus (PUB) using TOP 234-153-045.	Telco/Inst	—
73	This is a **Safe Stop Point**. If stopping, perform Steps 74 and 75. Otherwise, go to Step 77.	Telco/Inst	—
74	At the 1B MTC terminal, allow REX by entering: **ALW:MACLI,CLASS MTCE!** Response: `AUTOMATIC JOB SCHEDULING RESUMED`	Telco	—
75	Stop procedure for now. Resume at Step 76 when continuing.	Telco/Inst	—
76	Perform Steps 2 through 4 and Steps 6 through 9 of this procedure. Then continue to the next step.	Telco/Inst	—
77	Degrow member equipage from GROW to UNEQ using Recent Change Form 701.	Telco	DLP-538
78	Power down the SCS complex: 1. At IPUB 0 and 1, simultaneously press the **OFF** and **MOR** buttons on the Integrated Power Controller (IPC) TN1671 circuit pack. 2. At SCC 0 and 1, simultaneously press the **OFF** and **MOR** buttons on the Master Power Controller TN1984 circuit pack.	Inst	—
79	Disconnect/defuse the power between the Power Distribution Frame (PDF) and the degrown SCS frame.	Inst	—
80	This is a **Safe Stop Point**. If stopping, perform Steps 81 and 82. Otherwise, go to Step 84, being sure to read the heading and note preceeding Step 84.	Telco/Inst	—
81	At the 1B MTC terminal, allow REX by entering: **ALW:MACLI,CLASS MTCE!** Response: `AUTOMATIC JOB SCHEDULING RESUMED`	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
82	Stop procedure for now. Resume at Step 83 when continuing.	Telco/Inst	—
83	Perform Steps 2 through 4 and Steps 6 through 9 of this procedure. Then continue to the next step.	Telco/Inst	—
	REROUTING OF AAP TO SCS LAN CONNECTION ***Note:*** If the switch has more than one SCS complex, the LAN cable must be rerouted prior to removing the degrown SCS complex from the lineup. **Steps 84 through 88 should be completed only if the AAP is present and active and the LAN is connected. If these conditions do not apply, go to Step 89.**		
84	Inhibit the LAN as follows: A. Contact the Advanced Features Service Center (AFSC) at 314-658-1304 (tech beeper 314-424-8661) and notify them that the LAN will be taken out of service and that announcement updates to this site will be delayed. B. At the 1B MTC terminal, enter: **INH:SCS 0,LAN!** Response: `INH:SCS 0, LAN` C. At the AAP console, log in as **aapusr** and select option **4**. D. At the AAP console, enter: **STOP:AAP "LANCMD"!** Response: `STOP:AAP "LANCMD" completed` E. At the AAP console, enter: **EXIT**	Telco/Inst/ AFSC	—
85	Reroute the LAN cable to remove the degrown SCS complex from the series LAN connection. This daisy-chain connection exists between all SCS complexes and the AAP. **If removing an SCS complex from the end of a lineup**, remove the LAN terminator at the end of the last SCS complex (the one being degrown). Then, remove the LAN cable from the last remaining SCS complex to the degrowth SCS complex and insert the LAN terminator at the end of the last remaining SCS complex. **If removing an SCS complex from within a lineup**, interrupt the LAN cable between the degrowth SCS complex and the remaining SCS complexes. Then connect the LAN cable directly between the remaining SCS complexes.	Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
	LAN CONTINUITY CHECK ***Note:*** For proper LAN functionality there must be continuity between the LAN Terminator at the AAP and the LAN Terminator located at the highest member number SCS complex (all other complexes being in between).		
86	At the 1B MTC terminal, enter: **DGN:SCS** *x*,**SCU** *y*:**PH 10!** where *x* = First LAN-connected SCS Member Number (0-7) (which contains SCU *y*) *y* = Lowest-numbered SCU (0-15) connected to the LAN Response: `RMV SCS x SCU y COMPL,` `DGN SCS x SCS y COMPL ATP` ***Note:*** This diagnostic phase checks LAN continuity for all SCS complexes. If Phase 10 diagnostics fail, appropriate action should be taken to find the "open" in the daisy-chained LAN.	Telco/Inst	—
87	At the 1B MTC terminal, restore the SCU by entering: **RST:SCS** *x*,**SCU** *y*! where *x* = First LAN-connected SCS Member Number (0-7) (which contains SCU *y*) *y* = Lowest-numbered SCU (0-15) connected to the LAN Response: `ATP` `RST:SCS x, SCU y COMPL`	Telco/Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
88	Initialize the AAP and allow the LAN as follows: A. At the AAP console, log in as **aapusr** and select option **4**. B. At the AAP console, enter: **INIT:AAP "LANCMD"!** Response: `INIT:AAP "LANCMD" completed` C. At the AAP console, enter: **EXIT** D. At the 1B MTC terminal, enter:**ALW:SCS 0,LAN!** Response: The screen returns `Code 091` followed by `ALW:SCS 0,LAN` E. Contact the Advanced Features Service Center (AFSC) at 314-658-1304 (tech beeper 314-424-8661) and notify them that the LAN is back in service and that announcement updates may be resumed.	Telco	—
89	At the 1B MTC terminal, allow REX by entering: **ALW:MACLI,CLASS MTCE!** Response: `AUTOMATIC JOB SCHEDULING RESUMED`	Telco	—
90	The degrowth procedure is complete. All cables and leads (scan points, SD points, etc.) can now be disconnected from the degrown SCS frame. Also, the degrown SCS frame can be removed from the frame lineup.	Inst	—

Update Service Circuit System (SCS) System Files

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
	4ESS™ SWITCH OFFICE PRELIMINARY CHECK		
1	Ensure that within the last 24 hours the Processor has not experienced any TTY terminal suspends, bootstraps, diagnostic failures, or overloads.	Telco	—
2	Ensure that disks and Input/Output Processors (IOPs) are in duplex and that 3B Control Units (CUs) are in ACTIVE-STANDBY mode. Routine Exercise (REX) and the Peripheral Unit System Exerciser should be disabled, and should be inhibited during SCS file update. This is accomplished by entering the following: 1. **INH:MACLI,CLASS MTCE;REX!** Response: `MACLI,CLASS MTCE INHIBITED` 2. **STOP:TEST;PUSYS!** Response: `OK`	Telco	—
3	Ensure that diagnostics on the duplexed 3B CUs have been run to completion within the last 24 hours.	Telco	—
4	Ensure that the SCS complex being updated is in service, operating in duplex, and has run all automatic and demand diagnostics to completion within the last 24 hours. **All** SCUs and the associated disk pairs (including those that are out of service) should be powered up.	Telco	—
5	Ensure that either the appropriate SCS Broadcast Warning Message (BWM) has been applied or the 3B retrofit has been completed, as applicable.	Telco	—
	SOURCE VERSION NUMBER (SVN) AND DESTINATION VERSION NUMBER (DVN) DETERMINATION ***Note:*** The SVN/DVN numbers ensure that a particular SCS system file is read from the 3B20D and written to the disk pairs at the proper disk locations. An SVN (the correct and up-to-date file location on the 3B20D disk) and a DVN (the next location on the appropriate disk pair 0) is required for each of the SCS System File Types to be updated (SCCSFT, SCUOPR, SCUDGN, MSPFIX, MSPROV, MSP1, MIP0FIL, MIP1FIL, and TONES). The SVN will always be "0." The DVN is determined through translations.		

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
6	Verify the DVN for all system file types to be updated.	Telco	DLP-526
	UPDATE SCS SYSTEM FILES FROM THE ATTACHED PROCESSOR SYSTEM (APS) USING THE COPY COMMAND ***Note:*** The purpose of the **COPY** message is to perform an APS to SCU file copy. One **COPY** message must be used for each file type being copied from the APS to the HDU. Both the SVN and DVN are needed for each **COPY** message. These numbers ensure that a particular file type is read from and written to the proper disk locations. The DVNs from Table A in DLP-526 will be used in the **COPY** messages.		
7	At the 1B MTC terminal, write the SCS system files from the APS to the HDUs by entering the following messages: **COPY:SCS** *x*,**SCCSFT,SVN 0,DVN** *y*,**ALL; UCL!** **COPY:SCS** *x*,**SCUOPR,SVN 0,DVN** *y*,**ALL; UCL!** **COPY:SCS** *x*,**SCUDGN,SVN 0,DVN** *y*,**ALL; UCL!** **COPY:SCS** *x*,**MSPFIX,SVN 0,DVN** *y*,**ALL; UCL!** **COPY:SCS** *x*,**MSPROV,SVN 0,DVN** *y*,**ALL; UCL!** **COPY:SCS** *x*,**TONES,SVN 0,DVN** *y*,**ALL; UCL!** **COPY:SCS** *x*,**MSP1,SVN 0,DVN** *y*,**ALL; UCL!** **COPY:SCS** *x*,**MIP0FIL,SVN 0,DVN** *y*,**ALL; UCL!** **COPY:SCS** *x*,**MIP1FIL,SVN 0,DVN** *y*,**ALL; UCL!** where *x* = SCS Member Number (0-7) *y* = Destination Version Number (0-1 for 4E22R4 and later). (Use the number from the "DVN" column of Table A in DLP-526.) *ALL* indicates that the specified file is to be copied to all SCSs. *UCL* forces files to be copied to out-of-service SCUs and to SCSs in the "GROW" state. ***Note:*** Each of the above copy commands could take a considerable amount of time to run. Response: `COPY:SCS` *x* `TASK COMPLETED` (for each of the above commands)	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
	SERVICE CIRCUIT UNIT UPDATE ***Note:*** Steps 8 through 15 must be completed for each applicable SCU, beginning with the lowest-numbered, applicable SCU. These steps must be completed in their entirety for each applicable SCU before continuing with the next SCU. Step 16 should be completed only for the first SCU being updated.		
8	If the SCU is in service, take the unit out of service by entering the following message at the 1B MTC terminal: **RMV:SCS** *a*,**SCU** *b*! where *a* = Member Number (0-7) *b* = SCU Number (0-15) Response: PF followed by RMV:SCS *a*, SCU *b*, COMPL ***Note:*** This **RMV** (remove) could take up to 2 minutes.	Telco	—
9	Update the version number of the SCU and the associated Multifaceted Signal Processor (MSP) and Multifunctional Interface Processors (MIPs) using RC Form 703.	Telco	DLP-528
10	Does the SCU being updated have Automatic Speech Recognition (ASR) functionality **and** is an update of CDSU Application Software required? If **YES**, perform Steps 11 through 14. If **NO**, continue to Step 15.	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
11	Log into the AAP as **root** and enter the following **for each associated CDSU** to test the LAN: A. At the AAP console, enter: **/usr/sbin/ping cds***xyyzz* where *x* = SCS Member Number (0-7) *yy* = SCU Submember Number (00-15) *zz* = CDSU Number (00-03 for CDSU-I or 00-05 for CDSU-II) Response: The screen returns: `cds`*xyyzz* `is alive` B. At the AAP console, enter: **rsh cds***xyyzz* **date** where *x* = SCS Member Number (0-7) *yy* = SCU Submember Number (00-15) *zz* = CDSU Number (00-03 for CDSU-I or 00-05 for CDSU-II) Response: The screen returns today's date. C. Have Steps A and B been completed for each growth CDSU? If **YES**, enter **exit** at the AAP console, then continue to the next step. If **NO**, repeat Steps A and B for the next growth CDSU.	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
12	Determine if there are any CDSU BWMs to be installed by doing the following: A. At the AAP console, select option **1**. B. At the AAP console, enter: **OP:CDSU:FORM=LONG** Response: The screen will display a list of CDSUs with various information on each CDSU. Included in this information is BWM status. C. Are BWMs displayed in Step B? If **NO**, contact the TCC and have them send the latest CDSU BWM to the AAP, then continue to Step 13. However, if the TCC has no CDSU BWMs to send, continue to Step 15 instead. ***Note:*** If the TCC has no CDSU BWMs to download, the latest CDSU BWM can be installed later. If **YES**, continue to Step 13.	Telco/Inst/ TCC/NCC	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
13	Verify the BWM/SU identified in the previous step by entering one of the following messages at the AAP: **UPD:CDSUBWM:VFY:BWM***xx-yyyy***:SCS=***a***,SCU=***b***,UNIT=***c* to verify an ''Official'' BWM/SU: OR **UPD:CDSUBWM:VFY:CFT***xx-yyyy***:SCS=***a***,SCU=***b***,UNIT=***c* to verify a ''Craft'' BWM/SU: where *xx* = Last 2 Digits of Year *yyyy* = Unique 4-digit BWM Number *a* = SCS Number (0-7) *b* = SCU Number (0-15) *c* = CDSU Number (0-1 for CDSU-I or 0-5 for CDSU-II). Response: `UPD:CDSUBWM:VFY Completed` ***Note:*** If the verify does not complete successfully, remove the defective BWM/SU (see DLP-554 of 201-525-016AC, *AAP Maintenance, Diagnostics and Trouble Clearing*), download the BWM/SU again (see DLP-507 of 201-525-016AC, *AAP Maintenance, Diagnostics and Trouble Clearing*), and then repeat the above message.	Telco	—
14	Apply the BWM determined in the previous step.	Telco	DLP-559

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
15	If this SCU was in service prior to being updated, restore the SCU by entering the following message at the 1B MTC terminal: **RST:SCS *x*,SCU *z*!** where *x* = Member Number (0-7) *z* = SCU Number (0-15) Response: `ATP` `ANN UPD STARTED` (if AAP is present and active) `RST:SCS x, SCU z COMPL` where *x* = Member Number (0-7) *z* = SCU Number (0-15) ***Note:*** If the proper response is not received, use RC form 703 to return to the original version number, **stop the update**, and contact the appropriate *4ESS* switch support organization to report this failure.		
16	If this is the first SCU being updated, soak the SCU for 24 hours. ***Note:*** The soak interval is used to verify system operation and stability. During the soak interval, all abnormal conditions must be investigated and resolved immediately. Equipment being soaked must be error free for at least the time specified.	Telco	—
17	This is a **Safe Stop Point**. If stopping, perform Steps 18 and 19. Otherwise, go to Step 21.	Telco/Inst	—
18	At the 1B MTC terminal, allow REX by entering: **ALW:MACLI,CLASS MTCE!** Response: `AUTOMATIC JOB SCHEDULING RESUMED`	Telco	—
19	Stop procedure for now. Resume at Step 20 when continuing.	Telco/Inst	—
20	Perform Steps 1 through 5 of this procedure. Then continue to the next step.	Telco/Inst	—
21	Ensure that Steps 8 through 15 have been completed for each SCU, as applicable.	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
	SERVICE CIRCUIT CONTROLLER UPDATE		

22	***Note:*** The purpose of the **UPD** (update) message is to replace the software in one SCS controller with another software version and make the SCS controller active. Once the updated controller is active, the second controller is then automatically updated. The SCS complex must be operating in duplex to accomplish this update.
	
	At the 1B MTC terminal, enter:
	
	UPD:SCS *a*,**CONTR** *b*,**SVN** *c*!
	
	where *a* = SCS Member Number (0-7)
	b = SCS Controller Number being loaded with the new software (0 or 1)
	c = Source Version Number on the SCU disk (0-3). (Use the number for the SCCSFT file from the "DVN" column of Table A in DLP-526.)
	
	Response: Several output messages as follows:
	`UDP:SCS a CONTR UPDATE STARTED`
	`UDP:SCS a CONTR b PUMP IN PROGRESS`
	`UDP:SCS a CONTR b SWITCH IN PROGRESS`
	`UDP:SCS a CONTR UPDATE COMPLETED`
	
	where *a* = SCS Member Number (0-7)
	b = SCS Controller Number (0 or 1)
		Telco	—

23	If this is the first SCS complex being updated within an office, following the SCS controller update, soak the system for 24 hours. ***Note:*** The soak interval is used to verify system operation and stability. During the soak interval, all abnormal conditions must be investigated and resolved immediately. Equipment being soaked must be error free for at least the time specified. After ensuring that the SCS complex has not experienced a controller pump from disk, continue to Step 24.	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
24	This is a **Safe Stop Point**. If stopping, perform Steps 25 and 26. Otherwise, go to Step 28.	Telco/Inst	—
25	At the 1B MTC terminal, allow REX by entering: **ALW:MACLI,CLASS MTCE!** Response: `AUTOMATIC JOB SCHEDULING RESUMED`	Telco	—
26	Stop procedure for now. Resume at Step 27 when continuing.	Telco/Inst	—
27	Perform Steps 1 through 5 of this procedure. Then continue to the next step.	Telco/Inst	—
28	Update the version number in the SCS Translator for both controllers using RC Form 801.	Telco	DLP-527
29	At the 1B MTC terminal, diagnose Controller 0 by entering: **DGN:SCS *x*,CONTR 0!** where *x* = SCS Member Number (0-7) Response: The screen returns output messages with `ATP`. ***Note:*** If the proper response is not received, use DLP-515 to return to the original version number, **stop the update**, and contact the appropriate *4ESS* switch support organization to report this failure.	Telco	—
30	At the 1B MTC terminal, restore SCS Controller 0 by entering: **RST:SCS *x*,CONTR 0!** where *x* = SCS Member Number (0-7) Response: The screen returns an output message with `CATP`, then `RESTORE COMPLETE`. Bit **21** should be **set** in the CATP **reason word** indicating that the `unused EBI link test skipped`. This is the only allowable exception (no other bits in the CATP reason word should be set).	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
31	At the 1B MTC terminal, diagnose Controller 1 by entering: **DGN:SCS *x*,CONTR 1!** where *x* = SCS Member Number (0-7) Response: The screen returns output messages with `ATP`. ***Note:*** If the proper response is not received, use DLP-515 to return to the original version number, **stop the update**, and contact the appropriate *4ESS* switch support organization to report this failure.	Telco	—
32	At the 1B MTC terminal, restore SCS Controller 1 by entering: **RST:SCS *x*,CONTR 1!** where *x* = SCS Member Number (0-7) Response: The screen returns an output message with `CATP`, then `RESTORE COMPLETE`. Bit **21** should be **set** in the CATP **reason word** indicating that the `unused EBI link test skipped`. This is the only allowable exception (no other bits in the CATP reason word should be set).	Telco	—
33	At the 1B MTC terminal, allow REX by entering: **ALW:MACLI,CLASS MTCE!** Response: `AUTOMATIC JOB SCHEDULING RESUMED`	Telco	—

Add Service Circuit Unit(s)

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
	***4ESS*™ SWITCH OFFICE PRELIMINARY CHECK**		
1	Ensure that the *4ESS* switch is currently running in 4E22 R4 Generics or later.	Telco	—
2	Ensure that within the last 24 hours the Processor has not experienced any TTY terminal suspends, bootstraps, diagnostic failures, or overloads.	Telco	—
3	Ensure that disks and Input/Output Processors (IOPs) are in the duplex mode and that the 3B Control Units (CUs) are in ACTIVE-STANDBY mode. Routine Exercise (REX) and the Peripheral Unit System Exerciser (PUSYS) should be disabled, and should remain disabled during the entire growth process. This is accomplished by entering the following at the 1B Maintenance (MTC) terminal: 1. **INH:MACLI,CLASS MTCE;REX!** Response: `MACLI,CLASS MTCE INHIBITED AUTOMATIC JOB SCHEDULING DISALLOWED` 2. **STOP:TEST;PUSYS!** Response: `OK`	Telco	—
4	Ensure that diagnostics on the duplexed 3B CUs have been run to completion within the last 24 hours.	Telco	—
5	Ensure that the SCS growth complex is in service, operating in duplex, and has run diagnostics to completion within the last 24 hours.	Telco	—
6	Ensure that all processor and/or system problems have been cleared before growth activity begins.	Telco	—
7	Contact the Network Control Center (NCC) to have NCC ensure that no Software Updates (SUs) or Broadcast Warning Messages (BWMs) for SCS system files will be applied during growth/conversion. Also, have NCC ensure that Centralized Announcement Update Control System (CAUCS) has been inhibited from updating announcements to this 4ESS switch office for the affected Announcement Set(s) during growth/conversion.	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
8	Ensure that the AAP/SCS LAN connection is present and active, if applicable. A. At the AAP console, log in as **aapusr** and select option 2 from the menu. B. Poke **118** for link status. Response: LAN links are displayed as active. C. Enter **q** to quit. D. If the LAN is out of service, resolve the problem and contact the next level of support, if necessary. **Do not continue to the next step until the LAN is present and active.** Also ensure that the Announcement Administration Processor (AAP) (if it is operational) has no announcement updates queued for this SCU's Announcement Set by selecting option 4 at the AAP console and entering: **OP:ANNUPD** Response: `OP:ANNUPD AAP System Error, #1149` `Database empty` ***Note:*** If not empty, have announcement updates stored in AAP moved to the proper SCU(s) and verify the AANUPD database is cleared before proceeding.	Telco	—
9	Check office records/Pre Condition Order(PCO)/Main Material Order(MMO)/ Telephone Equipment Order (TEO) to confirm the following for each growth SCU/disk pair: • Type of Service Circuit (0-7) • Disk Capacity - Translator (0-3) • Announcement Set (A-Z) • AT&T Trigger Platform Feature (Monitor Yes or No) • Optional MSP Circuit Pack (1, 2, and/or 3) Retain this information for future use in this procedure.	Telco/Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
10	Verify the SCS Unit Type (UT) Translator and compare the SCU Subunit Data **for each growth SCU** against office records/PCO /MMO/TEO. Also compare each growth SCU to Time Slot Interchange (TSI) Port assignment against office wiring records. Similarly, check that all translation information matches the growth SCU's hardware. The SCU Subunit Data and the associated TSI Port assignments are contained in the three words specified by the SCS UT Translator for each SCU. ***Note:*** This verify must be done separately for each growth SCU beginning with the lowest-numbered SCU.	Telco/Inst	DLP-534
11	Verify the associated TSI UT Translator(s) and compare the assignment/equipage of the TSI Port to each growth SCU against office wiring records.	Telco/Inst	DLP-516
12	Ensure that diagnostics on the associated TSI Frames have been run to completion within the last 24 hours.	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
	4ESS SWITCH TO SERVICE CIRCUIT SYSTEM PRELIMINARY INTERCONNECT		
13	Ensure that all Scan Point and Signal Distributor (SD) Point connections from the growth SCU(s) to the *4ESS* switch Signal Processor (SP) are completed.	Inst	—
14	Ensure that the Alarm connection from the growth SCU(s) to the *4ESS* switch Power Alarm Grid is completed.	Inst	—
15	Ensure that the DS-120 cable(s) from the growth SCU(s) to the associated TSI Ports have been set in place but **not connected**.	Inst	—
16	Ensure that the fiber-optic ribbon cable(s) are present at the rear of the SCU cabinet. This cable should be connected at the backplane of the growth SCU(s), but **not** at the Optical Cross-Connect Panel.	Inst	—
17	Ensure that the Local Area Network (LAN) cable(s) for the growth SCU(s) are in place at the rear of the SCU cabinet. These cables should be daisy-chained between all SCUs and terminated at both ends.	Inst	—
18	Ensure that the Small Computer System Interface (SCSI) Bus Cables for the disk pair(s) associated with the growth SCU(s) are in place at the rear of the SCU cabinet.	Inst	—
19	If this SCU is to provide announcement expansion, verify that the white wire (required when TN9001 and TN9002 circuit packs are to be used) is installed at the SCU backplane. If not already installed, install the white wire.	Inst	—
20	Ensure that the Active/Standby cable(s) from the growth SCU(s) to all other SCUs are properly connected. These cables are daisy-chained between all SCUs.	Inst	—
21	If the first SCU of SCUs 8-15 is being grown, go to Step 22. If one of the SCUs 8-15 is already in service or if none of the SCUs 8-15 are being grown, go to Step 35.	Inst	—
22	At the Optical Cross-Connect Panel (OCCP), install Fiber Shorting Contacts (CC# 846832087) at connector locations for SCUs 8-15.	Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
23	At the 1B MTC terminal, remove one Service Circuit Controller (SCC) from service by entering: **RMV:SCS** *a*,**CONTR** *b*! where *a* = Member Number (0-7) *b* = SCC Number (0 or 1) Response: PF followed by: RMV:SCS*a*,CONTR *b* COMPL	Telco	—
24	Power-down the out-of-service SCC: 1. At the IPUB associated with the SCC, press the **OFF** button on the TN1671 circuit pack. 2. At the SCC, press the **OFF** button on the TN1984 circuit pack.	Inst	—
25	Install circuit packs at the out-of-service SCC. 1. At horizontal EQL 016 of the SCC, install a 410AA Power Converter circuit pack. 2. At horizontal EQL 056 of the SCC, install a KCN3 Extended Bus Interface circuit pack.	Inst	—
26	Power-up the out-of-service SCC: 1. At the IPUB associated with the SCC, press the **ON** button on the TN1671 circuit pack. 2. At the SCC, press the **ON** button on the TN1984 circuit pack.	Inst	—
27	At the 1B MTC terminal, diagnose the out-of-service SCC by entering: **DGN:SCS** *a*,**CONTR** *b*! where *a* = Member Number (0-7) *b* = SCC Number (0 or 1) Response: The screen returns an output message with ATP.	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
28	At the 1B MTC terminal, restore the out-of-service SCC to service by entering: **RST:SCS** *a*,**CONTR** *b*! where *a* = Member Number (0-7) *b* = SCC Number (0 or 1) Response: The screen returns an output message with `CATP`, then `RESTORE COMPLETE`. Bit **21** will be **set** in the CATP **reason word** (unless the SCS is equipped with one or more SCUs in the SCU8 to SCU15 range), indicating that the `unused EBI link test skipped`. This is the only allowable exception (no other bits in the CATP reason word should be set).	Telco	—
29	At the 1B MTC terminal, remove the other Service Circuit Controller (SCC) from service by entering: **RMV:SCS** *a*,**CONTR** *b*! where *a* = Member Number (0-7) *b* = SCC Number (0 or 1) Response: `PF` followed by: `RMV:SCS` *a*`,CONTR` *b* `COMPL`	Telco	—
30	Power-down the out-of-service SCC: 1. At the IPUB associated with the SCC, press the **OFF** button on the TN1671 circuit pack. 2. At the SCC, press the **OFF** button on the TN1984 circuit pack.	Inst	—
31	Install circuit packs at the out-of-service SCC. 1. At horizontal EQL 016 of the SCC, install a 410AA Power Converter circuit pack. 2. At horizontal EQL 056 of the SCC, install a KCN3 Extended Bus Interface circuit pack.	Inst	—
32	Power-up the out-of-service SCC: 1. At the IPUB associated with the SCC, press the **ON** button on the TN1671 circuit pack. 2. At the SCC, press the **ON** button on the TN1984 circuit pack.	Inst	—

DO THE ITEMS BELOW IN THE IRDER LISTED		FOR DETAILS, GO TO	
33	At the 1B MTC terminal, diagnose the out-of-service SCC by entering: **DGN:SCS** *a*,**CONTR** *b*! where *a* = Member Number (0-7) *b* = SCC Number (0 or 1) Response: The screen returns an output message with `ATP`.	Telco	—
34	At the 1B MTC terminal, restore the out-of-service SCC to service by entering: **RST:SCS** *a*,**CONTR** *b*! where *a* = Member Number (0-7) *b* = SCC Number (0 or 1) Response: The screen returns an output message with `CATP`, then `RESTORE COMPLETE`. Bit **21** will be **set** in the CATP **reason word** (unless the SCS is equipped with one or more SCUs in the SCU8 to SCU15 range), indicating that the `unused EBI link test skipped`. This is the only allowable exception (no other bits in the CATP reason word should be set).	Telco	—
35	This is a **Safe Stop Point**. If stopping, perform Steps 36 and 37. Otherwise, go to Step 39.	Telco/Inst	—
36	At the 1B MTC terminal, allow REX by entering: **ALW:MACLI,CLASS MTCE!** Response: `AUTOMATIC JOB SCHEDULING RESUMED`	Telco	—
37	Stop procedure for now. Resume at Step 38 when continuing.	Telco/Inst	—
38	Perform Steps 1 through 8 of this procedure. Then continue to the next step.	Telco/Inst	—
	CIRCUIT PACK INSTALLATION FOR GROWTH SCU(S) AND ASSOCIATED DISK PAIR(S) ***Note:*** Steps 39 through 45 should be completed for each growth SCU, beginning with the lowest-numbered growth SCU. These steps should be completed in their entirety for each growth SCU before continuing with the next growth SCU.		

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
39	Verify that fuses are installed in the Fuse and Filter Unit for the growth SCU and associated disk pair(s). (See the labeling on the fuse panel cover for fuse locations and sizes.)	Inst	—
40	***Note:*** If this SCU is to provide announcement expansion verify/replace the TN1977 with the TN9001 circuit pack and the TN1983 with the TN9002. Install circuit packs in the growth SCU and the associated Hard Disk Unit (HDU).	Inst	—
41	This is a **Safe Stop Point**. If stopping, perform Steps 42 and 43. Otherwise, go to Step 45.	Telco/Inst	—
42	At the 1B MTC terminal, allow REX by entering: **ALW:MACLI,CLASS MTCE!** Response: `AUTOMATIC JOB SCHEDULING RESUMED`	Telco	—
43	Stop procedure for now. Resume at Step 44 when continuing.	Telco/Inst	—
44	Perform Steps 1 through 8 of this procedure. Then continue to the next step.	Telco/Inst	—
45	Power-up the growth SCU and the associated disk pair(s). 1. At the growth Hard Drive Unit(s), press the **ON** button to power the Disk Power Controller (DPC) UN356 circuit pack. ***Caution: Wait at least 60 seconds before proceeding with the next step. This allows the disk drives to spin up to operational speed.*** 2. At the growth SCU, press the **ON** button to power the Master Power Controller (MPC) TN1984 circuit pack.	Inst	—
46	Have Steps 39 through 45 been completed for all growth SCUs? If **YES**, continue to Step 47. If **NO**, repeat Steps 39 through 45 for the next growth SCU.	Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
	SCS-RELATED TSI GROWTH ***Note:*** Steps 47 through 62 should be completed for each growth SCU, beginning with the lowest-numbered growth SCU. These steps should be completed in their entirety for each growth SCU before continuing with the next growth SCU.		
47	Recent change and verify the associated TSI submember equipage from UNEQ to GROW using RC Form 700.	Telco	DLP-506
48	Recent change and verify the associated TSI submember equipage from GROW to SGRO using RC Form 700.	Telco	DLP-507
49	This is a **Safe Stop Point**. If stopping, perform Steps 50 and 51. Otherwise, go to Step 53, being sure to read the heading preceding Step 53.	Telco/Inst	—
50	At the 1B MTC terminal, allow REX by entering: **ALW:MACLI,CLASS MTCE!** Response: `AUTOMATIC JOB SCHEDULING RESUMED`	Telco	—
51	Stop procedure for now. Resume at Step 52 when continuing.	Telco/Inst	—
52	Perform Steps 1 through 8 of this procedure. Then continue to the next step.	Telco/Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
	SCU AND ASSOCIATED DISK PAIR GROWTH		
53	At the Optical Cross-Connect Panel (OCCP), move or remove the growth SCU(s) Fiber Shorting Contacts (CC# 846832087) and connect the associated fiber-optic ribbon cable.	Inst	—
54	Recent change and verify growth SCU equipage from UNEQ to GROW using RC Form 700.	Telco	DLP-502
55	Recent change and verify associated disk pair and MSP equipage from UNEQ to GROW using RC Form 703.	Telco	DLP-503
56	At the 1B MTC terminal, diagnose the growth SCU and the associated disk pair using Phases 1 through 7 by entering: **DGN:SCS** *x*,**SCU z:PH 1-7!** where *x* = Member Number (0-7) *z* = Submember Number (0-15) Response: The screen returns output messages with ATP for each valid phase.	Telco/Inst	—
57	Recent change and verify growth SCU equipage from GROW to SGRO using RC Form 700.	Telco	DLP-504
58	Recent change and verify associated disk pair and MSP equipage from GROW to SGRO using RC Form 703.	Telco	DLP-505
59	At the 1B MTC terminal, diagnose the growth SCU and the associated disk pair using Phases 1 through 7 by entering: **DGN:SCS** *x*,**SCU** *z*:**PH 1-7!** where *x* = Member Number (0-7) *z* = Submember Number (0-15) Response: The screen returns output messages with ATP for each valid phase.	Telco/Inst	—
60	At the 1B MTC terminal, diagnose SCS Controller 0 by entering: **DGN:SCS** *x*,**CONTR 0!** where *x* = Member Number (0-7) Response: The screen returns an output message with ATP.	Telco/Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
61	At the 1B MTC terminal, restore SCS Controller 0 by entering: **RST:SCS *x*,CONTR 0!** where *x* = Member Number (0-7) Response: The screen returns an output message with `CATP`, then `RESTORE COMPLETE`. Bit **21** will be **set** in the CATP **reason word** (unless the SCS is equipped with one or more SCUs in the SCU8 to SCU15 range), indicating that the `unused EBI link test skipped`. This is the only allowable exception (no other bits in the CATP reason word should be set).	Telco/Inst	—
62	At the 1B MTC terminal, diagnose SCS Controller 1 by entering: **DGN:SCS *x*,CONTR 1!** where *x* = Member Number (0-7) Response: The screen returns an output message with `ATP`.	Telco/Inst	—
63	At the 1B MTC terminal, restore SCS Controller 1 by entering: **RST:SCS *x*,CONTR 1!** where *x* = Member Number (0-7) Response: The screen returns an output message with `CATP`, then `RESTORE COMPLETE`. Bit **21** will be **set** in the CATP **reason word** (unless the SCS is equipped with one or more SCUs in the SCU8 to SCU15 range), indicating that the `unused EBI link test skipped`. This is the only allowable exception (no other bits in the CATP reason word should be set).	Telco/Inst	—
64	This is a **Safe Stop Point**. If stopping, perform Steps 65 and 66. Otherwise, go to Step 68.	Telco/Inst	—
65	At the 1B MTC terminal, allow REX by entering: **ALW:MACLI,CLASS MTCE!** Response: `AUTOMATIC JOB SCHEDULING RESUMED`	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
66	Stop procedure for now. Resume at Step 67 when continuing.	Telco/Inst	—
67	Perform Steps 1 through 8 of this procedure. Then continue to the next step.	Telco/Inst	—
68	Have Steps 47 through 63 been completed for all growth SCUs? If **YES**, continue to Step 69. If **NO**, repeat Steps 47 through 64 for the next growth SCU.	Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
	DOWNLOADING OF SCS SYSTEM FILES FROM THE ATTACHED PROCESSOR SYSTEM (APS) ***Note:*** The downloading of the SCS system files is accomplished via the COPY command. This command is used once for each of the SCS System File Types: TONES, SCCSFT, SCUOPR, SCUDGN, MSPROV, MSPFIX, MSP1, MIP0FIL, and MIP1FIL. These files reside in the /scs directory of the 3B20D computer and may have up to two vintages of files labeled 0 or 1. Both a Source Version Number (SVN) (the correct and up-to-date file location on the 3B20D computer disk) and a Destination Version Number (DVN) (the next location on each Disk Pair 0) are needed for each COPY command. These numbers ensure that a particular SCS file type is read from and written to the proper disk location of each disk pair 0.		
69	Determine the latest SCS system file version numbers from an in-service disk pair.	Telco/Inst	DLP-545
70	Copy the correct and up-to-date SCS system files from the APS to all growth disk pair 0.	Telco/Inst	DLP-524
71	Update SCU/MSP version numbers in the SCS Unit Type Translator for **each growth SCU** using RC Form 703.	Telco/Inst	DLP-544
72	At the 1B MTC terminal, diagnose **each** growth SCU and the associated disk pair(s) by entering: **DGN:SCS** *a*,**SCU** *b*:**PH (1-10,***c***)!** where *a* = Member Number (0-7) *b* = SCU Number (0-15) *c* = Phase Number(s) for SCU MSP test: **12** for SCUs with MSP 0 **12-13** for SCUs with MSPs 0 and 1 **12-14** for SCUs with MSPs 0 through 2 **12-15** for SCUs with MSPs 0 through 3 Response: The screen returns output messages with ATP for each valid phase.	Telco/Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
	TN4000 SECOND DISK PACK INITIALIZATION		
	Note: Steps 73 through 75 should be completed only if TN4000 (4 Gb) circuit packs are being grown. Steps 73 through 75 must be completed for each growth SCU equipped with TN4000 circuit packs, beginning with the lowest-numbered growth SCU. These steps must be completed in their entirety for each applicable growth SCU before continuing with the next growth SCU. ***Caution: TN4000 circuit packs can only be installed in disk pair location 0. See Table A at the end of this procedure for allowable disk pair locations.***		
73	Are TN4000 circuit packs being grown in location 0? If **YES**, continue to Step 74. If **NO**, continue to Step 75.	Telco/Inst	—
74	At the 1B MTC terminal, perform a soft initialization of Disk Pair 1, by entering the commands given below. ***Note:*** When populating a Type 2 (TN4000 - 4 Gb) disk pair at an SCU Disk Pair 0 location in the SCS Unit Type Translator, the adjacent location Disk Pair 1 will also be populated. In order to ensure proper operation, a Soft Initialization (TYP 1) on both Bus 0 and Bus 1 is necessary for Disk Pair 1. 1. **INIT:SCS *x*,SCU *y*,DSK 1,BUS 0,TYP 1!** where *x* = Member Number (0-7) *y* = Submember Number (0-15) Response: `INIT:SCS x, SCU y COMPLETE` 2. **INIT:SCS *x*,SCU *y*,DSK 1,BUS 1,TYP 1!** where *x* = Member Number (0-7) *y* = Submember Number (0-15) Response: `INIT:SCS x, SCU y COMPLETE`	Telco/Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
75	Have Steps 71 through 74 been completed for all applicable growth SCUs? If **YES**, continue to Step 76. If **NO**, repeat Steps 71 through 74 for the next applicable growth SCU.	Telco/Inst	—
76	This is a **Safe Stop Point**. If stopping, perform Steps 77 and 78. Otherwise, go to Step 80.	Telco/Inst	—
77	At the 1B MTC terminal, allow REX by entering: **ALW:MACLI,CLASS MTCE!** Response: `AUTOMATIC JOB SCHEDULING RESUMED`	Telco	—
78	Stop procedure for now. Resume at Step 79 when continuing.	Telco/Inst	—
79	Perform Steps 1 through 8 of this procedure. Then continue to the next step.	Telco/Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
	ACTIVATE GROWTH SCU(S) AND ASSOCIATED DISK PAIR(S)		
	Note: Steps 80 through 99 should be completed for each growth SCU, beginning with the lowest-numbered growth SCU. These steps should be completed in their entirety for each growth SCU before continuing with the next growth SCU.		
80	At the 1B MTC terminal, apply port pest to the associated TSI Port by entering: **INH:TSI** *x*,**SPC** *y*,**PORT** *z*! where *x* = TSI Member Number (0-63) *y* = SPC within TSI (0-1) *z* = Port within SPC (0-6) Response: The input message is echoed when the pesting is done.	Telco	—
81	Remove the output looping cable/plug from the associated TSI Port. Then connect the DS-120 signal cables between the associated TSI Port and the growth SCU.	Inst	—
82	At the 1B MTC terminal, diagnose the SCU and the associated disk pair(s) using Phase 11 by entering: **DGN:SCS** *x*,**SCU** *z*:**PH 11!** where *x* = Member Number (0-7) *z* = Submember Number (0-15) Response: The screen returns an output message with ATP for Phase 11.	Telco/Inst	—
83	At the 1B MTC terminal, diagnose the TSI Frame Controller 0 by entering: **DGN:TSI** *x*,**CONTR 0:PH** *y*,**GROWTH!** where *x* = Member Number (0-63) *y* = 13 (for J4A001A) or 20 (for J4A001B) Response: The screen returns an output message with REMOVE COMPLETE, then ATP for all tests run.	Telco/Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
84	At the 1B MTC terminal, restore TSI x, Controller 0 by entering: **RST:TSI** *x*,**CONTR 0!** where *x* = Member Number (0-63) Response: The screen returns an output message with ATP for all tests run, then RESTORE COMPLETED.	Telco/Inst	—
85	At the 1B MTC terminal, diagnose the TSI Frame Controller 1 by entering: **DGN:TSI** *x*,**CONTR 1:PH** *y*,**GROWTH!** where *x* = Member Number (0-63) *y* = 13 (for J4A001A) or 20 (for J4A001B) Response: The screen returns an output message with REMOVE COMPLETE, then ATP for tests run.	Telco/Inst	—
86	At the 1B MTC terminal, restore TSI x, Controller 1 by entering: **RST:TSI** *x*,**CONTR 1!** where *x* = Member Number (0-63) Response: The screen returns an output message with ATP for all tests run, then RESTORE COMPLETED.	Telco/Inst	—
87	Recent change and verify TSI submember equipage from SGRO to OPER using RC Form 700.	Telco	DLP-511
88	At the 1B MTC terminal, diagnose the growth SCU and the associated disk pair using Phase 11 by entering: **DGN:SCS** *x*,**SCU** *z*:**PH 11!** where *x* = Member Number (0-7) *z* = Submember Number (0-15) Response: The screen returns an output message with ATP for Phase 11.	Telco/Inst	—
89	Recent change and verify the disk pair and MSP equipage of the growth SCU from SGRO to OPER using RC Form 703.	Telco	DLP-509
90	Recent change and verify the growth SCU equipage from SGRO to OPER using RC Form 700.	Telco	DLP-510
91	Verify alarms for the appropriate SCU(s) 0-15 and associated Disk Power Controllers.	Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
92	At the 1B MTC terminal, run a Peripheral Unit Status audit by entering: **AUD:PUSTAT!** Response: `MSG COMPL`	Telco/Inst	—
93	At the 1B MTC terminal, diagnose the growth SCU and the associated disk pair(s) using demand phases of equipped disk pairs by entering the following input message: **DGN:SCS** *a*,**SCU** *b*:**PH** *c*-*d*! where *a* = Member Number (0-7) *b* = SCU Number (0-15) *c* = Beginning Phase Number (see Caution) *d* = Ending Phase Number (see Caution) ***Caution: For any SCU 0-15, If Type 3 (9 Gb) disk pair is being diagnosed, demand phases 90-91 must be run. For any SCU 0-15, if a Type 2 (4 Gb) disk pair is being diagnosed, demand Phases 90, 91, 92, and 93 must be run sequentially within the same message. For Type 0 (422 Mb) and Type 1 (2 Gb) disk pairs, use the demand phases listed below:*** **90** and **91** for Disk Pair 0 **92** and **93** for Disk Pair 1 (SCU 0 only) Response: The screen returns output messages with `ATP` for all equipped disk pairs. ***Note:*** The number of phases in the input message depends on the number of disk pairs equipped. This DGN message takes approximately 10 minutes per phase. Type 3 DGN messages take approximately 1 hour and 40 minutes per phase.	Telco/Inst	—
94	If an **AAP is present and active**, go to Step 95. If an **AAP is not present**, go to Step 96.	Telco/Inst	—
95	Add the growth SCU to the AAP's SCU equipment (SCUEQP) database, if applicable.	Telco/Inst	DLP-521

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
	Note: If disk pair has no announcements, continue with Step 96. If disk pair has announcements, go to Step 97.		
96	At the 1B MTC terminal, perform a Soft Initialization of SCU **y**, Disk Pair 0, by entering the commands given below. ***Note:*** When populating a TN9000 - 9 GB disk pair at the SCU **y**, Disk Pair 0 location in the SCS Unit Type Translator, enter the following input messages: A. **INIT:SCS** *x***, SCU** *y***, DSK 0, BUS 0,TYP 1!** where *x* = Member Number (0-7) *y* = Submember Number (0-15) Response: `INIT:SCS` *x*`, SCU` *y* `COMPLETE` B. **INIT:SCS** *x***,SCU** *y***,DSK 0,BUS 1, TYP 1!** where *x* = Member Number (0-7) *y* = Submember Number (0-15) Response: `INIT:SCS` *x*`, SCU` *y* `COMPLETE`	Telco	—
97	With the **ROS** switch on the TN1984 circuit pack in the NORMAL position at the SCU, restore and initialize the SCU and the associated disk pair by entering the following input message at the 1B MTC terminal: **RST:SCS** *x***,SCU** *z***!** where *x* = Member Number (0-7) *z* = Submember Number (0-15) Response: `ATP` `ANN UPD STARTED` (if AAP is present and active) `RESTORE COMPLETE`	Telco/Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
98	At the growth Service Circuit Unit Cabinet (SCUC), toggle the SUU's **ROS** switch on the TN1984 circuit pack from NORMAL to ROS, then back to NORMAL. ***Note:*** This will remove the SCU from SERVICE. When switched back to NORMAL, the SCU will be diagonised and successfully returned to SERVICE.	Inst	—
99	Contact NCC to inform that: A. Growth/Conversion of this SCU is complete. B. There are currently no announcements contained on this SCU. C. Trunks to this SCU are in CAD.DSA state (if any exist). D. CAUCS is probably inhibited from updating announcements to this 4ESS switch office for the specific Announcement Set(s).	Telco	—
100	This is a **Safe Stop Point**. If stopping, perform Steps 101 and 102. Otherwise, go to Step 104.	Telco/Inst	—
101	At the 1B MTC terminal, allow REX by entering: **ALW:MACLI,CLASS MTCE!** Response: `AUTOMATIC JOB SCHEDULING RESUMED`	Telco	—
102	Stop procedure for now. Resume at Step 103 when continuing.	Telco/Inst	—
103	Perform Steps 1 through 8 of this procedure. Then continue to the next step.	Telco/Inst	—
104	Have Steps 80 through 99 been completed for all growth SCUs? If **YES**, **STOP! THIS PROCEDURE IS COMPLETE**. If **NO**, repeat Steps 80 through 99 for the next growth SCU.	Telco/Inst	—

TABLE A Allowable Disk Pair Configurations for Circuit Packs With SCU 0

Allowable Disk Pair Types	
Disk Pair Location 0	**Disk Pair Location 1**
2	X
0	0
0	1
1	0
3	X
Where "X" indicates disk pair locations that **must be unpopulated**.	

Increase Disk Pair Capacity for Service Circuit Unit (SCU) 0, Disk Pair 0 From Type 0 or Type 1 to Type 2

Note: This procedure is designed to increase disk pair capacity for SCU 0, Disk Pair 0 from a Type 0 (422 Mb) or Type 1 (2 Gb) to a Type 2 (4 Gb) within a SCS Complex. This procedure assumes that SCU 0 is operational and in service. It is also assumed that the announcement set and appropriate trunking are stable and will remain unchanged.

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
1	Ensure that all responsible parties and organizations are aware of this activity before it starts. The appropriate *4ESS* switch support organizations must be contacted for instructions and/or assistance prior to this activity.	Telco	—
2	Ensure that within the last 24 hours the Processor has not experienced any TTY terminal suspends, bootstraps, diagnostic failures, or overloads.	Telco	—

3	Ensure that disks and Input/Output Processors (IOPs) are in duplex and that 3B Control Units (CUs) are in ACTIVE-STANDBY mode. Routine Exercise (REX) and the Peripheral Unit System Exerciser (PUSYS) should be inhibited, during this activity. This is accomplished by entering the following at the 1B Maintenance (MTC) terminal:
	
	1. **INH:MACLI,CLASS MTCE;REX!**
	
	Response: `MACLI,CLASS MTCE INHIBITED`
	`AUTOMATIC JOB SCHEDULING`
	`DISALLOWED`
	
	2. **STOP:TEST;PUSYS!**
	
	Response: `OK`
		Telco	—

4	Ensure that diagnostics on the duplexed 3B CUs have been run to completion within the last 24 hours.	Telco	—
5	Ensure that diagnostics of the appropriate SCS frame have been run to completion within the last 24 hours.	Telco	—
6	Ensure that diagnostics on the associated Time Slot Interchange (TSI) Frames have been run to completion within the last 24 hours.	Telco	—
7	Ensure that all processor and/or system problems have been cleared.	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
8	Ensure that no Software Updates (SUs)/Broadcast Warning Messages (BWMs) for SCS system files are applied during this activity.	Telco	—
9	Notify the Technical Control Center (TCC)/National Control Center (NCC) that an in-service SCU will be removed from service.	Telco	—
10	Ensure that the AAP/SCS LAN connection is present and active, if applicable. A. At the AAP console, log in as **aapusr** and select option 2 from the menu. B. Poke **118** for link status. Response: LAN links are displayed as active. C. Enter **q** to quit. D. If the LAN is out of service, resolve the problem and contact the next level of support, if necessary. **Do not continue to the next step until the LAN is present and active.**	Telco	—
11	Is the AAP present and active? If **YES**, go to Step 12. If **NO**, go to Step 14.	Telco/Inst	—
	INHIBIT SCU 0 IN THE AAP DATABASE		

12	At the AAP console, check for SCU 0 in the SCU Equipment (SCUEQP) database by logging in as **aapusr**, selecting option **4**, and entering:
	OP:SCUEQP!
	Response: A printout similar to the following example is generated.
	Example:
	`M mm OP:SCUEQP results`
	`KEY ANNSET SCS SCU LANADR ENA ACT`
	`0 S 0 0 08006A190A 0 0`
	`99999 N 7 15 08006A190A 1 1`
	`mh/dy/yr hh:mm:ss tz #nnn`
	Use this printout to determine and record the KEY number of SCU 0. This number will be necessary to INHIBIT and ENABLE SCU 0 in the AAP SCUEQP database.
		Telco	—

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

13	At the AAP console, inhibit SCU 0 in the SCUEQP database by entering:
	INH:SCUEQP;KEY *x***!**
	where *x* = KEY number of the SCU (recorded in the previous step).
	Response:
	`M mm INH:SCUEQP KEY x completed`
	`mh/dy/yr/ hh:mm:ss tz #nnn`
		Telco	—

	INSTALL TYPE 2 (TN4000) DISK PACKS INTO DISK PAIR 2 LOCATION		
14	At SCU 0 of the appropriate SCCC, toggle the **ROS** switch on the TN1984 circuit pack from NORMAL to ROS. This will remove SCU 0 from service. When the **OS** lamp goes ON, continue to the next step.	Telco	—
15	At the 1B MTC terminal, diagnose SCU 0 and the associated disk pair(s) by entering: **DGN:SCS** *a***,SCU 0:PH (1-10,***b***)!** where *a* = Member Number (0-7) *b* = Phase Number(s) for SCU MSP test: **12** for SCUs with MSP 0 (EQL 080) **12-13** for SCUs with MSPs 0 and 1 (EQL 072) **12-14** for SCUs with MSPs 0 through 2 (EQL 064) **12-15** for SCUs with MSPs 0 through 3 (EQL 056) Response: The screen returns output messages with `CATP` for each valid phase. Bit 5 will be set indicating that the Power Control switch is in the ROS position.	Telco/Inst	—
16	Power-down the disk pair(s) associated with SCU 0 by pressing the **OFF** button on the Disk Power Controller (DPC) UN356 circuit pack(s) associated with the disk pair(s).	Inst	—
17	Power-down SCU 0 by pressing the **OFF** button on the SCU's TN1984 circuit pack.	Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
18	Following all existing electrostatic discharge practices, install the TN4000 Hard Disk circuit packs and the associated Disk Power Controller (DPC) UN356 circuit pack into the Disk Pair 2 location of the HDU (see Figure 1). ***Note:*** Retain the plastic inserts from circuit pack slots for later use.	Inst	—
19	Add disk pair capacity and equipage for Disk Pair 2 in the SCS Unit Type Translator.	Telco/Inst	DLP-525
20	Power-up SCU 0 and the associated disk pair(s). 1. At the associated disk pair(s), press the **ON** button to power the Disk Power Controller (DPC) UN356 circuit pack. ***Caution: Wait at least 60 seconds before proceeding with the next step. This allows the disk drives to spin up to operational speed.*** 2. At SCU 0, press the **ON** button to power the Master Power Controller (MPC) TN1984 circuit pack.	Inst	—
21	At the 1B MTC terminal, diagnose SCU 0 and the associated disk pair(s) by entering: **DGN:SCS *a*,SCU 0:PH (1-10,*b*)!** where *a* = Member Number (0-7) *b* = Phase Number(s) for SCU MSP test: **12** for SCUs with MSP 0 (EQL 080) **12-13** for SCUs with MSPs 0 and 1 (EQL 072) **12-14** for SCUs with MSPs 0 through 2 (EQL 064) **12-15** for SCUs with MSPs 0 through 3 (EQL 056) Response: The screen returns output messages with CATP for each valid phase. Bit 5 will be set indicating that the Power Control switch is in the ROS position.	Telco/Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
22	At the 1B MTC terminal, run a Peripheral Unit Status audit by entering: **AUD:PUSTAT!** Response: `MSG COMPL`	Telco/Inst	—
23	At the 1B MTC terminal, diagnose SCU 0 and the associated Type 2 disk pair(s) by entering the following input message: **DGN:SCS** *a*,**SCU 0:PH 94-97!** where *a* = Member Number (0-7) Response: The screen returns output messages with `ATP` for all equipped disk pairs. The number of phases in the input message depends on the number of disk pairs equipped. This DGN message takes approximately 10 minutes per phase.	Telco/Inst	—
24	This is a **Safe Stop Point**. If stopping, perform Steps 25 and 26. Otherwise, go to Step 28.	Telco/Inst	—
25	At the 1B MTC terminal, allow REX by entering: **ALW:MACLI,CLASS MTCE!** Response: `AUTOMATIC JOB SCHEDULING RESUMED`	Telco	—
26	Stop procedure for now. Resume at Step 27 when continuing.	Telco/Inst	—
27	Perform Steps 2 through 8 of this procedure. Then continue to the next step.	Telco/Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
	PERFORM INTRA-SCU DISK COPY ***Note:*** An intra-SCU disk copy can only be performed when larger/equal capacity disks are copied to by smaller/equal capacity disks.		
28	At the 1B MTC terminal, do a disk copy from Disk Pair 0, Bus 0 to Disk Pair 2 by entering: **COPY:SCS *a*,SCU 0,SDP 0,BUS 0,DDP 2!** where *a* = Member Number (0-7) Response: `COPY:SCS a COMPLETED` ***Note:*** This intra-SCU disk copy will take a considerable amount of time. The time varies depending on the size of the disk being copied. An `IN PROGRESS` message will be displayed every 5 minutes during the copy. This copy will take approximately 20 minutes.	Telco	—
29	At the 1B MTC terminal, do a disk copy from Disk Pair 0, Bus 1 to Disk Pair 2, by entering: **COPY:SCS *a*,SCU 0,SDP 0,BUS 1,DDP 2!** where *a* = Member Number (0-7) Response: `COPY:SCS a COMPLETED` ***Note:*** This intra-SCU disk copy will take a considerable amount of time. The time varies depending on the size of the disk being copied. An `IN PROGRESS` message will be displayed every 5 minutes during the copy. This copy will take approximately 20 minutes.	Telco	—
30	Power-down the disk pair(s) associated with SCU 0 by pressing the **OFF** button on the Disk Power Controller (DPC) UN356 circuit pack(s) associated with the disk pair(s).	Inst	—
31	Power-down SCU 0 by pressing the **OFF** button on the SCU's TN1984 circuit pack.	Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
32	Is an intra-SCU disk copy to be performed on another disk pair? If **YES**, go to Step 33. If **NO**, go to Step 37.	Telco/Inst	—
33	Ensure that SCU 0 is powered down.	Inst	—
34	Following all existing electrostatic discharge practices, remove the existing TN4000 Hard Disk circuit packs at the SCU 0, Disk Pair 2 location (see Figure 1), and replace them with another pair of TN4000 Hard Disk circuit packs. Do **not** remove the UN356 DPC circuit pack.	Inst	—
35	Power-up SCU 0 and the associated disk pair(s). 1. At the associated disk pair(s), press the **ON** button to power the Disk Power Controller (DPC) UN356 circuit pack. ***Caution: Wait at least 60 seconds before proceeding with the next step. This allows the disk drives to spin up to operational speed.*** 2. At SCU 0, press the **ON** button to power the Master Power Controller (MPC) TN1984 circuit pack.	Inst	—
36	Repeat Steps 28 through 32.	Telco/Inst	—
37	Ensure that SCU 0 is powered down.	Inst	—
38	Following all existing electrostatic discharge practices, remove the Type 0 (TN1672) or Type 1 (TN1972) Hard Disk circuit packs and the associated UN356 DPC circuit packs from the Disk Pair 0 location (see Figure 1).	Inst	—
39	Following all existing electrostatic discharge practices, install the Type 2 (TN4000) Hard Disk circuit packs and the associated Disk Power Controller (DPC) UN356 circuit pack from the Disk Pair 2 location into the Disk Pair 0 location (see Figure 1). ***Note:*** Replace the plastic inserts that were removed in Step 18 at the Disk Pair 2 location.	Inst	—
40	Change SCU 0, Disk Pair 0 capacity and equipage in the SCS Unit Type Translator.	Telco/Inst	DLP-517

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
41	Power-up SCU 0 and the associated disk pair(s). 1. At the associated disk pair(s), press the **ON** button to power the Disk Power Controller (DPC) UN356 circuit pack. ***Caution: Wait at least 60 seconds before proceeding with the next step. This allows the disk drives to spin up to operational speed.*** 2. At SCU 0, press the **ON** button to power the Master Power Controller (MPC) TN1984 circuit pack.	Inst	—
42	At the 1B MTC terminal, perform a soft initialization of SCU 0, Disk Pair 1, by entering the commands given below. ***Note:*** When populating a Type 2 (TN4000 - 4 Gb) disk pair at the SCU 0, Disk Pair 0 location in the SCS Unit Type Translator, the adjacent location Disk Pair 1 will also be populated. In order to ensure proper operation, a Soft Initialization (TYP 1) on both Bus 0 and Bus 1 is necessary for Disk Pair 1. 1. **INIT:SCS *x*,SCU 0,DSK 1,BUS 0,TYP 1!** where *x* = Member Number (0-7) Response: `INIT:SCS x, SCU 0 COMPLETE` 2. **INIT:SCS *x*,SCU 0,DSK 1,BUS 1,TYP 1!** where *x* = Member Number (0-7) Response: `INIT:SCS x, SCU 0 COMPLETE`	Telco	—
43	At the 1B MTC terminal, inhibit the LAN by entering: **INH:SCS 0,LAN!** Response: The screen returns `Code 091` followed by `INH:SCS 0, LAN`	Telco/Inst	—

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

44	Restore SCU 0 to service:
	
	A. At SCU 0 of the appropriate SCCC, toggle the **ROS** switch on the TN1984 circuit pack from ROS to NORMAL.
	
	Response: `RST:SCS` *x*`, SCU 0 STOPPED OS RMVD`
	where: *x* = SCS Member Number (0-7)
	
	B. At the 1B MTC terminal, enter:
	RST:SCS *x***,SCU 0!**
	where: *x* = SCS Member Number (0-7)
	Response:
	`DGN:SCS` *x*`, SCU 0 COMPLETE ATP MSG COMPL`
	followed by
	`RST:SCS` *x*`, SCU 0 COMPL`
		Telco/Inst	—

45	Is the AAP present and active? If **YES**, go to Step 46. If **NO**, go to Step 50.	Telco/Inst	—
	ENABLE SCU 0 IN THE AAP DATABASE		
46	At SCU 0, toggle the **ROS** switch on the TN1984 circuit pack from NORMAL to ROS. When the **OS** indicator goes ON, continue to the next step.	Inst	—
47	At the 1B MTC terminal, enable the LAN by entering the following message: **ALW:SCS 0,LAN!** Response: The screen returns `Code 091` followed by `ALW:SCS 0,LAN`	Telco/Inst	—
48	At the AAP console, enable SCU 0 in the SCUEQP database by entering: **ALW:SCUEQP;KEY** *x***!** where *x* = KEY number of the SCU (recorded in Step 12). Response: `M mm ALW:SCUEQP KEY` *x* `completed` `mh/dy/yr/ hh:mm:ss tz #nnn`	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
49	Toggle the SCU's **ROS** switch on the TN1984 circuit pack from ROS to NORMAL, to restore the SCU to service. When the **OS** LED goes off, continue to the next step. ***Note:*** During the Restore of the SCU, an announcement update will take place. Depending on the number of new announcements, this Restore could take several minutes.	Inst	—
	ALLOW REX		
50	At the 1B MTC terminal, allow REX by entering: **ALW:MACLI,CLASS MTCE!** Response: `AUTOMATIC JOB SCHEDULING RESUMED`	Telco	—
51	Inform the TCC/NCC that the SCU is now back in service.	Telco	—

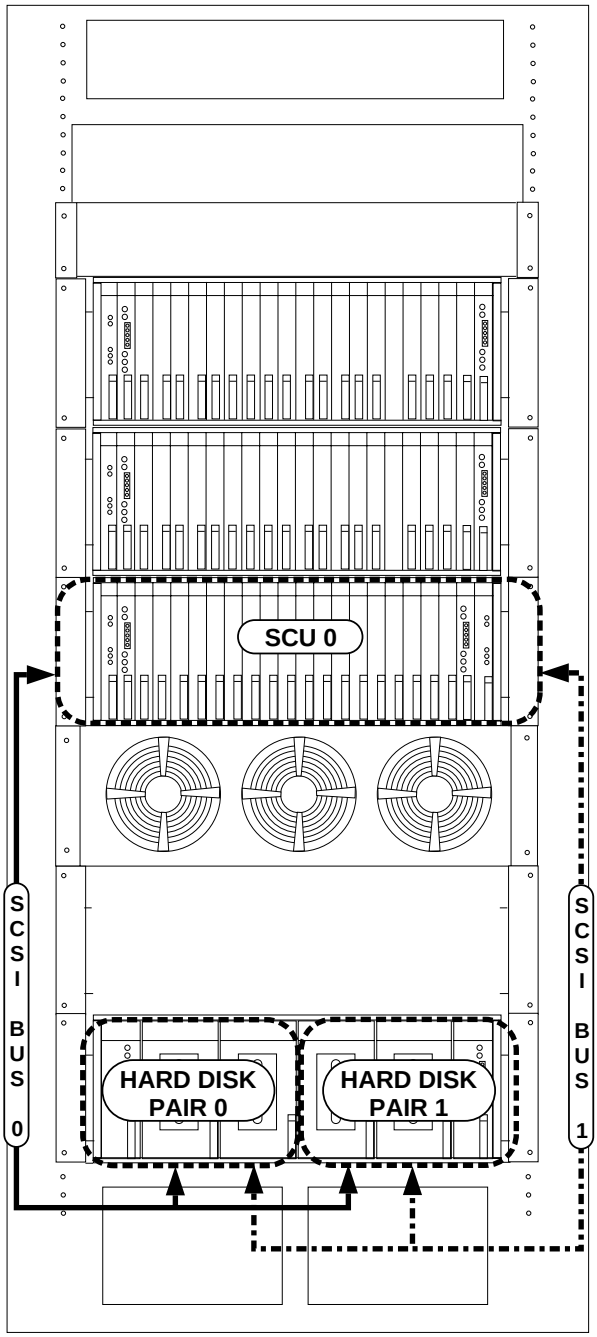

Figure 1. SCU 0, Associated Disk Pairs, and Bus Connections in the SCC Cabinet

Add Service Circuit Unit Cabinet (SCUC)

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
	***4ESS*™ SWITCH OFFICE PRELIMINARY CHECK**		
1	Ensure that the *4ESS* switch is currently running 4E21 or later Generic.	Telco	—
2	Ensure that within the last 24 hours the Processor has not experienced any TTY terminal suspends, bootstraps, diagnostic failures, or overloads.	Telco	—

3	Ensure that the AT&T 3B20 APS System, the APIs, and the 1B Processor are in the duplex mode, and that the 3B Control Units (CUs) are in ACTIVE-STANDBY mode. Routine Exercise (REX) and the Peripheral Unit System Exerciser (PUSYS) should be disabled, and should remain disabled during the entire growth process. This is accomplished by entering the following at the 1B Maintenance (MTC) terminal:
	
	1. **INH:MACLI,CLASS MTCE;REX!**
	
	Response: `MACLI,CLASS MTCE INHIBITED`
	`AUTOMATIC JOB SCHEDULING`
	`DISALLOWED`
	
	2. **STOP:TEST;PUSYS!**
	
	Response: `OK`
		Telco	—

4	Ensure that diagnostics on the duplexed 3B CUs have been run to completion within the last 24 hours.	Telco	—
5	Ensure that all processor and/or system problems have been cleared.	Telco	—
6	Ensure that the SCS growth complex is in service, operating in duplex, and has run diagnostics to completion within the last 24 hours.	Telco	—
7	Ensure that no Software Updates (SUs)/BWMs for SCS system files are applied during SCS growth.	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
8	Ensure that the AAP/SCS LAN connection is present and active, if applicable. A. At the AAP console, log in as **aapusr** and select option 2 from the menu. B. Poke **118** for link status. Response: LAN links are displayed as active. C. Enter **q** to quit. D. If the LAN is out of service, resolve the problem and contact the next level of support, if necessary. **Do not continue to the next step until the LAN is present and active.**	Telco	—
	4ESS SWITCH TO GROWTH SCUC PRELIMINARY INTERCONNECT		
9	Ensure that the growth SCUC frame has been bolted down adjacent to the appropriate SCS complex and the SCS power controller connections from the dedicated *4ESS* switch Power Distribution Frame are completed and tested.	Inst	—
10	Ensure that all Scan Point and Signal Distributor (SD) Point connections from each Service Circuit Unit (SCU) shelf of the growth SCUC to the *4ESS* switch Signal Processor (SP) are complete.	Inst	—
11	Ensure that the alarm connections from each SCU shelf of the growth SCUC to the *4ESS* switch Power Alarm Grid are completed.	Inst	—
12	Ensure that the growth SCUC TTY A, TTY B, and TEL Jack connections to the *4ESS* switch are completed. ***Note:*** These connections only exist in SCUC 2.	Inst	—
13	Ensure that the Active/Standby cables from each SCU shelf (horizontal equipment location [EQL] 024) in the growth SCUC are properly connected. These cables are daisy-chained between each SCU within the growth SCUC.	Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
14	Ensure that the Active/Standby cable from the existing in-service SCUC to the growth SCUC is properly connected. This cable extends the Active/Standby daisy-chain to include the growth SCUC shelves. ***Caution: It is very important to connect this cable properly. If improperly connected during growth, all existing in-service SCUs will lose communication with the Service Circuit Controller (SCC).***	Inst	—
15	Ensure that the Extended Bus cable from the Optical Cross-Connect Panel (OCCP) to the backplane of each SCU shelf (horizontal EQL 024) in the growth SCUC are present. These cables may be connected at each SCU backplane, but not at the OCCP.	Inst	—
16	Ensure that the DS-120 looping cable and its associated strap (pins 023 to 024) are **not** present on the backplane (horizontal EQL 032) for each SCU shelf in the growth SCUC.	Inst	—
17	Ensure that the daisy-chained LAN cables between paddle boards (horizontal EQL 024) on the SCU shelves of the growth SCUC are properly connected.	Inst	—
	GROWTH SCUC TO LOCAL AREA NETWORK (LAN) CONNECTION ***Caution: All preparations for this section, such as acquiring LAN cables/terminators, must be completed prior to inhibiting the LAN. The LAN must not stay inhibited for long periods of time.***		
18	Is the AAP present and active? If **YES**, go to Step 19. If **NO**, go to Step 20.	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
19	A. Contact the Advanced Features Service Center (AFSC) at 314-658-1304 (tech beeper 314-424-8661) and notify them that the LAN will be taken out of service and that announcement updates to this site will be delayed. B. At the 1B terminal, enter: **INH:SCS 0,LAN!** Response: `INH:SCS 0, LAN` C. At the AAP console, log in as **aapusr** and select option **4**. D. At the AAP console, enter: **STOP:AAP"LANCMD"!** Response: `STOP:AAP "LANCMD" completed` E. At the AAP console, enter: **EXIT**	Telco/Inst	—

DO THE ITEMS IN THE ORDER LISTED			FOR DETAILS, GO TO
20	Re-route the LAN cable to add the growth SCUC to the SCS/AAP series LAN connection. This daisy-chain connection exists between all SCS complexes and the AAP. **If adding an SCUC to the end of a lineup**, do the following: 1. Remove the terminated LAN cable from the paddle board at the last daisy-chained SCU. (This cable runs from the 50 ohm terminator on the existing SCUC to the paddle board of the last daisy-chained SCU.) 2. Connect the LAN cable from the growth SCUC to the open termination on the above mentioned paddle board. 3. Ensure the the 50 ohm terminator is present at the coax converter of the growth SCUC. **If inserting an SCUC into a lineup**, interrupt the LAN cable between existing SCS complexes and insert the growth SCUC in between two existing SCS complexes. The LAN terminator does not have to be removed.	Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
	LAN CONTINUITY CHECK ***Note:*** For proper LAN functionality there must be continuity between the LAN Terminator at the AAP and the LAN Terminator located at the highest member number SCS complex (all other complexes being in between).		
21	At the 1B MTC terminal, enter: **DGN:SCS** *x*,**SCU** *y*:**PH 10!** where *x* = First existing LAN-connected SCS Member Number (0-7) (which contains SCU *y*) *y* = Lowest number SCU (0-15) connected to the LAN Response: `RMV SCS x SCU y COMPL,` `DGN SCS x SCS y COMPL ATP` ***Note:*** This diagnostic phase checks LAN continuity for all SCS complexes. If Phase 10 diagnostics fail, appropriate action should be taken to find the "open" in the daisy-chained LAN. If only one SCU exists in an office, alarms may sound when the SCU is removed from service. Retire these alarms at the MCC.	Telco/Inst	—
22	At the 1B MTC terminal, restore the SCU by entering: **RST:SCS** *x*,**SCU** *y*! where *x* = First LAN-connected SCS Member Number (0-7) (which contains SCU *y*) *y* = Lowest number SCU (0-15) connected to the LAN Response: `RST:SCSx, SCUy COMPL`	Telco/Inst	—
23	Is the AAP present and active (per Step 8)? If **YES**, go to Step 24. If **NO**, go to Step 25.	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
24	Initialize the AAP and allow the LAN as follows: A. At the AAP console, log in as **aapusr** and select option **4**. B. At the AAP console, enter: **INIT:AAP"LANCMD"!** Response: `INIT:AAP "LANCMD" completed` C. At the AAP console, enter: **EXIT** D. At the 1B MTC terminal, enter:**ALW:SCS 0,LAN!** Response: The screen returns `Code 091` followed by `ALW:SCS 0,LAN`. E. Contact the Advanced Features Service Center (AFSC) at 314-658-1304 (tech beeper 314-424-8661) and notify them that the LAN is back in service and that announcement updates may be resumed.	Telco/Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
	DIAGNOSE AND RESTORE CONTROLLERS 0 AND 1		
25	At the 1B MTC terminal, diagnose SCS Controller 0 by entering: **DGN:SCS** *x*,**CONTR 0!** where *x* = Member Number (0-7) Response: The screen returns an output message with ATP.	Telco/Inst	—
26	At the 1B MTC terminal, restore SCS Controller 0 by entering: **RST:SCS** *x*,**CONTR 0!** where *x* = Member Number (0-7) Response: The screen returns an output message with CATP, then RESTORE COMPLETE. Bit **21** will be **set** in the CATP **reason word** (unless the SCS is equipped with one or more SCUs in the SCU8 to SCU15 range), indicating that the unused EBI link test skipped. This is the only allowable exception (no other bits in the CATP reason word should be set).	Telco/Inst	—
27	At the 1B MTC terminal, diagnose SCS Controller 1 by entering: **DGN:SCS** *x*,**CONTR 1!** where *x* = Member Number (0-7) Response: The screen returns an output message with ATP.	Telco/Inst	—
28	At the 1B MTC terminal, restore SCS Controller 1 by entering: **RST:SCS** *x*,**CONTR 1!** where *x* = Member Number (0-7) Response: The screen returns an output message with CATP, then RESTORE COMPLETE. Bit **21** will be **set** in the CATP **reason word** (unless the SCS is equipped with one or more SCUs in the SCU8 to SCU15 range), indicating that the unused EBI link test skipped. This is the only allowable exception (no other bits in the CATP reason word should be set).	Telco/Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
29	At the 1B MTC terminal, allow REX by entering: **ALW:MACLI,CLASS MTCE!** Response: `AUTOMATIC JOB SCHDEULING RESUMED`	Telco	—

Add Service Circuit Unit(s) With Automatic Speech Recognition (ASR) — Phase 1

Note: This procedure is used to grow a **new Service Circuit Unit (SCU)** and/or convert an **existing SCU** to ASR-Phase 1 (ASR-1) functionality. If an existing SCU is being modified for ASR-1 functionality, ensure that the existing SCU has been completely degrown (including trunks) and powered down prior to the start of this procedure (see NTP-015). In the rest of this procedure, the term ASR refers to ASR-1. Also, the term "CDSU" refers to the Custom Data Services Unit-I (CDSU-I), and the term "CDSC" refers to the Custom Data Services Cabinet-I (CDSC-I).

DO THE ITEMS BELOW IN THE ORDER LISTED		**FOR DETAILS, GO TO**	
	4ESS*™ *SWITCH OFFICE PRELIMINARY CHECK		
1	Ensure that the *4ESS* switch is currently running in 4E22 R4 Generics or later and that the Announcement Administrative Processor (AAP)/ASR BWM has been applied to the Announcement Administration Processor (AAP). Also, if the growth office has both a Master and Slave AAP, ensure that the AAP BWM has been applied to both the Master and Slave AAP.	Telco	—
2	Ensure that within the last 24 hours the Processor has not experienced any TTY terminal suspends, bootstraps, diagnostic failures, or overloads.	Telco	—
3	Ensure that disks and Input/Output Processors (IOPs) - 1B Processors are in duplex and that 3B Control Units (CUs) and Attached Processor Interfaces (APIs) are in ACTIVE-STANDBY Mode. Routine Exercise (REX) and the Peripheral Unit System Exerciser (PUSYS) should be inhibited, and should remain inhibited during the entire growth process. This is accomplished by entering the following at the 1B Maintenance (MTC) terminal: 1. **INH:MACLI,CLASS MTCE;REX!** Response: `MACLI,CLASS MTCE INHIBITED AUTOMATIC JOB SCHEDULING DISALLOWED` 2. **STOP:TEST;PUSYS!** Response: `OK`	Telco	—
4	Ensure that diagnostics on the duplexed 3B CUs have been run to completion within the last 24 hours.	Telco	—
5	Ensure that all processor and/or system problems have been cleared before growth activity begins.	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
6	Ensure that the SCS growth complex is in service, operating in duplex, and has run diagnostics to completion within the last 24 hours.	Telco	—
7	Contact the Network Control Center (NCC) to have NCC ensure that no Software Updates (SUs) or Broadcast Warning Messages (BWMs) for SCS system files will be applied during growth/conversion. Also, have NCC ensure that Centralized Announcement Update Control System (CAUCS) has been inhibited from updating announcements to this 4ESS switch office for the affected Announcement Set(s) during growth/conversion.	Telco	—
8	Ensure that the AAP/SCS Local Area Network (LAN) connection is present and active. A. At the AAP console, log in as **aapusr** and select option 2 from the menu. B. Poke **118** for link status. Response: One LAN link is displayed as Active and the other is displayed as Standby. C. Enter **q** to quit. D. If the LAN is out of service, resolve the problem and contact the next level of support, if necessary. **Do not continue to the next step until the LAN is present and active.** Also ensure that the Announcement Administration Processor (AAP) (if it is operational) has no announcement updates queued for this SCU's Announcement Set by selecting option 4 at the AAP console and entering: **OP:ANNUPD** Response: `OP:ANNUPD AAP System Error, #1149 Database empty` ***Note:*** If not empty, have announcement updates stored in AAP moved to the proper SCU(s) and verify the ANNUPD database is cleared before proceeding.	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
9	Check office records/Pre Condition Order(PCO)/Main Material Order(MMO)/ Telephone Equipment Order (TEO) to confirm the following for each growth SCU/disk pair (**retain this information for future use in this procedure**): • Type of Service Circuit (0-7) • Disk Pair(s) Capacity - Translator (0-3) • AT&T Trigger Platform Feature (Monitor - Yes or No) • Announcement Set (A-Z) • Automatic Speech Recognition (ASR) Application (1-7) • Number of Custom Data Services Units (CDSUs) Present (1-5).	Telco/Inst	—
10	Verify the SCS Unit Type (UT) Translator and compare the SCU Subunit Data **for each growth SCU** against office records/PCO/MMO/TEO. Also compare each growth SCU to Time Slot Interchange (TSI) Port assignment against office wiring records. Similarly, check that all translation information matches the growth SCU hardware. The SCU Subunit Data and the associated TSI Port assignments are contained in the three words specified by the SCS UT Translator for each SCU. ***Note:*** This verify must be done separately for each growth SCU beginning with the lowest-numbered SCU.	Telco/Inst	DLP-549
11	Verify the associated TSI UT Translator(s) and compare the assignment/equipage of the TSI Port to each growth SCU against office wiring records.	Telco	DLP-516
12	Verify Custom Data Services Cabinet (CDSC) Grid Lineup Frame (GLF) Number.	Telco/Inst	DLP-555
13	Ensure that diagnostics on the associated TSI Frame(s) have been run to completion within the last 24 hours.	Telco	—
14	This is a **Safe Stop Point**. If stopping, perform Steps 15 and 16. Otherwise, go to Step 18.	Telco/Inst	—
15	At the 1B MTC terminal, allow REX by entering: **ALW:MACLI,CLASS MTCE!** Response: `AUTOMATIC JOB SCHEDULING RESUMED`	Telco	—
16	Stop procedure for now. Resume at Step 17 when continuing.	Telco/Inst	—
17	Perform Steps 1 through 8 of this procedure. Then continue to the next step.	Telco/Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
	4ESS SWITCH TO SERVICE CIRCUIT SYSTEM PRELIMINARY INTERCONNECT		
18	Ensure that all Scan Point and Signal Distributor (SD) Point connections from the growth SCU(s) to the *4ESS* switch Signal Processor (SP) are completed.	Inst	—
19	Ensure that the Alarm connection from the growth SCU(s) to the *4ESS* switch Power Alarm Grid is completed.	Inst	—
20	Ensure that the DS-120 cable(s) from the growth SCU(s) to the associated TSI Ports have been set in place but **not connected**.	Inst	—
21	Ensure that the fiber-optic ribbon cable(s) are present at the rear of the SCU cabinet. This cable should be connected at the backplane of the growth SCU(s), but **not** at the Optical Cross-Connect Panel.	Inst	—
22	Ensure that the LAN cable(s) for the growth SCU(s) are in place (connected) at the rear of the SCU cabinet (horizontal location 024). These cables should be daisy-chained between all SCUs within the SCS complex.	Inst	—
23	Ensure that the Small Computer System Interface (SCSI) Bus Cables for the disk pair(s) associated with the growth SCU(s) are in place at the rear of the SCU cabinet.	Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
24	Ensure that the Active/Standby cable(s) from the growth SCU(s) to all other SCUs are properly connected. These cables are daisy-chained between all SCUs.	Inst	—
25	Ensure that the Custom Data Services Cabinet (CDSC) has been bolted down and that the CDSC power connections from the Power Distribution Frame are completed and tested. Also, if the CDSC will have a Smart HUB, ensure that the 110 V AC outlet is available at the CDSC for Smart HUB power.	Inst	—
26	Ensure that the CDSC TTY A, TTY B, and Telephone Jack connections to the *4ESS* switch are completed.	Inst	—
	CDSC/CDSU/LAN PRELIMINARY INTERCONNECT		
27	Install the Smart HUB and associated brackets and shelf within the appropriate CDSC.	Inst	—
28	Install additional CDSUs, if applicable.	Inst	—
29	Connect the LAN cables between the CDSUs within the appropriate CDSC and the x-dimension LAN cable.	Inst	—
30	Connect the T1 cable between the Digital Telephony Interface/211 (DTI/211) circuit packs within the CDSU and the x-dimension T1 cable.	Inst	—
31	Connect the AAP x-dimension LAN cable to the Smart HUB located within the appropriate CDSC. **This step is only used for the first CDSC being grown in an office. All subsequent CDSC LAN connections will be made at the appropriate Smart HUB Port 1, not the AAP.**	Inst	—
32	Connect the LAN cable from the Smart HUB, within the appropriate CDSC, to the appropriate CDSU. ***Note:*** Only 9 of the 10 ports on any given Smart HUB are used for LAN connections. The tenth port is never used for a LAN connection.	Inst	—
33	This is a **Safe Stop Point**. If stopping, perform Steps 34 and 35. Otherwise, go to Step 37, being sure to read the heading and note above Step 37.	Telco/Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
34	At the 1B MTC terminal, allow REX by entering: **ALW:MACLI,CLASS MTCE!** Response: `AUTOMATIC JOB SCHEDULING RESUMED`	Telco	—
35	Stop procedure for now. Resume at Step 36 when continuing.	Telco/Inst	—
36	Perform Steps 1 through 8 of this procedure. Then continue to the next step.	Telco/Inst	—
	CDSU PRECONDITIONING ***Note:*** Steps 37 through 40 must be completed for each growth CDSU, beginning with the lowest-numbered CDSU. These steps should be completed in their entirety for each growth CDSU before continuing with the next growth CDSU. Steps 37 through 40 require a VGA monitor and a keyboard, the appropriate floppy disks; one floppy disk for CDSU configuration and one floppy disk for application software.		
37	Record the following information for later use (space is provided to record this information for up to five CDSUs). SCS Member Number (0-7): ____ ____ ____ ____ ____ SCU Number (00-15): ____ ____ ____ ____ ____ CDSU Number (00-04): ____ ____ ____ ____ ____ Length of T1 cable, in feet: ____ ____ ____ ____ ____ Cable length option: ____ ____ ____ ____ ____ The cable length option is determined by adding 25 feet to the total T1 cable length (in the cable rack) for each SCU/CDSU combination. The total length (including the added 25 feet.) is used to determine the cable length option as follows: For total length **0-133 feet.**, use option **1**. For total length **133-266 feet.**, use option **2**. For total length **266-399 feet.**, use option **3**. For total length **399-440 feet.**, use option **4**.	Telco/Inst	—
38	Power-up the appropriate CDSU.	Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
39	Configure the CDSU (using information from Step 37, when required).	Inst	—
40	Install CDSU Application Software via floppy disk.	Inst	—
41	Have Steps 37 through 40 been completed for all applicable growth CDSUs? If **YES**, continue to Step 42. If **NO**, repeat Steps 37 through 40 for the next applicable growth CDSUs.	Inst	—
42	This is a **Safe Stop Point**. If stopping, perform Steps 43 and 44. Otherwise, go to Step 46.	Telco/Inst	—
43	At the 1B MTC terminal, allow REX by entering: **ALW:MACLI,CLASS MTCE!** Response: `AUTOMATIC JOB SCHEDULING RESUMED`	Telco	—
44	Stop procedure for now. Resume at Step 45 when continuing.	Telco/Inst	—
45	Perform Steps 1 through 8 of this procedure. Then continue to the next step.	Telco/Inst	—
	PRE-GROWTH REQUIRED FOR THE FIRST SCU OF SCUs 8-15		
46	If the first SCU of SCUs 8-15 is being grown, go to Step 47. If one of the SCUs 8-15 is already in service or if none of the SCUs 8-15 are being grown, go to Step 64, being sure to read the heading above Step 64.	Inst	—
47	At the Optical Cross-Connect Panel (OCCP), ensure that Fiber Shorting Contacts (CC# 846832087) are installed at the proper connector locations for SCUs 8-15.	Inst	—
48	At the 1B MTC terminal, remove one Service Circuit Controller (SCC) from service by entering: **RMV:SCS** *a*,**CONTR** *b*! where *a* = Member Number (0-7) *b* = SCC Number (0 or 1) Response: `PF` followed by: `RMV:SCS` *a*,`CONTR` *b* `COMPL`	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
49	Power-down the out-of-service SCC: 1. At the IPUB associated with the SCC, press the **OFF** button on the TN1671 circuit pack. 2. At the SCC, press the **OFF** button on the TN1984 circuit pack.	Inst	—
50	Install 410AA Power Converter and KCN3 Extended Bus Interface circuit packs at the out-of-service SCC.	Inst	—
51	Power-up the out-of-service SCC: 1. At the IPUB associated with the SCC, press the **ON** button on the TN1671 circuit pack. 2. At the SCC, press the **ON** button on the TN1984 circuit pack.	Inst	—
52	At the 1B MTC terminal, diagnose the out-of-service SCC by entering: **DGN:SCS** *x*,**CONTR** *y*; where *x* = Member Number (0-7) *y* = SCC Number (0 or 1) Response: The screen returns an output message with `ATP`.	Telco	—
53	At the 1B MTC terminal, restore the out-of-service SCC to service by entering: **RST:SCS** *a*,**CONTR** *b*; where *a* = Member Number (0-7) *b* = SCC Number (0 or 1) Response: The screen returns an output message with `CATP`, then `RESTORE COMPLETE`. Bit **21** will be **set** in the CATP **reason word** (unless the SCS is equipped with one or more SCUs in the SCU8 to SCU15 range), indicating that the `unused EBI link test skipped`. This is the only allowable exception (no other bits in the CATP reason word should be set).	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
54	At the 1B MTC terminal, remove the other Service Circuit Controller (SCC) from service by entering: **RMV:SCS** *a*,**CONTR** *b*! where *a* = Member Number (0-7) *b* = SCC Number (0 or 1) Response: PF followed by: RMV:SCS *a*,CONTR *b* COMPL	Telco	—
55	Power-down the out-of-service SCC: 1. At the IPUB associated with the SCC, press the **OFF** button on the TN1671 circuit pack. 2. At the SCC, press the **OFF** button on the TN1984 circuit pack.	Inst	—
56	Install 410AA Power Converter and KCN3 Extended Bus Interface circuit packs at the out-of-service SCC.	Inst	—
57	Power-up the out-of-service SCC: 1. At the IPUB associated with the SCC, press the **ON** button on the TN1671 circuit pack. 2. At the SCC, press the **ON** button on the TN1984 circuit pack.	Inst	—
58	At the 1B MTC terminal, diagnose the out-of-service SCC by entering: **DGN:SCS** *x*,**CONTR** *y*! where *x* = Member Number (0-7) *y* = SCC Number (0 or 1) Response: The screen returns an output message with ATP.	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
59	At the 1B MTC terminal, restore the out-of-service SCC to service by entering: **RST:SCS** *a*,**CONTR** *b*! where *a* = Member Number (0-7) *b* = SCC Number (0 or 1) Response: The screen returns an output message with `CATP`, then `RESTORE COMPLETE`. Bit **21** will be **set** in the CATP **reason word** (unless the SCS is equipped with one or more SCUs in the SCU8 to SCU15 range), indicating that the `unused EBI link test skipped`. This is the only allowable exception (no other bits in the CATP reason word should be set).	Telco	—
60	This is a **Safe Stop Point**. If stopping, perform Steps 61 and 62. Otherwise, go to Step 64, being sure to read the heading above Step 64.	Telco/Inst	—
61	At the 1B MTC terminal, allow REX by entering: **ALW:MACLI,CLASS MTCE!** Response: `AUTOMATIC JOB SCHEDULING RESUMED`	Telco	—
62	Stop procedure for now. Resume at Step 63 when continuing.	Telco/Inst	—
63	Perform Steps 1 through 8 of this procedure. Then continue to the next step.	Telco/Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
	INSTALLATION OF HARDWARE TO PROVIDE ASR FUNCTIONALITY TO AN EXISTING SCU		
64	In this procedure, are any **previously existing** SCUs currently being converted to ASR functionality? If **YES**, complete Steps 65 through 73 **for each previously existing SCU**, beginning with the lowest-numbered of these SCUs. If **NO**, continue to Step 78, being sure to read the heading above Step 78.	Inst	—
65	Ensure that the appropriate SCU(s) are removed from service and powered down.	Inst	—
66	Install the TN4001 key holders.	Inst	—
67	Install the TN4001 circuit packs.	Inst	—
68	Install the designation strip labels and FLN/SCU labels.	Inst	—
69	Install the 9822DT paddle board and retainer.	Inst	—
70	Install the T1 connector retainers.	Inst	—
71	Install the T1 option straps.	Inst	—
72	Verify that the white wire (required when TN9001 and TN9002 circuit packs are to be used) is installed at the SCU backplane. If not already installed, install the white wire.	Inst	—
73	Have Steps 65 through 72 been completed for all previously existing growth SCUs? If **YES**, continue to Step 74. If **NO**, repeat Steps 65 through 72 for the next previously existing growth SCU.	Inst	—
74	This is a **Safe Stop Point**. If stopping, perform Steps 75 and 76. Otherwise, go to Step 78, being sure to read the heading above Step 78.	Telco/Inst	—
75	At the 1B MTC terminal, allow REX by entering: **ALW:MACLI,CLASS MTCE!** Response: `AUTOMATIC JOB SCHEDULING RESUMED`	Telco	—
76	Stop procedure for now. Resume at Step 77 when continuing.	Telco/Inst	—
77	Perform Steps 1 through 8 of this procedure. Then continue to the next step.	Telco/Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
	CIRCUIT PACK INSTALLATION FOR GROWTH OF NEW SCU(S) AND ASSOCIATED DISK PAIR(S)		
78	In this procedure, are any **new SCUs** (did not previously exist in the SCS) currently being added to the SCS complex to provide functionality? Are any of the growth ASR SCU(s) **new to the SCS complex** (did **not** exist previously in the SCS)? If **YES**, complete Steps 79 through 87 **for each new SCU**, beginning with the lowest-numbered of these SCUs. If **NO**, continue to Step 89.	Inst	—
79	Verify that fuses are installed in the Fuse and Filter Unit for the growth SCU and associated disk pair(s). (See the labeling on the fuse panel cover for fuse locations and sizes.)	Inst	—
80	Install the TN4001 key holders.	Inst	—
81	Install the designation strip labels.	Inst	—
82	Install the 9822DT paddle board and retainer.	Inst	—
83	Install the T1 connector retainers.	Inst	—
84	Install the T1 option strap(s).	Inst	—
85	Verify that the white wire (required when TN9001 and TN9002 circuit packs are to be used) is installed at the SCU backplane. If not already installed, install the white wire.	Inst	—
86	Install, but **do not seat**, circuit packs in the growth SCU.	Inst	—
87	Install circuit packs in the Hard Disk Unit (HDU) associated with the growth SCU.	Inst	—
88	Have Steps 79 through 87 been completed for all applicable growth SCUs? If **YES**, continue to Step 89. If **NO**, repeat Steps 79-87 for the next growth SCU.	Inst	—
89	This is a **Safe Stop Point**. If stopping, perform Steps 90 and 91. Otherwise, go to Step 93, being sure to read the heading and note preceding Step 93.	Telco/Inst	—
90	At the 1B MTC terminal, allow REX by entering: **ALW:MACLI,CLASS MTCE!** Response: `AUTOMATIC JOB SCHEDULING RESUMED`	Telco	—
91	Stop procedure for now. Resume at Step 92 when continuing.	Telco/Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
92	Perform Steps 1 through 8 of this procedure. Then continue to the next step.	Telco/Inst	—
	CONNECTION OF ASR ASSOCIATED CABLES AT APPROPRIATE GROWTH SCU ***Note:*** Steps 93 through 97 should be completed **for each growth SCU**, beginning with the lowest-numbered growth SCU. These steps should be completed in their entirety for each growth SCU before continuing with the next growth SCU.		
93	Install L bracket and coax converter.	Inst	—
94	Connect the LAN cable to the coax converter.	Inst	—
95	Install the LAN cable from the coax converter to the growth SCU.	Inst	—
96	Install the CDSU T1 cables at the growth SCU.	Inst	—
97	Power-up the growth SCU and associated disk pair(s). 1. At the growth Hard Drive Unit(s), press the **ON** button to power the Disk Power Controller (DPC) UN356 circuit pack. ***Caution: Wait at least 60 seconds before proceeding with the next step. This allows the disk drives to spin up to operational speed.*** 2. At the growth SCU, press the **ON** button to power the Master Power Controller (MPC) TN1984 circuit pack.	Inst	—
98	This is a **Safe Stop Point**. If stopping, perform Steps 99 and 100. Otherwise, go to Step 102.	Telco/Inst	—
99	At the 1B MTC terminal, allow REX by entering: **ALW:MACLI,CLASS MTCE!** Response: `AUTOMATIC JOB SCHEDULING RESUMED`	Telco	—
100	Stop procedure for now. Resume at Step 101 when continuing.	Telco/Inst	—
101	Perform Steps 1 through 8 of this procedure. Then continue to the next step.	Telco/Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
102	Have Steps 93 through 97 been completed for all growth SCUs? If **YES**, continue to Step 103, being sure to read the heading and note above Step 103. If **NO**, repeat Steps 93 through 97 for the next growth SCU.	Inst	—
	SCS-RELATED TSI GROWTH ***Note:*** Steps 103 through 123 should be completed for each growth SCU, beginning with the lowest-numbered growth SCU. These steps should be completed in their entirety for each growth SCU before continuing with the next growth SCU.		
103	Recent change and verify the associated breakage TSI submember equipage from UNEQ to GROW using RC Form 700.	Telco	DLP-506
104	Recent change and verify the associated breakage TSI submember equipage from GROW to SGRO using RC Form 700.	Telco	DLP-507
105	This is a **Safe Stop Point**. If stopping, perform Steps 106 and 107. Otherwise, go to Step 109, being sure to read the heading preceding Step 109.	Telco/Inst	—
106	At the 1B MTC terminal, allow REX by entering: **ALW:MACLI,CLASS MTCE!** Response: `AUTOMATIC JOB SCHEDULING RESUMED`	Telco	—
107	Stop procedure for now. Resume at Step 108 when continuing.	Telco/Inst	—
108	Perform Steps 1 through 8 of this procedure. Then continue to the next step.	Telco/Inst	—
	SCU AND ASSOCIATED DISK PAIR GROWTH		
109	At the Optical Cross-Connect Panel (OCCP), remove the growth SCU(s) Fiber Shorting Contacts (CC# 846832087) and connect the associated fiber-optic ribbon cable.	Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
110	Recent change and verify growth SCU equipage from UNEQ to GROW using RC Form 700.	Telco	DLP-502
111	Recent change and verify associated disk pair and Multifaceted Signal Processor (MSP)/Multifunctional Interface Processor (MIP) equipage from UNEQ to GROW using RC Form 703.	Telco	DLP-550
112	At the 1B MTC terminal, diagnose the growth SCU and associated disk pair using Phases 1 through 7 by entering: **DGN:SCS** *x*,**SCU z:PH 1-7!** where *x* = Member Number (0-7) *z* = Submember Number (0-15) Response: The screen returns output messages with ATP for each valid phase.	Telco/Inst	—
113	Recent change and verify growth SCU equipage from GROW to SGRO using RC Form 700.	Telco	DLP-504
114	Recent change and verify associated disk pair and MSP/MIP equipage from GROW to SGRO using RC Form 703.	Telco	DLP-551
115	At the 1B MTC terminal, diagnose the growth SCU and associated disk pair using Phases 1 through 7 by entering: **DGN:SCS** *x*,**SCU** *z*:**PH 1-7!** where *x* = Member Number (0-7) *z* = Submember Number (0-15) Response: The screen returns output messages with ATP for each valid phase.	Telco	—
116	At the 1B MTC terminal, diagnose SCS Controller 0 by entering: **DGN:SCS** *x*,**CONTR 0!** where *x* = Member Number (0-7) Response: The screen returns an output message with ATP.	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
117	At the 1B MTC terminal, restore SCS Controller 0 by entering: **RST:SCS *x*,CONTR 0!** where *x* = Member Number (0-7) Response: The screen returns an output message with `CATP`, then `RESTORE COMPLETE`. Bit **21** will be **set** in the CATP **reason word** (unless the SCS is equipped with one or more SCUs in the SCU8 to SCU15 range), indicating that the `unused EBI link test skipped`. This is the only allowable exception (no other bits in the CATP reason word should be set).	Telco	—
118	At the 1B MTC terminal, diagnose SCS Controller 1 by entering: **DGN:SCS *x*,CONTR 1!** where *x* = Member Number (0-7) Response: The screen returns an output message with `ATP`.	Telco	—
119	At the 1B MTC terminal, restore SCS Controller 1 by entering: **RST:SCS *x*,CONTR 1!** where *x* = Member Number (0-7) Response: The screen returns an output message with `CATP`, then `RESTORE COMPLETE`. Bit **21** will be **set** in the CATP **reason word** (unless the SCS is equipped with one or more SCUs in the SCU8 to SCU15 range), indicating that the `unused EBI link test skipped`. This is the only allowable exception (no other bits in the CATP reason word should be set).	Telco	—
120	This is a **Safe Stop Point**. If stopping, perform Steps 121 and 122. Otherwise, go to Step 124.	Telco/Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
121	At the 1B MTC terminal, allow REX by entering: **ALW:MACLI,CLASS MTCE!** Response: `AUTOMATIC JOB SCHEDULING RESUMED`	Telco	—
122	Stop procedure for now. Resume at Step 123 when continuing.	Telco/Inst	—
123	Perform Steps 1 through 8 of this procedure. Then continue to the next step.	Telco/Inst	—
124	Have Steps 103 through 123 been completed for all growth SCUs? If **YES**, continue to Step 125, being sure to read the heading and note preceding Step 125. If **NO**, repeat Steps 103 through 123 for the next growth SCU.	Telco/Inst	—
	DOWNLOADING OF SCS SYSTEM FILES FROM THE ATTACHED PROCESSOR SYSTEM (APS) ***Note:*** The downloading of the SCS system files is accomplished via the COPY command. This command is used once for each of the SCS System File Types: TONES, SCCSFT, SCUOPR, SCUDGN, MSPROV, MSPFIX, MSP1, MIP0FIL, and MIP1FIL. These files reside in the /scs directory of the 3B20D computer and may have two vintages of files labeled 0 and 1. Both a Source Version Number (SVN) (the correct and up-to-date file location on the 3B20D computer disk) and a Destination Version Number (DVN) (the next location on each Disk Pair 0) are needed for each COPY command. These numbers ensure that a particular SCS file type is read from and written to the proper disk location of each disk pair 0.		
125	Verify the latest SCS system file version numbers from translations for **in-service** disk pairs.	Telco	DLP-545
126	Copy the correct and up-to-date SCS system files from the APS to all growth disk pair 0.	Telco	DLP-524

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
	VERSION NUMBER UPDATE		
	Note: Steps 127 and 128 must be completed for each growth SCU, beginning with the lowest-numbered growth SCU. These steps must be completed in their entirety for each growth SCU before continuing with the next growth SCU.		
127	Update SCU/MSP/MIP version numbers in the SCS Unit Type Translator for **each growth SCU** using RC Form 703.	Telco	DLP-547
128	At the 1B MTC terminal, diagnose **each** growth SCU and associated disk pair(s) by entering: **DGN:SCS** *a*,**SCU** *b*:**PH (1-10,***c***,16,17)!** where *a* = Member Number (0-7) *b* = SCU Number (0-15) *c* = Phase Number(s) for SCU MSP test: **12** for SCUs with MSP 0 **12-13** for SCUs with MSPs 0 and 1 **12-14** for SCUs with MSPs 0 through 2 **12-15** for SCUs with MSPs 0 through 3 ***Note:*** The MIP circuit packs are diagnosed with Phase 16. The CDSUs are diagnosed with Phase 17. Phase 17 diagnostics will take approximately 2 minutes per CDSU. Response: The screen returns output messages with ATP.	Telco	—
129	Have Steps 127 and 128 been completed for all growth SCUs? If **YES**, continue to Step 130, being sure to read the heading and note preceding Step 130. If **NO**, repeat Steps 127 and 128 for the next growth SCU.	Telco/Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
	SECOND TN4000 DISK PACK INITIALIZATION		
	Note: Steps 130 and 131 should be completed only if TN4000 (4 Gb) circuit packs are being grown in a **new SCU**. Steps 130 and 131 must be completed for each **new** growth SCU equipped with TN4000 circuit packs, beginning with the lowest-numbered growth SCU. These steps must be completed in their entirety for each applicable growth SCU before continuing with the next growth SCU. For **existing SCUs** that are being converted to ASR functionality, skip Steps 130 and 131 and continue to Step 132. ***Caution: TN4000 circuit packs can only be installed in disk pair location 0***		
130	Are TN4000 circuit packs being grown in disk pair location 0? If **YES**, continue to Step 131. If **NO**, continue to Step 132.	Telco/Inst	—
131	At the 1B MTC terminal, perform a soft initialization of Disk Pair 1, by entering the commands given below. ***Note:*** When populating a TN4000 - 4 Gb disk pair at an SCU Disk Pair 0 location in the SCS Unit Type Translator, the adjacent location Disk Pair 1 will also be populated. In order to ensure proper operation, a Soft Initialization (TYP 1) on both Bus 0 and Bus 1 is necessary for Disk Pair 1. A. **INIT:SCS *x*,SCU *y*,DSK 1,BUS 0,TYP 1!** where *x* = Member Number (0-7) *y* = Submember Number (0-15) Response: `INIT:SCS x, SCU y COMPLETE` B. **INIT:SCS *x*,SCU *y*,DSK 1,BUS 1,TYP 1!** where *x* = Member Number (0-7) *y* = Submember Number (0-15) Response: `INIT:SCS x, SCU y COMPLETE`	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
132	This is a **Safe Stop Point**. If stopping, perform Steps 133 and 134. Otherwise, go to Step 136. ***Caution: The steps remaining before the next Safe Stop Point must be completed without stopping and will take approximately 6 hours to complete.***	Telco/Inst	—
133	At the 1B MTC terminal, allow REX by entering: **ALW:MACLI,CLASS MTCE!** Response: `AUTOMATIC JOB SCHEDULING RESUMED`	Telco	—
134	Stop procedure for now. Resume at Step 135 when continuing.	Telco/Inst	—
135	Perform Steps 1 through 8 of this procedure. Then continue to the next step.	Telco/Inst	—
136	Have Steps 130 and 131 been completed for all applicable growth SCUs? If **YES**, continue to Step 137, being sure to read the heading and note above Step 137. If **NO**, repeat Steps 130 and 131 for the next applicable growth SCU.	Telco/Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
	ACTIVATE GROWTH SCU(S) AND ASSOCIATED DISK PAIR(S)		
	Note: Steps 137 through 173 should be completed for each growth SCU, beginning with the lowest-numbered growth SCU. These steps should be completed in their entirety for each growth SCU before continuing with the next growth SCU.		
137	At the 1B MTC terminal, apply port pest to the associated breakage TSI port by entering: **INH:TSI** *x*,**SPC** *y*,**PORT** *z*! where *x* = TSI Member Number (0-63) *y* = SPC within TSI (0-1) *z* = Port within SPC (0-6) Response: The input message is echoed when the pesting is done.	Telco	—
138	Remove the output looping cable from the associated breakage TSI port. Then connect the DS-120 signal cables between the associated TSI port and the growth SCU.	Inst	—
139	At the 1B MTC terminal, diagnose the SCU and associated disk pair(s) using Phase 11 by entering: **DGN:SCS** *x*,**SCU** *z*:**PH 11!** where *x* = Member Number (0-7) *z* = Submember Number (0-15) Response: The screen returns an output message with ATP for Phase 11.	Telco	—
140	At the 1B MTC terminal, diagnose the TSI Frame Controller 0 by entering: **DGN:TSI** *x*,**CONTR 0:PH** *y*,**GROWTH!** where *x* = Member Number (0-63) *y* = 13 (for J4A001A) or 20 (for J4A001B) Response: The screen returns an output message with REMOVE COMPLETE, then ATP for all tests run.	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
141	At the 1B MTC terminal, restore TSI x, Controller 0 by entering: **RST:TSI** *x***,CONTR 0!** where *x* = Member Number (0-63) Response: The screen returns an output message with ATP for all tests run, then RESTORE COMPLETED.	Telco	—
142	At the 1B MTC terminal, diagnose the TSI Frame Controller 1 by entering: **DGN:TSI** *x***,CONTR 1:PH** *y***,GROWTH!** where *x* = Member Number (0-63) *y* = 13 (for J4A001A) or 20 (for J4A001B) Response: The screen returns an output message with REMOVE COMPLETE, then ATP for tests run.	Telco	—
143	At the 1B MTC terminal, restore TSI x, Controller 1 by entering: **RST:TSI** *x***,CONTR 1!** where *x* = Member Number (0-63) Response: The screen returns an output message with ATP for all tests run, then RESTORE COMPLETED.	Telco	—
144	Recent change and verify connecting breakage TSI submember equipage from SGRO to OPER using RC Form 700.	Telco	DLP-511
145	At the 1B MTC terminal, diagnose the growth SCU and associated disk pair using Phase 11 by entering: **DGN:SCS** *x***,SCU** *z***:PH 11!** where *x* = Member Number (0-7) *z* = Submember Number (0-15) Response: The screen returns an output message with ATP for Phase 11.	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
146	Recent change and verify the disk pair and MSP/MIP equipage of the growth SCU from SGRO to OPER using RC Form 703.	Telco	DLP-548
147	Recent change and verify the growth SCU equipage from SGRO to OPER using RC Form 700.	Telco	DLP-510
148	Verify alarms for the appropriate SCU(s) 0-15 and associated Disk Power Controllers.	Inst	—
149	Verify CDSC/CDSU alarms as follows: A. At the CDSC, unplug the cable connector that connects the ED4A286-32 G10 cable to the ED4A286-32 G11 cable. B. At the 1B MTC terminal, diagnose **each** growth SCU and associated disk pair(s) by entering: **DGN:SCS** *a*,**SCU** *b*:**PH 17,TLP!** where *a* = Member Number (0-7) *b* = SCU Number (0-15) Response: Phase 17 will fail (STF) and the LEDs on the CDSU(s) will cycle beginning with the lowest-numbered CDSU. C. On the output message for the phase 17 TLP, verify the Frame Location Number (FLN) for the CDSC Cabinet. D. Compare the FLN with the label on the CDSC cabinet to be sure they match. E. Reconnect the cable connectors.	Inst/Telco	—
150	At the 1B MTC terminal, run a Peripheral Unit Status audit by entering: **AUD:PUSTAT!** Response: Output message for appropriate SCU followed by: `AUD:PUSTAT MSG COMPL`	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
151	At the 1B MTC terminal, diagnose the growth SCU and associated disk pair(s) using demand phases of equipped disk pairs by entering the following input message: **DGN:SCS** *a*,**SCU** *b*:**PH** *c*-*d*; where *a* = Member Number (0-7) *b* = SCU Number (0-15) *c* = Beginning Phase Number (see Note) *d* = Ending Phase Number (see Note) ***Note:*** The beginning and ending phase numbers will vary depending on the type and location of the disk pairs being grown (see below). For **Type 3 (TN9000 Gb)** disk pair the demand phases listed below should be used: **90-91** for all SCUs, (SCU 0-15) For **Type 2 (TN4000 - 4 Gb)** disk pairs, the demand phases listed below should be used: **90-93** for Disk Pair 0 location **94-97** for Disk Pair 2 location (SCU 0 only) For **Type 0 (422 Mb) and Type 1 (2 Gb)** disk pairs, the demand phases listed below should be used: **90** and **91** for Disk Pair 0 location **92** and **93** for Disk Pair 1 location (SCU 0 only) **94** and **95** for Disk Pair 2 location (SCU 0 only) **96** and **97** for Disk Pair 3 location (SCU 0 only) Response: The screen returns output messages with ATP for all equipped disk pairs. ***Note:*** The number of phases in the input message depends on the number of disk pairs equipped. This DGN message takes approximately 10 minutes per phase.	Telco	—
152	Add the growth SCU to the AAP's SCU equipment (SCUEQP) database.	Telco/Inst	DLP-521

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

153	Add all growth CDSUs to the AAP CDSU database.
	
	Note: A single SCU can be associated with a maximum of five CDSUs within a single CDSC (for Phase 1).
	
	A. At the AAP console, select option **1**.
	B. At the AAP console, enter:
	OP:CDSU:FORM=SHORT
	
	Response:
	
	Unless this is the first CDSU being added to the AAP CDSU database, the screen will return a list of CDSUs within the database with their associated KEY Numbers. Use this list to determine an appropriate KEY Number (not already used) which will be used later for adding a growth CDSU to the AAP Database.
	
	If this is the first CDSU being added to the AAP CDCU database, the following message will be displayed:
	`OP:CDSU STOPPED`
	`RECORD NOT FOUND`
	C. At the AAP console, enter:
	UPD:CDSU:UPD=ADD:"KEY=*a***,SCS=***b***,SCU=***cc***,CDSU=***dd***,GEN=***e***"**
	
	where *a* = Database KEY Number (0-99999, not already used) (Use 0 if this is the first CDSU being grown in an office.)
	b = SCS Member Number (0-7)
	cc = SCU Number (00-15)
	dd = CDSU Number (00-04)
	e = CDSU Software Version (found on CDSU Software Diskette) (Example: CDSU1)
	
	Response:
	
	The screen will return a listing of the entry just added. Check that the appropriate information for the growth CDSU is present. If not, repeat Step C.
	D. Repeat Step C for all appropriate CDSUs.
	E. At the AAP console, enter: **LOGOUT**
	
	Response: The menu is displayed on the AAP console screen.
		Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
154	Add a disk pair to the AAP.	Inst	—
155	Check AAP disk drives.	Telco/Inst/	DLP-546

156	Load AAP disk drives as follows:
	
	A. At the SCSI Bus 0, Disk 4 location, insert the "2 Gigabyte Disk Upgrade Installation Tape" (J4A036A-1 List 1, M13 TP-4A619-01) tape cartridge into the door just below the locking mechanism.
	
	B. Log in at the AAP as **root** and enter the following:
	pkgadd -d /dev/rmt/ctape0 TWOGBDSK
	
	Response:
	
	`Insert a Cartridge Tape into /dev/rmt/ctape0`
	`Type [go] when ready,`
	`or [q] to quit:`
	
	C. At the AAP console, enter the following:
	go
	
	Response:
	
	The screen returns a series of system messages followed by:
	
	`Installation of <TWOGBDSK> was successful.`
	
	D. At the AAP console, enter: **exit**
	
	E. Remove the tape cartridge from the SCSI Bus 0, Disk 4 location.
		Telco/Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
157	If this is the first ASR CDSC being grown in the office or a subsequent CDSC containing a Smart HUB, complete Steps A, B, C, D, and E. Otherwise, continue to Step 158. A. Contact the Advanced Features Service Center (AFSC) at 314-658-1304 (tech beeper 314-424-8661) and notify them that the LAN will be taken out of service and that announcement updates to this site will be delayed. B. At the 1B MTC terminal, enter: **INH:SCS 0,LAN!** Response: `INH:SCS 0, LAN` C. At the AAP console, log in as **aapusr** and select option **4**. D. At the AAP console, enter: **STOP:AAP"LANCMD"!** Response: `STOP:AAP "LANCMD" completed` E. At the AAP console, enter: **EXIT**	Telco/Inst	—
158	If this is the first ASR CDSC/Smart HUB being grown in the office, connect the Smart HUB to the AAP LAN. Otherwise, continue to Step 159.	Inst	—
159	If this is the second or higher CDSC/Smart HUB being grown in the office, connect the new Smart HUB to the existing Smart HUB. Otherwise, continue to Step 160.	Inst	—
160	Test the local CDSU/SCS to AAP LAN connection by entering the following message at the 1B MTC terminal: **DGN:SCS** *x*,**SCU** *y*:**PH 10!** where *x* = SCS Member Number (0-7) *y* = SCU Number (0-15) Response: The screen returns an output message with ATP for Phase 10.	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
161	Initialize the AAP and allow the LAN as follows: A. At the AAP console, log in as **aapusr** and select option **4**. B. At the AAP console, enter: **INIT:AAP"LANCMD"!** Response: `INIT:AAP "LANCMD" completed` C. At the AAP console, enter: **EXIT** D. At the 1B MTC terminal, enter:**ALW:SCS 0,LAN!** Response: The screen returns `Code 091` followed by `ALW:SCS 0,LAN` E. Contact the Advanced Features Service Center (AFSC) at 314-658-1304 (tech beeper 314-424-8661) and notify them that the LAN is back in service and that announcement updates may be resumed.	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
162	Log into the AAP as **root** and enter the following **for each growth CDSU** to test the LAN: A. At the AAP console, enter: **/usr/sbin/ping cds***xyyzz* where *x* = SCS Member Number (0-7) *yy* = SCU Submember Number (00-15) *zz* = CDSU Number (00-04 for Phase 1 ASR) Response: The screen returns: `cds`*xyyzz* `is alive` B. At the AAP console, enter: **rsh cds***xyyzz* **date** where *x* = SCS Member Number (0-7) *yy* = SCU Submember Number (00-15) *zz* = CDSU Number (00-04 for Phase 1 ASR) Response: The screen returns today's date. C. Have Steps A and B been completed for each growth CDSU? If **YES**, enter **exit** at the AAP console, then continue to the next step. If **NO**, repeat Steps A and B for the next growth CDSU.	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
163	Determine if there are any CDSU BWMs to be installed by doing the following: A. At the AAP console, select option **1**. B. At the AAP console, enter: **OP:CDSU:FORM=LONG** Response: The screen will display a list of CDSUs with various information on each CDSU. Included in this information is BWM status. C. Are BWMs displayed in Step B? If **NO**, contact the TCC and have them send the latest CDSU BWM to the AAP, then continue to Step 166. However, if the TCC has no CDSU BWMs to send, continue to Step 166 instead. ***Note:*** If the TCC has no CDSU BWMs to download, the latest CDSU BWM can be installed later. It must however be installed prior to SCU trunk assignment. If **YES**, continue to Step 164.	Telco/Inst/ TCC/NCC	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
164	Verify the BWM/SU identified in the previous step by entering one of the following messages at the AAP: **UPD:CDSUBWM:VFY:BWM***xx-yyyy***:SCS=***a***,SCU=***b***,UNIT=***c* to verify an ''Official'' BWM/SU: OR **UPD:CDSUBWM:VFY:CFT***xx-yyyy***:SCS=***a***,SCU=***b***,UNIT=***c* to verify a ''Craft'' BWM/SU: where *xx* = Last 2 Digits of Year *yyyy* = Unique 4-digit BWM Number *a* = SCS Number (0-7) *b* = SCU Number (0-15) *c* = CDSU Number (0-1). Response: `UPD:CDSUBWM:VFY Completed` ***Note:*** If the verify does not complete successfully, remove the defective BWM/SU (see DLP-554 of 201-525-016AC, *AAP Maintenance, Diagnostics and Trouble Clearing*), download the BWM/SU again (see DLP-507 of 201-525-016AC, *AAP Maintenance, Diagnostics and Trouble Clearing*), and then repeat the above message.	Telco	—
165	Apply the BWM determined in the previous step.	Telco	DLP-559

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
166	Restore the SCU and associated disk pair by entering the following input message at the 1B MTC terminal: **RST:SCS** *x*,**SCU** *z*! where *x* = Member Number (0-7) *z* = Submember Number (0-15) Response: ATP ANN UPD STARTED (if AAP is present and active) RESTORE COMPLETE ***Note:*** During the restore of the SCU an announcement update will take place. Depending on the number of new announcements this restore could take several minutes.	Telco	—
167	At the growth Service Circuit Unit Cabinet (SCUC), toggle the SCU's ROS switch on the TN1984 circuit pack from NORMAL to ROS, then back to NORMAL. ***Note:*** This will remove the SCU from service. When switched back to NORMAL, the growth SCU will be diagnosed and successfully returned to SERVICE. During the restore of the SCU, an announcement update will take place. Depending on the number of new announcements this restore could take several minutes.	Inst	—
168	Perform AAP LAN test of an in-service SCU as follows: A. At the AAP console, log in as **aapusr** and select option **4**. B. At the AAP console, enter: **POLL: ANNSET** *x*! where *x* = Announcement Set of the SCU restored in Step 166 (A-Z) (See Step 9 for Announcement Set.) Response: POLL: ANNSET *x* Completed	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
169	Contact NCC to inform that: A. Growth/Conversion of this SCU is complete. B. There are currently no announcements contained on this SCU. C. Trunks to this SCU are in CAD.DSA state (if any exist). D. CAUCS is probably inhibited from updating announcements to this 4ESS switch office for the specific Announcement Set(s).	Telco	—
170	This is a **Safe Stop Point**. If stopping, perform Steps 171 and 172. Otherwise, go to Step 174.	Telco/Inst	—
171	At the 1B MTC terminal, allow REX by entering: **ALW:MACLI,CLASS MTCE!** Response: `AUTOMATIC JOB SCHEDULING RESUMED`	Telco	—
172	Stop procedure for now. Resume at Step 173 when continuing.	Telco/Inst	—
173	Perform Steps 1 through 8 of this procedure. Then continue to the next step.	Telco/Inst	—
174	Have Steps 137 through 173 been completed for all growth SCUs? If **YES**, **STOP! THIS PROCEDURE IS COMPLETE**. If **NO**, repeat Steps 137 through 173 for the next growth SCU.	Inst	—

TABLE A Allowable Disk Pair Configurations for Circuit Packs With SCU 0

Allowable Disk Pair Types	
Disk Pair Location 0	**Disk Pair Location 1**
2	X
0	0
0	1
1	0
3	X
Where "X" indicates disk pair locations that **must be unpopulated**.	

Add Custom Data Services Unit-I (CDSU-I) to a Service Circuit Unit (SCU) With Automatic Speech Recognition (ASR) — Phase 1

Note: This procedure is used to grow a CDSU-I within an existing Custom Data Services Cabinet-I (CDSC-I) for an **existing SCU with ASR Phase 1 (ASR-1) functionality**. CDSU-Is must be grown in logical order starting with the lowest-numbered CDSU-I. In this procedure, the term ASR refers to ASR-1. Also, the term "CDSU" refers to the Custom Data Services Unit-I (CDSU-I), and the term "CDSC" refers to the Custom Data Services Cabinet-I (CDSC-I).

Caution: All trunks associated with this SCU must be degrown prior to performing this procedure. Afterwards, all trunks must be grown back ensuring that the correct number of trunks are used for ASR functionality.

DO THE ITEMS BELOW IN THE ORDER LISTED		**FOR DETAILS, GO TO**	
	4ESS*™ *SWITCH OFFICE PRELIMINARY CHECK		
1	Ensure that the *4ESS* switch is currently running in 4E20 R3/AP13 Generics or later.	Telco	—
2	Ensure that within the last 24 hours the Processor has not experienced any TTY terminal suspends, bootstraps, diagnostic failures, or overloads.	Telco	—

3	Ensure that disks and Input/Output Processors (IOPs) - 1B Processors are in duplex and that 3B Control Units (CUs) and Attached Processor Interfaces (APIs) are in ACTIVE-STANDBY Mode. Routine Exercise (REX) and the Peripheral Unit System Exerciser (PUSYS) should be inhibited, and should remain inhibited during the entire growth process. This is accomplished by entering the following at the 1B Maintenance (MTC) terminal:
	1. **INH:MACLI,CLASS MTCE;REX!**
	Response: `MACLI,CLASS MTCE INHIBITED`
	`AUTOMATIC JOB SCHEDULING`
	`DISALLOWED`
	2. **STOP:TEST;PUSYS!**
	Response: `OK`
		Telco	—

4	Ensure that diagnostics on the duplexed 3B CUs have been run to completion within the last 24 hours.	Telco	—
5	Ensure that all processor and/or system problems have been cleared before growth activity begins.	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
6	Ensure that the SCU experiencing growth is in service and has run diagnostics to completion within the last 24 hours.	Telco	—
7	Ensure that the SCS growth complex is in service, operating in duplex, and has run diagnostics to completion within the last 24 hours.	Telco	—
8	Ensure that no Software Updates (SUs)/Broadcast Warning Messages (BWMs) for SCS system files are applied during SCS growth.	Telco	—
9	Ensure that the AAP/SCS LAN connection is present and active. A. At the AAP console, log in as **aapusr** and select option **2** from the menu. B. Poke **118** for link status. Response: One LAN link is displayed as Active and the other is displayed as Standby. C. Enter **q** to quit. D. If the LAN is out of service, resolve the problem and contact the next level of support, if necessary. **Do not continue to the next step until the LAN is present and active.**	Telco	—
10	Ensure that diagnostics on the associated Breakage TSI Frame(s) have been run to completion within the last 24 hours.	Telco	—
	CDSU GROWTH		
11	At the 1B MTC terminal, take the appropriate SCU out of service by entering: **RMV:SCS** *a*,**SCU** *b*! where *a* = Member Number (0-7) *b* = SCU Number (0-15) Response: PF followed by: `RMV:SCS a,SCU b COMPL` ***Note:*** When taking an SCU out of service, office alarms may sound. Pressing the appropriate key at the MCC will retire these alarms.	Telco	—
12	Install the appropriate CDSU within the CDSC.	Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
13	Install the associated bus CDSU fuse into the appropriate power distribution frame.	Inst	—
14	Install the associated CDSU fuse into the CDSC fuse and filter panel.	Inst	—
	Steps 15 through 18 require a VGA monitor, a keyboard, and the appropriate floppy disks; one floppy disk for CDSU configuration and one floppy disk for application software.		
15	Record the following information which is required later for CDSU configuration. • CDSU Number (1-4): • SCS Member Number (0-7): • SCU Number (0-15): • Length of T1 cable in cable feet: • T1 cable length option: The cable length option is determined by adding 25 feet to the total T1 cable length (in the cable rack) for each SCU/CDSU combination. The total length (including the added 25 ft.) is used to determine the cable length option as follows: For total length **0-133 ft.,** use option **1**. For total length **133-266 ft.,** use option **2**. For total length **266-399 ft.,** use option **3**. For total length **399-440 ft.,** use option **4**.	Telco/Inst	—
16	Power-up the appropriate CDSU.	Inst	—
17	Configure the CDSU (using information from Step 15, when required).	Inst	—
18	Verify the CDSU version number.	Inst	—
19	Reroute the LAN cable to the appropriate CDSU.	Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
20	Recent change and verify the number of CDSUs using RC Form 703.	Telco	DLP-552
21	Add the growth CDSU to the AAP CDSU database. A. At the AAP console, log in as **aapusr** and select option **1**. B. At the AAP console, enter: **OP:CDSU:FORM=SHORT** Response: The screen will return a list of CDSUs within the database with their associated KEY Numbers. Use this list to determine an appropriate KEY Number (not already used) which will be used for adding the growth CDSU to the AAP Database. C. At the AAP console, enter: **UPD:CDSU:UPD=ADD:"KEY=*a*,SCS=*b*,SCU=*c*,CDSU=*d*,GEN=*e*"** **where** *a* = Database KEY Number (0-99999, not already used) *b* = SCS Member Number (0-7) *c* = SCU Number (00-15) *d* = CDSU Number (00-04) *e* = CDSU Software Version (found on CDSU Software Diskette) (Example: CDSU 1) Response: The screen will return a listing of the entry just added. Check that the appropriate information for the growth CDSU is present. If not, repeat Step C. D. At the AAP console, enter: **LOGOUT** Response: The menu is displayed on the AAP console screen.	Telco/Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
22	Log into the AAP as **root** and enter the following **for each growth CDSU** to test the LAN: A. At the AAP, enter: **/usr/sbin/ping cds***xyyzz* where *x* = SCS Member Number (0-7) *yy* = SCU Submember Number (00-15) *zz* = CDSU Number (00-04) Response: The screen returns: `cds`*xyyzz* `is alive` B. At the AAP, enter: **rsh cds***xyyzz* **date** where *x* = SCS Member Number (0-7) *yy* = SCU Submember Number (00-15) *zz* = CDSU Number (00-04) Response: The screen returns today's date.	Telco/Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
23	Determine if there are any CDSU BWMs to be installed by doing the following: A. At the AAP console, select option **1**. B. At the AAP console, enter: **OP:CDSU:FORM=LONG** Response: The screen will display a list of CDSUs with various information on each CDSU. Included in this information is BWM status. C. Are BWMs displayed in Step B? If **NO**, contact the TCC and have them send the latest CDSU BWM to the AAP, then continue to Step 24. However, if the TCC has no CDSU BWMs to send, continue to Step 26 instead. ***Note:*** If the TCC has no CDSU BWMs to download, the latest CDSU BWM can be installed later. It must however be installed prior to SCU trunk assignment. If **YES**, continue to Step 24.	Telco/Inst/ TCC/NCC	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
24	Verify the BWM/SU identified in the previous step by entering one of the following messages at the AAP: **UPD:CDSUBWM:VFY:BWM***xx-yyyy***:SCS=***a***,SCU=***b***,UNIT=***c* to verify an ''Official'' BWM/SU: OR **UPD:CDSUBWM:VFY:CFT***xx-yyyy***:SCS=***a***,SCU=***b***,UNIT=***c* to verify a ''Craft'' BWM/SU: where *xx* = Last 2 Digits of Year *yyyy* = Unique 4-digit BWM Number *a* = SCS Number (0-7) *b* = SCU number (0-15) *c* = CDSU number (0-1). Response: `UPD:CDSUBWM:VFY Completed` ***Note:*** If the verify does not complete successfully, remove the defective BWM/SU (see DLP-554 of 201-525-016AC, *AAP Maintenance, Diagnostics and Trouble Clearing*), download the BWM/SU again (see DLP-507 of 201-525-016AC, *AAP Maintenance, Diagnostics and Trouble Clearing*), and then repeat the above message.	Telco	—
25	Apply the BWM determined in the previous step.	Telco	DLP-559

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
26	At the 1B MTC terminal, diagnose the appropriate SCU and associated disk pair(s) by entering: **DGN:SCS** *a*,**SCU** *b*:**PH (1-10,***c*,**16,17)!** where *a* = Member Number (0-7) *b* = SCU Number (0-15) *c* = Phase Number(s) for SCU MSP test: **12** for SCUs with MSP 0 **12-13** for SCUs with MSPs 0 and 1 **12-14** for SCUs with MSPs 0 through 2 **12-15** for SCUs with MSPs 0 through 3 ***Note:*** The Multifunctional Interface Processor (MIP) circuit packs are diagnosed with Phase 16. The CDSUs are diagnosed with Phase 17. Phase 17 diagnostics will take approximately 2 minutes per CDSU. Response: The screen returns output messages with ATP.	Telco/Inst	—
27	Restore the SCU and associated disk pair by entering the following input message at the 1B MTC terminal: **RST:SCS** *x*,**SCU** *z*! where *x* = Member Number (0-7) *z* = Submember Number (0-15) Response: ATP ANN UPD STARTED (if AAP is present and active) RESTORE COMPLETE ***Note:*** During the restore of the SCU an announcement update will take place. Depending on the number of new announcements this restore could take several minutes.	Telco/Inst	—
28	At the 1B MTC terminal, allow REX by entering: **ALW:MACLI,CLASS MTCE!** Response: AUTOMATIC JOB SCHEDULING RESUMED	Telco	—

Degrow Custom Data Services Unit-I (CDSU-I) 4, 3, 2, or 1

Note: **This procedure is only valid for degrowing CDSU-I 4, 3, 2, or 1.** This procedure is used to degrow CDSU-I 4, 3, 2, or 1 from an SCU with ASR Phase 1 (ASR-1) functionality. CDSU-Is must be degrown in logical order starting with the highest-numbered CDSU-I. To degrow CDSU-I 0, use NTP-006. In the rest of this procedure, the term ASR refers to ASR-1. Also, the term "CDSU" refers to the Custom Data Services Unit-I (CDSU-I), and the term "CDSC" refers to the Custom Data Services Cabinet-I (CDSC-I).

Caution: All trunks associated with this SCU must be degrown prior to performing this procedure. Upon completion of the following procedure, all trunks must be grown back ensuring that the correct number of trunks are used for ASR functionality.

DO THE ITEMS BELOW IN THE ORDER LISTED		**FOR DETAILS, GO TO**	
	4ESS™ SWITCH OFFICE PRELIMINARY CHECK		
1	If degrowing **CDSU 0**, use NTP-006 instead of this procedure. If degrowing **CDSU 4, 3, 2, or 1**, continue to the next step.	Telco	—
2	Ensure that the *4ESS* switch is currently running in 4E20 R3/AP13 Generics or later.	Telco	—
3	Ensure that within the last 24 hours the Processor has not experienced any TTY terminal suspends, bootstraps, diagnostic failures, or overloads.	Telco	—

4	Ensure that disks and Input/Output Processors (IOPs) - 1B Processors are in duplex and that 3B Control Units (CUs) and Attached Processor Interfaces (APIs) are in ACTIVE-STANDBY Mode. Routine Exercise (REX) and the Peripheral Unit System Exerciser (PUSYS) should be inhibited, and should remain inhibited during the entire degrowth process. This is accomplished by entering the following at the 1B Maintenance (MTC) terminal:
	1. **INH:MACLI,CLASS MTCE;REX!**
	Response: `MACLI,CLASS MTCE INHIBITED`
	`AUTOMATIC JOB SCHEDULING`
	`DISALLOWED`
	2. **STOP:TEST;PUSYS!**
	Response: `OK`
		Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
5	Ensure that diagnostics on the duplexed 3B CUs have been run to completion within the last 24 hours.	Telco	—
6	Ensure that all processor and/or system problems have been cleared before degrowth activity begins.	Telco	—
7	Ensure that the SCU experiencing degrowth is in service and has run diagnostics to completion within the last 24 hours.	Telco	—
8	Ensure that the SCS complex is in service, operating in duplex, and has run diagnostics to completion within the last 24 hours.	Telco	—
9	Ensure that no Software Updates (SUs)/Broadcast Warning Messages (BWMs) for SCS system files are applied during this degrowth.	Telco	—
10	Ensure that the AAP/SCS LAN connection is present and active. A. At the AAP console, log in as **aapusr** and select option **2** from the menu. B. Poke **118** for link status. Response: One LAN link is displayed as Active and the other is displayed as Standby. C. Enter **q** to quit. D. If the LAN is out of service, resolve the problem and contact the next level of support, if necessary. **Do not continue to the next step until the LAN is present and active.**	Telco	—
11	Ensure that diagnostics on the associated TSI Frame(s) have been run to completion within the last 24 hours.	Telco	—
	CDSU DEGROWTH		
12	At the 1B MTC terminal, take the appropriate SCU out of service by entering: **RMV:SCS** *a*,**SCU** *b*! where *a* = Member Number (0-7) *b* = SCU Number (0-15) Response: PF followed by: RMV:SCS *a*, SCU *b* COMPL ***Note:*** When taking an SCU out of service, office alarms may sound. Pressing the appropriate key at the MCC will retire these alarms.	Telco	—

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

13	Reconfigure and power down the appropriate CDSU as follows.
	
	A. At the rear of CDSU, connect the keyboard cable/adapter to the upper connector at location A18 and the monitor cable to the connector at location A02.
	
	B. Log into the CDSU as **root**.
	
	C. At the CDSU terminal, enter:
	pkgrm -n cdsu
	Response:
	`Removal of <cdsu> was successful`
	
	D. At the CDSU terminal, enter:
	pkgrm -n cdsconfig
	Response:
	`Removal of <cdsconfig> was successful`
	
	E. At the CDSU terminal, enter:
	/etc/init 0
	Response:
	`System Is Coming Down`
	`System Is Down`
	
	F. Power-down the appropriate CDSU using the **ON/OFF** switch at the front of the CDSU.
	
	G. At the rear of CDSU, remove the keyboard cable/adapter at the upper connector at location A18 and the monitor cable at the connector at location A02.
		Telco/Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
14	Remove the associated CDSU fuse from the CDSC fuse and filter panel.	Inst	—
15	Remove the associated CDSU fuse from the appropriate power distribution frame.	Inst	—
16	Remove the associated T1 cables and power cable from the appropriate CDSU.	Inst	—
17	Re-route the LAN cable to bypass the CDSU being degrown.	Inst	—
18	Remove the appropriate CDSU from the CDSC shelf.	Inst	—
19	Recent change and verify the number of CDSUs using RC Form 703.	Telco	DLP-552
20	Remove the growth CDSU from the AAP CDSU database. A. At the AAP console, log in as **aapusr** and select option **1**. B. At the AAP console, enter: **OP:CDSU:FORM=SHORT** Response: The screen will return a list of CDSUs within the database with their associated KEY Numbers. Use this list to determine the KEY Number of the CDSU being removed. C. At the AAP console, enter: **UPD:CDSU:UPD=DLT:"KEY=*a*"** where *a* = Database KEY Number (0-99999, determined in Step B) Response: `UPD:CDSU Completed`	Telco/Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
21	Log into the AAP as **root** and enter the following to test the LAN: A. At the AAP console, enter: **/usr/sbin/ping cds***xyyzz* where *x* = SCS Member Number (0-7) *yy* = SCU Submember Number (00-15) *zz* = CDSU Number (00-04 for Phase 1 ASR) (use the value for the highest-numbered **remaining** CDSU) Response: The screen returns: `cds`*xyyzz* `is alive` B. At the AAP console enter: **rsh cds***xyyzz* **date** where *x* = SCS Member Number (0-7) *yy* = SCU Submember Number (00-15) *zz* = CDSU Number (00-04 for Phase 1 ASR) (use the value for the highest-numbered **remaining** CDSU) Response: The screen returns today's date.	Telco/Inst/ TCC/NCC	—
22	At the 1B MTC terminal, diagnose the appropriate SCU and the associated disk pair(s) by entering: **DGN:SCS** *a*,**SCU** *b*:**PH (1-10,***c***,16,17)!** where *a* = Member Number (0-7) *b* = SCU Number (0-15) *c* = Phase Number(s) for SCU MSP test: **12** for SCUs with MSP 0 **12-13** for SCUs with MSPs 0 and 1 **12-14** for SCUs with MSPs 0 through 2 **12-15** for SCUs with MSPs 0 through 3 ***Note:*** The MIP circuit packs are diagnosed with Phase 16. The CDSUs are diagnosed with Phase 17. Phase 17 diagnostics will take approximately 2 minutes per CDSU. Response: The screen returns output messages with ATP.	Telco/Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
23	Restore the SCU and the associated disk pair by entering the following input message at the 1B MTC terminal: **RST:SCS** *x*,**SCU** *z*! where *x* = Member Number (0-7) *z* = Submember Number (0-15) Response: ATP ANN UPD STARTED (if AAP is present and active) RESTORE COMPLETE ***Note:*** During the restore of the SCU an announcement update will take place. Depending on the number of new announcements this restore could take several minutes.	Telco/Inst	—
24	At the 1B MTC terminal, allow REX by entering: **ALW:MACLI,CLASS MTCE!** Response: AUTOMATIC JOB SCHEDULING RESUMED	Telco	—

Add Optional Multifaceted Signal Processor (MSP) Circuit Packs

This procedure assumes that the appropriate MSP System File(s) are resident on the growth SCU disk drive 0 and that all MSP version numbers within the Office Data Assembler (ODA) are correct. This assumption is based on the SCS Update Procedure containing the appropriate MSP System Files during the 4E20 Retrofit and beyond.

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
	4ESS*™ *SWITCH OFFICE PRELIMINARY CHECK		
1	Ensure that the *4ESS* switch is currently running in 4E20/AP13 Generics or later.	Telco	—
2	Ensure that within the last 24 hours the Processor has not experienced any TTY terminal suspends, bootstraps, diagnostic failures, or overloads.	Telco	—
3	Ensure that disks and Input/Output Processors (IOPs) - 1B Processors are in duplex and that 3B Control Units (CUs) and Attached Processor Interfaces (APIs) are in ACTIVE-STANDBY Mode. Routine Exercise (REX) and the Peripheral Unit System Exerciser (PUSYS) should be disabled, and should remain disabled during the entire growth process. This is accomplished by entering the following at the 1B Maintenance (MTC) terminal: 1. **INH:MACLI,CLASS MTCE;REX!** Response: `MACLI,CLASS MTCE INHIBITED AUTOMATIC JOB SCHEDULING DISALLOWED` 2. **STOP:TEST;PUSYS!** Response: `OK`	Telco	—
4	Ensure that diagnostics on the duplexed 3B CUs have been run to completion within the last 24 hours.	Telco	—
5	Ensure that all processor and/or system problems have been cleared before growth activity begins.	Telco	—
6	Ensure that the SCS growth complex is in service, operating in duplex, and has run diagnostics to completion within the last 24 hours.	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
7	Ensure that no Software Updates (SUs)/Broadcast Warning Messages (BWMs) for SCS system files are applied during SCS growth.	Telco	—
8	Ensure that the AAP/SCS LAN connection is present and active, if applicable. A. At the AAP console, log in as **aapusr** and select option **2** from the menu. B. Poke **118** for link status. Response: One LAN link is displayed as Active and the other is displayed as Standby. C. Enter **q** to quit. D. If the LAN is out of service, resolve the problem and contact the next level of support, if necessary. **Do not continue to the next step until the LAN is present and active.**	Telco	—
9	Ensure that diagnostics on the associated Time Slot Interchange (TSI) Frames have been run to completion within the last 24 hours.	Telco	—
10	Contact the TCC/NCC and confirm that the required in-service SCU can be removed from service.	Telco	—
	ADD OPTIONAL TN1589 MSP CIRCUIT PACKS		
11	At the appropriate Service Circuit Unit Cabinet (SCUC), remove the SCU from service by toggling the SCU's **ROS** switch on the appropriate TN1984 circuit pack from NORMAL to ROS. When the OS light goes ON, continue to the next step. (See Figures 1 and 2 of DLP-554 for SCU locations.)	Telco/Inst	—
12	Power-down the disk pair(s) associated with the SCU that was just removed from service by pressing the **OFF** button on the Disk Power Controller (DPC) UN356 circuit pack(s) associated with the disk pair(s).	Inst	—
13	Power-down the SCU that was removed from service by pressing the **OFF** button on the SCU's TN1984 circuit pack.	Inst	—
14	Populate optional MSP circuit packs.	Inst	DLP-554

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
15	Power-up the out-of-service SCU and the associated disk pair(s). 1. At the associated Hard Drive Unit(s), press the **ON** button to power the Disk Power Controller (DPC) UN356 circuit pack. ***Caution: Wait at least 60 seconds before proceeding. This allows the disk drives to spin up to operational speed.*** 2. At the SCU, press the **ON** button to power the Master Power Controller (MPC) TN1984 circuit pack.	Inst	—
16	Recent change and verify associated MSP equipage using RC Form 703.	Telco	DLP-553
17	At the 1B MTC terminal, diagnose the appropriate SCU by entering: **DGN:SCS** *a*,**SCU** *b*:**PH (1-10,***c***)!** where *a* = Member Number (0-7) *b* = SCU Number (0-15) *c* = Phase Number(s) for MSP circuit packs present: **12** for SCUs with MSP 0 **12-13** for SCUs with MSPs 0 and 1 **12-14** for SCUs with MSPs 0 through 2 **12-15** for SCUs with MSPs 0 through 3 Response: The screen returns output messages with ATP for each valid phase.	Telco/Inst	—
18	At the appropriate SCU, toggle the **ROS** switch on the TN1984 circuit pack from ROS to NORMAL. Response: `RST:SCS x,SCU y STOPPED OS RMVD` where *x* = Member Number (0-7) *y* = Submember Number (0-15)	Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
19	Enter the following input message at the 1B MTC terminal: **RST:SCS *x*,SCU *y*!** where *x* = Member Number (0-7) *y* = Submember Number (0-15) Response: `DGN:SCS` *x*`,SCU` *y* `COMPLETE ATP MSG COMPL` `ANN UPD STARTED` *(if AAP is present and active)* `RST:SCS` *x*`,SCU` *y* `COMPL`	Telco/Inst	—
20	Inform the TCC/NCC that the SCU is now back in service.	Telco	—
21	Has this procedure been completed for all applicable SCUs? If **YES**, continue to Step 22. If **NO**, repeat Steps 10 through 20 for the next applicable SCU.	Inst	—
22	At the 1B MTC terminal, allow REX by entering: **ALW:MACLI,CLASS MTCE!** Response: `AUTOMATIC JOB SCHEDULING RESUMED`	Telco	—

Degrow a Service Circuit Unit (SCU) With Announcement Set S for Conversion to an Automatic Speech Recognition (ASR) SCU

Note: This SCS Degrow Procedure assumes the SCS Complex is operational, in-service, and connected to an active Announcement Administrative Processor (AAP), if applicable. This procedure is designed to degrow an SCU in preparation for ASR SCU Growth.

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
1	Ensure that all responsible parties and organizations are aware of this degrowth before it starts. The appropriate *4ESS* switch support organizations must be contacted for instructions and/or assistance prior to the degrowth of the SCS complex.	Telco	—
2	Ensure that within the last 24 hours the Processor has not experienced any TTY terminal suspends, bootstraps, diagnostic failures, or overloads.	Telco	—
3	Ensure that disks and Input/Output Processors (IOPs) are in duplex and that 3B Control Units (CUs) are in ACTIVE-STANDBY mode. Routine Exercise (REX) should be disabled, and should remain disabled during the entire growth process. This is accomplished by entering the following at the 1B Maintenance (MTC) terminal: 1. **INH:MACLI,CLASS MTCE;REX!** Response: `MACLI,CLASS MTCE INHIBITED AUTOMATIC JOB SCHEDULING DISALLOWED` 2. **STOP:TEST;PUSYS!** Response: `OK`	Telco	—
4	Ensure that diagnostics on the duplexed 3B CUs have been run to completion within the last 24 hours.	Telco	—
5	Verify SCS Unit Type (UT) Translator to determine TSI information, MSP equipage, and disk pair equipage **for each SCU to be degrown**. ***Note:*** This information will be used later in other steps of this NTP.	Telco/Inst	DLP-542

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
6	Ensure that diagnostics on the associated Time Slot Interchange (TSI) Frames have been run to completion within the last 24 hours.	Telco	—
7	Ensure that all processor and/or system problems have been cleared.	Telco	—
8	Contact the TCC/NCC to ensure that no Software Updates (SUs)/Broadcast Warning Messages (BWMs) for SCS system files are applied during SCS degrowth.	Telco	—
9	Ensure that the AAP/SCS LAN connection is present and active, if applicable. A. At the AAP console, log in as **aapusr** and select option **2** from the menu. B. Poke **118** for link status. Response: One LAN link is displayed as Active and the other is displayed as Standby. C. Enter **q** to quit. D. If the LAN is out of service, resolve the problem and contact the next level of support, if necessary. **Do not continue to the next step until the LAN is present and active.**	Telco	—
10	At the 1B MTC terminal, take the appropriate SCU out of service by entering: **RMV:SCS** *a*,**SCU** *b*! where *a* = Member Number (0-7) *b* = SCU Number (0-15) Response: PF followed by: RMV:SCS *a*, SCU *b* COMPL ***Note:*** When taking an SCU out of service, office alarms may sound. Pressing the appropriate key at the MCC will retire these alarms.	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
11	At the 1B MTC terminal, determine which trunks are assigned to the degrowth SCU by entering: **VER:TRK:TSI *a*,SPC *b*,LVL *c*,FTS (1-120)!** where *a* = Associated Time Slot Interchange (TSI) Member Number (recorded in Step 5) *b* = Associated Switching and Permuting Circuits (SPC) Number (recorded in Step 5) *c* = Associated Level Number (Port Number) (recorded in Step 5) Response: The screen returns up to five `VER:TRK` messages followed by: `VERIFY PROCESSING COMPLETE` Record the First Traffic Number (FTFN), the Trunk Subgroup (TSG) data, and the Quantity of Trunks (QTRK) value from each of the `VER:TRK` messages. FTFN TSG Data QTRK _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
12	Disable the trunks assigned to the degrowth SCU by entering the following input message **once for each of the FTFNs recorded in Step 11**: **SET:TRKSTAT CAD.DSA,CIN** *ab*;**SUM:NUM** *c*! where *a* = FTFN (recorded in Step 11) *b* = TSG associated with FTFN *a* (recorded in Step 11) *c* = QTRK value associated with FTFN (recorded in Step 11) Example: If the FTFN is 72, the TSG is SVC*SCNS***07T, and the QTRK is 24, then the input message would be: **SET:TRKSTAT CAD.DSA,CIN 72SVC*SCNS***07T;SUM:NUM 24!** Response: SET:TRKSTAT CAD.DSA CIN *ab*,SUM COMPLETED TRK COUNT *c* ***Note:*** During trunk removal, office alarms will sound. Pressing the appropriate key on the MCC will retire these alarms. ***Caution: If the SCU is being degrown to change service circuit type, the associated trunks must be removed from service.***	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
13	Degrow SCU subunit data (disk pair and MSP equipage) from OPER to SGRO using Recent Change Form 703. ***Note:*** The current disk pair and MSP equipage was recorded in Step 5.	Telco	DLP-519
14	Degrow SCU from OPER to SGRO using Recent Change Form 701.	Telco	DLP-513
15	Degrow TSI submember equipage (of the TSI recorded in Step 5) from OPER to SGRO using Recent Change Form 701.	Telco	DLP-529
16	At the 1B MTC terminal, apply port pest to the associated TSI Port (of the TSI recorded in Step 5) by entering: **INH:TSI** *x*,**SPC** *y*,**PORT** *z*! where *x* = TSI Member Number (0-63) *y* = SPC within TSI (0-1) *z* = Port within SPC (0-6) Response: Input message is echoed when pesting is done.	Telco	—
17	Degrow SCU subunit data (disk pair and MSP equipage) from SGRO to GROW using Recent Change Form 703.	Telco	DLP-530
18	Degrow SCU subunit data (disk pair and MSP equipage) from GROW to UNEQ using Recent Change Form 703.	Telco	DLP-531
19	Degrow SCU equipage from SGRO to GROW using Recent Change Form 701.	Telco	DLP-535
20	Degrow SCU equipage from GROW to UNEQ using Recent Change Form 701.	Telco	DLP-536
21	Degrow TSI submember equipage from SGRO to GROW using Recent Change Form 701.	Telco	DLP-532
22	Degrow TSI submember equipage from GROW to UNEQ using Recent Change Form 701.	Telco	DLP-533
23	Remove the DS-120 cable at the TSI Port and install its looping cable/plug.	Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
24	At the 1B MTC terminal, remove the pest from the degrown TSI Port by entering: **ALW:TSI x,SPC y,PORT z!** where *x* = TSI Member Number (0-63) *y* = SPC within TSI (0-1) *z* = Port within SPC (0-6) Response: PF ALW:TSI x,SPC y,PORT z!	Telco/Inst	—
25	At the 1B MTC terminal, diagnose the TSI Frame Controller 0 by entering: **DGN:TSI x,CONTR 0!** where *x* = TSI Member Number (0-63) Response: The screen returns an output message with REMOVE COMPLETE, then ATP for tests run.	Telco/Inst	—
26	At the 1B MTC terminal, restore TSI x, Controller 0 by entering: **RST:TSI x,CONTR 0!** where *x* = TSI Member Number (0-63) Response: The screen returns an output message with ATP for all tests run, then RESTORE COMPLETE.	Telco/Inst	—
27	At the 1B MTC terminal, diagnose the TSI Frame Controller 1 by entering: **DGN:TSI x,CONTR 1!** where *x* = TSI Member Number (0-63) Response: The screen returns an output message with REMOVE COMPLETE, then ATP for tests run.	Telco/Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
28	At the 1B MTC terminal, restore TSI x, Controller 1 by entering: **RST:TSI x,CONTR 1!** where *x* = TSI Member Number (0-63) Response: The screen returns an output message with `ATP` for all tests run, then `RESTORE COMPLETE`.	Telco/Inst	—
29	Power-down the disk pair(s) associated with the SCU by pressing the **OFF** button on the Disk Power Controller (DPC) UN356 circuit pack(s) associated with the disk pair(s).	Inst	—
30	Power-down the SCU being degrown by pressing the **OFF** button on the SCU's TN1984 circuit pack.	Inst	—
31	Disconnect the optical cable at the Optical Cross-Connect Panel (OCCP) for the SCU being degrown, and install a fiber shorting contact at the OCCP where the optical cable was removed.	Inst	—
32	At the 1B MTC terminal, allow REX by entering: **ALW:MACLI,CLASS MTCE!** Response: `AUTOMATIC JOB SCHEDULING RESUMED`	Telco	—

Alternate Procedure for Updating Service Circuit System (SCS) System Files

Caution: This procedure is to be followed only at the direction of your support organization. Unless otherwise directed to use this NTP, NTP-007 should be used to apply SCS software updates.

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
	4ESS™ SWITCH OFFICE PRELIMINARY CHECK		
1	Ensure that within the last 24 hours the Processor has not experienced any TTY terminal suspends, bootstraps, diagnostic failures, or overloads.	Telco	—
2	Ensure that disks and Input/Output Processors (IOPs) are in duplex and that 3B Control Units (CUs) are in ACTIVE-STANDBY mode. Routine Exercise (REX) and the Peripheral Unit System Exerciser should be disabled, and should be inhibited during SCS file update. This is accomplished by entering the following: 1. **INH:MACLI,CLASS MTCE;REX!** Response: `MACLI,CLASS MTCE INHIBITED` 2. **STOP:TEST;PUSYS!** Response: `OK`	Telco	—
3	Ensure that diagnostics on the duplexed 3B CUs have been run to completion within the last 24 hours.	Telco	—
4	Ensure that the SCS complex being updated is in service, operating in duplex, and has run all automatic and demand diagnostics to completion within the last 24 hours. **All** SCUs and the associated disk pairs (including those that are out of service) should be powered up.	Telco	—
5	Ensure that either the appropriate SCS Broadcast Warning Message (BWM) has been applied or the 3B retrofit has been completed, as applicable.	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
	SOURCE VERSION NUMBER (SVN) AND DESTINATION VERSION NUMBER (DVN) DETERMINATION ***Note:*** The SVN/DVN numbers ensure that a particular SCS system file is read from the 3B20D and written to the disk pairs at the proper disk locations. An SVN (the correct and up-to-date file location on the 3B20D disk) and a DVN (the next location on the appropriate disk pair 0) is required for each of the SCS System File Types to be updated (SCCSFT, SCUOPR, SCUDGN, MSPFIX, MSPROV, MSP1, MIP0FIL, MIP1FIL, and TONES). The SVN will always be "0." The DVN is determined through translations.		
6	Determine the DVN for all seven system file types to be updated.	Telco	DLP-526
	UPDATE SCS SYSTEM FILES FROM THE ATTACHED PROCESSOR SYSTEM (APS) USING THE COPY COMMAND ***Note:*** The purpose of the **COPY** message is to perform an APS to SCU file copy. One **COPY** message must be used for each file type being copied from the APS to the HDU. Both the SVN and DVN are needed for each **COPY** message. These numbers ensure that a particular file type is read from and written to the proper disk locations. The DVNs from Table A in DLP-526 will be used in the **COPY** messages.		

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
7	At the 1A/1B MTC terminal, write the SCS system files from the APS to the HDUs by entering the following messages: **COPY:SCS** *x*,**SCCSFT,SVN 0,DVN** *y*,**ALL; UCL!** **COPY:SCS** *x*,**SCUOPR,SVN 0,DVN** *y*,**ALL; UCL!** **COPY:SCS** *x*,**SCUDGN,SVN 0,DVN** *y*,**ALL; UCL!** **COPY:SCS** *x*,**MSPFIX,SVN 0,DVN** *y*,**ALL; UCL!** **COPY:SCS** *x*,**MSPROV,SVN 0,DVN** *y*,**ALL; UCL!** **COPY:SCS** *x*,**TONES,SVN 0,DVN** *y*,**ALL; UCL!** **COPY:SCS** *x*,**MSP1,SVN 0,DVN** *y*,**ALL; UCL!** **COPY:SCS** *x*,**MIP0FIL,SVN 0,DVN** *y*,**ALL; UCL!** **COPY:SCS** *x*,**MIP1FIL,SVN 0,DVN** *y*,**ALL; UCL!** where *x* = SCS Member Number (0-7) *y* = Destination Version Number (0-1 for 4E22R4 and later). (Use the number from the "DVN" column of Table A in DLP-526.) *ALL* indicates that the specified file is to be copied to all SCSs. *UCL* forces files to be copied to out-of-service SCUs and to SCSs in the "GROW" state. ***Note:*** Each of the above copy commands could take a considerable amount of time to run. Response: `COPY:SCS x TASK COMPLETED` (for each of the above commands)	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
	SERVICE CIRCUIT CONTROLLER UPDATE ***Note:*** The purpose of the **UPD** (update) message is to replace the software in one SCS Controller with another software version and make that controller active. Once the updated controller is active, the second controller is then updated. The SCS complex must be operating in duplex to accomplish this update.		

8	At the 1A/1B MTC terminal, enter:
	UPD:SCS *a*,**CONTR** *b*,**SVN** *c*!
	
	where *a* = SCS Member Number (0-7)
	b = SCS Controller Number being loaded with the new software (0 or 1)
	c = Source Version Number on the SCU disk (0-1 for 4E22R4 and later). (Use the number for the SCCSFT file from the "DVN" column of Table A in DLP-526.)
	
	Response: Several output messages as follows:
	`UDP:SCS a CONTR UPDATE STARTED`
	`UDP:SCS a CONTR b PUMP IN PROGRESS`
	`UDP:SCS a CONTR b SWITCH IN PROGRESS`
	`UDP:SCS a CONTR UPDATE COMPLETED`
	
	where *a* = SCS Member Number (0-7)
	b = SCS Controller Number (0 or 1)
		Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
9	If this is the first SCS complex being updated within an office, following the SCS controller update, soak the system for 24 hours. ***Note:*** The soak interval is used to verify system operation and stability. During the soak interval, all abnormal conditions must be investigated and resolved immediately. Equipment being soaked must be error free for at least the time specified. After ensuring that the SCS complex has not experienced a controller pump from disk, continue to Step 10.	Telco	—
10	This is a **Safe Stop Point**. If stopping, perform Steps 11 and 12. Otherwise, go to Step 14.	Telco/Inst	—
11	At the 1A/1B MTC terminal, allow REX by entering: **ALW:MACLI,CLASS MTCE!** Response: `AUTOMATIC JOB SCHEDULING RESUMED`	Telco	—
12	Stop procedure for now. Resume at Step 13 when continuing.	Telco/Inst	—
13	Perform Steps 1 through 5 of this procedure. Then continue to the next step.	Telco/Inst	—
14	Update the version number in the SCS Translator for both controllers using RC Form 801.	Telco	DLP-527
15	At the 1A/1B MTC terminal, diagnose Controller 0 by entering: **DGN:SCS x,CONTR 0!** where *x* = SCS Member Number (0-7) Response: The screen returns output messages with `ATP` for each valid phase. ***Note:*** If the proper response is not received, use DLP-515 to return to the original version number, **stop the update**, and contact the appropriate *4ESS* switch support organization to report this failure.	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
16	At the 1A/1B MTC terminal, restore SCS Controller 0 by entering: **RST:SCS x,CONTR 0!** where *x* = SCS Member Number (0-7) Response: The screen returns an output message with `CATP`, then `RESTORE COMPLETE`. Bit **21** should be **set** in the CATP **reason word** indicating that the `unused EBI link test skipped`. This is the only allowable exception (no other bits in the CATP reason word should be set).	Telco	—
17	At the 1A/1B MTC terminal, diagnose Controller 1 by entering: **DGN:SCS x,CONTR 1!** where *x* = SCS Member Number (0-7) Response: The screen returns output messages with `ATP` for each valid phase. ***Note:*** If the proper response is not received, use DLP-515 to return to the original version number, **stop the update**, and contact the appropriate *4ESS* switch support organization to report this failure.	Telco	—
18	At the 1A/1B MTC terminal, restore SCS Controller 1 by entering: **RST:SCS x,CONTR 1!** where *x* = SCS Member Number (0-7) Response: The screen returns an output message with `CATP`, then `RESTORE COMPLETE`. Bit **21** should be **set** in the CATP **reason word** indicating that the `unused EBI link test skipped`. This is the only allowable exception (no other bits in the CATP reason word should be set).	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
	SERVICE CIRCUIT UNIT UPDATE ***Note:*** Steps 19 through 26 must be completed for each SCU as applicable. Step 27 should be completed only for the first SCU being updated.		
19	If the SCU is in service, take the unit out of service by entering the following message at the 1A/1B MTC terminal: **RMV:SCS** *a*,**SCU** *b*! where *a* = Member Number (0-7) *b* = SCU Number (0-15) Response: PF followed by `RMV:SCS` *a*, `SCU` *b*, `COMPL` ***Note:*** This `RMV` (remove) could take up to 2 minutes.	Telco	—
20	Update the version number of the SCU and the associated Multifaceted Signal Processor (MSP) using RC Form 703.	Telco	DLP-528
21	Does the SCU being updated have Automatic Speech Recognition (ASR) functionality **and** is an update of CDSU Application Software required? If **YES**, perform Steps 22 through 25. If **NO**, continue to Step 26.	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
22	Log into the AAP as **root** and enter the following **for each associated CDSU** to test the LAN: A. At the AAP console, enter: **/usr/sbin/ping cds***xyyzz* where *x* = SCS Member Number (0-7) *yy* = SCU Submember Number (00-15) *zz* = CDSU Number (00-03 for CDSU-I or 00-05 for CDSU-II) Response: The screen returns: `cds`*xyyzz* `is alive` B. At the AAP console, enter: **rsh cds***xyyzz* **date** where *x* = SCS Member Number (0-7) *yy* = SCU Submember Number (00-15) *zz* = CDSU Number (00-03 for CDSU-I or 00-05 for CDSU-II) Response: The screen returns today's date. C. Have Steps A and B been completed for each growth CDSU? If **YES**, enter **exit** at the AAP console, then continue to the next step. If **NO**, repeat Steps A and B for the next growth CDSU.	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
23	Determine if there are any CDSU BWMs to be installed by doing the following: A. At the AAP console, select option **1**. B. At the AAP console, enter: **OP:CDSU:FORM=LONG** Response: The screen will display a list of CDSUs with various information on each CDSU. Included in this information is BWM status. C. Are BWMs displayed in Step B? If **NO**, contact the TCC and have them send the latest CDSU BWM to the AAP, then continue to Step 24. However, if the TCC has no CDSU BWMs to send, continue to Step 26 instead. ***Note:*** If the TCC has no CDSU BWMs to download, the latest CDSU BWM can be installed later. If **YES**, continue to Step 24.	Telco/Inst/ TCC/NCC	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
24	Verify the BWM/SU identified in the previous step by entering one of the following messages at the AAP: **UPD:CDSUBWM:VFY:BWM***xx-yyyy***:SCS=***a***,SCU=***b***,UNIT=***c* to verify an ''Official'' BWM/SU: OR **UPD:CDSUBWM:VFY:CFT***xx-yyyy***:SCS=***a***,SCU=***b***,UNIT=***c* to verify a ''Craft'' BWM/SU: where *xx* = Last 2 Digits of Year *yyyy* = Unique 4-digit BWM Number *a* = SCS Number (0-7) *b* = SCU number (0-15) *c* = CDSU number (0-1 for CDSU-I or 0-5 for CDSU-II). Response: `UPD:CDSUBWM:VFY Completed` ***Note:*** If the verify does not complete successfully, remove the defective BWM/SU (see DLP-554 of 201-525-016AC, *AAP Maintenance, Diagnostics and Trouble Clearing*), download the BWM/SU again (see DLP-507 of 201-525-016AC, *AAP Maintenance, Diagnostics and Trouble Clearing*), and then repeat the above message.	Telco	—
25	Apply the BWM determined in the previous step.	Telco	DLP-559

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
26	If this SCU was in service prior to being updated, restore the SCU by entering the following message at the 1A/1B MTC terminal: **RST:SCS x,SCU z!** where *x* = Member Number (0-7) *z* = SCU Number (0-15) Response: `ATP` `ANN UPD STARTED` (if AAP is present and active) `RST:SCS` *x*`, SCU` *z* `COMPL` where *x* = Member Number (0-7) *z* = SCU Number (0-15) ***Note:*** If the proper response is not received, use RC Form 703 to return to the original version number, **stop the update**, and contact the appropriate *4ESS* switch support organization to report this failure.		
27	If this is the first SCU being updated, soak the SCU for 24 hours. ***Note:*** The soak interval is used to verify system operation and stability. During the soak interval, all abnormal conditions must be investigated and resolved immediately. Equipment being soaked must be error free for at least the time specified.	Telco	—
28	This is a **Safe Stop Point**. If stopping, perform Steps 29 and 30. Otherwise, go to Step 32.	Telco/Inst	—
29	At the 1A/1B MTC terminal, allow REX by entering: **ALW:MACLI,CLASS MTCE!** Response: `AUTOMATIC JOB SCHEDULING RESUMED`	Telco	—
30	Stop procedure for now. Resume at Step 31 when continuing.	Telco/Inst	—
31	Perform Steps 1 through 5 of this procedure. Then continue to the next step.	Telco/Inst	—
32	Ensure that Steps 21 through 26 have been completed for each SCU, as applicable.	Telco	—
33	At the 1A/1B MTC terminal, allow REX by entering: **ALW:MACLI,CLASS MTCE!** Response: `AUTOMATIC JOB SCHEDULING RESUMED`	Telco	—

Degrow Custom Data Services Unit-II (CDSU-II) 1 or 3

Note: **This procedure is only valid for degrowing CDSU-II 1 or 3.** This procedure is used to degrow CDSU-II 1 or 3 from an SCU with ASR Phase 2 (ASR-2) functionality. CDSU-IIs must be degrown in logical order starting with the highest-numbered CDSU-II. To degrow CDSU-II 0 or 2, use NTP-006. In the rest of this procedure, the term ASR refers to ASR-2. Also, the term "CDSU" refers to the Custom Data Services Unit-II (CDSU-II), and the term "CDSC" refers to the Custom Data Services Cabinet-II (CDSC-II).

Caution: All trunks associated with this SCU must be degrown prior to performing this procedure. Upon completion of the following procedure, all trunks must be grown back ensuring that the correct number of trunks are used for ASR functionality.

DO THE ITEMS BELOW IN THE ORDER LISTED		**FOR DETAILS, GO TO**	
	4ESS™ SWITCH OFFICE PRELIMINARY CHECK		
1	If degrowing **CDSU 0 or 2**, use NTP-006 instead of this procedure. If degrowing **CDSU 1 or 3**, continue to the next step.	Telco	—
2	Ensure that the *4ESS* switch is currently running in 4E21 R4 Generics or later.	Telco	—
3	Ensure that within the last 24 hours the Processor has not experienced any TTY terminal suspends, bootstraps, diagnostic failures, or overloads.	Telco	—
4	Ensure that disks and Input/Output Processors (IOPs) - 1B Processors are in duplex and that 3B Control Units (CUs) and Attached Processor Interfaces (APIs) are in ACTIVE-STANDBY mode. Routine Exercise (REX) and the Peripheral Unit System Exerciser (PUSYS) should be inhibited, and should remain inhibited during the entire degrowth process. This is accomplished by entering the following at the 1B Maintenance (MTC) terminal: 1. **INH:MACLI,CLASS MTCE;REX!** Response: `MACLI,CLASS MTCE INHIBITED AUTOMATIC JOB SCHEDULING DISALLOWED` 2. **STOP:TEST;PUSYS!** Response: `OK`	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
5	Ensure that diagnostics on the duplexed 3B CUs have been run to completion within the last 24 hours.	Telco	—
6	Ensure that all processor and/or system problems have been cleared before degrowth activity begins.	Telco	—
7	Ensure that the SCU experiencing degrowth is in service and has run diagnostics to completion within the last 24 hours.	Telco	—
8	Ensure that the SCS complex is in service, operating in duplex, and has run diagnostics to completion within the last 24 hours.	Telco	—
9	Ensure that no Software Updates (SUs)/Broadcast Warning Messages (BWMs) for SCS system files are applied during this degrowth.	Telco	—
10	Ensure that the AAP/SCS Local Area Network (LAN) connection is present and active. A. At the AAP console, log in as **aapusr** and select option **2** from the menu. B. Poke **118** for link status. Response: One LAN link is displayed as Active and the other is displayed as Standby. C. Enter **q** to quit. D. If the LAN is out of service, resolve the problem and contact the next level of support, if necessary. **Do not continue to the next step until the LAN is present and active.**	Telco	—
11	Ensure that diagnostics on the associated TSI Frame(s) have been run to completion within the last 24 hours.	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
	CDSU DEGROWTH		
12	At the 1B MTC terminal, take the appropriate SCU out of service by entering: **RMV:SCS** *a*,**SCU** *b*! where *a* = Member Number (0-7) *b* = SCU Number (0-15) Response: PF followed by: `RMV:SCS a, SCU b COMPL` ***Note:*** When taking an SCU out of service, office alarms may sound. Pressing the appropriate key at the MCC will retire these alarms.	Telco	—

13	Reconfigure and power down the appropriate CDSU as follows.
	
	A. At the rear of the CDSU, connect the keyboard cable/adapter. Then connect the monitor cable to the connector at location P2 at the rear of the CDSU.
	
	B. Log into the CDSU as **root**.
	
	C. At the CDSU terminal, enter:
	/etc/init 0
	Response:
	`System Is Coming Down`
	`Press any key to reboot`
	Do not press a key at this time.
	
	D. Power down the appropriate CDSU using the **ON/OFF** switch at the front of the CDSU.
	
	E. At the rear of the CDSU, remove the keyboard cable/adapter and remove the monitor cable from the connector at location P2.
		Telco/Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
14	Remove the associated CDSU fuse from the CDSC fuse and filter panel.	Inst	—
15	Remove the associated CDSU fuse from the appropriate power distribution frame.	Inst	—
16	Remove the associated T1 cables and power cable from the appropriate CDSU.	Inst	—
17	Reroute the LAN cable to bypass the CDSU being degrown.	Inst	—
18	Remove the appropriate CDSU from the CDSC shelf.	Inst	—
19	Recent change and verify the number of CDSUs using RC Form 703.	Telco	DLP-561
20	Remove the growth CDSU from the AAP CDSU database. A. At the AAP console, log in as **aapusr** and select option **1**. B. At the AAP console, enter: **OP:CDSU:FORM=SHORT** Response: The screen will return a list of CDSUs within the database with their associated KEY Numbers. Use this list to determine the KEY Number of the CDSU being removed. C. At the AAP console, enter: **UPD:CDSU:UPD=DLT:"KEY=*a*"** where *a* = Database KEY Number (0-99999, determined in Step B) Response: `UPD:CDSU Completed`	Telco/Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
21	Log into the AAP as **root**, and enter the following to test the LAN: A. At the AAP console, enter: **/usr/sbin/ping cds***xyyzz* where *x* = SCS Member Number (0-7) *yy* = SCU Submember Number (00-15) *zz* = CDSU Number (01 or 03) (use the value for the **remaining** CDSU associated with the same SCU) Response: The screen returns: `cds`*xyyzz* `is alive` B. At the AAP console enter: **rsh cds***xyyzz* **date** where *x* = SCS Member Number (0-7) *yy* = SCU Submember Number (00-15) *zz* = CDSU Number (01 or 03) (use the value for the **remaining** CDSU associated with the same SCU) Response: The screen returns today's date.	Telco/Inst	—
22	At the 1B MTC terminal, diagnose the appropriate SCU and the associated disk pair(s) by entering: **DGN:SCS** *a*,**SCU** *b*:**PH (1-10,***c***,16,17)!** where *a* = Member Number (0-7) *b* = SCU Number (0-15) *c* = Phase Number(s) for SCU MSP test: **12** for SCUs with MSP 0 **12-13** for SCUs with MSPs 0 and 1 **12-14** for SCUs with MSPs 0 through 2 **12-15** for SCUs with MSPs 0 through 3 ***Note:*** The MIP circuit packs are diagnosed with Phase 16. The CDSUs are diagnosed with Phase 17. Phase 17 diagnostics will take approximately 4 minutes per CDSU. Response: The screen returns output messages with ATP.	Telco/Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
23	Restore the SCU and the associated disk pair by entering the following input message at the 1B MTC terminal: **RST:SCS** *x*,**SCU** *z*! where *x* = Member Number (0-7) *z* = Submember Number (0-15) Response: ATP ANN UPD STARTED (if AAP is present and active) RESTORE COMPLETE ***Note:*** During the restore of the SCU, an announcement update will take place. Depending on the number of new announcements, this restore could take several minutes.	Telco/Inst	—
24	At the 1B MTC terminal, allow REX by entering: **ALW:MACLI,CLASS MTCE!** Response: AUTOMATIC JOB SCHEDULING RESUMED	Telco	—

Add Service Circuit Unit(s) With Automatic Speech Recognition (ASR) — Phase 2

Note: This procedure is used to grow a **new Service Circuit Unit (SCU)** and/or convert an **existing SCU** to ASR-Phase 2 (ASR-2) functionality. If an existing SCU is being modified for ASR-2 functionality, ensure that the existing SCU has been completely degrown (including trunks) and powered down prior to the start of this procedure (see NTP-015). In the rest of this procedure, the term ASR refers to ASR-2. Also, the term "CDSU" refers to the Custom Data Services Unit-II (CDSU-II), and the term "CDSC" refers to the Custom Data Services Cabinet-II (CDSC-II).

DO THE ITEMS BELOW IN THE ORDER LISTED		**FOR DETAILS, GO TO**	
	4ESS™ SWITCH OFFICE PRELIMINARY CHECK		
1	Ensure that the *4ESS* switch is currently running in 4E22 R4 Generics or later and that the Announcement Administration Processor (AAP)/ASR Broadcast Warning Message (BWM) has been applied to the AAP. Also, if the growth office has both a Master and Slave AAP, ensure that the AAP BWM has been applied to both the Master and Slave AAP.	Telco	—
2	Ensure that within the last 24 hours the Processor has not experienced any TTY terminal suspends, bootstraps, diagnostic failures, or overloads.	Telco	—
3	Ensure that disks and Input/Output Processors (IOPs) - 1B Processors are in duplex and that 3B Control Units (CUs) and Attached Processor Interfaces (APIs) are in ACTIVE-STANDBY mode. Routine Exercise (REX) and the Peripheral Unit System Exerciser (PUSYS) should be inhibited and should remain inhibited during the entire growth process. This is accomplished by entering the following at the 1B Maintenance (MTC) terminal: 1. **INH:MACLI,CLASS MTCE;REX!** Response: `MACLI,CLASS MTCE INHIBITED AUTOMATIC JOB SCHEDULING DISALLOWED` 2. **STOP:TEST;PUSYS!** Response: `OK`	Telco	—
4	Ensure that diagnostics on the duplexed 3B CUs have been run to completion within the last 24 hours.	Telco	—
5	Ensure that all processor and/or system problems have been cleared before growth activity begins.	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
6	Ensure that the SCS growth complex is in service, operating in duplex, and has run diagnostics to completion within the last 24 hours.	Telco	—
7	Ensure that no Software Updates (SUs)/BWMs for SCS system files are applied during SCU growth.	Telco	—
8	Ensure that the AAP/SCS Local Area Network (LAN) connection is present and active. A. At the AAP console, log in as **aapusr** and select option **2** from the menu. B. Poke **118** for link status. Response: One LAN link is displayed as Active and the other is displayed as Standby. C. Enter **q** to quit. D. If the LAN is out of service, resolve the problem and contact the next level of support, if necessary. **Do not continue to the next step until the LAN is present and active.**	Telco	—
9	Check office records/Pre Condition Order(PCO)/Main Material Order(MMO)/ Telephone Equipment Order (TEO) to confirm the following for each growth SCU/disk pair (**retain this information for future use in this procedure**): • Type of Service Circuit (0-7) • Disk Pair(s) Capacity - Translator (0-3) • AT&T Trigger Platform Feature (Monitor - Yes or No) • Announcement Set (A-Z) • Automatic Speech Recognition (ASR) Application (1-7) • Number of Custom Data Services Units (CDSUs) Present (1-2).	Telco/Inst	—
10	Verify the SCS Unit Type (UT) Translator and compare the SCU Subunit Data **for each growth SCU** against office records/PCO /MMO/TEO. Also compare each growth SCU to Time Slot Interchange (TSI) Port assignment against office wiring records. Similarly, check that all translation information matches the growth SCU hardware. The SCU Subunit Data and the associated TSI Port assignments are contained in the five words specified by the SCS UT Translator for each SCU. ***Note:*** This verify must be done separately for each growth SCU beginning with the lowest-numbered SCU.	Telco/Inst	DLP-560

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
11	Verify the associated TSI UT Translator(s) and compare the assignment/equipage of the TSI Port to each growth SCU against office wiring records.	Telco	DLP-516
12	Verify Custom Data Services Cabinet (CDSC) Grid Lineup Frame (GLF) Number.	Telco/Inst	DLP-555
13	Ensure that diagnostics on the associated TSI Frame(s) have been run to completion within the last 24 hours.	Telco	—
14	This is a **Safe Stop Point**. If stopping, perform Steps 15 and 16. Otherwise, go to Step 18.	Telco/Inst	—
15	At the 1B MTC terminal, allow REX by entering: **ALW:MACLI,CLASS MTCE!** Response: `AUTOMATIC JOB SCHEDULING RESUMED`	Telco	—
16	Stop procedure for now. Resume at Step 17 when continuing.	Telco/Inst	—
17	Perform Steps 1 through 8 of this procedure. Then continue to the next step.	Telco/Inst	—
	4ESS SWITCH TO SERVICE CIRCUIT SYSTEM PRELIMINARY INTERCONNECT		
18	Ensure that all Scan Point and Signal Distributor (SD) Point connections from the growth SCU(s) to the *4ESS* switch Signal Processor (SP) are completed.	Inst	—
19	Ensure that the Alarm connection from the growth SCU(s) to the *4ESS* switch Power Alarm Grid is completed.	Inst	—
20	Ensure that the DS-120 cable(s) from the growth SCU(s) to the associated TSI Ports have been set in place but **not connected**.	Inst	—
21	Ensure that the fiber-optic ribbon cable(s) are present at the rear of the SCU cabinet. This cable should be connected at the backplane of the growth SCU(s), but **not** at the Optical Cross-Connect Panel.	Inst	—
22	Ensure that the LAN cable(s) for the growth SCU(s) are in place (connected) at the rear of the SCU cabinet (horizontal location 024). These cables should be daisy-chained between all SCUs within the SCS complex.	Inst	—
23	Ensure that the Small Computer System Interface (SCSI) Bus Cables for the disk pair(s) associated with the growth SCU(s) are in place at the rear of the SCU cabinet.	Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
24	Ensure that the Active/Standby cable(s) from the growth SCU(s) to all other SCUs are properly connected. These cables are daisy-chained between all SCUs.	Inst	—
25	Ensure that the Custom Data Services Cabinet (CDSC) has been bolted down and that the CDSC power connections from the Power Distribution Frame are completed and tested. Also, if the CDSC will have a Smart HUB, ensure that the 110 V AC outlet is available at the CDSC for Smart HUB power.	Inst	—
26	Ensure that the CDSC TTY A, TTY B, and Telephone Jack connections to the *4ESS* switch are completed.	Inst	—
	CDSC/CDSU/LAN PRELIMINARY INTERCONNECT		
27	Install the Smart HUB and the associated brackets and shelf within the appropriate CDSC.	Inst	—
28	Install additional CDSUs, if applicable.	Inst	—
29	Connect the LAN cables between the CDSUs within the appropriate CDSC and the x-dimension LAN cable.	Inst	—
30	Connect the T1 cable between the AYC52 circuit pack within the CDSU and the x-dimension T1 cable.	Inst	—
31	Connect the AAP x-dimension LAN cable to the Smart HUB located within the appropriate CDSC. **This step is only used for the first CDSC being grown in an office. All subsequent CDSC LAN connections will be made at the appropriate Smart HUB Port 1, not the AAP.**	Inst	—
32	Connect the LAN cable from the Smart HUB, within the appropriate CDSC, to the appropriate CDSU. ***Note:*** Only 9 of the 10 ports on any given Smart HUB are used for LAN connections. The tenth port is never used for a LAN connection.	Inst	—
33	This is a **Safe Stop Point**. If stopping, perform Steps 34 and 35. Otherwise, go to Step 37, being sure to read the heading and note preceding Step 37.	Telco/Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
34	At the 1B MTC terminal, allow REX by entering: **ALW:MACLI,CLASS MTCE!** Response: `AUTOMATIC JOB SCHEDULING RESUMED`	Telco	—
35	Stop procedure for now. Resume at Step 36 when continuing.	Telco/Inst	—
36	Perform Steps 1 through 8 of this procedure. Then continue to the next step.	Telco/Inst	—
	CDSU PRECONDITIONING ***Note:*** Steps 37 through 39 must be completed for each growth CDSU, beginning with the lowest-numbered CDSU. These steps should be completed in their entirety for each growth CDSU before continuing with the next growth CDSU. Steps 37 through 39 require a Video Graphics Adapter (VGA) monitor and a keyboard.		
37	Record the following information for later use (space is provided to record this information for up to four CDSUs). SCS Member Number (0-7): ____ ____ ____ ____ SCU Number (00-15): ____ ____ ____ ____ CDSU Number (00-03): ____ ____ ____ ____ Length of T1 cable, in feet: ____ ____ ____ ____ Cable length option: ____ ____ ____ ____ The cable length option is determined by adding 25 feet to the total T1 cable length (in the cable rack) for each SCU/CDSU combination. The total length (including the added 25 feet.) is used to determine the cable length option as follows: For total length **0-220 feet.**, use option **1**. For total length **220-440 feet.**, use option **2**.	Telco/Inst	—
38	Power up the appropriate CDSU.	Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
39	Configure the CDSU (using information from Step 37, when required).	Inst	—
40	Have Steps 37 through 39 been completed for all applicable growth CDSUs? If **YES**, continue to Step 41. If **NO**, repeat Steps 37 through 39 for the next applicable growth CDSUs.	Inst	—
41	This is a **Safe Stop Point**. If stopping, perform Steps 42 and 43. Otherwise, go to Step 45.	Telco/Inst	—
42	At the 1B MTC terminal, allow REX by entering: **ALW:MACLI,CLASS MTCE!** Response: `AUTOMATIC JOB SCHEDULING RESUMED`	Telco	—
43	Stop procedure for now. Resume at Step 44 when continuing.	Telco/Inst	—
44	Perform Steps 1 through 8 of this procedure. Then continue to the next step.	Telco/Inst	—
	PRE-GROWTH REQUIRED FOR THE FIRST SCU OF SCUs 8-15		
45	If the first SCU of SCUs 8-15 is being grown, go to Step 46. If one of the SCUs 8-15 is already in service or if none of the SCUs 8-15 are being grown, go to Step 63, being sure to read the heading preceding Step 63.	Inst	—
46	At the Optical Cross-Connect Panel (OCCP), ensure that Fiber Shorting Contacts (CC# 846832087) are installed at the proper connector locations for SCUs 8-15.	Inst	—
47	At the 1B MTC terminal, remove one Service Circuit Controller (SCC) from service by entering: **RMV:SCS** *a*,**CONTR** *b*! where *a* = Member Number (0-7) *b* = SCC Number (0 or 1) Response: `PF` followed by: `RMV:SCS` *a*,`CONTR` *b* `COMPL`	Telco/Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
48	Power down the out-of-service SCC: 1. At the IPUB associated with the SCC, press the **OFF** button on the TN1671 circuit pack. 2. At the SCC, press the **OFF** button on the TN1984 circuit pack.	Inst	—
49	Install 410AA Power Converter and KCN3 Extended Bus Interface circuit packs at the out-of-service SCC.	Inst	—
50	Power up the out-of-service SCC: 1. At the IPUB associated with the SCC, press the **ON** button on the TN1671 circuit pack. 2. At the SCC, press the **ON** button on the TN1984 circuit pack.	Inst	—
51	At the 1B MTC terminal, diagnose the out-of-service SCC by entering: **DGN:SCS** *x***,CONTR** *y***!** where *x* = Member Number (0-7) *y* = SCC Number (0 or 1) Response: The screen returns an output message with `ATP`.	Telco	—
52	At the 1B MTC terminal, restore the out-of-service SCC to service by entering: **RST:SCS** *a***,CONTR** *b***!** where *a* = Member Number (0-7) *b* = SCC Number (0 or 1) Response: The screen returns an output message with `CATP`, then `RESTORE COMPLETE`. Bit **21** will be **set** in the CATP **reason word** (unless the SCS is equipped with one or more SCUs in the SCU8 to SCU15 range), indicating that the `unused EBI link test skipped`. This is the only allowable exception (no other bits in the CATP reason word should be set).	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
53	At the 1B MTC terminal, remove the other Service Circuit Controller (SCC) from service by entering: **RMV:SCS** *a*,**CONTR** *b*! where *a* = Member Number (0-7) *b* = SCC Number (0 or 1) Response: PF followed by: RMV:SCS *a*,CONTR *b* COMPL	Telco/Inst	—
54	Power down the out-of-service SCC: 1. At the IPUB associated with the SCC, press the **OFF** button on the TN1671 circuit pack. 2. At the SCC, press the **OFF** button on the TN1984 circuit pack.	Inst	—
55	Install 410AA Power Converter and KCN3 Extended Bus Interface circuit packs at the out-of-service SCC.	Inst	—
56	Power up the out-of-service SCC: 1. At the IPUB associated with the SCC, press the **ON** button on the TN1671 circuit pack. 2. At the SCC, press the **ON** button on the TN1984 circuit pack.	Inst	—
57	At the 1B MTC terminal, diagnose the out-of-service SCC by entering: **DGN:SCS** *x*,**CONTR** *y*! where *x* = Member Number (0-7) *y* = SCC Number (0 or 1) Response: The screen returns an output message with ATP.	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
58	At the 1B MTC terminal, restore the out-of-service SCC to service by entering: **RST:SCS** *a*,**CONTR** *b*! where *a* = Member Number (0-7) *b* = SCC Number (0 or 1) Response: The screen returns an output message with `CATP`, then `RESTORE COMPLETE`. Bit **21** will be **set** in the CATP **reason word** (unless the SCS is equipped with one or more SCUs in the SCU8 to SCU15 range), indicating that the `unused EBI link test skipped`. This is the only allowable exception (no other bits in the CATP reason word should be set).	Telco	—
59	This is a **Safe Stop Point**. If stopping, perform Steps 60 and 61. Otherwise, go to Step 63, being sure to read the heading preceding Step 63.	Telco/Inst	—
60	At the 1B MTC terminal, allow REX by entering: **ALW:MACLI,CLASS MTCE!** Response: `AUTOMATIC JOB SCHEDULING RESUMED`	Telco	—
61	Stop procedure for now. Resume at Step 62 when continuing.	Telco/Inst	—
62	Perform Steps 1 through 8 of this procedure. Then continue to the next step.	Telco/Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
	INSTALLATION OF HARDWARE TO PROVIDE ASR FUNCTIONALITY TO AN EXISTING SCU		
63	In this procedure, are any **previously existing** SCUs currently being converted to ASR functionality? If **YES**, complete Steps 64 through 71 **for each previously existing SCU**, beginning with the lowest-numbered of these SCUs. If **NO**, continue to Step 76, being sure to read the heading preceding Step 76.	Inst	—
64	Ensure that the appropriate SCU(s) are removed from service and powered down.	Telco/Inst	—
65	Install the TN4001 key holders.	Telco/Inst	—
66	Install the TN4001 circuit packs.	Telco/Inst	—
67	Install the designation strip labels and FLN/SCU labels.	Telco/Inst	—
68	Install the 9822DT paddle board and retainer.	Telco/Inst	—
69	Install the T1 option straps.	Telco/Inst	—
70	Install the T1 connector retainers.	Telco/Inst	—
71	Have Steps 64 through 70 been completed for all previously existing growth SCUs? If **YES**, continue to Step 72. If **NO**, repeat Steps 64 through 70 for the next previously existing growth SCU.	Telco/Inst	—
72	This is a **Safe Stop Point**. If stopping, perform Steps 73 and 74. Otherwise, go to Step 76, being sure to read the heading preceding Step 76.	Telco/Inst	—
73	At the 1B MTC terminal, allow REX by entering: **ALW:MACLI,CLASS MTCE!** Response: `AUTOMATIC JOB SCHEDULING RESUMED`	Telco	—
74	Stop procedure for now. Resume at Step 75 when continuing.	Telco/Inst	—
75	Perform Steps 1 through 8 of this procedure. Then continue to the next step.	Telco/Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
	CIRCUIT PACK INSTALLATION FOR GROWTH OF NEW SCU(S) AND ASSOCIATED DISK PAIR(S)		
76	In this procedure, are any **new SCUs** (did not previously exist in the SCS) currently being added to the SCS complex to provide functionality? Are any of the growth ASR SCU(s) **new to the SCS complex** (did **not** exist previously in the SCS)? If **YES**, complete Steps 77 through 83 **for each new SCU**, beginning with the lowest-numbered of these SCUs. If **NO**, continue to Step 85.	Inst	—
77	Install the TN4001 key holders.	Telco/Inst	—
78	Install the designation strip labels.	Telco/Inst	—
79	Install the 9822DT paddle board and retainer.	Telco/Inst	—
80	Install the T1 option strap(s).	Telco/Inst	—
81	Install the T1 connector retainers.	Telco/Inst	—
82	Install circuit packs in the growth SCU. Also, verify that fuses are installed in the Fuse and Filter Unit for the growth SCU and associated disk pair(s). (See the labeling on the fuse panel cover for fuse locations and sizes.)	Telco/Inst	—
83	Install circuit packs in the Hard Disk Unit (HDU) associated with the growth SCU.	Telco/Inst	—
84	Have Steps 77 through 83 been completed for all applicable growth SCUs? If **YES**, continue to Step 85. If **NO**, repeat Steps 77 through 83 for the next growth SCU.	Telco/Inst	—
85	This is a **Safe Stop Point**. If stopping, perform Steps 86 and 87. Otherwise, go to Step 89, being sure to read the heading and note preceding Step 89.	Telco/Inst	—
86	At the 1B MTC terminal, allow REX by entering: **ALW:MACLI,CLASS MTCE!** Response: `AUTOMATIC JOB SCHEDULING RESUMED`	Telco	—
87	Stop procedure for now. Resume at Step 88 when continuing.	Telco/Inst	—
88	Perform Steps 1 through 8 of this procedure. Then continue to the next step.	Telco/Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
	CONNECTION OF ASR ASSOCIATED CABLES AT APPROPRIATE GROWTH SCU ***Note:*** Steps 89 through 93 should be completed **for each growth SCU**, beginning with the lowest-numbered growth SCU. These steps should be completed in their entirety for each growth SCU before continuing with the next growth SCU.		
89	Install L bracket and coax converter.	Telco/Inst	—
90	Connect the LAN cable to the coax converter.	Telco/Inst	—
91	Install the LAN cable from the coax converter to the growth SCU.	Telco/Inst	—
92	Install the CDSU T1 cables at the growth SCU.	Telco/Inst	—
93	Power up the growth SCU and the associated disk pair(s). 1. At the growth Hard Drive Unit(s), press the **ON** button to power the Disk Power Controller (DPC) UN356 circuit pack. ***Caution: Wait at least 60 seconds before proceeding with the next step. This allows the disk drives to spin up to operational speed.*** 2. At the growth SCU, press the **ON** button to power the Master Power Controller (MPC) TN1984 circuit pack.	Telco/Inst	—
94	This is a **Safe Stop Point**. If stopping, perform Steps 95 and 96. Otherwise, go to Step 98.	Telco/Inst	—
95	At the 1B MTC terminal, allow REX by entering: **ALW:MACLI,CLASS MTCE!** Response: `AUTOMATIC JOB SCHEDULING RESUMED`	Telco	—
96	Stop procedure for now. Resume at Step 97 when continuing.	Telco/Inst	—
97	Perform Steps 1 through 8 of this procedure. Then continue to the next step.	Telco/Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
98	Have Steps 89 through 93 been completed for all growth SCUs? If **YES**, continue to Step 99, being sure to read the heading and note preceding Step 99. If **NO**, repeat Steps 89 through 93 for the next growth SCU.	Telco/Inst	—
	SCS-RELATED TSI GROWTH ***Note:*** Steps 99 through 119 should be completed for each growth SCU, beginning with the lowest-numbered growth SCU. These steps should be completed in their entirety for each growth SCU before continuing with the next growth SCU.		
99	Recent change and verify the associated TSI Port equipage from UNEQ to GROW using RC Form 700.	Telco	DLP-506
100	Recent change and verify the associated TSI Port equipage from GROW to SGRO using RC Form 700.	Telco	DLP-507
101	This is a **Safe Stop Point**. If stopping, perform Steps 102 and 103. Otherwise, go to Step 105, being sure to read the heading preceding Step 105.	Telco/Inst	—
102	At the 1B MTC terminal, allow REX by entering: **ALW:MACLI,CLASS MTCE!** Response: `AUTOMATIC JOB SCHEDULING RESUMED`	Telco	—
103	Stop procedure for now. Resume at Step 104 when continuing.	Telco/Inst	—
104	Perform Steps 1 through 8 of this procedure. Then continue to the next step.	Telco/Inst	—
	SCU AND ASSOCIATED DISK PAIR GROWTH		
105	At the Optical Cross-Connect Panel (OCCP), remove the growth SCU(s) Fiber Shorting Contacts (CC# 846832087) and connect the associated fiber-optic ribbon cable.	Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
106	Recent change and verify growth SCU equipage from UNEQ to GROW using RC Form 700.	Telco	DLP-502
107	Recent change and verify associated disk pair and Multifaceted Signal Processor (MSP)/Multifunctional Interface Processor (MIP) equipage from UNEQ to GROW using RC Form 703.	Telco	DLP-550
108	At the 1B MTC terminal, diagnose the growth SCU and the associated disk pair using Phases 1 through 7 by entering: **DGN:SCS** *x*,**SCU z:PH 1-7!** where *x* = Member Number (0-7) *z* = Submember Number (0-15) Response: The screen returns output messages with ATP for each valid phase.	Telco/Inst	—
109	Recent change and verify growth SCU equipage from GROW to SGRO using RC Form 700.	Telco	DLP-504
110	Recent change and verify associated disk pair and MSP/MIP equipage from GROW to SGRO using RC Form 703.	Telco	DLP-551
111	At the 1B MTC terminal, diagnose the growth SCU and the associated disk pair using Phases 1 through 7 by entering: **DGN:SCS** *x*,**SCU** *z*:**PH 1-7!** where *x* = Member Number (0-7) *z* = Submember Number (0-15) Response: The screen returns output messages with ATP for each requested phase.	Telco	—
112	At the 1B MTC terminal, diagnose SCS Controller 0 by entering: **DGN:SCS** *x*,**CONTR 0!** where *x* = Member Number (0-7) Response: The screen returns an output message with ATP.	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
113	At the 1B MTC terminal, restore SCS Controller 0 by entering: **RST:SCS *x*,CONTR 0!** where *x* = Member Number (0-7) Response: The screen returns an output message with `CATP`, then `RESTORE COMPLETE`. Bit **21** will be **set** in the CATP **reason word** (unless the SCS is equipped with one or more SCUs in the SCU8 to SCU15 range), indicating that the `unused EBI link test skipped`. This is the only allowable exception (no other bits in the CATP reason word should be set).	Telco	—
114	At the 1B MTC terminal, diagnose SCS Controller 1 by entering: **DGN:SCS *x*,CONTR 1!** where *x* = Member Number (0-7) Response: The screen returns an output message with `ATP`.	Telco	—
115	At the 1B MTC terminal, restore SCS Controller 1 by entering: **RST:SCS *x*,CONTR 1!** where *x* = Member Number (0-7) Response: The screen returns an output message with `CATP`, then `RESTORE COMPLETE`. Bit **21** will be **set** in the CATP **reason word** (unless the SCS is equipped with one or more SCUs in the SCU8 to SCU15 range), indicating that the `unused EBI link test skipped`. This is the only allowable exception (no other bits in the CATP reason word should be set).	Telco	—
116	This is a **Safe Stop Point**. If stopping, perform Steps 117 and 118. Otherwise, go to Step 120.	Telco/Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
117	At the 1B MTC terminal, allow REX by entering: **ALW:MACLI,CLASS MTCE!** Response: `AUTOMATIC JOB SCHEDULING RESUMED`	Telco	—
118	Stop procedure for now. Resume at Step 119 when continuing.	Telco/Inst	—
119	Perform Steps 1 through 8 of this procedure. Then continue to the next step.	Telco/Inst	—
120	Have Steps 99 through 119 been completed for all growth SCUs? If **YES**, continue to Step 121, being sure to read the heading and note preceding Step 121. If **NO**, repeat Steps 99 through 119 for the next growth SCU.	Telco/Inst	—
	DOWNLOADING OF SCS SYSTEM FILES FROM THE ATTACHED PROCESSOR SYSTEM (APS) ***Note:*** The downloading of the SCS system files is accomplished via the COPY command. This command is used once for each of the SCS System File Types: TONES, SCCSFT, SCUOPR, SCUDGN, MSPROV, MSPFIX, MSP1, MIP0FIL, and MIP1FIL. These files reside in the /scs directory of the 3B20D computer and may have two vintages of files labeled 0 and 1. Both a Source Version Number (SVN) (the correct and up-to-date file location on the 3B20D computer disk) and a Destination Version Number (DVN) (the next location on each Disk Pair 0) are needed for each COPY command. These numbers ensure that a particular SCS file type is read from and written to the proper disk location of each Disk Pair 0.		
121	Verify the latest SCS system file version numbers from translations for **in-service** disk pairs.	Telco	DLP-545
122	Copy the correct and up-to-date SCS system files from the APS to all growth Disk Pair 0.	Telco	DLP-524

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
	VERSION NUMBER UPDATE		
	Note: Steps 123 and 124 must be completed for each growth SCU, beginning with the lowest-numbered growth SCU. These steps must be completed in their entirety for each growth SCU before continuing with the next growth SCU.		
123	Update SCU/MSP/MIP version numbers in the SCS Unit Type Translator for **each growth SCU** using RC Form 703.	Telco	DLP-547
124	At the 1B MTC terminal, diagnose **each** growth SCU and the associated disk pair(s) by entering: **DGN:SCS** *a*,**SCU** *b*:**PH (1-10,***c***,16,17)!** where *a* = Member Number (0-7) *b* = SCU Number (0-15) *c* = Phase Number(s) for SCU MSP test: **12** for SCUs with MSP 0 **12-13** for SCUs with MSPs 0 and 1 **12-14** for SCUs with MSPs 0 through 2 **12-15** for SCUs with MSPs 0 through 3 ***Note:*** The MIP circuit packs are diagnosed with Phase 16. The CDSUs are diagnosed with Phase 17. Phase 17 diagnostics will take approximately 4 minutes per CDSU. Response: The screen returns output messages with ATP.	Telco	—
125	Have Steps 123 and 124 been completed for all growth SCUs? If **YES**, continue to Step 126, being sure to read the heading and note preceding Step 126. If **NO**, repeat Steps 123 and 124 for the next growth SCU.	Telco/Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
	SECOND TN4000 DISK PACK INITIALIZATION		
	Note: Steps 126 and 127 should be completed only if TN4000 (4 Gb) circuit packs are being grown in a **new SCU**. Steps 126 and 127 must be completed for each **new** growth SCU equipped with TN4000 circuit packs, beginning with the lowest-numbered growth SCU. These steps must be completed in their entirety for each applicable growth SCU before continuing with the next growth SCU. For **existing SCUs** that are being converted to ASR functionality, skip Steps 126 and 127 and continue to Step 128. ***Caution: TN4000 circuit packs can only be installed in Disk Pair location 0.***		
126	Are TN4000 circuit packs being grown in Disk Pair location 0? If **YES**, continue to Step 127. If **NO**, continue to Step 128.	Telco/Inst	—
127	At the 1B MTC terminal, perform a Soft Initialization of Disk Pair 1, by entering the commands given below. ***Note:*** When populating a TN4000 - 4 Gb disk pair at an SCU Disk Pair 0 location in the SCS Unit Type Translator, the adjacent location Disk Pair 1 will also be populated. In order to ensure proper operation, a Soft Initialization (TYP 1) on both Bus 0 and Bus 1 is necessary for Disk Pair 1. A. **INIT:SCS *x*,SCU *y*,DSK 1,BUS 0,TYP 1!** where *x* = Member Number (0-7) *y* = Submember Number (0-15) Response: `INIT:SCS x, SCU y COMPLETE` B. **INIT:SCS *x*,SCU *y*,DSK 1,BUS 1,TYP 1!** where *x* = Member Number (0-7) *y* = Submember Number (0-15) Response: `INIT:SCS x, SCU y COMPLETE`	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
128	This is a **Safe Stop Point**. If stopping, perform Steps 129 and 130. Otherwise, go to Step 132. ***Caution: The steps remaining before the next Safe Stop Point must be completed without stopping and will take approximately 6 hours to complete.***	Telco/Inst	—
129	At the 1B MTC terminal, allow REX by entering: **ALW:MACLI,CLASS MTCE!** Response: `AUTOMATIC JOB SCHEDULING RESUMED`	Telco	—
130	Stop procedure for now. Resume at Step 131 when continuing.	Telco/Inst	—
131	Perform Steps 1 through 8 of this procedure. Then continue to the next step.	Telco/Inst	—
132	Have Steps 126 and 127 been completed for all applicable growth SCUs? If **YES**, continue to Step 133, being sure to read the heading and note preceding Step 133. If **NO**, repeat Steps 126 and 127 for the next applicable growth SCU.	Telco/Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
	ACTIVATE GROWTH SCU(S) AND ASSOCIATED DISK PAIR(S)		
	Note: Steps 135 through 169 should be completed for each growth SCU, beginning with the lowest-numbered growth SCU. These steps should be completed in their entirety for each growth SCU before continuing with the next growth SCU.		
133	At the 1B MTC terminal, apply port pest to the associated TSI Port by entering: **INH:TSI** *x*,**SPC** *y*,**PORT** *z*! where *x* = TSI Member Number (0-63) *y* = SPC within TSI (0-1) *z* = Port within SPC (0-6) Response: The input message is echoed when the pesting is done.	Telco	—
134	Remove the output looping cable from the associated TSI Port. Then connect the DS-120 signal cables between the associated TSI Port and the growth SCU.	Inst	—
135	At the 1B MTC terminal, diagnose the SCU and the associated disk pair(s) using Phase 11 by entering: **DGN:SCS** *x*,**SCU** *z*:**PH 11!** where *x* = Member Number (0-7) *z* = Submember Number (0-15) Response: The screen returns an output message with ATP for Phase 11.	Telco	—
136	At the 1B MTC terminal, diagnose the TSI Frame Controller 0 by entering: **DGN:TSI** *x*,**CONTR 0:PH** *y*,**GROWTH!** where *x* = Member Number (0-63) *y* = 13 (for J4A001A) or 20 (for J4A001B) Response: The screen returns an output message with REMOVE COMPLETE, then ATP for all tests run.	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
137	At the 1B MTC terminal, restore TSI x, Controller 0 by entering: **RST:TSI** *x*,**CONTR 0!** where *x* = Member Number (0-63) Response: The screen returns an output message with ATP for all tests run, then RESTORE COMPLETED.	Telco	—
138	At the 1B MTC terminal, diagnose the TSI Frame Controller 1 by entering: **DGN:TSI** *x*,**CONTR 1:PH** *y*,**GROWTH!** where *x* = Member Number (0-63) *y* = 13 (for J4A001A) or 20 (for J4A001B) Response: The screen returns an output message with REMOVE COMPLETE, then ATP for tests run.	Telco	—
139	At the 1B MTC terminal, restore TSI x, Controller 1 by entering: **RST:TSI** *x*,**CONTR 1!** where *x* = Member Number (0-63) Response: The screen returns an output message with ATP for all tests run, then RESTORE COMPLETED.	Telco	—
140	Recent change and verify TSI submember equipage from SGRO to OPER using RC Form 700.	Telco	DLP-511
141	At the 1B MTC terminal, diagnose the growth SCU and the associated disk pair using Phase 11 by entering: **DGN:SCS** *x*,**SCU** *z*:**PH 11!** where *x* = Member Number (0-7) *z* = Submember Number (0-15) Response: The screen returns an output message with ATP for Phase 11.	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
142	Recent change and verify the disk pair and MSP/MIP equipage of the growth SCU from SGRO to OPER using RC Form 703.	Telco	DLP-548
143	Recent change and verify the growth SCU equipage from SGRO to OPER using RC Form 700.	Telco	DLP-510
144	Diagnose the growth SCU by entering the following message at the 1B MTC terminal: **DGN:SCS** *x*,**SCU** *y*! where *x* = SCS Member Number (0-7) *y* = SCU Number (0-15) Response: The screen returns an output message with ATP.	Telco	—
145	If the growth SCU is a **new SCU** (did not previously exist in the SCS), verify alarms for the appropriate SCU(s) 0-15 and associated Disk Power Controllers. Otherwise, continue to Step 148.	Inst	—
146	Verify CDSC/CDSU alarms as follows: A. At the CDSC, unplug the cable connector that connects the ED-4A286-32, G10 cable to the ED-4A286-32, G21 or G21A cable. B. At the 1B MTC terminal, diagnose **each** growth SCU and the associated disk pair(s) by entering: **DGN:SCS** *a*,**SCU** *b*:**PH 17,TLP!** where *a* = Member Number (0-7) *b* = SCU Number (0-15) Response: Phase 17 will fail (STF) and the LEDs on the CDSU(s) will cycle beginning with the lowest-numbered CDSU. C. On the output message for the Phase 17 TLP, verify the Frame Location Number (FLN) for the CDSC cabinet. D. Compare the FLN with the label on the CDSC cabinet to be sure they match. E. Reconnect the cable connectors.	Inst/Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
147	At the 1B MTC terminal, run a Peripheral Unit Status audit by entering: **AUD:PUSTAT!** Response: Output message for appropriate SCU followed by: `AUD:PUSTAT MSG COMPL`	Telco	—

DO THE ITEMS LISTED BELOW IN THE ORDER LISTED			FOR DETAILS,GO TO
148	If the growth SCU is a **new SCU** (did not previously exist in the SCS), diagnose the growth SCU and the associated disk pair(s) using demand phases of equipped disk pairs by entering the following input message at the 1B MTC terminal. Otherwise, continue to Step 149. **DGN:SCS** *a*,**SCU** *b*:**PH** *c*-*d*! where *a* = Member Number (0-7) *b* = SCU Number (0-15) *c* = Beginning Phase Number (see Note) *d* = Ending Phase Number (see Note) ***Note:*** The beginning and ending phase numbers will vary depending on the type and location of the disk pairs being grown (see below). For **Type 3 (TN9000 - 9 Gb)** disk pair, the demand phases listed below should be used: **90-91** for all SCUs, (SCU 0-15). For **Type 2 (TN4000 - 4 Gb)** disk pairs, the demand phases listed below should be used: **90-93** for Disk Pair 0 location **94-97** for Disk Pair 2 location (SCU 0 only) For **Type 0 (422 Mb) and Type 1 (2 Gb)** disk pairs, the demand phases listed below should be used: **90** and **91** for Disk Pair 0 location **92** and **93** for Disk Pair 1 location (SCU 0 only) **94** and **95** for Disk Pair 2 location (SCU 0 only) **96** and **97** for Disk Pair 3 location (SCU 0 only) Response: The screen returns output messages with ATP for all equipped disk pairs. ***Note:*** The number of phases in the input message depends on the number of disk pairs equipped. This DGN message takes approximately 10 minutes per phase.	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
149	Add the growth SCU to the AAPs SCU equipment (SCUEQP) database.	Telco/Inst	DLP-521

150	Add all growth CDSUs to the AAP CDSU database.
	
	Note: A single SCU can be associated with a maximum of two CDSUs within a single CDSC.
	
	A. At the AAP console, select option **1**.
	B. At the AAP console, enter:
	OP:CDSU:FORM=SHORT
	Response:
	Unless this is the first CDSU being added to the AAP CDSU database, the screen will return a list of CDSUs within the database with their associated KEY Numbers. Use this list to determine an appropriate KEY Number (not already used) which will be used later for adding a growth CDSU to the AAP database.
	If this is the first CDSU being added to the AAP CDCU database, the following message will be displayed:
	`OP:CDSU STOPPED`
	`RECORD NOT FOUND`
	C. At the AAP console, enter the following (all in one line):
	UPD:CDSU:UPD=ADD:"KEY=*a*,SCS=*b*, SCU=*cc*,CDSU=*dd*,GEN=CDSU2"
	where *a* = Database KEY Number (0-99999, not already used) (Use 0 if this is the first CDSU being grown in an office.)
	b = SCS Member Number (0-7)
	cc = SCU Number (00-15)
	dd = CDSU Number (00-01)
	Response:
	The screen will return a listing of the entry just added. Check that the appropriate information for the growth CDSU is present. If not, repeat Step C.
	D. Repeat Step C for all appropriate CDSUs.
	E. At the AAP console, enter: **LOGOUT**
	Response: The menu is displayed on the AAP console screen.
		Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
151	If this is the first ASR CDSC being grown in the office, complete Steps 152, 153, and 154. Otherwise, continue to Step 155.	Telco/Inst/ TCC/NCC	—
152	Add a disk pair to the AAP.	Inst	—
153	Check AAP disk drives.	Telco/Inst	DLP-546

154	Load AAP disk drives as follows:
	
	A. At the SCSI Bus 0, Disk 4 location, insert the "2 Gigabyte Disk Upgrade Installation Tape" (J4A036A-1 List 1, M13 TP-4A619-01) tape cartridge into the door just below the locking mechanism.
	
	B. Log in at the AAP console as **root** and enter the following:
	pkgadd -d /dev/rmt/ctape0 TWOGBDSK
	
	Response:
	
	`Insert a Cartridge Tape into /dev/rmt/ctape0`
	`Type [go] when ready,`
	`or [q] to quit:`
	
	C. At the AAP console, enter the following:
	go
	
	Response:
	
	The screen returns a series of system messages followed by:
	
	`Installation of <TWOGBDSK> was successful.`
	
	D. At the AAP console, enter: **exit**
	
	E. Remove the tape cartridge from the SCSI Bus 0, Disk 4 location.
		Telco/Inst/	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
155	If this is the first ASR CDSC being grown in the office or a subsequent CDSC containing a Smart HUB, complete Steps A, B, C, D, and E. Otherwise, continue to Step 156. A. Contact the Advanced Features Service Center (AFSC) at 314-658-1304 (tech beeper 314-424-8661) and notify them that the LAN will be taken out of service and that announcement updates to this site will be delayed. B. At the 1B MTC terminal, enter: **INH:SCS 0,LAN!** Response: `INH:SCS 0, LAN` C. At the AAP console, log in as **aapusr** and select option **4**. D. At the AAP console, enter: **STOP:AAP"LANCMD"!** Response: `STOP:AAP "LANCMD" completed` E. At the AAP console, enter: **EXIT**	Telco/Inst/ TCC/NCC	—
156	If this is the first ASR CDSC/Smart HUB being grown in the office, connect the Smart HUB to the AAP LAN. Otherwise, continue to Step 157.	Inst	—
157	If this is the second or higher CDSC/Smart HUB being grown in the office, connect the new Smart HUB to the existing Smart HUB. Otherwise, continue to Step 158.	Inst	—
158	Test the local CDSU/SCS to AAP LAN connection by entering the following message at the 1B MTC terminal: **DGN:SCS** *x*,**SCU** *y*:**PH 10!** where *x* = SCS Member Number (0-7) *y* = SCU Number (0-15) Response: The screen returns an output message with ATP for Phase 10.	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
159	Initialize the AAP and allow the LAN as follows: A. At the AAP console, log in as **aapusr** and select option **4**. B. At the AAP console, enter: **INIT:AAP"LANCMD"!** Response: `INIT:AAP "LANCMD" completed` C. At the AAP console, enter: **EXIT** D. At the 1B MTC terminal, enter:**ALW:SCS 0,LAN!** Response: The screen returns `Code 091` followed by `ALW:SCS 0,LAN`. E. Contact the Advanced Features Service Center (AFSC) at 314-658-1304 (tech beeper 314-424-8661) and notify them that the LAN is back in service and that announcement updates may be resumed.	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
160	Log into the AAP as **root** and enter the following **for each growth CDSU** to test the LAN: A. At the AAP console, enter: **/usr/sbin/ping cds***xyyzz* where *x* = SCS Member Number (0-7) *yy* = SCU Submember Number (00-15) *zz* = CDSU Number (00-03) Response: The screen returns: `cds`*xyyzz* `is alive` B. At the AAP console, enter: **rsh cds***xyyzz* **date** where *x* = SCS Member Number (0-7) *yy* = SCU Submember Number (00-15) *zz* = CDSU Number (00-03) Response: The screen returns today's date. C. Have Steps A and B been completed for each growth CDSU? If **YES**, enter **exit** at the AAP console, then continue to the next step. If **NO**, repeat Steps A and B for the next growth CDSU.	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
161	Determine if there are any CDSU BWMs to be installed by doing the following: A. At the AAP console, select option **1**. B. At the AAP console, enter: **OP:CDSU:FORM=LONG** Response: The screen will display a list of CDSUs with various information on each CDSU. Included in this information is BWM status. C. Are BWMs displayed in Step B? If **NO**, contact the TCC and have them send the latest CDSU BWM to the AAP, then continue to Step 164. However, if the TCC has no CDSU BWMs to send, continue to Step 164 instead. ***Note:*** If the TCC has no CDSU BWMs to download, the latest CDSU BWM can be installed later. However, it must be installed prior to SCU trunk assignment. If **YES**, continue to Step 162.	Telco/Inst/ TCC/NCC	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
162	Verify the BWM/SU identified in the previous step by entering one of the following messages at the AAP: **UPD:CDSUBWM:VFY:BWM***xx-yyyy***:SCS=***a***,SCU=***b***,UNIT=***c* to verify an ''Official'' BWM/SU: OR **UPD:CDSUBWM:VFY:CFT***xx-yyyy***:SCS=***a***,SCU=***b***,UNIT=***c* to verify a ''Craft'' BWM/SU: where *xx* = Last 2 Digits of Year *yyyy* = Unique 4-digit BWM Number *a* = SCS Number (0-7) *b* = SCU Number (0-15) *c* = CDSU Number (0-1). Response: `UPD:CDSUBWM:VFY Completed` ***Note:*** If the verify does not complete successfully, remove the defective BWM/SU (see DLP-554 of 201-525-016AC, *AAP Maintenance, Diagnostics and Trouble Clearing*). Then download the BWM/SU again (see DLP-507 of 201-525-016AC, *AAP Maintenance, Diagnostics and Trouble Clearing*), and repeat the above message.	Telco	—
163	Apply the BWM determined in the previous step.	Telco	DLP-559

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
164	Restore the SCU and the associated disk pair by entering the following input message at the 1B MTC terminal: **RST:SCS** *x*,**SCU** *z*! where *x* = Member Number (0-7) *z* = Submember Number (0-15) Response: ATP ANN UPD STARTED (if AAP is present and active) RESTORE COMPLETE ***Note:*** During the restore of the SCU, an announcement update will take place. Depending on the number of new announcements, this restore could take several minutes.	Telco	—
165	At the growth Service Circuit Unit Cabinet (SCUC), toggle the SCU's **ROS** switch on the TN1984 circuit pack from NORMAL to **ROS**, then back to NORMAL. ***Note:*** This will remove the SCU from service. When switched back to NORMAL, the growth SCU will be diagnosed and successfully returned to SERVICE. During the restore of the SCU, an announcement update will take place. Depending on the number of new announcements this restore could take several minutes.	Telco/Inst	—
166	Perform AAP LAN test of an in-service SCU as follows: A. At the AAP console, log in as **aapusr** and select option **4**. B. At the AAP console, enter: **POLL: ANNSET** *x*! where *x* = Announcement Set of the SCU restored in Step 166 (A-Z) (See Step 9 for Announcement Set.) Response: POLL: ANNSET *x* Completed	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
167	This is a **Safe Stop Point**. If stopping, perform Steps 168 and 169. Otherwise, go to Step 171.	Telco/Inst	—
168	At the 1B MTC terminal, allow REX by entering: **ALW:MACLI,CLASS MTCE!** Response: `AUTOMATIC JOB SCHEDULING RESUMED`	Telco	—
169	Stop procedure for now. Resume at Step 170 when continuing.	Telco/Inst	—
170	Perform Steps 1 through 8 of this procedure. Then continue to the next step.	Telco/Inst	—
171	Have Steps 133 through 170 been completed for all growth SCUs? If **YES**, **STOP! THIS PROCEDURE IS COMPLETE**. If **NO**, repeat Steps 133 through 170 for the next growth SCU.	Inst	—

TABLE A Allowable Disk Pair Configurations for Circuit Packs With SCU 0

Allowable Disk Pair Types	
Disk Pair Location 0	**Disk Pair Location 1**
2	X
0	0
0	1
1	0
3	X
Where "X" indicates disk pair locations that **must be unpopulated**.	

Add Custom Data Services Unit-II (CDSU-II) to a Service Circuit Unit (SCU) With Automatic Speech Recognition (ASR) — Phase 2

Note: This procedure is used to grow a CDSU-II within an existing Custom Data Services Cabinet-II (CDSC-II) for an **existing SCU with ASR Phase 2 (ASR-2) functionality**. CDSU-IIs must be grown in logical order starting with the lowest-numbered CDSU-II. In this procedure, the term ASR refers to ASR-2. Also, the term "CDSU" refers to the Custom Data Services Unit-II (CDSU-II), and the term "CDSC" refers to the Custom Data Services Cabinet-II (CDSC-II).

Caution: All trunks associated with this SCU must be degrown prior to performing this procedure. Afterwards, all trunks must be grown back ensuring that the correct number of trunks are used for ASR functionality.

DO THE ITEMS BELOW IN THE ORDER LISTED		**FOR DETAILS, GO TO**	
	4ESS™ SWITCH OFFICE PRELIMINARY CHECK		
1	Ensure that the *4ESS* switch is currently running in 4E21 R4 Generics or later.	Telco	—
2	Ensure that within the last 24 hours the Processor has not experienced any TTY terminal suspends, bootstraps, diagnostic failures, or overloads.	Telco	—

3	Ensure that disks and Input/Output Processors (IOPs) - 1B Processors are in duplex and that 3B Control Units (CUs) and Attached Processor Interfaces (APIs) are in ACTIVE-STANDBY mode. Routine Exercise (REX) and the Peripheral Unit System Exerciser (PUSYS) should be inhibited and should remain inhibited during the entire growth process. This is accomplished by entering the following at the 1B Maintenance (MTC) terminal:
	1. **INH:MACLI,CLASS MTCE;REX!**
	Response: `MACLI,CLASS MTCE INHIBITED`
	`AUTOMATIC JOB SCHEDULING`
	`DISALLOWED`
	2. **STOP:TEST;PUSYS!**
	Response: `OK`
		Telco	—

4	Ensure that diagnostics on the duplexed 3B CUs have been run to completion within the last 24 hours.	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
5	Ensure that all processor and/or system problems have been cleared before growth activity begins.	Telco	—
6	Ensure that the SCU experiencing growth is in service and has run diagnostics to completion within the last 24 hours.	Telco	—
7	Ensure that the SCS growth complex is in service, operating in duplex, and has run diagnostics to completion within the last 24 hours.	Telco	—
8	Ensure that no Software Updates (SUs)/Broadcast Warning Messages (BWMs) for SCS system files are applied during SCS growth.	Telco	—
9	Ensure that the AAP/SCS Local Area Network (LAN) connection is present and active. A. At the AAP console, log in as **aapusr** and select option **2** from the menu. B. Poke **118** for link status. Response: One LAN link is displayed as Active and the other is displayed as Standby. C. Enter **q** to quit. D. If the LAN is out of service, resolve the problem and contact the next level of support, if necessary. **Do not continue to the next step until the LAN is present and active.**	Telco	—
10	Ensure that diagnostics on the associated TSI Frame(s) have been run to completion within the last 24 hours.	Telco	—
	CDSU GROWTH		
11	At the 1B MTC terminal, take the appropriate SCU out of service by entering: **RMV:SCS** *a*,**SCU** *b*! where *a* = Member Number (0-7) *b* = SCU Number (0-15) Response: PF followed by: RMV:SCS *a*,SCU *b* COMPL ***Note:*** When taking an SCU out of service, office alarms may sound. Pressing the appropriate key at the MCC will retire these alarms.	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
12	Install the appropriate CDSU within the CDSC.	Inst	—
13	Install the associated bus CDSU fuse into the appropriate power distribution frame.	Inst	—
14	Install the associated CDSU fuse into the CDSC fuse and filter panel.	Inst	—
	Steps 15 through 17 require a Video Graphics Adapter (VGA) monitor, a keyboard, and the appropriate floppy disks for CDSU configuration.		
15	Record the following information for later use (space is provided to record this information for up to four CDSUs). SCS Member Number (0-7): ____ ____ ____ ____ SCU Number (00-15): ____ ____ ____ ____ CDSU Number (00-03): ____ ____ ____ ____ Length of T1 cable, in feet: ____ ____ ____ ____ Cable length option: ____ ____ ____ ____ The cable length option is determined by adding 25 feet to the total T1 cable length (in the cable rack) for each SCU/CDSU combination. The total length (including the added 25 ft.) is used to determine the cable length option as follows: For total length **0-220 ft.**, use option **1**. For total length **220-440 ft.**, use option **2**.	Telco/Inst	—
16	Power up the appropriate CDSU.	Inst	—
17	Configure the CDSU (using information from Step 15, when required).	Inst	—
18	Reroute the LAN cable to the appropriate CDSU.	Inst	—
19	Recent change and verify the number of CDSUs using RC Form 703.	Telco	DLP-561

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
20	Add the growth CDSU to the AAP CDSU database. A. At the AAP console, log in as **aapusr** and select option **1**. B. At the AAP console, enter: **OP:CDSU:FORM=SHORT** Response: The screen will return a list of CDSUs within the database with their associated KEY Numbers. Use this list to determine an appropriate KEY Number (not already used) which will be used for adding the growth CDSU to the AAP database. C. At the AAP console, enter the following (all in one line): **UPD:CDSU:UPD=ADD:"KEY=*a*,SCS=*b*, SCU=*cc*,CDSU=*dd*,GEN=CDSU2"** *where* *a* = Database KEY Number (0-99999, not already used) *b* = SCS Member Number (0-7) *cc* = SCU Number (00-15) *dd* = CDSU Number (00-01) Response: The screen will return a listing of the entry just added. Check that the appropriate information for the growth CDSU is present. If not, repeat Step C. D. At the AAP console, enter: **LOGOUT** Response: The menu is displayed on the AAP console screen.	Telco/Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
21	Log into the AAP as **root** and enter the following **for each growth CDSU** to test the LAN: A. At the AAP console, enter: **/usr/sbin/ping cds***xyyzz* where *x* = SCS Member Number (0-7) *yy* = SCU Submember Number (00-15) *zz* = CDSU Number (00-03) Response: The screen returns: `cds`*xyyzz* `is alive` B. At the AAP console, enter: **rsh cds***xyyzz* **date** where *x* = SCS Member Number (0-7) *yy* = SCU Submember Number (00-15) *zz* = CDSU Number (00-03) Response: The screen returns today's date.	Telco/Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
22	At the 1B MTC terminal, diagnose the appropriate SCU and the associated disk pair(s) by entering: **DGN:SCS** *a*,**SCU** *b*:**PH (1-10,***c*,**16,17)!** where *a* = Member Number (0-7) *b* = SCU Number (0-15) *c* = Phase Number(s) for SCU MSP test: **12** for SCUs with MSP 0 **12-13** for SCUs with MSPs 0 and 1 **12-14** for SCUs with MSPs 0 through 2 **12-15** for SCUs with MSPs 0 through 3 ***Note:*** The Multifunctional Interface Processor (MIP) circuit packs are diagnosed with Phase 16. The CDSUs are diagnosed with Phase 17. Phase 17 diagnostics will take approximately 4 minutes per CDSU. Response: The screen returns output messages with ATP.	Telco/Inst	—
23	Determine if there are any CDSU BWMs to be installed by doing the following: A. At the AAP console, select option **1**. B. At the AAP console, enter: **OP:CDSU:FORM=LONG** Response: The screen will display a list of CDSUs with various information on each CDSU. Included in this information is BWM status. C. Are BWMs displayed in Step B? If **NO**, contact the TCC and have them send the latest CDSU BWM to the AAP, then continue to Step 24. However, if the TCC has no CDSU BWMs to send, continue to Step 26 instead. ***Note:*** If the TCC has no CDSU BWMs to download, the latest CDSU BWM can be installed later. It must however be installed prior to SCU trunk assignment. If **YES**, continue to Step 24.	Telco/Inst/ TCC/NCC	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
24	Verify the BWM/SU identified in the previous step by entering one of the following messages at the AAP: **UPD:CDSUBWM:VFY:BWM***xx-yyyy***:SCS=***a***,SCU=***b***,UNIT=***c* to verify an ''Official'' BWM/SU: OR **UPD:CDSUBWM:VFY:CFT***xx-yyyy***:SCS=***a***,SCU=***b***,UNIT=***c* to verify a ''Craft'' BWM/SU: where *xx* = Last 2 Digits of Year *yyyy* = Unique 4-digit BWM Number *a* = SCS Number (0-7) *b* = SCU Number (0-15) *c* = CDSU Number (0-1). Response: `UPD:CDSUBWM:VFY Completed` ***Note:*** If the verify does not complete successfully, remove the defective BWM/SU (see DLP-554 of 201-525-016AC, *AAP Maintenance, Diagnostics and Trouble Clearing*), download the BWM/SU again (see DLP-507 of 201-525-016AC, *AAP Maintenance, Diagnostics and Trouble Clearing*), and then repeat the above message.	Telco	—
25	Apply the BWM determined in the previous step.	Telco	DLP-559

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
26	Restore the SCU and the associated disk pair by entering the following input message at the 1B MTC terminal: **RST:SCS *x*,SCU *z*!** where *x* = Member Number (0-7) *z* = Submember Number (0-15) Response: ATP ANN UPD STARTED (if AAP is present and active) RESTORE COMPLETE ***Note:*** During the restore of the SCU, an announcement update will take place. Depending on the number of new announcements, this restore could take several minutes.	Telco/Inst	—
27	At the 1B MTC terminal, allow REX by entering: **ALW:MACLI,CLASS MTCE!** Response: AUTOMATIC JOB SCHEDULING RESUMED	Telco	—

Degrow and Convert a Service Circuit Unit (SCU) for Announcement Expansion.

Note: This SCS Degrow and Convert Procedure assumes the SCS Complex is operational, in-service, and connected to an active Announcement Administrative Processor (AAP), if applicable. This procedure is designed to degrow and convert SCU in preparation for Announcement Expansion.

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
1	Ensure that all responsible parties and organizations are aware of this degrowth and conversion before it starts. The appropriate *4ESS* switch support organizations must be contacted for instructions and/or assistance prior to the degrowth of the SCS complex.	Telco	—
2	Ensure that the 4ESS switch is currently running th 4E22 R4 Generic or later.	Telco	—
3	Ensure that within the last 24 hours the Processor has not experienced any TTY terminal suspends, bootstraps, diagnostic failures, or overloads.	Telco	—
4	Ensure that disks and Input/Output Processors (IOPs) are in duplex and that 3B Control Units (CUs) are in ACTIVE-STANDBY mode. Routine Exercise (REX) should be disabled, and should remain disabled during the entire growth process. This is accomplished by entering the following at the 1B Maintenance (MTC) terminal: 1. **INH:MACLI,CLASS MTCE;REX!** Response: `MACLI,CLASS MTCE INHIBITED AUTOMATIC JOB SCHEDULING DISALLOWED` 2. **STOP:TEST;PUSYS!** Response: `OK`	Telco	—
5	Ensure that diagnostics on the duplexed 3B CUs have been run to completion within the last 24 hours.	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
6	Verify SCS Unit Type (UT) Translator to determine TSI information, MSP equipage and disk pair equipage **for each SCU to be degrown**. ***Note:*** This information will be used later in other steps of this NTP.	Telco/Inst	DLP-542
7	Ensure that diagnostics on the associated Time Slot Interchange (TSI) Frames have been run to completion within the last 24 hours.	Telco	—
8	Ensure that all processor and/or system problems have been cleared.	Telco	—
9	Contact the Network Control Center (NCC) to have NCC ensure that no Software Updates (SUs) or Broadcast Warning Messages (BWMs) for SCS system files will be applied during growth/conversion. Also, have NCC ensure that Centralized Announcement Update Control System (CAUCS) has been inhibited from updating announcements to this 4ESS switch office for the affected Announcement Set(s) during growth/conversion.	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
10	Ensure that the AAP/SCS LAN connection is present and active, if applicable. A. At the AAP console, log in as **aapusr** and select option 2 from the menu. B. Poke **118** for link status. Response: One LAN link is displayed as Active and the other is displayed as Standby. C. Enter **q** to quit. D. If the LAN is out of service, resolve the problem and contact the next level of support, if necessary. **Do not continue to the next step until the LAN is present and active.** Also ensure that the Announcement Administration Processor (AAP) (if it is operational) has no announcement updates queued for this SCU's Announcement Set by selecting option 4 at the AAP console and entering: **OP:ANNUPD** Response: `OPANNUPD AAP System Error, #1149` `Database empty` ***Note:*** If not empty, have announcement updates stored in AAP moved to the proper SCU(s) and verify the ANNUPD database is cleared before proceeding.	Telco	—
11	At the 1B MTC terminal, take the appropriate SCU out of service by entering: **RMV:SCS** *a*,**SCU** *b*! where *a* = Member Number (0-7) *b* = SCU Number (0-15) Response: PF followed by: `RMV:SCS` *a*,`SCU` *b* `COMPL` ***Note:*** When taking an SCU out of service, office alarms may sound. Pressing the appropriate key at the MCC will retire these alarms.	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
12	At the 1B MTC terminal, determine which trunks are assigned to the degrowth SCU by entering: **VER:TRK:TSI** *a*,**SPC** *b*,**LVL** *c*,**FTS (1-120)!** where *a* = Associated Time Slot Interchange (TSI) Member Number (recorded in Step 5) *b* = Associated Switching and Permuting Circuits (SPC) Number (recorded in Step 5) *c* = Associated Level Number (Port Number) (recorded in Step 5) Response: The screen returns up to five `VER:TRK` messages followed by: `VERIFY PROCESSING COMPLETE` Record the First Traffic Number (FTFN), the Trunk Subgroup (TSG) data, and the Quantity of Trunks (QTRK) value from each of the `VER:TRK` messages. FTFN TSG Data QTRK _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
13	Disable the trunks assigned to the degrowth SCU by entering the following input message **once for each of the FTFNs recorded in Step 12**: **SET:TRKSTAT CAD.DSA,CIN *ab*;SUM:NUM *c*!** where *a* = FTFN (recorded in Step 11) *b* = TSG associated with FTFN *a* (recorded in Step 11) *c* = QTRK value associated with FTFN (recorded in Step 11) Example: If the FTFN is `72`, the TSG is `SVC*SCNS***07T`, and the QTRK is 24, then the input message would be: **SET:TRKSTAT CAD.DSA,CIN 72SVC*SCNS***07T;SUM:NUM 24!** Response: `SET:TRKSTAT CAD.DSA CIN` *ab*`,SUM COMPLETED TRK COUNT` *c* ***Note:*** During trunk removal, office alarms will sound. Pressing the appropriate key on the MCC will retire these alarms. ***Caution: If the SCU is being degrown to change service circuit type, the associated trunks must be removed from service.***	Telco	—
14	Degrow SCU subunit data (disk pair and MSP equipage) from OPER to SGRO using Recent Change Form 703. ***Note:*** The current disk pair and MSP equipage was recorded in Step 6.	Telco	DLP-519
15	Degrow SCU from OPER to SGRO using Recent Change Form 701.	Telco	DLP-513
16	Degrow TSI submember equipage(of the TSI recorded in Step 6) From OPER to SGRO using Recent Change Form 701.	Telco	DLP-539
17	Degrow SCU subunit data (disk pair and MSP equipage) from SGRO to GROW using Recent Change Form 703.	Telco	DLP-530
18	Degrow SCU subunit data (disk pair and MSP equipage) from GROW to UNEQ using Recent Change Form 703.	Telco	DLP-531
19	Degrow SCU equipage from SGRO to GROW using Recent Change Form 701.	Telco	DLP-535

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
20	Degrow SCU equipage from GROW to UNEQ using Recent Change Form 701.	Telco	DLP-536
21	Power-down the disk pair(s) associated with the SCU by pressing the **OFF** button on the Disk Power Controller (DPC) UN356 circuit pack(s) associated with the disk pair(s).	Inst	—
22	Power-down the SCU being degrown by pressing the **OFF** button on the SCU's TN1984 circuit pack.	Inst	—
23	If announcement set is to be changed, remove degrown SCU REF from AAP database.	Inst	DLP-543
24	Replace the TN1977 with TN9001. Replace the TN1983 with TN9002.	Inst	—
25	Install/verify white wire cable at the SCU backplane. AT PIN=**011** LOCATION=**144** PIN=**011** LOCATION=**136**	Inst	—
26	Install pair of (9 GB) disk packs at location 0 for **SCU 0 only**. Install pair of (9GB) disk packs at location for corresponding SCU in the SCUC, for SCUs N, N+1, N+2, and N+3. See Figure 2 in DLP-554.	Inst	DLP-554
27	Recent change and verify SCU, Disk Pair capacity and hardware version using RC form 703.	Telco/Inst	DLP-562
28	Recent change and verify growth SCU equipage from UNEQ to GROW using RC Form 700.	Telco	DLP-502
29	Recent change and verify associated disk pair and MSP equipage from UNEQ to GROW using RC Form 703.	Telco	DLP-503
30	Power-up the growth SCU and the associated disk pair(s). 1. At the growth Hard Disk Unit(s), press the **ON** button to power the Disk Power Controller (DPC) UN356 circuit pack. ***Caution: Wait at least 60 seconds before proceeding with the next step. This allows the disk drives to spin up to operational speed.*** 2. At the growth SCU, press the **ON** button to power the Master Power Controller (MPC) TN1984 circuit pack.	Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
31	At the 1B MTC terminal, diagnose the growth SCU and the associated disk pair using Phases 1 through 7 by entering: **DGN:SCS *x*,SCU z:PH 1-7!** where *x* = Member Number (0-7) *z* = Submember Number (0-15) Response: The screen returns output messages with ATP for each valid phase.	Telco/Inst	—
32	Recent change and verify growth SCU equipage from GROW to SGRO using RC Form 700.	Telco	DLP-504
33	Recent change and verify associated disk pair and MSP equipage from GROW to SGRO using RC Form 703.	Telco	DLP-505
34	At the 1B MTC terminal, diagnose the growth SCU and the associated disk pair using Phases 1 through 7 by entering: **DGN:SCS *x*,SCU *z*:PH 1-7!** where *x* = Member Number (0-7) *z* = Submember Number (0-15) Response: The screen returns output messages with ATP for each valid phase.	Telco/Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
	DOWNLOADING OF SCS SYSTEM FILES FROM THE ATTACHED PROCESSOR SYSTEM (APS) ***Note:*** The downloading of the SCS system files is accomplished via the COPY command. This command is used once for each of the SCS System File Types: TONES, SCCSFT, SCUOPR, SCUDGN, MSPROV, MSPFIX, MSP1, MIP0FIL, and MIP1FIL. These files reside in the /scs directory of the 3B20D computer and may have up to two vintages of files labeled 0 or 1. Both a Source Version Number (SVN) (the correct and up-to-date file location on the 3B20D computer disk) and a Destination Version Number (DVN) (the next location on each Disk Pair 0) are needed for each COPY command. These numbers ensure that a particular SCS file type is read from and written to the proper disk location of each disk pair 0.		
35	Determine the latest SCS system file version numbers from an in-service disk pair.	Telco/Inst	DLP-545
36	Copy the correct and up-to-date SCS system files from the APS to each growth disk pair 0.	Telco/Inst	DLP-524
37	Update SCU/MSP version numbers in the SCS Unit Type Translator for **conversion SCU** using RC Form 703.	Telco/Inst	DLP-544
38	At the 1B MTC terminal, diagnose **conversion** growth SCU and the associated disk pair(s) by entering: **DGN:SCS** *a*,**SCU** *b*:**PH (1-10,***c***)!** where *a* = Member Number (0-7) *b* = SCU Number (0-15) *c* = Phase Number(s) for SCU MSP test: **12** for SCUs with MSP 0 **12-13** for SCUs with MSPs 0 and 1 Response: The screen returns output messages with ATP for each valid phase.	Telco/Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
39	At the 1B MTC terminal, diagnose the growth SCU and the associated disk pair using Phase 11 by entering: **DGN:SCS** *x*,**SCU** *z*:**PH 11!** where *x* = Member Number (0-7) *z* = Submember Number (0-15) Response: The screen returns an output message with ATP for Phase 11.	Telco/Inst	—
40	Recent change and verify the disk pair and MSP, MIP equipage of the growth SCU from SGRO to OPER using RC Form 703.	Telco	DLP-509
41	Recent change and verify TSI submember equipage from SGRO to OPER using Recent Change Form 700.	Telco	DLP-511
42	Recent change and verify the growth SCU equipage from SGRO to OPER using RC Form 700.	Telco	DLP-510
43	At the 1B MTC terminal, run a Peripheral Unit Status audit by entering: **AUD:PUSTAT!** Response: Output message for appropriate SCU followed by: AUD:PUSTAT MSG COMPL	Telco	—
44	**DGN:SCS** *a*,**SCU** *b*:**PH** *c*-*d*! where *a* = Member Number (0-7) *b* = SCU Number (0-15) *c* = Beginning Phase Number (see Note) *d* = Ending Phase Number (see Note) ***Note:*** The beginning and ending phase numbers may vary. **Type 3 (TN9000 - 9 GB)** disk pairs, the demand phases listed below should be used: **90-91** for Disk Pair 0 location Response: The screen returns output messages with ATP for all equipped disk pairs. ***Note:*** This DGN message takes between 40 minutes and 1 hour and 40 minutes per phase.	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
45	If disk pair has no announcements, continue to step 46. If disk pair has announcements go to Step 47.	Telco/Inst	—
46	At the 1B MTC terminal, perform a Soft Initialization of SCU **y**, Disk Pair 0, by entering the commands given below. ***Note:*** When populating a TN9000 - 9 Gb disk pair at the SCU **y**, Disk Pair 0 location in the SCS Unit Type Translator, enter the following input messages: A. **INIT:SCS *x*,SCU *y*,DSK 0,BUS 0,TYP 1!** where *x* = Member Number (0-7) *y* = Submember Number (0-15) Response: `INIT:SCS x, SCU y COMPLETE` B. **INIT:SCS *x*,SCU *y*,DSK 0,BUS 1,TYP 1!** where *x* = Member Number (0-7) *y* = Submember Number (0-15) Response: `INIT:SCS x, SCU y COMPLETE`	Telco	—
47	***Note:*** Perform this step **ONLY** if this is a new growth or Announcement Set is being changed. Add growth SCU to the AAP's SCU equipment (SCUEQP) database.	Telco/Inst	DLP-521
48	Restore the SCU and the associated disk pair by entering the following input message at the 1B MTC terminal: **RST:SCS *x*,SCU *z*!** where *x* = Member Number (0-7) *z* = Submember Number (0-15) Response: `ATP` `ANN UPD STARTED` (if AAP is present and active) `RESTORE COMPLETE` ***Note:*** During the restore of the SCU, an announcement update will take place. Depending on the number of new announcements, this restore could take several minutes.	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
49	Contact NCC to inform that: A. Growth/Conversion of this SCU is complete. B. There are currently no announcements contained on this SCU. C. Trunks to this SCU are in CAD.DSA state (if any exist). D. CAUCS is probably inhibited from updating announcements to this 4ESS switch office for the specific Announcement Set(s).	Telco	—
50	At the 1B MTC terminal, allow REX by entering: **ALW:MACLI,CLASS MTCE!** Response: `AUTOMATIC JOB SCHEDULING RESUMED`	Telco	—

Grow a New or Convert an ASR/SCU for Announcement Expansion with 9 Gb Disk Drive

Note: This procedure is used to grow a **new Service Circuit Unit (SCU)** and/or convert an **existing SCU** for ASR-Phase 2 functionality. If an existing SCU is being modified for Announcement Expansion and a new announcement set functionality, ensure that the existing SCU has been completely degrown (including trunks) and powered down prior to the start of this procedure (see NTP-015). In the rest of this procedure, the term ASR refers to ASR 2. Also, the term "CDSU" refers to the Custom Data Services Unit- 2 (CDSU-II), and the term "CDSC" refers to the Custom Data Services Cabinet- 2 (CDSC- II).

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
	4ESS™ SWITCH OFFICE PRELIMINARY CHECK		
1	Ensure that the *4ESS* switch is currently running in 4E22 R4 Generics or later.	Telco	—
2	Ensure that within the last 24 hours the Processor has not experienced any TTY terminal suspends, bootstraps, diagnostic failures, or overloads.	Telco	—
3	Ensure that disks and Input/Output Processors (IOPs) - 1B Processors are in duplex and that 3B Control Units (CUs) and Attached Processor Interfaces (APIs) are in ACTIVE-STANDBY mode. Routine Exercise (REX) and the Peripheral Unit System Exerciser (PUSYS) should be inhibited and should remain inhibited during the entire growth process. This is accomplished by entering the following at the 1B Maintenance (MTC) terminal: 1. **INH:MACLI,CLASS MTCE;REX!** Response: `MACLI,CLASS MTCE INHIBITED AUTOMATIC JOB SCHEDULING DISALLOWED` 2. **STOP:TEST;PUSYS!** Response: `OK`	Telco	—
4	Ensure that diagnostics on the duplexed 3B CUs have been run to completion within the last 24 hours.	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
5	Ensure that all processor and/or system problems have been run to completion within the last 24 hours.	Telco	—
6	Ensure that the SCS growth complex is in service, operating in duplex, and has run diagnostics to completion within the last 24 hours.	Telco	—
7	Ensure that no Software Updates (SUs)/BWMs for SCS system files are applied during SCU growth.	Telco	—
8	Ensure that the AAP/SCS Local Area Network (LAN) connection is present and active. A. At the AAP console, log in as **aapusr** and select option **2** from the menu. B. Poke **118** for link status. Response: One LAN link is displayed as Active and the other is displayed as Standby. C. Enter **q** to quit. D. If the LAN is out of service, resolve the problem and contact the next level of support, if necessary. **Do not continue to the next step until the LAN is present and active.**	Telco	—
9	Check office records/Pre Condition Order(PCO)/Main Material Order(MMO)/ Telephone Equipment Order (TEO) to confirm the following for each growth SCU/disk pair (**retain this information for future use in this procedure**): • Type of Service Circuit (0-7) • Disk Pair(s) Capacity - Translator (0-3) • AT&T Trigger Platform Feature (Monitor - Yes or No) • Announcement Set (A-Z) • Automatic Speech Recognition (ASR) Application (1-7) • Number of Custom Data Services Units (CDSUs) Present (1-2).	Telco/Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
10	Verify the SCS Unit Type (UT) Translator and compare the SCU Subunit Data **for each growth SCU** against office records/PCO/MMO/TEO. Also compare each growth SCU to Time Slot Interchange (TSI) Port assignment against office wiring records. Similarly, check that all translations information matches the growth SCU hardware. The SCU Subunit Data and the associated TSI Port assignments are contained in the five words specified by the SCS UT Translator for each SCU. Also verify the number of CDSUs. ***Note:*** This verify must be done separately for each growth SCU beginning with the lowest-numbered SCU.	Telco	DLP-560
11	Verify the associated TSI UT Translator(s) and compare the assignment/equipage of the TSI Port to each growth SCU against office wiring records.	Telco	DLP-516
12	Verify Custom Data Services Cabinet (CDSC) Grid Lineup Frame (GLF) Number.	Telco/Inst	DLP-555
13	Ensure that diagnostics on the associated TSI Frame(s) have been run to completion within the last 24 hours.	Telco	—
14	This is a **Safe Stop Point**. If stopping, perform Steps 15 and 16. Otherwise, go to Step 18.	Telco/Inst	—
15	At the 1B MTC terminal, allow REX by entering: **ALW:MACLI,CLASS MTCE!** Response: `AUTOMATIC JOB SCHEDULING RESUMED`	Telco	—
16	Stop procedure for now. Resume at Step 17 when continuing.	Telco/Inst	—
17	Perform Steps 1 through 8 of this procedure. Then continue to the next step.	Telco/Inst	—
	4ESS SWITCH TO SERVICE CIRCUIT SYSTEM PRELIMINARY INTERCONNECT		
18	Ensure that all Scan Point and Signal Distributor (SD) Point connections from the growth SCU(s) to the *4ESS* switch Signal Processor (SP) are completed.	Inst	—
19	Ensure that the Alarm connection from the growth SCU(s) to the *4ESS* switch Power Alarm Grid is completed.	Inst	—
20	Ensure that the DS-120 cable(s) from the growth SCU(s) to the associated TSI Ports have been set in place but **not connected**.	Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
21	Ensure that the fiber-optic ribbon cable(s) are present at the rear of the SCU cabinet. This cable should be connected at the backplane of the growth SCU(s), but **not** at the Optical Cross-Connect Panel.	Inst	—
22	Ensure that the LAN cable(s) for the growth SCU(s) are in place (connected) at the rear of the SCU cabinet (horizontal location 024). These cables should be daisy-chained between all SCUs within the SCS complex.	Inst	—
23	Ensure that the Small Computer System Interface (SCSI) Bus Cables for the disk pair(s) associated with the growth SCU(s) are in place at the rear of the SCU cabinet.	Inst	—
24	Ensure that the Active/Standby cable(s) from the growth SCU(s) to all other SCUs are properly connected. These cables are daisy-chained between all SCUs.	Inst	—
25	Ensure that the Custom Data Services Cabinet (CDSC) has been bolted down and that the CDSC power connections from the Power Distribution Frame are completed and tested. Also, if the CDSC will have a Smart HUB, ensure that the 110 V AC outlet is available at the CDSC for Smart HUB power.	Inst	—
26	Ensure that the CDSC TTY A, TTY B, and Telephone Jack connections to the *4ESS* switch are completed.	Inst	—
	CDSC/CDSU/LAN PRELIMINARY INTERCONNECT		
27	Install the Smart HUB and the associated brackets and shelf within the appropriate CDSC.	Inst	—
28	Install additional CDSUs, if applicable.	Inst	—
29	Connect the LAN cables between the CDSUs within the appropriate CDSC and the x-dimension LAN cable.	Inst	—
30	Connect the T1 cable between the AYC52 circuit pack within the CDSU and the x-dimension T1 cable.	Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
31	Connect the AAP x-dimension LAN cable to the Smart HUB located within the appropriate CDSC. **This step is only used for the first CDSC being grown in an office. All subsequent CDSC LAN connections will be made at the appropriate Smart HUB Port 1, not the AAP.**	Inst	—
32	Connect the LAN cable from the Smart HUB, within the appropriate CDSC, to the appropriate CDSU. ***Note:*** Only 9 of the 10 ports on any given Smart HUB are used for LAN connections. The tenth port is never used for a LAN connection.	Inst	—
33	This is a **Safe Stop Point**. If stopping, perform Steps 34 and 35. Otherwise, go to Step 37, being sure to read the heading and note preceding Step 37.	Telco/Inst	—
34	At the 1B MTC terminal, allow REX by entering: **ALW:MACLI,CLASS MTCE!** Response: `AUTOMATIC JOB SCHEDULING RESUMED`	Telco	—
35	Stop procedure for now. Resume at Step 36 when continuing.	Telco/Inst	—
36	Perform Steps 1 through 8 of this procedure. Then continue to the next step.	Telco/Inst	—
	CDSU PRECONDITIONING ***Note:*** Steps 37 through 39 must be completed for each growth CDSU, beginning with the lowest-numbered CDSU. These steps should be completed in their entirety for each growth CDSU before continuing with the next growth CDSU. Steps 37 through 39 require a Video Graphics Adapter (VGA) monitor and a keyboard.		

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
37	Record the following information for later use (space is provided to record this information for up to four CDSUs). SCS Member Number (0-7): ____ ____ ____ ____ SCU Number (00-15): ____ ____ ____ ____ CDSU Number (00-03): ____ ____ ____ ____ Length of T1 cable, in feet: ____ ____ ____ ____ Cable length option: ____ ____ ____ ____ The cable length option is determined by adding 25 feet to the total T1 cable length (in the cable rack) for each SCU/CDSU combination. The total length (including the added 25 feet.) is used to determine the cable length option as follows: For total length **0-220 feet.**, use option **1** For total length **220-440 feet.**, use option **2**	Telco/Inst	—
38	Power up the appropriate CDSU.	Inst	—
39	Configure the CDSU (using information from Step 37, when required).	Inst	—
40	Have Steps 37 through 39 been completed for all applicable growth CDSUs? If **YES**, continue to Step 41. If **NO**, repeat Steps 37 through 39 for the next applicable growth CDSUs.	Inst	—
41	This is a **Safe Stop Point**. If stopping, perform Steps 42 and 43. Otherwise, go to Step 45.	Telco/Inst	—
42	At the 1B MTC terminal, allow REX by entering: **ALW:MACLI,CLASS MTCE!** Response: `AUTOMATIC JOB SCHEDULING RESUMED`	Telco	—
43	Stop procedure for now. Resume at Step 44 when continuing.	Telco/Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
44	Perform Steps 1 through 8 of this procedure. Then continue to the next step.	Telco/Inst	—
	PRE-GROWTH REQUIRED FOR THE FIRST SCU OF SCUs 8-15		
45	If the first SCU of SCUs 8-15 is being grown, go to Step 46. If one of the SCUs 8-15 is already in service or if none of the SCUs 8-15 are being grown, go to Step 63, being sure to read the heading preceding Step 63.	Inst	—
46	At the Optical Cross-Connect Panel (OCCP), ensure that Fiber Shorting Contacts (CC# 846832087) are installed at the proper connector locations for SCUs 8-15.	Inst	—
47	At the 1B MTC terminal, remove one Service Circuit Controller (SCC) from service by entering: **RMV:SCS** *a*,**CONTR** *b*! where *a* = Member Number (0-7) *b* = SCC Number (0 or 1) Response: PF followed by: RMV:SCS *a*,CONTR *b* COMPL	Telco/Inst	—
48	Power down the out-of-service SCC: 1. At the IPUB associated with the SCC, press the **OFF** button on the TN1671 circuit pack. 2. At the SCC, press the **OFF** button on the TN1984 circuit pack.	Inst	—
49	Install 410AA Power Converter and KCN3 Extended Bus Interface circuit packs at the out-of-service SCC.	Inst	—
50	Power up the out-of-service SCC: 1. At the IPUB associated with the SCC, press the **ON** button on the TN1671 circuit pack. 2. At the SCC, press the **ON** button on the TN1984 circuit pack.	Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
51	At the 1B MTC terminal, diagnose the out-of-service SCC by entering: **DGN:SCS** *x*,**CONTR** *y*! where *x* = Member Number (0-7) *y* = SCC Number (0 or 1) Response: The screen returns an output message with `ATP`.	Telco	—
52	At the 1B MTC terminal, restore the out-of-service SCC to service by entering: **RST:SCS** *a*,**CONTR** *b*! where *a* = Member Number (0-7) *b* = SCC Number (0 or 1) Response: The screen returns an output message with `CATP`, then `RESTORE COMPLETE`. Bit **21** will be **set** in the CATP **reason word** (unless the SCS is equipped with one or more SCUs in the SCU8 to SCU15 range), indicating that the `unused EBI link test skipped`. This is the only allowable exception (no other bits in the CATP reason word should be set).	Telco	—
53	At the 1B MTC terminal, remove the other Service Circuit Controller (SCC) from service by entering: **RMV:SCS** *a*,**CONTR** *b*! where *a* = Member Number (0-7) *b* = SCC Number (0 or 1) Response: `PF` followed by: `RMV:SCS` *a*`,CONTR` *b* `COMPL`	Telco/Inst	—
54	Power down the out-of-service SCC: 1. At the IPUB associated with the SCC, press the **OFF** button on the TN1671 circuit pack. 2. At the SCC, press the **OFF** button on the TN1984 circuit pack.	Inst	—
55	Install 410AA Power Converter and KCN3 Extended Bus Interface circuit packs at the out-of-service SCC.	Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
56	Power up the out-of-service SCC: 1. At the IPUB associated with the SCC, press the **ON** button on the TN1671 circuit pack. 2. At the SCC, press the **ON** button on the TN1984 circuit pack.	Inst	—
57	At the 1B MTC terminal, diagnose the out-of-service SCC by entering: **DGN:SCS** *x*,**CONTR** *y*! where *x* = Member Number (0-7) *y* = SCC Number (0 or 1) Response: The screen returns an output message with `ATP`.	Telco	—
58	At the 1B MTC terminal, restore the out-of-service SCC to service by entering: **RST:SCS** *a*,**CONTR** *b*! where *a* = Member Number (0-7) *b* = SCC Number (0 or 1) Response: The screen returns an output message with `CATP`, then `RESTORE COMPLETE`. Bit **21** will be **set** in the CATP **reason word** (unless the SCS is equipped with one or more SCUs in the SCU8 to SCU15 range), indicating that the `unused EBI link test skipped`. This is the only allowable exception (no other bits in the CATP reason word should be set).	Telco	—
59	This is a **Safe Stop Point**. If stopping, perform Steps 60 and 61. Otherwise, go to Step 63, being sure to read the heading preceding Step 63.	Telco/Inst	—
60	At the 1B MTC terminal, allow REX by entering: **ALW:MACLI,CLASS MTCE!** Response: `AUTOMATIC JOB SCHEDULING RESUMED`	Telco	—
61	Stop procedure for now. Resume at Step 62 when continuing.	Telco/Inst	—
62	Perform Steps 1 through 8 of this procedure. Then continue to the next step.	Telco/Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
	INSTALLATION OF HARDWARE TO PROVIDE ASR FUNCTIONALLY AND ANNOUNCEMENT EXPANSION TO AN EXISTING SCU		
63	In this procedure, are any **previously existing** SCUs currently being converted to ASR and Announcement Expansion functionality? If **YES**, complete Steps 64 through 74 **for each previously existing ASR/SCU**, beginning with the lowest-numbered of these SCUs. If **NO**, continue to Step 79, being sure to read the heading preceding Step 79.	Inst	—
64	Ensure that the appropriate SCU(s) are removed from service and powered down.	Telco/Inst	—
65	Install the TN4001 key holders.	Inst	—
66	Install the TN4001 circuit packs.	Inst	—
67	Replace the TN1977 with the TN9001 circiut pack.	Inst	—
68	Replace the TN1983 with the TN9002 circuit pack.	Inst	—
69	Install the designation strip labels and FLN/SCU labels.	Inst	—
70	Verify that the white wire (required when TN9001 and TN9002 circuit packs are to be used) is installed at the SCU backplane. If not already installed, install the white wire.	Inst	—
71	Insatll the 9822DT paddle board and retainer.	Inst	—
72	Install the T1 option straps.	Inst	—
73	Install the T1 connector retainer.	Inst	—
74	Have Steps 64 through 73 been completed for all previously existing growth SCUs? If **YES**, continue to Step 75. If **NO**, repeat Steps 64 through 73 for the next previously existing growth SCU.	Telco/Inst	—
75	This is a **Safe Stop Point**. If stopping, perform Steps 76 and 77. Otherwise, go to Step 79, being sure to read the heading preceding Step 79.	Telco/Inst	—
76	At the 1B MTC terminal, allow REX by entering: **ALW:MACLI,CLASS MTCE!** Response: `AUTOMATIC JOB SCHEDULING RESUMED`	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
77	Stop procedure for now. Resume at Step 78 when continuing.	Telco/Inst	—
78	Perform Steps 1 through 8 of this procedure. Then continue to the next step.	Telco/Inst	—
	CIRCUIT PACK INSTALLATION FOR GROWTH OF NEW ASR/SCU(S) WITH ANNOUNCEMENT EXPANSION AND ASSOCIATED DISK PAIR(S)		
79	In this procedure, are any **new SCUs** (did not previously exist in the SCS) currently being added to the SCS complex? If **YES**, complete Steps 80 through 87 **for each new SCU**, beginning with the lowest-numbered of these SCUs. If **NO**, continue to Step 89.	Inst	—
80	Install the TN4001 key holders.	Inst	—
81	Install the designation strip labels.	Inst	—
82	Install the 9822DT paddle board and retainer.	Inst	—
83	Install the T1 option strap(s).	Inst	—
84	Install the T1 connector retainers.	Inst	—
85	Verify that the white wire (required when TN9001 and TN9002 circuit packs are to be used) is installed at the SCU backplane. If not already installed, install the white wire.	Inst	—
86	Install circuit packs in the growth SCU. Also, verify that fuses are installed in the Fuse and Filter Unit for the growth SCU and associated disk pair(s). (See the labeling on the fuse panel cover for fuse locations and sizes.)	Inst	—
87	Install circuit packs in the Hard Disk Unit (HDU) associated with the growth SCU.	Inst	—
88	Have Steps 80 through 87 been completed for all applicable growth SCUs? If **YES**, continue to Step 89. If **NO**, repeat Steps 80 through 87 for the next growth SCU.	Telco/Inst	—
89	This is a **Safe Stop Point**. If stopping, perform Steps 90 and 91. Otherwise, go to Step 93, being sure to read the heading and note preceding Step 93.	Telco/Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
90	At the !B MTC terminal, allow REX by entering: **ALW:MACLI,CLASS MTCE!** Response: `AUTOMATIC JOB SCHEDULING RESUMED`	Telco	—
91	Stop procedure for now. Resume at Step 92 when continuing.	Telco/Inst	—
92	Perform Steps 1 through 8 of this procedure. Then continue to the next step.	Telco/Inst	—
	CONNECTION OF ASR/SCU ASSOCIATED CABLES AT APPROPRIATE GROWTH SCU ***Note:*** Steps 93 through 97 should be completed **for each growth SCU**, beginning with the lowest-numbered growth SCU. These steps should be completed in their entirety for each growth SCU before continuing with the next growth SCU.		
93	Install L bracket and coax converter.	Telco/Inst	—
94	Connect the LAN cable to the coax converter.	Telco/Inst	—
95	Install the LAN cable from the coax converter to the growth SCU.	Telco/Inst	—
96	Install the CDSU T1 cables at the growth SCU.	Telco/Inst	—
97	Power up the growth SCU and the associated disk pair(s). 1. At the growth Hard Drive Unit(s), press the **ON** button to power the Disk Power Controller (DPC) UN356 circuit pack. ***Caution: Wait at least 60 seconds before proceding with the next step. This allows the disk drives to spin up to operational speed.*** 2. At the growth SCU, press the **ON** button to power the Master Power Controller (MPC) TN1984 circuit pack.	Telco/Inst	—
98	This is a **Safe Stop Point**. If stopping, perform Steps 99 and 100. Otherwise, go to Step 102.	Telco/Inst	—
99	At the 1B MTC terminal, allow REX by entering: **ALW:MACLI,CLASS MTCE!** Response: `AUTOMATIC JOB SCHEDULING RESUMED`	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
100	Stop procedure for now. Resume at Step 101 when continuing.	Telco/Inst	—
101	Perform Steps 1 through 8 of this procedure. Then continue to the next step.	Telco/Inst	—
102	Have Steps 93 through 97 been completed for all growth SCUs? If **YES**, continue to Step 103, being sure to read the heading and note preceding Step 103. If **NO**, repeat Steps 93 through 97 for the next growth SCU.	Telco/Inst	—
	SCS-RELATED TSI GROWTH ***Note:*** Steps 103 through 120 should be completed for each growth SCU, beginning with the lowest-numbered growth SCU. These steps should be completed in their entirety for each growth SCU before continuing with the next growth SCU.		
103	Recent change and verify the associated TSI Port equipage from UNEQ to GROW using RC Form 700.	Telco	DLP-506
104	Recent change and verify the associated TSI Port equipage from GROW to SGRO using RC Form 700.	Telco	DLP-507
105	This is a **Safe Stop Point**. If stopping, perform Steps 106 and 107. Otherwise, go to Step 109, being sure to read the heading preceding Step 109.	Telco/Inst	—
106	At the 1B MTC terminal, allow REX by entering: **ALW:MACLI,CLASS MTCE!** Response: `AUTOMATIC JOB SCHEDULING RESUMED`	Telco	—
107	Stop procedure for now. Resume at Step 108 when continuing.	Telco/Inst	—
108	Perform Steps 1 through 8 of this procedure. Then continue to the next step.	Telco/Inst	—
	SCU AND ASSOCIATED DISK PAIR GROWTH		
109	At the Optical Cross-Connect Panel (OCCP), remove the growth SCU(s) Fiber Shorting Contacts (CC# 846832087) and connect the associated fiber-optic ribbon cable.	Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
110	Recent change and verify SCU and Disk Pair capacity and hardware version using RC Form 703.	Telco	DLP-562
111	Recent change and verify growth SCU equipage from UNEQ to GROW using RC Form 700.	Telco	DLP-502
112	Recent change and verify associated disk pair and Multifaceted Signal Processor (MSP)/Multifunctional Interface Processor (MIP) equipage from UNEQ to GROW using RC Form 703.	Telco	DLP-550
113	At the 1B MTC terminal, diagnose the growth SCU and the associated disk pair using Phases 1 through 7 by entering: **DGN:SCS** *x*,**SCU z:PH 1-7!** where *x* = Member Number (0-7) *z* = Submember Number (0-15) Response: The screen returns output messages with ATP for each valid phase.	Telco/Inst	—
114	Recent change and verify growth SCU equipage from GROW to SGRO using RC Form 700.	Telco	DLP-504
115	Recent change and verify associated disk pair and MSP/MIP equipage from GROW to SGRO using RC Form 703.	Telco	DLP-551
116	At the 1B MTC terminal, diagnose the growth SCU and the associated disk pair using Phases 1 through 7 by entering: **DGN:SCS** *x*,**SCU** *z*:**PH 1-7!** where *x* = Member Number (0-7) *z* = Submember Number (0-15) Response: The screen returns output messages with ATP for each requested phase.	Telco	—
117	At the 1B MTC terminal, diagnose SCS Controller 0 by entering: **DGN:SCS** *x*,**CONTR 0!** where *x* = Member Number (0-7) Response: The screen returns an output message with ATP.	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
118	At the 1B MTC terminal, restore SCS Controller 0 by entering: **RST:SCS *x*,CONTR 0!** where *x* = Member Number (0-7) Response: The screen returns an output message with `CATP`, then `RESTORE COMPLETE`. Bit **21** will be **set** in the CATP **reason word** (unless the SCS is equipped with one or more SCUs in the SCU8 to SCU15 range), indicating that the `unused EBI link test skipped`. This is the only allowable exception (no other bits in the CATP reason word should be set).	Telco	—
119	At the 1B MTC terminal, diagnose SCS Controller 1 by entering: **DGN:SCS *x*,CONTR 1!** where *x* = Member Number (0-7) Response: The screen returns an output message with `ATP`.	Telco	—
120	At the 1B MTC terminal, restore SCS Controller 1 by entering: **RST:SCS *x*,CONTR 1!** where *x* = Member Number (0-7) Response: The screen returns an output message with `CATP`, then `RESTORE COMPLETE`. Bit **21** will be **set** in the CATP **reason word** (unless the SCS is equipped with one or more SCUs in the SCU8 to SCU15 range), indicating that the `unused EBI link test skipped`. This is the only allowable exception (no other bits in the CATP reason word should be set).	Telco	—
121	This is a **Safe Stop Point**. If stopping, perform Steps 122 and 123. Otherwise, go to Step 125.	Telco/Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
122	At the 1B MTC terminal, allow REX by entering: **ALW:MACLI,CLASS MTCE!** Response: `AUTOMATIC JOB SCHEDULING RESUMED`	Telco	—
123	Stop procedure for now. Resume at Step 124 when continuing.	Telco/Inst	—
124	Perform Steps 1 through 8 of this procedure. Then continue to the next step.	Telco/Inst	—
125	Have Steps 103 through 124 been completed for all growth SCUs? If **YES**, continue to Step 126, being sure to read the heading and note preceding Step 126. If **NO**, repeat Steps 103 through 124 for the next growth SCU.	Telco/Inst	—
	DOWNLOADING OF SCS SYSTEM FILES FROM THE ATTACHED PROCESSOR SYSTEM (APS) ***Note:*** The downloading of the SCS system files is accomplished via the COPY command. This command is used once for each of the SCS System File Types: TONES, SCCSFT, SCUOPR, SCUDGN, MSPROV, MSPFIX, MSP1, MIP0FIL, and MIP1FIL. These files reside in the /scs directory of the 3B20D computer and may have two vintages of files labeled 0 and 1. Both a Source Version Number (SVN) (the correct and up-to-date file location on the 3B20D computer disk) and a Destination Version Number (DVN) (the next location on each Disk Pair 0) are needed for each COPY command. These numbers ensure that a particular SCS file type is read from and written to the proper disk location of each Disk Pair 0.		
126	Verify the latest SCS system file version numbers from translations for **in-service** disk pairs.	Telco	DLP-545
127	Copy the correct and up-to-date SCS system files from the APS to all growth Disk Pair 0.	Telco	DLP-524

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
	VERSION NUMBER UPDATE		
	Note: Steps 128 and 129 must be completed for each growth SCU, beginning with the lowest-numbered growth SCU. These steps must be completed in their entirety for each growth SCU before continuing with the next growth SCU.		
128	Update SCU/MSP/MIP version numbers in the SCS Unit Type Translator for **each growth SCU** using RC Form 703.	Telco	DLP-547
129	At the 1B MTC terminal, diagnose **each** growth SCU and the associated disk pair(s) by entering: **DGN:SCS** *a*,**SCU** *b*:**PH (1-10,***c***,16,17)!** where *a* = Member Number (0-7) *b* = SCU Number (0-15) *c* = Phase Number(s) for SCU MSP test: **12** for SCUs with MSP 0 **12-13** for SCUs with MSPs 0 and 1 **12-14** for SCUs with MSPs 0 through 2 **12-15** for SCUs with MSPs 0 through 3 ***Note:*** The MIP circuit packs are diagnosed with Phase 16. The CDSUs are diagnosed with Phase 17. Phase 17 diagnostics will take approximately 4 minutes per CDSU. Response: The screen returns output messages with ATP.	Telco	—
130	Have Steps 128 and 129 been completed for all growth SCUs? If **YES**, continue to Step 131. If **NO**, repeat Steps 128 and 129 for the next growth SCU.	Telco/Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
131	This is a **Safe Stop Point**. If stopping, perform Steps 132 and 133. Otherwise, go to Step 135, being sure to read the heading and note preceding Step 135. ***Caution: The steps remaining before the next Safe Stop Point must be completed without stopping and will take approximately 6 hours to complete.***	Telco/Inst	—
132	At the 1B MTC terminal, allow REX by entering: **ALW:MACLI,CLASS MTCE!** Response: `AUTOMATIC JOB SCHEDULING RESUMED`	Telco	—
133	Stop procedure for now. Resume at Step 134 when continuing.	Telco/Inst	—
134	Perform Steps 1 through 8 of this procedure. Then continue to the next step.	Telco/Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
	ACTIVATE GROWTH SCU(S) AND ASSOCIATED DISK PAIR		
	Note: Steps 137 through 170 should be completed for each growth SCU, beginning with the lowest-numbered growth SCU. These steps should be completed in their entirety for each growth SCU before continuing with the next growth SCU.		
135	At the 1B MTC terminal, apply port pest to the associated TSI Port by entering: **INH:TSI** *x*,**SPC** *y*,**PORT** *z*! where *x* = TSI Member Number (0-63) *y* = SPC within TSI (0-1) *z* = Port within SPC (0-6) Response: The input message is echoed when the pesting is done.	Telco	—
136	Remove the output looping cable from the associated TSI Port. Then connect the DS-120 signal cables between the associated TSI Port and the growth SCU.	Inst	—
137	At the 1B MTC terminal, diagnose the SCU and the associated disk pair(s) using Phase 11 by entering: **DGN:SCS** *x*,**SCU** *z*:**PH 11!** where *x* = Member Number (0-7) *z* = Submember Number (0-15) Response: The screen returns an output message with ATP for Phase 11.	Telco	—
138	At the 1B MTC terminal, diagnose the TSI Frame Controller 0 by entering: **DGN:TSI** *x*,**CONTR 0:PH** *y*,**GROWTH!** where *x* = Member Number (0-63) *y* = 13 (for J4A001A) or 20 (for J4A001B) Response: The screen returns an output message with REMOVE COMPLETE, then ATP for all tests run.	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
139	At the 1B MTC terminal, restore TSI x, Controller 0 by entering: **RST:TSI *x*,CONTR 0!** where *x* = Member Number (0-63) Response: The screen returns an output message with ATP for all tests run, then RESTORE COMPLETED.	Telco	—
140	At the 1B MTC terminal, diagnose the TSI Frame Controller 1 by entering: **DGN:TSI *x*,CONTR 1:PH *y*,GROWTH!** where *x* = Member Number (0-63) *y* = 13 (for J4A001A) or 20 (for J4A001B) Response: The screen returns an output message with REMOVE COMPLETE, then ATP for tests run.	Telco	—
141	At the 1B MTC terminal, restore TSI x, Controller 1 by entering: **RST:TSI *x*,CONTR 1!** where *x* = Member Number (0-63) Response: The screen returns an output message with ATP for all tests run, then RESTORE COMPLETED.	Telco	—
142	Recent change and verify TSI submember equipage from SGRO to OPER using RC Form 700.	Telco	DLP-511
143	At the 1B MTC terminal, diagnose the growth SCU and the associated disk pair using Phase 11 by entering: **DGN:SCS *x*,SCU *z*:PH 11!** where *x* = Member Number (0-7) *z* = Submember Number (0-15) Response: The screen returns an output message with ATP for Phase 11.	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
144	Recent change and verify the disk pair and MSP/MIP equipage of the growth SCU from SGRO to OPER using RC Form 703.	Telco	DLP-548
145	Recent change and verify the growth SCU equipage from SGRO to OPER using RC Form 700.	Telco	DLP-510
146	Diagnose the growth SCU by entering the following message at the 1B MTC terminal: **DGN:SCS** *x*,**SCU** *y*! where *x* = SCS Member Number (0-7) *y* = SCU Number (0-15) Response: The screen returns an output message with ATP.	Telco	—
147	If the growth SCU is a **new SCU** (did not previously exist in the SCS), verify alarms for the appropriate SCU(s) 0-15 and associated Disk Power Controllers. Otherwise, continue to Step 148.	Inst	—
148	Verify CDSC/CDSU alarms as follows: A. At the CDSC, unplug the cable connector that connects the ED-4A286-32, G10 cable to the ED-4A286-32, G21 or G21A cable. B. At the 1B MTC terminal, diagnose **each** growth SCU and the associated disk pair(s) by entering: **DGN:SCS** *a*,**SCU** *b*:**PH 17,TLP!** where *a* = Member Number (0-7) *b* = SCU Number (0-15) Response: Phase 17 will fail (STF) and the LEDs on the CDSU(s) will cycle beginning with the lowest-numbered CDSU. C. On the output message for the Phase 17 TLP, verify the Frame Location Number (FLN) for the CDSC Cabinet. D. Compare the FLN with the label on the CDSC cabinet to be sure they match. E. Reconnect the cable connectors.	Telco/Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
149	At the 1B MTC terminal, run a Peripheral Unit Status audit by entering: **AUD:PUSTAT!** Response: Output message for appropriate SCU followed by: `AUD:PUSTAT MSG COMPL`	Telco	—
150	If the growth SCU is a **new SCU** (did not previously exist in the SCS), diagnose the growth SCU and the associated disk pair(s) using demand phases of equipped disk pairs by entering the following input message at the 1B MTC terminal. Otherwise, continue to Step 151. **DGN:SCS** *a*,**SCU** *b*:**PH** *c*-*d*! where *a* = Member Number (0-7) *b* = SCU Number (0-15) *c* = Beginning Phase Number (see Note) *d* = Ending Phase Number (see Note) ***Note:*** The beginning and ending phase numbers may vary. Type 3 (TN9000 - 9GB) Disk Pairs, the demand phases listed below should be used: 90 - 91 For Disk Pair 0 location Response: The screen returns output messages with ATP for all equipped disk pairs. ***Note:*** This DGN message takes between 40 minutes and 1 hour and 40 minutes per phase.	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
151	Add the growth SCU to the AAP's SCU equipment (SCUEQP) database.	Telco/Inst	DLP-521
	Note: If the disk pair has no announcements, continue to Step 152. If disk pair has announcements go to Step 153.		
152	At the 1B MTC terminal, perform a Soft Initialization of SCU **y**, Disk Pair 0, by entering the commands given below. ***Note:*** When populating a TN9000 - 9 GB disk pair at the SCU **y**, Disk Pair 0 location in the SCS Unit Type Translator, enter the following input messages: A. **INIT:SCS** *x*,**SCU** *y*,**DSK 0,BUS 0,TYP 1!** where *x* = Member Number (0-7) *y* = Submember Number (0-15) Response: `INIT:SCS` *x*, `SCU` *y* `COMPLETE` B. **INIT:SCS** *x*, **SCU** *y*,**DSK 0, BUS 1,TYP 1!** where *x* = Member Number (0-7) *y* = Submember Number (0-15) Response: `INIT:SCS` *x*, `SCU` *y* `COMPLETE`	Telco	—

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

153	Add all growth CDSUs to the AAP CDSU database.
	
	Note: A single SCU can be associated with a maximum of two CDSUs within a single CDSC.
	
	A. At the AAP console, select option **1**.
	B. At the AAP console, enter:
	OP:CDSU:FORM=SHORT
	
	Response:
	
	Unless this is the first CDSU being added to the AAP CDSU database, the screen will return a list of CDSUs within the database with their associated KEY Numbers. Use this list to determine an appropriate KEY Number (not already used) which will be used later for adding a growth CDSU to the AAP database.
	
	If this is the first CDSU being added to the AAP CDCU database, the following message will be displayed:
	`OP:CDSU STOPPED`
	`RECORD NOT FOUND`
	C. At the AAP console, enter the following (all in one line):
	UPD:CDSU:UPD=ADD:"KEY=*a*,SCS=*b*, SCU=*cc*,CDSU=*dd*,GEN=CDSU2"
	
	where *a* = Database KEY Number (0-99999, not already used) (Use 0 if this is the first CDSU being grown in an office.)
	b = SCS Member Number (0-7)
	cc = SCU Number (00-15)
	dd = CDSU Number (00-03)
	
	Response:
	
	The screen will return a listing of the entry just added. Check that the appropriate information for the growth CDSU is present. If not, repeat Step C.
	D. Repeat Step C for all appropriate CDSUs.
	E. At the AAP console, enter: **LOGOUT**
	
	Response: The menu is displayed on the AAP console screen.
		Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
154	If this is the first ASR CDSC being grown in the office, complete Steps 155, 156, and 157. Otherwise, continue to Step 158.	Telco/Inst/ TCC/NCC	—
155	Add a disk pair to the AAP.	Inst	—
156	Check AAP disk drives.	Telco/Inst	DLP-546

157	Load AAP disk drives as follows:
	
	A. At the SCSI Bus 0, Disk 4 location, insert the "2 Gigabyte Disk Upgrade Installation Tape" (J4A036A-1 List 1, M13 TP-4A619-01) tape cartridge into the door just below the locking mechanism.
	
	B. Log in at the AAP console as **root** and enter the following:
	pkgadd -d /dev/rmt/ctape0 TWOGBDSK
	
	Response:
	
	`Insert a Cartridge Tape into /dev/rmt/ctape0`
	`Type [go] when ready,`
	`or [q] to quit:`
	
	C. At the AAP console, enter the following:
	go
	
	Response:
	
	The screen returns a series of system messages followed by:
	
	`Installation of <TWOGBDSK> was successful.`
	
	D. At the AAP console, enter: **exit**
	
	E. Remove the tape cartridge from the SCSI Bus 0, Disk 4 location.
		Telco/Inst	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
158	If this is the first ASR CDSC being grown in the office or a subsequent CDSC containing a Smart HUB, complete Steps A, B, C, D, and E. Otherwise, continue to Step 159. A. Contact the Advanced Features Service Center (AFSC) at 314-658-1304 (tech beeper 314-424-8661) and notify them that the LAN will be taken out of service and that announcement updates to this site will be delayed. B. At the 1B MTC terminal, enter: **INH:SCS 0,LAN!** Response: `INH:SCS 0, LAN` C. At the AAP console, log in as **aapusr** and select option **4**. D. At the AAP console, enter: **STOP:AAP"LANCMD"!** Response: `STOP:AAP "LANCMD" completed` E. At the AAP console, enter: **EXIT**	Telco/Inst/ TCC/NCC	—
159	If this is the first ASR CDSC/Smart HUB being grown in the office, connect the Smart HUB to the AAP LAN. Otherwise, continue to Step 160.	Inst	—
160	If this is the second or higher CDSC/Smart HUB being grown in the office, connect the new Smart HUB to the existing Smart HUB. Otherwise, continue to Step 161.	Inst	—
161	Test the local CDSU/SCS to AAP LAN connection by entering the following message at the 1B MTC terminal: **DGN:SCS** *x*,**SCU** *y*:**PH 10!** where *x* = SCS Member Number (0-7) *y* = SCU Number (0-15) Response: The screen returns an output message with ATP for Phase 10.	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
162	Initialize the AAP and allow the LAN as follows: A. At the AAP console, log in as **aapusr** and select option **4**. B. At the AAP console, enter: **INIT:AAP"LANCMD"!** Response: `INIT:AAP "LANCMD" completed` C. At the AAP console, enter: **EXIT** D. At the 1B MTC terminal, enter:**ALW:SCS 0,LAN!** Response: The screen returns `Code 091` followed by `ALW:SCS 0,LAN`. E. Contact the Advanced Features Service Center (AFSC) at 314-658-1304 (tech beeper 314-424-8661) and notify them that the LAN is back in service and that announcement updates may be resumed.	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO	
163	Log into the AAP as **root** and enter the following **for each growth CDSU** to test the LAN: A. At the AAP console, enter: **/usr/sbin/ping cds***xyyzz* where *x* = SCS Member Number (0-7) *yy* = SCU Submember Number (00-15) *zz* = CDSU Number (00-03) Response: The screen returns: `cds`*xyyzz* `is alive` B. At the AAP console, enter: **rsh cds***xyyzz* **date** where *x* = SCS Member Number (0-7) *yy* = SCU Submember Number (00-15) *zz* = CDSU Number (00-03) Response: The screen returns today's date. C. Have Steps A and B been completed for each growth CDSU? If **YES**, enter **exit** at the AAP console, then continue to the next step. If **NO**, repeat Steps A and B for the next growth CDSU.	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
164	Restore the SCU and the associated disk pair by entering the following input message at the 1B MTC terminal: **RST:SCS** *x*,**SCU** *z*! where *x* = Member Number (0-7) *z* = Submember Number (0-15) Response: ATP ANN UPD STARTED (if AAP is present and active) RESTORE COMPLETE ***Note:*** During the restore of the SCU, an announcement update will take place. Depending on the number of new announcements, this restore could take several minutes.	Telco	—
165	At the growth Service Circuit Unit Cabinet (SCUC), toggle the SCU's **ROS** switch on the TN1984 circuit pack from NORMAL to **ROS**, then back to NORMAL. ***Note:*** This will remove the SCU from service. When switched back to NORMAL, the growth SCU will be diagnosed and successfully returned to SERVICE. During the restore of the SCU, an announcement update will take place. Depending on the number of new announcements this restore could take several minutes.	Telco/Inst	—
166	Perform AAP LAN test of an in-service SCU as follows: A. At the AAP console, log in as **aapusr** and select option **4**. B. At the AAP console, enter: **POLL: ANNSET** *x*! where *x* = Announcement Set of the SCU restored in Step 164 (A-Z) (See Step 9 for Announcement Set.) Response: POLL: ANNSET *x* Completed	Telco	—

DO THE ITEMS BELOW IN THE ORDER LISTED			FOR DETAILS, GO TO
167	This is a **Safe Stop Point**. If stopping, perform Steps 168 and 169. Otherwise, go to Step 172.	Telco/Inst	—
168	At the 1B MTC terminal, allow REX by entering: **ALW:MACLI,CLASS MTCE!** Response: `AUTOMATIC JOB SCHEDULING RESUMED`	Telco	—
169	Contact the NCC and have them send the latest CDSU BWM to the AAP.	Telco	—
170	Stop procedure for now. Resume at Step 171 when continuing.	Telco/Inst	—
171	Perform Steps 1 through 8 of this procedure only if additional SCUs are to be grown. Then continue to the next step.	Telco/Inst	—
172	Have Steps 137 through 171 been completed for all growth SCUs? If **YES**, **STOP! THIS PROCEDURE IS COMPLETE**. If **NO**, repeat Steps 137 through 171 for the next growth SCU. ***Note:*** Ensure that Step 169 is executed once during this procedure.	Telco/Inst	—

TABLE A Allowable Disk Pair Configurations When Using Type 3 (TN9000) Circuit Packs With SCU 0

Note: SCU 0 can physically support 2 disk pairs (0,1) when installing disks.

Allowable Disk Pair Types	
Disk Pair Location 0	**Disk Pair Location 1**
3	X
Where "X" indicates disk pair locations that **must be unpopulated**.	

Recent Change and Verify Member Equipage From UNEQ to GROW Using Recent Change (RC) Form 700

Caution: Calling up an RC Form will cause all data on the screen to be cleared.

1. At the 1B Maintenance (MTC) terminal, enter **OP:RCFORM 700!**

   Response: Recent Change Form 700 appears on the screen.

2. At UTYN, enter **SCS**.

3. At ORNU, enter a unique Order Number.

4. At MEMN, enter the SCS Member Number.

5. At ME, enter **UNEQ** under OLD, then enter **GROW** under NEW.

6. If no REMARKS are needed, return the cursor to the top of the form by pressing HOME.

7. Press SEND/ENTER

   Response: RC ORNU *a* SUCCESSFULLY TESTED followed by
   RC ORNU *a* SUCCESSFULLY BUFFERED followed by all new entries.

   Note: All entries should be checked for accuracy. If any entries are found to be incorrect, repeat Steps 1 through 7.

8. At the 1B MTC terminal, enter **RCACT:ORNU** *a***!**

   where *a* = RC Order Number

   Response: `RC ORNU` *a* `ACTIVATED` followed by all new entries.

   where *a* = RC Order Number

   Note: All entries should be checked for accuracy. If any entries are found to be incorrect, remove recent change using RC Form 701 and repeat this DLP.

9. At the 1B MTC terminal, enter **VER:UTYPE:SCS** *x***!**

   where *x* = Member Number (0-7)

   Response:
   ```
   VER:UTMN;OPT(),CUR:
   FLN a
   UTYN b
   MEMN c
   ME d
   ENTRY ADDRESS e
   ENTRY SIZE f
   ```

   The above responses are followed by a complete printout of the SCS Unit Type entry data. (Use this printout to determine if data was properly entered.)

   where *a* = Floor location number
   b = Unit type name
   c = Member number of growth associated complex
   d = Member equipage
   e = An 8-digit entry address
   f = A 2-digit entry size

10. **STOP! YOU HAVE COMPLETED THIS PROCEDURE.**

Recent Change and Verify Member Equipage From GROW to SGRO Using Recent Change (RC) Form 700

Caution: Calling up an RC Form will cause all data on the screen to be cleared.

1. At the 1B MTC terminal, enter **OP:RCFORM 700!**

   Response: Recent Change Form 700 appears on the screen.

2. At UTYN, enter **SCS**.

3. At ORNU, enter a unique Order Number.

4. At MEMN, enter the Member Number.

5. At ME, enter **GROW** under OLD, then enter **SGRO** under NEW.

6. If no REMARKS are needed, return the cursor to the top of the form by pressing HOME.

7. Press SEND/ENTER

   Response: RC ORNU *a* SUCCESSFULLY TESTED followed by RC ORNU *a* SUCCESSFULLY BUFFERED followed by all new entries.

   Note: All entries should be checked for accuracy. If any entries are found to be incorrect, repeat Steps 1 through 7.

8. At the 1B MTC terminal, enter **RCACT:ORNU** *a***!**

   where *a* = RC Order Number

   Response: `RC ORNU` *a* `ACTIVATED` followed by all new entries.

   where *a* = RC Order Number

   Note: All entries should be checked for accuracy. If any entries are found to be incorrect, remove recent change using RC Form 701 and repeat this DLP.

9. At the 1B MTC terminal, enter **VER:UTYPE:SCS** *x***!**

   where *x* = Member Number (0-7)

   Response:
   ```
   VER:UTMN;OPT(),CUR:
   FLN a
   UTYN b
   MEMN c
   ME d
   ENTRY ADDRESS e
   ENTRY SIZE f
   ```

   The above responses are followed by a complete printout of the SCS Unit Type entry data. (Use this printout to determine if data was properly entered.)

   where *a* = Floor location number
   b = Unit type name
   c = Member number of growth associated complex
   d = Member equipage
   e = An 8-digit entry address
   f = A 2-digit entry size

10. **STOP! YOU HAVE COMPLETED THIS PROCEDURE.**

Recent Change and Verify Submember Equipage From UNEQ to GROW Using Recent Change (RC) Form 700

Caution: Calling up an RC Form will cause all data on the screen to be cleared.

1. At the 1B Maintenance (MTC) terminal, enter **OP:RCFORM 700!**

   Response: Recent Change Form 700 appears on the screen.

2. At `UTYN`, enter **SCS**.

3. At `ORNU`, enter a unique Order Number.

4. At `MEMN`, enter the SCS Member Number.

5. At `SUBMEM`, enter the Submember Name [**SCUEQ(0-15)**, where 0-15 is the SCU number].

6. At `SME`, enter **UNEQ** under `OLD`, then enter **GROW** under `NEW`.

7. If no `REMARKS` are needed, return the cursor to the top of the form by pressing HOME.

8. Press SEND/ ENTER

   Response: `RC ORNU` *a* `SUCCESSFULLY TESTED` followed by
   `RC ORNU` *a* `SUCCESSFULLY BUFFERED` followed by all new entries.

   where *a* = RC Order Number

   Note: All entries should be checked for accuracy. If any entries are found to be incorrect, repeat Steps 1 through 8.

9. At the 1B MTC terminal, enter **RCACT:ORNU** *a***!**

   where *a* = RC Order Number

   Response: `RC ORNU` *a* `ACTIVATED` followed by all new entries.

   where *a* = RC Order Number

   Note: All entries should be checked for accuracy. If any entries are found to be incorrect, remove recent change using RC Form 701 (DLP-536) and repeat this DLP.

10. At the 1B MTC terminal, verify that the Submember Equipage (SME) has been changed to the `GROW` state by entering the following: **VER:UTYPE:SCS** *x*,**SME** *y***!**

    where *x* = Member Number (0-7)
    y = SCU Index Number (see Table A)

TABLE A SCU Index Numbers

SCU	INDEX NO.	SCU	INDEX NO.	SCU	INDEX NO.	SCU	INDEX NO.
0	177	4	181	8	185	12	189
1	178	5	182	9	186	13	190
2	179	6	183	10	187	14	191
3	180	7	184	11	188	15	192

Response:
```
VER:UTMN;OPT(SME),CUR:
FLN a
UTYN b
MEMN c
ME d
SME e
SUBMEM f
```

where *a* = Floor location number
b = Unit type name
c = Member number of growth associated complex
d = Member equipage
e = SME
f = SME index number

Note: All entries should be checked for accuracy. If any entries are found to be incorrect, repeat this step using correct data.

11. **STOP! YOU HAVE COMPLETED THIS PROCEDURE.**

Recent Change and Verify Each Associated Disk Pair and Multifaceted Signal Processor (MSP) Equipage From UNEQ to GROW Using Recent Change (RC) Form 703

Caution: Calling up an RC Form will cause all data on the screen to be cleared.

1. At the 1B Maintenance (MTC) terminal, enter **OP:RCFORM 703!**

   Response: Recent Change Form 703 appears on the screen.

2. At SCS, enter growth Member Number (0-7).

3. At SCU, enter the growth SCU Number (0-15).

4. At ORNU, enter a unique Order Number.

5. At MSBEQ location 0, enter **G** (grow).

   Note: If the SCU has more than one associated Multifaceted Signal Processor circuit pack (TN1589), also enter **G** at locations 1 through 3 of MSBEQ, as required.

6. At DSKEQ location 0, enter **G** (grow).

   Note: If SCU 0 is being grown and has more than one associated disk pair, also enter **G** at location 1 of DSKEQ, as required.

7. Are TN4000 circuit packs being used as the disk pair(s) associated with the growth SCU?

   If **YES**, go to Step 8.
   If **NO**, go to Step 9.

8. At the appropriate DSKC location(s) 0, enter **2**.

9. If no REMARKS are needed, return the cursor to the top of the form by pressing HOME.

10. Press SEND/ENTER

    Response: `RC ORNU` *a* `SUCCESSFULLY TESTED` followed by
    `RC ORNU` *a* `SUCCESSFULLY BUFFERED` followed by all new entries.

    where *a* = RC Order Number

    Note: All entries should be checked for accuracy. If any entries are found to be incorrect, repeat Steps 1 through 10.

11. At the 1B MTC terminal, enter **RCACT:ORNU** *a***!**

    where *a* = RC Order Number

    Response: `RC ORNU` *a* `ACTIVATED` followed by all new entries.

    Note: All entries should be checked for accuracy. If any entries are found to be incorrect, repeat this DLP correcting the errors.

12. At the 1B MTC terminal, enter **VER:UTYPE:SCS** *x***!**

    where *x* = Member Number (0-7)

    Caution: When populating* DSKEQ *for a Type 2 (TN4000 - 4 Gb) disk pair at location 0, the adjacent location 1 will also be populated when checking the Unit Type Translator. This is done automatically via recent change.

    Response:
    ```
    VER:UTMN;OPT(),CUR:
    FLN a
    UTYN b
    MEMN c
    ME d
    ENTRY ADDRESS e
    ENTRY SIZE f
    ```

    The above responses are followed by a complete printout of the SCS Unit Type entry data. Use this printout and Figure 1 to determine if the SCU data (MSP and disk pair equipage) was properly entered.

    where *a* = Floor location number
    b = Unit type name
    c = Member number of growth associated complex
    d = Member equipage
    e = An 8-digit entry address
    f = A 2-digit entry size

13. **STOP! YOU HAVE COMPLETED THIS PROCEDURE.**

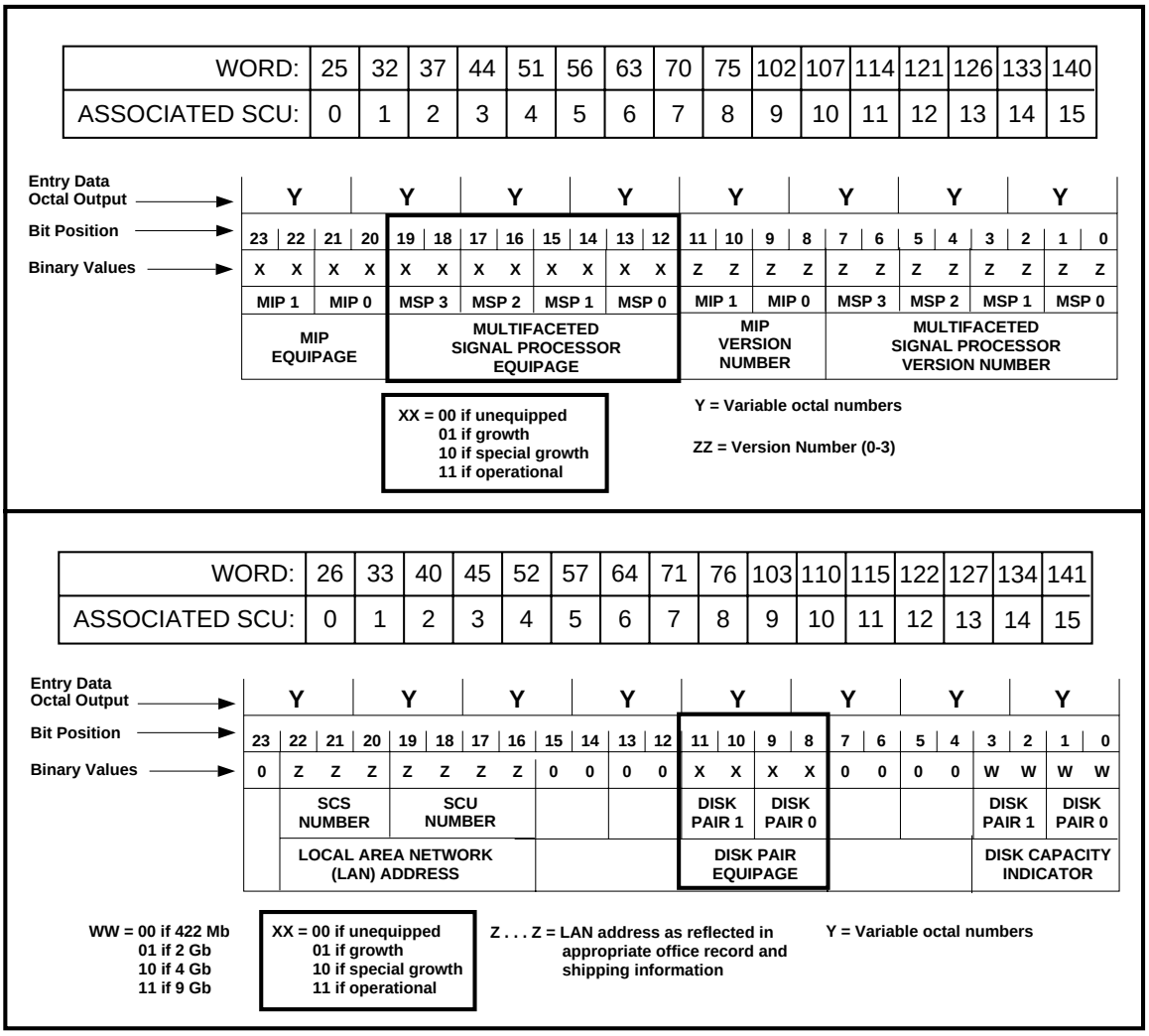

Figure 1. Words in SCS Unit Type Translator Used to Determine MSP and Disk Pair Equipage

Recent Change and Verify Submember Equipage From GROW to SGRO Using Recent Change (RC) Form 700

Caution: Calling up an RC Form will cause all data on the screen to be cleared.

1. At the 1B Maintenance (MTC) terminal, enter **OP:RCFORM 700!**

   Response: Recent Change Form 700 appears on the screen.

2. At `UTYN`, enter **SCS**.

3. At `ORNU`, enter a unique Order Number.

4. At `MEMN`, enter the SCS Member Number.

5. At `SUBMEM`, enter the Submember Name [**SCUEQ(0-15)**, where 0-15 is the SCU number].

6. At `SME`, enter **GROW** under `OLD`, then enter **SGRO** under `NEW`.

7. If no `REMARKS` are needed, return the cursor to the top of the form by pressing HOME.

8. Press SEND/ ENTER

   Response: `RC ORNU` *a* `SUCCESSFULLY TESTED` followed by
   `RC ORNU` *a* `SUCCESSFULLY BUFFERED` followed by all new entries.

   where *a* = RC Order Number

   Note: All entries should be checked for accuracy. If any entries are found to be incorrect, repeat Steps 1 through 8.

9. At the 1B MTC terminal, enter **RCACT:ORNU** *a***!**

   where *a* = RC Order Number

   Response: `RC ORNU` *a* `ACTIVATED` followed by all new entries.

   where *a* = RC Order Number

   Note: All entries should be checked for accuracy. If any entries are found to be incorrect, remove recent change using RC Form 701 (DLP-535) and repeat this DLP.

10. At the 1B MTC terminal, verify that the Submember Equipage (SME) has been changed to the `SGRO` state by entering the following: **VER:UTYPE:SCS** *x*,**SME** *y***!**

    where *x* = Member Number (0-7)
    y = SCU Index Number (see Table A)

TABLE A SCU Index Numbers

SCU	INDEX NO.	SCU	INDEX NO.	SCU	INDEX NO.	SCU	INDEX NO.
0	177	4	181	8	185	12	189
1	178	5	182	9	186	13	190
2	179	6	183	10	187	14	191
3	180	7	184	11	188	15	192

Response:
```
VER:UTMN;OPT(SME),CUR:
FLN a
UTYN b
MEMN c
ME d
SME e
SUBMEM f
```

where *a* = Floor location number
b = Unit type name
c = Member number of growth associated complex
d = Member equipage
e = SME
f = SME index number

Note: All entries should be checked for accuracy. If any entries are found to be incorrect, repeat this step using correct data.

11. **STOP! YOU HAVE COMPLETED THIS PROCEDURE.**

Recent Change and Verify Each Associated Disk Pair and Multifaceted Signal Processor (MSP) Equipage From GROW to SGRO Using Recent Change (RC) Form 703

Caution: Calling up an RC Form will cause all data on the screen to be cleared.

1. At the 1B Maintenance (MTC) terminal, enter **OP:RCFORM 703!**

   Response: Recent Change Form 703 appears on the screen.

2. At SCS, enter growth Member Number (0-7).

3. At SCU, enter the growth SCU Number (0-15).

4. At ORNU, enter a unique Order Number.

5. At MSBEQ location 0, enter **S** (special grow).

   Note: If the SCU has more than one associated Multifaceted Signal Processor circuit pack (TN1589), also enter **S** at locations 1 through 3 of MSBEQ, as required.

6. At DSKEQ location 0, enter **S** (special grow).

   Note: If SCU 0 is being grown and has more than one associated disk pair, also enter **S** at location 1 of DSKEQ, as required.

7. If no REMARKS are needed, return the cursor to the top of the form by pressing HOME.

8. Press SEND/ENTER

   Response: `RC ORNU` *a* `SUCCESSFULLY TESTED` followed by
   `RC ORNU` *a* `SUCCESSFULLY BUFFERED` followed by all new entries.

   where *a* = RC Order Number

   Note: All entries should be checked for accuracy. If any entries are found to be incorrect, repeat Steps 1 through 8.

9. At the 1B MTC terminal, enter **RCACT:ORNU** *a***!**

   where *a* = RC Order Number

   Response: `RC ORNU` *a* `ACTIVATED` followed by all new entries.

   Note: All entries should be checked for accuracy. If any entries are found to be incorrect, repeat this DLP correcting the errors.

10. At the 1B MTC terminal, enter **VER:UTYPE:SCS** *x***!**

    where *x* = Member Number (0-7)

    Caution: When populating* DSKEQ *for a Type 2 (TN4000 - 4 Gb) disk pair at location 0, the adjacent location 1 will also be populated when checking the Unit Type Translator. This is done automatically via recent change.

    Response:
    ```
    VER:UTMN;OPT(),CUR:
    FLN a
    UTYN b
    MEMN c
    ME d
    ENTRY ADDRESS e
    ENTRY SIZE f
    ```
    The above responses are followed by a complete printout of the Service Circuit System (SCS) Unit Type entry data. Use this printout and Figure 1 to determine if the SCU data (MSP and disk pair equipage) was properly entered.

    where *a* = Floor location number
    b = Unit type name
    c = Member number of growth associated complex
    d = Member equipage
    e = An 8-digit entry address
    f = A 2-digit entry size

11. **STOP! YOU HAVE COMPLETED THIS PROCEDURE.**

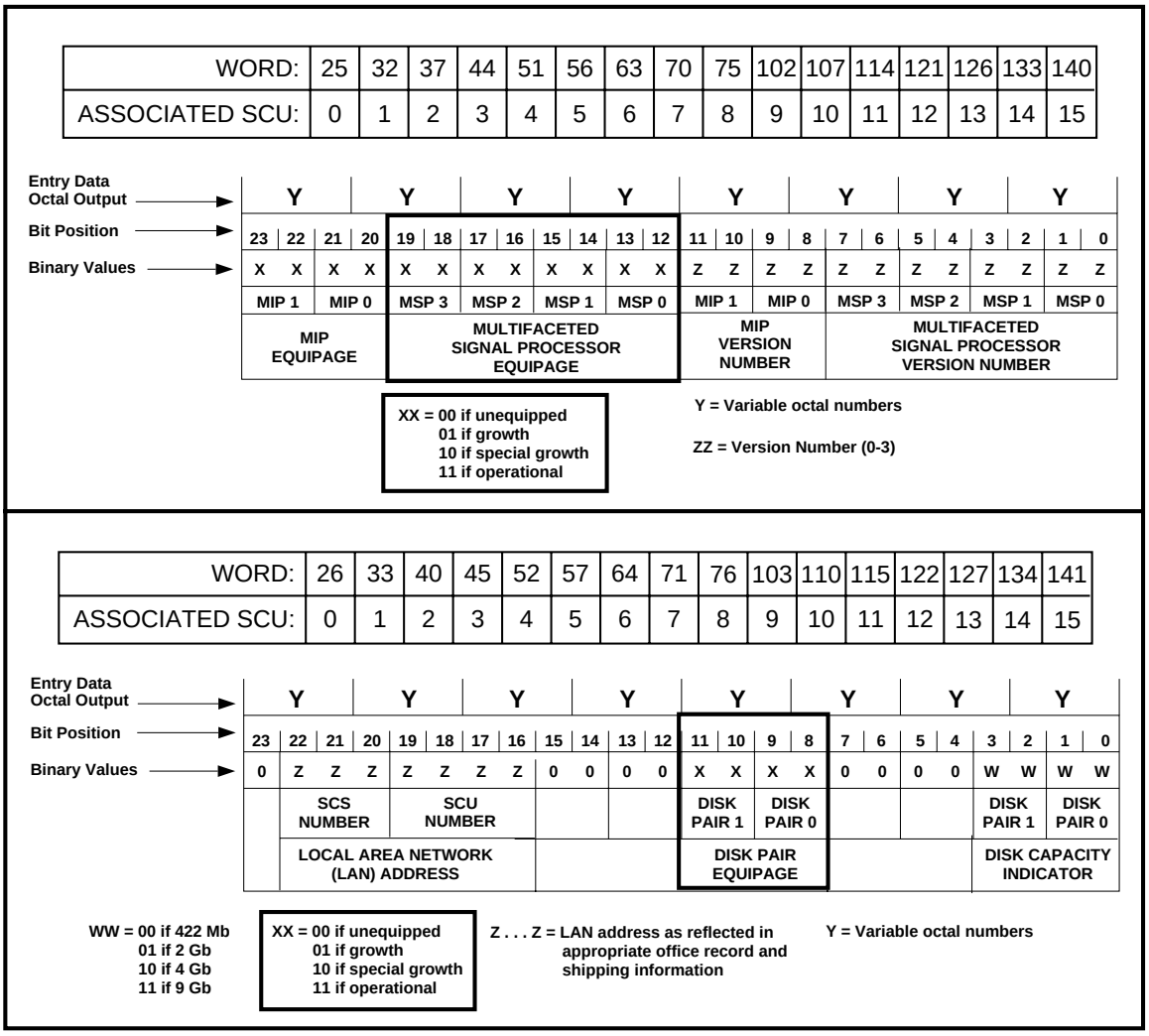

Figure 1. Words in SCS Unit Type Translator Used to Determine MSP and Disk Pair Equipage

Recent Change and Verify Time Slot Interchange (TSI) Submember Equipage From UNEQ to GROW Using Recent Change (RC) Form 700

Caution: Calling up an RC Form will cause all data on the screen to be cleared.

1. At the 1B Maintenance (MTC) terminal, enter **OP:RCFORM 700!**

   Response: Recent Change Form 700 appears on the screen.

2. At UTYN, enter **TSI**.

3. At ORNU, enter a unique Order Number.

4. At MEMN, enter the TSI Member Number.

5. At SUBMEM, enter the Submember Name [**T0PRTEQ(0-6)** for SPC0 ports 0-6, or **T1PRTEQ(0-6)** for SPC1 ports 0-6].

6. At SME, enter **UNEQ** under OLD, then enter **GROW** under NEW.

7. If no REMARKS are needed, return the cursor to the top of the form by pressing HOME.

8. Press SEND/ ENTER

   Response: RC ORNU *a* SUCCESSFULLY TESTED followed by
   RC ORNU *a* SUCCESSFULLY BUFFERED followed by all new entries.

   where *a* = RC Order Number

   Note: All entries should be checked for accuracy. If any entries are found to be incorrect, repeat Steps 1 through 8.

9. At the 1B MTC terminal, enter **RCACT:ORNU** *a***!**
   where *a* = RC Order Number

   Response: `RC ORNU` *a* `ACTIVATED` followed by all new entries.
   where *a* = RC Order Number

   Note: All entries should be checked for accuracy. If any entries are found to be incorrect, remove recent change using RC Form 701 (DLP-541) and repeat this DLP.

10. At the 1B MTC terminal, verify that the TSI Submember Equipage (SME) has been changed to the `GROW` state by entering the following: **VER:UTYPE:TSI** *x*,**SME** *y*!
    where *x* = Member Number (0-62)
    y = TSI Port Index Number (see Table A)

TABLE A TSI Port Index Numbers

PORT	INDEX NO.	PORT	INDEX NO.	PORT	INDEX NO.
SPC 0-0	56	SPC 0-5	61	SPC 1-3	66
SPC 0-1	57	SPC 0-6	62	SPC 1-4	67
SPC 0-2	58	SPC 1-0	63	SPC 1-5	68
SPC 0-3	59	SPC 1-1	64	SPC 1-6	69
SPC 0-4	60	SPC 1-2	65		

Response: `VER:UTMN;OPT(SME),CUR:`
`FLN` *a*
`UTYN` *b*
`MEMN` *c*
`ME` *d*
`SME` *e*
`SUBMEM` *f*

where *a* = Floor location number
b = Unit type name
c = Member number of growth associated complex
d = Member equipage
e = SME
f = SME index number

Note: All entries should be checked for accuracy. If any entries are found to be incorrect, repeat this step using correct data.

11. **STOP! YOU HAVE COMPLETED THIS PROCEDURE.**

Recent Change and Verify Time Slot Interchange (TSI) Submember Equipage From GROW to SGRO Using Recent Change (RC) Form 700

Caution: Calling up an RC Form will cause all data on the screen to be cleared.

1. At the 1B Maintenance (MTC) terminal, enter **OP:RCFORM 700!**

   Response: Recent Change Form 700 appears on the screen.

2. At UTYN, enter **TSI**.

3. At ORNU, enter a unique Order Number.

4. At MEMN, enter the TSI Member Number.

5. At SUBMEM, enter the Submember Name [**T0PRTEQ(0-6)** for SPC0 ports 0-6, or **T1PRTEQ(0-6)** for SPC1 ports 0-6].

6. At SME, enter **GROW** under OLD, then enter **SGRO** under NEW.

7. If no REMARKS are needed, return the cursor to the top of the form by pressing HOME.

8. Press SEND/ENTER

   Response: RC ORNU *a* SUCCESSFULLY TESTED followed by
   RC ORNU *a* SUCCESSFULLY BUFFERED followed by all new entries.

   where *a* = RC Order Number

   Note: All entries should be checked for accuracy. If any entries are found to be incorrect, repeat Steps 1 through 8.

9. At the 1B MTC terminal, enter **RCACT:ORNU** *a***!**

   where *a* = RC Order Number

   Response: `RC ORNU` *a* `ACTIVATED` followed by all new entries.

   where *a* = RC Order Number

   Note: All entries should be checked for accuracy. If any entries are found to be incorrect, remove recent change using RC Form 701 (DLP-540) and repeat this DLP.

10. At the 1B MTC terminal, verify that the TSI Submember Equipage (SME) has been changed to the `SGRO` state by entering the following: **VER:UTYPE:TSI** *x*,**SME** *y*!

    where *x* = Member Number (0-62)
    y = TSI Port Index Number (see Table A)

TABLE A TSI Port Index Numbers

PORT	INDEX NO.	PORT	INDEX NO.	PORT	INDEX NO.
SPC 0-0	56	SPC 0-5	61	SPC 1-3	66
SPC 0-1	57	SPC 0-6	62	SPC 1-4	67
SPC 0-2	58	SPC 1-0	63	SPC 1-5	68
SPC 0-3	59	SPC 1-1	64	SPC 1-6	69
SPC 0-4	60	SPC 1-2	65		

    Response: `VER:UTMN;OPT(SME),CUR:`
    `FLN` *a*
    `UTYN` *b*
    `MEMN` *c*
    `ME` *d*
    `SME` *e*
    `SUBMEM` *f*

    where *a* = Floor location number
    b = Unit type name
    c = Member number of growth associated complex
    d = Member equipage
    e = SME
    f = SME index number

    Note: All entries should be checked for accuracy. If any entries are found to be incorrect, repeat this step using correct data.

11. **STOP! YOU HAVE COMPLETED THIS PROCEDURE.**

Recent Change and Verify Member Equipage From SGRO to OPER Using Recent Change (RC) Form 700

Caution: Calling up an RC Form will cause all data on the screen to be cleared.

1. At the 1B Maintenance (MTC) terminal, enter **OP:RCFORM 700!**

   Response: Recent Change Form 700 appears on the screen.

2. At UTYN, enter **SCS**.

3. At ORNU, enter a unique Order Number.

4. At MEMN, enter the SCS Member Number.

5. At ME, enter **SGRO** under OLD, then enter **OPER** under NEW.

6. If no REMARKS are needed, return the cursor to the top of the form by pressing HOME.

7. Press SEND/ENTER

   Response: RC ORNU *a* SUCCESSFULLY TESTED followed by
   RC ORNU *a* SUCCESSFULLY BUFFERED followed by all new entries.

   Note: All entries should be checked for accuracy. If any entries are found to be incorrect, repeat Steps 1 through 7.

8. At the 1B MTC terminal, enter **RCACT:ORNU** *a***!**

   where *a* = RC Order Number

   Response: `RC ORNU` *a* `ACTIVATED` followed by all new entries.

   where *a* = RC Order Number

   Note: All entries should be checked for accuracy. If any entries are found to be incorrect, remove recent change using RC Form 701 and repeat this DLP.

9. At the 1B MTC terminal, enter **VER:UTYPE:SCS** *x***!**

   where *x* = Member Number (0-7)

   Response:
   ```
   VER:UTMN;OPT(),CUR:
   FLN a
   UTYN b
   MEMN c
   ME d
   ENTRY ADDRESS e
   ENTRY SIZE f
   ```

   The above responses are followed by a complete printout of the SCS Unit Type entry data. (Use this printout to determine if data was properly entered.)

   where *a* = Floor location number
   b = Unit type name
   c = Member number of growth associated complex
   d = Member equipage
   e = An 8-digit entry address
   f = A 2-digit entry size

10. **STOP! YOU HAVE COMPLETED THIS PROCEDURE.**

Recent Change and Verify Each Associated Disk Pair and Multifaceted Signal Processor (MSP) Equipage From SGRO to OPER Using Recent Change (RC) Form 703

Caution: Calling up an RC Form will cause all data on the screen to be cleared.

1. At the 1B Maintenance (MTC) terminal, enter **OP:RCFORM 703!**

   Response: Recent Change Form 703 appears on the screen.

2. At SCS, enter growth SCS Member Number (0-7).

3. At SCU, enter the growth SCU Number (0-15).

4. At ORNU, enter a unique Order Number.

5. At MSBEQ location 0, enter **P** (present).

   Note: If the SCU has more than one associated Multifaceted Signal Processor circuit pack (TN1589), also enter **P** at locations 1 through 3 of MSBEQ, as required.

6. At DSKEQ location 0, enter **P** (present).

   Note: If SCU 0 is being grown and has more than one associated disk pair, also enter **P** at location 1 of DSKEQ, as required.

7. If no REMARKS are needed, return the cursor to the top of the form by pressing HOME.

8. Press SEND/ENTER

   Response: `RC ORNU a SUCCESSFULLY TESTED` followed by
   `RC ORNU a SUCCESSFULLY BUFFERED` followed by all new entries.

   where *a* = RC Order Number

   Note: All entries should be checked for accuracy. If any entries are found to be incorrect, repeat Steps 1 through 8.

9. At the 1B MTC terminal, enter **RCACT:ORNU** *a***!**

   where *a* = RC Order Number

   Response: `RC ORNU a ACTIVATED` followed by all new entries.

   Note: All entries should be checked for accuracy. If any entries are found to be incorrect, repeat this DLP, correcting the errors.

10. At the 1B MTC terminal, enter **VER:UTYPE:SCS x!**

    where *x* = Member Number (0-7)

    Caution: When populating* DSKEQ *for a Type 2 (TN4000 - 4 Gb) disk pair at location 0, the adjacent location 1 will also be populated when checking the Unit Type Translator. This is done automatically via recent change.

    Response:
    ```
    VER:UTMN;OPT(),CUR:
    FLN a
    UTYN b
    MEMN c
    ME d
    ENTRY ADDRESS e
    ENTRY SIZE f
    ```

    The above responses are followed by a complete printout of the Service Circuit System (SCS) Unit Type entry data. Use this printout and Figure 1 to determine if the SCU data (MSP and disk pair equipage) was properly entered.

    where *a* = Floor location number
    b = Unit type name
    c = Member number of growth associated complex
    d = Member equipage
    e = An 8-digit entry address
    f = A 2-digit entry size

11. **STOP! YOU HAVE COMPLETED THIS PROCEDURE.**

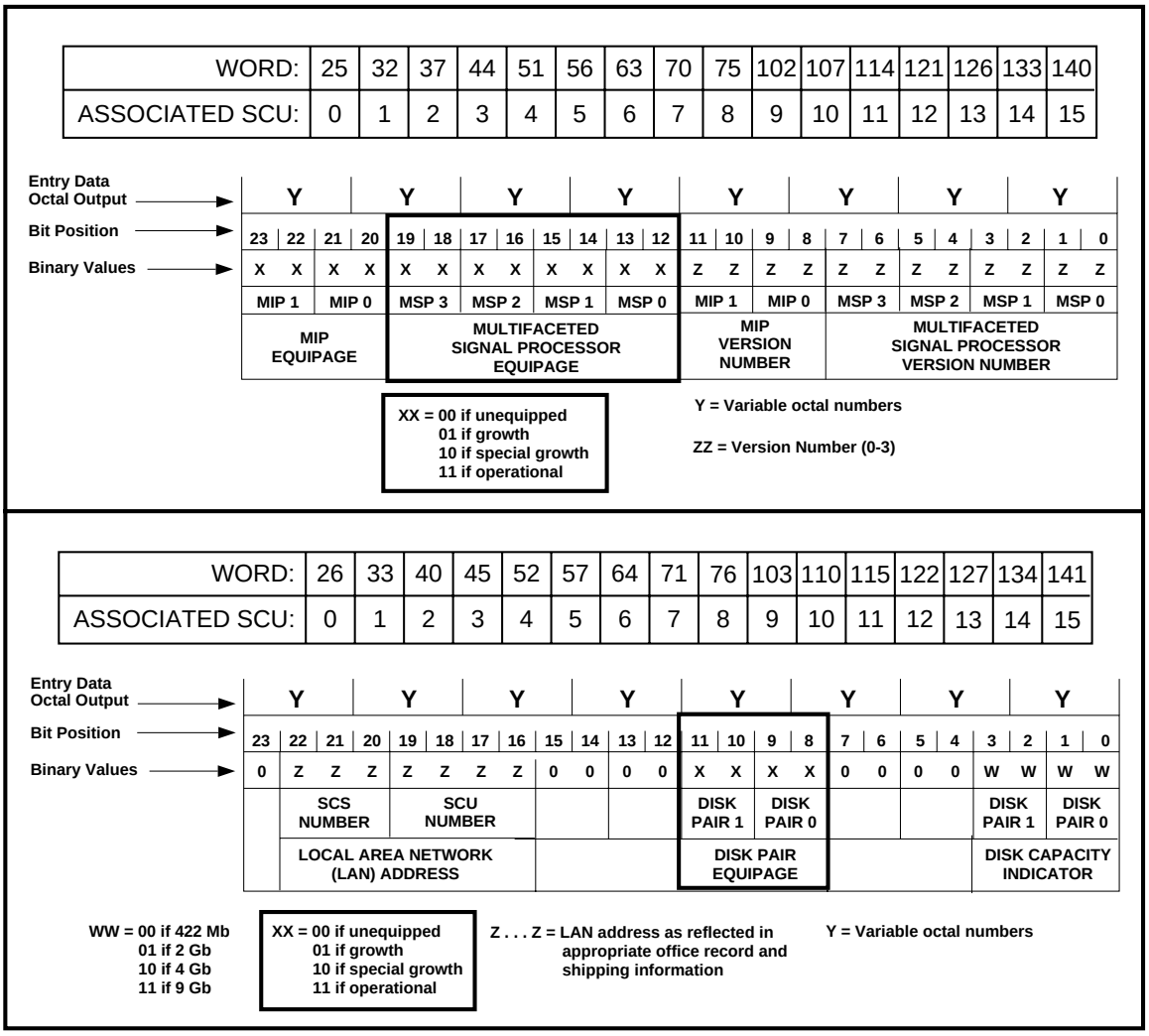

Figure 1. Words in SCS Unit Type Translator Used to Determine MSP and Disk Pair Equipage

Recent Change and Verify Submember Equipage From SGRO to OPER Using Recent Change (RC) Form 700

Caution: Calling up an RC Form will cause all data on the screen to be cleared.

1. At the 1B Maintenance (MTC) terminal, enter **OP:RCFORM 700!**

   Response: Recent Change Form 700 appears on the screen.

2. At `UTYN`, enter **SCS**.

3. At `ORNU`, enter a unique Order Number.

4. At `MEMN`, enter the SCS Member Number.

5. At `SUBMEM`, enter the Submember Name [**SCUEQ(0-15)**, where 0-15 is the SCU number].

6. At `SME`, enter **SGRO** under `OLD`, then enter **OPER** under `NEW`.

7. If no `REMARKS` are needed, return the cursor to the top of the form by pressing HOME.

8. Press SEND/ENTER

   Response: `RC ORNU` *a* `SUCCESSFULLY TESTED` followed by
   `RC ORNU` *a* `SUCCESSFULLY BUFFERED` followed by all new entries.

   where *a* = RC Order Number

   Note: All entries should be checked for accuracy. If any entries are found to be incorrect, repeat Steps 1 through 8.

9. At the 1B MTC terminal, enter **RCACT:ORNU** *a***!**

   where *a* = RC Order Number

   Response: `RC ORNU` *a* `ACTIVATED` followed by all new entries.

   where *a* = RC Order Number

   Note: All entries should be checked for accuracy. If any entries are found to be incorrect, remove recent change using RC Form 701 (DLP-513) and repeat this DLP.

10. At the 1B MTC terminal, verify that the Submember Equipage (SME) has been changed to the `OPER` state by entering the following: **VER:UTYPE:SCS** *x*,**SME** *y***!**

    where *x* = Member Number (0-7)
    y = SCU Index Number (see Table A)

TABLE A SCU Index Numbers

SCU	INDEX NO.	SCU	INDEX NO.	SCU	INDEX NO.	SCU	INDEX NO.
0	177	4	181	8	185	12	189
1	178	5	182	9	186	13	190
2	179	6	183	10	187	14	191
3	180	7	184	11	188	15	192

Response:
`VER:UTMN;OPT(SME),CUR:`
`FLN` *a*
`UTYN` *b*
`MEMN` *c*
`ME` *d*
`SME` *e*
`SUBMEM` *f*

where *a* = Floor location number
b = Unit type name
c = Member number of growth associated complex
d = Member equipage
e = SME
f = SME index number

Note: All entries should be checked for accuracy. If any entries are found to be incorrect, repeat this step using correct data.

11. **STOP! YOU HAVE COMPLETED THIS PROCEDURE.**

Recent Change and Verify Time Slot Interchange (TSI) Submember Equipage From SGRO to OPER Using Recent Change (RC) Form 700

Caution: Calling up an RC Form will cause all data on the screen to be cleared.

1. At the 1B MTC terminal, enter **OP:RCFORM 700!**

   Response: Recent Change Form 700 appears on the screen.

2. At UTYN, enter **TSI**.

3. At ORNU, enter a unique Order Number.

4. At MEMN, enter the TSI Member Number.

5. At SUBMEM, enter the Submember Name [**T0PRTEQ(0-6)** for SPC0 ports 0-6, or **T1PRTEQ(0-6)** for SPC1 ports 0-6].

6. At SME, enter **SGRO** under OLD, then enter **OPER** under NEW.

7. If no REMARKS are needed, return the cursor to the top of the form by pressing HOME.

8. Press SEND/ ENTER

   Response: RC ORNU *a* SUCCESSFULLY TESTED followed by
   RC ORNU *a* SUCCESSFULLY BUFFERED followed by all new entries.

   where *a* = RC Order Number

   Note: All entries should be checked for accuracy. If any entries are found to be incorrect, repeat Steps 1 through 8.

9. At the 1B MTC terminal, enter **RCACT:ORNU** *a***!**

   where *a* = RC Order Number

   Response: `RC ORNU` *a* `ACTIVATED` followed by all new entries.

   where *a* = RC Order Number

   Note: All entries should be checked for accuracy. If any entries are found to be incorrect, remove recent change using RC Form 701 (DLP-539) and repeat this DLP.

10. At the 1B MTC terminal, verify that the TSI Submember Equipage (SME) has been changed to the `OPER` state by entering the following: **VER:UTYPE:TSI** *x*,**SME** *y***!**

    where *x* = Member Number (0-62)
    y = TSI Port Index Number (see Table A)

    TABLE A TSI Port Index Numbers

PORT	INDEX NO.	PORT	INDEX NO.	PORT	INDEX NO.
SPC 0-0	56	SPC 0-5	61	SPC 1-3	66
SPC 0-1	57	SPC 0-6	62	SPC 1-4	67
SPC 0-2	58	SPC 1-0	63	SPC 1-5	68
SPC 0-3	59	SPC 1-1	64	SPC 1-6	69
SPC 0-4	60	SPC 1-2	65		

    Response: `VER:UTMN;OPT(SME),CUR:`
    `FLN` *a*
    `UTYN` *b*
    `MEMN` *c*
    `ME` *d*
    `SME` *e*
    `SUBMEM` *f*

    where *a* = Floor location number
    b = Unit type name
    c = Member number of growth associated complex
    d = Member equipage
    e = SME
    f = SME index number

    Note: All entries should be checked for accuracy. If any entries are found to be incorrect, repeat this step using correct data.

11. **STOP! YOU HAVE COMPLETED THIS PROCEDURE.**

Verify Service Circuit System (SCS) Unit Type Translator for the Growth SCS Complex

Note: If, during this procedure, the value of any of the words in the Unit Type Translator are not what they should be, DLP-515 can be used to perform a functional word change. However, remember that, depending on local procedures, supervisory or Telco engineering approval must be obtained prior to performing any data change.

1. At the 1B Maintenance (MTC) terminal, enter **VER:UTYPE:SCS** *x***!**

   where *x* = Member Number (0-7)

   Response: The information shown in Figure 1 is displayed.

   Note: The words shown in Figure 1 are in **octal** format.

VER:UTMN;OPT(),CUR: **FLN** *a* **UTYN** *b*

MEMN *c* **ME** *d*
ENTRY ADDRESS *e* **ENTRY SIZE** *f*

CUR					
WORD 0	_____	_____	_____	_____	
	_____	_____	_____	_____	
WORD 10	_____	_____	_____	_____	
	_____	_____	_____	_____	
WORD 20	_____	_____	_____	_____	
	_____	_____	_____	_____	
WORD 30	_____	_____	_____	_____	
	_____	_____	_____	_____	
WORD 40	_____	_____	_____	_____	
	_____	_____	_____	_____	
WORD 50	_____	_____	_____	_____	
	_____	_____	_____	_____	
WORD 60	_____	_____	_____	_____	
	_____	_____	_____	_____	
WORD 70	_____	_____	_____	_____	
	_____	_____	_____	_____	
WORD 100	_____	_____	_____	_____	
	_____	_____	_____	_____	
WORD 110	_____	_____	_____	_____	
	_____	_____	_____	_____	
WORD 120	_____	_____	_____	_____	
	_____	_____	_____	_____	
WORD 130	_____	_____	_____	_____	
	_____	_____	_____	_____	
WORD 140	_____	_____	_____	_____	

a **= Floor location number**
b **= Unit type name**
c **= Member number of growth associated complex**
d **= Member equipage**
e **= 8-digit entry address**
f **= 2-digit entry size**

Figure 1. SCS Unit Type Translator

2. Is the message format and member identification correct as shown in Figure 1?

   If **YES**, continue to Step 3.

   If **NO**, determine and resolve the cause and repeat from Step 1.

3. Using TTY output and Figure 2 (pages 10 and 12), check that growth member/submember equipage bits per words 0 and 12 are set to 0.

   If these bits are **set to 0**, continue to Step 4.

   If these bits are **not set to 0**, do one of the following:

   Use RC Form 701 to degrow submember equipage to unequipped (see DLP-513 [OPER to SGRO], DLP-535 [SGRO to GROW], and/or DLP-536 [GROW to UNEQ], depending on current equipage). If needed, also degrow member equipage to unequipped (see DLP-514 [OPER to SGRO], DLP-537 [SGRO to GROW], and/or DLP-538 [GROW to UNEQ], depending on current equipage).

   or

   Use RC Form 801 to perform a functional word change, change the desired bits to 0 (DLP-515).

   Note: Submember equipage must be degrown first, if required, followed by degrowth of member equipage, if required.

   Caution: Depending on local procedures, supervisory or Telco engineering approval must be obtained prior to performing any data change.

4. Using TTY output and Figure 2 (page 12), verify growth SCS controller version number bits per word 10. The version number bits (bits **0**,**1**, and **2** for **SCC 0** and bits **3**, **4**, and **5** for **SCC 1**) found in word 10 should be set to 0.

   If these bits are **set to 0**, continue to Step 5.

   If these bits are **not set to 0**, use RC Form 801 to perform a functional word change to correct the version error (DLP-515).

   Caution: Depending on local procedures, supervisory or Telco engineering approval must be obtained prior to performing any data change.

5. Using TTY output and Figure 2 (page 15), verify growth SCU version numbers per the words listed in Table A. Table A lists the words which are used to verify the associated SCU version number.

   If the version number values for the words listed in Table A, are **set to 0**, continue to Step 6.

   If these values are **not set to 0**, use RC Form 801 to perform a functional word change to correct the version error (DLP-515).

   Caution: Depending on local procedures, supervisory or Telco engineering approval must be obtained prior to performing any data change.

TABLE A Octal Words and Associated SCUs for SCU Version Number Determination

SCU	Word	SCU	Word	SCU	Word	SCU	Word
0	24	4	50	8	74	12	120
1	31	5	55	9	101	13	125
2	36	6	62	10	106	14	132
3	43	7	67	11	113	15	137

6. Using TTY output and Figure 2 (page 15), verify growth Multifaceted Signal Processor (MSP) version numbers per the words listed in Table B. Table B lists the words which are used to verify the associated MSP version number for each of the 16 SCUs.

   If the version number values for the words listed in Table B are **set to 0**, continue to Step 7.

   If these values are **not set to 0**, use RC Form 801 to perform a functional word change to correct the version error (DLP-515).

   Caution: Depending on local procedures, supervisory or Telco engineering approval must be obtained prior to performing any data change.

TABLE B Octal Words and Associated SCUs for MSP Version Number Determination

SCU	Word	SCU	Word	SCU	Word	SCU	Word
0	25	4	51	8	75	12	121
1	32	5	56	9	102	13	126
2	37	6	63	10	107	14	133
3	44	7	70	11	114	15	140

7. Using the TTY output and Figure 2 (page 12), verify the growth member class AC/B version record of word 11, and note any discrepancies. (Word 11 should be all zeros.)

8. Using the TTY output and Figure 2 (page 10), verify miscellaneous member type data per word 0, bits 18 through 23, and note any discrepancies.

9. Using the TTY output and Figure 2 (page 10), verify the alarm grid number, frame lineup number, and frame number for the growth frame per word 1 as follows:

    1. Convert octal digits of entry output data word 1 to binary.
    2. Determine decimal number of alarm grid number, frame lineup number, and frame number.
    3. Compare calculated data with office records and floor plan drawings as required.
    4. Record any discrepancies.

10. Using the TTY output and Figure 2 (page 10), verify the Peripheral Unit Bus (PUB) branch assignment of the growth frame per word 3 as follows:

    1. Convert the two leftmost octal digits of entry output data word 3 to binary.
    2. Record the values of bits 19 through 21.
    3. Use Table C to determine what the PUB branch letter should be for the 3-digit code of bits 19 through 21.
    4. Compare the PUB branch letter determined in the previous step with the letter found in the appropriate office record drawing (T-3840).
    5. If any discrepancies are found in the branch letters, use RC Form 801 to perform a functional word change to correct the error (DLP-515).

Caution: Depending on local procedures, supervisory or Telco engineering approval must be obtained prior to performing any data change.

TABLE C PUB Branch Letter Determination

3-Digit Code	PUB Branch Letter
000	A or B
001	C or D
010	E or F
011	G or H
100	K or L
101	M or R
110	T or V
111	W or X

11. Using the TTY output and Figure 2 (beginning on page 10), verify the Pulse Point and Signal Distributor (SD) assignments for the growth frame per words 2, 5, 6, 7, 17, 20, 21, and 22 as follows:

    1. Convert octal digits of entry output data words to decimal Signal Processor (SP) member, row, and column numbers and record results. If the fourth rightmost octal digit of a word is **2** or **3**, add decimal 64 to the SP row number determined for that word.
    2. Search the **ROW** and **COLUMN** listings in the appropriate office record drawings (TAGS) and locate the row and column previously recorded for each of the indicated words. If the associated **UNIT TYPE** and **FRM NO** does not agree with the growth frame, record the discrepancy for later use.

12. Using the TTY output and Figure 2 (beginning on page 10), verify the scan point assignments for the growth frame per words 3, 4, 13, 14, 15, 16, and 23 as follows:

    1. Convert octal digits of entry output data words to decimal SP member, row, and column numbers and record results. If the fourth rightmost octal digit of a word is **2** or **3**, add decimal 64 to the SP row number determined for that word.
    2. Search the **ROW** and **COLUMN** listings in the appropriate office record drawings (TAGS) and locate the row and column previously recorded for each of the indicated words. If the associated **UNIT TYPE** and **FRM NO** does not agree with the growth frame, record the discrepancy for later use.

13. Using the TTY output and Figure 2 (page 15), verify the Service Circuit type for each growth SCU, per the words listed in Table D. Each word listed in Table D represents the associated SCU.

    Note: Prior to this verification, you must know which announcement set is assigned to each growth SCU.

TABLE D Octal Words and Associated SCUs for Service Circuit Type Determination

SCU	Word	SCU	Word	SCU	Word	SCU	Word
0	24	4	50	8	74	12	120
1	31	5	55	9	101	13	125
2	36	6	62	10	106	14	132
3	43	7	67	11	113	15	137

14. Using the TTY output and Figure 2 (page 15), verify the growth SCU to Time Slot Interchange (TSI) port assignment per the words listed in Table E. Each word listed in Table E represents the associated SCU.

    1. Convert the octal digits representing TSI information to decimal for each of the words listed in Table E.
    2. For each of the words in Table E, compare the calculated data for the TSI member number, SPC, and TSI Port number to the appropriate office records containing SCU to TSI Port assignments, and record any discrepancies.

    TABLE E Octal Words and Associated SCUs for SCU to TSI Port Assignment

SCU	Word	SCU	Word	SCU	Word	SCU	Word
0	24	4	50	8	74	12	120
1	31	5	55	9	101	13	125
2	36	6	62	10	106	14	132
3	43	7	67	11	113	15	137

15. Using the TTY output and Figure 2 (page 10), verify the Generate Control Pulse Point (GCP) Indicator and the Generate Control Pulse Point Index per word 2, and note any discrepancies. (The binary value for each of these items should be zero.)

16. Using the TTY output and Figure 2 (page 10), verify the Master Control Complex (MCC) Indicator and the Fan Out Indicator per word 3, and note any discrepancies. (The binary value for the MCC Indicator should be zero and the binary value for the Fan Out Indicator should be 1.)

17. Using the TTY output and Figure 2 (page 11), verify the following items per word 4, and note any discrepancies. (The binary value for each of these items should be zero.)

    - MCC Indicator for BBMSN (BMCCI)
    - Repeater Indicator (RPI)
    - PUBB Extension Frame (REPEATN)
    - PUBB Extension Frame Circuit Number (REPCKT)
    - PUBB Extension Frame Circuit Half (RCKTHLF).

18. Using the TTY output and Figure 2 (page 15), verify that growth MSP equipage bits are set to 0 for each of the words listed in Table F, and note any discrepancies. Table F lists the words which are used to verify the associated MSP equipage for each of the 16 SCUs.

TABLE F Octal Words and Associated SCUs for MSP Equipage Verification

SCU	Word	SCU	Word	SCU	Word	SCU	Word
0	25	4	51	8	75	12	121
1	32	5	56	9	102	13	126
2	37	6	63	10	107	14	133
3	44	7	70	11	114	15	140

19. Using the TTY output and Figure 2 (page 15), verify that the growth Disk Capacity and Disk Pair Equipage bits for each associated word listed in Table G, match office hardware, and note any discrepancies. Disk **capacity** bits for growth SCUs should be **00** for 422 MB disk pairs (TN1672 circuit packs) or **01** for 2 GB disk pairs (TN1972 circuit packs), **10** for 4 GB disk pairs (TN4000 circuit packs), **11** for 9 GB disk pairs (TN9000 circuit packs). Disk **equipage** bits for growth SCUs should be **00**.

Note: Prior to this verification, you must know the capacity of each growth SCU disk pair.

TABLE G Octal Words and Associated SCUs for Disk Capacity, Disk Pair Equipage, and LAN Address Verification

SCU	Word	SCU	Word	SCU	Word	SCU	Word
0	26	4	52	8	76	12	122
1	33	5	57	9	103	13	127
2	40	6	64	10	110	14	134
3	45	7	71	11	115	15	141

Caution: SCU 0 can physically support two disk pairs (0 and 1). When populating disk capacity bits for SCU 0, adhere to the following rules:

- ***Type 0 (TN1672 circuit packs) can be populated in both disk pair locations.***
- ***Type 1 (TN1972 circuit packs) can only be populated in both disk pair locations.***
- ***Type 2 (TN4000 circuit packs) can only be populated as shown in Table H.***
- ***Type 3 (TN9000 circuit packs) can only be populated as shown in Table H.***

TABLE H Allowable Disk Pair Configurations for Circuit Packs With SCU 0

Allowable Disk Pair Types	
Location 0	**Location 1**
2	X
0	0
0	1
1	0
3	X
Where "X" indicates disk pair locations that **must be unpopulated**.	

20. Using the TTY output and Figure 2 (page 15), verify the LAN address for each growth SCU by looking at the words listed in Table G, and note any discrepancies (the LAN address should be the SCS member number multiplied by 16, plus the growth SCU number). Table G lists the words which are used to verify this information for each of the 16 SCUs.

21. Is the growth SCU being used for the AT&T Trigger Platform (ATP) feature?

    If **YES**, continue to Step 22.

    If **NO**, continue to Step 23.

22. Using the TTY output and Figure 2 (beginning on page 10), verify that the Monitor bit (bit 18) per the words in Table I has been set to **1** for the growth SCU.

TABLE I Octal Words and Associated SCUs for Monitor Bit Verification

SCU	Word	SCU	Word	SCU	Word	SCU	Word
0	24	4	50	8	74	12	120
1	31	5	55	9	101	13	125
2	36	6	62	10	106	14	132
3	43	7	67	11	113	15	137

23. Using TTY output and Figure 2 (page 12), verify growth SCS Controller Hardware Version Number bits per word 10 (bits **6**, **7**, and **8** for **SCC 0** and bits **9**, **10**, and **11** for **SCC 1**). The correct values are as shown in Table J. Both controllers (within an SCS) should always have the same type of circuit pack in horizontal location 072. Thus, the Controller Hardware Version Number should always be the same for both controllers within an SCS.

TABLE J Correct Values for Controller Hardware Version Numbers

IF THE CIRCUIT PACK IN HORIZONTAL LOCATION 072 OF THE SCC IS:	THEN THE BINARY VALUE FOR THE APPROPRIATE 3 BITS IN WORD 10 SHOULD BE:	THUS, THE OCTAL VALUE FOR THE SAME BITS WOULD BE:
UN351	000	0
UN591	001	1

If these bits are **correct**, continue to Step 24.

If these bits are **not correct**, use RC Form 801 to perform a functional word change to correct the version error (DLP-515).

Caution: Depending on local procedures, supervisory or Telco engineering approval must be obtained prior to performing any data change.

24. Were any discrepancies found in Steps 7 through 23?

If **NO**, continue to Step 28.

If **YES**, refer problem(s) to installer to determine error and decide on corrective action. Continue to Step 25.

25. Was the error found to be in the Unit Type entry data or the office records?

If **office records**, notify the appropriate engineering organization, and continue to Step 28.

If **Unit Type entry data**, continue to Step 26.

26. Assist the installer in taking appropriate corrective action as determined by regional engineering and as approved by office supervisor.

27. Have all Unit Type data errors now been corrected?

If **NO**, return to Step 26.

If **YES**, continue to Step 28.

28. **STOP! YOU HAVE COMPLETED THIS PROCEDURE.**

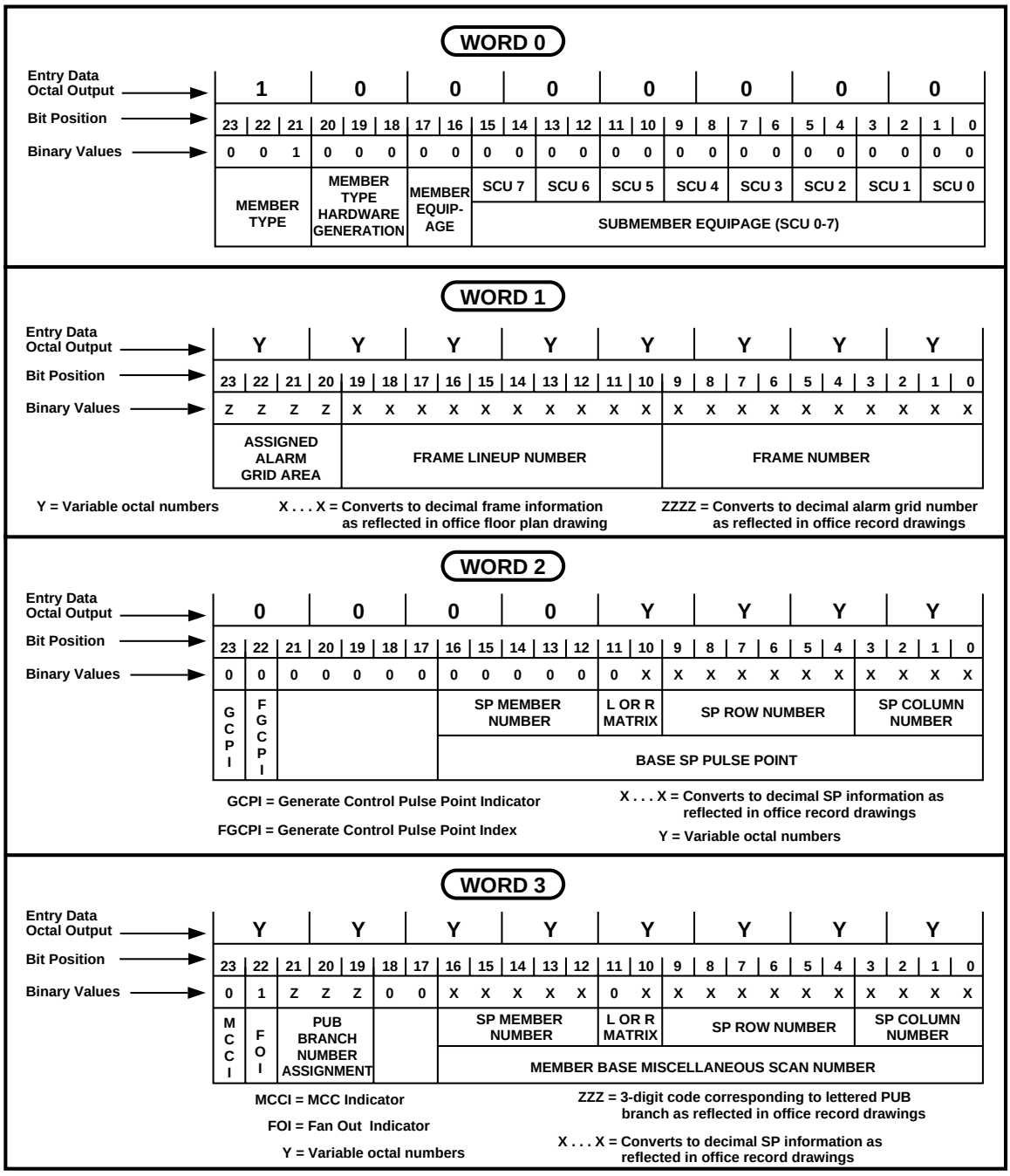

Figure 2. Unit Type Entry Data and Word Configuration (Word Numbers are in Octal) (Sheet 1 of 7)

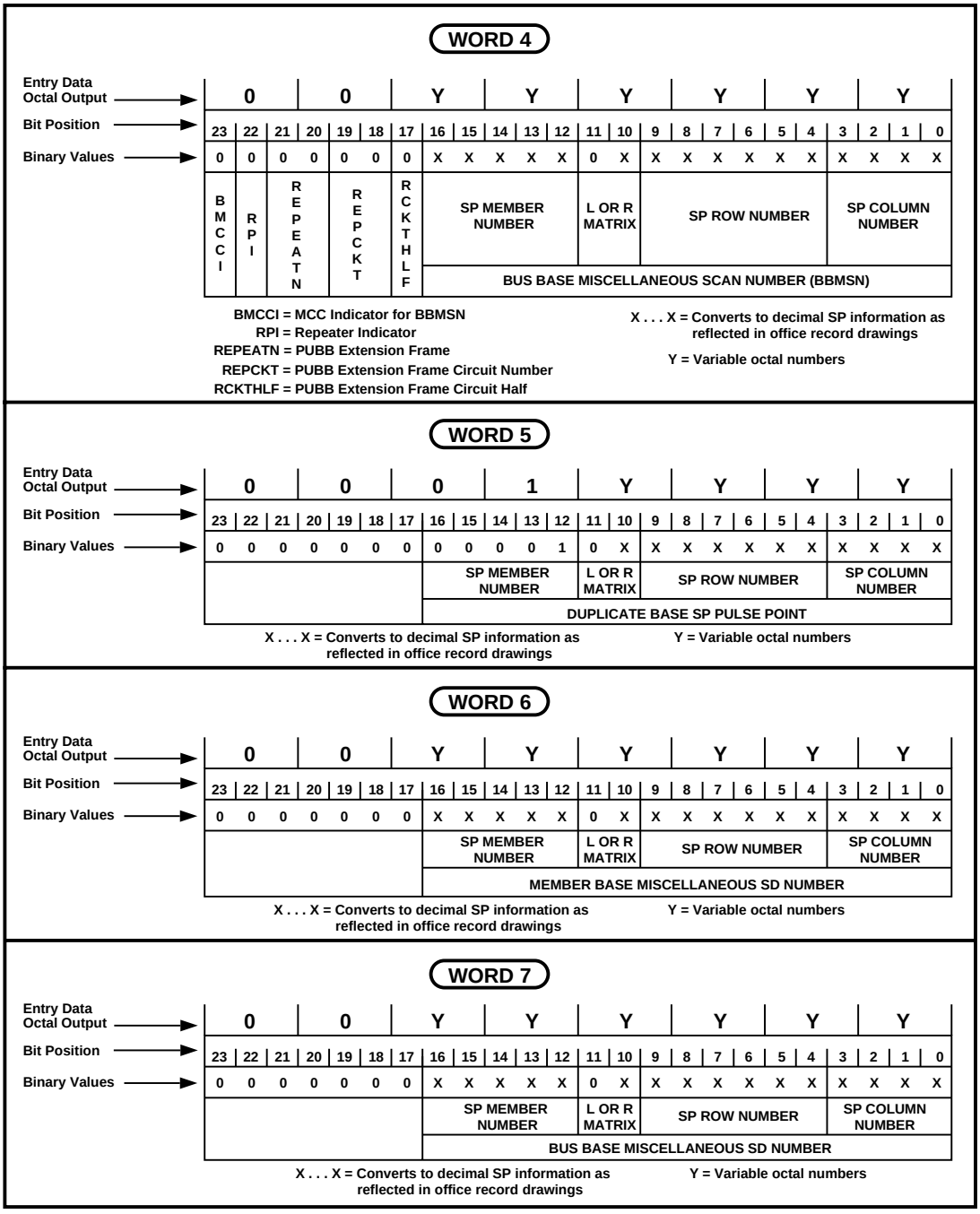

Figure 2. Unit Type Entry Data and Word Configuration (Word Numbers are in Octal) (Sheet 2 of 7)

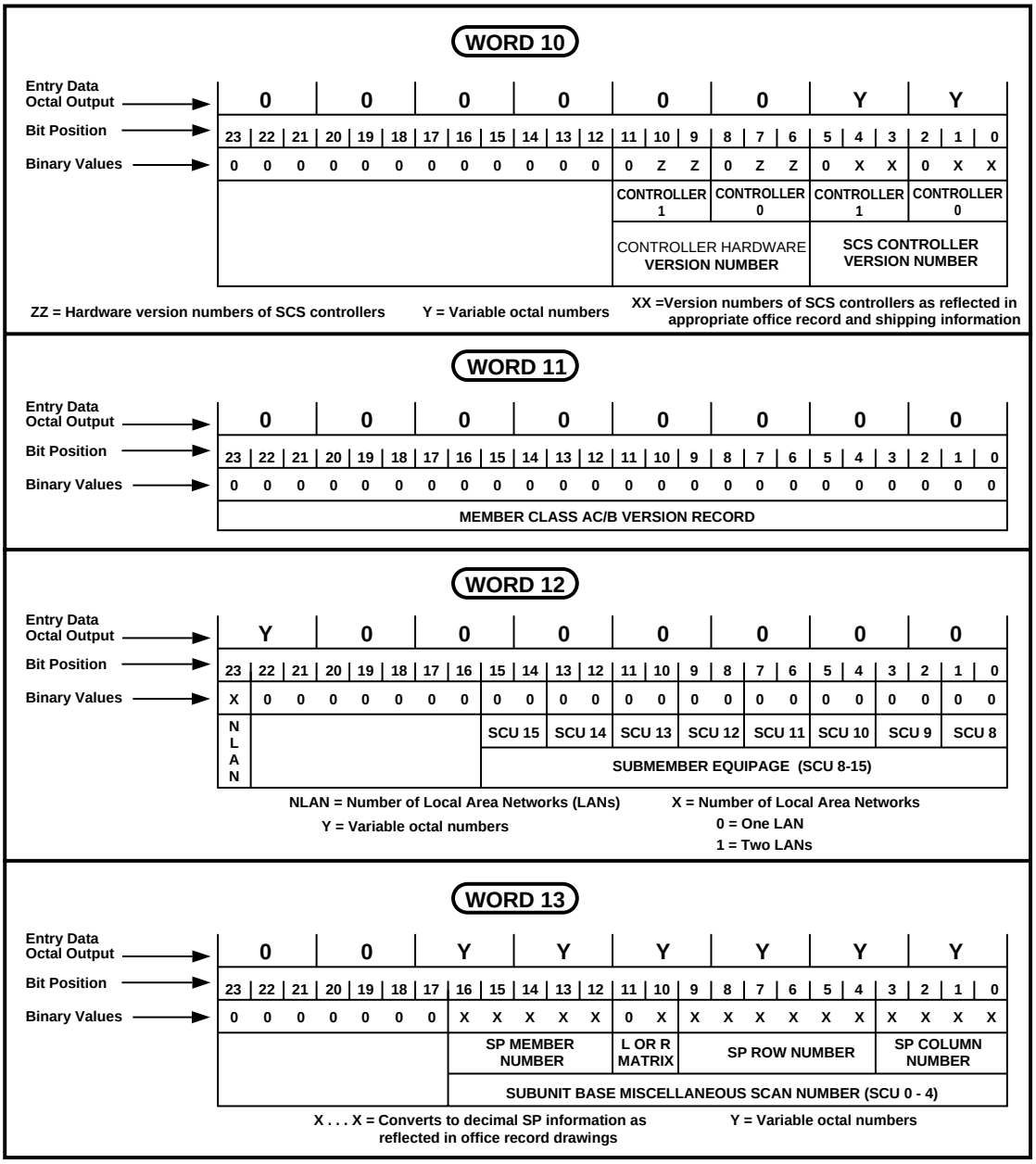

Figure 2. Unit Type Entry Data and Word Configuration (Word Numbers are in Octal) (Sheet 3 of 7)

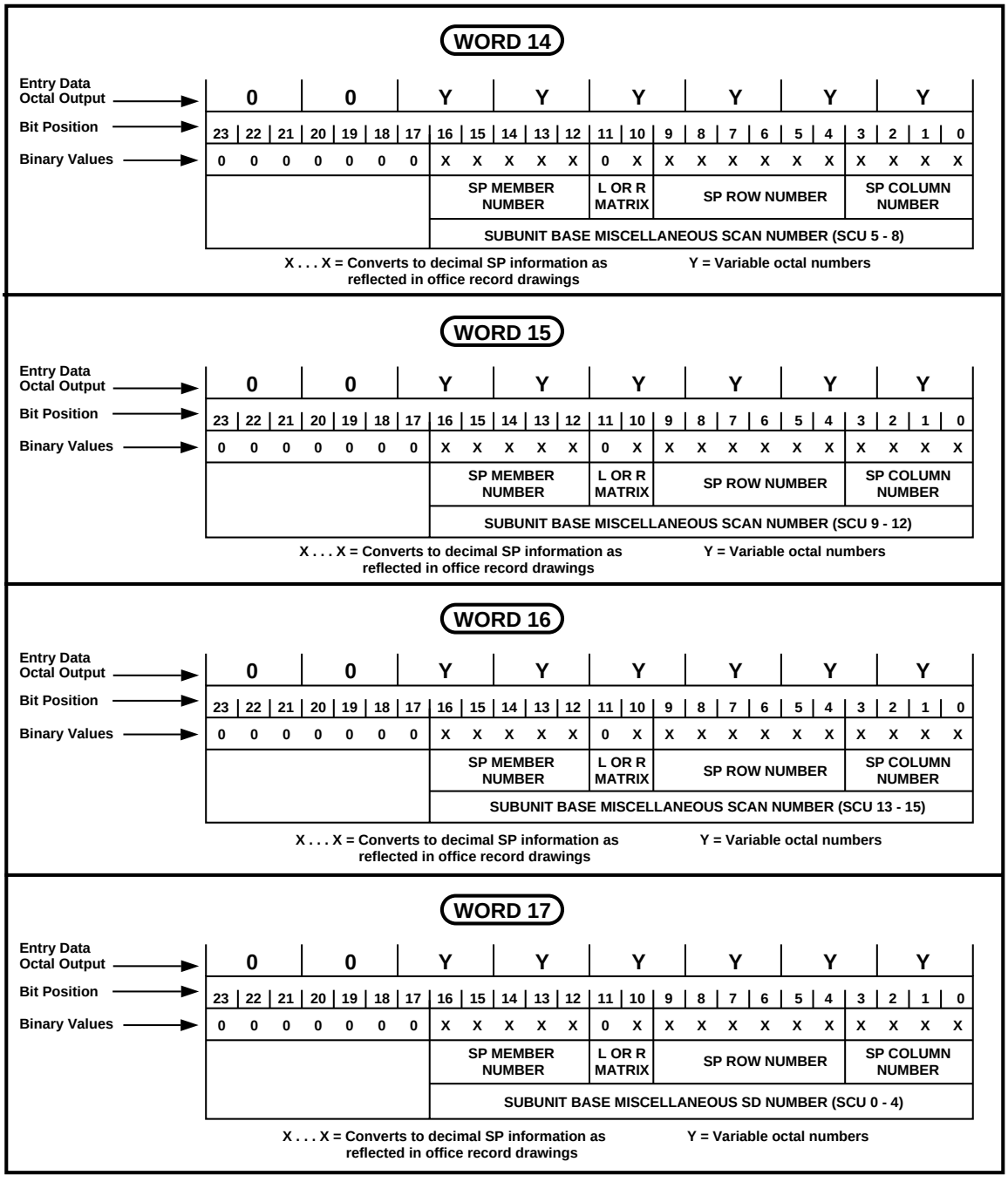

Figure 2. Unit Type Entry Data and Word Configuration (Word Numbers are in Octal) (Sheet 4 of 7)

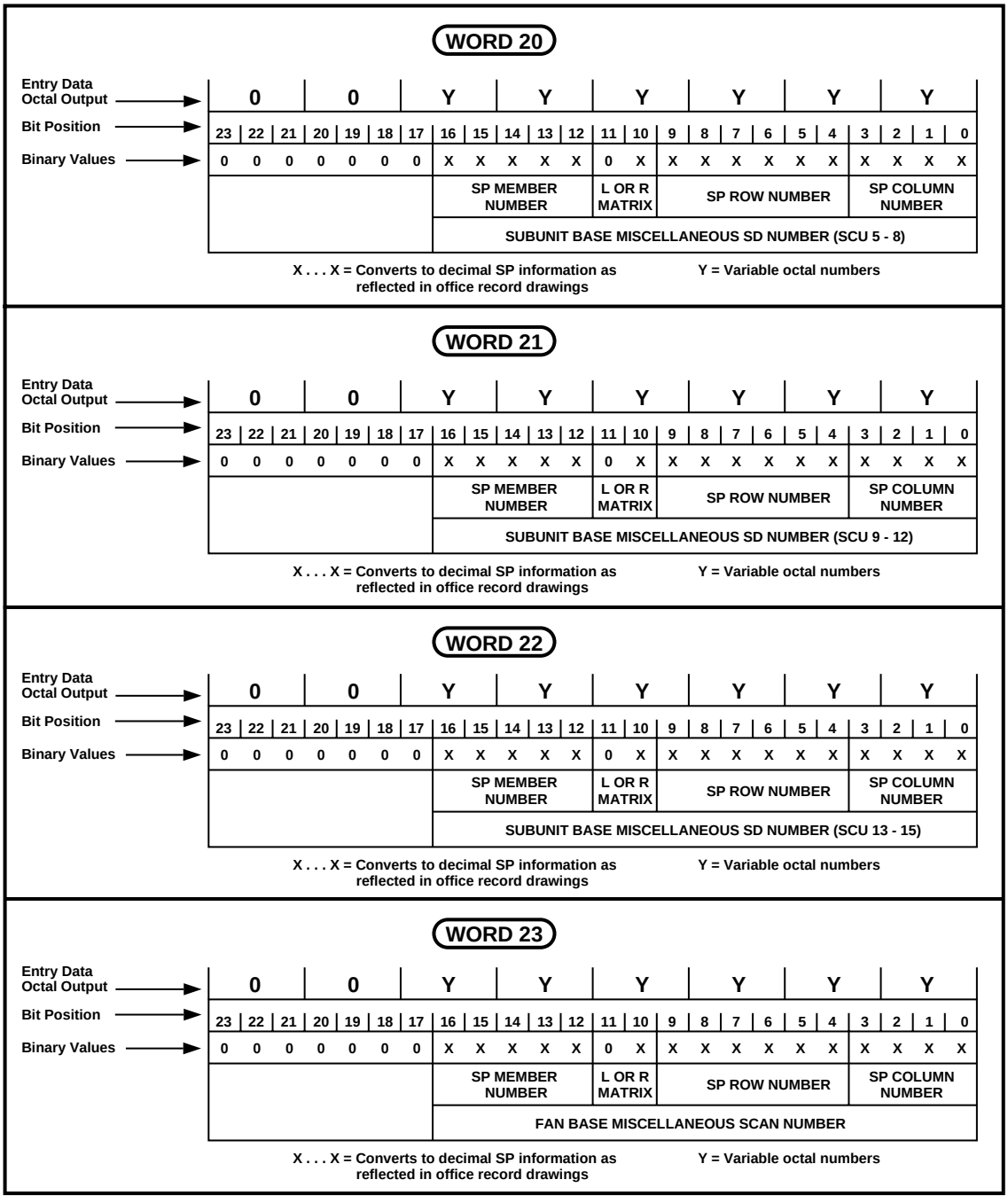

Figure 2. Unit Type Entry Data and Word Configuration (Word Numbers are in Octal) (Sheet 5 of 7)

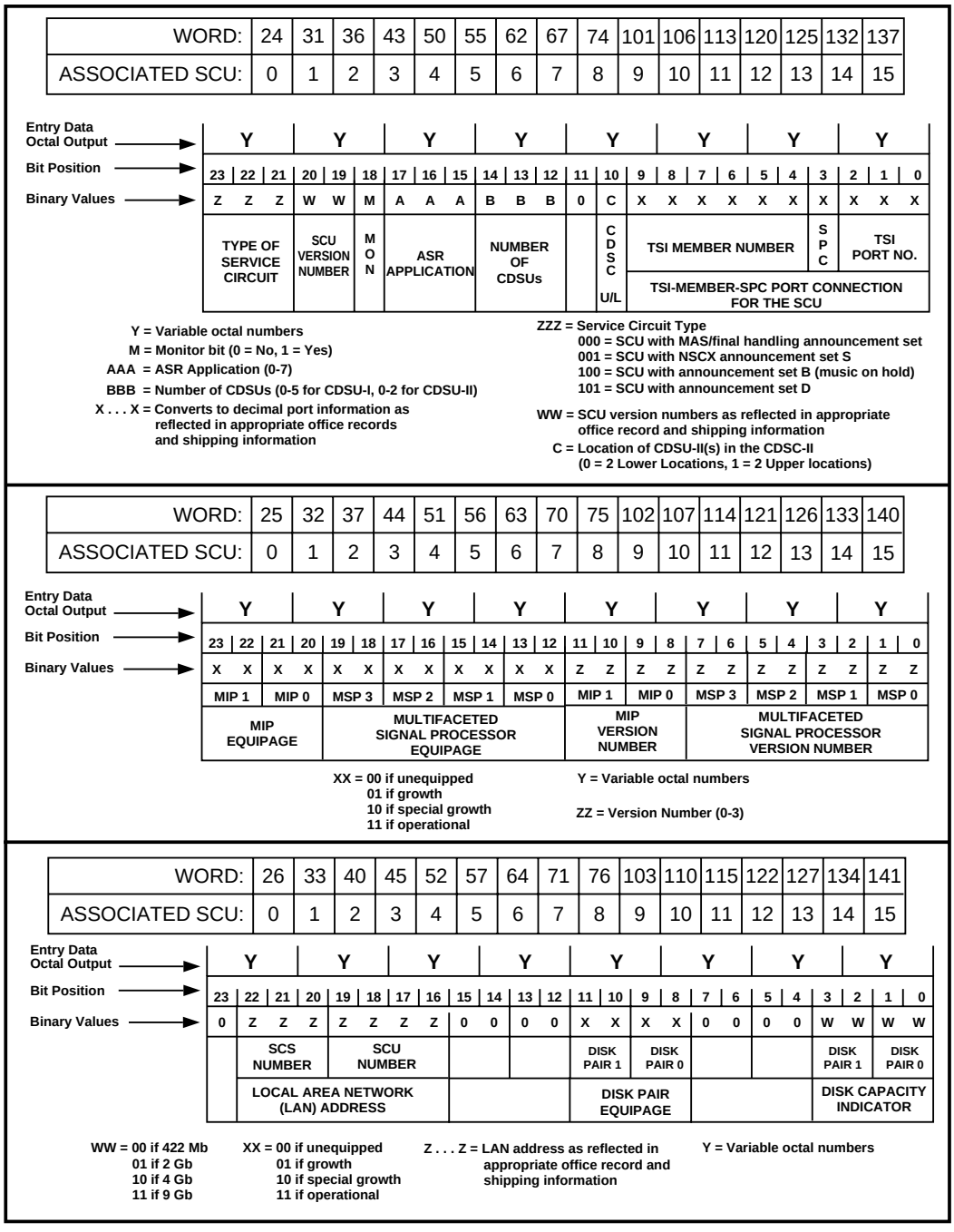

Figure 2. Unit Type Entry Data and Word Configuration (Word Numbers are in Octal) (Sheet 6 of 7)

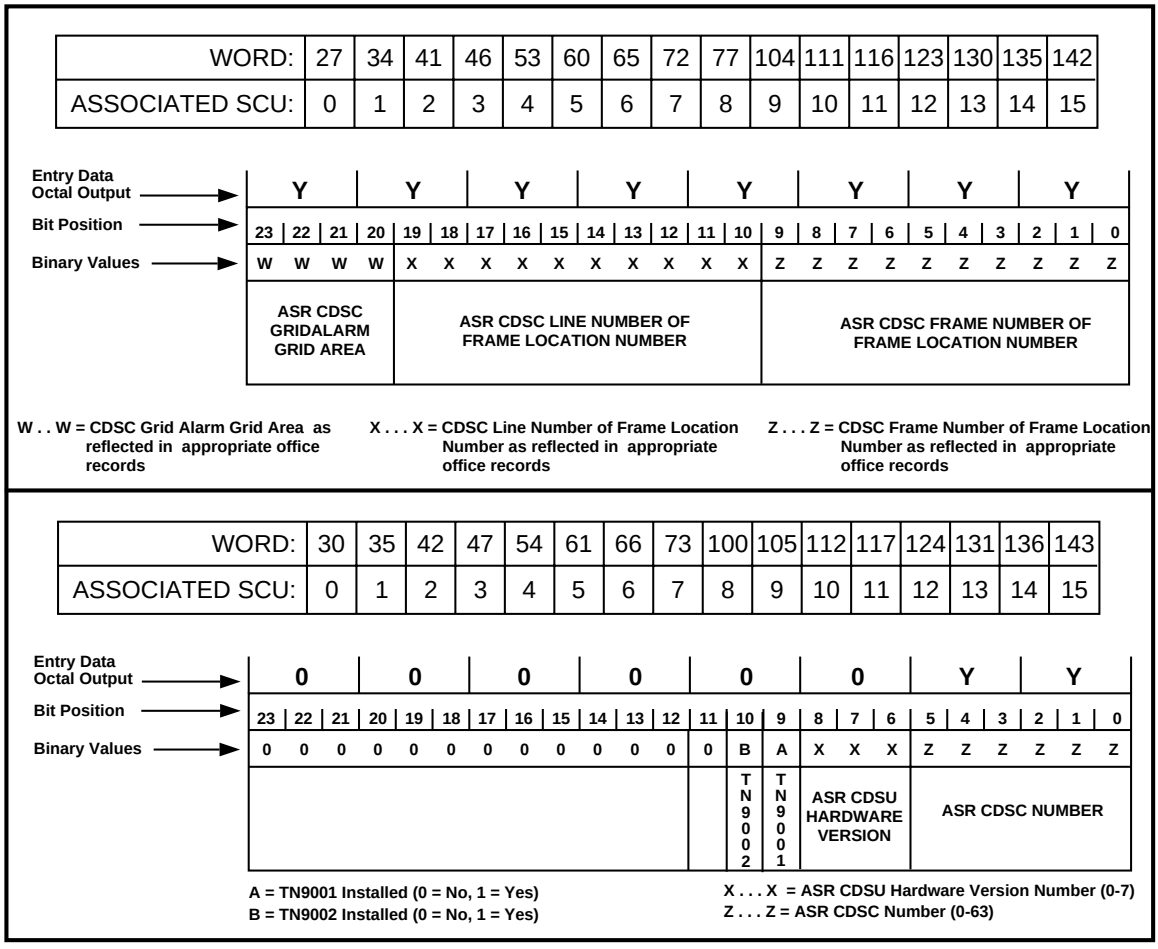

Figure 2. Unit Type Entry Data and Word Configuration (Word Numbers are in Octal) (Sheet 7 of 7)

Recent Change and Verify Submember Equipage From OPER to SGRO Using Recent Change (RC) Form 701 (Degrow)

Caution: Calling up an RC Form will cause all data on the screen to be cleared.

1. At the 1B Maintenance (MTC) terminal, enter **OP:RCFORM 701!**

   Response: Recent Change Form 701 appears on the screen.

2. At `UTYN`, enter Unit Type (**SCS**).

3. At `ORNU`, enter a unique Order Number.

4. At `MEMN`, enter the SCS Member Number.

5. At `SUBMEM`, enter the Submember Name [**SCUEQ(0-15)**, where 0-15 is the SCU number].

6. At `SME`, enter **OPER**, then enter **SGRO**.

7. If no `REMARKS` are needed, return the cursor to the top of the form by pressing HOME.

8. Press SEND/ ENTER

   Response: `RC ORNU` *a* `SUCCESSFULLY TESTED` followed by
   `RC ORNU` *a* `SUCCESSFULLY BUFFERED` followed by all new entries.

   where *a* = RC Order Number

   Note: All entries should be checked for accuracy. If any entries are found to be incorrect, repeat Steps 1 through 8.

9. At the 1B MTC terminal, enter **RCACT:ORNU** *a***!**

   where *a* = RC Order Number

   Response: `RC ORNU` *a* `ACTIVATED` followed by all new entries.

   where *a* = RC Order Number

   Note: All entries should be checked for accuracy. If any entries are found to be incorrect, remove recent change using RC Form 700 and repeat this DLP.

10. At the 1B MTC terminal, verify that the Submember Equipage (SME) has been changed to the `SGRO` state by entering the following: **VER:UTYPE:SCS** *x*,**SME** *y***!**

    where *x* = Member Number (0-7)
    y = SCU Index Number (see Table A)

TABLE A SCU Index Numbers

SCU	INDEX NO.	SCU	INDEX NO.	SCU	INDEX NO.	SCU	INDEX NO.
0	177	4	181	8	185	12	189
1	178	5	182	9	186	13	190
2	179	6	183	10	187	14	191
3	180	7	184	11	188	15	192

Response:

`VER:UTMN;OPT(SME),CUR:` `FLN` *a* `UTYN` *b*

`MEMN` *c* `ME` *d*

`SUBMEM` *e*, `SME` *f*

where *a* = Floor location number
b = Unit type name
c = Member number of growth associated complex
d = Member equipage
e = SCU index number
f = SME

Note: All entries should be checked for accuracy. If any entries are found to be incorrect, repeat this DLP using correct data.

11. **STOP! YOU HAVE COMPLETED THIS PROCEDURE.**

Recent Change and Verify Member Equipage From OPER to SGRO Using Recent Change (RC) Form 701 (Degrow)

Caution: Calling up an RC Form will cause all data on the screen to be cleared.

1. At the 1B Maintenance (MTC) terminal, enter **OP:RCFORM 701!**

   Response: Recent Change Form 701 appears on the screen.

2. At `UTYN`, enter Unit Type (**SCS**).

3. At `ORNU`, enter a unique Order Number.

4. At `MEMN`, enter the SCS Member Number.

5. At `ME`, enter **OPER**, then enter **SGRO**.

6. If no `REMARKS` are needed, return the cursor to the top of the form by pressing HOME.

7. Press SEND/ ENTER

   Response: `RC ORNU` *a* `SUCCESSFULLY TESTED` followed by
   `RC ORNU` *a* `SUCCESSFULLY BUFFERED` followed by all new entries.

   Note: All entries should be checked for accuracy. If any entries are found to be incorrect, repeat Steps 1 through 7.

8. At the 1B MTC terminal, enter **RCACT:ORNU** *a***!**

   where *a* = RC Order Number

   Response: `RC ORNU` *a* `ACTIVATED` followed by all new entries.

   where *a* = RC Order Number

   Note: All entries should be checked for accuracy. If any entries are found to be incorrect, remove recent change using RC Form 700 and repeat this DLP.

9. At the 1B MTC terminal, enter **VER:UTYPE:SCS** *x***!**

   where *x* = Member Number (0-7)

   Response:
   ```
   VER:UTMN;OPT(),CUR:
   FLN a
   UTYN b
   MEMN c
   ME d
   ENTRY ADDRESS e
   ENTRY SIZE f
   ```

   The above responses are followed by a complete printout of the SCS Unit Type entry data. (Use this printout to determine if data was properly entered.)

   where *a* = Floor location number
   b = Unit type name
   c = Member number of growth associated complex
   d = Member equipage
   e = An 8-digit entry address
   f = A 2-digit entry size

10. **STOP! YOU HAVE COMPLETED THIS PROCEDURE.**

Perform Functional Word Change to Correct Unit Type Translator, Then Verify

Caution: Calling up a Recent Change (RC) Form will cause all data on the screen to be cleared.

1. At the 1B Maintenance (MTC) terminal, enter **OP:RCFORM 801!**

   Response: Recent Change Form 801 appears on the screen.

2. At `RC:FUNC;CHG;OPT(TRANS)`, enter **TST**.

3. At `TRANSID`, enter **UTSCS**.

4. At `ORNU`, enter a unique Order Number assigned to this word change.

5. At `ENTRY`, enter the SCS Member Number of the growth SCS member requiring Unit Type Translator change.

6. At `WORDNO`, enter the **decimal** number of the Unit Type Translator word to be changed.

7. Determine the quantity of consecutive bits which span all bits requiring change in this Unit Type Translator word (see example in Figure 1). At `SIZE`, enter this **decimal** number.

8. Determine the bit position number (range 0 to 23) identifying the rightmost of the consecutive bits determined in Step 7 (see example in Figure 1). At `DISP`, enter this bit position number.

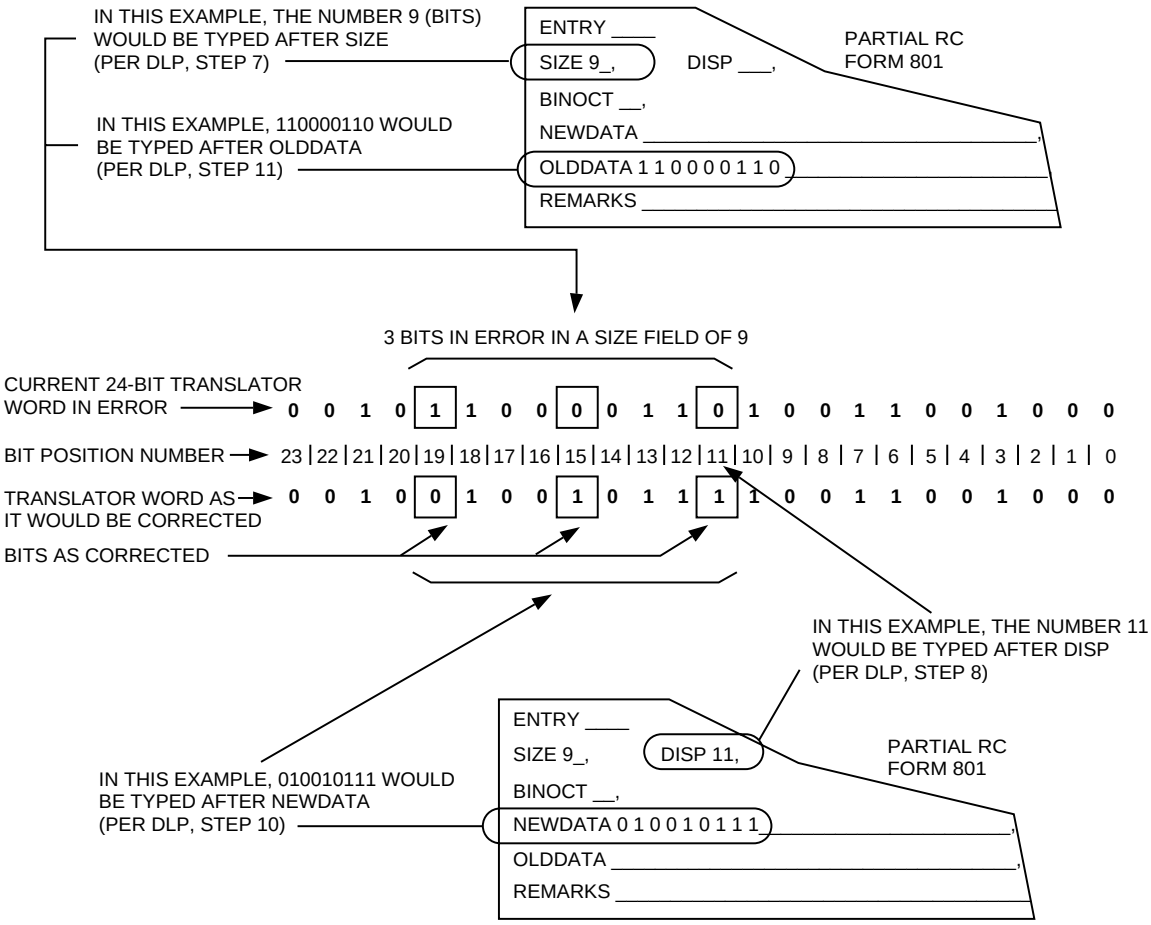

Figure 1. Functional Word Change Example

9. At `BINOCT`, enter **B**.

10. Determine the binary bits to be inserted into the Unit Type Translator word to correct that word (see example in Figure 1). At `NEWDATA`, enter these binary bits.

    Note: The quantity of these binary bits must be equal to the **decimal** number entered as `SIZE` in Step 7.

11. At OLDDATA, enter the current binary of only that portion of the Unit Type Translator word requiring change (see example in Figure 1).

    Note: The quantity of binary bits to be entered as OLDDATA must be equal to the quantity of bits entered as NEWDATA in Step 10.

12. If no REMARKS are needed, return the cursor to the top of the form by pressing HOME.

13. Press SEND/ENTER

    Response: RC ORNU *a* SUCCESSFULLY TESTED followed by
    RC ORNU *a* SUCCESSFULLY BUFFERED followed by all new entries.

    where *a* = RC Order Number

    Note: All entries should be checked for accuracy. If any entries are found to be incorrect, repeat Steps 1 through 13.

14. At the 1B MTC terminal, enter **RCACT:ORNU *a*!**

    where *a* = RC Order Number

    Response: RC ORNU *a* ACTIVATED followed by all new entries.

    where *a* = RC Order Number

15. **STOP! YOU HAVE COMPLETED THIS PROCEDURE.**

Verify Time Slot Interchange (TSI) Port to Growth Service Circuit Unit (SCU) Assignment and TSI Port Submember Equipage Data of TSI Unit Type Translator

1. At the 1B Maintenance (MTC) terminal, enter **VER:UTYPE:TSI** *a***!**

   where *a* = Member number of TSI

   Response: The information shown in Figure 1 is displayed.

VER:UTMN;OPT(),CUR: **FLN** *a* **UTYN TSI**

MEMN *b* **ME** *c*
ENTRY ADDRESS *d* **ENTRY SIZE** *e*

CUR
WORD 0 _____ _____ _____ _____
_____ _____ _____ _____
WORD 10 _____ _____ _____ _____
_____ _____ _____ _____
WORD 20 _____ _____ _____ _____
_____ _____ _____ _____
WORD 30 _____ _____ _____ _____
_____ _____ _____ _____
WORD 40 _____ _____ _____ _____
_____
WORD 50

a **= Floor location number**
b **= Member number of connecting TSI**
c **= Member equipage**
d **= 8-digit entry address**
e **= 2-digit entry size**

Figure 1. TSI Unit Type Translator

2. Is the message format and member identification correct as shown in Figure 1?

   If **YES**, continue to Step 3.
   If **NO**, determine the cause, resolve the problem, and repeat from Step 1.

3. Using TTY output and Figure 2, check that TSI Port(s) associated with each growth Service Circuit Unit (SCU) have equipage bits set to 0.

   If these bits are **set to 0**, continue to Step 4.

   If these bits are **not set to 0**, use RC Form 701 to degrow Submember Equipage (SME) to unequipped. [See DLP-513 (OPER to SGR0), DLP-535 (SGR0 to GR0W), and/or DLP-536 (GR0W to UNEQ), depending on current equipage.]

   Caution: Depending on local procedures, supervisory or Telco engineering approval must be obtained prior to performing any data change.

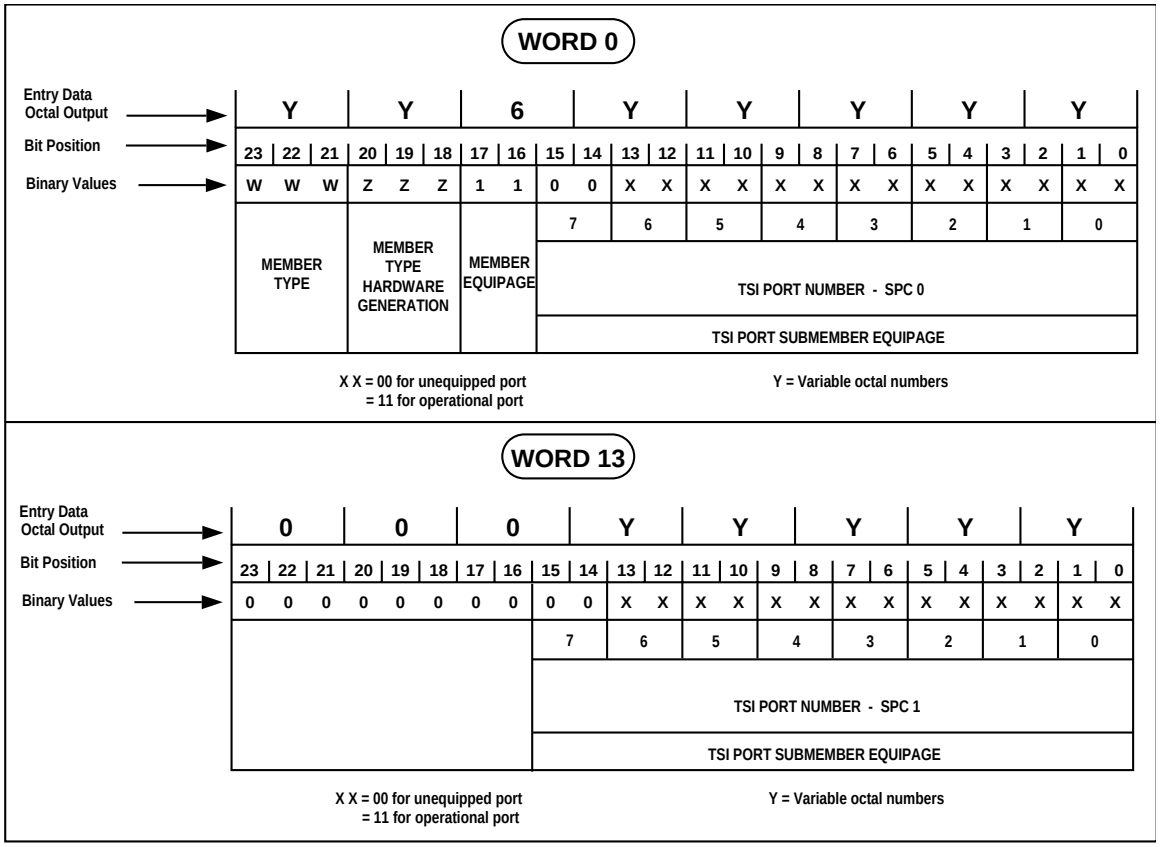

Figure 2. Word 0 and Word 13 Used to Determine TSI Equipage

4. Use the TTY output, office records, and Figure 3 to verify TSI Port to growth SCU assignment per the appropriate word(s) listed in Table A. For each of these words, do the following:

   A. Convert the necessary octal digits in the word to binary digits and record.
   B. Convert the binary SCU number, SCS member number, and equipage type to decimal, and record these values in the appropriate columns of Table A.
   C. Compare these numbers to the appropriate office records and record any discrepancies.

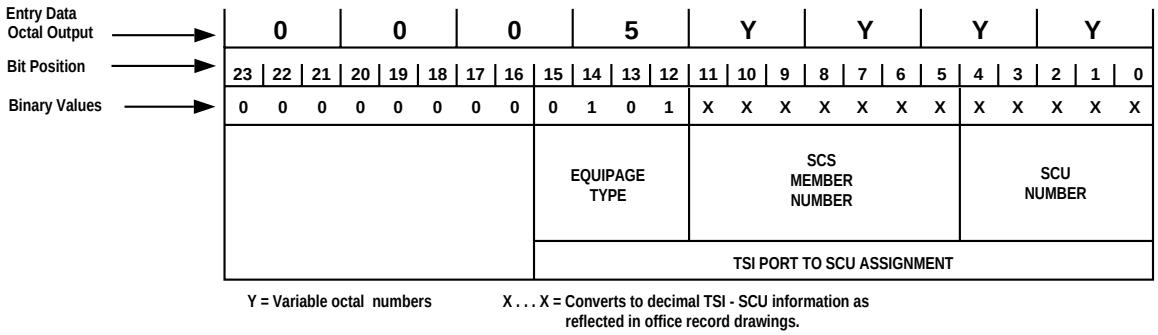

Figure 3. Format of Words Used to Verify TSI Port to SCU Assignment

TABLE A TSI Port to SCU Assignments

SPC AND TSI PORTS	OCTAL WORD	SCU NUMBER	SCS MEMBER NUMBER	EQUIPAGE TYPE
SPC 0 - Port 0	21			
SPC 0 - Port 1	22			
SPC 0 - Port 2	23			
SPC 0 - Port 3	24			
SPC 0 - Port 4	25			
SPC 0 - Port 5	26			
SPC 0 - Port 6	27			
SPC 1 - Port 0	31			
SPC 1 - Port 1	32			
SPC 1 - Port 2	33			
SPC 1 - Port 3	34			
SPC 1 - Port 4	35			
SPC 1 - Port 5	36			
SPC 1 - Port 6	37			

5. Were discrepancies found in Steps 3 and 4?

   If **YES**, refer problem(s) to installer to determine error and decide on corrective action.

   If **NO**, continue to Step 9.

6. Was the error found to be in the Unit Type entry data or the office records?

   If **office records**, continue to Step 9.

   If **Unit Type entry data**, continue to Step 7.

7. Assist the installer in taking appropriate corrective action as determined by regional engineering and as approved by office supervisor.

8. Have all Unit Type data errors now been corrected?

   If **YES**, continue to Step 9.

   If **NO**, return to Step 7.

9. **STOP! YOU HAVE COMPLETED THIS PROCEDURE.**

Change SCU 0, Disk Pair 0 Capacity and Equipage in the SCS Unit Type Translator

Caution: Calling up an RC Form will cause all data on the screen to be cleared.

1. At the 1B Maintenance (MTC) terminal, enter **OP:RCFORM 703!**

   Response: Recent Change Form 703 appears on the screen.

2. At SCS, enter the appropriate Service Circuit System (SCS) Member Number (0-7).

3. At SCU, enter **0**.

4. At ORNU, enter a unique Order Number.

5. At DSKEQ, enter **P** (present) in location 0.

6. At DSKC, enter **2** in location 0.

7. If no REMARKS are needed, return the cursor to the top of the form by pressing HOME.

8. Press SEND/ENTER

   Response: `RC ORNU a SUCCESSFULLY TESTED` followed by
   `RC ORNU a SUCCESSFULLY BUFFERED` followed by all new entries.

   where *a* = RC Order Number

   Note: All entries should be checked for accuracy. If any entries are found to be incorrect, repeat Steps 1 through 12.

9. At the 1B MTC terminal, enter **RCACT:ORNU a!**

   where *a* = RC Order Number

   Response: `RC ORNU a ACTIVATED` followed by all new entries.

   where *a* = RC Order Number

   Note: All entries should be checked for accuracy. If any entries are found to be incorrect, repeat this DLP, correcting the errors.

10. At the 1B MTC terminal, enter **VER:UTYPE:SCS x!**

    where *x* = Member Number (0-7)

    Caution: When populating* DSKEQ *and* DSKC *for a Type 2 (TN4000 - 4 Gb) disk pair at location 0, the adjacent location 1 will also be populated when checking the Unit Type Translator. This is done automatically via recent change.

    Response:
    ```
    VER:UTMN;OPT(),CUR:
    FLN a
    UTYN b
    MEMN c
    ME d
    ENTRY ADDRESS e
    ENTRY SIZE f
    ```

    The above responses are followed by a complete printout of the Service Circuit System (SCS) Unit Type entry data. Use this printout (word 26) and Figure 1 to determine if the SCU data (disk pair equipage and capacity) was properly entered.

    where *a* = Floor location number
    b = Unit type name
    c = Member number of growth associated complex
    d = Member equipage
    e = An 8-digit entry address
    f = A 2-digit entry size

11. **STOP! YOU HAVE COMPLETED THIS PROCEDURE.**

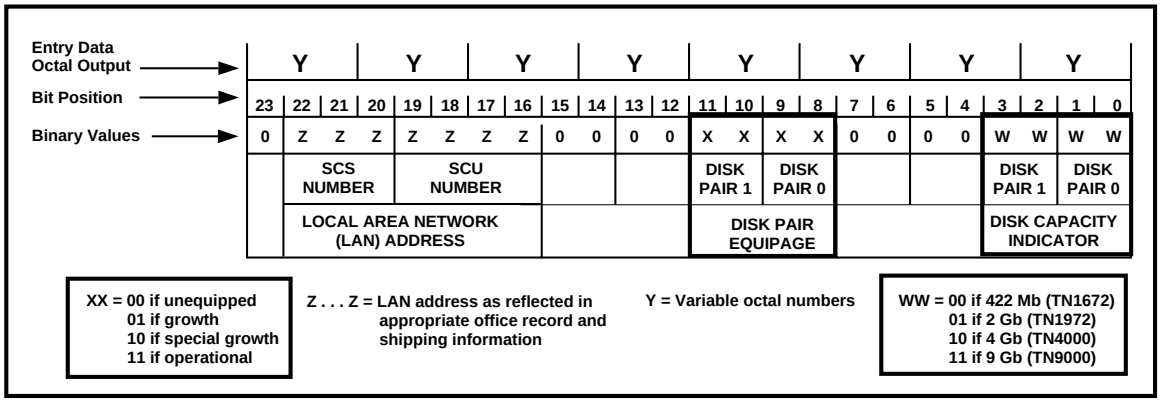

Figure 1. Word 26 in SCS Unit Type Translator

Ensure That K-Code Jumper Plugs for Both Controller 0 and Controller 1 are Properly Installed for the Growth Member Number

1. Ensure that K-code straps (jumper plugs) are installed as shown in Table A for Controllers 0 and 1.

TABLE A SCS K-Code Straps

SCC	BIT	FROM	TO	VALUE*							
				SCS 0	SCS 1	SCS 2	SCS 3	SCS 4	SCS 5	SCS 6	SCS 7
1	11	053-112-532	053-112-533	0	0	0	0	0	0	0	0
1	10	053-112-323	053-112-324	1	1	1	1	1	1	1	1
1	9	053-112-321	053-112-322	0	0	0	0	0	0	0	0
1	8	053-112-319	053-112-320	1	1	1	1	1	1	1	1
1	7	053-112-317	053-112-318	1	1	1	1	1	1	1	1
1	6	053-112-315	053-112-316	0	0	0	0	1	1	1	1
1	5	053-112-313	053-112-314	0	0	1	1	0	0	1	1
1	4	053-112-311	053-112-312	0	1	0	1	0	1	0	1
0	11	045-112-532	045-112-533	0	0	0	0	0	0	0	0
0	10	045-112-323	045-112-324	1	1	1	1	1	1	1	1
0	9	045-112-321	045-112-322	0	0	0	0	0	0	0	0
0	8	045-112-319	045-112-320	1	1	1	1	1	1	1	1
0	7	045-112-317	045-112-318	1	1	1	1	1	1	1	1
0	6	045-112-315	045-112-316	0	0	0	0	1	1	1	1
0	5	045-112-313	045-112-314	0	0	1	1	0	0	1	1
0	4	045-112-311	045-112-312	0	1	0	1	0	1	0	1

* In this column, a **0** indicates a **strap is used**, and a **1** indicates **no strap**.

2. **STOP! YOU HAVE COMPLETED THIS PROCEDURE.**

Degrow Disk Pair, MSP, and MIP Equipage for an SCU From OPER to SGRO Using Recent Change (RC) Form 703

Caution: Calling up an RC Form will cause all data on the screen to be cleared.

1. At the 1B Maintenance (MTC) terminal, enter **OP:RCFORM 703!**

   Response: Recent Change Form 703 appears on the screen.

2. At SCS, enter Service Circuit System (SCS) Member Number (0-7).

3. At SCU, enter the number of the Service Circuit Unit (SCU) (0-15).

4. At ORNU, enter a unique Order Number.

5. At MSBEQ, location 0, enter **S** (SGRO).

   Note: If the SCU has more than one associated Multifaceted Signal Processor (MSP) circuit pack (TN1589), also enter **S** at locations 1 through 3 of MSBEQ, as required.

6. **If the SCU already has Automatic Speech Recognition (ASR) functionality**, enter **S** (SGRO) at MIPEQP, locations 0 and 1. Otherwise, continue to the next step.

7. At DSKEQ, location 0, enter **S** (SGRO).

   Note: If a Type 2 (4GB Disk) is being degrown, enter **S** at location 0 only.

   Note: If SCU 0 is being degrown and has more than one associated disk pair, also enter **S** at location 1 of DSKEQ, as required.

8. If no REMARKS are needed, return the cursor to the top of the form by pressing HOME.

9. Press SEND/ENTER

   Response: `RC ORNU` *a* `SUCCESSFULLY TESTED` followed by
   `RC ORNU` *a* `SUCCESSFULLY BUFFERED` followed by all new entries.

   where *a* = RC Order Number

   Note: All entries should be checked for accuracy. If any entries are found to be incorrect, repeat Steps 1 through 9.

10. At the 1B MTC terminal, enter: **RCACT:ORNU** ***a*****!**

    where *a* = RC Order Number

    Response: `RC ORNU` *a* `ACTIVATED` followed by all new entries.

    where *a* = RC Order Number

    Note: All entries should be checked for accuracy. If any entries are found to be incorrect, repeat this step correcting the errors.

11. At the 1B MTC terminal, enter: **VER:UTYPE:SCS** ***x*****!**

    where *x* = Member Number (0-7)

    Response:
    ```
    VER:UTMN;OPT(),CUR:
    FLN a
    UTYN b
    MEMN c
    ME d
    ENTRY ADDRESS e
    ENTRY SIZE f
    ```
    The above responses are followed by a complete printout of the Service Circuit System (SCS) Unit Type entry data. Use this printout and Figure 1 to determine if the SCU data (MSP, MIP, and disk pair equipage) was properly entered.

    where *a* = Floor location number
    b = Unit type name
    c = Member number of growth associated complex
    d = Member equipage
    e = An 8-digit entry address
    f = A 2-digit entry size

12. **STOP! YOU HAVE COMPLETED THIS PROCEDURE.**

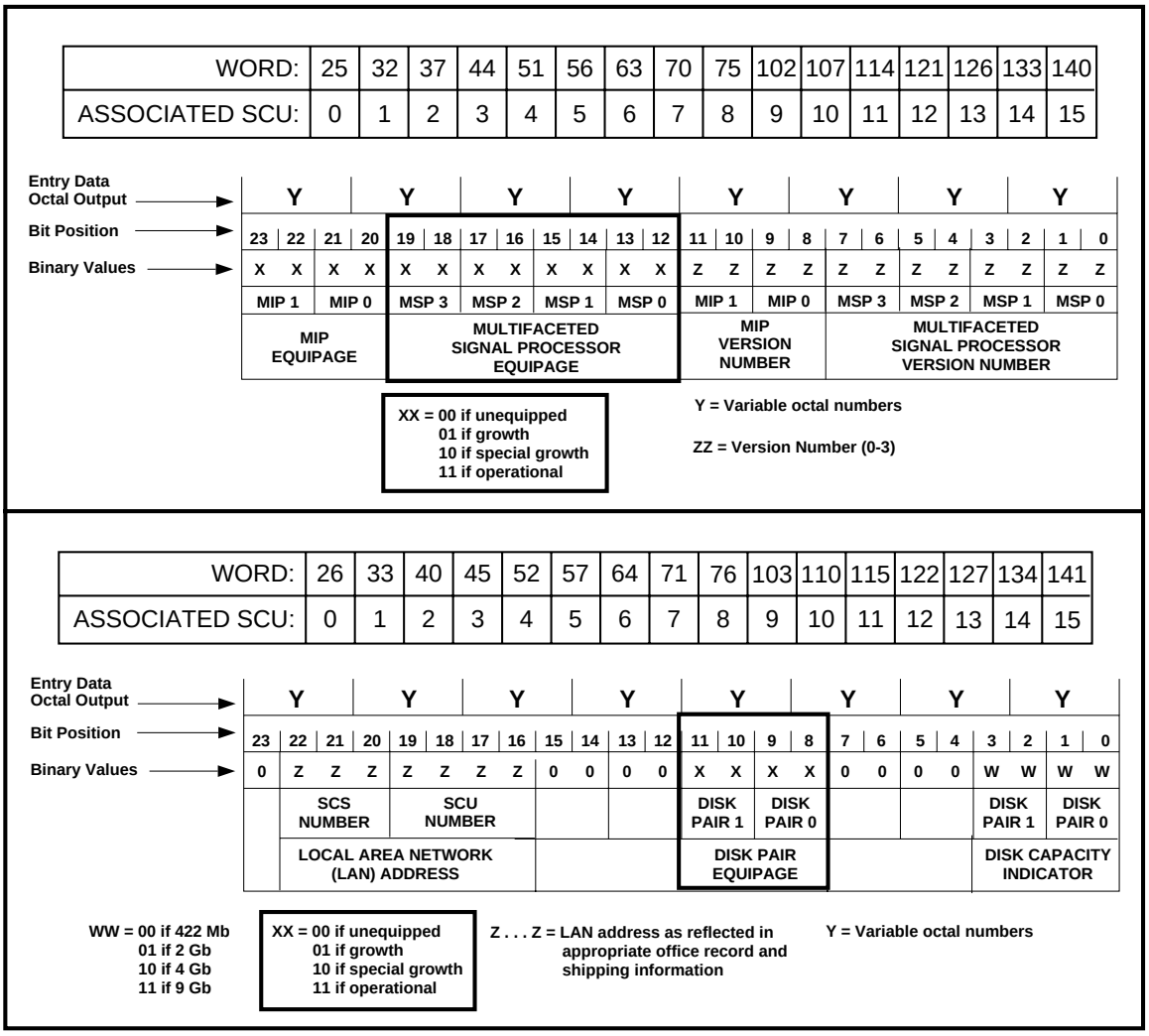

Figure 1. Words in SCS Unit Type Translator Used to Determine MSP, MIP, and Disk Pair Equipage

Verify That Member Equipage, Submember Equipage, and Subunit Data Equipage are in the GROW State

Note: Steps 1 and 2 will be repeated for each applicable Service Circuit Unit (SCU). Begin with the lowest-numbered SCU.

1. At the 1B MTC terminal, enter: **VER:UTYPE:SCS** *x*,**SME** *y*;

   where *x* = Member Number (0-7)
   y = SCU Index Number (see Table A)

TABLE A SCU Index Numbers

SCU	INDEX NO.	SCU	INDEX NO.	SCU	INDEX NO.	SCU	INDEX NO.
0	177	4	181	8	185	12	189
1	178	5	182	9	186	13	190
2	179	6	183	10	187	14	191
3	180	7	184	11	188	15	192

   Response: The following information is shown on the screen and printed:

```
VER:UTMN;OPT(SME),CUR:          FLN a                UTYN b

MEMN c          ME d

SUBMEM e,       SME f
```

   where *a* = Floor location number
   b = Unit type name
   c = Member number of growth associated complex
   d = Member equipage
   e = SCU index number
   f = SME

2. Using the printout from Step 1, look at the `ME` and `SME` fields to verify that Member Equipage and Submember Equipage are both set to `GROW`.

3. Have Steps 1 and 2 been completed for all applicable SCUs?

   If **YES**, continue to Step 4.

   If **NO**, repeat Steps 1 and 2 for the next applicable SCU.

4. At the 1B MTC terminal, enter: **VER:UTYPE:SCS** *x***!**

   where *x* = Member Number (0-7)

   Response:
   ```
   VER:UTMN;OPT(),CUR:
   FLN a
   UTYN b
   MEMN c
   ME d
   ENTRY ADDRESS e
   ENTRY SIZE f
   ```

   The above responses are followed by a complete printout of the Service Circuit System (SCS) Unit Type entry data.

   where *a* = Floor location number
   b = Unit type name
   c = Member number of growth associated complex
   d = Member equipage
   e = An 8-digit entry address
   f = A 2-digit entry size

5. Use Figure 1 and the printout from Step 4 to verify that SCU subunit data equipage (MSP and disk pair equipage) is in the GROW state **for all applicable SCUs**.

6. **STOP! YOU HAVE COMPLETED THIS PROCEDURE.**

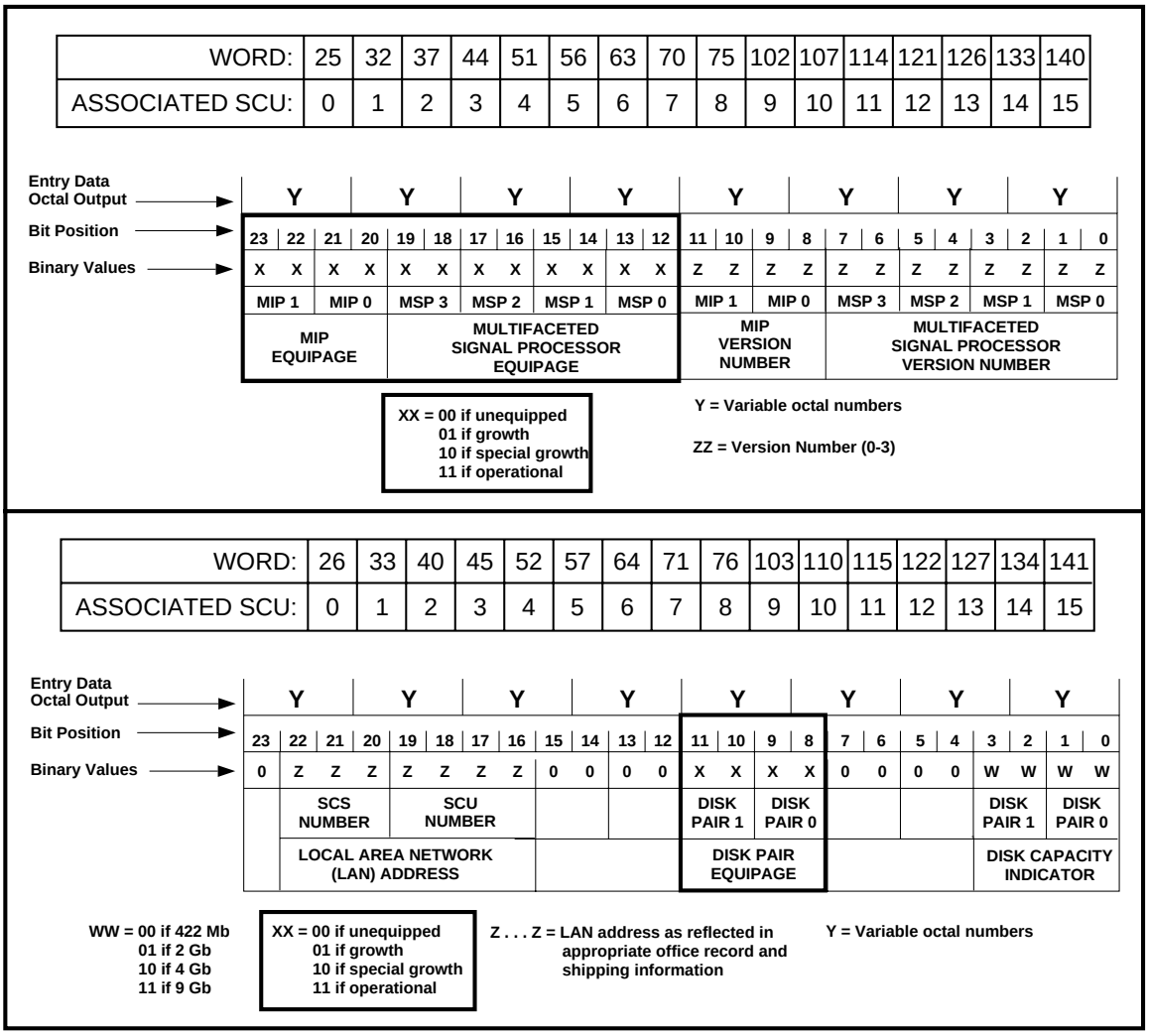

Figure 1. Words in SCS Unit Type Translator Used to Determine MSP and Disk Pair Equipage

Add Growth Service Circuit Unit (SCU) to the Announcement Administrative Processor's (AAP's) SCU Equipment Database

1. At the AAP console, log in as **aapusr** and select option **4** from the menu.

2. At the AAP console, print the Announcement Set Equipage (SETEQP) database by entering:

   OP:SETEQP!

   Response: A printout similar to the following example is generated.

   Example:

```
M mm OP:SETEQP  results
        KEY     ANNSET  SETADR        SETNUM
        0       N       09006A190A      0
        1       S       09006A190A      1
        mh/dy/yr hh:mm:ss tz #nnn
```

   Using this printout, determine if the appropriate announcement set is present.

3. Is the appropriate announcement set present as shown in the printout from Step 2? (The correct announcement set was recorded in one of the preliminary steps of the NTP from which this DLP was referenced.)

   If **YES**, go to Step 9.

   If **NO**, continue to Step 4.

4. At the AAP console, add the appropriate announcement set to the SETEQP database by entering:

   RC:SETEQP;ADD,KEY *x*:**ANNSET** *y*,**SETADR DFLT, SETNUM** *z*!

   where *x* = Database KEY [single value (0-99999) not already used (see printout from Step 2)]
   y = Appropriate Announcement Set (A-Z)
   z = Type of Service Circuit (0-7)

   Response: A printout similar to the following is generated:

```
M mm RC:SETEQP;ADD,KEY x:ANNSET y,SETADR DFLT, SETNUM z completed!
        KEY     ANNSET   SETADR        SETNUM
        x       y        09006A190A    z
        mh/dy/yr hh:mm:ss tz #nnn
```

5. At the AAP console, verify that the appropriate announcement set was added for the growth SCU by entering:

   OP:SETEQP!

   Response: A printout similar to the following example is generated.

   Example:

```
M mm OP:SETEQP  results
        KEY     ANNSET  SETADR         SETNUM
        x       y       09006A190A       z
        mh/dy/yr hh:mm:ss tz #nnn
```

   where *x* = Database KEY (value from previous step)
   y = Appropriate Announcement Set (A-Z)
   z = Type of Service Circuit (0-7)

   Using this printout, verify that the appropriate announcement set is present. If not, repeat Step 4. Otherwise go to Step 6.

6. At the AAP console, add the appropriate audits for the new announcement set by entering the following message **once with each appropriate set of values** as shown in Table A:

   RC:AUDIT;ADD,KEY _:TYPE _,ANNSET _,FROM _,TO _,UCL _,MO _, DAYMO _,DAYWK _,HR _,MIN _

   where each "_" in the input message has the appropriate value from Table A (If a "*****" is the value shown in Table A, a "*****" is actually entered in the input message.)

7. At the AAP console, verify that the AUDIT database now contains all the appropriate lines and information by entering:

   OP:AUDIT!

   Response: A printout similar to the example shown in Figure 1 is generated. Only the audits for the announcement set in use will be present in this printout.

   If the AUDIT database does not contain the appropriate lines and information, return to Step 5. Otherwise continue to the next step.

8. Contact the Advanced Features Service Center (AFSC) at 314-658-1304 (tech beeper 314-424-8661) and notify them that a new announcement set is now present at this location.

TABLE A Values for Input Message Used to Add Audits

Service Circuit Type	Values to Be Used										
	KEY	TYPE	ANNSET	FROM	TO	UCL	MO	DAYMO	DAYWK	HR	MIN
0	0	0	N	1	511	0	*	*	*	0	00
	1	1	N	1	65535	0	*	*	*	0	00
	2	2	N	1	65535	0	*	*	*	0	10
	3	3	N	1	65535	0	*	15	*	1	31
1	11	1	S	1	65535	0	*	*	*	0	00
	12	2	S	1	65535	0	*	*	*	0	20
	13	3	S	1	65535	0	*	8	*	1	31
2	21	1	*c*	1	65535	0	*	*	*	0	00
	22	2	*c*	1	65535	0	*	*	*	0	30
	23	3	*c*	1	65535	0	*	1	*	1	31
3	31	1	*d*	1	65535	0	*	*	*	0	00
	32	2	*d*	1	65535	0	*	*	*	0	40
	33	3	*d*	1	65535	0	*	22	*	1	31
4	41	1	B	1	65535	0	*	*	*	0	00
	42	2	B	1	65535	0	*	*	*	0	50
	43	3	B	1	65535	0	*	29	*	1	31
5	51	1	D	1	65535	0	*	*	*	0	00
	52	2	D	1	65535	0	*	*	*	1	00
	53	3	D	1	65535	0	*	11	*	1	31
6	61	1	*g*	1	65535	0	*	*	*	0	00
	62	2	*g*	1	65535	0	*	*	*	1	10
	63	3	*g*	1	65535	0	*	18	*	1	31
7	71	1	*h*	1	65535	0	*	*	*	0	00
	72	2	*h*	1	65535	0	*	*	*	1	20
	73	3	*h*	1	65535	0	*	25	*	1	31

9. At the AAP console, print out the SCU Equipment (SCUEQP) database for the growth SCU by entering: **OP:SCUEQP!**

   Response: A printout similar to the following example is generated.

   Example:

```
M mm OP:SCUEQP  results
        KEY     ANNSET  SCS     SCU     LANADR          ENA     ACT
        0       S       0       0       08006A190A       0       0
        99999   N       7       15      08006A190A       1       1
        mh/dy/yr hh:mm:ss tz #nnn
```

   The growth SCU should not be present. (If the growth SCU is present, go to Step 14.) Using this printout, select and record a unique KEY Number (one that is not already used) between 0 and 99999, for the growth SCU. This number will be used to add the growth SCU to the SCUEQP database.

	KEY	TYPE	ANNSET	FROM	TO	UCL	MO	DAYMO	DAYWK	HR	MIN	ENA	ACT
Mandatory	4	4	*x*	1	1	0	*	*	*	0	00	1	0
	5	5	*x*	1	1	0	*	*	*	0	00	1	0
	6	6	*x*	1	1	0	*	*	*	0	00	1	0
SCUs With Service Circuit Type 0 only	0	0	N	1	511	0	*	*	*	0	00	1	0
	1	1	N	1	65535	0	*	*	*	0	00	1	0
	2	2	N	1	65535	0	*	*	*	0	10	1	0
	3	3	N	1	65535	0	*	15	*	1	31	1	0
SCUs With Service Circuit Type 1 only	11	1	S	1	65535	0	*	*	*	0	00	1	0
	12	2	S	1	65535	0	*	*	*	0	20	1	0
	13	3	S	1	65535	0	*	8	*	1	31	1	0
SCUs With Service Circuit Type 2 only	21	1	*c*	1	65535	0	*	*	*	0	00	0	0
	22	2	*c*	1	65535	0	*	*	*	0	30	0	0
	23	3	*c*	1	65535	0	*	1	*	1	31	0	0
SCUs With Service Circuit Type 3 only	31	1	*d*	1	65535	0	*	*	*	0	00	0	0
	32	2	*d*	1	65535	0	*	*	*	0	40	0	0
	33	3	*d*	1	65535	0	*	22	*	1	31	0	0
SCUs With Service Circuit Type 4 only	41	1	B	1	65535	0	*	*	*	0	00	0	0
	42	2	B	1	65535	0	*	*	*	0	50	0	0
	43	3	B	1	65535	0	*	29	*	1	31	0	0
SCUs With Service Circuit Type 5 only	51	1	D	1	65535	0	*	*	*	0	00	0	0
	52	2	D	1	65535	0	*	*	*	1	00	0	0
	53	3	D	1	65535	0	*	11	*	1	31	0	0
SCUs With Service Circuit Type 6 only	61	1	*g*	1	65535	0	*	*	*	0	00	0	0
	62	2	*g*	1	65535	0	*	*	*	1	10	0	0
	63	3	*g*	1	65535	0	*	18	*	1	31	0	0
SCUs With Service Circuit Type 7 only	71	1	*h*	1	65535	0	*	*	*	0	00	0	0
	72	2	*h*	1	65535	0	*	*	*	1	20	0	0
	73	3	*h*	1	65535	0	*	25	*	1	31	0	0

x = One of the SCS announcement sets present when the AAP was grown.

Figure 1. Sample Printout Used to Verify Audit Database

10. At the AAP console, add the growth SCU to the SCUEQP database by entering:

    RC:SCUEQP;ADD,KEY *a*:ANNSET *b*,SCS *c*,SCU *d*, LANADR DFLT!

    where *a* = Database KEY [single value (0-99999) not already used] (determined in Step 9)
    b = Announcement Set (A-Z)
    c = Member Number (0-7)
    d = Submember Number (0-15)

    Response: A printout similar to the following is generated:

```
M mm RC:SCUEQP;ADD,KEY a:ANNSET b,SCS c,SCU d, LANADR DFLT completed
      KEY     ANNSET  SCS     SCU     LANADR          ENA     ACT
      a       b       c       d       08006A190A      0       0
      mh/dy/yr hh:mm:ss tz #nnn
```

11. At the AAP console, enable the growth SCU in the SCUEQP database by entering:

    ALW:SCUEQP;KEY *a*!

    where *a* = KEY Number of the growth SCU (determined in Step 9).

    Response: A printout similar to the following is generated:

```
M mm ALW:SCUEQP KEY x  completed
      KEY     ANNSET  SCS     SCU     LANADR          ENA     ACT
      a       b       c       d       08006A190A      1       0
      mh/dy/yr hh:mm:ss tz #nnn
```

12. At the AAP console, verify that the growth SCU was added to the SCUEQP database by entering:

    OP:SCUEQP!

    Response: A printout similar to the following example is generated.

    Example:

```
M mm OP:SCUEQP  results
        KEY     ANNSET  SCS     SCU     LANADR          ENA     ACT
        0       S       0       0       08006A190A      0       0
        99999   N       7       15      08006A190A      1       1
        mh/dy/yr hh:mm:ss tz #nnn
```

    Using this printout, verify that the KEY Number of the growth SCU has been added. Using the SCS/SCU numbers of the growth SCU as a reference, ensure that the ENA field is set to 1.

13. At the AAP console, allow AAP audits by entering:

    ALW:AUDIT;KEY ALL

    Response: A printout similar to the example shown in Figure 2 is generated. Only the audits for the announcement set(s) in use will be present in this printout.

14. At the AAP console, exit to the AAP menu by entering: **EXIT**

    Response: The menu is displayed on the AAP console screen.

15. **STOP! YOU HAVE COMPLETED THIS PROCEDURE.**

	KEY	TYPE	ANNSET	FROM	TO	UCL	MO	DAYMO	DAYWK	HR	MIN	ENA	ACT
Mandatory	4	4	*x*	1	1	0	*	*	*	0	00	1	0
	5	5	*x*	1	1	0	*	*	*	0	00	1	0
	6	6	*x*	1	1	0	*	*	*	0	00	1	0
SCUs with Service Circuit Type 0 only	0	0	N	1	511	0	*	*	*	0	00	1	0
	1	1	N	1	65535	0	*	*	*	0	00	1	0
	2	2	N	1	65535	0	*	*	*	0	10	1	0
	3	3	N	1	65535	0	*	15	*	1	31	1	0
SCUs with Service Circuit Type 1 only	11	1	S	1	65535	0	*	*	*	0	00	1	0
	12	2	S	1	65535	0	*	*	*	0	20	1	0
	13	3	S	1	65535	0	*	8	*	1	31	1	0
SCUs with Service Circuit Type 2 only	21	1	*c*	1	65535	0	*	*	*	0	00	1	0
	22	2	*c*	1	65535	0	*	*	*	0	30	1	0
	23	3	*c*	1	65535	0	*	1	*	1	31	1	0
SCUs with Service Circuit Type 3 only	31	1	*d*	1	65535	0	*	*	*	0	00	1	0
	32	2	*d*	1	65535	0	*	*	*	0	40	1	0
	33	3	*d*	1	65535	0	*	22	*	1	31	1	0
SCUs with Service Circuit Type 4 only	41	1	B	1	65535	0	*	*	*	0	00	1	0
	42	2	B	1	65535	0	*	*	*	0	50	1	0
	43	3	B	1	65535	0	*	29	*	1	31	1	0
SCUs with Service Circuit Type 5 only	51	1	D	1	65535	0	*	*	*	0	00	1	0
	52	2	D	1	65535	0	*	*	*	1	00	1	0
	53	3	D	1	65535	0	*	11	*	1	31	1	0
SCUs with Service Circuit Type 6 only	61	1	*g*	1	65535	0	*	*	*	0	00	1	0
	62	2	*g*	1	65535	0	*	*	*	1	10	1	0
	63	3	*g*	1	65535	0	*	18	*	1	31	1	0
SCUs with Service Circuit Type 7 only	71	1	*h*	1	65535	0	*	*	*	0	00	1	0
	72	2	*h*	1	65535	0	*	*	*	1	20	1	0
	73	3	*h*	1	65535	0	*	25	*	1	31	1	0

x = One of the SCS announcement sets present when the AAP was grown.

Figure 2. Sample Printout When Audits Are Allowed

Verify Unit Type Translator to Determine Time Slot Interchange (TSI) Information

1. At the 1B Maintenance (MTC) terminal, enter: **VER:UTYPE:SCS** *x***!**

   where *x* = Member Number (0-7)

   Response: The information shown in Figure 1 is displayed.

   Note: The words shown in Figure 1 are in **octal** format.

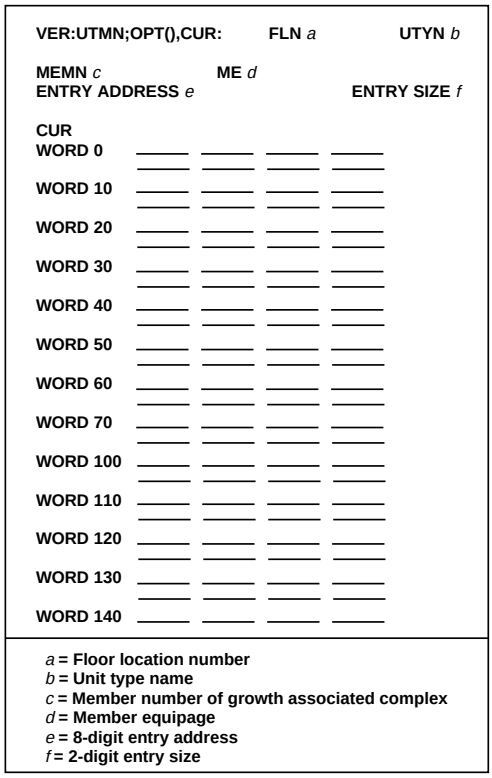

Figure 1. SCS Unit Type Translator

2. Is the message format and member identification correct as shown in Figure 1?

   If **YES**, continue to Step 3.
   If **NO**, determine and resolve the cause and repeat from Step 1.

3. Using the TTY output and Figure 2, determine the values for each of the items listed in Table A for each applicable SCU. Record these values in the appropriate columns of Table A for future reference.

TABLE A SCU Information

SCU NO.	TSI MEMBER NUMBER	SPC NUMBER	LEVEL NO. (TSI PORT NUMBER)
0			
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			

4. **STOP! YOU HAVE COMPLETED THIS PROCEDURE.**

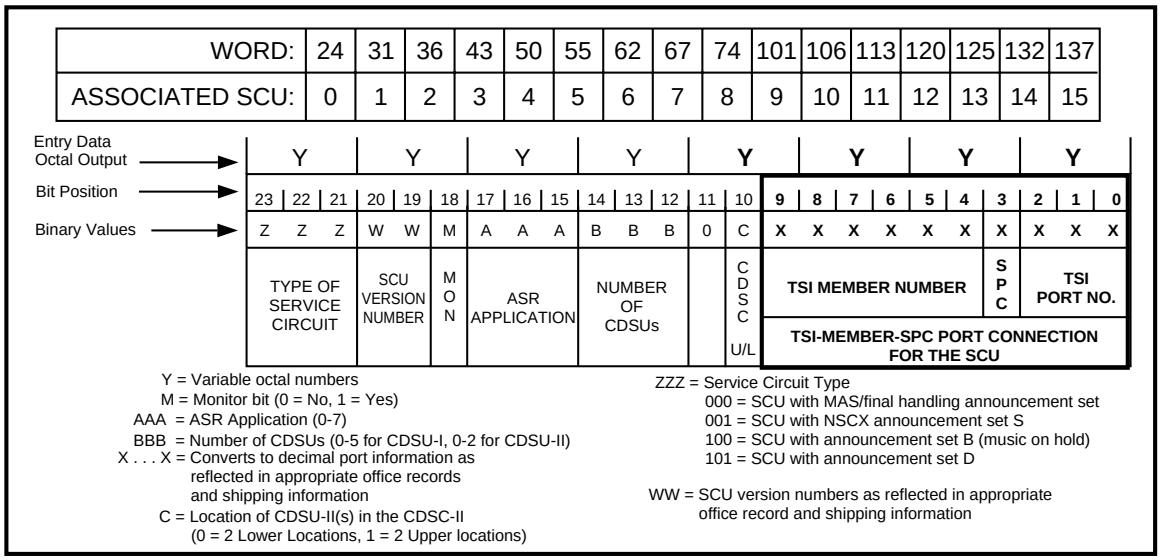

Figure 2. Words Used to Determine TSI Information

Update Version Numbers in the Growth Service Circuit System (SCS) Unit Type Translator

Caution: Calling up a Recent Change (RC) Form will cause all data on the screen to be cleared.

1. At the 1B Maintenance (MTC) terminal, enter: **OP:RCFORM 801!**

   Response: Recent Change Form 801 appears on the screen.

2. At `RC:FUNC;CHG;OPT(TRANS)`, enter **FTA**.

3. At `TRANSID`, enter **UTSCS**.

4. At `ORNU`, enter a unique Order Number assigned to this word change.

5. At `ENTRY`, enter the SCS Member Number (0 through 7) of the growth SCS complex.

6. At `WORDNO`, enter **8**.

7. At `SIZE`, enter **6**.

8. At `DISP`, enter **0**.

9. At `BINOCT`, enter **O**.

10. At NEWDATA, enter the **new** 2-digit octal number for the updated version number as shown in Table A.

TABLE A Data to be Entered in NEWDATA Field

IF THE "VERSION NUMBER" COLUMN OF TABLE A IN DLP-545 SHOWS THIS VERSION NUMBER FOR FILE "SCCSFT"...	THEN ENTER THESE 2 DIGITS IN THE "NEWDATA" FIELD
0	00
1	11
2	22
3	33

11. At OLDDATA, enter the **existing** 2-digit octal number represented by bits 0 through 5 of octal word 10 in the SCS Unit Type Translator. (See Figure 1.)

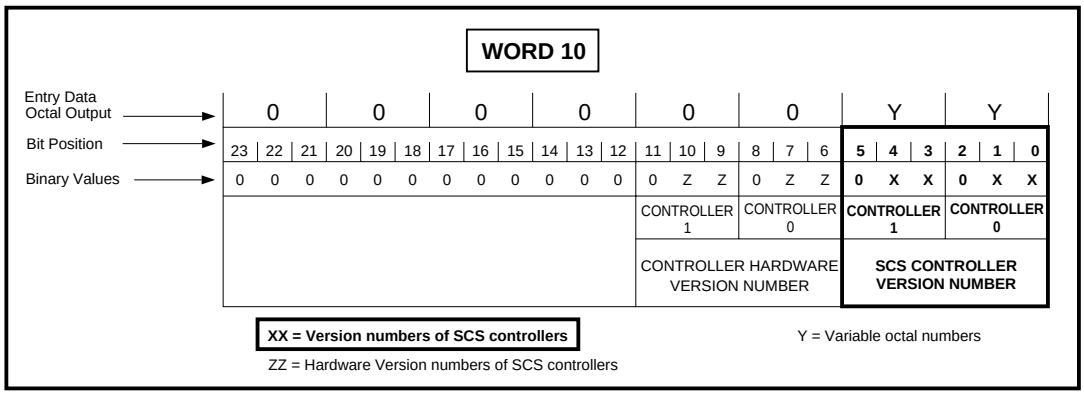

Figure 1. Word 10 in SCS Unit Type Translator Used to Determine Version Numbers of Controllers

12. If no REMARKS are needed, press HOME to return the cursor to the top of the form.

13. Press SEND/ENTER

Response: RC ORNU *a* ACTIVATED followed by all new entries.

where *a* = RC Order Number

Note: All entries should be checked for accuracy. If any entries are found to be incorrect, repeat Steps 1 through 13 using the correct data.

14. At the 1B MTC terminal, enter **VER:UTYPE:SCS** *x***!**

    where *x* = Member Number (0-7)

    Response:
    ```
    VER:UTMN;OPT(),CUR:
    FLN a
    UTYN b
    MEMN c
    ME d
    ENTRY ADDRESS e
    ENTRY SIZE f
    ```

    where *a* = Floor location number
    b = Unit type name
    c = Member number of growth associated complex
    d = Member equipage
    e = An 8-digit entry address
    f = A 2-digit entry size

    The above responses are followed by a complete printout of the SCS Unit Type entry data. Use this printout and Figure 1 to determine if the SCC data (controller version number) was properly entered for both controllers. The version numbers for both controllers should be the same and should match the version number found in the "Version Number" column of Table A in DLP-545 for the file "SCCSFT".

    Note: Steps 15 through 24 will be repeated for each growth SCU.

15. At the 1B Maintenance (MTC) terminal, enter **OP:RCFORM 703!**

    Response: Recent Change Form 703 appears on the screen.

16. At SCS, enter the SCS Member Number (0-7) of the growth SCS complex.

17. At SCU, enter the appropriate SCU Number (0-15).

18. At ORNU, enter a unique Order Number.

19. At SCUFV, enter the new version number for the SCU (the version number that was recorded in the "Version Number" column of Table A in DLP-545 for the file "SCUOPR").

20. At MSBFV, locations 0-3, enter the new version number for the MSP (the version number that was recorded in the "Version Number" column of Table A in DLP-545 for the file "MSPFIX").

    Note: The "0" location for MSBFV will always be populated. Depending on your system configuration, no update may be needed for the remaining 3 locations.

21. If no REMARKS are needed, press HOME to return the cursor to the top of the form.

22. Press SEND/ ENTER

    Response: RC ORNU *a* SUCCESSFULLY TESTED followed by
    RC ORNU *a* SUCCESSFULLY BUFFERED followed by all new entries.

    where *a* = RC Order Number

    Note: All entries should be checked for accuracy. If any entries are found to be incorrect, repeat Steps 15 through 22.

23. At the 1B MTC terminal, enter **RCACT:ORNU *a*!**

    where *a* = RC Order Number

    Response: RC ORNU *a* ACTIVATED followed by all new entries.

    where *a* = RC Order Number

    Note: All entries should be checked for accuracy. If any entries are found to be incorrect, repeat this step correcting the errors.

24. At the 1B MTC terminal, enter **VER:UTYPE:SCS x!**

    where *x* = Member Number (0-7)

    Response:
    ```
    VER:UTMN;OPT(),CUR:
    FLN a
    UTYN b
    MEMN c
    ME d
    ENTRY ADDRESS e
    ENTRY SIZE f
    ```

    where *a* = Floor location number
    b = Unit type name
    c = Member number of growth associated complex
    d = Member equipage
    e = An 8-digit entry address
    f = A 2-digit entry size

    The above responses are followed by a complete printout of the SCS Unit Type entry data. Use this printout and Figure 2 to determine if the SCU data (SCU and MSP version numbers) was properly entered.

25. Have Steps 15 through 24 been completed for all growth SCUs?

    If **NO**, repeat Steps 15 through 24 for the next SCU.

    If **YES**, continue to Step 26.

26. **STOP! YOU HAVE COMPLETED THIS PROCEDURE.**

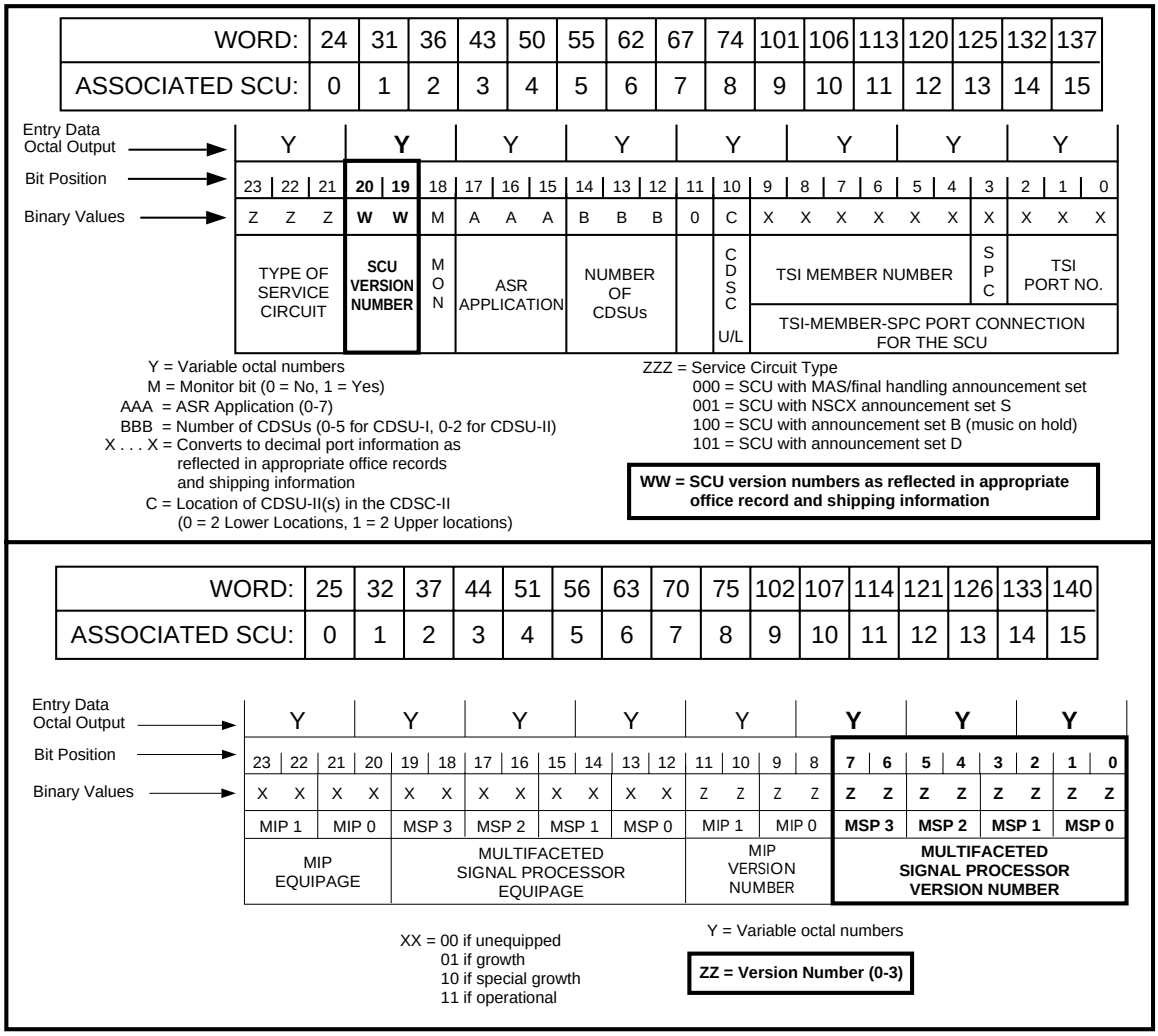

Figure 2. Words in SCS Unit Type Translator Used to Determine SCU and MSP Version Numbers

Copy the Correct and Up-to-Date SCS System Files From the APS to All Growth Disk Pair 0

At the 1B MTC terminal, enter the following input messages, one at a time, **being sure to wait for the successful completion of each message before continuing to the next**:

COPY:SCS *x***, SCCSFT,SVN 0,DVN** *y***; UCL!**
COPY:SCS *x***, SCUOPR,SVN 0,DVN** *y***; UCL!**
COPY:SCS *x***, SCUDGN,SVN 0,DVN** *y***; UCL!**
COPY:SCS *x***, MSPFIX,SVN 0,DVN** *y***; UCL!**
COPY:SCS *x***, MSPROV,SVN 0,DVN** *y***; UCL!**
COPY:SCS *x***, TONES,SVN 0,DVN** *y***; UCL!**
COPY:SCS *x***, MSP1,SVN 0,DVN** *y***; UCL!**
COPY:SCS *x***, MIP0FIL,SVN 0,DVN** *y***; UCL!**
COPY:SCS *x***, MIP1FIL,SVN 0,DVN** *y***; UCL!**

where *x* = Member Number (0-7)
y = Destination Version Number (0-1 - 4E22R4 and later) [**Use the correct and up-to-date version number (Table A of DLP-545)**]

Note: Each of the above COPY commands could take up to 15 minutes to run. If any input message should fail, enter the message a second time before escalating the problem.

Response: `COPY:SCS` *x* `TASK COMPLETED` (for each of the above input messages).

Add the Disk Pair Capacity and Equipage for Disk Pair 2 in the SCS Unit Type Translator

Caution: Calling up an RC Form will cause all data on the screen to be cleared.

1. At the 1B Maintenance (MTC) terminal, enter **OP:RCFORM 703!**

   Response: Recent Change Form 703 appears on the screen.

2. At SCS, enter the appropriate SCS Member Number (0-7).

3. At SCU, enter **0**.

4. At ORNU, enter a unique Order Number.

5. At DSKEQ, enter **P** (present) in location 2.

6. At DSKC, enter **2** in location 2.

7. If no REMARKS are needed, return the cursor to the top of the form by pressing HOME.

8. Press SEND/ENTER

   Response: RC ORNU a SUCCESSFULLY TESTED followed by
   RC ORNU a SUCCESSFULLY BUFFERED followed by all new entries.

   where *a* = RC Order Number

   Note: All entries should be checked for accuracy. If any entries are found to be incorrect, repeat Steps 1 through 8.

9. At the 1B MTC terminal, enter **RCACT:ORNU a!**

   where *a* = RC Order Number

   Response: `RC ORNU a ACTIVATED` followed by all new entries.

   where *a* = RC Order Number

   Note: All entries should be checked for accuracy. If any entries are found to be incorrect, repeat this DLP, correcting the errors.

10. At the 1B MTC terminal, enter **VER:UTYPE:SCS x!**

    where *x* = Member Number (0-7)

    Caution: When populating* DSKEQ *and* DSKC *for a Type 2 (TN4000 - 4 Gb) disk pair at location 0 and/or 2, the adjacent locations 1 and/or 3 will also be populated when checking the Unit Type Translator. This is done automatically via recent change.

    Response:
    ```
    VER:UTMN;OPT(),CUR:
    FLN a
    UTYN b
    MEMN c
    ME d
    ENTRY ADDRESS e
    ENTRY SIZE f
    ```

    The above responses are followed by a complete printout of the Service Circuit System (SCS) Unit Type entry data. Use this printout (word 26) and Figure 1 to determine if the SCU data (disk pair equipage and capacity) was properly entered.

    where *a* = Floor location number
    b = Unit type name
    c = Member number of growth associated complex
    d = Member equipage
    e = An 8-digit entry address
    f = A 2-digit entry size

11. **STOP! YOU HAVE COMPLETED THIS PROCEDURE.**

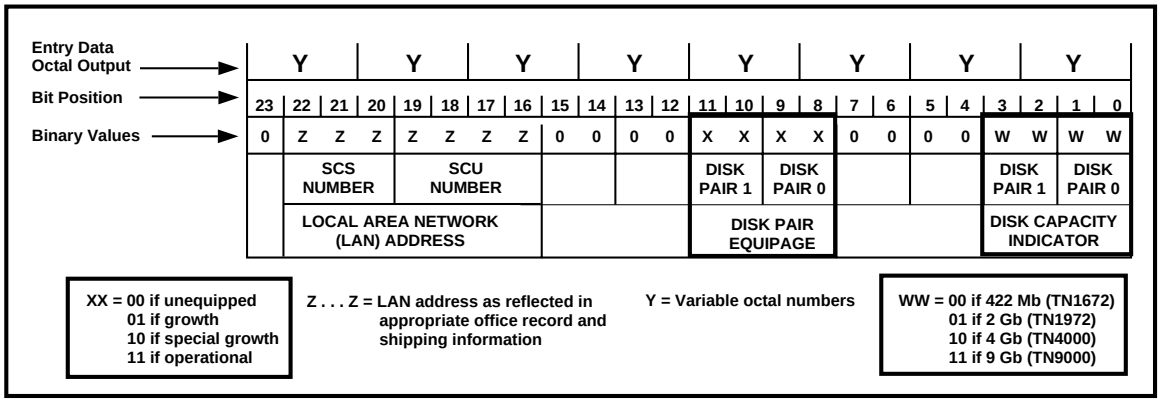

Figure 1. Word 26 in SCS Unit Type Translator

Verify the Destination Version Number (DVN) for All Service Circuit System (SCS) System File Types to Be Updated

1. At the 1B Maintenance (MTC) terminal, enter **VER:UTYPE:SCS x!**

   where *x* = Member Number (0-7)

   Response: The information shown in Figure 1 is displayed and printed. This printout will be used to determine the existing version number for each of the nine SCS system files.

   Note: The words shown in Figure 1 are in **octal** format.

VER:UTMN;OPT(),CUR: **FLN** *a* **UTYN** *b*

MEMN *c* **ME** *d*
ENTRY ADDRESS *e* **ENTRY SIZE** *f*

CUR				
WORD 0	_____	_____	_____	_____
	_____	_____	_____	_____
WORD 10	_____	_____	_____	_____
	_____	_____	_____	_____
WORD 20	_____	_____	_____	_____
	_____	_____	_____	_____
WORD 30	_____	_____	_____	_____
	_____	_____	_____	_____
WORD 40	_____	_____	_____	_____
	_____	_____	_____	_____
WORD 50	_____	_____	_____	_____
	_____	_____	_____	_____
WORD 60	_____	_____	_____	_____
	_____	_____	_____	_____
WORD 70	_____	_____	_____	_____
	_____	_____	_____	_____
WORD 100	_____	_____	_____	_____
	_____	_____	_____	_____
WORD 110	_____	_____	_____	_____
	_____	_____	_____	_____
WORD 120	_____	_____	_____	_____
	_____	_____	_____	_____
WORD 130	_____	_____	_____	_____
	_____	_____	_____	_____
WORD 140	_____	_____	_____	_____

a = Floor location number
b = Unit type name
c = Member number of growth associated complex
d = Member equipage
e = 8-digit entry address
f = 2-digit entry size

Figure 1. SCS Unit Type Translator

2. Using the printout from Step 1 and Figure 2 (page 3), determine the existing version number for Controllers 0 and 1 by looking at bits 0 through 5 in octal word 10. The existing version number should be the same for both controllers and can range from 0 to 3 - 4E22R4 and later.

   The new DVN is the existing version number plus 1. (If the version number is 3, the DVN is 0.) Record the DVN in Table A as the "DVN" for SCS system file type **SCCSFT**.

   Note: The DVN for the **TONES** file type **is always 0** and is already entered in Table A.

TABLE A DVNs for SCS System Files to be Updated

SCS System File Type	DVN
SCCSFT	
SCUOPR	
SCUDGN	
MSPFIX	
MSPROV	
TONES	0
MSP1	
MIP0FIL	
MIP1FIL	

3. Using the printout from Step 1 and the middle section of Figure 2 (page 3), determine the version number for **existing** SCUs by looking at bits 19 and 20 of the applicable words.

   The new DVN is the existing version number plus 1. (If the version number is 3, the DVN is 0.) Record the DVN in Table A as the "DVN" for SCS system file types **SCUOPR and SCUDGN**. (The version number should be the same for all existing SCUs and can range from 0 to 3 - 4E22R4 and later.)

4. Using the printout from Step 1 and the bottom section of Figure 2 (page 3), determine the version number for Multifaceted Signal Processor (MSP) 0 per bits 0 and 1 of the applicable words.

   The new DVN is the existing version number plus 1. (If the version number is 3, the DVN is 0.) Record the DVN in Table A as the "DVN" for SCS system file types **MSPFIX**, **MSPROV**, **MSP1**, **MIP0FIL**, and **MIP1FIL**. (This version number should be the same for all existing SCUs and can range from 0 to 3 - 4E22R4 and later.)

5. **STOP! YOU HAVE COMPLETED THIS PROCEDURE.**

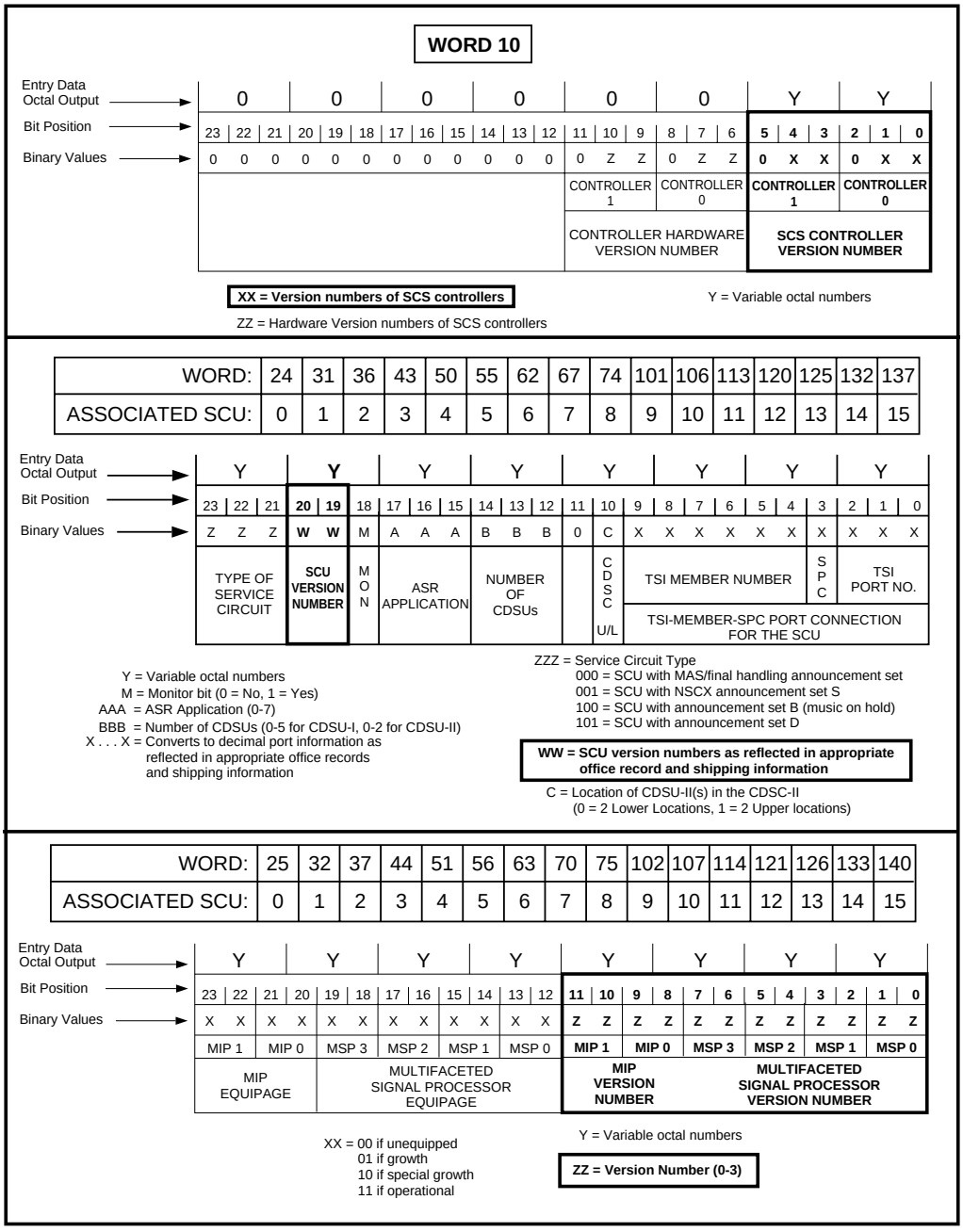

Figure 2. Words in SCS Unit Type Translator Used to Determine Version Numbers

Update the Version Number in the Service Circuit System (SCS) Translator for Both Controllers Using Recent Change (RC) Form 801

Caution: Calling up a Recent Change (RC) Form will cause all data on the screen to be cleared.

1. At the 1B Maintenance (MTC) terminal, enter **OP:RCFORM 801!**

   Response: Recent Change Form 801 appears on the screen.

2. At `RC:FUNC;CHG;OPT(TRANS)`, enter **FTA**.

3. At `TRANSID`, enter **UTSCS**.

4. At `ORNU`, enter a unique Order Number assigned to this word change.

5. At `ENTRY`, enter the SCS Member Number (0 through 7).

6. At `WORDNO`, enter **8**.

7. At `SIZE`, enter **6**.

8. At `DISP`, enter **0**.

9. At `BINOCT`, enter **O**.

10. At NEWDATA, enter the **new** 2-digit octal number for the updated version number as shown in Table A.

TABLE A Data to be Entered in NEWDATA Field

IF THE DVN COLUMN OF TABLE A IN DLP-526 SHOWS THIS VERSION NUMBER FOR FILE "SCCSFT"...	ENTER THESE 2 DIGITS IN THE "NEWDATA" FIELD
0	00
1	11
2	22
3	33

11. At OLDDATA, enter the **existing** 2-digit octal number represented by bits 0 through 5 of octal word 10 in the SCS Unit Type Translator. (See Figure 1.)

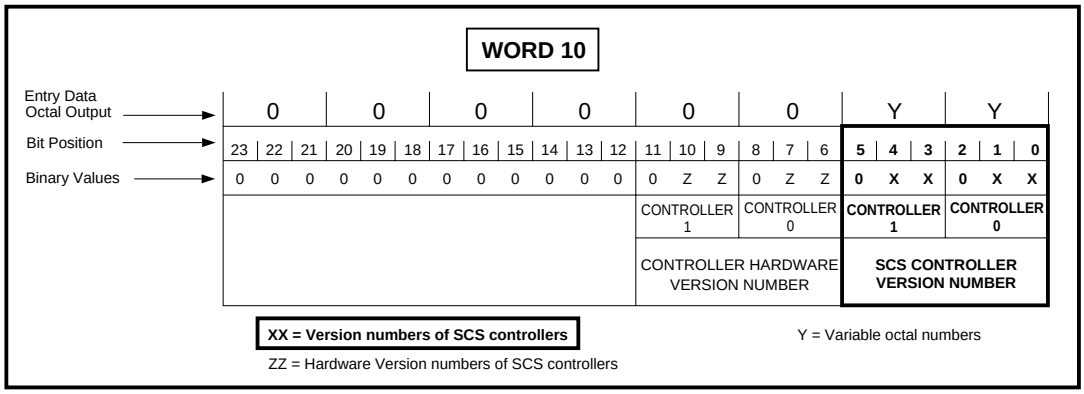

Figure 1. Word 10 in SCS Unit Type Translator Used to Determine Version Numbers of Controllers

12. If no REMARKS are needed, return the cursor to the top of the form by pressing HOME.

13. Press SEND/ ENTER

Response: RC ORNU a ACTIVATED followed by all new entries.

where *a* = RC Order Number

Note: All entries should be checked for accuracy. If any entries are found to be incorrect, remove recent change using RC Form 700 and repeat Steps 1 through 13.

14. At the 1B MTC terminal, enter **VER:UTYPE:SCS x!**

    where *x* = Member Number (0-7)

    Response:
    ```
    VER:UTMN;OPT(),CUR:
    FLN a
    UTYN b
    MEMN c
    ME d
    ENTRY ADDRESS e
    ENTRY SIZE f
    ```

    where *a* = Floor location number
    b = Unit type name
    c = Member number of growth associated complex
    d = Member equipage
    e = An 8-digit entry address
    f = A 2-digit entry size

    The above responses are followed by a complete printout of the SCS Unit Type entry data. Use this printout and Figure 1 to determine if the SCC data (controller version number) was properly entered for both controllers. The version numbers for both controllers should be the same and should match the version number found in the "DVN" column of Table A in DLP-526 for the file "SCCSFT."

15. **STOP! YOU HAVE COMPLETED THIS PROCEDURE.**

Update the Version Number of the SCU and Associated Multifaceted Signal Processor (MSP) and Multifunctional Interface Processors (MIPs) Using RC Form 703

Caution: Calling up an RC Form will cause all data on the screen to be cleared.

1. At the 1B Maintenance (MTC) terminal, enter **OP:RCFORM 703!**

   Response: Recent Change Form 703 appears on the screen.

2. At SCS, enter the SCS Member Number (0-7).

3. At SCU, enter the SCU Number (0-15).

4. At ORNU, enter a unique Order Number.

5. At SCUFV, enter the new version number for the SCU (the version number that was recorded in the DVN column of Table A in DLP-526 for the file "SCUOPR").

6. At MSBFV, locations 0-3, enter the new version number for the MSP (the version number that was recorded in the DVN column of Table A in DLP-526 for the file "MSPFIX").

   Note: The "0" location for MSBFV will always be populated. Depending on your system configuration, no update may be needed for the remaining 3 locations.

7. At MIPFV, location 0, enter the new version number for MIP0 (the version number that was recorded in the DVN column of Table A in DLP-526 for the file "MIP0FIL").

8. At MIPFV, location 1, enter the new version number for MIP1 (the version number that was recorded in the DVN column of Table A in DLP-526 for the file "MIP1FIL").

9. If no REMARKS are needed, return the cursor to the top of the form by pressing HOME.

10. Press SEND/ENTER

    Response: `RC ORNU a SUCCESSFULLY TESTED` followed by
    `RC ORNU a SUCCESSFULLY BUFFERED` followed by all new entries.

    where *a* = RC Order Number

    Note: All entries should be checked for accuracy. If any entries are found to be incorrect, repeat Steps 1 through 10.

11. At the 1B MTC terminal, enter **RCACT:ORNU a!**

    where *a* = RC Order Number

    Response: `RC ORNU a ACTIVATED` followed by all new entries.

    where *a* = RC Order Number

    Note: All entries should be checked for accuracy. If any entries are found to be incorrect, repeat this step correcting the errors.

12. At the 1B MTC terminal, enter **VER:UTYPE:SCS x!**

    where *x* = Member Number (0-7)

    Response:
    ```
    VER:UTMN;OPT(),CUR:
    FLN a
    UTYN b
    MEMN c
    ME d
    ENTRY ADDRESS e
    ENTRY SIZE f
    ```

    where *a* = Floor location number
    b = Unit type name
    c = Member number of growth associated complex
    d = Member equipage
    e = An 8-digit entry address
    f = A 2-digit entry size

    The above responses are followed by a complete printout of the SCS Unit Type entry data. Use this printout and Figure 1 to determine if the SCU data (SCU, MSP, and MIP version numbers) was properly entered.

13. **STOP! YOU HAVE COMPLETED THIS PROCEDURE.**

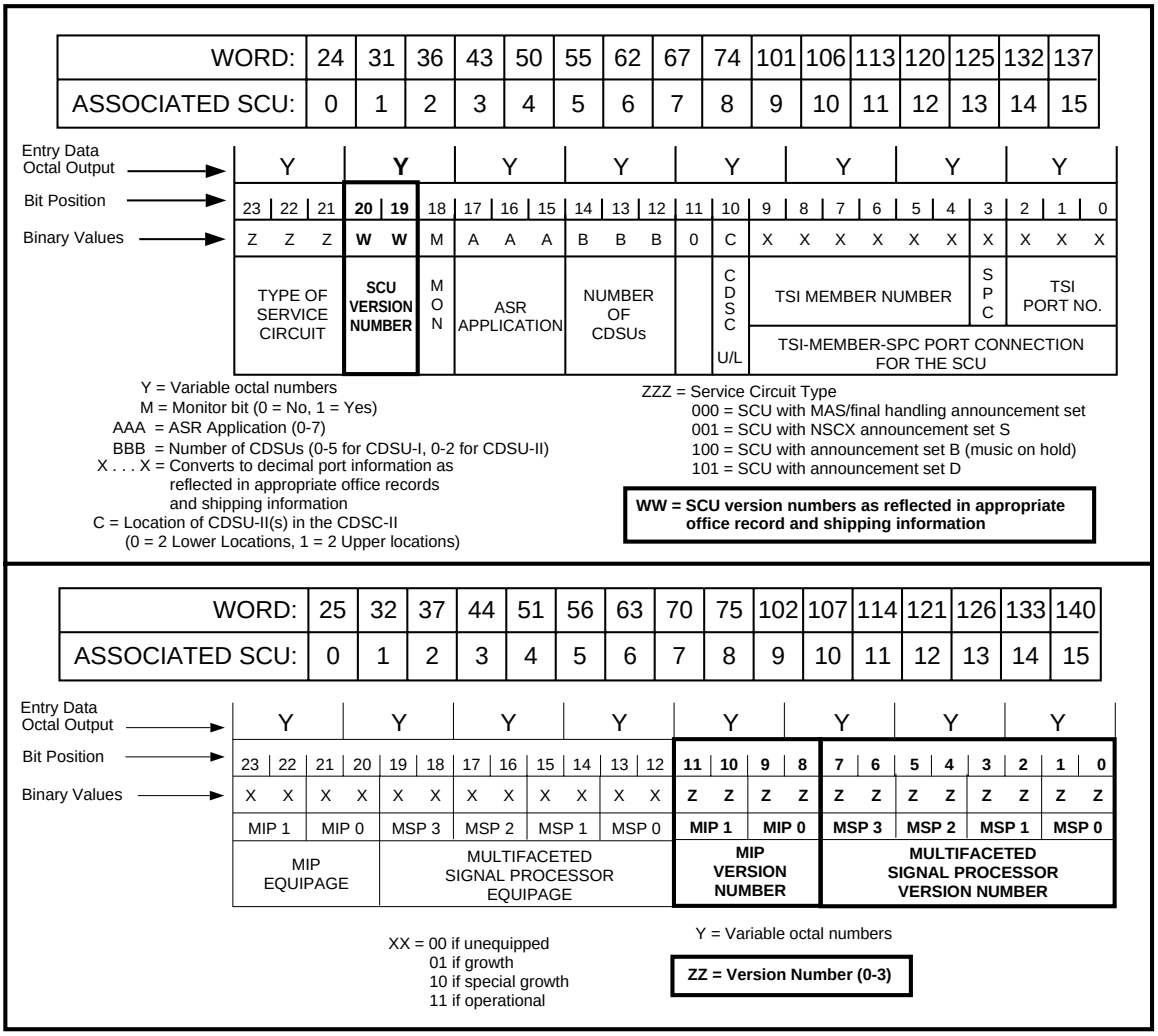

Figure 1. Words in SCS Unit Type Translator Used to Verify SCU and MSP Version Numbers

Degrow Time Slot Interchange (TSI) Submember Equipage From OPER to SGRO Using Recent Change (RC) Form 701

Caution: Calling up an RC Form will cause all data on the screen to be cleared.

1. At the 1B Maintenance (MTC) terminal, enter **OP:RCFORM 701!**

   Response: Recent Change Form 701 appears on the screen.

2. At UTYN, enter **TSI**.

3. At ORNU, enter a unique Order Number.

4. At MEMN, enter the TSI Member Number.

5. At SUBMEM, enter the Submember Name [**T0PRTEQ(0-6)** for SPC0 ports 0-6, or **T1PRTEQ(0-6)** for SPC1 ports 0-6].

6. At SME, enter **OPER**, then enter **SGRO**.

7. If no REMARKS are needed, return the cursor to the top of the form by pressing HOME.

8. Press SEND/ENTER

   Response: RC ORNU *a* SUCCESSFULLY TESTED followed by
   RC ORNU *a* SUCCESSFULLY BUFFERED followed by all new entries.

   where *a* = RC Order Number

   Note: All entries should be checked for accuracy. If any entries are found to be incorrect, repeat Steps 1 through 8.

9. At the 1B MTC terminal, enter **RCACT:ORNU a!**

   where *a* = RC Order Number

   Response: `RC ORNU a ACTIVATED` followed by all new entries.

   where *a* = RC Order Number

   Note: All entries should be checked for accuracy. If any entries are found to be incorrect, remove recent change using RC Form 701 and repeat this DLP.

10. At the 1B MTC terminal, enter **VER:UTYPE:TSI x,SME y!**

    where *x* = Member Number (0-62)
    y = TSI Port Index Number (see Table A)

TABLE A TSI Port Index Numbers

PORT	INDEX NO.	PORT	INDEX NO.	PORT	INDEX NO.
SPC 0-0	56	SPC 0-5	61	SPC 1-3	66
SPC 0-1	57	SPC 0-6	62	SPC 1-4	67
SPC 0-2	58	SPC 1-0	63	SPC 1-5	68
SPC 0-3	59	SPC 1-1	64	SPC 1-6	69
SPC 0-4	60	SPC 1-2	65		

Response:
```
VER:UTMN;OPT(SME),CUR:
FLN a
UTYN b
MEMN c
ME d
SME e
SUBMEM f
```

where *a* = Floor location number
b = Unit type name
c = Member number of growth associated complex
d = Member equipage
e = SME
f = SME index number

Note: All entries should be checked for accuracy. If any entries are found to be incorrect, repeat this step using correct data.

11. **STOP! YOU HAVE COMPLETED THIS PROCEDURE.**

Degrow Disk Pair, MSP, and MIP Equipage for an SCU From SGRO to GROW Using Recent Change (RC) Form 703

Caution: Calling up an RC Form will cause all data on the screen to be cleared.

1. At the 1B Maintenance (MTC) terminal, enter **OP:RCFORM 703!**

   Response: Recent Change Form 703 appears on the screen.

2. At SCS, enter the SCS Member Number (0-7).

3. At SCU, enter the number of the SCU (0-15).

4. At ORNU, enter a unique Order Number.

5. At MSBEQ, location 0, enter **G** (grow).

   Note: If the SCU has more than one associated Multifaceted Signal Processor (MSP) circuit pack (TN1589), also enter **G** at locations 1 through 3 of MSBEQ, as required.

6. **If the SCU already has ASR functionality**, enter **G** (grow) at MIPEQP, locations 0 and 1.

7. At DSKEQ, location 0, enter **G** (grow).

   Note: If a Type 2 (4 GB disk) is being degrown, enter **G** at location 0 only.

   Note: If SCU 0 is being degrown and has more than one associated disk pair, also enter **G** at location 1 of DSKEQ, as required.

8. If no REMARKS are needed, return the cursor to the top of the form by pressing HOME.

9. Press SEND/ENTER

   Response: `RC ORNU` *a* `SUCCESSFULLY TESTED` followed by
   `RC ORNU` *a* `SUCCESSFULLY BUFFERED` followed by all new entries.

   where *a* = RC Order Number

   Note: All entries should be checked for accuracy. If any entries are found to be incorrect, repeat Steps 1 through 9.

10. At the 1B MTC terminal, enter **RCACT:ORNU** *a***!**

    where *a* = RC Order Number

    Response: `RC ORNU` *a* `ACTIVATED` followed by all new entries.

    where *a* = RC Order Number

    Note: All entries should be checked for accuracy. If any entries are found to be incorrect, repeat this step correcting the errors.

11. At the 1B MTC terminal, enter **VER:UTYPE:SCS** *x***!**

    where *x* = Member Number (0-7)

    Response:
    ```
    VER:UTMN;OPT(),CUR:
    FLN a
    UTYN b
    MEMN c
    ME d
    ENTRY ADDRESS e
    ENTRY SIZE f
    ```

    The above responses are followed by a complete printout of the Service Circuit System (SCS) Unit Type entry data. Use this printout and Figure 1 to determine if the SCU data (MSP, MIP, and disk pair equipage) was properly entered.

    where *a* = Floor location number
    b = Unit type name
    c = Member number of growth associated complex
    d = Member equipage
    e = An 8-digit entry address
    f = A 2-digit entry size

12. **STOP! YOU HAVE COMPLETED THIS PROCEDURE.**

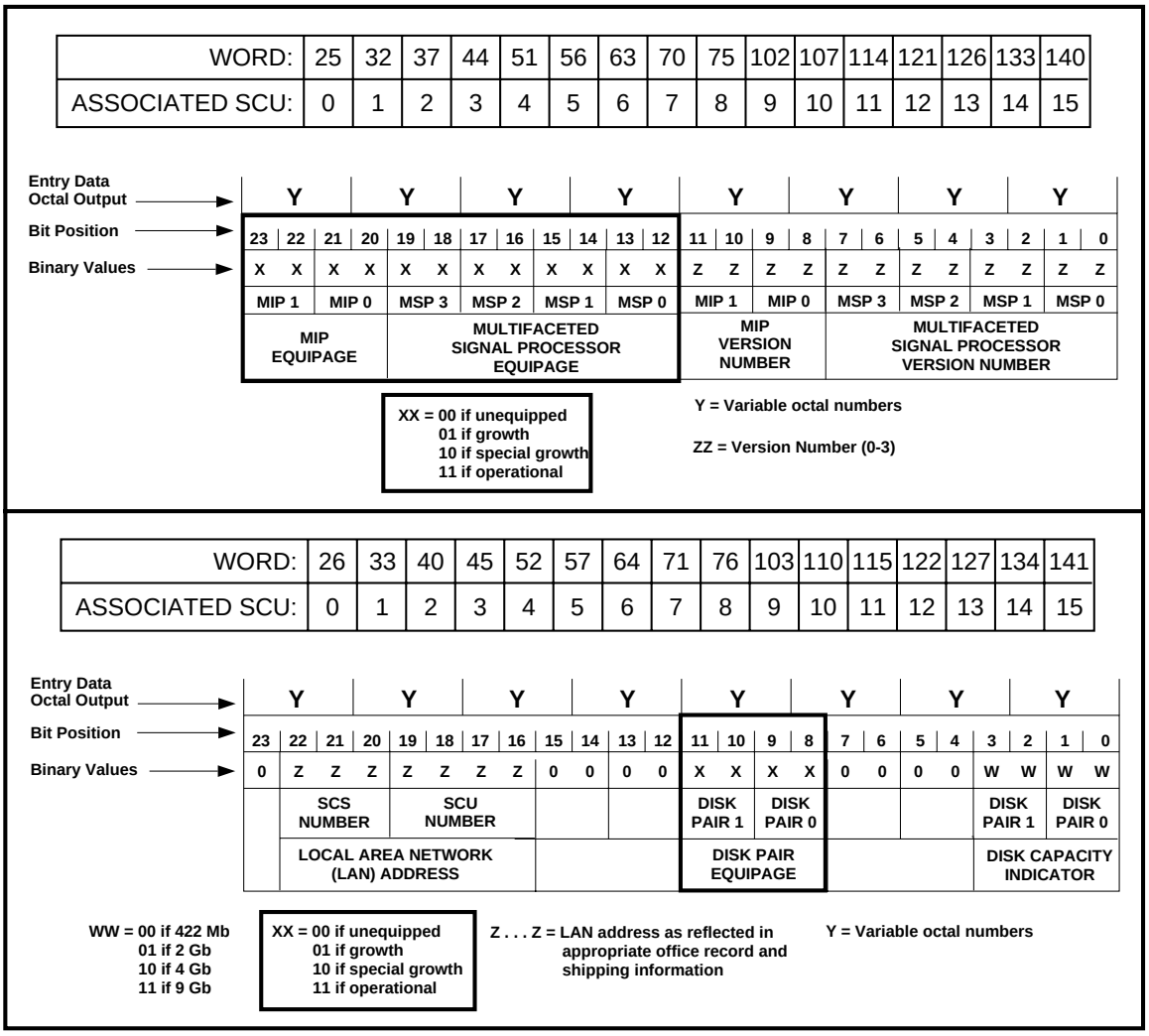

Figure 1. Words in SCS Unit Type Translator Used to Determine MSP, MIP, and Disk Pair Equipage

Degrow Disk Pair, MSP, and MIP Equipage for an SCU From GROW to UNEQ Using Recent Change (RC) Form 703

Caution: Calling up an RC Form will cause all data on the screen to be cleared.

1. At the 1B Maintenance (MTC) terminal, enter **OP:RCFORM 703!**

   Response: Recent Change Form 703 appears on the screen.

2. At SCS, enter the SCS Member Number (0-7).

3. At SCU, enter the number of the SCU.

4. At ORNU, enter a unique Order Number.

5. At MON, enter **N**.

6. At MSBEQ, location 0, enter **F** (Future).

   Note: If the SCU has more than one associated Multifaceted Signal Processor MSP circuit pack (TN1589), also enter **F** at locations 1 through 3 of MSBEQ, as required.

7. **If the SCU already has ASR functionality**, enter **F** (Future) at MIPEQP, locations 0 and 1.

8. At DSKEQ, location 0, enter **F** (Future).

   Note: If a Type 2 (4 GB disk) is being degrown, enter **F** at location 0 only.

   Note: If SCU 0 is being degrown and has more than one associated disk pair, also enter **F** at location 1 of DSKEQ, as required.

9. If no REMARKS are needed, return the cursor to the top of the form by pressing HOME.

10. Press SEND/ENTER

    Response: RC ORNU a SUCCESSFULLY TESTED followed by
    RC ORNU a SUCCESSFULLY BUFFERED followed by all new entries.

    where *a* = RC Order Number

    Note: All entries should be checked for accuracy. If any entries are found to be incorrect, repeat Steps 1 through 10.

11. At the 1B MTC terminal, enter **RCACT:ORNU a!**

    where *a* = RC Order Number

    Response: RC ORNU a ACTIVATED followed by all new entries.

    where *a* = RC Order Number

    Note: All entries should be checked for accuracy. If any entries are found to be incorrect, repeat this step correcting the errors.

12. At the 1B MTC terminal, enter **VER:UTYPE:SCS x!**

    where *x* = Member Number (0-7)

    Response:
    ```
    VER:UTMN;OPT(),CUR:
    FLN a
    UTYN b
    MEMN c
    ME d
    ENTRY ADDRESS e
    ENTRY SIZE f
    ```

    The above responses are followed by a complete printout of the Service Circuit System (SCS) Unit Type entry data. Use this printout and Figure 1 to determine if the SCU data (MSP, MIP, and disk pair equipage) was properly entered. Also verify that the Monitor bit is set to **0** (Figure 1).

    where *a* = Floor location number
    b = Unit type name
    c = Member number of growth associated complex
    d = Member equipage
    e = An 8-digit entry address
    f = A 2-digit entry size

13. **STOP! YOU HAVE COMPLETED THIS PROCEDURE.**

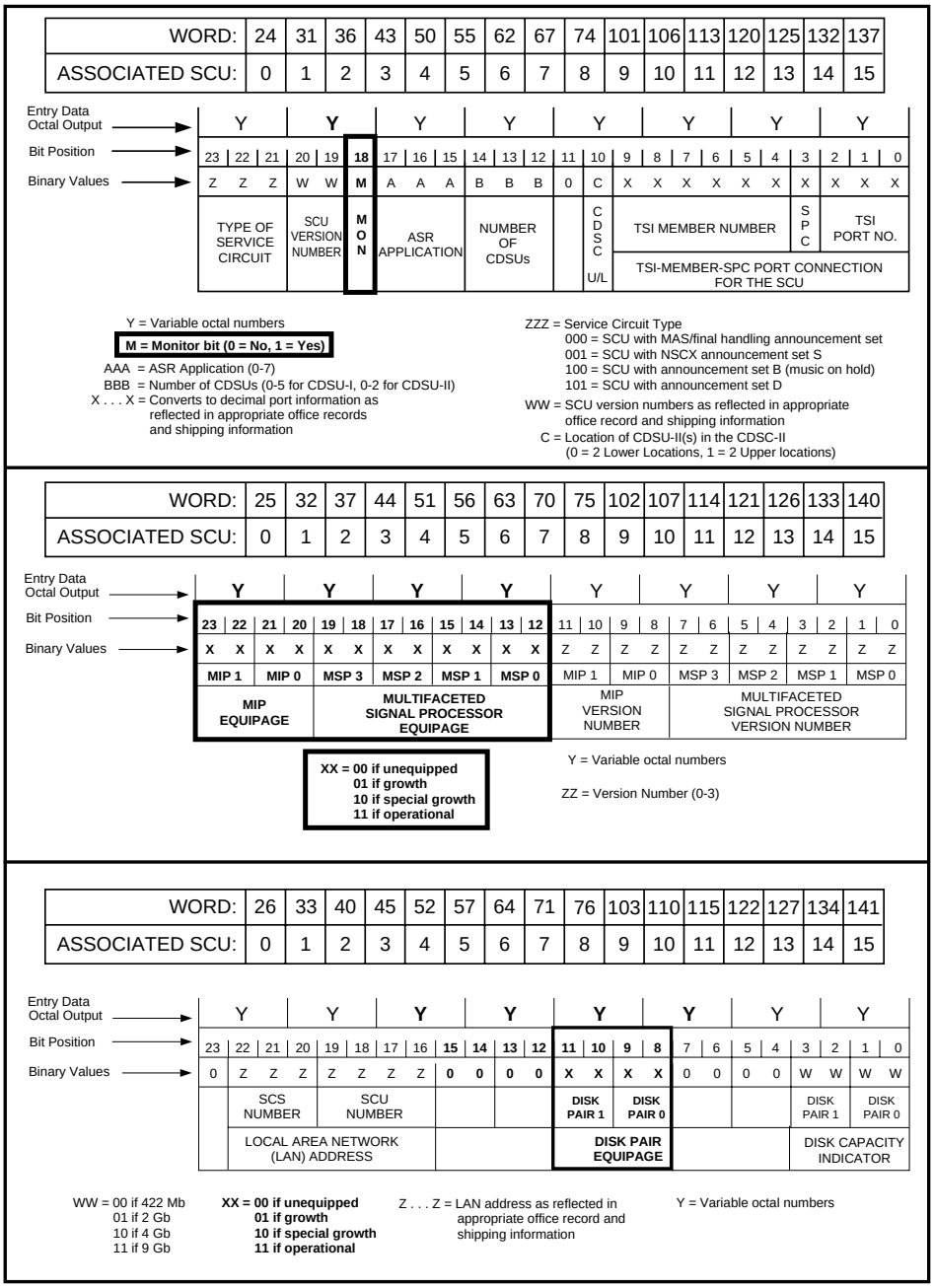

Figure 1. Words in SCS Unit Type Translator Used to Determine MSP Equipage, Disk Pair Equipage, and Monitor Bit Setting

Degrow Time Slot Interchange (TSI) Submember Equipage From SGRO to GROW Using Recent Change (RC) Form 701

Caution: Calling up an RC Form will cause all data on the screen to be cleared.

1. At the 1B Maintenance (MTC) terminal, enter **OP:RCFORM 701!**

   Response: Recent Change Form 701 appears on the screen.

2. At UTYN, enter **TSI**.

3. At ORNU, enter a unique Order Number.

4. At MEMN, enter the TSI Member Number.

5. At SUBMEM, enter the Submember Name [**T0PRTEQ(0-6)** for SPC0 ports 0-6, or **T1PRTEQ(0-6)** for SPC1 ports 0-6].

6. At SME, enter **SGRO**, then enter **GROW**.

7. If no REMARKS are needed, return the cursor to the top of the form by pressing HOME.

8. Press SEND/ENTER

   Response: RC ORNU *a* SUCCESSFULLY TESTED followed by
   RC ORNU *a* SUCCESSFULLY BUFFERED followed by all new entries.

   where *a* = RC Order Number

   Note: All entries should be checked for accuracy. If any entries are found to be incorrect, repeat Steps 1 through 8.

9. At the 1B MTC terminal, enter **RCACT:ORNU a!**

   where *a* = RC Order Number

   Response: `RC ORNU a ACTIVATED` followed by all new entries.

   where *a* = RC Order Number

   Note: All entries should be checked for accuracy. If any entries are found to be incorrect, remove recent change using RC Form 701 and repeat this DLP.

10. At the 1B MTC terminal, enter **VER:UTYPE:TSI x,SME y!**

    where *x* = Member Number (0-62)
    y = TSI Port Index Number (see Table A)

TABLE A TSI Port Index Numbers

PORT	INDEX NO.	PORT	INDEX NO.	PORT	INDEX NO.
SPC 0-0	56	SPC 0-5	61	SPC 1-3	66
SPC 0-1	57	SPC 0-6	62	SPC 1-4	67
SPC 0-2	58	SPC 1-0	63	SPC 1-5	68
SPC 0-3	59	SPC 1-1	64	SPC 1-6	69
SPC 0-4	60	SPC 1-2	65		

Response:
```
VER:UTMN;OPT(SME),CUR:
FLN a
UTYN b
MEMN c
ME d
SME e
SUBMEM f
```

where *a* = Floor location number
b = Unit type name
c = Member number of growth associated complex
d = Member equipage
e = SME
f = SME index number

Note: All entries should be checked for accuracy. If any entries are found to be incorrect, repeat this step using correct data.

11. **STOP! YOU HAVE COMPLETED THIS PROCEDURE.**

Degrow Time Slot Interchange (TSI) Submember Equipage From GROW to UNEQ Using Recent Change (RC) Form 701

Caution: Calling up an RC Form will cause all data on the screen to be cleared.

1. At the 1B Maintenance (MTC) terminal, enter **OP:RCFORM 701!**

   Response: Recent Change Form 701 appears on the screen.

2. At UTYN, enter **TSI**.

3. At ORNU, enter a unique Order Number.

4. At MEMN, enter the TSI Member Number.

5. At SUBMEM, enter the Submember Name [**T0PRTEQ(0-6)** for SPC0 ports 0-6, or **T1PRTEQ(0-6)** for SPC1 ports 0-6].

6. At SME, enter **GROW**, then enter **UNEQ**.

7. If no REMARKS are needed, return the cursor to the top of the form by pressing HOME.

8. Press SEND/ ENTER

   Response: RC ORNU *a* SUCCESSFULLY TESTED followed by
   RC ORNU *a* SUCCESSFULLY BUFFERED followed by all new entries.

   where *a* = RC Order Number

   Note: All entries should be checked for accuracy. If any entries are found to be incorrect, repeat Steps 1 through 8.

9. At the 1B MTC terminal, enter **RCACT:ORNU a!**

   where *a* = RC Order Number

   Response: `RC ORNU a ACTIVATED` followed by all new entries.

   where *a* = RC Order Number

   Note: All entries should be checked for accuracy. If any entries are found to be incorrect, remove recent change using RC Form 701 and repeat this DLP.

10. At the 1B MTC terminal, enter **VER:UTYPE:TSI x,SME y!**

    where *x* = Member Number (0-62)
    y = TSI Port Index Number (see Table A)

TABLE A TSI Port Index Numbers

PORT	INDEX NO.	PORT	INDEX NO.	PORT	INDEX NO.
SPC 0-0	56	SPC 0-5	61	SPC 1-3	66
SPC 0-1	57	SPC 0-6	62	SPC 1-4	67
SPC 0-2	58	SPC 1-0	63	SPC 1-5	68
SPC 0-3	59	SPC 1-1	64	SPC 1-6	69
SPC 0-4	60	SPC 1-2	65		

Response:
```
VER:UTMN;OPT(SME),CUR:
FLN a
UTYN b
MEMN c
ME d
SME e
SUBMEM f
```

where *a* = Floor location number
b = Unit type name
c = Member number of growth associated complex
d = Member equipage
e = SME
f = SME index number

Note: All entries should be checked for accuracy. If any entries are found to be incorrect, repeat this step using correct data.

11. **STOP! YOU HAVE COMPLETED THIS PROCEDURE.**

Verify Service Circuit System (SCS) Unit Type Translator for Growth Service Circuit Units (SCUs) 0-15

Note: If, during this procedure, the value of any of the words in the Unit Type Translator are not what they should be, **DLP-515 can be used to perform a functional word change**. However, remember that, depending on local procedures, supervisory or Telco engineering approval must be obtained prior to performing any data change.

1. At the 1B Maintenance (MTC) terminal, enter **VER:UTYPE:SCS** *x***!**

   where x = Member Number (0-7)

   Response: The information shown in Figure 1 is displayed.

   Note: The words shown in Figure 1 are in **octal** format.

VER:UTMN;OPT(),CUR: **FLN** *a* **UTYN** *b*

MEMN *c* **ME** *d*
ENTRY ADDRESS *e* **ENTRY SIZE** *f*

CUR				
WORD 0	_____	_____	_____	_____
WORD 10	_____	_____	_____	_____
WORD 20	_____	_____	_____	_____
WORD 30	_____	_____	_____	_____
WORD 40	_____	_____	_____	_____
WORD 50	_____	_____	_____	_____
WORD 60	_____	_____	_____	_____
WORD 70	_____	_____	_____	_____
WORD 100	_____	_____	_____	_____
WORD 110	_____	_____	_____	_____
WORD 120	_____	_____	_____	_____
WORD 130	_____	_____	_____	_____
WORD 140	_____	_____	_____	_____

a **= Floor location number**
b **= Unit type name**
c **= Member number of growth associated complex**
d **= Member equipage**
e **= 8-digit entry address**
f **= 2-digit entry size**

Figure 1. SCS Unit Type Translator

2. Is the message format and member identification correct as shown in Figure 1?

   If **YES**, continue to Step 3.

   If **NO**, determine and resolve the cause and repeat from Step 1.

3. Using TTY output and Figure 2 (beginning on page 7), check that the growth SCU(s) Submember Equipage bits per word 0 and/or 12 are set to **0**.

   If these bits are **set to 0**, continue to Step 4.

   If these bits are **not set to 0**, do one of the following:

   Use RC Form 701 to degrow submember equipage to unequipped (See DLP-513 [OPER to SGRO], DLP-535 [SGRO to GROW], and/or DLP-536 [GROW to UNEQ], depending on current equipage.)

   or

   Use RC Form 801 to perform a functional word change to change the desired bits to 0 (DLP-515).

   Caution: Depending on local procedures, supervisory or Telco engineering approval must be obtained prior to performing any data change.

4. Using the TTY output and Figure 2 (beginning on page 7), verify the Signal Distributor (SD) assignments for the growth SCU(s) per words 17, 20, 21, and/or 22 as follows:

   1. Convert octal digits of entry output data words to decimal Signal Processor (SP) member, row, and column numbers and record results. If the fourth rightmost octal digit of a word is **2** or **3**, add decimal 64 to the SP row number determined for that word.
   2. Search the **ROW** and **COLUMN** listings in the appropriate office record drawings (TAGS) and locate the row and column previously recorded for each of the indicated words. If the associated **UNIT TYPE** and **FRM NO** do not agree with the growth frame, record the discrepancy for later use.

5. Using the TTY output and Figure 2 (beginning on page 7), verify the scan point assignments for the growth SCUs per words 13, 14, 15, and/or 16 as follows:

   1. Convert octal digits of entry output data words to decimal SP member, row, and column numbers and record results. If the fourth rightmost octal digit of a word is **2** or **3**, add decimal 64 to the SP row number determined for that word.
   2. Search the **ROW** and **COLUMN** listings in the appropriate office record drawings and locate the row and column previously recorded for each of the indicated words. If the associated **UNIT TYPE** and **FRM NO** do not agree with the growth frame, record the discrepancy for later use.

6. Using the TTY output and Figure 2 (beginning on page 7), verify the Service Circuit Type per the words shown in Table A.

   Note: Prior to this verification, you must know which announcement set is assigned to each growth SCU.

   TABLE A Octal Words and Associated SCUs for Service Circuit Type and TSI Port Assignment Determination

SCU	Word	SCU	Word	SCU	Word	SCU	Word
0	24	4	50	8	74	12	120
1	31	5	55	9	101	13	125
2	36	6	62	10	106	14	132
3	43	7	67	11	113	15	137

7. Using the TTY output and Figure 2 (beginning on page 7), verify growth SCU(s) to Time Slot Interchange (TSI) port assignment per the words in Table A.

   1. Convert the octal digits representing TSI information to decimal.
   2. Compare the calculated data for the TSI member number, SPC, and TSI Port number to the appropriate office records containing SCU to TSI Port assignments, and record any discrepancies.

8. Using the TTY output and Figure 2 (beginning on page 7), verify that growth MSP equipage bits are set to **0** per the words in Table B, and note any discrepancies.

   TABLE B Octal Words and Associated SCUs for MSP Equipage Verification

SCU	Word	SCU	Word	SCU	Word	SCU	Word
0	25	4	51	8	75	12	121
1	32	5	56	9	102	13	126
2	37	6	63	10	107	14	133
3	44	7	70	11	114	15	140

9. Using the TTY output and Figure 2 (beginning on page 7), verify that the Disk Pair Equipage bits per the words in Table C are set to **00** for each growth SCU, and note any discrepancies.

TABLE C Octal Words and Associated SCUs for Disk Capacity, Disk Pair Equipage, and LAN Address Verification

SCU	Word	SCU	Word	SCU	Word	SCU	Word
0	26	4	52	8	76	12	122
1	33	5	57	9	103	13	127
2	40	6	64	10	110	14	134
3	45	7	71	11	115	15	141

10. Using the TTY output and Figure 2 (beginning on page 7), verify the LAN address per the words in Table C, and note any discrepancies. The LAN address should be the SCS member number multiplied by 16, plus the SCU number.

11. Using the TTY output and Figure 2 (beginning on page 7), verify that the Disk Capacity bits per the words in Table C match office hardware. The bits for each disk pair should be set to **00** for 422 MB disk pairs (TN1672 circuit packs), **01** for 2 GB disk pairs (TN1972 circuit packs), **10** for 4 GB disk pairs (TN4000 circuit packs), or **11** for 9 GB disk pairs (TN9000) circuit packs.

Caution: SCU 0 can physically support two disk pairs (0 and 1). When populating disk capacity bits for SCU 0, adhere to the following rules:

- ***Type 0 (TN1672 circuit packs) can be populated in both disk pair locations.***
- ***Type 1 (TN1972 circuit packs) can only be populated in both disk pair locations.***
- ***Type 2 (TN4000 circuit packs) can only be populated as shown in Table D.***
- ***Type 3 (TN9000 circuit packs) can only be populated as shown in Table D.***

TABLE D Allowable Disk Pair Configurations for Circuit Packs With SCU 0

Allowable Disk Pair Types	
Location 0	**Location 1**
2	X
0	0
0	1
1	0
3	X
Where "X" indicates disk pair locations that **must be unpopulated**.	

12. Is the growth SCU being used for the AT&T Trigger Platform (ATP) feature?

    If **YES**, continue to Step 13.

    If **NO**, continue to Step 14.

13. Using the TTY output and Figure 2 (beginning on page 7), verify that the Monitor bit (bit 18) per the words in Table E has been set to **1** for the growth SCU.

TABLE E Octal Words and Associated SCUs for Monitor Bit Verification

SCU	Word	SCU	Word	SCU	Word	SCU	Word
0	24	4	50	8	74	12	120
1	31	5	55	9	101	13	125
2	36	6	62	10	106	14	132
3	43	7	67	11	113	15	137

14. Were any discrepancies found in Steps 4 through 13?

    If **YES**, continue to Step 15.

    If **NO**, continue to Step 18.

15. Was the error found to be in the Unit Type entry data or the office records?

    If **Unit Type entry data**, continue to Step 16.

    If **office records**, continue to Step 18.

16. Assist the installer in taking appropriate corrective action as determined by regional engineering and as approved by office supervisor.

17. Have all Unit Type data errors now been corrected?

    If **YES**, continue to Step 18.

    If **NO**, return to Step 16.

18. **STOP! YOU HAVE COMPLETED THIS PROCEDURE.**

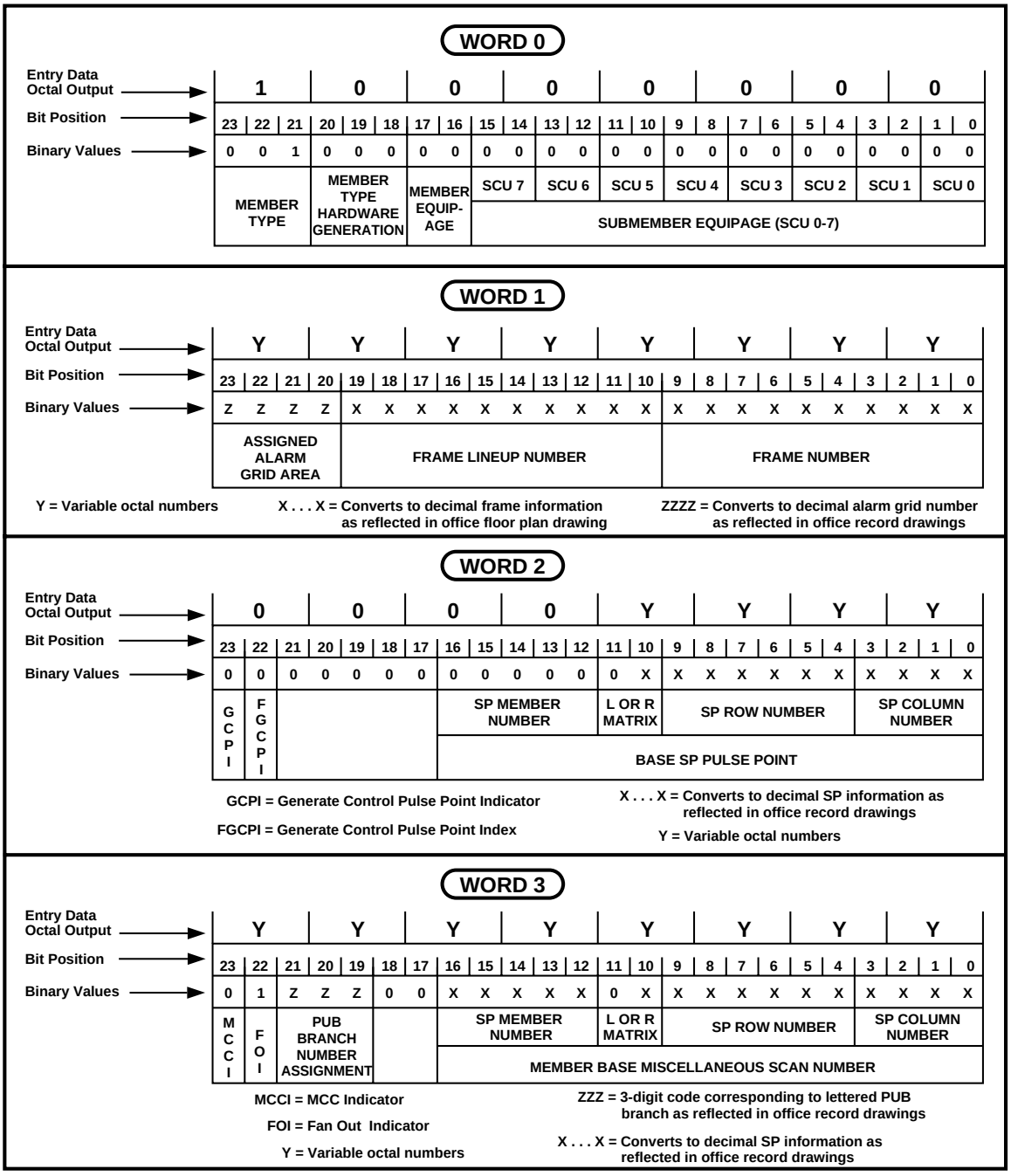

Figure 2. Unit Type Entry Data and Word Configuration (Word Numbers are in Octal) (Sheet 1 of 7)

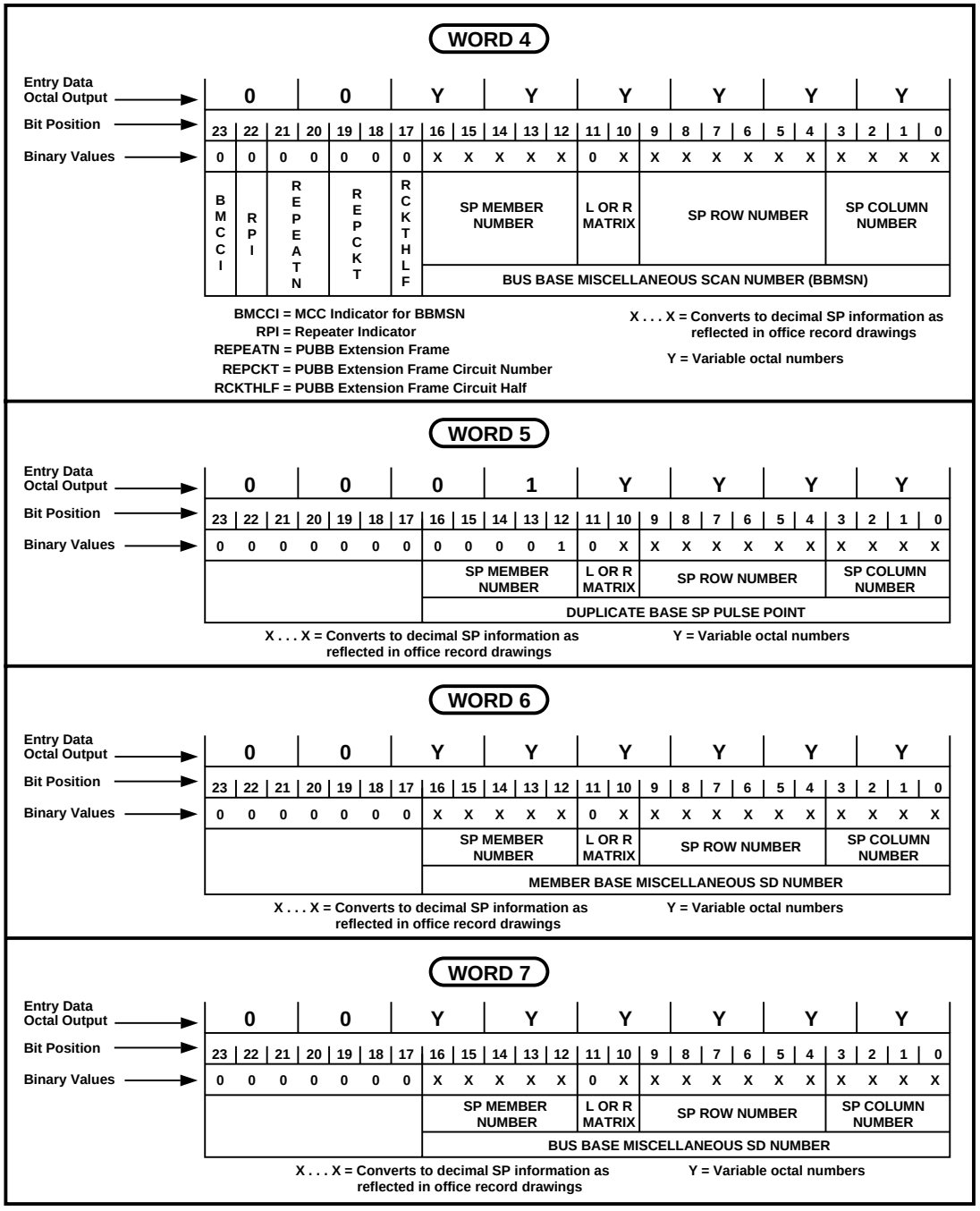

Figure 2. Unit Type Entry Data and Word Configuration (Word Numbers are in Octal) (Sheet 2 of 7)

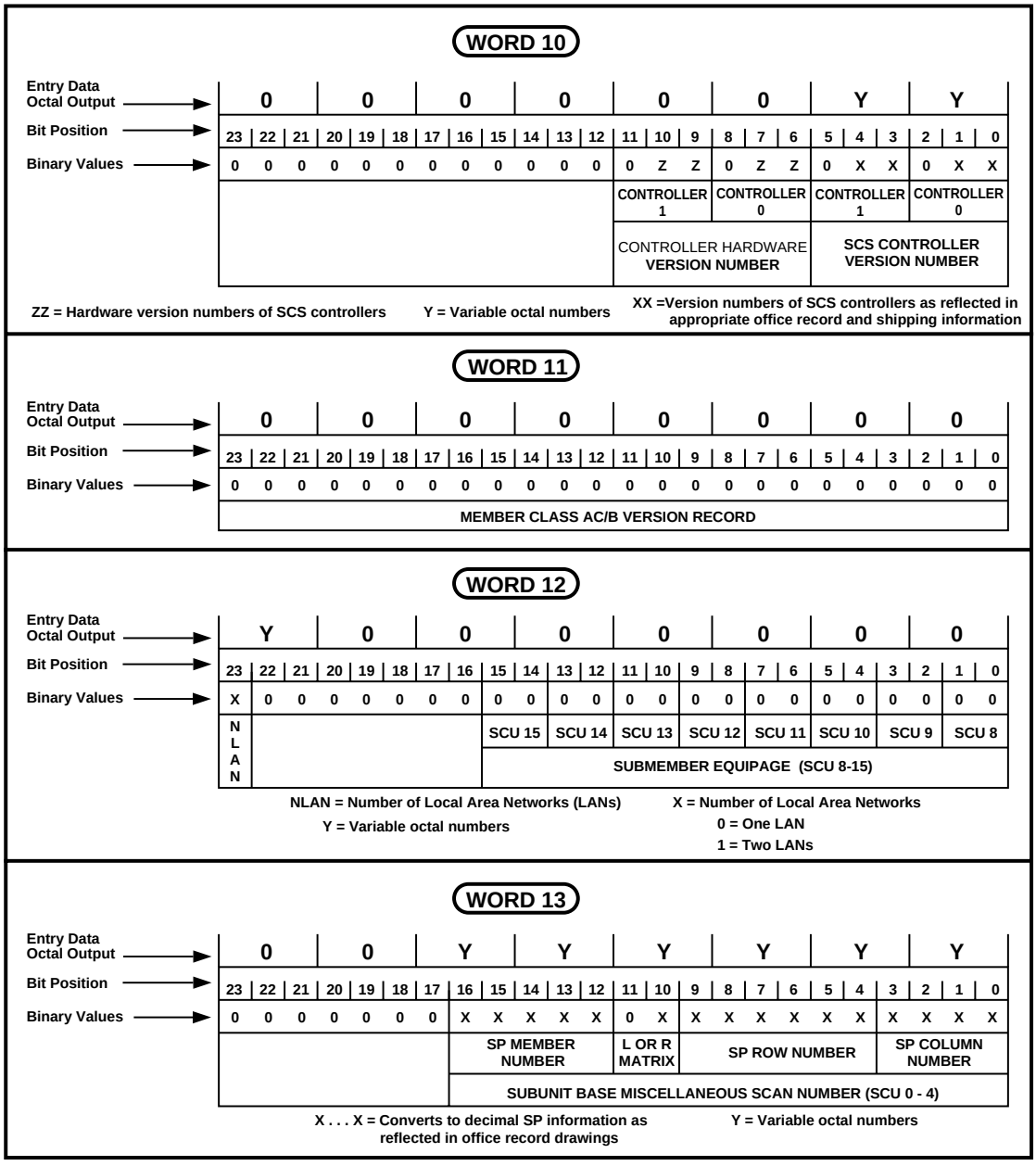

Figure 2. Unit Type Entry Data and Word Configuration (Word Numbers are in Octal) (Sheet 3 of 7)

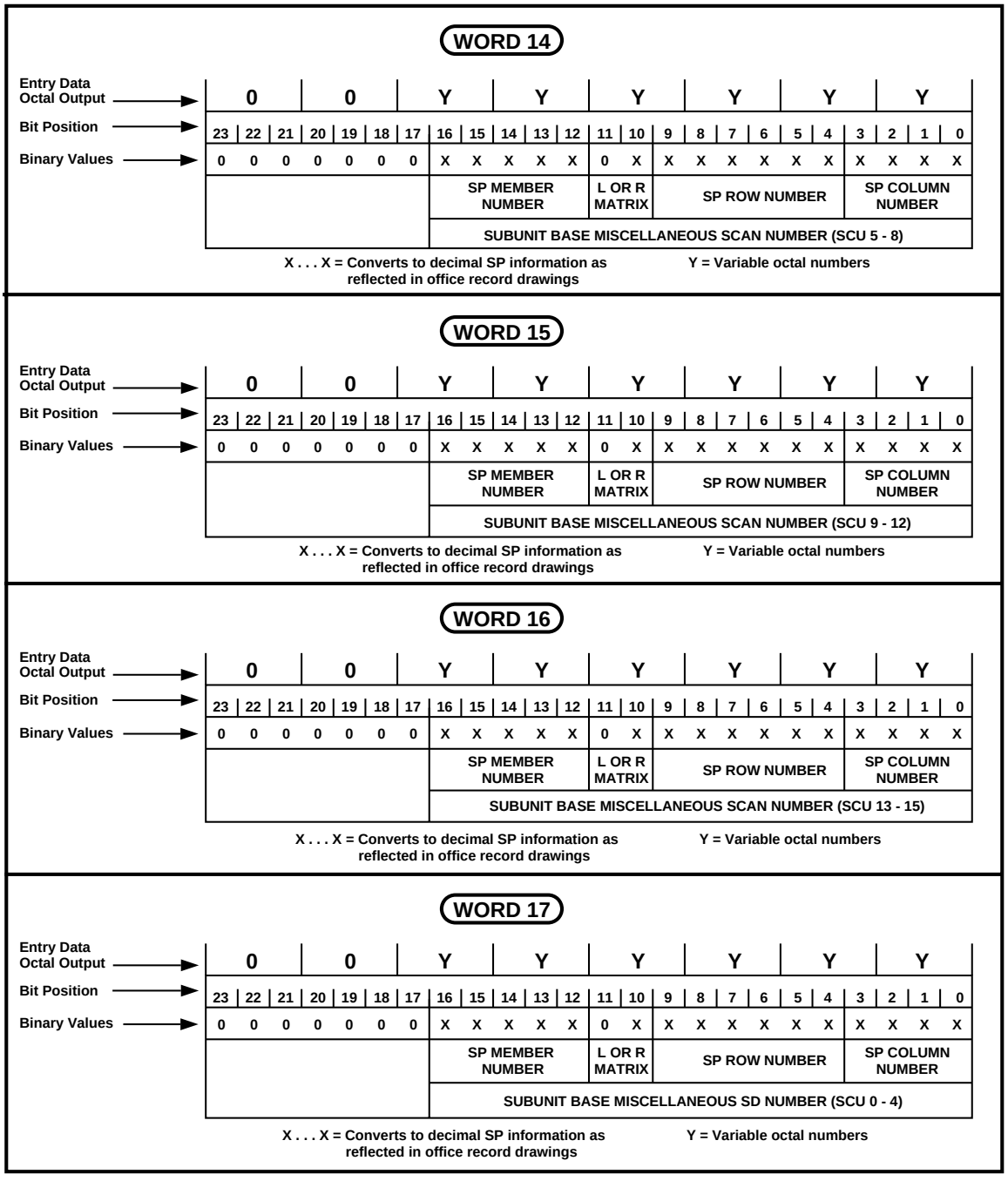

Figure 2. Unit Type Entry Data and Word Configuration (Word Numbers are in Octal) (Sheet 4 of 7)

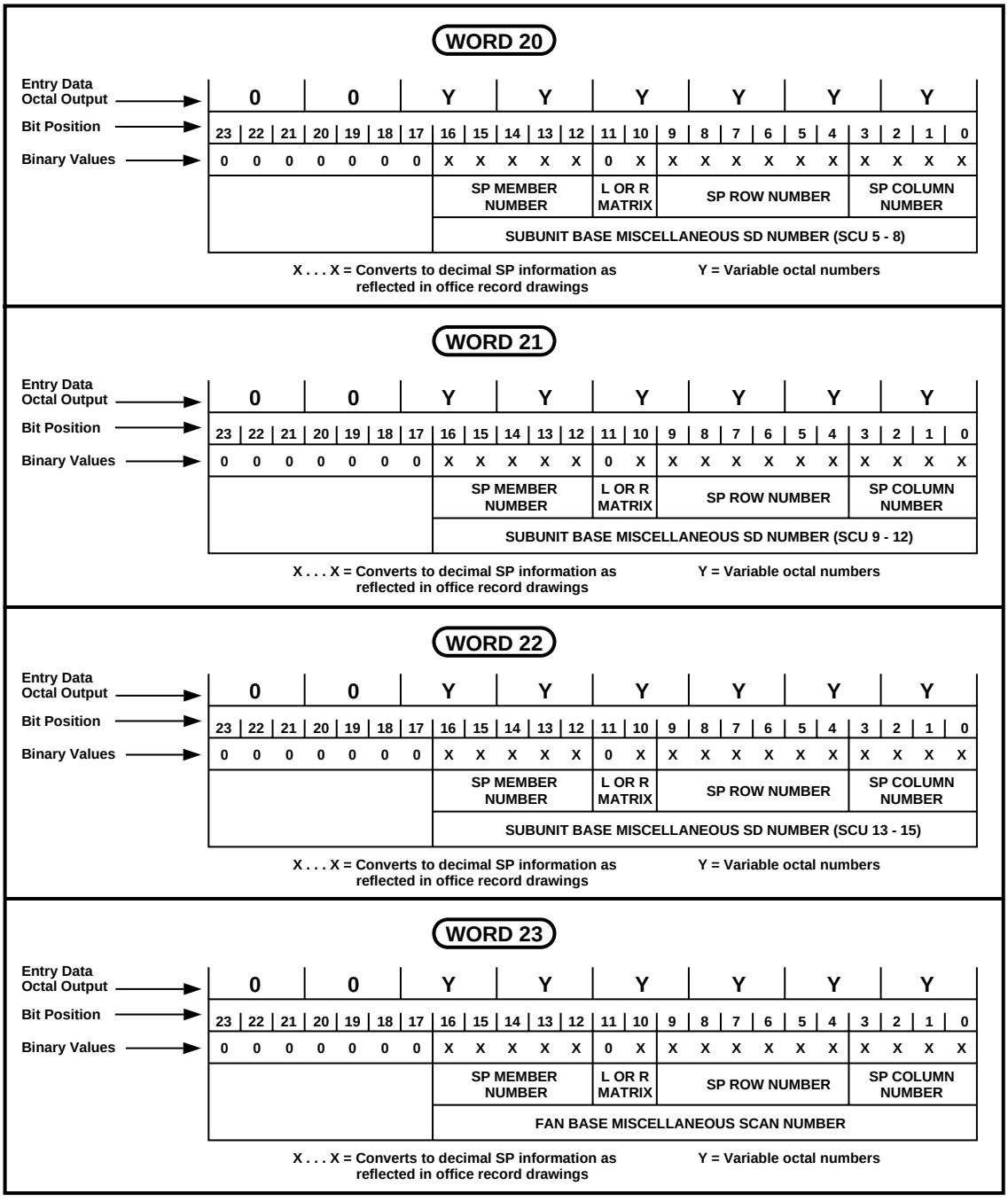

Figure 2. Unit Type Entry Data and Word Configuration (Word Numbers are in Octal) (Sheet 5 of 7)

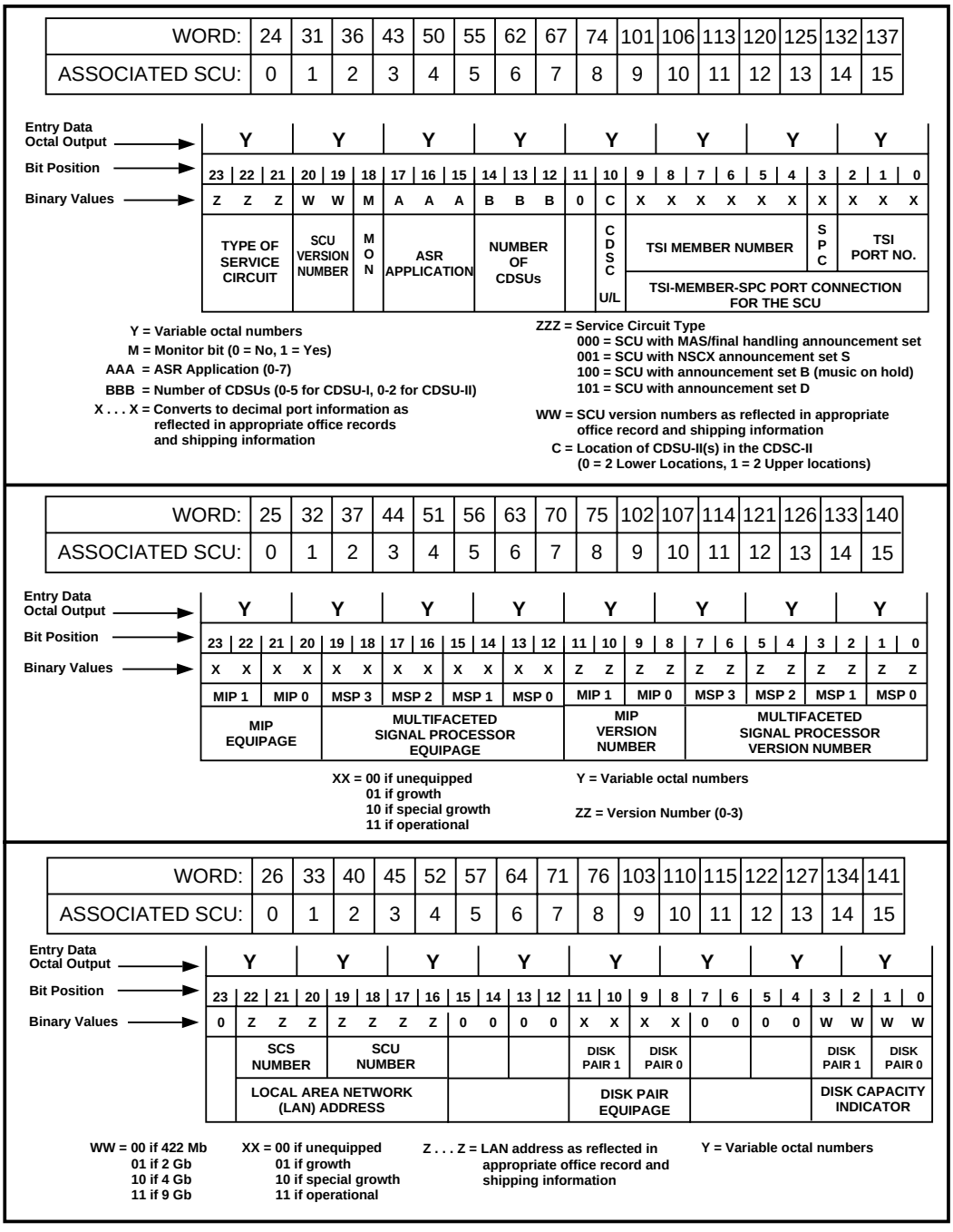

Figure 2. Unit Type Entry Data and Word Configuration (Word Numbers are in Octal) (Sheet 6 of 7)

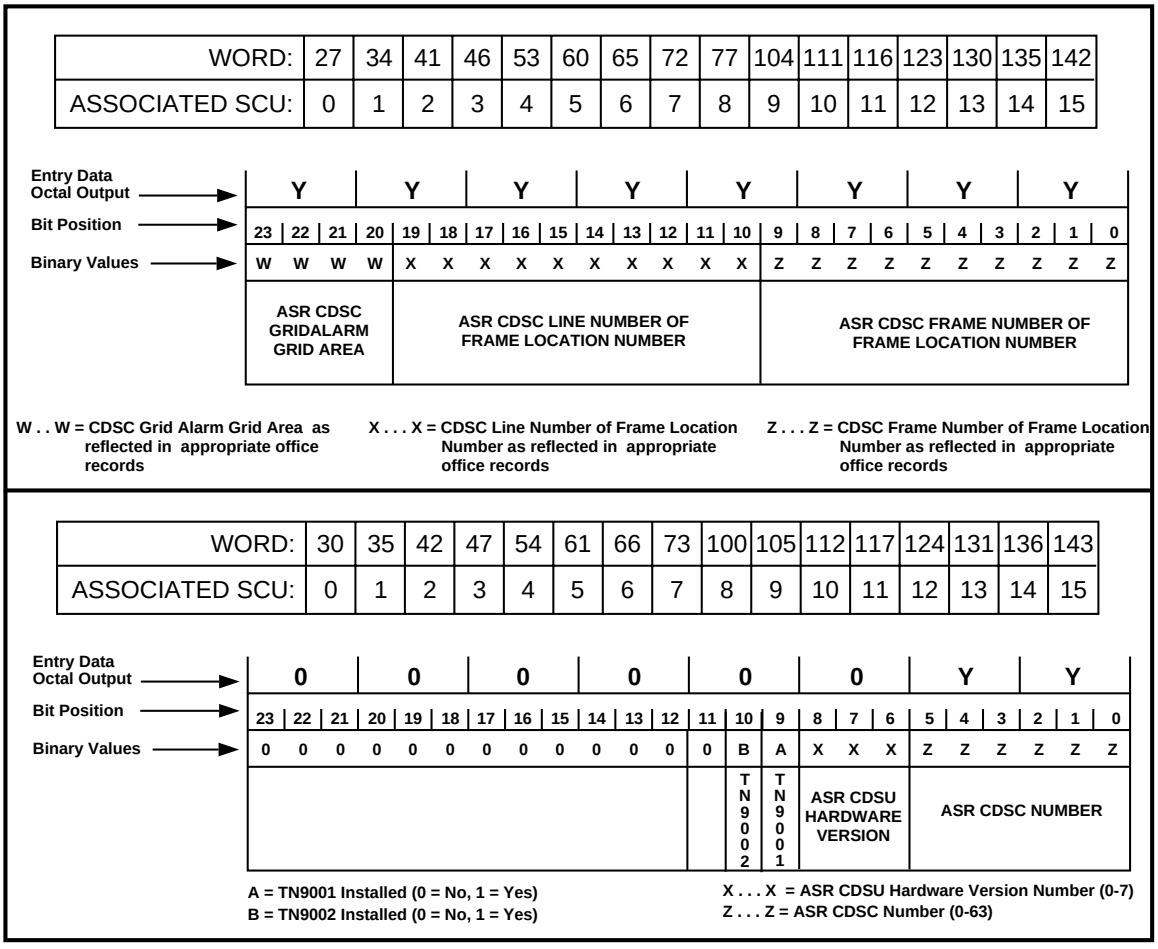

Figure 2. Unit Type Entry Data and Word Configuration (Word Numbers are in Octal) (Sheet 7 of 7)

Recent Change and Verify Submember Equipage From SGRO to GROW Using Recent Change (RC) Form 701 (Degrow)

Caution: Calling up an RC Form will cause all data on the screen to be cleared.

1. At the 1B Maintenance (MTC) terminal, enter **OP:RCFORM 701!**

   Response: Recent Change Form 701 appears on the screen.

2. At `UTYN`, enter Unit Type (**SCS**).

3. At `ORNU`, enter a unique Order Number.

4. At `MEMN`, enter the SCS Member Number.

5. At `SUBMEM`, enter the Submember Name [**SCUEQ(0-15)**, where 0-15 is the SCU number].

6. At `SME`, enter **SGRO**, then enter **GROW**.

7. If no `REMARKS` are needed, return the cursor to the top of the form by pressing HOME.

8. Press SEND/ENTER

   Response: `RC ORNU` *a* `SUCCESSFULLY TESTED` followed by
   `RC ORNU` *a* `SUCCESSFULLY BUFFERED` followed by all new entries.

   where *a* = RC Order Number

   Note: All entries should be checked for accuracy. If any entries are found to be incorrect, repeat Steps 1 through 8.

9. At the 1B MTC terminal, enter **RCACT:ORNU** *a***!**

   where *a* = RC Order Number

   Response: `RC ORNU` *a* `ACTIVATED` followed by all new entries.

   where *a* = RC Order Number

   Note: All entries should be checked for accuracy. If any entries are found to be incorrect, remove recent change using RC Form 700 and repeat this DLP.

10. At the 1B MTC terminal, verify that the Submember Equipage (SME) has been changed to the `GROW` state by entering the following: **VER:UTYPE:SCS** *x*,**SME** *y***!**

    where *x* = Member Number (0-7)
    y = SCU Index Number (see Table A)

TABLE A SCU Index Numbers

SCU	INDEX NO.	SCU	INDEX NO.	SCU	INDEX NO.	SCU	INDEX NO.
0	177	4	181	8	185	12	189
1	178	5	182	9	186	13	190
2	179	6	183	10	187	14	191
3	180	7	184	11	188	15	192

Response:

`VER:UTMN;OPT(SME),CUR:` `FLN` *a* `UTYN` *b*

`MEMN` *c* `ME` *d*

`SUBMEM` *e*, `SME` *f*

where *a* = Floor location number
b = Unit type name
c = Member number of growth associated complex
d = Member equipage
e = SCU index number
f = SME

Note: All entries should be checked for accuracy. If any entries are found to be incorrect, repeat this step using correct data.

11. **STOP! YOU HAVE COMPLETED THIS PROCEDURE.**

Recent Change and Verify Submember Equipage From GROW to UNEQ Using Recent Change (RC) Form 701 (Degrow)

Caution: Calling up an RC Form will cause all data on the screen to be cleared.

1. At the 1B Maintenance (MTC) terminal, enter **OP:RCFORM 701!**

   Response: Recent Change Form 701 appears on the screen.

2. At `UTYN`, enter Unit Type (**SCS**).

3. At `ORNU`, enter a unique Order Number.

4. At `MEMN`, enter the SCS Member Number.

5. At `SUBMEM`, enter the Submember Name [**SCUEQ(0-15)**, where 0-15 is the SCU number].

6. At `SME`, enter **GROW**, then enter **UNEQ**.

7. If no `REMARKS` are needed, return the cursor to the top of the form by pressing HOME.

8. Press SEND/ENTER

   Response: `RC ORNU` *a* `SUCCESSFULLY TESTED` followed by
   `RC ORNU` *a* `SUCCESSFULLY BUFFERED` followed by all new entries.

   where *a* = RC Order Number

   Note: All entries should be checked for accuracy. If any entries are found to be incorrect, repeat Steps 1 through 8.

9. At the 1B MTC terminal, enter **RCACT:ORNU** *a***!**

   where *a* = RC Order Number

   Response: `RC ORNU` *a* `ACTIVATED` followed by all new entries.

   where *a* = RC Order Number

   Note: All entries should be checked for accuracy. If any entries are found to be incorrect, remove recent change using RC Form 700 and repeat this DLP.

10. At the 1B MTC terminal, verify that the Submember Equipage (SME) has been changed to the `UNEQ` state by entering the following: **VER:UTYPE:SCS** *x*,**SME** *y***!**

    where *x* = Member Number (0-7)
    y = SCU Index Number (see Table A)

TABLE A SCU Index Numbers

SCU	INDEX NO.	SCU	INDEX NO.	SCU	INDEX NO.	SCU	INDEX NO.
0	177	4	181	8	185	12	189
1	178	5	182	9	186	13	190
2	179	6	183	10	187	14	191
3	180	7	184	11	188	15	192

Response:

`VER:UTMN;OPT(SME),CUR:` `FLN` *a* `UTYN` *b*

`MEMN` *c* `ME` *d*

`SUBMEM` *e*, `SME` *f*

where *a* = Floor location number
b = Unit type name
c = Member number of growth associated complex
d = Member equipage
e = SCU index number
f = SME

Note: All entries should be checked for accuracy. If any entries are found to be incorrect, repeat this step using correct data.

11. **STOP! YOU HAVE COMPLETED THIS PROCEDURE.**

Recent Change and Verify Member Equipage From SGRO to GROW Using Recent Change Form 701 (Degrow)

Caution: Calling up an RC Form will cause all data on the screen to be cleared.

1. At the 1B Maintenance (MTC) terminal, enter **OP:RCFORM 701!**

   Response: Recent Change Form 701 appears on the screen.

2. At `UTYN`, enter Unit Type (**SCS**).

3. At `ORNU`, enter a unique Order Number.

4. At `MEMN`, enter the SCS Member Number.

5. At `ME`, enter **SGRO**, then enter **GROW**.

6. If no `REMARKS` are needed, return the cursor to the top of the form by pressing HOME.

7. Press SEND/ ENTER

   Response: `RC ORNU` *a* `SUCCESSFULLY TESTED` followed by
   `RC ORNU` *a* `SUCCESSFULLY BUFFERED` followed by all new entries.

   Note: All entries should be checked for accuracy. If any entries are found to be incorrect, repeat Steps 1 through 7.

8. At the 1B MTC terminal, enter **RCACT:ORNU** *a***!**

   where *a* = RC Order Number

   Response: `RC ORNU` *a* `ACTIVATED` followed by all new entries.

   where *a* = RC Order Number

   Note: All entries should be checked for accuracy. If any entries are found to be incorrect, remove recent change using RC Form 700 and repeat this DLP.

9. At the 1B MTC terminal, enter **VER:UTYPE:SCS** *x***!**

   where *x* = Member Number (0-7)

   Response:
   ```
   VER:UTMN;OPT(),CUR:
   FLN a
   UTYN b
   MEMN c
   ME d
   ENTRY ADDRESS e
   ENTRY SIZE f
   ```

   The above responses are followed by a complete printout of the SCS Unit Type entry data. (Use this printout to determine if data was properly entered.)

   where *a* = Floor location number
   b = Unit type name
   c = Member number of growth associated complex
   d = Member equipage
   e = An 8-digit entry address
   f = A 2-digit entry size

10. **STOP! YOU HAVE COMPLETED THIS PROCEDURE.**

Recent Change and Verify Member Equipage From GROW to UNEQ Using Recent Change Form 701 (Degrow)

Caution: Calling up an RC Form will cause all data on the screen to be cleared.

1. At the 1B Maintenance (MTC) terminal, enter **OP:RCFORM 701!**

   Response: Recent Change Form 701 appears on the screen.

2. At UTYN, enter Unit Type (**SCS**).

3. At ORNU, enter a unique Order Number.

4. At MEMN, enter the SCS Member Number.

5. At ME, enter **GROW**, then enter **UNEQ**.

6. If no REMARKS are needed, return the cursor to the top of the form by pressing HOME.

7. Press SEND/ENTER

   Response: RC ORNU *a* SUCCESSFULLY TESTED followed by
   RC ORNU *a* SUCCESSFULLY BUFFERED followed by all new entries.

   Note: All entries should be checked for accuracy. If any entries are found to be incorrect, repeat Steps 1 through 7.

8. At the 1B MTC terminal, enter **RCACT:ORNU** *a***!**

   where *a* = RC Order Number

   Response: `RC ORNU` *a* `ACTIVATED` followed by all new entries.

   where *a* = RC Order Number

   Note: All entries should be checked for accuracy. If any entries are found to be incorrect, remove recent change using RC Form 700 and repeat this DLP.

9. At the 1B MTC terminal, enter **VER:UTYPE:SCS** *x***!**

   where *x* = Member Number (0-7)

   Response:
   ```
   VER:UTMN;OPT(),CUR:
   FLN a
   UTYN b
   MEMN c
   ME d
   ENTRY ADDRESS e
   ENTRY SIZE f
   ```

   The above responses are followed by a complete printout of the SCS Unit Type entry data. (Use this printout to determine if data was properly entered.)

   where *a* = Floor location number
   b = Unit type name
   c = Member number of growth associated complex
   d = Member equipage
   e = An 8-digit entry address
   f = A 2-digit entry size

10. **STOP! YOU HAVE COMPLETED THIS PROCEDURE.**

Recent Change and Verify Time Slot Interchange (TSI) Submember Equipage From OPER to SGRO Using Recent Change (RC) Form 701 (Degrow)

Caution: Calling up an RC Form will cause all data on the screen to be cleared.

1. At the 1B Maintenance (MTC) terminal, enter **OP:RCFORM 701!**

   Response: Recent Change Form 701 appears on the screen.

2. At UTYN, enter **TSI**.

3. At ORNU, enter a unique Order Number.

4. At MEMN, enter the TSI Member Number.

5. At SUBMEM, enter the Submember Name [**T0PRTEQ(0-6)** for SPC0 ports 0-6, or **T1PRTEQ(0-6)** for SPC1 ports 0-6].

6. At SME, enter **OPER** under OLD, then enter **SGRO** under NEW.

7. If no REMARKS are needed, return the cursor to the top of the form by pressing HOME.

8. Press SEND/ENTER

   Response: RC ORNU *a* SUCCESSFULLY TESTED followed by
   RC ORNU *a* SUCCESSFULLY BUFFERED followed by all new entries.

   where *a* = RC Order Number

   Note: All entries should be checked for accuracy. If any entries are found to be incorrect, repeat Steps 1 through 8.

9. At the 1B MTC terminal, enter **RCACT:ORNU** *a***!**

   where *a* = RC Order Number

   Response: `RC ORNU` *a* `ACTIVATED` followed by all new entries.

   where *a* = RC Order Number

   Note: All entries should be checked for accuracy. If any entries are found to be incorrect, remove recent change using RC Form 700 and repeat this DLP.

10. At the 1B MTC terminal, verify that the TSI Submember Equipage (SME) has been changed to the `SGRO` state by entering the following: **VER:UTYPE:TSI** *x*,**SME** *y***!**

    where *x* = Member Number (0-62)
    y = TSI Port Index Number (see Table A)

    TABLE A TSI Port Index Numbers

PORT	INDEX NO.	PORT	INDEX NO.	PORT	INDEX NO.
SPC 0-0	56	SPC 0-5	61	SPC 1-3	66
SPC 0-1	57	SPC 0-6	62	SPC 1-4	67
SPC 0-2	58	SPC 1-0	63	SPC 1-5	68
SPC 0-3	59	SPC 1-1	64	SPC 1-6	69
SPC 0-4	60	SPC 1-2	65		

    Response:

    `VER:UTMN;OPT(SME),CUR:` `FLN` *a* `UTYN` *b*

    `MEMN` *c* `ME` *d*

    `SUBMEM` *e*, `SME` *f*

    where *a* = Floor location number
    b = Unit type name
    c = Member number of growth associated complex
    d = Member equipage
    e = TSI index number
    f = SME

    Note: All entries should be checked for accuracy. If any entries are found to be incorrect, repeat this DLP using correct data.

11. **STOP! YOU HAVE COMPLETED THIS PROCEDURE.**

Recent Change and Verify Time Slot Interchange (TSI) Submember Equipage From SGRO to GROW Using Recent Change (RC) Form 701 (Degrow)

Caution: Calling up an RC Form will cause all data on the screen to be cleared.

1. At the 1B Maintenance (MTC) terminal, enter **OP:RCFORM 701!**

   Response: Recent Change Form 701 appears on the screen.

2. At UTYN, enter **TSI**.

3. At ORNU, enter a unique Order Number.

4. At MEMN, enter the SCS Member Number.

5. At SUBMEM, enter the Submember Name [**T0PRTEQ(0-6)** for SPC0 ports 0-6, or **T1PRTEQ(0-6)** for SPC1 ports 0-6].

6. At SME, enter **SGRO** under OLD, then enter **GROW** under NEW.

7. If no REMARKS are needed, return the cursor to the top of the form by pressing HOME.

8. Press SEND/ENTER

   Response: RC ORNU *a* SUCCESSFULLY TESTED followed by
   RC ORNU *a* SUCCESSFULLY BUFFERED followed by all new entries.

   where *a* = RC Order Number

   Note: All entries should be checked for accuracy. If any entries are found to be incorrect, repeat Steps 1 through 8.

9. At the 1B MTC terminal, enter **RCACT:ORNU** *a***!**

   where *a* = RC Order Number

   Response: `RC ORNU` *a* `ACTIVATED` followed by all new entries.

   where *a* = RC Order Number

   Note: All entries should be checked for accuracy. If any entries are found to be incorrect, remove recent change using RC Form 700 and repeat this DLP.

10. At the 1B MTC terminal, verify that the TSI Submember Equipage (SME) has been changed to the `GROW` state by entering the following: **VER:UTYPE:TSI** *x*,**SME** *y***!**

    where *x* = Member Number (0-62)
    y = TSI Port Index Number (see Table A)

TABLE A TSI Port Index Numbers

PORT	INDEX NO.	PORT	INDEX NO.	PORT	INDEX NO.
SPC 0-0	56	SPC 0-5	61	SPC 1-3	66
SPC 0-1	57	SPC 0-6	62	SPC 1-4	67
SPC 0-2	58	SPC 1-0	63	SPC 1-5	68
SPC 0-3	59	SPC 1-1	64	SPC 1-6	69
SPC 0-4	60	SPC 1-2	65		

Response:

`VER:UTMN;OPT(SME),CUR:` `FLN` *a* `UTYN` *b*

`MEMN` *c* `ME` *d*

`SUBMEM` *e*, `SME` *f*

where *a* = Floor location number
b = Unit type name
c = Member number of growth associated complex
d = Member equipage
e = TSI index number
f = SME

Note: All entries should be checked for accuracy. If any entries are found to be incorrect, repeat this DLP using correct data.

11. **STOP! YOU HAVE COMPLETED THIS PROCEDURE.**

Recent Change and Verify Time Slot Interchange (TSI) Submember Equipage From GROW to UNEQ Using Recent Change (RC) Form 701 (Degrow)

Caution: Calling up an RC Form will cause all data on the screen to be cleared.

1. At the 1B Maintenance (MTC) terminal, enter **OP:RCFORM 701!**

   Response: Recent Change Form 701 appears on the screen.

2. At UTYN, enter **TSI**.

3. At ORNU, enter a unique Order Number.

4. At MEMN, enter the SCS Member Number.

5. At SUBMEM, enter the Submember Name [**T0PRTEQ(0-6)** for SPC0 ports 0-6, or **T1PRTEQ(0-6)** for SPC1 ports 0-6].

6. At SME, enter **GROW** under OLD, then enter **UNEQ** under NEW.

7. If no REMARKS are needed, return the cursor to the top of the form by pressing HOME.

8. Press SEND/ ENTER

   Response: RC ORNU *a* SUCCESSFULLY TESTED followed by
   RC ORNU *a* SUCCESSFULLY BUFFERED followed by all new entries.

   where *a* = RC Order Number

   Note: All entries should be checked for accuracy. If any entries are found to be incorrect, repeat Steps 1 through 8.

9. At the 1B MTC terminal, enter **RCACT:ORNU** *a***!**

   where a = RC Order Number

   Response: `RC ORNU` *a* `ACTIVATED` followed by all new entries.

   where *a* = RC Order Number

   Note: All entries should be checked for accuracy. If any entries are found to be incorrect, remove recent change using RC Form 700 and repeat this DLP.

10. At the 1B MTC terminal, verify that the TSI Submember Equipage (SME) has been changed to the `UNEQ` state by entering the following: **VER:UTYPE:TSI** *x*,**SME** *y***!**

    where *x* = Member Number (0-62)
    y = TSI Port Index Number (see Table A)

TABLE A TSI Port Index Numbers

PORT	INDEX NO.	PORT	INDEX NO.	PORT	INDEX NO.
SPC 0-0	56	SPC 0-5	61	SPC 1-3	66
SPC 0-1	57	SPC 0-6	62	SPC 1-4	67
SPC 0-2	58	SPC 1-0	63	SPC 1-5	68
SPC 0-3	59	SPC 1-1	64	SPC 1-6	69
SPC 0-4	60	SPC 1-2	65		

Response:

`VER:UTMN;OPT(SME),CUR:` `FLN` *a* `UTYN` *b*

`MEMN` *c* `ME` *d*

`SUBMEM` *e*, `SME` *f*

where *a* = Floor location number
b = Unit type name
c = Member number of growth associated complex
d = Member equipage
e = TSI index number
f = SME

Note: All entries should be checked for accuracy. If any entries are found to be incorrect, repeat this DLP using correct data.

11. **STOP! YOU HAVE COMPLETED THIS PROCEDURE.**

Verify SCS Unit Type Translator to Determine TSI Information, MSP Equipage, MIP Equipage, and Disk Pair Equipage

1. At the 1B Maintenance (MTC) terminal, enter **VER:UTYPE:SCS** *x***!**

   where x = Member Number (0-7)

   Response: The information shown in Figure 1 is displayed.

   Save this printout. It will be used to determine TSI Port information, disk pair equipage, and MSP equipage for each applicable SCU.

   Note: The words shown in Figure 1 are in **octal** format.

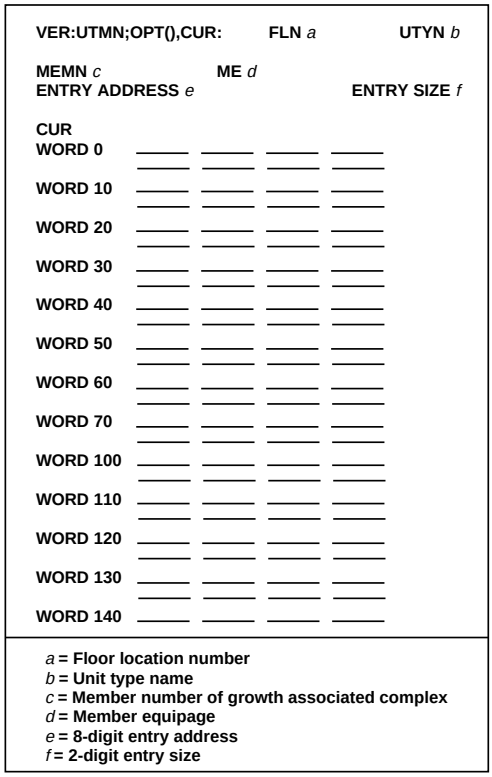

Figure 1. SCS Unit Type Translator

2. Is the message format and member identification correct as shown in Figure 1?

   If **YES**, continue to Step 3.
   If **NO**, determine and resolve the cause and repeat from Step 1.

3. Using the TTY output and Figure 2, determine the values for each of the items listed in Table A for each applicable SCU. Record these values in the appropriate columns of Table A for future reference.

4. **STOP! YOU HAVE COMPLETED THIS PROCEDURE.**

TABLE A SCU Information

SCU NO.	MSP EQUIPAGE				MIP EQUIPAGE		DISK PAIR EQUIPAGE		TSI MEMBER NUMBER	SPC NUMBER	LEVEL NO. (TSI PORT NUMBER)
	3	2	1	0	1	0	1	0			
0											
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											

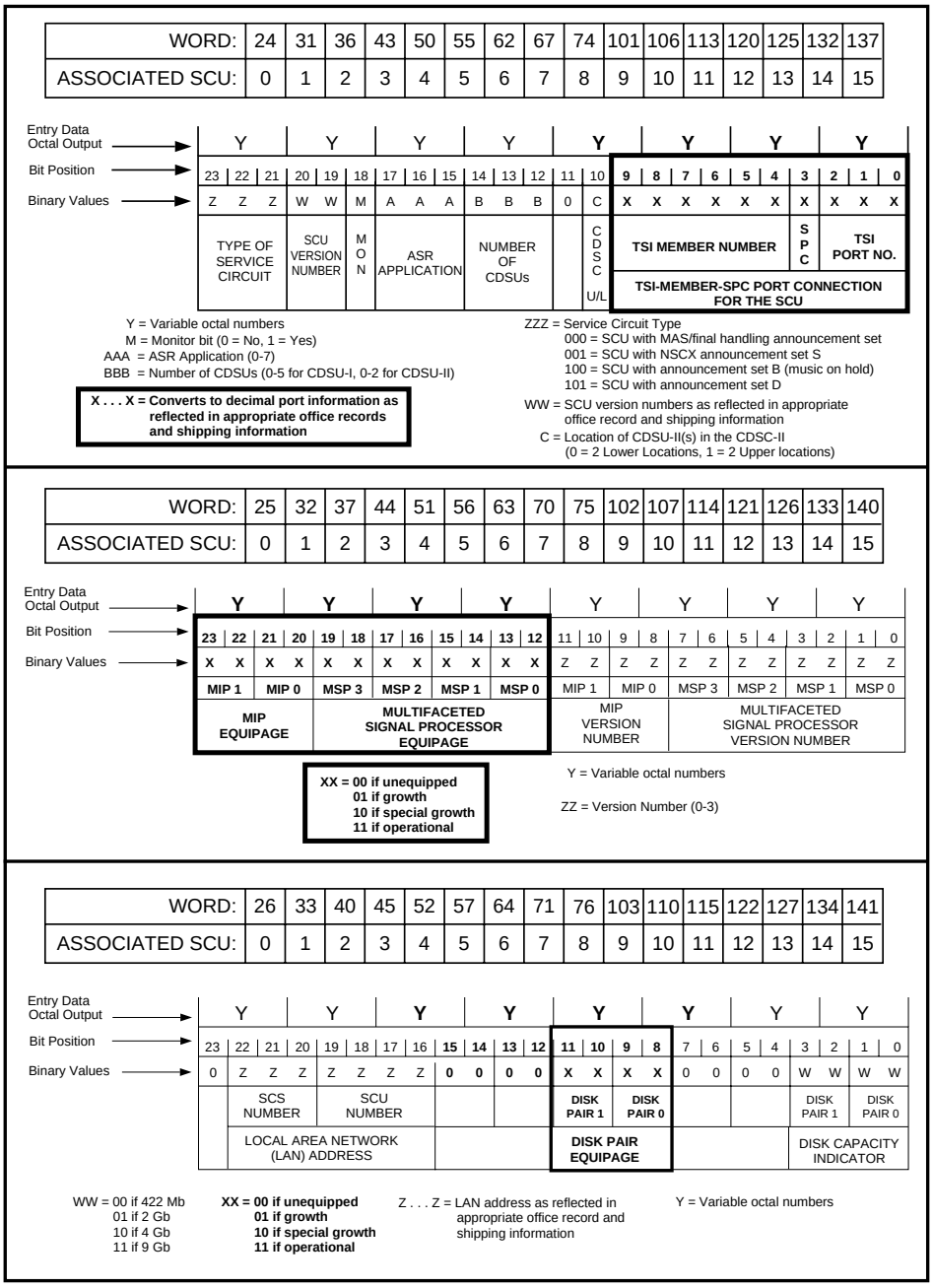

Figure 2. Words Used to Determine TSI Information, MSP Equipage, and Disk Pair Equipage

Remove Degrown Service Circuit Unit (SCU) Reference From the Announcement Administrative Processor (AAP) Database

1. At the AAP console, log in as **aapusr** and select option **4** from the menu.

2. At the AAP console, print out the SCU Equipment (SCUEQP) database for the degrowth SCU by entering:

   OP:SCUEQP!

   Response: A printout similar to the following example is generated.

   Example:

```
M mm OP:SCUEQP  results
        KEY     ANNSET  SCS     SCU     LANADR          ENA     ACT
        0       S       0       0       08006A190A       0       0
        99999   N       7       15      08006A190A       1       1
        mh/dy/yr hh:mm:ss tz #nnn
```

   Using this printout, determine and record the KEY Number (0-99999) of the degrowth SCU.

3. Using the printout from the previous step, determine the Announcement Set (ANNSET) for the degrowth SCU. If the degrowth SCU is the only SCU with this specific announcement set (single value A-Z), continue to Step 4. Otherwise, continue to Step 9.

4. At the AAP console, print the Announcement Set Equipage (SETEQP) database by entering:

   OP:SETEQP!

   Response: A printout similar to the following example is generated.

   Example:

```
M mm OP:SETEQP  results
        KEY     ANNSET  SETADR          SETNUM
        0       N       09006A190A        0
        1       S       09006A190A        1
        mh/dy/yr hh:mm:ss tz #nnn
```

   Using this printout, determine and record the KEY Number (0-99999) of the announcement set of the degrowth SCU.

5. At the AAP console, delete the Announcement Set Equipage for the degrowth SCU by entering:

   RC:SETEQP;DLT,KEY *x***!**

   where *x* = KEY Number of announcement set for the degrowth SCU (recorded in Step 4).

   Response:

   ```
   M mm RC:SETEQP DLT KEY x  Completed
           mh/dy/yr/ hh:mm:ss tz #nnn
   ```

6. At the AAP console, verify that the Announcement Set Equipage for the degrowth SCU was deleted by entering:

   OP:SETEQP!

   Response: A printout similar to the following example is generated.

   Example:

   ```
   M mm OP:SETEQP  results
          KEY     ANNSET  SETADR         SETNUM
          0       N       09006A190A       0
          1       S       09006A190A       1
          mh/dy/yr hh:mm:ss tz #nnn
   ```

   Using this printout, verify that the KEY Number and associated data for the announcement set of the degrowth SCU has been deleted. If it has been deleted, continue to the next step. If it has not been deleted, repeat Steps 5 and 6.

7. At the AAP console, determine the KEY Number for audits that need to be removed by entering:

   OP:AUDIT!

   Response: A printout similar to the example shown in Figure 1 is generated. Only the audits for the announcement set in use will be present in this printout. Use this printout to determine the appropriate KEY Number for the audits to be removed.

8. At the AAP console, remove the associated audits by entering the following message **once for each of the appropriate KEY Numbers** determined in the previous step:

   RC:AUDIT;DLT,KEY *x***!**

   where *x* = KEY Number of audit to be removed

   Response: `RC:AUDIT Completed`

9. At the AAP console, inhibit the degrowth SCU in the SCUEQP database by entering:
   INH:SCUEQP;KEY *x***!**

   where *x* = KEY Number of the degrowth SCU (recorded in Step 2).

   Response:
   ```
   M mm INH:SCUEQP KEY x  completed
           mh/dy/yr/ hh:mm:ss tz #nnn
   ```

10. At the AAP console, delete the degrowth SCU from the SCUEQP database by entering:
    RC:SCUEQP;DLT,KEY *x***!**

    where *x* = KEY Number of the degrowth SCU (recorded in Step 2).

    Response:
    ```
    M mm RC:SCUEQP DLT KEY x  completed
            mh/dy/yr/ hh:mm:ss tz #nnn
    ```

11. At the AAP console, verify that the degrowth SCU was deleted from the SCUEQP database by entering:
    OP:SCUEQP!

    Response: A printout similar to the following example is generated.

    Example:

    ```
    M mm OP:SCUEQP  results
           KEY     ANNSET  SCS     SCU     LANADR          ENA     ACT
           0       S       0       0       08006A190A       0       0
           99999   N       7       15      08006A190A       1       1
           mh/dy/yr hh:mm:ss tz #nnn
    ```

    Using this printout, verify that the KEY Number of the degrowth SCU has been deleted.

12. At the AAP console, enter: **EXIT**

13. **STOP! YOU HAVE COMPLETED THIS PROCEDURE.**

KEY Number

	KEY	TYPE	ANNSET	FROM	TO	UCL	MO	DAYMO	DAYWK	HR	MIN	ENA	ACT
Mandatory	4	4	N	1	1	0	*	*	*	0	00	0	0
	5	5	N	1	1	0	*	*	*	0	00	0	0
	6	6	N	1	1	0	*	*	*	0	00	0	0
SCUs with Service Circuit Type 0 only	0	0	N	1	511	0	*	*	*	0	00	0	0
	1	1	N	1	65535	0	*	*	*	0	00	0	0
	2	2	N	1	65535	0	*	*	*	0	10	0	0
	3	3	N	1	65535	0	*	15	*	1	31	0	0
SCUs with Service Circuit Type 1 only	11	1	S	1	65535	0	*	*	*	0	00	0	0
	12	2	S	1	65535	0	*	*	*	0	20	0	0
	13	3	S	1	65535	0	*	8	*	1	31	0	0
SCUs with Service Circuit Type 2 only	21	1	*c*	1	65535	0	*	*	*	0	00	0	0
	22	2	*c*	1	65535	0	*	*	*	0	30	0	0
	23	3	*c*	1	65535	0	*	1	*	1	31	0	0
SCUs with Service Circuit Type 3 only	31	1	*d*	1	65535	0	*	*	*	0	00	0	0
	32	2	*d*	1	65535	0	*	*	*	0	40	0	0
	33	3	*d*	1	65535	0	*	22	*	1	31	0	0
SCUs with Service Circuit Type 4 only	41	1	B	1	65535	0	*	*	*	0	00	0	0
	42	2	B	1	65535	0	*	*	*	0	50	0	0
	43	3	B	1	65535	0	*	29	*	1	31	0	0
SCUs with Service Circuit Type 5 only	51	1	D	1	65535	0	*	*	*	0	00	0	0
	52	2	D	1	65535	0	*	*	*	1	00	0	0
	53	3	D	1	65535	0	*	11	*	1	31	0	0
SCUs with Service Circuit Type 6 only	61	1	*g*	1	65535	0	*	*	*	0	00	0	0
	62	2	*g*	1	65535	0	*	*	*	1	10	0	0
	63	3	*g*	1	65535	0	*	18	*	1	31	0	0
SCUs with Service Circuit Type 7 only	71	1	*h*	1	65535	0	*	*	*	0	00	0	0
	72	2	*h*	1	65535	0	*	*	*	1	20	0	0
	73	3	*h*	1	65535	0	*	25	*	1	31	0	0

Figure 1. Sample Printout Used to Determine Key Numers of Audits to Be Removed

Update SCU/MSP Version Numbers in the Service Circuit System (SCS) Translator Using Recent Change (RC) Form 703

Caution: Calling up a Recent Change (RC) Form will cause all data on the screen to be cleared.

1. At the 1B Maintenance (MTC) terminal, enter **OP:RCFORM 703!**

   Response: Recent Change Form 703 appears on the screen.

2. At SCS, enter the SCS Member Number (0-7) of the growth SCS complex.

3. At SCU, enter the appropriate SCU Number (0-15).

4. At ORNU, enter a unique Order Number.

5. At SCUFV, enter the new version number for the SCU (the version number that was recorded in the "Version Number" column of Table A in DLP-545 for the file "SCUOPR").

6. At MSBFV, locations 0-3, enter the new version number for the MSP (the version number that was recorded in the "Version Number" column of Table A in DLP-545 for the file "MSPFIX").

   Note: The "0" location for MSBFV will always be populated. Depending on your system configuration, no update may be needed for the remaining 3 locations.

7. If no REMARKS are needed, press HOME to return the cursor to the top of the form.

8. Press SEND/ENTER

   Response: `RC ORNU` *a* `SUCCESSFULLY TESTED` followed by
   `RC ORNU` *a* `SUCCESSFULLY BUFFERED` followed by all new entries.

   where *a* = RC Order Number

   Note: All entries should be checked for accuracy. If any entries are found to be incorrect, repeat Steps 1 through 8.

9. At the 1B MTC terminal, enter **RCACT:ORNU** *a***!**

   where *a* = RC Order Number

   Response: `RC ORNU` *a* `ACTIVATED` followed by all new entries.

   where *a* = RC Order Number

   Note: All entries should be checked for accuracy. If any entries are found to be incorrect, repeat this step correcting the errors.

10. At the 1B MTC terminal, enter **VER:UTYPE:SCS x!**

    where *x* = Member Number (0-7)

    Response:
    ```
    VER:UTMN;OPT(),CUR:
    FLN a
    UTYN b
    MEMN c
    ME d
    ENTRY ADDRESS e
    ENTRY SIZE f
    ```

    where *a* = Floor location number
    b = Unit type name
    c = Member number of growth associated complex
    d = Member equipage
    e = An 8-digit entry address
    f = A 2-digit entry size

    The above responses are followed by a complete printout of the SCS Unit Type entry data. Use this printout and Figure 1 to determine if the SCU data (SCU and MSP version numbers) was properly entered.

11. **STOP! YOU HAVE COMPLETED THIS PROCEDURE.**

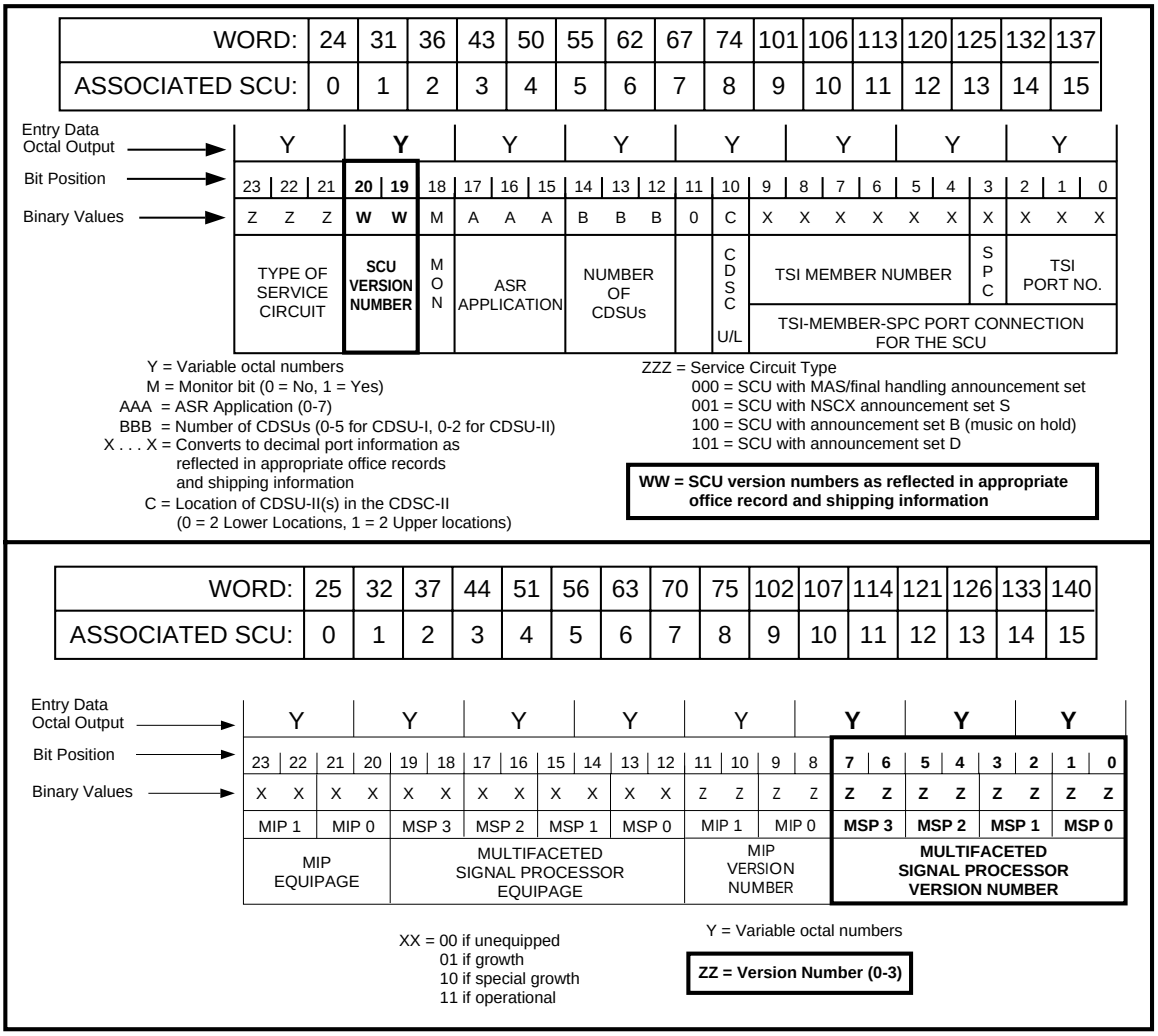

Figure 1. Words in SCS Unit Type Translator Used to Determine SCU and MSP Version Numbers

Verify the Latest SCS System Version Numbers From Translations for In-Service Disk Pairs

1. At the 1B Maintenance (MTC) terminal, enter **VER:UTYPE:SCS** *x***!**

   where *x* = Member Number (0-7) of in-service SCS.

   Response: The information shown in Figure 1 is displayed and printed.

   Note: The words shown in Figure 1 are in **octal** format.

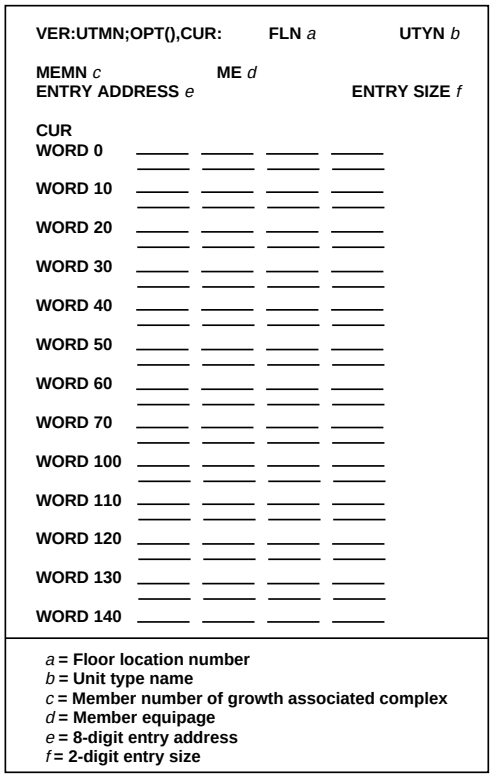

Figure 1. SCS Unit Type Translator

2. Using the printout from Step 1 and Figure 2 (page 3), determine the version number for Controllers 0 and 1 by looking at bits 0 through 5 in octal word 10. The version number should be the same for both controllers and can range from 0 or 3 - 4E22R4 and later. Record this version number in Table A as the version number for SCS system file type **SCCSFT**.

TABLE A SCS System File Types and Associated Version Numbers for Existing Hardware

SCS System File Type	Version Number
SCCSFT	
SCUOPR	
SCUDGN	
MSPFIX	
MSPROV	
TONES	0
MSP1	
MIP0FIL	
MIP1FIL	

Note: The version number for the **TONES** file type **is always 0** and is already entered in Table A. The version numbers for the other file types **should always be the same**. If they are not the same, contact the next level of support.

3. Using the printout from Step 1 and the middle section of Figure 2 (page 3), determine the version number for **existing** SCUs by looking at bits 19 and 20 of the applicable words.

   Record this version number in Table A as the version number for SCS system file types **SCUOPR** and **SCUDGN**. (The version number should be the same for all existing SCUs and can range from 0 or 3 - 4E22R4 and later.)

4. Using the printout from Step 1 and the bottom section of Figure 2 (page 3), determine the version number for **Multifaceted Signal Processor (MSP) 0 per bits 0 and 1** of the applicable words.

   Record this version number in Table A as the version number for SCS system file types **MSPFIX**, **MSPROV**, **MSP1**, **MIP0FIL**, and **MIP1FIL**. (This version number should be the same for all existing SCUs and can range from 0 to 3 - 4E22R4 and later.)

5. **STOP! YOU HAVE COMPLETED THIS PROCEDURE.**

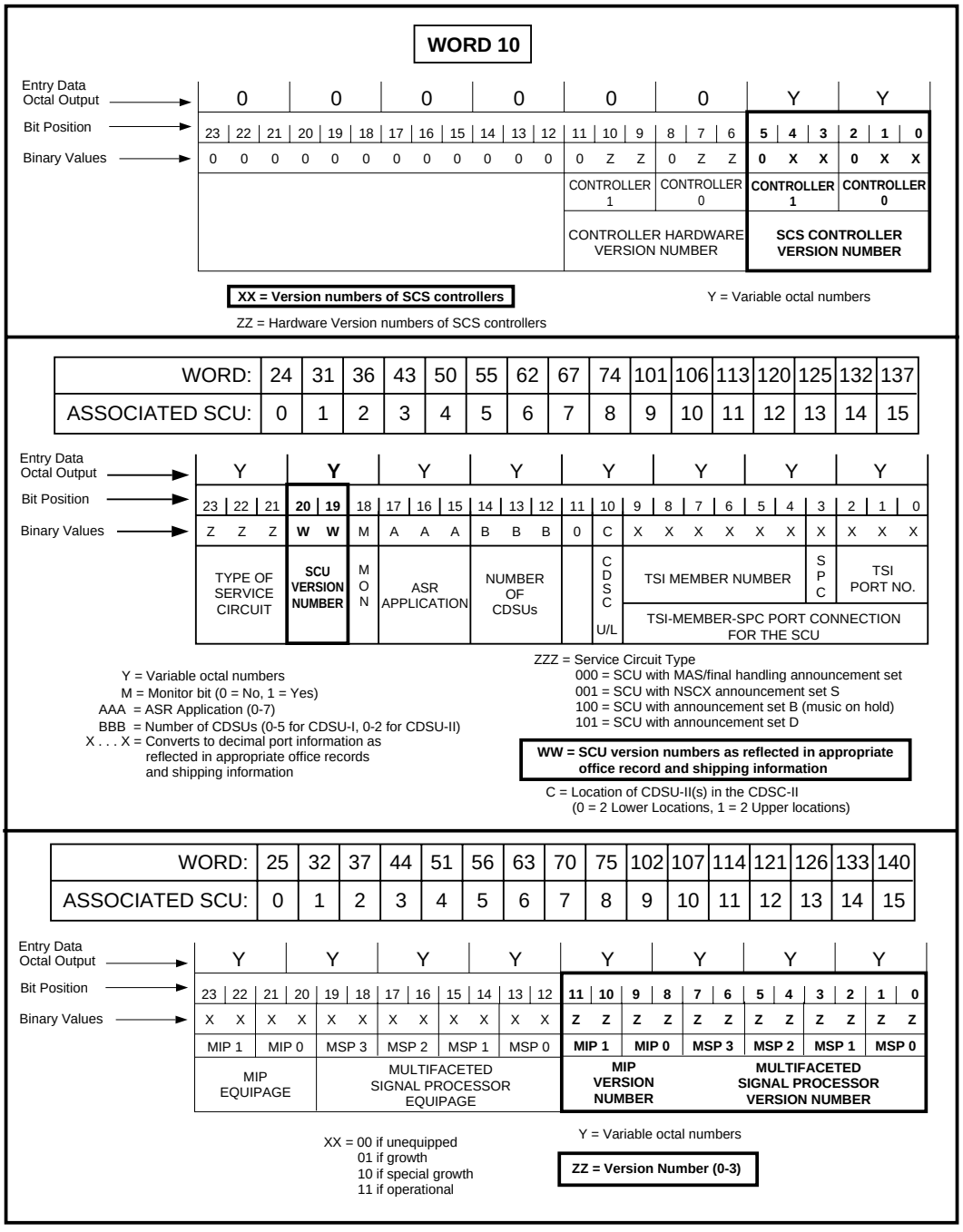

Figure 2. Words in SCS Unit Type Translator Used to Determine Version Numbers

Check AAP Disk Drives

1. Get the root password from the Technology Control Center (TCC)/ Network Control Center (NCC) and login as root at the AAP console.

2. At the AAP console, enter: **cfstatus -c scsi0 disk2**

   Response:

Component	State	Cabinet	IOP/Controller	DCC CRU
disk2	online	system	iop0/scsi0	

3. At the AAP console, enter: **cfstatus -c scsi1 disk6**

   Response:

Component	State	Cabinet	IOP/Controller	DCC CRU
disk6	online	system	iop1/scsi1	

4. At the AAP console, enter:
   /usr/mds/tst_dsk -l low -t0 -w -f -n10 /dev/rdsk/sc0d2s2

   Response: After about 3 minutes, the following is displayed:

```
Tester:   /usr/mds/tst_dsk
PID:      xxxxx
Test File:/dev/rdsk/sc0d2s2
Time:     (Day Month Time Year)
Event:    Disk Test Started.
------
------
Tester:   /usr/mds/tst_dsk
PID:      xxxxx
Test File:/dev/rdsk/sc0d2s2
Time:     (Day Month Time Year)
Event:    Disk Test Completed.
Errors:   0 Detected
Passes:   10 Completed
```

5. At the AAP console, enter:
   /usr/mds/tst_dsk -l low -t0 -w -f -n10 /dev/rdsk/sc1d6s2

   Response: After about 3 minutes, the following is displayed:

```
Tester:   /usr/mds/tst_dsk
PID:      xxxxx
Test File:/dev/rdsk/sc1d6s2
Time:     (Day Month Time Year)
Event:    Disk Test Started.
----
----
Tester:   /usr/mds/tst_dsk
PID:      xxxxx
Test File:/dev/rdsk/sc1d6s2
Time:     (Day Month Time Year)
Event:    Disk Test Completed.
Errors:   0 Detected
Passes:   10 Completed
```

6. **STOP! YOU HAVE COMPLETED THIS PROCEDURE.**

Update SCU/MSP/MIP Version Numbers in the Service Circuit System (SCS) Translator Using Recent Change (RC) Form 703

Caution: Calling up an RC Form will cause all data on the screen to be cleared.

1. At the 1B Maintenance (MTC) terminal, enter **OP:RCFORM 703!**

   Response: Recent Change Form 703 appears on the screen.

2. At SCS, enter the SCS Member Number (0-7) of the growth SCS complex.

3. At SCU, enter the appropriate SCU Number (0-15).

4. At ORNU, enter a unique Order Number.

5. At SCUFV, enter the new version number for the SCU (the version number that was recorded in the "Version Number" column of Table A in DLP-545 for the file "SCUOPR").

6. At MSBFV, location 0, enter the new version number for the MSP (the version number that was recorded in the "Version Number" column of Table A in DLP-545 for the file "MSPFIX").

7. At MSBFV, location 1, enter the new version number for the MSP (the version number that was recorded in the "Version Number" column of Table A in DLP-545 for the file "MSP1").

8. At MIPFV, locations 0 and 1, enter the new MIP version number (the version number that was recorded in the "Version Number" column of Table A in DLP-545 for the file "MIP0FIL").

9. If no REMARKS are needed, press HOME to return the cursor to the top of the form.

10. Press SEND/ENTER

    Response: `RC ORNU` *a* `SUCCESSFULLY TESTED` followed by
    `RC ORNU` *a* `SUCCESSFULLY BUFFERED` followed by all new entries.

    where *a* = RC Order Number

    Note: All entries should be checked for accuracy. If any entries are found to be incorrect, repeat Steps 1 through 10.

11. At the 1B MTC terminal, enter **RCACT:ORNU** ***a*****!**

    where *a* = RC Order Number

    Response: `RC ORNU` *a* `ACTIVATED` followed by all new entries.

    where *a* = RC Order Number

    Note: All entries should be checked for accuracy. If any entries are found to be incorrect, repeat this step correcting the errors.

12. At the 1B MTC terminal, enter **VER:UTYPE:SCS x!**

    where *x* = Member Number (0-7)

    Response:
    ```
    VER:UTMN;OPT(),CUR:
    FLN a
    UTYN b
    MEMN c
    ME d
    ENTRY ADDRESS e
    ENTRY SIZE f
    ```

    where *a* = Floor location number
    b = Unit type name
    c = Member number of growth associated complex
    d = Member equipage
    e = An 8-digit entry address
    f = A 2-digit entry size

    The above responses are followed by a complete printout of the SCS Unit Type entry data. Use this printout and Figure 1 to determine if the SCU data (SCU and MSP version numbers) was properly entered.

13. **STOP! YOU HAVE COMPLETED THIS PROCEDURE.**

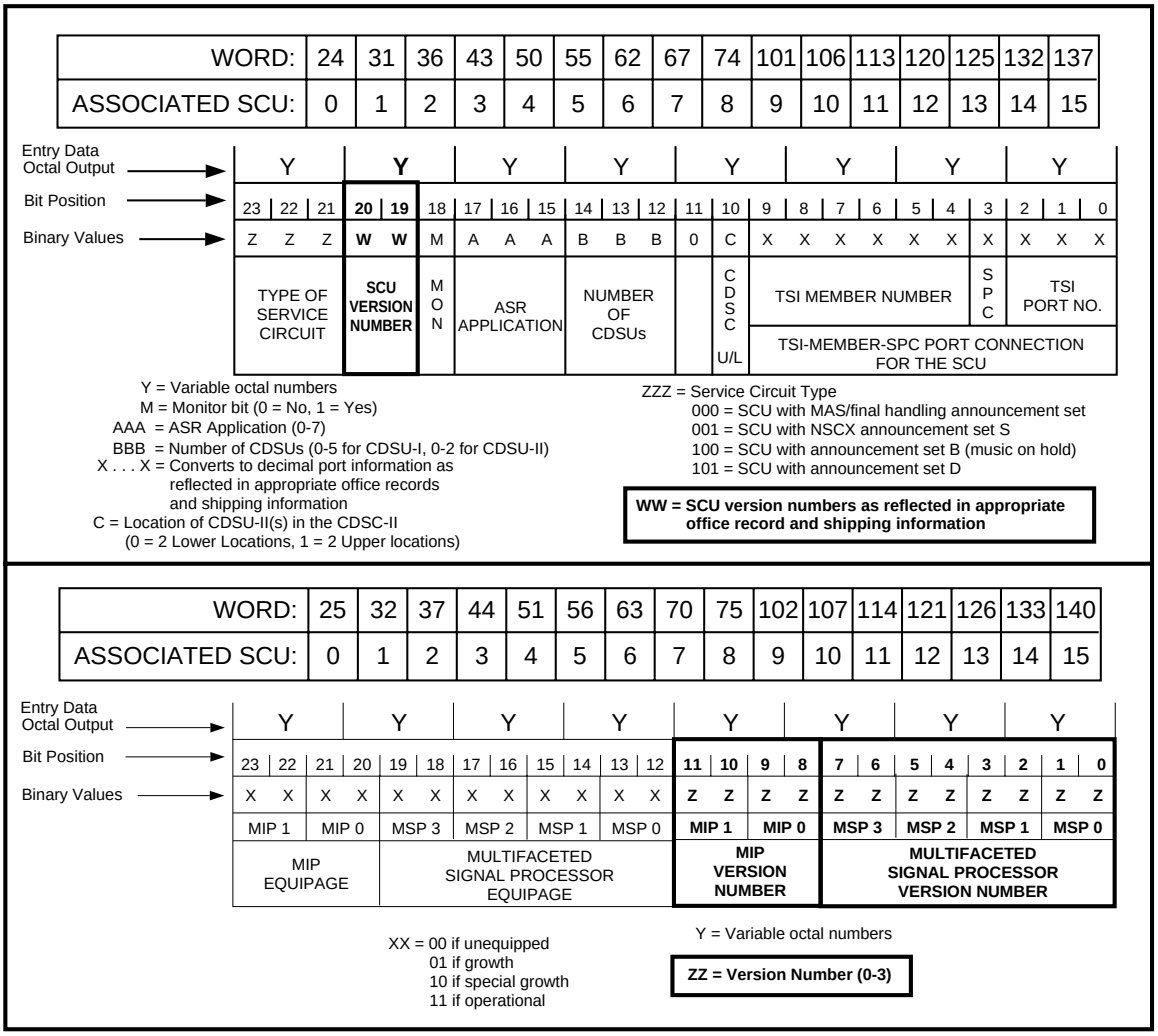

Figure 1. Words in SCS Unit Type Translator Used to Determine SCU, MIP, and MSP Version Numbers

Recent Change and Verify Disk Pair, Multifaceted Signal Processor (MSP), and Multifunctional Interface Processor (MIP) Equipage of the Growth Service Circuit Unit (SCU) From SGRO to OPER Using Recent Change (RC) Form 703

Caution: Calling up an RC Form will cause all data on the screen to be cleared.

1. At the 1B Maintenance (MTC) terminal, enter **OP:RCFORM 703!**

   Response: Recent Change Form 703 appears on the screen.

2. At SCS, enter growth SCS Member Number (0-7).

3. At SCU, enter the growth SCU Number (0-15).

4. At ORNU, enter a unique Order Number.

5. At MSBEQ location 0, enter **P** (present).

   Note: If the SCU has more than one associated MSP circuit pack (TN1589), also enter **P** at locations 1 through 3 of MSBEQ, as required.

6. At MIPEQ, locations 0 and 1, enter **P** (present).

7. At DSKEQ location 0, enter **P** (present).

   Note: If SCU 0 is being grown and has more than one associated disk pair, also enter **P** at location 1 of DSKEQ, as required.

8. If no REMARKS are needed, return the cursor to the top of the form by pressing HOME.

9. Press SEND/ENTER

   Response: `RC ORNU a SUCCESSFULLY TESTED` followed by
   `RC ORNU a SUCCESSFULLY BUFFERED` followed by all new entries.

   where *a* = RC Order Number

   Note: All entries should be checked for accuracy. If any entries are found to be incorrect, repeat Steps 1 through 9.

10. At the 1B MTC terminal, enter **RCACT:ORNU** ***a*****!**

    where *a* = RC Order Number

    Response: `RC ORNU a ACTIVATED` followed by all new entries.

    Note: All entries should be checked for accuracy. If any entries are found to be incorrect, repeat this DLP correcting the errors.

11. At the 1B MTC terminal, enter **VER:UTYPE:SCS x!**

    where *x* = Member Number (0-7)

    Caution: When populating* DSKEQ *for a Type 2 (TN4000 - 4 Gb) disk pair at location 0, the adjacent location 1 will also be populated when checking the Unit Type Translator. This is done automatically via recent change.

    Response:
    ```
    VER:UTMN;OPT(),CUR:
    FLN a
    UTYN b
    MEMN c
    ME d
    ENTRY ADDRESS e
    ENTRY SIZE f
    ```

    The above responses are followed by a complete printout of the Service Circuit System (SCS) Unit Type entry data. Use this printout and Figure 1 to determine if the SCU data (MSP, MIP, and disk pair equipage) was properly entered.

    where *a* = Floor location number
    b = Unit type name
    c = Member number of growth associated complex
    d = Member equipage
    e = An 8-digit entry address
    f = A 2-digit entry size

12. **STOP! YOU HAVE COMPLETED THIS PROCEDURE.**

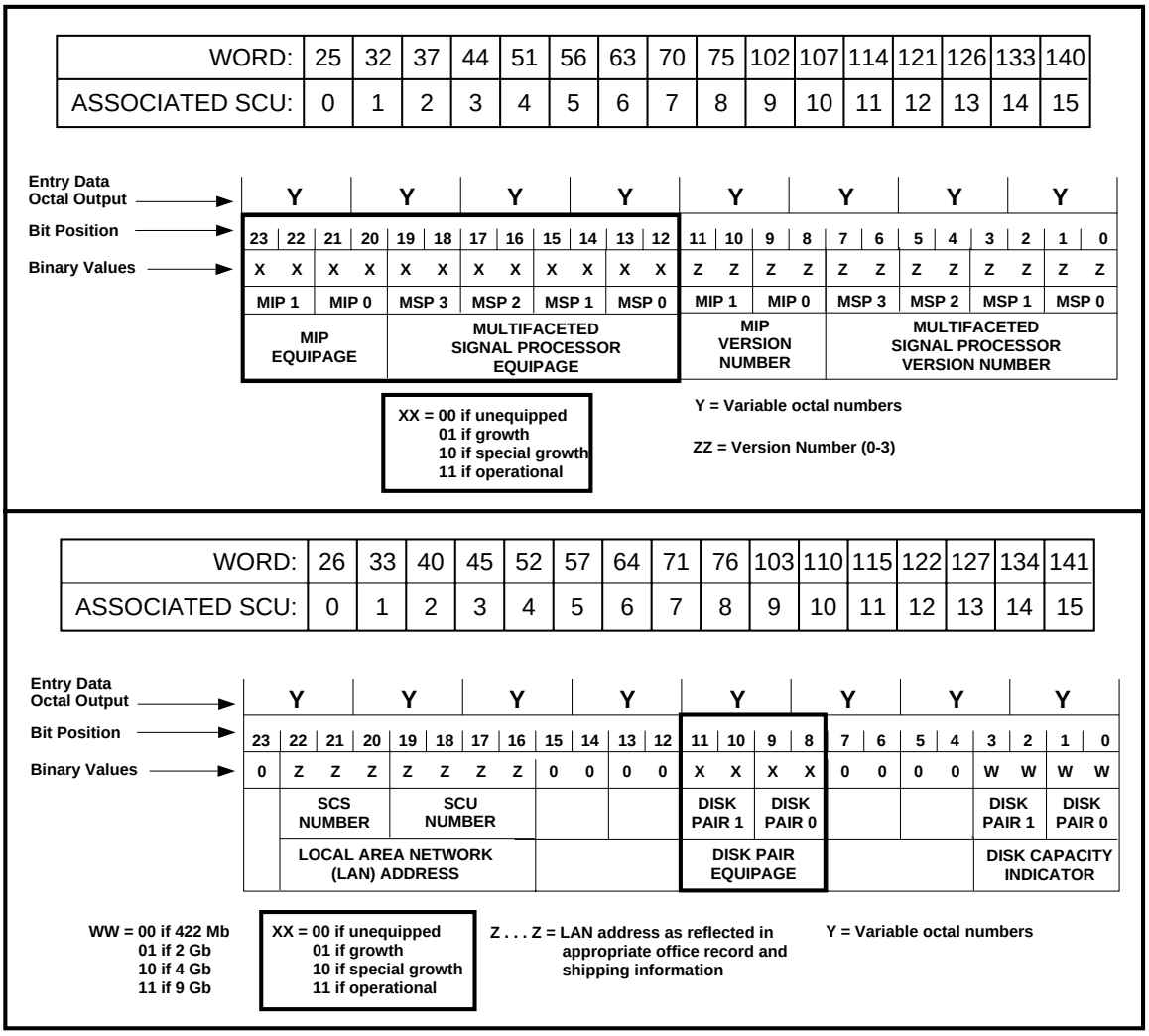

Figure 1. Words in SCS Unit Type Translator Used to Determine MSP, MIP, and Disk Pair Equipage

Verify Service Circuit System (SCS) Unit Type Translator for Growth Service Circuit Units (SCUs) 0-15 (4E21R1 and Later)

Note: If, during this procedure, the value of any of the words in the Unit Type Translator are not what they should be, **DLP-515 can be used to perform a functional word change**. However, remember that, depending on local procedures, supervisory or Telco engineering approval must be obtained prior to performing any data change.

1. At the 1B Maintenance (MTC) terminal, enter **VER:UTYPE:SCS x!**

   where *x* = Member Number (0-7)

   Response: The information shown in Figure 1 is displayed.

   Note: The words shown in Figure 1 are in **octal** format.

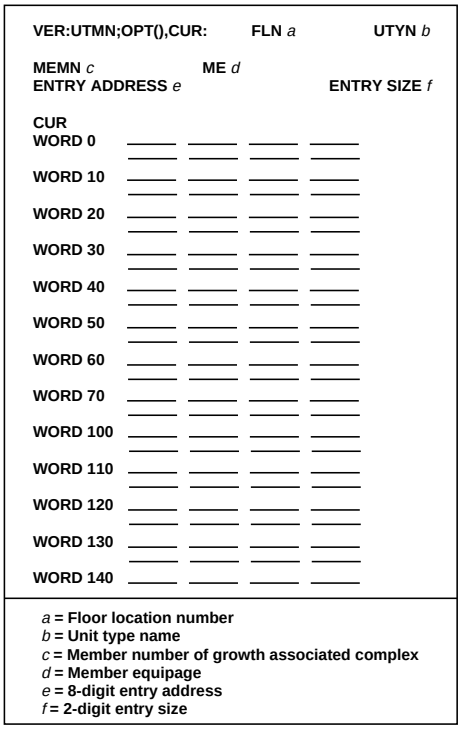

Figure 1. SCS Unit Type Translator

2. Is the message format and member identification correct as shown in Figure 1?

   If **YES**, continue to Step 3.

   If **NO**, determine and resolve the cause and repeat from Step 1.

3. Using TTY output and Figure 2 (beginning on page 8), check that the growth SCU(s) Submember Equipage bits per word 0 and/or 12 are set to **0**.

   If these bits are **set to 0**, continue to Step 4.

   If these bits are **not set to 0**, do one of the following:

   Use RC Form 701 to degrow submember equipage to unequipped (See DLP-513 [OPER to SGRO], DLP-535 [SGRO to GROW], and/or DLP-536 [GROW to UNEQ], depending on current equipage.)

   or

   Use RC Form 801 to perform a functional word change to change the desired bits to 0 (DLP-515).

   Caution: Depending on local procedures, supervisory or Telco engineering approval must be obtained prior to performing any data change.

4. Using the TTY output and Figure 2 (beginning on page 8), verify the Signal Distributor (SD) assignments for the growth SCU(s) per words 17, 20, 21, and/or 22 as follows.

   1. Convert octal digits of entry output data words to decimal Signal Processor (SP) member, row, and column numbers and record results. If the fourth rightmost octal digit of a word is **2** or **3**, add decimal 64 to the SP row number determined for that word.
   2. Search the **ROW** and **COLUMN** listings in the appropriate office record drawings (TAGS) and locate the row and column previously recorded for each of the indicated words. If the associated **UNIT TYPE** and **FRM NO** does not agree with the growth frame, record the discrepancy for later use.

5. Using the TTY output and Figure 2 (beginning on page 8), verify the scan point assignments for the growth SCUs per words 13, 14, 15, and/or 16 as follows.

   1. Convert octal digits of entry output data words to decimal SP member, row, and column numbers and record results. If the fourth rightmost octal digit of a word is **2** or **3**, add decimal 64 to the SP row number determined for that word.
   2. Search the **ROW** and **COLUMN** listings in the appropriate office record drawings and locate the row and column previously recorded for each of the indicated words. If the associated **UNIT TYPE** and **FRM NO** does not agree with the growth frame, record the discrepancy for later use.

6. Using the TTY output and Figure 2 (beginning on page 8), verify the Service Circuit Type per the words shown in Table A. (The correct Service Circuit Type was recorded in Step 9 of NTP-011.)

   Note: Prior to this verification, you must know which announcement set is assigned to each growth SCU.

TABLE A Octal Words and Associated SCUs for Service Circuit Type and TSI Port Assignment Determination

SCU	Word	SCU	Word	SCU	Word	SCU	Word
0	24	4	50	8	74	12	120
1	31	5	55	9	101	13	125
2	36	6	62	10	106	14	132
3	43	7	67	11	113	15	137

7. Using the TTY output and Figure 2 (beginning on page 8), verify growth SCU(s) to Time Slot Interchange (TSI) port assignment per the words in Table A.

   1. Convert the octal digits representing TSI information to decimal.
   2. Compare the calculated data for the TSI member number, SPC, and TSI Port number to the appropriate office records containing SCU to TSI Port assignments, and record any discrepancies.

8. Using the TTY output and Figure 2 (beginning on page 8), verify that growth MSP and MIP equipage bits are set to **0** per the words in Table B, and note any discrepancies.

TABLE B Octal Words and Associated SCUs for MSP and MIP Equipage Verification

SCU	Word	SCU	Word	SCU	Word	SCU	Word
0	25	4	51	8	75	12	121
1	32	5	56	9	102	13	126
2	37	6	63	10	107	14	133
3	44	7	70	11	114	15	140

9. Using the TTY output and Figure 2 (beginning on page 8), verify that the Disk Pair Equipage bits per the words in Table C are set to **00** for each growth SCU, and note any discrepancies.

TABLE C Octal Words and Associated SCUs for Disk Capacity, Disk Pair Equipage, and LAN Address Verification

SCU	Word	SCU	Word	SCU	Word	SCU	Word
0	26	4	52	8	76	12	122
1	33	5	57	9	103	13	127
2	40	6	64	10	110	14	134
3	45	7	71	11	115	15	141

10. Using the TTY output and Figure 2 (beginning on page 8), verify the LAN address per the words in Table C, and note any discrepancies. The LAN address should be the SCS member number multiplied by 16, plus the SCU number.

11. Using the TTY output and Figure 2 (beginning on page 8), verify that the Disk Capacity bits per the words in Table C match office hardware. The bits for each disk pair should be set to **00** for 422 MB disk pairs (TN1672 circuit packs), **01** for 2 GB disk pairs (TN1972 circuit packs), **10** for 4 GB disk pairs (TN4000 circuit packs), or **11** for 9 GB disk pairs (TN9000 circuit packs),

Caution: SCU 0 can physically support two disk pairs (0 and 1). When populating disk capacity bits for SCU 0, adhere to the following rules:

- ***Type 0 (TN1672 circuit packs) can be populated in all 4 disk pair locations.***
- ***Type 1 (TN1972 circuit packs) can only be populated in 3 of 4 disk pair locations.***
- ***Type 2 (TN4000 circuit packs) can only be populated as shown in Table D.***
- ***Type 3 (TN9000 circuit packs) can only be populated as shown in Table D.***

TABLE D Allowable Disk Pair Configurations for Circuit Packs With SCU 0

Allowable Disk Pair Types	
Disk Pair Location 0	**Disk Pair Location 1**
2	X
0	0
0	1
1	0
3	X
Where "X" indicates disk pair locations that **must be unpopulated**.	

12. Is the growth SCU being used for the AT&T Trigger Platform (ATP) feature? (See Step 9 of NTP-011.)

    If **YES**, continue to Step 13.

    If **NO**, continue to Step 14.

13. Using the TTY output and Figure 2 (beginning on page 8), verify that the Monitor bit (bit 18) per the words in Table E has been set to **1** for the growth SCU.

TABLE E Octal Words and Associated SCUs for Monitor Bit Verification

SCU	Word	SCU	Word	SCU	Word	SCU	Word
0	24	4	50	8	74	12	120
1	31	5	55	9	101	13	125
2	36	6	62	10	106	14	132
3	43	7	67	11	113	15	137

14. Using the TTY output and Figure 2 (beginning on page 8), verify the **ASR Application** (bits 15-17) (Table F) per the words shown in Table G. (See Step 9 of NTP-011 for ASR Application.)

TABLE F ASR Application

Bits 17,16, and 15	ASR Application
000	0 (ASR not equipped)
001	1 (NSCX Replacement and ATP)
010	2 (For future use)
011	3 (For future use)
100	4 (For future use)
101	5 (For future use)
110	6 (For future use)
111	7 (For future use)

TABLE G Octal Words and Associated SCUs for Determination of ASR Application and Number of CDSUs

SCU	Word	SCU	Word	SCU	Word	SCU	Word
0	24	4	50	8	74	12	120
1	31	5	55	9	101	13	125
2	36	6	62	10	106	14	132
3	43	7	67	11	113	15	137

15. Using the TTY output and Figure 2 (beginning on page 8), verify the **Number of Custom Data Services Units (CDSUs)** (bits 12-14) (Table H) per the words shown in Table G. (See Step 9 of NTP-011 for number of CDSUs.)

TABLE H Number of CDSUs

Bits 14,13, and 12	Number of CDSUs
000	None
001	1
010	2
011	3
100	4
101	5
110	Not Applicable
111	Not Applicable

16. Using the TTY output and Figure 2 (beginning on page 8), verify the **ASR Custom Data Services Cabinet (CDSC) Number** (bits 0-5) per the words shown in Table I. The correct CDSC number is supplied in the "332 Job Specification."

TABLE I Octal Words and Associated SCUs for Determination of CDSC Number

SCU	Word	SCU	Word	SCU	Word	SCU	Word
0	30	4	54	8	100	12	124
1	35	5	61	9	105	13	131
2	42	6	66	10	112	14	136
3	47	7	73	11	117	15	143

17. Using the TTY output and Figure 2 (beginning on page 8), verify the **ASR Custom Data Services Unit (CDSU) Hardware Version** (bits 6-8) per the words shown in Table I. These bits should be **001**.

18. Were any discrepancies found in Steps 4 through 17?

    If **YES**, continue to Step 19.

    If **NO**, continue to Step 23.

19. Was the error found to be in the Unit Type entry data or the office records?

    If **Unit Type entry data**, continue to Step 20.

    If **office records**, continue to Step 23.

20. If not already done, use DLP-515 to perform functional word changes as needed.

21. Have all Unit Type data errors now been corrected?

    If **NO**, continue to Step 22.

    If **YES**, continue to Step 23.

22. Assist the installer in taking appropriate corrective action as determined by regional engineering and as approved by office supervisor.

23. **STOP! YOU HAVE COMPLETED THIS PROCEDURE.**

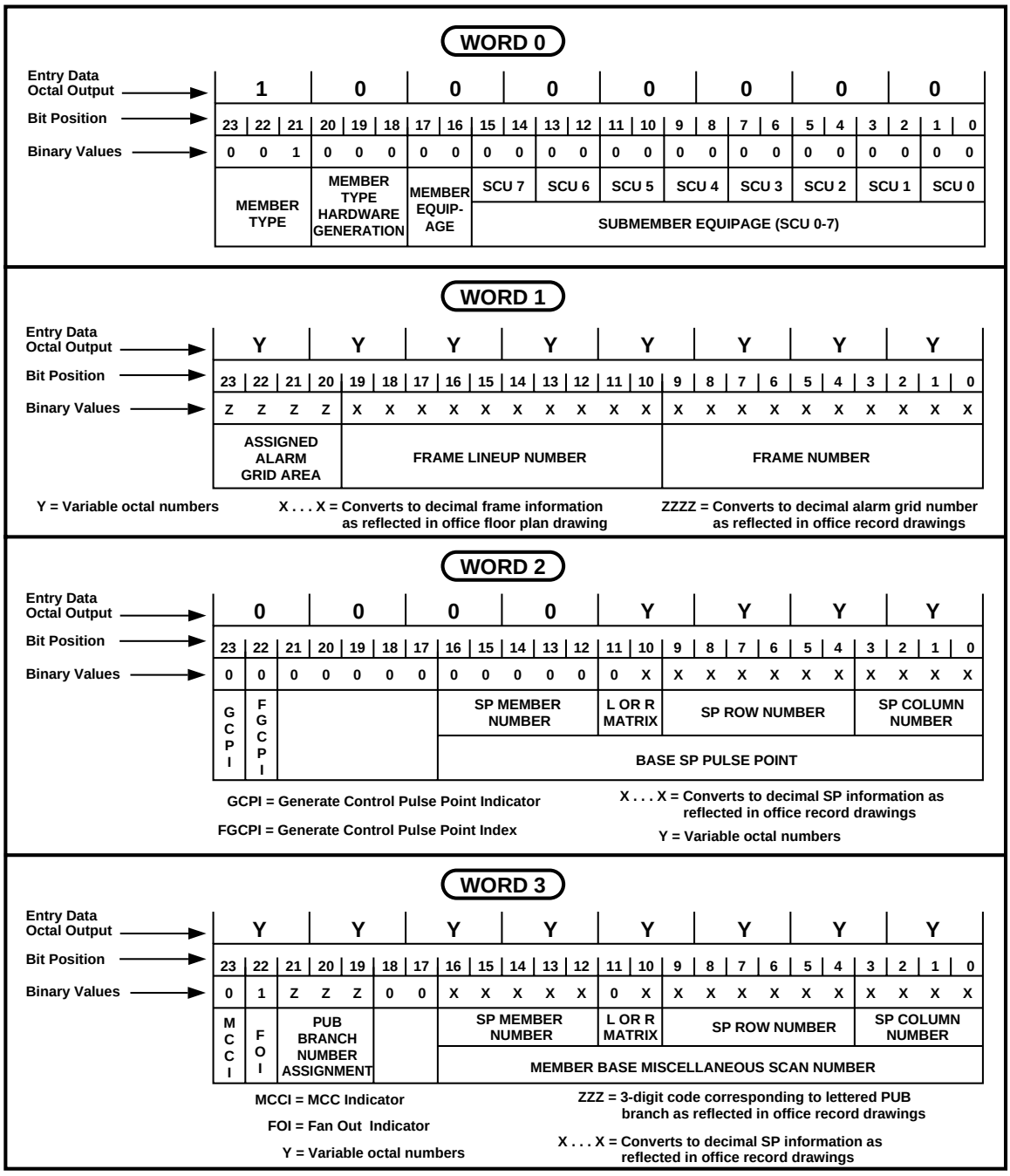

Figure 2. Unit Type Entry Data and Word Configuration (Word Numbers are in Octal) (Sheet 1 of 7)

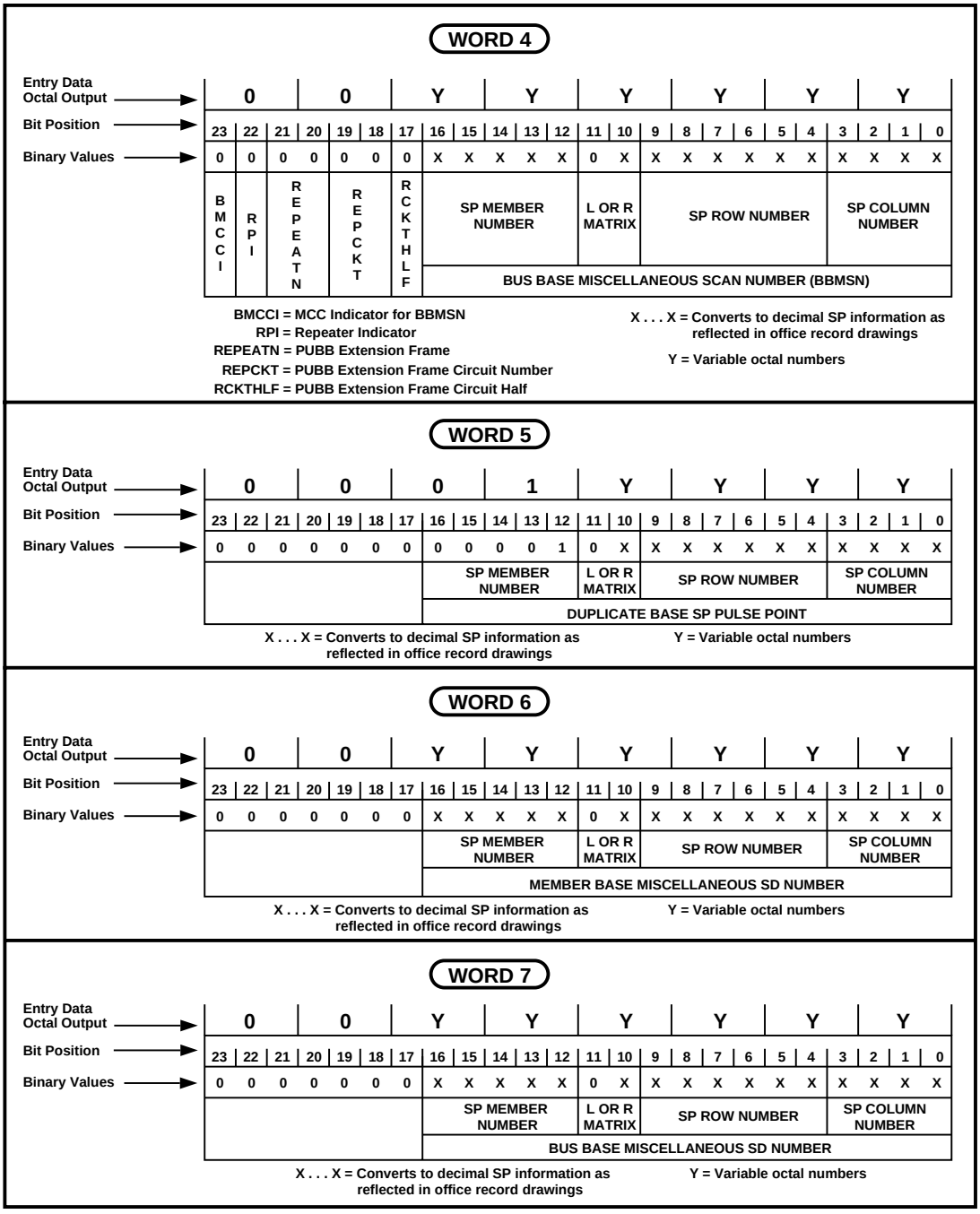

Figure 2. Unit Type Entry Data and Word Configuration (Word Numbers are in Octal) (Sheet 2 of 7)

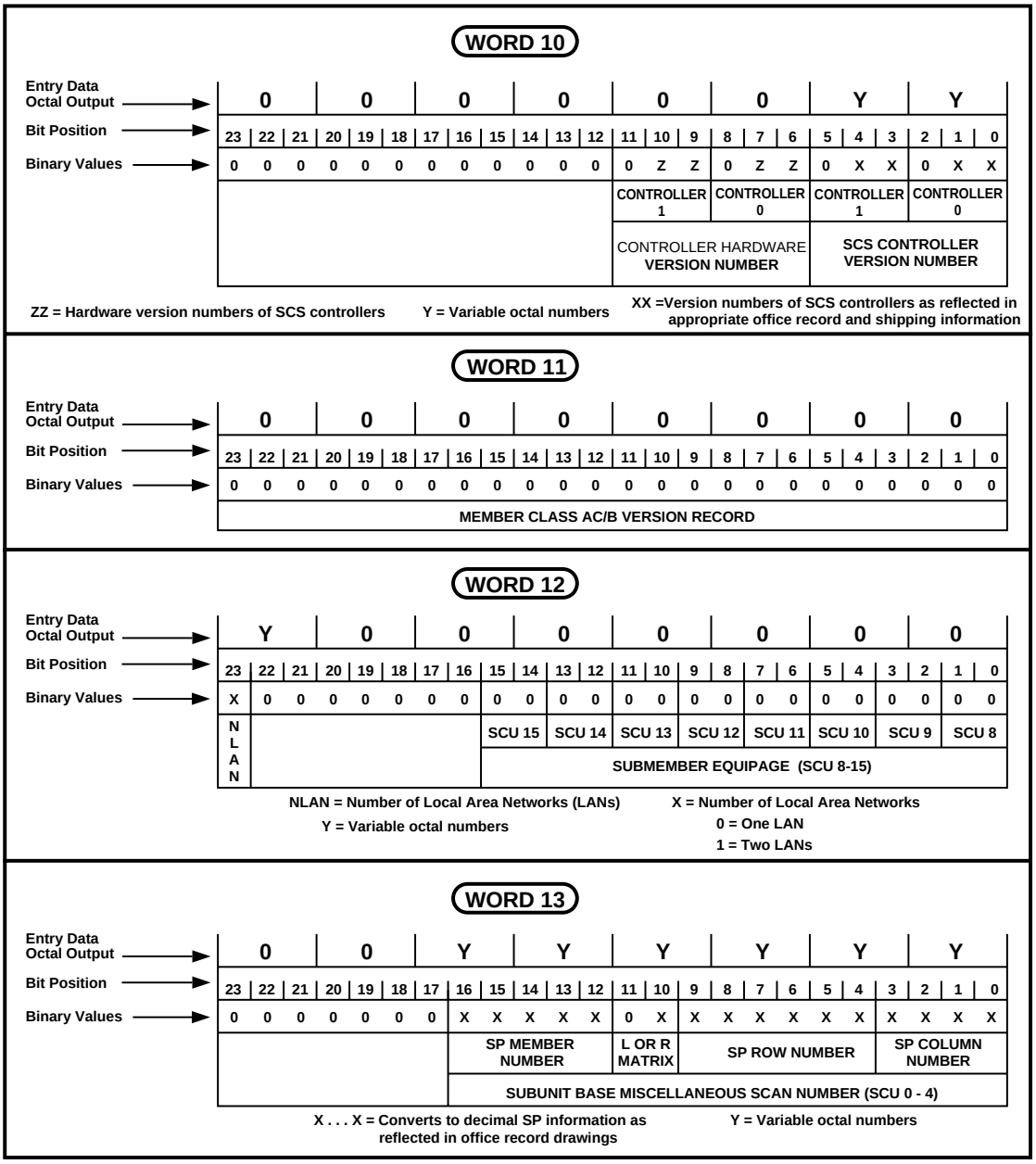

Figure 2. Unit Type Entry Data and Word Configuration (Word Numbers are in Octal) (Sheet 3 of 7)

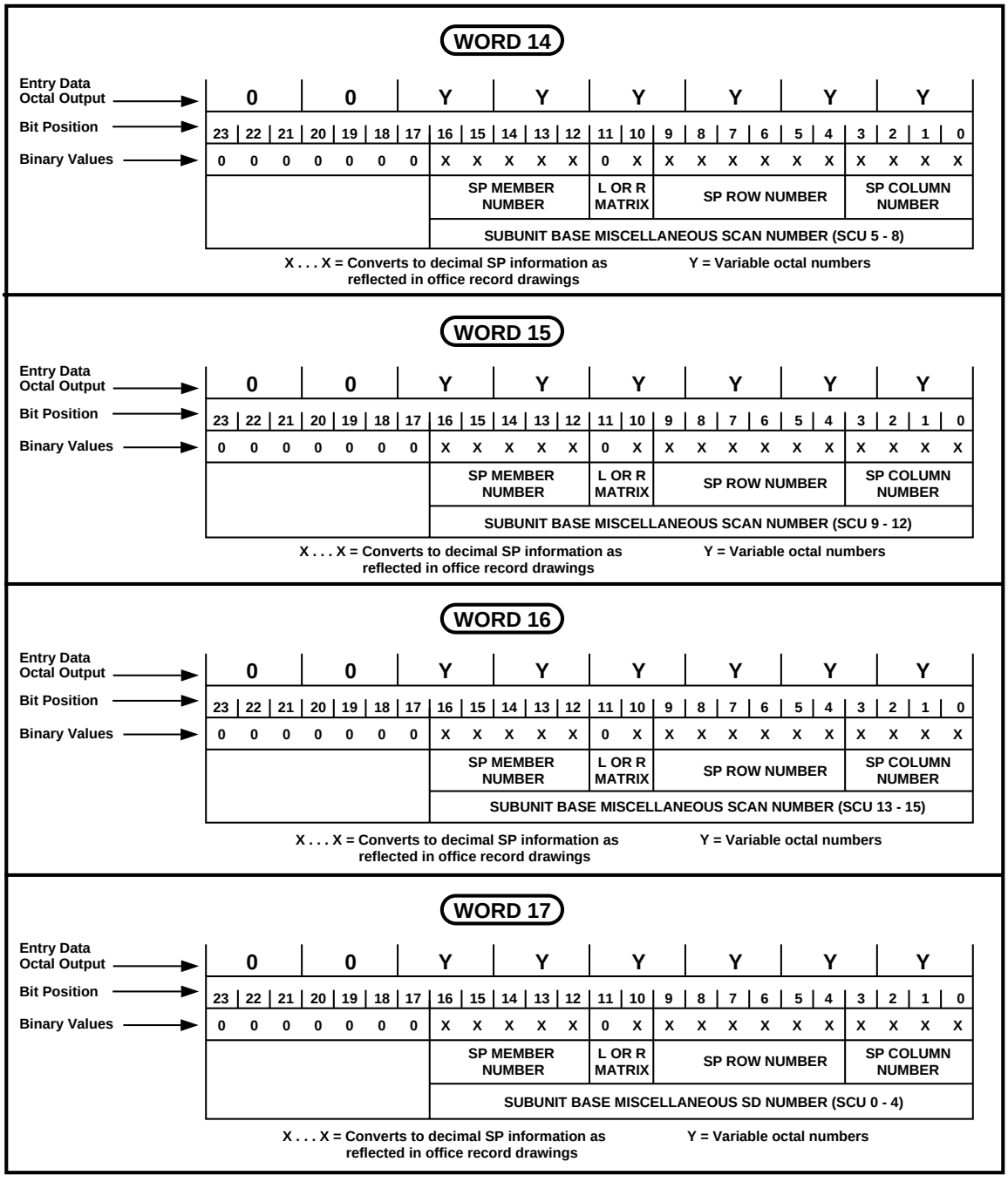

Figure 2. Unit Type Entry Data and Word Configuration (Word Numbers are in Octal) (Sheet 4 of 7)

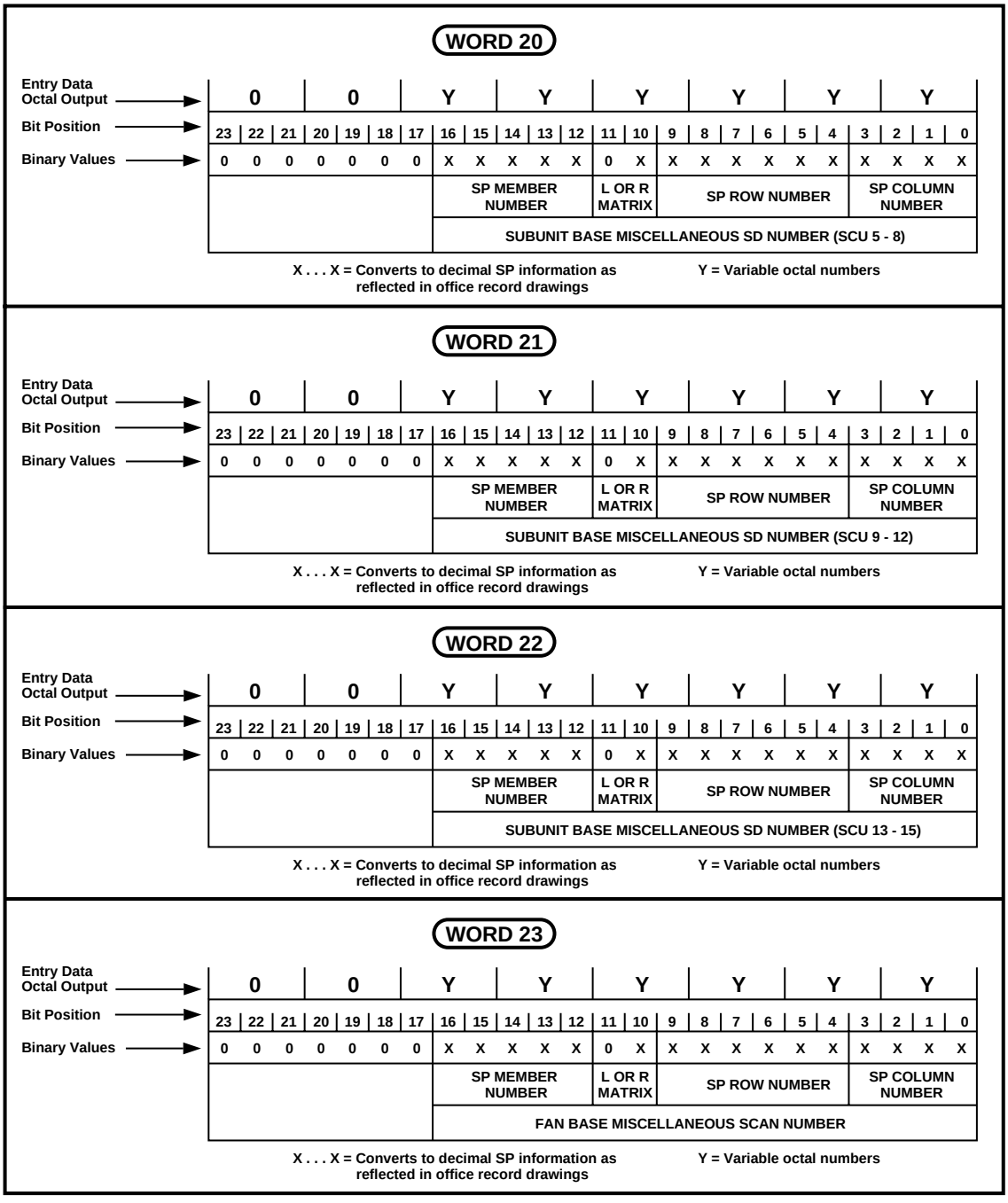

Figure 2. Unit Type Entry Data and Word Configuration (Word Numbers are in Octal) (Sheet 5 of 7)

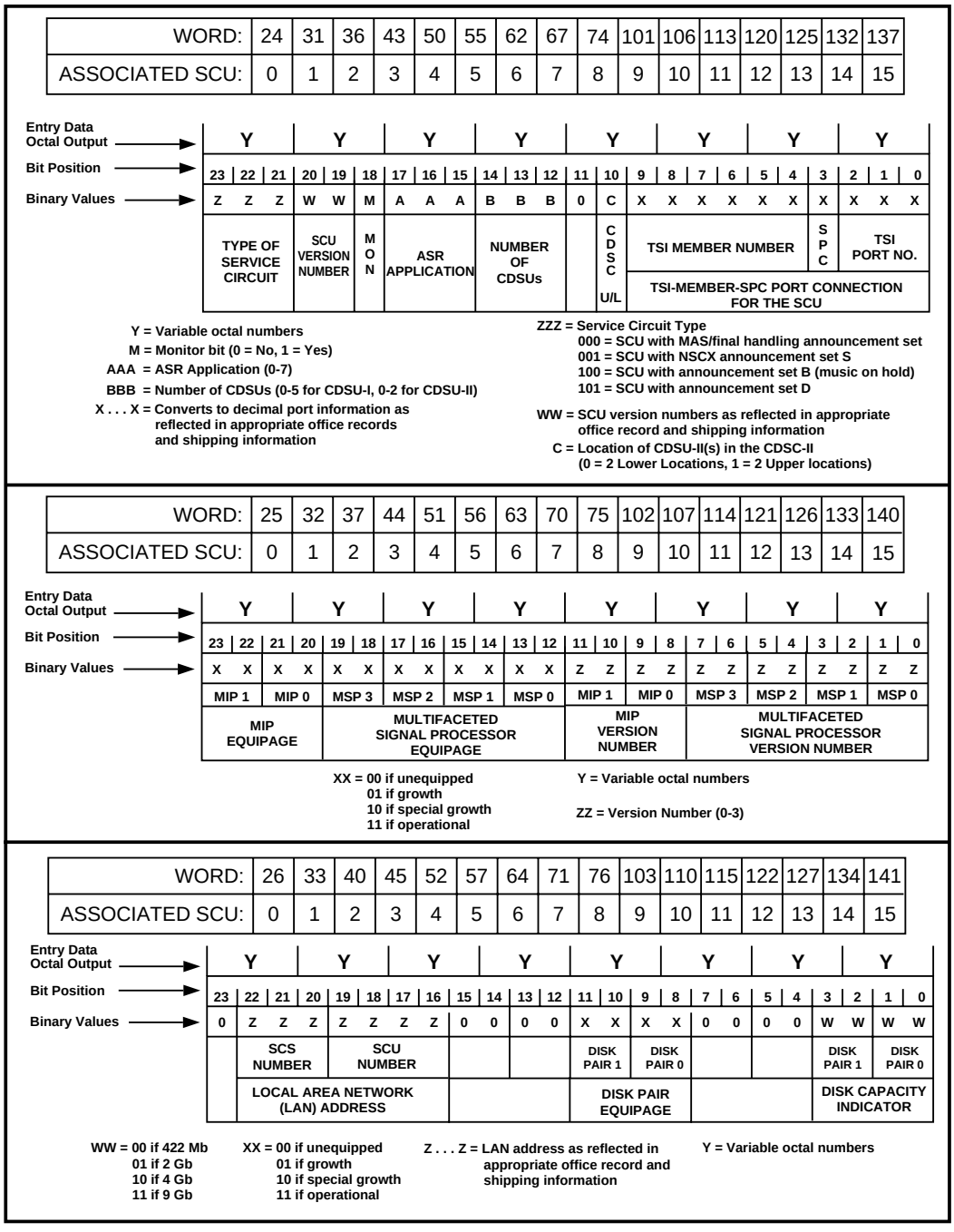

Figure 2. Unit Type Entry Data and Word Configuration (Word Numbers are in Octal) (Sheet 6 of 7)

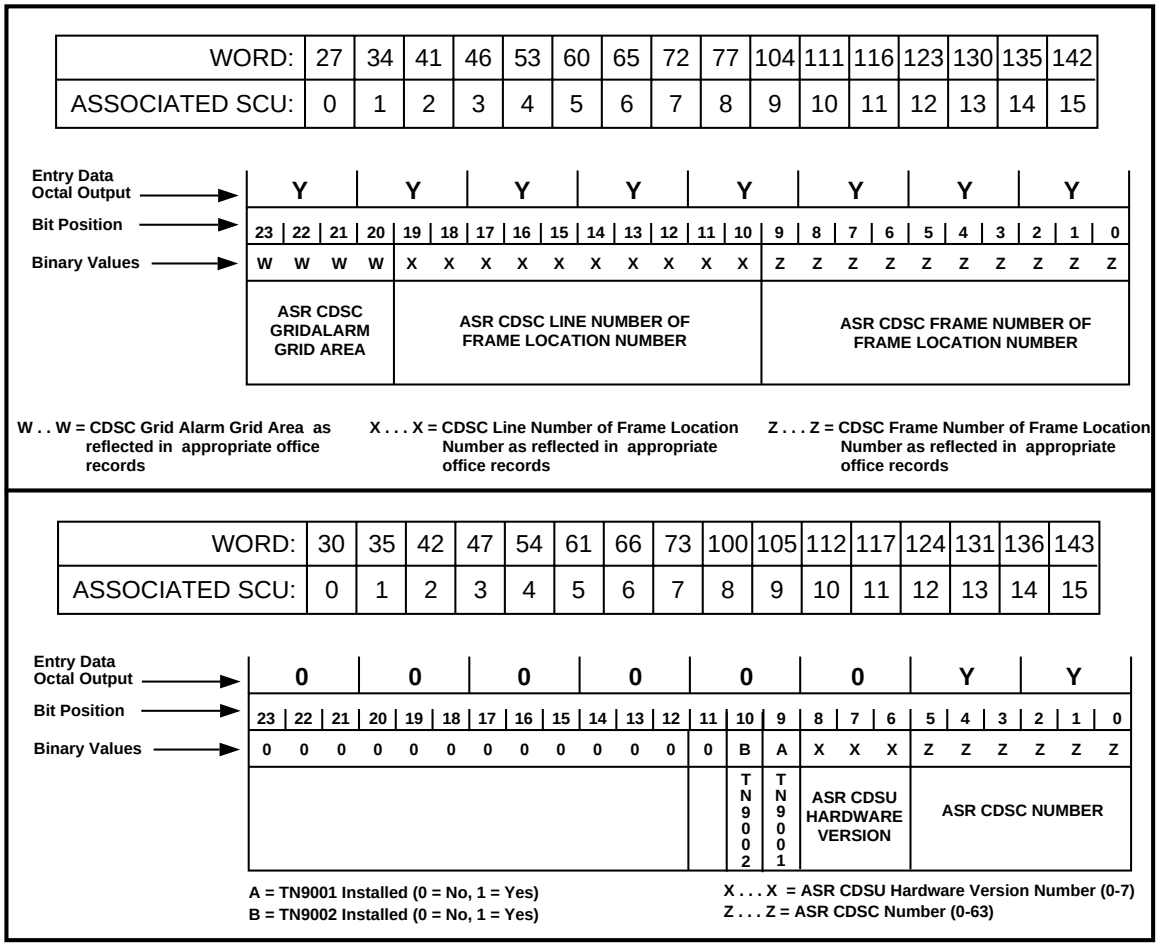

Figure 2. Unit Type Entry Data and Word Configuration (Word Numbers are in Octal) (Sheet 7 of 7)

Recent Change and Verify Each Associated Disk Pair, Multifaceted Signal Processor (MSP), and Multifunctional Interface Processor (MIP) Equipage From UNEQ to GROW Using Recent Change (RC) Form 703

Caution: Calling up an RC Form will cause all data on the screen to be cleared.

1. At the 1B Maintenance (MTC) terminal, enter **OP:RCFORM 703!**

   Response: Recent Change Form 703 appears on the screen.

2. At SCS, enter growth Member Number (0-7).

3. At SCU, enter the growth SCU Number (0-15).

4. At ORNU, enter a unique Order Number.

5. At MSBEQ location 0, enter **G** (grow).

   Note: If the SCU has more than one associated MSP circuit pack (TN1589), also enter **G** at locations 1 through 3 of MSBEQ, as required.

6. At MIPEQ, locations 0 and 1, enter **G** (grow).

7. At DSKEQ location 0, enter **G** (grow).

   Note: If SCU 0 is being grown and has more than one associated disk pair, also enter **G** at locations 1 through 3 of DSKEQ, as required.

8. If no REMARKS are needed, return the cursor to the top of the form by pressing HOME.

9. Press SEND/ENTER

   Response: `RC ORNU` *a* `SUCCESSFULLY TESTED` followed by
   `RC ORNU` *a* `SUCCESSFULLY BUFFERED` followed by all new entries.

   where *a* = RC Order Number

   Note: All entries should be checked for accuracy. If any entries are found to be incorrect, repeat Steps 1 through 9.

10. At the 1B MTC terminal, enter **RCACT:ORNU** *a***!**

    where *a* = RC Order Number

    Response: `RC ORNU` *a* `ACTIVATED` followed by all new entries.

    Note: All entries should be checked for accuracy. If any entries are found to be incorrect, repeat this DLP correcting the errors.

11. At the 1B MTC terminal, enter **VER:UTYPE:SCS** *x***!**

    where *x* = Member Number (0-7)

    Caution: When populating* DSKEQ *for a Type 2 (TN4000 - 4 Gb) disk pair at location 0 and/or 2, the adjacent locations 1 and/or 3 will also be populated when checking the Unit Type Translator. This is done automatically via recent change.

    Response:
    ```
    VER:UTMN;OPT(),CUR:
    FLN a
    UTYN b
    MEMN c
    ME d
    ENTRY ADDRESS e
    ENTRY SIZE f
    ```

    The above responses are followed by a complete printout of the SCS Unit Type entry data. Use this printout and Figure 1 to determine if the SCU data (MSP, MIP, and disk pair equipage) was properly entered.

    where *a* = Floor location number
    b = Unit type name
    c = Member number of growth associated complex
    d = Member equipage
    e = An 8-digit entry address
    f = A 2-digit entry size

12. **STOP! YOU HAVE COMPLETED THIS PROCEDURE.**

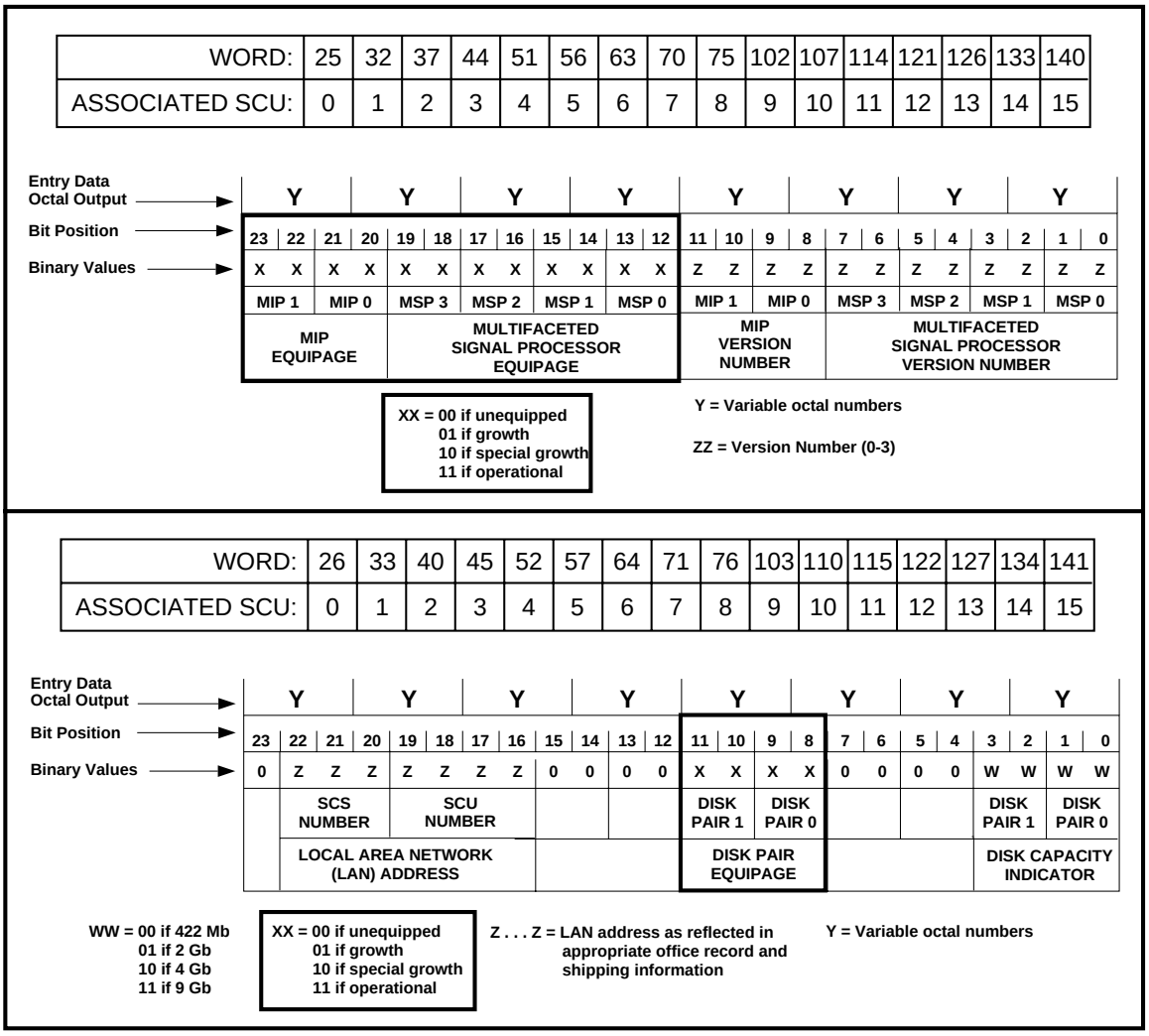

Figure 1. Words in SCS Unit Type Translator Used to Determine MSP, MIP, and Disk Pair Equipage

Recent Change and Verify Each Associated Disk Pair, Multifaceted Signal Processor (MSP), and Multifunctional Interface Processor (MIP) Equipage From GROW to SGRO Using Recent Change (RC) Form 703

Caution: Calling up an RC Form will cause all data on the screen to be cleared.

1. At the 1B Maintenance (MTC) terminal, enter **OP:RCFORM 703!**

   Response: Recent Change Form 703 appears on the screen.

2. At SCS, enter growth Member Number (0-7).

3. At SCU, enter the growth SCU Number (0-15).

4. At ORNU, enter a unique Order Number.

5. At MSBEQ location 0, enter **S** (special grow).

   Note: If the SCU has more than one associated Multifaceted Signal Processor circuit pack (TN1589), also enter **S** at locations 1 through 3 of MSBEQ, as required.

6. At MIPEQ, locations 0 and 1, enter **S** (special grow).

7. At DSKEQ location 0, enter **S** (special grow).

   Note: If SCU 0 is being grown and has more than one associated disk pair, also enter **S** at location 1 of DSKEQ, as required.

8. If no REMARKS are needed, return the cursor to the top of the form by pressing HOME.

9. Press SEND/ENTER

   Response: `RC ORNU` *a* `SUCCESSFULLY TESTED` followed by
   `RC ORNU` *a* `SUCCESSFULLY BUFFERED` followed by all new entries.

   where *a* = RC Order Number

   Note: All entries should be checked for accuracy. If any entries are found to be incorrect, repeat Steps 1 through 9.

10. At the 1B MTC terminal, enter **RCACT:ORNU** *a***!**

    where *a* = RC Order Number

    Response: `RC ORNU` *a* `ACTIVATED` followed by all new entries.

    Note: All entries should be checked for accuracy. If any entries are found to be incorrect, repeat this DLP correcting the errors.

11. At the 1B MTC terminal, enter **VER:UTYPE:SCS** *x***!**

    where *x* = Member Number (0-7)

    Caution: When populating* DSKEQ *for a Type 2 (TN4000 - 4 Gb) disk pair at location 0, the adjacent location 1 will also be populated when checking the Unit Type Translator. This is done automatically via recent change.

    Response:
    ```
    VER:UTMN;OPT(),CUR:
    FLN a
    UTYN b
    MEMN c
    ME d
    ENTRY ADDRESS e
    ENTRY SIZE f
    ```
    The above responses are followed by a complete printout of the Service Circuit System (SCS) Unit Type entry data. Use this printout and Figure 1 to determine if the SCU data (MSP, MIP, and disk pair equipage) was properly entered.

    where *a* = Floor location number
    b = Unit type name
    c = Member number of growth associated complex
    d = Member equipage
    e = An 8-digit entry address
    f = A 2-digit entry size

12. **STOP! YOU HAVE COMPLETED THIS PROCEDURE.**

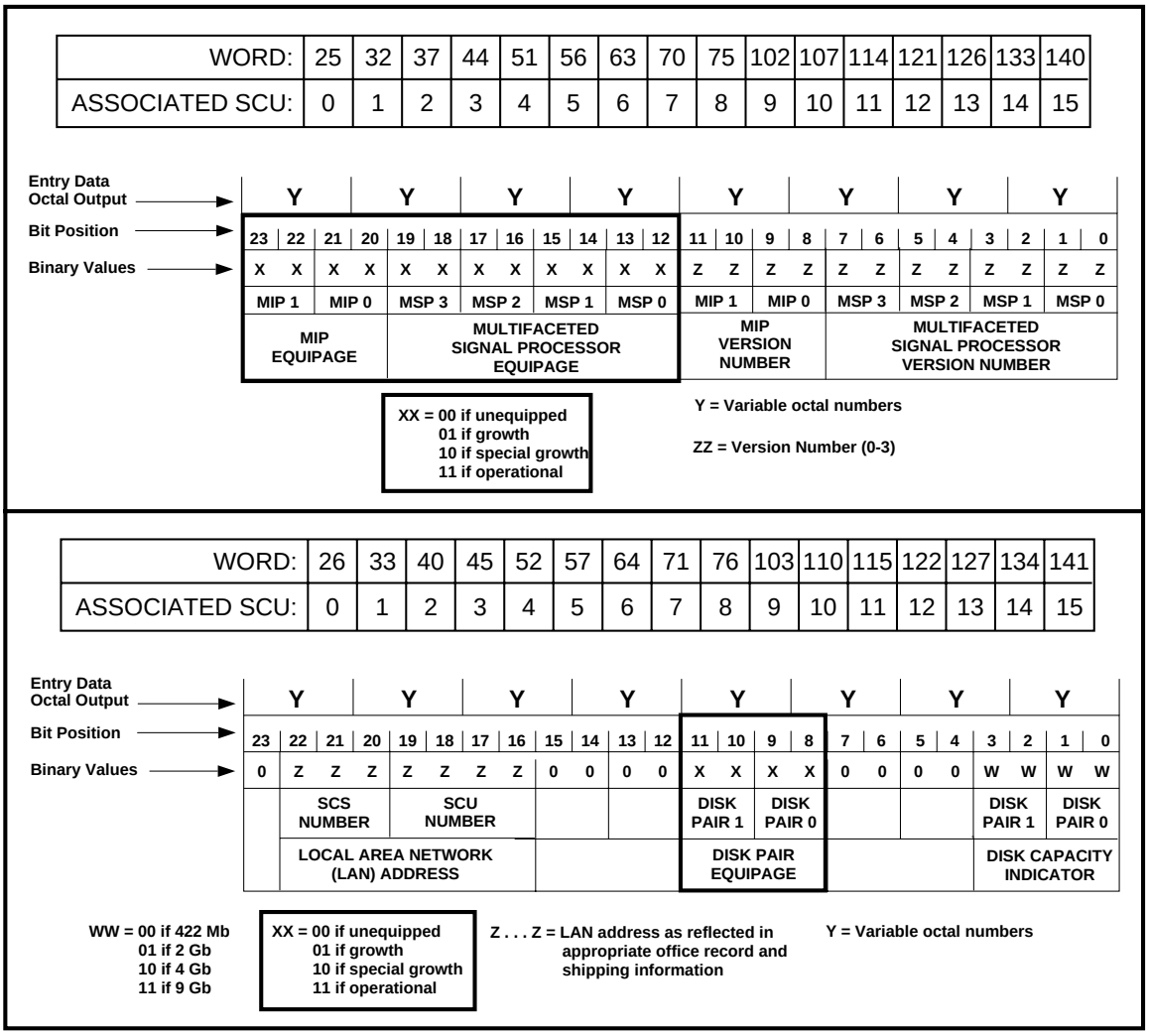

Figure 1. Words in SCS Unit Type Translator Used to Determine MSP, MIP, and Disk Pair Equipage

Recent Change and Verify Quantity of CDSU-Is Using Recent Change (RC) Form 703

Caution: Calling up an RC Form will cause all data on the screen to be cleared.

1. At the 1B Maintenance (MTC) terminal, enter **OP:RCFORM 703!**

   Response: Recent Change Form 703 appears on the screen.

2. At SCS, enter growth Member Number (0-7).

3. At SCU, enter the growth SCU Number (0-15).

4. At ORNU, enter a unique Order Number.

5. At NCDSU, enter the new total number of Custom Data Services Units (CDSUs) within the Custom Data Services Cabinet (CDSC) (1-5).

6. At ASRAPP, enter the ASR Application type (0-7).

7. At CDSU HV, enter **1** for CDSU-I.

8. At CDSC NUM, enter the CDSC Number (0-63).

9. If no REMARKS are needed, return the cursor to the top of the form by pressing HOME.

10. Press SEND/ENTER

    Response: `RC ORNU` *a* `SUCCESSFULLY TESTED` followed by
    `RC ORNU` *a* `SUCCESSFULLY BUFFERED` followed by all new entries.

    where *a* = RC Order Number

    Note: All entries should be checked for accuracy. If any entries are found to be incorrect, repeat Steps 1 through 10.

11. At the 1B MTC terminal, enter **RCACT:ORNU** *a***!**

    where *a* = RC Order Number

    Response: `RC ORNU` *a* `ACTIVATED` followed by all new entries.

    Note: All entries should be checked for accuracy. If any entries are found to be incorrect, repeat this DLP correcting the errors.

12. At the 1B MTC terminal, enter **VER:UTYPE:SCS** *x***!**

    where *x* = Member Number (0-7)

    Response:
    ```
    VER:UTMN;OPT(),CUR:
    FLN a
    UTYN b
    MEMN c
    ME d
    ENTRY ADDRESS e
    ENTRY SIZE f
    ```

    The above responses are followed by a complete printout of the SCS Unit Type entry data. Use this printout and Figure 1 to determine if the information was properly entered.

    where *a* = Floor location number
    b = Unit type name
    c = Member number of growth associated complex
    d = Member equipage
    e = An 8-digit entry address
    f = A 2-digit entry size

13. **STOP! YOU HAVE COMPLETED THIS PROCEDURE.**

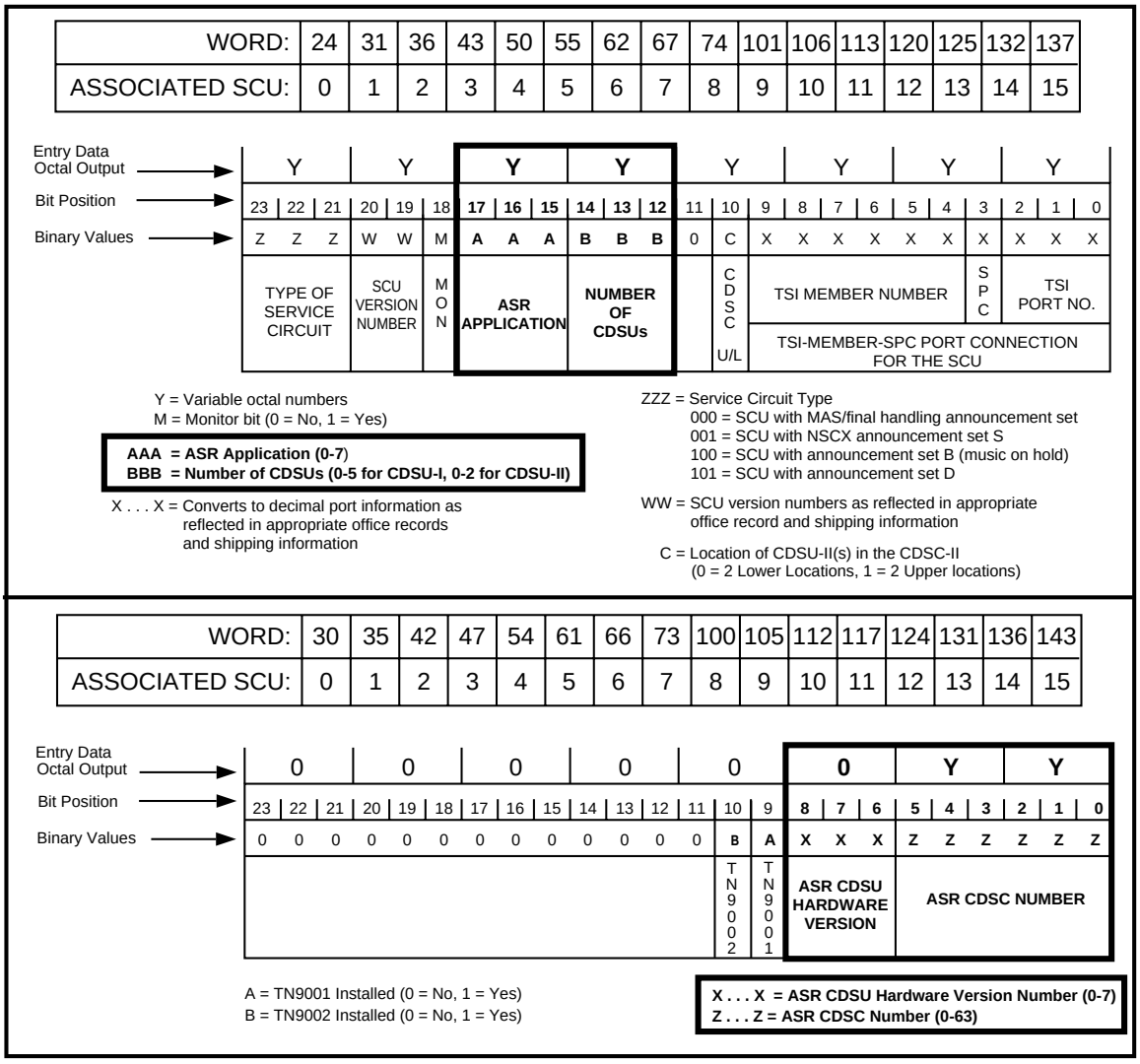

Figure 1. Words in SCS Unit Type Translator Used to Verify CDSU Options

Recent Change and Verify Multifaceted Signal Processor (MSP) Equipage for Optional MSP Circuit Packs Using Recent Change (RC) Form 703

Caution: Calling up an RC Form will cause all data on the screen to be cleared.

1. At the 1B Maintenance (MTC) terminal, enter **OP:RCFORM 703!**

   Response: Recent Change Form 703 appears on the screen.

2. At SCS, enter growth SCS Member Number (0-7).

3. At SCU, enter the growth SCU Number (0-15).

4. At ORNU, enter a unique Order Number.

5. At the appropriate MSBEQ locations (1-3, depending on the number of optional circuit packs), enter **P** (present).

6. If no REMARKS are needed, return the cursor to the top of the form by pressing HOME.

7. Press SEND/ENTER

   Response: RC ORNU *a* SUCCESSFULLY TESTED followed by
   RC ORNU *a* SUCCESSFULLY BUFFERED followed by all new entries.

   where *a* = RC Order Number

   Note: All entries should be checked for accuracy. If any entries are found to be incorrect, repeat Steps 1 through 7.

8. At the 1B MTC terminal, enter **RCACT:ORNU *a*!**

   where *a* = RC Order Number

   Response: RC ORNU a ACTIVATED followed by all new entries.

   Note: All entries should be checked for accuracy. If any entries are found to be incorrect, repeat this DLP, correcting the errors.

9. At the 1B MTC terminal, enter **VER:UTYPE:SCS x!**

   where *x* = Member Number (0-7)

   Response:
   ```
   VER:UTMN;OPT(),CUR:
   FLN a
   UTYN b
   MEMN c
   ME d
   ENTRY ADDRESS e
   ENTRY SIZE f
   ```

   The above responses are followed by a complete printout of the Service Circuit System (SCS) Unit Type entry data. Use this printout and Figure 1 to determine if the MSP equipage was properly entered.

   where *a* = Floor location number
   b = Unit type name
   c = Member number of growth associated complex
   d = Member equipage
   e = An 8-digit entry address
   f = A 2-digit entry size

10. **STOP! YOU HAVE COMPLETED THIS PROCEDURE.**

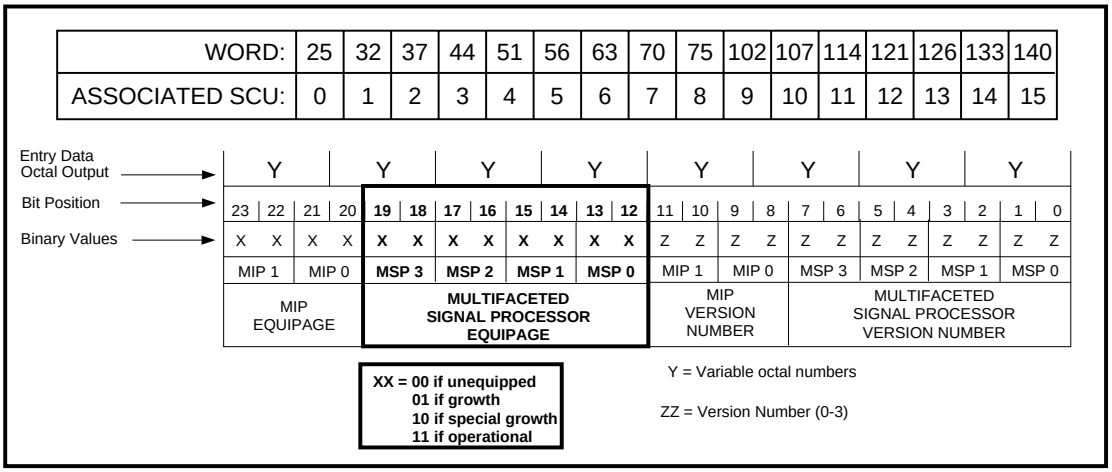

Figure 1. Words in SCS Unit Type Translator Used to Verify MSP Equipage

Populate Optional MSP Circuit Packs

Note: To determine the location of the SCUs and their associated Hard Disk Pairs, see Figure 1 for the Service Circuit Controller Cabinet and Figure 2 for the Service Circuit Unit Cabinet.

1. Install the TN1589 Key Holders on the circuit pack side of the backplane. (See J4A024AB-1.) (See Figure 3 for circuit pack location.)

   The R-5614 key installation tool is used to install the key holders. Instructions for its use are listed below and are also printed on the side of the tool.

   A. Insert the key onto the key holder, aligning the holder notches on the key and key holder.

   B. Insert the tool into the apparatus mounting card guides. Slide the key onto the backplane pins until the latch can be closed.

   C. Unlatch the tool and withdraw it from the apparatus mounting.

      Note: When properly installed, the plastic detents in the key snap over the shoulder of the backplane pins.

2. Install the optional TN1589 MSP circuit packs at the appropriate locations as shown in Figure 3.

   Caution: When populating the optional MSP circuit packs (MSP1, MSP2, and MSP3), the appropriate additional strap(s) (CC# 102898509) must be installed to ensure proper current selection within the TN1984 Master Power Controller circuit pack. Ensure that the appropriate straps have been installed as shown in Table A and Figure 4.

TABLE A Strap Locations

MSP	POWER BRANCH	STRAP EQL	STRAP PINS	CURRENT
1	E	04-008	247 - 248	5 amp.
2	C	04-008	351 - 352	10 amp.
3	C	04-008	251 - 252	5 amp.

3. **STOP! YOU HAVE COMPLETED THIS PROCEDURE.**

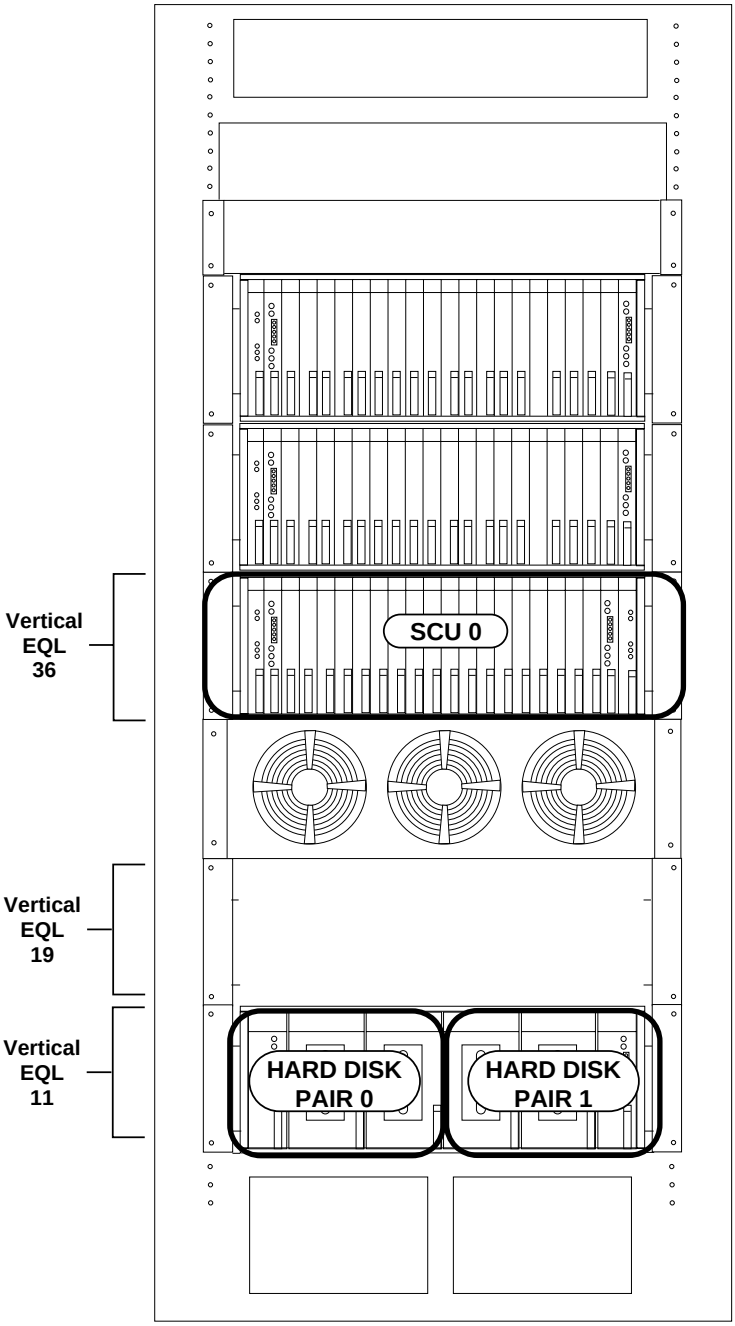

Figure 1. Location of SCUs and Disk Pairs in the SCCC

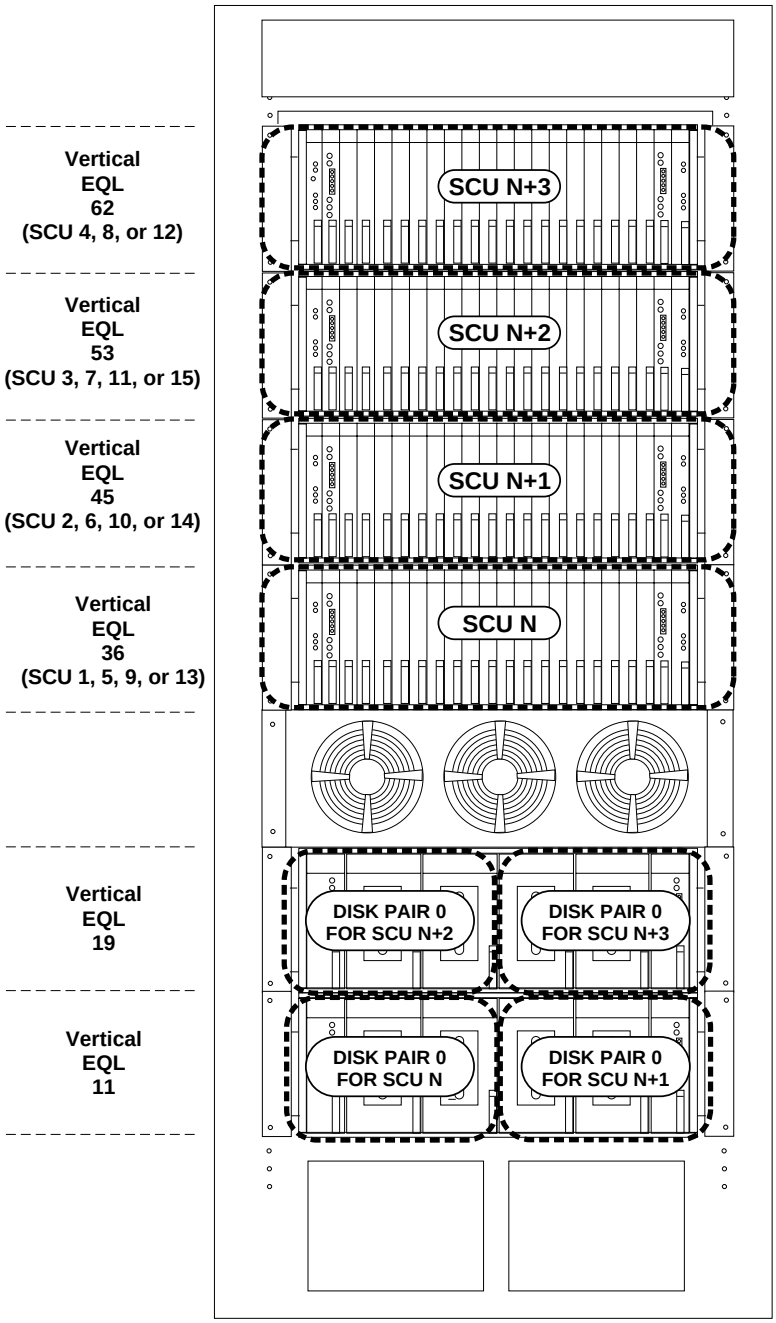

Figure 2. Location of SCUs and Disk Pairs in the SCUC

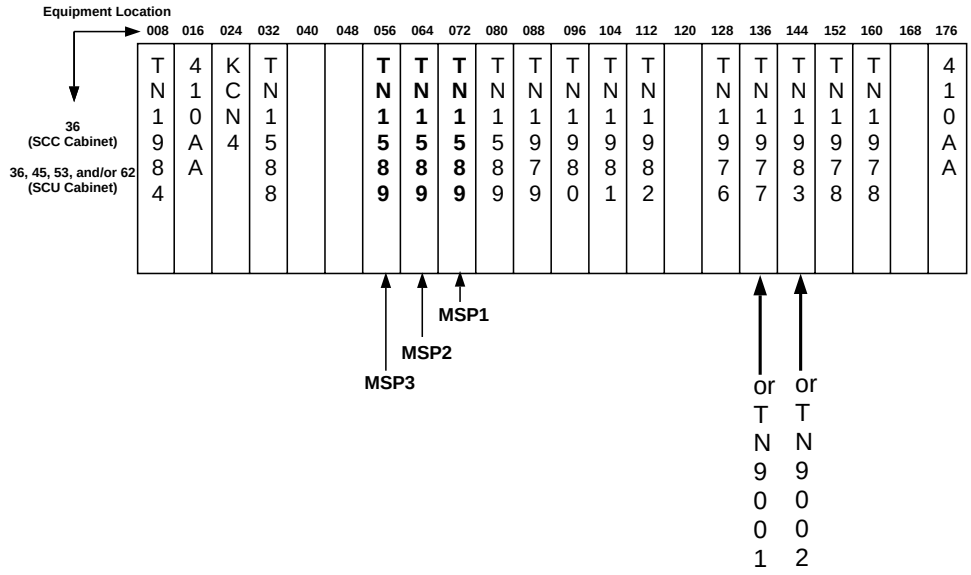

Figure 3. SCU Circuit Pack Locations

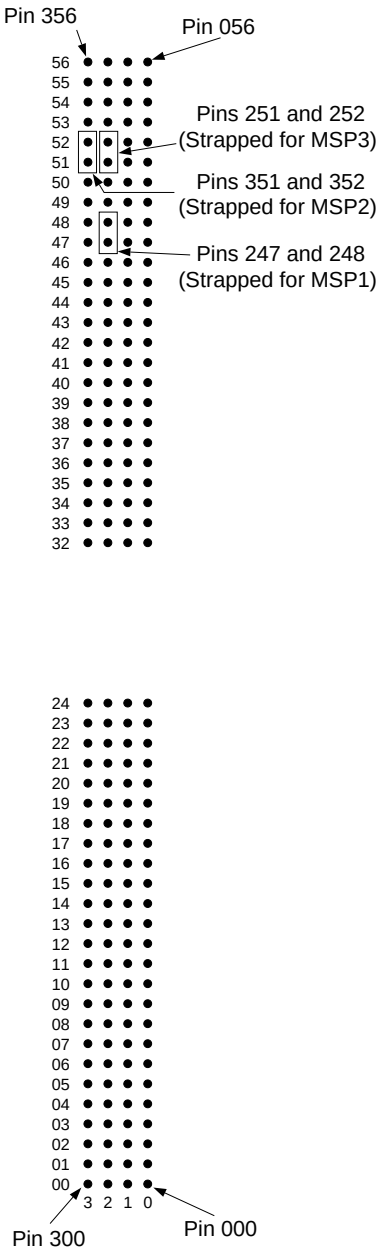

Figure 4. Strap Locations for TN1984 Circuit Pack (As Viewed From Rear of Cabinet)

Verify Custom Data Services Cabinet (CDSC) Grid Lineup Frame (GLF) Number

1. At the 1B Maintenance (MTC) terminal, enter **VER:UTYPE:SCS** *x***!**

   where *x* = Member Number (0-7)

   Response: The information shown in Figure 1 is displayed.

   Note: The words shown in Figure 1 are in **octal** format.

VER:UTMN;OPT(),CUR: **FLN** *a* **UTYN** *b*

MEMN *c* **ME** *d*
ENTRY ADDRESS *e* **ENTRY SIZE** *f*

CUR				
WORD 0	_____ _____	_____ _____	_____ _____	_____ _____
WORD 10	_____ _____	_____ _____	_____ _____	_____ _____
WORD 20	_____ _____	_____ _____	_____ _____	_____ _____
WORD 30	_____ _____	_____ _____	_____ _____	_____ _____
WORD 40	_____ _____	_____ _____	_____ _____	_____ _____
WORD 50	_____ _____	_____ _____	_____ _____	_____ _____
WORD 60	_____ _____	_____ _____	_____ _____	_____ _____
WORD 70	_____ _____	_____ _____	_____ _____	_____ _____
WORD 100	_____ _____	_____ _____	_____ _____	_____ _____
WORD 110	_____ _____	_____ _____	_____ _____	_____ _____
WORD 120	_____ _____	_____ _____	_____ _____	_____ _____
WORD 130	_____ _____	_____ _____	_____ _____	_____ _____
WORD 140	_____	_____	_____	_____

a **= Floor location number**
b **= Unit type name**
c **= Member number of growth associated complex**
d **= Member equipage**
e **= 8-digit entry address**
f **= 2-digit entry size**

Figure 1. SCS Unit Type Translator

2. Is the message format and member identification correct as shown in Figure 1?

   If **YES**, continue to Step 3.

   If **NO**, determine and resolve the cause and repeat from Step 1.

3. Using the correct GLF octal word supplied in the "332 Job Specification" for comparison, verify that the GLF word in the Unit Type Translator (Figure 1) is correct for the appropriate SCU/CDSC. Figure 2 shows the layout of the GLF word for each SCU.

   If the **GLF is correct**, continue to Step 18.

   If the **GLF is not correct**, continue to the next step.

   Note: If the "332 Job Specification" is not available, contact Customer Service, using the number provided in the Main Material Order (MMO).

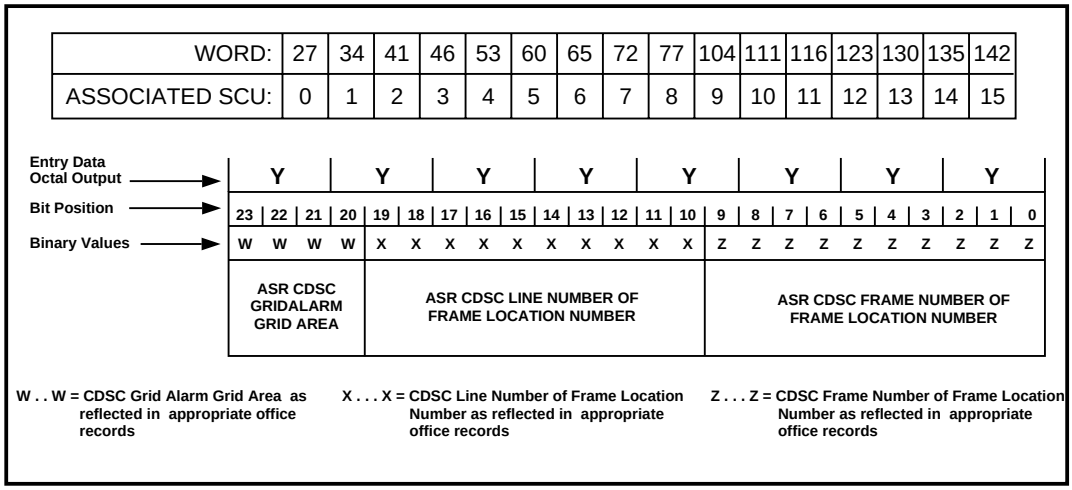

Figure 2. GLF Word in Unit Type Translator

4. At the Recent Change/Verify (RC/V) Terminal, enter: **OP:RCFORM 801!**

   Response: Recent Change Form 801 appears on the screen.

5. At `RC:FUNC;CHG;OPT(TRANS)`, enter **FTA**

6. At TRANSID, enter **UTSCS**.

7. At ORNU, enter a unique Order Number assigned to this word change.

8. At ENTRY, enter the SCS Member Number requiring change (only 0-3 are valid).

9. At WORDNO, enter the decimal number of the appropriate SCU word in translations:

SCU	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Decimal Word	23	28	33	38	43	48	53	58	63	68	73	78	83	88	93	98

10. At SIZE, enter **24**.

11. At DISP, enter **0**.

12. At BINOCT, enter **O**.

13. At NEWDATA, enter the correct 8-digit octal GLF number (provided in the "332 Job Specification").

14. At OLDDATA, enter the existing 8-digit octal GLF number (from the Unit Type Translator).

15. If no REMARKS are needed, return the cursor to the top of the form by pressing HOME.

16. Press SEND/ENTER

    Response: RC ORNU *a* ACTIVATED followed by all new entries.

    where *a* = RC Order Number

    Note: All entries should be checked for accuracy. If any entries are found to be incorrect, repeat Steps 4 through 16.

17. Return to Step 1 to verify that the newly entered GLF is correct.

18. **STOP! YOU HAVE COMPLETED THIS PROCEDURE.**

Connect Monitor and Keyboard to a CDSU-I

Note: If the Custom Data Services Unit-I (CDSU-I) monitor and keyboard are already connected to another CDSU-I within the same Custom Data Services Cabinet (CDSC), it is not necessary to move the monitor and keyboard. You can log in remotely to any CDSU-I within the same CDSC by entering the following at the CDSU-I keyboard:
rlogin cds*xyyzz*

where *x* = SCS member number (0-7)
yy = SCU Submember number (00-15)
zz = CDSU-I number (00-04 for Phase 1 ASR)

1. At the rear of the CDSU-I, connect the keyboard cable to the upper connector at location A18 (see Figure 1).

2. At the rear of the CDSU-I, connect the monitor cable to the connector at location A2 (see Figure 1).

3. **STOP! YOU HAVE COMPLETED THIS PROCEDURE.**

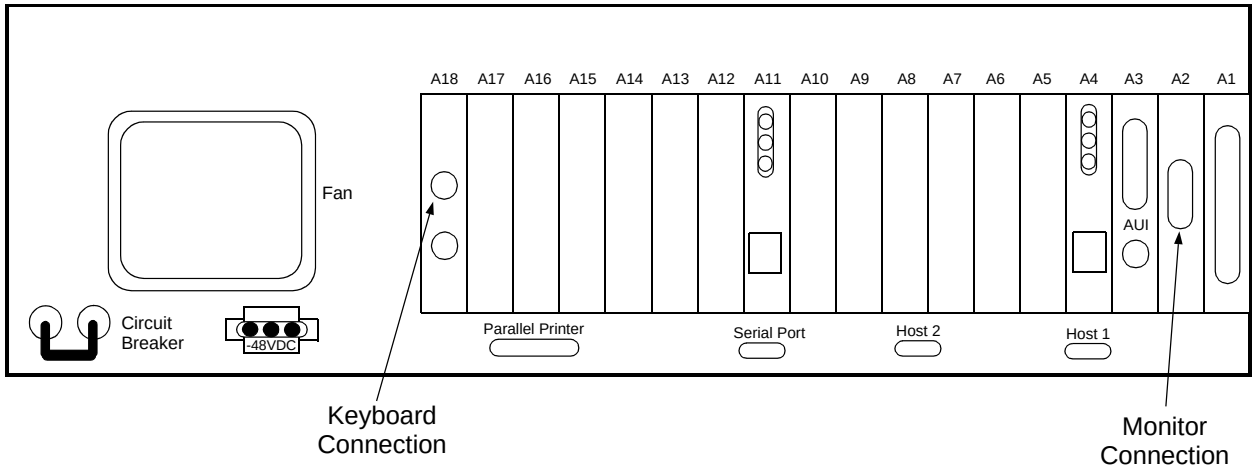

Figure 1. CDSU-I Monitor and Keyboard Connections

CDSU-II — Connect CDSU Monitor and Keyboard

Note: If the Custom Data Services Unit-II (CDSU-II) monitor and keyboard are already connected to another CDSU-II within the same Custom Data Services Cabinet-II (CDSC-II), it is not necessary to move the monitor and keyboard. You can log in remotely to any CDSU-II within the same CDSC-II by entering the following at the CDSU-II keyboard:
rlogin cds*xyyzz*

where *x* = SCS Member Number (0-7)
yy = SCU Submember Number (00-15)
zz = CDSU-II Number (00-03)

1. At the rear of the CDSU-II, connect the keyboard cable to the keyboard connector (see Figure 1).

   Note: There is an optional keyboard connector located on the CPU board. Either connector can be used.

2. At the rear of the CDSU-II, connect the monitor cable to the connector at location P2 (see Figure 1).

3. **STOP! YOU HAVE COMPLETED THIS PROCEDURE.**

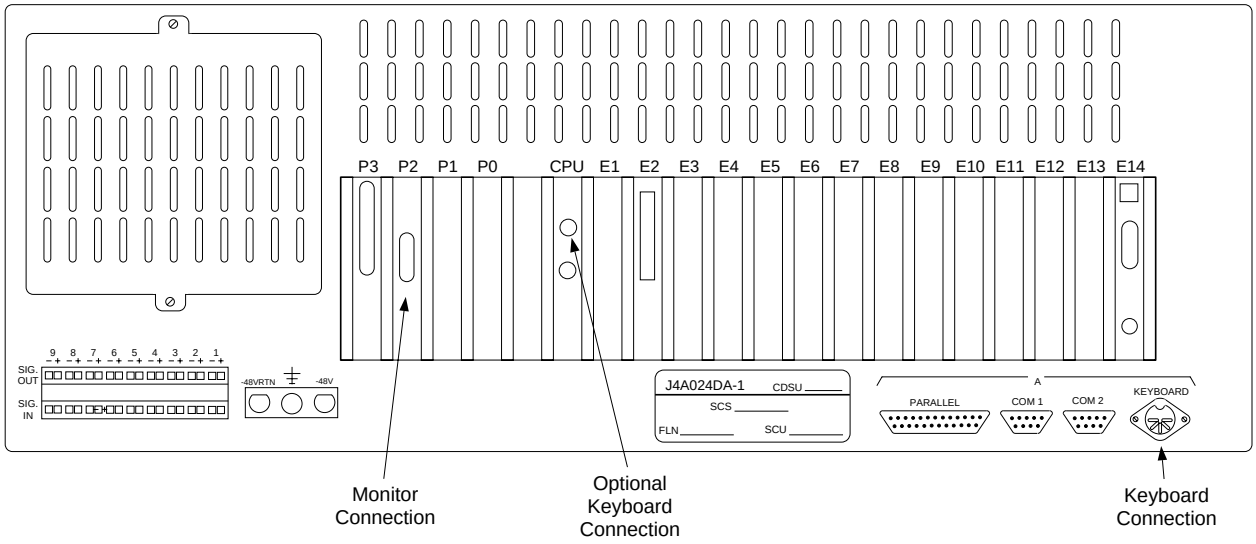

Figure 1. CDSU-II Monitor and Keyboard Connections

BWM/SU Status Report for the AAP—Generate

Summary: This section tells how to generate a Broadcast Warning Message/Software Update (BWM/SU) status report in order to monitor the BWMs/SUs that have been downloaded to an Announcement Administration Processor (AAP). This report lists the BWM/SUs by ID and status (that is, those pending, applied, and ‘‘permed’’).

1. To get the BWM/SU, access the Craft Shell interface and enter the following command:

   IN:REMOTE:REPORT

   Response:

```
IN:REMOTE:REPORT In_Progress
IN:REMOTE:REPORT output, Part 1 of 2
Status of UUCP BWM download
---------------------------
<Status>
<Output>
ENTRIES IN THE /etc/bwm DIRECTORY
---------------------------------
/etc/bwm/<update>
Currently perm’d and currently applied BWMs
-------------------------------------------
Currently perm’d BWM is:  <update>
Currently applied BWM is:  <update>
```

2. **STOP! YOU HAVE COMPLETED THIS TASK.**

CDSU BWM/SU—Apply

Summary: When a Broadcast Warning Message/Software Update (BWM/SU) is applied, it is placed in a temporary state which makes it available for Custom Data Services Unit (CDSU) use, even though it is not yet in a permanent state.

WARNING: Refer to the SCANS file for special instructions before applying this BWM/SU. Before applying a BWM, the SCU must be removed from service and proper notifications of SCU removal must be made.

1. Is the BWM/SU being applied higher in number than ‘‘currently applied?’’

   If **YES**, continue to Step 2.
   If **NO**, go to Step 4.

2. Does the BWM/SU have ‘‘CFT’’ or ‘‘BWM’’ status?

   If **CFT**, enter: **UPD:CDSUBWM:APPLY:CFT***xx-yyyy***:SCS=***a***,SCU=***b***[,UNIT=***c***]**
   If **BWM**, enter: **UPD:CDSUBWM:APPLY:BWM***xx-yyyy***:SCS=***a***,SCU=***b***[,UNIT=***c***]**

   where *xx* = Last 2 digits of the year
   yyyy = Unique 4-digit number associated with the CFT or BWM
   a = SCS Number
   b = SCU Number
   c = CDSU Number

   Response: `UPD:CDSUBWM:APPLY Completed`

3. Did the BWM/SU apply complete successfully?

   If **YES**, go to Step 6.
   If **NO**, follow the specified action in any associated failure message or go to Step 7.

4. Does the BWM/SU that is to be applied have ‘‘CFT’’ status?

   If **YES**, enter: **UPD:CDSUBWM:APPLY:CFT***xx-yyyy***:SCS=***a***,SCU=***b***[,UNIT=***c***]:NIO**
   If **NO**, enter: **UPD:CDSUBWM:APPLY:BWM***xx-yyyy***:SCS=***a***,SCU=***b***[,UNIT=***c***]:NIO**

   where *xx* = Last 2 digits of the year
   yyyy = Unique 4-digit number associated with the CFT or BWM
   a = SCS Number
   b = SCU Number
   c = CDSU Number

   Response: `UPD:CDSUBWM:APPLY Completed`

   Caution: It should also be noted that the use of the Not In Order (NIO) option could cause overwriting of data associated with other BWMs/SUs. There is NO AUTOMATIC PROTECTION against corrupting or destroying other data when using the* NIO *option.

5. Did the BWM/SU apply complete successfully?

   If **YES**, go to Step 6.
   If **NO**, follow the specified action in any associated failure message or go to Step 7.

6. **STOP! YOU HAVE COMPLETED THIS PROCEDURE.**

7. **STOP! PROCEDURE CANNOT BE COMPLETED AT THIS TIME.** Contact the next level of support.

Verify Service Circuit System (SCS) Unit Type Translator for Growth Service Circuit Units (SCUs) 0-15 With ASR-Phase 2

Note: If, during this procedure, the value of any of the words in the Unit Type Translator are not what they should be, **DLP-515 can be used to perform a functional word change**.

PRIOR TO ANY DATA CHANGES NOTIFY THE NEXT LEVEL OF SUPPORT.

1. At the 1B Maintenance (MTC) terminal, enter **VER:UTYPE:SCS x!**

   where *x* = Member Number (0-7)

   Response: The information shown in Figure 1 is displayed.

   Note: The words shown in Figure 1 are in **octal** format.

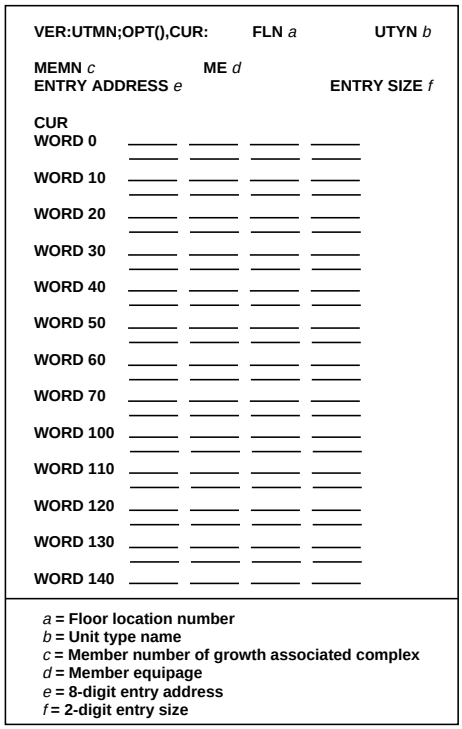

Figure 1. SCS Unit Type Translator

2. Is the message format and member identification correct as shown in Figure 1?

   If **YES**, continue to Step 3.

   If **NO**, determine and resolve the cause and repeat from Step 1.

3. Using TTY output and Figure 2 (beginning on page 9), check that the growth SCU(s) Submember Equipage bits per word 0 and/or 12 are set to **0**.

   If these bits are **set to 0**, continue to Step 4.

   If these bits are **not set to 0**, do one of the following:

   Use RC Form 701 to degrow submember equipage to unequipped (See DLP-513 [OPER to SGRO], DLP-535 [SGRO to GROW], and/or DLP-536 [GROW to UNEQ], depending on current equipage.)

   or

   Use RC Form 801 to perform a functional word change to change the desired bits to 0 (DLP-515).

   Caution: Depending on local procedures, supervisory or Telco engineering approval must be obtained prior to performing any data change.

4. Using the TTY output and Figure 2 (beginning on page 9), verify the Signal Distributor (SD) assignments for the growth SCU(s) per words 17, 20, 21, and/or 22 as follows.

   A. Convert octal digits of entry output data words to decimal Signal Processor (SP) member, row, and column numbers, and record results. If the fourth rightmost octal digit of a word is **2** or **3**, add decimal 64 to the SP row number determined for that word.
   B. Search the **ROW** and **COLUMN** listings in the appropriate office record drawings (TAGS) and locate the row and column previously recorded for each of the indicated words. If the associated **UNIT TYPE** and **FRM NO** do not agree with the growth frame, record the discrepancy for later use.

5. Using the TTY output and Figure 2 (beginning on page 9), verify the scan point assignments for the growth SCUs per words 13, 14, 15, and/or 16 as follows.

   A. Convert octal digits of entry output data words to decimal SP member, row, and column numbers, and record results. If the fourth rightmost octal digit of a word is **2** or **3**, add decimal 64 to the SP row number determined for that word.
   B. Search the **ROW** and **COLUMN** listings in the appropriate office record drawings and locate the row and column previously recorded for each of the indicated words. If the associated **UNIT TYPE** and **FRM NO** do not agree with the growth frame, record the discrepancy for later use.

6. Using the TTY output and Figure 2 (beginning on page 9), verify the Service Circuit Type per the words shown in Table A. (The correct Service Circuit Type was recorded in Step 9 of NTP-018.)

   Note: Prior to this verification, you must know which announcement set is assigned to each growth SCU.

TABLE A Octal Words and Associated SCUs for Service Circuit Type and TSI Port Assignment Determination

SCU	Word	SCU	Word	SCU	Word	SCU	Word
0	24	4	50	8	74	12	120
1	31	5	55	9	101	13	125
2	36	6	62	10	106	14	132
3	43	7	67	11	113	15	137

7. Using the TTY output and Figure 2 (beginning on page 9), verify growth SCU(s) to Time Slot Interchange (TSI) port assignment per the words in Table A.

   A. Convert the octal digits representing TSI information to decimal.
   B. Compare the calculated data for the TSI member number, SPC, and TSI Port number to the appropriate office records containing SCU to TSI Port assignments, and record any discrepancies.

8. Using the TTY output and Figure 2 (beginning on page 9), verify that growth MSP and MIP equipage bits are set to **0** per the words in Table B, and note any discrepancies.

TABLE B Octal Words and Associated SCUs for MSP and MIP Equipage Verification

SCU	Word	SCU	Word	SCU	Word	SCU	Word
0	25	4	51	8	75	12	121
1	32	5	56	9	102	13	126
2	37	6	63	10	107	14	133
3	44	7	70	11	114	15	140

9. Using the TTY output and Figure 2 (beginning on page 9), verify that the Disk Pair Equipage bits per the words in Table C are set to **00** for each growth SCU and note any discrepancies.

TABLE C Octal Words and Associated SCUs for Disk Capacity, Disk Pair Equipage, and LAN Address Verification

SCU	Word	SCU	Word	SCU	Word	SCU	Word
0	26	4	52	8	76	12	122
1	33	5	57	9	103	13	127
2	40	6	64	10	110	14	134
3	45	7	71	11	115	15	141

10. Using the TTY output and Figure 2 (beginning on page 9), verify the LAN address per the words in Table C, and note any discrepancies. The LAN address should be the SCS member number multiplied by 16, plus the SCU number.

11. Using the TTY output and Figure 2 (beginning on page 9), verify that the Disk Capacity bits per the words in Table C match office hardware. The bits for each disk pair should be set to **00** for 422 MB disk pairs (TN1672 circuit packs), **01** for 2 GB disk pairs (TN1972 circuit packs), or **10** for 4 GB disk pairs (TN4000 circuit packs), or **11** for 9 GB disk pairs (TN9000 circuit packs).

Caution: SCU 0 can physically support two disk pairs (0 and 1). When populating disk capacity bits for SCU 0, adhere to the following rules:

- ***Type 0 (TN1672 circuit packs) can be populated in both disk pair locations.***
- ***Type 1 (TN1972 circuit packs) can be populated in both disk pair locations.***
- ***Type 2 (TN4000 circuit packs) can only be populated as shown in Table D.***
- ***Type 3 (TN9000 circuit packs) can only be populated as shown in Table D.***

Note: If a 4 GB disk pair is being grown, and DLP-515 is used to update the Unit Type Translator, the adjacent disk pair location must also be populated.

TABLE D Allowable Disk Pair Configurations for Circuit Packs in SCU 0

Allowable Disk Pair Types	
Disk Pair Location 0	**Disk Pair Location 1**
2	X
0	0
0	1
1	0
3	X
"X" indicates disk pair locations that **must be unpopulated**.	

12. Is the growth SCU being used for the AT&T Trigger Platform (ATP) feature? (See Step 9 of NTP-018.)

    If **YES**, continue to Step 13.

    If **NO**, go to Step 14.

13. Using the TTY output and Figure 2 (beginning on page 9), verify that the Monitor bit (bit 18) per the words in Table E has been set to **1** for the growth SCU.

TABLE E Octal Words and Associated SCUs for Monitor Bit Verification

SCU	Word	SCU	Word	SCU	Word	SCU	Word
0	24	4	50	8	74	12	120
1	31	5	55	9	101	13	125
2	36	6	62	10	106	14	132
3	43	7	67	11	113	15	137

14. Using the TTY output and Figure 2 (beginning on page 9), verify the **ASR Application** (bits 15-17) (Table F) per the words shown in Table G. (See Step 9 of NTP-018 for ASR Application.)

TABLE F ASR Application

Bits 17,16, and 15	ASR Application
000	0 (ASR not equipped)
001	1 (NSCX Replacement and ATP)
010	2 (For future use)
011	3 (For future use)
100	4 (For future use)
101	5 (For future use)
110	6 (For future use)
111	7 (For future use)

TABLE G Octal Words and Associated SCUs for Determination of ASR Application and Number of CDSUs

SCU	Word	SCU	Word	SCU	Word	SCU	Word
0	24	4	50	8	74	12	120
1	31	5	55	9	101	13	125
2	36	6	62	10	106	14	132
3	43	7	67	11	113	15	137

15. Using the TTY output and Figure 2 (beginning on page 9), verify the **Number of Custom Data Services Units (CDSUs)** (bits 12-14) (Table H) per the words shown in Table G. (See Step 9 of NTP-018 for number of CDSUs.)

TABLE H Number of CDSUs

Bits 14,13, and 12	Number of CDSUs
000	None
001	1
010	2
011	Not applicable
100	Not applicable
101	Not applicable
110	Not applicable
111	Not applicable

16. Using the TTY output and Figure 2 (beginning on page 9), verify the **ASR Custom Data Services Cabinet (CDSC) Number** (bits 0-5) per the words shown in Table I. The correct CDSC number is supplied in the "332 Job Specification."

TABLE I Octal Words and Associated SCUs for Determination of CDSC Number

SCU	Word	SCU	Word	SCU	Word	SCU	Word
0	30	4	54	8	100	12	124
1	35	5	61	9	105	13	131
2	42	6	66	10	112	14	136
3	47	7	73	11	117	15	143

17. Using the TTY output and Figure 2 (beginning on page 9), verify the **ASR Custom Data Services Unit (CDSU) Hardware Version** (bits 6-8) per the words shown in Table I. These bits should be **010**.

18. Using the TTY output and Figure 2 (beginning on page 9), verify the location of the CDSUs within the CDSC (bit 10) per the words shown in Table G. A value of **0** indicates the two lower CDSU locations. A value of **1** indicates the two upper CDSU locations.

19. Were any discrepancies found in Steps 4 through 18?

    If **YES**, continue to Step 20.

    If **NO**, go to Step 24.

20. Was the error found to be in the Unit Type entry data or the office records?

    If **Unit Type entry data**, continue to Step 21.

    If **office records**, go to Step 24.

21. If not already done, use DLP-515 to perform functional word changes as needed.

22. Have all Unit Type data errors now been corrected?

    If **NO**, continue to Step 23.

    If **YES**, go to Step 24.

23. Assist the installer in taking appropriate corrective action as determined by regional engineering and as approved by office supervisor.

24. **STOP! YOU HAVE COMPLETED THIS PROCEDURE.**

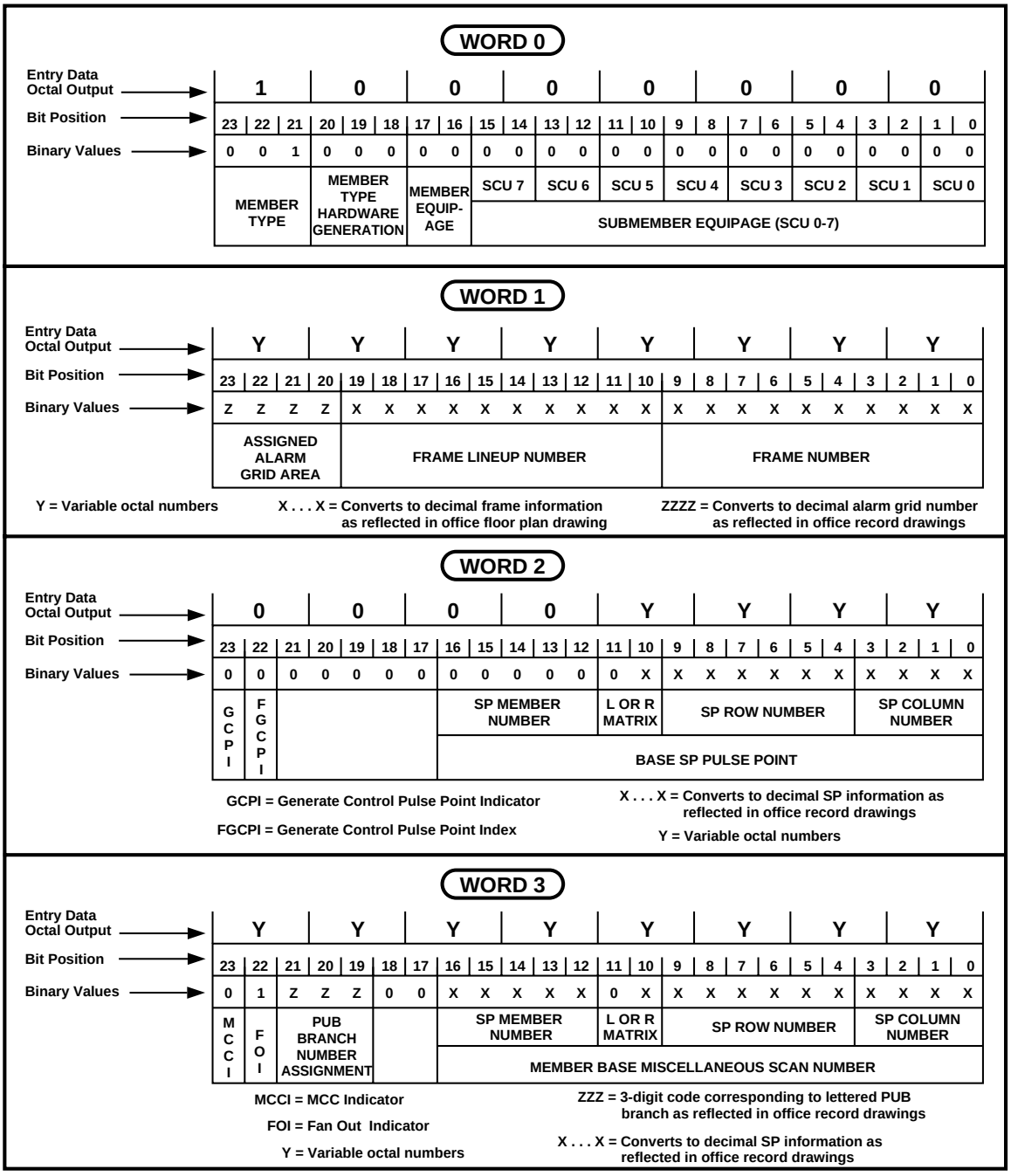

Figure 2. Unit Type Entry Data and Word Configuration (Word Numbers are in Octal) (Sheet 1 of 7)

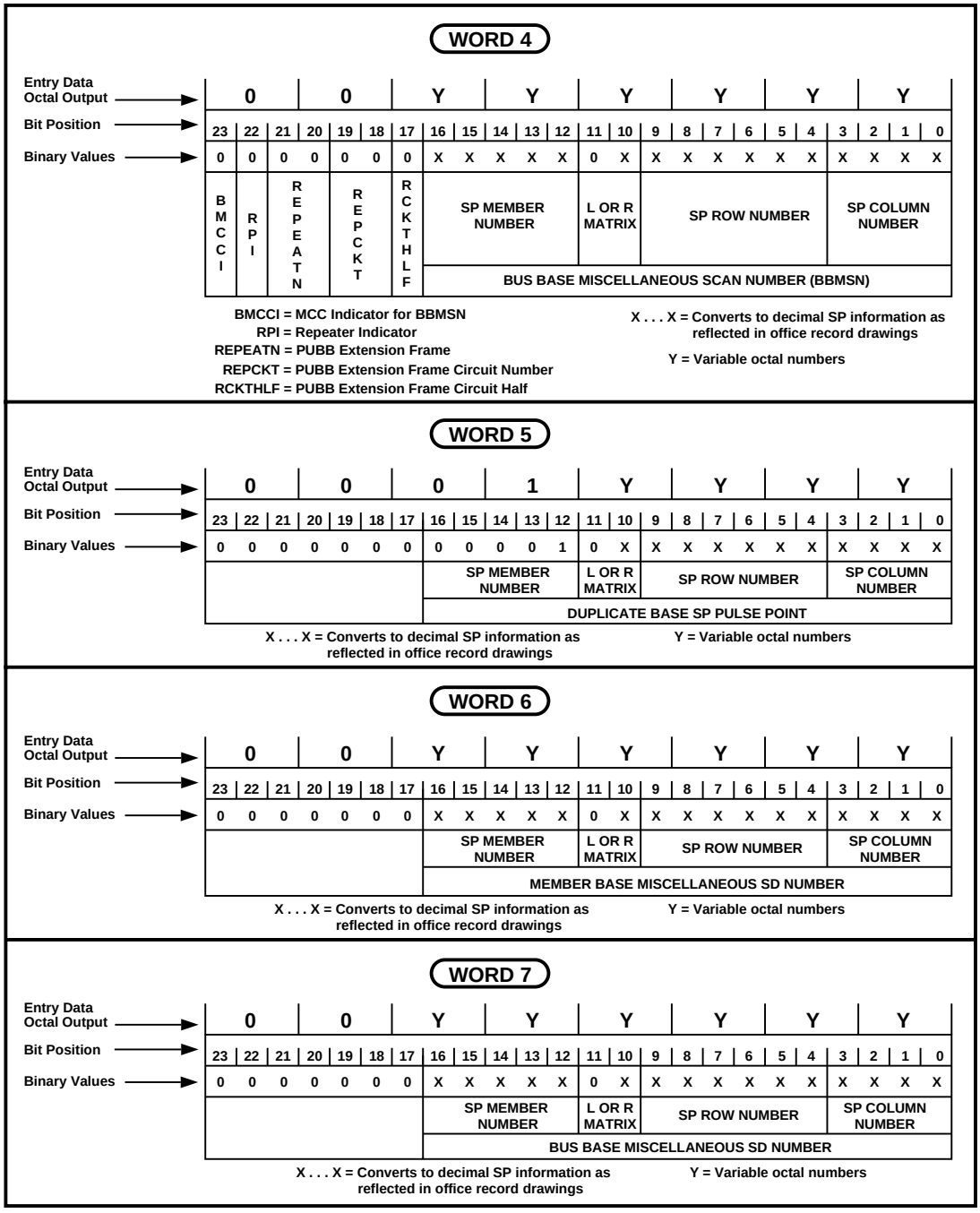

Figure 2. Unit Type Entry Data and Word Configuration (Word Numbers are in Octal) (Sheet 2 of 7)

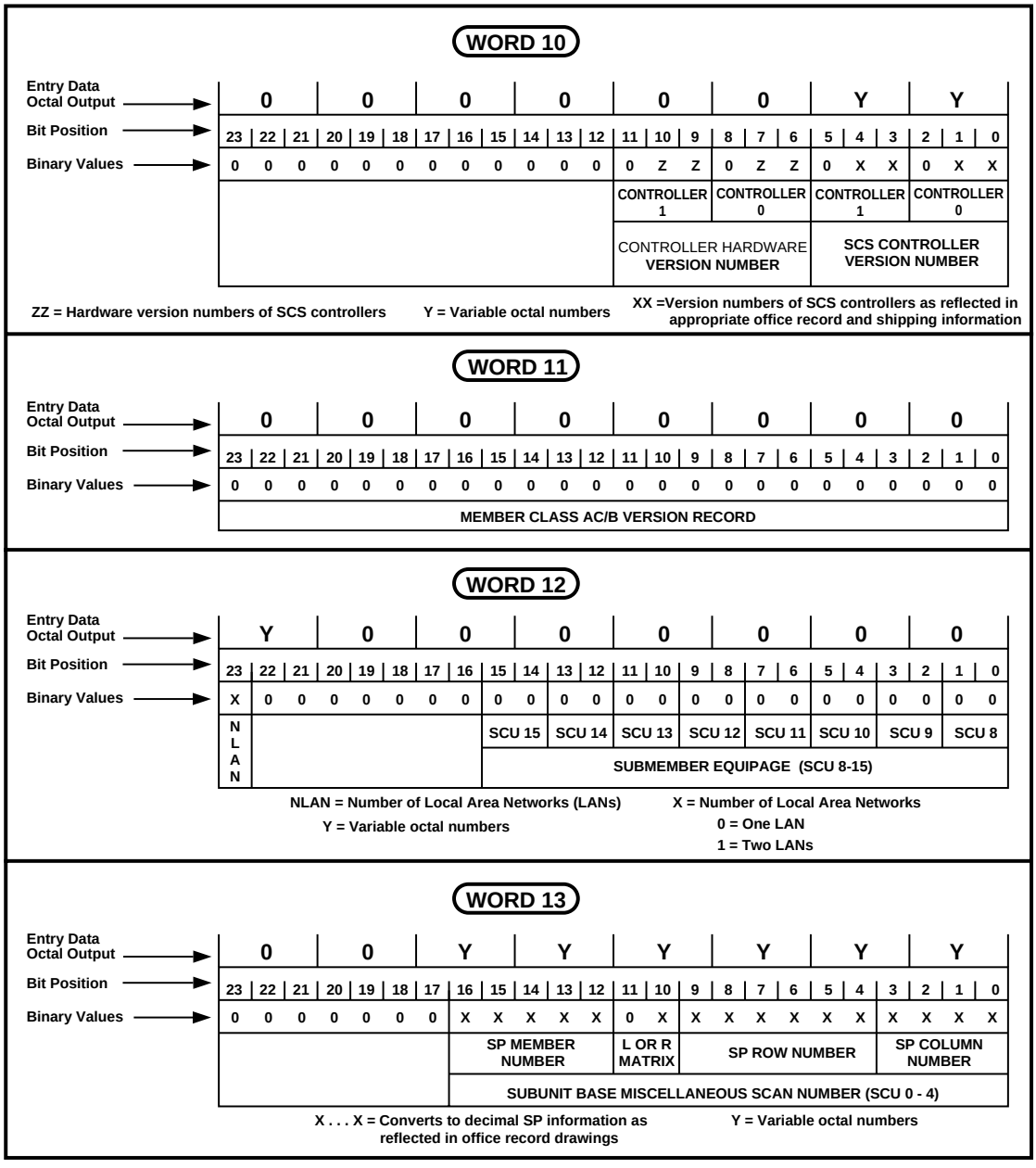

Figure 2. Unit Type Entry Data and Word Configuration (Word Numbers are in Octal) (Sheet 3 of 7)

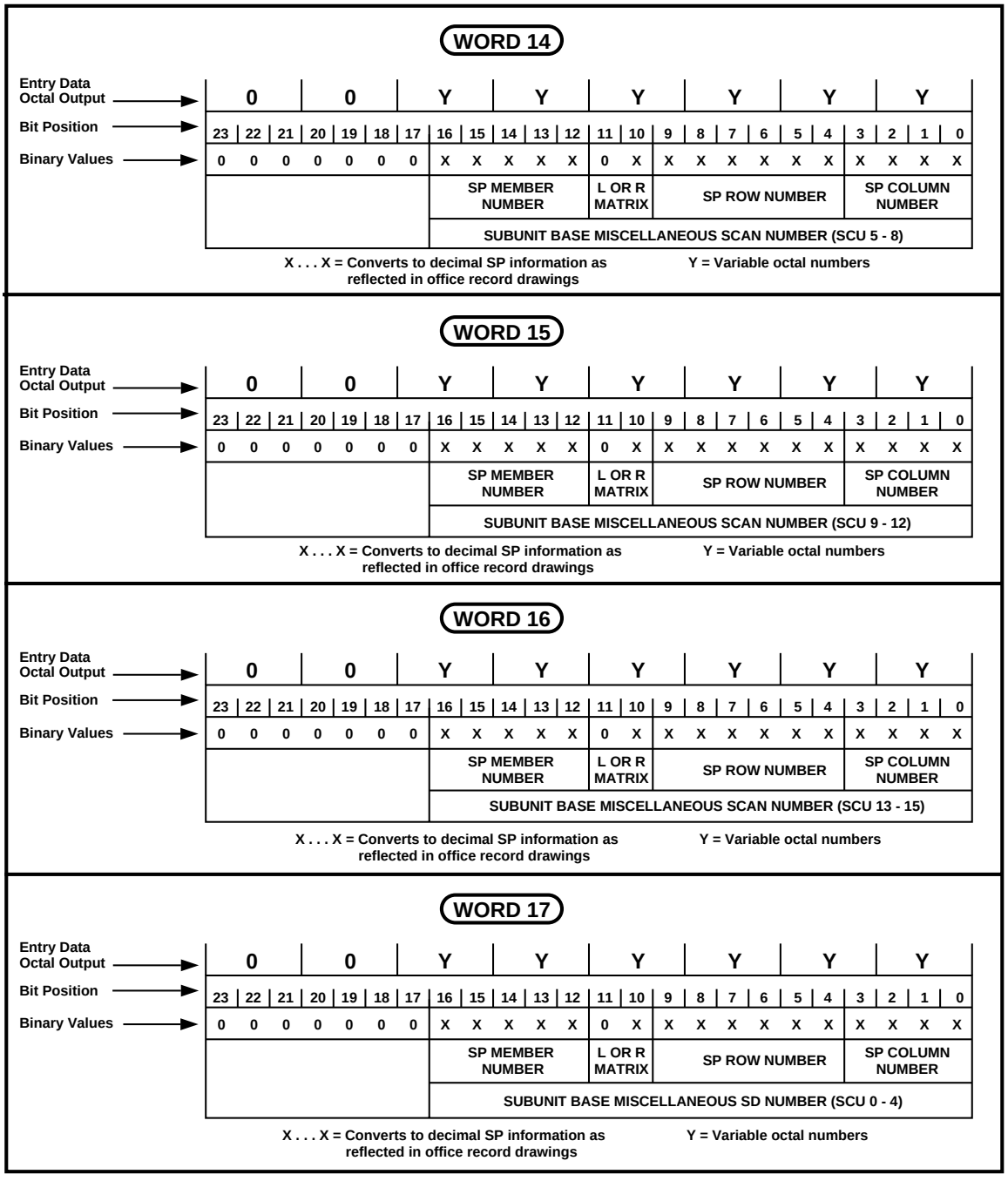

Figure 2. Unit Type Entry Data and Word Configuration (Word Numbers are in Octal) (Sheet 4 of 7)

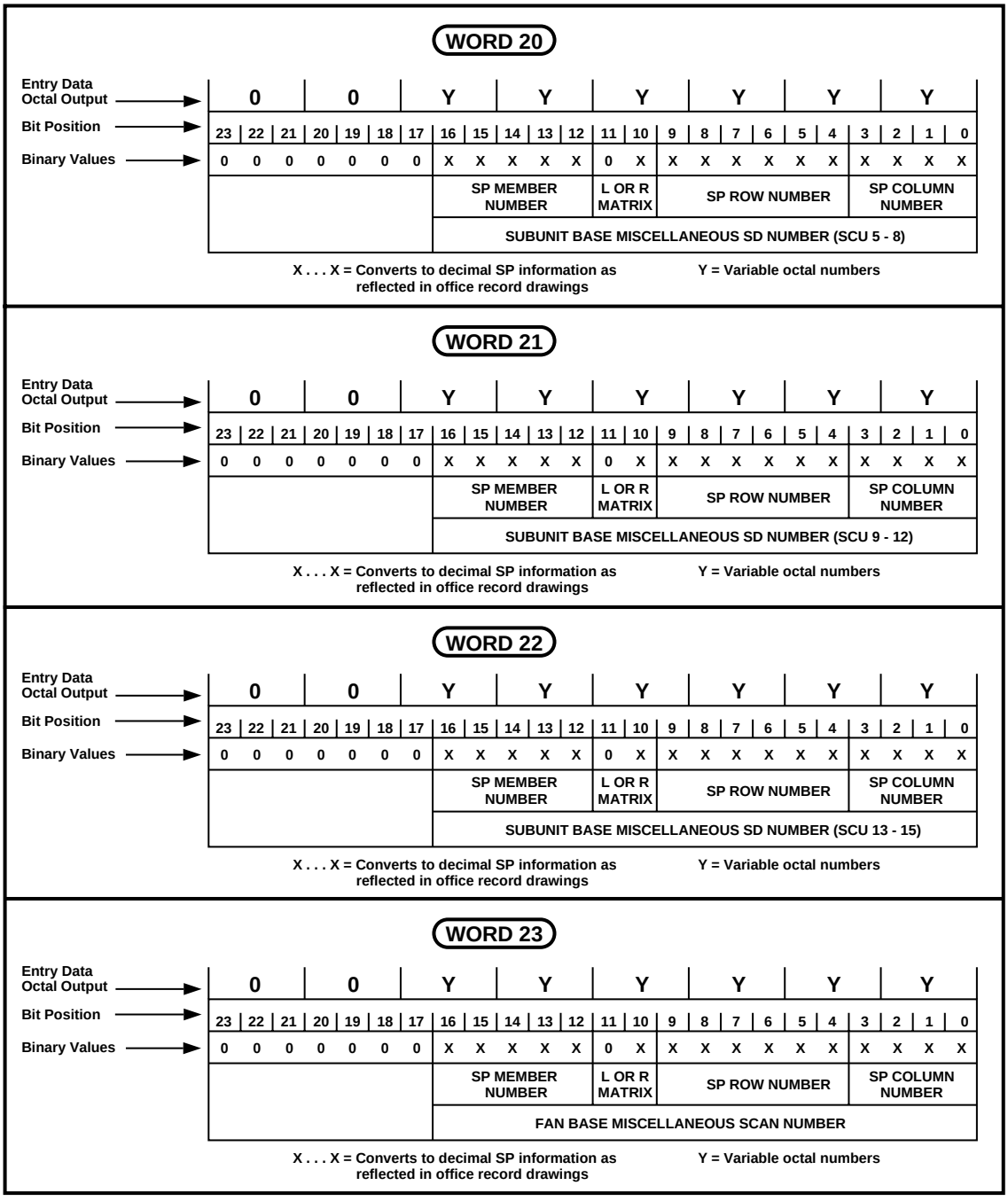

Figure 2. Unit Type Entry Data and Word Configuration (Word Numbers are in Octal) (Sheet 5 of 7)

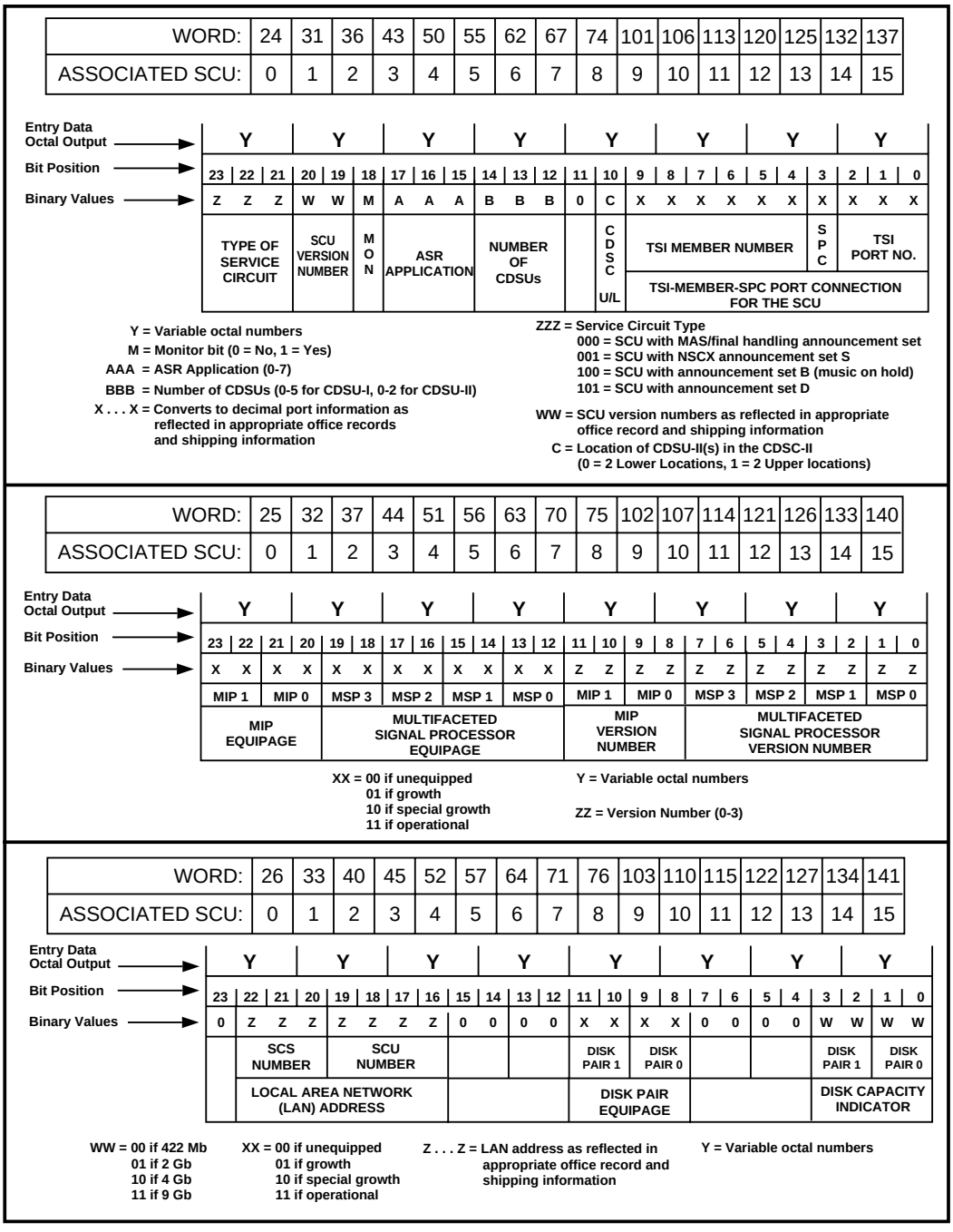

Figure 2. Unit Type Entry Data and Word Configuration (Word Numbers are in Octal) (Sheet 6 of 7)

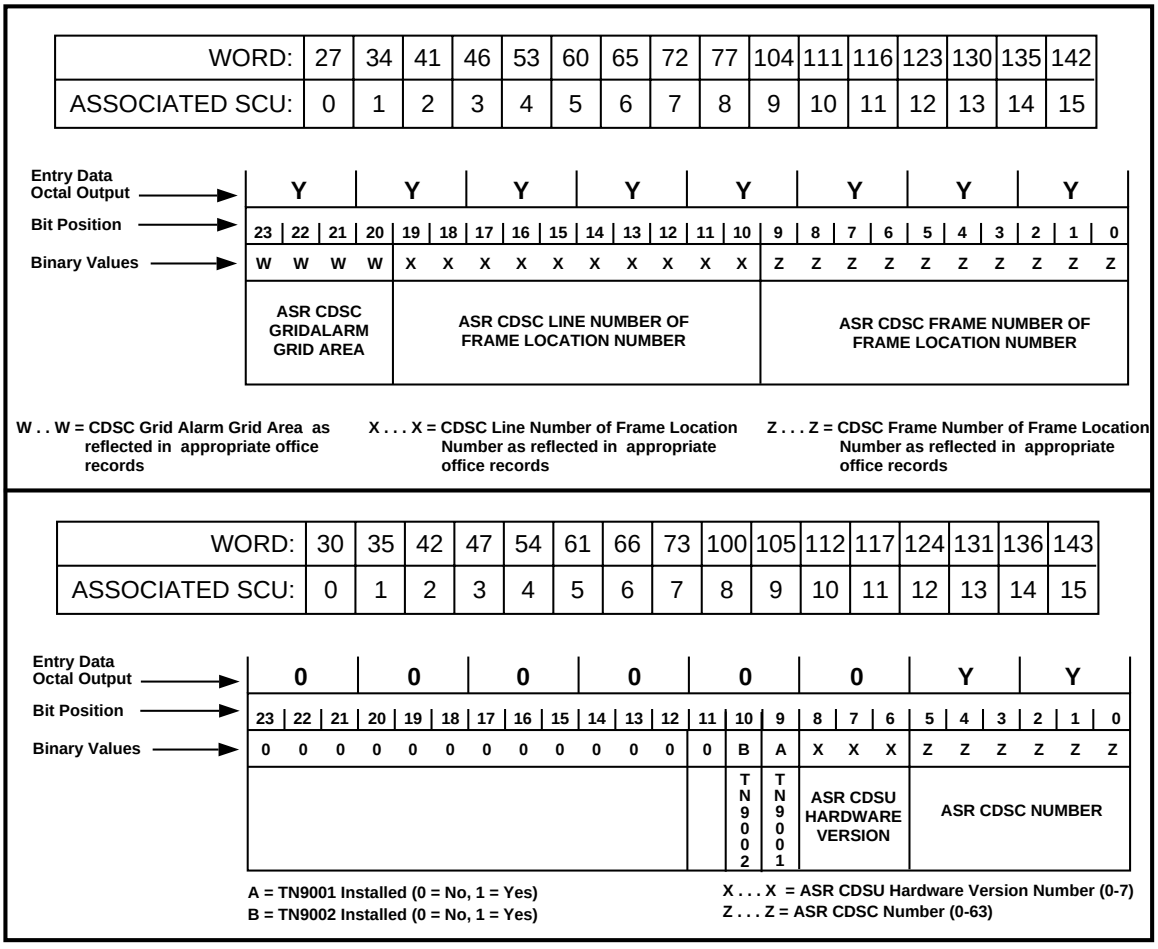

Figure 2. Unit Type Entry Data and Word Configuration (Word Numbers are in Octal) (Sheet 7 of 7)

Recent Change and Verify Quantity of CDSU-IIs Using Recent Change (RC) Form 703

Caution: Calling up an RC Form will cause all data on the screen to be cleared.

1. At the 1B Maintenance (MTC) terminal, enter **OP:RCFORM 703!**

   Response: Recent Change Form 703 appears on the screen.

2. At SCS, enter growth Member Number (0-7).

3. At SCU, enter the growth SCU Number (0-15).

4. At ORNU, enter a unique Order Number.

5. At NCDSU, enter the new total number of Custom Data Services Units (CDSUs) within the Custom Data Services Cabinet (CDSC) (1-2).

6. At ASRAPP, enter the ASR Application type (0-7).

7. At CDSU HV, enter **2**.

8. At CDSC NUM, enter the CDSC Number (0-63).

9. At CDSC UL, enter **U** if the CDSU(s) are located in the upper half of the CDSC, or enter **L** if the CDSU(s) are located in the lower half of the CDSC.

10. If no REMARKS are needed, return the cursor to the top of the form by pressing HOME.

11. Press SEND/ENTER

    Response: `RC ORNU` *a* `SUCCESSFULLY TESTED` followed by
    `RC ORNU` *a* `SUCCESSFULLY BUFFERED` followed by all new entries.

    where *a* = RC Order Number

    Note: All entries should be checked for accuracy. If any entries are found to be incorrect, repeat Steps 1 through 11.

12. At the 1B MTC terminal, enter **RCACT:ORNU** *a***!**

    where *a* = RC Order Number

    Response: `RC ORNU` *a* `ACTIVATED` followed by all new entries.

    Note: All entries should be checked for accuracy. If any entries are found to be incorrect, repeat this DLP correcting the errors.

13. At the 1B MTC terminal, enter **VER:UTYPE:SCS** *x***!**

    where *x* = Member Number (0-7)

    Response:
    ```
    VER:UTMN;OPT(),CUR:
    FLN a
    UTYN b
    MEMN c
    ME d
    ENTRY ADDRESS e
    ENTRY SIZE f
    ```

    The above responses are followed by a complete printout of the SCS Unit Type entry data. Use this printout and Figure 1 to determine if the information was properly entered.

    where *a* = Floor location number
    b = Unit type name
    c = Member number of growth associated complex
    d = Member equipage
    e = An 8-digit entry address
    f = A 2-digit entry size

14. **STOP! YOU HAVE COMPLETED THIS PROCEDURE.**

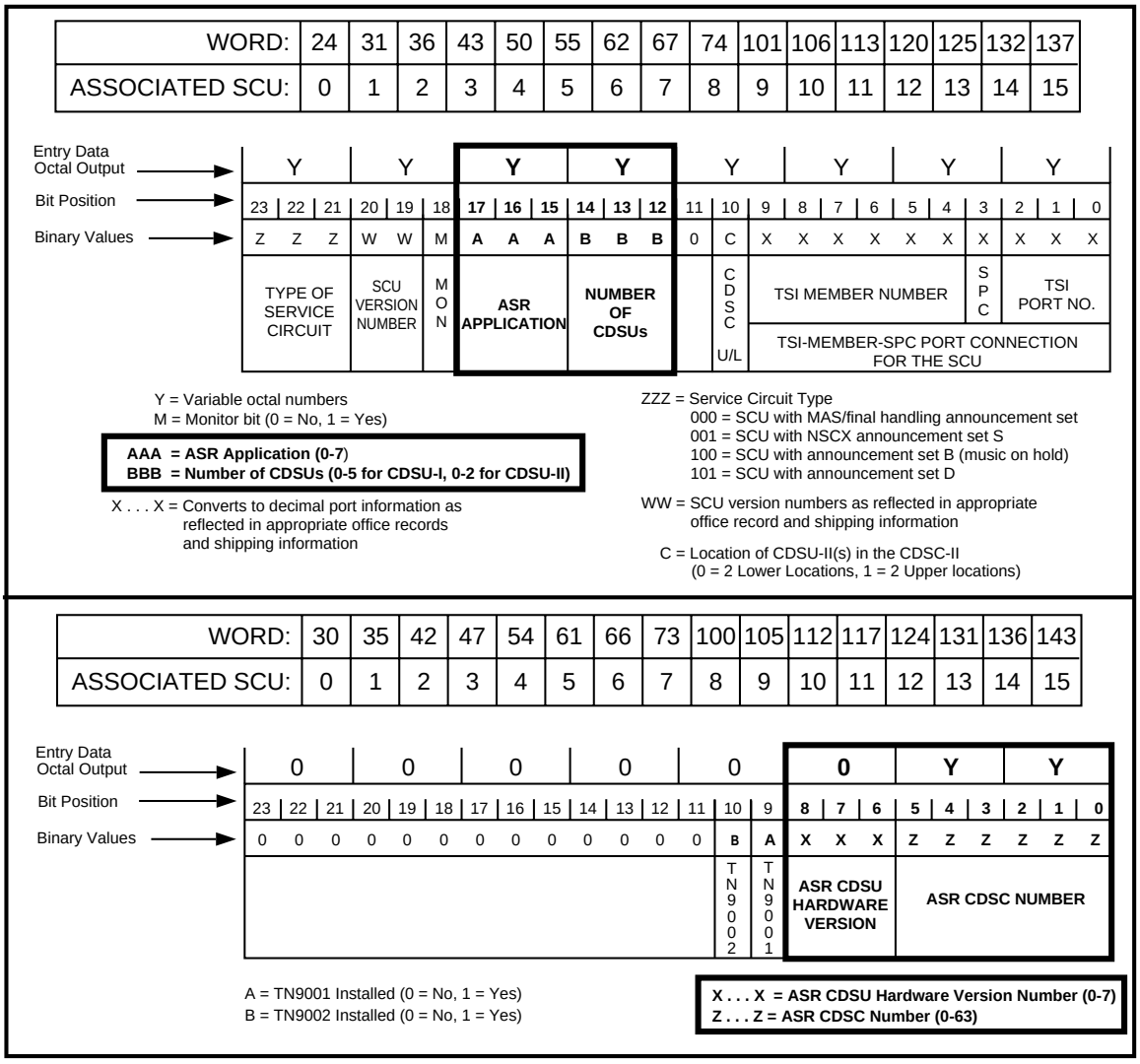

Figure 1. Words in SCS Unit Type Translator Used to Verify CDSU Options

Change SCU, Disk Pair Capacity and Verify SCU Hardware Version in Unit Type Translator

Caution: Calling up an RC Form will cause all data on the screen to be cleared.

1. At the 1B Maintenance (MTC) terminal, enter **OP:RCFORM 703!**

   Response: Recent Change Form 703 appears on the screen.

2. At SCS, enter the appropriate Service Circuit System (SCS) Member Number (0-7).

3. At SCU, enter the appropriate Service Circuit Unit (SCU) **(0-15)**.

4. At ORNU, enter a unique Order Number.

5. At SCUHV, enter **3** .

6. At DSKC, enter **3** in location 0 and 1 (for 4 to 9 GB conversion and new growth) and (0 only for 2 to 9 GB conversion).

   Note: SCU 0 is in location 0 ONLY.

7. If no REMARKS are needed, return the cursor to the top of the form by pressing HOME.

8. Press SEND/ ENTER

   Response: RC ORNU a SUCCESSFULLY TESTED followed by
   RC ORNU a SUCCESSFULLY BUFFERED followed by all new entries.

   where *a* = RC Order Number

   Note: All entries should be checked for accuracy. If any entries are found to be incorrect, repeat Steps 1 through 10.

9. At the 1B MTC terminal, enter **RCACT:ORNU a!**

   where *a* = RC Order Number

   Response: `RC ORNU a ACTIVATED` followed by all new entries.

   where *a* = RC Order Number

   Note: All entries should be checked for accuracy. If any entries are found to be incorrect, repeat this DLP, correcting the errors.

10. At the 1B MTC terminal, enter **VER:UTYPE:SCS x!**

    where *x* = Member Number (0-7)

    Response:
    ```
    VER:UTMN;OPT(),CUR:
    FLN a
    UTYN b
    MEMN c
    ME d
    ENTRY ADDRESS e
    ENTRY SIZE f
    ```

    The above responses are followed by a complete printout of the Service Circuit System (SCS) Unit Type entry data. Use this printout and Figure 1 to determine if the SCU data (disk pair capacity) was properly entered. Use this printout and Figure 2 to determine if the SCU hardware version was properly entered.

    where *a* = Floor location number
    b = Unit type name
    c = Member number of growth associated complex
    d = Member equipage
    e = An 8-digit entry address
    f = A 2-digit entry size

11. **STOP! YOU HAVE COMPLETED THIS PROCEDURE.**

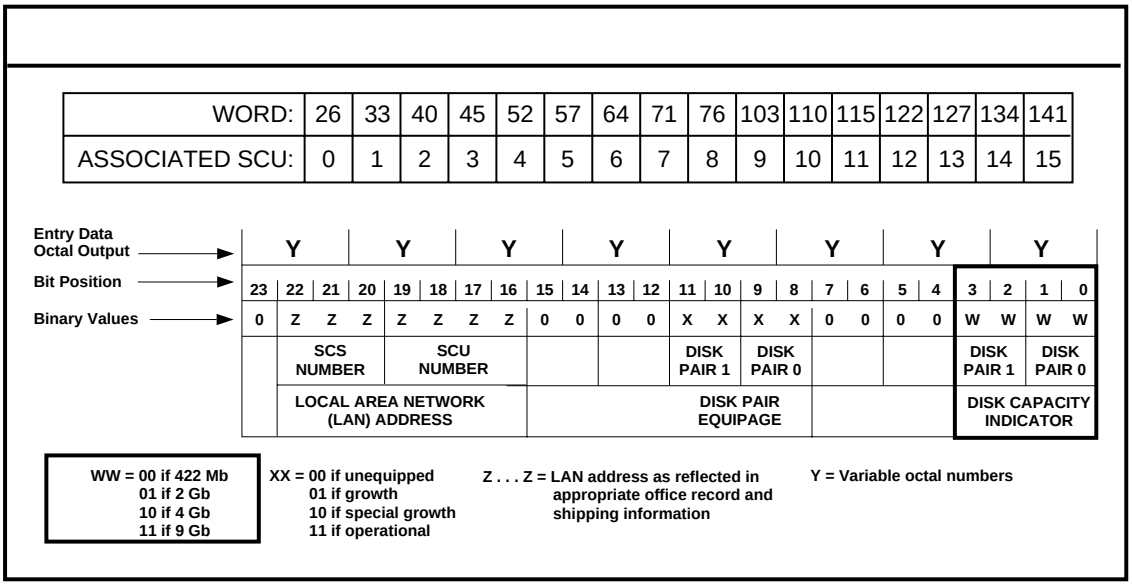

Figure 1. Verify SCU Disk Capacity in SCS Unit Type Translator

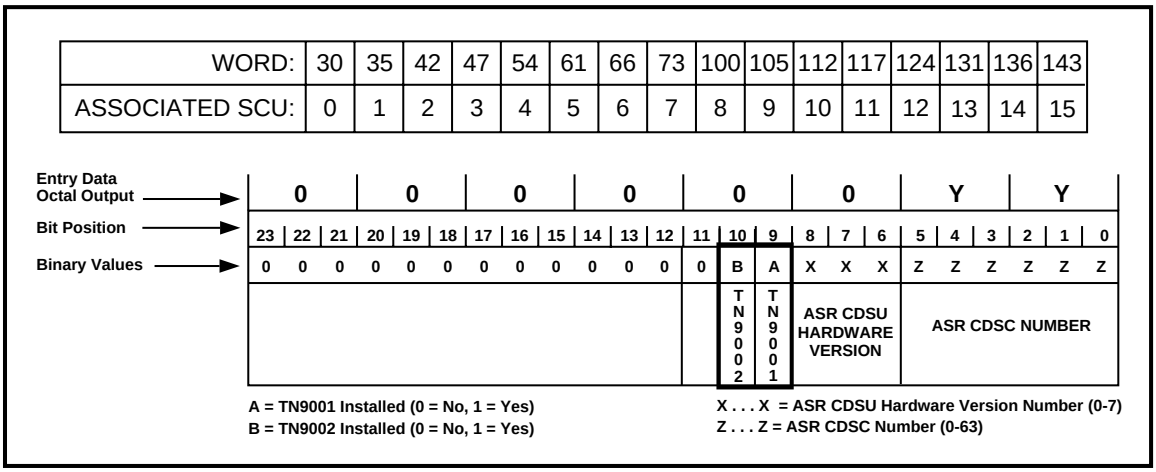

Figure 2. Verify SCU Hardware Version in SCS Unit Type Translator

How To Use This Document

This document gives you all the step-by-step instructions you need to do your job (task). These instructions are given in the order that they *must* be done. Failure to follow the instructions in the order given may cause service interruptions.

This document is divided into parts called procedures. Each procedure is given a 3-digit number. These numbers range from 001 through 893. Procedures are arranged in this document in numerical order beginning with 001.

Figure 1 is a typical IXL-001 procedure and is titled *Task Index List*. It is an alphabetical listing of the jobs that you may have to do. To use an IXL-001 procedure, just find the job you need to do in the FIND YOUR JOB IN THE LIST BELOW column. Next, follow the dotted line to the procedure number and begin the task. For example, suppose you are given the job of doing a system test. On the IXL-001 procedure, as shown in Figure 1, notice that it is listed in the THEN GO TO column as NTP-016. It could have been any other 3-digit number.

Figure 2 is an example of an NTP (Non-Trouble Procedure). Each NTP provides specific instructions for doing a job. It consists of numbered items (or steps) listed in the order that you must do them to complete your job. To use this procedure, you must start with item 1 in the DO THE ITEMS BELOW IN ORDER LISTED column and continue until all items have been done. When you get to an item that you do not know how to do, look for the procedure number for that item under the FOR DETAILS, GO TO column. This is the number of the procedure that will give you detailed, step-by-step instructions to do that item. Note that item 2 in Figure 2 uses lettered (A, B) entries. This means that there are alternate ways of doing item 2 depending on equipment options or equipment conditions. You do only the one that fits your equipment options or equipment conditions.

For example, suppose you are doing a System Test. The IXL-001 as shown in Figure 1, has directed you to NTP-016 as shown in Figure 2, and you are on item 8 ‘‘Mount Tape’’ in the DO ITEMS BELOW IN ORDER LISTED column. Mount the tape if you know how. If you do not know how to mount the tape, go to the procedure number listed in the FOR DETAILS, GO TO column for the detailed, step-by-step instructions. In this case, it happens to be DLP-500. In either case, you must continue with the next item listed in NTP-016 until you complete the job.

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TASK INDEX LIST

Figure 1. Typical List of Jobs You May Have to Do

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PERFORM SYSTEM TEST

DO THE ITEMS BELOW IN ORDER LISTED	FOR DETAILS, GO TO
1 Test Local Maintenance Terminal	DLP-531
2 Place SEC/SEB in Off-Line Mode	
A. If in On-Line Mode, Change System From On-Line to Off-Line	DLP-509
B. If Powered Down, Condition System for Off-Line Operation as Follows	
1. Power up Minicomputer	DLP-503
2. Power up Line Printer	DLP-503
3. Power up Maintenance Terminal	DLP-510
. . .	
. . .	
. . .	
. . .	
. . .	
. . .	
7 Run Computer Display Terminal Test For All Positions	DLP-513
8 Mount Tape	DLP-500
9 Test Computer Display	DLP-522

Figure 2. Typical List of Specific Instructions for Doing a Job

Figure 3 is a typical page of a DLP-500 (Detailed Level Procedure - 500) that gives numbered, step-by-step instructions. To use this procedure, you must start with Step 1 and proceed as directed by the instructions until you complete this procedure. Note that Step 1 of this procedure is preceded by a statement called a SUMMARY. A summary is used as a memory jogger and briefly tells you how to do the procedure and what measurements or results you can observe. If you can do the procedure after reading the SUMMARY, go ahead and do it without reading any further.

Now, look at Step 6 of DLP-500 as shown in Figure 3. Note that following the action statement there is the sentence, For help see DLP-563. When you see a statement like this, it means that additional step-by-step instructions for doing just that step are given in the referenced procedure. In this case, DLP-563 gives you the details on how to ensure that the write-enable ring is not installed on the file reel. If you, in this case, cannot do Step 6, then go to DLP-563. In either case, you must continue with Step 7 until you have completed the procedure. In some cases, you may be directed to a procedure where the procedure number is preceded by the letters TAP (Trouble Analysis Procedure); for example, TAP-109. This means that you have trouble in the equipment, and in this case TAP-109 will give you step-by-step instructions to fix the trouble. After you have fixed the trouble, you must return to Step 1 of the procedure that sent you to TAP-109. However, if you came directly from IXL-001 to TAP-109, then your job is completed when you have fixed the trouble.

Admonishments: Three admonishments are used this document as follows:

DANGER: This means there is a possibility of personal injury.

Caution: This means there is a possibility of service interruption.

WARNING: This means there is a possibility of equipment damage.

Important Items: Table A lists the more important items used in this document.

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MOUNT TAPE

SUMMARY: Install tape with or without write enable ring, as required. Thread tape and position tape at BOT (Beginning Of Tape) marker.

1. Get file reel and empty take-up reel.
2. Set **START/STOP** switch to **STOP**.
3. Set **ON LINE/OFF LINE** switch to **OFF LINE.**
4. Set **LOAD/BR REL** switch to center position.
5. Is data to be written on tape?
   If **yes**, then install write enable ring on file reel and go to Step **7**.
   If **no**, then do Step **6**.
6. Ensure that write enable ring is not installed on file reel. For help see DLP-563.
7. Open tape transport door.

Figure 3. Typical List of Detailed Instructions for Doing a Job

TABLE A Important Procedural Items and Definitions

Item	Definition
Acceptance (NTP-002)	Provides information and identifies jobs to be done to accept equipment after it is installed.
Maintenance Philosophy	The maintenance philosophy, when provided, gives an overview of the considerations designed into the trouble-clearing procedures.
DLP (Detailed Level Procedure)	Detailed, step-by-step instructions.
TAP (Trouble Analysis Procedure)	Step-by-step, trouble-clearing instructions to locate and/or fix troubles.
NTP (Non-Trouble-Clearing Procedure)	A list of items to perform normal work other than trouble-clearing.