NONGENERIC PARAMETER DATA PROCEDURES NO. 1A AUTOMATIC MESSAGE ACCOUNTING RECORDING CENTER (AMARC) GENERICS 1, 2, AND 3

1. GENERAL

1.01 This section provides the procedures necessary for handling nongeneric parameter data (NPD) for the No. 1A AMARC program. Nongeneric parameters are data that describe the network connected to a particular No. 1A AMARC.

1.02 Whenever this section is reissued, the reason for reissue will be listed in this paragraph.

1.03 The following procedures are provided:

1.04 Nongeneric parameters are those data which provide, for the No. 1A AMARC program, a description of the network connected to a particular No. 1A AMARC. An example of this NPD would be the number of communication channels served and whether a channel is a single-, double-, or triple-entry. These data are entered into the No. 1A AMARC System via the input/output (I/O) terminal. After all nongeneric parameters are entered, they are copied onto a magnetic tape so that, if the need arises, they can be quickly restored. All NPD can be restored from the NPD magnetic tape except for additions or deletions of special numbers, since the time that the magnetic NPD backup tape was made. These special numbers are compared to a current listing of special numbers and updated accordingly.

1.05 System responses that occur as a result of an input message entry are designated in the procedures of this section as RSP. In addition, output messages that occur as a result of an input message are designated in the procedures of this section as MSG.

1.06 If system response or output messages are invalid, refer to Input Message Manual (IM) and Output Message Manual (OM) for analysis of failure messages to determine possible cause of trouble. Examination of the IM and OM is required for an explanation of the variable fields of the input and output messages.

1.07 Reference should be made to the No. 1A AMARC input/output manuals for detailed explanations of input and output messages as the need arises.

1.08 Execute commands, acknowledgement messages, and priority symbols are used throughout the procedures of this section. Some of the most commonly used are:

! = execute command

PF = printout follows

M = manual action

tt = minutes after hour.

yz = processor state; processor I.D.

Other symbols used and their explanations may be obtained in Section B of both the IM and OM.

1.09 While performing the procedures of this section, various other output messages may be printed due to time period or configuration of the system. Any automatic output messages ***not*** associated with a trouble condition may be disregarded. Any trouble conditions generated by the system either automatically or in response to an input message request should be analyzed using the IM and OM before continuing with the procedures.

1.10 Most of the procedures of this section require that the input messages used be entered (typed) via the out-of-service (OOS) processor I/O terminal only. The OOS processor, in this case, can be determined by use of the input message **REPT SYS!** or by examining the lamps on the alarm and display panel at the primary data set connection cabinet (PDSCC) (Generics 1 and 2) or the processor 0 cabinet (Generic 3). For Generics 1 and 2, an active system is indicated when both the ACTIVE and DS CONT ALW lamps are lighted. With Generic 3, an active system is indicated by the Active lamp lighted. A standby system is indicated when the ACTIVE, DS CONT ALW, and the TO lamps are extinguished (Generics 1 and 2) or the Standby lamp lighted and the Active lamp extinguished (Generic 3). An OOS system is indicated when the ACTIVE and DS CONT ALW lamps are extinguished and the TO lamp is lighted (Generics 1 and 2). For Generic 3, an OOS system is indicated when the Out of Service and the Program Timeout lamps are lighted, and the Active lamp is extinguished. A standby system can be placed OOS by using the input message **RMV SYS!**.

1.11 Generics 1 and 2 of No. 1A AMARC applications provide a functional I/O terminal arrangement feature. This feature assigns the terminal associated with processor 0 to the active processor and becomes the alerting terminal. The other terminal normally associated with processor 1 becomes the standby terminal or the analysis terminal. All active system input and output messages are entered and printed at the alerting terminal. All input and output messages for the standby system are entered and printed at the analysis terminal. To determine if the I/O terminals are in the functional terminal mode before beginning a procedure in this section, a **REPT SYS!** input message is entered at either terminal for a REPT SYS STA report. The state of the I/O terminals is provided in this report.

1.12 Generic 3 of No. 1A AMARC applications provides for interfacing up to 16 I/O terminals through a flexport arrangement. Flexports are designated as FP00 through FP07 and FP10 through FP17. Flexports FP00 and FP01 are dedicated to the system console I/O terminals SC0 and SC1, respectively. SC0 is used for active processor messages and SC1 is used for the other processor (standby or OOS) messages. Additional interfacing of SC1 allows communication between the processors and SC1 for running diagnostics, loading the generic program, and entering NPD.

1.13 Information provided in parentheses is either supplemental information describing action that is taking place or reference information.

> ***Example:*** The reference information such as (IM—RMV TAPE) is for direction to the Input Message Manual table of contents to the message RMV TAPE for obtaining variable field data, clearing trouble conditions, etc. Likewise (OM—RMV TAPE) is for direction to the Output Message Manual table of contents to the message RMV TAPE for obtaining information.

1.14 If, at any time during the operations of these procedures, the other processor (active processor) encounters a major alarm condition which is not channel related, the procedure being performed should immediately be abandoned. The appropriate

emergency procedure of Section 201-900-323 should be followed.

1.15 The NPD procedures of this section require that one of the processors be removed from service. It is therefore beneficial, where possible, to schedule NPD operations at a time when one of the processors will be OOS for routine operations.

1.16 Special numbers entered via the RC SPN message for double-entry (step-by-step), triple-entry No. 3 ESS, and triple-entry CDT (Generic 3) entities should ***not*** be included in the data backup on the initial NPD magnetic tape. Also, ***no*** attempt should be made to keep special numbers up to date on subsequent backup tapes since these numbers are frequently subject to change. These special numbers should instead be entered via the I/O terminal after the initial NPD backup tape has been made or updated in accordance with Procedure E, using a locally maintained special numbers listing.

1.17 For No. 1A AMARC operating with Generic 1 or 2 program, the entity and channel equipping input messages, RC ENT and RC CHL EQP, must be entered in ascending order of entity and channel numbers. With Generic 3 program, these messages may be entered in any order of entity and channel numbers.

1.18 With No. 1A AMARC Generics 1 and 2, any equipped channel (except No. 3 ESS channels) may be overwritten consistent with other rules for equipping channels. For Generic 3, only dial backup channels (except No. 3 ESS) may be overwritten. Otherwise the channel must be unequipped and then reequipped.

1.19 Any equipped channel must be first manually removed (**RMV CHL!**) before it can be unequipped. Rules for equipping nondialup channels (RC CHL EQP input message) are as follows:

Single-Entry Electronic Translator System (ETS) Channels

- An unequipped channel may be equipped if the next lower-numbered channel is not assigned to encoder 0 of a billing data transmitter (BDT) entity.
- An unequipped channel may be equipped if the next higher-numbered channel is not assigned to encoder 1 of a BDT entity or to primary 1 of a control data transmitter (CDT) entity (Generic 3).

Double-Entry Step-by-Step Channels

- An unequipped channel may be equipped if the next lower-numbered channel is not assigned to encoder 0 of a BDT entity or to primary 0 of a CDT (Generic 3) entity.
- An unequipped channel may be equipped if the next higher-numbered channel is not assigned to encoder 1 of a BDT entity or to primary 1 of a CDT (Generic 3) entity.

Triple-Entry BDT Channels

- Channels must be equipped in pairs and of the same entity. A BDT channel pair is usually referred to as "brother" channels.
- Within the channel pair, the channels must be equipped sequentially, that is, encoder 0 and then encoder 1.
- Encoder 0 must be on the lower-numbered channel and encoder 1 on the next higher-numbered channel.
- Brother channels may not be split or intervened by other channels.
- An unequipped channel may be equipped if at least one recorder is equipped at the BDT entity for the particular channel being equipped.

Other conditions that must be satisfied to equip a BDT channel are as follows:

- The next lower-numbered channel from the channel being equipped for encoder 0 must not be equipped with encoder 0 of a BDT.
- The next higher-numbered channel from a channel being equipped for encoder 1 must not be equipped for encoder 1 of a BDT or primary 1 of a CDT (Generic 3) channel.
- The next higher-numbered channel from a channel being equipped (except for overwriting) for encoder 0 must be unequipped and the

multiplexer must be equipped for the channel. See Notes 1 and 2.

Note 1: Overwriting of nondialup channels is allowed only in Generics 1 and 2 of No. 1A AMARC and is not applicable to Generic 3. In Generic 3, only dialup channels may be overwritten.

Note 2: This rule ensures that the next higher-numbered channel is available for equipping (encoder 1) as a brother channel.

- If overwriting a channel (Generics 1 and 2) or equipping the lower-numbered channel and the next higher-numbered channel is equipped, the higher-numbered channel must be equipped for encoder 1 of the same BDT entity.

- If overwriting a channel (Generics 1 and 2) or equipping the higher-numbered channel and the next lower-numbered channel is equipped, the lower-numbered channel must be equipped for encoder 0 of the same BDT entity.

Equipped brother channels of a BDT must be unequipped in reverse sequential order: higher-numbered channel (encoder 1) and then the lower-numbered channel (encoder 0). The lower-numbered channel may be unequipped without regard to the reverse sequential order when the higher brother channel is nonexistent or has not been equipped yet.

Triple-Entry No. 3 ESS Channels

- Channels must be equipped in pairs (known as the primary and dedicated backup channel). When the primary channel is equipped, the backup channel is automatically equipped.

- An unequipped channel may be equipped for a No. 3 ESS entity if other channels are not equipped on the particular entity.

- When equipping the primary channel, the next higher-numbered channel must be unequipped and the associated multiplexer equipped for the dedicated backup channel.

- The next lower-numbered channel from the No. 3 ESS primary channel may not be a BDT channel equipped with encoder 0 or a CDT (Generic 3) channel equipped for primary 0.

Both No. 3 ESS channels (primary and backup) are unequipped by unequipping the dedicated backup channel.

Triple-Entry CDT Channels (Generic 3)

Note 1: Each CDT entity may have one or two controllers (controller 0 and controller 1).

Note 2: Each controller may have one or two (optional) primary data channels plus one dial backup channel.

Note 3: It is assumed that if only one controller is equipped, it is always controller 0; controller 1 is never equipped unless controller 0 is equipped. Also, it is assumed that a single primary channel for a controller is always primary 0, and that for this controller, primary 1 is never equipped unless primary 0 is equipped.

- When two primary channels (called primary 0 and 1) are equipped for a controller (controller 0 or controller 1), primary 0 must be equipped before primary 1.

- For a controller with two primary channels, primary 0 must be on the lower-numbered channel, and primary 1 must be on the next higher-numbered channel.

- A channel pair on a single controller must not be separated by any intervening channels.

- Each of the primary channels (for controller 0 and controller 1) must be equipped individually.

- Channel pairs on different controllers may be separated by zero or more channels of any type.

- Channels on controller 1 may be equipped before and on lower-numbered channels than channels on controller 0.

- Channels on controller 1 may not be equipped on entities where there is only a single controller.

- If a channel is equipped as primary 0, the next lower-numbered channel must not be equipped with encoder 0 (BDT channel). Furthermore, the next higher-numbered channel must not be equipped with encoder 1 (BDT channel).

- If a channel is equipped as primary 1, the next lower-numbered channel must be equipped as primary 0 on the same entity and controller. Furthermore, the next higher-numbered channel must not be equipped with encoder 1 (BDT channel) nor a CDT channel equipped as primary 1.

Primary channels on the same controller must be unequipped in reverse order: primary 1 (higher-numbered channel) unequipped and then primary 0 (next lower-numbered channel). Primary 0 may be unequipped without regard to unequipping primary 1 first if either primary 1 is nonexistent or has not been equipped yet.

1.20 The NPD changes and additions should not be made before the associated hardware facilities have been installed.

1.21 The order in which an NPD input message should be entered is provided in Table A. This order should be followed for initial NPD load and any changes or additions to the NPD data. Table A also designates the type system(s) with which each of the NPD input messages is associated.

1.22 In the following procedures, should it become necessary in certain cases to verify the contents in memory of certain NPD, the messages in Table B may be used.

1.23 For all operations at the DEC* 11/70 processor console, the keys should have the following settings:

Power Switch (with key lock)—POWER position to use the console. LOCK position to disable console. OFF to remove power.

Address Display Select Switch (8-positions)—CONS PHY (Console Physical) position.

DATA Display Select Switch (4-positions)—DATA PATHS position.

LAMP TEST Switch (white)—Normal position.

Control Switches—

LOAD ADRS—Load Address—Used during some operations; if not used, should be normal.

EXAM—Examine data—Used during some operations; if not used, should be normal.

DEP—Deposit—Should be normal.

CONT—Continue—Should be normal.

ENABLE/HALT—Used to stop processor when key in HALT position. For the processor to run, key ***must*** be in the ENABLE position.

S INST/S BUS CYCLE—Single Instruction/ Single Bus Cycle—Should be in normal position, S INST.

START—This key is used to start processor execution after it has been halted using the ENABLE/HALT key. To restart processor, put ENABLE/ HALT key in ENABLE positon; then operate START key. When the START key is released, it will restore to its normal position and the processor will start running.

1.24 ***Lettered Steps:*** A letter a, b, c, etc, added to a step number in Part 2 of this section indicates an action which may or may not be required depending on local conditions. The conditions under which a lettered step, or a series of lettered steps, should be made is given in the ACTION/INPUT MESSAGE column, and all steps governed by the same condition are designated by the same letter within a procedure. Where a condition does not apply, all steps designated by that letter should be omitted.

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2. PROCEDURES

STEP	ACTION/INPUT MESSAGE	RESPONSE (RSP)/MESSAGE (MSG)
A. Initial Entries		
	Note 1: Nongeneric parameters may only be manually entered on an OOS processor.	
	Note 2: Table A should be referenced throughout this procedure to maintain order of entry and system relationship.	
	Note 3: If NPD inputs are lengthy, it is recommended to back the data onto tape at short work intervals. This reduces the risk of destroying all the NPD should some unforeseen problem arise.	
GENERIC 1		
1	Perform a stable initialization per Section 201-900-322.	
2	At OOS processor I/O terminal— Type: **RC ID aaaaaa!** (AMARC 6-digit identification number.)	RSP: **OK** (See IM—RC ID.)
3a	If single- or double-entry offices (or both) are being served— Type: **RC MR a b!** (Specifies message rate and/or input entry format.)	RSP: **OK** (See IM—RC MR.)
4b	If serving double-entry step-by-step entities— Type: **RC DB a!** (Specifies detailed billing option to be used.)	RSP: **OK** (See IM—RC DB.)
	Note: Messages in Steps 5 through 15b are repeated for each switching entity served (in ascending order [low to high] of entity number.)	
5	Type: **RC ENT aa b c!** (Specifies local office switching entity to be served and data associated with that entity.)	RSP: **OK** (See IM—RC ENT.)
6c	If serving double-entry step-by-step or triple-entry BDT entities— Type: **RC ENT aa COC bbcc ddd e f!** (Specifies for the given switching entity the translation from a 1-digit call data accumulator [CDA] or 2-digit [BDT] calling central office identifier to a corresponding 3-digit central office code.)	RSP: **OK** (See IM—RC ENT COC.)

STEP	ACTION INPUT MESSAGE	RESPONSE (RSP)/MESSAGE (MSG)
7d	If serving triple-entry BDT entities— Type: **RC ENT aa RCDR b c dd!** (Specifies for the given switching entity the calling office index translation table for each recorder scan port in each BDT.)	RSP: **OK** (See IM—RC ENT RCDR.)
8d	Type: **RC ENT aaa SPCOC bbcc CCSA ddd!** **TWX** **WATS** (Specifies for the given switching entity the special COC numbers to be assigned for billing CCSA, TWX, and WATS calls when their central office index [COI] is the same as for regular POTS subscribers.)	RSP: **OK** (See IM—RC ENT SPCOC.)
9d	Type: **RC ENT aa SPMBI bb cc!** (Specifies for the given switching entity the formatting of call types of billing according to locally specified MBI codes.)	RSP: **OK** (See IM—RC ENT SPMBI.)
10	Type: **RC ENT aa CGN b ccc!** (Specifies for the given switching entity the 3-digit calling NPA codes and a corresponding 1-digit code [calling NPA index].) ***Note:*** This message accepted by, but meaningless for, single-entry entities.	RSP: **OK** (See IM—RC ENT CGN.)
11d	If serving triple-entry BDT entities— Type: **RC ENT aa CDN b ccc!** (Specifies for the given switching entity the 3-digit called NPA codes corresponding to the 1-digit compressed codes received from BDT.)	RSP: **OK** (See IM—RC ENT CDN.)
12b	If serving double-entry step-by-step entities— Type: **RC ENT aa TOC bc dddeee fg hhhjjj kl ppprrr!** (Specifies the one, two, or three theoretical office codes associated with this switching entity.)	RSP: **OK** (See IM—RC ENT TOC.)
13b	Type: **RC ENT aa TCH b cc d eeeeeeeeee!** (Specifies the theoretical office code thousands and hundreds digit entries.)	RSP: **OK** (See IM—RC ENT TCH.)
14b	Type: **RC DRT aa bbb ccc!** (Specifies entry to be placed in digit reconstruction table for given switching entity to accommodate shortened dial patterns).	RSP: **OK** (See IM—RC DRT.)

STEP	ACTION INPUT MESSAGE	RESPONSE (RSP)/MESSAGE (MSG)
15b	Type: **RC MBI aa bccc d!** (Specifies an entry to one of the message billing index tables for given switching entity.)	RSP: **OK** (See IM—RC MBI.)
16e	If other switching entities are to be served— Repeat Steps 5 through 15b as required for each switching entity served (in ascending order of entity number). ***Note:*** Messages in Steps 17, 18c, and 19b are repeated for each equipped data channel (in ascending order [low to high] of channel number).	Same as Steps 5 through 15b.
17	Type: **RC CHL aab EQP cc dd eeeeeeeeeeee f!** (Used to equip a data channel from a remote location.)	RSP: **OK** (See IM—RC CHL EQP.)
18c	If serving double-entry step-by-step or triple-entry BDT entities— Type: **RC CHL aab ESP ccc ddd!** (Specifies number of last equipped scan port on each of the input network/multiplexer units of the CDA served by this data channel or specifies the highest equipped trunk for each recorder scan port of each BDT.)	RSP: **OK** (See IM—RC CHL ESP.)
19b	If serving double-entry step-by-step entities— Type: **RC CHL aab MON cccc!** (Specifies calling line number used by the channel monitor for the given data channel.)	RSP: **OK** (See IM—RC CHL MON.)
20f	If other data channels are equipped— Repeat Steps 17 through 19b for each equipped data channel (in ascending order of channel number).	Same as Steps 17 through 19b.
21g	If functional terminal FTTY feature is to be enabled— Type: **RC FTTY a!** (Specifies that the optional DL11 terminal interface needed for the FTTY arrangement is equipped in this AMARC.)	RSP: **OK** (See IM—RC FTTY.)
22	With all parameters entered— Type: **TEST DET 4!** (Used to perform NPD memory CRC check.)	RSP: **PF** (See IM—TEST DET.) MSG: **M tt REPT DET NPD PASSED** (See OM—REPT DET PASSED.)

STEP	ACTION INPUT MESSAGE	RESPONSE (RSP)/MESSAGE (MSG)
23	Type: **TEST DET 6!** (Used to compute NPD CRC.)	RSP: **PF** (See IM—TEST DET.) MSG: **M tt REPT DET CMP PASSED XXXXXX** (See OM—REPT DET PASSED.) ***Note:*** **XXXXXX** is CRC computation (NPD CRC) computed for nongeneric data.
24	At OOS processor— Make a backup of NPD onto magnetic tape in accordance with Procedure C of this section. Return to this point when Procedure C is completed.	
25	Equip OOS system with a clean tape equipped with "write-enable" ring.	
26	At OOS processor I/O terminal— Type: **INIT SYS!** (Used to initialize the system.)	RSP: None MSG: ****tt INIT SYS x OOS aaaaaa bbbbbb cccccc dddddd eeeeee ffffff gggggg hhhhhh iiiiii jjjjjj kkkkkk llllll mmmmmm nnnnnn oooooo pppppp qqqqqq rrrrrr ssssss tttttt uuuuuu** (See OM—INIT SYS.)
27	At OOS processor I/O terminal— Type: **RST TAPE!** (Initializes tape unit, writes an ID burst on the newly mounted tape, and restores unit to service. This message also requests a transient memory update and system restoral.)	RSP: **PF** (See IM—RST TAPE.) In approximately 30 seconds— MSG: **tt UPD MEM TRN COMPLETE** (See OM—UPD MEM COMPLETE.) **M tt RST SYS n STANDBY** (See OM—RST SYS.) **M tt RST TAPE AMA tttttt ssssss mmmmmm rrrrrr cccccc llllll pppppp** (See OM—RST TAPE AMA.)
28	At active processor I/O terminal— Type: **SW SYS!** (Requests a switch of the status of the two systems.)	RSP: **PF** (See IM—SW SYS.) MSG: **M tt SW SYS 0 aaaaaa 1 bbbbbb 000001** (See OM—SW SYS.) ***Note:*** Active processor has now been switched to standby mode.
29	At standby processor I/O terminal— Type: **RMV SYS!** (Removes standby system from service.)	RSP: **PF** (See IM—RMV SYS.)

STEP	ACTION INPUT MESSAGE	RESPONSE (RSP)/MESSAGE (MSG)
		MSG: **M tt RMV SYS n OOS 000001**
	Note: This standby processor was active processor for the first portion of this procedure.	
30	At active processor I/O terminal— Type: **UPD MEM NPD!** (Used to update NPD from active to OOS system.)	RSP: **PF** (See IM—UPD MEM NPD.) MSG: **M tt UPD MEM aaa COMPLETE** (See OM—UPD MEM COMPLETE.)
31	At OOS processor I/O terminal— Type: **TEST DET 4!** (Used to perform NPD memory CRC check.)	RSP: **PF** (See IM—TEST DET.) MSG: **M tt REPT DET NPD PASSED** (See OM—REPT DET PASSED.)
32	At OOS processor I/O terminal— Type: **TEST DET 6!** (Used to compute NPD CRC computation.)	RSP: **PF** (See IM—TEST DET.) MSG: **M tt REPT DET CMP PASSED XXXXXX** (See OM—REPT DET PASSED.) *Note:* **XXXXXX** of this verification should match that computed in Step 23. This verifies that the NPD was properly transferred via the PTP channel. If performing Procedure B, NPD CRC of this step should match NPD CRC computed in Step 20 of Procedure B.
33	Type: **INIT SYS!** (Requests initialization of system.)	RSP: None MSG: ****tt INIT SYS x OOS aaaaaa bbbbbb cccccc dddddd eeeeee ffffff gggggg hhhhhh iiiiii jjjjjj kkkkkk llllll mmmmmm nnnnnn oooooo pppppp qqqqqq rrrrrr ssssss tttttt uuuuuu** (See OM—INIT SYS.)
34	Type: **RST SYS!** (Requests restoral of OOS system to standby.)	RSP: **PF** (See IM—RST SYS.) Within 2 minutes— At both system I/O terminals— **MSG: tt UPD MEM TRN COMPLETE** (See OM—UPD MEM COMPLETE.) **M tt RST SYS n STANDBY** (See OM—RST SYS.) *Note:* Should the output message not print on both system I/O terminals, repeat Step 34.
	Note: The NPD has been entered into both processors and an NPD tape has been made.	

STEP	ACTION INPUT MESSAGE	RESPONSE (RSP)/MESSAGE (MSG)
	However, the NPD tape has not been verified. The following steps are used to verify the NPD tape. The standby system is removed from service and NPD entered via tape. A CRC check is used to verify its validity.	
35	At standby processor I/O terminal— Type: **RMV SYS!** (Requests removal of standby system from service.)	RSP: **PF** (See IM—RMV SYS.) At both system I/O terminals— MSG: **M tt RMV SYS n OOS 000001** (See OM—RMV SYS.)
36	To verify that data was written correctly— At OOS processor console— Depress HALT key.	
37	Depress START key.	
	Note: In the next step, the tape must not be equipped with a "write-enable" ring.	
38	Mount tape containing NPD data.	
39	Set console switches to 1000 (octal).	
40	Depress LOAD ADRS key.	
41	Release HALT key.	
42	Depress START key.	MSG: ****tt INIT SYS x OOS**, etc (See OM—INIT SYS.) ****tt REPT TAPE OOS**, etc (See OM—REPT TAPE OOS.) All NPD has been cleared and will have to be restored in OOS processor from the newly made magnetic tape.
43	At OOS processor I/O terminal— Type: **RST TAPE NPR!** (Restores tape controller to service for inputting NPD from magnetic tape backup.)	RSP: **PF** (See IM—RST TAPE NP [R] [W].) MSG: **M tt RST TAPE NPD aaaaaa b c** (See OM—RST TAPE NPD.)
44	At OOS processor I/O terminal— Type: **IN RCTBL TAPE!** (Used to input [write] the recent NPD from previously made backup tape.)	RSP: **IP** (See IM—IN RCTBL TAPE.) Tape is moving.

STEP	ACTION INPUT MESSAGE	RESPONSE (RSP)/MESSAGE (MSG)
		When tape ceases moving— MSG: **M tt RMV TAPE NPD RESTORED** (See OM—RMV TAPE NPD.)
45	To verify I/O terminal NPD input data with magnetic tape NPD— At OOS processor I/O terminal— Type: **TEST DET 6!** (Used to compute NPD CRC computation.)	RSP: **PF** (See IM—TEST DET.) MSG: **M tt REPT DET CMP PASSED XXXXXX** (See OM—REPT DET PASSED.) ***Note 1:*** NPD CRC of this step should match NPD CRC computed in Step 32. ***Note 2:*** Matched NPD CRC numbers indicate magnetic tape NPD matches processor memory NPD.
	Note: Nongeneric parameters (except special numbers) for all entities served by the No. 1A AMARC have been entered. A copy of these parameters has been made on magnetic tape and verified.	
46	Remove NPD tape.	
47h	If NPD special numbers are **not** to be entered or reentered— Proceed to Step 49h.	
48i	If NPD special numbers are to be entered or reentered— Follow steps given in Procedure E of this section. Return to Step 52 when Procedure E is completed.	
49h	If NPD special numbers are **not** to be entered or reentered— Mount a clean AMA tape equipped with "write-enable" ring.	
50h	At OOS processor I/O terminal— Type: **INIT SYS!** (Used to initialize system.)	RSP: None MSG: ****tt INIT SYS x OOS aaaaaa bbbbbb cccccc dddddd eeeeee ffffff gggggg hhhhhh iiiiii iiiiii kkkkkk llllll mmmmmm nnnnnn oooooo pppppp qqqqqq rrrrrr ssssss tttttt uuuuuu** (See OM—INIT SYS.)
51h	At associated I/O terminal— Type: **RST TAPE!** (Initializes tape unit, writes an ID burst on	RSP: **PF** (See IM—RST TAPE.)

STEP	ACTION INPUT MESSAGE	RESPONSE (RSP)/MESSAGE (MSG)
	the newly mounted tape, checks for an empty tape, and restores unit to service. This message also requests a transient memory update and system restoral.)	In approximately 30 seconds— MSG: **tt UPD MEM TRN COMPLETE** (See OM—UPD MEM COMPLETE.) **M tt RST SYS n STANDBY** (See OM—RST SYS.) **M tt RST TAPE AMA ttttt ssssss mmmmmm rrrrrr cccccc llllll pppppp** (See OM—RST TAPE AMA.)
52	Set date and time using Section 201-900-325. Enter clock compensation(s) at this time if any exist.	
GENERIC 2		
1	Perform a stable initialization per Section 201-900-322.	
2	At OOS processor I/O terminal— Type: **RC ID aaaaaa!** (AMARC 6-digit identification number.)	RSP: **OK** (See IM—RC ID.)
3a	If single- or double-entry entities (or both) or triple-entry No. 3 ESS entities are being served— Type: **RC MR a b!** (Specifies message rate and/or input entry format.)	RSP: **OK** (See IM—RC MR.)
4b	If serving double-entry step-by-step entities or triple-entry No. 3 ESS entities— Type: **RC DB a!** (Specifies detailed billing option to be used.)	RSP: **OK** (See IM—RC DB.)
5	For each multiplexer to be equipped— Type: **RC MPX aa EQP!** (Used to equip a DZ11 multiplexer in AMARC software where: **aa** = DZ11 multiplexer number 00-13 octal.)	RSP: **OK** (See IM—RC MPX EQP.)
6	For each automatic calling unit (ACU) to be equipped— Type: **RC ACU a EQP!** (Used to equip ACU in AMARC software where: **a** = ACU number 0-5.)	RSP: **OK** (See IM—RC ACU EQP.)
7	For each dial backup data channel to be equipped— Type: **RC DLP aab EQP cccc d!** (Used to equip a dial backup data channel in	RSP: **OK** (See IM—RC DLP EQP.)

STEP	ACTION/INPUT MESSAGE	RESPONSE (RSP)/MESSAGE (MSG)
	AMARC software, where: **aa** = DZ11 multiplexer number 00-13 octal **b** = data channel number 0-7 **cccc** = type of dial backup channel **d** = ACU number 0-5 octal.)	
8	Type: **RC ENT aaa b c!** (Specifies local office switching entity to be served and data associated with that entity.)	RSP: **OK** (See IM—RC ENT.)
9c	If serving double-entry step-by-step or triple-entry BDT entities— Type: **RC ENT aaa COC bbcc ddd e f!** (Specifies for the given switching entity the translation from a 2-digit calling central office identifier to a corresponding 3-digit central office code.)	RSP: **OK** (See IM—RC ENT COC.)
10d	If serving triple-entry BDT entities— Type: **RC ENT aaa RCDR b c dd!** (Specifies for the given switching entity the calling office index translation table for each recorder scan port in each BDT.)	RSP: **OK** (See IM—RC ENT RCDR.)
11d	Type: **RC ENT aaa SPCOC bbcc CCSA ddd!** **bbcc TWX** **bbcc WATS** (Specifies for the given switching entity the special COC numbers to be assigned for billing CCSA, TWX, and WATS calls when their central office index [COI] is the same as for regular POTS subscribers.)	RSP: **OK** (See IM—RC ENT SPCOC.)
12d	Type: **RC ENT aaa SPMBI bb cc!** (Specifies for the given switching entity the formatting of call types of billing according to locally specified MBI codes.)	RSP: **OK** (See IM—RC ENT SPMBI.)
13	Type: **RC ENT aaa CGN b ccc!** (Specifies for the given switching entity the 3-digit calling NPA codes and a corresponding 1-digit code calling NPA index.) ***Note:*** This message accepted by, but meaningless for, single-entry entities.	RSP: **OK** (See IM—RC ENT CGN.)
14d	If serving triple-entry BDT entities— Type: **RC ENT aaa CDN b ccc!** (Specifies for the given switching entity the 3-digit called NPA codes corresponding to the 1-digit compressed codes received from BDT.)	RSP: **OK** (See IM—RC ENT CDN.)

STEP	ACTION/INPUT MESSAGE	RESPONSE (RSP)/MESSAGE (MSG)
15e	If serving double-entry step-by-step entities— Type: **RC ENT aaa TOC bc dddeee fg hhhiii kl ppprrr!** (Specifies the one, two, or three theoretical office codes associated with this switching entity.)	RSP: **OK** (See IM—RC ENT TOC.)
16e	Type: **RC ENT aaa TCH b cc d eeeeeeeeee!** (Specifies the theoretical office code thousands and hundreds digit entries.)	RSP: **OK** (See IM—RC ENT TCH.)
17e	Type: **RC DRT aaa bbb ccc!** (Specifies entry to be placed in digit reconstruction table for given switching entity.)	RSP: **OK** (See IM—RC DRT.)
18e	Type: **RC MBI aaa bccc d!** (Specifies an entry to one of the message billing index tables for given switching entity.)	RSP: **OK** (See IM—RC MBI.)
19f	If other switching entities are to be served— Repeat Steps 8 through 18e as required for each switching entity served (in ascending order of entity number).	Same as Steps 8 through 18e.
	Note: Messages in Steps 20 through 23g are repeated for each equipped data channel (in ascending order [low to high] of channel number).	
20	Type: **RC CHL aab EQP ccc dd tttt eeeeeeeeeeeee f!** (Used to equip a data channel from remote location.)	RSP: **OK** (See IM—RC CHL EQP.)
	Note: For No. 3 ESS, the dd,e....e, and f fields are not required. The next higher sequential channel (aab+1), called a dedicated backup, is equipped automatically with the RC CHL EQP message.	
21	Type: **RC CHL aab ESP ccc ddd!** (Specifies number of last equipped scan port on each of the input network/multiplexer units of the CDA served by this data channel or specifies the highest equipped trunk for each recorder scan port of each BDT. When used with No. 3 ESS, this message specifies the number of the highest equipped junctor.)	RSP: **OK** (See IM—RC CHL ESP.)

STEP	ACTION/INPUT MESSAGE	RESPONSE (RSP)/MESSAGE (MSG)
	Note: Not used with single-entry entities.	
22e	If serving double-entry step-by-step entities— Type: **RC CHL aab MON cccc!** (Specifies calling line number used by the channel monitor for the given data channel.)	RSP: **OK** (See IM—RC CHL MON.)
23g	If serving No. 3 ESS switching entity— Type: **RC CHL aab TID cccccc!** (Specifies the 6-digit base and control number for the specified No. 3 ESS office.)	RSP: **OK** (See IM—RC CHL TID.)
24h	If other data channels are equipped— Repeat Steps 20 through 23g for each equipped data channel (in ascending order of channel number).	Same as Steps 20 through 23g.
25i	If functional terminal FTTY feature is to be enabled— Type: **RC FTTY a!** (Specifies that the optional DL11 terminal interface needed for the FTTY arrangement is equipped in this AMARC.)	RSP: **OK** (See IM—RC FTTY.)
26	With all parameters entered— Type: **TEST DET 4!** (Used to perform NPD memory CRC check.)	RSP: **PF** (See IM—TEST DET.) MSG: **M tt REPT DET NPD PASSED** (See OM—REPT DET PASSED.)
27	Type: **TEST DET 6!** (Used to compute NPD CRC.)	RSP: **PF** (See IM—TEST DET.) MSG: **M tt REPT DET CMP PASSED XXXXXX** (See OM—REPT DET PASSED.) *Note:* **XXXXXX** is CRC computation (NPD CRC) computed for nongeneric data.
28	At OOS processor— Make a backup of NPD onto magnetic tape in accordance with Procedure C of this section. Return to this point when Procedure C is completed.	
29	Equip OOS system with a clean AMA tape equipped with "write-enable" ring.	
30	At OOS processor I/O terminal— Type: **INIT SYS!** (Used to initialize the system.)	RSP: None MSG: ****tt INIT SYS x OOS aaaaaa bbbbbb cccccc dddddd eeeeee ffffff gggggg hhhhhh iiiiii**

STEP	ACTION/INPUT MESSAGE	RESPONSE (RSP)/MESSAGE (MSG)
		iiiiii kkkkkk llllll mmmmmm nnnnnn oooooo pppppp qqqqqq rrrrrr ssssss tttttt uuuuuu (See OM—INIT SYS.)
31	At OOS processor I/O terminal— Type: **RST TAPE!** (Initializes tape unit, writes an ID burst on the newly mounted tape, and restores unit to service. This message also requests a transient memory update and system restoral.)	RSP: **PF** (See IM—RST TAPE.) In approximately 30 seconds— MSG: **tt UPD MEM TRN COMPLETE** (See OM—UPD MEM COMPLETE.) **M tt RST SYS n STANDBY** (See OM—RST SYS.) **M tt RST TAPE AMA tttttt ssssss mmmmmm rrrrrr cccccc llllll pppppp** (See OM—RST TAPE AMA.)
32	At active processor I/O terminal— Type: **SW SYS!** (Requests a switch of the status of the two systems.)	RSP: **PF** (See IM—SW SYS.) MSG: **M tt SW SYS 0 aaaaaa, 1 bbbbbb 000001** (See OM—SW SYS.) ***Note:*** Active processor has now been switched to standby mode.
33	At standby processor I/O terminal— Type: **RMV SYS!** (Remove standby system from service.) ***Note:*** This standby processor was active processor for the first portion of this procedure.	RSP: **PF** (See IM—RMV SYS.) MSG: **M tt RMV SYS n OOS 000001** (See OM—RMV SYS.)
34	At active processor I/O terminal— Type: **UPD MEM NPD!** (Used to update NPD from active to OOS system.)	RSP: **PF** (See IM—UPD MEM NPD.) MSG: **M tt UPD MEM aaa COMPLETE** (See OM—UPD MEM COMPLETE.)
35	At OOS processor I/O terminal— Type: **TEST DET 4!** (Used to perform NPD memory CRC check.)	RSP: **PF** (See IM—TEST DET.) MSG: **M tt REPT NPD PASSED** (See OM—REPT DET PASSED.)
36	Type: **TEST DET 6!** (Used to compute NPD CRC computation.)	RSP: **PF** (See IM—TEST DET.) MSG: **M tt REPT DET CMP PASSED XXXXXX** (See OM—REPT DET PASSED.)

STEP	ACTION/INPUT MESSAGE	RESPONSE (RSP)/MESSAGE (MSG)
		Note: **XXXXXX** of this verification should match that computed in Step 27. This verifies that the NPD was properly transferred via the PTP channel. If performing Procedure B, NPD CRC of this step should match NPD CRC computed in Step 20 of Procedure B.
37	Type: **INIT SYS!** (Requests initialization of system.)	RSP: None MSG: ****tt INIT SYS x OOS aaaaaa bbbbbb cccccc dddddd eeeeee ffffff gggggg hhhhhh iiiiii jjjjjj kkkkkk llllll mmmmmmm nnnnnn oooooo pppppp qqqqqq rrrrrr ssssss tttttt uuuuuu** (See OM—INIT SYS.)
38	Type: **RST SYS!** (Requests restoral of OOS system to standby.)	RSP: **PF** (See IM—RST SYS.) Within 2 minutes— At both system I/O terminals— MSG: **tt UPD MEM TRN COMPLETE** (See OM—UPD MEM COMPLETE.) **M tt RST SYS n STANDBY** (See OM—RST SYS.) ***Note:*** Should the output message not print on both system I/O terminals, repeat Step 38.
	Note: NPD has been entered at both processors and an NPD tape has been made. However, the NPD tape has not been verified. The following steps are used to verify the NPD tape. The standby system is removed from service and NPD entered via tape. A CRC check is used to verify its validity.	
39	At standby processor I/O terminal— Type: **RMV SYS!** (Requests removal of standby system from service.)	RSP: **PF** (See IM—RMV SYS.) At both system I/O terminals— MSG: **M tt RMV SYS n OOS 000001** (See OM—RMV SYS.)
40	To verify that data was written correctly— At OOS processor console— Depress HALT key.	
41	Depress START key.	
	Note: In the next step, the tape must not be equipped with a "write-enable" ring.	

STEP	ACTION/INPUT MESSAGE	RESPONSE (RSP)/MESSAGE (MSG)
42	Mount tape containing NPD data.	
43	Set console switches to 1000 (octal).	
44	Depress LOAD ADRS key.	
45	Release HALT key.	
46	Depress START key.	MSG: **tt **INIT SYS x OOS**, etc (See OM—INIT SYS.) **tt **REPT TAPE OOS**, etc (See OM—REPT TAPE OOS.) ***Note:*** All NPD has been cleared and will have to be restored in OOS processor from the newly made magnetic tape.
47	At OOS processor I/O terminal— Type: **RST TAPE NPR!** (Restores tape controller to service for inputting NPD from magnetic tape backup.)	RSP: **PF** (See IM—RST TAPE NP [R] [W].) MSG: **M tt RST TAPE NPD aaaaaa b c** (See OM—RST TAPE NPD.)
48	Type: **IN RCTBL TAPE!** (Used to input [write] the recent NPD from previously made backup tape.)	RSP: **IP** (See IM—IN RCTBL TAPE.) Tape is moving. When tape ceases moving— MSG: **M tt RMV TAPE NPD RESTORED** (See OM—RMV TAPE NPD.)
49	To verify I/O terminal NPD input data with magnetic tape NPD— At OOS processor I/O terminal— Type: **TEST DET 6!** (Used to compute NPD CRC computation.)	RSP: **PF** (See IM—TEST DET.) MSG: **M tt REPT DET CMP PASSED XXXXXX** (See OM—REPT DET PASSED.) ***Note 1:*** NPD CRC of this step should match NPD CRC computed in Step 36. ***Note 2:*** Matched NPD CRC numbers indicate magnetic tape NPD matches processor memory NPD.
	Note: Nongeneric parameters (except special numbers) for all entities served by the No. 1A AMARC have been entered. A copy of these parameters has been made on magnetic tape and verified.	

STEP	ACTION/INPUT MESSAGE	RESPONSE (RSP)/MESSAGE (MSG)
50	Remove NPD tape.	
51j	If NPD special numbers are **not** to be entered or reentered— Proceed to Step 53j.	
52k	If NPD special numbers are to be entered or reentered— Follow steps given in Procedure E of this section. Return to Step 56 when Procedure E is completed.	
53j	If NPD special numbers are **not** to be entered or reentered— Mount a clean AMA tape equipped with "write-enable" ring.	
54j	At OOS processor I/O terminal— Type: **INIT SYS!** (Used to initialize system.)	RSP: None MSG: ****tt INIT SYS x OOS aaaaaa bbbbbb cccccc dddddd eeeeee ffffff gggggg hhhhhh iiiiii jjjjjj kkkkkk llllll mmmmmm nnnnnn oooooo pppppp qqqqqq rrrrrr ssssss tttttt uuuuuu** (See OM—INIT SYS.)
55j	At associated I/O terminal— Type: **RST TAPE!** (Initializes tape unit, writes an ID burst on the newly mounted tape, checks for an empty tape, and restores unit to service. This message also requests a transient memory update and system restoral.)	RSP: **PF** (See IM—RST TAPE.) In approximately 30 seconds— MSG: **tt UPD MEM TRN COMPLETE** (See OM—UPD MEM COMPLETE.) **M tt RST SYS n STANDBY** (See OM—RST SYS.) **M tt RST TAPE AMA ttttt ssssss mmmmmm rrrrrr cccccc llllll pppppp** (See OM—RST TAPE AMA.)
56	Set date and time using Section 201-900-325. Enter clock compensation(s) at this time if any exist.	

GENERIC 3

1	Perform a stable initialization per Section 201-900-322.	
2	At OOS processor I/O terminal— Type: **RC ID aaaaaa!** (AMARC 6-digit identification number.)	RSP: **OK** (See IM—RC ID.)
3a	If serving single- or double-entry entities (or both), triple-entry No. 3 ESS entities, or	

STEP	ACTION/INPUT MESSAGE	RESPONSE (RSP)/MESSAGE (MSG)
	triple-entry CDT entities— Type: **RC MR a b!** (Specifies message rate and/or input entry format.)	
4b	If serving double-entry step-by-step entities, triple-entry No. 3 ESS entities, or triple-entry CDT entities— Type: **RC DB a!** (Specifies detailed billing option to be used.)	RSP: **OK** (See IM—RC DB.)
5	For each multiplexer to be equipped— Type: **RC MPX aa EQP b!** (Used to equip a DZ11 multiplexer in AMARC software where: **aa** = DZ11 multiplexer number 00-13 octal **b** = type of modem control circuitry.)	RSP: **OK** (See IM—RC MPX EQP.)
6	For each automatic calling unit (ACU) to be equipped— Type: **RC ACU aa EQP!** (Used to equip ACU in AMARC software where: **aa** = ACU number 00-17 octal.)	RSP: **OK** (See IM—RC ACU EQP.)
7	For each dial backup data channel to be equipped— Type: **RC DLP aab EQP cccc dd!** (Used to equip a dial backup data channel in AMARC software where: **aa** = DZ11 multiplexer number 00-13 octal **b** = data channel number 0-7 **cccc** = type of dial backup channel **dd** = ACU number 00-17 octal.)	RSP: **OK** (See IM—RC DLP EQP.)
8	To equip flexport multiplexer— Type: **RC FLXMPX a EQP!** (Used to equip flexport multiplexer 1 where: **a** = multiplexer number = 1.) ***Note:*** Flexport multiplexer 0 is automatically equipped.	RSP: **OK** (See IM—RC FLXMPX EQP.)
9	For each flexport to be equipped— Type: **RC FLXPORT ab EQP c dd!** (Used to equip flexport ports for communication and control where: **ab** = multiplexer and port numbers 02-17 octal **c** = parameter indicator for the port **dd** = data set speed.)	RSP: **OK** (See IM—RC FLXPRT EQP.)

STEP	ACTION/INPUT MESSAGE	RESPONSE (RSP)/MESSAGE (MSG)
10	For each entity served— Type: **RC ENT aaa b cccccc d e!** (Specifies local office switching entity to be served and data associated with that entity.)	RSP: OK (See IM—RC ENT.)
11c	If serving double-entry step-by-step, triple-entry BDT, or triple-entry CDT entities— Type: **RC ENT aaa COC bbcc ddd e f!** (Specifies for the given switching entity the translation from a 2-digit calling central office identifier to a corresponding 3-digit central office code.)	RSP: **OK** (See IM RC ENT COC.)
12d	If serving triple-entry BDT entities— Type: **RC ENT aaa RCDR b c dd!** (Specifies for the given switching entity the calling office index translation table for each recorder scan port in each BDT.)	RSP: **OK** (See IM—RC ENT RCDR.)
13d	Type: **RC ENT aa SPCOC bbcc CCSA ddd!** **TWX** **WATS** (Specifies for the given switching entity the special COC numbers to be assigned for billing CCSA, TWX, and WATS calls when their central office index [COI] is the same as for regular POTS subscribers.)	RSP: **OK** (See IM—RC ENT SPCOC.)
14e	If serving triple-entry CDT entities— Type: **RC ENT aaa MBC bb ccc!** (Specifies for the given switching entity an NXX code based on the message billing class [CDT].)	RSP: None (See IM—RC ENT MBC.)
15d	If serving triple-entry BDT entities— Type: **RC ENT aaa SPMBI bb cc!** (Specifies for the given switching entity the formatting of call types of billing according to locally specified MBI codes.)	RSP: **OK** (See IM—RC ENT SPMBI.)
16	Type: **RC ENT aaa CGN b ccc!** (Specifies for the given switching entity the 3-digit calling NPA codes and a corresponding 1-digit code calling NPA index.) ***Note:*** This message accepted by, but meaningless for, single-entry entities.	RSP: **OK** (See IM—RC ENT CGN.)
17d	If serving triple-entry BDT entities— Type: **RC ENT aaa CDN b ccc!** (Specifies for the given switching entity the	RSP: **OK** (See IM—RC ENT CDN.)

STEP	ACTION/INPUT MESSAGE	RESPONSE (RSP)/MESSAGE (MSG)
	3-digit called NPA codes corresponding to the 1-digit compressed codes received from BDT.)	
18e	If serving triple-entry CDT entities— Type: **RC ENT aaa NXX bbb cc d!** (Specifies the NPA in which a particular NXX is located when the NXX is called from a CDT entity with either 7 or 1+7 digit dialing.)	RSP: **OK** (See IM—RC ENT NXX.)
19e	Type: **RC ENT aaa AUD bbbccddddd e!** (Enters and deletes data in the trunk audit table.)	RSP: **OK** (See IM—RC ENT AUD.)
20e	Type: **RC ENT aaa TDL bbb c d!** (Enters data into the 10-digit local dialing translation table.)	RSP: **OK** (See IM—RC ENT TDL.)
21f	If serving double-entry step-by-step entities— Type: **RC ENT aaa TOC BC dddeee fg hhhjjj kl ppprrr!** (Specifies the one, two, or three theoretical office codes associated with this switching entity.)	RSP: **OK** (See IM—RC ENT TOC.)
22f	Type: **RC ENT aaa TCH b cc d eeeeeeeeee!** (Specifies the theoretical office code thousands and hundreds digit entries.)	RSP: **OK** (See IM—RC ENT TCH.)
23e	If serving triple-entry CDT entities— Type: **RC ENT aaa OLC bbb ccc dd e!** (Specifies the message billing class and rate for an originating line class.)	RSP: None (See IM—RC ENT OLC.)
24e	Type: **RC ENT aaa TLF bb!** (Specifies the number of the highest trunk link frame equipped for a CDT controller.)	RSP: None (See IM—RC ENT TLF.)
25e	Type: **RC ENT aaa DTK bb cc dddd!** (Enters data into the dedicated trunk table. This table is used to determine if CCSA or WATS trunks were used on a call.)	RSP: **OK** (See IM—RC ENT DTK.)
26e	Type: **RC ENT aaa MSG bb ccc dd!** (Used to equip message-rate tables for customers whose OLC maps into an MBC of message rate.)	RSP: None (See IM—RC ENT MSG.)
27e	Type: **RC ENT aaa FLT bb ccc d!** (Used to equip flat-rate tables used by customers whose OLC maps into an MBC of flat rate or cover zone.)	RSP: None (See IM—RC ENT FLT.)

STEP	ACTION/INPUT MESSAGE	RESPONSE (RSP)/MESSAGE (MSG)
28e	If serving triple-entry CDT entities— Type: **RC ENT aaa BRI bb cc d e!** (Specifies local or nonlocal call treatment and bulk or detailed billing for a particular billing rate indicator [BRI] in the specified message rate billing table for the given CDT entity.)	RSP: **OK** (See IM—RC ENT BRI.)
29e	Type: **RC ENT aaa OBS bbb ccc dddd e!** (Used to enter a telephone number to be complaint observed into the complaint observed number table.)	RSP: **OK** (See IM—RC ENT OBS.)
30d	If serving triple-entry BDT entities— Type: **RC ENT aaa CCI b c!** (Specifies the WATS type for certain call class indices [CCI].)	RSP: **OK** (See IM—RC ENT CCI.)
31f	If serving double-entry step-by-step entities— Type: **RC DRT aaa bbb ccc!** (Specifies entry to be placed in digit reconstruction table for given switching entity.)	RSP: **OK** (See IM—RC DRT.)
32f	Type: **RC MBI aaa bccc d!** (Specifies an entry to one of the message billing index tables for given switching entity.)	RSP: **OK** (See IM—RC MBI.)
33g	If other switching entities are to be served— Repeat Steps 10 through 32f as required for each switching entity served. ***Note 1:*** It is not necessary that messages be repeated for each switching entity served in an ascending order of entity number. ***Note 2:*** Message in Steps 34 through 38h repeated for each equipped data channel. It is not necessary that messages be entered for each channel in an ascending order of channel number.	Same as Steps 10 through 32f.
34	Type: **RC CHL aab EQP ccc dd tttt eeeeeeeeeeeee f!** (Used to equip a data channel from remote location.) ***Note:*** For No. 3 ESS, the dd, tttt, e....e, and f fields are not required. The next higher sequential channel (aab+1), called a dedicated backup, is equipped automatically with the RC CHL EQP message.	RSP: **OK** (See IM—RC CHL EQP.)

STEP	ACTION/INPUT MESSAGE	RESPONSE (RSP)/MESSAGE (MSG)
35	Type: **RC CHL aab ESP ccc ddd!** (Specifies number of last equipped scan port on each of the input network/multiplexer units of the CDA served by this data channel or specifies the highest equipped trunk for each recorder scan port of each BDT. When used with No. 3 ESS, this message specifies the number of the highest equipped junctor.) ***Note:*** Not used with single-entry entities.	RSP: **OK** (See IM—RC CHL ESP.)
36e	If serving triple-entry CDT entities— Type: **RC CHL aab COL cc d!** (Specifies the trunk scan board column equipped on a CDT controller.)	RSP: **OK** (See IM—RC CHL COL.)
37f	If serving double-entry step-by-step entities— Type: **RC CHL aab MON cccc!** (Specifies calling line number used by the channel monitor for the given data channel.)	RSP: **OK** (See IM—RC CHL MON.)
38h	If serving No. 3 ESS or CDT switching entity— Type: **RC CHL aab TID cccccc!** (Specifies the 6-digit base and control number for the specified No. 3 ESS office or the 3-digit base and control number for the CDT entity.)	RSP: **OK** (See IM—RC CHL TID.)
39i	If other data channels are equipped— Repeat Steps 34 through 38h for each equipped data channel. ***Note:*** It is not necessary that messages be repeated in an ascending order of channel number.	
40	To enter expiration period of AMA billing tapes— Type: **RC EXP aaaa!** (Used to input the expiration period for AMA billing magnetic tapes where: **aaaa** = expiration period in 0-9999 days.)	RSP: **OK** (See IM—RC XPRD.)
41	With all parameters entered— Type: **TEST DET 4!** (Used to perform NPD memory CRC check.)	RSP: **PF** (See IM—TEST DET.) MSG: **M tt REPT DET NPD PASSED** (See OM—REPT DET PASSED.)
42	Type: **TEST DET 6!** (Used to compute NPD CRC.)	RSP: **PF** (See IM—TEST DET.)

STEP	ACTION/INPUT MESSAGE	RESPONSE (RSP)/MESSAGE (MSG)
		MSG: **M tt REPT DET CMP PASSED XXXXXX** (See OM—REPT DET PASSED.) ***Note:*** **XXXXXX** is CRC computation (NPD CRC) computed for nongeneric data.
43	At OOS processor— Make a backup of NPD onto magnetic tape in accordance with Procedure C of this section. Return to this point when Procedure C is completed.	
44	At OOS tape drive— Mount a new AMA tape with prepared header label information or an unerased tape on or after its expiration date. ***Note:*** Tape must have "write-enable" ring.	
45	At OOS processor I/O terminal— Type: **INIT SYS!** (Used to initialize the system.)	RSP: None MSG: ****tt INIT SYS x OOS aaaaaa bbbbbb cccccc dddddd eeeeee ffffff gggggg hhhhhh iiiiii jjjjjj kkkkkk llllll mmmmmm nnnnnn oooooo pppppp qqqqqq rrrrrr ssssss tttttt uuuuuu** (See OM—INIT SYS.)
46	At OOS processor I/O terminal— Type: **RST TAPE!** (Initializes tape unit, writes an ID burst on the newly mounted tape, and restores unit to service. This message also requests a transient memory update and system restoral.)	RSP: **PF** (See IM—RST TAPE.) In approximately 30 seconds— MSG: **tt UPD MEM TRN COMPLETE** (See OM—UPD MEM COMPLETE.) **M tt RST SYS n STANDBY** (See OM—RST SYS.) **M tt RST TAPE AMA tttttt ssssss mmmmmm rrrrrr cccccc iiiiii pppppp** (See OM—RST TAPE AMA.)
47	At active processor I/O terminal— Type: **SW SYS!** (Requests a switch of the status of the two systems.)	RSP: **PF** (See IM—SW SYS.) MSG: **M tt SW SYS O aaaaaa, 1 bbbbbb 000001** (See OM—SW SYS.) ***Note:*** Active processor has now been switched to standby mode.
48	At standby processor I/O terminal— Type: **RMV SYS!** (Remove standby system from service.)	RSP: **PF** (See IM—RMV SYS.)

STEP	ACTION/INPUT MESSAGE	RESPONSE (RSP)/MESSAGE (MSG)
		MSG: **M tt RMV SYS n OOS 000001** (See OM—RMV SYS.)
	Note: This standby processor was active processor the the first portion of this procedure.	
49	At active processor I/O terminal— Type: **UPD MEM NPD!** (Used to update NPD from active to OOS system.)	RSP: **PF** (See IM—UPD MEM NPD.) MSG: **M tt UPD MEM aaa COMPLETE** (See OM—UPD MEM COMPLETE.)
50	At OOS processor I/O terminal— Type: **TEST DET 4!** (Used to perform NPD memory CRC check.)	RSP: **PF** (See IM—TEST DET.) MSG: **M tt REPT NPD PASSED** (See OM—REPT DET PASSED.)
51	Type: **TEST DET 6!** (Used to compute NPD CRC computation.)	RSP: **PF** (See IM—TEST DET.) MSG: **M tt REPT DET CMP PASSED XXXXXX** (See OM—REPT DET PASSED.) ***Note:*** **XXXXXX** of this verification should match that computed in Step 42. This verifies that the NPD was properly transferred via the PTP channel. If performing Procedure B, NPD CRC of this step should match NPD CRC computed in Step 20 of Procedure B.
52	Type: **INIT SYS!** (Requests initialization of system.)	RSP: None MSG: ****tt INIT SYS x OOS aaaaaa bbbbbb cccccc dddddd eeeeee ffffff gggggg hhhhhh iiiiii iiiiii kkkkkk llllll mmmmmm nnnnnn oooooo pppppp qqqqqq rrrrrr ssssss tttttt uuuuuu** (See OM—INIT SYS.)
53	Type: **RST SYS!** (Requests restoral of OOS system to standby.)	RSP: **PF** (See IM—RST SYS.) Within 2 minutes— At both system I/O terminals— MSG: **tt UPD MEM TRN COMPLETE** (See OM—UPD MEM COMPLETE.) **M tt RST SYS n STANDBY** (See OM—RST SYS.) ***Note:*** Should the output message not print on both system I/O terminals, repeat Step 53.
	Note: NPD has been entered at both processors and an NPD tape has been made.	

STEP	ACTION/INPUT MESSAGE	RESPONSE (RSP)/MESSAGE (MSG)
	However, the NPD tape has not been verified. The following steps are used to verify the NPD tape. The standby system is removed from service and NPD is entered via tape. A CRC check is used to verify its validity.	
54	At standby processor I/O terminal— Type: **RMV SYS!** (Requests removal of standby system from service.)	RSP: **PF** (See IM—RMV SYS.) At both system I/O terminals— MSG: **M tt RMV SYS n OOS 000001** (See OM—RMV SYS.)
55	To verify that data was written correctly— At OOS processor console— Depress HALT key.	
56	Depress START key.	
	Note: In the next step, the tape must not be equipped with a "write-enable" ring.	
57	Mount tape containing NPD data.	
58	Set console switches to 1000 (octal).	
59	Depress LOAD ADRS key.	
60	Release HALT key.	
61	Depress START key.	MSG: ****tt INIT SYS x OOS**, etc (See OM—INIT SYS.) ****tt REPT TAPE OOS**, etc (See OM—REPT TAPE OOS.) ***Note:*** All NPD has been cleared and will have to be restored in OOS processor from the newly made magnetic tape.
62	At OOS processor I/O terminal— Type: **RST TAPE NPR!** (Restores tape controller to service for inputting NPD from magnetic tape backup.)	RSP: **PF** (See IM—RST TAPE NP [R] [W].) MSG: **M tt RST TAPE NPD aaaaaa b c** (See OM—RST TAPE NPD.)
63	Type: **IN RCTBL TAPE!** (Used to input [write] the recent NPD from previously made backup tape.)	RSP: **IP** (See IM—IN RCTBL TAPE.) Tape is moving.

STEP	ACTION/INPUT MESSAGE	RESPONSE (RSP)/MESSAGE (MSG)
		When tape ceases moving— MSG: **M tt RMV TAPE NPD RESTORED** (See OM—RMV TAPE NPD.)
64	To verify I/O terminal NPD input data with magnetic tape NPD— At OOS processor I/O terminal— Type: **TEST DET 6!** (Used to compute NPD CRC computation.)	RSP: **PF** (See IM—TEST DET.) MSG: **M tt REPT DET CMP PASSED XXXXXX** (See OM—REPT DET PASSED.) ***Note 1:*** NPD CRC of this step should match NPD CRC computed in Step 51. ***Note 2:*** Matched NPD CRC numbers indicate magnetic tape NPD matches processor memory NPD.
	Note: Nongeneric parameters (except special numbers) for all entities served by the No. 1A AMARC have been entered. A copy of these parameters has been made on magnetic tape and verified.	
65	Remove NPD tape.	
66k	If NPD special numbers are ***not*** to be entered or reentered— Proceed to Step 68k.	
67l	If NPD special numbers are to be entered or reentered— Follow steps given in Procedure E of this section. Return to Step 71 when Procedure E is completed.	
68k	If NPD special numbers are ***not*** to be entered or reentered— Mount a new AMA tape with prepared header label information or an unerased tape on or after its expiration date.	
	Note: Tape must have "write-enable" ring.	
69k	At OOS processor I/O terminal— Type: **INIT SYS!** (Used to initialize system.)	RSP: None MSG: ****tt INIT SYS x OOS aaaaaa bbbbbb cccccc dddddd eeeeee ffffff gggggg hhhhhh iiiiii iiiiii kkkkkk llllll mmmmmm nnnnnn oooooo pppppp gggggg rrrrrr ssssss tttttt uuuuuu** (See OM—INIT SYS.)

STEP	ACTION/INPUT MESSAGE	RESPONSE (RSP)/MESSAGE (MSG)
70k	Type: **RST TAPE!** (Initializes tape unit, writes an ID burst on the newly mounted tape, checks for an empty tape, and restores unit to service. This message also requests a transient memory update and system restoral.)	RSP: **PF** (See IM—RST TAPE.) In approximately 30 seconds— MSG: **tt UPD MEM TRN COMPLETE** (See OM—UPD MEM COMPLETE.) **M tt RST SYS n STANDBY** (See OM—RST SYS.) **M tt RST TAPE AMA ttttt ssssss mmmmmm rrrrrr cccccc llllll pppppp** (See OM—RST TAPE AMA.)
71	Set date and time using Section 201-900-325. Enter clock compensation(s) at this time if any exist.	

B. Changes and Additions

Note 1: Nongeneric parameter changes and additions may only be entered on an OOS processor I/O terminal.

Note 2: Table A should be referenced throughout this procedure to maintain order of entry and system relationship.

Note 3: This procedure ***does not*** include changes and additions for special numbers. Refer to Procedure E for these steps. Also, this procedure does not include information for entering clock compensation. For this information, refer to Section 201-900-325.

1a	If disk enabled for processor— At associated I/O terminal— Type: **RMV DISK!** (Used to disable disk.)	RSP: **PF** (See IM—RMV DISK.) MSG: **M tt REPT DISK RMV OK** (See OM—REPT DISK RMV.)
2	At standby processor I/O terminal— Type: **RMV TAPE!** (Used to dismount a tape from magnetic tape drive and remove tape controller from service.)	RSP: **PF** (See IM—RMV TAPE.) MSG: **M tt RMV TAPE AMA ttttt ssssss mmmmmm rrrrrr cccccc llllll pppppp** (See OM—RMV TAPE AMA.) Tape rewinds from lower to upper reel until load point is reached. Tape drive RESET lamp lighted. MSG: **M tt RMV SYS n OOS 000002** (See OM—RMV SYS.)

STEP	ACTION/INPUT MESSAGE	RESPONSE (RSP)/MESSAGE (MSG)
		Note: This message printed when processor is standby.
3	At tape drive— Depress REWIND key.	Tape totally rewinds from lower to upper reel.
4	Remove AMA tape from tape drive.	
5b	If provided with double-entry step-by-step, triple-entry No. 3 ESS, and/or triple-entry CDT handling special number (SPN) data— At OOS processor console— Depress HALT key.	
6b	Depress START key.	
7b	Mount tape containing present NPD data.	
8b	Load address 1000 (octal) on console switches.	
9b	Depress LOAD ADRS key.	
10b	Release HALT key.	
11b	Depress START key.	MSG: **tt **INIT SYS x OOS**, etc (See OM—INIT SYS.) **tt **REPT TAPE OOS**, etc (See OM—REPT TAPE OOS.) All NPD has been cleared from the OOS processor and will now be restored in OOS processor except for SPN data. SPN data will be reentered at conclusion of this procedure.
12b	Type: **RST TAPE NPR!** (Restores tape controller to service for inputting NPD from magnetic tape backup.)	RSP: **PF** (See IM—RST TAPE NP [R] [W].) MSG: **M tt RST TAPE NPD aaaaaa b c** (See OM—RST TAPE NPD.)
13b	Type: **IN RCTBL TAPE!** (Used to input [write] the recent NPD from previously made backup tape.)	RSP: **IP** (See IM—IN RCTBL TAPE.) Tape is moving. When tape ceases moving— MSG: **M tt RMV TAPE NPD RESTORED** (See OM—RMV TAPE NPD.)
14b	Remove NPD tape.	

STEP	ACTION/INPUT MESSAGE	RESPONSE (RSP)/MESSAGE (MSG)
	Note: In the following step, a clean AMA tape is used for Generic 1 and 2 programs. A new AMA tape with prepared header label information or an unerased tape on or after its expiration date is used for Generic 3 program.	
15	Type: **INIT SYS!** (Used to initialize system.)	RSP: None (See IM—INIT SYS.) MSG: ****tt INIT SYS x OOS aaaaaa bbbbbb cccccc dddddd eeeeee ffffff gggggg hhhhhh iiiiii jjjjjj kkkkkk llllll mmmmmm nnnnnn oooooo pppppp qqqqqq rrrrrr ssssss tttttt uuuuuu** (See OM—INIT SYS.)
16	Mount an AMA tape equipped with "write-enable" ring for writing NPD. ***Note:*** This AMA tape will eventually contain the revised NPD data.	
17	At OOS processor I/O terminal— Enter nongeneric data changes and/or additions using the RC input messages provided in Table C. ***Important:*** Examine the hard copy of the changes and/or additions, taking care to verify that the specified data is **correct** and in the **proper sequence.** Input messages provided in Table C are listed in the proper sequence.	
18	When all parameters to be changed and/or added have been entered— Verify contents now residing in memory by typing appropriate message provided in Table B. (Requests a memory dump of area selected.)	
19	Type: **TEST DET 4!** (Used to perform NPD memory CRC check.)	RSP: **PF** (See IM—TEST DET.) MSG: **M tt REPT DET NPD PASSED** (See OM—REPT DET PASSED.)
20	Type: **TEST DET 6!** (Used to compute NPD CRC computation.)	RSP: **PF** (See IM—TEST DET.) MSG: **M tt REPT DET CMP PASSED XXXXXX** (See OM—REPT DET PASSED.)

STEP	ACTION/INPUT MESSAGE	RESPONSE (RSP)/MESSAGE (MSG)
		Note: This produces an NPD CRC (**XXXXXX**) number of all data including the recent changes and/or additions.
21	Type: **INIT SYS!** (Used in this case to ensure that the additions and/or changes have not destroyed system integrity.)	RSP: None (See IM—INIT SYS.) MSG: ****tt INIT SYS x OOS aaaaaa bbbbbb cccccc dddddd eeeeee ffffff gggggg hhhhhh iiiiii iiiiii kkkkkk llllll mmmmmm nnnnnn oooooo pppppp qqqqqq rrrrrr ssssss tttttt uuuuuu** (See OM—INIT SYS.)
22	Perform Steps 24 through 52 of Procedure A for Generic 1, Steps 28 through 56 of Procedure A for Generic 2, or Steps 43 through 71 of Procedure A for Generic 3. ***Note:*** The new magnetic NPD backup tape now includes nongeneric changes and/or additions.	
	C. Making Magnetic Tape Backup	
	Note: To make an NPD magnetic tape backup, a processor must be OOS.	
1a	If operating with Generic 1 or 2 program— Mount new tape equipped with "write-enable" ring onto tape drive associated with OOS processor.	
2b	If operating with Generic 3 program— Mount a tape with prepared header label information or an unerased tape on or after its expiration date onto tape drive associated with OOS processor. ***Note:*** Tape must have "write-enable" ring. This tape will now be identified as the nongeneric data backup tape.	
3	At OOS processor I/O terminal— Type: **TEST DET 6!** (Used to compute NPD CRC computation.)	RSP: **PF** (See IM—TEST DET.) MSG: **M tt REPT DET CMP PASSED XXXXXX** (See OM—REPT DET PASSED.) ***Note:*** This produces an NPD CRC (**XXXXXX**) number of the nongeneric data now resident in memory.

STEP	ACTION/INPUT MESSAGE	RESPONSE (RSP)/MESSAGE (MSG)
4	Type: **RST TAPE NPW!** (Used to restore tape controller to service for outputting NPD from memory to backup tape.)	RSP: **PF** (See IM—RST TAPE NP [R] [W].) MSG: **M tt RST TAPE NPD aaaaaa b c** (See OM—RST TAPE NPD.)
5	Type: **OP RCTBL TAPE!** (Used to output [read] NPD onto a magnetic tape mounted on tape drive.)	RSP: **IP** (See IM—OP RCTBL TAPE.) Tape is moving. When tape ceases moving— Tape rewinds from lower to upper reel until load point is reached. Tape drive RESET lamp lighted. MSG: **M tt RMV TAPE NPD COPIED** (See OM—RMV TAPE NPD.) ***Note:*** NPD has been copied onto backup tape from recent change table in memory.
	Note: The following steps are used to verify the copy of the NPD onto magnetic tape.	
6	Remove tape from tape drive.	
7	Remove "write-enable" ring.	
8	Remount tape.	
9	Depress tape drive LOAD key.	Tape winds onto take-up reel until load point is reached. LOAD lamp lighted.
10	Depress ONLINE key.	ONLINE lamp lighted.
11	At OOS processor console— Depress HALT key.	
12	Depress START key.	
13	Set console switches to 1000 (octal).	
14	Depress LOAD ADRS key.	
15	Release HALT key.	
16	Depress START key.	RSP: None MSG: ****tt INIT SYS x OOS aaaaaa bbbbbb cccccc dddddd eeeeee ffffff gggggg hhhhhh iiiiii jjjjjj kkkkkk llllll mmmmmm nnnnnn oooooo**

STEP	ACTION/INPUT MESSAGE	RESPONSE (RSP)/MESSAGE (MSG)
		pppppp qqqqqq rrrrrr ssssss tttttt uuuuuu (See OM—INIT SYS.)
17	At OOS processor I/O terminal— Type: **RST TAPE NPR!** (Restores tape controller to service for inputting NPD from the magnetic backup tape.)	RSP: **PF** (See IM—RST TAPE NP [R] [W].) MSG: **M tt RST TAPE NPD aaaaaa b c** (See OM—RST TAPE NPD.)
18	Type: **IN RCTBL TAPE!** (Used to input [write] the recent NPD from previously made backup tape.)	RSP: **IP** (See IM—IN RCTBL TAPE.) Tape is moving. When tape ceases moving— MSG: **M tt RMV TAPE NPD RESTORED** (See OM—RMV TAPE NPD.)
19	Type: **TEST DET 6!** (Used to compute NPD CRC computation.)	RSP: **PF** (See IM—TEST DET.) MSG: **M tt REPT DET CMP PASSED XXXXXX** (See OM—REPT DET PASSED.) ***Note:*** NPD CRC (**XXXXXX**) of this step should match NPD CRC computed in Step 3.
20	Remove NPD magnetic tape.	

D. Restoring Non-Generic Parameter Data from Magnetic Tape

Note: Normal operations require that nongeneric parameters be restored only on an OOS processor.

1 Verify reel to be mounted is ***reel containing nongeneric parameter data.***

Note: This reel must not be fitted with a "write-enable" ring.

2 Mount NPD tape.

3 At OOS processor console—
Depress HALT key.

4 Depress START key.

5 Set console switches to 1000 (octal).

6 Depress LOAD ADRS key.

STEP	ACTION/INPUT MESSAGE	RESPONSE (RSP)/MESSAGE (MSG)
7	Release HALT key.	
8	Depress START key.	RSP: None MSG: **tt SYS x OOS aaaaaa bbbbbb cccccc dddddd eeeeee ffffff gggggg hhhhhh iiiiii jjjjjj kkkkkk llllll mmmmmm nnnnnn oooooo pppppp qqqqqq rrrrrr ssssss tttttt uuuuuu (See OM—INIT SYS.) **tt REPT TAPE OOS, etc (See OM—REPT TAPE OOS.)
9	Restore console switches.	
10	At OOS processor I/O terminal— Type: **RST TAPE NPR!** (Restores tape controller to service for inputting NPD from the magnetic backup tape.)	RSP: **PF** (See IM—RST TAPE NP [R] [W].) MSG: **M tt RST TAPE NPD aaaaaa b c** (See OM—RST TAPE NPD.)
11	Type: **IN RCTBL TAPE!** (Used to input [write] the recent NPD from previously made backup tape.)	RSP: **IP** (See IM—IN RCTBL TAPE.) Tape is moving. When tape ceases moving— MSG: **M tt RMV TAPE NPD RESTORED** (See OM—RMV TAPE NPD.)
12	Type: **TEST DET 4!** (NPD memory CRC check.)	RSP: **PF** (See IM—TEST DET.) MSG: **REPT DET NPD PASSED** (See OM—REPT DET PASSED.)
13	Type: **TEST DET 6!** (Used to compute NPD CRC number.)	RSP: **PF** (See IM—TEST DET.) MSG: **M tt REPT DET CMP PASSED XXXXXX** (See OM—REPT DET PASSED.) ***Note 1:*** NPD CRC of this step should match NPD CRC computed for tape. ***Note 2:*** Identical NPD CRC numbers indicate that the magnetic tape NPD matches the processor memory NPD.
14	At OOS processor tape unit— Remove NPD tape.	

STEP	ACTION INPUT MESSAGE	RESPONSE (RSP)/MESSAGE (MSG)
15	Set clock and enter any clock compensation(s) at this time. Refer to Section 201-900-325.	
16a	If performing other than Procedure A of this section and AMARC is arranged to handle double-entry step-by-step, triple-entry No. 3 ESS, or triple-entry CDT entities— Type: **DUMP MEM NPD SPN!** (Request a BCD dump of the special number table that may reside on magnetic backup tape.)	RSP: **PF** (See IM—DUMP MEM NPD SPN.) ***Note:*** One of the two following output messages will print. ***Example 1:*** MSG: **M tt DUMP MEM NPD SPN npai Onnx thtu npai Onnx thtu npai Onnx thtu upai Onnx thtu npai Onnx. . . . . thtu** . . . **EOD** (See OM—DUMP MEM NPD SPN.) OR ***Example 2:*** MSG: **M tt DUMP MEM NPD SPN** **EOD** (See OM—DUMP MEM NPD SPN.)
17b	If output message (MSG) of special numbers (NPD SPN) data appears as that of Step 16a, ***Example 1—*** Using current list of NPD SPN number data— Update NPD SPN data (as required) in accordance with current local listing. (Refer to Table C for special number input message information and see IM—RC SPN.)	
18c	If output message (MSG) of special numbers (NPD SPN) data appears as that of Step 16a, ***Example 2—*** Verify if a current list of NPD SPN data exists and, if so, enter this data (as required) in accordance with this local listing. (Refer to Table C for special number input message information and see IM—RC SPN.)	
19	When all NPD restored— At OOS processor I/O terminal— Type: **TEST DET 6!** (Used to compute NPD CRC number.)	RSP: **PF** (See IM—TEST DET.) MSG: **M tt REPT DET CMP PASSED XXXXXX** (See OM—REPT DET PASSED.) ***Note:*** If no NPD SPN data entered, NPD CRC of this step should match NPD CRC of

STEP	ACTION INPUT MESSAGE	RESPONSE (RSP)/MESSAGE (MSG)
		NPD data computed previously for the NPD magnetic tape. When NPD SPN data entered, this will be a new CRC number computation. This number should be recorded for reference when checking or changing NPD data.
20	Return to procedure used to access this procedure. When no other procedure of this section is used to access this procedure— Restore system to desired mode of operation. (Refer to Section 201-900-322.)	

E. Entering or Deleting Special Numbers (RC SPN)

Note 1: The RC SPN input message is valid for double-entry step-by-step, triple-entry No. 3 ESS, and triple-entry CDT entities only.

Note 2: Special number entries or deletions are accepted only on an OOS processor.

1a	If disk enabled for standby processor— At associated I/O terminal— Type: **RMV DISK!** (Used to disable disk.)	RSP: **PF** (See IM—RMV DISK.) MSG: **M tt REPT DISK RMV OK** (See OM—REPT DISK RMV.)
2b	If AMA tape mounted on tape drive— At associated I/O terminal— Type: **RMV TAPE!** (Used to dismount a tape from magnetic tape drive and remove tape controller from service.)	RSP: **PF** (See IM—RMV TAPE.) MSG: **M tt RMV TAPE AMA tttttt ssssss mmmmmm rrrrrr cccccc llllll pppppp** (See OM—RMV TAPE AMA.) Tape rewinds from lower to upper reel until load point is reached. Tape drive RESET lamp lighted. MSG: **M tt RMV SYS n OOS 000002** (See OM—RMV SYS.)
3b	At tape drive— Depress REWIND key.	Tape totally rewinds from lower to upper reel.
4b	Remove AMA tape from tape drive.	
5c	If operating with Generic 1 or 2 program— Mount a new or erased tape equipped with "write-enable" ring.	

STEP	ACTION INPUT MESSAGE	RESPONSE (RSP)/MESSAGE (MSG)
6d	If operating with Generic 3 program— Mount a new tape with prepared header label information or an unerased tape on or after its expiration date. ***Note:*** Tape must have "write-enable" ring.	
7	At OOS processor I/O terminal— To enter NPD special numbers— Type: **RC SPN aaa bbb cccc d!** To delete NPD special numbers— Type: **RC SPN aaa bbb cccc!** ***Note:*** Repeat this step as required.	RSP: **OK** (See IM—RC SPN.) MSG: None
8	When all special numbers have been entered— At OOS processor I/O terminal— Type: **TEST DET 6!** (Used to compute NPD CRC number.)	RSP: **PF** (See IM—TEST DET.) MSG: **M tt REPT DET CMP PASSED XXXXXX** (See OM—REPT DET PASSED.) ***Note:*** This produces an NPD CRC (**XXXXXX**) number for the present NPD data which now includes special number data. This number should be recorded for reference.
9	Type: **INIT SYS!** (Used to initialize the system.)	RSP: None MSG: ****tt INIT SYS x OOS aaaaaa bbbbbb cccccc dddddd eeeeee ffffff gggggg hhhhhh iiiiii iiiiii kkkkkk llllll mmmmmm nnnnnn oooooo pppppp qqqqqq rrrrrr ssssss tttttt uuuuuu** (See OM—INIT SYS.)
10	Type: **RST TAPE!** (Initializes tape unit, writes an ID burst on the newly mounted tape, checks for an empty tape and restores unit to service. This message also requests a transient memory update and system restoral.)	RSP: **PF** (See IM—RST TAPE.) In approximately 30 seconds— MSG: **tt UPD MEM TRN COMPLETE** (See OM—UPD MEM COMPLETE.) **M tt RST SYS n STANDBY** (See OM—RST SYS.) **M tt RST TAPE AMA tttttt ssssss mmmmmm rrrrrr cccccc llllll pppppp** (See OM—RST TAPE AMA.)
11	At active processor I/O terminal— Type: **SW SYS!** (Requests a switch of the status of the two systems.)	RSP: **PF** (See IM—SW SYS.) MSG: **M tt SW SYS 0 aaaaaa, 1 bbbbbb 000001** (See OM—SW SYS.)

STEP	ACTION INPUT MESSAGE	RESPONSE (RSP)/MESSAGE (MSG)
		Note: Active processor has now been switched to standby mode.
12a	If disk enabled for standby processor— At associated I/O terminal— Type: **RMV DISK!** (Used to disable disk.)	RSP: **PF** (See IM—RMV DISK.) MSG: **M tt REPT DISK RMV OK** (See OM—REPT DISK RMV.)
13	At associated I/O terminal— Type: **RMV TAPE!** (Used to dismount a tape from magnetic tape drive and remove tape controller from service.)	RSP: **PF** (See IM—RMV TAPE.) MSG: **M tt RMV TAPE AMA tttttt ssssss mmmmmm rrrrrr cccccc llllll pppppp** (See OM—RMV TAPE AMA.) Tape rewinds from lower to upper reel until load point is reached. Tape drive RESET lamp lighted. MSG: **M tt RMV SYS n OOS 000002** (See OM—RMV SYS.) ***Note:*** Standby processor now removed from service.
14	At tape drive— Depress REWIND key.	Tape totally rewinds from lower to upper reel.
15	Remove AMA tape from tape drive.	
16c	If operating with Generic 1 or 2 program— Mount a new or erased tape equipped with "write-enable" ring.	
17d	If operating with Generic 3 program— Mount a new tape with prepared header label information or an unerased tape on or after its expiration date. ***Note:*** Tape must have "write-enable" ring.	
18	At active processor I/O terminal— Type: **UPD MEM NPD!** (Used to update NPD from active to OOS system.)	RSP: **PF** (See IM—UPD MEM NPD.) MSG: **M tt UPD MEM NPD COMPLETE** (See OM—UPD MEM COMPLETE.)
19	At OOS processor I/O terminal— Type: **TEST DET 6!** (Used to compute NPD CRC.)	RSP: **PF** (See IM—TEST DET.)

STEP	ACTION INPUT MESSAGE	RESPONSE (RSP)/MESSAGE (MSG)
		MSG: **M tt REPT DET CMP PASSED XXXXXX** (See OM—REPT DET PASSED.) ***Note:*** NPD of this step should match NPD CRC computed on other processor from Step 8.
20	Type: **INIT SYS!** (Used to initialize system.)	RSP: None MSG: ****tt INIT SYS x OOS aaaaaa bbbbbb cccccc dddddd eeeeee ffffff gggggg hhhhhh iiiiii jjjjjj kkkkkk llllll mmmmmm nnnnnn oooooo pppppp qqqqqq rrrrrr ssssss tttttt uuuuuu** (See OM—INIT SYS.)
21	At associated I/O terminal— Type: **RST TAPE!** (Initializes tape unit, writes an ID burst on the newly mounted tape, checks for an empty tape, and restores unit to service. This message also requests a transient memory update and system restoral.)	RSP: **PF** (See IM—RST TAPE.) In approximately 30 seconds— MSG: **tt UPD MEM TRN COMPLETE** (See OM—UPD MEM COMPLETE.) **M tt RST SYS n STANDBY** (See OM—RST SYS.) **M tt RST TAPE AMA tttttt ssssss mmmmmm rrrrrr cccccc llllll pppppp** (See OM—RST TAPE AMA.)
22	Return as required, if applicable to procedure used to access this procedure.	

TABLE A

ORDER OF ENTRY FOR NPD INPUT MESSAGE AND SYSTEM ASSOCIATION

INPUT MESSAGE	NOTES	GENERIC ISSUE	ETS SINGLE ENTRY	SXS DOUBLE ENTRY	BDT TRIPLE ENTRY	NO.3 ESS TRIPLE ENTRY	CDT TRIPLE ENTRY
RC ID		1,2,3	X	X	X	X	X
RC MR		1,2,3	X	X	—	X	X
RC DB		1,2,3	—	X	—	X	X
RC MPX EQP		2,3	X	X	X	X	X
RC ACU EQP		2,3	X	X	X	X	X
RC DLP EQP		2,3	X	X	X	X	X
RC FLXMPX EQP		3	X	X	X	X	X
RC FLXPRT EQP		3	X	X	X	X	X
RC ENT	1	1,2,3	X	X	X	X	X
RC ENT COC		1,2,3	—	X	X	—	X
RC ENT RCDR		1,2,3	—	—	X	—	—
RC ENT SPCOC		1,2,3	—	—	X	—	—
RC ENT MBC		3	—	—	—	—	X
RC ENT SPMBI		1,2,3	—	—	X	—	—
RC ENT CGN	2	1,2,3	X	X	X	X	X
RC ENT CDN		1,2,3	—	—	X	—	X
RC ENT NXX	3	3	—	—	—	—	X
RC ENT AUD		3	—	—	—	—	X
RC ENT TDL	4	3	—	—	—	—	X
RC ENT TOC		1,2,3	—	X	—	—	—
RC ENT TCH		1,2,3	—	X	—	—	—
RC ENT OLC		3	—	—	—	—	X
RC ENT TLF		3	—	—	—	—	X
RC ENT DTK		3	—	—	—	—	X

TABLE A (Contd)

ORDER OF ENTRY FOR NPD INPUT MESSAGE AND SYSTEM ASSOCIATION

INPUT MESSAGE	NOTES	GENERIC ISSUE	ETS SINGLE ENTRY	SXS DOUBLE ENTRY	BDT TRIPLE ENTRY	NO.3 ESS TRIPLE ENTRY	CDT TRIPLE ENTRY
RC ENT MSG		3	—	—	—	—	X
RC ENT FLT		3	—	—	—	—	X
RC ENT BRI		3	—	—	—	—	X
RC ENT OBS		3	—	—	—	—	X
RC ENT CCI		3	—	—	X	—	—
RC DRT		1,2,3	—	X	—	—	—
RC MBI		1,2,3	—	X	—	—	—
RC CHL EQP	5	1,2,3	X	X	X	X	X
RC CHL ESP		1,2,3	—	X	X	X	—
RC CHL COL		3	—	—	—	—	X
RC CHL MON		1,2,3	—	X	—	—	—
RC CHL TID		2,3	—	—	—	X	X
RC SPN		1, 2, 3	—	X	—	X	X
RC CLK COMP		1,2,3	X	X	X	X	X
RC FTTY		1,2	X	X	X	X	X
RC EXP		3	X	X	X	X	X

X = Applicable
—= Not Applicable

Note 1: Messages repeated for each switching entity served. Messages must be repeated in ascending order of entity number for each entity served (Generic 1 and 2 programs). For Generic 3 program, messages do not have to be repeated in ascending order of entity number.

Note 2: Messages accepted by, but meaningless for, ETS entities.

Note 3: Message is valid only for CDT entities equipped for seven digit dialing across NPA boundaries.

Note 4: Message is valid only for CDT entities equipped for ten digit local dialing.

Note 5: Messages repeated for each equipped data channel. Messages must be repeated in ascending order of channel number (Generic 1 and 2 programs). For Generic 3 program, messages do not have to be repeated in ascending order of channel number.

TABLE B

MEMORY CONTENT VERIFICATION MESSAGES

INPUT MESSAGE	GENERIC ISSUE	EXPLANATION OF INPUT MESSAGE	SYSTEM RESP	INPUT MESSAGE MANUAL (IM) REFERENCE	OUTPUT MESSAGE MANUAL (OM) REFERENCE
DUMP MEM NPD ACU!	2,3	Request an octal dump of the equipped ACU table in common NPD.	**PF**	DUMP MEM NPD ACU	DUMP MEM NPD ACU
DUMP MEM NPD AUD aaa!	3	Request a BCD dump of the trunk audit table for a particular CDT entity.	**PF**	DUMP MEM NPD AUD	DUMP MEM NPD AUD
DUMP MEM NPD CCI aaa!	3	Request an octal dump of an entry in the call class index characterization table for a particular BDT entity.	**PF**	DUMP MEM NPD CCI	DUMP MEM NPD CCI
DUMP MEM NPD CDN aa! --- **DUMP MEM NPD CDN aaa!**	1 2,3	Request a BCD dump of the called NPA table for the given switching entity.	**PF**	DUMP MEM NPD CDN	DUMP MEM NPD CDN
DUMP MEM NPD CGN aa! --- **DUMP MEM NPD CGN aaa!**	1 2,3	Request a BCD dump of the calling NPA table for the given switching entity.	**PF**	DUMP MEM NPD CGN	DUMP MEM NPD CGN
DUMP MEM NPD CHL aa bbc! --- **DUMP MEM NPD CHL aab!**	1 2,3	Request an octal dump for the given channel's parameters which are entered by the RC CHL EQP message.	**PF**	DUMP MEM NPD CHL	DUMP MEM NPD CHL

TABLE B (Contd)

MEMORY CONTENT VERIFICATION MESSAGES

INPUT MESSAGE	GENERIC ISSUE	EXPLANATION OF INPUT MESSAGE	SYSTEM RESP	INPUT MESSAGE MANUAL (IM) REFERENCE	OUTPUT MESSAGE MANUAL (OM) REFERENCE
DUMP MEM NPD CLK!	1,2,3	Request a decimal dump of the clock compensation factor of both processors.	**PF**	DUMP MEM NPD CLK	
DUMP MEM NPD OBS (data field not shown)	3	Request a dump of the complaint observed number table for the specified CDT entity.	**PF**	DUMP MEM NPD CMPOBS	DUMP MEM NPD CMPOBS
DUMP MEM NPD COC aa bb! --- **DUMP MEM NPD COC aaa bb!**	1 2,3	Request a BCD dump of central office code translations for the given switching entity.	**PF**	DUMP MEM NPD COC	DUMP MEM NPD COC
DUMP MEM NPD DRT aa! --- **DUMP MEM NPD DRT aaa!**	1 2,3	Request a BCD dump of the digit reconstruction table for the given switching entity.	**PF**	DUMP MEM NPD DRT	DUMP MEM NPD DRT
DUMP MEM NPD DTK aaa!	3	Request a dump of the dedicated trunk table for the specified CDT entity.	**PF**	DUMP MEM NPD DTK	DUMP MEM NPD DTK
DUMP MEM NPD ENT!	1,2,3	Request an octal dump of the entity table.	**PF**	DUMP MEM NPD ENT	DUMP MEM NPD ENT
DUMP MEM NPD ESP!	1,2,3	Request an octal dump of the equip scan port table.	**PF**	DUMP MEM NPD ESP	DUMP MEM NPD ESP

TABLE B (Contd)

MEMORY CONTENT VERIFICATION MESSAGES

INPUT MESSAGE	GENERIC ISSUE	EXPLANATION OF INPUT MESSAGE	SYSTEM RESP	INPUT MESSAGE MANUAL (IM) REFERENCE	OUTPUT MESSAGE MANUAL (OM) REFERENCE
DUMP MEM NPD EXP!	3	Request an octal dump of the table containing the expiration period of AMA billing tapes.	**PF**	DUMP MEM NPD EXP	DUMP MEM NPD EXP
DUMP MEM NPD FLT aaa!	3	Request a dump of the flat rate table for a CDT entity.	**PF**	DUMP MEM NPD FLT	DUMP MEM NPD FLT
DUMP MEM NPD FLXMPX!	3	Request an octal dump of the flexport multiplexer status table.	**PF**	DUMP MEM NPD FLXMPX	DUMP MEM NPD FLXMPX
DUMP MEM NPD FLXPRT!	3	Request an octal dump of the flexport status table.	**PF**	DUMP MEM NPD FLXPRT	DUMP MEM NPD FLXPRT
DUMP MEM NPD IDT!	1,2,3	Request an octal dump of the identification table for a given No. 1A AMARC.	**PF**	DUMP MEM NPD IDT	DUMP MEM NPD IDT
DUMP MEM NPD MBI aa! --- **DUMP MEM NPD MBI aaa!**	1,2 2,3	Request a BCD dump of the message billing indexes for the given switching entity.	**PF**	DUMP MEM NPD MBI	DUMP MEM NPD MBI

TABLE B (Contd)

MEMORY CONTENT VERIFICATION MESSAGES

INPUT MESSAGE	GENERIC ISSUE	EXPLANATION OF INPUT MESSAGE	SYSTEM RESP	INPUT MESSAGE MANUAL (IM) REFERENCE	OUTPUT MESSAGE MANUAL (OM) REFERENCE
DUMP MEM NPD MON!	1,2,3	Request a BCD dump of the channel monitor line number table.	**PF**	DUMP MEM NPD MON	DUMP MEM NPD MON
DUMP MEM NPD MPX!	2,3	Request an octal dump of the equipped multiplexer table in common NPD.	**PF**	DUMP MEM NPD MPX	DUMP MEM NPD MPX
DUMP MEM NPD MSG aaa!	3	Request a dump of the message rate table for a CDT entity.	**PF**	DUMP MEM NPD MSGRT	DUMP MEM NPD MSGRT
DUMP MEM NPD NXX aaa b!	3	Request an octal dump of the called NXX to called NPA index translation table for the specified CDT entity.	**PF**	DUMP MEM NPD NXX	DUMP MEM NPD NXX
DUMP MEM NPD OLC aaa!	3	Request a dump of the originating line class translation table for a specified CDT entity.	**PF**	DUMP MEM NPD OLC	DUMP MEM NPD OLC

TABLE B (Contd)

MEMORY CONTENT VERIFICATION MESSAGES

INPUT MESSAGE	GENERIC ISSUE	EXPLANATION OF INPUT MESSAGE	SYSTEM RESP	INPUT MESSAGE MANUAL (IM) REFERENCE	OUTPUT MESSAGE MANUAL (OM) REFERENCE
DUMP MEM NPD RDR aa! --- **DUMP MEM NPD RDR aaa!**	1 2,3	Request an octal dump of the recorder scan port tables for each equipped BDT for the given switching entity.	**PF**	DUMP MEM NPD RDR	DUMP MEM NPD RDR
DUMP MEM NPD SID aaa!	3	Request a BCD dump of the sensor identification number for the given entity.	**PF**	DUMP MEM NPD SID	DUMP MEM NPD SID
DUMP MEM NPD SPC aa bb! --- **DUMP MEM NPD SPC aaa bb!**	1 2,3	Request a BCD dump of special COI translations for the given BDT entity.	**PF**	DUMP MEM NPD SPC	DUMP MEM NPD SPC
DUMP MEM NPD SPM aa! --- **DUMP MEM NPD SPM aaa!**	1 2,3	Request a BCD dump of the special MBI table for the given switching entity.	**PF**	DUMP MEM NPD SPM	DUMP MEM NPD SPM
DUMP MEM NPD MBC aaa!	3	Request a dump of the COI translations for a given CDT entity.	**PF**	DUMP MEM NPD SPMBC	DUMP MEM NPD SPMBC
DUMP MEM NPD SPN!	1,2,3	Request a BCD dump of the special number table.	**PF**	DUMP MEM NPD SPN	DUMP MEM NPD SPN

TABLE B (Contd)

MEMORY CONTENT VERIFICATION MESSAGES

INPUT MESSAGE	GENERIC ISSUE	EXPLANATION OF INPUT MESSAGE	SYSTEM RESP	INPUT MESSAGE MANUAL (IM) REFERENCE	OUTPUT MESSAGE MANUAL (OM) REFERENCE
DUMP MEM NPD TCH aa! --- **DUMP MEM NPD TCH aaa!**	1 2,3	Request an octal dump of the theoretical office code thousands and hundreds group table entries for the given switching entity (Theoretical/Physical Office).	**PF**	DUMP MEM NPD TCH	DUMP MEM NPD TCH
DUMP MEM NPD TDL aaa!	3	Request an octal dump of the ten digit local dialing translation table for a particular CDT entity.	**PF**	DUMP MEM NPD TDL	DUMP MEM NPD TDL
DUMP MEM NPD TLF aaa!	3	Request a dump of table entries that provides the highest trunk link frame equipped for each CDT entity.	**None**	DUMP MEM NPD TLF	DUMP MEM NPD TLF
DUMP MEM NPD TOC aa! --- **DUMP MEM NPD TOC aaa!**	1 2,3	Request an octal dump of the theoretical office code thousand group table entries for the given switching entity (Theoretical/ Physical Office).	**PF**	DUMP MEM NPD TOC	DUMP MEM NPD TOC

TABLE C

RECENT CHANGE INPUT MESSAGES

INPUT MESSAGES* (SHOWN IN PROPER SEQUENCE OF ENTRY)	GENERIC ISSUE	EXPLANATION OF INPUT MESSAGE	SYSTEM RESP	INPUT MESSAGE MANUAL (IM) REFERENCE	NOTES	ENTRY IDENTIFIER
RC ID aaaaaa!	1,2, 3	6-digit identification number which is P/O label written on magnetic tape.	**OK**	RC ID		AMARC ID number
RC MR a b!	1,2 3	Specifies the message rate and/or the input entry format.	**OK**	RC MR		Message rate
RC DB a!	1,2 3	Specifies which detail billing option is to be used.	**OK**	RC DB	The multimessage unit (MMU) rate plan must be in effect for this request to be accepted. (See RC MR.)	Detailed billing option
RC MPX aa EQP! --- **RC MPX aa EQP b!**	2 3	Used to equip a DZ11B multiplexer in the AMARC software.	**OK**	RC MPX EQP	**aa** = DZ11B multiplexer number (00-13 octal); **b** = type of modem control circuitry (Genetic 3). To unequip a DZ11B multiplexer, type **RC MPX aa!**	Equip DZ11B multiplexers
RC ACU a EQP! --- **RC ACU aa EQP!**	2 3	Used to equip an ACU in the AMARC software.	**OK**	RC ACU EQP	Generic 2— **a** = ACU number (0-5 octal). To unequip an ACU type **RC ACU aa!**	Equip ACUs

* All messages are accepted by an OOS processor only.

TABLE C (Contd)

RECENT CHANGE INPUT MESSAGES

INPUT MESSAGES* (SHOWN IN PROPER SEQUENCE OF ENTRY)	GENERIC ISSUE	EXPLANATION OF INPUT MESSAGE	SYSTEM RESP	INPUT MESSAGE MANUAL (IM) REFERENCE	NOTES	ENTRY IDENTIFIER
					Generic 3— **aa** = ACU number (00-17 octal). To unequip an ACU type **RC ACU aa!**	
RC DLP aab EQP cccc d! --- **RC DLP aab EQP cccc dd!**	2 3	Used to equip a dial backup data channel in the AMARC software.	**OK**	RC DLP EQP	**aa** = DZ11 multiplexer (00-13 octal); **b** = data channel number (0-7); **cccc**=type of backup channel; **d** = ACU (0-5 octal) (Generic 2); **dd** = ACU (00-17 octal) (Generic 3)	Equip dial backup channels
RC FLXMPX a EQP!	3	Used to equip a flexport multiplexer.	**OK**	RC FLXMPX EQP	**a** = DZ11 multiplexer number = 1. Flexport DZ11 multiplexer 0 is automatically equipped.	Equip flexport multiplexer 1
RC FLXPRT ab EQP c dd!	3	Used to equip a flexport port for communication and control.	**OK**	RC FLXPRT EQP	**ab** = DZ11 multiplexer and port numbers (02-17 octal); **c** = parameter indicator for the port; **dd** = data set speed.	Equip flexport port

* All messages are accepted by an OOS processor only.

TABLE C (Contd)

RECENT CHANGE INPUT MESSAGES

INPUT MESSAGES* (SHOWN IN PROPER SEQUENCE OF ENTRY)	GENERIC ISSUE	EXPLANATION OF INPUT MESSAGE	SYSTEM RESP	INPUT MESSAGE MANUAL (IM) REFERENCE	NOTES	ENTRY IDENTIFIER
RC ENT aa b c! --- **RC ENT aaa b c!** **RC ENT aaa b cccccc d e!**	1 2 3	Specifies a local switching entity to be served and data associated with that entity.	OK	RC ENT	The parameter **c** is meaningful only for SXS offices (Generic 1) and meaningful only for SXS and No. 3 ESS offices (Generic 2). Generic 3— **cccccc** = the sensor identification number. The parameter **d** is meaningful for SXS, No. 3 ESS, and CDT offices. The parameter **e** is meaningful only for CDT offices. When **b** and **c** (Generic 1, 2) or **b, cccccc, d,** and **e** (Generic 3) are omitted, all data associated with the given entity is cleared (zeroed). With Generics 1 and 2, entities can only be removed in descending order of entity number.	Switching entity

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TABLE C (Contd)

RECENT CHANGE INPUT MESSAGES

INPUT MESSAGES* (SHOWN IN PROPER SEQUENCE OF ENTRY)	GENERIC ISSUE	EXPLANATION OF INPUT MESSAGE	SYSTEM RESP	INPUT MESSAGE MANUAL (IM) REFERENCE	NOTES	ENTRY IDENTIFIER
RC ENT aa COC bbcc ddd e f! --- **RC ENT aaa COC bbcc ddd e f!**	1 2,3	Specifies for a given switching entity the 2-digit central office identifier code to corresponding 3-digit central office code.	**OK**	RC ENT COC	When **ddd**, **e**, and **f** are omitted, the given office identifier code is cleared (zeroed).	Central office code translation
RC ENT aa RCDR b c dd! --- **RC ENT aaa RCDR b c dd!**	1 2,3	Specifies the calling office index translation table for each recorder scan port in each BDT for the given switch entity	**OK**	RC ENT RCDR	When **dd** is omitted, the data associated with **b** and **c** is cleared. This message must be entered before the associated channel is equipped.	Recorder scan port table entries
RC ENT aa SPCOC CCSA bbcc TWX ddd! WATS --- **RC ENT aaa SPCOC CCSA bbcc TWX ddd! WATS**	1 2,3	Specifies for a given switching entity, the special COC numbers to be assigned for billing CCSA, TWX, or WATS calls (BDT).	**OK**	RC ENT SPCOC	When **ddd** is omitted, the proper entry (**CCSA**, **TWX**, or **WATS**) will be zeroed.	Special central office code translation
RC ENT aaa MBC bb ccc!	3	Specifies for the given switching entity a NXX code based on the MBC (CDT).	**OK**	RC ENT MBC	**bb** = message billing class (00-35 decimal); **ccc**= NXX (000-999 decimal).	Special message billing class translation

* All messages are accepted by an OOS processor only.

TABLE C (Contd)

RECENT CHANGE INPUT MESSAGES

INPUT MESSAGES* (SHOWN IN PROPER SEQUENCE OF ENTRY)	GENERIC ISSUE	EXPLANATION OF INPUT MESSAGE	SYSTEM RESP	INPUT MESSAGE MANUAL (IM) REFERENCE	NOTES	ENTRY IDENTIFIER
RC ENT aa SPMBI bb cc! --- **RC ENT aaa SPMBI bb cc!**	1 2,3	Specifies for a given switching entity, the types of calls to be billed according to local specified MBI codes (BDT).	**OK**	RC ENT SPMBI	When **cc** is omitted, the entry is zeroed.	Special message billing index
RC ENT aa CGN b ccc! --- **RC ENT aaa CGN b ccc!**	1 2,3	Specifies for the given switching entity, the 3-digit calling NPA codes.	**OK**	RC ENT CGN	First entry in the table is home NPA. When **ccc** is omitted, data associated with NPA index **b** is cleared	Calling NPA table entries
RC ENT aa CDN b ccc! --- **RC ENT aaa CDN b ccc!**	1 2,3	Specifies for given switching entity, the 3-digit called NPA codes corresponding to the 1-digit compressed codes received from BDT.	**OK**	RC ENT CDN	When **ccc** is omitted, data associated with NPA index **b** is cleared (zeroed).	Called NPA table entries
RC ENT aaa NXX bbb cc d!	3	Specifies the NPA in which a particular NXX is located when the NXX is called from a CDT entity with either 7 or 1+7 digit dialing	**OK**	RC ENT NXX	**aaa** = entity number (000-137 octal); **bbb** = called NXX (001-999); **cc** = NPA index (00-15 decimal); **d** = 0 = NPA is for 7 digit calls; = 1 = NPA is for 1+7 digit calls.	NPA to NXX location

* All messages are accepted by an OOS processor only.

TABLE C (Contd)

RECENT CHANGE INPUT MESSAGES

INPUT MESSAGES* (SHOWN IN PROPER SEQUENCE OF ENTRY)	GENERIC ISSUE	EXPLANATION OF INPUT MESSAGE	SYSTEM RESP	INPUT MESSAGE MANUAL (IM) REFERENCE	NOTES	ENTRY IDENTIFIER
RC ENT aaa AUD bbbcccdddd e!	3	Adds and deletes entries in the trunk audit table for a CDT entity. The table may contain a maximum of 32 called telephone numbers. These numbers are reached by using trunks that are an exception to the normally used trucks.	**OK**	RC ENT AUD	**aaa** = entity number (000-137 octal); **bbb** = called NPA (001-999); **ccc** = called NXX (001-999); **dddd** = called line number (0000-9999) **e** = A = add number to table or if = D = delete number from table.	Called number exceptions
RC ENT aaa TDL bbb c d!	3	Specifies data for the 10-digit local dialing translation table for CDT entities.	**OK**	RC ENT TDL	**aaa** = entity number (000-137 octal); **bbb** = called NPA (001-999); **c** = rate table number (0-5) **d** = rate table type = F = flat-rate table or if = M = message-rate table. When the **c** and **d** fields are omitted, the table entry **bbb** is deleted.	Ten digit local dialing translation data.

* All messages are accepted by an OOS processor only.

TABLE C (Contd)

RECENT CHANGE INPUT MESSAGES

INPUT MESSAGES* (SHOWN IN PROPER SEQUENCE OF ENTRY)	GENERIC ISSUE	EXPLANATION OF INPUT MESSAGE	SYSTEM RESP	INPUT MESSAGE MANUAL (IM) REFERENCE	NOTES	ENTRY IDENTIFIER
RC ENT aa TOC bc **dddeee fg hhhjjj** **kl ppprrr!** --- **RC ENT aaa TOC bc** **dddeee fg hhhjjj** **kl ppprrr!**	1	Specifies the one, two, or three theoretical office codes associated with the switching entity.	**OK**	RC ENT TOC	All three entries or one at a time may be entered. Delete one entry at a time. When **dddeee,hhhjjj,** or **ppprrr** is omitted, the entry is cleared.	Theoretical office code
RC ENT aa TCH b **cc d eeeeeeeee!** --- **RC ENT aaa TCH b** **cc d eeeeeeeeee!**	1 2,3	Specifies the theoretical office code thousands and hundreds digit entries	**OK**	RC ENT TCH	When **eee...e** is omitted, the entries for **b, cc,** and **d** are cleared.	Theoretical office code thousands and hundreds digit table
RC ENT aaa OLC bbb **ccc dd e!**	3	Specifies the MBC and rate table for an OLC.	**OK**	RC ENT OLC	**bbb** = customer originating line class (00-99 decimal); **ccc** = message billing class (00-99 decimal); **dd** = rate table number (00-99 decimal). When **ccc, dd,** and **e** are not entered, the specified OLC is zeroed.	Originating line class translation table

* All messages are accepted by an OOS processor only.

TABLE C (Contd)

RECENT CHANGE INPUT MESSAGES

INPUT MESSAGES* (SHOWN IN PROPER SEQUENCE OF ENTRY)	GENERIC ISSUE	EXPLANATION OF INPUT MESSAGE	SYSTEM RESP	INPUT MESSAGE MANUAL (IM) REFERENCE	NOTES	ENTRY IDENTIFIER
RC ENT aaa TLF bb!	3	Specifies the number of the highest trunk link frame equipped for a CDT controller.	**OK**	RC ENT TLF	Overwrite of data is allowed. When **bb** not entered, the entry for the specified entity is zeroed.	Trunk link frame
RC ENT aaa DTK bb cc dddd!	3	Specifies data for the dedicated trunk table that is used to determine if CCSA or WATS trunks were used on a call.	**OK**	RC ENT DTK	**aaa** = entity number (000-137 octal); **bb** = trunk link frame number (00-29); **cc** = trunk number (00-95); **dddd** = type of special treatment (see IM manual for types).	Dedicated trunk table
RC ENT aaa MSG bb ccc dd! UNEQP!	3	Equips message-rate tables used by customers whose OLC maps into an MBC of message rate.	**OK**	RC ENT MSG	When **ccc** not entered, the billing rate indicator defaults to zero. When **UNEQP** is entered in place of the **ccc** and **dd** fields, table **bb** is unequipped. Overwrite of data is allowed.	Message-rate table entry

* All messages are accepted by an OOS processor only.

TABLE C (Contd)

RECENT CHANGE INPUT MESSAGES

INPUT MESSAGES* (SHOWN IN PROPER SEQUENCE OF ENTRY)	GENERIC ISSUE	EXPLANATION OF INPUT MESSAGE	SYSTEM RESP	INPUT MESSAGE MANUAL (IM) REFERENCE	NOTES	ENTRY IDENTIFIER
RC ENT aaa **FLT bb** **ccc d!** **UNEQP!**	3	Equips flat-rate tables used by customers whose OLC maps into a message billing class of flat rate or cover zone.	**OK**	RC ENT FLT	When **d** or **ccc** is not entered, the local call indication will be the default value. When **UNEQP** is entered in place of the **ccc** and **d** fields, table **bb** is unequipped. Overwrite of data is allowed.	Flat-rate table entry
RC ENT aaa BRI **bb cc d e!**	3	Specifies local or nonlocal call treatment and bulk or detailed billing for a particular billing rate indicator (BRI) in the specified message rate billing rate for the given CDT entity.	**OK**	RC ENT BRI	**aaa** = entity number (000-137 octal); **bb** = message rate table number (00-99); **cc** = billing rate indicator (BRI) to be set (00-15 decimal); **d** = local/non-local call treatment; = L = local treatment for this BRI; = N = non-local treatment for this BRI.	Billing rate indicator treatment

* All messages are accepted by an OOS processor only.

TABLE C (Contd)

RECENT CHANGE INPUT MESSAGES

INPUT MESSAGES* (SHOWN IN PROPER SEQUENCE OF ENTRY)	GENERIC ISSUE	EXPLANATION OF INPUT MESSAGE	SYSTEM RESP	INPUT MESSAGE MANUAL (IM) REFERENCE	NOTES	ENTRY IDENTIFIER
RC ENT aaa OBS bbbccddddd e!	3	Specifies a telephone number to be placed into complaint observed number table.	**OK**	RC ENT OBS	**aaa** = entity number (000-137 octal); **bbb** = calling NPA (001-999); **ccc** = calling NXX (001-999); **dddd** = calling line number; **e** = A = add number to complaint observed table; = D = delete number from observed complaint table.	Complaint observed number table
RC ENT aaa CCI b c!	3	Specifies the WATS type for certain call class indices (CCI) for BDT entities.	**OK**	RC ENT CCI	**aaa** = entity number (000-137 octal); **b** = CCI (6 or 8); **c** = WATS type; = F = full business day; = M = measured time. If this message is not explicitly entered, the WATS type for both CCI 6 and 8 defaults to full business day.	Calling class indice characterization

* All messages are accepted by an OOS processor only.

TABLE C (Contd)

RECENT CHANGE INPUT MESSAGES

INPUT MESSAGES* (SHOWN IN PROPER SEQUENCE OF ENTRY)	GENERIC ISSUE	EXPLANATION OF INPUT MESSAGE	SYSTEM RESP	INPUT MESSAGE MANUAL (IM) REFERENCE	NOTES	ENTRY IDENTIFIER
RC DRT aa bbb ccc! --- **RC DRT aaa bbb ccc!**	1 2,3	Specifies an entry to be placed in digit reconstruction table for the given switching entity.	**OK**	RC DRT	When **ccc** is omitted, the given entry is deleted from the table.	Digit reconstruction table entry
RC MBI aa bccc d! --- **RC MBI aaa bccc d!**	1 2,3	Specifies an entry to one of the message billing index tables for the given switching entity.	**OK**	RC MBI	When **d** is omitted, the given entry is deleted from the table.	Message billing index table entry
RC CHL aab EQP cc dd eeeeeeeeeeee f! --- **RC CHL aab EQP ccc dd tttt eeeeeeeeeeee f!**	1 2,3	Used to equip a data channel from a remote location.	**OK**	RC CHL EQP	**aab** = channel number; **cc** = entity number (0-35 octal) (Generic 1); **ccc** = entity number (0-137 octal) (Generics 2 and 3); **dd** = local channel number; **tttt** = type backup required; (Generics 2 and 3); **ee** --- **e**=dialed digit sequence to reach dial up; **f**=flat-rate parameter.	Equip input data channels

* All messages are accepted by an OOS processor only.

TABLE C (Contd)

RECENT CHANGE INPUT MESSAGES

INPUT MESSAGES* (SHOWN IN PROPER SEQUENCE OF ENTRY)	GENERIC ISSUE	EXPLANATION OF INPUT MESSAGE	SYSTEM RESP	INPUT MESSAGE MANUAL (IM) REFERENCE	NOTES	ENTRY IDENTIFIER
					To unequip a channel, type: **RC CHL aab!** For Generics 1 and 2, channels must be unequipped in a descending order or a given DZ11B multiplexer group. For No. 3 ESS, **d,e,** and **f** fields are not required in message (Generic 3).	
RC CHL aab ESP ccc ddd! --- **RC CHL aab ESP cc ddd!**	1 2,3	***For double-entry (CDA) systems:*** Specifies number of last equipped scan port on each of the input network multiplexer units of the user system served by this data channel. ***For triple-entry (BDT) systems:*** Specifies the highest *equipped trunk number* for a given recorder scan port for a given BDT. Generics 2 and 3 — ***For triple-entry (ESS) systems:*** Specifies the number of the highest equipped junctor on a No. 3 ESS.	**OK**	RC CHL ESP	***For triple-entry (BDT) systems:*** When **ddd** is omitted, the scan ports for the recorder scan port are cleared. Overwrites of existing data are allowed with Generic 1 program. Generics 2 and 3 — ***For triple-entry (ESS) systems:*** Overwrites of existing data are allowed.	Equip scan ports, highest numbered trunks, or highest equipped junctor (Generics 2 and 3 only)

* All messages are accepted by an OOS processor only.

TABLE C (Contd)

RECENT CHANGE INPUT MESSAGES

INPUT MESSAGES* (SHOWN IN PROPER SEQUENCE OF ENTRY)	GENERIC ISSUE	EXPLANATION OF INPUT MESSAGE	SYSTEM RESP	INPUT MESSAGE MANUAL (IM) REFERENCE	NOTES	ENTRY IDENTIFIER
RC CHL aab COL cc d!	3	Specifies the trunk scan board column equipped on a CDT controller.	**OK**	RC CHL COL	Overwrites of previously equipped columns are not allowed. **d** = column usage status. To change d status from simplex to duplex or from duplex to simplex, the column must first be unequipped and then reequipped. Message is accepted only on primary 0 of a controller with two channels. When the associated channel is unequipped, the column table entries are deleted.	Equip trunk scan board columns
RC CHL aab MON cccc!	1,2,3	Specifies calling line number used by the channel monitor for the given data channel.	**OK**	RC CHL MON	When **cccc** is omitted, the monitor line number for the given channel is cleared (zeroed).	Channel monitor line number

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TABLE C (Contd)

RECENT CHANGE INPUT MESSAGES

INPUT MESSAGES* (SHOWN IN PROPER SEQUENCE OF ENTRY)	GENERIC ISSUE	EXPLANATION OF INPUT MESSAGE	SYSTEM RESP	INPUT MESSAGE MANUAL (IM) REFERENCE	NOTES	ENTRY IDENTIFIER
RC CHL aab TID cccccc! --- **RC CHL aab TID cccccc! ccc!**	2 3	Specifies the No. 3 ESS 6-digit Western Electric base and control number for the specified No. 3 ESS office (Generic 2,3) or the CDT 3-digit number for the specified CDT office (Generic 3).	**OK**	RC CHL TID	**aab** = channel number; **cccccc** = six BCD digits which uniquely identify the No. 3 ESS office accepted for a primary channel only. **ccc** = three BCD digits which uniquely identify the CDT office. Accepted for both primary channels of a controller for a CDT.	Channel terminal identification number
RC SPN aaa bbb cccc d!	1,2,3	Enters a directory number into the special number table.	**OK**	RC SPN	When **d** is omitted, special number is deleted from special number table.	Special number
RC CLK COMP a bccc	1,2,3	The AMARC real-time clock when it is found to be gaining or losing time.	**OK**	RC CLK COMP	The timing on each call and incorrect data can result in misbilling.	Clock compensation factors
RC FTTY a!	1,2,3	Specifies that the optional DL11 terminal interface needed for FTTY arrangement is equipped in this AMARC. This message must be used before the ALW FTTY message can be accepted.	**OK**	RC FTTY	**a** = 1 DL11 is provided; **a** = 0 or blank DL11 not provided. Do not use this message until after the hardware is installed.	Functional teletype (FTTY) arrangement

* All messages are accepted by an OOS processor only.

TABLE C (Contd)

RECENT CHANGE INPUT MESSAGES

INPUT MESSAGES* (SHOWN IN PROPER SEQUENCE OF ENTRY)	GENERIC ISSUE	EXPLANATION OF INPUT MESSAGE	SYSTEM RESP	INPUT MESSAGE MANUAL (IM) REFERENCE	NOTES	ENTRY IDENTIFIER
RC EXP aaaa!	3	Enters expiration period for AMA magnetic billing tape.	**OK**	RC EXP	**aaaa** = expiration period in 0-9999 days.	AMA billing magnetic tape expiration period

* All messages are accepted by an OOS processor only.