297-8991-598

DMS-100 Family

Enhanced Digital Recorded Announcement Machine

Peripheral Module Software Release Document

Base08 Standard 03.06 January 1999

ATTENTION

This document supports tape EDRM0008.

NORTEL
NORTHERN TELECOM

DMS-100 Family

Enhanced Digital Recorded Announcement Machine
Peripheral Module Software Release Document

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Publication history

January 1999

Standard 03.06 Base08 and EDRMAE06. Replace EDRMAE47 with EDRMAE06 in the “About this document” section. Replace EDRMAE47 with EDRMAE06 in the PM load table. Add EDRMAE06 to the “Load history” table. Replace loadname EDRMAE47 with EDRMAE06 in the “Preparing for a PM update” section.

August 1998

Standard 03.05 Base08 and EDRMAE47. Replace EDRMAE02 with EDRMAE47 in the “About this document” section. Modify listing of edram load names in the “reason for release” section. Modify listing of edram load names in the “Load history” table. Replace loadname EDRMAE02 with EDRMAE47 in the “Preparing for a PM update” section.

July 1998

Standard 03.04 Base08 and EDRMAE47. Update EDRAM load. Revise EDRAM update procedure.

April 1997

Standard 03.03 Base08 and EDRMAE02. Removed information on voice files. Moved the load history to the Overview chapter.

January 1997

Standard 03.02 Base08 and EDRMAE02. Added voice files for Japan. Revised EDRAM update procedure.

Standard 03.01 Base08 and EDRMAE02. Re-issue document for new EDRAM load.

May 1996

Standard 02.01 Base05 and EDRMAE01. Added compatibility information and EDRM history.

September 1995

Standard 01.01 Base04 and EDRMAD06. Initial release of document.

Contents

About this document

When to use this document

Use this document to update the software in an enhanced digital recording announcement machine (EDRAM) to EDRMAE06. This document provides load and file names, update procedures, and other release-specific information. It is written for maintenance technicians with a range of experience in switching, EDRAM software, and EDRAM software updating.

How to use this document

After receiving this document and the EDRAM tapes, perform the following tasks.

1 Review "Overview of release" in this document. This chapter provides release notes, load names, and other information critical to updating the EDRAM.

2 Perform the procedure "Preparing for a PM update" in this document.

3 Schedule the update of each EDRAM in the office.

4 Update each EDRAM. Perform the procedure "Starting a PM update shift" when you begin a PM update shift, and perform the procedure "Finishing a PM update shift" when you complete a PM update shift.

Compliance with local policies

This document is written for all Northern Telecom DMS-100 Family customers. However, many telephone companies have company-specific and office-specific policies regarding PM updates. Review these policies, and resolve any differences between the policies and this document, before beginning the PM update process.

How to check the version and issue of this document

The version and issue of the document are indicated by numbers, such as 01.01. The first two digits indicate the version, which increases each time the document is updated to support a new software release. The second two digits indicate the issue, which increases each time a document is re-issued within the same software release.

References in this document

The following documents are referred to in this document:

- *Peripheral Module Software Release Document*

What precautionary messages mean

Precautionary messages indicate possible risks. The types of precautionary messages used in Northern Telecom documentation include danger, warning, caution, and attention messages.

Danger message

A danger message indicates the possibility of personal injury. Following is an example of a danger message.

DANGER

Risk of electrocution

Do not open the front panel of the inverter unless fuses F1, F2, and F3 have been removed. The inverter contains high-voltage lines that are active until the fuses have been removed.

Warning message

A warning message indicates the possibility of equipment damage. Following is an example of a warning message.

WARNING

Damage to the backplane connector pins

Align the card before seating it to avoid bending the backplane connector pins. Use light thumb pressure to align the card with the connectors. Next, use the levers on the card to seat the card into the connectors.

Caution message

A caution message indicates the possibility of service interruption or degradation. Following is an example of a caution message.

CAUTION
Possible SS7 node isolation
Do not attempt to update the LIU7 if one of its links cannot be inhibited. Do not busy the link if it cannot be inhibited. SS7 node isolation may result

Attention message

An attention message alerts the reader to a special condition. Following is an example of an attention message.

ATTENTION
Office policy may require additional copies of the load.

How commands, parameters, and responses are represented

Commands, parameters, and responses in this document conform to the following conventions.

Input prompt (>)

An input prompt (>) indicates that the information that follows is a command.

```
>LOADPM
```

Commands and fixed parameters

Commands and fixed parameters that are entered at a MAP terminal are shown in uppercase letters.

```
>LOADPM  INACTIVE
```

Variables

Variables are shown in lowercase letters.

```
>LOADPM  UNIT  unit_no
```

The letters or numbers that the variable represents must be entered. Each variable is explained in a list that follows the command string.

Responses

Responses correspond to the MAP display and are shown in a different type.

```
LOADPM UNIT 1 LOADED
```

The following example illustrates the command syntax used in this document.

1 Load the unit by typing

>LOADPM UNIT unit_no
and pressing the Enter key.

where

unit_no is the number of the unit

Example of a MAP response:

```
LOADPM UNIT 1 LOADED
```

How procedures are organized

Each procedure in this document contains a summary flowchart and a list of steps. The flowchart summarizes the procedure, and the list of steps provides detailed instructions for the procedure. Review the summary flowchart, and then follow the list of steps to perform the procedure.

Comments

In response to customer concerns, this document has been restructured for this release. Your comments on this restructured document are appreciated. Complete the questionnaire at the back of the document and return it to Northern Telecom Product Documentation. For urgent content-related issues, call one of the following Documentation Hotlines.

Market	Hotline number
United States	1-800-684-2273
Outside the United States	905-452-4588

Overview

This chapter describes the EDRAM loads and update process.

Loads

EDRAM uses two types of loads: a PM load and a set of voice files. The PM load is the firmware loaded into the EDRAM. The voice files are pre-recorded announcements. Each EDRAM can be loaded with different voice files, as defined by the voice file names datafilled in table EDRAMINV, but all voice files must be copied to the selected volume.

PM load

The following table lists the EDRAM PM load available with this release. The column Type identifies the type of PM as posted at the MAP display. The column Description describes the service provided by the PM. The column Hardware lists product engineering codes (PEC) for the EDRAM card. The column Load lists the new EDRAM load provided with this release. The column Description describes the new load.

PM load

Type	Description	Hardware	Load	Description
DTM	DTM with EDRAM	NT1X80AA	EDRMAE06	EDRAM base load

Reason for release

Replace EDRMAE47 with EDRMAE06.

EDRAM PM load EDRMAE47 is released in response to Problem Resolution System (PRS) UT81947, UT82446, and UT82398.

EDRAM PM load EDRMAE02 is released in response to Problem Resolution System (PRS) BX85848, CM6026, BY36523, BY44179, and BY23624.

Compatibility

Due to market and release requirements, EDRAM PM loads are delivered independent of a product computing module layer (PCL) software release.

PM load history

The following table lists recent EDRM PM loads and the reasons for their release

Load history

Load	Reason for release
EDRMAE06	Replace EDRMAE47 with EDRMAE06
EDRMAE47	UT81947, UT82446, UT82398
EDRMAE05	
EDRMAE02	CM6026,BY36523, BY44179, BY23624
EDRMAE01	BX85848
EDRMAD06	BX63148, EV50088, UT500188
EDRMAD05	UT409148
EDRMAD04	UT407331, UT407628, UT407692, UT407934, UT408043, UT409148

Voice files

Voice files for this release are delivered on tape EDRM0001. Refer to the document included with this tape for information on voice files.

Update process

The digital trunk module (DTM) with EDRAM may be updated as part of an office-wide PM update, or it may be updated individually. If the DTM with EDRAM is updated as part of an office-wide update, update the DTM before the ENET.

Update procedures

The procedures in this chapter describe how to update the enhanced digital recording announcement machine (EDRAM).

Preparing for a PM update

Application

ATTENTION
Only maintenance technicians experienced with PM loading should perform this procedure.

ATTENTION
Do not use this procedure if the EDRAM is being updated as part of an office-wide PM update. Refer to the *Peripheral Module Software Release Document* that accompanied the PM loads tape.

Use this procedure to prepare an office for an enhanced digital recording announcement machine (EDRAM) update. Perform this procedure once, after receiving the PM load and patch tapes.

Prerequisites

None

Update sequence

Subtending PMs

Not applicable

Serving PMs

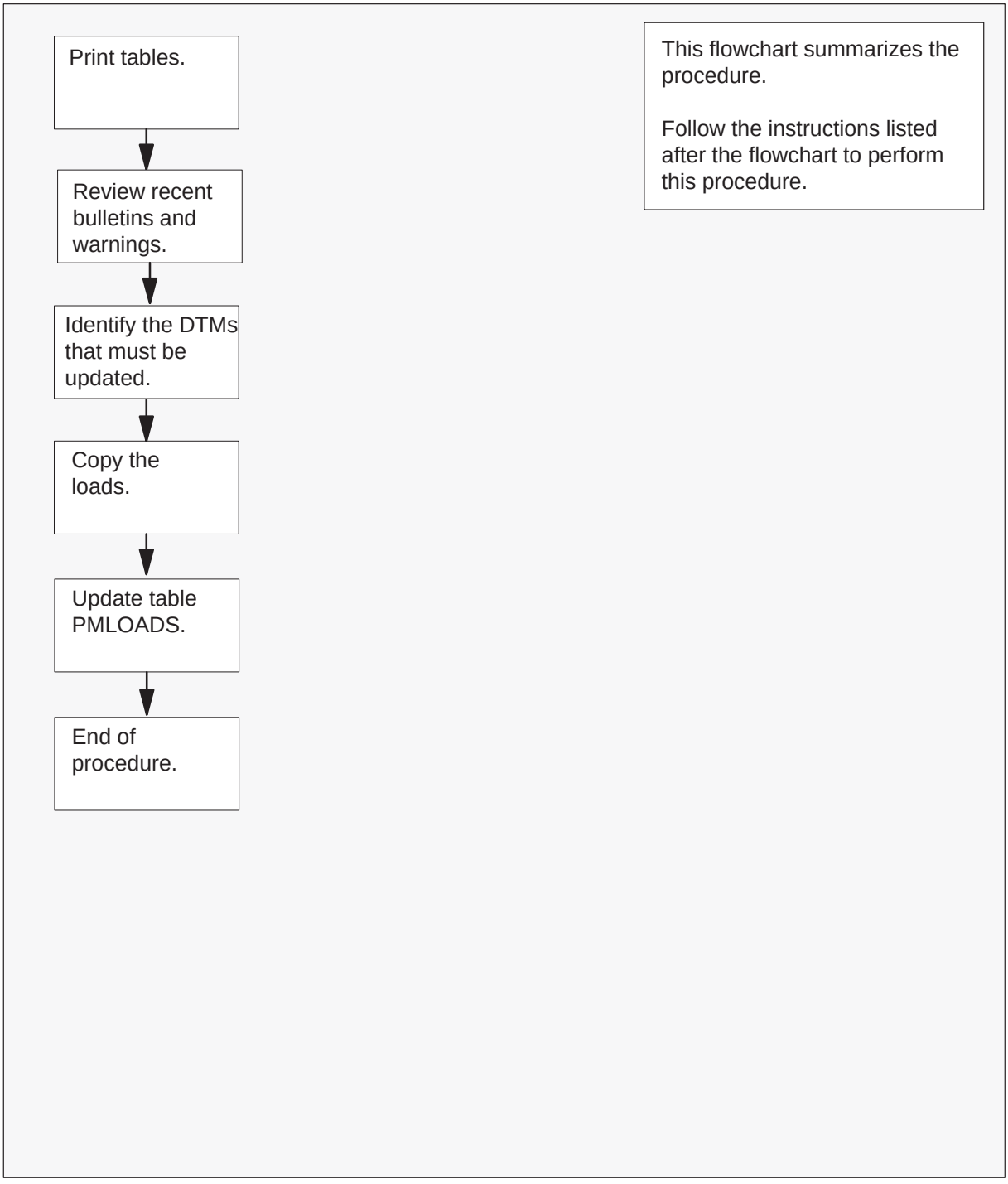
Not applicable

Notes

This procedure will create a PMLOAD alarm under the PM banner. This is a minor alarm generated when there is a mismatch between the datafilled PM loads in table PMLOADS and the existing software loads on disk. Local policy may require modifications in this procedure and "Starting a PM update shift" to reduce the number and length of PMLOAD alarms.

Preparing for a PM update (continued)

Summary of procedure



Preparing for a PM update (continued)

Steps of procedure

At the CI level of the MAP display

1 Redirect the responses of the terminal to a printer by typing

>RECORD START ONTO prntr_name
and pressing the Enter key.

where

prntr_name is the name of the printer

Example

>RECORD START ONTO PRNTR1

2 Print the contents of tables PMLOADS, TMINV, and EDRAMINV by performing the following steps.

a. Access table PMLOADS by typing

>TABLE PMLOADS
and pressing the Enter key.

b. List the contents by typing

>LIST ALL
and pressing the Enter key.

c. Exit table PMLOADS by typing

>QUIT
and pressing the Enter key.

d. Access table TMINV by typing

>TABLE TMINV
and pressing the Enter key.

e. List the contents by typing

>LIST ALL
and pressing the Enter key.

f. Exit the table by typing

>QUIT
and pressing the Enter key.

g. Access table EDRAMINV by typing

>TABLE EDRAMINV
and pressing the Enter key.

h. List the contents by typing

>LIST ALL
and pressing the Enter key.

i. Exit the table by typing

>QUIT
and pressing the Enter key.

3 Restore the responses of the terminal by typing

>RECORD STOP ONTO prntr_name
and pressing the Enter key.

where

prntr_name is the name of the printer

Example

>RECORD STOP ONTO PRNTR1

At your desk

4 Review all bulletins and warnings related to this update and this PM software release document.

5 Identify the DTMs to be updated. Use the contents of the inventory tables.

At the SLM tape drive

6 Copy the necessary loads to a SLM disk volume by performing the following steps.

Note: Store the PM load files and the voice files to the same disk volume.

a. Select a SLM disk volume as the volume for the new loads.

b. Place the tape into the SLM tape drive of the selected SLM disk volume.

At the MAP display

c. Access the disk utility by typing

>DISKUT
and pressing the Enter key.

Preparing for a PM update (continued)

d. Insert the PM load tape into the SLM tape drive by typing

>IT drive_name
and pressing the Enter key.

where

drive_name is the name of the SLM tape drive

Example

>IT S00T

e. List the contents of the tape by typing

>LF drive_name SHORT FIRST
and pressing the Enter key.

where

drive_name is the name of the SLM tape drive

Example

>LF S00T SHORT FIRST

f. Verify that the load is on the tape.

If the load	Do
is on the tape	step g.
is not on the tape	Contact the next level of support. The tape may be missing loads critical to the office.

g. Copy the load file by typing

>RE FILE disk_vol drive_name new_load
and pressing the Enter key.

where

disk_vol is the name of the SLM disk volume
drive_name is the name of the SLM tape drive
new_load is the name of the new PM load

Example

>RE FILE S00DPMLOADS S00T EDRMAE06

Note: Do not use the new_load parameter if copying all files.

h. Eject the tape by typing

>ET drive_name
and pressing the Enter key.

where

drive_name is the name of the SLM tape drive

Example

>ET S00T

7 Quit the utility by typing

>QUIT
and pressing the Enter key.

8 Update table PMLOADS with the names of the new loads.

a. Access table PMLOADS by typing

>TABLE PMLOADS
and pressing the Enter key.

b. Add the new PM load name by typing

>ADD load_name actfile actvol bkpfile bkpvol N
and pressing the Enter key.

where

load_name	is the name of the new load
actfile	is the name of the active load (same as field LOAD_NAME)
actvol	is the device on which the active load is stored
bkpfile	is the name of the backup load
bkpvol	is the device on which the backup load is stored

Example

>ADD EDRMAE06 EDRMAE06 S00DPMLOADS EDRMAE06 +
>S01DPMLOADS N

Note: Automatic loadfile patching, as specified in field UPDACT, is not yet available. The only acceptable value for field UPDACT is N.

c. Confirm the addition by typing

>Y
and pressing the Enter key.

Preparing for a PM update (end)

d. Exit table PMLOADS by typing

>QUIT
and pressing the Enter key.

9 You have successfully completed this procedure and prepared the office for a PM update. Schedule the update of each DTM with EDRAM in the office. Go to “Starting an PM update shift” in this document.

Starting a PM update shift

Application

CAUTION
Possible service interruption
Perform this procedure during a maintenance window or a period of low traffic.

ATTENTION
Do not use this procedure if the EDRAM is being updated as part of an office-wide PM update. Refer to the *Peripheral Module Software Release Document* that accompanied the PM loads tape.

Use this procedure at the start of an PM update shift to verify that the office, and each digital trunk module with an enhanced digital recording announcement machine (EDRAM) are ready for the update.

Prerequisites

Perform the procedure “Preparing for a PM update” in this document before performing this procedure.

Update sequence

Subtending PMs

Not applicable

Serving PMs

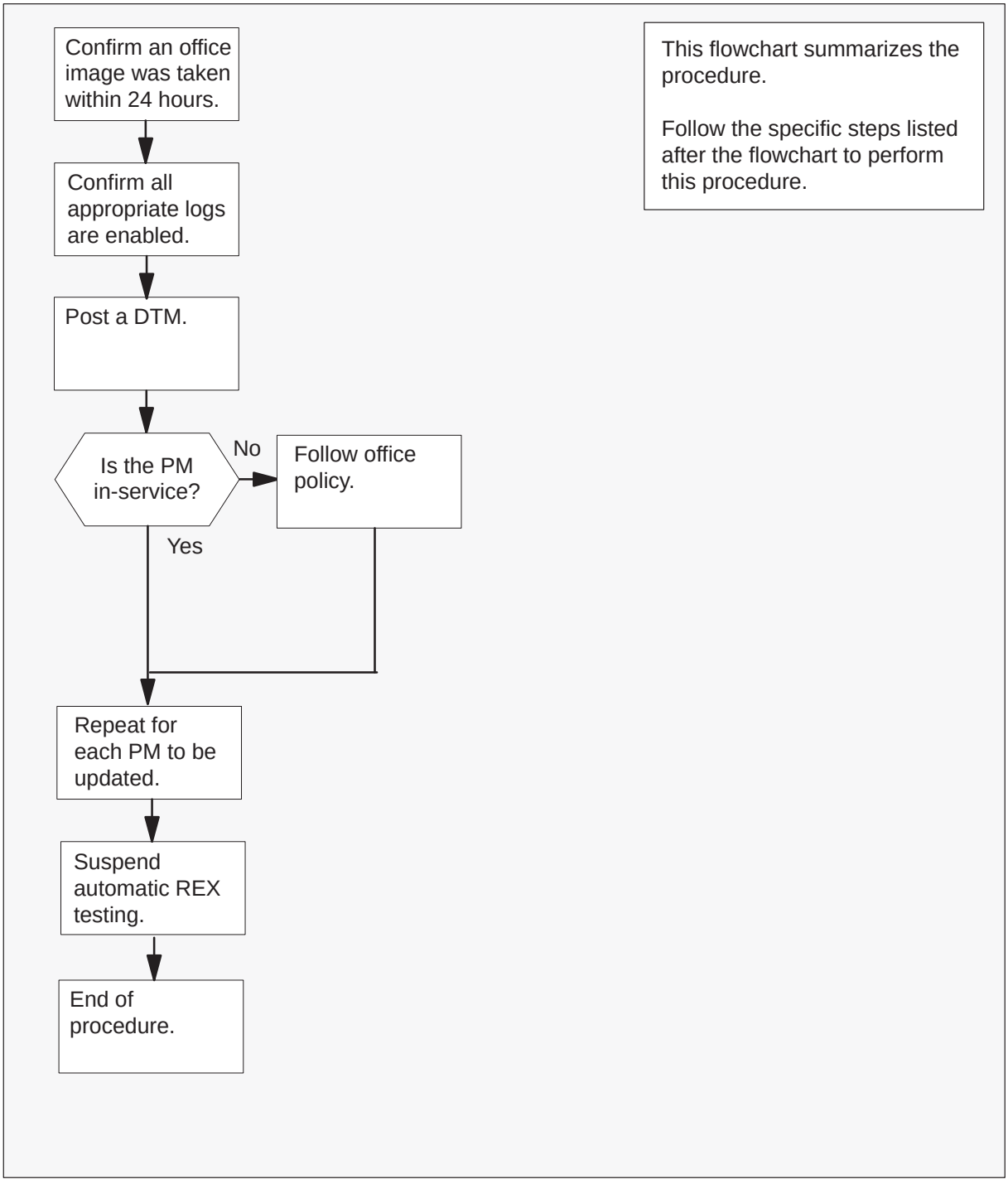
Not applicable

Notes

None

Starting a PM update shift (continued)

Summary of procedure



Starting a PM update shift (continued)

Steps of procedure

ATTENTION

Follow office policy if a command fails during this procedure. If an RTS command fails, for example, office policy may require you to either contact the next level of support, terminate all update activities for the shift, troubleshoot the problem and return the PM to service, or select another PM to update. Office policy may vary by PM type.

At the CI level of the MAP display

1 Confirm that an office image has been taken within the last 24 hours by performing the following steps.

a. Display a list of recent office images by typing

>AUTODUMP STATUS
and pressing the Enter key.

b. Review the list of successful images and determine if an office image has been successfully taken in the last 24 hours.

2 Confirm that all PM logs are enabled by performing the following steps.

a. Access LOGUTIL by typing

>LOGUTIL
and pressing the Enter key.

b. List all the PM log reports that are suspended or have thresholds by typing

>LISTREPS SPECIAL PM
and pressing the Enter key.

c. Record any PM log numbers that are suspended, and record the numbers and threshold values of any PM logs that have thresholds.

Starting a PM update shift (continued)

d. Resume any PM logs that are suspended by typing

>RESUME PM log_no
and pressing the Enter key.

where

log_no is the number of the log to be resumed

Note: Multiple logs can be resumed by telescoping the log numbers on the single RESUME command. All PM logs can be resumed with the command RESUME PM and no log numbers.

Example

>RESUME PM 129 181

e. Change the threshold to 0 for any logs that have thresholds by typing

>THRESHOLD 0 PM log_no
and pressing the Enter key.

where

log_no is the number of the log

Note: Multiple logs can be thresholded by telescoping the log numbers on the single THRESHOLD command. All PM logs can be thresholded with the command THRESHOLD PM and no log numbers.

f. Exit LOGUTIL by typing

>QUIT
and pressing the Enter key.

3 Access the PM level of the MAP display by typing

>MAPCI; MTC; PM
and pressing the Enter key.

4 Post one of the DTMs to be updated by typing

>POST DTM dtm_no
and pressing the Enter key.

where

dtm_no is the number of the DTM

If the DTM is	Do
not in-service	step 5
in-service	step 8

Starting a PM update shift (end)

5 Determine the fault condition of the DTM by typing

>QUERYPM FLT
and pressing the Enter key.

6 The DTM must be inservice to be updated. Refer to the ATTENTION box preceding the steps of this procedure for assistance. If you are able to return the DTM to service, go to step 7.

7 Repeat steps 4 to 6 for each PM to be updated during this shift.

8 Return to the CI level by typing

>QUIT ALL
and pressing the Enter key.

9 Suspend all automatic REX testing by typing

>REXTEST SUSPEND ALL
and pressing the Enter key.

Note: Suspension of REX testing will cause a minor MS alarm at the MAP display. The alarm will continue until REX testing is resumed at the end of the shift.

10 You have successfully completed this procedure. Go to the procedure "Updating the EDRAM" in this document. When the shift is completed, perform the procedure "Finishing a PM update shift."

Updating the EDRAM

Application

CAUTION
Possible service interruption
Perform this procedure during a maintenance window or a period of low traffic.

Use this procedure to update the enhanced digital recording announcement machine (EDRAM).

Prerequisites

Perform the procedures “Preparing for a PM update” or “Preparing for a PM update using PMUPGRADE” and “Starting a PM update shift” in this document to meet the following prerequisites for this procedure.

- The new load name is datafilled in table PMLOADS.
- An office image has been taken in the last 24 hours.
- All PM logs are enabled.
- The EDRAM is inservice.
- The EDRAM successfully passed its last REX test within the last two weeks.
- Automatic REX testing is suspended in the office.

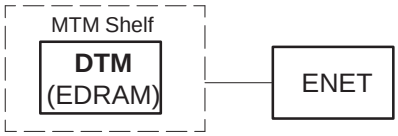
Required information

None

Update sequence

The following figure illustrates a possible node configuration for the EDRAM. Serving PMs must be updated after the EDRAM.

Node configuration for EDRAM

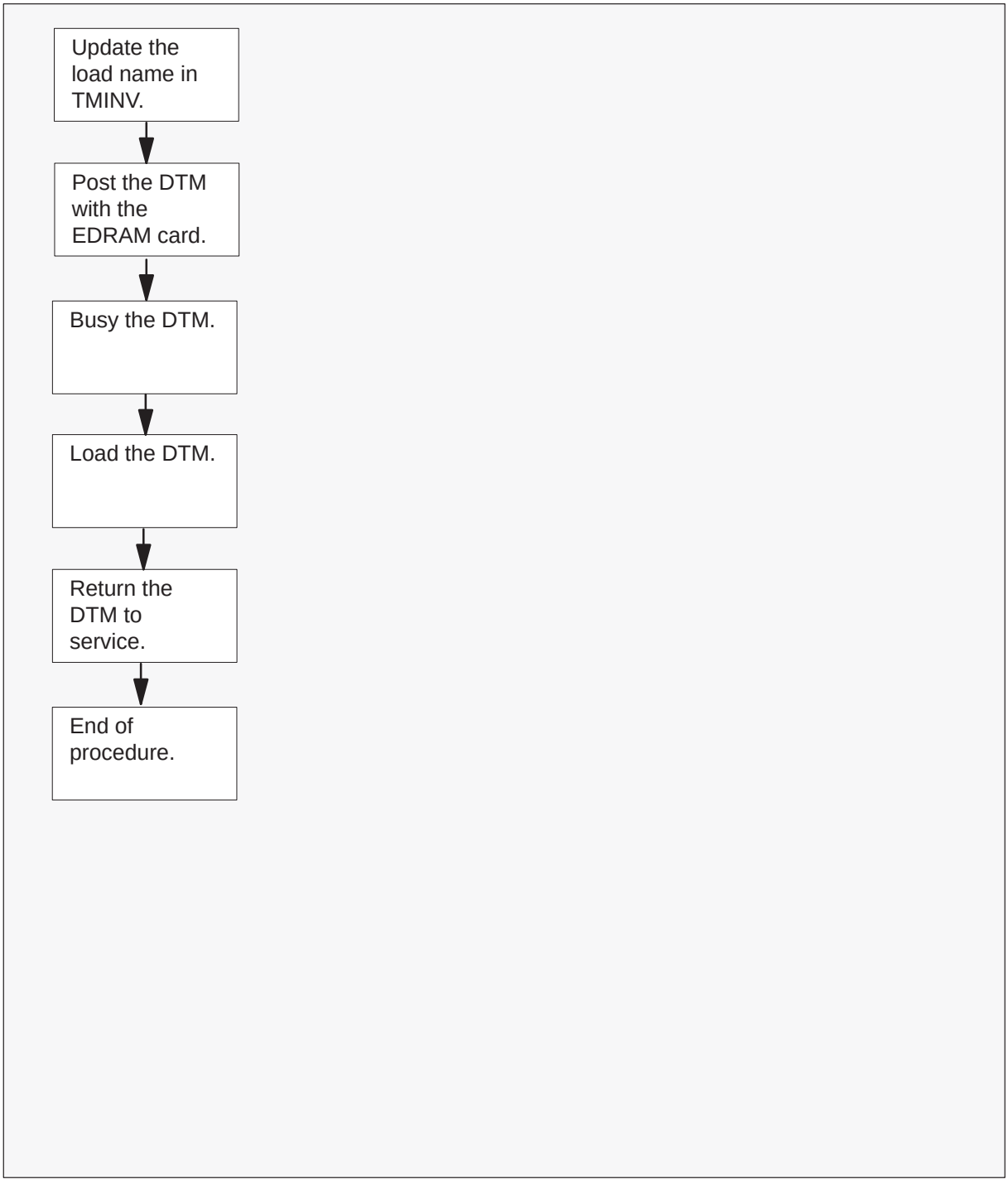


Notes

There must be a corresponding PROM in table DRAMS for every announcement file in table EDRAMINV.

Updating the EDRAM (continued)

Summary of procedure



Updating the EDRAM (continued)

Steps of procedure

ATTENTION

Follow office policy if a command fails during this procedure. If an RTS command fails, for example, office policy can require you to contact the next level of support, terminate all update activities for the shift, troubleshoot the problem, or select another PM to update.

At the CI level of the MAP display

1 Select a DTM with an EDRAM to update.

2 Confirm all prerequisites for this procedure have been met.

3 Access the PM inventory table by typing

>TABLE TMINV
and pressing the Enter key.

4 Position on the datafill tuple for the PM to be updated by typing

>POS DTM dtm_no
and pressing the Enter key.

where

dtm_no is the number of the DTM

5 Change the load name to the new load name by typing

>CHA LOAD new_load
and pressing the Enter key.

where

new_load is the name of the new load

6 Confirm the change by typing

>Y
and pressing the Enter key.

Note: The PM will change state to in-service trouble (ISTb) due to the load mismatch with the inventory table. Continue with this procedure.

7 Exit the table by typing

>QUIT
and pressing the Enter key.

If the voice files are stored	Do
on a DDU device	step 8
on a SLM device	step 9

8 List the volume by performing the following steps.

a. Access the utility by typing

>DISKUT
and pressing the Enter key.

b. List the disk volume by typing

>LF vol_name
and pressing the Enter key.

where

vol_name is the name of the disk volume

c. Go to step 10.

9 List the volume by performing the following steps.

a. Access the utility by typing

>DISKUT
and pressing the Enter key.

b. List the disk volume by typing

>LF vol_name
and pressing the Enter key.

where
vol_name is the name of the disk volume

10 Quit the utility by typing

>QUIT
and pressing the Enter key.

11 Access the PM level of the MAP display by typing

>MAPCI; MTC; PM
and pressing the Enter key.

Updating the EDRAM (continued)

12 Post the DTM with the EDRAM to update by typing

>POST DTM dtm_no
and pressing the Enter key.

where

dtm_no is the number of the DTM

Note: The PM will be ISTb due to the load mismatch with its inventory table. If necessary, wait for the PM to change to ISTb before continuing with this procedure. If the PM does not change to ISTb, confirm that the PM inventory table was correctly updated and the correct PM is posted.

13 Busy the DTM by typing

>BSY
and pressing the Enter key.

14 Load the DTM by typing

>LOADPM
and pressing the Enter key.

Note: The DTM will be updated with the new EDRAM load and the voice files resident on the switch.

15 Return the DTM to service by typing

>RTS
and pressing the Enter key.

If the office	Do
requires verification of the phrases	step 16
does not require verification of the phrases	step 17

16 Verify the phrases by performing the following steps.

a. Access the EDRAM recording utility by typing

>DRAMREC
and pressing the Enter key.

b. Connect the headset to the EDRAM controller circuit by typing

>CONNECT edram_no clli_name
and pressing the Enter key.

where

edram_no	is the number of the EDRAM controller circuit
clli_name	is the name of the headset CLLI

Example

>CONNECT 4 HSET 22

c. Display the EDRAM's announcements by typing

>DISPLAY edram_no
and pressing the Enter key.

where

edram_no	is the number of the EDRAM controller circuit

Example

>DISPLAY 4

d. Play the phrase by typing

>PLAYBACK edram_no phrase_ext
and pressing the Enter key.

where

edram_no	is the number of the EDRAM controller circuit
phrase_ext	is the name of the phrase to be played

e. Repeat these steps for each phrase to be verified.

f. Exit the EDRAM recording utility by typing

>QUIT
and pressing the Enter key.

17 You have have successfully completed this procedure and updated the DTM with an EDRAM.

If there are	Do
other DTMs with EDRAM to update during this shift	Repeat this procedure for each DTM with an EDRAM to update.
no additional DTMs with EDRAM to update during this shift	Go to "Finishing a PM update shift" in this document.

Finishing a PM update shift

Application

Use this procedure when completing a shift to update PMs in an office.

> **ATTENTION**
> Do not use this procedure if the EDRAM is being updated as part of an office-wide PM update. Refer to the *Peripheral Module Software Release Document* that accompanied the PM loads tape.

Prerequisites

The procedure "Starting a PM update shift" in this document must have been performed before performing this procedure.

Update sequence

Subtending PMs

Not applicable

Serving PMs

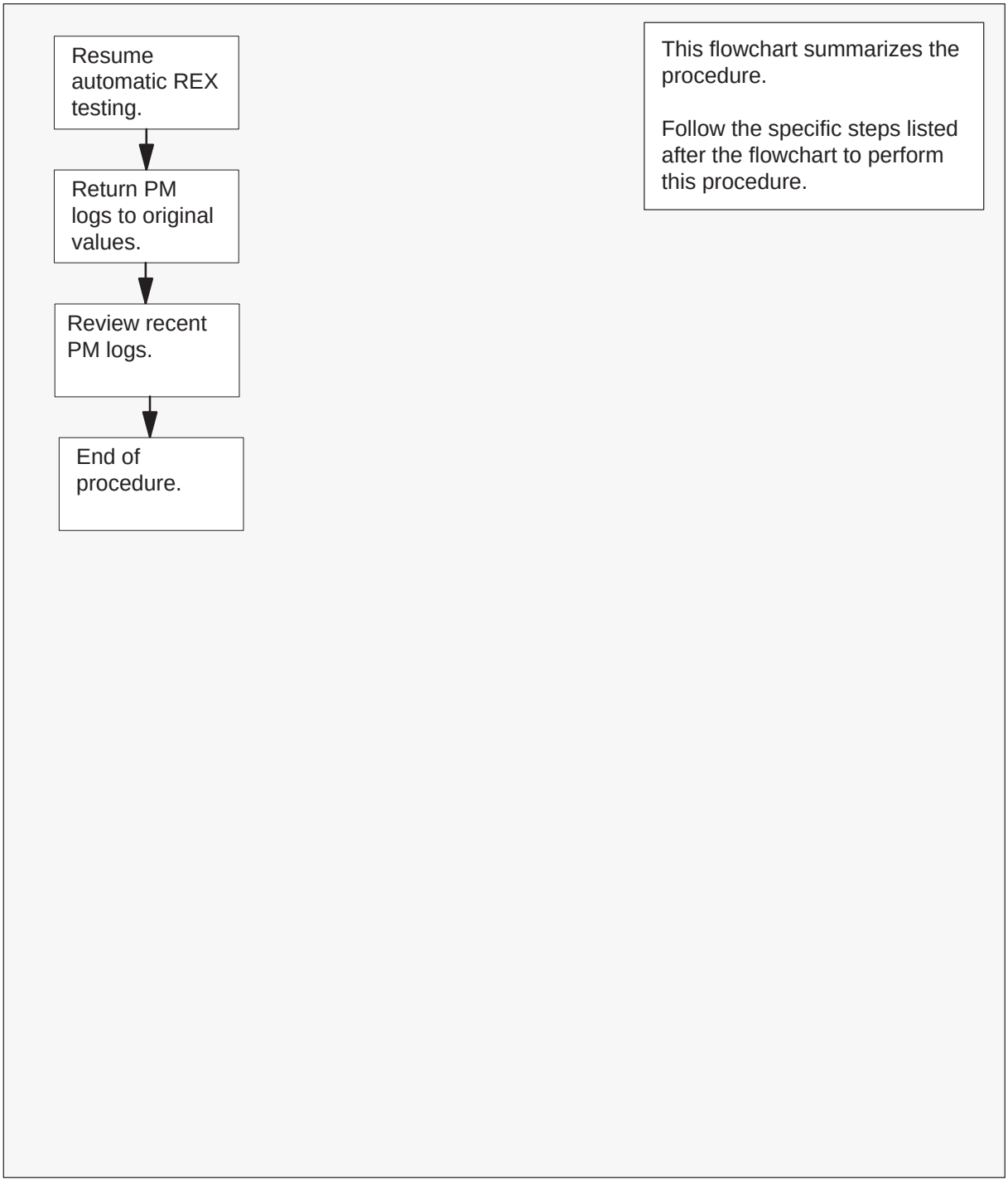
Not applicable

Notes

This procedure does not include steps to delete old load names from table PMLOADS or load files from the disk volume. Check office policy. Available memory may determine if load files are deleted during a PM update shift, after a PM update shift, or after completion of the office's PM update. Office alarm-clearing policy may determine when old load files are deleted from table PMLOADS.

Finishing a PM update shift (continued)

Summary of procedure



Finishing a PM update shift (continued)

Steps of procedure

ATTENTION

Follow office policy if a command fails during this procedure. If an RTS command fails, for example, office policy may require you to either contact the next level of support, terminate all update activities for the shift, troubleshoot the problem and return the PM to service, or select another PM to update. Office policy may vary by PM type.

At the CI level of the MAP display

1 Resume automatic REX testing by typing

>REXTEST RESUME ALL
and pressing the Enter key.

2 Return PM logs to their original states by performing the following steps.

a. Access LOGUTIL by typing

>LOGUTIL
and pressing the Enter key.

b. Suppress any PM logs that were resumed at the beginning of this shift by typing

>SUPPRESS PM log_no
and pressing the Enter key.

where

log_no is the number of the log to be suppressed

Note: Multiple logs can be suppressed by telescoping their log number on the single SUPPRESS command. All PM logs can be suppressed with the command SUPPRESS PM and no log numbers.

Example

>SUPPRESS PM 129 181

Finishing a PM update shift (end)

c. Change the threshold values of any PM logs that had thresholds changed to 0 at the start of this shift by typing

>THRESHOLD th_value PM log_no
and pressing the Enter key.

where

th_value	is the original threshold value, recorded during the procedure “Starting a PM update shift”
log_no	is the number of the log

Note: Multiple logs can be thresholded by telescoping their log number on the single THRESHOLD command. All PM logs can be thresholded with the command THRESHOLD PM and no log numbers.

d. Exit LOGUTIL by typing

>QUIT
and pressing the Enter key.

3 Review any recent logs, and verify the DTMs and EDRAMs that were updated during this shift have remained inservice.

4 You have successfully completed this procedure and finished a PM update shift.

DMS-100 Family

Enhanced Digital Recorded Announcement Machine

Peripheral Module Software Release Document

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