

# **NEC**

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## **NVM-CA Series**

**Phone System Integration  
Guide**

This manual has been developed by NEC America, Inc. It is intended for the use of its customers and service personnel, and should be read in its entirety before attempting to install or program the system. Any comments or suggestions for improving this manual would be appreciated. Forward your remarks to:

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## NVM-CA Series Voice Mail Systems

The NVM-CA Series Voice Mail Systems consists of the NVM-22CA, NVM-202exCA, NVM-2000CA, and the NVM-2CA. These systems are similar to those in the NVM-Series in the way that they are installed, programmed, and used. However, the Voice Mail Systems in the NVM-CA Series differ from those in the NVM-Series in two important respects:

- the most current software version
- the types of phone systems that can be integrated with them

## About This Guide

In this guide are two groups of phone systems that may be integrated with NVM-CA Voice Mail Systems: One group consists of the phone systems that may be integrated with the NVM-22CA, NVM-202exCA, NVM-2000CA. The second group consists of the phone systems that may be integrated only with the NVM-2CA Voice Mail System.

This guide contains integration notes for each phone system that may be integrated with any of these NVM-CA Voice Mail Systems. The notes explain which phone system programs you must modify in order to integrate successfully with the Voice Mail. The notes also list any specific hardware or software you will need to perform the integration. For complete programming information, installation instructions, and user information, see the manuals for the corresponding NVM system.

## Selecting a Compatible Phone System

When you are integrating a phone system with the Voice Mail, you select the desired system in Voice Mail programming. Then the Voice Mail will be set up automatically for that integration.

How you select a compatible phone system depends on which Voice Mail you are using:

### NVM-22CA, NVM-202exCA, NVM-2000CA

In an NVM-22CA, NVM-202exCA, or NVM-2000CA System, you select a compatible phone system from the Install menu. In an NVM-202exCA or an NVM-2000CA (prior to software version 9.10), you must switch between two separate Install menus in order to access all of the compatible phone systems. For example, the NVM-202exCA and the NVM-2000CA (prior to software version 9.10) have phone systems listed on two separate Install menus. In the NVM-202exCA, the other menu is listed under NVM-204exCA. In the NVM-2000CA, the other menu is listed under NVM-2004CA.

If you have installed software version 9.10 or higher in an NVM-2000CA, however, you no longer need to switch between Install menus in order to select and access a desired phone system.

### NVM-2CA

In the NVM-2CA system, you select a compatible phone system from *System Initialization* on the Database Management menu rather than from an Install menu.

## NVM-CA Integrations and Software Versions

On the following pages is a table that shows the phone systems compatible with each NVM-CA Voice Mail System as well as the current software version of each NVM-CA Voice Mail System discussed in this Integration Guide. The table is divided into three columns:

- The first column —**Software Version of Voice Mail System**—shows the current software version of each NVM-CA Voice Mail system.
- The second column —**Compatible Phone System**— shows the phone systems that are compatible with each NVM-CA Voice Mail system listed in Column 1.
- The third column —**Install Menu Used to Access Phone System**— shows the name of the special Install menu that you use for certain integrations in order to access the phone system. The information in this column applies to an NVM-2000CA with any software version from 8.01 up to but not including 9.10. But when you do not need to use a special Install menu for this purpose, as in the NVM-2CA, the entry in this column will read, “N/A.”

# NVM-CA Introduction

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## NVM-CA Integrations and Software Versions (cont'd)

Software Version of Voice Mail System	Compatible Phone System	Install Menu Used to Access Phone System
NVM-22CA SV 8.01 SV 8.02	Nitsuko 124i	N/A
	Onyx VS/DST00/DS01	N/A
	Onyx VS24X72	N/A
	Alliance - S	N/A
	Alliance - M/L	N/A
	Portrait 824	N/A
	Panasonic KXT-1232	N/A
	Panasonic KXTD-1232	N/A
	Merlin II	N/A
	Merlin Legend	N/A
	Lucent Partner Plus	N/A
	Lucent Partner II	N/A
	Lucent Partner ACS	N/A
	Toshiba Strata DK 8/16	N/A
	Toshiba Strata DK 24/56/96	N/A
Toshiba Strata DK 280	N/A	

## NVM-CA Integrations and Software Versions (cont'd)

Software Version of Voice Mail System	Compatible Phone System	Install Menu Used to Access Phone System
NVM-202exCA SV 7.01	Nitsuko 124i	NVM-202ex
	Onyx VS/DS100/DS01	
	Onyx VS24X72	
	Alliance - S	
	Alliance - M/L	
	Portrait 824	
	Panasonic KXT-1232	NVM-204ex
	Panasonic KXTD-1232	
	Merlin II	
	Merlin Legend	
	Lucent Partner Plus	
	Lucent Partner II	
	Lucent Partner ACS	
	Toshiba Strata DK 8/16	
	Toshiba Strata DK 24/56/96	
	Toshiba Strata DK 280	
	Mitel (Inband) SX-50	
	Mitel (Inband) SX-200D/200Light	
	Mitel (Inband) SX-2000D/2000Light	

# NVM-CA Introduction

## NVM-CA Integrations and Software Versions (cont'd)

Software Version of Voice Mail System	Compatible Phone System	Install Menu Used to Access Phone System
NVM-2000CA SV 8.01 SV 9.10	Onyx I 60X60	NVM-2002
	Onyx II 32X60DCK/DS200	
	Onyx II 72X180/DCK/DS200	
	Onyx III 32X60/DCH/DS300	
	Onyx 72x180/DCH/DS300	
	Onyx VS/DS/00/DS01	
	Onyx VS24X72	
	VDS	
	DCS	
	VDS Key Hybrid	
	Onyx IV DS400	
	Morgan	
	Nitsuko 124i/OPTIMA	
	Nitsuko 384i/OPTIMA	
	Portrait 824	
	Panasonic KXT-616	NVM -2004
	Panasonic KXT-1232	
	Panasonic KXTD-1232	
	Panasonic DBS	
	Merlin II	
	Merlin Legend	
	Lucent Partner Plus	
	Lucent Partner II	
	Lucent Partner ACS	
	Lucent System 25	
	Electra Pro I	
	Electra Pro II	
	Electra Mark II	
	Samsung ProStar 816	
	Samsung DCS	
	Samsung ProStar 56/120	
	Toshiba Strata DK8/16	
	Toshiba Strata DK24/56/96	
	Toshiba Strata DK280	
	Vodavi 1428/2856	
	Comdial Impact	
	Alliance - S	
	Alliance - M/L	
	Mitel (Inband) SX-200D/200 Light	
Mitel (Inband) SX-50		
Generic Phone System		
Mitel (Inband) SX-2000D/2000 Light		

## NVM-CA Integrations and Software Versions (cont'd)

Software Version of Voice Mail System	Compatible Phone System	Install Menu Used to Access Phone System
NVM-2CA SV 1.06.01	Nitsuko 124i	N/A
	Onyx VS	N/A
	Alliance - S	N/A
	Alliance - M/L	N/A
	Nitsuko Portrait	N/A
	Panasonic KXT-1232	N/A
	Panasonic KXTD-1232	N/A
	Merlin II	N/A
	Merlin Legend	N/A
	Lucent Partner Plus	N/A
	Lucent Partner II	N/A
	Lucent Partner ACS	N/A
	Toshiba Strata DK 8/16	N/A
	Toshiba Strata DK 24/56/96	N/A
	Toshiba Strata DK 280	N/A

# NVM-CA Introduction

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## Viewing a List of Compatible Phone Systems

**To view a list of compatible phone systems from the Full Screen Editor mode of the NVM-202exCA or the NVM-2000CA:**

1. From the **NVM MAIN Menu**:  
Use the arrow keys to highlight *Install*, and press **Enter**.
2. Select *Install Voice Mail*.  
You will see a list of phone systems. In the NVM-2000CA with software version 9.10 or higher, the list shows all phone systems that are compatible with the Voice Mail. In an NVM-202exCA or the NVM-2000CA with a software version prior to 9.10, however, if you do not see the name of the phone system you want on the list, use the instructions in the steps below to switch to a different Install menu. Following these instructions will switch the NVM-202exCA Install Menu to a NVM-204exCA Install Menu or switch the NVM-2000CA Install Menu to a NVM-2004CA Install Menu.

## Switching Install Menus

**To switch Install menus from the Full Screen Editor mode of the NVM-202exCa or the NVM-2000CA (with any software version prior to 9.10)**

1. From the **NVM MAIN Menu**:  
Use the arrow keys to highlight *Install*.
2. Use the down arrow keys to select *Other Phone System and Language Selections*, and press **Enter**.
3. Press **Y** to continue.
4. When prompted, type **system**.
5. At the *COMMAND>* prompt, enter the number shown that corresponds to the NVM-204exCA or the NVM-2004CA you wish to select.  
The Voice Mail will reboot.

To view the list of compatible phone systems from the Full Screen Editor mode of the NVM-202exCA or the NVM-2000CA (prior to software version 9.10), see the instructions in *Viewing a List of Compatible Phone Systems* above.

## Phone System Programming for All NVM-CA Systems

Now you are ready to modify the programming in the phone system for integration with any NVM-CA Voice Mail System.

## Required Hardware and Software

- **Hardware:**  
One Pushbutton Receiver Card: PBR-C(4N)-11KTU  
Each Voice Mail port must be connected to an SLT-F(1G)-10ADP, which in turn must be connected to a port on a Regular Electronics Card: ESI-C-(8)-11.
- **Software:**  
Any software level is OK.

## Voice Mail Availability

This phone system is available on these Voice Mail systems:

- NVM-22CA with software version 8.01 or higher
- NVM-202exCA with software version 7.01 or higher
- NVM-2000CA with software version 8.01 or higher

## Phone System Programming

### First: About the Voice Mail Extensions

You must connect each NVM port that you want to use to an extension (Keyset) port in the telephone system. All extension numbers assigned to the selected ports must be in the same 10's group. For example, all the Voice Mail extension numbers must be in the range 10-19, or 20-29, or 30-39, etc. Make a note of the selected port and extension numbers, because you will need them for programming. The default port-to-extension assignments are in LK4 programming, Data No. 06. You can also use that Data No. to change the port-to-extension assignments, if necessary.

### LK1 System Mode Programming

#### Data No. 25 - Ring Transfer Selection

Select *Yes* (which is the default setting).

#### Data No. 34 - SLT Hookflash Signal Selection

Select *Hold* (which is the default setting).

#### Data No 35 - Station Master Hunt Number Selection

Select the first number of the 10's group that contains the Voice Mail extensions. For example, if the Voice Mail extensions range between 20 and 29, select 20 as the Station Master Hunt Number. The Station Master Hunt Number (sometimes called a Pilot Number) lets an extension user easily reach a Voice Mail extension. The caller only needs to dial the Station Master Hunt Number from an extension. The phone system automatically "hunts" through all the Voice Mail extensions and then gives the lowest-numbered available one to the caller.

#### Data No 64 - SLT Transfer Selection

Select *Hangup*.

### LK1 System Mode Programming

#### Data No. 01 - SLT Connected Yes/No Selection

Select *Yes* for each Voice Mail port.

#### Data No. 03 - Internal Zone Paging Selection

Select *None* for each Voice Mail port.

#### Data No. 05 - DTMF/DP SLT Type Selection

Select *MF* for each Voice Mail port.

## Phone System Programming (cont'd)

### LK4 System Mode Programming

#### **Data No. 06 - Station Number Assignment**

Use this program to change the port-to-extension (station) assignments, if necessary.

#### **Data No. 07 - Voice Mail/SLT Selection**

Select *Yes* for each Voice Mail port.

#### **Data No. 14 - Call Block Selection**

Select *Yes* for each Voice Mail port.

#### **Data No. 15 - CO/PBX Ring Assignment (Day Mode)**

For each Voice Mail port, select all trunk numbers that should ring that port during the day mode.

#### **Data No. 16 - CO/PBX Ring Assignment (Night Mode)**

For each Voice Mail port, select all trunk numbers that should ring that port during the night mode.

### LK3 CO/PBX Line Mode Programming

#### **Data No. 7 - CO/PBX DTMF Duration/Interdigit Assignment**

For each CO/PBX line, set the tone duration to 100 ms and interdigit time to 70 ms.

## **Voice Mail Programming**

### **Default Dial Action Table**

<b>Key</b>	<b>Routing Option</b>
Key 0	Action: TRF Number: 10
Key 1	Action: TRF Number: XX
Key 2	Action: TRF Number: XX
Key 3	Action: UND Number: N
Key 4	Action: UND Number: N
Key 5	Action: UND Number: N
Key 6	Action: UND Number: N
Key 7	Action: UND Number: N
Key 8	Action: UND Number: N
Key 9	Action: HUP Number: N
Key *	Action: REC1 Number: IV
Key #	Action: LOGON Number: N
TIMEOUT	Action: TRF Number: 10

### **Other Notes**

By default, the Automated Attendant is set up with unscreened transfers, so that you must Call Forward the phones to the Voice Mail.

# Alliance - S

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## Required Hardware and Software

- Each Voice Mail port must be connected to a port on the SLI-F (8G)-21KTU Card.
- Any software level is OK.

## Voice Mail Availability

This phone system is available on these Voice Mail systems:

- NVM-22CA with software version 8.01 or higher
- NVM-202exCA with software version 7.01 or higher
- NVM-2000CA with software version 8.01 or higher

## Phone System Programming

### LK1 System Mode Programming

#### LK 1 - 11 System Transfer/Camp-On Selection

Select *Yes* (which is the default setting).

#### LK 1 - 46/LK 1 - 47 Access Code 1 - Digit/2-Digit Assignment

Assign codes to:

- SLT Conversation Record function 042.
- Directed Voice Mail Transfer function No. 43.

#### LK 3 - 02 SLT HookFlash Signal Selection

Select *Hold* (which is the default setting).

#### LK 3 - 11 VM Master Hunt Number FWD Assignment

Assign a pilot number to a Voice Mail Master Hunt Number.

#### LK 8 - 01 SLT or Automated Attendant to PBR Selection

Set PBR's on the CPU to be used for Single Line Telephone.

### LK4 Telephone Mode Programming

#### Data No. 10 - Station Number Assignment

Use this program to change the port assignments, as necessary.

#### Data No. 14 - Intercom Master Hunt Number Selection

Select a master hunt number.

#### Data No 35 - Voice Mail/SLT Selection

Select *Yes* for each Voice Mail port.

#### Data No 95 - DTMF/DP SLT Type Selection

Select *DTMF* for each Voice Mail port.

#### Data No 96 - SLT Connect Yes/No Selection

Select *Yes* for each Voice Mail port.

### LK3 CO/PBX Line Mode

#### Data No. 42 - DIT Assignment

For each CO line, select which lines should ring Voice Mail during the day mode. Enter the Voice Mail pilot number.

#### Data No. 43 - ANA Assignment

For each CO line, select which lines should ring Voice Mail during the night mode. Enter the Voice Mail pilot number.

## Voice Mail Programming

### Default Dial Action Table

Key	Routing Option
Key 0	Action: TRF Number: 100
Key 1	Action: TRF Number: XXX
Key 2	Action: UND Number: N
Key 3	Action: UND Number: N
Key 4	Action: UND Number: N
Key 5	Action: UND Number: N
Key 6	Action: UND Number: N
Key 7	Action: UND Number: N
Key 8	Action: UND Number: N
Key 9	Action: HUP Number: N
Key *	Action: REC1 Number: IV
Key #	Action: LOGON Number: N
TIMEOUT	Action: TRF Number: 100

### Other Notes

By default, the Automated Attendant is set up with unscreened transfers, so that you must Call Forward the phones to the Voice Mail.

## Required Hardware and Software

You need a KXT-1232 station port for each Voice Mail port.

The Voice Mail integrates with the following software:

- KXT-123210
- KXT-123211 (without the D chip)
- KXT-123211D.

The Voice Mail integrates with any software version of the KXT-123210 and the KXT-123211 without the D chip. Since these phone systems do not have in-band signaling, extension users should not forward their calls to Voice Mail. However, normal Voice Mail operations will occur with these integrations.

When integrating with the KXT-123211D, software version Y2012940430 (TM3) or higher is required. This phone system provides in-band integration.

## Voice Mail Availability

This phone system is available on these Voice Mail systems:

- NVM-22CA with software version 8.01 or higher
- NVM-202exCA with software version 7.01 or higher
- NVM-2000CA with software version 8.01 or higher

## Phone System Programming

**To set up groups that contain the Voice Mail extensions:**

### **Program 60 - Extension Group Assignment**

Use this program to place the Voice Mail extensions in a group (1-8).

### **Program 08 - Call Hunting**

Use this program to enable Call Hunting for the Voice Mail extension group.

### **Program 09 - Hunting Type**

Use this program to assign a Hunting Type to the Voice Mail extension group.

**To have the Automated Attendant answer a CO line as soon as it rings in, use the following programs:**

### **Program 47 - Flexible Ringing Assignment (Day)**

Use this program to make a CO immediately ring the Voice Mail system during the day mode.

### **Program 48 - Flexible Ringing Assignment (Night)**

Use this program to make a CO ring the Voice Mail system immediately during the night mode. Any CO that should ring the Voice Mail must be assigned ringing at one, two, or three of the Voice Mail extensions. It is recommended that you program a CO to ring at all Voice Mail extensions, so that the call can be answered at an available Voice Mail extension, whenever one or two of the Voice Mail extensions are busy.

**Note:** Company greetings are assigned to ports, rather than to COs. So if you want CO 1 to be answered by a different set of "company greetings" than CO 2, for example, make sure that CO 1 does not ring the same Voice Mail extensions (ports) as those rung by CO 2. **REMINDER:** If you are using this CO scenario, make sure that you keep track of which COs ring which ports. Later you will need this information.

# Panasonic KXT-1232

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## Phone System Programming (cont'd)

To have the Automated Attendant answer a CO after a delay, use the following programs:

### Program 49 - Delayed Ringing Assignment (Day)

Use this program to make a CO line ring the Voice Mail system during the day, but only after a delay (that is, only after the CO has rung [tried] another extension).

### Program 50 - Delayed Ringing Assignment (Night)

Use this program to make a CO line ring the Voice Mail system during the night mode, but only after a delay (that is, only after the CO has rung [tried] another extension).

Any CO that should ring the Voice Mail system must be assigned ringing at one, two, or three of the Voice Mail extensions. It is recommended that you program a CO line to ring at all Voice Mail extensions, so that a call can be answered at an available Voice Mail extension even when one or two of the Voice Mail extensions are busy.

**Note:** Company greetings are assigned to ports rather than to COs. So if you want CO 1 to be answered by a different set of "company greetings" than CO 2, for example, make sure that CO 1 does not ring the same Voice Mail extensions (ports) as those rung by CO 2. **REMINDER:** If you are using this CO scenario, make sure that you keep track of which COs ring which ports. Later you will need this information.

## Voice Mail Programming System Options

### RNA/Busy, Hold Retrieval

DEFAULT: FP

### Lamp On String

DEFAULT: 701X#P

### Lamp Off String

DEFAULT: 701X#P702X#

### Transfer String

DEFAULT: FW

### Ringdown string

DEFAULT: \*

### Tenant 1 Fax detect dial string

Not used

## Voice Mail Programming (cont'd)

### System Options (cont'd)

#### Off hook Call Announce string

Not used

#### Call pickup string

Not used

#### Flash timer

DEFAULT: 50 (1 = 10ms)

#### Wait for first/subsequent protocol digit

Not used

#### Wait after last protocol digit

Not used

#### Page/Meet-me Page hold timer

DEFAULT: 25 sec

#### Schedule to use in Day/Night mode

Not used

## Mailbox Options

#### Park/Paging string

For Subscriber Mailboxes, call is parked.

DEFAULT: FW/330A

#### Call Waiting string

For Subscriber Mailboxes

DEFAULT: FWJ|1P, where J is the Subscriber extension

#### Use Remote Logon as Direct Logon

For Subscriber, Guest, Message Center Mailboxes

Not used

#### Msg Wait Lamp

For Subscriber, Guest, Message Center Mailboxes

DEFAULT: Yes

#### Notification number 1

For Subscriber Mailboxes

DEFAULT: Subscriber extension number

## Voice Mail Programming

### Default Dial Action Table

The extension numbers for TRF or UTRF do not need to be placed in brackets or followed by a "1."

Key	Routing Option
Key 0	Action: UTRF Number: 101
Key 1	Action: TRF Number: XXX
Key 2	Action: UND Number: N
Key 3	Action: UND Number: N
Key 4	Action: UND Number: N
Key 5	Action: UND Number: N
Key 6	Action: UND Number: N
Key 7	Action: UND Number: N
Key 8	Action: UND Number: N
Key 9	Action: HUP Number: N
Key *	Action: REC1 Number: IV
Key #	Action: LOGON Number: N
TIMEOUT	Action: UTRF Number: 101

### Other Notes

1. For KXT-123210 and KXT-123211 without the D chip, Call Forwarding to a Mailbox is not allowed
2. By default, the Automated Attendant is set up with unscreened transfers, so that you must Call Forward the phones to the Voice Mail. By default, the Automated Attendant is set up with unscreened transfers, so that you must Call Forward the phones to the Voice Mail.

## Required Hardware and Software

- One KX-TD1232 station port for each Voice Mail port.  
Due to limited DTMF receivers in the phone system for outdialing, do not use more than 2 KX-TD1232 station ports per Station Card for Voice Mail.
- Any Panasonic KX-TD1232 software version.

## Voice Mail Availability

This phone system is available on these Voice Mail systems:

- NVM-22CA with software version 8.01 or higher
- NVM-202exCA with software version 7.01 or higher
- NVM-2000CA with software version 8.01 or higher

## Phone System Programming

**To set up groups that contain the Voice Mail extensions:**

### **Program 602 - Extension Group Assignment**

Use this program to place the Voice Mail extensions in a group (1-8). Extensions are the KXTD-1232 station ports that are connected to the Voice Mail.

### **Program 106 - Station Hunt Type**

Use this program to assign Auto Attendant Hunting to the group that you created in Program 602. The name of the group must be AA (for Automated Attendant).

**To have Automated Attendant answer a CO line as soon as it rings in:**

### **Program 407 - Direct In Lines (Day)**

Use this program to make a CO line immediately ring the Voice Mail during the phone system's day mode. Direct the CO line to the lowest extension in the Voice Mail Extension Group (see Program 602).

### **Program 408 - Direct In Lines (Night)**

Use this program to make a CO line immediately ring the Voice Mail during the phone system's night mode. Direct the CO line to the lowest extension of the Voice Mail Extension Group (see Program 602).

**Note:** Company greetings are assigned to ports rather than to COs. So if you want CO 1 to be answered by a different set of "company greetings" than CO 2, for example, make sure that CO 1 does not ring the same Voice Mail extensions (ports) as those rung by CO 2. **REMINDER:** If you are using this CO scenario, make sure that you keep track of which COs ring which ports. Later you will need this information.

**To have the Automated Attendant answer a CO after a delay (that is, after first ringing somewhere else):**

### **Program 603 - DIL Extension Delayed Ringing (Day)**

Use this program to make a CO line ring the Voice Mail during the phone system's night mode, but only after a delay. Direct the CO line to the lowest extension of the Voice Mail Extension Group (see Program 602).

### **Program 604 - DIL Extension Delayed Ringing (Night)**

Use this program to make a CO line ring the Voice Mail during the night mode after a short delay. Direct the CO line to the lowest extension of the Voice Mail Extension Group (see Program 602).

## Phone System Programming (cont'd)

### Inband Integration Programs

#### Program 113 - VM Status DTMF Set

The following codes must be entered so that system call progress will function properly:

- RBT (Ringback tone) = None (no DTMF tones should be sent). Remove the default entry of 1.
- BT (Busy tone) = 2
- DND (DND Tone) = 3
- ROT (Reorder tone) = 3
- Answer = 1
- Disconnect = 999
- Confirm (Confirmation tone) = None (no DTMF tones should be sent). Remove the default entry of 9.
- FWD VM BT (FWD to VM Ringback tone) = 3
- FWD VM BT (FWD to VM busy tone) = 3
- FWD EXT RBT (FWD to Extension Ringback Tone) = None (no DTMF tones should be sent). Remove the default entry of 8.

#### Program 114 - VM Command DTMF Set

The following codes must be used for Call Forwarding directly to a mailbox, retrieving messages, and/or using the Message Waiting key to log on to a mailbox:

LV MSG = \*H

Get MSG = #H

AA Service = None (remove default entry of #8)

VM SVC = None (remove default entry of #6).

#### Program 609 - Voice Mail Access Codes

Program 609 must be programmed in order for the extension ID to be forwarded to the Voice Mail. The entry for each extension should be the owner's extension. For example, if the owner's extension is 101, the entry should be 101.

**Note:** If users should be able to forward their calls to their mailbox and some extension users have mailbox numbers that do not match their extension numbers, use Program 609 to assign the desired mailbox number to **each** extension in the phone system, including those extensions that have matching mailbox numbers. Also, set field 18 in Program 990 to 1 (free).

#### Program 990 - Field 10

This must be set to 0 (Do Not Start) for integration to work properly.

## Phone System Programming (cont'd)

### Automated Attendant Transfers

#### Program 201 - Transfer Recall Timer

If unscreened transfers (UTRF's) are being used and extension users are forwarding calls to their mailboxes, set the Transfer Recall Timer to at least one ring higher than the value set in Program 202 (below).

If screened transfers (TRF's) are being used, set the Transfer Recall Timer higher than the *Rings before redirect transfer* timer of any Call Routing Mailbox that is handling calls.

#### Program 202 - Call Forwarding No Answer Time

This timer sets the number of times a call should ring an extension before being forwarded to its mailbox. Use this timer if the Automated Attendant is set up for unscreened transfers (UTRF's) and the extensions are set up for mailbox call forwarding.

#### Program 200 -Hold Recall Time

If the Automated Attendant is set up for screened transfers (TRF's) then this timer should be set higher than the *Rings before redirect transfer* for any Call Routing mailbox that is handling calls.

### Additional System Programming

Each analog port of the phone system that will be connected to the Voice Mail System must have data line security set. This is done to protect the Voice Mail System ports from interruption from other phone system features.

To set data line security: Connect a standard analog set to the Voice Mail port, go off-hook, dial **730** and **1**. After you hear a confirmation tone, hang up.

#### Program 990

The following fields in this program should be set as shown:

Field 2 = 0 default

Field 5 = 0 default

Field 6 = 0 default

Field 7 = 10 default

Field 8 = 10 default

Field 9 = 0 default

Field 16 = 1 default

Field 18 = 0 default (see Note under Program 114)

Field 22 = 0 default

Field 24 = 0 default.

#### Program 405: Calling Party Control

Disconnect signal = 400 ms default. This value (also known as drop pulse time) should be set to match the open loop disconnect supervision time sent from your local phone company.

## Phone System Programming (cont'd)

### About DIL Private Lines

#### Program 409 - Intercept Extension Day

#### Program 410 - Intercept Extension Night

To have an extension's DIL (Private Line) overflow to extension's (Subscriber) mailbox, enter the Voice Mail master extension in Program 409/410 for the Private Line.

For example, if you want the Private Line of extension 310 to overflow to a Call Routing Mailbox, make sure that mailbox 310 is a Call Routing Mailbox rather than a Subscriber Mailbox.

#### Program 203 - Intercept Time

This is the number of times that a DIL (Private Line) should ring an extension before going to the intercept (overflow) extension.

### About Flexible Button Assignments

#### Program 005 - Flexible CO button assignment

##### To program a Voice Mail Transfer key on any Keypad from a Manager's phone:

1. Enter program 005, and press **Next**.
2. Enter jack number of the Keypad phone that should have a Voice Mail Transfer key.
3. Press the Flexible Button that should be the Voice Mail Transfer key. Enter the button code of 8.
4. Dial the Voice Mail master extension.
5. Press **Store** and **End (Hold)**.

##### To program a Msg Waiting button on a key phone:

1. Enter program 005, and press **Next**.
2. Enter jack number of the Keypad phone that should have a Msg Waiting key.
3. Press the Flexible Button that should be the Msg Waiting key. Enter the button code of 3.
4. Press **Store** and **End (Hold)**.

##### To program a FWD/DND button on a key phone:

1. Enter program 005, and press **Next**.
2. Enter jack number of the Keypad phone that should have a FWD/DND button.
3. Press the Flexible Button that should be the FWD/DND key. Enter the button code of 4.
4. Press **Store** and **End (Hold)**.

### About Call Forwarding to a Mailbox

Call Forwarding to a Mailbox is allowed, only if the Automated Attendant is set up for unscreened transfers (UTRF's) in the Dial Action Table.

## Phone System Programming (cont'd)

### About Call Forwarding to a Mailbox (cont'd)

#### To forward calls:

1. Go off-hook.
2. Press **FWD/DND** on a Keypad, or dial **710** on a Single Line.
3. Dial call forwarding code:
  - 2 - Forward all calls
  - 3 - Forward busy
  - 4 - Forward no answer
  - 5 - Forward busy/no answer
4. Dial the master extension.
5. Hang up.

#### To cancel forwarding:

1. Go off-hook.
2. Press **FWD/DND** on a Keypad, or dial **710** on a Single Line.
3. Dial **0**.
4. Hang up.

**Note:** When using any of the Call Forwarding to Voice Mail options, the phone system transmits the follow-on ID (mailbox number) of the lowest jack number of the receiving extensions.

### About Paging

#### To pickup a park/page from any extension:

1. Go off-hook.
2. Dial **43**.

### About Transfer to a Mailbox

#### To transfer an outside caller directly into a person's mailbox by using the Voice Mail Transfer key on a Keypad:

1. Press the Voice Mail Transfer key.
2. Press the DSS button for the extension you are calling.  
OR  
Dial that extension.
3. Hang up.

#### To transfer an outside caller directly into a person's mailbox by using a Keypad that does not have a Voice Mail Transfer key:

1. Press the Transfer key.
2. Dial the Voice Mail master extension, and wait for the Voice Mail to answer.
3. Dial \* and then the extension's mailbox number.
4. Hang up.

## Phone System Programming (cont'd)

### About Transfer to a Mailbox (cont'd)

**To transfer an outside caller directly into a person's mailbox, using a Single Line:**

1. Hookflash.
2. Dial the Voice Mail master extension, and wait for the Voice Mail to answer.
3. Dial \* and the extension's mailbox.
4. Hang up.

### To Call Your Mailbox and Listen to Your Messages

1. Go off-hook.
2. Press the lit Message button (if you have a Message button).

OR

Dial the Voice Mail master extension, wait for an answer, press #, and dial your mailbox number.

## Voice Mail Programming System Options

### RNA/Busy, Hold Retrieval

DEFAULT: FP

### Lamp On String

DEFAULT: 701X

### Lamp Off String

DEFAULT: 700X

### Transfer String

DEFAULT: FW

### Ringdown string

DEFAULT: \*

### Tenant 1 FAX detect dial string

Not used

### Off hook Call Announce string

Not used

### Call pickup string

Not used

## Voice Mail Programming (cont'd) System Options (cont'd)

### Flash timer

DEFAULT: 50 (1 = 10 ms)

### Wait for first/ subsequent protocol digit

Not used

### Wait after last protocol digit

Not used

### Page/Meet-me Page hold timer

DEFAULT: 25 sec

### Schedule to use in Day/Night mode

Not used

## Mailbox Options

### Park/Paging string

For Subscriber Mailboxes, call is parked.

DEFAULT: FW/330A

### Call Waiting string

For Subscriber Mailboxes

DEFAULT: FWJ111P, where J is the Subscriber extension

### Use Remote Logon as Direct Logon

For Subscriber, Guest, Message Center Mailboxes

Not used

### Msg Wait Lamp

For Subscriber, Guest, Message Center Mailboxes

DEFAULT: Yes

### Notification number 1

For Subscriber Mailboxes

DEFAULT: Subscriber extension number

# Panasonic KXTD-1232

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## Voice Mail Programming

### Default Dial Action Table

The extension numbers for TRF or UTRF do not need to be placed in brackets or followed by a "1."

Key	Routing Option
Key 0	Action: UTRF Number: 101
Key 1	Action: TRF Number: XXX
Key 2	Action: UND Number: N
Key 3	Action: UND Number: N
Key 4	Action: UND Number: N
Key 5	Action: UND Number: N
Key 6	Action: UND Number: N
Key 7	Action: UND Number: N
Key 8	Action: UND Number: N
Key 9	Action: HUP Number: N
Key *	Action: REC1 Number: IV
Key #	Action: LOGON Number: N
TIMEOUT	Action: UTRF Number: 101

### Other Notes

By default, the Automated Attendant is set up with unscreened transfers, so that you must Call Forward the phones to the Voice Mail.

## Required Hardware and Software

- Each Voice Mail port must be connected to a port on the Basic Telephone (012) Module, model 517C13.
- Processor 517C7 module
- Feature Module 517G6 Release 3
- 1 Ring Generator
- (If the 012 module is in the expansion carrier, then the ring generator must in the expansion carrier's power supply module.)

## Voice Mail Availability

This phone system is available on these Voice Mail systems:

- NVM-22CA with software version 8.01 or higher
- NVM-202exCA with software version 7.01 or higher
- NVM-2000CA with software version 8.01 or higher

## Phone System Programming

To complete this programming, you will need the AT&T Merlin Mail Guide for the Merlin II.

### Assigning Ports to AA/VMS

Determine the extensions to be connected to the Voice Mail System. These extensions will be referred to as the Voice Mail extensions.

### Labeling the AA/VMS Ports

Label the Voice Mail extensions, so that display phones can easily identify calls from the Voice Mail.

### Assigning AA/VMS Ports to the Exclusion List

The Voice Mail extensions *must* be assigned to the exclusion list if the Merlin II is set up for Night Service with Outward Restriction.

### Selecting CO Dial Tone

Use this procedure to change the Merlin II system from intercom to CO (Central Office) dial tone.

### Call Handling Methods

The Automated Attendant can answer calls immediately (primary) or after a delay (secondary). If you want the Automated Attendant to answer calls immediately, use the programming listed under the topic, *Selecting Immediate Call Handling*. If you want the Automated Attendant to act as a backup to the primary call handler, follow the instructions listed under *Selecting Delayed Call Handling*.

## Voice Mail Programming System Options

Listed next are two types of Voice Mail System Options:

- Those that the Merlin II does not use
- Those that have default values not listed in the Voice Mail Programming Guide

## Voice Mail Programming (cont'd)

### System Options (cont'd)

#### **RNA, Hold Retrieval**

DEFAULT: FPPF

#### **Busy, Hold Retrieval String**

DEFAULT: FP

#### **Lamp On String**

DEFAULT: #900X

#### **Lamp Off String**

DEFAULT: #901X

#### **Transfer String**

DEFAULT: FW

#### **Ringdown string**

DEFAULT: None

#### **Tenant 1 FAX detect dial string**

DEFAULT: None

#### **Off hook Call Announce string**

Not used

#### **Call pickup string**

DEFAULT: W\*9

#### **Flash timer**

DEFAULT: 50 (1 = 10ms)

#### **Wait for first/subsequent protocol digit**

Not used

## Voice Mail Programming (cont'd)

### System Options (cont'd)

#### Wait after last protocol digit

Not used

#### Page/Meet-me Page hold timer

Not used

#### Schedule to use in Day/Night mode

Not used

## Mailbox Options

#### Trunk Mailboxes

Not used

#### Park/Paging string

For Subscriber Mailboxes

DEFAULT: FWJH/W7887A, where J = Subscriber extension

#### Call Waiting string

For Subscriber Mailboxes

DEFAULT: FWJ, where J = Subscriber extension

#### Use Remote Logon as Direct Logon

For Subscriber, Guest, Message Center Mailboxes

DEFAULT: No

#### Msg Wait Lamp

For Subscriber, Guest, Message Center Mailboxes

DEFAULT: Yes

#### Notification number 1

For Subscriber Mailboxes

DEFAULT: Subscriber extension number

## Voice Mail Programming (cont'd)

### Default Dial Action Table

The extension numbers for a TRF or an UTRF — a specific extension or XX — do not need to be placed in brackets or followed by a "1."

Key	Routing Option
Key 0	Action: UTRF Number: 0
Key 1	Action: TRF Number: XX
Key 2	Action: TRF Number: XX
Key 3	Action: TRF Number: XX
Key 4	Action: TRF Number: XX
Key 5	Action: TRF Number: XX
Key 6	Action: TRF Number: XX
Key 7	Action: UND Number: N
Key 8	Action: UND Number: N
Key 9	Action: HUP Number: N
Key *	Action: REC1 Number: IV
Key #	Action: LOGON Number: N
TIMEOUT	Action: UTRF Number: 0

### Other Notes

Call Forwarding to a mailbox is not allowed.

## Required Hardware and Software

- Each Voice Mail port must be connected to a port on Basic Telephone (012) Module, model 517C13
- Processor 517C7 module
- Feature Module 517G6 Release 3
- 1 Ring Generator  
(If the 012 module is in the expansion carrier, the ring generator must in the expansion carrier's power supply module.)

## Voice Mail Availability

This phone system is available on these Voice Mail systems:

- NVM-22CA with software version 8.01 or higher
- NVM-202exCA with software version 7.01 or higher
- NVM-2000CA with software version 8.01 or higher

## Phone System Programming

You will need the AT& T Merlin Mail Guide for the Merlin Legend to complete this programming. Most of the required programming is in Chapter 4.

### Create an Integrated VMI Group

Place Voice Mail extensions (the 012 telephone modules that you intend to connect to the Voice Mail System) into an Integrated VMI Group.

### Group Coverage

Assign all extensions to have Subscriber Mailboxes into a Calling Group.

### Group Calling

Assign the lines that should be answered by the Voice Mail to a Group Calling group. These lines should not be in a line pool.

### Hunt Type

The Hunt Type defines the method used by VMI Calling Group to search for the next available extension. Program a *Linear* hunt pattern, so that the system will search in the same order in which you have assigned phones in the group.

### VMS Transfer Return Interval

The VMS Transfer Return Interval defines the number of rings that occur before a call transferred by the Voice Mail System is redirected to designated extension. Set this timer higher than the *Rings Before Redirect Transfer* field of a Voice Mail System Call Routing Mailbox (which is 3 rings by default).

### Program a DND Key

Program a DND key on the phones that you want to be able to send calls directly to Voice Mail during a blind transfer from the Voice Mail System.

### Call Answer Service

When you do not want an Automated Attendant, use this set of programs to forward unanswered calls to the Voice Mail System.

### Cover Delay Timer

Sets how many rings a blind transfer or internal RNA will ring a member of the Group Calling before Calling the Automated Attendant and releasing the protocol.

### Call Handling Methods

When you want an Automated Attendant to answer calls, greet callers, and give them dialing options, use these programs.

# Lucent Merlin Legend

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## Voice Mail Programming System Options

### **RNA, Hold Retrieval**

DEFAULT: FPF

### **Busy, Hold Retrieval String**

DEFAULT: FPF

### **Lamp On String**

DEFAULT: #53X

### **Lamp Off String**

DEFAULT: #\*53X

### **Transfer String**

DEFAULT: FW

### **Ringdown string**

DEFAULT: None

### **Tenant 1 FAX detect dial string**

DEFAULT: None

### **Off hook Call Announce string**

Not used

### **Call pickup string**

DEFAULT: W#9

### **Flash timer**

DEFAULT: 50 (1 = 10ms)

### **Wait for first protocol digit**

DEFAULT: 3 sec

### **Wait for subsequent protocol digits**

DEFAULT: 1 sec

## Voice Mail Programming (cont'd)

### System Options (cont'd)

#### Wait after last protocol digit

DEFAULT: 1 sec

#### Page/Meet-me Page hold timer

Not used

#### Schedule to use in Day/Night mode

DEFAULT: None

## Mailbox Options

### Trunk Mailboxes

Allowed. To see the mailbox numbers, use the *View/Print Reports* Menu, *Mailbox List Numerical*.

### Park/Paging string

For Subscriber Mailboxes, call rings phone.

DEFAULT: FWJH/W799A, where J is the Subscriber extension

### Call Waiting string

For Subscriber Mailboxes

DEFAULT: FWJ, where J is the Subscriber extension

### Use Remote Logon as Direct Logon

For Subscriber, Guest, Message Center Mailboxes

DEFAULT: No

### Msg Wait Lamp

For Subscriber, Guest, Message Center Mailboxes

DEFAULT: Yes

### Notification number 1

For Subscriber Mailboxes

DEFAULT: Subscriber extension number

# Lucent Merlin Legend

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## Voice Mail Programming (cont'd)

### Default Dial Action Table

The extension numbers for TRF or UTRF – a specific extension or XX – do not need to be placed in brackets or followed by a “1.”

Key	Routing Option
Key 0	Action: UTRF Number: 0
Key 1	Action: TRF Number: XX
Key 2	Action: UND Number: N
Key 3	Action: UND Number: N
Key 4	Action: UND Number: N
Key 5	Action: UND Number: N
Key 6	Action: UND Number: N
Key 7	Action: UND Number: N
Key 8	Action: UND Number: N
Key 9	Action: HUP Number: N
Key *	Action: REC1 Number: IV
Key #	Action: LOGON Number: N
TIMEOUT	Action: UTRF Number: 0

### Other Notes

By default, the Automated Attendant is set up with unscreened transfers. Therefore, you must Call Forward the phones to the Voice Mail.

## Required Hardware and Software

- Processor must be R 3.1 module for inband signaling
- Station/Line 206 Module (206E R3.1) is required for Message Waiting capability for voice messages.

## Voice Mail Availability

This phone system is available on these Voice Mail systems with all software levels:

- NVM-22CA
- NVM-202exCA
- NVM-2000CA

## Phone System Programming

You will need the Lucent Partner Plus manual to complete this programming.

### To have the Automated Attendant answer calls:

#### Program 607 AA Extensions

Use this program to identify each Lucent Partner extension that will have a Key \*AA/VM port connected. This is to notify display set users of a call being handled by the Voice Mail System ports.

#### Program 505 Hunt Group Extensions

Use this program to assign the Lucent Partner extensions to be connected to AA/VM ports to Hunt Group 7. This Hunt Group number is the only one that will send integration protocol.

#### Program 206 Group Call Distribution

Use this program to assign the lines that should terminate and be answered by Hunt Group 7 above.

#### Program 507 VMS Hunt Schedule

Use this program to determine when calls will terminate to Hunt Group 7 (always, day only, night only). This is dependent on the status of the Night Service Button at extension 10.

#### Program 506 VMS Hunt Delay

Use this program to determine how outside calls should be answered by the AA/VM: Immediate (after 2nd ring) or Delayed (after 4th ring).

### If you are going to set up unscreened Automated Attendant transfers (UTRFs) to the extensions:

#### Program 310 Auto VMS Cover

Use this program to determine whether an extension's unanswered intercom and transferred calls are automatically covered by the voice messaging system. If Do Not Disturb is activated, calls will go to voice messaging regardless of whether or not Program 310 is enabled.

#### Program 306 Transfer Return Extension

Use this program to determine the destination of an incomplete Auto Attendant transfer. The destination is typically extension 10. An incomplete transfer is one that is not answered or one that does not have Voice Mail coverage.

## Phone System Programming (cont'd)

If you are going to set up screened Automated Attendant transfers (TRFs) to the extensions:

### Program 105 Transfer Return Rings

Use this program to set this timer higher than the *Rings before redirect transfer* for any Call Routing Mailbox that is handling calls.

### User Features

#### To transfer an intercom or CO call directly into a mailbox:

Press Feature 14, enter the 2-digit mailbox number, and hang up.

#### To allow the Subscribers to call their mailboxes with one touch:

Program each extension with an auto dial button for the Voice Mail hunt group (Intercom 777).

#### To program a VMS Cover Button to extension:

Press Feature 15.

## Voice Mail Programming System Options

### RNA, Hold Retrieval

DEFAULT: FP

### Busy, Hold Retrieval String

DEFAULT: FP

### Lamp On String

DEFAULT: #09X

### Lamp Off String

DEFAULT: #10X

### Transfer String

DEFAULT: FW

### Ringdown string

DEFAULT: None

## Voice Mail Programming (cont'd)

### System Options (cont'd)

#### Tenant 1 FAX detect dial string

DEFAULT: None

#### Off Hook Call Announce string

Not used

#### Call pickup string

DEFAULT: None

#### Flash timer

DEFAULT: 50 (1 = 10 ms)

#### Wait for first protocol digit

DEFAULT: 3 sec

#### Wait for subsequent protocol digits

DEFAULT: 1 sec

#### Wait after last protocol digit

DEFAULT: 1 sec

#### Page/Meet-me Page hold timer

Not used

#### Schedule to use in Day/Night mode

DEFAULT: None

## Mailbox Options

### Trunk Mailboxes

Allowed. To see the mailbox numbers, use the *View/Print Reports* Menu, *Mailbox List Numerical*.

### Park/Paging string

For Subscriber

DEFAULT: FWJH/W\*71A, where J is the Subscriber extension

## Voice Mail Programming (cont'd)

### Mailbox Options (cont'd)

#### **Call Waiting string**

For Subscriber Mailboxes

DEFAULT: FWJ, where J is the Subscriber extension

#### **Use Remote Logon as Direct Logon**

For Subscriber, Guest, Message Center Mailboxes

DEFAULT: No

#### **Msg Wait Lamp**

For Subscriber, Guest, Message Center Mailboxes

DEFAULT: Yes

#### **Notification number 1**

For Subscriber Mailboxes

DEFAULT: Subscriber extension number

## Voice Mail Programming (cont'd)

### Default Dial Action Table

The extension numbers for TRF or UTRF – a specific extension or XX – do not need to be placed in brackets or followed by a “1.”

<b>Key</b>	<b>Routing Option</b>
Key 0	Action: UTRF Number: 0
Key 1	Action: TRF Number: XX
Key 2	Action: UND Number: N
Key 3	Action: UND Number: N
Key 4	Action: UND Number: N
Key 5	Action: UND Number: N
Key 6	Action: UND Number: N
Key 7	Action: UND Number: N
Key 8	Action: UND Number: N
Key 9	Action: HUP Number: N
Key *	Action: REC1 Number: IV
Key #	Action: LOGON Number: N
TIMEOUT	Action: UTRF Number: 0

### Other Notes

By default, the Automated Attendant is set up with unscreened transfers. Therefore, you must Call Forward the phones to the Voice Mail.

# Lucent Partner Plus

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## Required Hardware and Software

- Processor must be R3.1 module for inband signaling.
- Station/Line 206 Module version R3.1 or higher. This module supports two CO lines and six extensions and is required for Message Waiting capability for voice messages. Each Voice Mail port requires one port from this module. In addition, this module also supports industry standard 2500 sets or Lucent proprietary sets, such as MLS-120.

## Voice Mail Availability

This phone system is available on these Voice Mail systems:

- NVM-22CA with software version 8.01 or higher
- NVM-202exCA with software version 7.01 or higher
- NVM-2000CA with software version 8.01 or higher

## Phone System Programming

You will need the Lucent Partner II Communications System Programming and User manual to complete this programming. Most of the required programming is in Chapter 2 of that guide.

Each Voice Mail extension must have Automatic Line Selection set for intercom. This enables the Partner II to provide intercom dial tone, whenever the Voice Mail port goes off hook.

The Partner II system extension numbers overlap with the numbers in the trunk number plan. Therefore, if trunk mailboxes are used above trunk 09, then the System Option, Trunk Mailbox Off-set, must be programmed.

### General Programming

#### Program 304 Automatic Extension Privacy

For each Voice Mail extension, enable this program to prevent extensions from barging in on Voice Mail calls in process.

#### To have the Automated Attendant answer calls:

#### Program 607 AA Extensions

Use this program to identify each Lucent Partner extension that will have an AA/VM port connected. This is to notify display set users of a call being handled by the Voice Mail ports.

#### Program 505 Hunt Group Extensions

Use this program to assign the Lucent Partner extensions that will be connected to AA/VM ports to Hunt Group 7. This is the only Hunt Group number that will send integration protocol.

#### Program 206 Group Call Distribution

Use this program to assign the lines that should terminate and be answered by Hunt Group 7 above. To route calls after four rings to a specific user's mailbox, select VMS Line Cover (setting 3).

#### Program 507 VMS Hunt Schedule

Use this program to determine when calls will terminate to Hunt Group 7 (always, day only, night only). This is dependent on the status of the Night Service Button at extension 10.

## Phone System Programming (cont'd)

### Program 506 VMS Hunt Delay

Use this program to determine how outside calls should be answered by the AA/VM: Immediate (after 2nd ring) or Delayed (after 4th ring).

**If you are going to set up unscreened Automated Attendant transfers (UTRF) to the extensions:**

### Program 310 Auto VMS Cover

Use this program to determine whether an extension's unanswered intercom and transferred calls are automatically covered by the voice messaging system. When Do Not Disturb is activated, calls will go to voice messaging regardless of whether or not Program 310 is enabled.

### Program 208 Line Coverage Extension

Use this program to identify an extension as the owner of a specific outside line. This allows the extension to activate call coverage for the line. (Do Not Disturb overrides this feature and immediately routes the call to Voice Mail.)

### Program 116 Call Coverage Rings

Use this program to specify the number of times a covered extension rings before a call is routed to the covering extension. When the **covering** extension is programmed for Call Coverage and VMS Cover, the call first rings the number of times specified in Program 116. After it rings the number of times specified in VMS Cover Rings, the call will be routed to Voice Mail.

### Program 117 VMS Cover Rings

Use this program to determine the number of times that an extension should ring (1 to 9) , before the call will be routed to Voice Mail. Either VMS Cover (Feature 15) or Automatic VMS Cover (Program 310) must be active for the covered extension. The default number of rings is 3.

### Program 306 Transfer Return Extension

Use this program to determine the destination of an incomplete Auto Attendant transfer. The destination is typically extension 10. An incomplete transfer is one that is not answered or one that does not have Voice Mail coverage.

**If you are going to set up screened Automated Attendant transfers (TRFs) to the extensions:**

### Program 105 Transfer Return Rings

Use this program to set this timer higher than *Rings before redirect transfer* for any Call Routing Mailbox that is handling calls.

## Phone System Programming (cont'd)

### User Features

**To transfer an intercom or CO call directly into a mailbox:**

Press Feature 14, enter the 2-digit mailbox number, and hang up.

**To allow the Subscribers to call their mailboxes with one touch:**

Program each extension with an auto dial button for the Voice Mail hunt group (Intercom 777).

**To program a VMS Cover Button to extension:**

Press Feature 15.

**To retrieve a call that is ringing at another extension:**

Go off hook, press the Intercom key, dial 6 and the number of the ringing extension, program a VMS Cover button to extensions (Feature 15).

## Voice Mail Programming System Options

### RNA, Hold Retrieval

DEFAULT: FP

### Busy, Hold Retrieval String

DEFAULT: FP

### Lamp On String

DEFAULT: #09X

### Lamp Off String

DEFAULT: #10X

### Transfer String

DEFAULT: FW

### Ringdown string

DEFAULT: None

### Tenant 1 Fax detect dial string

DEFAULT: None

### Off hook Call Announce string

Not used

### Schedule to use in Day/Night mode

DEFAULT: None

### Voice Mail Programming (cont'd)

#### Mailbox Options

##### Trunk Mailboxes

Allowed. To see mailbox numbers, use the *View/Print Reports Menu*, Mailbox List Numerical.

##### Park/Paging string

For Subscriber

DEFAULT: FWJH/W\*71A, where J is the Subscriber extension

##### Call Waiting string

For Subscriber Mailboxes

DEFAULT: FWJ, where J is the Subscriber extension

##### Use Remote Logon as Direct Logon

For Subscriber, Guest, Message Center Mailboxes

DEFAULT: No

##### Msg Wait Lamp

For Subscriber, Guest, Message Center Mailboxes

DEFAULT: Yes

##### Notification number 1

For Subscriber Mailboxes

DEFAULT: Subscriber extension number

## Voice Mail Programming (cont'd)

### Default Dial Action Table

The extension numbers for TRF or UTRF – a specific extension or XX – do not need to be placed in brackets or followed by a “1.”

Key	Routing Option
Key 0	Action: UTRF Number: 0
Key 1	Action: TRF Number: XX
Key 2	Action: UND Number: N
Key 3	Action: UND Number: N
Key 4	Action: UND Number: N
Key 5	Action: UND Number: N
Key 6	Action: UND Number: N
Key 7	Action: UND Number: N
Key 8	Action: UND Number: N
Key 9	Action: HUP Number: N
Key *	Action: REC1 Number: IV
Key #	Action: LOGON Number: N
TIMEOUT	Action: UTRF Number: 0

### Other Notes

Call Forwarding to a mailbox is allowed only if the Automated Attendant is set up for unscreened transfers. Call Forwarding takes precedence over VMS Cover and Call Coverage. When activated, Do Not Disturb overrides all coverage ring timers and immediately routes a call to Voice Mail.

# Lucent Partner II

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## Required Hardware and Software

- Processor for inband signaling must be R3.1 module .
- Station/Line 206 module version R3.1 or higher. This module supports two CO lines and six extensions and is required for Message Waiting capability for voice messages. Each Voice Mail port requires one port from this module. In addition, this module also supports industry standard 2500 sets or Lucent proprietary sets, such as MLS-120.

## Voice Mail Availability

This phone system is available on these Voice Mail systems:

- NVM-22CA with software version 8.01 or higher
- NVM-202exCA with software version 7.01 or higher
- NVM-2000CA with software version 8.01 or higher

## Phone System Programming

You will need the Lucent ACS Communications System Programming and User manual to complete this programming. Most of the required programming is in Chapter 2 of that guide.

Each Voice Mail extension must have Automatic Line Selection set for intercom. This setting enables the ACS to provide intercom dial tone, whenever the Voice Mail port goes off hook.

The ACS system extension numbers overlap with the numbers in the trunk number plan. Therefore, if trunk mailboxes are used above trunk 09, then you must program the System Option, *Trunk Mailbox Offset*.

### General Programming

#### Program 304 Automatic Extension Privacy

Enable this program for each Voice Mail extension to prevent the extension from barging in on Voice Mail calls in process.

### To have the Automated Attendant answer calls:

#### Program 607 AA Extensions

Use this program to identify each Lucent ACS extension that will have an AA/VM port connected. This is to notify display set users of a call being handled by 2004 ports.

#### Program 505 Hunt Group Extensions

Use this program to assign the Lucent ACS extensions that will be connected to AA/VM ports to Hunt Group 7. This is the only Hunt Group number that will send integration protocol.

#### Program 206 Group Call Distribution

Use this program to assign the lines that should terminate and be answered by Hunt Group 7 above. To route calls after four rings to a specific user's mailbox, select VMS Line Cover (setting 3).

#### Program 507 VMS Hunt Schedule

Use this program to determine when calls will terminate to Hunt Group 7 (always, day only, night only). This is dependent on the status of the Night Service Button at extension 10.

#### Program 506 VMS Hunt Delay

Use this program to determine how outside calls should be answered by the AA/VM: Immediate (after 2nd ring) or Delayed (after 4th ring).

## Phone System Programming (cont'd)

**If you are going to set up unscreened Automated Attendant transfers (UTRF) to the extensions:**

### **Program 310 Auto VMS Cover**

Use this program to determine whether an extension's unanswered intercom and transferred calls are automatically covered by the voice messaging system. When Do Not Disturb is activated, calls will go to voice messaging regardless of whether or not Program 310 is enabled.

### **Program 208 Line Coverage Extension**

Use this program to identify an extension as the owner of a specific outside line. This allows the extension to activate call coverage for the line. (Do Not Disturb overrides this feature and immediately routes the call to Voice Mail.)

### **Program 116 Call Coverage Rings**

Use this program to specify the number of times a covered extension rings before a call is routed to the covering extension. If the **covering** extension is programmed for Call Coverage and VMS Cover, the call first rings the number of times specified in Program 116. After it rings the number of times specified in VMS Cover Rings, the call is routed to Voice Mail.

### **Program 117 VMS Cover Rings**

Use this program to determine the number of times that an extension should ring (1 to 9) , before the call will be routed to Voice Mail. Either VMS Cover (feature 15) or Automatic VMS Cover (Program 310) must be active for the covered extension. The default number of rings is 3.

### **Program 306 Transfer Return Extension**

Use this program to determine the destination of an incomplete Auto Attendant transfer. The destination is typically extension 10. An incomplete transfer is one that is not answered or one that does not have Voice Mail coverage.

**If you are going to set up screened Automated Attendant transfers (TRFs) to the extensions:**

### **Program 105 Transfer Return Rings**

Use this program to set this timer higher than *Rings before redirect transfer* for any Call Routing Mailbox that is handling calls.

## Phone System Programming (cont'd)

### User Features

**To transfer an intercom or CO call directly into a mailbox:**

Press Feature 14, enter the 2-digit mailbox number, and hang up.

**To allow the Subscribers to call their mailboxes with one touch:**

Program each extension with an auto dial button for the Voice Mail hunt group (Intercom 777).

**To retrieve a call that is ringing at another extension:**

Go off hook, press Intercom, dial 6 and the number of the ringing extension.

**To program a VMS Cover Button to extension:**

Press Feature 15.

## Voice Mail Programming Default Dial Action Table

Key	Routing Option
Key 0	Action: UTRF Number: 0
Key 1	Action: TRF Number: XX
Key 2	Action: UND Number: N
Key 3 (See Note below)	Action: TRF Number: XX
Key 4	Action: UND Number: N
Key 5	Action: UND Number: N
Key 6	Action: UND Number: N
Key 7	Action: UND Number: N
Key 8	Action: UND Number: N
Key 9	Action: HUP Number: N
Key *	Action: REC1 Number: IV
Key #	Action: LOGON Number: N
TIMEOUT	Action: UTRF Number: 0

**Note:** When the phone system is integrated with a NVM-2000CA (with a software level of 8.01 up to 9.10), NVM-22CA, or NVM202exCA, the default values for the Key 3 Action and Number are **UND** and **N**, instead of the values listed in the Dial Action Table above.

## Voice Mail Programming (cont'd)

### Other Notes

By default, the Automated Attendant is set up with unscreened transfers, so that you must Call Forward the phones to the Voice Mail.

## Required Hardware and Software

- One single line port per Voice Mail port
- One PSTU (Analog) Card
- One CRCU-4 (DTMF) Card

## Voice Mail Availability

This phone system is available on these Voice Mail systems:

- NVM-22CA with software version 8.01 or higher
- NVM-202exCA with software version 7.01 or higher
- NVM-2000CA with software version 8.01 or higher

## Phone System Programming

### Program 10-1 - System Assignments

Ring Transfer, LED 07 - Enable (LED on)

### Program 10-2 - System Assignments

- DTMF Tone Return, LED II - Enable (LED off)
- Voice Mail ID Code, DTMF Signal Time, LED 06 - Set for 80ms (LED on)
- Voice Mail MW Cancel via Dial #64/Automatic, LED 04 - Enable (LED on)

### Program 12 - System Assignments / Basic Timing

Flash Timing, Code 4 - Set @ 0.5 seconds

### Program 13 - Defining the Message Center

Assign lowest number Voice Mail port to Message Center

### Program 15 - Assigning DP/DTMF

Auto-Release (AR) on VM calls, Code 0 - Enable for all CO lines

### Program 31 - Station Class of Service

For VM Ports:

- Toshiba VP (B + Sta #), LED 20 - Enable
- Toshiba VP (B, No Sta), LED 19 - Enable
- End/End Signal RCV (VM), LED 17 - Must enable
- Receive VM ID Code, LED 16 - Enable
- Toshiba VP Integration (A Tone/D), LED 15 - Enable
- VM No Conference, LED 09 - Enable (LED on)
- VM Groups 1 - 4, LED 05-08 - Put all VM ports into group 1, LED 05 (LED 05 on)
- VM to VM Call blocking, LED 04 - Enable (LED on)
- Executive and Privacy Override Blocking, LED 18 - Enable (LED on)

### Program 33 - Station Hunting

All VM ports must be set up in a hunt group.

## Phone System Programming (cont'd)

### Program 35 - Station Class of Service

- Busy Station Transfer (BST), LED 20 - Enable for VM ports
- Busy Station Ringing (BSR), LED 19 - Enable for all non-VM stations
- Msg. Waiting Receive (RCV), LED 04 - Enable for all non-VM stations

**Note:** LEDs 01, 02 & 04 must be on for all non-VM stations in order for Msg. Waiting to function.

### Program 40 - Station CO line Access

When callouts, Message Notification, etc. are required, use this program to allow VM ports access to CO lines.

### Program 81 - 89 - CO Line Ringing Assignments

Use this program to assign CO ringing for day/night operation. When Auto Attendant is required, make CO ring assignment only for the lowest numbered VM port in the hunt group.

### Other Programming Notes

- Do not change the default Message Waiting Set and Cancel codes: MW Set Code = 63. MW Cancel Code = 64.
- Each station must be programmed individually for VM ID codes.
- Each station must be programmed individually for VM ID codes:  
INT#656 (Call forwarding Protocol) = 01XX, where XX is the station number.  
INT#657 (Direct Logon Protocol when MW lamp is lit) = 00XX, where XX is the station number.

## Voice Mail Programming System Options

Listed below are two types of Voice Mail System Options:

- Those that the Toshiba DK8/16 does not use
- Those having default values not listed in the Programming Guide

### RNA, Hold Retrieval

DEFAULT: FP

### Busy, Hold Retrieval String

DEFAULT: FP

### Lamp On String

DEFAULT: 63X

### Lamp Off String

DEFAULT: 64X

### Transfer String

DEFAULT: FW

### Ringdown string

DEFAULT: 1

### Tenant 1 FAX detect dial string

Not used

## Voice Mail Programming (cont'd) System Options (cont'd)

### Off hook Call Announce string

Not used

### Call pickup string

DEFAULT: W5

### Flash timer

DEFAULT: 50 (1 = 10ms)

### Wait for first protocol digit

DEFAULT: 3 sec

### Wait for subsequent protocol digits

DEFAULT: 1 sec

### Wait after last protocol digit

DEFAULT: 1 sec

### Page/Meet-me Page hold timer

DEFAULT: 25 sec

### Schedule to use in Day mode

Not used

### Schedule to use in Night mode

Not used

## Mailbox Options

### Trunk Mailboxes

Not used

### Park/Paging string

For Subscriber Mailboxes

DEFAULT: FWJ/W30M, where J = Subscriber extension

### Call Waiting string

For Subscriber Mailboxes

DEFAULT: FWJ, where J is the Subscriber extension number

### Use Remote Logon as Direct Logon

For Subscriber, Guest, Message Center Mailboxes Not used

### Msg Wait Lamp

For Subscriber, Guest, Message Center Mailboxes

DEFAULT: Yes

### Notification number 1

For Subscriber Mailboxes

DEFAULT: Subscriber extension number followed by a "1"

## Voice Mail Programming (cont'd)

### Default Dial Action Table

The extension number for a TRF or UTRF – a specific extension or XX – must be placed in brackets followed by a “1.”

Key	Routing Option
Key 0	Action: UTRF Number: [10]1
Key 1	Action: TRF Number: [XX]1
Key 2	Action: TRF Number: [XX]1
Key 3	Action: UND Number: N
Key 4	Action: UND Number: N
Key 5	Action: UND Number: N
Key 6	Action: UND Number: N
Key 7	Action: UND Number: N
Key 8	Action: UND Number: N
Key 9	Action: HUP Number: N
Key *	Action: REC1 Number: IV
Key #	Action: LOGON Number: N
TIMEOUT	Action: UTRF Number: [10]1

### Other Notes

Call Forwarding to a Mailbox is allowed when Automated Attendant transfers are set up for either screened or unscreened transfers. But be sure that the phone system timers are set up, so that they do not conflict with the setting for *Rings before redirect transfer* in the Call Routing Mailbox.

## Required Hardware and Software

To be provided

## Voice Mail Availability

This phone system is available on these Voice Mail systems:

- NVM-22CA with software version 8.01 or higher
- NVM-202exCA with software version 7.01 or higher
- NVM-2000CA with software version 8.01 or higher

## Phone System Programming

### Program 10-1 - System Assignments

Ring Transfer, LED 07 - Enable (LED on)

### Program 10-2 - System Assignments

- DTMF Tone Return, LED II - Enable (LED off)
- Voice Mail ID Code, DTMF Signal Time, LED 06 - Set for 80ms (LED on)
- Voice Mail MW Cancel via Dial #64/Automatic, LED 04 - Enable (LED on)

### Program 12 - System Assignments / Basic Timing

Flash Timing, Code 4 - Set @ 0.5 seconds

### Program 13 - Defining the Message Center

Assign lowest number Voice Mail port to Message Center

### Program 15 - Assigning DP/DTMF

Auto-Release (AR) on VM calls, Code 0 - Enable for all CO lines

### Program 31 - Station Class of Service

For VM Ports:

- Toshiba VP (B + Sta #), LED 20 - Enable
- Toshiba VP (B, No Sta), LED 19 - Enable
- End/End Signal RCV (VM), LED 17 - Must enable
- Receive VM ID Code, LED 16 - Enable
- Toshiba VP Integration (A Tone/D), LED 15 - Enable
- VM No Conference, LED 09 - Enable (LED on)
- VM Groups 1 - 4, LED 05-08 - Put all VM ports into group 1, LED 05 (LED 05 on).
- VM to VM Call blocking, LED 04 - Enable (LED on)
- Executive and Privacy Override Blocking, LED 18 -Enable (LED on).

### Program 33 - Station Hunting

All VM ports must be set up in a hunt group.

### Program 35 - Station Class of Service

- Busy Station Transfer (BST), LED 20 - Enable for VM ports.
- Busy Station Ringing (BSR), LED 19 - Enable for all non-VMstations.
- Msg. Waiting Receive (RCV), LED 04 - Enable for all non-VM stations.

**Note:** LEDs 01, 02 & 04 must be on for all non-VM stations in order for Msg. Waiting to function.

### Program 40 - Station CO Line Access

When callouts, Message Notification, etc. are required, use this program to allow VM ports access to CO lines.

## Phone System Programming (cont'd)

### Program 81 - 89 - CO Line Ringing Assignments

Use this program to assign CO line ringing assignments for day/night operation. When Auto Attendant is required, CO ringing assignment must be made to only the lowest numbered VM port in the hunt group.

#### Other Programming Notes

- Do not change the default Message Waiting Set and Cancel codes: MW Set Code = 63. MW Cancel Code = 64.
- Each station must be programmed individually for VM ID codes.
- Each station must be programmed individually for VM ID codes:  
INT#656 (Call forwarding Protocol) = 01XX, where XX is the station number.  
INT#657 (Direct Logon Protocol when MW lamp is lit) = 00XX, where XX is the station number.

## Voice Mail Programming System Options

### RNA, Hold Retrieval

DEFAULT: FP

### Busy, Hold Retrieval String

DEFAULT: FP

### Lamp On String

DEFAULT: 63X

### Lamp Off String

DEFAULT: 64X

### Transfer String

DEFAULT: FW

### Ringdown string

DEFAULT: 1

### Tenant 1 FAX detect dial string

Not used

### Off hook Call Announce string

Not used

### Call pickup string

DEFAULT: W5

### Flash timer

DEFAULT: 50 (1 = 10ms)

### Wait for first protocol digit

DEFAULT: 3 sec

## Voice Mail Programming (cont'd)

### System Options (cont'd)

#### Wait for subsequent protocol digits

DEFAULT: 1 sec

#### Wait after last protocol digit

DEFAULT: 1 sec

#### Page/Meet-me Page hold timer

DEFAULT: 25 sec

#### Schedule to use in Day/Night mode

Not used

## Mailbox Options

#### Trunk Mailboxes

Not used

#### Park/Paging string

For Subscriber Mailboxes

DEFAULT: FWJ/W30M, where J = Subscriber extension

#### Call Waiting string

For Subscriber Mailboxes

DEFAULT: FWJ, where J is the Subscriber extension number

#### Use Remote Logon as Direct Logon

For Subscriber, Guest, Message Center Mailboxes Not used

#### Msg Wait Lamp

For Subscriber, Guest, Message Center Mailboxes

DEFAULT: Yes

#### Notification number 1

For Subscriber Mailboxes

DEFAULT: Subscriber extension number followed by a "1"

## Voice Mail Programming (cont'd)

### Default Dial Action Table

The extension number for a TRF or UTRF – a specific extension or XX – must be placed in brackets followed by a “1.”

Key	Routing Option
Key 0	Action: UTRF Number: [200]1
Key 1	Action: UND Number: N
Key 2	Action: TRF Number: [XXX]1
Key 3	Action: UND Number: N
Key 4	Action: UND Number: N
Key 5	Action: UND Number: N
Key 6	Action: UND Number: N
Key 7	Action: UND Number: N
Key 8	Action: UND Number: N
Key 9	Action: HUP Number: N
Key *	Action: REC1 Number: IV
Key #	Action: LOGON Number: N
TIMEOUT	Action: UTRF Number: [200]1

### Other Notes

By default, the Automated Attendant is set up with unscreened transfers. Therefore, you must Call Forward the phones to the Voice Mail.

## Required Hardware and Software

- Each Voice Mail port must be connected to a Single Line port. Single Line ports are available on:
  - RDSU (2 Single Line, 4 Electronic Ports)
  - RSTU (8 Single Line Ports)
  - PSTU (8 Single Line Ports)
  - PESU (2 Single Line Ports, 4 Electronic Ports)
- Toshiba DKSUB280 KSU with Power Supply
- One Common Control Unit PCB Card: RCTUA, RCTUB, or RCTUC/RCTUD

## Voice Mail Availability

This phone system is available on these Voice Mail systems:

- NVM-22CA with software version 8.01 or higher
- NVM-202exCA with software version 7.01 or higher
- NVM-2000CA with software version 8.01 or higher

## Phone System Programming

### Program 10-1 - System Assignments

Ring Transfer, LED 07 - Enable (LED on)

### Program 10-2 - System Assignments

- DTMF Tone Return, LED II - Enable (LED off)
- Voice Mail ID Code, DTMF Signal Time, LED 06 - Set for 80ms (LED on)
- Voice Mail MW Cancel via Dial #64/Automatic, LED 04 - Enable (LED on)

### Program 12 - System Assignments / Basic Timing

Flash Timing, Code 4 - Set to 0.5 seconds

### Program 13 - Defining the Message Center

Use to assign the lowest number Voice Mail port to the Message Center.

### Program 15 - Assigning DP/DTMF

Auto-Release (AR) on VM calls, Code 0 - Enable for all CO lines

### Program 31 - Station Class of Service

For VM Ports:

- Toshiba VP (B + Sta #), LED 20 - Enable
- Toshiba VP (B, No Sta), LED 19 - Enable
- End/End Signal RCV (VM), LED 17 - Must enable
- Receive VM ID Code, LED 16 - Enable
- Toshiba VP Integration (A Tone/D), LED 15 - Enable
- VM No Conference, LED 09 - Enable (LED on)
- VM Groups 1 - 4, LED 05-08 - Put all VM ports into Group 1, LED 05 (LED 05 on)
- VM to VM Call blocking, LED 04 - Enable (LED on)
- Executive and Privacy Override Blocking, LED 18 - Enable (LED on)

### Program 33 - Station Hunting

All VM ports must be set up in a hunt group.

# Toshiba Strata DK280

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## Phone System Programming (cont'd)

### Program 35 - Station Class of Service

- Busy Station Transfer (BST), LED 20 - Enable for VM ports
- Busy Station Ringing (BSR), LED 19 - Enable for all non-VM stations
- Msg. Waiting Receive (RCV), LED 04 - Enable for all non-VM stations

**Note:** LEDs 01, 02 & 04 must be on for all non-VM stations in order for Msg. Waiting to function.

### Program 40 - Station CO line Access

When callouts, Message Notification, etc. are required, use this program to allow VM ports access to CO lines.

### Program 81 - 89 - CO Line Ringing Assignments

Use this program to assign CO ringing for day/night operation. When Auto Attendant is required, make CO ring assignment only for the lowest numbered VM port in the hunt group.

### Other Programming Notes

- Do not change the default Message Waiting Set and Cancel codes: MW Set Code = 63. MW Cancel Code = 64.
- Each station must be programmed individually for VM ID codes.
- Each station must be programmed individually for VM ID codes:  
INT#656 (Call forwarding Protocol) = 01XX, where XX is the station number.  
INT#657 (Direct Logon Protocol when MW lamp is lit) = 00XX, where XX is the station number.

## Voice Mail Programming System Options

Listed below are two types of Voice Mail System Options:

- Those that the Toshiba DK280 does not use
- Those having default values not listed in the Programming Guide

### RNA, Hold Retrieval

DEFAULT: FP

### Busy, Hold Retrieval String

DEFAULT: FP

### Lamp On String

DEFAULT: 63X

### Lamp Off String

DEFAULT: 64X

### Transfer String

DEFAULT: FW

### Ringdown string

DEFAULT: 1

### Tenant 1 FAX detect dial string

Not used

## Voice Mail Programming (cont'd) System Options (cont'd)

### Off hook Call Announce string

Not used

### Call pickup string

DEFAULT: W5

### Flash timer

DEFAULT: 50 (1 = 10ms)

### Wait for first protocol digit

DEFAULT: 3 sec

### Wait for subsequent protocol digits

DEFAULT: 1 sec

### Wait after last protocol digit

DEFAULT: 1 sec

### Page/Meet-me Page hold timer

DEFAULT: 25 sec

### Schedule to use in Day mode

Not used

### Schedule to use in Night mode

Not used

## Mailbox Options

Listed below are two types of Voice Mail System Mailbox Options:

- Those that the Toshiba DK280 does not use
- Those having default values not listed in the Programming Guide

### Trunk Mailboxes

Not used

### Park/Paging string

For Subscriber Mailboxes

DEFAULT: FWJ/W30M, where J = Subscriber extension

### Call Waiting string

For Subscriber Mailboxes

DEFAULT: FWJ, where J is the Subscriber extension number

### Use Remote Logon as Direct Logon

For Subscriber, Guest, Message Center Mailboxes Not used

### Msg Wait Lamp

For Subscriber, Guest, Message Center Mailboxes

DEFAULT: Yes

### Notification number 1

For Subscriber Mailboxes

DEFAULT: Subscriber extension number followed by a "1"

## Voice Mail Programming (cont'd)

### Default Dial Action Table

The extension number for a TRF or UTRF – a specific extension or XX – must be placed in brackets followed by a “1.”

Key	Routing Option
Key 0	Action: UTRF Number: [200]1
Key 1	Action: UND Number: N
Key 2	Action: TRF Number: [XXX]1
Key 3 (See Note below)	Action: TRF Number: [XXX]1
Key 4 (See Note below)	Action: TRF Number: [XXX]1
Key 5	Action: UND Number: N
Key 6	Action: UND Number: N
Key 7	Action: UND Number: N
Key 8	Action: UND Number: N
Key 9	Action: HUP Number: N
Key *	Action: REC1 Number: IV
Key #	Action: LOGON Number: N
TIMEOUT	Action: UTRF Number: [200]1

**Note:** When the phone system is integrated with a NVM-2000CA (with a software level of 8.01 up to 9.10), NVM-22CA, or NVM202exCA, the default values for the Actions and Numbers of Key 3 and Key 4 are **UND** and **N**, instead of the values listed in the Dial Action Table above.

### Other Notes

Call Forwarding to a Mailbox is allowed when Automated Attendant transfers are set up for either screened or unscreened transfers. But be sure that the phone system timers are set up, so that they do not conflict with the setting for the *Rings before redirect transfer* in the Call Routing mailbox.

## Required Hardware and Software

- Each Voice Mail port must be connected to a port on the Single Line Card.
- Requires ROM Version 3.2
- Requires CPM Version 3.1

## Voice Mail Availability

This phone system is available on the NVM-2000CA (NVM-2004CA), when Software Level 8.02 or higher has been installed.

## Phone System Programming

### Program 207 Assign VM/AA

Use this program to assign the extensions that are designated for Voice Mail as VMAA (ports). This allows the phone system protocol to be sent to the Voice Mail. For example, if extension 209 is a Voice Mail port, then enter VMAA to extension 209.

### Program 300 - Customer ON/OFF

Use this program to enable this option if you want ICM calls to forward to Voice Mail.  
VM/AA Forward = On

### Program 406 - Trunk Ring Assingment

Use this program to enter the Voice Mail Hunt Group Number in the Day and Night mode for each line that should be answered by the Automated Attendant/Voice Mail.

D = Enter the Voice Mail Hunt Group Number, such as 510

N = Enter the Voice Mail Hunt Group Number

### Program 506 - Tone Cadence

Use this program to set the following tones:

Busy Tone	=	Interrupt Tone
Confm/Barge Tone	=	Interrupt Tone
Dial Tone	=	Continuous Tone
DND/No More	=	Interrupt Tone
Error Tone	=	Interrupt Tone
Hold Campon	=	Interrupt Tone
Msgwat Tone	=	Continuous Tone
Rgback Tone	=	Interrupt Tone
Ring Tone	=	Interrupt Tone
Transfer Tone	=	Continuous Tone
DID Rngback	=	Interrupt Tone

## Phone System Programming (cont'd)

### Program 601 - Assign Station Group

Use this program to assign the Voice Mail ports to a Hunt Group. Each extension used for Voice Mail must be part of a Hunt Group and is called a member of that group.

Example Hunt Group is 510  
Type = VM/AA Port  
Ring = Sequential  
\*Overflow = 005 seconds  
\*Group TRSF = 000 seconds  
\*Next Port = None  
Member 01 = \*\*XXX

- \*These are set at default when the phone system is installed.
- \*\*XXX is the extension that is designated for Voice Mail.
- Overflow is the amount of time the call will ring the Voice Mail Hunt Group before overflowing to the operator. For example, if the overflow is set to 005, the call will ring approximately 4 to 5 times before going to the operator.

### Program 726-VM/AA Options-Voice Mail Integration Protocol

Use this program to set these options to the following settings to allow the Voice Mail and Samsung Prostar DCS to interact correctly.

EXT for DN1 = Yes  
\*TRK for DN2 = Yes  
Separator = #  
Disconnect = 9  
Call Type ID  
Direct Call = #  
All FWD Call = A  
BSY FWD Call = A  
NOA FWD Call = B  
Recall = B  
DIR TRK Call = C  
Overflow = A  
DID Call = No  
Busy Tone = No  
Ring Back Tone = No  
DND No More = No  
HDSET Answer = B  
Speaker Answer = 2

\*If you set the option TRK for DN2 to **No** (instead of to **Yes** as recommended above), trunk information will not be sent to the Voice Mail.

**Note:** Due to a bug in the 960515 Prostar DCS software, the phone system will not send the A's in front of the integration protocol. But if you set up this program with B's instead of the A's recommended above, the phone system will send the B's and Call Forwarding will operate properly. Therefore, when using this software, be sure to set each parameter above that recommends an A for the setting to a **B**.

## Voice Mail Programming System Options

### Wait for first protocol digit

DEFAULT: 3 sec

### Wait for subsequent protocol digits

DEFAULT: 1 sec

### Wait after last protocol digit

DEFAULT: 1 sec

### Modem mailbox

DEFAULT: Yes

### Flash timer

DEFAULT: 60 sec

### Park page

DEFAULT: Yes

## Default Dial Action Table

Key	Routing Option
Key 0	Action: UTRF Number: 201
Key 1	Action: UND Number: N
Key 2	Action: UTRF Number: XXX
Key 3	Action: UND Number: N
Key 4	Action: UND Number: N
Key 5	Action: UND Number: N
Key 6	Action: UND Number: N
Key 7	Action: UND Number: N
Key 8	Action: UND Number: N
Key 9	Action: HUP Number: N
Key *	Action: REC1 Number: IV
Key #	Action: LOGON Number: N
TIMEOUT	Action: UTRF Number: 201

## Voice Mail Programming (cont'd)

### Other Notes

#### Call Forwarding

By default, the Automated Attendant is set up with unscreened transfers. To turn on Call Forwarding, you must use Program 102, and program this option on a per-phone basis.

#### Trunk Mailboxes

Trunk Mailboxes are allowed.

#### Busy Page Zone

If your page zone is busy at the time of the page, you will not hear the page. However, upon returning to your mailbox, your caller can either press **1** to leave you a message or press **2** to have you paged again by the Voice Mail.

#### Picking up a Page from Another Extension

To pick up a page from someone else's extension, dial **65** and then the number of the extension where the call is parked

## Required Hardware and Software

- Software requirements: Generic MS55-MR5-PR5-G07.11 or higher.ONS Line Card, part number 9104-020-002  
Each Voice Mail port requires a port from this card.
- LS/GS Line Card, part number 9104-030-004  
Each Voice Mail port requires a port from this card.

## Voice Mail Availability

This phone system is available on these Voice Mail systems:

- NVM-22CA with software version 8.01 or higher
- NVM-202exCA with software version 7.01 or higher
- NVM-2000CA with software version 8.01 or higher

## Phone System Programming

### General Programming Information

Since the SX-50 uses “loop back trunks” when integrating with the Voice Mail, any incoming call is “looped back” on a trunk into the Voice Mail, after the Voice Mail Master Extension number is dialed.

The SX-50 uses Abbreviated Dialing and Automatic Route Selection for this type of integration.

You will need the Mitel SX-50 Technical Practices to complete this programming.

### Command 100 SYSTEMS OPTIONS PROGRAMMING

The following registers require entries that are different from the default values:

#### Register 05 TRUNK CONNECTIONS

Bit c: CO to CO Connections

Enter **1** to Enable this bit.

#### Register 09 FEATURES SELECTION 1

Bit h: Abbreviated Dial Access

Enter **1** for 3-digit index number (900 entries maximum)

#### Register 11 TIME OUT SELECTION

Bit g: Call Forward No Answer Timeout

Enter **2** for 20 seconds.

#### Register 12 MESSAGE WAITING

Bit c: Message Waiting System Enable

Enter **1** to Enable with Lamps

Bit d: Message Waiting Indication

Enter **0** for Always.

Bit f: Message Waiting Automatic Cancel

Enter **0** to Disable.

#### Register 13 AUTOMATIC ROUTE SELECTION (ARS)

Bit c: ARS Enable

Enter **1** to Enable.

Bit f: ARS Return Dial Tone

Enter **1** to Enable.

Bit h: Attendant ARS Routing Class of Service

Enter **1** for RCS 1.

Bit i: ARS Interdigit Timeout

Enter **0** for 5 seconds.

Bit j: Abbreviated Dial ARS Bypass Enable

Enter **1** to Enable.

# Mitel SX-50 (Inband)

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## Phone System Programming (cont'd)

### Command 110 FEATURE ACCESS CODE PROGRAMMING

Bits c, d, e,: Access Code

Determine which hunt group should be used for the Voice Mail extension numbers. (These numbers correspond to the ports from the ONS Line Card.) Select 19 through 24 to access hunt groups 1 through 24, respectively.

Enter up to three digits as the access code. Default values may be used.

### Command 121-129 COS 1-9 PROGRAMMING

You will need to assign a different Class of Service (COS) to the extensions in the Voice Mail Hunt Group from other extensions that have mailboxes.

#### Class of Service Options Required for Extensions of the Voice Mail Ports:

Select the Command (121 through 129) that corresponds to the COS (1 through 9) that you want to assign to the extensions for the Voice Mail Ports. Select the following options for this COS:

Register 3

Bit d: Data Line Security

Enter **1** to Enable.

Bit k: Voice Mail Port

Enter **2** for Send Disconnect Tone.

Register 4

Bit g: Executive busy Override Security

Enter **1** to Enable.

Register 5

Bits b-k: Abbreviated Dial Numbers

These bits allow access to Abbreviated Dial Numbers. By default, the various Classes of Service have access to all Abbreviated Dial Numbers. Make sure that the COS you are setting up keeps its access to at least four Abbreviated Dial Access Numbers.

#### Class of Service Options Required for Extensions with Mailboxes

Select the Command (121 through 129) that corresponds to the COS (1 through 9) that you want to assign to the extensions with mailboxes. Make sure you select a different COS from the one for the Voice Mail ports. Select the following options for the COS you assign to the extensions with mailboxes:

Register 4

Bit b: Call Forward - Follow Me

Enter **3** for Internal and External, Extensions and Trunks.

Bit c: Call Forward-Busy

Enter **3** for Internal and External, Extensions and Trunks.

Bit d: Call Forward - No Answer

Enter **3** for Internal and External, Extensions and Trunks

Bit e: Call Forward busy/No Answer

Enter **3** Internal and External, Extensions and Trunks

Bit f: Proceed to be Call Forwarded Externally

Enter **1** for Enable Except on I/C trunks

Register 5

Bits b-k: Abbreviated Dial Numbers

These bits allow access to Abbreviated Dial Numbers. By default, the various Classes of Service have access to all Abbreviated Dial Numbers. Make sure the COS you are setting up keeps access to at least 4 Abbreviated Dial Access Numbers.

Register 7

Bit b: SUPERSET 4 and SUPERSET 420 Telephone Message Programming

Enter **1** to Enable.

Bit f: Directed Call Pickup Security

Enter **1** to Enable.

## Phone System Programming (cont'd)

### Command 3\_\_ (301–310) EXTENSION PROGRAMMING

When programming extensions, make sure that you set these bits for the correct Class of Service and proper RCS. (See COS programming above and previous page. See Systems Options Programming, Register 13 Automatic Route Selection for RCS selection on previous page.) The following options require entries that are different than the default values.

#### For the Extensions of the Voice Mail Ports

Bit d: Class of Service

Enter number of the COS (1-9) you selected for Voice Mail ports.

Bit g: ARS Routing Class of Service

Enter **1** for RCS 1 (which you assigned in System Options).

For Extensions with Mailboxes

Bit d: Class of Service

Enter the number of the COS (1-9) you selected for extensions with mailboxes.

Bit g: ARS Routing Class of Service

Enter **1** for RCS 1 (which you assigned in System Options).

### Command 361 EXTENSION HUNT GROUP (1–6) PROGRAMMING

Select the command (361-366) that corresponds to the Hunt Group for the Voice Mail extensions. (These Voice Mail extensions correspond to the ONS ports.)

Register 1

Bit b: Hunt Type

Enter **0** for Circular Hunt.

Bit c: Hunt Group Linking

Enter **0** for Unlinked.

Register 2 through 9

Bits b-e: Enter the extension number of each of the Voice Mail ports.

### Command 151–156 TRUNK GROUP PROGRAMMING

You must place the trunks in a group that the Voice Mail accesses to dial back into the phone system. You must also change certain registers for the trunk groups that are accessed to get an outgoing “local” trunk. The following bits are set to values that are different from the default values.

#### For the trunk group used to dial out locally:

Select the command (151-156) that corresponds to the trunk group (group 1-6) that is accessed to dial out of the system.

Register 1

Bit c: Type of Hunting

Enter **1** for Terminal Hunting.

Bit f, g: Trunk Group Access Code

Enter a two-digit access code for the trunk group.

#### For the trunk group the Voice Mail uses to dial back (loop back) into the system:

Select the command (151-156) that corresponds to the trunk group (group 1-6) that the Voice Mail accesses to dial back into the system.

Register 1

Bit c: Type of Hunting

Enter **0** for Circular Hunting.

Bit f, g: Trunk Group Access Code

Enter a two-digit access code for the trunk group.

Register 2:

Bit h: Simulate CO Dial Tone

Enter **1** to Enable.

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## Phone System Programming (cont'd)

### Commands 501-580 TRUNK PROGRAMMING

You must assign trunks to the two trunk groups (the outdialing trunk group and the loop back trunk group.) The following options require entries that are different from the default values.

For the trunk group used to dial out locally:

Select the command (501-560) that corresponds to the trunk you wish to assign to the out-bound trunk group.

Register 1

Bit b: Trunk Group Membership (1→6)

Enter the number of the trunk group that should contain the trunk you are programming.

Bit h: Inward Dialing ARS

Enter the number of the Routing Class of Service (1→3) that allows Inward Dialing.

Register 4

Use this Register to set up the Voice Mail, so that the Automated Attendant answers calls during the day.

Bit d: Day Answer Mode

Enter **0** for Direct-In Line.

Bits e, f, g: Day Answer Point

Enter the number of the Voice Mail Hunt Group (161-166 which corresponds to hunt groups 1-6, respectively. See command 361.)

Register 5

Use this Register to set up the Voice Mail so that the Automated Attendant answers calls during the night.

Bits b through f

Entries depend on how you want to set up Voice Mail. For example, for bits c, d, and e, enter number of the Voice Mail Hunt Group (161-166 which corresponds to hunt groups 1-6, respectively. See command 361.)

For trunks in the trunk group that the Voice Mail uses to dial back (loop back) into the system: Select the command (501—560) that corresponds to the trunk you wish to assign to the loop back trunk group. (This is the trunk group that the Voice Mail accesses to dial back into the system.)

Register 1

Bit b: Trunk Group Membership (1—6)

Enter the number of the trunk group that should contain the trunk you are programming.

Bit h: Inward Dialing ARS

Enter the number of the Routing Class of Service (1—3) that allows Inward Dialing.

Register 2

Bit c: Disconnect Supervision Guaranteed?

Enter **1** for Yes.

### Abbreviated Dialing

Abbreviated Dialing reduces the number of steps that are required when dialing commands to the Voice Mail system.

Four Abbreviated Dialing Numbers need to be created and assigned to each mailbox. (Use the \*65 command at the Attendant Console.) These numbers are used in conjunction with ARS Digit Modification Table so that the correct delays are sent to the Voice Mail, which, in turn, sends a caller to the correct mailbox. The required Abbreviated Dialing numbers are:

Record a Message

Call Forward on a Busy

Call Forward on a Ring No Answer

Log On (for Message Retrieval)

## Phone System Programming (cont'd)

### Abbreviated Dialing (cont'd)

For example, in mailbox 100, you would assign Abbreviated Dial 100 with the entry 77100 (for Record a Message); Abbreviated Dial 200 with the entry 77200 (for Call Forwarding on a Busy), Abbreviated Dial 300 with the entry 77300 (for Call Forwarding on Ring No Answer) and for Abbreviated Dial 400 with the entry 77400 (for Logging onto retrieve message). For mailbox 101, you would assign Abbreviated Dial 101 with the entry 77101; Abbreviated Dial 200 with the entry 77201, etc. The digits "77" are the trunk group access code you assigned in Trunk Group Programming (command 151—156). For further information, see ARS Programming.

### ARS Programming

#### Command 700 ARS DIGIT COMPARISON TABLE PROGRAMMING

Bits a-c: Entry Number

Enter the number of the Table entry.

Bits d, e: Time-of-Day Table Number 1—45 (corresponds to commands 701—754)

Enter the number of the Time-of-Day Table that this entry should follow. (See command 701—745, Time-of-Day Table Programming.)

#### Dialed Digits String (maximum of 32 digits)

In the Dialed Digits String, enter the two-digit code of the trunk hunt group that the Voice Mail uses. Enter the number of the corresponding entry on the Digit Modification Table (see Command 752 ARS DIGIT MODIFICATION TABLE PROGRAMMING.) For example, an entry of **771** in the Dialed Digits String on ARS DIGIT COMPARISON TABLE PROGRAMMING means:

**77** - access code for the trunk group

**1** - entry number on the Digit Modification Table.

An example of a complete entry for Command 700 ARS DIGIT COMPARISON TABLE PROGRAMMING is **00101771**, where:

**001** entry number on the Table

**01** Time-Of-Day Table Number

**77** access code for the trunk group

**1** number of entry on the Digit Modification Table.

#### Command 701-745 ARS TIME OF DAY TABLE PROGRAMMING

Bit a: Period Number

Bits b, c: Start Hour

Enter the start time of this period (based on a 24 hour clock).

Bits d, e: Start Minute

Enter the start minute of this period.

Bits f, g, h: RCS Route 1 List

Enter the route list number (see Command 750).

Bits i, j, k: RCS Route 2 List

Enter the route list number (see Command 750).

Bits l, m, n

Enter the route list number (see Command 750).

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## Phone System Programming (cont'd)

### **Command 750 ARS ROUTE LIST TABLE PROGRAMMING**

Bits a,b, c: Route List Number (001→200)  
Enter the desired route list number (001→200).  
Bits d, e, f: 1st Choice Route Number  
Enter the number of your first choice.  
Bits g, h, i: 2nd Choice Route Number  
Enter the number of your second choice.  
Bits j, k, l: 3rd Choice Route Number  
Enter the number of your third choice.  
Bits m, n, o: 4th Choice Route Number  
Enter the number of your fourth choice.

### **Command 751 ARS ROUTE TABLE PROGRAMMING**

Bits a, b, c: Route Number 001→100  
Enter the desired route number (001→100) in order of preference.  
Bits d: Trunk Group Number (1→6)  
Enter the number of the trunk group assigned to the Voice Mail.  
Bits e, f, g: Digit Modification Entry Number  
Enter the number of the entry on the Digit Modification Table that corresponds to this route.  
(See Command 752.)

### **Command 752 ARS DIGIT MODIFICATION TABLE PROGRAMMING**

Use this table to store the commands that the Voice Mail requires. (This table is used with Abbreviated Dialing.)  
Bits a, b, c: Digit Modification Number 001→100  
Enter the number of the entry on the Digit Modification Table.  
Bits d, e: Number of Digits to be Deleted 00→26  
Enter the number of digits that should be deleted from the dialed digit string (which comes from the ARS Digit Comparison Table).

## Phone System Programming (cont'd)

### Digits to Insert:

Enter the following strings as the Digits to Insert for four entries on the Table:

Desired Action	Digits to Insert string
Record a message	xxxppp*1 (where xxx is the Voice Mail Master extension number. See command 110. So if 491 is the master number, you would enter 491ppp*1). The digit "1" indicates that an extension number is being sent.
Call Forward on a Busy	xxxppp***4UUU1 (where xxx is the Voice Mail extension number. See command 110. UUU is a dummy trunk number for the calling party ID. Use a trunk number that does not actually correspond to an existing trunk. So if 491 is the master number, and the dummy trunk is 380, you would enter 491ppp***43801). The digit "1" indicates that an extension number is being sent.
Call Forward, No Answer	xxxppp***5UUU1 (where xxx is the Voice Mail extension number. See command 110. UUU is a dummy trunk number for the calling party ID. Use a trunk number that does not actually correspond to an existing trunk. So if 491 is the master number and the dummy trunk is 380, you would enter 491ppp***53801). The digit "1" indicates an extension number is being sent.
Log Onto Voice Mail	xxxppp#1 (where xxx is the Voice Mail extension number. See command 110.)

- Note:**
- (1) You need to assign only one dummy trunk number. This dummy trunk requires a trunk mailbox in Voice Mail programming.
  - (2) The number of digits in the dummy trunk number must be the same as the number of digits in the extension numbers. For example, a system with 3-digit extension numbers must have a 3-digit dummy trunk number.
  - (3) The suggested entries for the Digits-to-Insert string assumes that all extension numbers begin with a leading digit of 1 (1xx), and contain three digits. If not, create additional ARS tables to accommodate them.
  - (4) If a call is forwarded to the Voice Mail hunt group and all ports are busy, the call camps onto the group. This becomes an issue, because the SX-50 holds the protocol digits for only a brief time period and then releases them.

To avoid this problem: Use Supervised Transfers (TRF's) or be a little "port heavy" so that you are using more Voice Mail ports than you actually need.

### Console Options

Change one of the soft keys for Attendant Tone Signaling. After accessing the Voice Mail, the attendant can press the key only once.

### To transfer a call into the Voice Mail from the console, the Attendant does the following:

1. Dials the Abbreviated Dial number for the extension to receive the message.
2. Hangs up.  
For example, when leaving a message in Extension 100's mailbox, the Automated Attendant dials 77100 and then hangs up.

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## Voice Mail Programming

### Mailbox Options

#### Trunk Mailbox

Assign the dummy trunk number with a trunk mailbox. To see the mailbox numbers, use the *Reports Menu, Mailbox List (Numeric)*.

### Default Dial Action Table

Key	Routing Option
Key 0	Action: UTRF Number: 0
Key 1	Action: UTRF Number: XXX
Key 2	Action: UTRF Number: XXX
Key 3	Action: UND Number: N
Key 4	Action: UND Number: N
Key 5	Action: UND Number: N
Key 6	Action: UND Number: N
Key 7	Action: UND Number: N
Key 8	Action: UND Number: N
Key 9	Action: HUP Number: N
Key *	Action: REC1 Number: IXXX
Key #	Action: LOGON Number: N
TIMEOUT	Action: UTRF Number: 0

The information below applies to the Nitsuko 124i phone system.

## Hardware and Software Requirements

- **Hardware:**  
Port on the ASTU Card.  
For each Voice Mail port, you will need an analog station port from the phone system.
- **Software:**  
Any software level is OK.

## Voice Mail Availability

This phone system is available on these Voice Mail systems:

- NVM-22CA with software version 8.01 or higher
- NVM-202exCA with software version 7.01 or higher
- NVM-2000CA with software version 8.01 or higher

## Phone System Programming

When you are integrating your system with the Voice Mail, certain phone system functions require specific programming entries. The following list tells you which phone system programs you must set up. See the programming manual for your phone system for instructions on how to program the phone system.

### General Programming

#### **Program 0401 - Tenant Group Options, Part A, Item 18: SLT Answering Mode**

Enter **1** to enable Conversation Record.

#### **Program 0401 - Tenant Group Options, Part A, Item 23: DIL Call Waiting**

Enter **0** to set up Immediate Voice Mail Overflow.

Enter **1** to set up Delayed Voice Mail Overflow.

#### **Program 0405 - System Timers (Part A), Item 10: Intercom Interdigit Time**

Use this program to set the interval a transferred call waits at a forwarded extension, before the Voice Mail routes it to the called extension's mailbox (Program 0401 Item 23=10).

#### **Program 0405 - System Timers (Part A), Item 62: DIL No Answer Recall Time**

Enter a timer value greater than 0 to set up Delayed Voice Overflow. Overflow will occur after this interval (provided that the other related programming is correct).

Enter **0** to set up Immediate Voice Mail Overflow.

#### **Program 0405 - System Timers (Part A), Item 65: Record Alert Tone Interval Time**

Use this program to set the interval between Voice Mail Conversation Record alerts. The alert is composed of two short beeps, followed by a programmable interval of silence.

## Phone System Programming (cont'd)

### General Programming (cont'd)

#### **Program 0406 - COS Options, Item 57: Continued Dialing**

Use this program to enable Continued Dialing (1) for all extensions that will dial Voice Mail features.

#### **Program 0516 - Voice Mail Master Number**

Use this program to assign an extension number and name for the Voice Mail Master Number. Be sure that the number you select does not correspond to an installed extension or feature. Consider picking a number that is outside the normal extension numbering range, such as 500. *Do not select a number that begins with 1, 8, or 9.*

#### **Program 0901 - Basic Trunk Port Setup (Part A), Items 14–17: Trunk Service Type**

Use this program to assign Service Type 4 to each trunk that you want to ring into Voice Mail as a Direct Inward Line (DIL).

#### **Program 0909 - Extension Ring Group Assignment**

To enable overflow ringing, enter **1**.

To enable Voice Mail Overflow, assign selected extensions to a Ring Group that will ring for unanswered DIL's to Voice Mail ports.

#### **Program 0910 - Trunk Ring Group Assignment**

Use this program to assign the Voice Mail Overflow DILs to the Ring Group specified in Program 0909 above to enable Voice Mail Overflow. This allows calls on DILs to ring other extensions when all Voice Mail ports are busy.

#### **Program 0917 - DIL Assignment**

Use this program to assign a Voice Mail port as the DIL destination for each trunk that should directly ring into Voice Mail. If all Voice Mail ports are in the same unique Extension (Department) Group (see Program 1003 below), the DIL will ring another Voice Mail port if its assigned port is busy.

#### **Program 0919 - DIL No Answer Destination**

Use this program to enter the Ring Group that unanswered DILs to Voice Mail will ring after the DIL Call Waiting Time (Program 0405 Item 62) for Delayed Voice Mail Overflow.

#### **Program 1001 - Basic Extension Port Setup (Part A), Item 5: Terminal Type**

Use this program to set all ASTU ports used for Voice Mail to Type 1.

#### **Program 1003 - Extension (Department) Groups**

Use this program to put all the Voice Mail ports in one extension group. This allows a DIL to Voice Mail to ring other Voice Mail ports when the DIL's assigned port is busy.

## Phone System Programming (cont'd)

### General Programming (cont'd)

#### **Program 1005 - Class of Service**

Use this program to assign a Class of Service (1–15) to an extension.

#### **Program 1006 - Programming Function Keys**

Use this program to assign a Voice Mail key to an extension (Code 1059).

If you wish, you may also use this program to assign a Voice Mail Record key to an extension code (Code 1060).

#### **Program 1017 - Voice Mail Assignment**

Use this program to assign single line (ASTU PCB) ports. The system allows up to 4 Voice Mail ports.

## Voice Mail Programming Default Dial Action Table

<b>Key</b>	<b>Routing Option</b>
Key 0	Action: UTRF Number: 0
Key 1	Action: UTRF Number: XXX
Key 2	Action: UND Number: N
Key 3	Action: UTRF Number: XXX
Key 4	Action: UND Number: N
Key 5	Action: UND Number: N
Key 6	Action: UND Number: N
Key 7	Action: UND Number: N
Key 8	Action: UND Number: N
Key 9	Action: HUP Number: N
Key *	Action: REC1 Number: IXXX
Key #	Action: LOGON Number: N
TIMEOUT	Action: UTRF Number: 0

### Other Notes

By default, the Automated Attendant is set up with unscreened transfers, so that you must Call Forward the phones to the Voice Mail.

The information below applies to the Nitsuko 384i phone system.

## Hardware and Software Requirements

- **Hardware:**  
For each Voice Mail port, you will need an analog station port from the phone system.
- **Software:**  
Any software level is OK.

## Voice Mail Availability

This phone system is available on the NVM-2000CA with software version 8.01 or higher

## Phone System Programming

When you are integrating your system with the Voice Mail, certain phone system functions require specific programming entries. The following list tells you which phone system programs you must set up. See the programming manual for your phone system for instructions on how to program the phone system.

### General Programming

#### **005 - Extension Circuit Type**

Use this option to assign 3 to Voice Mail Ports.

#### **0303 - DTMF and Dial Tone Detection Circuit Setup**

Use this option to assign at least one CDTU block for DTMF reception (type 2).

#### **0401 - Tenant Group Options, Part A, Item 18: SLT Answering Mode**

Enter 1 for this option to enable Conversation Record.

#### **0405 - System Timers (Part A), Item 10: Intercom Interdigit Time**

Use this option to set the interval that a transferred call should wait at a forwarded extension, before the Voice Mail routes it to the called extension's mailbox (Program 0401 Item 23=10).

#### **0405 - System Timers (Part A), Item 62: DIL No Answer Recall Time**

When setting up Delayed Voice Mail Overflow, enter a timer value greater than 0; then overflow will occur after an interval (provided that the other related programming is correct).

When setting up Immediate Voice Mail Overflow, enter 0.

#### **0405 - System Timers (Part A), Item 65: Record Alert Tone Interval Time**

Use this option to set the interval between Voice Mail Conversation Record alerts. An alert is composed of two short beeps, followed by a programmable interval of silence.

#### **Program 0406 - COS Options, Item 57: Continued Dialing**

Use this program to enable Continued Dialing (1) for all extensions that will dial Voice Mail features.

## Phone System Programming (cont'd) General Programming (cont'd)

### **Program 0516 - Voice Mail Master Number**

Use this program to assign an extension number and name for the Voice Mail Master Number. Be sure that the number you select does not correspond to an installed extension or feature. Consider picking a number that is outside the normal extension numbering range, such as 500. *Do not select a number that begins with 1, 8, or 9.*

### **Program 0901 - Basic Trunk Port Setup (Part A), Items 14–17: Trunk Service Type**

Use this program to assign Service Type 4 to each trunk that you want to ring into Voice Mail as a Direct Inward Line (DIL).

### **Program 0909 - Extension Ring Group Assignment**

To enable overflow ringing, enter **1**.

To enable Voice Mail Overflow, assign selected extensions to a Ring Group that will ring for unanswered DIL's to Voice Mail ports.

### **Program 0910 - Trunk Ring Group Assignment**

Use this program to assign the Voice Mail Overflow DILs to the Ring Group specified in Program 0909 above to enable Voice Mail Overflow. This allows calls on DILs to ring other extensions when all Voice Mail ports are busy.

### **Program 0917 - DIL Assignment**

Use this program to assign a Voice Mail port as the DIL destination for each trunk that should directly ring into Voice Mail. If all Voice Mail ports are in the same unique Extension (Department) Group (see Program 1003 below), the DIL will ring another Voice Mail port if its assigned port is busy.

### **Program 0919 - DIL No Answer Destination**

Use this program to enter the Ring Group that unanswered DILs to Voice Mail will ring after the DIL Call Waiting Time (Program 0405 Item 62) for Delayed Voice Mail Overflow.

### **Program 1001 - Basic Extension Port Setup (Part A), Item 5: Terminal Type**

Use this program to set all ASTU ports used for Voice Mail to Type 1.

### **Program 1003 - Extension (Department) Groups**

Use this program to put all the Voice Mail ports in one extension group. This allows a DIL to Voice Mail to ring other Voice Mail ports, whenever the DIL's assigned port is busy.

### **Program 1005 - Class of Service**

Use this program to assign a Class of Service (1–15) to an extension.

### **Program 1006 - Programming Function Keys**

Use this program to assign a Voice Mail key to an extension (Code 1059).

If you wish, you may also use this program to assign a Voice Mail Record key to an extension code (Code 1060).

### **Program 1017 - Voice Mail Assignment**

Use this program to assign single line (ASTU PCB) ports. The system allows up to 4 Voice Mail ports.

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## Voice Mail Programming Default Dial Action Table

The extension numbers for TRF or UTRF do not need to be placed in brackets followed by a "1."

<b>Key</b>	<b>Routing Option</b>
Key 0	Action: UTRF Number: 0
Key 1	Action: UND Number: N
Key 2	Action: UND Number: N
Key 3	Action: TRF Number: XXX
Key 4	Action: TRF Number: XXX
Key 5	Action: TRF Number: XXX
Key 6	Action: TRF Number: XXX
Key 7	Action: UND Number: N
Key 8	Action: UND Number: N
Key 9	Action: HUP Number: N
Key *	Action: REC1 Number: IXX
Key #	Action: LOGON Number: N
TIMEOUT	Action: UTRF Number: 0



The information below applies to the ONYX I 60x60 phone system.

## Hardware and Software Requirements

- **Hardware:**  
ASI (Analog Station Interface) P/N 88188
- **Software:**  
Release 3.0 or higher (P/N 89749)

## Voice Mail Availability

This phone system is available on the NVM-2000CA with software version 8.01 or higher.

## Phone System Programming For Voice Mail Integration

### Program 2

Use this program to set a station's voice mailbox number.

### Program 5

Use this program to set the Voice Mail wait timer.

### Program 10

Use this program to set a Conversation Record key at a station.

### Program 11

Use this program to set a station connected to a VX port.

## For Automated Attendant

### Program 3

Enter 2 for a VX Automated Attendant line.

## System Options

Listed below are two types of Voice Mail options:

- Ones that the ONYX I does not use (listed as "not used")
- Ones that may have default values not listed in the Programming Guide

### RNA, Hold Retrieval String

Not used

### Busy, Hold Retrieval String

Not used

### Lamp On String

DEFAULT: #XG

### Lamp Off String

DEFAULT: #X00

### Transfer String

DEFAULT: FP

## Phone System Programming (cont'd) System Options (cont'd)

### Ringdown String

DEFAULT: 1

### FAX detect string

DEFAULT: None

### Call pickup string

DEFAULT: W\*

### Flash timer

DEFAULT: .75 sec

### Wait for first/subsequent protocol digit

DEFAULT: 1/3 sec

### Wait for last protocol digit

DEFAULT: 1 sec

### Page/ Meet-me Page hold timer

Not used

### Schedule to use in Day/Night mode

Not used

## Mailbox Options

### Trunk Mailboxes

Allowed

### Park/Paging string

For Subscriber Mailboxes, call is parked.

DEFAULT: F\*JJJ/FW1\*, where JJJ is the Subscriber extension

### Call Waiting string

For Subscriber Mailboxes

DEFAULT: FWJJJ, where JJJ is the Subscriber extension

### Use Remote Logon as Direct Logon

For Subscriber, Guest, and Message Center Mailboxes

DEFAULT: No

### Msg Wait Lamp

For Subscriber, Guest, and Message Center Mailboxes

DEFAULT: Yes

### Notification number 1

For Subscriber Mailboxes

DEFAULT: Subscriber extension number

## Voice Mail Programming Default Dial Action Table

The extension numbers for TRF or UTRF do not need to be placed in brackets followed by a "1."

Key	Routing Option
Key 0	Action: UTRF Number: 0
Key 1	Action: UND Number: N
Key 2	Action: UND Number: N
Key 3	Action: TRF Number: XXX
Key 4	Action: UND Number: N
Key 5	Action: UND Number: N
Key 6	Action: UND Number: N
Key 7	Action: UND Number: N
Key 8	Action: UND Number: N
Key 9	Action: HUP Number: N
Key *	Action: REC1 Number: IXX
Key #	Action: LOGON Number: N
TIMEOUT	Action: UTRF Number: 0

### Other Notes

Call Forwarding to a Mailbox is allowed.



The ONYX II 32x60/DCK/DS200 and the ONYX II 72x180/DCK/DS200 belong to the ONYX II phone system family. However, the *Integration With DTS Phone Systems* section of the NVM-2000 System Guide (P/N 17500INS05 or higher) refers to the phone systems in this family as DTS instead of DCK. The information below applies to these ONYX II phone systems.

## Hardware and Software Requirements

### ■ ONYX II Hardware:

ASI (Analog Station Interface) P/N 88188

### ■ ONYX II 32x60 Software:

Version 2.4 with CTG Series 8 (P/N 88281 or P/N 88381)

Version 3.10 or higher with CTG Series 10 is recommended.

DTS MLU-A (P/N 88175 any series) or DTS VAU-A (P/N 88210 Series 08)

DTS OPA/VAU (P/N 88211 any series)

DTS TRK-A (P/N 88127 Series 02)

DTS LNU (P/N 88110B Series 10)

DTS STI-B (P/N 89749) or DTS Dual OPX/ASI (P/N 88750 Series 2)

Version 3.2 with CTG Y1 (P/N 88281 or 88381), having more hardware options

DTS MLU-A (P/N 88175 any series) or DTS VAU-A (P/N 88210 Series 08)

DTS OPA/VAU (P/N 88211 any series)

DTS TRK-A (P/N 88127 Series 02)

DTS 8SLU-A (P/N 88122 Series 02)

DTS LNU (P/N 88110B Series 10)

DTS STI-B (P/N 88147 Series 10)

DTS ASI (P/N 89749) or DTS Dual OPX/ASI (P/N 88750 Series 2)

### ■ ONYX II 72x180 Software:

Version 3.10 with CTG Series Y4 (P/N 88285 or P/N 88385) Quantity of 3 is required.

DTS MLU-A (P/N 88178 any series) or DTS VAU-A (P/N 88210 Series 08)

DTS OPA/VAU (P/N 88211 any series)

DTS TRK-A (P/N 88127 Series 02)

DTS LNU (P/N 88110B Series 10)

DTS STI-B (P/N 88147 Series 10)

DTS ASI (P/N 89749) or DTS Dual OPX/ASI (P/N 88750 Series 2)

Version 3.2 with CTG Series Y1 (P/N 88281 or 88381), having more hardware options

DTS MLU-A (P/N 88175 any series) or DTS VAU-A (P/N 88210 Series 08)

DTS OPA/VAU (P/N 88211 any series)

DTS TRK-A (P/N 88127 Series 02)

DTS LNU (P/N 88110B Series 10)

DTS STI-B (P/N 88147 Series 10)

DTS ASI (P/N 89749) or DTS Dual OPX/ASI (P/N 88750 Series 2)

## Voice Mail Availability

This phone system is available on the NVM-2000CA with software version 8.01 or higher.

## Phone System Programming Terminal Programming

### E- Extension Setup

#### E2 - Circuit Type

Use this option to assign Circuit Type 51 to each VX port.

#### E5 - Hunt Type

Use this option to program each VX port with Hunt Type 06.

## Phone System Programming (cont'd) Terminal Programming (cont'd)

### E- Extension Setup (cont'd)

#### **EA - Master Extension Number (for UCD Hunt Group)**

Use this option to program each VS port with the Master Extension Number assigned in QP below.

#### **EK - Voice Mail (VX) Port**

Use this option to enable this option for each VX port.

#### **E9 - Direct Trunk Termination**

Use this option to terminate the trunk to the VX Master Extension Number (see QP below) for each trunk that the Voice Mail should answer.

#### **EI - Night Call Routing**

Use this option to terminate the trunk to the VX Master Extension Number (see QP below) for each trunk that the Voice Mail should answer at night. For this night application, make sure that the E9 entry for the trunk is 300.

### FC - Parameter Reset

#### **FC1 - Reset System Queues**

Use this option to reset the system queues after installing the NVM-2002.

#### **FC3 - Reset VX Flag (Telephone Message Waiting Lamps)**

Use this option to reset the telephone Message Waiting Lamps for a first time installation.

### K - Key Data

#### **KS - Keypad Programming**

If desired, use this option to assign a key as a Record key (type R), which the Keypad user can press to record conversations.

### Q - System Parameters

#### **QP - Mailbox Installed**

Enable this option to let the phone system know that a Voice Mail system is connected to it.

#### **QP - VX Master Extension**

Use this option to select one of the VX ports (from E2) as the VX Master Extension Number.

## Phone System Programming (cont'd)

### Extension Programming

When you are going to program the Voice Mail system through an extension in the telephone system, use the programs in the order listed below:

#### Program 14

Assign Circuit Type 51 to each VX port.

#### Program 18 (I)

Assign the Voice Mail feature to each VX port selected in Program 14.

#### Program 3

Indicate that the Voice Mail is installed and select a VX Master Extension Number. This number can be any of the VX ports designated in Program 14.

#### Program 19

Set up a UCD Hunt Group as follows:

- Hunt Type = 05
- Master Extension = VX Master Extension Number assigned in Program 3
- Overflow extension = Operator extension that you assigned to the VX Master Extension Number in Program 18 (I)
- UCD Members - VX extensions that you selected in Program 18 (I)

#### Program 12

Directly terminate each line that the Automated Attendant should answer to the VX Master Extension Number you selected in Program 3.

#### Program 17

Assign a Record key to an extension, if required.

#### Program 16

Assign each VX port (selected in Program 14) outgoing access to the lines used for Message Notification.

### System Options

Listed below are two types of Voice Mail options:

- Ones that the ONYX II does not use (listed as “not used”)
- Ones that may have default values not listed in the Programming Guide

#### RNA, Hold Retrieval String

Not used

#### Busy, Hold Retrieval String

Not used

#### Lamp On String

DEFAULT: #XG

#### Lamp Off String

DEFAULT: #X00

## Phone System Programming (cont'd) System Options (cont'd)

### Transfer String

DEFAULT: FP

### Ringdown String

DEFAULT: 1

### FAX detect string

DEFAULT: None

### Call pickup string

DEFAULT: W\*

### Flash timer

DEFAULT: .75 sec

### Wait for first/subsequent protocol digit

DEFAULT: 1/3 sec

### Wait for last protocol digit

DEFAULT: 1 sec

### Page/ Meet-me Page hold timer

Not used

### Schedule to use in Day/Night mode

Not used

## Mailbox Options

### Trunk Mailboxes

Allowed

### Park/Paging string

For Subscriber Mailboxes, call is parked.

DEFAULT: F\*JJJ/FW1\*, where JJJ is the Subscriber extension

### Call Waiting string

For Subscriber Mailboxes

DEFAULT: FWJJJ, where JJJ is the Subscriber extension

### Use Remote Logon as Direct Logon

For Subscriber, Guest, and Message Center Mailboxes

DEFAULT: No

### Msg Wait Lamp

For Subscriber, Guest, and Message Center Mailboxes

DEFAULT: Yes

### Notification number 1

For Subscriber Mailboxes

DEFAULT: Subscriber extension number

## Voice Mail Programming Default Dial Action Table

The extension numbers for TRF or UTRF do not need to be placed in brackets followed by a "1."

Key	Routing Option
Key 0	Action: UTRF Number: 0
Key 1	Action: UND Number: N
Key 2	Action: UND Number: N
Key 3	Action: TRF Number: XXX
Key 4	Action: UND Number: N
Key 5	Action: UND Number: N
Key 6	Action: UND Number: N
Key 7	Action: UND Number: N
Key 8	Action: UND Number: N
Key 9	Action: HUP Number: N
Key *	Action: REC1 Number: IXX
Key #	Action: LOGON Number: N
TIMEOUT	Action: UTRF Number: 0

### Other Notes

Call Forwarding to a Mailbox is allowed.



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The VDS and the VDS Key Hybrid currently belong to the VDS phone system family. However, the *Integration With Datastar* section of the NVM-2000 System Guide (P/N 17500INS05 or higher) refers to these phone systems as the Datastar PBX and the Datastar Hybrid. The information below applies to VDS phone systems.

## Hardware and Software Requirements

- **VDS:**  
Software Version 12.10 (P/N 89092-12) or Version 10.3 (P/N 89091)  
Version 9.0 (P/N 89090), 10.2 (P/N 89091), and 11.0 (P/N 89092) are not compatible.  
Universal Trunk Card (P/N 89045A Series 5.0), an External Ring Generator, and a Talk Battery are required for OPX installation.  
Station Card (P/N 89021C ) and DTS ASI (P/N 89749) or DTS Dual OPX/ASI (P/N 88750 Series 2) are required for ASI installation.
- **VDS Hybrid:**  
Software Version 1.3 (P/N 89340A) or Version 10.3  
Universal Trunk Card (P/N 89045A Series 5.0), an External Ring Generator, and a Talk Battery are required for OPX installation.  
ASI installation is NOT COMPATIBLE WITH THIS SYSTEM.

## Voice Mail Availability

This phone system is available on the NVM-2000CA with software version 8.01 or higher.

## Phone System Programming Terminal Programming

### E- Extension Setup

#### E2 - Circuit Type

Use this option to assign circuit type 51 to each VX port.

#### E5 - Hunt Type

Use this option to program each VX port with Hunt Type 06.

#### EA - Master Extension Number (for UCD Hunt Group)

Use this option to program each VS port with the Master Extension Number assigned in QP Programming below.

#### EK - Voice Mail (VX) Port

Enable this option for each VX port.

#### E9 - Direct Trunk Termination

Use this option to terminate the trunk to the VX Master Extension Number (see QP on the next page) for each trunk that the Voice Mail should answer.

#### EF - Assigned Night Answer

Use this option to terminate the trunk to the VX Master Extension Number (see QP on the next page) for each trunk that the Voice Mail should answer. For this night application, make sure that the E9 entry for the trunk is 300.

## Phone System Programming (cont'd) Terminal Programming (cont'd)

### FC - Parameter Reset

#### FC1 - Reset System Queues

Use this option to reset the system queues after installing the Voice Mail.

#### FC3 - Reset VX Flag (Telephone Message Waiting Lamps)

Use this option to reset the telephone Message Waiting Lamps for a first time installation.

### K - Key Data

#### KS - Keypad Programming

Use this option to assign a key as a Record key (type R), which the Keypad user can press to record conversations.

### Q - System Parameters

#### QH - Voice Mailbox, Voice Mailbox Inst'd

Enter **Y** to tell the system that the VX is installed.

#### QH - Voice Mailbox, Slot

This prompt identifies the DCX-UTK-A PCB that you are using for VX. This field applies to CPU/MEM-A (P/N 89760A) and CPU/MEM-B (P/N 89760B).

The following chart correlates the card slots (1–6) with the KSU positions (J2–J7).

PCB Position in KSU	Card Slot (1–6)	Prompt Entry
J2	1	
J3	2	
J4	3	
J5	4	
J6	5	
J7	6	

#### QH - Voice Mailbox, Master Number

Use this option to enter the VX number. This is the lowest numbered OPX port used for VX.

#### QH - Voice Mailbox, VX EXT (Adding the Port)

Use these sub-fields to identify each of the OPX ports dedicated to the VX. Make sure that you include the master number entry.

#### QP - Mailbox Installed

Enable this option to let the phone system know that a Voice Mail system is connected to it.

#### QP - VX Master Extension

Use this option to select one of the VX ports (from E2) as the VX Master Extension Number.

### U - Update

#### UE - Update Bubble

Use this option to store your program in the system memory bubble. Reboot the system after the update.

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## Phone System Programming (cont'd)

### System Options

Listed below are two types of Voice Mail options:

- Ones that the ONYX II does not use (listed as “not used”)
- Ones that may have default values not listed in the Programming Guide

#### **RNA, Hold Retrieval String**

Not used

#### **Busy, Hold Retrieval String**

Not used

#### **Lamp On String**

DEFAULT: #XG

#### **Lamp Off String**

DEFAULT: #X00

#### **Transfer String**

DEFAULT: FP

#### **Ringdown String**

DEFAULT: 1

#### **FAX detect string**

DEFAULT: None

#### **Call pickup string**

DEFAULT: W\*

#### **Flash timer**

DEFAULT: .75 sec

#### **Wait for first/subsequent protocol digit**

DEFAULT: 1/3 sec

#### **Wait for last protocol digit**

DEFAULT: 1 sec

#### **Page/ Meet-me Page hold timer**

Not used

#### **Schedule to use in Day/Night mode**

Not used

### Mailbox Options

#### **Trunk Mailboxes**

Allowed

#### **Park/Paging string**

For Subscriber Mailboxes, call is parked.

DEFAULT: F\*JJJ/FW1\*, where JJJ is the Subscriber extension

## Phone System Programming (cont'd)

### Mailbox Options (cont'd)

#### **Call Waiting string**

For Subscriber Mailboxes

DEFAULT: FWJJJ, where JJJ is the Subscriber extension

#### **Use Remote Logon as Direct Logon**

For Subscriber, Guest, and Message Center Mailboxes

DEFAULT: No

#### **Msg Wait Lamp**

For Subscriber, Guest, and Message Center Mailboxes

DEFAULT: Yes

#### **Notification number 1**

For Subscriber Mailboxes

DEFAULT: Subscriber extension number

## Voice Mail Programming Default Dial Action Table

The extension numbers for TRF or UTRF do not need to be placed in brackets followed by a "1."

Key	Routing Option
Key 0	Action: UTRF Number: 0
Key 1	Action: UND Number: N
Key 2	Action: UND Number: N
Key 3	Action: TRF Number: XXX
Key 4	Action: UND Number: N
Key 5	Action: UND Number: N
Key 6	Action: UND Number: N
Key 7	Action: UND Number: N
Key 8	Action: UND Number: N
Key 9	Action: HUP Number: N
Key *	Action: REC1 Number: IXX
Key #	Action: LOGON Number: N
TIMEOUT	Action: UTRF Number: 0

### Other Notes

Call Forwarding to a Mailbox is allowed.



The NVM-2000 System Guide (P/N 17500INS05 or higher) refers to the DCS phone system as the DCX phone system in the *Integration with DCX* section. The information below applies to the DCS phone system, the current name for this system.

## Hardware and Software Requirements

- Software Version 1.04.15 or higher (P/N 89740D)
- Universal Trunk Card (P/N 89745A Series 2), an External Ring Generator, and a Talk Battery are required for OPX installation.
- Station Card (P/N 89720A ) with Software Version 1.04 and DTS ASI (P/N 89749) or DTS Dual OPX/ASI (P/N 88750 Series 2) are required for ASI installation.

## Voice Mail Availability

This phone system is available on the NVM-2000CA with software version 8.01 or higher.

## Phone System Programming Terminal Programming

### E- Trunk Setup

#### E8 - Direct Trunk Termination

Use this option to terminate the trunk to the VX Master Extension Number.

#### EF - Assigned Night Answer

Use this option to terminate the trunk to the VX Master Extension Number for each trunk that the Voice Mail should answer at night. For this night application, make sure that the E8 entry for the trunk is 300.

### Q - System Parameters

#### QH - Voice Mailbox, Voice Mailbox Inst'd

Enter **Y** to tell the system that the VX is installed.

#### QH - Voice Mailbox, Slot

This prompt identifies the DCX-UTK-A PCB that you are using for VX. This field applies to CPU/MEM-A (P/N 89760A) and CPU/MEM-B (P/N 89760B). The following chart correlates the card slot (1–6) with the KSU position (J2–J7).

PCB Position in KSU	Card Slot (1–6)	Prompt Entry
J2	1	
J3	2	
J4	3	
J5	4	
J6	5	
J7	6	

#### QH - Voice Mailbox, VX EXT (Adding the Port)

Use these sub-fields to identify each of the OPX ports dedicated to the VX. Make sure that you include the master number entry.

### U - Update

#### UE - Update Bubble

Use this option to store your program in the system memory bubble. Reboot the system after the update.

## Phone System Programming (cont'd)

### System Options

Listed below are two types of Voice Mail options:

- Ones that the DCS does not use (listed as “not used”)
- Ones that may have default values not listed in the Programming Guide

#### **RNA, Hold Retrieval String**

Not used

#### **Busy, Hold Retrieval String**

Not used

#### **Lamp On String**

DEFAULT: #XG

#### **Lamp Off String**

DEFAULT: #X00

#### **Transfer String**

DEFAULT: FP

#### **Ringdown String**

DEFAULT: 1

#### **FAX detect string**

DEFAULT: None

#### **Call pickup string**

DEFAULT: W\*

#### **Flash timer**

DEFAULT: .75 sec

#### **Wait for first/subsequent protocol digit**

DEFAULT: 1/3 sec

#### **Wait for last protocol digit**

DEFAULT: 1 sec

#### **Page/ Meet-me Page hold timer**

Not used

#### **Schedule to use in Day/Night mode**

Not used

### Mailbox Options

#### **Trunk Mailboxes**

Allowed

#### **Park/Paging string**

For Subscriber Mailboxes, call is parked.

DEFAULT: F\*JJJ/FW1\*, where JJJ is the Subscriber extension

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## Phone System Programming (cont'd)

### Mailbox Options (cont'd)

#### **Call Waiting string**

For Subscriber Mailboxes

DEFAULT: FWJJJ, where JJJ is the Subscriber extension

#### **Use Remote Logon as Direct Logon**

For Subscriber, Guest, and Message Center Mailboxes

DEFAULT: No

#### **Msg Wait Lamp**

For Subscriber, Guest, and Message Center Mailboxes

DEFAULT: Yes

#### **Notification number 1**

For Subscriber Mailboxes

DEFAULT: Subscriber extension number

## Voice Mail Programming Default Dial Action Table

The extension numbers for TRF or UTRF do not need to be placed in brackets followed by a "1."

Key	Routing Option
Key 0	Action: UTRF Number: 0
Key 1	Action: UND Number: N
Key 2	Action: UND Number: N
Key 3	Action: TRF Number: XXX
Key 4	Action: UND Number: N
Key 5	Action: UND Number: N
Key 6	Action: UND Number: N
Key 7	Action: UND Number: N
Key 8	Action: UND Number: N
Key 9	Action: HUP Number: N
Key *	Action: REC1 Number: IXX
Key #	Action: LOGON Number: N
TIMEOUT	Action: UTRF Number: 0

### Other Notes

Call Forwarding to a Mailbox is allowed.

The information below applies to the MORGAN phone system.

## Hardware and Software Requirements

- Software Version 2.66 or higher
- OPX/DID Card (P/N 98011)
- DTMF Receiver Card (P/N 98085)
- External Ring Generator

## Voice Mail Availability

This phone system is available on the NVM-2000CA with software version 8.01 or higher.

## Phone System Programming

### Hunt Groups

#### Name

Use this option to enter a 10-character name that will identify the hunt group. The name will appear on reports.

#### Member List

Use this option to enter the VX OPX ports into the hunt group member list. Refer to *Station Information* below.

### Station Information

Make the following entries for each station that will use VX:

#### Voice Mail System

Use this option to enter the number of the Voice Messaging sub-system. You normally enter 1, unless you have more than one VX installed.

#### Key Designations, Type

Use this option to enter VMSG in this field to program a Voice Messaging Key.

### OPX Circuits

#### Extension Number

Use this option to enter the VX OPX station number (201–343). The number must be an unused on-premise station. This is a software assignment only. It does not require a port on an installed Station PCB.

#### Port Number

Use this option to enter the VX port number (1–48). The OPX port must be a port on an installed OPX/DID PCB.

#### Owner's Name

Use this option to enter a name (up to 10 characters) for the VX OPX station. The name will appear on telephone displays and system reports.

#### Station Type

Use this option to enter the VMX.

## Phone System Programming (cont'd)

### Voice Mail Installation

#### Do You Want to Install the Voice Mail System?

Use this option to enter Y.

#### Voice Mail System Pilot Numbers

Use this option to enter the hunt group pilot number for the VX. Refer to your HUNT entry. Normally, you enter only one pilot number, unless you have more than one VX installed.

### Inbound Trunk Routing

#### Route (Day/Nite)

Use this option to enter HUNT for each trunk that the VX should answer.

#### Dest (Day/Nite)

Use this option to enter the VX hunt group number (1–16) for each trunk that the VX should answer. See Hunt Groups above.

#### Delay, Rte

Use this option to enter HUNT for each trunk that should have delayed routing to the VX.

#### Delay, Dest

Use this option to enter the VX hunt group number (1–16) for each trunk that should have delayed routing to the VX. See Hunt Groups above.

### System Timers

#### Trunk Route Delay

If you have enabled Delayed Routing, enter the interval after which delayed routing should occur.

## System Options

Listed below are two types of Voice Mail options:

- Ones that the MORGAN does not use (listed as “not used”)
- Ones that may have default values not listed in the Programming Guide

#### RNA, Hold Retrieval String

Not used

#### Busy, Hold Retrieval String

Not used

#### Lamp On String

DEFAULT: #XG

#### Lamp Off String

DEFAULT: #X00

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## Phone System Programming (cont'd)

### System Options (cont'd)

**Transfer String**

DEFAULT: FP

**Ringdown String**

DEFAULT: 1

**FAX detect string**

DEFAULT: None

**Call pickup string**

DEFAULT: W\*

**Flash timer**

DEFAULT: .75 sec

**Wait for first/subsequent protocol digit**

DEFAULT: 1/3 sec

**Wait for last protocol digit**

DEFAULT: 1 sec

**Page/ Meet-me Page hold timer**

Not used

**Schedule to use in Day/Night mode**

Not used

## Mailbox Options

**Trunk Mailboxes**

Allowed

**Park/Paging string**

For Subscriber Mailboxes, call is parked.

DEFAULT: F\*JJJ/FW1\*, where JJJ is the Subscriber extension

**Call Waiting string**

For Subscriber Mailboxes

DEFAULT: FWJJJ, where JJJ is the Subscriber extension

**Use Remote Logon as Direct Logon**

For Subscriber, Guest, and Message Center Mailboxes

DEFAULT: No

**Msg Wait Lamp**

For Subscriber, Guest, and Message Center Mailboxes

DEFAULT: Yes

**Notification number 1**

For Subscriber Mailboxes

DEFAULT: Subscriber extension number

## Voice Mail Programming Default Dial Action Table

The extension numbers for TRF or UTRF do not need to be placed in brackets followed by a "1."

<b>Key</b>	<b>Routing Option</b>
Key 0	Action: UTRF Number: 0
Key 1	Action: UND Number: N
Key 2	Action: UND Number: N
Key 3	Action: TRF Number: XXX
Key 4	Action: UND Number: N
Key 5	Action: UND Number: N
Key 6	Action: UND Number: N
Key 7	Action: UND Number: N
Key 8	Action: UND Number: N
Key 9	Action: HUP Number: N
Key *	Action: REC1 Number: IXX
Key #	Action: LOGON Number: N
TIMEOUT	Action: UTRF Number: 0

### Other Notes

Call Forwarding to a Mailbox is allowed.

The ONYX VS/VSI/DS100/DS01 and the ONYX VS/VSI/24x72 belong to the ONYX VS phone system family. However, the *Integration With DTS Phone Systems* section of the NVM-2000 System Guide (P/N 17500INS05 or higher) refers to the phone systems in this family as DTS instead of VS. The information below applies to these ONYX VS phone systems.

## Hardware and Software Requirements

### ■ Single Cabinet:

Software: Version Y4.0 or higher (P/N 88529 Series Y2).

Hardware: Keypad port with an ASI (P/N 89749) (one per Voice Mail port) or a Dual OPX/ASI (P/N 88750 Series 2), which supports two Voice Mail ports.

### ■ Dual Cabinet:

Software: DTS-S-AUX-A Version Y1.01 (or higher) (P/N 88525) Series Y2 with DTS-S-SAUX (P/N 88529 Series Y2)

Hardware: Keypad port with an ASI (P/N 89749) (one per Voice Mail port) or a Dual OPX/ASI (P/N 88750 Series 2), which supports two Voice Mail ports.

## Voice Mail Availability

This phone system is available on these Voice Mail systems:

- NVM-22CA with software version 8.01 or higher
- NVM-202exCA with software version 7.01 or higher
- NVM-2000CA with software version 8.01 or higher

## Phone System Programming Terminal Programming

Certain functions in the phone system require specific setup entries, when you are integrating your phone system with the Voice Mail system. The following list tells you which phone system programs you must set up. For instructions on how to program the phone system, see the programming manual for your phone system.

### E- Extension Setup

#### E2 - Circuit Type

Use this option to assign Circuit Type 51 to each VX port.

#### E5 - Hunt Type

Use this option to program each VX port with Hunt Type 06.

#### EA - Master Extension Number (for UCD Hunt Group)

Use this option to program each VS port with the Master Extension Number assigned in QP Programming on the next page.

#### EK - Voice Mail (VX) Port

Use this option to enable each VX port.

#### E9 - Direct Trunk Termination

Use this option to terminate the trunk to the VX Master Extension Number (see QP on the next page) for each trunk that the Voice Mail should answer.

## Phone System Programming (cont'd) Terminal Programming (cont'd)

### E- Extension Setup (cont'd)

#### EI - Night Call Routing

Use this option to terminate the trunk to the VX Master Extension Number (see QP below) for each trunk that the Voice Mail should answer at night. For this night application, make sure that the E9 entry for the trunk is 300.

### FC - Parameter Reset

#### FC1 - Reset System Queues

Use this option to reset the system queues after installing the Voice Mail.

#### FC3 - Reset VX Flag (Telephone Message Waiting Lamps)

Use this option to reset the telephone Message Waiting Lamps for a first time installation.

### K - Key Data

#### KS - Keypad Programming

If desired, use this option to assign a key as a Record key (type R), which the Keypad user can press to record conversations.

### Q - System Parameters

#### QP - Mailbox Installed

Enable this option to let the phone system know that a Voice Mail system is connected to it.

#### QP - VX Master Extension

Use this option to select one of the VX ports (from E2) as the VX Master Extension Number.

## Phone System Programming (cont'd)

### Extension Programming

When you are going to program the Voice Mail system through an extension in the telephone system, use the programs in the order listed below:

#### Program 14

Assign Circuit Type 51 to each VX port.

#### Program 18 (I)

Assign the Voice Mail feature to each VX port selected in Program 14.

#### Program 3

Indicate that the Voice Mail is installed and select a VX Master Extension Number. This number can be any of the VX ports designated in Program 14.

#### Program 19

Set up a UCD Hunt Group as follows:

- Hunt Type = 05
- Master Extension = VX Master Extension Number assigned in Program 3
- Overflow extension = Operator extension that you assigned to the VX Master Extension Number in Program 18 (I)
- UCD Members - VX extensions that you selected in Program 18 (I)

#### Program 12

Directly terminate each line that the Automated Attendant should answer to the VX Master Extension Number you selected in Program 3.

#### Program 17

Assign a Record key to an extension, if required.

#### Program 16

Assign each VX port (selected in Program 14) outgoing access to the lines used for Message Notification.

## System Options

Listed below are two types of Voice Mail options:

- Ones that the ONYX VS does not use (listed as “not used”)
- Ones that may have default values not listed in the Programming Guide

#### RNA, Hold Retrieval String

Not used

#### Busy, Hold Retrieval String

Not used

#### Lamp On String

DEFAULT: #XG

#### Lamp Off String

DEFAULT: #X00

## Phone System Programming (cont'd) System Options (cont'd)

### Transfer String

DEFAULT: FP

### Ringdown String

DEFAULT: 1

### FAX detect string

DEFAULT: None

### Call pickup string

DEFAULT: W\*

### Flash timer

DEFAULT: .75 sec

### Wait for first/subsequent protocol digit

DEFAULT: 1/3 sec

### Wait for last protocol digit

DEFAULT: 1 sec

### Page/ Meet-me Page hold timer

Not used

### Schedule to use in Day/Night mode

Not used

## Mailbox Options

### Trunk Mailboxes

Allowed

### Park/Paging string

For Subscriber Mailboxes, call is parked.

DEFAULT: F\*JJJ/FW1\*, where JJJ is the Subscriber extension

### Call Waiting string

For Subscriber Mailboxes

DEFAULT: FWJJJ, where JJJ is the Subscriber extension

### Use Remote Logon as Direct Logon

For Subscriber, Guest, and Message Center Mailboxes

DEFAULT: No

### Msg Wait Lamp

For Subscriber, Guest, and Message Center Mailboxes

DEFAULT: Yes

### Notification number 1

For Subscriber Mailboxes

DEFAULT: Subscriber extension number

## Voice Mail Programming Default Dial Action Table

Extension numbering for the ONYX VS/VSI/DS100/DS01 is 300–347.

Extension numbering for the ONYX VS/VSI 24x72 is 300–371.

Key	Routing Option
Key 0	Action: UTRF Number: 0
Key 1	Action: UND Number: N
Key 2	Action: UND Number: N
Key 3	Action: TRF Number: XXX
Key 4	Action: UND Number: N
Key 5	Action: UND Number: N
Key 6	Action: UND Number: N
Key 7	Action: UND Number: N
Key 8	Action: UND Number: N
Key 9	Action: HUP Number: N
Key *	Action: REC1 Number: IXX
Key #	Action: LOGON Number: N
TIMEOUT	Action: UTRF Number: 0

### Other Notes

Call Forwarding to a Mailbox is allowed.



The information below applies to the ONYX III 32x60/DCH/DS300 and to the ONYX III 72x180/DCH/DS300. Both phone systems belong to the ONYX III phone system family. The *Integration With DTS Phone Systems* section of the NVM-2000 System Guide (P/N 17500INS05 or higher) refers to the phone systems in this family as DTS instead of DCH.

## Hardware and Software Requirements

- **32x60:**
  - Software: Version 2.4 with CTG Series 8 (P/N 88281/88381)
  - Software version 3.10 (or higher) with CTG Series 10 is recommended.
  - DTS MLU-A (P/N 88175 any series) or DTS VAU-A (P/N 88210 Series 08)
  - DTS OPA/VAU (P/N 88211 All Series)
  - DTS TRK-A (P/N 88127 Series 02)
  - DTS LNU (P/N 88147 Series 10)
  - DTS STI-B (P/N 88147 Series 10)
  - DTS ASI (P/N 89749) or DTS Dual OPX/ASI (P/N 88750 Series 2)  
  - Software: Version 3.2 with CTG Y1 (P/N 88281/88381, Y1)
  - This version provides additional hardware options.
  - DTS MLU-A (P/N 88175 any Series) or DTS VAU-A (P/N 88210 Series 08)
  - DTS OPA/VAU (P/N 88211 All Series)
  - DTS TRK-A (P/N 88127 Series 02)
  - DTS 8SLU-A (P/N 88122 Series 02)
  - DTS LNU (P/N 88110B Series 10)
  - DTS STI-B (P/N 88147 Series 10)
  - DTS ASI (P/N 89749) or Dual OPX/ASI (P/N 88750 Series 2)
  
- **72x180:**
  - Software: Version 3.10 with CTG Series Y4 (P/N 88285/88385) (Qty 3 Required)
  - DTS MLU-A (P/N 88178 any Series) or DTS VAU-A (P/N 88210 Series 08)
  - DTS OPA/VAU (P/N 88211 All Series)
  - DTS TRK-A (P/N 88127 Series 02)
  - DTS LNU (P/N 88110B Series 10)
  - DTS STI-B (P/N 88147 Series 10)
  - DTS ASI (P/N 89749) or Dual OPX/ASI (P/N 88750 Series 2)  
  - Software: Version 3.2 with CTG Series Y1 (P/N 88285/88385)
  - Note: This version provides additional hardware options.
  - DTS MLU-A (P/N 88175 any Series) or DTS VAU-A (P/N 88210 Series 08)
  - DTS OPA/VAU (P/N 88211 All Series)
  - DTS TRK-A (P/N 88127 Series 02)
  - DTS STI-B (P/N 88147 Series 10)
  - DTS ASI (P/N 89749) or Dual OPX/ASI (P/N 88750 Series 2)
  - DTS LNU (P/N 88110B Series 10)

## Voice Mail Availability

This phone system is available on the NVM-2000CA with software version 8.01 or higher.

## Phone System Programming (cont'd)

### Terminal Programming

When you are integrating your phone system with the Voice Mail system, certain functions in the phone system require specific setup entries. The following list tells you which phone system programs you must set up. For instructions on how to program the phone system, see the programming manual for your phone system.

#### **E- Extension Setup**

##### **E2 - Circuit Type**

Use this option to assign Circuit Type 51 to each VX port.

##### **E5 - Hunt Type**

Use this option to program each VX port with Hunt Type 06.

##### **EA - Master Extension Number (for UCD Hunt Group)**

Use this option to program each VS port with the Master Extension Number assigned in QP Programming on the next page.

##### **EK - Voice Mail (VX) Port**

Use this option to enable each VX port.

##### **E9 - Direct Trunk Termination**

Use this option to terminate the trunk to the VX Master Extension Number (see QP on the next page) for each trunk that the Voice Mail should answer.

##### **EI - Night Call Routing**

Use this option to terminate the trunk to the VX Master Extension Number (see QP below) for each trunk that the Voice Mail should answer at night. For this night application, make sure that the E9 entry for the trunk is 300.

#### **FC - Parameter Reset**

##### **FC1 - Reset System Queues**

Use this option to reset the system queues after installing the Voice Mail.

##### **FC3 - Reset VX Flag (Telephone Message Waiting Lamps)**

Use this option to reset the telephone Message Waiting Lamps for a first time installation.

#### **K - Key Data**

##### **KS - Keypad Programming**

If desired, use this option to assign a key as a Record key (type R), which the Keypad user can press to record conversations.

#### **Q - System Parameters**

##### **QP - Mailbox Installed**

Enable this option to let the phone system know that a Voice Mail system is connected to it.

##### **QP - VX Master Extension**

Use this option to select one of the VX ports (from E2) as the VX Master Extension Number.

## Phone System Programming (cont'd)

### Extension Programming

When you are going to program the Voice Mail system through an extension in the telephone system, use the programs in the order listed below:

#### Program 14

Assign Circuit Type 51 to each VX port.

#### Program 18 (I)

Assign the Voice Mail feature to each VX port selected in Program 14.

#### Program 3

Indicate that the Voice Mail is installed and select a VX Master Extension Number. This number can be any of the VX ports designated in Program 14.

#### Program 19

Set up a UCD Hunt Group as follows:

- Hunt Type = 05
- Master Extension = VX Master Extension Number assigned in Program 3
- Overflow extension = Operator extension that you assigned to the VX Master Extension Number in Program 18 (I)
- UCD Members - VX extensions that you selected in Program 18 (I)

#### Program 12

Directly terminate each line that the Automated Attendant should answer to the VX Master Extension Number you selected in Program 3.

#### Program 17

Assign a Record key to an extension, if required.

#### Program 16

Assign each VX port (selected in Program 14) outgoing access to the lines used for Message Notification.

### System Options

Listed below are two types of Voice Mail options:

- Ones that the ONYX III does not use (listed as “not used”)
- Ones that may have default values not listed in the Programming Guide

#### RNA, Hold Retrieval String

Not used

#### Busy, Hold Retrieval String

Not used

#### Lamp On String

DEFAULT: #XG

#### Lamp Off String

DEFAULT: #X00

## Phone System Programming (cont'd) System Options (cont'd)

### Transfer String

DEFAULT: FP

### Ringdown String

DEFAULT: 1

### FAX detect string

DEFAULT: None

### Call pickup string

DEFAULT: W\*

### Flash timer

DEFAULT: .75 sec

### Wait for first/subsequent protocol digit

DEFAULT: 1/3 sec

### Wait for last protocol digit

DEFAULT: 1 sec

### Page/ Meet-me Page hold timer

Not used

### Schedule to use in Day/Night mode

Not used

## Mailbox Options

### Trunk Mailboxes

Allowed

### Park/Paging string

For Subscriber Mailboxes, call is parked.

DEFAULT: F\*JJJ/FW1\*, where JJJ is the Subscriber extension

### Call Waiting string

For Subscriber Mailboxes

DEFAULT: FWJJJ, where JJJ is the Subscriber extension

### Use Remote Logon as Direct Logon

For Subscriber, Guest, and Message Center Mailboxes

DEFAULT: No

### Msg Wait Lamp

For Subscriber, Guest, and Message Center Mailboxes

DEFAULT: Yes

### Notification number 1

For Subscriber Mailboxes

DEFAULT: Subscriber extension number

## Voice Mail Programming Default Dial Action Table

The extension numbers for TRF or UTRF do not need to be placed in brackets followed by a "1."

Key	Routing Option
Key 0	Action: UTRF Number: 0
Key 1	Action: UND Number: N
Key 2	Action: UND Number: N
Key 3	Action: TRF Number: XXX
Key 4	Action: UND Number: N
Key 5	Action: UND Number: N
Key 6	Action: UND Number: N
Key 7	Action: UND Number: N
Key 8	Action: UND Number: N
Key 9	Action: HUP Number: N
Key *	Action: REC1 Number: IXX
Key #	Action: LOGON Number: N
TIMEOUT	Action: UTRF Number: 0

### Other Notes

Call Forwarding to a Mailbox is allowed.



The information below applies to the ONYX IV DS400 phone system.

## Hardware and Software Requirements

Software: Version 1.0 with CTG Series Y1 (P/N 88484)  
 DTS MLU-A (P/N 88175 any Series) or DTS VAU-A (P/N 88210 Series 08)  
 DTS OPA/VAU (P/N 88211 All Series)  
 DTS TRK-A (P/N 88127 Series 02)  
 DTS 8SLU-A (P/N 88122 Series 02)  
 DTS LNU (P/N 88110B Series 10)  
 DTS STI-B (P/N 88147 Series 10)  
 DTS ASI (P/N 89749) or Dual OPX/ASI (P/N 88750 Series 2)

## Voice Mail Availability

This phone system is available on the NVM-2000CA with software version 8.01 or higher.

## Phone System Programming Terminal Programming

When you are integrating your phone system with the Voice Mail system, certain functions in the phone system require specific setup entries. The following list tells you which phone system programs you must set up. For instructions on how to program the phone system, see the programming manual for your phone system.

### E- Extension Setup

#### E2 - Circuit Type

Use this option to assign Circuit Type 51 to each VX port.

#### E5 - Hunt Type

Use this option to program each VX port with Hunt Type 06.

#### EA - Master Extension Number (for UCD Hunt Group)

Use this option to program each VS port with the Master Extension Number assigned in QP Programming on the next page.

#### EK - Voice Mail (VX) Port

Use this option to enable each VX port.

#### E9 - Direct Trunk Termination

Use this option to terminate the trunk to the VX Master Extension Number (see QP on the next page) for each trunk that the Voice Mail should answer.

#### EI - Night Call Routing

Use this option to terminate the trunk to the VX Master Extension Number (see QP below) for each trunk that the Voice Mail should answer at night. For this night application, make sure that the E9 entry for the trunk is 300.

## Phone System Programming (cont'd) Terminal Programming (cont'd)

### FC - Parameter Reset

#### FC1 - Reset System Queues

Use this option to reset the system queues after installing the Voice Mail.

#### FC3 - Reset VX Flag (Telephone Message Waiting Lamps)

Use this option to reset the telephone Message Waiting Lamps for a first time installation.

### K - Key Data

#### KS - Keypad Programming

If desired, use this option to assign a key as a Record key (type R), which the Keypad user can press to record conversations.

### Q - System Parameters

#### QP - Mailbox Installed

Enable this option to let the phone system know that a Voice Mail system is connected to it.

#### QP - VX Master Extension

Use this option to select one of the VX ports (from E2) as the VX Master Extension Number.

## Phone System Programming (cont'd)

### Extension Programming

When you are going to program the Voice Mail system through an extension in the telephone system, use the programs in the order listed below:

#### Program 14

Assign Circuit Type 51 to each VX port.

#### Program 18 (I)

Assign the Voice Mail feature to each VX port selected in Program 14.

#### Program 3

Indicate that the Voice Mail is installed and select a VX Master Extension Number. This number can be any of the VX ports designated in Program 14.

#### Program 19

Set up a UCD Hunt Group as follows:

- Hunt Type = 05
- Master Extension = VX Master Extension Number assigned in Program 3
- Overflow extension = Operator extension that you assigned to the VX Master Extension Number in Program 18 (I)
- UCD Members - VX extensions that you selected in Program 18 (I)

#### Program 12

Directly terminate each line that the Automated Attendant should answer to the VX Master Extension Number you selected in Program 3.

#### Program 17

Assign a Record key to an extension, if required.

#### Program 16

Assign each VX port (selected in Program 14) outgoing access to the lines used for Message Notification.

### System Options

Listed below are two types of Voice Mail options:

- Ones that the ONYX IV does not use (listed as “not used”)
- Ones that may have default values not listed in the Programming Guide

#### RNA, Hold Retrieval String

Not used

#### Busy, Hold Retrieval String

Not used

#### Lamp On String

DEFAULT: #XG

#### Lamp Off String

DEFAULT: #X00

## Phone System Programming (cont'd) System Options (cont'd)

### Transfer String

DEFAULT: FP

### Ringdown String

DEFAULT: 1

### FAX detect string

DEFAULT: None

### Call pickup string

DEFAULT: W\*

### Flash timer

DEFAULT: .75 sec

### Wait for first/subsequent protocol digit

DEFAULT: 1/3 sec

### Wait for last protocol digit

DEFAULT: 1 sec

### Page/ Meet-me Page hold timer

Not used

### Schedule to use in Day/Night mode

Not used

## Mailbox Options

### Trunk Mailboxes

Allowed

### Park/Paging string

For Subscriber Mailboxes, call is parked.

DEFAULT: F\*JJJ/FW1\*, where JJJ is the Subscriber extension

### Call Waiting string

For Subscriber Mailboxes

DEFAULT: FWJJJ, where JJJ is the Subscriber extension

### Use Remote Logon as Direct Logon

For Subscriber, Guest, and Message Center Mailboxes

DEFAULT: No

### Msg Wait Lamp

For Subscriber, Guest, and Message Center Mailboxes

DEFAULT: Yes

### Notification number 1

For Subscriber Mailboxes

DEFAULT: Subscriber extension number

## Voice Mail Programming Default Dial Action Table

The extension numbers for TRF or UTRF do not need to be placed in brackets followed by a "1."

Key	Routing Option
Key 0	Action: UTRF Number: 0
Key 1	Action: UND Number: N
Key 2	Action: UND Number: N
Key 3	Action: TRF Number: XXX
Key 4	Action: UND Number: N
Key 5	Action: UND Number: N
Key 6	Action: UND Number: N
Key 7	Action: UND Number: N
Key 8	Action: UND Number: N
Key 9	Action: HUP Number: N
Key *	Action: REC1 Number: IXX
Key #	Action: LOGON Number: N
TIMEOUT	Action: UTRF Number: 0

### Other Notes

Call Forwarding to a Mailbox is allowed.



The information below applies to the Portrait 824 phone system.

## Hardware and Software Requirements

- For each Voice Mail port, you will need an analog station port on the Portrait phone system. The analog station ports are provided through the Voice Mail Interface Unit (P/N 82440). A system can have a maximum of 4 Voice Mail Interface Units or 8 Voice Mail ports.
- You will need one of the following Portrait setups:
  - Setup 1:**  
Portrait 824 Main Cabinet (P/N 82400) with software version 2.1B or higher *and* 2CO/8STA PCB (P/N 82402A)  
The Voice Mail ports must be connected to the 2CO/8STA PCB (P/N 82402A).
  - Setup 2:**  
Portrait 824 Main Cabinet (P/N 82400A) with software version 2.1B or higher  
The Voice Mail ports must be connected to station ports 1–8.
  - Setup 3:**  
Portrait 824 Main Cabinet (P/N 82400A) with software version 2.1B or higher *and* 2CO/8STA PCB (P/N 82402A)  
The Voice Mail ports must be connected to station ports 1–8.

## Voice Mail Availability

This phone system is available on these Voice Mail systems:

- NVM-22CA with software version 8.01 or higher
- NVM-202exCA with software version 7.01 or higher
- NVM-2000CA with software version 8.01 or higher

## Phone System Programming

When you are going to program the Voice Mail system through an extension in the telephone system, use the programs in the order listed below:

### **Program 65 - Voice Mail Ports**

Use this program to identify the Portrait connected to the Voice Mail.

### **Program 7 - Incoming Line Access/Audible**

Use this program to enter the line that should ring the Voice Mail.

### **Program 23 - Unscreened Transfer Recall**

Use this program to determine how long a call will ring an extension before going to the Voice Mail.

## Voice Mail Programming Default Dial Action Table

Extension numbering is 10–74.

<b>Key</b>	<b>Routing Option</b>
Key 0	Action: UTRF Number: 10
Key 1	Action: UTRF Number: XX
Key 2	Action: UTRF Number: XX
Key 3	Action: UTRF Number: XX
Key 4	Action: UTRF Number: XX
Key 5	Action: UTRF Number: XX
Key 6	Action: UTRF Number: XX
Key 7	Action: UTRF Number: XX
Key 8	Action: UND Number: N
Key 9	Action: HUP Number: N
Key *	Action: REC1 Number: IV
Key #	Action: LOGON Number: N
TIMEOUT	Action: UTRF Number: 10

## Hardware and Software Requirements

- You need a KXT-616 station port for each Voice Mail port.
- Any software level is OK.

## Voice Mail Availability

This phone system is available on the NVM-2000CA with Software Version 8.01 or higher.

## Phone System Programming

**To have the Automated Attendant answer a CO line as soon as it rings in, use the following programs:**

### **Program 09 - Flexible Day Ringing Assignment**

Use this program to make a CO immediately ring the Voice Mail during the day mode.

### **Program 10 - Flexible Night Ringing Assignment**

Use this program to make a CO immediately ring the Voice Mail during the night mode.

Any CO that should ring the Voice Mail during the day or night mode must be assigned ringing at one, two, or three of the Voice Mail extensions: the extension ports that you plan on connecting to the the Voice Mail ports. It is recommended that you program a CO to ring at all Voice Mail extensions. In this way, if one or two of the Voice Mail extensions are busy, the call can still be answered at the available Voice Mail extension.

**Note:** Company greetings are assigned via the Answering Schedule Tables to ports and not to COs. So if you want CO1 to be answered by a different set of "company greetings" than CO2, for example, make sure that CO1 and CO2 do not ring the same Voice Mail extensions (Voice Mail ports). **REMINDER:** If you use this CO scenario, make sure that you keep track of which COs ring which ports. You will need this information later on.

**To have the Automated Attendant answer a CO line after a delay, use the following programs:**

### **Program 17 - Delayed Ringing Assignment**

Use this program to make a CO ring the VoiceMail after a delay, which is counted by the number of rings.

Any CO that should ring the Voice Mail after a delay must be assigned delayed ringing at one, two, or three of the Voice Mail extensions: extension ports that you plan on connecting to the Voice Mail ports. It is recommended that you program a CO to ring at all Voice Mail extensions, so that a call can be answered at an available extension, whenever one or more extensions are busy.

## Phone System Programming (cont'd)

### Program 17 (cont'd)

**Note:** Company greetings are assigned to ports via the Answering Schedule Tables and not to COs. As an example, if you want CO1 to be answered by a different set of "company greetings" than CO2, make sure that CO1 does not ring the same Voice Mail extensions (the Voice Mail ports) as CO2, REMINDER: If you use this CO scenario, make sure that you keep track of which COs ring which ports. You will need this information later.

### Program 18 - Delayed Ringing Count Selection

Use this program to set the number of rings in the delay period for delayed ringing. For example, if you select 3, a CO will ring the Voice Mail only after it has rung another extension 3 times.

## Miscellaneous programming:

### Program 16 - Call Waiting

Use this program to enable or disable Call Waiting for an extension. If enabled, the extension will be able to receive Call Waiting beeps from Automated Attendant screened transfers.

### Program 33 - Calling Party Control Signal

Use this program to let the Voice Mail hang up after an Automated Attendant caller hangs up. Enable Calling Party Control Signal for all COs that ring the Voice Mail. (This is valid only for Central Offices that provide this type of supervision).

### Program 19 - Intercom Alerting Mode

Use this program to enable the Tone calling mode for each extension. Though not necessary, the Tone mode speeds up the way the Voice Mail makes transfers to the extensions.

## Voice Mail Programming System Options

Listed below are two types of the Voice Mail System Options:

- Ones that Panasonic KX-T616 does not use (listed as "not used")
- Ones that have default values not listed in the Programming Guide

### RNA, Hold Retrieval

DEFAULT: FP

### Busy, Hold Retrieval String

DEFAULT: FP

### Lamp On String

DEFAULT: ##1X

## Voice Mail Programming (cont'd)

### System Options (cont'd)

#### Lamp Off String

DEFAULT: ##2X

#### Transfer String

DEFAULT: FW

#### Ringdown string

DEFAULT: None

#### FAX detect dial string

DEFAULT: None

#### Call pickup string

DEFAULT: None

#### Flash timer

DEFAULT: 50 (1 = 10ms)

#### Wait for first/subsequent protocol digit

DEFAULT: 3 sec

#### Wait after last protocol digit

DEFAULT: 1 sec

#### Page/Meet-me Page hold timer

DEFAULT: 25 sec

#### Schedule to use in Day/Night mode

Not used

## Mailbox Options

#### Trunk Mailboxes

Not used

#### Park/Paging string

For Subscriber Mailboxes, call is parked.

DEFAULT: None

## Voice Mail Programming (cont'd)

### Mailbox Options (cont'd)

#### **Call Waiting string**

For Subscriber Mailboxes

DEFAULT: FS300

#### **Use Remote Logon as Direct Logon**

For Subscriber, Guest, Message Center Mailboxes

Not used

#### **Msg Wait Lamp**

For Subscriber, Guest, Message Center Mailboxes

Not used

#### **Notification number 1**

For Subscriber Mailboxes

DEFAULT: Subscriber extension number

## Voice Mail Programming (cont'd)

### Default Dial Action Table

The extension numbers for screened transfers (TRFs) or unscreened transfers (UTRFs) do not need to be placed in brackets or followed a "1."

Key	Routing Option
Key 0	Action: UTRF Number: 11
Key 1	Action: TRF Number: XX
Key 2	Action: TRF Number: XX
Key 3	Action: UND Number: N
Key 4	Action: UND Number: N
Key 5	Action: UND Number: N
Key 6	Action: UND Number: N
Key 7	Action: UND Number: N
Key 8	Action: UND Number: N
Key 9	Action: HUP Number: N
Key *	Action: REC1 Number: IXX
Key #	Action: LOGON Number: N
TIMEOUT	Action: UTRF Number: 11

## Other Notes

Call Forwarding to a mailbox is not allowed.



## Required Hardware and Software

- One DTMF Receiver (P/N 43541)
- One Single Line Ringer Box (P/N 2089P)
- Phone System Software B

In addition, each Voice Mail port must be connected to a port on the Analog Card (P/N 43621).

## Voice Mail Availability

This phone system is available on the NVM-2000CA with Software Version 8.01 or higher.

## Phone System Programming

### To define the Voice Mail extensions:

#### FF3 Key - Telephone Type

Use this program to assign type 10 (Voice Mail AEC) to each Voice Mail extension (that is, each extension that you plan on connecting to the the Voice Mail ports).

### To set up Hunt Groups that contain the Voice Mail extensions:

#### FF4 Key - Hunt-Group Extension

Use this program to assign all the Voice Mail extensions to a Hunt-Group (1–8).

**Note:** For example, if you want CO1 to be answered by a different set of "company greetings" than CO2, make sure that all the Voice Mail extensions are not in the same group.

**To explain further:** Suppose that Voice extensions 11, 12, 13 are connected to ports 1, 2, and 3. Since company greetings are assigned via an Answering Schedule Table to ports and not to COs, you must make CO1 and CO2 ring different ports in order to get different greetings for the COs. To make the COs ring different ports, you could assign Extensions 11 and 12 to one Hunt Group and Extension 13 to another. Then use one of the ringing programs (FF4 Key) to make CO1 ring one Hunt Group and CO2 ring the other. If you use this CO scenario, make sure that you keep track of which COs ring which ports. You will need this information later.

#### FF4 Key - Hunt-Group Search Methods

Use this program to assign a type (0, 1, or 2) to the Voice Mail Hunt Group (1-8).

#### FF4 Key - Transfer Extension Number

Use this program to select an overflow extension for the Voice Mail Hunt-Group. When a call ends its search through a Voice Mail Hunt-Group, the phone system will send the call to the overflow extension (destination).

#### FF4 Key - Transfer Timer

Use this program to set the amount of time that a call should ring an extension in the Voice Mail Hunt Group, before the call will hunt for the next extension in the group.

## Phone System Programming (cont'd)

**To set up Hunt Groups that contain the Voice Mail extensions:**

### **FF4 Key - Pilot Extension Number for Hunt Group**

Use this program to assign a pilot extension number (11–69, 101–699) to a Voice Mail Hunt Group (1–8). Users will dial this number from their extensions to access the Voice Mail.

**To have the Automated Attendant answer a CO line as soon as it rings in, use the following programs:**

### **FF4 Key - Daytime CO-Line Ringing**

Use this program to make a CO immediately ring a Voice Mail Hunt Group Pilot Number (151–158) during the day mode. Pilot Numbers 151–158 correspond to Hunt Groups 1–8. So if the Voice Mail Hunt Group is Hunt Group 7, make the CO ring Hunt Group Pilot Number 157.

### **FF4 Key - Nighttime CO-Line Ringing**

Use this program to make a CO immediately ring a Voice Mail Hunt Group Pilot number (151–158) during the night mode. Pilot Numbers 151–158 correspond to Hunt Groups 1–8. So if the Voice Mail Hunt Group is Hunt Group 7, make the CO ring Hunt Group Pilot Number 157.

**To have the Automated Attendant answer a CO line after a delay, use the following programs:**

### **FF4 Key - Hunt-Group Daytime Delayed-Ring Tables**

Use this program to make a CO ring a Voice Mail Hunt Group Pilot number (151–158) during the day mode, but only after a delay. Pilot Numbers 151–158 correspond to Hunt Groups 1–8. So if the Voice Mail Hunt Group is Hunt Group 7, make the CO ring Hunt Group Pilot Number 157.

### **FF4 Key - Hunt-Group Nighttime Delayed-Ring Tables**

Use this program to make a CO ring a Voice Mail Hunt Group Pilot number (151–158) during the night mode, but only after a delay. Pilot Numbers 151–158 correspond to Hunt Groups 1–8. So if the Voice Mail Hunt Group is Hunt Group 7, make the CO ring Hunt Group Pilot Number 157.

### **FF1 Key - Incoming Ring Delay Timer**

Use this program to determine how long a CO rings an extension before the call will ring a Voice Mail Hunt Group Pilot Number(151–158).

## Phone System Programming (cont'd)

### Miscellaneous programming:

#### **FF3 Key - Multibutton Ringback Tone with Busy Signal**

Use this program to enable a busy signal for each Multibutton set, so that the Voice Mail will know when the Multibutton extension is busy. This program is required only if the Automated Attendant is set up for screened transfers (TRFs in the Voice Mail's Dial Action Table).

#### **FF1 Key - Voice Mail Busy Tone Mode**

Use this program to select busy tone. This lets the Voice Mail know when a conversation has ended on a the Voice Mail port.

#### **FF3 Key - Paging Group Extensions**

Use this program to make each extension part of a Paging Group. This must be done for the Meet-Me Paging feature to work. If the extension is not part of a Paging Group, the Meet-Me Page will not be broadcast over an extension's speaker.

#### **FF3 Key - Call Waiting**

Use this program to enable Call Waiting for each extension that wants to be able to receive Call Waiting beeps for Automated Attendant screened transfers.

#### **Check Call Forwarding**

1. Make sure that no extension has Call Forwarding enabled to a Voice Mail extension, whenever the Automated Attendant is in use.
2. Always cancel Call Forwarding at Extension 10/100.

#### **Cancel Call Forwarding:**

1. Lift the handset.
2. Dial **72**.
3. Hang up.

#### **Program a Message Waiting Key at a Multibutton extension:**

1. Make sure that the Message Waiting Lamp port is connected to an extension port in the telephone system. By default, the Message Waiting Lamp port is the highest numbered installed port.
2. Cross-connect an OPX port to a CO port.
3. Use the FF2 program to place the CO port (in Step 2) in its own Trunk Group, such as Group 86.
4. At a Multibutton phone, do the following:
  - Press **ON/OFF**, then press **PROGRAM** key.
  - Press the Function Key that should act as the Message Waiting Key.
  - Press **CONFERENCE** key.
  - Dial the last digit of Trunk Group.  
For example, press **6** for Trunk Group 86.
  - Dial the Voice Mail extension connected to the Message Waiting port.

## Phone System Programming (cont'd)

### Miscellaneous programming (cont'd):

#### Program a Message Waiting Key at a Multibutton extension (cont'd):

1. Press **REDIAL** key twice.
2. Press **#**.
3. Dial Multibutton's mailbox number (by default, it's the same as the extension number).
4. Press **ON/OFF**.
5. Label the Message Waiting Key for the user.

#### Use the "Extension Identification" procedure below at each Multibutton.

This procedure is required only if the Automated Attendant is not set up for screened transfers *and* extension users are forwarding their calls into their mailboxes. This procedure ensures that messages get left in the correct mailbox.

1. Press **ON/OFF**.
2. Press **PROGRAM** key.
3. Press **AUTO**.
4. Dial **\***.
5. Dial Multibutton's extension number.
6. Dial **\***.
7. Dial Multibutton's extension number.
8. Press **HOLD**.
9. Press **ON/OFF**.

## Voice Mail Programming System Options

### RNA/Busy, Hold Retrieval

DEFAULT: FP

### Lamp On String

DEFAULT: \*4X

### Lamp Off String

DEFAULT: \*5X

### Transfer String

DEFAULT: FW

## Voice Mail Programming (cont'd)

### System Options (cont'd)

#### **FAX detect dial string**

Not used

#### **Call pickup string**

Not used

#### **Flash timer**

DEFAULT: 50 (1 = 10ms)

#### **Wait for first/subsequent protocol digit**

Not used

#### **Wait after last protocol digit**

Not used

#### **Page/Meet-me Page hold timer**

DEFAULT: 25 sec

#### **Schedule to use in Day/Night mode**

Not used

## Mailbox Options

#### **Trunk Mailboxes**

Not used

#### **Park/Paging string**

For Subscriber Mailboxes, call is parked.

DEFAULT: FW/#00A

#### **Call Waiting string**

For Subscriber Mailboxes

DEFAULT: FWX1|3P

#### **Use Remote Logon as Direct Logon**

For Subscriber, Guest, Message Center Mailboxes

Not used

#### **Msg Wait Lamp**

For Subscriber, Guest, Message Center Mailboxes

DEFAULT: Yes

#### **Notification number 1**

For Subscriber Mailboxes

DEFAULT: Subscriber extension number followed by a "1"

## Voice Mail Programming (cont'd)

### Default Dial Action Table

The extension numbers for screened transfers (TRFs) or unscreened transfers (UTRFs) – as either specific extension numbers or XXXs -- must be placed in brackets followed by a "1".

<b>Key</b>	<b>Routing Option</b>
Key 0	Action: UTRF Number: [100]1
Key 1	Action: TRF Number: [XXX]1
Key 2	Action: TRF Number: [XXX]1
Key 3	Action: UND Number: N
Key 4	Action: UND Number: N
Key 5	Action: UND Number: N
Key 6	Action: UND Number: N
Key 7	Action: UND Number: N
Key 8	Action: UND Number: N
Key 9	Action: HUP Number: N
Key *	Action: REC1 Number: IV
Key #	Action: LOGON Number: N
TIMEOUT	Action: UTRF Number: [101]1

### Other Notes

Call Forwarding to a mailbox is allowed regardless of how Automated Attendant transfers are set up: either for screened transfers (TRFs) or for unscreened transfers (UTRFs). For more information, see the User's Guide.

## Required Hardware and Software

- CPU/MEM Card ZTN129, ZTN130, or ZTN142
- ZTN78 Tip and Ring Line Card (All Versions), OR ZTN742 Analog Line Card (Version 17 or higher)
- Each the Voice Mail port that you want to use must be connected to an analog port on one of these cards. An analog port that is connected to the Voice Mail will be referred to as a VM analog port. Its corresponding extension no. will be referred to as a VM analog extension.
- Version R2 or Higher. The phone programming shown below is derived from System 25 Administration Terminal Software.

## Voice Mail Availability

This phone system is available on the NVM-2000CA with Software Version 8.01 or higher.

## Phone System Programming

**To have the the Voice Mail Automated Attendant answer incoming trunks:**

### **MAIN MENU, Auxiliary Equipment, Voice Messaging System**

This programming identifies which of the VM analog ports should answer incoming trunks.

1. In the **C/SS/PP** fields, enter this information for each VM analog port that should answer trunks: the cabinet number (C), the station slot number (SS), and the actual port number (PP), press **Enter**.
2. In the **Board Type** field, use the spacebar to select Coverage/Auto-Attendant for each port.
3. Press **Enter** to reach the **Voice Messaging System Option** screen.
4. Make the following entries in the fields below:
  - In **Assign PDC for this VMS port (1-9999)**, enter the extension number for the station port
  - In **Make VMS Port Dial Accessible**, enter **Yes**.
  - In **Make VM port an Extended Station**, enter **No**.
  - In **Display ID for this VMS port**, enter **VMAIL**.
  - In **Answer these Directed Night Service Trunks**:  
If you want the Automated Attendant to answer any trunk that rings this port while the system is in the Night Mode, press **Enter**. Then enter the trunk number on the **TRUNKS** screen.

## Phone System Programming (cont'd)

### MAIN Menu, Groups, Direct Group Calling (DGC)

This programming assigns the VM analog ports in a DGC group. If a VM port is busy when a call comes in, the phone system looks for an available port in the DGC group.

1. Make these entries on the **DGC** screen:
  - **GROUP NUM** - Enter/select a number in the range 6–31.
  - **ACCESS NUM** - Enter an unused 3-digit access number for the group.
  - **NAME** - Enter **VMAIL**.
  - **LOCATION** - Enter the name of the physical location, if desired.
  - **DGC QUEUE** - Enter **No**.
  - **VMS MSG WAIT** - Enter **0**.
  - **ANNOUNCEMENT PDC** - Enter **0**.
  - **ANNOUNCEMENT DELAY** - Enter **0**.
2. When the cursor is in the **QUEUE GROUP** or **ACCESS NUM** field, press **Enter**.
3. Enter the Voice Mail analog extensions in the **GROUP MEMBERS** box.

### MAIN Menu, Groups, Coverage

This programming sends a station's unanswered/busy calls to the Voice Mail for coverage.

1. In the box labeled, **Coverage Group List/Group Number**, enter/select the Coverage Group Number. To compute this number, simply add 100 to the number you entered in the **GROUP NUM** field on the DGC screen (see previous page). For example, if you entered 6 in the **GROUP NUM** field, enter 106 in the **Coverage Group List/Group Number** box.
2. Press **Enter** to display the **Senders and Receivers** boxes. In the **Receivers** box, enter the Voice Mail analog extensions (if they are not already there). In the **Senders** box, enter all the extensions that should have their calls covered by the Voice Mail.
3. To set coverage options for internal calls, select **System Wide Features, Coverage Options** on the **MAIN Menu**.
4. To set coverage options for trunk calls, select **Voice Stations, User Stations, Modify a Voice Station** on the **MAIN Menu**.

### MAIN Menu, System Wide Features, Coverage Options

These options determine whether the phone system will send unanswered internal calls to the Voice Mail for coverage.

1. In **Allows coverage ringing on internal calls**, enter **Yes** to have the Voice Mail the calls.
2. In **Number of rings before calls are sent to coverage**, enter the number of times an internal call should ring an extension before being sent to the Voice Mail coverage.

### MAIN Menu, System Wide Features, Dial Plan

In **Send special disconnect code ##99 to VMS port**, enter **No**.

### MAIN Menu, Trunk Operations, Modify a Trunk

This programming makes an incoming trunk ring the Voice Mail.

1. Identify the physical port of the trunk in the **C/SS/PP** fields (cabinet, card slot, trunk port number), and press **NEXT** twice to reach the **TRUNK CLASS OF SERVICE** screen.
2. In **Assign to DGC Group**, enter the DGC group number (6–31) that contains the Voice Mail analog stations.

## Phone System Programming (cont'd)

### MAIN Menu, Voice Stations, User Stations, Modify a Voice Station

Use this programming to assign the Leave Word Call feature to a station button, so that the Voice Mail will cover a station's unanswered or busy trunk calls: After making an internal call to a busy or no-answer extension, the caller can press the Leave Word Call button, so that the Voice Mail will place a callback request in the called party's mailbox. When listening to messages, the called party will hear: **This callback indication arrived on date/time**. To respond to this callback request, the called party presses **MC**. the Voice Mail will then make an immediate call to the message sender.

1. In the *PDC* field, enter the station's extension number.
2. Press **NEXT** to reach the **STATION OPTIONS** Menu.
3. To assign a Leave Word Call button:  
Select **Buttons**, and assign that feature to the desired button.
4. To assign coverage:  
Select *Class of Service*. Fill in the *Group Coverage number* field with an appropriate number in the 100's range. In *Allow call coverage ringing on no answer (or busy)*, enter **Yes** if you wish the Voice Mail to cover any unanswered or busy trunk calls.
5. When done, press **Esc** to return to the **STATION OPTIONS** menu.

## Voice Mail Programming System Options

### RNA, Hold Retrieval

DEFAULT: FPPFP

### Busy, Hold Retrieval String

DEFAULT: FP

### Lamp On String

DEFAULT: #90X

### Lamp Off String

DEFAULT: #91X

### MWI Lamp Update time

Not used

### Transfer String

DEFAULT: FW

### Ringdown string

DEFAULT: None

## Voice Mail Programming (cont'd) System Options (cont'd)

### **FAX detect dial string**

DEFAULT: None

### **Call pickup string**

DEFAULT: W#9

### **Flash timer**

DEFAULT: 50 (1 = 10ms)

### **Wait for first protocol digit**

DEFAULT: 3 sec

### **Wait for subsequent protocol digits**

DEFAULT: 1 sec

### **Wait after last protocol digit**

DEFAULT: 1 sec

### **Page/Meet-me Page hold timer**

Not used

### **Modem Extension**

Not used

### **First Trunk equipment number**

Not used

### **Schedule to use in Day/Night mode**

DEFAULT: None

## Voice Mail Programming (cont'd)

### Mailbox Options

#### Trunk Mailboxes

Not used

#### Park/Paging string

For Subscriber Mailboxes

DEFAULT: FWJH/W799A, where J is the Subscriber extension

#### Call Waiting string

For Subscriber Mailboxes

DEFAULT: FWJ, where J is the Subscriber extension

#### Use Remote Logon as Direct Logon

For Subscriber, Guest, Message Center Mailboxes

DEFAULT: No

#### Msg Wait Lamp

For Subscriber, Guest, Message Center Mailboxes

DEFAULT: Yes

#### Notification number 1

For Subscriber Mailboxes

DEFAULT: Subscriber extension number

## Voice Mail Programming (cont'd)

### Default Dial Action Table

The extension numbers for screened transfers (TRFs) or unscreened transfers (UTRFs) — as either specific extension numbers or XXs — do not need to be placed in brackets or followed by a "1."

Key	Routing Option
Key 0	Action: UTRF Number: 0
Key 1	Action: TRF Number: XX
Key 2	Action: TRF Number: XX
Key 3	Action: TRF Number: XX
Key 4	Action: TRF Number: XX
Key 5	Action: TRF Number: XX
Key 6	Action: TRF Number: XX
Key 7	Action: UND Number: N
Key 8	Action: UND Number: N
Key 9	Action: HUP Number: N
Key *	Action: REC1 Number: IXX
Key #	Action: LOGON Number: N
TIMEOUT	Action: UTRF Number: 0

### Other Notes

Call Forwarding to a mailbox is allowed only if the Automated Attendant is set up for unscreened transfers.

## Required Hardware and Software

- One push-button receiver card: PBR-C (4N)-11KTU
- Each Voice Mail port must be connected to a SLT-F(1G)-10ADP, which in turn must be connected to a port on ESI-C (8)-11: a regular electronics card.
- Any software level is OK.

## Voice Mail Availability

This phone system is available on the NVM-2000CA with Software Version 8.01 or higher.

## Phone System Programming

### FIRST: About the Voice Mail Extensions

You must connect each the Voice Mail port that you want to use to an extension (Keyset) port in the Electra telephone system. The extension numbers assigned to the selected ports must be in the same 10's group. For example, all the Voice Mail extension numbers must be in the range 10-19, or 20-29, or 30-39, etc. Make a note of the selected port and extension numbers, because you will need them for programming. The default port-to-extension assignments are shown in Electra LK4 programming, Data No. 06. You can also use that Data No. to change the port-to-extension assignments, if necessary.

### LK1 System Mode Programming

#### Data No. 67 - Voice Mail Access Code Assignment

- **01 Remote Logon (Internal)**  
Enter \*\*\*1.
- **02 Direct Logon**  
Enter \*\*\*1.
- **03 Transfer Message**  
Enter \*\*\*2.
- **04 Record Message**  
Enter \*\*\*2.
- **05 Forward All Calls**  
Enter \*\*\*3.
- **06 Forward Busy**  
Enter \*\*\*4.
- **07 Forward No Answer**  
Enter \*\*\*5.
- **08 Remote Logon (Trunk)**  
Enter \*\*\*6.
- **09 DTMF Disconnect Signal**  
Enter 9999.
- **10 Message Wait Indication (set)**  
Enter \*4.
- **11 Message Wait Indication (cancel)**  
Enter \*5.

## Phone System Programming (cont'd)

### LK1 System Mode Programming (cont'd)

#### **Data No. 68 - Voice Mail DTMF Delay Timer**

Select **500** ms (.5 sec).

#### **Data No. 69 - Voice Mail DTMF Duration/Interdigit Time Selection**

Select **100/70** ms.

#### **Data No. 25 - Ring Transfer Selection**

Select **Yes** (the default setting).

#### **Data No. 34 - SLT Hookflash Signal Selection**

Select **Hold** (the default setting).

#### **Data No. 35 - Station Master Hunt Number Selection**

Select the first number of the 10's group that contains the Voice Mail extension numbers. For example, if the Voice Mail extensions are numbered from 20 through 29, select 20 as the Station Master Hunt Number. The Station Master Hunt Number (Pilot Number) lets an extension user easily access a Voice Mail extension by dialing the Station Master Hunt Number from an extension. The Electra will automatically "hunt" through all the Voice Mail extensions and give the caller the lowest-numbered available one.

#### **Data No. 64 - SLT Transfer Selection**

Select **Hangup**.

### LK4 Telephone Mode Programming

#### **Data No. 01 - SLT Connected Yes/No Selection**

Select **Yes** for each Voice Mail port.

#### **Data No. 03 - Internal Zone Paging Selection**

Select **None** for each Voice Mail port.

#### **Data No. 05 - DTMF/DP SLT TYPE SELECTION**

Select **MF** for each Voice Mail port.

### LK4 System Mode Programming

#### **Data No. 06 - Station Number Assignment**

Use this program to change the port-to-extension (station) assignments, if necessary.

#### **Data No. 07 - Voice Mail/SLT Selection**

Select **Yes** for each Voice Mail port.

#### **Data No. 14 - Voice Call Block Selection**

Select **Yes** for each Voice Mail port.

## Phone System Programming (cont'd)

### LK4 System Mode Programming (cont'd)

#### Data No. 15 - CO/PBX Ring Assignment (Day Mode)

For each Voice Mail port, select all trunk numbers that should ring the port during the Day mode.

#### Data No. 16 - CO/PBX Ring Assignment (Night Mode)

For each Voice Mail port, select all the trunk numbers that should ring that port during the Night mode.

## Connecting the Electra Pro I to the Voice Mail

You will need a Single Line Adaptor Box for each the Voice Mail port you wish to connect.

### To connect a the Voice Mail port to the Electra Pro I phone system:

1. Plug one end of a modular line cord into a port connector. Plug the other end into a RJ14-to-RJ11 adaptor or RJ14 jack.
2. Plug L1 or the RD/GR pair into the TEL jack on the Single Line Adaptor Box. L1 always connects to the lower-numbered port in the port connector.
3. Plug L2 or the BK/YL pair into the TEL jack on another Single Line Adaptor Box.
4. Connect a modular cord to the ESI jack on one of the Single Line Adaptor Boxes. Plug the other end of the modular cord into an Electra Pro I Keyset port.
5. Repeat step 3 for the other Single Line Adaptor Box.

## Voice Mail Programming System Options

### RNA/Busy, Hold Retrieval

DEFAULT: FP

### Lamp On String

DEFAULT: \*4X

### Lamp Off String

DEFAULT: \*5X

### Transfer String

DEFAULT: FW

## Voice Mail Programming (cont'd) System Options (cont'd)

### Ringdown string

DEFAULT: None

### FAX detect dial string

Not used

### Call pickup string

Not used

### Flash timer

DEFAULT: 60 (1 = 10ms)

### Wait for first/subsequent protocol digit

DEFAULT: 3 sec

### Wait after last protocol digit

DEFAULT: 1 sec

### Page/Meet-me Page hold timer

DEFAULT: 25 sec

### Schedule to use in Day/Night mode

Not used

## Mailbox Options

### Trunk Mailboxes

Not used

### Park/Paging string

For Subscriber Mailboxes, call is parked.

DEFAULT: FW/70MM

### Use Remote Logon as Direct Logon

For Subscriber, Guest, Message Center Mailboxes

DEFAULT: No

### Msg Wait Lamp

For Subscriber, Guest, Message Center Mailboxes

DEFAULT: Yes

### Notification number 1

For Subscriber Mailboxes

DEFAULT: Subscriber extension number

## Voice Mail Processing (cont'd)

### Default Dial Action Table

The extension numbers for screened transfers (TRFs) or unscreened transfers (UTRFs) do not need to be placed in brackets or followed a "1."

Key	Routing Option
Key 0	Action: UTRF Number: 10
Key 1	Action: TRF Number: XX
Key 2	Action: TRF Number: XX
Key 3	Action: UND Number: N
Key 4	Action: UND Number: N
Key 5	Action: UND Number: N
Key 6	Action: UND Number: N
Key 7	Action: UND Number: N
Key 8	Action: UND Number: N
Key 9	Action: HUP Number: N
Key *	Action: REC1 Number: IXX
Key #	Action: LOGON Number: N
TIMEOUT	Action: UTRF Number: 10

### Other Notes

Call Forwarding to a mailbox is allowed only if the Automated Attendant is set up for unscreened transfers.



## Required Hardware and Software

- Each Voice Mail port must be connected to a port on the SLI-F (8G)-21KTU Card.
- Any software level is OK.

## Voice Mail Availability

This phone system is available on the NVM-2000CA with Software Version 8.01 or higher.

## Phone System Programming

### LK1 System Mode Programming

#### LK 1 - 11 System Transfer/Camp-On Selection

Select **Yes** (the default setting).

#### LK 3 - 02 SLT Hookflash Signal Selection

Select **Hold** (the default setting).

#### LK 3 - 07 Voice Mail Digit Add Assignment

Enter **\*\*\*3** for the forwarding string.

#### LK 3 - 08 Voice Mail DTMF Delay Timer

Select **1** sec.

#### LK 3 - 10 Voice Mail DTMF Duration/Interdigit Time Selection

Select **100/70** ms.

### LK4 Telephone Mode Programming

#### Data No. 01 - CO/PBX Ring Assignment (Day Mode)

For each Voice Mail port, select all the trunk numbers that should ring that port during the Day Mode.

#### Data No. 02 - CO/PBX Ring Assignment (Night Mode)

For each Voice Mail port, select all the trunk numbers that should ring that port during the Night Mode.

#### Data No. 10 - Station Number Assignment

Use this program to change the port-to-station assignments, if necessary.

#### Data No. 14 - Intercom Master Hunt Number Selection

Select a master hunt number.

## Phone System Programming (cont'd)

### LK4 Telephone Mode Programming (cont'd)

#### **Data No. 15 - Intercom Master Hunt Number Forward Assignment**

Assign each extension to the master hunt number.

#### **Data No. 35 - Voice Mail/SLT Selection**

Select **Yes** for each Voice Mail port.

#### **Data No. 93 - Internal Zone Paging Selection**

Select **None** for each Voice Mail port.

#### **Data No. 95 - DTMF/DP SLT TYPE SELECTION**

Select **DTMF** for each Voice Mail port.

#### **Data No. 96 - SLT Connected Yes/No Selection**

Select **Yes** for each Voice Mail port.

## Voice Mail Programming System Options

### **RNA/Busy, Hold Retrieval**

DEFAULT: FP

### **Lamp On String**

DEFAULT: \*4X

### **Lamp Off String**

DEFAULT: \*5X

### **Transfer String**

DEFAULT: FW

### **Ringdown string**

DEFAULT: None

### **FAX detect dial string**

Not used

### **Call pickup string**

Not used

## Voice Mail Programming (cont'd)

### System Options (cont'd)

#### Flash timer

DEFAULT: 60 (1 = 10ms)

#### Wait for first/subsequent protocol digit

DEFAULT: 3 sec

#### Wait after last protocol digit

DEFAULT: 1 sec

#### Page/Meet-me Page hold timer

DEFAULT: 25 sec

#### Schedule to use in Day/Night mode

Not used

## Mailbox Options

#### Trunk Mailboxes

Not used

#### Park/Paging string

For Subscriber Mailboxes, call is parked.

DEFAULT: FW/51MM

#### Call Waiting string

For Subscriber Mailboxes

DEFAULT: FW/51MM

#### Use Remote Logon as Direct Logon

For Subscriber, Guest, Message Center Mailboxes

DEFAULT: No

#### Msg Wait Lamp

For Subscriber, Guest, Message Center Mailboxes

DEFAULT: Yes

#### Notification number 1

For Subscriber Mailboxes

DEFAULT: Subscriber extension number

## Voice Mail Programming (cont'd)

### Default Dial Action Table

The extension numbers for screened transfers (TRFs) or unscreened transfers (UTRFs) — as either specific extension numbers or XXs — do not need to be placed in brackets or followed by a "1."

Key	Routing Option
Key 0	Action: UTRF Number: 0
Key 1	Action: TRF Number: XX
Key 2	Action: TRF Number: XX
Key 3	Action: TRF Number: XX
Key 4	Action: TRF Number: XX
Key 5	Action: TRF Number: XX
Key 6	Action: TRF Number: XX
Key 7	Action: UND Number: N
Key 8	Action: UND Number: N
Key 9	Action: HUP Number: N
Key *	Action: REC1 Number: IXX
Key #	Action: LOGON Number: N
TIMEOUT	Action: UTRF Number: 0

### Other Notes

Call Forwarding to a mailbox is allowed only if the Automated Attendant is set up for unscreened transfers.

## Required Hardware and Software

- Each Voice Mail port must be connected to a port on the SL Card.
- One VMI-E-ETU
- Software CPU-EB3 Series 3 or higher

## Voice Mail Availability

This phone system is available on the NVM-2000CA with Software Version 8.01 or higher.

## Phone System Programming

### Memory Block 2B8 - VMI Assignment

Use this Memory Block to assign VMI-E ETU channels as VMI ports. You can also use this Memory Block to allow automatic in-band DTMF signaling to the the Voice Mail, so that Call Forwarding to the Voice Mail will work correctly. (See also Memory Block 2D2 below and *Other Notes* at the end of the Mark II Integration Notes.)

### Memory Block 2D2 - System Time Base Assignment II

Use this Memory Block to set the time delay before the in-band DTMF signaling for VMI forwarded calls is sent. Set the delay to .5 sec. (See also Memory Block 2D8 above and *Other Notes* at the end of the Mark II Integration Notes.)

### Memory Block 2B4 - DIT Assignment

Use this Memory Block to assign specific trunks to a specific VMI port, so that the Voice Mail will answer the trunks. You can also use this Memory Block to assign specific trunks to a specific VMI port when the system is in the Night mode (ANA).

### Memory Block 2C4 - Voice Mail Hunt Group Assignment

Use this Memory Block to assign up to 4 VMI-E ETU extension numbers to a Voice Mail Hunt Group. When a user dials the Voice Mail Hunt Group Access Code (Default 63) from an extension, the Voice Mail will hunt for the first idle extension in the Hunt Group.

### Memory Block 3C1 - Telephone Name Assignment

Use this Memory Block to assign a name to each VMI-E ETU channel. When the Voice Mail sends a Message Waiting Lamp update to an extension, this name will be included on a Multi-line Terminal's display.

### Memory Block 3B5 to 3B8 Station Hunt Assignment

Use this Memory Block to assign a station (virtual and/or VMI-E ETU extension numbers) to a Station Hunt Group. You can assign up to 16 extensions to each Station Hunt Group. Eight of these can be VMI-E ETU extension numbers.

## Voice Mail Programming System Options

Listed below are two types of Voice Mail System Options:

- Ones that the Mark II does not use
- Ones that have default values not listed in the Programming Guide

### **RNA, Hold Retrieval**

DEFAULT: FP

### **Busy, Hold Retrieval String**

DEFAULT: FP

### **Lamp On String**

DEFAULT: 541X

### **Lamp Off String**

DEFAULT: 54\*X

### **Transfer String**

DEFAULT: FW

### **Ringdown string**

DEFAULT: None

### **FAX detect dial string**

Not used

### **Call pickup string**

Not used

### **Flash timer**

DEFAULT: 60 (1 = 10ms)

### **Wait for first/subsequent protocol digit**

Not used

### **Wait after last protocol digit**

Not used

### **Page/Meet-me Page hold timer**

DEFAULT: 25 sec

## Voice Mail Programming (cont'd)

### Mailbox Options

#### Schedule to use in Day mode

Not used

#### Schedule to use in Night mode

Not used

#### Trunk Mailboxes

Not used

#### Park/Paging string

For Subscriber Mailboxes, call is parked.

DEFAULT: FW/554M

#### Call Waiting string

For Subscriber Mailboxes

DEFAULT: FWJ, where J = Subscriber extension

#### Use Remote Logon as Direct Logon

For Subscriber, Guest, Message Center Mailboxes

DEFAULT: No

#### Msg Wait Lamp

For Subscriber, Guest, Message Center Mailboxes

DEFAULT: Yes

#### Notification number 1

For Subscriber Mailboxes

DEFAULT: Subscriber extension number

## Voice Mail Programming (cont'd)

### Default Dial Action Table

The extension numbers for screened transfers (TRFs) or unscreened transfers (UTRFs) do not need to be placed in brackets or followed a "1."

Key	Routing Option
Key 0	Action: UTRF Number: 0
Key 1	Action: TRF Number: XXX
Key 2	Action: UND Number: N
Key 3	Action: UND Number: N
Key 4	Action: UND Number: N
Key 5	Action: UND Number: N
Key 6	Action: UND Number: N
Key 7	Action: UND Number: N
Key 8	Action: UND Number: N
Key 9	Action: HUP Number: N
Key *	Action: REC1 Number: IV
Key #	Action: LOGON Number: N
TIMEOUT	Action: UTRF Number: 0

## Voice Mail Programming (cont'd)

### Other Notes

Call Forwarding to a mailbox is allowed only if the Automated Attendant is set up for unscreened transfers. To have Call Forwarding work, you must also do the following:

1. When creating Call Routing Mailboxes:  
set *Play Default Messages* to **No** and *Time Limit for dialing commands* to **1 sec**.
2. Create a different Dial Action Table number for each Call Routing Mailbox.  
If you plan to have the Automated Attendant use two different mailboxes to answer calls — let's say one for the day and one for the night — then you must also create two of the Call Routing Mailboxes described above.
3. Assign the Call Routing Mailboxes (created in Step 1) to an Answering Schedule Table. Use the day/date/time schedules you plan on using for the mailboxes that will answer the calls by playing a recording to the outside callers.
4. Assign the Answering Schedule Table to every port.
5. Customize the Dial Action Tables you assigned to the Call Routing Mailboxes in Step 1.
  - Assign **REC1 XXX** to the key that matches the first digit of the extension numbers. For example, if the extension numbers begin with 2, assign **REC1 XXX** to Key 2.
  - Assign the mailbox that should answer outside calls: the one with the recording[s] to the TIMEOUT option. For example:  
Suppose Call Routing Mailbox 400 is in the AST from 8 AM to 5 PM and it has DAT 37.  
And suppose Call Routing Mailbox 500 is the mailbox that will actually greet callers from 8 AM to 5 PM with the recorded Welcome Message and Instruction Menu. Then enter GOTO 500 for the TIMEOUT Option in DAT 37.



## Required Hardware and Software

To be provided

## Voice Mail Availability

This phone system is available on the NVM-2000CA with Software Version 8.01 or higher.

## Phone System Programming

### Program 69 - Station Hunt Groups

Use this program to assign the Voice Mail extensions to a Station Hunt Group.

### Program 76 - Hunt Group Ring Modes

Use this program to assign a ring pattern to the Voice Mail Station Hunt Group.

### Program 62 - Day Ringing Assignment

Use this program to have a CO line ring the Voice Mail during the Day Mode. To do this, make sure that the CO rings at all the Voice Mail extensions.

### Program 61 - Night Ringing Assignment

Use this program to have a CO line ring the Voice Mail during the Night Mode. To do this, make sure that the CO rings at all the Voice Mail extensions.

## Voice Mail Programming

### System Options

Listed below are two types of the Voice Mail System Options:

- Ones that the ProStar 816 does not use
- Ones whose default values are not listed in the Programming Guide

#### RNA/Busy, Hold Retrieval

DEFAULT: FP

#### Lamp On String

DEFAULT: XF4

#### Lamp Off String

DEFAULT: None

#### Transfer String

DEFAULT: FW

## Voice Mail Programming (cont'd)

### System Options

#### Ringdown string

DEFAULT: None

#### FAX detect dial string

Not used

#### Call pickup string

Not used

#### Flash timer

DEFAULT: 60 (1 = 10ms)

#### Wait for first protocol digit

Not used

#### Wait for subsequent protocol digits

Not used

#### Wait after last protocol digit

Not used

#### Page/Meet-me Page hold timer

DEFAULT: 25 sec

#### Schedule to use in Day/Night mode

Not used

## Mailbox Options

#### Trunk Mailboxes

Not used

#### Park/Paging string

For Subscriber Mailboxes, call is parked.

DEFAULT: FW6/W@0A

#### Call Waiting string

For Subscriber Mailboxes

DEFAULT: FWJ, where J = Subscriber extension

## Voice Mail Programming (cont'd)

### Mailbox Options (cont'd)

#### **Use Remote Logon as Direct Logon**

For Subscriber, Guest, Message Center Mailboxes  
Not used

#### **Msg Wait Lamp**

For Subscriber, Guest, Message Center Mailboxes  
DEFAULT: Yes

#### **Notification number 1**

For Subscriber Mailboxes  
DEFAULT: Subscriber extension number

## Voice Mail Programming (cont'd)

### Default Dial Action Table

The extension numbers for screened transfers (TRFs) or unscreened transfers (UTRFs) do not need to be placed in brackets or followed a "1."

Key	Routing Option
Key 0	Action: UTRF Number: 0
Key 1	Action: TRF Number: XX
Key 2	Action: TRF Number: XX
Key 3	Action: TRF Number: XX
Key 4	Action: UND Number: N
Key 5	Action: UND Number: XX
Key 6	Action: UND Number: N
Key 7	Action: UND Number: N
Key 8	Action: UND Number: N
Key 9	Action: HUP Number: N
Key *	Action: REC1 Number: IXX
Key #	Action: LOGON Number: N
TIMEOUT	Action: UTRF Number: 0

### Other Notes

Call Forwarding to a mailbox is not allowed.

## Required Hardware and Software

- Each Voice Mail port must be connected to a port on the MSLC2 card: V04. Use circuits 5, 6, 7, and 8. To connect more Voice Mail ports to the ProStar, you must install an additional MSLC2 Card.
- ProStar 56ex/120mx KSU: All 93.05.06
- One CPU: V0091.04.27

## Voice Mail Availability

This phone system is available on the NVM-2000CA with Software Version 8.01 or higher.

## Phone System Programming

### **Program 33 - Stn Hunt to VM**

Program the Voice Mail extensions into a Hunt Group.

### **Program 60 - Trk Ring to VM**

Use to make trunks, ring the Voice Mail Hunt Group when the trunks should be answered by the Voice Mail.

### **Program 45 - Enable VM Ports**

Use to enable Voice Mail extension ports.

### **Program 94 - Integration Protocol**

*DTMF Ext. Numbers - Used*

*DTMF Call Type - Used*

Direct Call: #

Recall: B

Forward All - A

Forward Busy - A

Forward N/A - B

*DTMF CO Numbers - Used*

CO Call ID - D

*DN2 Information - Used*

*Progress Tones - Normal*

*Disconnect Signal DTMF - Used*

Disconnect Signal DTMF Digit - 9

*Separator Digit - Used*

Separator Digit DTMF Digit: #

## Phone System Programming (cont'd)

### Program 29 - Fwd ICM to VM/AA

Enable to forward ICM calls to the Voice Mail.

### Overflow

If overflows calls are programmed to go to a Voice Mail Hunt Group, create a Message Center Mailbox. The mailbox number should be the same as the Voice Mail Hunt Group number.

### Page

To pick up a call transferred to your extension by the the Voice Mail Page feature, dial **65** and your extension. Increase the value of the transfer recall timer, so that the called party can receive the call.

## Voice Mail Programming System Options

### RNA, Hold Retrieval

DEFAULT: FP

### Busy, Hold Retrieval String

DEFAULT: FP

### Lamp On String

DEFAULT: 41X

### Lamp Off String

DEFAULT: 42X

### Transfer String

DEFAULT: FW

### Ringdown string

DEFAULT: None

### FAX detect dial string

Not used

### Call pickup string

DEFAULT: None

### Flash timer

DEFAULT: 60 (1 = 10ms)

## Voice Mail Programming (cont'd)

### System Options (cont'd)

#### Wait for first protocol digit

DEFAULT: 3 sec

#### Wait for subsequent protocol digits

DEFAULT: 1 sec

#### Wait after last protocol digit

Not used

#### Page/Meet-me Page hold timer

Not used

#### Schedule to use in Day mode

Not used

#### Schedule to use in Night mode

Not used

## Mailbox Options

#### Trunk Mailboxes

Not used

#### Park/Paging string

For Subscriber Mailboxes, call is parked.

DEFAULT: FWJMMHW/550MM, where J = Subscriber extension

#### Call Waiting string

For Subscriber Mailboxes

DEFAULT: FWJ, where J is the Subscriber extension number

#### Use Remote Logon as Direct Logon

For Subscriber, Guest, Message Center Mailboxes

DEFAULT: No

#### Msg Wait Lamp

For Subscriber, Guest, Message Center Mailboxes

DEFAULT: Yes

#### Notification number 1

For Subscriber Mailboxes

DEFAULT: Subscriber extension number

## Voice Mail Programming (cont'd)

### Default Dial Action Table

The extension numbers for screened transfers (TRFs) or unscreened transfers (UTRFs) — as either specific extension numbers or XXs — do not need to be placed in brackets followed by a "1."

<b>Key</b>	<b>Routing Option</b>
Key 0	Action: UTRF Number: 0
Key 1	Action: UND Number: N
Key 2	Action: TRF Number: XXX
Key 3	Action: UND Number: N
Key 4	Action: UND Number: N
Key 5	Action: UND Number: N
Key 6	Action: UND Number: N
Key 7	Action: UND Number: N
Key 8	Action: UND Number: N
Key 9	Action: HUP Number: N
Key *	Action: REC1 Number: IV
Key #	Action: LOGON Number: N
TIMEOUT	Action: UTRF Number: 0

### Other Notes

Call Forwarding to a mailbox is allowed, regardless of the Automated Attendant setup.

## Required Hardware and Software

### ■ Hardware Requirements

Every two Voice Mail ports requires an ATI-D (Analog Terminal Interface) box that has two digital ports from the phone system.

### ■ Software Requirements

Version 14C is highly recommended, because it supplies a positive disconnect supervision to the analog port and Ring-No-Answer *Call Forwarding to a Mailbox* of transferred calls. The minimum required software version is 11A. Version 14A is required for Ring-No-Answer *Call Forwarding to a Mailbox*.

## Voice Mail Availability

This phone system is available on the NVM-2000CA with Software Version 8.01 or higher.

## Phone System Programming

### Dial 14 - Timed Hold Recall

When the Automated Attendant is set up for screened transfers —requiring a TRF entry in the Call Routing Mailbox's Dial Action Table — this timer should be set to a value greater than that of the Call Routing Mailbox's *Rings before redirect transfer* timer.

### Dial 11 - Unanswered Call Transfer Recall Time

When the Automated Attendant is set up for unsupervised transfers —requiring a UTRF entry in the Call Routing Mailbox's Dial Action Table — this timer should be set to a value greater than that of the Call Routing Mailbox's *Rings before redirect transfer* timer. If the Voice Mail Paging feature is to be used, this timer should be set at least 10 seconds longer than the longest Paging announcement recorded by a Subscriber.

### Dial 38 - Abandoned Hold Release

This timer should be set to "sink up" with the open loop flash disconnect (drop pulse) time that the Central Office is sending.

### Dial 55 - All Call and Tone Paging

If the the Voice Mail Paging feature is going to be used, program each Voice Mail ATI port with the ability to originate paging on the desired zone. For example, to make page announcements come over Zone X, make sure that each Voice Mail ATI can originate pages over Zone X.

### Dial 53, 21 - Call Forward on Busy/Ring No Answer

If the Automated Attendant is set up for unsupervised transfers, use this program to:

- Allow *Call Forwarding to a Mailbox* on Busy or Ring-No-Answer
- Set the number of rings before an extension's unanswered
- Forward calls to Voice Mail. The number of rings should be set for less than the value of *Unanswered Call Transfer Recall Timer*.

## Phone System Programming (cont'd)

### **Dial 16 - Tone First Intercom Signaling**

This must be set to *Tone First*.

### **Dial 54, 2 - Delay Ring Line/Station Assignment**

Enter each line and Voice Mail port that should be answered on a delayed-ring basis.

### **Dial 54, 3 - Night Ring (Transfer) Line/Station Assignments**

When the phone system is placed in Night Mode, enter each line and Voice Mail port that should be answered.

### **Dial 53, 18 - Intercom Hunt Group**

Program all Voice Mail (ATI-D) ports into a Circular Hunt Group.

### **Dial 53, 06 - Message Wait Originate**

Enable this feature for each Voice Mail ATI-D that will perform Message Waiting callouts. It is recommended that you use only one port for callouts. By default, the Voice Mail sends Message Waiting callouts on the highest numbered installed Voice Mail port.

### **Dial 53, 09 - Ringing Line Preference**

Enable Ringing Line Preference for each Voice Mail ATI-D.

### **Dial 06 - Station Names**

Assign a name to each Voice Mail ATI-D extension (typically, "Voice Mail 1," "Voice Mail 2," etc.).

### **Dial 53, 07 - ATI thru dialing**

Enable this feature for each Voice Mail ATI-D.

### **Dial 53, 32 - Assign Voice Mail Ports**

Enable this feature for each Voice Mail ATI-D.

### **Dial 54, 1 - Assign Direct Ringing for Automatic Attendant Operation**

Assign any line that should be answered by the Automated Attendant to each ATI-D extension.

### **Dial 25 - Automatic Transfer of Voice Mail**

Use this program only if the Automated Attendant is set up for unscreened transfers. Do **NOT** enable this feature if the Automated Attendant is set up for screened transfers.

### **Dial 43 - Voice Mail line ID**

Use this program to assign a Trunk Mailbox to an incoming line: Enter **0#** and a suffix. The suffix represents the line number and **MUST** have the same number of digits as in a typical extension number. By default, the suffix that the Voice Mail creates for line 1 is 071, for line 2 is 072, etc.

### **Dial 29 - Feature Inhibit Programming**

If you are having trouble getting a particular feature to work, make sure that you have not inadvertently disabled the feature in the Feature Inhibit Programming.

## Voice Mail Programming System Options

### **RNA, Hold Retrieval**

DEFAULT: FP

### **Busy, Hold Retrieval String**

DEFAULT: FP

### **Lamp On String**

DEFAULT: \*3X

### **Lamp Off String**

DEFAULT: #3X

### **MWI Lamp Update time**

Not used

### **Transfer String**

DEFAULT: FW

### **Ringdown string**

DEFAULT: None

### **FAX detect dial string**

DEFAULT: FW12

### **Call pickup string**

DEFAULT: #90

### **Flash timer**

DEFAULT: 50 (1 = 10ms)

### **Wait for first protocol digit**

DEFAULT: 3 sec

### **Wait for subsequent protocol digits**

DEFAULT: 1 sec

### **Wait after last protocol digit**

DEFAULT: 1 sec

### **Page/Meet-me Page hold timer**

Not used

## Voice Mail Programming (cont'd)

### System Options (cont'd)

#### Modem Extension

Not used

#### First Trunk equipment number

Not used

#### Schedule to use in Day/Night mode

Not used

#### Immediate Self Test of Port (s)

Not used

#### Port Self Test Timer

Not used

## Port Options

#### Port Self Test

Not used

## Mailbox Options

#### Trunk Mailboxes

Allowed

#### Park/Paging string

For Subscriber

DEFAULT: FWJHW/87A, where J = Subscriber extension number

#### Call Waiting string

For Subscriber Mailboxes

DEFAULT: FWJ:HWJ\*01H, where J = Subscriber extension number

#### Use Remote Logon as Direct Logon

For Subscriber, Guest, Message Center Mailboxes

DEFAULT: No

#### Msg Wait Lamp

For Subscriber, Guest, Message Center Mailboxes

DEFAULT: Yes

#### Notification number 1

For Subscriber Mailboxes

DEFAULT: Subscriber extension number

## Voice Mail Programming (cont'd)

### Default Dial Action Table

The extension numbers for screened transfers (TRFs) or unscreened transfers (UTRFs) -- as either specific extension numbers or XXs -- do not need to be placed in brackets or followed by a "1."

<b>Key</b>	<b>Routing Option</b>
Key 0	Action: UTRF Number: 10
Key 1	Action: TRF Number: XX
Key 2	Action: TRF Number: XX
Key 3	Action: TRF Number: XX
Key 4	Action: TRF Number: XX
Key 5	Action: UND Number: N
Key 6	Action: UND Number: N
Key 7	Action: UND Number: N
Key 8	Action: UND Number: N
Key 9	Action: HUP Number: N
Key *	Action: REC1 Number: IXX
Key #	Action: LOGON Number: N
TIMEOUT	Action: UTRF Number: 10

## Voice Mail Programming (cont'd)

### Other Notes

#### About Paging

**To pickup a Park/Page from any extension:**

1. Dial \* 4.
2. Dial extension number.

#### About Call Forwarding to a Mailbox

Call Forwarding to a Mailbox is allowed, only if the Automated Attendant is set up for unscreened transfers (UTRFs in the Dial Action Table).

**To activate/cancel mailbox call forwarding for all of an extension's calls:**

1. Press **ICM**.
2. Dial \* 5 to activate.  
OR  
Dial # 5 to cancel.
3. Dial the Voice Mail extension number.

**To activate or cancel mailbox call forwarding for an extensions' personal intercom and prime line calls:**

1. Press **ICM**.
2. Dial \* 05 to activate.  
OR  
Dial # 05 to cancel
3. Dial Voice Mail extension number.

**To assign Call Forwarding to a key, use the Call Forward Button Program (Dial 56, 11), so that an extension user can activate Call Forwarding to a Mailbox by pressing the key:**

#### About Transfer to a Mailbox

**To transfer a caller directly into someone's mailbox:**

1. Press the **Transfer** key.
2. Dial the first Voice Mail extension.
3. Wait for the voice prompts: *Please enter your mailbox number.*
4. Dial \* and the mailbox number of the person you are calling.
5. Hang up.

**A quick and efficient way of transferring a caller to a mailbox is to program an individual Voice Mail Transfer key on the extension's phone.**

1. Press Intercom \*\*1.
2. Press the button that should be the Voice Mail **Transfer** key.
3. Dial 6 and the first Voice Mail extension in the VM group.
4. Press **SPKR**.

**To transfer an outside call to a mailbox using Voice Mail Transfer key:**

1. Press Voice Mail **Transfer** key.
2. Press the DSS button for the extension.  
OR  
Dial the extension manually.
3. Hang up.

## Required Hardware and Software

### ■ Hardware

- Starplus 1428 Digital Basic KSU (or 2856 SPD)  
For 1428: You need a 2 CO/SLT Card (2 CO Lines, 4 Single Line Ports) for every four Voice Mail ports.  
For 2856: You need a 4 x 8 CO/SLT Card (2 CO Lines, 8 Single Line Ports) for every eight Voice Mail ports
- 48 VDC power supply with ring generator
- The 1428 has one built-in DTMF receiver. Depending on incoming call traffic to the Voice Mail, you may also need a DTMF receiver module (RM). For the 2856, you will definitely need at least one DTMF receiver module (RM).

### ■ Software

Enhanced

## Voice Mail Availability

This phone system is available on the NVM-2000CA with Software Version 8.01 or higher.

## Phone System Programming

### **Flash 65, Flexible Button 12 Voice Mail Station Assignments**

Use this program to assign up to eight 3-digit SLT stations to a Voice Mail Pilot Group. If you want to use more than 8 stations, assign them to another Voice Mail Pilot group.

### **Flash65, Flexible Button 1-8 Set Up Vodavi Voice Mail Groups**

Use this program to select a Voice Mail Pilot Number (440-447) for the Voice Mail Pilot groups (1–8) respectively.

### **Flash 65, Flexible Button 9 Alternate Voice Mail Groups**

Use this program to link the groups and enter the second group number, when there is more than one Voice Mail Pilot Group.

### **Flash 66, Flexible Button 1 Voice Mail Inband Signaling, Table 0**

This is the table that will be referenced for *Leave Mail Index Entry Program* (see Flash 65, Flexible Button 10 on the next page). In this Table, press **0** (for *prefix required*) and **\***.

### **Flash 66, Flexible Button 2 Voice Mail Inband Signaling, Table 1**

This is the table that will be referenced for *Retrieve Mail Index* (see Flash 65, Flexible Button 11 on the next page). In this Table, press **0** (for *prefix required*) and **#**.

### **Flash 66, Flexible Button 9 Voice Mail Disconnect Table**

This is the disconnect string that will be sent to the Voice Mail upon hang up of an internal or CO call. Enter **9999**.

## Phone System Programming (cont'd)

### Flash 40, Flexible Button 6 Loop Supervision Program

For each line answered by the Voice Mail, which has an open loop flash disconnect supervision, enter 1–9, (110–900 milliseconds) for the length of the disconnect signal. Consult your local Central Office for the correct value.

### Flash 67, Flexible Button 1, Voice Mail Inband Digits for Incoming Private Lines

This entry causes an extension's ringing Private Line to go directly to that extension's mailbox, whenever call forwarding to the mailbox has been enabled. Without this entry, a Private Line call, when forwarded, would go to the company greeting (*Thank you for calling*).

### Flash 65, Flexible Button 10 Leave Mail Index Entry

Select Table 0 (zero). (The table was created in Flash 66, Flexible Button 1).

### Flash 65, Flexible Button 11 Retrieve Mail Index Entry

Select Table 1. (The table was created in Flash 66, Flexible Button 2).

### Flash 40, Flexible Button 1 CO Line Ringing Assignment

To have lines ring the Auto Attendant, enter the:

- range of lines
- Voice Mail Hunt Group that should answer them (440–447)
- ringing assignment: 1 for day ringing, 2 for night ringing, or 3 for day and night

### Flash 01, Flexible Button 4 Transfer Recall Timer

If the Automated Attendant is set up for unscreened transfers with a UTRF entry in the Call Routing Mailbox's Dial Action Table and if *Call Forwarding to Mailboxes* is being used, the value for this timer should be greater than the values for the following timers:

- Call Routing Mailbox's *Rings before redirect trf* timer
- Vodavi *Preset Forward* and *Call Forward No-Answer* timers

### Flash 01, Flexible Button 5 Preset Forward Timer

This timer regulates how long a call will ring at an extension before being forwarded to its preset destination. The value for this timer should be less than the value for Vodavi *Transfer Recall Timer*.

### Flash 01, Flexible Button 6 Call Forward No/Answer Timer

This timer controls a call being forwarded to its mailbox. The call will go to the mailbox only if *Call Forwarding to a Mailbox* has been activated at the extension.

### Flash 01, Flexible Button 14 SLT Hookflash Timer

Set this timer to **10** (1 second).

## Phone System Programming (cont'd)

### Flash 01, Flexible Button 15, SLT Hookflash Debounce

Set this timer to **010** (.1 seconds).

### Flash 50, Flexible Button 6 Preset Call Forward Programming

Preprogram all extensions to forward calls to a Voice Mail Hunt Group. (As an alternative, mailbox users can activate Call Forwarding to a Mailbox at their own phones.)

## Voice Mail Programming System Options

### RNA, Hold Retrieval

DEFAULT: FP

### Busy, Hold Retrieval String

DEFAULT: FP

### Lamp On String

DEFAULT: 420X

### Lamp Off String

DEFAULT: 421X

### MWI Lamp Update time

Not used

### Transfer String

DEFAULT: FW

### Ringdown string

DEFAULT: 6#

### FAX detect dial string

DEFAULT: None

## Voice Mail Programming (cont'd) System Options (cont'd)

### Call pickup string

DEFAULT: W#1

### Flash timer

DEFAULT: 50 (1 = 10ms)

### Wait for first protocol digit

Not used

### Wait for subsequent protocol digits

Not used

### Wait after last protocol digit

Not used

### Page/Meet-me Page hold timer

Not used

### Modem Extension

Not used

### First Trunk equipment number

Not used

### Schedule to use in Day/Night mode

DEFAULT: None

## Voice Mail Programming (cont'd)

### Mailbox Options

#### Trunk Mailboxes

Not used

#### Park/Paging string

Not used

#### Call Waiting string

For Subscriber Mailboxes

DEFAULT: FWJ, where J is the Subscriber extension

#### Use Remote Logon as Direct Logon

For Subscriber, Guest, Message Center Mailboxes

DEFAULT: No

#### Msg Wait Lamp

For Subscriber, Guest, Message Center Mailboxes

DEFAULT: Yes

#### Notification number 1

For Subscriber Mailboxes

DEFAULT: Subscriber extension number, then Ringdown string, which by default is 6#

## Voice Mail Programming (cont'd)

### Default Dial Action Table

The extension numbers for screened transfers (TRFs) or unscreened transfers (UTRFs) -- as either specific extension numbers or XXs -- need to be placed in brackets and followed by a "6#."

<b>Key</b>	<b>Routing Option</b>
Key 0	Action: UTRF Number: 6#[100]
Key 1	Action: TRF Number: 6#[XXX]
Key 2	Action: UND Number: N
Key 3	Action: UND Number: N
Key 4	Action: UND Number: N
Key 5	Action: UND Number: N
Key 6	Action: UND Number: N
Key 7	Action: UND Number: N
Key 8	Action: UND Number: N
Key 9	Action: HUP Number: N
Key *	Action: REC1 Number: IXXX
Key #	Action: LOGON Number: N
TIMEOUT	Action: UTRF Number: 6#[100]

## Voice Mail Programming (cont'd)

### Other Notes

Call Forwarding to a Mailbox is allowed only if the Automated Attendant is set up for unscreened transfers.

Each digital key telephone should have two Flexible Buttons:

- a key for the Voice Mail Pilot Number, so that extension users can press the key to call their mailboxes. This key also doubles as a Message Wait key for an extension's mailbox: When lit, the key will notify the extension user that there are messages in the mailbox.
- a Call Forward key that will send calls the extension's mailbox

#### **To call forward an extension's internal and outside calls to its mailbox:**

1. Lift handset.
2. Press key that forwards calls to the extension's mailbox.  
OR  
Dial **640**.
3. Dial **7** to forward no answer.  
OR  
Dial **8** to forward busy.  
OR  
Dial **9** to forward busy no answer.

#### **To transfer an outside caller to a mailbox from a key phone:**

1. Press **Transfer** key.
2. Press Flexible button programmed for the Voice Mail group.  
OR  
Dial Voice Mail group.
3. Enter mailbox number.
4. Hang up.



## Required Hardware and Software

See the manuals for your phone system.

## Voice Mail Availability

This phone system is available on the NVM-2000CA with Software Version 8.01 or higher.

## Phone System Programming

See the manuals for your phone system.

## Voice Mail Programming

### System Options

Listed below are two types of the Voice Mail System Options:

- Ones that the Generic does not use
- Ones whose default values are not listed in the Programming Guide

#### **RNA/Busy, Hold Retrieval**

DEFAULT: FP

#### **Lamp On String**

DEFAULT: None

#### **Lamp Off String**

DEFAULT: None

#### **Transfer String**

DEFAULT: FW

#### **Ringdown string**

DEFAULT: None

#### **FAX detect dial string**

Not used

#### **Call pickup string**

DEFAULT: None

#### **Flash timer**

DEFAULT: 50 (1 = 10ms)

# Any Phone System (Generic)

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## Voice Mail Programming (cont'd) System Options (cont'd)

### Wait for first protocol digit

Not used

### Wait for subsequent (and after last) protocol digits

Not used

### Page/Meet-me Page hold timer

Not used

### Schedule to use in Day/Night mode

Not used

## Mailbox Options

Listed below are two types of the Voice Mail Mailbox Options:

- Ones that the Toshiba DK280 does not use
- Ones whose default values are not listed in the Programming Guide

### Trunk Mailboxes

Not used

### Park/Paging string

For Subscriber Mailboxes. For the "Park" part of the string, you have a few entry choices:

- Personal Park Codes, which usually consist of a Flash, Wait, a Personal Park Orbit Code and the extension number. Subscribers use the directed call pickup code to pick up the call from any extension.
- Meet-Me Page Codes, which usually consist of a Flash, Wait, extension number, then Meet-Me Page code. Subscribers use the Meet-Me Page code to pick up the call from any extension.
- Transfer Codes, which usually consist of a Flash, Wait, and the extension number. Subscribers use the directed call pickup code to pick up the call from any extension.

DEFAULT: None

### Call Waiting string

For Subscriber Mailboxes

DEFAULT: FWJ, where J is the Subscriber extension number

### Use Remote Logon as Direct Logon

For Subscriber, Guest, Message Center Mailboxes

Not used

### Msg Wait Lamp

For Subscriber, Guest, Message Center Mailboxes

DEFAULT: Yes

### Notification number 1

For Subscriber Mailboxes

DEFAULT: Subscriber extension number followed by a "1"

## Voice Mail Programming (cont'd)

### Default Dial Action Table

You may need to place the extension numbers for screened transfers (TRFs) or unscreened transfers (UTRFs) in brackets and/or followed by a 1, as either specific extension numbers or XXs. How you place extension numbers in the Dial Action Table will depend on the phone system in use.

<b>Key</b>	<b>Routing Option</b>
Key 0	Action: UTRF Number: 100
Key 1	Action: TRF Number: XXX
Key 2	Action: UND Number: N
Key 3	Action: UND Number: N
Key 4	Action: UND Number: N
Key 5	Action: UND Number: N
Key 6	Action: UND Number: N
Key 7	Action: UND Number: N
Key 8	Action: UND Number: N
Key 9	Action: HUP Number: N
Key *	Action: REC1 Number: IV
Key #	Action: LOGON Number: N
TIMEOUT	Action: UTRF Number: 100

## Voice Mail Programming (cont'd)

### Other Notes

You can use Call Forwarding to a Mailbox if the Automated Attendant is set up for unscreened transfers or if there is no Automated Attendant, but not if the Automated Attendant is set up for screened transfers.

To activate *Call Forwarding to Mailbox*, use the Call Forwarding procedure for your phone. Enter a the Voice Mail extension number for the forwarding recipient.

If the forwarding protocol string does not include a prefix, do the following to make *Call Forwarding to a Mailbox* work correctly:

1. Create Call Routing Mailboxes with the following characteristics:
  - Play Default Messages = No
  - Time Limit for dialing commands = 1 sec
  - A different Dial Action Table number for each Call Routing Mailbox

This is how you figure out how many of these Call Routing Mailboxes you need: If you plan to have the Automated Attendant answer a call with a greeting depending on the time of day that the call entered the Voice Mail, you must create two of the Call Routing Mailboxes described above: one for day calls and the other for night calls.

To create Call Routing Mailboxes, select *Mailbox Options* on the **Customize** menu. See also Chapter 3 in the Programming Guide.

2. Assign the Call Routing Mailboxes (made in step 1) to an Answering Schedule Table. Use the day/date/time schedules you plan to use for the mailboxes that will actually answer the calls and play a recording to outside callers.

To enter mailboxes in an AST, select *Answering Schedule Table* on the **Customize** menu. See also Chapter 4 in the Programming Guide.

3. Assign the Answering Schedule Table to every port.

To assign an AST to a port, select *Port Options* on the **Customize** menu. See also Chapter 2 in the Programming Guide.

4. Customize the Dial Action Tables you assigned to the Call Routing Mailboxes in Step 1:
  - Assign **REC1 XXX** to the key that matches the first digit of the extension numbers. For example, if the extension numbers begin with 2, assign **REC1 XXX** to Key 2.
  - Assign the mailbox that should answer outside calls: the one with the recording [s]) to the **TIMEOUT** option. For example: Suppose that Call Routing Mailbox 400 is in the AST from 8 AM to 5 PM and it has DAT 37. Also suppose that Call Routing Mailbox 500 is the mailbox that will actually greet callers from 8 AM to 5 PM with the recorded Welcome Message and **Instruction** menu. Then you would enter **GOTO 500** for the **TIMEOUT** Option in DAT 37.

#### To customize DATs:

Select *Dial Action Table* on the **Customize** menu. See also Chapter 4 in the Programming Guide.

#### About The Call/Tone Adaptation Program (CAP)

the Voice Mail will be able to make screened transfers (TRFs), only if it can recognize the call processing tones in your phone system.

If screened transfers (TRFs) are not working correctly and a Rhetorex Card has been installed in your Voice Mail, you will have to use CAP to have the Voice Mail system learn the tones. CAP for the Full Screen Editor is on the Install menu. For instructions, see *Using the Call/Tone Adaptation Program*.

## Required Hardware and Software

- Software requirements: Generic 1004 or higher. Lightware 15 or higher.
- ONS Line Card (12 circuits), part number 9109-010-000FA.  
Each VMS port requires a port from this card.

## Voice Mail Availability

This phone system is available on these Voice Mail systems:

- NVM-202exCA with Software Version 7.01 or higher
- NVM-2000CA with Software Version 8.01 or higher

## Phone System Programming

### Feature Access Codes (form 2)

Assign access codes for the following features:

#### 03 - Call Forwarding - All Calls

Assign a code to access the Call Forwarding (All Calls) feature. Users dial this code when call forwarding their calls directly to Voice Mail. This code is also used to forward trunks to trunk mailboxes.

#### 24 - Abbreviated Dial Access

This code is used in conjunction with System Abbreviated Dial (form 31). The Abbreviated Dial Access Code is used to access a digit string stored in System Abbreviated Dial.

#### 41 - Send Message

Enter ## for Send Message.

### Class of Service Options (form 3) for Voice Mail Ports

On form 3, you determine the Class of Service options that will affect the operation of the VMS ports. You also select the Class of Service number for these options. Assign the following COS options to the Voice Mail ports:

**Note:** Assign a different Class of Service for the Voice Mail port(s) that activates and deactivates Message Waiting. See the next page for instructions.

#### 212/213 - Can Flash If Talking To An Incoming/Outgoing Trunk

Allows port to transfer call in auto attendant application or dial 0 situation. Enable these two options.

#### 239 - Priority Dial 0

Allows routing of Voice Mail calls to a different console LDN key as opposed to a station dial 0 call. Enable this option.

#### 216 - Data Security

Prevents audio intrusion tones from interfering with the control of Message Waiting. Enable this option.

#### 259 - Message Sending

Allows activation and deactivation of Message Waiting lamps. Disable this feature on all other COSs to prevent users from activating Message Lamps.

## Phone System Programming (cont'd)

### 261 - ONS Voice Mail Port

Prevents audio intrusion tones from interfering with the control of Message Waiting. Enable this option.

### **Class of Service Options (form 3) for Voice Mail Ports activating/deactivating Message Waiting**

On form 3, assign the COS options for the ports activating and deactivating Message Waiting. Assign a number to this COS.

### 212/213 - Can Flash If Talking To An Incoming/Outgoing Trunk

Allows port to transfer call in auto attendant application or dial 0 situation. Enable these two options.

### 239 - Priority Dial 0

Allows routing of Voice Mail calls to a different console LDN key as opposed to a station dial 0 call. Enable this option.

### 216 - Data Security

Prevents audio intrusion tones from interfering with the control of Message Waiting. Enable this option.

### 259 - Message Sending

Allows activation and deactivation of Message Waiting lamps. Enable this option.

### 261 - ONS Voice Mail Port

This option identifies the port as a Voice Mail port and allows the integration between the Mitel PBX and the Rhetorex Card in the Voice Mail. Enable this option.

### **Class of Service Options (form 3) for Extensions with Mailboxes**

Assign the following COS option to extensions that have an associated mailbox:

### 232/231 - Message Waiting Bells/Lamps

Assign phones (other than 2500-type) as 232. Assign 2500-type phones as 231.

### **Class of Service Options (form 3) for Attendants**

Assign the attendant's COS with the following options:

### 119 - Attendant Tone Signaling

Allows attendant to activate DTMF tones from the console keypad. Enable this option.

### 121- Attendant Station DND Setup

Allows console to control Do Not Disturb. The attendant should place Voice Mail ports that activate/deactivate Message Waiting in Do Not Disturb. This prevents these ports from receiving calls and protects against call collisions. Enable this option for attendant console(s).

## Phone System Programming (cont'd)

### Class of Service on Station form 09

The Classes of Service defined on form 3 must be assigned to each appropriate extension on form 9. Enter the a Class of Service for each Voice Mail port, extension and attendant.

### System Options and Timers (form 4)

#### 21 - Incoming to Out calling Call Forward

This option allows trunks to use the abbreviated dial number to reach the Voice Mail. The code for accessing the Abbreviated Dial Access feature is programmed in Feature Access Codes, option 25, form 2. The digit strings for this feature are set up in Abbreviated Dial Access, form 31.

#### 22 - Last Party Clear Dialtone

This option enables a Voice Mail port to receive dial tone after a caller abandons a call. The Voice Mail uses this dial tone to return the port to idle after a caller hangs up.

#### 115 Attendant - Timed Recall (NO ANS)

Set this timer longer than the Call Forward - Don't Answer Timer (253). A longer timer is needed when the attendant sends a call to a user's mailbox. If the time for the Attendant - Timed Recall is not extended, the call may recall to the attendant before it is routed to the user's mailbox.

### Attendant LDN Assignments (form 8)

Assign an LDN key labeled "Voice Mail" for Voice Mail dial "0" calls and for overflow from Voice Mail hunt group if all ports are busy (see forms 17 & 19).

### Hunt Groups (form 17)

Program Voice Mail ports in circular hunt group. Include Message Waiting Activation port(s) in group but activate Do Not Disturb. Assign a Master Number (access code) for the hunt group. Users will dial this code to retrieve messages or transfer to the Voice Mail.

Using form 19, reroute the Message Waiting Activation port(s) back to the Hunt Group Master Number. In this way, calls that go to the Message Waiting Activation port will return to the Hunt Group, when all ports in the group are busy.

## Phone System Programming (cont'd)

### Non-Dial In Trunks (form 14)

Non-Dial In Trunks are used whenever the console is busy or does not answer, in situations such as Auto Attendant and overflow to the Voice Mail. Non-Dial In Trunks are also used for trunks that require separate greetings.

#### To have the Auto Attendant answer calls:

Under **DAY** on program 14:

Program one or more trunks to route to the Master Number of the Voice Mail Hunt Group (assigned in form 17).

#### To have calls to the Attendant Console overflow to the Voice Mail:

Under **N1** on form 14:

Program one or more trunks to route to the Master Number of the Voice Mail Hunt Group (assigned in form 17).

#### To have a trunk answered with a different greeting:

1. Under **DAY** on form 14:

Program trunk to terminate to a **valid** (hardware-supported) circuit number. (Each trunk that requires a separate greeting needs to be terminated to its own valid circuit number.)

2. Program that circuit number to forward to a trunk mailbox (using System Abbreviated Dial).

3. Program each trunk requiring a separate greeting with a trunk mailbox in Voice Mail programming.

**Note:** An ONS port and trunk mailbox is required for each trunk requiring a separate greeting.

### Call ReRouting (form 19)

Program the Message Activation port to reroute to the Voice Mail access number. This will reroute calls to this port back to the Voice Mail hunt group and avoid call collision.

### System Abbreviated Dial (form 31)

System Abbreviated Dial reduces the number of steps that are required when dialing commands to the Voice Mail system

Abbreviated Dial Access Codes access a command (stored as a digit string), which is then dialed out to the Voice Mail. This Access Code is assigned in Feature Access Codes, option 24, form 2. The digit strings are established on form 31. Digit strings on this form are comprised of a combination of codes that send information to the Voice Mail.

## Phone System Programming (cont'd)

The Mitel uses following codes in System Abbreviated Dial:

Code	Definition
*1	5 second pause
*3	Insert manual digits (2 expected)
*6	called party ID is to follow
*9	1 second pause
**	DTMF digit *
#	DTMF digit #
0-9	DTMF digits 0-9

Codes are entered in the digit string in a specific order:

Position:	1	2	3	4	5	6
Item:	VMS Hunt Group #	Pause	VMS Operation Code	Pause	Ext #	Pause

**Note:** The placement of the pauses varies depending on the timing of audio cut-through you receive in your system. Pauses are used at the end of a string to ensure that the Voice Mail has received all digits. You may have to experiment with the placement of the pauses, until the string operates correctly.

The Voice Mail recognizes the following operation codes:

VMS Operation Code	Desired Action	Definition
***1XXX	Remote Log-On (Internal)	Extension XXX dials Voice Mail Master Hunt Number.
***3UUUXXX	Forward, All Calls (Blind Transfer)	Extension or trunk UUU called extension XXX. Call forwarded to extension XXX's mailbox.
***4UUUXXX	Forward, Busy	Extension or trunk UUU called extension XXX, which is busy. Call forwarded to extension XXX's mailbox.
***5UUUXXX	Forward, Ring-No-Answer	Extension or trunk UUU called extension XXX, which does not answer. Call forwarded to extension XXX's mailbox.
***6TTT	Remote Log-On (Trunk)	Outside party on trunk TTT calls Voice Mail System.

**Note:**

- (1) Trunk numbers are "padded" for calling party ID in all the Call Forward codes. For these codes, use "dummy" trunk numbers, which do not actually correspond to an existing trunk.
- (2) Each padded trunk number requires a trunk mailbox.
- (3) The number of digits in the "padded" trunk number must be the same as the number of digits in the extension numbers. For example, a system with 4-digit extension number must have 4-digit "padded" trunk numbers.

# Mitel 200D/200 Light (Inband)

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## Phone System Programming (cont'd)

The following are examples of programming digit strings for System Abbreviated Dial:

<b>Desired Action:</b>	Mailbox, direct log on
<b>Sample Digit String:</b>	390#*6*9
<b>Definition of String:</b>	390 - the Master number of the Voice Mail. # - log on for Voice Mail. * 6 - the calling party's ID that indicates an extension number is being sent *9 - a one-second pause.

<b>Desired Action:</b>	Forward All Calls to Mailbox
<b>Sample Digit String:</b>	390*****3480*6*9*9
<b>Definition of String:</b>	390 - the Master number of the Voice Mail. *****3 - the ***3 indicates Forward All Calls to the Voice Mail. Since the Mitel need ** for every DTMF *, ***3 in the Voice Mail equals *****3 in the Mitel. 480 - the calling party ID (i.e., the "padded" trunk number). *6 - indicates that an extension number is being sent. *9 - a one-second pause. *9 - a one-second pause.

## Phone System Programming (cont'd)

<b>Desired Action:</b>	Direct Trunks to individual trunk mailboxes
<b>Sample Digit String:</b>	390*9*****6372*9*9
<b>Definition of String:</b>	390 - the Master number of the Voice Mail. *9 - a one-second pause. *****6 - the ***6 indicates direct a trunk to the Voice Mail. Since the Mitel needs ** - for every DTMF *, ***6 in the Voice Mail equals *****6 in the Mitel. 372 - the trunk mailbox number *9 - a one-second pause. *9 - a one-second pause.

**Note:** Remember to assign an index number for each digit string that you record on form 31.

## Voice Mail Programming

### Port Options

#### Allow Lamp callouts

Use this port option to assign the Voice Mail port that will be used for turning the Message Waiting lamps on and off.

#### Answering Schedule Table

If each port needs to be answered with a special greeting, the Answering Schedule option should be set to No (N).

DEFAULT: 1

### Mailbox Options

#### Trunk Mailboxes

Use this mailbox option to assign each trunk requiring a special greeting with a trunk mailbox. Assign a “padded” trunk number to each trunk mailbox. To see the mailbox numbers, use the *Reports* Menu, *Mailbox List (Numeric)*.

## Voice Mail Programming (cont'd)

### Default Dial Action Table

The extension numbers for unscreened transfers (UTRFs) do not need to be placed in brackets or followed by a "1."

Key	Routing Option
Key 0	Action: UTRF Number: 0
Key 1	Action: UTRF Number: XXX
Key 2	Action: UTRF Number: XXX
Key 3	Action: UND Number: N
Key 4	Action: UND Number: N
Key 5	Action: UND Number: N
Key 6	Action: UND Number: N
Key 7	Action: UND Number: N
Key 8	Action: UND Number: N
Key 9	Action: HUP Number: N
Key *	Action: REC1 Number: IXXX
Key #	Action: LOGON Number: N
TIMEOUT	Action: UTRF Number: 0

## User Operation

The following are instructions for using an extension in a Mitel system that is integrated with the Voice Mail. These instructions are based on the programming requirements listed in the preceding pages.

### **To log onto the Voice Mail (from an internal extension):**

1. Call the Voice Mail (obtain internal dial tone, dial Voice Mail Master Hunt number). Wait for Voice Mail to answer.
2. Dial extension number.
3. Enter security code (if required). Follow the voice prompts to perform the desired action.

### **To log onto the Voice Mail remotely:**

1. Call the Voice Mail (dial the area code, if required, and 7-digit phone number). Wait for the Voice Mail to answer.
2. Dial #.
3. Dial extension number.
4. Dial security code, if required. Follow the voice prompts to perform desired action.

### **To log onto the Voice Mail using System Abbreviated Dialing:**

1. Obtain internal dial tone. Dial the Abbreviated Dial Access Code.
2. Dial the index code corresponding to the digit string for Mailbox, Direct Logon.

### **To forward calls to the Voice Mail using System Abbreviated Dialing:**

1. Obtain internal dial tone. Dial Call Forwarding - All Calls Access Code.
2. Dial the Abbreviated Dial Access Code.
3. Dial the index code corresponding to the digit string for the type of call forward that is desired, such as Busy, Ring-No-Answer, All Calls.
4. Hang up.

# Mitel 200D/200 Light (Inband)

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## Required Hardware and Software

### ■ Hardware Requirements

Mitel SX-2000 MC323BA COV Station Card. Each card supports 12 ports. This card is required for fully integrated systems. It may be installed in any Peripheral Node Card Slot.

MC330BE ONS Station Card. This card supplies single-line (2500 set) ports. You can use this card for non-integrated applications, such as Automated Attendant only applications or Facsimile applications. This card supports 16 ports and may be installed in any Peripheral Node Card Slot.

Dialogic D42SX Mitel Integration Port Card. Each card supports 4 ports. This card is required for fully integrated systems.

### ■ Software Requirements

2006 (M stream)/Lightware 26 2007 (N Stream)/Lightware 27

## Voice Mail Availability

This phone system is available on these Voice Mail systems:

- NVM-202exCA with Software Version 7.01 or higher
- NVM-2000CA with Software Version 8.01 or higher

## Phone System Programming

Check for extension number overlaps. If you have overlaps in trunk numbers, extension numbers, and feature codes, the Voice Mail system may not operate properly. One way to avoid overlapping is to precede all PBX feature codes with a star (\*) or pound(#) sign. Match mailbox numbers to extension numbers. For the integration to work properly, the mailbox numbers must be the same as the extension numbers. If you assign mailboxes to users without extension numbers, **DO NOT** match any other code in the system, such as speed dial and trunk group access.

### Class of Service

You need to create two Classes of Service — one for the Voice Mail ports and one for the Message Waiting light port. Set up the Class of Service for the Voice Mail ports and MWI port with **ONLY** the following options enabled:

Busy Override Security (YES)

Prevents a station from being overridden by another station.

Call Forwarding - Accept (YES)

Allows a station to receive forwarded calls.

Station Message Detail Recording (YES)

Enable for call accounting.

Public Network Access via DPNSS (YES)

Enable for MSDN Networks.

## Phone System Programming (cont'd)

### Class of Service (cont'd)

Public Network Identity Provided (YES)

Enable for MSDN Networks.

Besides those options mentioned above, set up the following options in the Class of Service for the Message Waiting port.

Do Not Disturb - Permanent (YES)

Prevents calls entering the MWI port. This option is available only in LightWare 27 Software Load.

Message Waiting (YES)

Allows a station to activate and deactivate Message Waiting Indicators on another station.

Message Waiting Inquire (YES)

Allows a station to inquire the status of a Message Waiting Indicator on another station.

### Voice Mail Ports

Go to Station Forms, and complete the programming as needed in the Multiline Set Assignment and Station Service Assignment forms. Make sure that the keys on the Voice Mail ports are all unassigned, except the Prime Line Key.

### Voice Mail Hunt Group

Go to the Group Forms, and select Hunt Group Assignment.

Programming for Software previous to N STREAM (Lightware 27). Select a Pilot number, and enter it in the PILOT NUMBER field. Select the hunting type—Terminal or Circular—and enter it in the HUNT MODE field. Then enter all the Voice Mail Port extension numbers in the list under Directory number.

Programming for N STREAM (Lightware 27). Select a pilot number, and enter it in the PILOT NUMBER field. Select the hunting type —Terminal or Circular — and enter it in the HUNT MODE field. Enter Voice Mail in the GROUP TYPE field. Then enter all Voice Mail Port extension numbers in the list under Directory number.

### Message Waiting Port

If you have N STREAM (Lightware 27) loaded on your PBX, then nothing further is needed for the Message Waiting light port. If you have a software load previous to N STREAM (Lightware 27), you need to program the following three items in order to keep incoming calls from the Message Waiting light port.

### Multiline Set Assignment

Go to the **Station Forms** menu, and select the Multiline Set Assignment form. Go to the Message Waiting light port extension number, and set the interconnect # to 2 (or any unused interconnect number).

### Interconnect Restriction Table

Go to the **System Forms** menu, and select the Interconnect Restriction Table. Restrict the interconnect number of the stations from the interconnect number of the Message Waiting light port.

## Voice Mail Programming System Options

### **Intercept Handling Assignment**

On the **System Forms** menu, select the Intercept Handling Assignment form. Select intercept of the extension users (usually number 1). Set **Interconnect Restriction** to the Pilot of Voice Mail.

Listed below are two types of the Voice Mail options:

- Ones that the Mitel does not use
- Ones whose default values may not be listed in the Programming Guide

### **RNA, Hold Retrieval string**

DEFAULT: FP

### **Busy, Hold Retrieval String**

DEFAULT: FP

### **Lamp On String**

DEFAULT: None

### **Lamp Off String**

DEFAULT: None

### **MWI Lamp Update time**

DEFAULT: None

### **Transfer String**

Not used

### **Ringdown string**

Not used

### **Tenant 1-4 FAX detect dial string**

DEFAULT: None

### **Call pickup string**

Not used

### **Flash timer**

DEFAULT: 50 (1 = 10ms)

### **Wait for first protocol digit**

DEFAULT: 30 sec

## Voice Mail Programming (cont'd) System Options (cont'd)

### Wait for subsequent protocol digits

DEFAULT: 30 sec

### Wait after last protocol digit

Not used

### Page/Meet-me Page hold timer

Not used

### Modem Extension

DEFAULT: N

### First Trunk equipment number

DEFAULT: N

### Schedule to use in Day mode

Not used

### Schedule to use in Night mode

Not used

## Mailbox Options

### Trunk Mailboxes

Allowed. To see the mailbox numbers, use the Reports Menu, *Mailbox List (Numeric)*.

### Park/Paging string

For Subscriber Mailboxes

DEFAULT: None

### Call Waiting string

For Subscriber Mailboxes

DEFAULT: FSJ, where J is the Subscriber extension number

### Use Remote Logon as Direct Logon

For Subscriber, Guest, Message Center Mailboxes

DEFAULT: No

### Msg Wait Lamp

For Subscriber, Guest, Message Center Mailboxes

DEFAULT: Yes

### Notification number 1

For Subscriber Mailboxes

DEFAULT: Subscriber extension number

## Voice Mail Programming (cont'd)

### Default Dial Action Table

The extension numbers for screened transfers (TRFs) or unscreened transfers (UTRFs) do not need to be placed in brackets followed by a "1."

Key	Routing Option
Key 0	Action: UTRF Number: 200
Key 1	Action: UND Number: N
Key 2	Action: TRF Number: XXX
Key 3	Action: TRF Number: XXX
Key 4	Action: UND Number: N
Key 5	Action: UND Number: N
Key 6	Action: UND Number: N
Key 7	Action: UND Number: N
Key 8	Action: UND Number: N
Key 9	Action: HUP Number: N
Key *	Action: REC1 Number: IV
Key #	Action: LOGON Number: N
TIMEOUT	Action: UTRF Number: 200



## Required Hardware and Software

- **Hardware:**  
Port on the ASTU Card.  
For each NVM-2CA port, you will need an analog station port from the phone system.
- **Software:**  
Any software level is OK.

You will also need the following equipment:

- NVM-2CA AC power adapter
- AC outlet (120V, 60Hz)
- Modular 2-wire or 4-wire line cord(s)
- RJ14 jack or an RJ14-to-RJ11 adapter
- 8 alkaline AA batteries

## Voice Mail Availability

This phone system is available on the NVM-2CA Voice Mail system.

## Phone System Programming

When you are integrating your system with the NVM-2CA, certain functions in the phone system require specific entries. The following list tells you which phone system programs you must set up. See the programming manual for your phone system for instructions on how to program the phone system.

### General Programming

#### **Program 0401 - Tenant Group Options, Part A, Item 18: SLT Answering Mode**

Enter **1** to enable Conversation Record.

#### **Program 0401 - Tenant Group Options, Part A, Item 23: DIL Call Waiting**

Enter **0** to set up Immediate Voice Mail Overflow.  
Enter **1** to set up Delayed Voice Mail Overflow.

#### **Program 0405 - System Timers (Part A), Item 10: Intercom Interdigit Time**

Use this program to set the interval a transferred call waits at a forwarded extension before routing to the called extension's mailbox (Program 0401 Item 23=10).

#### **Program 0405 - System Timers (Part A), Item 62: DIL No Answer Recall Time**

Enter a timer value greater than 0 to set up Delayed Voice Overflow. The overflow will occur after this interval (provided that the other related programming is correct).  
Enter **0** to set up Immediate Voice Mail Overflow.

#### **Program 0405 - System Timers (Part A), Item 65: Record Alert Tone Interval Time**

Use this program to set the interval between Voice Mail Conversation Record alerts. The alert consists of two short beeps followed by a programmable interval of silence.

## Phone System Programming (cont'd)

### General Programming (cont'd)

#### **Program 0406 - COS Options, Item 57: Continued Dialing**

Use this program to enable Continued Dialing (1) for all extensions that will dial Voice Mail features.

#### **Program 0516 - Voice Mail Master Number**

Use this program to assign an extension number and name for the Voice Mail Master Number. Be sure that the number you select does not correspond to an installed extension or feature. Consider picking a number that is outside the normal extension numbering range, such as 500. *Do not select a number that begins with 1, 8, or 9.*

#### **Program 0901 - Basic Trunk Port Setup (Part A), Items 14–17: Trunk Service Type**

Use this program to assign Service Type 4 to each trunk that you want to ring into Voice Mail as a Direct Inward Line (DIL).

#### **Program 0909 - Extension Ring Group Assignment**

Enter **1** to enable overflow ringing.

To enable Voice Mail Overflow, assign selected extensions to a Ring Group that will ring for unanswered DIL's to Voice Mail ports.

#### **Program 0910 - Trunk Ring Group Assignment**

Use this program to assign the Voice Mail Overflow DILs to the Ring Group specified in Program 0909 above to enable Voice Mail Overflow. This allows calls on DILs to ring other extensions when all Voice Mail ports are busy.

#### **Program 0917 - DIL Assignment**

Use this program to assign a Voice Mail port as the DIL destination for each trunk that should directly ring into Voice Mail. When all Voice Mail ports are in the same unique Extension (Department) Group (see Program 1003 below), the DIL will ring another Voice Mail port if its assigned port is busy.

#### **Program 0919 - DIL No Answer Destination**

Use this program to enter the Ring Group that unanswered DILs to Voice Mail will ring after the DIL Call Waiting Time (Program 0405 Item 62) for Delayed Voice Mail Overflow.

#### **Program 1001 - Basic Extension Port Setup (Part A), Item 5: Terminal Type**

Use this program to set all ASTU ports used for Voice Mail to Type 1.

#### **Program 1003 - Extension (Department) Groups**

Use this program to put all the Voice Mail ports in one extension group. The placement of ports into one extension group allows a DIL to Voice Mail to ring other Voice Mail ports, when the DIL's assigned port is busy.

## Phone System Programming (cont'd)

### General Programming (cont'd)

#### **Program 1005 - Class of Service**

Use this program to assign a Class of Service (1–15) to an extension.

#### **Program 1006 - Programming Function Keys**

Use this program to assign a Voice Mail key to an extension (Code 1059).

If you wish, you may also use this program to assign a Voice Mail Record key to an extension code (Code 1060).

#### **Program 1017 - Voice Mail Assignment**

Use this program to assign single line (ASTU PCB) ports. The system allows up to 4 Voice Mail ports.

## Voice Mail Programming

### Default Dial Action Table

Extension numbering is 301 to 350.

Key	Routing Option
Key 0	Action: UX for Dialing Options Menus 1 & 4 MR (REC1) for Dialing Options Menus 2 & 3 Number: 301 for DATs 1 through 4
Key 1	Action: UK Number: None
Key 2	Action: UK Number: None
Key 3	Action: UC Number: XXX
Key 4	Action: UK Number: None
Key 5	Action: UK Number: None
Key 6	Action: UK Number: None
Key 7	Action: UK Number: None
Key 8	Action: UK Number: None
Key 9	Action: HU Number: None
Key *	Action: Quick Message (REC1) Number: IXXX
Key #	Action: LOGON Number: None
TIMEOUT	Action: UX for Dialing Options Menus 1 & 4 MR (REC2) for Dialing Options Menus 2 & 3 Number: 301 for DATs 1 through 4

### Other Notes

By default, the Automated Attendant is set up with unscreened transfers, so that you must Call Forward the phones to the Voice Mail.

## Required Hardware and Software

- **Hardware:**  
Keypad port with an ASI (P/N 89749) (one per Voice Mail port) or a Dual OPX/ASI (P/N 88750 Series 2), which supports two Voice Mail ports
- **Software:**  
Software required in a Single Cabinet:  
Version Y4.0 or higher (P/N 88529 Series Y2)

## Voice Mail Availability

This phone system is available on the NVM-2CA Voice Mail system.

## Phone System Programming

Certain functions in the phone system require specific setup entries when you are integrating your system with the NVM-2CA. The following list tells you which phone system programs you must set up. For instructions on how to program the phone system, see the programming manual for your phone system.

## Terminal Programming

### E — Extension Setup

#### E2 - Circuit Type

Use this option to assign a Circuit Type 51 to each VX port.

#### E5 - Hunt Type

Use this option to program each VX port with Hunt Type 06.

#### EA - Master Extension Number (for UCD Hunt Group)

Use this option to program each VX port with the Master Extension Number assigned in QP programming below.

#### EK - Voice Mail (VX) Port

Use this option to enable this option for each VX port.

#### E9 - Direct Trunk Termination

Use this option to terminate the trunk to the VX Master Extension Number (see QP on the next page) for each trunk that the Voice Mail should answer.

#### E1 - Night Call Routing

Use this option to terminate the trunk to the VX Master Extension Number (see QP on the next page) for each trunk that the Voice Mail should answer at night. For this night application, make sure that the trunk's E9 entry is 300.

### FC — Parameter Reset

#### FC1 - Reset System Queues

Use this option to reset the system queues after installing the Voice Mail.

#### FC3 - Reset VX Flag (Telephone Message Waiting Lamps)

Use this option to reset the telephone Message Waiting Lamps for a first time installation.

### K — Key Data

#### K - Keypad Programming

Use this option to assign a key as a Record key (type R), which the Keypad user can press to record conversations.

## Phone System Programming (cont'd) Terminal Programming (cont'd)

### Q — System Parameters

#### QP - Mailbox Installed

Enable this option to let the phone system know that the Voice Mail is connected to it.

#### QP - VX Master Extension

Select one of the VX ports (from E2) as the VX Master Extension Number.

## Telephone Programming

To program the VS or DS01 through an extension in the telephone system, use the following programs in the order listed:

### Program 14

Assign Circuit Type 51 to each VX port.

### Program 18 (I)

Assign the Voice Mail feature to each VX port that you selected in Program 14.

### Program 3

Indicate that Voice Mail is installed and select a VX Master Extension Number. The VX Master Extension Number can be any of the VX ports designated in Program 14.

### Program 19

Set up a UCD Hunt Group as follows:

- Hunt Type = 05
- Master Extension = VX Master Ext No. assigned in Program 3
- Overflow extension = Operator extension you assigned to the VX Master Extension Number in Program 18 (I)
- UCD Members - VX extensions that you selected in Program 18.

### Program 12

Directly terminate each line that the Automated Attendant should answer to the VX Master Extension Number that you selected in Program 3.

### Program 17

Assign a Record key to an extension, if required.

### Program 16

Assign to each VX port (selected in Program 14) outgoing access to the lines used for Message Notification.

## Voice Mail Programming

### Default Dial Action Table

Extension numbering is 300 to 347. The remaining Subscriber Mailboxes are 810 and 811.

Key	Routing Option
Key 0	Action: UX for Dialing Options Menus 1 & 4 MR (REC1) for Dialing Options Menus 2 & 3 Number: 300 for DATs 1 through 4
Key 1	Action: UK Number: None
Key 2	Action: UK Number: None
Key 3	Action: UC Number: XXX
Key 4	Action: UK Number: None
Key 5	Action: UK Number: None
Key 6	Action: UK Number: None
Key 7	Action: UK Number: None
Key 8	Action: UC Number: XXX
Key 9	Action: HU Number: None
Key *	Action: Quick Message (REC1) Number: IXXX
Key #	Action: LOGON Number: None
TIMEOUT	Action: UX for Dialing Options Menus 1 & 4 MR (REC2) for Dialing Options Menus 2 & 3 Number: 300 for DATs 1 through 4

### Other Notes

By default, the Automated Attendant is set up with unscreened transfers, so that you must Call Forward the phones to the Voice Mail.

# Onyx VS

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## Required Hardware and Software

- **Hardware:**  
One Pushbutton Receiver Card: PBR-C(4N)-11KTU  
Each Voice Mail port must be connected to an SLT-F(1G)-10ADP, which in turn, must be connected to a port on a Regular Electronics Card: ESI-C-(8)-11.
- **Software:**  
Any software level is OK.

## Voice Mail Availability

This phone system is available on the NVM-2CA Voice Mail system.

## Phone System Programming

### First: About the Voice Mail Extensions

You must connect each NVM port that you want to use to an extension (Keyset) port in the telephone system. The extension numbers assigned to the selected ports must be in the same 10's group. For example, all Voice Mail extension numbers must be in the range 10–19, or 20–29, or 30–39, etc. Make a note of the selected port and extension numbers, since you will need them for programming. The default port-to-extension assignments are in *LK4 programming, Data No. 06*. You can also use that Data No. to change the port-to-extension assignments.

### LK1 System Mode Programming

#### Data No. 25 - Ring Transfer Selection

Select *Yes* (which is the default setting)

#### Data No. 34 - SLT Hookflash Signal Selection

Select *Hold* (which is the default setting)

#### Data No 35 - Station Master Hunt Number Selection

Select the first number of the 10's group that contains the Voice Mail extensions. For example, if the Voice Mail extensions range between 20 and 29, select 20 as the Station Master Hunt Number. The Station Master Hunt Number (sometimes called a Pilot Number) lets an extension user easily access a Voice Mail extension. All that the caller has to do is to dial the Station Master Hunt Number from an extension. The phone system automatically "hunts" through all the Voice Mail extensions and gives the caller the lowest-numbered available one.

#### Data No 64 - SLT Transfer Selection

Select *Hangup*.

### LK1 System Mode Programming

#### Data No. 01 - SLT Connected Yes/No Selection

Select *Yes* for each Voice Mail port.

#### Data No. 03 - Internal Zone Paging Selection

Select *None* for each Voice Mail port.

#### Data No. 05 - DTMF/DP SLT Type Selection

Select *MF* for each Voice Mail port.

## Phone System Programming (cont'd)

### LK4 System Mode Programming

#### **Data No. 06 - Station Number Assignment**

Use this program to change the port-to-extension (station) assignments, if necessary.

#### **Data No. 07 - Voice Mail/SLT Selection**

Select *Yes* for each Voice Mail port.

#### **Data No. 14 - Call Block Selection**

Select *Yes* for each Voice Mail port.

#### **Data No. 15 - CO/PBX Ring Assignment (Day Mode)**

For each Voice Mail port, select all trunk numbers that should ring that port during the day mode.

#### **Data No. 16 - CO/PBX Ring Assignment (Night Mode)**

For each Voice Mail port, select all trunk numbers that should ring that port during the night mode.

### LK3 CO/PBX Line Mode Programming

#### **Data No. 7 - CO/PBX DTMF Duration/Interdigit Assignment**

For each CO/PBX line, set the tone duration to 100 ms and the interdigit time to 70 ms.

## Voice Mail Programming

### Default Dial Action Table

Extension numbering starts at 10. After extension 25, the remaining Subscriber Mailboxes are numbered 810 to 843.

Key	Routing Option
Key 0	Action: UX for Dialing Options Menus 1 & 4 MR (REC1) for Dialing Options Menus 2 & 3 Number: 10 for DATs 1 through 4
Key 1	Action: UC Number: XX
Key 2	Action: UC Number: XX
Key 3	Action: UK Number: None
Key 4	Action: UK Number: None
Key 5	Action: UK Number: None
Key 6	Action: UK Number: None
Key 7	Action: UK Number: None
Key 8	Action: UC Number: XXX
Key 9	Action: HU Number: None
Key *	Action: Quick Message (REC1) Number: IXX
Key #	Action: LOGON Number: None
TIMEOUT	Action: UX for Dialing Options Menus 1&4 MR (REC2) for Dialing Options Menus 2 & 3 Number: 10 for DATs 1 through 4

### Other Notes

By default, the Automated Attendant is set up with unscreened transfers, so that you must Call Forward the phones to the Voice Mail.

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## Required Hardware and Software

- Each Voice Mail port must be connected to a port on the SLI-F (8G)-21KTU Card
- Any software level is OK.

## Voice Mail Availability

This phone system is available on the NVM-2CA Voice Mail system.

## Phone System Programming

### LK1 System Mode Programming

#### LK 1 - 11 System Transfer/Camp-On Selection

Select *Yes* (which is the default setting).

#### LK 1 - 46/LK 1 - 47 Access Code 1 - Digit/2-Digit Assignment

Assign codes to:

- SLT Conversation Record function 042.
- Directed Voice Mail Transfer function No. 43.

#### LK 3 - 02 SLT HookFlash Signal Selection

Select *Hold* (which is the default setting).

#### LK 3 - 11 VM Master Hunt Number FWD Assignment

Assign a pilot number to a Voice Mail Master Hunt Number.

#### LK 8 - 01 SLT or Automated Attendant to PBR Selection

Set PBR's on the CPU to be used for Single Line Telephone.

### LK4 Telephone Mode Programming

#### Data No. 10 - Station Number Assignment

Use this program to change the port assignments, as necessary.

#### Data No. 14 - Intercom Master Hunt Number Selection

Select a master hunt number.

#### Data No 35 - Voice Mail/SLT Selection

Select *Yes* for each Voice Mail port.

#### Data No 95 - DTMF/DP SLT Type Selection

Select *DTMF* for each Voice Mail port.

#### Data No 96 - SLT Connect Yes/No Selection

Select *Yes* for each Voice Mail port.

### LK3 CO/PBX Line Mode

#### Data No. 42 - DIT Assignment

For each CO line, select which lines should ring Voice Mail during the day mode. Enter the Voice Mail pilot number.

#### Data No. 43 - ANA Assignment

For each CO line, select which lines should ring Voice Mail during the night mode. Enter the Voice Mail pilot number

## Voice Mail Programming

### Default Dial Action Table

Extension numbering is 100 through 149.

Key	Routing Option
Key 0	Action: UX for Dialing Options Menus 1 & 4 MR (REC1) for Dialing Options Menus 2 & 3 Number: 100 for DATs 1 through 4
Key 1	Action: UC Number: XXX
Key 2	Action: UK Number: None
Key 3	Action: UK Number: None
Key 4	Action: UK Number: None
Key 5	Action: UK Number: None
Key 6	Action: UK Number: None
Key 7	Action: UK Number: None
Key 8	Action: UK Number: None
Key 9	Action: HU Number: None
Key *	Action: Quick Message (REC1) Number: IXX
Key #	Action: LOGON Number: None
TIMEOUT	Action: UX for Dialing Options Menus 1&4 MR (REC2) for Dialing Options Menus 2&3 Number: 10 for DATs 1 through 4

### Other Notes

By default, the Automated Attendant is set up with unscreened transfers, so that you must Call Forward the phones to the Voice Mail.

## Required Hardware and Software

For each NVM-2CA port, you will need an analog station port from the phone system. Analog station ports are provided through the Portrait Voice Mail Interface Unit (P/N 82440). Each Voice Mail Interface Unit supports two Voice Mail ports.

You will need one of these Portrait setups:

■ **Setup 1**

Portrait 824 main cabinet (P/N 82400) with software version 2.1B or higher *and* 2CO/8STA PCB (P/N 82402A). Each of the NVM-2CA ports must be connected to a station port (numbered 8—25, stations 9—16) on the 2CO/8STA PCB (P/N 82402A).

■ **Setup 2**

Portrait 824 main cabinet (P/N 82400A) with software version 2.1B or higher *and* 2CO/8STA PCB (P/N 82402A). Each of the NVM-2CA ports must be connected to a station port (numbered 1—8, stations 10—17) on the 2CO/8STA PCB (P/N 82402A).

■ **Setup 3**

Portrait 824 main cabinet (P/N 82400A) with software version 2.1B or higher *and* 2CO/8STA PCB (P/N 82402). Each of the NVM-2CA ports must be connected to any station port on the PCB.

You will also need the following equipment:

- NVM-2CA AC power adapter
- AC outlet (120V, 60Hz)
- Modular 2-wire or 4-wire line cord(s)
- RJ14 jack or an RJ14-to-RJ11 adapter
- 8 alkaline AA batteries

## Voice Mail Availability

This phone system is available on the NVM-2CA Voice Mail system.

## Phone System Programming

Certain functions in the phone system require specific setup entries when you are integrating your system with the NVM-2CA Voice Mail. The following list tells you which phone system programs you must set up. See the programming manual for your phone system for instructions on how to program the phone system.

### General Programming

#### **Program 65 - Voice Mail Ports**

Use this program to identify the Portrait stations connected to the NVM-2CA.

#### **Program 7 - Incoming Line Access/Audible**

Use this program to enter the lines that should ring the NVM-2CA.

#### **Program 23 - Unscreened Transfer Recall**

Use this program to determine how long a call should ring an extension before going to the NVM-2CA.

## Phone System Programming (cont'd)

### User Features

#### Forwarding Extensions to the NVM-2CA

Since the NVM-2CA uses unsupervised transfers (UTRFs) with the Portrait phone system, extension users must forward their calls to the NVM-2CA, so that an outside caller can leave them a message. The caller can reach a user's mailbox after either hearing the main greeting or directly calling an extension that is busy, in Do Not Disturb, or does not answer.

#### To forward a call from a Keypad to NVM-2CA:

1. Press **SPK**.
2. Press **TRF**.
3. Dial the station number of the first Voice Mail port.
4. Dial the Call Forwarding Code:
  - 0 - All Calls
  - 1 - Busy
  - 2 - No Answer
  - 3 - Busy/No Answer
5. Press **SPK**.

#### To cancel Call Forwarding to the NVM-2CA from a Keypad:

1. Press **SPK**.
2. Press **TRF** twice.
3. Press **SPK**.

#### To forward calls from a Single Line to the NVM-2CA:

1. Go off hook.
2. For Dial Plan 1: Dial 63  
OR  
For Dial Plan 2 with 1 as a Line Access Code:  
Dial 053 (default)  
OR  
For Dial Plan 2 with 0 as a Line Access Code:  
Dial 953.
3. Dial the NVM-2CA Direct Log-On Number (98).  
Dial Call Forwarding Code:
  - 0 - All Calls
  - 1 - Busy
  - 2 - No Answer
  - 3 - Busy/No Answer
4. Hang up.

#### To cancel Call Forwarding to the NVM-2CA from a Single Line:

1. Go off hook.
2. For Dial Plan 1: Dial 69 (to cancel 63 above)  
OR  
For Dial Plan 2 with 1 as a Line Access Code:  
Dial 059 (to cancel 053 above)  
OR  
For Dial Plan 2 with 0 as a Line Access Code:  
Dial 959 (to cancel 953 above).
3. Hang up.

## Voice Mail Programming

### Default Dial Action Table

Extension numbering is 10 to 59.

Key	Routing Option
Key 0	Action: UX for Dialing Options Menus 1 & 4 MR (REC1) for Dialing Options Menus 2 & 3 Number: 10 for DATs 1 through 4
Key 1	Action: UX Number: XX
Key 2	Action: UX Number: XX
Key 3	Action: UX Number: XX
Key 4	Action: UX Number: XX
Key 5	Action: UX Number: XX
Key 6	Action: UK Number: None
Key 7	Action: UK Number: None
Key 8	Action: UK Number: None
Key 9	Action: HU Number: None
Key *	Action: Quick Message (REC1) Number: IXX
Key #	Action: LOGON Number: None
TIMEOUT	Action: UX for Dialing Options Menus 1&4 MR (REC2) for Dialing Options Menus 2 & 3 Number: 0 for DATs 1 & 4 10 for DATs 2 & 3

### Other Notes

Call Forwarding to a mailbox is not allowed.

# Nitsuko Portrait

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## Required Hardware and Software

The Voice Mail integrates with the following software:

- KXT-123210
- KXT-123211 (without the D chip)
- KXT-123211D

You need a KXT-1232 station port for each Voice Mail port.

The Voice Mail integrates with any software version of the KXT-123210 and the KXT-123211 without the D chip. Since these phone systems do not have inband signaling, extension users should not forward their calls to Voice Mail. However, normal Voice Mail operations will occur with these integrations.

Software version Y2012940430(TM3) or higher is required for integration with the KXT-123211D. This phone system provides inband integration.

## Voice Mail Availability

This phone system is available on the NVM-2CA Voice Mail system.

## Phone System Programming

**To set up groups that contain the Voice Mail extensions:**

### **Program 60 - Extension Group Assignment**

Use this program to place the Voice Mail extensions in a group (1–8).

### **Program 08 - Call Hunting**

Use this program to enable Call Hunting for the Voice Mail extension group.

### **Program 09 - Hunting Type**

Use this program to assign a Hunting Type to the Voice Mail extension group.

**To have the Automated Attendant answer a CO line as soon as it rings in, use the following programs:**

### **Program 47 - Flexible Ringing Assignment (Day)**

Use this program to make a CO immediately ring the Voice Mail system during the day mode.

### **Program 48 - Flexible Ringing Assignment (Night)**

Use this program to make a CO ring the Voice Mail system immediately during the night mode.

Any CO that should ring the Voice Mail must be assigned ringing at one, two, or three of the Voice Mail extensions. It is recommended that you program a CO to ring at all Voice Mail extensions, so that the call can be answered at an available Voice Mail extension, whenever one or two of the Voice Mail extensions are busy.

**Note:** Company greetings are assigned to ports (via the Answering Schedule Tables), rather than to COs. So if you want CO 1 to be answered by a different set of "company greetings" than CO 2, for example, make sure that CO 1 does not ring the same Voice Mail extensions (ports) as those rung by CO 2. **REMINDER:** If you are using this CO scenario, make sure that you keep track of which COs ring which ports. Later you will need this information.

## Phone System Programming (cont'd)

**To have the Automated Attendant answer a CO after a delay, use the following programs:**

### **Program 49 - Delayed Ringing Assignment (Day)**

Use this program to make a CO line ring the Voice Mail system during the day, but only after a delay (that is, only after the CO has rung [tried] another extension).

### **Program 50 - Delayed Ringing Assignment (Night)**

Use this program to make a CO line ring the Voice Mail system during the night mode, but only after a delay (that is, only after the CO has rung [tried] another extension).

Any CO that should ring the Voice Mail system must be assigned ringing at one, two, or three of the Voice Mail extensions. It is recommended that you program a CO line to ring at all Voice Mail extensions, so that a call can be answered at an available Voice Mail extension, even when one or two of the Voice Mail extensions are busy.

**Note:** Company greetings are assigned to ports (via the Answering Schedule Tables), rather than to COs. So if you want CO 1 to be answered by a different set of "company greetings" than CO 2, for example, make sure that CO 1 does not ring the same Voice Mail extensions (ports) as those rung by CO 2. **REMINDER:** If you are using this CO scenario, make sure that you keep track of which COs ring which ports. Later you will need this information.

**To assign Voice Mail Ports as Extensions:  
(only for a KXT-123211D Phone System)**

### **Program 80 - Assign Voice Mail Ports**

Use this program to inform the phone system as to which extensions (ports) are connected to the Voice Mail. Ports with Program 80 enabled will receive Follow-on ID and DTMF signaling for call statuses, such as Busy, Answered, or Disconnect.

### **Users Features**

If users set Follow-On ID and forward their phone calls to Voice Mail, the KXT-123211D can forward callers directly to the extension's Subscriber Mailbox. The phone system automatically sends the digits of the called extension to the Voice Mail port before connecting the caller. These digits are known as the Follow-On ID.

For Follow-On ID, the user must choose either Setting A or Setting B. Choosing Setting A will send only the extension number to the Voice Mail port. Choosing Setting B will send #6 followed by the extension number. Although the Voice Mail works with either setting, Setting B is the recommended choice in order to avoid any potential problems.

## Phone System Programming (cont'd)

### To set the Follow-On ID from an extension:

**Setting A** - An extension number is sent to the Voice Mail port.

1. Lift handset, or press **SP-PHONE**.
2. Dial **71**, or press **FWD/DND (F3)**.
3. Dial **91#**.  
You will hear a confirmation tone followed by a dial tone.
4. Hang up, or press **SP-PHONE**.

**Setting B (Preferred)** - #6 followed by an extension number that is sent to the Voice Mail port.

1. Lift handset, or press **SP-PHONE**.
2. Dial **71**, or press **FWD/DND (F3)**.
3. Dial **92#**.  
You will hear a confirmation tone followed by a dial tone.
4. Hang up, or press **SP-PHONE**.

### To cancel the Follow-On ID from an extension for both settings:

1. Lift handset, or press **SP-PHONE**.
2. Dial **71**, or press **FWD/DND (F3)**.
3. Dial **90#**.  
You will hear a confirmation tone followed by a dial tone.
4. Hang up, or press **SP-PHONE**.

## Voice Mail Programming

### System Options in the System Configuration Management Program

#### RNA/Busy, Hold Retrieval

DEFAULT: FP

#### Lamp On String

DEFAULT: 701X#P

#### Lamp Off String

DEFAULT: 702X#

#### Transfer String

DEFAULT: FW

### Global Options in the System Configuration Management Program

#### Flashtm Hook Flash time

DEFAULT: 50 (1=10 ms)

# Panasonic KXT-1232

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## Voice Mail Programming

### Default Dial Action Table

Extension numbering starts at 101. After extension 132, the remaining Subscriber Mailboxes are numbered 810 to 827.

Key	Routing Option
Key 0	Action: UX for Dialing Options Menus 1 & 4 MR (REC1) for Dialing Options Menus 2 & 3 Number: 101 for DATs 1 through 4
Key 1	Action: UC Number: XXX
Key 2	Action: UK Number: None
Key 3	Action: UK Number: None
Key 4	Action: UK Number: None
Key 5	Action: UK Number: None
Key 6	Action: UK Number: None
Key 7	Action: UK Number: None
Key 8	Action: UC Number: XXX
Key 9	Action: HU Number: None
Key *	Action: Quick Message (REC1) Number: IXXX
Key #	Action: LOGON Number: None
TIMEOUT	Action: UX for Dialing Options Menus 1 & 4 MR (REC2) for Dialing Options Menus 2 & 3 Number: 101 for DATs 1 through 4

### Other Notes

1. Call Forwarding to a Mailbox is not allowed for KXT-123210 and KXT-123211 without the D chip.
2. By default, the Automated Attendant is set up with unscreened transfers, so that you must Call Forward the phones to the Voice Mail.

## Required Hardware and Software

- One KX-TD1232 station port for each Voice Mail port. Due to limited DTMF receivers in the phone system for outdialing, do not use more than 2 KX-TD1232 station ports per Station Card for Voice Mail.
- Any Panasonic KX-TD1232 software version

## Voice Mail Availability

This phone system is available on the NVM-2CA Voice Mail system.

## Phone System Programming

**To set up groups that contain the Voice Mail extensions:**

### **Program 602 - Extension Group Assignment**

Use this program to place the Voice Mail extensions in a group (1–8). Extensions are the KXTD-1232 station ports that are connected to the Voice Mail.

### **Program 106 - Station Hunt Type**

Use this program to assign Auto Attendant Hunting to the group that you created in Program 602. The name of the group must be AA (for Automated Attendant).

**To have Automated Attendant answer a CO line as soon as it rings in:**

### **Program 407 - Direct In Lines (Day)**

Use this program to make a CO line immediately ring the Voice Mail during the phone system's day mode. Direct the CO line to the lowest extension in the Voice Mail Extension Group (see Program 602).

### **Program 408 - Direct In Lines (Night)**

Use this program to make a CO line immediately ring the Voice Mail during the phone system's night mode. Direct the CO line to the lowest extension of the Voice Mail Extension Group (see Program 602).

**To have the Automated Attendant answer a CO after a delay (that is, after first ringing somewhere else):**

### **Program 603 - DIL Extension Delayed Ringing (Day)**

Use this program to make a CO line ring the Voice Mail during the phone system's night mode, but only after a delay. Direct the CO line to the lowest extension of the Voice Mail Extension Group (see Program 602).

### **Program 604 - DIL Extension Delayed Ringing (Night)**

Use this program to make a CO line ring the Voice Mail during the night mode but only after a delay. Direct the CO line to the lowest extension in the Voice Mail Extension Group (see Program 602).

## Phone System Programming (cont'd)

### Inband Integration Programs

#### Program 113 - VM Status DTMF Set

Enter the following codes so that system call progress will function properly:

- RBT (Ringback tone) = None (no DTMF tones should be sent). Remove the default entry of 1.
- BT (Busy tone) = 2
- DND (DND Tone) = 3
- ROT (Reorder tone) = 3
- Answer = 1
- Disconnect = 999
- Confirm (Confirmation tone) = None (no DTMF tones should be sent). Remove the default entry of 9.
- FWD VM BT (FWD to VM Ringback tone) = 3
- FWD VM BT (FWD to VM busy tone) = 3
- FWD EXT RBT (FWD to Extension Ringback Tone) = None (no DTMF tones should be sent). Remove the default entry of 8.

#### Program 114 - VM Command DTMF Set

Use the following codes for Call Forwarding directly to a mailbox, retrieving messages, and/or using the Message Waiting key to log on to a mailbox:

LV MSG = \*H

Get MSG = #H

AA Service = None (remove default entry of #8)

VM SVC = None (remove default entry of #6).

#### Program 609 - Voice Mail Access Codes

Use Program 609 so that the extension ID will be forwarded to the Voice Mail. The entry for each extension should be the owner's extension. For example, if the owner's extension is 101, the program entry should be 101.

**Note:** If extension users should be able to forward their calls to their mailbox and some extension users have mailbox numbers that do not match their extension numbers, use Program 609 to assign the desired mailbox number to **each** extension in the phone system, including those extensions that have matching mailbox numbers. Also, set field 18 in Program 990 to 1 (free).

#### Program 990 Field 10

This must be set to 0 (Do Not Start) for integration to work properly.

## Phone System Programming (cont'd)

### Automated Attendant Transfers

#### Program 201 - Transfer Recall Timer

If *unscreened* transfers (UTRF's) are being used and extension users are forwarding calls to their mailboxes, set **Transfer Recall Timer** to at least one ring higher than the value set in Program 202 (below).

However, if *screened* transfers (TRF's) are being used, set the **Transfer Recall Timer** to a value higher than the value of **Rings before redirect transfer** for any Call Routing Mailbox that is handling calls.

#### Program 202 - Call Forwarding No Answer Time

This timer sets the number of times a call should ring an extension before being forwarded to its mailbox. Use this timer if the Automated Attendant is set up for unscreened transfers (UTRF's) and the extensions are set up for mailbox call forwarding.

#### Program 200 -Hold Recall Time

If the Automated Attendant is set up for screened transfers (TRF's), set this timer higher than the value of **Rings before redirect transfer** for any Call Routing mailbox that is handling calls.

### Additional System Programming

To protect the Voice Mail System ports from interruption from other phone system features, each analog port of the phone system that will be connected to the Voice Mail System must have data line security set.

To set data line security: Connect a standard analog set to the Voice Mail port, go off-hook, dial **730** and **1**. After you hear a confirmation tone, hang up.

#### Program 990

The following fields in this program should be set as shown:

Field 2 = 0 default

Field 5 = 0 default

Field 6 = 0 default

Field 7 = 10 default

Field 8 = 10 default

Field 9 = 0 default

Field 16 = 1 default

Field 18 = 0 default (see Note under Program 114)

Field 22 = 0 default

Field 24 = 0 default.

#### Program 405: Calling Party Control

Disconnect signal = 400 ms default. This value (also known as drop pulse time) should be set to match the open loop disconnect supervision time sent from your local phone company.

## Phone System Programming (cont'd)

### About DIL Private Lines

#### Program 409 - Intercept Extension Day

#### Program 410 - Intercept Extension Night

To have an extension's DIL (Private Line) overflow to extension's (Subscriber) mailbox, enter the Voice Mail master extension in Program 409/410 for the Private Line.

For example, if you want the Private Line of extension 310 to overflow to a Call Routing Mailbox, make sure that mailbox 310 is a Call Routing Mailbox rather than a Subscriber Mailbox.

#### Program 203 - Intercept Time

This is the number of times that a DIL (Private Line) should ring an extension before going to the intercept (overflow) extension.

### About Flexible Button Assignments

#### Program 005 - Flexible CO button assignment

##### To program a Voice Mail Transfer key on any Keypad from a Manager's phone:

1. Enter program 005, and press **Next**.
2. Enter jack number of the Keypad phone that should have a Voice Mail Transfer key.
3. Press the Flexible Button that should be the Voice Mail Transfer key. Enter the button code of 8.
4. Dial the Voice Mail master extension.
5. Press **Store** and **End (Hold)**.

##### To program a Msg Waiting button on a key phone:

1. Enter program 005, and press **Next**.
2. Enter jack number of the Keypad phone that should have a Msg Waiting key.
3. Press the Flexible Button that should be the Msg Waiting key. Enter the button code of 3.
4. Press **Store** and **End (Hold)**.

##### To program a FWD/DND button on a key phone:

1. Enter program 005, and press **Next**.
2. Enter jack number of the Keypad phone that should have a FWD/DND button.
3. Press the Flexible Button that should be the FWD/DND key. Enter the button code of 4.
4. Press **Store** and **End (Hold)**.

### About Call Forwarding to a Mailbox

Call Forwarding to a Mailbox is allowed, only if the Automated Attendant is set up in the Dial Action Table for unscreened transfers, such as UX or UC.

## Phone System Programming (cont'd)

### About Call Forwarding to a Mailbox (cont'd)

#### To forward calls:

1. Go off-hook.
2. Press **FWD/DND** on a Keypad, or dial **710** on a Single Line.
3. Dial call forwarding code:
  - 2 - Forward all calls
  - 3 - Forward busy
  - 4 - Forward no answer
  - 5 - Forward busy/no answer
4. Dial master extension.
5. Hang up.

#### To cancel forwarding:

1. Go off-hook.
2. Press **FWD/DND** on a Keypad, or dial **710** on a Single Line.
3. Dial **0**.
4. Hang up.

**Note:** When using any of the Call Forwarding to Voice Mail options, the phone system transmits the follow-on ID (mailbox number) of the lowest jack number of the receiving extensions.

### About Transfer to a Mailbox

#### To transfer an outside caller directly into a person's mailbox by using the Voice Mail Transfer key on a Keypad:

1. Press the Voice Mail Transfer key.
2. Press the DSS button for the person's extension.  
OR  
Dial the person's extension.
3. Hang up.

#### To transfer an outside caller directly into a person's mailbox by using a Keypad that does not have a Voice Mail Transfer key:

1. Press the Transfer key.
2. Dial the Voice Mail master extension, and wait for the Voice Mail to answer.
3. Dial \* and the extension's mailbox.
4. Hang up.

## Phone System Programming (cont'd) About Transfer to a Mailbox (cont'd)

**To transfer an outside caller directly into a person's mailbox, using a Single Line:**

1. Hookflash.
2. Dial the Voice Mail master extension, and wait for the Voice Mail to answer.
3. Dial \* and the extension's mailbox.
4. Hang up.

**To Call Your Mailbox and Listen to Your Messages:**

1. Go off-hook.
2. Press the lit Message button (if you have a Message button).

OR

Dial the Voice Mail master extension, wait for an answer, press #, and dial your mailbox number.

## Voice Mail Programming System Options in the System Configuration Management Program

### RNA/Busy, Hold Retrieval

DEFAULT: FP

### Lamp On String

DEFAULT: 701X

### Lamp Off String

DEFAULT: 700X

### Transfer String

DEFAULT: FW

### Ringdown string

DEFAULT: \*

## Voice Mail Programming (cont'd)

### Default Dial Action Table

Extension numbering starts at 101. After extension 132, the remaining Subscriber Mailboxes are numbered 810 to 827.

Key	Routing Option
Key 0	Action: UX for Dialing Options Menus 1 & 4 MR (REC1) for Dialing Options Menus 2 & 3 Number: 101 for DATs 1 through 4
Key 1	Action: UC Number: XXX
Key 2	Action: UK Number: None
Key 3	Action: UK Number: None
Key 4	Action: UK Number: None
Key 5	Action: UK Number: None
Key 6	Action: UK Number: None
Key 7	Action: UK Number: None
Key 8	Action: UC Number: XXX
Key 9	Action: HU Number: None
Key *	Action: Quick Message (REC1) Number: IXXX
Key #	Action: LOGON Number: None
TIMEOUT	Action: UX for Dialing Options Menus 1 & 4 MR (REC2) for Dialing Options Menus 2 & 3 Number: 101 for DATs 1 through 4

# Panasonic KXTD-1232

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## Required Hardware and Software

- Each Voice Mail port must be connected to a port on the Basic Telephone (012) Module, model 517C13
- Processor 517C7 module
- Feature Module 517G6 Release 3
- 1 Ring Generator
- (If the 012 module is in the expansion carrier, then the ring generator must be in the expansion carrier's power supply module.)

## Voice Mail Availability

This phone system is available on the NVM-2CA Voice Mail system.

## Phone System Programming

You will need the Merlin Mail Guide for the Merlin II to complete this programming.

### Assigning Ports to AA/VMS

Determine the extensions to be connected to the Voice Mail System. These extensions will be referred to as the Voice Mail extensions.

### Labeling the AA/VMS Ports

Label the Voice Mail extensions, so that display phones can easily identify calls from the Voice Mail.

### Assigning AA/VMS Ports to the Exclusion List

The Voice Mail extensions *must* be assigned to the exclusion list if the Merlin II is set up for Night Service with Outward Restriction.

### Selecting CO Dial Tone

Use this procedure to change the Merlin II system from intercom to CO (Central Office) dial tone.

### Call Handling Methods

The Automated Attendant can answer calls immediately (primary) or after a delay (secondary). If you want the Automated Attendant to answer calls immediately, use the programming listed under the topic, *Selecting Immediate Call Handling*. If you want the Automated Attendant to act as a backup to the primary call handler, use the instructions listed under *Selecting Delayed Call Handling*.

## Voice Mail Programming

### System Options in the System Configuration Management Program

#### **RNA, Hold Retrieval**

DEFAULT: FPEP

#### **Busy, Hold Retrieval String**

DEFAULT: FP

#### **Lamp On String**

DEFAULT: #900X

#### **Lamp Off String**

DEFAULT: #901X

#### **Transfer String**

DEFAULT: FW

#### **Ringdown string**

DEFAULT: None

#### **Call pickup string**

DEFAULT: W\*9

#### **Flash timer**

DEFAULT: 50 (1 = 10ms)

#### **Access digits before Callout**

DEFAULT: 9W

#### **Wait for first protocol digit**

Not used

#### **Wait for subsequent protocol digit**

Not used

#### **Wait for last protocol digit**

Not used

## Voice Mail Programming (cont'd)

### Default Dial Action Table

Key	Routing Option
Key 0	Action: UX for Dialing Options Menus 1 & 4 MR (REC1) for Dialing Options Menus 2 & 3 Number: 10 for DATs 1 through 4
Key 1	Action: UC Number: XX
Key 2	Action: UC Number: XX
Key 3	Action: UC Number: XX
Key 4	Action: UC Number: XX
Key 5	Action: UC Number: XX
Key 6	Action: UK Number: None
Key 7	Action: UK Number: None
Key 8	Action: UC Number: XXX
Key 9	Action: HU Number: None
Key *	Action: Quick Message (REC1) Number: IXXX
Key #	Action: LOGON Number: None
TIMEOUT	Action: UX for Dialing Options Menus 1 & 4 MR (REC2) for Dialing Options Menus 2 & 3 Number: 10 for DATs 1 through 4

### Other Notes

Call Forwarding to a mailbox is not allowed.

# Lucent Merlin II

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## Required Hardware and Software

- Each Voice Mail port must be connected to a port on the Basic Telephone (012) Module, model 517C13
- Processor 517C7 module
- Feature Module 517G6 Release 3
- 1 Ring Generator  
(If the 012 module is in the expansion carrier, the ring generator must be in the expansion carrier's power supply module.)

## Voice Mail Availability

This phone system is available on the NVM-2CA Voice Mail System.

## Phone System Programming

You will need the Merlin Mail Guide for the Merlin Legend to complete this programming. Most of the required programming is in Chapter 4.

### Create an Integrated VMI Group

Place the Voice Mail extensions (the 012 telephone modules that you intend to connect to the Voice Mail System) into an Integrated VMI Group.

### Group Coverage

Assign all the extensions that will have Subscriber Mailboxes into a Calling Group.

### Group Calling

Assign the lines that should be answered by the Voice Mail System to a group Calling Group. These lines should not be in a line pool.

### Hunt Type

The Hunt Type defines the method used by VMI Calling Group to search for the next available extension. Program a *Linear* hunt pattern, so that the system will search in the same order as the one you used to assign phones in the group.

### VMS Transfer Return Interval

The VMS Transfer Return Interval defines the number of rings that should occur, before a call, transferred by the Voice Mail System, is redirected to designated extension. This timer is a call parameter that you can set in the System Configuration Management Program. Set the timer to a higher value than the *No Answer Ring* timer of any Call Routing Mailbox that is handling calls.

### Program a DND Key

Program a DND key on the phones that you want to be able to send calls directly to Voice Mail during a blind transfer from the Voice Mail System.

### Call Answer Service

Use this set of programs to forward unanswered calls to the Voice Mail System, if you do not want an Automated Attendant.

### Cover Delay Timer

Use this program to set how many times a blind transfer or internal RNA will ring a member of the Group Calling before Calling the Automated Attendant and releasing the protocol.

### Call Handling Methods

Use this set of programs, if you want an Automated Attendant to answer calls, greet callers, and give them dialing options.

# Lucent Merlin Legend

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## Voice Mail Programming

Call Routing Mailboxes default to 702, 703, 704, and 707.

Announcement Mailboxes default to 700 and 701.

The Distribution Mailbox is 705.

The Future Delivery Mailbox is 706.

## Default Dial Action Table

Extension numbering is 10 to 59.

Key	Routing Option
Key 0	Action: UX for Dialing Options Menus 1 & 4 MR (REC1) for Dialing Options Menus 2 & 3 Number: 0 for DATs 1 & 4 10 for DATs 2 & 3
Key 1	Action: UC Number: XX
Key 2	Action: UC Number: XX
Key 3	Action: UC Number: XX
Key 4	Action: UC Number: XX
Key 5	Action: UC Number: XX
Key 6	Action: UK Number: None
Key 7	Action: UK Number: None
Key 8	Action: UC Number: XXX
Key 9	Action: HU Number: None
Key *	Action: Quick (REC1) Number: IXXX
Key #	Action: LOGON Number: None
TIMEOUT	Action: UX for Dialing Options Menus 1 & 4 MR (REC2) for Dialing Options Menus 2 & 3 Number: 0 for DATs 1 & 4 10 for DATs 2 & 3

## Other Notes

By default, the Automated Attendant is set up with unscreened transfers. Therefore, you must Call Forward the phones to the Voice Mail.

Trunk Mailboxes start at 801. They are used by the Voice Mail System for trunk ID information that is sent from the phone system. You cannot program these mailboxes.

## Required Hardware and Software

- Processor must be R 3.1 module for inband signaling.
- Station/Line 206 Module (206E R3.1) is required for Message Waiting capability for voice messages.

## Voice Mail Availability

This phone system is available on the NVM-2CA Voice Mail system.

## Phone System Programming

You will need the Partner Plus manual to complete this programming.

### To have the Automated Attendant answer calls:

#### **Program 607 AA Extensions**

Use this program to identify each Lucent Partner extension that will have a Key \*AA/VM port connected. This is to notify display set users of a call being handled by the Voice Mail System ports.

#### **Program 505 Hunt Group Extensions**

Use this program to assign the Lucent Partner extensions that will be connected to AA/VM ports to Hunt Group 7. Only this hunt group sends integration protocol.

#### **Program 206 Group Call Distribution**

Use this program to assign the lines that should terminate and be answered by Hunt Group 7 above.

#### **Program 507 VMS Hunt Schedule**

Use this program to determine when calls will terminate to Hunt Group 7 (always, day only, night only). This depends on the status of the Night Service Button at Extension 10.

#### **Program 506 VMS Hunt Delay**

Use this program to determine how outside calls should be answered by the AA/VM: Immediate (after 2nd ring) or Delayed (after 4th ring).

### To set up unscreened Automated Attendant transfers (UTRFs) to the extensions:

#### **Program 310 Auto VMS Cover**

Use this program to determine whether an extension's unanswered intercom and transferred calls are automatically covered by the voice messaging system. If Do Not Disturb is activated, calls will go to voice messaging regardless of whether or not Program 310 is enabled.

#### **Program 306 Transfer Return Extension**

Use this program to determine the destination of a call after an incomplete Auto Attendant transfer. The destination is typically Extension 10. In an incomplete transfer, the Automated Attendant cannot complete the call transfer, because the call was moved to an extension that either did not answer or did not have Voice Mail coverage.

## Phone System Programming (cont'd)

**If you are going to set up screened Automated Attendant transfers (TRFs) to the extensions:**

### **Program 105 Transfer Return Rings**

Use this program to set this timer higher than the *Rings before redirect transfer* for any Call Routing Mailbox that is handling calls.

### **User Features**

#### **To transfer an intercom or CO call directly into a mailbox:**

Press Feature 14, enter the 2-digit mailbox number, and hang up.

#### **To allow the Subscribers to call their mailboxes with one touch:**

Program each extension with an auto dial button for the Voice Mail hunt group (Intercom 777).

#### **To program a VMS Cover Button to extension:**

Press Feature 15.

## Voice Mail Programming

### Default Dial Action Table

Extension numbering starts at 10. After extension 33, the remaining Subscriber Mailboxes are numbered 810 to 835.

Key	Routing Option
Key 0	Action: UX for Dialing Options Menus 1 & 4 MR (REC1) for Dialing Options Menus 2 & 3 Number: 0 for DATs 1 & 4 10 for DATs 2 & 3
Key 1	Action: UC Number: XX
Key 2	Action: UC Number: XX
Key 3	Action: UC Number: XX
Key 4	Action: UK Number: None
Key 5	Action: UK Number: None
Key 6	Action: UK Number: None
Key 7	Action: UK Number: None
Key 8	Action: UC Number: XXX
Key 9	Action: HU Number: None
Key *	Action: Quick Message (REC1) Number: IXXX
Key #	Action: LOGON Number: None
TIMEOUT	Action: UX for Dialing Options Menus 1 & 4 MR (REC2) for Dialing Options Menus 2 & 3 Number: 0 for DATs 1 & 4 10 for DATs 2 & 3

### Other Notes

By default, the Automated Attendant is set up with unscreened transfers, so that you must Call Forward the phones to the Voice Mail.

The Voice Mail software uses Trunk Mailboxes for processing inbound call information, but you cannot program any features for them. In general, the numbering for Trunk Mailboxes starts at 01. It is recommended that you do not change this number, unless the trunks in your phone system start with a different number. If the starting number for your trunks and for your Subscriber Mailboxes is the same, set the *First Trunk equipment #/Trunk mailbox offset* parameter.

# Lucent Partner Plus

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## Required Hardware and Software

- Processor must be R3.1 module for inband signaling.
- Station/Line 206 Module version R3.1 or higher. This module supports two CO lines and six extensions and six extensions. The module is required for Message Waiting capability for voice messages. Each Voice Mail port requires one port from this module. In addition, this module supports industry standard 2500 sets or Lucent proprietary sets, such as MLS-120.

## Voice Mail Availability

This phone system is available on the NVM-2CA Voice Mail system.

## Phone System Programming

You will need the Partner II Communications System Programming and User manual to complete this programming. Most of the required programming is in Chapter 2 of that guide.

Each Voice Mail extension must have Automatic Line Selection set for intercom, which enables the Partner II to provide intercom dial tone, whenever the Voice Mail port goes off hook.

Partner II system extension numbers overlap with the numbers in the trunk number plan. Therefore, if trunk mailboxes above trunk 09 are in use, the System Option, *Trunk Mailbox Offset*, must be programmed.

### General Programming

#### Program 304 Automatic Extension Privacy

Enable this program for each Voice Mail extension in order to prevent extensions from barging in on Voice Mail calls that are currently in process.

### To have the Automated Attendant answer calls:

#### Program 607 AA Extensions

Use this program to identify each Lucent Partner extension that will have an AA/VM port connected. This is to notify display set users of a call being handled by Voice Mail ports.

#### Program 505 Hunt Group Extensions

Use this program to assign the Lucent Partner extensions that will be connected to AA/VM ports to Hunt Group 7. Only this hunt group sends integration protocol.

#### Program 206 Group Call Distribution

Use this program to assign the lines that should terminate and be answered by Hunt Group 7 above. To route calls after four rings to a specific user's mailbox, select VMS Line Cover (setting 3).

#### Program 507 VMS Hunt Schedule

Use this program to determine when calls will terminate to Hunt Group 7: Always, Day Only, or Night Only. This depends on the status of the Night Service Button at Extension 10.

## Phone System Programming (cont'd)

### Program 506 VMS Hunt Delay

Use this program to determine how outside calls should be answered by the Voice Mail Automated Attendant: Immediate or Delayed. When the Voice Mail is in Immediate Call Answering, calls are answered after the second ring. When the Voice Mail is in Delayed Call Answering, calls are answered after the fourth ring.

**If you are going to set up unscreened Automated Attendant transfers (UTRF) to the extensions:**

### Program 310 Auto VMS Cover

Use this program to determine whether an extension's unanswered intercom and transferred calls are automatically covered by the voice messaging system. When Do Not Disturb is activated, calls will go to voice messaging regardless of whether or not Program 310 is enabled.

### Program 208 Line Coverage Extension

Use this program to identify an extension as the owner of a specific outside line. This ownership allows the extension to activate call coverage for the line. (Do Not Disturb overrides this feature and immediately routes the call to Voice Mail.)

### Program 116 Call Coverage Rings

Use this program to specify the number of times a covered extension should ring, before a call will be routed to the covering extension. If the **covering** extension is programmed for both **Program 116 Call Coverage Rings** and **Program 117 VMS Cover Rings**, the call first rings the number of times specified in **Program 116**. Then after the call rings the number of times specified in **Program 117**, it will be routed to the Voice Mail.

### Program 117 VMS Cover Rings

Use this program to determine the number of times that an extension should ring (1 to 9) , before the call will be routed to Voice Mail. Either VMS Cover (Feature 15) or **Program 310 Automatic VMS Cover** must be active for the covered extension. The default number of rings is 3.

### Program 306 Transfer Return Extension

Use this program to determine the destination of a call after an incomplete Auto Attendant transfer. The destination is typically Extension 10. In an incomplete transfer, the Automated Attendant cannot complete the call transfer, because the call was moved to an extension that either did not answer or did not have Voice Mail coverage.

### Program 116 Call Coverage Rings

Use this program to specify the number of times a covered extension should ring, before a call will be routed to the covering extension. If the **covering** extension is programmed for Call Coverage and VMS Cover, the call first rings the number of times specified in Program 116. Then after the call rings the number of times specified in **Program 117 VMS Cover Rings**, it will be routed to Voice Mail.

**If you are going to set up screened Automated Attendant transfers (TRFs) to the extensions:**

### Program 105 Transfer Return Rings

Use this program to set this timer to a value higher than *Rings before redirect transfer* for any Call Routing Mailbox that is handling calls. This timer is a call parameter that you can set in the System Configuration Management Program.

## Phone System Programming (cont'd)

### User Features

**To transfer an intercom or CO call directly into a mailbox:**

Press Feature 14, enter the 2-digit mailbox number, and hang up.

**To allow the Subscribers to call their mailboxes with one touch:**

Program each extension with an auto dial button for the Voice Mail hunt group (Intercom 777).

**To retrieve a call that is ringing at another extension:**

Go off hook, press intercom, dial 6 and the number of the ringing extension.

**To program a VMS Cover Button to extension:**

Press Feature 15.

## Voice Mail Programming

### Default Dial Action Table

Extension numbering starts at 10. After extension 33, the remaining Subscriber Mailboxes are numbered 810 to 835.

Key	Routing Option
Key 0	Action: UTRF for Dialing Options Menus 1 & 4 MR (REC1) for Dialing Options Menus 2 & 3 Number: 0 for DATs 1 & 4 10 for DATs 2 & 3
Key 1	Action: TRF Number: XX
Key 2	Action: TRF Number: XX
Key 3	Action: TRF Number: XX
Key 4	Action: UND Number: N
Key 5	Action: UND Number: N
Key 6	Action: UND Number: N
Key 7	Action: UND Number: N
Key 8	Action: TRF Number: XXX
Key 9	Action: HUP Number: N
Key *	Action: REC1 Number: IXXX
Key #	Action: LOGON Number: N
TIMEOUT	Action: UTRF for Dialing Options Menus 1 & 4 MR (REC2) for Dialing Options Menus 2 & 3 Number: 0 for DATs 1 & 4 10 for DATs 2 & 3

### Other Notes

By default, the Automated Attendant is set up with unscreened transfers, so that you must Call Forward the phones to the Voice Mail.

The Voice Mail software uses Trunk Mailboxes for processing inbound call information, but you cannot program any features for them. In general, the numbering for Trunk Mailboxes starts at 01. It is recommended that you do not change this numbering, unless the trunks in your phone system start with a different number. Also, if the starting number for your trunks and for your Subscriber Mailboxes is the same, set the *First Trunk equipment # /Trunk mailbox offset* parameter.

## Required Hardware and Software

- Processor must be R3.1 module for inband signaling.
- Station/Line 206 Module version R3.1 or higher. This module supports two CO lines and six extensions and is required for Message Waiting capability for voice messages. Each Voice Mail port requires one port from this module. In addition, this module supports industry standard 2500 sets or Lucent proprietary sets, such as MLS-120.

## Voice Mail Availability

This phone system is available on the NVM-2CA Voice Mail system.

## Phone System Programming

You will need the Lucent ACS Communications System Programming and User manual to complete this programming.

Each Voice Mail extension must have Automatic Line Selection set for intercom, so that the ACS to provide intercom dial tone, whenever the Voice Mail port goes off hook.

The ACS system extension numbers overlap with the numbers in the trunk number plan. Therefore, if trunk mailboxes above trunk 09 are in use, you must program the System Option, *Trunk Mailbox Offset*.

### General Programming

#### Program 304 Automatic Extension Privacy

Enable this program for each Voice Mail extension to prevent other extensions from barging in on Voice Mail calls currently in process.

### To have the Automated Attendant answer calls:

#### Program 607 AA Extensions

Use this program to identify each Lucent ACS extension that will have an AA/VM port connected. This is to notify display set users of a call being handled by Voice Mail ports.

#### Program 505 Hunt Group Extensions

Use this program to assign the Lucent ACS extensions that will be connected to AA/VM ports to Hunt Group 7. Only this hunt group sends integration protocol.

#### Program 206 Group Call Distribution

Use this program to assign the lines that should terminate and be answered by Hunt Group 7 above. To route calls after four rings to a specific user's mailbox, select *VMS Line Cover* (setting 3).

#### Program 507 VMS Hunt Schedule

Use this program to determine when calls will terminate to Hunt Group 7: Always, Day Only, or Night Only. This is dependent on the status of the Night Service Button at Extension 10.

## Phone System Programming (cont'd)

### Program 506 VMS Hunt Delay

Use this program to determine how outside calls should be answered by the Voice Mail Automated Attendant: Immediate or Delayed. When the Voice Mail is in Immediate Call Answering, calls are answered after the second ring. When the Voice Mail is in Delayed Call Answering, calls are answered after the fourth ring.

### To set up unscreened Automated Attendant transfers (UTRF) to the extensions:

#### Program 310 Auto VMS Cover

Use this program to determine whether an extension's unanswered intercom and transferred calls are automatically covered by the voice messaging system. When Do Not Disturb is activated, calls will go to voice messaging regardless of whether or not Program 310 is enabled.

#### Program 208 Line Coverage Extension

Use this program to identify an extension as the owner of a specific outside line. This allows the extension to activate call coverage for the line. (Do Not Disturb overrides this feature and immediately routes the call to Voice Mail.)

#### Program 116 Call Coverage Rings

Use this program to specify the number of times a covered extension should ring, before a call will be routed to the covering extension. If the **covering** extension is programmed for both **Program 116 Call Coverage Rings** and **Program 117 VMS Cover Rings**, the call first rings the number of times specified in **Program 116**. Then after the call rings the number of times specified in **Program 117**, it will be routed to the Voice Mail.

#### Program 117 VMS Cover Rings

Use this program to determine the number of times that an extension should ring (1 to 9), before the call will be routed to Voice Mail. Either VMS Cover (Feature 15) or Automatic VMS Cover (Program 310) must be active for the covered extension. The default number of rings is 3.

#### Program 306 Transfer Return Extension

Use this program to determine the destination of a call after an incomplete Auto Attendant transfer. The destination is typically Extension 10. In an incomplete transfer, the Automated Attendant cannot complete the call transfer, because the call was moved to an extension that either did not answer or did not have Voice Mail coverage.

### To set up screened Automated Attendant transfers (TRFs) to the extensions:

#### Program 105 Transfer Return Rings

Use this program to set this timer higher than *Rings before redirect transfer* for any Call Routing Mailbox that is handling calls. This timer is a call parameter that you can set in the System Configuration Management Program.

### User Features

#### To transfer an intercom or CO call directly into a mailbox:

Press Feature 14, enter the 2-digit mailbox number, and hang up.

#### To allow the Subscribers to call their mailboxes with one touch:

Program each extension with an auto dial button for the Voice Mail hunt group (Intercom 777).

#### To retrieve a call that is ringing at another extension:

Go off hook, press Intercom, dial 6 and the number of the ringing extension.

#### To program a VMS Cover Button to extension:

Press Feature 15.

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# Voice Mail Programming

## Default Dial Action Table

Extension numbering starts at 10. After extension 33, the remaining Subscriber Mailboxes are numbered 810 to 835.

Key	Routing Option
Key 0	Action: UX for Dialing Options Menus 1 & 4 MR (REC1) for Dialing Options Menus 2 & 3 Number: 0 for DATs 1 & 4 10 for DATs 2 & 3
Key 1	Action: UC Number: XX
Key 2	Action: UC Number: XX
Key 3	Action: UC Number: XX
Key 4	Action: UK Number: None
Key 5	Action: UK Number: None
Key 6	Action: UK Number: None
Key 7	Action: UK Number: None
Key 8	Action: UC Number: XXX
Key 9	Action: HU Number: None
Key *	Action: Quick Message (REC1) Number: IXXX
Key #	Action: LOGON Number: None
TIMEOUT	Action: UX for Dialing Options Menus 1 & 4 MR (REC2) for Dialing Options Menus 2 & 3 Number: 0 for DATs 1 & 4 10 for DATs 2 & 3

## Other Notes

By default, the Automated Attendant is set up with unscreened transfers, so that you must Call Forward the phones to the Voice Mail.

The Voice Mail software uses Trunk Mailboxes for processing inbound call information, but you cannot program any features for them. In general, the numbering for Trunk Mailboxes starts at 01. It is recommended that you do not change this number, unless the trunks in your phone system start with a different number. If the starting number for your trunks and for your Subscriber Mailboxes is the same, set the *First Trunk equipment #/Trunk mailbox offset* parameter.

## Required Hardware and Software

- One single line port per Voice Mail port
- One PSTU (Analog) Card
- One CRCU-4 (DTMF) Card

## Voice Mail Availability

This phone system is available on the NVM-2CA Voice Mail system.

## Phone System Programming

### Program 10-1 - System Assignments

Ring Transfer, LED 07 - Enable (LED on)

### Program 10-2 - System Assignments

- DTMF Tone Return, LED II - Enable (LED off)
- Voice Mail ID Code, DTMF Signal Time, LED 06 - Set for 80ms (LED on)
- Voice Mail MW Cancel via Dial #64/Automatic, LED 04 - Enable (LED on).

### Program 12 - System Assignments / Basic Timing

Flash Timing, Code 4 - Set @ 0.5 seconds

### Program 13 - Defining the Message Center

Assign the lowest-numbered Voice Mail port to Message Center.

### Program 15 - Assigning DP/DTMF

Auto-Release (AR) on VM calls, Code 0 - Enable for all CO lines

### Program 31 - Station Class of Service

For VM Ports:

- Toshiba VP (B + Sta #), LED 20 - Enable
- Toshiba VP (B, No Sta), LED 19 - Enable
- End/End Signal RCV (VM), LED 17 - Must enable
- Receive VM ID Code, LED 16 - Enable
- Toshiba VP Integration (A Tone/D), LED 15 - Enable
- VM No Conference, LED 09 - Enable (LED on)
- VM Groups 1 - 4, LED 05-08 - Put all VM ports into group 1, LED 05 (LED 05 on)
- VM to VM Call blocking, LED 04 - Enable (LED on)
- Executive and Privacy Override Blocking, LED 18 - Enable (LED on)

### Program 33 - Station Hunting

Each Voice Mail port must be set up as a member of a hunt group.

## Phone System Programming (cont'd)

### Program 35 - Station Class of Service

- Busy Station Transfer (BST), LED 20 - Enable for VM ports
- Busy Station Ringing (BSR), LED 19 - Enable for all non-VM stations
- Msg. Waiting Receive (RCV), LED 04 - Enable for all non-VM stations

**Note:** LEDs 01, 02 & 04 must be on for all non-VM stations in order for Msg. Waiting to function.

### Program 40 - Station CO line Access

If callouts, Message Notification, etc. are required, use this program so that Voice Mail ports will be able to access CO lines.

### Program 81 - 89 - CO Line Ringing Assignments

Use this program to assign CO ringing for day/night operation. If Auto Attendant is required, make CO ring assignment only for the lowest-numbered VM port in the hunt group.

### Other Programming Notes

- Do not change the default Message Waiting Set and Cancel codes: MW Set Code = 63.  
MW Cancel Code = 64.
- Each station must be programmed individually for VM ID codes.
- Each station must be programmed individually for VM ID codes:  
INT#656 (Call forwarding Protocol) = 01XX, where XX is the station number  
INT#657 (Direct Logon Protocol when MW lamp is lit) = 00XX, where XX is the station number

## Voice Mail Programming

### Default Dial Action Table

**Default extension numbering starts at 200. Extension numbering starts at 10. After extension 26, the remaining Subscriber Mailboxes are numbered 810 to 843.**

The extension numbers for UX or UC — either a specific extension or XX — must be placed in brackets followed by a "1", in order to force ringing at extensions set for Automatic Voice Announce.

Key	Routing Option
Key 0	Action: UX for Dialing Options Menus 1 & 4 MR (REC1) for Dialing Options Menus 2 & 3 Number: [10]1 for DATs 1 & 4 10 for DATs 2 & 3
Key 1	Action: UC Number: [XX]1
Key 2	Action: UC Number: [XX]1
Key 3	Action: UK Number: None
Key 4	Action: UK Number: None
Key 5	Action: UK Number: None
Key 6	Action: UK Number: None
Key 7	Action: UK Number: None
Key 8	Action: UC Number: [XXX]1
Key 9	Action: HU Number: None
Key *	Action: Quick Message (REC1) Number: IXXX
Key #	Action: LOGON Number: None
TIMEOUT	Action: UX for Dialing Options Menus 1 & 4 MR (REC2) for Dialing Options Menus 2 & 3 Number: [10]1 for DATs 1 & 4 10 for DATs 2 & 3

### Other Notes

When Automated Attendant transfers are set up for either screened or unscreened transfers, Call Forwarding to a Mailbox is allowed. But be sure that the phone system timers are set up, so that they do not conflict with the setting for the *No Answer Ring* timer — a call parameter that you can set in the System Configuration Management Program.



## Required Hardware and Software

To be provided

## Voice Mail Availability

This phone system is available on the NVM-2CA Voice Mail system.

## Phone System Programming

### Program 10-1 - System Assignments

Ring Transfer, LED 07 - Enable (LED on)

### Program 10-2 - System Assignments

- DTMF Tone Return, LED II - Enable (LED off)
- Voice Mail ID Code, DTMF Signal Time, LED 06 - Set for 80ms (LED on)
- Voice Mail MW Cancel via Dial #64/Automatic, LED 04 - Enable (LED on)

### Program 12 - System Assignments / Basic Timing

Flash Timing, Code 4 - Set @ 0.5 seconds

### Program 13 - Defining the Message Center

Assign lowest number Voice Mail port to Message Center.

### Program 15 - Assigning DP/DTMF

Auto-Release (AR) on VM calls, Code 0 - Enable for all CO lines

### Program 31 - Station Class of Service

For VM Ports:

- Toshiba VP (B + Sta #), LED 20 - Enable
- Toshiba VP (B, No Sta), LED 19 - Enable
- End/End Signal RCV (VM), LED 17 - Must enable
- Receive VM ID Code, LED 16 - Enable
- Toshiba VP Integration (A Tone/D), LED 15 - Enable
- VM No Conference, LED 09 - Enable (LED on)
- VM Groups 1 - 4, LED 05-08 - Put all VM ports into group 1, LED 05 (LED 05 on)
- VM to VM Call blocking, LED 04 - Enable (LED on)
- Executive and Privacy Override Blocking, LED 18 - Enable (LED on)

### Program 33 - Station Hunting

Each Voice Mail port must be set up as a member of a hunt group.

### Program 35 - Station Class of Service

- Busy Station Transfer (BST), LED 20 - Enable for VM ports
- Busy Station Ringing (BSR), LED 19 - Enable for all non-VM stations
- Msg. Waiting Receive (RCV), LED 04 - Enable for all non-VM stations

**Note:** LEDs 01, 02 & 04 must be on for all non-VM stations in order for Msg. Waiting to function.

### Program 40 - Station CO Line Access

Use this program so that Voice Mail ports will be able to access CO lines, whenever callouts, Message Notification, etc. are required.

## Phone System Programming (cont'd)

### Program 81 - 89 - CO Line Ringing Assignments

Use this program to assign CO line ringing assignments for day/night operation. When Auto Attendant is required, CO ringing assignment must be made to only the lowest numbered VM port in the hunt group.

### Other Programming Notes

- Do not change the default Message Waiting Set and Cancel codes: MW Set Code = 63.  
MW Cancel Code = 64.
- Each station must be programmed individually for VM ID codes:  
INT#656 (Call forwarding Protocol) = 01XX, where XX is the station number  
INT#657 (Direct Logon Protocol when MW lamp is lit) = 00XX, where XX is the station number

## Voice Mail Programming Default Dial Action Table

Extension numbering is 200 to 249.

The extension numbers for a UX or a UC— a specific extension or XX—must be placed in brackets followed by a “1” in order to force ringing at extensions that are set for Automatic Voice Announce.

Key	Routing Option
Key 0	Action: UX for Dialing Options Menus 1 & 4 MR (REC1) for Dialing Options Menus 2 & 3 Number: [200]1 for DATs 1 & 4 200 for DATs 2 & 3
Key 1	Action: UK Number: None
Key 2	Action: UC Number: [XXX]1
Key 3	Action: UK Number: None
Key 4	Action: UK Number: None
Key 5	Action: UK Number: None
Key 6	Action: UK Number: None
Key 7	Action: UK Number: None
Key 8	Action: UK Number: None
Key 9	Action: HU Number: None
Key *	Action: Quick Message (REC1) Number: IXXX
Key #	Action: LOGON Number: None
TIMEOUT	Action: UX for Dialing Options Menus 1 & 4 MR (REC2) for Dialing Options Menus 2 & 3 Number: [200]1 for DATs 1 & 4 200 for DATs 2 & 3

## Other Notes

By default, the Automated Attendant is set up with unscreened transfers (UTRFs), so that you must Call Forward the phones to the Voice Mail.

The Voice Mail software uses Trunk Mailboxes for processing inbound call information, but you cannot program any features for them. In general, the numbering for Trunk Mailboxes starts at 01. It is recommended that you do not change this numbering, unless the trunks in your phone system start with a different number. If the starting number for your trunks and for your Subscriber Mailboxes is the same, set the *First Trunk equipment # /Trunk mailbox offset* parameter.



## Required Hardware and Software

- Each Voice Mail port must be connected to a Single Line port.  
Single Line ports are available on:  
RDSU (2 Single Line, 4 Electronic Ports)  
RSTU (8 Single Line Ports)  
PSTU (8 Single Line Ports)  
PESU (2 Single Line Ports, 4 Electronic Ports)
- Toshiba DKSUB280 KSU with Power Supply
- One Common Control Unit PCB Card: RCTUA, RCTUB or RCTUC/RCTUD

## Voice Mail Availability

This phone system is available on the NVM-2CA Voice Mail System.

## Phone System Programming

### Program 10-1 - System Assignments

Ring Transfer, LED 07 - Enable (LED on)

### Program 10-2 - System Assignments

- DTMF Tone Return, LED II - Enable (LED off)
- Voice Mail ID Code, DTMF Signal Time, LED 06 - Set for 80ms (LED on)
- Voice Mail MW Cancel via Dial #64/Automatic, LED 04 - Enable (LED on).

### Program 12 - System Assignments / Basic Timing

Flash Timing, Code 4 - Set @ 0.5 seconds

### Program 13 - Defining the Message Center

Assign lowest number Voice Mail port to Message Center

### Program 15 - Assigning DP/DTMF

Auto-Release (AR) on VM calls, Code 0 - Enable for all CO lines

### Program 31 - Station Class of Service

For VM Ports:

- Toshiba VP (B + Sta #), LED 20 - Enable
- Toshiba VP (B, No Sta), LED 19 - Enable
- End/End Signal RCV (VM), LED 17 - Must enable
- Receive VM ID Code, LED 16 - Enable
- Toshiba VP Integration (A Tone/D), LED 15 - Enable
- VM No Conference, LED 09 - Enable (LED on)
- VM Groups 1 - 4, LED 05-08 - Put all VM ports into group 1, LED 05 (LED 05 on)
- VM to VM Call blocking, LED 04 - Enable (LED on)
- Executive and Privacy Override Blocking, LED 18 - Enable (LED on).

### Program 33 - Station Hunting

Each Voice Mail port must be set up as a member of a hunt group.

## Phone System Programming (cont'd)

### Program 35 - Station Class of Service

- Busy Station Transfer (BST), LED 20 - Enable for VM ports
- Busy Station Ringing (BSR), LED 19 - Enable for all non-VM stations
- Msg. Waiting Receive (RCV), LED 04 - Enable for all non-VM stations

**Note:** LEDs 01, 02 & 04 must be on for all non-VM stations in order for Msg. Waiting to function.

### Program 40 - Station CO line Access

Use this program to allow VM ports access to CO lines if callouts, Message Notification, etc. are required.

### Program 81 - 89 - CO Line Ringing Assignments

Use this program to assign CO ringing for day/night operation. If Auto Attendant is required, make CO ring assignment only for the lowest numbered VM port in the hunt group.

### Other Programming Notes

- Do not change the default Message Waiting Set and Cancel codes: MW Set Code = 63.  
MW Cancel Code = 64.
- Each station must be programmed individually for VM ID codes:  
INT#656 (Call forwarding Protocol) = 01XX, where XX is the station number  
INT#657 (Direct Logon Protocol when MW lamp is lit) = 00XX, where XX is the station number

## Voice Mail Programming Default Dial Action Table

Extension numbering is 200 to 249.

The extension numbers for a UX or a UC—a specific extension or XX—must be placed in brackets followed by a “1” in order to force ringing at extensions that are set for Automatic Voice Announce.

Key	Routing Option
Key 0	Action: UX for Dialing Options Menus 1 & 4 MR (REC1) for Dialing Options Menus 2 & 3 Number: [200]1 for DATs 1 & 4 200 for DATs 2 & 3
Key 1	Action: UK Number: None
Key 2	Action: UC Number: [XXX]1
Key 3	Action: UK Number: None
Key 4	Action: UK Number: None
Key 5	Action: UK Number: None
Key 6	Action: UK Number: None
Key 7	Action: UK Number: None
Key 8	Action: UK Number: None
Key 9	Action: HU Number: None
Key *	Action: Quick Message (REC1) Number: IXXX
Key #	Action: LOGON Number: None
TIMEOUT	Action: UX for Dialing Options Menus 1 & 4 MR (REC2) for Dialing Options Menus 2 & 3 Number: [200]1 for DATs 1 & 4 200 for DATs 2 & 3

## Other Notes

Call Forwarding to a Mailbox is allowed when Automated Attendant transfers are set up for either screened or unscreened transfers. But be sure that the phone system timers are set up, so that they do not conflict with the setting for the *No Answer Ring* timer — a call parameter you can set in the System Configuration Management Program.

# Toshiba Strata DK280

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