



**MITEL® EXPRESS MESSENGER
SYSTEM ADMINISTRATION MANUAL**

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Mitel Express Messenger System Administration Manual Release 3.0

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Section 1: Introduction

Welcome to Mitel[®] Express Messenger, the complete voice messaging system designed to improve communication between your company, clients, customers, and employees.

Features provided by Express Messenger include:

- An Automated Attendant that plays different greetings during open and closed business hours, provides a company directory that uses extension numbers or names as the dialing method, and allows single-digit option selection.
- Subscriber mailboxes that are passcode protected.
- A tutorial that assists new subscribers with mailbox setup.
- Simple message retrieval.
- Easy to use menus that allow subscribers to send urgent, private, or certified messages.
- Notification of waiting messages whether subscribers are in or out of the office.

Express Messenger's Automated Attendant provides two immediate benefits for your company:

- Your receptionist has more time for calls that require special assistance and other activities within your business.
- All telephone calls are answered automatically. Even when an employee is not available, callers can leave a message before hanging up.

Express Messenger includes tools to help get your voice mail up and running quickly. After that, you can customize the system to meet your specific business needs.

Two important topics are at the end of Section 1:

- Testing Express Messenger
- Setting Up Express Messenger for the First Time.

Intended Audience

This document is written for the System Administrator responsible for the Express Messenger voice mail system.

Typical System Administrator duties include:

- Adding and changing mailboxes. Mailboxes are where employees send and listen to messages.
- Recording company greetings and announcements.
- Setting up outside notification numbers for pagers, cellular phones, and so forth.
- Backing up the system.
- Answering employee questions.
- Maintaining the voice mail system.

How to use this Document

An Express Messenger dealer has already installed Express Messenger on your PBX and performed the necessary system programming to make it work for you. Read the System Administration Manual from beginning to end to find out how to optimize Express Messenger to your business requirements.

Use the glossary in Appendix B if you are unsure of any terminology used here.

Conventions

This System Administration Manual uses the following conventions.

- Voice Prompts and Responses

Italics represent references to the spoken word, such as examples of the company and mailbox greetings.

- Boxes

NOTE: A box surrounds important notes that provide additional information about a topic or refer you to other material.

CAUTION: Cautions alert you to the possibility of damage to equipment or software.

WARNING: Warnings alert you to the possibility of personal injury.

- Telephone Keys

Square brackets always surround numbers or letters that you enter from the telephone keypad. For example:

[1] [2] ... [0] [#] [*]

If you need to press several keys in succession, the square brackets surround all the numbers. For example:

[1234]

- Mailbox Numbers

Depending on your PBX dial plan, mailbox numbers can be 2, 3, or 4 digits.

- Buttons and Flexible Buttons

Angle brackets always surround telephone button names and flexible button functions. For example:

⟨Message⟩ ⟨Microphone⟩ ⟨Hold⟩

Useful Tips

Some people are reluctant to use their telephone for anything other than making calls. Encourage users to experiment with different options offered by Mitel Express Messenger.

Here are some tips to help everyone benefit from having a voice mail system.

- Explaining Mitel Express Messenger to Customers

The best way to make customers feel comfortable about Express Messenger is through employees who are enthusiastic about it – customers will sense their positive attitude. If employees use their mailboxes and return calls in a timely fashion, customers will feel secure about the new system.

Encourage employees to keep their mailbox greeting current and to check for messages frequently, particularly if their telephone doesn't have a message light or if they have been away from their office. Respond to messages promptly – not two or three days later.

- Mailbox Greetings

Employee mailboxes use two types of greetings: "permanent" and "temporary". Callers always hear the permanent greeting unless you record a temporary greeting. A permanent greeting should be general enough to cover all situations. A temporary greeting describes a specific situation and lasts for a user-specified number of days.

Here are examples of both types of greetings:

Permanent greeting:

"You have reached Christine Conner. I can't answer your call right now, so please leave your name, number, and a short message – I will get back to you as soon as possible. If you need immediate assistance, press [0] and ask to be transferred to my associate, Julie Jones."

Temporary greeting:

"Hi! You have reached Julie Jones. I will be on vacation from Friday, June 18, through Friday, June 25. I'll be back on Monday, June 28, so please leave a message and I'll get back to you as soon as possible. If you require immediate assistance, press [0] and ask to be transferred to Christine Conner."

The mailbox user specifies the number of days for the temporary greeting to last, from 01 to 99, expiring at midnight of the last day. If specified to last only one day, the message starts immediately and expires at midnight of the day the user records it.

Employees who create a new temporary greeting every day show callers that they are really using Express Messenger.

- Duration of Messages in a Mailbox

Express Messenger saves messages for 15 days. A System Administrator can change the number of days, on a mailbox-by-mailbox basis, by using Express Manager. Express Messenger deletes each saved message as soon as the message is older than the specified number of days.

- Saved Messages and System Size

If too many messages are saved on Express Messenger at any one time, the system will become full and not be able to take new messages.

- If Express Messenger’s storage space is 90% full, users will hear this warning when they log into their mailboxes:

“The system is nearly full. Please erase any unnecessary messages.”

- If Express Messenger’s storage space is 98% full, its limit has been reached and it will stop taking messages. Users will hear:

“I’m sorry, but the system is full. Please try again at a later time.”

- “Reply” and “Forward”

“Reply” and “Forward” options in the “Listen” menu only work with other mailboxes within this Express Messenger. Users cannot reply to a message that originates from an outside line or forward a message to an outside telephone number.

- Type Ahead

Callers always hear a menu when Express Messenger answers the telephone. If you know which keys to use, press them immediately and move through the system as fast as you wish. Although the menus are brief, voice prompts are only for convenience. Occasionally, when interrupting prompts, the system may not detect the key. In this case, press the key again.

- Message Length and Conditions

Express Messenger does not limit the length of any message. However, after five minutes, Express Messenger interrupts the caller and asks if they wish to continue recording. If there is no reply, Express Messenger stops recording and disconnects the line. Similarly, if the caller stops talking for more than four seconds or has a very faint connection, Express Messenger gives them the option to continue recording.

- Phantom Messages

To eliminate unwanted or unintended messages, Express Messenger automatically stops recording a message if it hears a steady, non-voice tone, such as dial tone. Express Messenger may interpret background noise, such as in a factory, as a steady tone and mistakenly disconnect the caller. Using a car telephone when the car windows are open can also cause an unwanted disconnection. The caller should try again from a quieter location.

- Music-on-Hold

There is always a delay between the time Express Messenger answers an outside call and the time someone answers the telephone or Express Messenger sends the call to a mailbox. On most telephone systems, the caller hears nothing while Express Messenger transfers the call unless you install Music-on-Hold. Music can be alternated with product advertisements to keep callers interested while they wait for an answer to their call.

Note: Express Messenger ports can operate as Recorded Announcement Devices (RAD) to provide Music-on-Hold or other audio. For more information, see page 88.

- The Operator's Mailbox

Messages left in the operator's mailbox (mailbox 0) need to be checked regularly. Assign someone the task of frequently checking the operator's mailbox and forwarding any messages to the appropriate persons.

If the operator is away from the telephone or unable to answer (such as at night or when the business is closed), callers may become irritated if they have to wait through too many rings before being transferred to the operator's mailbox. To avoid irritating callers in this manner, either set the call forwarding on the operator's telephone to Express Messenger or set a shorter transfer-recall time.

The default passcode for the operator's mailbox is [99, 999, or 9999].

- The Operator's Telephone

A special feature of Express Messenger is that the auto attendant attempts to transfer calls to the operator even if the console is busy. This allows the operator an opportunity to put the current call on hold and answer the new call.

- Message Notification to Extensions

If a subscriber's telephone does not have a message light, Express Messenger can use the Message Notification feature to inform the subscriber when messages arrive in their mailbox.

One of the five available notification methods is to ring any internal extension number. If you enter the mailbox owner's extension as the alternate number, that extension will ring when a message arrives. Refer to *Message Notification* in the Section 4, *Changing Mailbox Parameters* for more information.

- Bilingual Prompts

Express Messenger can be set up to play voice mail prompts in two of three languages: English, French or Spanish. Outside callers choose the language they want when prompted by the auto attendant. Subscribers can request their preferred language from the system administrator.

NOTE: Support for bilingual voice prompts is an optional feature of Mitel Express Messenger Release 3.0.

- Record A Call

Subscribers can use Express Messenger to record their telephone conversations. The recordings are stored in the subscriber's mailbox separated from regular voice mail messages.

NOTE: Record A Call is an optional feature of SX-200 EL/ML LIGHTWARE 18, Release 1. For more information, see the SX-200 EL/ML Technical Documentation. Instructions on using Record A Call are included in the telephone user guides produced with Superset Manual Maker (PN 9132-900-000-NA, Issue 8).

IMPORTANT: Record a Call should only be used in conjunction with the laws of the jurisdiction where the call is placed from and/or the laws of the jurisdiction of the place being called. MITEL is not liable for misuse of this feature in a manner that does not conform with the applicable law; for example: laws involving wiretapping, eavesdropping, electronic surveillance, call recording etc. Dealers should warn the customer in writing that they are responsible to use this feature in accordance with the law and that in many jurisdictions both parties must be made aware that the call is being recorded in order to comply.

Additional References

Installation Guide

Your Express Messenger dealer used an Installation Guide to install Express Messenger into your PBX. An Installation Worksheet is included with the Installation Guide. Ask your dealer for a copy of the Installation Guide.

User Guide

Each Express Messenger subscriber should have a User Guide for daily message management. It provides step-by-step instructions on how to call Express Messenger, set up a personal mailbox, and send or retrieve messages. The guide is on the Documentation diskettes included with the Express Messenger card and on the Manual Maker web site at <http://edocs.mitel.com/manual/maker>.

User Guide information is not repeated in this manual. Keep a copy of the User Guide with this manual.

Instructions on using Record A Call are included in the telephone user guides produced with Manual Maker.

Wallet Card

Each subscriber should also have a Wallet Card for quick reference to the Express Messenger Menu system.

Front Desk User Guide & Guest User Guide

In hotel or motel applications, the front desk attendant should have a front desk user guide. This guide provides instructions on how to administer guest mailboxes.

A guide on using Express Messenger from a guest phone should be left in each guest room. The guide can be ordered by calling Mitel Networks Customer Service. Specify part number 51001140A for the English/French version or 51001154A for the English/Spanish version. PDF versions of the guide are also available for downloading from the Manual Maker web site at <http://edocs.mitel.com/manual/maker>.

Testing Mitel Express Messenger

Perform the following tests to verify that Mitel Express Messenger is working properly.

Because PBX programming frequently blocks users from accessing an outside line and then dialing back in to the main number (tying up two Central Office trunks in the process), parts of this test may need to be performed from off-site. The System Administrator could call in from home and then verify the message upon arrival.

2. Call the business using an outside line. Verify that you hear the company open or closed greeting (as appropriate) and that the message is clear and understandable.
3. Call the business using several outside lines. Verify the number of rings allowed before Express Messenger answers.
4. Call the business using an outside line. When Express Messenger answers, press 0 and verify that Express Messenger transfers the call to the attendant.
5. Call the Express Messenger hunt group using an internal line. Verify that you do not hear the company greeting. Verify the number of rings allowed before answer.
6. Call the Express Messenger hunt group using an internal line. Verify that you do not hear the company greeting. When Express Messenger answers, press 0 and verify that Express Messenger transfers the call to the attendant.

Setting Up Express Messenger for the First Time

When first setting up Express Messenger, perform the following activities (detailed procedures for each activity are elsewhere in this manual). Do all activities from a telephone first (some activities cannot be performed from Express Manager). Keep the Installation Worksheet in front of you because much of the information you will be prompted for is on that sheet.

You can set up Express Messenger to operate either as a unilingual or bilingual system. A unilingual system prompts users in English (the default language), French or Spanish. A bilingual system provides prompts in two of the three available languages.

NOTE: Spanish prompts are only available on MEM Release 2.1 systems or later and French prompts on MEM Release 3.0 or later. Bilingual operation is an optional feature of MEM Release 3.0. For more information, see *Enabling the Bilingual Prompts Option* on page 94.

Unilingual Systems

To set up a system with greetings and prompts in one language:

1. Enter the necessary information onto the Express Messenger Installation Worksheet.
2. Identify the Message Center number for accessing Express Messenger ports (provided by the PBX installer).
3. To log in, dial the Express Messenger message center number.
Express Messenger answers and prompts you for a mailbox number.
4. Enter the system administrator mailbox number: default is **[99, 999, or 9999]**.
5. To set up a system to prompt in the current language (default English), press 1, and then skip to step 7.

OR

6. To set up a system to prompt in another language:
 - dial the Technician's passcode (default 8642), followed by 9. Express Messenger prompts you for a Technician's Function Code.
 - dial 20001 for English, 20002 for Spanish, or 20003 for French. You are prompted for another Function Code.
 - dial 10281. The system resets.
 - After the system resets, log into the administrator's mailbox again. The system is now prompting in the selected language. Continue the set up at step 7.
7. Express Messenger prompts you for a passcode.
8. Enter the default passcode **[1234]**.
9. Enter **[1]** for a new installation.
10. Set the number of digits for mailbox length to 2, 3, or 4 digits (default is 3 digits).
11. Enter current date and time in 24-hour format.
12. Program the opening and closing time for each day of the week.
13. Enter the Operator's extension number.
14. Create a mailbox for each user's extension.
15. Create the required single digit mailboxes.
16. Prepare and record primary company greetings for open hours and closed hours.
17. Set the Send Message access code (the code is provided by the PBX installer on the Installation Worksheet as Feature Access Code 41).

Bilingual Systems

To set up a system with greetings and prompts in two languages:

1. Follow the above procedure to set up the system to operate in one language.
2. Log into the administrator mailbox.
3. When prompted for a passcode, dial the Technician's passcode (default 8642).
4. Dial 9.

Express Messenger prompts for another Technician's function code.

5. Dial 20272 followed by the 11-digit code required to enable the Bilingual Voice Prompts option. You must call the Mitel Corporation order desk to get the code. For more information on enabling the Bilingual Voice Prompts language, see page 94.

Express Messenger responds with "Enabled."

6. Set the default language (if different than the language specified in step 1) by dialing 20001 for English, 20002 for Spanish, or 20003 for French.
7. Set the alternate language by dialing 20011 for English, 20012 for Spanish, or 20013 for French.
8. Dial 10281 to reset the system.
9. After the system resets, log into the System Administrator Mailbox again.
10. When prompted, enter the default passcode (1234).
11. Using the Greetings menu (press 4 from the main menu) to verify existing greetings and then record new greetings in the alternate language, including the bilingual welcome greeting.

Section 2: **Setting up Mitel Express Manager**

For optimum performance, install the Mitel Express Manager program on your PC's hard drive. You do not need to shut down your voice mail system while installing Express Manager on your computer.

Installing Express Manager onto a PC

The following software must be resident on your PC to install and run Express Manager:

- DOS version 3.3 or higher
- Windows 3.1 or higher.

To install the Express Manager software on your PC's hard drive:

1. Place the disk labeled Mitel Express Manager into your 3 1/2" floppy drive.
2. At the DOS prompt, change to the drive in which you placed the disk.
For example,

```
C>a: [Enter]
```

3. At the DOS prompt, run the install program.

```
A:\>install [Enter]
```

Installation of Express Manager will continue automatically until completion. Carefully read and follow any notification about software or documentation changes that display on your screen.

Installation is complete when the DOS prompt returns to your screen. You can now use Express Manager to maintain your company's voice mail system.

Connecting your PC to Express Messenger

You Run Express Manager from DOS on your PC. You can connect your PC

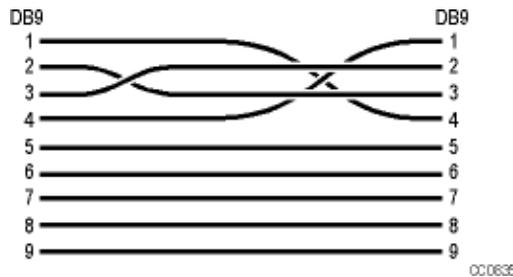
- directly to a port on the Express Messenger Card, or
- remotely through a modem connection that allows you to communicate to Express Messenger using your telephone system.

Express Manager requires the following hardware:

- IBM or IBM-compatible 286 computer (PC) or higher with a minimum of 2 MB of disk space and 640 KB of memory (RAM).
- VGA monitor (color or monochrome).
- Express Messenger voice mail card installed in the PBX.
- Internal or external modem.

Connecting your PC Directly to the Express Messenger Card

1. Plug one end of the custom RS-232 cable into an unused COM port on the PC.



2. Plug the other end of the cable into the Express Messenger card connector. You must open the PBX door to connect the cable.

The custom RS-232 cable is a PC-to-PC cable with 9-pin female DB9 connectors on each end. Wires between pines 1 and 4 and between 2 and 3 of the connectors cross over within the cable; that is, it is a null modem cable.

Note that Mitel Corporation does not supply the cable. Two recommended cables are

- Belkin F3B207-06 (6 feet)
- Belkin F3B207-10 (10 feet).

3. Access a DOS prompt.
Navigate to the directory that contains the Express Messenger application by typing
`CD EXPRESS [Enter]`
4. To start Express Manager, type
`EXPRESS [Enter]`
The Express Manager Login screen appears after several seconds.
5. Select Login from the File menu and enter the Administrator passcode (default [1234]).
6. Program Express Messenger as described in this manual.
7. After you have completed your programming session, remove the cable and replace the PBX front door.

Connecting your PC Remotely

Figure 1 illustrates the proper connection for remote access to Express Messenger. A serial port on your remote PC connects through a modem to the voice mail system.

To connect a PC remotely

1. Connect a PC directly to the Express Messenger card and login to Express Manager application (see *Connecting Your PC Directly to the Express Messenger Card* on page 16 for instructions).
2. Select the Options menu, then Communications, and then complete the Serial Port Setup window according to the requirements of the remotely located PC port that is connected to your modem. Refer to *Communications* on page 125 for instructions on how to complete this window.
3. Disconnect the local PC from the Express Manager card and replace the PBX front door.
4. Connect your remotely located PC to a modem.
5. Access a DOS prompt.
6. Navigate to the directory that contains the Express Manager application by typing
`CD EXPRESS [Enter]`
7. To start Express Manager, type
`EXPRESS [Enter]`
8. Select Login from the File menu.
9. Enter the Administrator passcode ([1234] unless changed during installation) and the telephone number of the voice mail system (auto attendant) in the initial login window.

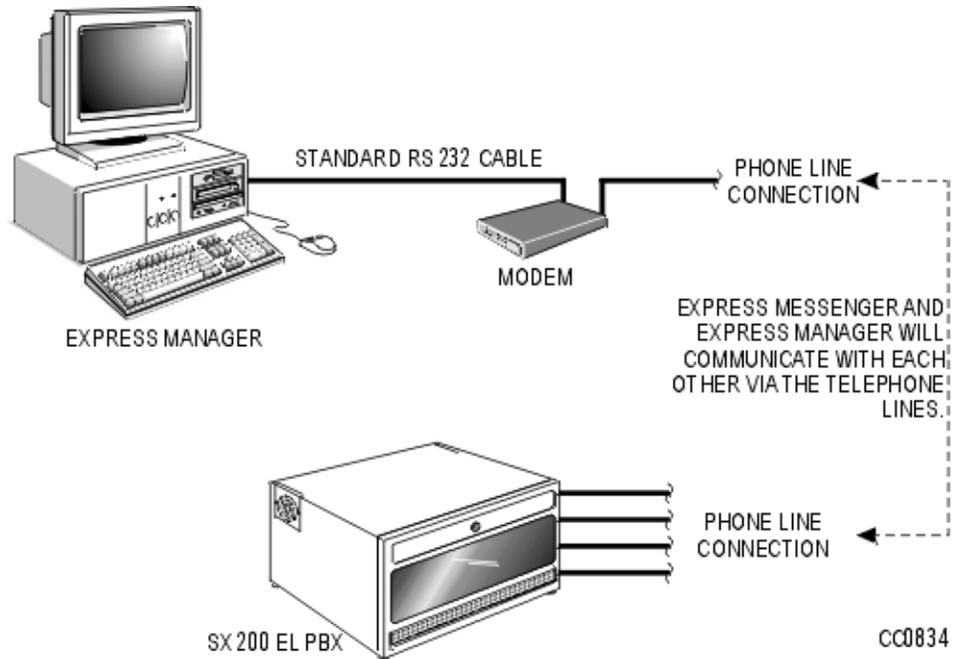


Figure 1 - Remote Connection to Express Messenger

Starting Mitel Express Manager

Follow the steps below to start the Express Manager program on your PC.

1. Using DOS, change to the EXPRESS directory created on your hard drive during the installation process.

```
CD EXPRESS [Enter]
```

2. At your DOS prompt, run the EXPRESS program.

```
EXPRESS [Enter]
```

Your screen now displays an Initial Menu Bar, which allows you to change port setups, log in to Express Messenger as a System Administrator, or return to the DOS prompt. Standard DOS prompts and menu options are not described in this document.

NOTE: You can also start Express Manager from Windows by adding the program to your Windows desktop. See the your Windows documentation for more information.

To exit from a menu, press <Esc>.

Before Express Manager can communicate with Express Messenger, set up the Communications Serial Port Setup window to correspond to the requirements of your COM port and your modem. Refer to your PC and modem manuals.

Logging In To Express Messenger From Express Manager

Follow these steps to log in to Express Manager, after Express Manager has been started as just described. Each screen is described following this procedure.

1. From the initial screen (Figure 45), click on Ok, in the About window.
2. From the File menu, shown in Figure 46, click on File.
3. From the Login window (Figure 47), enter the Administrator's password;
If you are connecting through a modem, enter the telephone number of the voice mail system (auto attendant), and then click Ok.

CAUTION: Always wait at least 10 seconds between logins.

4. From the seven available menus, select the menu and window for the activities to be performed.
5. At the end of a session, log out from the File menu.

About the Login Passcodes

The passcode you use to log in to the Express Manager determines which menu items are available to you. There are two types of passcodes:

- **Manager**

Log in using the Manager passcode to perform all the system administration, mailbox management, and maintenance functions except, installing (or re-installing) Express Messenger, accessing Remote Files and changing the Administrator Passcode or passcode length.

- **Administrator**

Log in using the Administrator passcode to allow all manager functions plus authority to install (or re-installing) Express Messenger, and access to Remote Files and Administrative Passcodes functions.

IMPORTANT: Give the Manager passcode to the person that performs the day-to-day operations, such as adding mailboxes and changing greetings. The Manager passcode provides limited access to the database thereby reducing the likelihood of novice users causing serious disruptions to the system. (Note that users are still prompted to begin a new installation when they enter the Manager Passcode but get the response “Invalid Selection” when they attempt to do so.)

To protect system security, keep the passcodes confidential.

Section 3: About Mailboxes

Mitel Express Messenger uses different types of mailboxes. Some are reserved for system functions and others are available for general use. Each mailbox type has different characteristics and uses. Mailbox numbers normally correspond to a telephone's extension number.

This section describes the different mailbox types. It also describes how the Auto Attendant handles a mailbox number that is not the same as the extension number.

Read this section to determine how to use the different mailbox features. Refer to the next section, *Changing Mailbox Parameters*, for step-by-step instructions on how to add, edit, or delete mailboxes and how to enable or disable other Express Messenger features.

Reserved Mailboxes

The Operator

Mailbox 0 is reserved for the Operator's mailbox. Callers will leave messages in this mailbox if they,

- do not know who to contact,
- are calling from a rotary dial telephone and cannot access menus or mailboxes.

Check for messages left in the Operator's mailbox several times each day. The default passcode for the operator's mailbox is [99, 999, or 9999]. If the passcode length has been changed, add the appropriate number of zeros to the end of the passcode; for example, [123400].

The Directory

Mailbox 9 is reserved for the personnel directory. It cannot take messages. Callers use it to reach an employee by dialing the first six letters of the employee's first or last name (as defined).

Administrative Functions

Mailboxes 90 through 97 or 990 through 997 or 9990 through 9997 are reserved for Express Messenger self-administrative functions.

The Modem

Mailbox 98 is reserved for the Express Messenger built-in modem used for remote administration or maintenance.

The System Administrator's Mailbox

Mailbox 99 or 999 or 9999 is reserved for the system administrator. It is not associated with an extension and does not take messages. Any touch-tone telephone in your company can access this mailbox. The default passcode is [1234]. To maintain system security, change this passcode at first login.

General Usage Mailboxes

Express Messenger has four types of mailboxes:

- Extension
- Message-Only
- Transfer-Only
- Information-Only

The system administrator assigns mailbox types. Each type serves a different purpose and has its own characteristics. Mailbox types are described on the following pages.

NOTE: These examples assume that your PBX is programmed so that the Express Messenger Auto Attendant answers your primary business number(s). If that is not true, then the Operator sends calls to Express Messenger only when the caller wants to leave a voice message.

Extension Mailbox

An extension mailbox is the default mailbox type. The mailbox number is usually the same as the subscriber's extension number. Figure 2 shows the calling sequence for an Extension mailbox.

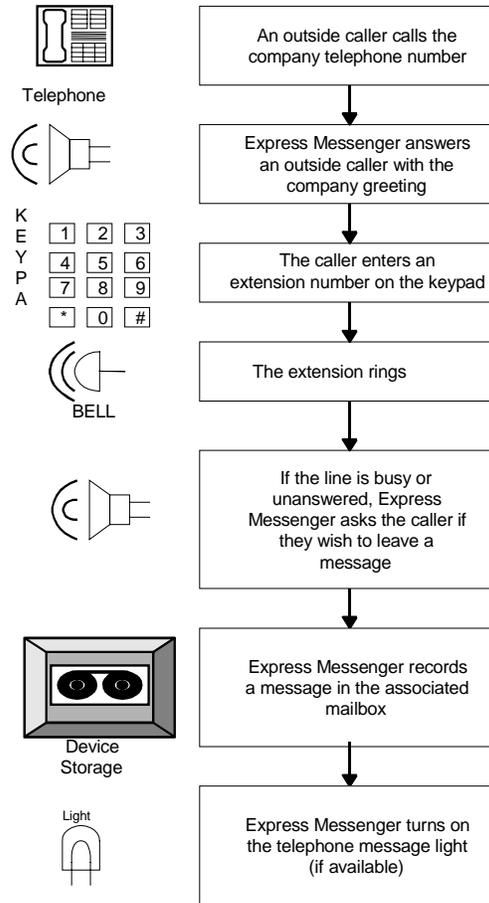


Figure 2 - Extension Mailbox Calling Sequence

NOTE: For telephones without message lights, you can set up message notification to the subscriber's extension number. See *Message Notification* on page 67.

Message-Only Mailbox

A message-only mailbox takes messages and turns on the message light of the associated extension. Unlike an extension mailbox, the phone does not ring after the caller enters the extension number. Instead, Express Messenger immediately asks the caller to leave a message.

A message-only mailbox does not require an associated extension. In this case, Express Messenger cannot turn on a message light; instead, the mailbox owner must periodically check for messages.

Message-only mailboxes are for people who do not have telephones or who are not in the office very often.

Examples:

- Out-of-town sales representatives
- Delivery drivers
- Part-time and seasonal employees
- Frequent customers.

Figure 3 illustrates how a message-only mailbox works.

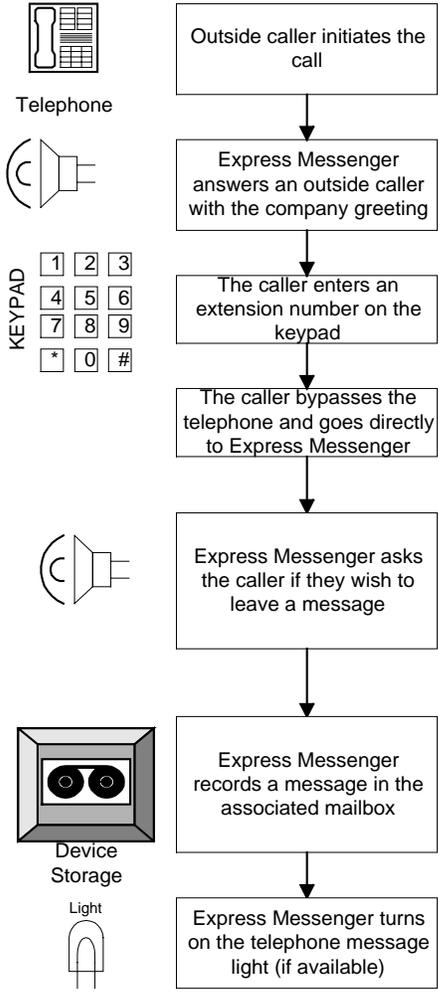


Figure 3 - Message-only Mailbox Calling Sequence

Transfer-Only Mailbox

A transfer-only mailbox is associated with an extension but does not take messages. When a caller dials this extension he will hear, "You are being transferred to <mailbox name>." If the extension is busy or unanswered, Express Messenger returns the caller to the company greeting. No message is taken.

Add transfer-only mailboxes for areas in your company where you need a telephone but don't want messages taken.

Figure 4 shows a Transfer-only mailbox calling sequence.

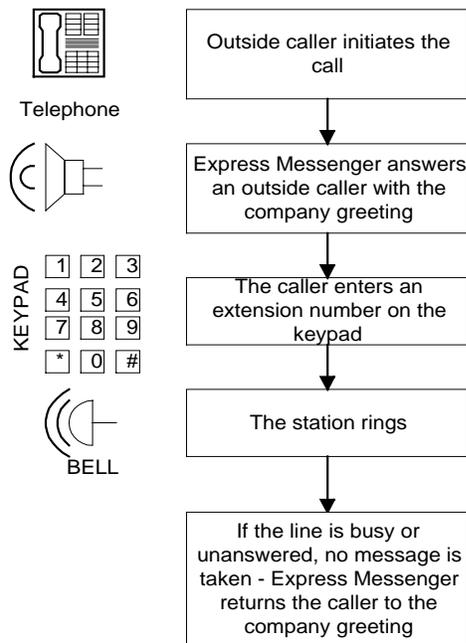


Figure 4 - Transfer-only Mailbox Calling Sequence

Examples:

Conference rooms
 FAX machines
 Modem hookups
 Lab areas.

Information-Only Mailbox

An information-only mailbox, also referred to as a bulletin board, is not associated with a specific extension number and does not take messages. Instead, it plays a greeting that provides information to callers. The information could be any message that your company wants customers to hear but does not need a person to say.

Figure 5 shows an Information-only mailbox calling sequence.

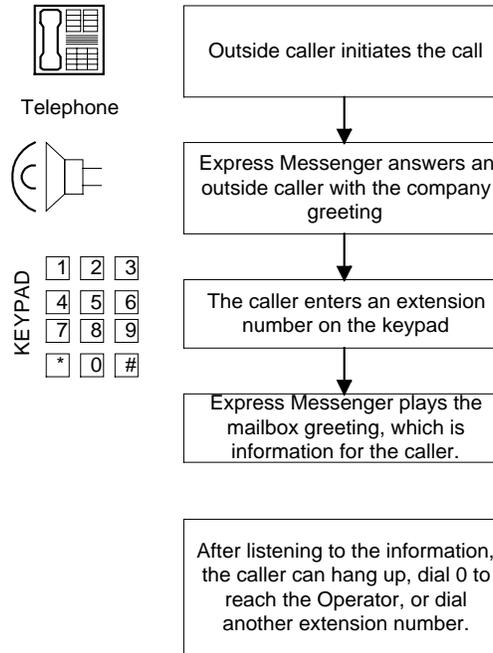


Figure 5 - Information-only Mailbox Calling Sequence

Examples:

Business hours
 The company address
 General announcements
 Product updates.

Single-Digit Mailboxes

Mailboxes 1 through 8 are referred to as single-digit mailboxes, and can be any one of the four types of general use mailboxes.

They are most effective when referenced in the company greeting, so that the caller needs to enter only one number to receive the information they want or to reach the most frequently dialed extensions.

Three typical uses for single-digit mailboxes follow. For the first two, assume callers hear this company greeting, in which the numbers 1 and 2 refer to single-digit mailboxes.

"Thank you for calling ABC Industries. If you know the number of the person you wish to reach, enter it now. For a personnel directory, press 9. For business hours, press 1. To reach customer service, press 2. If you wish to speak to an operator, press 0 or hold on the line."

Example 1:

Mailbox 1 is an Information-Only mailbox. A typical greeting for mailbox 1 could be:

"ABC Industries is open for business Monday through Friday from 9 am to 6 p.m. and on Saturdays from 9am to 1 p.m."

The caller listens to the information and hangs up when they are done.

Example 2:

Mailbox 2 is an Extension mailbox. For this example, we'll assume extension 214 is the Customer Service telephone.

When the caller presses 2, extension 214 rings. The caller might hear the following greeting if the telephone is busy or not answered.

"All of our Customer Service representatives are busy at the moment. Please leave your name, telephone number and a brief message. Someone will get back to you as soon as possible."

You need to record the appropriate name and greeting for mailbox 2 for this setup to work correctly.

If extension 214 also belongs to a subscriber, such as the customer service secretary, callers can dial 214 directly to reach that person. The secretary can have a personal greeting identifying himself or herself as the owner of the mailbox but only if Mailbox 2 is programmed as a Transfer-Only mailbox. Express Messenger saves all department and personal messages in mailbox 214.

A subscriber can serve as the destination for any number of single-digit mailboxes.

<p>NOTE: Always add a new single digit mailbox first before changing the company greeting to refer to it.</p>
--

Figure 6 shows the calling sequence for a Single-digit mailbox.

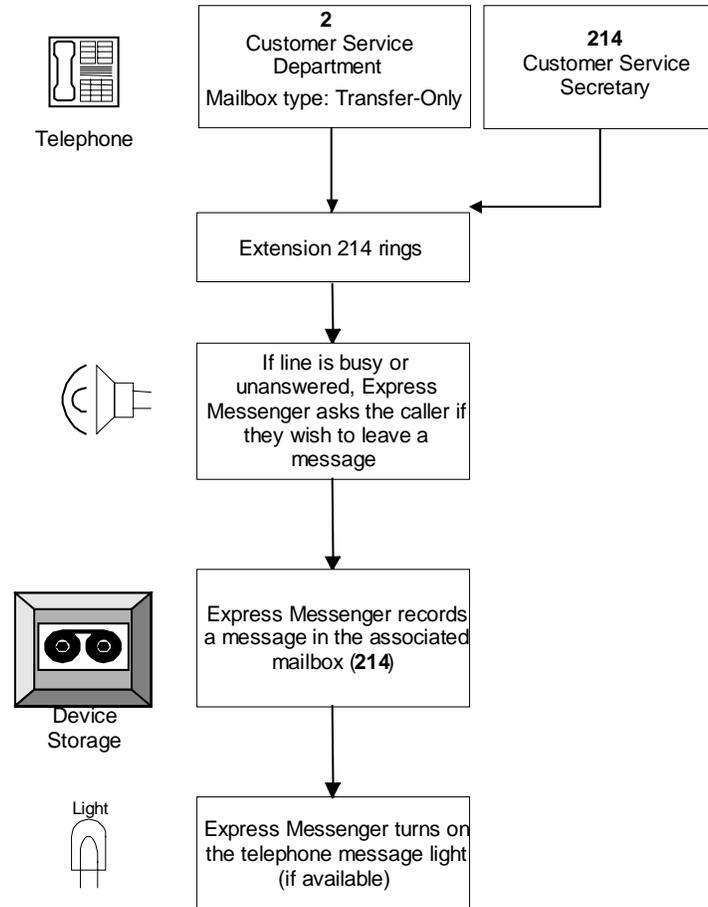


Figure 6 - Single-digit Mailbox Calling Sequence

After a caller enters a single digit at the greeting, Express Messenger will wait to see if another digit follows. To prevent this slight pause, assign single-digit mailbox numbers that are not the first digit of other mailbox or extension numbers.

Example 3:

Mailbox 8 is programmed as the Language Change mailbox, a special mailbox used to present callers with auto attendant voice prompts in a second language. In this example, when a caller presses 8, all subsequent auto attendant prompts the caller hears will be in French.

"Thank you for calling ABC Industries. For service in French, press 8."

You need to record prompts for mailbox 2 in the appropriate language for this setup to work correctly. For more information, see *Recording System Greetings* on page 54.

NOTES:

1) The language change applies to the current auto attendant session only. If the caller is returned to the voice mail system during the same call, the system will again prompt the caller to select a language.

2) Bilingual prompts require Mitel Express Messenger Release 3.0 or later. For more information, see *Enabling the Bilingual Prompts Option* on page 94.

Menu Tree Mailboxes (Multi-Level Auto Attendant)

Menu Tree Mailboxes allow you to set up Multi-Level Auto Attendant (MLAA)—a hierarchical menu structure that provides callers with better self-service access to the department or person they're seeking. In an MLAA system, callers reaching the Auto Attendant are routed from the main menu through to one or more additional sub menus until their call is answered.

The maximum number of menu levels, including the main level, is 10.

An example:

The illustration on the next page shows a typical MLAA implementation. The greeting at the top level is the main company greeting with the usual prompts to dial an extension number, 0 for a live operator, and other digits to reach destinations such as Sales (1) or Customer Support (2).

Mailbox 1 is a transfer-only mailbox that takes the caller to the Sales Manager who has mailbox 2345.

Mailbox 2 is a Menu Tree mailbox. It takes the caller to a sub menu that plays the following greeting:

"For Mitel Express Messenger, press 1. For NuPoint Messenger, press 2. For all other products, press 3. To return to the previous menu, press star."

"1" is a transfer-only mailbox that takes the caller to the Express Messenger support Technician whose mailbox is 3456.

"2" is also a transfer-only mailbox. It takes the caller to the NuPoint Messenger technician whose mailbox is 4567.

"3" is a Menu Tree mailbox that takes the caller to another sub menu of choices. The number for this Menu Tree mailbox is 5678. A single-digit mailbox could be used but because there are so few on them, a regular extension mailbox is used instead.

See page 40 for instructions on using a telephone to add Menu Tree Mailboxes and page 45 for instructions on using Express Manager to adding the mailboxes.

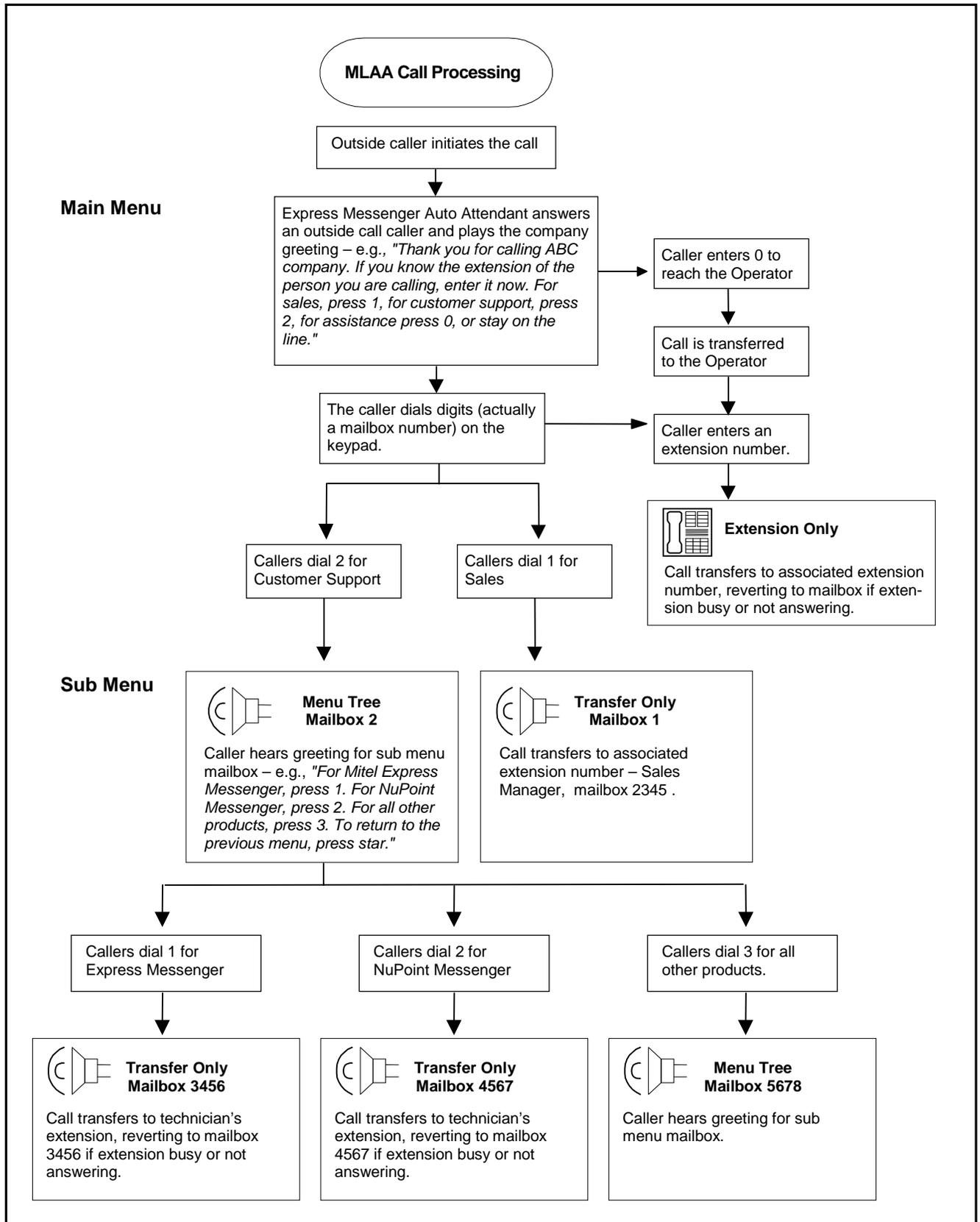


Figure 6 – Multi-level Auto Attendant Call Processing Sequence

Hospitality Mailboxes

The Hospitality Option for hotel or motel applications provides two new types of mailboxes: guest mailbox and front desk mailbox. These mailbox types are only available if the Hospitality Option or PMS Option is enabled. See *Enabling the Hospitality Option* on page 95 or *Enabling the PMS Option* on page 96.

Front Desk Mailbox

The front desk attendant uses the front desk mailbox to administer the guest mailboxes. From the front desk mailbox, an attendant can

- help guests access their messages
- set the status of a guest mailbox to checked-in or checked-out
- set the language for the mailbox voice prompts (available in systems with Mitel Express Messenger Release 3.0 or later)
- move a guest's messages to another mailbox
- access a guest's mailbox
- access the standard voice mail features (the front desk mailbox provides access to the Main Menu options for the front desk extension mailbox).

Guest Mailboxes

Guest mailboxes are assigned to the telephone extension in each guest room. Guest mailboxes provide guests with basic voice mail functionality. Guests can

- play messages that they have received
- create their own greetings
- set their own wake-up calls.

About the Auto Attendant

Figure 7 illustrates the call processing steps that the Auto Attendant uses. Some important points of information follow:

- Callers dial a mailbox number even though they are prompted to dial an extension or extension number. The mailbox's associated extension number is used to transfer the call. By default, a mailbox extension number is the same as the mailbox number. You can change the extension number by entering the mailbox see *Edit Mailbox* on page 40.
- Single-digit mailboxes provide callers with easy to remember numbers that get them to their party quickly. When callers press a single-digit, they are accessing a mailbox number which is associated with an extension number. Each extension is programmed with a mailbox number to use for message storage and retrieval. Therefore, messages for single-digit mailboxes are routed to the mailbox number programmed on the phone.

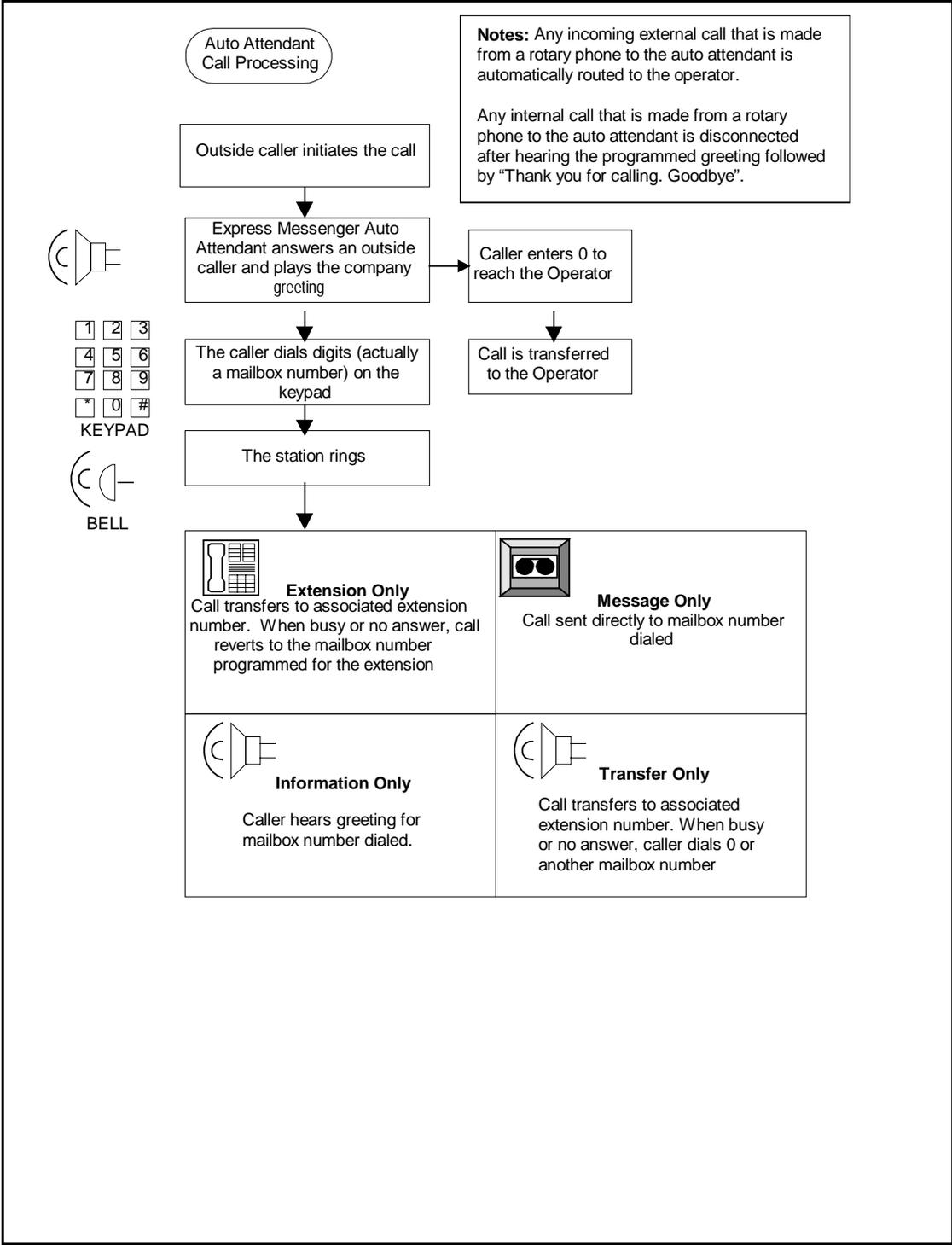


Figure 7 - Auto Attendant Call Processing

Section 4: Changing Mailbox Parameters

You can modify any mailbox parameters that were set during initial installation. This section tells you how to add, edit, and delete mailboxes, and perform general Express Messenger maintenance.

The Mitel Express Messenger system is designed around the functionality of the mailbox, and much of its power comes from the flexibility you have in customizing mailboxes. The table below summarizes each mailbox type and the functions it supports.

Many mailbox parameters can also be modified from a PC running Express Manager. Within this section, access from a DTMF telephone is described first, followed by access from Express Manager.

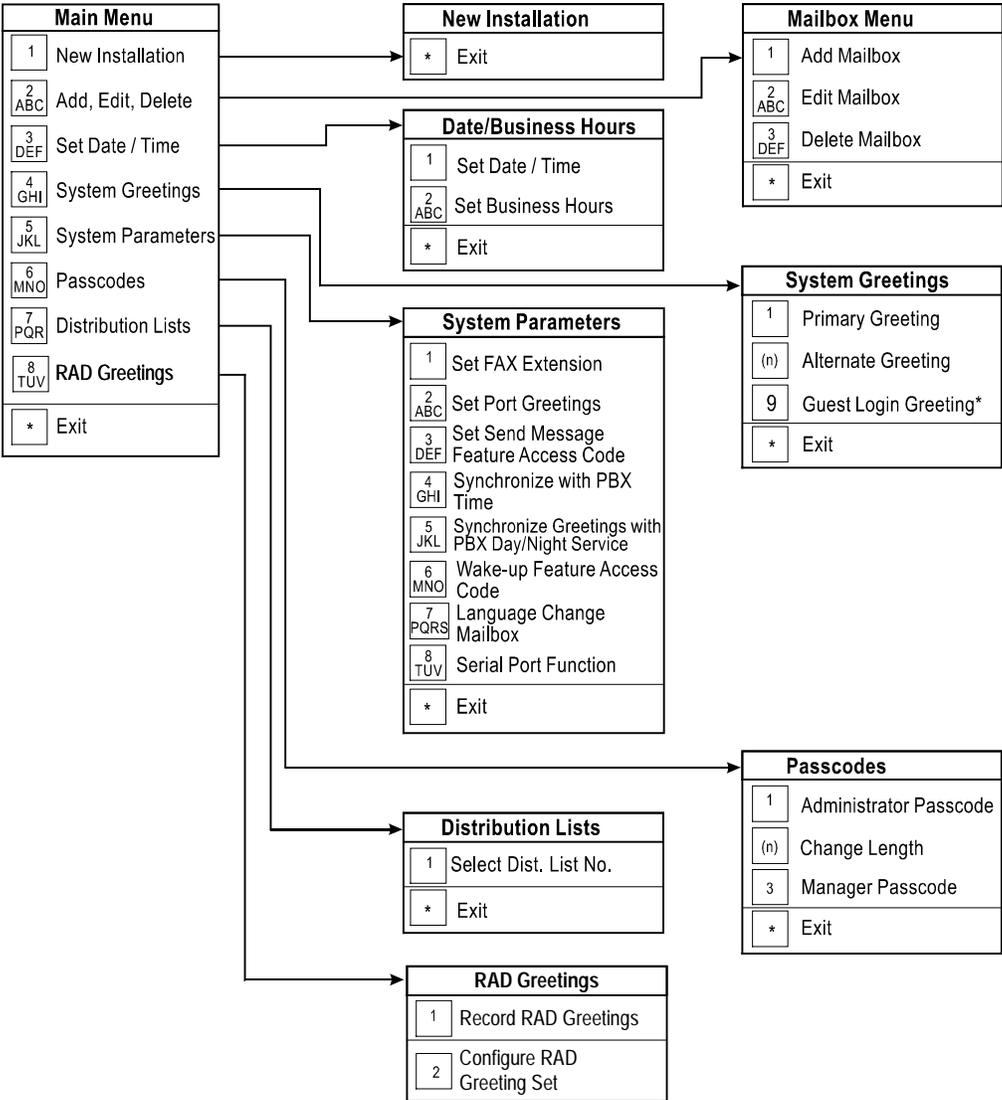
Function	Mailbox Type						
	Extension	Message Only	Transfer Only	Information Only	Menu Tree	Guest	Front Desk
Transfers caller to the associated extension	Yes	No	Yes	No	Yes	Yes	Yes
Allows transfers to the operator	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Plays the mailbox greeting or information	Yes	Yes	No	Yes	Yes	Yes	Yes
Records a message	Yes	Yes	No	No	No	Yes	Yes
Notifies users of messages	Yes	Yes	No	No	No	Yes	Yes

Accessing the System Administrator's Mailbox

You must log in to the administrator's mailbox to modify Express Messenger settings. Follow these steps to log in to the administrator's mailbox.

1. From any internal DTMF telephone, lift the handset and obtain dial tone.
2. Dial the Express Messenger message center number. Express Messenger answers and plays the greeting.
3. Press [*] when you hear the greeting.
4. Express Messenger prompts you for a mailbox number.
5. Enter the system administrator mailbox number: [99 or 999 or 9999].
6. Express Messenger prompts you for a passcode.
7. Enter the passcode for the System Administrator's mailbox.
8. See *Setting and Changing Passcodes* on page 64 to change the passcode or passcode length. You are now logged in to the system administrator's mailbox. Follow the voice prompts for instructions or use this section of the manual for reference.

Figure 8 shows the full system administrator menu.



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Figure 8 - System Administrator Menu

New (or Repeat) Installation

Figure 9 shows the New Installation menu.

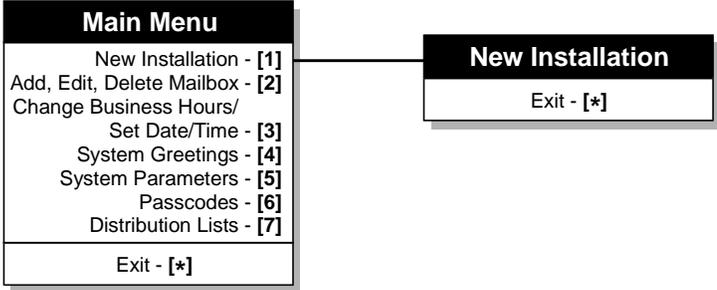


Figure 9 - New Installation

When you perform a new installation, the only system parameter you must overwrite is the FAX extension number. Note that if you are logged in as Manager, the New Installation [1] option is not available.

All other system parameters, greetings, mailbox setups, date and time settings, passcode length, and business hours are preserved. This allows you to upgrade the PBX without having to re-enter greetings and mailboxes.

Do not use the New Installation procedure to change your mailboxes. Instead, use the Add Mailbox, Edit Mailbox, and Delete Mailbox procedures.

To re-install Express Messenger, follow these directions.

1. Access the System Administrator’s mailbox.
2. Select option number [1] from the main administration menu, then follow the prompts.

NOTE: If you had your dealer install Express Messenger initially, you may want to have him or her perform the re-installation as well. If you did the initial installation, then follow the original Installation Worksheets for the new installation.

Add, Edit, or Delete a Mailbox from a Telephone

Add Mailbox

Add a mailbox when you need a *new* mailbox; if the mailbox already exists and you want to change it, use the Edit Mailbox function. Figure 10 shows the Add Mailbox menu.

NOTE: No one can use a mailbox until the system administrator adds it.

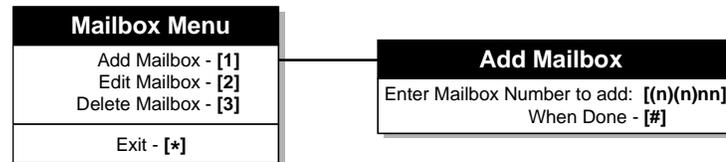


Figure 10 - Add Mailbox Menu

To add a mailbox, follow this procedure:

1. Access the System Administrator's mailbox.
2. Enter [2] for the Mailbox menu.
3. Enter [1] for the Add Mailbox menu.
4. Enter the mailbox number to add.
5. Use the keypad to enter the first five letters of the first name or last name (as defined) of the person assigned to this mailbox. Use 7 for Q and 9 for Z.
If you do not want to include the mailbox in the directory, press [#] instead.
6. Press [#] when finished.

To add single-digit mailboxes

1. Decide which single-digit mailboxes to use for what purpose.
2. Access the System Administrator's mailbox.
3. Add each single-digit mailbox using the Add Mailbox procedure but do not attach a name to the mailbox. When prompted for a name, press # to skip to the next prompt.

NOTE: After you enter a single-digit, Express Messenger pauses to make sure you are not entering more digits. Wait until Express Messenger prompts you for the mailbox name before pressing [#].

4. Edit the mailbox using the Edit Mailbox procedure to associate it with the proper extension number and to specify the mailbox type as either extension or message only.
5. For each single-digit mailbox, create the proper greeting.
6. Create or change the company greeting, if desired, to include the single-digit mailboxes.

To add a Menu Tree mailbox:

1. Access the System Administrator's mailbox.
2. Add a mailbox for each sub-level menu using the procedure on the previous page for adding mailboxes.
3. Edit the mailbox using the Edit Mailbox procedure below to specify the mailbox type as Menu Tree.
4. Log into each Menu Tree mailbox, using the mailbox's number and passcode.
5. Record a greeting with the required prompts – for example, *“For Mitel Express Messenger, press 1. For NuPoint Messenger, press 2. For all other products, press 3. To return to the previous menu, press star.”*
6. Assign the next level mailboxes to the digits specified in the greeting. Continuing with the above example, assign digit 1 to the mailbox belonging to the Express Messenger technician and the digit 3 to the mailbox belonging to the NuPoint Messenger technician

Edit Mailbox

Edit an existing mailbox to change one or more of the parameters that determine what type of mailbox it is and how it functions. Figure 11 shows the Edit Mailbox menu.

NOTE: You cannot edit the System Administrator's mailbox, number 99 or 999 or 9999.

The following chart lists the mailbox parameters you can change.

You cannot select an individual parameter to change; Express Messenger prompts you through each one. Use the [#] key to either end a numerical entry (telephone and extension numbers) or to skip to the next parameter.

If nothing is entered after 4 seconds, Express Messenger repeats the prompt (up to three times). Express Messenger exits the menu if you do not press a key by the third prompt.

Mailbox Parameters			
Parameter	Description	Length	Remarks
Name	Changes the mailbox name used in the directory.	6 digits	The 6 digits correspond to the first six letters of the person's name. Use the correct name corresponding to the directory (mailbox 9) listing selection of either first name or last name. If [*] is entered, the name will not be listed in the directory.
Passcode	Resets the passcode on any of the mailboxes.	3-6 digits	If someone forgets their passcode, this function resets it to the default code of [999] or to a new code. You cannot find out what the existing passcode is. Note: When you reset a passcode, inform the user about it and remind him or her to change it to change it to secure his or her mailbox.
Extension	Associates a mailbox with an extension number.	1-20 digits	Enter the extension number of the associated phone. Express Messenger uses this to transfer calls and turn the message waiting light on or off.
Notification Type	There are five locations to which you can send notification to a user that messages are waiting: to any extension number, to an outside number, and to 3 different types of pagers.	1 digit	Express Messenger lists the notification types in a series of prompts. To disable notification, press [*]. For more information on this topic, see the <i>Setting Notification</i> section.
Notification Number	Sets the telephone number to be dialed when a message is received.	1-35 digits	This parameter will only be asked for if notification is enabled. To disable notification, press [*].
Notification Access	Allows the user to set their own notification type and number.	1 digit	To enable user access, press [1]. To disable user access, press [2].
Mailbox Type	Sets mailboxes to be extension, message-only, transfer-only, information-only, menu tree, guest, or front desk.	1 digit	If [*] is entered, an extension mailbox is automatically set. The guest and front desk mailboxes are only available if the Hospitality Option is enabled.

Language	Sets the language for the voice mail prompts that the user of this mailbox hears. This option applies only to bilingual systems. For more information, see <i>Setting the Voice Prompt Language</i> on page 84. See also, <i>Enabling the Bilingual Prompts Option</i> on page 94.	1 digit	Express Messenger lists the languages in a series of prompts.
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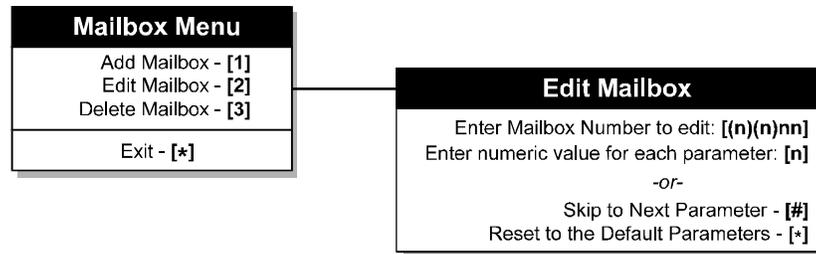


Figure 11 - Edit Mailbox Menu

To edit a mailbox, follow these steps:

1. Access the System Administrator's mailbox.
2. Press [2] for the Mailbox menu.
3. Press [2] for the Edit Mailbox menu.
4. Enter the mailbox number to edit.
5. Follow the prompts and enter the changes for each parameter.

NOTE: Press [#] if you do not need to change a parameter. Press [*] if you want to reset to the default parameter.

6. Express Messenger returns you to the Mailbox menu after you have altered or skipped the parameters.

An example of mailbox editing follows.

Example:

If Harry Smith forgets his passcode, do the following:

1. Access the Edit Mailbox menu.
2. Enter his mailbox number.
3. Press [#] to skip to the Passcode parameter.
4. Press [*] to reset his passcode to the default (all 9's).
5. Press [#] at each remaining parameter to skip it.

Delete Mailbox

When you delete a mailbox, you delete all messages, greetings, and the mailbox name. Express Messenger does not inform you if there are still messages in the mailbox. You would delete a mailbox belonging to an employee who has left your company, an information-only mailbox you wish to discontinue, and so forth. Figure 12 shows the Delete Mailbox menu.

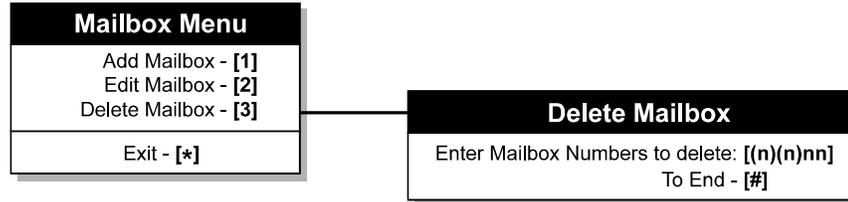


Figure 12 - Delete Mailbox Menu

NOTE: You cannot delete the operator's mailbox or the system administrator's mailbox.

Follow these steps to delete a mailbox:

1. Access the System Administrator's mailbox.
2. Press [2] for the Mailbox menu.
3. Press [3] for the Delete Mailbox menu.
4. Enter the mailbox number to delete.
5. Press [#] when done.

Add, Edit, or Delete a Mailbox from Express Manager

This provides a submenu, shown in Figure 13, allowing you to view the entire mailbox directory or to change the settings of individual mailboxes.



Figure 13 - Mailboxes Menu

Display the Directory

Select System / Mailboxes / Directory to display a list of all mailboxes, displayed in numerical order. Figure 14 shows an example of a company's mailbox directory. You cannot change mailbox information from within this directory.

Mbx Num	Dir Name	Extension	Box Type	Max Msg	Max Days	Type	Notification Sched	Number
0	arkle	0000000000	XXXX	0000	00	XXXX	NOVER	
1	iller	0000000000	XXXX	0000	00	XXXX	NOVER	
2	emp J	0000000000	XXXX	0000	00	XXXX	NOVER	
3	orepan	0000000000	XXXX	0000	00	XXXX	NOVER	
4	aglet	0000000000	XXXX	0000	00	XXXX	NOVER	
5	umphe	0000000000	XXXX	0000	00	XXXX	NOVER	
6	udge	0000000000	XXXX	0000	00	XXXX	NOVER	
7	ondal	0000000000	XXXX	0000	00	XXXX	NOVER	

Figure 14 - Mailbox Directory

NOTE: Some field values on the mailbox directory screen, such as user names, may not appear in their entirety. Restricting the displayed length of longer names allows display of other fields.

Add, Edit, or Delete a Mailbox

- 1. Select System / Mailboxes / Add, Edit, or Delete from the menu. Enter the mailbox number to delete:
- 2. Enter the number of the mailbox and click Ok (see Figure 15).



Figure 15 - Specifying the Mailbox Number

A second window (Figure 16) appears. For **Delete**, the window in Figure 17 appears.

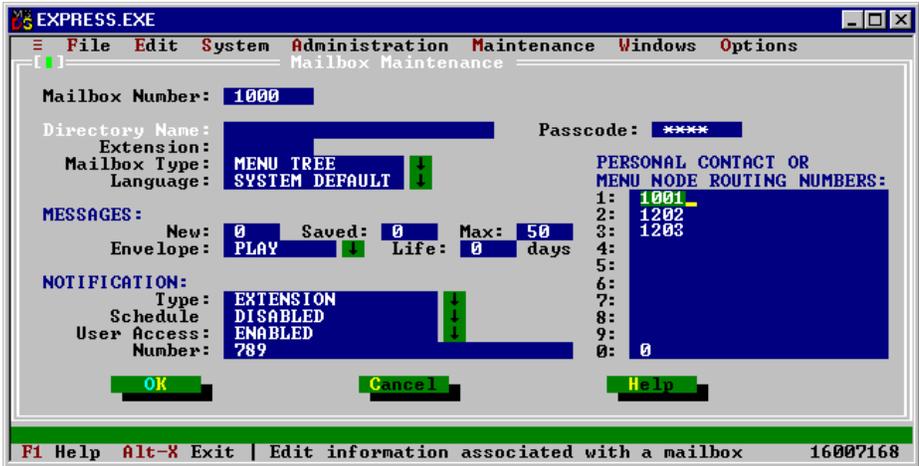


Figure 16 - Individual Mailbox Data Entry

- 3. Complete the entry fields using the following chart as a guide. Default values display in some fields (you can change any of the default values).

Add or Edit a Mailbox	
Field:	Enter as follows:
Directory Name	<p>Type up to a 21-character name to identify the user of the new mailbox. Enter the name in the format you choose. Express Manager takes only the first two characters for the directory in mailbox 9. Enter the name (first name first or last name first) according to the option selected in the System Miscellaneous window. This name also displays on the MAILBOX DIRECTORY window.</p>
Passcode	<p>Type a 3 to 6-digit passcode. Express Messenger requires users to enter their current passcode to retrieve their messages. The passcode is always displayed as asterisks.</p> <p>Note: The default passcode is all 9s. Only the user of each mailbox should change it. Express Messenger automatically prompts subscribers to record their name and permanent greeting the first time that they access their mailbox Express Messenger continues to prompt subscribers until they change the default passcode. If a user forgets his or her passcode, reset it entering all 9s. Tell the user the new code and remind he or she to change it to secure his or her mailbox.</p>
Extension	<p>Enter the extension number where you want Express Messenger to direct the calls for this user mailbox. This is normally a 2 to 4-digit extension number but can be up to 13 characters long. Do not use the following numbers: 0 (reserved for operator), 9 (reserved for directory listing) or any other mailbox beginning with the number 9 (reserved for system use). Default is extension number.</p>
Operator Extension	<p>Sets the location to which calls are directed when a caller presses “0” while listening to a mailbox greeting and recording prompt. A location can be any PBX destination from 1 to 20 digits including extensions, external telephone numbers, hunt group access codes and system abbreviated speed dialing numbers.</p> <p>The default setting sends calls to Mailbox 0, the mailbox usually reserved for the company-wide operator. Specifying a destination other than the company-wide operator is useful in multi-tenant applications where a voice mail system services two or more businesses. With flexible Dial “0” destinations, each business can redirect their calls to separate locations. The feature also enables you to accommodate users who want callers to transfer to a departmental secretary, rather than a company-wide operator.</p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>NOTE: The Operator Extension cannot be set from the System Administrator’s mailbox.</p> </div>

Add or Edit a Mailbox	
Mailbox Type	<p>Click on the down arrow to the right of the field to display a menu, and then select the type of mailbox to set up:</p> <p>Extension: This is the typical mailbox type associated with an extension. Express Messenger takes messages for a busy or unanswered extension.</p> <p>Information: This mailbox is for audio information for the caller to only hear. The caller cannot leave a message. For example, the message (or greeting) for this mailbox could recite the company’s business hours or driving directions to your location.</p> <p>Message Only: Express Messenger does not transfer calls to this type of mailbox. Express Messenger immediately plays the mailbox greeting and prompts the caller to leave a message.</p> <p>Transfer Only: Callers transferred to this mailbox cannot leave a message. They may hear a prerecorded informational announcement or instruction.</p> <p>Menu Tree: Menu Tree Mailboxes allow you to set up a hierarchical menu structure for multi-level auto attendant (MLAA) operation. In an MLAA system, callers reaching the Auto Attendant are routed from the main menu through to one or more additional sub menus until their call is answered. Express Messenger plays greetings for this type of mailbox and transfers callers to and from the mailbox.</p> <p>Guest: A Guest mailbox provides hotel or motel guests with basic voice mail features. Guests can play messages, record their own greetings, and set up their own wake-up calls. This mailbox type is only available if the Hospitality Option is enabled. See <i>Enabling the Hospitality Option</i> on page 95 or <i>Enabling the PMS Option</i> on page 96.</p> <p>Front Desk Callers transferred to this mailbox cannot leave a message. They may hear a prerecorded informational announcement or instruction. This mailbox type is only available if the Hospitality Option or PMS Option is enabled. See <i>Enabling the Hospitality Option</i> on page 95 or <i>Enabling the PMS Option</i> on page 96.</p>

Add or Edit a Mailbox	
Language	<p>Click on the down arrow to the right of the field to display a menu, and then select a language for the voice mail prompts that the user of this mailbox hears. Select System Default to set the language to whatever was specified for the entire system during installation.</p> <p>Support for multilingual prompts requires MEM Release 3.0 or later. For information on upgrading your system, see <i>Performing Upgrades</i> on page 102.</p>
(Messages) New	A read-only field that displays the number of new messages in the user's mailbox.
(Messages) Saved	A read-only field that displays the number of saved messages in the user's mailbox.
Max Number (of messages)	Enter a number up to 100 to specify the maximum number of messages that you want Express Messenger to save in the mailbox.
(Message) Life	<p>Enter a number up to 99 specifying the number of days a saved message can remain in the mailbox before Express Messenger automatically deletes it.</p> <p>Use 0 to revert to the system default.</p> <p>Use 99 to indicate that Express Messenger should never delete messages.</p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>NOTE: New messages can remain in the mailbox indefinitely.</p> </div>
(Messages) Envelope	<p>Click on the field to display a menu. Select Play or No play if you want the user to hear the priority, date and time, plus caller ID information for each message.</p> <p>Play: Automatically plays the message envelope with each message; no user input required.</p> <p>No play: Suppresses the message envelope; the user must press a key to hear the envelope.</p>

Add or Edit a Mailbox	
(Notification) Type	<p>Click on the arrow to the right of the field to display a menu. Select the device on which Express Messenger calls the user (the system must have the Notification function turned on to activate paging for any mailbox). Double click the required device.</p> <p>Digital Pager: Tells Express Messenger to notify the subscriber at a digital-type pager.</p> <p>Disabled: Express Messenger should not notify the subscriber.</p> <p>Extension: Tells Express Messenger to notify the subscriber at an inside extension.</p> <p>Message Pager: Tells Express Messenger to notify the subscriber at a message-type pager.</p> <p>Telephone: Tells Express Messenger to notify the subscriber at an outside telephone number.</p> <p>Tone Pager: Tells Express Messenger to notify the subscriber at a tone-type pager.</p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>NOTE: If there is no number in the Notification Number field, notification cannot occur even if you enable it.</p> </div>
(Notification) Schedule	<p>Click on the down arrow next to the field to display a menu. Select when you want Express Messenger to notify the user.</p> <p>Around The Clock: Express Messenger notifies the subscriber whenever a message arrives.</p> <p>Disabled: Express Messenger does not notify the subscriber.</p> <p>Closed: Express Messenger notifies the subscriber only during closed business hours.</p> <p>Open: Express Messenger notifies the subscriber only during open business hours.</p>
(Notification) User Access	<p>Enabled: User can change his or her pager number.</p> <p>Disabled: User cannot change his or her pager number. The system administrator must change it.</p>
(Notification) Number	<p>Enter the telephone number (up to 35 digits) for Express Messenger to call for user notification. Valid digits include 0 to 9, and the [*], [#], and [,] keys.</p>

Deleting a Mailbox

Select Delete from the System / Mailboxes menu; the window in Figure 17 appears.

1. Enter the number of the mailbox you want to delete in the Delete Mailbox window.

Do not delete the following mailboxes:

0 (reserved for operator)

9 (reserved for directory listing)

Any mailbox beginning with the number 9 (reserved for system use).



Figure 17 - Deleting a Mailbox

2. Select Ok to delete the mailbox. A confirmation window (Figure 18) appears to verify the mailbox you want to delete.

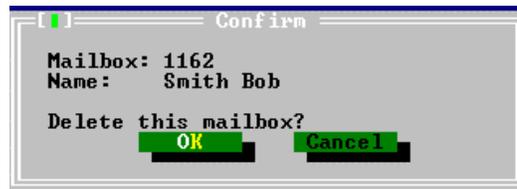


Figure 18 - Confirmation Window

Section 5: Performing System Administration from a Telephone

Setting Date, Time, and Business Hours

During Express Messenger installation, your Express Messenger dealer should have set the date and time. You have the option to allow Express Messenger to monitor the PBX system time so that date and time changes you make on your PBX will be automatically inherited by Express Messenger, thereby keeping the two system times in synchronization. In this case, you should not have to repeat the process of updating the date and time on Express Messenger.

Business hours are the opening and closing times for your company. They can be different for each day of the week. Figure 19 shows the Date/Business Hours menu.

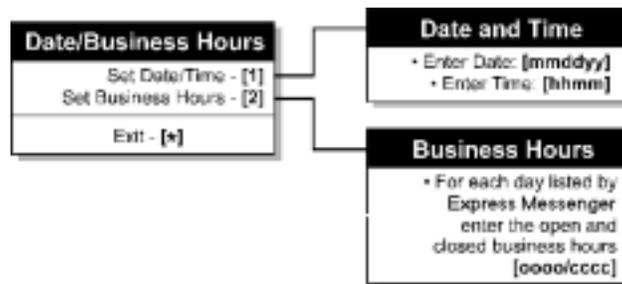


Figure 19 - Date/Business Hours Menu

Setting Date and Time

Follow these steps to set the date and time:

1. Access the System Administrator's mailbox.
2. Press [3] for the Date/Business Hours menu.
3. Press [1] for the Set Date/Time menu.
4. Enter the month, day, and year, using two digits for each: [mmddyy] -
- for example, 061100 = June 11, 2000.

The date format for French is [ddmmyy].

5. Enter the current time, using four digits, in the 24-hour format:
[hhmm] – for example, 1420 = 2:20 PM.

Express Messenger returns you to the Date/Business Hours menu.

Checking Date and Time

Follow these steps to check the date and time:

1. Access the System Administrator's mailbox.
2. Press [3] for the Date/Business Hours menu.
3. Press [1] for the Set Date/Time menu.
4. Press [#] to skip the entry of the date, then again to skip entry of the time. Express Messenger then reports the date and time currently entered on the system.

Express Messenger returns you to the main Date/Business Hours menu.

Setting Business Hours

Follow these steps to set business hours:

1. Access the System Administrator's mailbox.
2. Press [3] for the 'Date/Business Hours' menu.
3. Press [2] for the 'Set Business Hours' menu.
4. Express Messenger cycles through the days of the week asking you to input the opening and closing times for each day, beginning with Sunday. If your business will not be open on the day listed, enter [0000] for both the opening and closing times.

Enter the opening time (in 24-hour format): [hhmm].

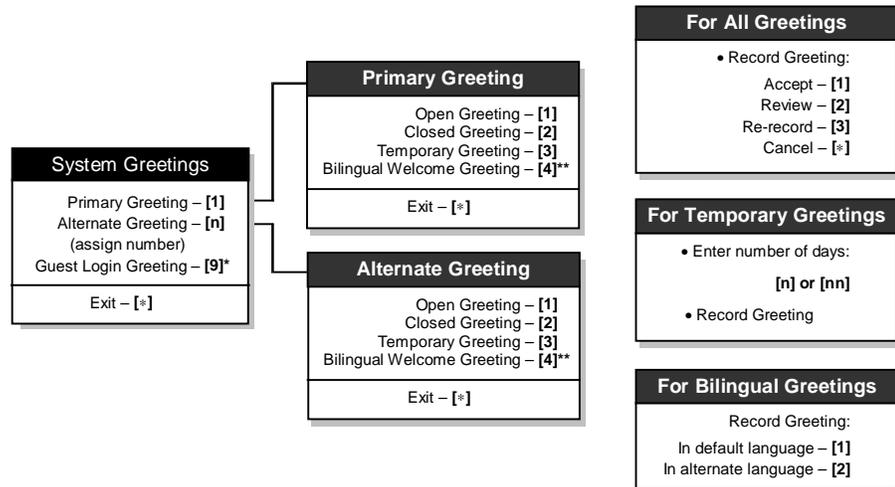
Enter the closing time (in 24-hour format): [hhmm].

Express Messenger returns you to the Date/Business Hours menu.

Recording System Greetings

In the System Greetings menu, you record a company greeting for Express Messenger to use when answering the telephone. For hotel/motel applications, you also record a greeting that guests hear when they call Express Messenger to retrieve messages or set wake-up calls. There are three types of greetings: a primary greeting set, an alternate greeting set and a RAD greeting set (RAD stands for Recorded Announcement Device. Express Messenger can provide RAD functionality on any of its ports. For more information, see page 88.) Each of these sets has an open greeting, a closed greeting, and a temporary greeting. **Figure 20** shows the System Greetings menu.

For bilingual systems, you record a welcome greeting and a set of primary, alternate, and temporary greetings in the two languages—for example, English and French.



* Requires Hospitality Option or PMS Option
 ** Requires Bilingual Voice Prompts Option

Figure 20 - The Greetings Menu

The Primary greeting set contains the greetings recorded during installation, which Express Messenger uses until you record and assign an Alternate greeting set.

You can record up to 8 alternate greeting sets (numbered 2 through 9), and assign each set to a different Express Messenger port. This feature provides flexibility. For example, two or more businesses can share a single PBX and Express Messenger unit, or a single business can have specialized greetings for 800 numbers. Assigning alternate greeting sets to Express Messenger ports is done through the System Parameters menu. However, determining which outside lines each Express Messenger port should answer is done through PBX programming. Call your Express Messenger dealer for assistance.

Both the primary and alternate greeting sets have open, closed, and temporary greetings. Selection of the proper greeting occurs as follows:

- If the PBX Night/Day Switching mode is set to Day service and you enable synchronization of the PBX system time, the system plays the open greeting to callers.
- If the PBX Night/Day switching mode is set to Night1 or Night2 service and you enable synchronization of the PBX system time, the auto attendant plays the closed greeting to callers. For example, if someone forgets to activate Night mode before closing the office when Night/Day Switching is enabled, the auto attendant plays the open greeting to all callers regardless of the system time. If you do not enable synchronization with PBX time, Express Messenger references the business hours specified during initial installation. It plays the open greeting when your company is open and the closed greeting when your company is closed.
- The temporary greeting overrides both the Night/Day Switching mode and System Business Hours and plays to all callers for the number of days you specify.

For bilingual systems, you must record a bilingual welcome greeting that includes an instruction to dial the Language Change Mailbox number. When callers dial the number, all subsequent prompts Express Messenger plays will be in the alternate language.

Primary Greeting Set

Follow these steps to record the primary greeting set:

1. Access the System Administrator's mailbox.
2. Press [4] for the System Greetings menu.
3. Press [1] to set the primary greeting.
4. If prompted, press [1] to assign greetings in the default system language or [2] for the alternate language.
5. Follow the instructions on the next page(s) for assigning Open, Closed or Temporary greetings for your primary greeting set.

Alternate Greeting Set

Follow these steps to record an alternate greeting set:

1. Access the System Administrator's mailbox.
2. Press [4] for the System Greetings menu.
3. Select a number, 2 through 9, for an alternate greeting set.
4. Follow the instructions on the next page(s) for making Open, Closed, or Temporary greetings for your alternate greeting set.

Open or Closed Greetings

To set open or closed greetings for a primary or alternate greeting set:

1. After making your selection for either a primary or an alternate greeting (from the previous page):
2. Press **[1]** for an Open greeting.
-or-
3. Press **[2]** for a Closed greeting.
4. If prompted, press **[1]** to assign greetings in the default system language or **[2]** for the alternate language.
5. Record the greeting speaking clearly into a handset, not a speaker phone.
6. Press any key to stop recording.
7. After recording, select one of the following options:
 - [1]** Accept
 - [2]** Review
 - [3]** Re-record
 - [*]** Cancel

Express Messenger returns you to the 'System Greetings' menu.

If you are recording bilingual greetings, repeat the above procedure beginning at step 2 for the other language.

Temporary Greetings

Temporary greetings are used during the holidays or vacation periods, which last only a few days or weeks. A temporary greeting overrides both the open and closed greetings. An example of a temporary greeting is given below.

"Happy Holidays from all of us at ABC Company. We are closed from Friday, December 23 until Monday, January 2. To leave a message, enter the number of the person you wish to reach or press 9 for the directory."

You are first prompted for the number of days, between 01 and 99, that the greeting should play. After that, follow the same sequence as the open and closed greetings: record the greeting, then select from the available options. To cancel an existing temporary greeting, enter 00 for the number of days.

To set temporary greetings for a primary or alternate greeting set:

1. Choose the primary or alternate greeting set and then press **[3]** to create a temporary greeting.
2. Enter the number of days for the greeting to play: **[nn]**
3. Enter a 2-digit number between 01 and 99. If you enter 00, the greeting is canceled.
4. If prompted, press **[1]** to assign greetings in the default system language or **[2]** for the alternate language.

5. Record the greeting, speaking clearly into a handset, not a speaker phone.
6. Press any key to stop recording.
7. After finishing, select one of the following options:
 - [1] Accept
 - [2] Review
 - [3] Re-record
 - [*] Cancel

Express Messenger returns you to the 'System Greetings' menu.

To disable an existing temporary greeting, first record something over the current greeting, then select '00' for the number of days.

If you are recording bilingual greetings, repeat the above procedure beginning at step 2 for the other language.

Bilingual Welcome Greeting

The Bilingual Welcome Greeting is the first greeting that the Express Messenger Auto Attendant plays when it answers an outside call. You record the greeting in the two languages specified during installation of Express Messenger. Include in the greeting an instruction to callers to dial the Language Change Mailbox number for service in the alternate language. The default Language Change Mailbox number is 8.

The Bilingual Welcome Greeting is only available if the Bilingual Voice Prompts Option is enabled. See page 94 for more information.

Follow these steps to record the Bilingual Welcome Greeting:

1. Access the System Administrator's mailbox.
2. Press [4] for the System Greetings menu.
3. Press [1] to set the primary greeting.
4. Press [4] to set the bilingual welcome greeting.
5. Record the greeting, speaking clearly into a handset, not a speaker phone. The following is a typical bilingual in English and French:

"Thank you for calling ABC Industries. Merci d'appeler les Industries ABC. Pour le service en francais, composez 8."
6. Press any key to stop recording.
7. After finishing, select one of the following options:
 - [1] Accept
 - [2] Review
 - [3] Re-record
 - [*] Cancel

Express Messenger returns you to the 'System Greetings' menu.

Guest Login Greeting

The Guest Login Greeting plays when Express Messenger answers a call from a telephone assigned to a guest mailbox.

The Guest Login Greeting is only available if the Hospitality Option (with or without PMS Support). See page 95 for more information.

Follow these steps to record the Guest Login Greeting:

1. Access the System Administrator's mailbox.
2. Press **[4]** for the System Greetings menu.
3. Press **[9]** to set the Guest Login greeting.

Record the greeting, speaking clearly into a handset, not a speaker phone. For bilingual systems, record the greeting in both languages.

4. Press any key to stop recording.
5. After finishing, select one of the following options:
 - [1]** Accept
 - [2]** Review
 - [3]** Re-record
 - [*]** Cancel

Express Messenger returns you to the 'System Greetings' menu.

Setting or Changing System Parameters

The System Parameters menu allows you to set the FAX extension, port greetings, access codes for the Send Message and Wake-up features, synchronization with the PBX clock and Day/Night Service mode, the Language Change Mailbox number, and the function of the Serial Port on the Express Messenger card. Figure 21 shows the System Parameters menu.

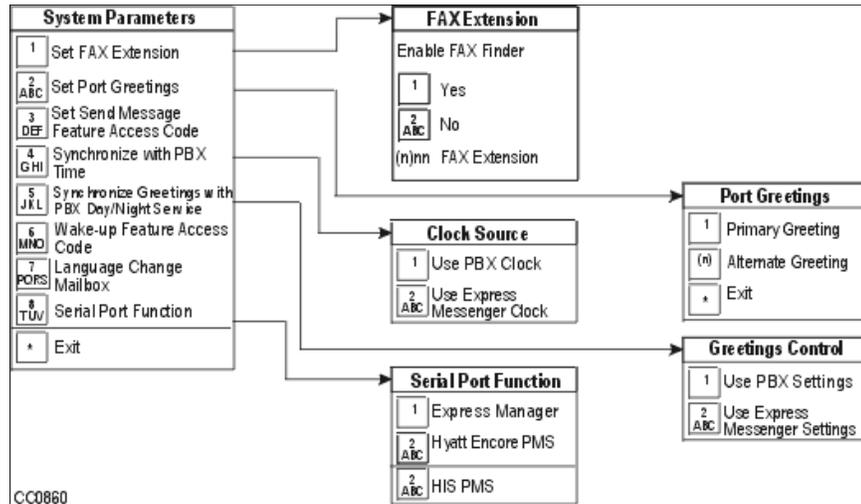


Figure 21 - System Parameters Menu

Setting the FAX Extension

FAX Finder instructs Express Messenger to direct an incoming FAX tone to the FAX machine at the selected extension, eliminating the need for a dedicated outside line.

Identify the extension number to which your FAX machine is connected, as follows:

1. Access the System Administrator's mailbox.
2. Press [5] for the System Parameters menu.
3. Press [1] for the Set FAX Extension menu.
4. Express Messenger asks if you want the FAX feature enabled.
5. To enable the FAX feature, press [1]; otherwise, press [2].
6. If you enable the FAX feature, Express Messenger asks you to enter the extension number of the FAX machine. Enter the extension number.

NOTE: Express Messenger will not allow you to set the FAX extension to either the operator, 0, or the system administrator, 99 or 999 or 9999.

Express Messenger returns you to the System Parameters menu.

Setting Port Greetings

You can assign different greetings for each Express Messenger voice mail port, either the primary greeting set or one of eight alternate greeting sets. For example, if you have a 4-port system, you can assign one set of greetings for the first two ports and a different set of greetings for the last two ports.

The System Parameters menu assigns alternate greeting sets to Express Messenger ports. However, PBX programming determines which outside lines each Express Messenger port should answer.

To assign greetings to Express Messenger ports:

1. Access the System Administrator's mailbox.
2. Press [5] for the System Parameters menu.
3. Press [2] for the Assign Greetings menu.
4. For each port, Express Messenger asks if the caller should hear the primary greeting or an alternate greeting.

For the primary greeting set, enter: [1]

For an alternate greeting, enter the greeting set number: [n]

After you respond for each port, Express Messenger returns to the System Parameters menu.

Setting the Send Message Feature Access Code

The PBX requires a Send Message Feature Access Code to allow Express Messenger to send a command to light or extinguish the Message Lamp at the selected extension, eliminating the need for a dedicated outside line.

1. Access the System Administrator's mailbox.
2. Press [5] for the System Parameters menu.
3. Press [3] for the Set Send Message Feature Access Code menu.
4. Express Messenger asks you to enter the Send Message Feature Access Code.
5. Enter the feature access code, as provided by the PBX installer.

Synchronizing Express Messenger with the PBX Time

You can use either the PBX clock or the Express Messenger internal clock as the time source for the Express Messenger system. By default, the system uses its internal clock.

1. Access the System Administrator's mailbox.
2. Press [5] for the System Parameters menu.
3. Press [4] for the Set Clock Source menu.
4. Press [1] to set the PBX clock as the time source
or
Press [2] to set the Express Messenger internal clock as the time source.

Synchronizing Express Messenger Greetings with the PBX Day/Night Setting

You can set the system to use the open or closed greeting based on the PBX Day/Night mode settings or based on the Express Messenger business hours. By default, the system uses the Express Messenger business hours.

The PBX installer must set the PBX clock to the correct format for the PBX Day/Night mode to function. See the Installation Worksheet (Form 04: Clock Format) for the required PBX programming.

1. Access the System Administrator's mailbox.
2. Press [5] for the System Parameters menu.
3. Press [5] for the Set Greeting Control menu.
4. Press [1] to select the PBX Day/Night mode settings
or
Press [2] to select the Express Messenger business hours.

Setting the Wake-up Feature Access Code

This feature access code applies to systems that have the Hospitality Option enabled. Guests dial the access code to set and cancel automatic wake-up calls. The code must match the code that you programmed in Form 02 of the PBX (refer to the Installation Worksheet).

1. Access the System Administrator's mailbox.
2. Press [5] for the System Parameters menu.
3. Press [6] for the Wake-up Feature Access Code menu.
4. Enter the feature access code, as provided by the PBX installer.

Setting the Language Change Mailbox Number

You can program the system to provide voice prompts in a second language. When callers reach the auto attendant or a subscriber's mailbox, they can dial the Language Change Mailbox number specified in the greeting to hear subsequent prompts in the second language.

NOTE: Bilingual voice prompts is a feature of Mitel Express Messenger Release 3.0. For information on enabling bilingual prompts, see page 94.

1. Access the System Administrator's mailbox.
2. Press [5] for the System Parameters menu.
3. Press [7] for the Language Change Mailbox menu.
4. Press [1] to enable the Language Change mailbox
or
Press [2] to disable it.
5. Enter the mailbox number.

Setting the Serial Port Function

The serial port on the Express Messenger card can be set to communicate with a PC running Express Manager or a Hyatt Encore or HIS Property Management System (PMS). Connecting a PMS to Express Messenger requires the PMS Option; for more information, see page 96.

You can Switch the port from PMS to Express Manager to make changes to the voicemail system at any time. When communication with the PMS is restored, Express Messenger will automatically update its database with mailbox status changes made from the PMS.

NOTE: Because Express Messenger cannot indicate check-ins and check-outs to the PMS, guests should always be checked in and out from the PMS. For a complete list of PMS functions supported, see Appendix E.

1. Access the System Administrator's mailbox.
2. Press [5] for the System Parameters menu.
3. Press [8] for the Serial Port Function menu.
4. Press [1] to set the serial port function to Express Manager, [2] to set the port to Hyatt Encore PMS, or [3] to set the port to HIS PMS.

Setting and Changing Passcodes

The default setting for the Administrator Passcode is [1234]. To preserve system security, change the administrator passcode so only you and your backup person know what it is.

You can change the passcode length, system-wide, to any length between three and six digits (Default is 4 digits). You may also assign a second Manager passcode to the system administrator's mailbox to provide limited administration privileges.

Figure 22 shows the Passcode menu.

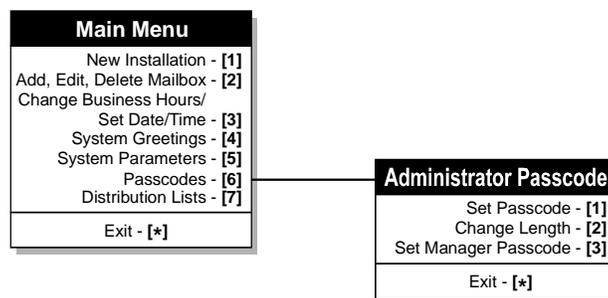


Figure 22 - The Administrator Passcode Menu

NOTE: You can also reset passcodes for users that have forgotten them. See page 40 for information on doing this from a telephone, or page 46 to do it from Express Manager.

Changing the Administrator Passcode

To change the administrator passcode:

1. Access the System Administrator's mailbox.
2. Press [6] for the Passcode menu.
3. Press [1] to change the passcode.
4. Express Messenger asks for the new passcode. You may use any keys on the keypad except [*] and [#].

Enter your new passcode: [nn...n]

5. Express Messenger asks you to confirm the new passcode.
6. Enter the passcode again: [nn...n]

Express Messenger returns you to the Passcode menu.

Changing the Passcode Length

The passcode length can be between three and six digits. If passcode length is changed, all existing passcodes will either be truncated (right-most digits cut off) or lengthened (zeroes added as right-most digits).

To change the administrator passcode length:

1. Access the System Administrator's mailbox.
2. Press **[6]** for the Passcode menu.
3. Press **[2]** to change the passcode length.
4. Express Messenger asks for the new passcode length; valid choices are between 3 and 6 digits.

Enter the new passcode length: **[n]**

NOTE: All passcodes on the system will be this new length, the administrator passcode as well as user passcodes. Notify all subscribers before making this change.

Express Messenger will confirm the new length and return you to the Passcode menu.

Changing the Manager Passcode

You may assign a second passcode (called the Manager Passcode) to the system administrator's mailbox. This passcode allows the user to perform all system administration functions except the following:

- Installing a new Express Messenger
- Changing the system administrator or manager passcode
- Changing the system passcode length

To change the manager passcode:

1. Access the System Administrator's mailbox.
2. Press **[6]** for the Passcode menu.
3. Press **[3]** to change the manager passcode.
4. Express Messenger asks for the new passcode. You may use any keys on the keypad except **[*]** and **[#]**.
5. Enter your new passcode: **[nn...n]**

Express Messenger asks you to confirm the new passcode.

6. Enter the passcode again: **[nn...n]**

Express Messenger returns you to the Administration Passcode menu.

Creating Distribution Lists

Both you and your subscribers can set up distribution lists consisting of multiple mailbox numbers. This feature makes it easier to send or forward a message to a group of people.

Distribution list number 00 is already set up to allow subscribers to broadcast a message to every mailbox in the system. As a System Administrator, you can set up global distribution lists, numbered 01 to 04, which all subscribers can use but cannot change. In addition, distribution lists numbered between 05 and 09 may be set up by subscriber to broadcast a message to each mailbox in the respective list.

Figure 23 shows the 'Distribution Lists' menu.

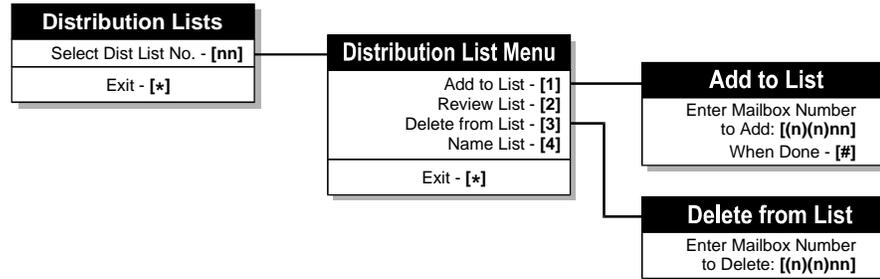


Figure 23 - The Distribution Lists Menu.

Add To A Distribution List

To create a new distribution list or to add mailbox numbers to an existing list:

1. Access the System Administrator's mailbox.
2. Press [7] for the Distribution Lists menu.
3. Enter a 2-digit distribution list number, 01 to 04.
4. Press [1] to add mailbox numbers to this list.

After you enter each mailbox number, Express Messenger confirms that the number has been added. Continue to add mailbox numbers until all are entered.

If you enter a mailbox number that already exists, Express Messenger tells you the number is a duplicate but Express Messenger does not enter the number twice.

5. Press [#] when you enter the last mailbox number to stop adding.

Review A Distribution List

To review an existing distribution list:

1. Access the System Administrator's mailbox.
2. Press [7] for the Distribution Lists menu.
3. Enter a 2-digit distribution list number, 01 to 04.

4. Press [2] to review the mailbox numbers in this list.

Provided the list contains mailbox numbers, Express Messenger itemizes the mailboxes contained in the list by speaking the name associated with each mailbox. If no personal names are recorded, Express Messenger reads all the mailbox numbers to you.

5. Press any key to interrupt the review and return to the Distribution Lists menu.

Delete From Distribution List

To delete a mailbox from an existing distribution list:

1. Access the System Administrator's mailbox.
2. Press [7] for the Distribution Lists menu.
3. Enter a 2-digit distribution list number, 01 to 04.
4. Press [3] to delete a mailbox number from this list.
5. Enter the number of the mailbox to be deleted. Express Messenger confirms that the mailbox number is deleted and returns you to the Distribution Lists menu.

Name A Distribution List

To record a name for a distribution list:

1. Access the System Administrator's mailbox.
2. Press [7] for the Distribution Lists menu.
3. Enter a 2-digit distribution list number, 01 to 04.
4. Press [4] to record a name for this list.
5. Press any key to stop recording. Express Messenger returns you to the Distribution Lists menu.

Message Notification

This feature allows users to be notified whenever messages arrive in their mailbox. Express Messenger supports five types of notification:

- To an internal extension (that does not have a message indicator).
- To an outside telephone number.
- To a message pager.
- To a tone-only pager (or beeper).
- To a digital pager.

A notification number can be assigned for each Express Messenger mailbox subscriber.

How It Works

For internal extension numbers and outside phone numbers:

1. Express Messenger calls the notification number when the subscriber's mailbox receives its first new message. It does not call for subsequent messages.
2. Express Messenger action depends on the response at that number:
 - If the notification number is busy or does not answer, Express Messenger tries calling again at each quarter hour (hh:00, hh:15, hh:30, or hh:45). This procedure is repeated twice for no answer status, three times for busy status. The message light on the user's phone remains lit until the user saves or deletes all new messages.
 - If the phone is answered, Express Messenger prompts for the user's passcode. The user can listen to their message immediately.

For pagers:

Every time the subscriber's mailbox receives a new message, Express Messenger calls the notification number.

- If the notification number is busy or does not answer, Express Messenger tries calling again at each quarter hour (hh:00, hh:15, hh:30, or hh:45). This procedure is repeated twice for no answer status, three times for busy status. The message light on the user's phone remains lit until the user saves or deletes all new messages.
- Express Messenger starts the paging procedure again every time a new message arrives.

Using Pagers

- **Pager Types**

There are three types of pagers Express Messenger can use: a beeper (or tone-only), a messaging type, and a digital type. The following table describes, in general, how Express Messenger works with each pager type. The process can change depending on the pager number parameters you enter for individual mailboxes.

Pager Type	How Express Messenger Works
Tone-only	Dials the phone number of the pager.
Message	Dials the phone number of the pager and announces: "(Name) ... You have new messages. Please access your mailbox through the pager speaker."
Digital	Dials the phone number of the pager and displays: (remainder of pager number) 555*1212* (mailbox number) Change '555-1212' to your company's telephone number using Express Manager.

- **Pager Number Parameters**

Pager numbers can vary in length, but some pagers require pauses or other actions to occur within the pager number. The [*] key plus a digit define these specific actions as shown in the following chart.

Command	Function	Audio Playback	Displays in Express Manager as...
*1	Pause 1 second	"comma"	,
*3	Dials the [#] key	"pound"	#
*4	Wait for dial tone	"star 4"	W
*5	Wait for answer	"star 5"	X
*6	Do not wait for answer	"star 6"	Y
*7n	Pause n seconds, where n is between 1 and 9 seconds	"star 7 (1-9)"	P(1-9)
**	Dials the [*] key	"star"	*

- Helpful Tips for Setting Up Pager Notification
 - Each pager needs its own distinct number sequence to work correctly. When you set up the pager number in a mailbox, the subscriber should supply you with the characteristics and requirements of their pager.
 - There is a 35-character limit to the total number of digits in a pager number.
 - The *5 (wait for answer) parameter takes affect at the point where Express Messenger first encounters it in the pager number. Any subsequent *5 parameters are ignored. If the call is answered and the pager is digital, Express Messenger dials the remainder of the pager number followed by the call back number (555-1212 unless changed) and mailbox number.
 - Use the *6 (do not wait for answer) parameter for time-based pagers. Express Messenger does not wait for any signals to perform the action dictated by the pager type: play a prompt or display the call back number. You must place the *6 parameter at the end of the pager number.
 - In the absence of a *5 or *6 parameter in the pager number, Express Messenger dials the entire mailbox pager number and waits for an answer. If the call is answered, it performs the action dictated by the pager type: plays a prompt or displays the call back number.
 - If you have a digital pager and decide to put the callback number and mailbox number in the mailbox notification number, include a 'Do not wait for answer' command (*6) in the notification number and make it a beeper type ('tone-only') pager. Doing this prevents Express Messenger from dialing the system-wide callback number.

- Pager Examples

Assume that the pager number is 123-4567, the subscriber's pin number is 54321, and the mailbox number is 201.

To specify this action on a digital pager...	Enter this pager number...	Subscriber sees...
Dial the pager number Wait for an answer Display the call back number and mailbox number	1234567	5551212*201
Dial the pager number Wait for an answer Pause 2 seconds Dial a pin number Pause 3 seconds Display the call back number and mailbox number	1234567*5*7254321*73	5551212*201
Dial 9 for outside line Dial the pager number Do not wait for an answer but wait three seconds Display the mailbox number three times separated by a two second delay Display the call back number and mailbox number	91234567*73201*72201*72201*6	20120101551212*201

Setting Up Notification

Before notification can take place, either:

1. Edit the mailbox associated with each user requiring notification and enter the notification type and number. This process causes notification to be on 24 hours a day for the user.

NOTE: Each user can turn their notification off or adjust the notification schedule as needed. Refer users to their Express Messenger User Guide for these procedures.

OR

You can allow individual users to modify their own mailbox type and number. Refer to the Edit Mailbox section for information on Notification Access.

2. Enter the notification type and number. Refer to *Edit Mailbox* on page 40 for a description of the notification parameters.
 - a. **Notification Type.** Indicate where notification is to take place:

internal extension	[1]
outside phone number	[2]
message pager	[3]
tone-only pager (beeper)	[4]
digital pager	[5]
 - b. **Notification Number.** The user supplies this number to you. If the number is a pager number, use the information given in Pager Number Parameters, for entering pager numbers.
 - c. **Notification Access.** Give the user the ability to modify his or her own notification type and number.

Using FAX Finder

Using Express Messenger, your PBX can receive FAXs, eliminating the need for a dedicated outside FAX line.

When adding FAX capability, Express Messenger asks to which extension the FAX is connected and automatically configures that extension to a 'transfer-only' mailbox. When a FAX tone comes in, Express Messenger transfers the call to that extension. If the receiving FAX machine is busy when a new FAX call comes in, the sending FAX machine hears a busy signal.

Some older FAX machines do not generate the tones necessary for triggering the FAX transfer function. In this case, the person sending the FAX has to manually dial the extension number of your FAX machine after they reach the Auto Attendant. To let callers know which extension the FAX machine is on, give the extension number in your company greeting.

Example:

If your FAX machine is at extension 217, your company greeting might read:

"Thank you for calling the CBA company. If you know the number of the party you would like to reach, enter it now. For a personnel directory, enter 9. To reach our FAX machine, enter 217. For assistance, press 0 or remain on the line."

Enabling FAX Finder

To enable the FAX Finder:

1. Access the System Administrator's mailbox.
2. Press [5] for the 'System Parameters' menu.
3. Press [3] for the 'Set FAX Extension' menu.
4. Express Messenger asks if you want the FAX feature enabled.

To enable the FAX feature, press [1].

Otherwise, press [2].

5. If you enable the FAX feature, Express Messenger asks you to enter the extension number the FAX machine is on.

Enter the extension number:

NOTE: Express Messenger will not allow you to set the FAX extension to either the operator (0) or the system administrator (99 or 999 or 9999).

Express Messenger now returns you to the 'System Parameters' menu.

For An Incoming FAX

Whenever Express Messenger detects FAX tone on an outside line, it directs the signal to a selected extension. A transfer-only mailbox is associated with the FAX extension; if a caller using a FAX machine tries to enter that mailbox, Express Messenger plays the following message:

"...Please hold while I try the FAX machine..."

If the caller stays on the line and the FAX machine answers, they would hear the customary FAX tone.

For An Outgoing FAX

To send an outbound FAX, dial the destination number.

Example: If the destination FAX number is 636-1234 and 9 is a prefix for outgoing calls, enter the following numbers on your FAX machine: [96361234].

Section 6: Performing System Administration from Express Manager

Setting the Date, Time, and Business Hours

The System / Date / Time window lets you adjust the current date and time for Express Messenger. It also lets you make changes to the company business hours.

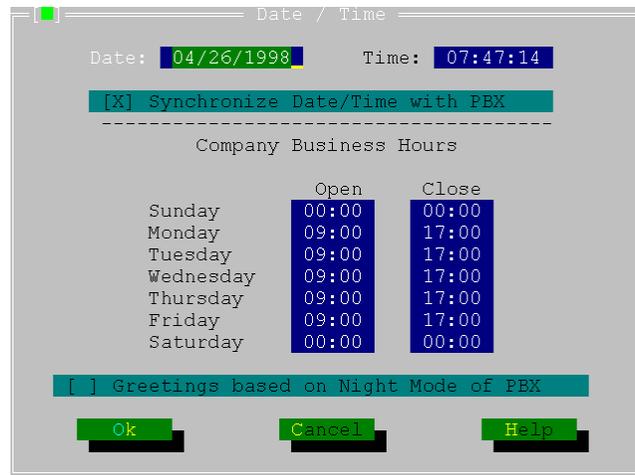


Figure 24 - Date/Time Window

Complete the fields in the Date/Time window using the following as a guide.

NOTE: Express Messenger greetings can correspond to your company's business hours, so it's important to update any date or time changes.

Setting Date and Time	
Field:	Enter as follows:
Date (Month)	Enter 1 or 2 digits between 01 and 12 to indicate the current month. (01 for January; 12 for December.)
Date (Day)	Enter 1 or 2 digits between 01 and 31 to indicate the current day within the month.
Date (Year)	Enter 2 digits to indicate the current year. Values between 93 and 99 indicate 1993-1999. All other values indicate the year 2000 and beyond.
Synchronize Date/Time with PBX	Select this checkbox to synchronize Express Messenger date and time to that of the PBX.
Time	Enter 1 or 2 digits to set the current hour. Specify a value between 0 and 23 to indicate 24-hour time. (Zero indicates 12:00 midnight; 6 indicates 6:00 a.m.; 23 indicates 11:00 p.m.) Press [→] and type 2 digits between 00 and 59 to set the minutes.
Open	For each day, Sunday through Saturday, specify when the company opens. Type 1 or 2 digits between 0 and 23 to set the hour. Press [→] and type 2 digits between 00 and 59 to set the minutes.
Close	For each day, Sunday through Saturday, specify the beginning of non-business hours for the company. Type 1 or 2 digits between 0 and 23 to set the hour. Press [→] and type 2 digits between 00 and 59 to set the minutes. 00:00 in both the Open and Close fields indicates that the company is closed that day.
Greetings Based on Night Mode of PBX	Select this checkbox to synchronize Express Messenger greetings to the PBX Night Mode setting.

Selecting Alternate Greetings

You can select different greeting sets for different Express Messenger ports, allowing your business to have multiple greetings. First record alternate greeting sets by calling Express Messenger from a telephone via the System Administrator's mailbox.

1. Select the Alternate Greetings window (Figure 25) from the System menu.
2. Assign the required greeting to each port by deleting the current greeting number and entering the new greeting number.

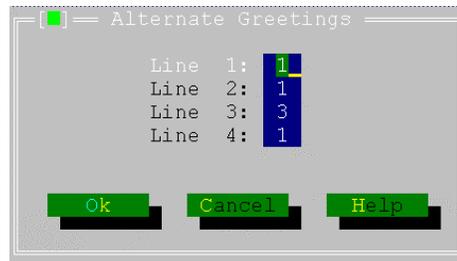


Figure 25 - Alternate Greetings Window

By default, Greeting set number 1 is the primary greeting set. Express Messenger plays the primary greeting set to every caller unless you instruct it to use an alternate greeting set.

Setting the FAX parameters

You can assign one extension number on your PBX as a Fax extension so that a dedicated outside line is not required for your FAX machine. When Express Messenger detects a FAX tone on an incoming call, it directs the call to the FAX extension.

1. Select FAX Settings from the 'System' menu to display the System Fax Settings window.

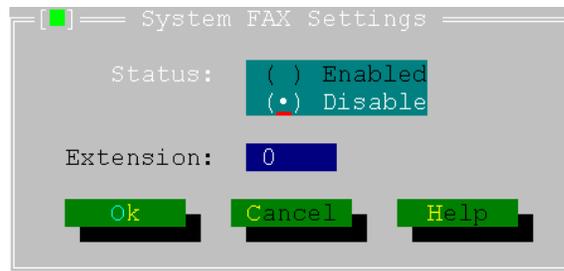


Figure 26 - System FAX Settings Window

2. Complete the fields in this window by using the following information as a guide.

System FAX Settings	
Field:	Enter as follows:
Status	<p>Click the appropriate field to indicate whether or not Express Messenger should direct calls to a facsimile machine.</p> <p><i>Enabled:</i> Allows Express Messenger to direct calls to the FAX extension.</p> <p><i>Disabled:</i> Prevents Express Messenger from directing calls to the FAX extension.</p> <p>When you set the Status field to Disabled, the Extension field defaults to 0.</p>
Extension	Enter the extension number to which the fax machine is connected.

Setting and Displaying Site Information

The System / Site Information window displays the company name, Express Messenger serial number, Hour Capacity of the disk drive for messages, and the number of configured ports.

Enter a company name and select Ok. The remaining fields are display only.

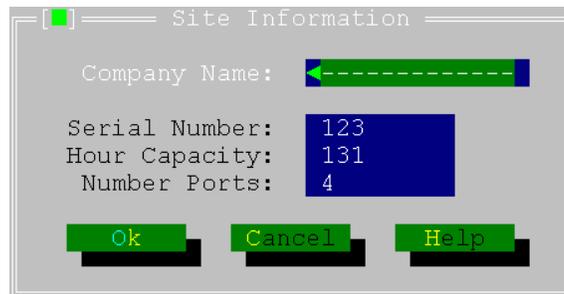


Figure 27 - Site Information Window

Changing Passcodes

From the Administration menu select either Administrator passcode or Manager Passcode to change the Administrator passcode or the Manager passcode. The Administrator passcode also allows the user to set the length of all Express Messenger passcodes.

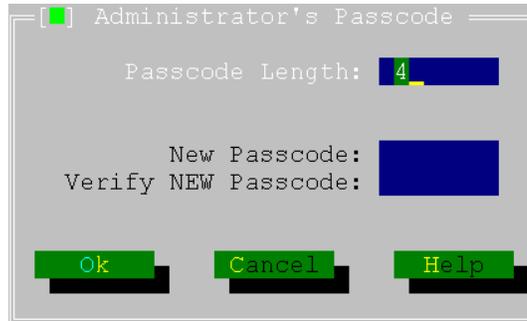


Figure 28 - Passcode Window

Change either Administrator or Manager passcode (or both) by completing the fields in the passcode window using the following information as a guide. The Manager Passcode window is the same excluding the Passcode Length: field.

Administrator Passcode	
Field:	Enter as follows:
Passcode Length	Enter a number from 3 to 6 indicating how many digits a passcode should contain. This number dictates the length for all passcodes in the system. Make no entry if passcode length is to remain the same.
Enter the following information only for the passcode that you want to change. Make no entry for a passcode that is to remain the same.	
New Passcode	Enter the new 3 to 6-digit passcode to replace the current passcode.
Verify New Passcode	Enter the new passcode again to confirm your keystrokes.

Setting Up Notification

1. Edit the Notification parameters in the user's mailbox. See page 50 for a description of the notification parameters.
 - Click on the down-arrow to the right of the Type parameter to display a menu. Click the desired notification type.

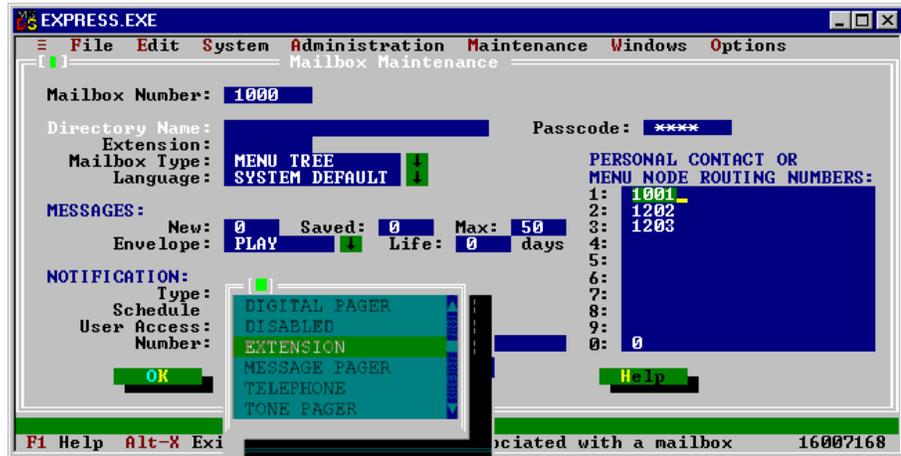


Figure 29 - Notification Type

- Click on the down-arrow to the right of the Schedule parameter to display a menu. Click the desired notification schedule.

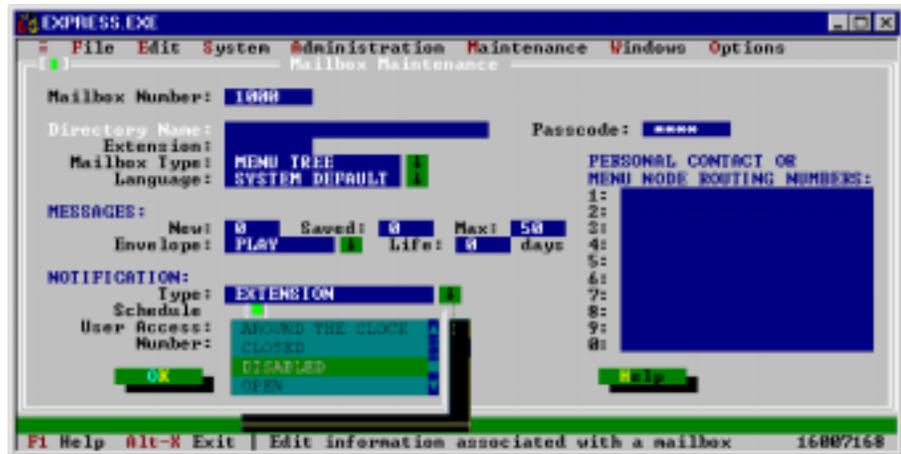


Figure 30 - Notification Schedule

- Enter the telephone number (up to 35 digits) that the Express Messenger should call to notify the user. Valid digits include 0 to 9, and the [*], [#], and [,] keys.
 - Click OK.
2. Select Notification from the System drop-down menu to open the System Notification window (see Figure 31).

- Enable the Notification Calls parameter. If enabled here *and* for a subscriber's mailbox, notification takes place when a message is left in a subscriber's mailbox.
- Specify the telephone number that Express Messenger should display on digital pagers. Express Messenger automatically attaches *<mailbox#> to the dial setting to display the mailbox that received the message. Subscribers dial this number to call Express Messenger and hear their messages.
- Enter the access code for Feature Access Code 41, Send Message, as programmed on the PBX.
- Click OK.

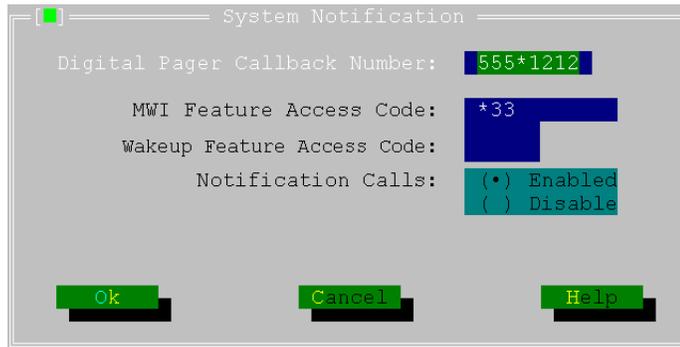


Figure 31 - System Notification Window

System Notification	
Field:	Enter as follows:
Digital Pager Callback No.	Enter up to 20 characters for the telephone number that is to display on digital paging devices when Express Messenger notifies a subscriber. Valid digits include 0 to 9, and the [*], [#], and [,] keys.
MWI Feature Access Code	Enter the code for Feature Access Code 41, Send Message, as programmed in the PBX (refer to the Installation Worksheet).
Wakeup Feature Access Code	Enter the code for Feature Access Code 02, Automatic Wake-up, as programmed in the PBX (refer to the Installation Worksheet). This feature access code is required by the Hospitality Option and PMS Option to allow guests to set automatic wake-up calls.
Notification Calls	<p>Select either:</p> <p><i>Enabled:</i> Turns the notification feature on for all Express Messenger mailboxes.</p> <p><i>Disabled:</i> Turns notification off for all Express Messenger mailboxes.</p>

Using FAX Finder

Using Express Messenger, your PBX can receive FAXs, eliminating the need for a dedicated outside FAX line.

When adding FAX capability, Express Messenger asks to which extension the FAX is connected and automatically configures that extension to a 'transfer-only' mailbox. When a FAX tone comes in, Express Messenger transfers the call to that extension. If the receiving FAX machine is busy when a new FAX call comes in, the sending FAX machine hears a busy signal.

Some older FAX machines do not generate the tones necessary for triggering the FAX transfer function. In this case, the person sending the FAX has to manually dial the extension number of your FAX machine after they reach the Auto Attendant. To let callers know which extension the FAX machine is on, give the extension number in your company greeting.

Example:

If your FAX machine is at extension 217, your company greeting might read:

"Thank you for calling the CBA company. If you know the number of the party you would like to reach, enter it now. For a personnel directory, enter 9. To reach our FAX machine, enter 217. For assistance, press 0 or remain on the line."

Setting FAX Parameters

Select Fax Settings from the System menu to display the window.

You can assign one extension number on your telephone system as a Fax extension. When Express Messenger detects a FAX tone on an incoming call, it directs the call to the FAX extension. A dedicated outside line for your FAX machine is not needed. Complete the fields in this window using the following information as a guide.

1. Set the Status to Enabled.
2. Enter the number of the extension where the FAX machine is connected, and then select Ok.

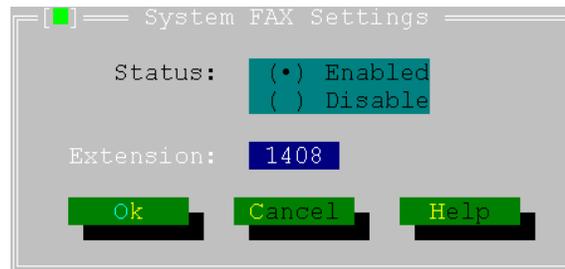


Figure 32 - System FAX Settings Screen

System FAX Settings	
Field:	Enter as follows:
Status	<p>Click the appropriate field to indicate whether or not Express Messenger should direct calls to a facsimile machine.</p> <p><i>Enabled:</i> Allows Express Messenger to direct calls to the FAX extension.</p> <p><i>Disabled:</i> Prevents Express Messenger from directing calls to the FAX extension.</p> <p>When you set the Status field to Disabled, the Extension field defaults to 0.</p>
Extension	Enter the extension number to which the fax machine is connected.

Selecting the Directory Prompt (First or Last Name)

Express Messenger can prompt callers who call the directory (Mailbox 9) by either their first name or their last name. To select the directory prompt

1. From the System menu select System Miscellaneous.
The System Miscellaneous Window opens (see Figure 33).
2. In the Mailbox Name Directory By field select FIRST NAME or LAST NAME.
3. Click Ok.

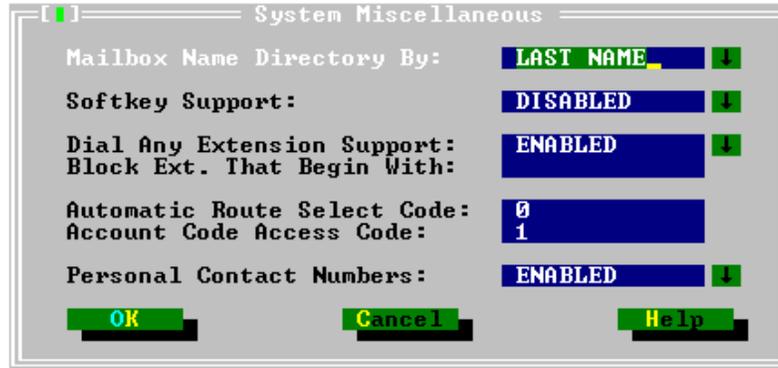


Figure 33 - System Miscellaneous Window

Enabling Softkey Support

The SX-200 EL/ML PBX provides voice mail softkeys on SUPERSET 4025, SUPERSET 4125, and SUPERSET 4150 telephones. Instead of dialing single-digit codes to select Mitel Express Messenger menu options, users can press softkeys. For example, to listen to message, a user can press the Play Message softkey instead of dialing the digit 7. Note that softkeys are not available for all menu options.

The SX-200 EL/ML PBX requires LIGHTWARE 17, Release 3.1, UR1 software or later, and you must enable Option 97 "Support Softkey Access to Voice mail" in Form 4 (System Options). Refer to the SX-200 EL/ML Technical Documentation for instructions on how to program voice mail softkey support on the SX-200 EL/ML PBX. You require a Mitel Options Password to enable this option on the PBX.

To enable softkey support on the Express Messenger system,

1. From the System menu, select System Miscellaneous.
The System Miscellaneous Window opens (see Figure 33).
2. In the Softkey Support field select ENABLED.
3. Click Ok.

Enabling Auto attendant Transfer to Any PBX Extension

The Express Messenger Auto Attendant can transfer incoming calls to any extension whether programmed with a mailbox or not. For this to work, the PBX dial plan and mailbox numbers must have the same number of digits. To prevent callers from accessing PBX trunks, you can program the system to deny transfers when the leading digit dialed matches the first digit of a trunk group access code.

1. From the System menu select Language.

The System Miscellaneous Window opens (see Figure 34).

2. Set Dial Any Extension Support to Enabled.
3. In the Block Ext.That Begins With field, enter the leading digit of the trunk group access codes you want to restrict.

You can enter up to 12 digits to restrict access to 12 different trunk groups. Separate each digit with a comma.

4. Click OK.

Setting the Automatic Route Select Code

The Automatic Route Selection (ARS) code defines the trunk group that the PBX should use to route message notification calls. ARS codes are programmed by the PBX technician.

1. From the System menu select Miscellaneous.

The System Miscellaneous Window opens (see Figure 34).

2. Enter the Automatic Route Select Code.
3. Click OK.

Setting the Account Code Access Code

Account codes are used by the PBX to register message notification calls in the SMDR logs. The PBX generates these logs for call accounting purposes. Account codes can range from 1 to 12 digits and cannot contain an * or #.

1. From the System menu select Miscellaneous.

The System Miscellaneous Window opens (see Figure 34).

2. Enter the Account Code Access Code.

In the Block Ext.That Begins With field, enter the leading digit of the

3. Click OK.

Enabling or Disabling Personal Contact Numbers

Mailbox owners can program alternate numbers (cell phone, pager, fax etc.) where callers can contact them instead of leaving a message. Callers reaching the owner's mailbox will hear the owner's greeting followed by prompts such as "...to reach this person's cellular phone, press C, the 2 key."

Use of this feature can be enabled or disabled for the entire system

To enable/disable Personal Contact Numbers using Express Manager

1. From the System menu, select Miscellaneous.
The System Miscellaneous Window opens (see Figure 34).
2. In the Personal Contact Numbers field select ENABLED or DISABLED.
3. Click Ok.

To enable/disable Personal Contact Numbers using a telephone

1. Log into the administrator mailbox.
2. When prompted for a passcode, dial the Technician's passcode (default 8642).
3. Dial 9.
Express Messenger prompts for another Technician's function code.
4. Dial 20105 to enable Personal Contact Numbers feature. To disable it, dial 20106.
Express Messenger responds with "Enabled."
5. Hang up.

Setting the Voice Prompt Language

Express Messenger can prompt callers in English, French and Spanish. MEM Release 3.0 or later systems can also provide bilingual prompts in any combination of the supported languages. Bilingual prompts are only available if the Bilingual Voice Prompts Option is enabled. For more information, see *Enabling Bilingual Voice Prompts Option* on page 94.

Note that Spanish prompts require MEM Release 2.1 systems or later; French prompts require MEM Release 3.0 or later.

Selection of language(s) is done during installation of Express Messenger. Thereafter, you can use Express Manager to change the languages and to disable bilingual prompts as follows.

1. From the System menu select Language.
The Language Settings Window opens (see Figure 34).
2. From the Default Language list, select the language you want to use as the primary language for auto attendant greetings and mailbox prompts.
3. For bilingual systems, select the other language from the Alternate Language list.

4. Select Bilingual to enable the alternate language prompts.
5. Click Ok.

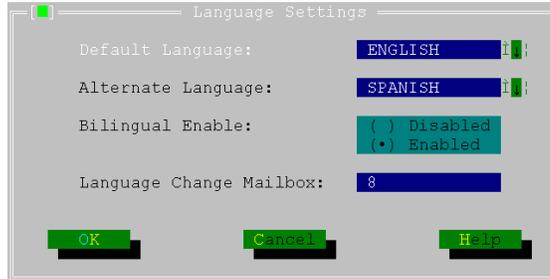


Figure 34 – Language Settings Window

Setting the Language Change Mailbox Number

The Language Change Mailbox applies to systems with the Bilingual Voice Prompts Options enabled. Callers reaching the auto attendant or a subscriber's mailbox can dial the Language Change Mailbox number to hear subsequent prompts in the alternate language.

To set the Language Change Mailbox number,

1. From the System menu select Language.
The Language Settings Window opens (see Figure 34).
2. In the Language Change Mailbox field, enter a single-digit number.
The default is 8.

Setting up RAD Ports

Express Messenger can provide recorded announcement device (RAD) functionality, eliminating the need for external tape machines or other audio-playing devices. RADs are commonly used to automatically answer lines and deliver pre-recorded messages such as, “All of our representatives are busy helping other callers, please continue to hold to maintain your call priority.” When the RAD message finishes playing, the caller usually hears music-on-hold while waiting for an agent to become available. RAD messages may also give the caller information, which answers their questions, thus resulting in a ‘good’ abandoned call. They may also provide advertising or promotional information to callers while they’re waiting for someone to take their call.

Any number of Express Messenger ports can function as RAD ports. (See the next page for considerations concerning RAD-only cards.) Each RAD port is assigned a set of up to five messages (called “greetings”) that play one after another. When the entire greeting set has played, the port will either hang up or replay the entire set the number of times specified. Up to 16 RAD greeting sets can be recorded for a total of 80 greetings (16 sets multiplied by 5 greetings per set). RAD greetings can be recorded in multiple languages, although callers cannot choose the language they want to hear as they can for other greetings in systems that are set up for bilingual operation.

Two or more ports can share the same set or subset of greetings. Shared greetings are common in ACD applications. For instance, ACD groups, each serviced by a separate RAD port, can all use the RAD message “Please hold to maintain your call priority.” By comparison, only a Sales ACD group can use the RAD message “Please hold to speak with a sales representative.” Combining generic and application-specific messages from different greeting sets in this fashion effectively reduces the number of RAD ports required.

NOTE: Determining which outside lines the RAD ports should answer is done through PBX programming. For help setting up lines, contact your Mitel Networks dealer.

Setting up RAD ports is a 3-step process:

1. Record RAD greetings.

You can record up to 80 individual greetings that can be then be configured as RAD greeting sets.

2. Configure RAD greetings sets.

In this step you define up to five RAD greetings which constitute the RAD greeting set and define how many times the set should play. You may configure up to 16 RAD greeting sets.

3. Assign RAD greeting sets to voice mail ports.

In this step you specify which RAD greeting set plays when a call arrives on a particular voice mail port.

Step 1: Record RAD Greetings

Express Messenger has no restriction on the length of the RAD messages; however, the PBX does. It has timers that need to be set to the length of the longest RAD greeting set. Contact your Mitel Networks dealer for assistance.

To record RAD greetings,

1. Access the System Administrator's mailbox.
2. Press [8] to select the RAD Greetings menu.
3. Press [1] to record a greeting.
4. Select the number of the RAD greeting to record (1- 80).

If the selected RAD greeting already exists, you will hear it along with prompts to accept, review or re-record it.

5. Record the greeting, speaking clearly into a handset, not a speaker phone.
6. Follow the voice prompts to record each additional greeting set.

Step 2: Configure RAD Greeting Sets

You can configure RAD greeting sets before recording the RAD greetings. However, it's a good idea to script and number the greetings first to avoid mistakes when it's time to configure RAD greeting sets.

To configure RAD greetings sets using a telephone,

1. Access the System Administrator's mailbox.
2. Press [8] to select the RAD Greetings menu.
3. Press [2] to configure a RAD greeting set.
4. Select the number of the RAD greeting set to configure (10 – 25).

The first of the five greetings in the set plays (if previously recorded) followed by prompts to assign a different first greeting or to skip to the next greeting in the set.

5. When prompted, specify the number of times from 1 to 99 that you want the greeting set to play. Enter 99 to play the set continuously until the caller hangs up.

Step 3: Assign RAD greeting sets to voice mail ports

You can use either a telephone or Express Manager to assign RAD greetings to voice mail ports.

To assign RAD greeting sets to ports from a telephone,

1. Access the System Administrator's mailbox.
2. Press [5] to select the System Parameters menu.
3. Press [2] to assign greeting sets to be used by each port
4. When prompted, for each port enter a System Greeting number from 1 to 9 or a RAD greeting set number from 10 to 25.

To assign RAD greeting sets to ports from Express Manager,

1. From the System menu, select System Greetings followed by Configure.
2. Select a RAD greeting set from the Set column.

3. In each Greetings column, enter the number (1 - 80) of the individual greetings that this port should play.

Greetings play in order from left to right. Leave boxes empty if you require less than the maximum five greetings per set.

4. In the Times to Play column, enter a number from 1 to 99 to specify how many times you want the greeting set to play. Enter 99 to play the set continuously until the caller hangs up.
5. Repeat steps 2 to 4 for each greeting set.

RAD-only cards

All ports on an Express Messenger card can operate as dedicated RAD ports. However, a least one non-RAD port is required to record RAD greetings and administer the voice mail system by telephone. To get around this requirement, temporarily assign a System greeting set to one of the ports. Then, log into the administrator's mailbox and record the RAD greetings by telephone. After the greetings are recorded, use Express Manager or the telephone to reassign a RAD greeting to the port.

Setting up a DID Server

Express Messenger 4.0 provides a built-in DID server for use in hospitality environments. The server manages DID numbers within the PBX, which allows the hotel-keeper to easily assign personal DID to guests for the duration of their stay. With DID service, outside callers can reach guests without having to go through the front desk.

NOTES:

- 1) The DID Server is an optional feature of Express Messenger Release 4.0. For information on enabling the feature, see page 98.
- 2) The PMS Option must be enabled to use the DID Server (see Enabling the PMS Option on page 96).
- 3) The DID server requires special integration with your PBX and DID phone lines from your local telephone company. Contact your Mitel Dealer for assistance.

DID Server features

- DID number assignment is by PMS terminal only – i.e., assignment by telephone through the Front Desk mailbox is not supported.

NOTE: Express Messenger provides an option that automatically assigns DID numbers on check-in. Use this option if the PMS system does not support manual assignment. See the next page for details.

- Assignment of numbers is done either automatically by the system on a “first-in, first-out” (FIFO) basis, or manually by Front Desk staff using the PMS terminal. Manual assignment means guests can get specific numbers if requested. FIFO assignment takes numbers out of service for as long as possible before re-assigning them, which helps prevent guests from receiving unwanted calls on their DID number.
- Each guest mailbox is permitted one DID number.
- DID numbers follow guests if they change rooms during the same stay – no manual re-assignment required.
- Currently assigned DID numbers can be temporarily disabled without having to check out the guest.
- Guest rooms can be assigned a fax extension that shares a mailbox and a DID number with the room phone. The server relies on FAX tone detection to route incoming fax calls to the fax extension.
- Guests logging into their mailboxes for the first time hear, as part of the tutorial, the message, “The direct number to reach your room is” The system automatically inserts the correct number, which the guest can replay at any time by pressing a key.

Enabling or disabling the DID Server

The DID server can be enabled or disabled by telephone or by using Express Manager as described in *Setting up the DID server* later in this section.

To enable or disable the DID server by telephone

1. Log into the administrator mailbox.
2. When prompted for a passcode, dial the Technician's passcode (default 8642).
3. Dial 9.

Express Messenger prompts for another Technician's function code.

4. Dial 20101 to enable the DID Server. To disable it, dial 20102.
Express Messenger responds with "Enabled" or "Disabled."
5. Hang up.

Enabling or disabling Automatic DID Number Assignment

Automatic DID Number Assignment is a feature designed for PMS systems that do not support manual number assignment. The feature, when enabled, automatically assigns a DID number to a guest room upon check-in and returns the number to the DID pool upon check-out.

To enable or disable Automatic DID Number Assignment by telephone

1. Log into the administrator mailbox.
2. When prompted for a passcode, dial the Technician's passcode (default 8642).
3. Dial 9.

Express Messenger prompts for another Technician's function code.

4. Dial 20103 to enable the Automatic DID Number Assignment. To disable it, dial 20104.
Express Messenger responds with "Enabled" or "Disabled."
5. Hang up.

Setting up the DID Server

Setting up the DID Server is done using Express Manager. You may need to temporarily configure the serial port on the Express Messenger card to communicate with Express Manager. For more information, see *Setting the Serial Port Function* on page 63.

To set up the DID server

1. From the Express Manager System menu, select DID Server.

The DID Server window opens (see Figure 35).

2. Set DID Server to ENABLED.
3. In the Constant Portion of DID numbers field, enter the leading digits common to all the DID numbers.

For example, if your DID numbers range from 716-639-3200 to 716-639-3399, enter 7166393 as the constant portion. Valid characters are digits 0 through 9 (spaces are not accepted). Refer to the Installation Worksheet if you are unsure of the digits to enter.

4. In the DID Ranges field, enter the trailing digits of the DID (refer to the Installation Worksheet).

Separate the first and last numbers in the range by a dash (e.g, 2000-2010) and each individual range by a comma (e.g., 2000-2010, 2060-3010). You may enter a maximum of 200 characters in this field encompassing no more than 750 individual DID numbers.

5. Click OK.
6. If necessary, reconfigure the Express Messenger serial port for PMS terminal use.

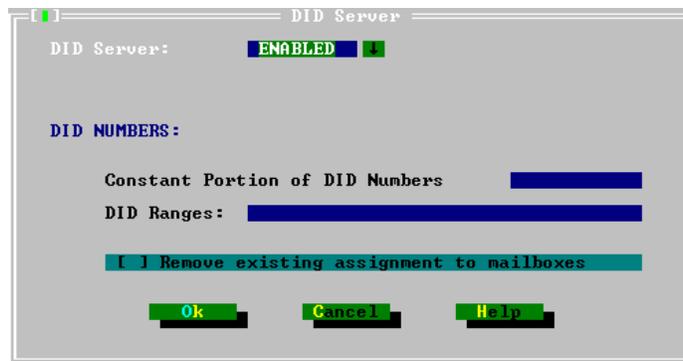


Figure 35 - DID Server Window

NOTE: The “Remove existing assignment to mailboxes” option clears DID numbers from all mailboxes. This option is rarely used as the PMS system handles clearing DID numbers from guest mailboxes at check-out time. Use the option when ALL mailboxes need to be cleared at the same time—for example, following changes to the DID numbers.

Enabling the Bilingual Voice Prompts Option

This option provides simultaneous prompts in two of the three available languages: English, French, and Spanish. Callers reaching the auto attendant or a subscriber's mailbox can dial 8 (the Language Change Mailbox number) to hear subsequent prompts in the alternate language.

NOTE: This option requires Mitel Express Messenger Release 3.0 system software or later. The SX-200 EL/ML PBX must have LIGHTWARE 16, Release 1.1, UR1 software or later.

1. If required, upgrade the card to Release 3.0 system software. See *Performing Upgrades* on page 102.
2. Obtain the card's model and serial number. See *Obtain the Cards model and serial number* on page 110 for instructions.
3. Call the Mitel Corporation order desk. The part number for the Express Messenger Bilingual Prompts option is 9109-542-104-NA.
4. Give the operator the serial number and model number of your card.
5. The operator will give you an 11-digit passcode. Record this code:
_____.
6. From any internal DTMF telephone, obtain dial tone.
7. Dial the Express Messenger message center number. Express Messenger answers and plays a greeting.
8. Dial * when you hear the greeting. Express Messenger prompts you for a mailbox number.
9. Dial the system administrator mailbox number: 99 or 999 or 9999. Express Messenger prompts you for a passcode.
10. Dial the technician's passcode: 8642
11. Dial 9 to access a menu of options. Express Messenger responds with, "Please enter a Technician's function code".
12. Dial 20272. Express Messenger responds with, "Please enter a Technician's function code". Enter the 11-digit passcode. Express Messenger responds with "Enabled."
13. Set the default language (if different than the installation language) by dialing 20001 for English, 20002 for Spanish, or 20003 for French.
14. Set the alternate language by dialing 20011 for English, 20012 for Spanish, or 20013 for French.
15. Dial 10281 to reset the system.
16. After the system resets, log into the System Administrator Mailbox again.
17. When prompted, enter the default passcode (1234).

18. Using the Greetings menu (press 4 from the main menu) record the Bilingual Welcome greeting and new greetings in the alternate language. Also, verify the default language greetings and record again if necessary.
19. Choose a different Language Change Mailbox number if the default number (8) is already in use. To perform this task from a telephone, see page 63. To perform this task from Express Manager, see page 87.

Enabling the Hospitality Option

This option provides guest mailboxes and front desk mailboxes for hotel and motel applications.

NOTE: This option requires Mitel Express Messenger Release 2.1 system software or later. The SX-200 EL/ML PBX must have LIGHTWARE 17, Release 3.1, UR1 software or later.

1. If required, upgrade the card to Release 2.1 system software. See *Performing Upgrades* on page 102.
2. Obtain the card's model and serial number. See *Obtain the Cards model and serial number* on page 110 for instructions.
3. Call the Mitel Corporation order desk. The part number for the Express Messenger Hospitality option is 9109-542-100-NA.
4. Give the operator the serial number and model number of your card.
5. The operator will give you an 11-digit passcode. Record this code: _____.
6. From any internal DTMF telephone, obtain dial tone.
7. Dial the Express Messenger message center number. Express Messenger answers and plays a greeting.
8. Dial * when you here the greeting. Express Messenger prompts you for a mailbox number.
9. Dial the system administrator mailbox number: 99 or 999 or 9999. Express Messenger prompts you for a passcode.
10. Dial the technician's passcode: 8642
11. Dial 9 to access a menu of options. Express Messenger responds with, "Please enter a Technician's function code".
12. Dial 20272. Express Messenger responds with, "Please enter a Technician's function code". Enter the 11-digit passcode. Express Messenger responds with "Enabled."
13. Dial 10281 to reset the Express Messenger card with the Hospitality Option software.

14. Hang up. After the card resets, the Hospitality Option is enabled.
15. Set the mailbox type for the front desk extension to “Front Desk” and set the mailbox type of the guest room extensions to “Guest”. To perform these tasks from a telephone, see *Edit Mailbox* on page 40 for instructions. To perform these tasks from Express Manager, see on page 45.
16. Select Notification from the System menu. Enter the Automatic Wake-Up feature access code in the System Notification window (see Figure 31). This feature access code must match the code that you programmed in Form 02 of the PBX.

Enabling the PMS Option

This option adds support for Property Management System integration to the hospitality options described in the previous section.

NOTE: This option requires Mitel Express Messenger Release 3.0 system software or later. The SX-200 EL/ML PBX must have LIGHTWARE 17, Release 3.1, UR1 software or later.

1. If required, upgrade the card to Release 3.0 system software. See *Performing Upgrades* on page 102.
2. Obtain the card’s model and serial number. See *Obtain the Cards model and serial number* on page 110 for instructions.
3. Call the Mitel Corporation order desk. The part number for the Express Messenger Hospitality option with PMS Support is 9109-542-101-NA.
4. Give the operator the serial number and model number of your card.
5. The operator will give you an 11-digit passcode. Record this code:
_____.
6. From any internal DTMF telephone, obtain dial tone.
7. Dial the Express Messenger message center number. Express Messenger answers and plays a greeting.
8. Dial * when you here the greeting. Express Messenger prompts you for a mailbox number.
9. Dial the system administrator mailbox number: 99 or 999 or 9999. Express Messenger prompts you for a passcode.
10. Dial the technician’s passcode: 8642
11. Dial 9 to access a menu of options. Express Messenger responds with, “Please enter a Technician’s function code”.

12. Dial 20272. Express Messenger responds with, "Please enter a Technician's function code". Enter the 11-digit passcode. Express Messenger responds with "Enabled."
13. Dial 10281 to reset the Express Messenger card.
14. Hang up. After the card resets, the Hospitality option with PMS Support is enabled.
15. Set the mailbox type for the front desk extension to "Front Desk" and set the mailbox type of the guest room extensions to "Guest". To perform these tasks from a telephone, see *Edit Mailbox* on page 40 for instructions. To perform these tasks from Express Manager, see on page 45.
16. Select Notification from the System menu. Enter the Automatic Wake-Up feature access code in the System Notification window (see Figure 31). This feature access code must match the code that you programmed in Form 02 of the PBX.
17. Exit Express Messenger, and then disconnect the PC from the Express Messenger card.
18. Connect the PMS to the Express Messenger card. For instructions, see the Express Messenger Installation Guide. See also the SX-200 Technical Reference for information on connecting a PMS to the SX-200.
19. Set the serial port on the Express Messenger card to PMS function. This task is performed from a telephone. For instructions, see page 63.

Enabling Express Messenger Release 4.0 Options

The following are optional features in Express Messenger Release 4.0:

- Personal Contact Numbers – allows mailbox owners to program alternate numbers (cell phone, pager or fax) where they can be contacted while away from their desk or room. Callers reaching the owner's mailbox will hear the owner's greeting followed by prompts such as "...to reach this guest's cellular phone, press C, the 2 key."
- DID Server – manages DID numbers within the PBX, which allows the hotel-keeper to assign personal DID to guests for the duration of their stay. With DID service, outside callers can reach guests without having to go through the front desk.

To enable Release 4.0 options,

1. If you have not already done so, upgrade the card to Release 4.0 system software. See *Performing Upgrades* on page 102.
2. Obtain the card's model and serial number. See *Obtain the Cards model and serial number* on page 110 for instructions.
3. Call the Mitel Corporation order desk and specify which options you want to enable. Each option has a separate part number as follows:

Personal Contact Numbers: 54000620.

DID Server: 54000614.

4. Give the operator the serial number and model number of your card.
5. The operator will give you a separate 11-digit passcode for each option. Record the codes

Personal Contact Numbers: _____

Hospitality Enhancements: _____

6. From any internal DTMF telephone, obtain dial tone.
7. Dial the Express Messenger message center number. Express Messenger answers and plays a greeting.
8. Dial * when you here the greeting. Express Messenger prompts you for a mailbox number.
9. Dial the system administrator mailbox number: 99 or 999 or 9999. Express Messenger prompts you for a passcode.
10. Dial the technician's passcode: 8642
11. Dial 9 to access a menu of options. Express Messenger responds with, "Please enter a Technician's function code".
12. Dial 20272. Express Messenger responds with, "Please enter a Technician's function code". Enter the first 11-digit passcode. Express Messenger responds with "Enabled."

13. Dial 10281 to reset the Express Messenger card.
14. Hang up. After the card resets, the Hospitality option with PMS Support is enabled.
15. Repeat steps 6 through 14 for each additional option.

NOTE: Once enabled, the Personal Contact Numbers feature can be disabled system-wide. For more information see 86. The same applies to the DID server feature – see page 92.

Performing Backups

Select Backup from the Administration menu to display the window (Figure 36).

To ensure recovery 100 percent of the time, back up your system whenever you make any system administration changes.

NOTE: Backing up Express Messenger data at regular intervals ensures that, in the unlikely event of a system failure, some or all of the modifications you made to Express Messenger are recoverable.

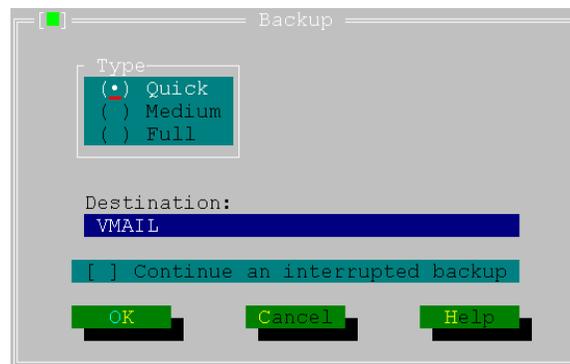


Figure 36 - Backup Window

Perform a backup of Express Messenger's current settings to a designated file on your PC's hard drive or to a file on a removable disk. Complete the fields in the Backup window using the following information as a guide.

Backup	
Field:	Enter as follows:
Backup Type	<p>Click on the appropriate field to select the kind of backup you want the system to perform.</p> <p><i>Quick:</i> Backs up only data for system mailbox attributes, system attributes, voice/ telephone attributes, the company's primary and alternate greetings, and the business hours.</p> <p><i>Medium:</i> Backs up the data listed above as well as recorded names and greetings for all mailboxes.</p> <p><i>Full:</i> Backs up the data included in a medium backup as well as all mailbox data and messages.</p>
Destination	<p>Enter the full pathname to the file where you want backup data stored, for example,</p> <p>c:\backup\weekly.</p> <p>Do not type a file extension.</p> <p>The filename defaults to VMAIL and, without a pathname, is created in the current directory.</p>
Continue an uninterrupted backup	<p>If a previous backup attempt was interrupted in any way, press the space bar while in the check box or use the mouse to click in the check box. Express Manager starts this backup from the point of the previous interruption if it can. Otherwise, the backup starts from the beginning.</p>

While backup is occurring, a window (Figure 37) shows you the progress of the backup process. You can press [Esc] or select CANCEL to stop the backup at any time.

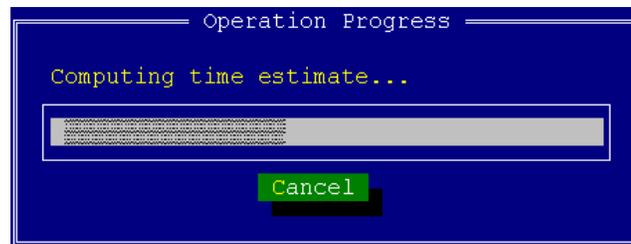


Figure 37 - Operation Progress Display

Performing Restores

Select Restore from the Administration menu to display the window (Figure 38).



Figure 38 - Restore Window

Complete the Restore window using the following as a guide. During normal operation, Express Messenger periodically writes data to the disk. Therefore, it is best to restore after hours or when Express Messenger is idle.

1. Click Ok or press Enter to display the next window.
2. Click Ok or press Enter to restore; Click Cancel or press Esc to cancel.
3. Following the display of the Progress window, similar to Figure 37, a final window lets you know whether or not your restore is successful.
4. After restoring, reboot Express Messenger by selecting the Reboot function under Maintenance.

CAUTION: Before rebooting, always ensure that there is no voice mail activity. Check the Express Messenger card to make sure all port lights are off, or check the Port Status window from Express Manager to make sure that all ports are “Waiting”. Typically, you should restore and reboot during off-hours.

Restore	
Field:	Enter as follows:
Source	Type the full pathname to the file that you want to use to restore your Express Messenger system, for example, c:\backup\weekly. Do not specify an extension. The file you select must constitute a previous system backup.
Continue an uninterrupted restore	If a previous restore attempt was interrupted in any way, press the space bar while in the check box or use the mouse to click in the check box. Express Manager starts this restore from the point of the previous interruption if it can. Otherwise, the restore starts from the beginning.

Performing Upgrades

You load upgrade software into an Express Messenger card from a floppy disk that is supplied by your dealer or from the Mitel Online web page at www.mitel.com. Typically, the disk contains four files (xxx is the version number of Express Messenger software). Always read the readme.txt file first. The four files are

- readme.txt
- xxx.upg
- xxx.zip (zipped file)
- upgrade.bat

The Express Messenger card is available in the following configurations:

- PN 9109-080-001-NA - supports 2 voice mail ports
- PN 9109-080-002-NA - supports 4 voice mail ports
- PN 9109-080-009-NA - supports 6 voice mail ports
- PN 9109-080-008-NA - supports 8 voice mail ports.

The following system upgrade software is available:

- 9109-080-007-NA - Mitel Express Manager Software
- 50002672 - Mitel Express Manager Release 4.0 Software
- 9109-540-001-NA - Mitel Express Messenger Release 2.0 Software
- 9109-540-002-NA - Mitel Express Messenger Release 2.1 Software
- 9109-540-003-NA - Mitel Express Messenger Release 3.0 Software
- 54000613 - Mitel Express Messenger Release 4.0 Software

The following optional software is available:

- 9109-542-100-NA - Mitel Express Messenger Hospitality Option (Note that this option requires Mitel Express Messenger Release 2.1 system software or later).
- 9109-542-101-NA - Mitel Express Messenger PMS Option.
- 9109-542-104-NA - Mitel Express Messenger Bilingual Prompts Option.
- 54000614 - DID Server Option
- 54000620 - Personal Contact Numbers Option

To perform an upgrade

NOTE: The upgrade procedure varies depending on the version of software you have: Release 1.0, 2.0, 2.1 or 3.0. Read the following for general information about the upgrade procedure and then refer to the subsequent sections for version-specific instructions.

1. Select Upgrade from the Administration menu. The Administration Upgrade window is displayed (See Figure 39).

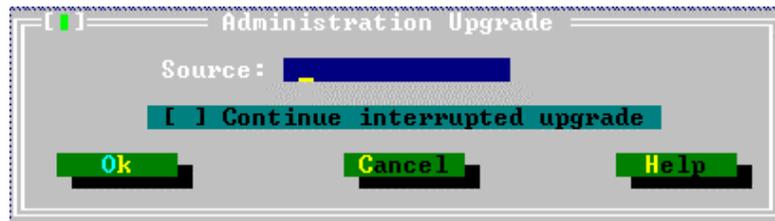


Figure 39 - Upgrade Window

2. Insert your dealer-supplied upgrade disk into a drive on the PC and complete the fields in the Administration Upgrade window. Use the information in the following table as a guide.

NOTE: The files on the upgrade disk are also available from the Mitel Online web page at www.mitel.com. After logging on to Mitel Online, follow the Tech Support link to the Software Downloads page, and then proceed as instructed.

Upgrade	
Field:	Enter as follows:
Source	Type the full pathname to the upgrade source file as supplied by your Express Messenger dealer (typically it is a:\xxx.upg).
Continue an interrupted upgrade	If a previous upgrade attempt was interrupted in any way, press the space bar while in the check box or use the mouse to click in the check box. Express Manager starts this upgrade from the point of the previous interruption if it can. Otherwise, the upgrade starts from the beginning.

3. After upgrading, reboot the Express Messenger by selecting the Reboot function under Maintenance.

CAUTION: Before rebooting, always ensure that there is no voice mail activity. Check the Express Messenger card to make sure all port lights are off, or check the Port Status window from Express Manager to make sure that all ports are "Waiting". Typically, you should restore and reboot during off-hours.

Upgrading from Release 1.0 to Release 2.0 Software

You upgrade an Express Messenger card from Release 1.0 to Release 2.0 software in two parts:

1. First, you upgrade the system with the software that provides the Release 2.0 functionality.
2. Then, you upgrade the system with the software that provides the NuPoint voice prompts (new telephone user interface). If you want to keep the Release 1.0 voice prompts, do not install the NuPoint voice prompts.

NOTE: A Release 1.0 card stores approximately 32 hours of messages. A Release 2.0 card stores approximately 100 hours of messages. If you upgrade a Release 1.0 card with Release 2.0 software, the message storage remains at 32 hours because the message storage limit is card dependent.

To install the system software that provides the Release 2.0 functionality:

1. Copy the following files into a directory on a floppy disk or hard drive that is accessible from the PC that you use to run Express Manager:
200part1.upg, 200part1.zip and upgrade1.bat
2. Select Upgrade from the Administration menu. The Administration Upgrade window is displayed (See Figure 39).
3. In the Source field, specify the path to the **200part1.upg** file and click OK.
4. Select Reboot from the Maintenance menu. You must reboot the system for the new software to take effect.

To install the system software that provides the NuPoint voice prompts:

1. Copy the following files into a directory on a floppy disk or hard drive that is accessible from the PC that you use to run Express Manager:
200part2.upg, 200part2.zip and upgrade2.bat
2. Select Upgrade from the Administration menu. The Administration Upgrade window is displayed (See Figure 39).
3. In the Source field, specify the path to the **200part2.upg** file and click OK.
4. Select Reboot from the Maintenance menu. You must reboot the system for the new software to take effect.

Upgrading from Release 1.0 to Release 2.1 Software

You cannot upgrade directly from Release 1.0 software to Release 2.1 software. You must first upgrade from Release 1.0 to Release 2.0; and then from Release 2.0 to Release 2.1.

Upgrading from Release 2.0 to Release 2.1 Software

You can install the Release 2.1 software with or without the Hospitality option. If you do not require the Hospitality option, you can reduce the time that it takes to complete the upgrade by not installing it.

To install the Release 2.1 system software **without** the Hospitality option:

1. Insert the floppy disk labeled Part 2 of 2 in the disk drive of the PC that you use to run Express Manager. This disk contains the files: **210part2.upg**, **210part2.zip**, and **upgrade2.bat**.

Skip this step if you downloaded the upgrade software to the PC from Mitel Online. For more information, see page 103.

2. Select Upgrade from the Administration menu. The Administration Upgrade window is displayed (See Figure 39).
3. In the Source field, specify the path to the **210part2.upg** file and click OK.
4. After the upgrade is complete, select Reboot from the Maintenance menu. You must reboot the system for the new software to take effect.
5. Enable Softkey Support, if required. See *Enabling Softkey Support* on page 84 for instructions.

To install the Release 2.1 system software **with** the Hospitality option:

1. Insert the floppy disk labeled Part 1 of 2 in the disk drive of the PC that you use to run Express Manager. This disk contains the files: **210part1.upg** and **210part1.zip**.

Skip this step if you downloaded the upgrade software to the PC from Mitel Online. For more information, see page 103.

2. Select Upgrade from the Administration menu. The Administration Upgrade window is displayed (See Figure 39).
3. In the Source field, specify the path to the **210part1.upg** file and click OK. A window displays the progress of the upgrade. After this upgrade is complete, you do not need to reboot the system.
4. Insert the floppy disk labeled Part 2 of 2 in the disk drive of the PC that you use to run Express Manager. This disk contains the files: **210part2.upg**, **210part2.zip**, and **upgrade2.bat**.
5. Select Upgrade from the Administration menu.

6. In the Source field, specify the path to the **210part2.upg** file and click OK. After this upgrade is complete, select Reboot from the Maintenance menu. You must reboot the system for the new software to take effect.
6. Enable Softkey Support, if required. See *Enabling Softkey Support* on page 84 for instructions.
7. Enable the Hospitality Option. See *Enabling the Hospitality Option* on page 95 for instructions.

Upgrading to Release 3.0 Software

You cannot upgrade directly from Release 1.0 or 2.0 software to Release 3.0 software. You must first upgrade from Release 1.0 to Release 2.0; and then from Release 2.0 to Release 2.1.

A full upgrade adds Release 3.0 features in English and Spanish, plus support for bilingual (English and Spanish) systems.

NOTE: French prompts and support for PMS integration require ordering a Express Messenger card. You cannot upgrade the Express Messenger software to get these features.

The upgrade is done in three parts, with two parts optional. Do only the parts required to get the features and prompts you need.

For...	Do Part...
Release 3.0 features in English	1
Release 3.0 features in English and Spanish	1 and 2
Release 3.0 features for bilingual systems in English and Spanish.	1, 2, and 3

Part 1 – Release 3.0 features in English

1. Insert the floppy disk labeled Part 1 of 4 in the disk drive of the PC that you use to run Express Manager. This disk contains the files: **300part1.upg**, **300part1.zip**, and **upgrade.bat**.

Skip this step if you downloaded the upgrade software to the PC from Mitel Online. For more information, see page 103.

2. Select Upgrade from the Administration menu. The Administration Upgrade window is displayed (See Figure 39).
3. In the Source field, specify the path to the **300part1.upg** file and click OK.
4. After the upgrade is complete proceed to the next part.

Or

5. Select Reboot from the Maintenance menu if you do **not** require the features in the remaining upgrade parts. You must reboot the system for the new software to take effect.

Part 2 – Release 3.0 features in English and Spanish

1. Perform Part 1 of the upgrade.
2. Insert the floppy disk labeled Part 2 of 2 in the disk drive of the PC that you use to run Express Manager. This disk contains the files: **300part2.upg** and **300part2.zip**.

Skip this step if you downloaded the upgrade software to the PC from Mitel Online. For more information, see page 103.

3. Select Upgrade from the Administration menu.
4. In the Source field, specify the path to the **300part2.upg** file and click OK.
5. After the upgrade is complete proceed to the next part.

Or

6. Select Reboot from the Maintenance menu if you do **not** require the features in the remaining upgrade parts. You must reboot the system for the new software to take effect.

Part 3 – Release 3.0 features for bilingual (English and Spanish) systems

1. Perform Parts 1 and 2 of the upgrade.
2. Insert the floppy disk labeled Part 3 of 4 in the disk drive of the PC that you use to run Express Manager. This disk contains the files: **300part3.upg** and **300part3.zip**.

Skip this step if you downloaded the upgrade software to the PC from Mitel Online. For more information, see page 103.

3. Select Upgrade from the Administration menu.
4. In the Source field, specify the path to the **300part3.upg** file and click OK.
5. Repeat steps 2 to 4 with the floppy disk labeled Part 4 of 4. This disk contains the files: **300part4.upg** and **300part4.zip**.
6. After this upgrade is complete, select Reboot from the Maintenance menu. You must reboot the system for the new software to take effect.
7. Enable the Bilingual Voice Prompts Options. See *Enabling the Bilingual Prompts Option* on page 94 for instructions.

Upgrading an Express Messenger Card to Support Additional Ports or Release 3.0 Software Features

You can upgrade a card to support up to 8 ports or to access certain Release 3.0 software features (French prompts and PMS support) by enabling software that is on the card with a passcode. To upgrade a card

1. Obtain the model number and serial number of the card
2. Obtain a passcode from Mitel Corporation
3. Enable the software.

NOTE: A Release 1.0 card stores approximately 32 hours of messages. A Release 2.0 card stores approximately 100 hours of messages. If you upgrade a Release 1.0 card with Release 2.0 software, the message storage remains at 32 hours because the message storage limit is card dependent.

Obtain the card's model and serial number

NOTE: Ensure that you have a pen or pencil handy.

1. From any internal DTMF telephone, obtain dial tone.
2. Dial the Express Messenger message center number. Express Messenger answers and plays a greeting.
3. Dial * when you hear the greeting. Express Messenger prompts you for a mailbox number.
4. Dial the system administrator mailbox number: 99 or 999 or 9999. Express Messenger prompts you for a passcode.
5. Dial the Technician's passcode: 8642 (or 412 for Release 1.0 systems).
6. Dial a Technician Function code.
7. Dial 9 to access a menu of options.
8. Dial 10273. Express Messenger gives the model number of the card. Record the model number: _____.
9. Dial 10272. Express Messenger gives the serial number of the card. Record the serial number: _____.
10. Hang up.

Obtain an upgrade passcode from Mitel Corporation

Ensure that you have the model number and serial number of your card available. You will need a pen or pencil.

1. Call Mitel Corporation order desk. The part number for the upgrades are
 - 2-port to 4-port software upgrade is PN 9109-542-000-NA
 - 2-port to 6-port software upgrade is PN 9109-542-001-NA
 - 2-port to 8-port software upgrade is PN 9109-542-002-NA
 - 4-port to 6-port software upgrade is PN 9109-542-003-NA
 - 4-port to 8-port software upgrade is PN 9109-542-004-NA.
 - 6-port to 8-port software upgrade is PN 9109-542-005-NA.
2. Give the operator the serial number and model number of your card.
3. The operator will give you an 11-digit passcode. Record this code:

Enable the software

CAUTION: This procedure takes the Express Messenger system out of service for approximately 3 minutes. Perform this procedure after hours.

1. From any internal DTMF telephone, obtain dial tone.
2. Dial the Express Messenger message center number. Express Messenger answers and plays a greeting
3. Dial * when you hear the greeting. Express Messenger prompts you for a mailbox number.
4. Dial the system administrator mailbox number: 99 or 999 or 9999. Express Messenger prompts you for a passcode.
5. Dial the Technician's passcode: 8642 (the passcode for Release 1.0 cards is 412).
6. Dial 9 to access a menu of options. Express Messenger responds with, "Please enter a Technician's function code".
7. Dial 20272. Express Messenger responds with, "Please enter a technician's function code". Enter the 11-digit passcode.
8. Express Messenger announces the new model number of the card.
9. Dial 10281 to reset the Express Messenger card with the upgraded software.
10. Hang up. After the card resets, the additional ports will be enabled.

NOTE: Ensure that you complete the required CDE programming for the two additional ports (that is, Form 09, Form 17, and Form 19).

NOTE: The following ports of an Express Messenger card CANNOT be programmed as phantom lines:

- Ports 3 through 12 of a 2-port card
- Ports 5 through 12 of a 4-port card
- Ports 7 through 12 of a 6-port card
- Ports 9 through 12 of an 8-port card.

Upgrading to Release 4.0 Software Features

You cannot upgrade directly from pre-Release 3.0 software to Release 4.0 software. See the previous sections for information on upgrading to Release 3.0. To upgrade from Release 3.x to Release 4.0, follow the procedure on page 102. For information on enabling optional features in Release 4.0, see page 98.

Viewing System Logs

Select System Log from the Administration menu to view log messages. Log messages are described in *Appendix C: Express Manager System Messages* and in *Appendix D: Express Manager System Log Messages (diag.dat)*.

Section 7: **Performing Maintenance and Troubleshooting**

Maintenance

Mitel Express Messenger is self-maintaining.

Disk Management Programs

Two disk management programs (SCANDISK and CHKDSK) run automatically at 3 AM every day. At that time, Express Messenger shuts down for approximately 10 minutes, but the telephone system is still operational. If someone calls in during the time SCANDISK and CHKDSK are running, the telephone will ring but the auto attendant will not answer and the caller cannot perform any voice mail or messaging functions.

CHKDSK searches for logical disk errors, and SCANDISK maps out bad sectors and runs a hard disk surface test. Neither program affects data on the hard drive. Program results are written to the files c:\scandisk.log and c:\chkdsk.log. To view the log files, you must use Express Manager.

Express Messenger can be reconfigured to run these programs at other intervals, such as weekly, monthly, or not at all. Check with your Express Messenger dealer if you wish to change the disk management configuration.

Maintenance Menu

Items listed in the Express Manager Maintenance menu allow you to perform the following functions.

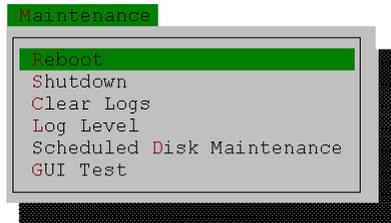


Figure 40 - Maintenance Menu

Reboot

Selecting Reboot shuts down and restarts Express Messenger.



Figure 41 - Reboot Confirmation Window

CAUTION: Before rebooting, ensure that there is no voice mail activity by looking at the port lights on the Express Messenger card and making sure all port lights are off. You may prefer to restore and reboot during off-hours for this reason.

Shutdown

Selecting Shutdown terminates the voice mail system and parks its disk drive.

CAUTION: Shutdown the system before removing the Express Messenger card.

Clear Logs

Clear the contents of either or both types of log items. The confirmation window shown in Figure 42 appears.



Figure 42 - Clear Log Confirmation Windows

Log Level

Permits you to set levels for the Application and Driver Log events.

The default setting for both is INFO.

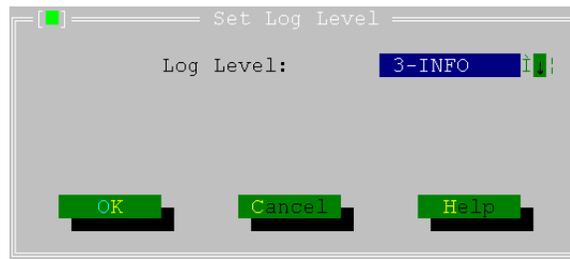


Figure 43 - Log Level Parameters

The windows display the levels in alphabetical order. The following table shows the levels arranged in order of least detail to greatest detail. Maximum levels are recommended only for temporary use during troubleshooting.

Log Levels for Error and for Voice Driver		
Detail Logged	Level Designation	Description of Events included
Minimum	FATAL	Logs the most critical events only
	ERROR	All above plus non-fatal system errors
	WARNING	All above plus approach to limits
	INFO	Displays all above plus programmed system events – (default level)
Maximum	TRACE	Shows all above plus manual commands
	DEBUG	Documents all above plus technician entries

Scheduled Disk Maintenance

Two disk management programs (SCANDISK and CHKDSK) run automatically at 3 AM every day. Express Messenger can be reconfigured to run these programs at other intervals, such as weekly, monthly, or not at all:

Select the Scheduled Disk Maintenance window to select the frequency of running the disk maintenance program.

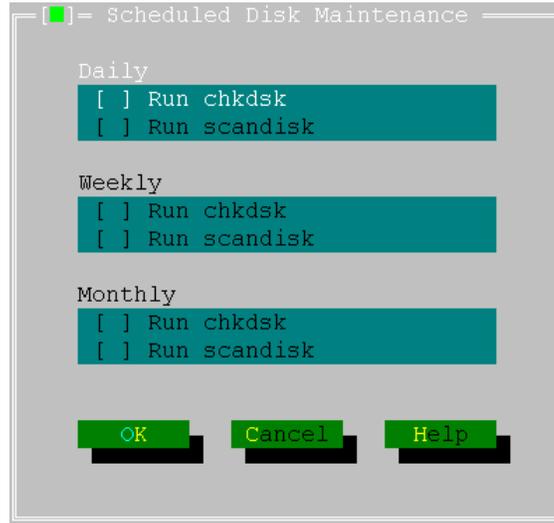


Figure 44 - Scheduled Disk Maintenance

Express Messenger Diagnostics and System Utilities

STATUS LED

Express Messenger status is displayed on ten status LEDs. The STATUS LED is tri-color and shows overall system status and hard drive write activity. Eight bi-color LEDs detail self-test status during Power-on Self Tests (POST) and show port status after Express Messenger is initialized. The ALARM LED indicates an alarm signal sent from the PBX main processor.

The STATUS LED shows when the system is performing power-on diagnostics, when diagnostics have failed, or when the system is operating correctly. The states displayed by the STATUS LED are listed in below.

STATUS LED State	Express Messenger State
Dark	No Power
Blinking Amber	Power-on Self Test in progress.
Red	Self Test Failed, see LINE or DIAG LEDs for failure code.
Green	Self Test has passed, system is operational.

If the Power-on Self Test fails (STATUS LED is RED), each LINE or DIAG LED displays the result of one diagnostic to indicate which component(s) failed, as listed following.

LED	Failure
LINE 1	DRAM
LINE 2	RTC
LINE 3	EEPROM
LINE 4	EPROM Checksum
DIAG 1	Hard Disk
DIAG 2	Integration Processor
DIAG 3	DSP
DIAG 4	General Application Error

LINE or DIAG LEDs

After completing the Power-on Self Test, Express Messenger becomes operational and the LINE LEDs display the state of each voice mail port as defined below.

LINE LED State	Port State
OFF	The port is on-hook and idle.
ON	The port is off-hook and is in use

ALARM LED

The ALARM LED indicates whether or not an alarm signal has been detected by the PBX main processor and sent to Express Messenger.

LED State	PBX Alarm State
OFF	The PBX has not detected and signaled an alarm condition on the voice mail card.
ON	The PBX has detected and signaled an alarm condition on the voice mail card.

chkdsk.log, scandisk.log

Once the BIOS POST completes and the operating system boots, autoexec.bat will invoke the chkdsk utility program. This program will check for and correct logical (File Allocation Table) errors and log the results to \chkdsk.log.

The scandisk utility program runs at the scheduled maintenance time (default is daily at 3 AM). The system performs housecleaning chores specific to voice mail as well as system-wide maintenance such as scandisk, where the disk is scanned for physical errors (unreadable clusters). Bad clusters are mapped out of the File Allocation Table and results are written (appended) to \scandisk.log.

System log file, diag.dat

The voice driver then starts, just prior to the voice mail application program. The application reports diagnostic and trace information. The logs are output to the diskfile (\vm\diag.dat). The format of the file breaks out into the following fields:

DATE TIME LEVEL MSG#-PORT MESSAGE

- DATE and TIME indicates when the event occurred.
- LEVEL indicates the message category and therefore the level setting required to include such messages in the output stream.

FATAL = 0
 ERROR = 1
 WARNING = 2
 INFO = 3
 TRACE = 4
 DEBUG = 5

- MSG# is a unique identifier for each message.
- PORT is the single-digit voice mail port associated with the message (or 0 if not port-specific).
- MESSAGE provides text indicating the event.

The system log file level and destination for both the application and voice driver are controllable via the Express Manager.

FATAL - Express Messenger exits

ERROR - abnormal event

WARNING - may be an abnormal event

INFO - normal monitoring

TRACE - detailed monitoring, intended for lab use only

DEBUG - very low-level, intended for lab use only

For a listing of the system log messages, refer to Appendix C.

Common Problems and Solutions

If Mitel Express Messenger is not working correctly, refer to the chart below for suggestions on corrective action. If the symptoms do not match, call your Express Messenger dealer for assistance.

Symptom	Trouble/Corrective Action
No front panel lights.	Check that the PBX has power.
Status light turns red during power-up.	Reboot system; verify that failure is consistent. See <i>Express Messenger Diagnostics and System Utilities</i> on page 116. Return your Express Messenger card to the dealer.
Notification calls are configured for a mailbox but don't seem to work.	Notification is not enabled. -or- CO line access is restricted for Express Messenger Voice Mail port extension numbers.
Notification calls use the correct outside lines but the pager never beeps.	Check the notification phone number and pager type.
The date and time that a message was left is incorrect.	Check the PBX system's clock and the date and time in Express Messenger.
Express Messenger informs users that it is almost full.	Delete unused mailboxes and have subscribers clean out unnecessary saved messages.
Too much silence before or after a greeting or mailbox name.	When recording greetings and names, start speaking immediately after the tone and press any key as soon as you are finished.
When outside callers reach Express Messenger and press 0, either no phones ring or the incorrect phone rings.	Check that mailbox 0 is correctly associated with the operator's extension.

When outside callers reach Express Messenger and press 0, the operator's telephone rings and never forwards to Express Messenger again.	Set Call Forward-Busy/No Answer on the Operator's phone to forward to Express Messenger.
Internal callers occasionally reach the Operator when calling Express Messenger.	The message center is busy. Try again later. If this happens frequently, consider upgrading Express Messenger with more ports.
Outside callers occasionally reach the Operator instead of Express Messenger.	The message center is busy. Try again later. If this happens frequently, consider upgrading Express Messenger with more ports.
Express Messenger resets itself at times.	Express Messenger has the ability to automatically reset itself in the event of a critical error. If this happens, call your Express Messenger dealer.
The message lights do not work.	Your PBX is incorrectly programmed. Call your Express Messenger dealer.
Callers are greeted by a FAX tone instead of the company greeting.	Your PBX is incorrectly programmed. Call your Express Messenger dealer.
No message light exists on the phone.	Set up message notification to ring the extension number whenever messages are received.

Appendix A: Mitel Express Manager Menus

Initial Menu

After the Express Manager connection is established, the initial menu (About) and an application information window appear, as shown in Figure 45.

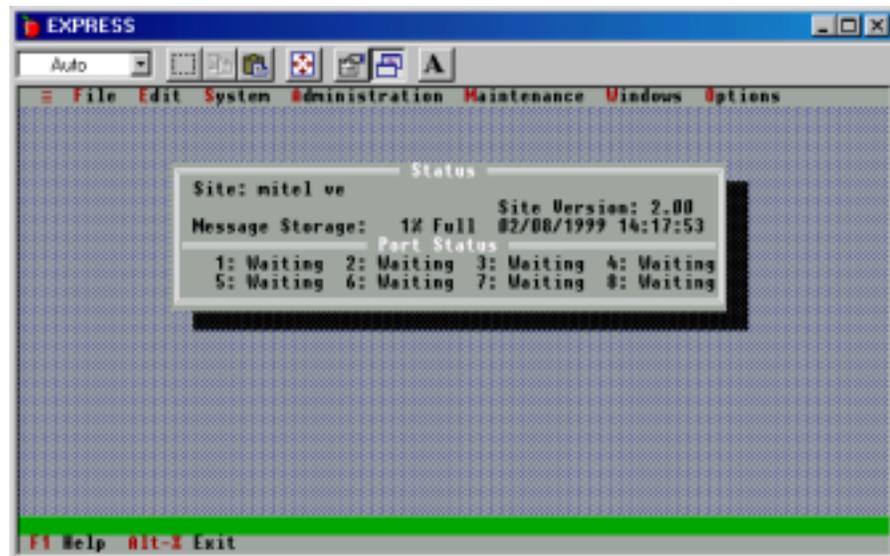


Figure 45 - Initial Menu with About Window

Four labeled items appear on the Initial menu bar and are discussed following.

File Menu

The File menu, shown in Figure 45, provides standard DOS options.

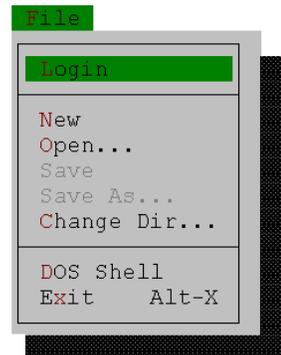


Figure 46 - File Menu Items (before login)

Login - Log in to the Express Messenger, as described earlier.

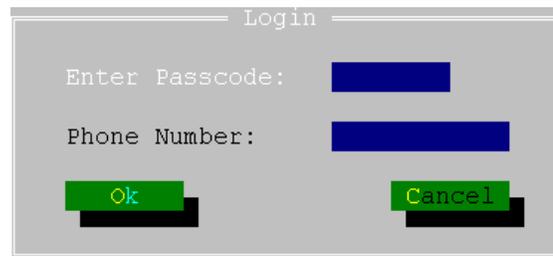


Figure 47 - Login Window

New - Create a new document.

Open... - Open an existing document from within the PC.

Save - Save an active document under its current name in the current or default location.

Save As... - Save the active document with a new or different name, in a new or different location within the PC.

Change Dir... - Change the default location, within the PC, for the Open and Save As commands.

DOS Shell - Temporarily return to the DOS prompt while Express Manager continues to run in the background. To return to Express Manager from this DOS Shell, type EXIT at the DOS prompt.

CAUTION: Do not attempt to run Express Manager from this DOS shell.

Exit - Terminate the current Express Manager session.

Edit Menu

The Edit menu provides standard editing commands for working with open DOS-based text files within your PC. This menu is available before or after login. Refer to Figure - 48.

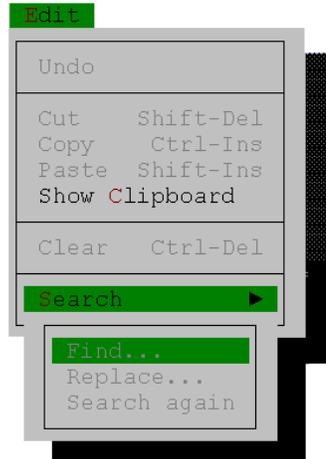


Figure - 48 Edit Menu

Undo - undo the last command

Cut - cut the selected text to the clipboard

Copy - copy the selected text to the clipboard

Paste - paste the selected text from the clipboard to the selected area

Show Clipboard - show the contents of the clipboard

Clear - clear or delete the selected text from the file

Search (Find / Replace / Search Again) - search for the specified text string

Windows Menu

This menu provides DOS Windows-type commands for navigation among Express Manager windows. This menu item is available before or after login.

Size/Move - change size of or relocate window on screen

Size/move - resize the window or locate it elsewhere on the screen

Zoom - expand or reduce a portion of the window

Tile - arrange windows in a tile format on the screen

Cascade - arrange windows one behind the other

Next - select next window on the screen

Previous - select previously selected window

Close - close the window

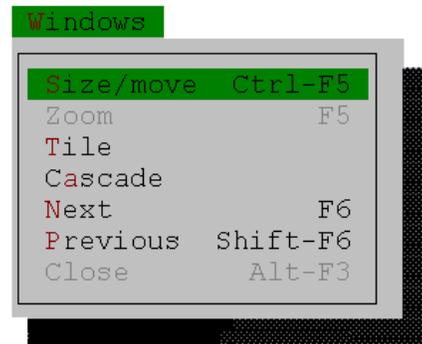


Figure 49 - Windows Menu

Options Menu

This DOS-based menu provides configuration of the serial port, modem, and user interface items. This menu is available before or after logging in.



Figure 50 - Options Menu

Communications

Display the Serial Port Setup window (Figure 51).

Complete this window to identify and set up the serial port that connects your PC to Express Messenger via a modem. The Communications Port defaults to COM2. Change it as needed to correspond to your hardware setup.

Complete the fields in this window using the information in the Serial Port Setup table as a guide.

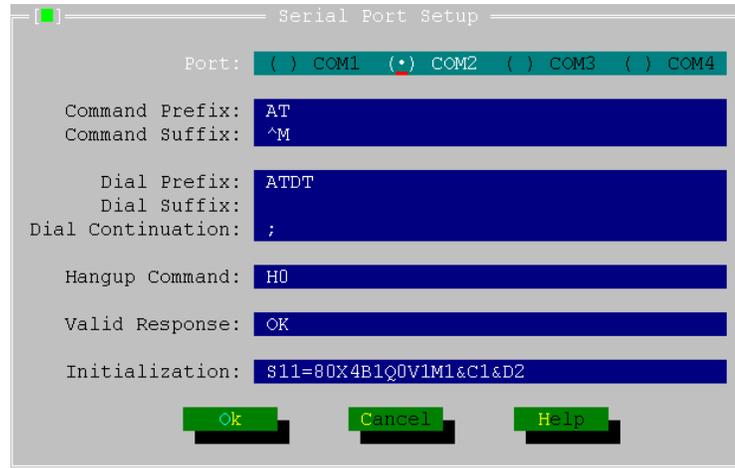


Figure 51 - Serial Port Setup Window

CAUTION: Refer to the manufacturer's manual supplied with your modem to determine the Initialization string for your modem.

Serial Port Setup	
Field:	Enter as follows:
Port	<p>Click on the appropriate field to display a popup menu. Select the serial port that connects Express Messenger or the modem to your PC.</p> <p><i>COM1</i> indicates the first serial port.</p> <p><i>COM2</i> indicates the second serial port.</p> <p><i>COM3</i> indicates the third serial port.</p> <p><i>COM4</i> indicates the fourth serial port.</p> <p>Once you select the correct port, you do not have to select it again unless you change the connection to the other serial port. Express Manager saves the change permanently even after you exit the program.</p>
Command Prefix	Enter up to 38 alphanumeric characters to indicate the modem's command initiation string. Default = AT
Command Suffix	Enter up to 38 alphanumeric characters to indicate the modem's command termination string. Default = ^M (Ctrl-M)
Dial Prefix	Enter up to 38 alphanumeric characters to indicate the modem's dial command. Default = ATDT
Dial Suffix	Enter up to 38 alphanumeric characters to indicate the modem's dial termination. The Hayes modem has no such string so the field is blank by default.
Dial Continuation	Enter up to 38 alphanumeric characters to indicate the modem's dial continuation string. This tells the modem that more touch tones will follow before the modem can switch to data mode. Default = ;
Hangup Command	Enter up to 38 alphanumeric characters to indicate the modem's disconnect command. Default = ~~~+++~~~H0
Valid Response	Enter up to 38 alphanumeric characters that signal when a command has been acknowledged. Default = OK

<p>Initialization</p>	<p>Enter up to 38 characters before dialing Express Messenger by modem. Include the following commands to initialize your modem:</p> <ul style="list-style-type: none"> • Set DTMF duration to 80 msec. Default is S11=80 • Provide basic call progress result codes, connection speed, busy signal detection, and dial tone detection. Default = X4 • Return negotiation progress messages. Default = B1 • Return result codes. Default = Q0 • Return result code messages in English words. Default = V1 • Speaker should be on during auto dialing and until carrier detect. Default = M1 • Track the status of carrier detect; DCD indicates on-line carrier detect. Default = &C1 • On an ON -> OFF transition of DTR, disconnect and return to command state. Default = &D2
-----------------------	---

Mouse...

Open a window to modify the mouse double-click response and to switch left and right mouse button functions.

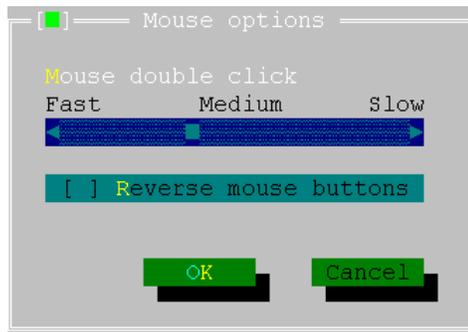


Figure 52 - Mouse Options Window

Colors...

This window allows you to select combinations of foreground and background color schemes to distinguish various Express Manager items and their status.

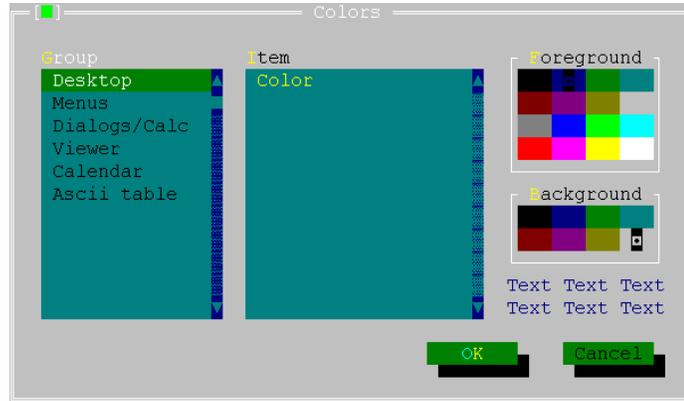


Figure 53 - Colors Scheme Selection Window

Main Menu after Logging into Express Messenger

This section describes the Express Manager management options available after you have logged in from the initial menu. There are now seven menus on the main menu bar. The three added items in the menu bar include System, Administration, and Maintenance. The File menu has also changed.

The Status and Port Status window displays the current status of Express Messenger.

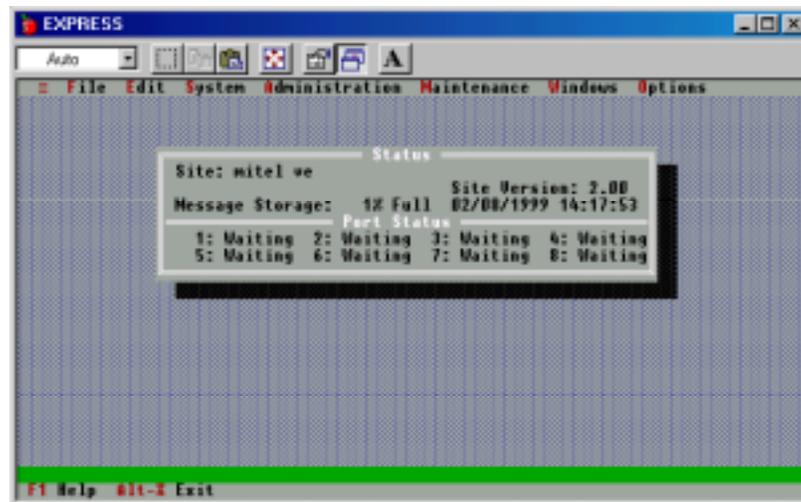


Figure 54 - Main Menu

File Menu

The items added to the File menu after login (Figure 55) include Logout and Remote Files. These items are described below:



Figure 55 - File Menu Items (after login)

Logout

Select Logout from the File menu to log out of Express Messenger and to return to the Initial Menu. You can log back in by selecting Login from the File menu.

CAUTION: After you logout, always wait at least 10 seconds before you log in again.

Remote Files Menu

This menu, which is enabled only after logging in with the Administrator passcode, provides the following options for working with files that reside on the Express Messenger:

Select the commands shown in Figure 56 to work with Express Messenger files directly from your PC.

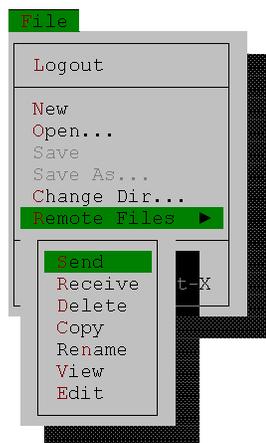


Figure 56 - Remote Files Menu

An inquiry form appears after your selection of a Remote Files command.

Send - Transfers a file (in whole or in part) from your PC to the Express Messenger. The original file is not altered on your PC.

Receive - Transfers a file (in whole or in part) from the Express Messenger to your PC. The original file is not altered on the Express Messenger.

Delete - Deletes a file from the Express Messenger.

Copy - Creates a new file with a new name on the Express Messenger that is a copy of an existing file on the Express Messenger.

Rename - Changes the name of an existing file on the Express Messenger.

View - Retrieves a copy of a file from the Express Messenger and displays in a window. This is read-only.

Edit - Retrieves a file from the Express Messenger and puts it into an edit window on your PC where you can make changes to the file.

Before returning an edited file to the Express Messenger, save the file and then use the Send command to transfer the file back to the Express Messenger.

System Menu

The System menu is shown in Figure 57. Mailboxes activities are described in *Section 4: Changing Mailbox Parameters*. The remaining activities are described in *Section 4: Changing System Administration From a Telephone* and in *Section 6: Performing System Administration from Express Manager*.

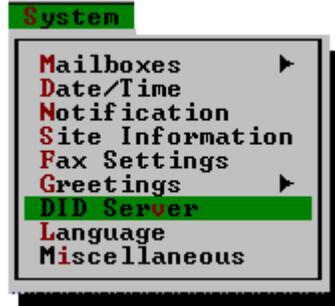


Figure 57 - System Menu

Administration Menu

Administration activities, shown in Figure 58 are described in *Section 6: Performing System Administration from Express Manager*. The System Log option is described below.

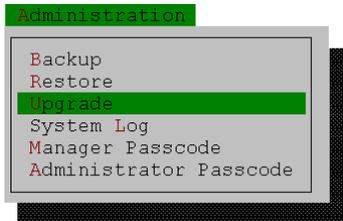


Figure 58 - Administration Menu

System Log

Select this option from the Administration menu to display the current event log file. Figure 59 displays a typical system log.

```

File Edit System Administration Maintenance Windows Options
diag.dat
06/04 02:00:03 INFO 1407-0 vtpage_init: New message notification file creat
06/04 03:00:07 INFO 4904-0 Abort scheduled for 03:00
06/04 03:00:09 INFO 4316-0 vtrd40: Voice Mail is gracefully shutting down
06/04 03:14:01 INFO 4913-0 MEM:main=3322:0000,psp=3312
06/04 03:14:01 INFO 4913-0 MEM:end_alloc=8907,malloc=8908:026a
06/04 03:14:01 INFO 4913-0 PDN: 00706/98 0315:36
06/04 03:14:01 INFO 4500-0 System parameters have been set successfully
06/04 03:14:01 INFO 4328-0 vtrd40: 8 ports available, 8 installed, hourlim=
06/04 03:14:45 INFO 4900-0 Application successfully initialized
06/04 03:14:46 INFO 1809-0 cal_get - Business hours have not been set
06/04 03:14:46 INFO 1811-0 sa_get - No alternate greetings have been set
06/04 03:14:46 INFO 1811-0 vtpage_init: New message notification file creat
06/04 03:14:46 WARNING 6007-0 Request by CGH to open VOXDRU.CFG failed
06/04 03:14:46 INFO 4350-1 vtrd40: Call to vb_get_cpuid failed
06/04 03:14:46 INFO 2403-1 UT_OFF:0
06/04 03:14:46 INFO 2403-1 UT_ON:0
06/04 03:14:46 INFO 4726-1 deleting 0 length file:
06/04 03:14:46 INFO 1809-0 cal_get - Business hours have not been set
06/04 03:14:46 INFO 1811-0 sa_get - No alternate greetings have been set
06/04 03:14:46 INFO 1811-0 vtpage_init: New message notification file creat
06/04 03:14:46 WARNING 4350-1 vtrd40: Call to vb_get_cpuid failed
06/04 03:14:46 INFO 2403-1 UT_OFF:0
06/04 03:14:46 INFO 1216-1 A Technician has logged in
06/04 03:14:46 INFO 6006-1 Logged in to mailbox 999
06/04 03:14:46 INFO 2403-1 UT_ON:0
06/04 03:14:46 INFO 4726-1 deleting 0 length file:
06/04 03:14:46 WARNING 4350-1 vtrd40: Call to vb_get_cpuid failed
06/04 03:14:46 INFO 2403-1 UT_OFF:0
06/04 03:14:46 INFO 2403-1 UT_ON:0
06/04 03:14:46 INFO 4913-0 MEM:main=3322:0000,psp=3312
06/04 03:14:46 INFO 4913-0 MEM:end_alloc=8907,malloc=8908:026a
06/04 03:14:46 INFO 4913-0 PDN: 00706/98 17:09:22
06/04 03:14:46 INFO 4500-0 System parameters have been set successfully
06/04 03:14:46 INFO 4328-0 vtrd40: 8 ports available, 8 installed, hourlim=

```

Figure 59 - System Log (typical)

The system log displays a read-only chronological record of Express Messenger events and informational messages it has received. The scroll bar at the right of the window allows you to view the entire record.

The system log displays both the date and time of each event. This information can be useful in analyzing system problems. See *Log Level*, page 115, for instructions on how to select the types (levels) of system events to record. For a listing of the system log messages, see *Appendix D*.

Maintenance Menu

Maintenance activities are described in Section 7, *Performing Maintenance and Troubleshooting*.

Appendix B: Glossary

Administrator Mailbox	The Administrator mailbox is a special reserved mailbox that can only be accessed by the System Administrator.
Auto Attendant	The process of having calls answered, then transferred, using an automated device instead of a live operator.
Backup	The process that copies the data stored on Express Messenger to a disk file on the PC.
Company Greeting	A general purpose announcement telling callers the company they have reached and giving them options for proceeding. Also known as a System Greeting.
Directory	A listing of Express Messenger subscriber names having associated mailboxes.
Extension	The name for an individual phone connected to the PBX. Also known as the prime number.
Extension Mailbox	A type of mailbox associated with an extension; it has the capability to record, send, and listen to messages.
Information-Only Mailbox	A type of mailbox that plays informational greetings but does not record messages.
Intercom	An extension that is on the internal company telephone network.
Key System	A telephone system in which telephones have multiple buttons permitting users to select outgoing or incoming CO lines directly.
Mailbox	Just like a postal mailbox, except that it uses the telephone for sending and receiving voice messages.
Message-Only Mailbox	A type of mailbox having the capability to record and listen to messages. It may be, but does not have to be, associated with an extension number.
MWI	Message Waiting Indication -- a way of notifying people that they have messages. It is usually the light on your telephone.
Notification	The various methods used to notify people: ringing another extension, calling a pocket pager, calling a cellular phone, etc.

Operator	The person in your company who would normally handle telephone calls. Also referred to as Attendant or Receptionist.
Passcode	The 3 to 6-digit security number that each subscriber uses to access their mailbox.
PBX or PABX	Private Branch Exchange or Private Automated Branch Exchange. A telephone system in which the telephones can call other internal telephones or external telephones by dialing.
Port	Seen as a light on the Express Messenger printed card, each port can supervise one telephone call. Express Messenger is available in a two-port or four-port model. More ports enable Express Messenger to handle more simultaneous calls.
Port Status	A section of the Status Box at the bottom of your screen. It shows the state of each port on the Express Messenger system. The status of a port may be "Waiting" or in some other state of activity. Port status can also be observed by the LEDs on the faceplate of the Express Messenger card.
RAD	Recorded Announcement Device. RADs are commonly used to automatically answer lines and deliver pre-recorded messages. Express Messenger ports can function as RADs.
Receptionist	The person in your company who would normally handle telephone calls. Also referred to as Attendant or Operator.
Restore	The process that copies the backup data stored on disk to Express Messenger for the purpose of recovering lost data.
Station	The name for an individual phone connected to the system (see 'extension').
Subscriber	A person having a Express Messenger mailbox (see 'user').
System Administrator	The person responsible for maintaining the Express Messenger system.
Transfer-Only Mailbox	A type of mailbox which cannot record messages and instructs callers to dial another number or to dial 0 to reach the Operator.
Upgrade	The process that updates your Express Messenger software using a designated file(s) on disk.
User	A person having a Express Messenger mailbox (see 'subscriber').
Voice Messaging System	Also known as a voice mail system. A recording system designed for receiving messages from people using a telephone. It eliminates incorrect or incomplete messages taken by a third party and allows for full 24 hour communications.

Appendix C: Express Manager System Messages

Under normal conditions, Mitel Express Messenger and Express Manager are easy to set up and use. However, three types of system messages may display within boxes on your Express Manager screen.

- **Error**
Display when there is a problem with communication between the PC and Express Messenger or there is an error with the data you entered. You must resolve an error condition before continuing with Express Manager.
- **Warning**
Alert you to a particular condition within Express Manager. These messages are less serious in nature than error messages and do not require action to proceed with Express Manager.
- **Information**
Provide additional status information.

If a message displays, refer to the message list. Messages are listed numerically followed by an explanation and a recommended action.

Other Problems

If Express Messenger is not working correctly, refer to the Troubleshooting section of this manual, which lists common error conditions and recommended corrective actions.

If the problem persists, call your Express Messenger dealer. Have the serial number of your Express Messenger unit ready for reference when you call.

NOTE: The SITE INFORMATION screen located on the 'System' menu displays your company's serial number.

Message List

No.	Type	Message	Explanation/Required Action
1	Error	"Your disk drive is not ready. You may either cancel or insert a disk and try again."	<p>This error can occur during backup, upgrade, or restore processes.</p> <p>If accessing a removable disk, check to make sure there is a disk in the indicated drive.</p> <p>-or-</p> <p>There may be a problem with the hard drive.</p>
2	Error	"That file does not exist in the indicated drive. You may either cancel or type another name and try again."	<p>This error can occur during the upgrade or restore process.</p> <p>Check to make sure that you typed the filename correctly and that it exists on the indicated drive.</p>
3	Error	"Your communications link has gone down. Please try to log in again."	<p>There is a temporary loss in communication between the program and the Express Messenger unit.</p> <p>Log in again to restart communications.</p>
4	Error	"The source file at Express Messenger cannot be opened."	<p>This error occurs when Express Manager is trying to open a file on Express Messenger.</p> <p>If this happens, note the procedure you were in and call your Express Messenger dealer. If you were in the middle of a backup, restore, or upgrade, note the SECTION that the procedure was on before calling your dealer.</p>
5	Error	"The source file at Express Messenger cannot be closed."	<p>This error indicates a problem with the Express Messenger unit.</p> <p>Reboot Express Messenger.</p> <p>If this does not correct the problem, note the procedure you were in and call your Express Messenger dealer. If you were in the middle of a backup, restore, or upgrade, note the SECTION that the procedure was on before calling your dealer.</p>

7	Warning	"The checksum request was unsuccessful."	<p>This warning can occur during a backup, restore, or upgrade which was "continued" and in which there was some sort of communication error.</p> <p>Try the procedure again. If the situation persists, call your Express Messenger dealer.</p>
11	Error	"There was an error on sending data. Please try again."	<p>This error can occur when sending data back to Express Messenger. It is very rare that it would happen, but if it does, re-send the data.</p>
12	Warning	"You have terminated the current process by hitting the [Esc] key."	<p>This warning message displays when you hit the [Esc] key during a backup, restore, or upgrade.</p> <p>If you inadvertently do this when you are connected to an Express Messenger, you can continue this procedure at the point of interruption by clicking on the 'Continue' box.</p>
20	Error	"You cannot log in due to a communications error. Please try again."	<p>This error can occur if the physical connection between the PC and modem is broken, or the modem cannot dial out.</p> <p>-or-</p> <p>You did not allow at least 10 seconds between logging out and making another login attempt.</p>
21	Error	"Your passcode is incorrect."	<p>This error occurs when the passcode you entered does not match the one set on Express Messenger.</p> <p>Try logging in again and re-entering the correct passcode. If you are still unsuccessful, call your Express Messenger dealer.</p>
22	Error	"Your passcode is incorrect. Please try again."	<p>Check the cable connections between the Mitel Express Messenger card and your PC.</p>

23	Error	"Communications error during MODEM connect attempt."	<p>This occurs if your modem connections are not secure.</p> <p>-or-</p> <p>You may be using a modem that is not Hayes-compatible and you failed to alter the modem commands in the SETUP MODEM window.</p> <p>If your modem is not Hayes-compatible, include the following information in the Initialization String field on the MODEM SETUP window:</p> <ul style="list-style-type: none"> • Duration/spacing of tones = 80 msec. • Basic call progress result codes, connection speed, busy signal detection, and dial tone detection.
24	Info	"When you hear the Auto Attendant's voice, please press OK [F10]."	<p>Listen for Express Messenger to answer the telephone and play the system greeting; then press [F10].</p> <p>If you do not hear the auto attendant or modem dialing, raise the modem volume by adding the proper command to the Initialization String field on the MODEM SETUP window.</p>
30	Error	"That mailbox already exists. Please type another choice."	<p>This error occurs if you enter an existing mailbox number in the ADD MAILBOX window.</p> <p>Use the MAILBOX DIRECTORY window to view a list of existing mailboxes. Then, enter a mailbox number that does not exist.</p>
31	Warning	"Please note that no changes have been made."	<p>This warning displays if you enter a mailbox number in the EDIT MAILBOX window and immediately press [F10] or click on (OK). This action indicates to Express Messenger that you are done making changes to the mailbox.</p> <p>First, acknowledge the warning box. Then, press [Tab] to display and move to the first field for the mailbox.</p>
32	Error	"That mailbox does not exist. Please type another choice."	<p>This error occurs if you enter a non-existing mailbox number in the EDIT MAILBOX window.</p> <p>Use the MAILBOX DIRECTORY window to view a list of existing mailboxes. Then, enter an existing mailbox number.</p>

34	Error	"Mailbox in use by another subscriber."	<p>This error occurs if you attempt to perform an add, edit, or delete function on a mailbox at the same time the subscriber is checking for messages or someone is leaving a message in the mailbox.</p> <p>Wait a few minutes and try again.</p>
35	Error	"There are no existing mailboxes."	<p>This error indicates that no mailboxes, including the supervisor's or operator's mailboxes, exist on the Express Messenger system.</p> <p>Restore your system from a previous backup. Restoring may result in substantial data loss if you did not have or are not using a recent backup.</p> <p>Call your Express Messenger dealer if the restored Express Messenger system does not display both the supervisor's and operator's mailboxes in the MAILBOX DIRECTORY window.</p>
36	Warning	"The changes you have made to mailbox ## have not been saved. Please press OK [F10] to accept the changes or CANCEL [Esc] to abandon the changes."	<p>This error occurs if you exit the EDIT MAILBOX screen without saving your changes.</p> <p>Press OK [F10] to accept the changes or CANCEL [Esc] to abandon the changes.</p>
38	Error	"There was an error retrieving mailbox data."	<p>This error occurs when the system cannot display MAILBOX DIRECTORY information.</p> <p>Call your Express Messenger dealer.</p>
40	Error	"The requested information cannot be retrieved. Please call your service representative."	<p>This error indicates that there is a problem retrieving data for the SYSTEM FAX SETTINGS window because the data does not exist or a communications problem is present.</p> <p>Be sure that your Express Messenger system has been configured. If it has and you still have this error, restore your system from a previous backup to recover the missing data. Restoring may result in substantial data loss if you do not have or are not using a recent backup.</p>

41	Error	"The requested information cannot be retrieved. Please call your service representative."	<p>This error indicates that there is a problem retrieving data for the SYSTEM LINE SETTINGS window because the data does not exist or a communications problem is present.</p> <p>Be sure that your Express Messenger system has been configured. If it has and you still have this error, restore your system from a previous backup to recover the missing data. Restoring may result in substantial data loss if you do not have or are not using a recent backup.</p>
50	Info	"Your current disk is full. Please insert another disk, and press OK [F10] when you are ready."	<p>This Information box displays during the backup process when you run out of room on a removable disk.</p> <p>Remove the full disk, and insert a new one. The program automatically creates and names the new backup file.</p>
52	Error	"The (System Mailbox Attributes/System Attributes) cannot be backed up. To continue with the rest of the backup, press OK [F10]. If you do not wish to complete the backup, press CANCEL [Esc]."	<p>This error occurs if you initiate the backup process but Express Messenger cannot locate either the "System Mailbox Attributes" or "System Attributes" files.</p> <p>To make sure you save the most recent changes to Express Messenger, take the following steps:</p> <ol style="list-style-type: none"> 1. Locate the most recent backup file to be used later for the restore process. 2. Back up your current system to an alternate backup file(s). 3. Perform a restore from the backup file located in step #1. 4. Perform a restore from file(s) used for the backup process completed in step #2.
53	Error	"There is an error with your local file. Your backup has prematurely terminated. Please either press CANCEL [Esc] or RETRY [F10] to try again."	<p>This error occurs during the backup process if you remove the disk from the drive to which you directed the backup file.</p> <p>Place the disk back into the correct drive to continue with the backup process.</p> <p>If you are backing up to the hard drive, you may have a problem writing to the hard drive.</p>
54	Info	"We are done with the current disk. Please insert the next disk, and press OK [F10] when you are ready."	<p>This information box displays during the upgrade or restore process when another disk is needed to complete the process.</p> <p>Insert the next disk, and press OK [F10] when you are ready.</p>

55	Error	"There is an error with your local file. Your update has prematurely terminated. Please press either CANCEL [Esc] or RETRY [F10] to try again."	<p>This error occurs during the upgrade or restore process if you remove the disk containing the source file from the drive.</p> <p>Place the disk back in to the correct drive to continue with the upgrade or restore process.</p>
56	Error	"Your system cannot be updated. There is a problem with writing data to your Express Messenger system."	<p>The error occurs if you try to modify Express Messenger but a necessary file cannot be opened.</p> <p>Call your Express Messenger dealer.</p>
57	Error	"Your backup/restore/upgrade was not successful. Press OK [F10], then either try again or CANCEL [Esc] to return to the main menu."	<p>This error occurs during the backup, upgrade, or restore process if any condition prevents the process from completing.</p> <p>You can continue your failed backup/restore/upgrade by clicking on the 'Continue' box.</p> <p>Try again and call your Express Messenger dealer if you are still unsuccessful.</p>
58	Info	"Your backup/restore/upgrade has successfully completed. Press OK [F10] to continue."	<p>This information box tells you that your backup, restore, or upgrade process completed without a problem.</p> <p>Acknowledge the information box to continue with the program.</p>
59	Warning	"The error log file doesn't exist at the M Express Messenger system."	<p>This warning box displays if you select 'Error Log' from the Administration menu but Express Messenger cannot locate an error file log.</p> <p>Acknowledge the warning and try again.</p> <p>The error log file is not required for Express Messenger or Express Manager to operate correctly. However, the error log file should exist after a normal installation.</p>
60	Error	"The current passcode is incorrect. Please try again."	<p>This error occurs in the ADMINISTRATION PASSCODE window if the value you typed in the Current Passcode field is not the correct System Administrator passcode.</p> <p>You must know the current passcode to change it. Try again, or call your Express Messenger dealer.</p>

61	Error	"Verification of your new passcode does not produce a match. Please try again."	<p>This error occurs in the ADMINISTRATION PASSCODE window if the value you typed in the Verify Passcode field does not exactly match the value you typed in the New Passcode field.</p> <p>Express Messenger does not accept the new passcode until a match is obtained. The current passcode remains in effect.</p>
62	Error	"There is not enough space on the indicated disk to perform a backup. Either make space on the disk or insert another. Please press OK [F10] to try again."	<p>This error occurs when you try to back up to either the hard drive or a removable disk but the disk does not contain enough free space.</p> <p>There must be at least 10,000 bytes of available disk space before a backup can begin.</p> <p>Create additional free space on the hard drive, or insert a new removable disk with adequate free space on the drive.</p>
63	Error	"There was an error while upgrading %s. This section has not been upgraded properly."	<p>This error can occur during an upgrade if a particular section was not successfully upgraded.</p> <p>You can start the upgrade again and click on the 'Continue' box to pick up where you left off.</p> <p>If the problem persists, note the section as displayed on the screen and call your Express Messenger dealer.</p>
64	Error	"Your passcode is not of the required length. Please try again."	<p>This error occurs if you enter an administrator passcode that is not of the required length. The passcode length field in the ADMINISTRATION PASSCODE window determines the required length.</p>
65	Error	"The file you wish to restore from is incomplete. Press OK [F10] to enter a new backup file or [Esc] to cancel."	<p>This error displays if you attempt to restore Express Messenger from a backup file that is not complete. To perform a restore, you must use a successfully completed backup file.</p>
66	Warning	"The indicated backup file was complete and does not need to be recovered."	<p>This reminder displays if you are in the ADMINISTRATION BACKUP window and you click on the 'Continue' box assuming the indicated backup file contains a complete backup.</p> <p>Check your file name to make sure you are continuing the proper backup.</p>

67	Error	"Your passcode has not been set. Please enter the screen and try again."	<p>This error occurs in the ADMINISTRATION PASSCODE window if there are no values in the New Passcode and Verify Passcode fields.</p> <p>Express Messenger does not accept the new passcode until a passcode of the proper length is entered. The current passcode remains in effect.</p>
68	Error	"The %s version is incorrect and the upgrade can not proceed. You need to be logged into a %s with version %s%s"	<p>This error displays when you try to upgrade a Express Messenger system that does not have the proper software version.</p> <p>If this is the case, call your Express Messenger dealer to obtain the proper upgrade kit.</p>

Appendix D: Express Manager System Log Messages (diag.dat)

The port number that the message occurred on follows the error code (that is, after the dash). If a message does not have a port associated with it, zero (0) follows the error code.

Error Number	Severity	Description	Solution/Action
1102 1103	ERROR	<p><i>Read Error</i></p> <p><i>Write Error</i></p> <p>There was an error reading or writing from TRAN.DAT. This could be a one time occurrence, or it could indicate a hard drive problem.</p>	Reboot once. If problem persists, contact service representative.
1206 1207	ERROR	<p><i>r=vtlight_on(state=s,extn=e), mailbox=m</i></p> <p><i>r=vtlight_off(state=s,extn=e), mailbox=m</i></p> <p>The MWI could not be turned on/off. r is the reason the light could not be turned on/off with the following meanings:</p> <p>0 = The task was successful, so this is probably being called in TRACE mode.</p> <p>3 = The state was bad; this is highly unlikely to be the case since this stated should explicitly be passed in by the software.</p> <p>4 = The extension, e, that was used does not resolve to a valid extension. This is usually the case when a single digit mailbox still has the single digit assigned as the extension. Hence we are trying to turn the light on for extension 5, for example.</p> <p>5 = The queue which hold the MWI requests is full. For the DK, this queue size is 240.</p>	No action required unless you think the extension really is valid

1208	WARNING	<p><i>vtlight_extn: no dextens for mailbox m, state=s</i></p> <p>The MWI could not be turned on(s=1)/off(s=0) for mailbox m because of an invalid mailbox extension.</p>	Check/set the mailbox extension by using the Edit Mailbox system administration function.
1210	WARNING	<p><i>vta_s9: entered undefined state</i></p> <p>The application entered a state in its state machine, which is undefined.</p>	Contact your service representative
1216	INFO	<p><i>An Administrator has logged in.</i></p> <p>The system administrator's mailbox has been logged into using the BOX_ADMIN passcode</p> <p><i>A Technician has logged in.</i></p> <p>The system administrator's mailbox has been logged into using the BOX_MAN1 passcode</p> <p><i>A Manager has logged in</i></p> <p>The system administrator's mailbox has been logged into using the BOX_MAN2 passcode</p>	No action required.
1221	ERROR	<p><i>Error calling VTGSERVICE, channel=channel</i></p> <p>Unable to start service function to initiate modem answer tone on port channel</p>	Contact service representative.
1230	ERROR	<p><i>Record-a-call: recording stopped on tsig=t</i></p> <p>Recording has unexpectedly stopped. t contains the driver event that stopped the recording.</p>	No action is generally required.
1231	ERROR	<p><i>Record-a-call: invalid log_event=evt</i></p> <p>An incoming event has been translated to an invalid logical event. This should never happen and indicates a programming error.</p>	Contact service representative.
1241	ERROR	<p><i>Record-a-call: disconnecting due to error.</i></p> <p>Record-a-call is indicating an error condition to the PBX by hanging up. A previous message should give the reason for the error.</p>	Contact service representative.
1243	WARN	<p><i>Record-a-call: unexpected event evt ignored, continuing.</i></p> <p>An unexpected event was received, but the recording session is continuing.</p>	No action required.

1244	ERROR	Record-a-call: unexpected event evt ignored, stopping. An unexpected event was received, and the recording session is being aborted.	Contact service representative.
1245	WARN	<i>Record-a-call: unexpected E_RECSTOP when not stopping recording</i> A recording stopped event was received when a stop request was not made.	No action required.
1246	WARN	<i>Record-a-call: Unexpected VT_RECDONE when not recording</i> A recording complete event was received when no recording was being made.	No action required.
1247	WARN	<i>Record-a-call: Automatically saving conversation</i> A recording call session was terminated, and no save or erase command was received from the PBX. The recording is being automatically saved.	No action required.
1248	ERROR	<i>Record-a-call: unexpected on hook event, stopping</i> The port unexpectedly went on-hook during a recording session. The recording is being terminated.	Contact service representative.
1249	ERROR	<i>Record-a-call: waiting for recording to start, stop pending</i> Pause was selected very soon after recording was started.	No action required.
1502	FATAL	<i>vtapplqh - Message Queue Memory Could Not be Allocated</i>	Contact service representative
1504	WARNING	<i>Message Queue file, HQ.DAT, is not opened</i> This was a result of 2 attempts to open HQ.DAT. The first assuming the file already existed, and the second using the O_CREAT mode.	Contact service representative
1505	WARNING	<i>Message Queue file, HQ.DAT, not initialized properly</i> This was a result of an attempts to write to the HQ.DAT.	Contact service representative

1506	WARNING	<p><i>Message Queue not updated properly from HQ.DAT</i></p> <p>The message queue file, HQ.DAT, is a backup file in case the system reboots after a message is accepted but before the message is physically delivered to the mailbox. This is a very small window. Regardless, at every boot up, we try to read this HQ.DAT file and deliver any undelivered messages.</p> <p>This warning occurs when the HQ.DAT file is not of the proper length. This could happen if the system was changed from a 4 port to an 8 port system.</p>	No action required
1507	ERROR	<p><i>Message Queue file, HQ.DAT, not updated properly</i></p> <p>An attempt to write to the HQ.DAT file failed during the queuing process.</p>	Try rebooting. If this does not help, contact service representative
1508	ERROR	<p><i>Message Queue file, %s, is not updated properly</i></p> <p>An attempt to write to the HQ.DAT file failed during the “de-queuing” process.</p>	Try rebooting. If this does not help, contact service representative

1511	ERROR	<p><i>vtmq: Message for mailbox mbox was not delivered: size=size</i></p> <p>There was not room in the HQ.DAT file for another record. The result of this is that a message will never be delivered. The size is the size of the queue.</p> <p>A message is appended to header queue in two situations: (vtmq) is called to append to header queue)</p> <ol style="list-style-type: none"> 1. Call is instigated from outside caller 2. Message is being sent/transferred from internal caller, and the destination mbox is locked. <p>Messages are removed from header queue every time vtserve() (periodic service function) calls vthdq(). It dequeues a maximum of P.channel (4 in a 4 port system) every time around. vthdq() will only dequeue a message if the destination mailbox is free.</p> <p>Error 1511 could be manually generated by logging into a mailbox, keeping it busy and sending it more messages than header queue size.</p> <p>The size of header queue is dependent on P86 parameter. If this parameter is zero (default), the size of header queue was made equal to number of channels in system. We have changed the size of header queue to default to TWICE the number of channels in system. All this is done in file vtapplhq.c.</p>	Contact service representative
1513	ERROR	<i>vthdq: Transaction file handle is invalid: fh=fh</i>	Contact service representative
1803	FATAL	<i>vtappl2 - Failed to create index space</i>	Contact service representative
1804	FATAL	<i>vtappl2 - Failed to create space for names</i>	Contact service representative
1808	ERROR	<i>MASTER.DAT can not be opened more than once at any one time</i>	Contact service representative
1809	INFO	<p><i>cal_get - Business hours have not been set</i></p> <p>This is an informational message that appears at reboot if the business hours have not been set by the system administrator.</p>	No action required

1811	INFO	<i>sg_get - No alternate greetings have been set</i> This is an informational message that appears at reboot if there have not been any alternate greetings set by the system administrator.	No action required
1812	INFO	<i>MASTER.DAT was not open, but the 'close' will be executed.</i> A request was made to close MASTER.DAT, but it was not open in the first place.	No action required
2207	ERROR	<i>keypad table full,extra lines ignored</i>	The keypad.tab file is too big and cannot be read completely. This should never happen and indicates a programming error. Contact service representative.
2213	ERROR	<i>vtsrr_greet: rename(from,to) error</i>	Unable to rename a temporary (new) greeting file to its permanent name. Try the operation again. If this still does not work, contact service representative
2214	FATAL	<i>keypad.tab or keypad2.tab not found</i>	Could not find keypad.tab or keypad2.tab for MM TUI for version 2.00 or later
2215	FATAL	<i>keypad.tab not found</i>	Could not find leypad.tab for MEM v1.01 or earlier

2216	ERROR	<p><i>vtadm_enable_disable: Can't update parm.bin</i></p> <p>While trying to enable or disable a feature, the file PARM.BIN could not be opened or written to.</p>	<p>Try retrieving PARM.BIN using the Manager. If it is there, reboot the system and try a fresh install. If the file is not there, send a fresh version over via the Manager, then try a fresh install. If this still does not work, contact service representative</p>
2217	INFO	<p><i>vtadm_enable_disable: Updated parm.bin</i></p>	
2218	ERROR	<p><i>vtadm_set_dialplan: Can't copy master.bak</i></p>	<p>Contact service representative.</p>
2219	ERROR	<p><i>vtadm_set_dialplan: Can't update parm.bin</i></p> <p>While trying to set the dialplan during installation, the file PARM.BIN could not be opened and/or written to.</p>	<p>Try retrieving PARM.BIN using the Manager. If it is there, reboot the system and try a fresh install. If the file is not there, send a fresh version over via the Manager, then try a fresh install. If this still does not work, contact service representative</p>

2219	ERROR	<i>vtadm_set_dialplan: Can't restore parm.bin</i> While trying to set the dialplan during installation, the file PARM.BIN could not be opened and/or written to.	Try retrieving PARM.BIN using the Manager. If it is there, reboot the system and try a fresh install. If the file is not there, send a fresh version over via the Manager, then try a fresh install. If this still does not work, contact service representative.
2219	ERROR	<i>vtadm_number_mailboxes=errflag, errno=errno</i>	Contact service representative.
2219	WARNING	wakeup_notify_PBX:no dextens for mbox= boxno No extension has been configured for mailbox boxno.	Edit the mailbox and configure it with a valid extension.
2229	WARNING	<i>Write Error Rec_no=nn</i> Write to MASTER.DAT failed.	Log the message in diag.dat and continue.
2230	WARNING	<i>Write Error Rec_no=nn</i> Write to MASTER.DAT failed.	Log the message in diag.dat and continue.
2230	ERROR	Can't update parm.bin	Contact service representative.

2403	INFO	<p><i>VT_RECDONE:v</i></p> <p>Indicates that a recording has terminated. The value <i>v</i> tells how the termination happened:</p> <ul style="list-style-type: none"> 2- A terminating DTMF was detected. 5- End of data reached (?) 7- Timed out, rarely happens 10- Terminated due to silence 12- Terminated due to loop current dropping. 13- Terminates on EOF, very rare 31- Terminated due to non-silence; i.e. sound is constantly above a certain threshold. <p><i>VT_ON:v</i> The port has gone on hook.</p> <p><i>VT_OFF:v</i> The port has gone off hook</p> <p><i>VT_BUSY:v</i> An outdial (page) has resulted in a busy signal.</p> <p><i>VT_NOAN:v</i> An outdial (page) has resulted in no answer.</p> <p><i>VT_CONN:v</i> An outdial (page) has resulted in a connection being made and the recipient hears/sees the result of the page.</p> <p><i>VT_INTER:v</i> Operator intercept...will be treated as a no answer.</p> <p>These are informational messages that come out to help give an idea as to the traffic of the system and how recordings were terminated. <i>v</i> only has meaning when on the <i>VT_RECDONE</i> line:</p>	No action required
3001	ERROR	<p><i>vtalist:ret=r,total_boxes=tb</i></p> <p>The attempt build a list of mailbox records from MASTER.DAT failed.</p> <p><i>r</i> = reason write failed:</p> <ul style="list-style-type: none"> -1 = could not open MASTER.DAT -2 = could allocate space (malloc) <p><i>tb</i> = total number of records in MASTER.DAT</p>	Contact service representative.
3201	FATAL	<p><i>vtv40 error,file=[filename]</i></p> <p>The prompt filename cannot be found/opened.</p>	Contact service representative

3207	INFO	<p><i>vtspeak - Prompt pp File VTP.VAP Missing</i></p> <p>This means that a requested prompt could not be played. The reason is most likely that the VAP file is corrupt, this usually means truncated. If the prompt number is between 1 and 100, the file in question is VTP.VAP. If the prompt number is greater than 100, the file is VTE.VAP.</p>	Contact service representative
3209	ERROR	<p><i>Prompt num File VTP.VAP Missing</i></p> <p>Prompt number, num, does not exist in file VTP.VAP.</p>	Contact service representative
3210	ERROR	<p><i>MBox size incorrect File=f</i></p> <p>There is something wrong with the MSG file, f. The most likely reason is that it is full and can not accept new messages. If there is another reason, it would be shown in error message 4706</p>	Check how many messages are in the mailbox. If OK, see message 4706.
3213	ERROR	<p><i>Default Language nnn prompts missing, substituting English</i></p> <p>The prompts for the configured default language are not installed. English is being substituted.</p> <p>The value of nnn indicates the configured language:</p> <p>1 = English 2 = Spanish 3 = French 4 = Dutch 5 = UK English</p>	Select a different default language.
3214	ERROR	<p><i>Alternate language nnn prompts missing. Language ignored.</i></p> <p>The prompts for the configured alternate language are not installed. No alternate language has been loaded.</p> <p>The value of nnn indicates the configured language as defined above for message 3213.</p>	Select a different alternate language.
4001	ERROR	<p><i>utxopen(path=p,handle->h)=ret,errno=err,cid=cid</i></p> <p>Error opening the file p. cid represents the function that called 'utxopen()'.</p>	Contact service representative to determine if this call was for a critical file.
4002	ERROR	<p><i>utxclose(hd=hd,handle=handle)=ret</i></p> <p>Error closing file originally pointed to by hd</p>	Contact service representative

4005	ERROR	<i>File Handle Error</i>	Contact service representative
4312	WARNING	<p><i>vtxd40: Incorrect File Handle for Record</i></p> <p>The file handle passed into 'Record_Msg_Enter()' is invalid. That is, it is less than 5 or greater than 59.</p> <p>This most likely means that too many files were left in the open state.</p>	In order to get back up and running so that messages can be left, reboot the system. Then contact your service representative so that logs can be retrieved.
4313	WARNING	<p><i>vtxd40: Invalid event during record</i> <i>d40event=event</i></p> <p>While a message was being recorded, a Dialogic event was returned that was unexpected.</p> <p>For details on the event, look up the event code in the Dialogic reference guide.</p>	Note the event and contact your service representative.
4314	ERROR	<p><i>vtxd40: Incorrect file handle after Record</i></p> <p>While in 'Record_Msg_Exit()', there was an error returned from the function 'utxcheck()'. This check is done before the attempt to close the file. Note that error message 4005 should also have been logged.</p>	Contact service representative
4316	INFO	<p><i>vtxd40: Voice Mail is gracefully shutting down</i></p> <p>This message occurs when Contact is rebooted remotely via the Graphical Manager.</p>	No action required
4319	ERROR	<p><i>vtxd40: Dos Error Encountered DOS code=c</i> <i>cstate=s</i></p> <p>On a record or playback, there was a problem writing to or reading from the voice file. c is the _doserrno value that is set when a write, seek or read fails.</p>	Contact service representative
4320	INFO	<p><i>stopch() issued</i></p> <p>Indicates port is being stopped as part of application shutdown.</p>	
4321	INFO	<p><i>T_STOP received</i></p> <p>Indicates port is being stopped as part of application shutdown.</p>	No action required

4323	ERROR	<p><i>vtxd40: Event Error Code=error</i></p> <p>There was an error when calling the Dialogic get event function (getevt).</p> <p>For details on the error, look up the error code in the Dialogic reference guide.</p>	Contact service representative
4324	FATAL	<p><i>vtxd40: D/40 Driver Not Installed</i></p>	<p>Make sure the VOXDRV started. Watch the bootup via a serial cable and PCPlus. Otherwise, contact service representative</p>
4326	WARNING	<p><i>vtxd40 - Unable to set Parameters</i></p> <p>Dialogic call to 'setxparm()' failed.</p>	Contact your service representative
4327	INFO	<p><i>vtxd40 - intlevel=irq rc=rc</i></p> <p>The function 'startsys()' failed. This is because there is something wrong with the VBPC interface.</p>	<p>Make sure phone system is up. Pull out VM card and plug back in.</p> <p>If problem persists, contact your service representative.</p>
4328	INFO	<p><i>vtxd40: p ports available, a installed, hourlim=h, vm_model_no=m</i></p> <p>p- The number of ports as indicated by the model number.</p> <p>A- The number of ports that the voice driver detected. 0 = no limit.</p> <p>H- The total number of storage hours available as indicated by the model number. 0 = no limit.</p> <p>m- This is the model number. If 0, then <i>the model has not been set.</i></p> <p>This message is displayed on system startup, when the phone system is configured, when the fax finder is set (with phone or CGM), when a technician uses the technicians user's interface to reset the ports, when the D40 token is manually sent from CGM.</p>	No action required

4338	WARNING	<p><i>vtxd40: Seek Error</i></p> <p>This seek occurs while a voice file is being queued up to be played.</p>	<p>If this is not an isolated incident, contact your service representative.</p>
4341	WARNING	<p><i>vtxd40: Error in Voice Code</i></p> <p>This happens when the seek error from message 4338. It should not happen for any other reason.</p>	<p>Contact your service representative.</p>
4342	WARNING	<p><i>vtxd40: action=action rc=rc</i></p> <p>Error occurred while trying to play a file.</p>	<p>Contact your service representative, noting the action and rc values.</p>
4344	ERROR	<p><i>vtxd40: Mailbox mbox unlocked for slot slot</i></p> <p>If all ports are idle and the GUI is not connected locally, then there should not be any mailboxes that are locked. Therefore, this message is issued when a mailbox was unlocked in the above mentioned scenario.</p>	<p>No action required.</p> <p>If this happens frequently, contact service representative.</p>
4350	WARNING	<p><i>vtxd40: Call to vb_get_cpid failed</i></p> <p>'vb_get_cpid()' is a call to the VBPC driver that is done through a vtgservice call to the VOXDRV.</p> <p>To examine the exact reason why this failed, look at the VBPC log file which is located in c:\vbpc\log\vbpclog.dat.</p>	<p>If vbpclog.dat does not give enough information, contact your service representative.</p>
4501	FATAL	<p><i>System Parameters have FAILED to be set</i></p> <p>This can come out in the same situation as above only if there is a problem with the PARM.BIN file.</p>	<p>Contact service representative</p>
4503	FATAL	<p><i>vtxinit - Error starting the Voice Board</i></p>	<p>Contact service representative</p>
4702	ERROR	<p><i>file_name=n, rr=r</i></p> <p>The message file n is not valid, the reason is indicated by r.</p> <p>The side affect is that any new or saved messages are lost.</p>	<p>No action required, the situation recovers itself.</p>
4704	ERROR	<p><i>file_name=file, d40derr=error</i></p> <p>There was an error attempting to open or write to the named file. It has to do with recording, but the actual filename dictates which part of the recording process was affected.</p>	<p>Contact your service representative</p>

<p>4706 4707 4708</p>	<p>ERROR</p>	<p><i>Mbox size Error ret=ret</i> <i>Mbox size Error ret=ret</i> <i>x_size_folders:Error ret=ret, tag=tag</i></p> <p>These messages occur when there is something wrong a particular mailbox's MSG file.</p> <p>ret is the return value of x_size() and has the following meanings.</p> <p>-2 = The mailbox is full -3 = The tag value in the file is not correct -4 = The file handle passed in was invalid</p>	<p>Make sure the mailbox is not full</p> <p>If not full, try renaming the MSG file</p> <p>Regardless of the results of the above, contact your service representative</p>
<p>4709</p>	<p>ERROR</p>	<p><i>MBox Dir Error fname=n Code=c</i></p> <p>The message file n is not valid, the reason is indicated by c.</p>	<p>Contact service representative; the situation does not recover by itself.</p>
<p>4711</p>	<p>ERROR</p>	<p><i>Corrupt MBox handle=handle msg_no=msg_no ret=ret</i></p> <p>Playing a message failed. The reason is dictated by the return code ret. Below are possible values of ret.</p> <p>-1= Message is too short and will not be played -2= The actual playing of the file failed. it probably doesn't exist -3= File handle bad -4= The message number is bad (out of range with respect to the system wide max), or the MSG file tag is bad.</p>	<p>If the return code is -3 or -4, contact your service representative.</p> <p>If the return code is -2, it may have been purged.</p> <p>Otherwise, no action is required.</p>

4714	ERROR	<p><i>I/O Read Problem</i></p> <p>An error occurred while trying to read an MSG file. There is no reason as to why except that the amount of bytes that was read was less than what was expected.</p>	<p>Even though there is no extra information associated with this message, there may be other messages at the same time that indicate which file was having a problem.</p> <p>If this is an isolated incident, no action required. Otherwise, contact your service representative.</p>
4715	ERROR	<p><i>I/O Read Problem</i></p> <p>An error occurred while trying to write to an MSG file. There is no reason as to why.</p>	<p>Even though there is no extra information associated with this message, look at error message 4704 for the filename and associated error..</p> <p>Contact your service representative.</p>

4716	ERROR	<p><i>x_record:prev(.\grp\nnnnnnnn.nnn) not closed,cur=.\MSG\msgnn.vox</i></p> <p>This has only been seen with the current file being a mailbox file (msgnn.vox). The previous file has been noted to be either a <i>grp</i>, <i>name</i>, or <i>int</i> file - i.e. an actual message file, a name file or a greeting file. Listed below are the scenarios of when each has been reproduced.</p> <p>\grp</p> <ol style="list-style-type: none"> 1 When logged into the mailbox noted in the error message, if 3 is entered to leave a memo, and the prompt begins, but the user hangs up before recording begins. 2. When logged into the mailbox noted in the error message, if 2 is entered to send a message, and the destination list is complete, and the prompt has begun, and the user hangs up before recording begins. <p>\name</p> <p>No scenarios have been determined.</p> <p>\int</p> <p>No scenarios have been determined.</p>	<p>This has not been noted to cause any other problems, so no action is required by the technician.</p>
4717	ERROR	<p><i>Previous File not closed</i></p> <p>While attempting to append to a message, there was a problem opening or writing to the existing file. This includes but is not restricted to the previous file not being closed.</p>	<p>If this is an isolated incident, no action required. If this continues and prevents messages from being appended to, reboot the system. If it still persists, contact your service representative.</p>
4718	ERROR	<p><i>Dir Error</i></p> <p>There is an error with the MSG file. Note that there should be other error messages with more description as to what the problem is.</p>	<p>Contact your service representative.</p>
4719	ERROR	<p><i>x_erase(%d,%d) returning %d</i></p>	<p>Contact your service representative</p>

<p>4720 4721 4722</p>	<p>ERROR</p>	<p><i>Incorrect File Handle for Erase</i></p> <p>In all cases, a message could not be deleted due to one of the following with respect to the corresponding MSG file:</p> <p>bad file handle</p> <p>message number is out of range of the system default</p> <p>MSG tag is incorrect</p>	<p>Contact your service representative.</p>
<p>4723</p>	<p>ERROR</p>	<p>x_keep(handle,msg_no,function) returning ret</p> <p>This error is displayed if something goes wrong with saving a message after it has been listened to.</p> <p>handle – DOS handle to the MSG file of the mailbox in question.</p> <p>msg_no - Which message do we want to keep for the mailbox in question</p> <p>function – 0=Keep, 1=Mark Unread</p> <p>ret – return value of ‘x_keep()’</p> <p>-1 = ‘lseek()’ or ‘read()’ into MSG file failed</p> <p>-2 = file handle bad, or bad tag in MSG file</p>	<p>If isolated incident, no action required. If it continues with only the same mailboxes, listen to all messages in mailbox and then delete the MSG file. Leave a new message to test.</p> <p>If this does not help, contact your service representative</p>
<p>4724</p>	<p>ERROR</p>	<p>x_stamp Corrupted Directory</p> <p>The attempt to time stamp a message failed because the associated MSG file did not have the proper tag inside of it.</p>	<p>If isolated incident, no action required. If it continues with only the same mailboxes, listen to all messages in mailbox and then delete the MSG file. Leave a new message to test.</p> <p>If this does not help, contact your service representative</p>

4726	INFO	<p><i>deleting 0 length file: f</i></p> <p>This message is generated when a file that was opened to receive a recording is closed and is of zero length. For example, when leaving a message, if the user hangs up before the beep, this will leave around a zero length file. Hence when this file is deleted, the above message occurs.</p>	No action required
4718	ERROR	<p><i>x_copy(filename,start,len,dfh,dstart),r=bytes_read,w=bytes_written</i></p> <p>This function is used to copy parts of a message from one file to another. Mostly in the case of adding a comment to a forwarded message or appending to a message just recorded.</p> <p>This error occurs if the number of bytes_read does not equal the number of bytes_written. Or if the the number of bytes_written does not equal the length.</p>	Contact your service representative
4728		<p><i>x_copy(filename,start,len,dfh,dstart),r=bytes_read,w=bytes_written</i></p> <p>This function is used to copy parts of a message from one file to another. Mostly in the case of adding a comment to a forwarded message or appending to a message just recorded.</p> <p>This error occurs if the number of bytes_read does not equal the number of bytes_written. Or if the the number of bytes_written does not equal the length.</p>	
4729	INFO	<p><i>Msg f for b</i></p> <p>When a message is left for a mailbox, the name of the file that holds the voice data is logged.</p> <p>F - file name B - mailbox receiving message</p>	No action required
4900	INFO	<p><i>Application successfully initialized</i></p> <p>This message comes out every time the system is booted. It indicates that we have gotten past most initialization routines.</p>	No action required
4901	WARNING	<p><i>Heap Problem code=rc</i></p> <p>Call to ‘_heapchk()’ failed with a return code of rc.</p>	Contact your service representative

4904	INFO	<p><i>Abort scheduled for hh:mm</i></p> <p>Every day at a specified time (03:00 by default), the system shuts down and performs disk maintenance. The maintenance that is performed is configurable by the Graphical Manager. The choices are to have the SCANDISK and CHKDSK utilities run. These are configurable for daily, weekly, or monthly.</p>	No action required.
4906	FATAL	<i>vtxmain - System memory heap problem</i>	Contact service representative
4907	FATAL	<i>vtxmain: vtxinit failure</i>	Contact service representative
4908	FATAL	<i>Application Program Failed</i>	Contact service representative
4913	INFO	<p><i>MEM:main=ms:mo,psp=psp</i> <i>MEM,end_alloc=ea,malloc=as:ao</i></p> <p>This is an informational message for Contact Systems engineers that gives memory allocation information.</p>	No action required
4915	FATAL	<p><i>vtg_malloc(size)</i></p> <p>Unable to allocate memory block of size bytes.</p>	Contact your service representative
4916	INFO	<p><i>ptr=vtg_malloc(size)</i></p> <p>System successfully allocated size bytes of memory at location ptr</p>	
5301	WARNING	<p><i>File=filename Length=length</i></p> <p>The MSG file, filename, is greater than 10,000,000 bytes. The length is noted in the message</p>	In order to get the mailbox up and running, rename the MSG file in question and then contact your service representative.

5302	INFO	<p><i>Total files deleted from [grp/msg/name] = n</i></p> <p>This happens at 2:00 every morning if there were files old enough to be deleted. The message would come out once for each directory.</p> <p><i>Compress Error file = filename code = n rc = n</i></p> <p>The function which reports this error is called whenever a subscriber logs out. However, the message is only reported if an error occurred. Check the <i>code</i> in the message and compare it to the table below. The filename will always be in the form <i>msgnn.vox</i>. Where <i>nn</i> is the affected mailbox.</p>	No action required.																		
	ERROR	<table border="0"> <thead> <tr> <th style="text-align: left;"><i>code</i></th> <th style="text-align: left;"><i>description</i></th> </tr> </thead> <tbody> <tr> <td>-3</td> <td>This means that the length of the <i>msgnn.vox</i> file is not long enough.</td> </tr> <tr> <td>-4</td> <td>There is a special code which must be present in the file in order for the file to be valid. If that code is gone, there most likely was some sort of file corruption. The second reason this error code could come out is if enough bytes could not be read from the file. We try to read the first 5024 bytes.</td> </tr> <tr> <td>-5</td> <td>TBD</td> </tr> <tr> <td>-6</td> <td>TBD</td> </tr> <tr> <td>-7</td> <td>We were unable to seek to the beginning of the file. This too could indicate a problem with the file. So...</td> </tr> <tr> <td>-8</td> <td>This means there was something wrong with the mailbox file. The <i>rc</i> value in the error message will give you further details on what was wrong. Below is a list of the possible values for <i>rc</i> and what they mean:</td> </tr> <tr> <td>-1,-2,-3</td> <td>The <i>msgnn.vox</i> file is somehow corrupt. It is not known how it could get into this state.</td> </tr> <tr> <td>-4</td> <td>This probably means that the <i>msgnn.vox</i> file is indicating that there are more than 250 messages.</td> </tr> </tbody> </table>	<i>code</i>	<i>description</i>	-3	This means that the length of the <i>msgnn.vox</i> file is not long enough.	-4	There is a special code which must be present in the file in order for the file to be valid. If that code is gone, there most likely was some sort of file corruption. The second reason this error code could come out is if enough bytes could not be read from the file. We try to read the first 5024 bytes.	-5	TBD	-6	TBD	-7	We were unable to seek to the beginning of the file. This too could indicate a problem with the file. So...	-8	This means there was something wrong with the mailbox file. The <i>rc</i> value in the error message will give you further details on what was wrong. Below is a list of the possible values for <i>rc</i> and what they mean:	-1,-2,-3	The <i>msgnn.vox</i> file is somehow corrupt. It is not known how it could get into this state.	-4	This probably means that the <i>msgnn.vox</i> file is indicating that there are more than 250 messages.	No action required, the situation recovers itself.
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5303	ERROR	<p><i>Copy Error source to destination code=ret</i></p> <p>An error occurred while copying file source to destination.</p>	Contact your service representative
5304	INFO	<p><i>vtclean: deleted f, age exceeded d days</i></p> <p>Every morning at 2:00 a.m., message files are checked to determine if their age has exceeded the configured limit. If it has, they are deleted. For each file that is deleted, this message is issued. The file's name is f and the number of days it was checked against is d.</p>	No action required
5304	WARNING	<p><i>seekid Seek Error fh=fh ptr=offset origin=origin</i></p> <p>An error occurred while performing a seek on a file.</p> <p>Where :seekid indicates who called this function</p>	Contact your service representative
5309	ERROR vtx\vtxutil.c	<p><i>x_delete_tmsg: read error, mbox=mailbox</i></p> <p>This function will delete the message file that is referenced in a transaction record of the mailbox's MSG file. Could not read the correct number of bytes from the mailbox's MSG file.</p>	Contact service representative
5310 5311	ERROR ERROR	<p><i>vtbox_full(Box_Num=b)=r, tot_msgs=tm, box_msgs=am</i></p> <p><i>fh=fh, f_size=fs, rc=rc, s/c=s/c</i></p> <p>Every time a message or memo is left for a mailbox, we first check to make sure there is room for the message/memo in the recipient's mailbox. If there is not, the user is vocally informed and this message is logged. am is the maximum number of messages that the mailbox in question can contain.</p> <p>Note that these two messages always come out together.</p>	The user must delete some messages before new ones can be left.

5311	ERROR	<p><i>mark_erased_descriptor error=error, file=box_num</i></p> <p>An error occurred while trying to mark a descriptor file. A descriptor file is one that contains all the mailbox numbers that are to receive a group message. To determine the descriptor file, the mailbox's MSG file must be examined.</p> <p>The reason the function failed is stored in error:</p> <p>1 = 'lseek()' into the MSG file failed</p> <p>2 = could not 'read()' the appropriate number of bytes from the MSG file</p> <p>3 = the box_num was not found in the descriptor file</p>	Contact your service representative
6001	INFO	<p><i>Msg f (mm/dd hh:mm) for b deleted</i></p> <p>A voice message sent to a single mailbox has been deleted from the disk</p> <p>f = filename, mm = month, dd = day, hh = hour, mm = minute, b = mbox #</p>	No action required
6002	INFO	<p><i>Msg f (mm/dd hh:mm) for b deleted</i></p> <p>A voice message sent to a multiple mailboxes has been deleted from the disk</p> <p>f = filename, mm = month, dd = day, hh = hour, mm = minute, b = mbox #</p>	No action required
6003	INFO	<p><i>Msg f (mm/dd hh:mm) for b is old</i></p> <p>A saved voice message is older than the limit specified for the mailbox. The file will be deleted when it has been erased or has exceeded the age limit for all mailboxes the message was sent to.</p> <p>f = filename, mm = month, dd = day, hh = hour, mm = minute, b = mbox #</p>	No action required
6004	INFO	<p><i>Msg f (mm/dd hh:mm) for b saved</i></p> <p>A voice message was saved by the mailbox owner. This message appears only the first time a message is saved.</p> <p>f = filename, mm = month, dd = day, hh = hour, mm = minute, b = mbox #</p>	No action required

Appendix D: Express Manager System Log Messages

6005	INFO	<p>Msg <i>f</i> (<i>mm/dd hh:mm</i>) for <i>b</i> erased</p> <p>A voice message was erased by the mailbox owner.</p> <p><i>f</i> = filename, <i>mm</i> = month, <i>dd</i> = day, <i>hh</i> = hour, <i>mm</i> = minute, <i>b</i> = mbox #</p>	No action required
6006	INFO	<p>Logged in to mailbox <i>b</i></p> <p>A mailbox owner has logged in to a mailbox, <i>b</i>, by providing the proper mailbox/passcode combination.</p>	No action required
6007	INFO	<p>Mailbox <i>b</i> added</p> <p>The system administrator has added a mailbox, <i>b</i>, to the system.</p>	No action required
6008	INFO	<p>Mailbox <i>b</i> deleted</p> <p>The system administrator has deleted a mailbox, <i>b</i>, from the system. All associated messages and recorded greetings are deleted.</p>	No action required
6009	INFO	Guest logged in to mailbox...	No action required
6010	INFO	Guest is checked in to ...	No action required
6011	INFO	Guest is checked out from ...	No action required
6012	INFO	Guest is moved from ... to ...	No action required
6013	WARNING	Rename from msg*.vox to msg*.vox failed	No action required. May need to restore from and to box information
6014	WARNING	Rename from nam*.vox to nam*.vox failed	No action required. May need to restore from and to box information
6015	WARNING	Rename from int\int*.vox to int\int*.vox failed	No action required. May need to restore from and to box information
6016	WARNING	Rename from int2\int*.vox to int2\int*.vox failed	No action required. May need to restore from and to box information
8008	WARNING	<i>Request by CGM to seek opened file failed</i>	Contact your service representative

Appendix D: Express Manager System Log Messages

8009	WARNING	<i>Request by CGM to write to file failed</i> This is a request to write data to the currently opened file on the Messenger side.	Contact your service representative
8013	WARNING	Bad mailbox select location indicator: code The Graphical Manager made a bad mailbox request. This error should never occur.	Contact your service representative
8015	ERROR	<i>CGM requesting too many bytes for packet size</i>	Contact service representative
8016	WARNING	<i>Request by CGM to set time of filename to time failed; errno=errno</i> This is an attempt by the Graphical Manager to change the time of a file on the application side. This is a very obscure request and is rarely done.	Contact your service representative
8017	WARNING	<i>Bad mailbox command: errno</i> This is an attempt by the Graphical Manager to issue a command that is not valid.	Take note of the error, and contact your service representative
8201	WARNING	<i>Trying to shift a negative number of bytes</i> This is an error that can occur during the communications protocol. It should never happen.	Contact your service representative
8301	WARNING	<i>Bad return value from 'valid_packet()'</i>	No action required.
8401	INFO	<i>PMS: Lost DCD</i> Data Carrier Detect (DCD) signal from PMS was lost.	Check for proper cabling and that PMS system is running.
8409	WARNING	<i>PMS: Tx discarded<source></i> NAK retry limit exceeded.	Check for proper cabling and that PMS system is running. If problem persists, contact service representative.
8410	INFO	<i>PMS: rx ENQ past timeout</i> ENQ packet received past time expected.	No action required.
8411	INFO	<i>PMS: rx ENQ past limit</i> ENQ packet received after NAK retry limit exceeded.	No action required.

8413	ERROR	<i>PMS: bad pkt len</i> Invalid length of PMS packet detected.	Check for proper configuration of PMS protocol. If problem persists, contact service representative.
8414	ERROR	<i>PMS: bad LRC</i> Invalid Longitudinal Redundancy Check detected.	Check for proper configuration of PMS protocol. If problem persists, contact service representative.
8414	ERROR	<i>PMS: pms_mwi=ecode, mbox[mboxnum]</i>	Check to make sure mailbox exists on both voice mail and PMS systems and is configured as a guest mailbox on voice mail. If problem persists, contact service representative.
8415	ERROR	<i>PMS: no ETX</i> ETX character in packet expected.	Check for proper configuration of PMS protocol. If problem persists, contact service representative.
8416	ERROR	<i>PMS:Q overflow[ptr]</i> PMS queue located at ptr is full and has overflowed.	Contact service representative. It is likely that the voice mail and PMS system will have to be re-synchronized.
8417	ERROR	<i>PMS:Q size error(size)</i> Attempt to add data of invalid size to PMS queue. This is a programing error.	Contact service representative. It is likely that the voice mail and PMS system will have to be re-synchronized.
8419	ERROR	<i>PMS: cmd err[msgid,ret]</i> PMS command msgid failed with error code ret. This may due to a number a root causes.	Contact service representative. It is likely that the voice mail and PMS system will have to be re-synchronized.

Appendix E: PMS Protocol Support

The following tables summarize the structure of the protocol that Express Messenger, Hyatt Encore and HIS Property Management Systems (PMS) use to communicate with each other. The tables also show which protocol functions (check in, check out, message waiting status etc.) are supported. (Y = supported; N = unsupported.)

Table 3 is a proposed protocol enhancement to support DID server functions introduced in Release 4.0 of Express Messenger. Acceptance of the enhancement is pending as of the publication of this document.

Table 1: Hyatt Encore

Encore Message	PMS->VM	VM->PMS	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Resynchronize	Y	Y	STX	"1"	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	ETX	LRC
Check In	Y		STX	"2"	Mailbox number						SP	SP	SP	SP	SP	SP	ETX	LRC
Check Out	Y		STX	"3"	Mailbox number						SP	SP	SP	SP	SP	ETX	LRC	
Message Waiting Status		Y	STX	"4"	Mailbox number						New	Urgent	SP	SP	ETX	LRC		
Bad Mailbox Address		Y	STX	"5"	Mailbox number						SP	SP	SP	SP	SP	ETX	LRC	
Query MW Status	Y		STX	"6"	Mailbox number						SP	SP	SP	SP	ETX	LRC		
Move Mailbox	Y		STX	"7"	Mailbox number						Destination mailbox						ETX	LRC
Modify FCOS	Y		STX	"8"	Mailbox number						FCOS	SP	SP	SP	SP	ETX	LRC	
Text Message MW	Y		STX	"9"	Mailbox number						Unread	SP	SP	SP	SP	ETX	LRC	
Check in with Passcode	Y		STX	"A"	Mailbox number						Passcode						ETX	LRC
Change Passcode	Y		STX	"B"	Mailbox number						Passcode						ETX	LRC
Merge Messages	N		STX	"C"	Mailbox number						Destination mailbox						ETX	LRC
Change ID	Y		STX	"D"	Mailbox number						New ID (dial by name)						ETX	LRC
Merge Status		N	STX	"E"	Mailbox number						Merge Status Text						ETX	LRC

Table 2: HIS

HIS Message	PMS->VM	VM->PMS	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Resynchronize	Y	Y	STX	"1"	ETX	LRC												
Check In	Y		STX	"2"	Mailbox number						ETX	LRC						
Check Out	Y		STX	"3"	Mailbox number						ETX	LRC						
Message Waiting Status		Y	STX	"4"	Mailbox number						New	Urgent	ETX	LRC				
Bad Mailbox Address		Y	STX	"5"	Mailbox number						ETX	LRC						
Query MW Status	Y		STX	"6"	Mailbox number						ETX	LRC						
Move Mailbox	Y		STX	"7"	Mailbox number						Destination mailbox						ETX	LRC
Modify FCOS	Y		STX	"8"	Mailbox number						FCOS	ETX	LRC					
Text Message MW	Y		STX	"9"	Mailbox number						Unread	ETX	LRC					
Check in with Passcode	Y		STX	"A"	Mailbox number						Passcode						ETX	LRC
Change Passcode	Y		STX	"B"	Mailbox number						Passcode						ETX	LRC
Merge Messages	N		STX	"C"	Mailbox number						Destination mailbox						ETX	LRC
Change ID	Y		STX	"D"	Mailbox number						New ID (dial by name)						ETX	LRC
Merge Status		N	STX	"E"	Mailbox number						Merge Status Text						ETX	LRC

Table 3: Proposed Protocol Enhancements to Support DID Server Functions

Intel/Control	PMS->VM	VM->PMS	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
DID Assignment Request*	X		STX	"Z"	Mailbox number							DID Number or Space							ETX	LRC		
DID Assignment Request With Check In	X		STX	"Y"	Mailbox number							DID Number or Space							ETX	LRC		
DID Assignment Done*		X	STX	"X"	Mailbox number							DID Number							ETX	LRC		
DID Assignment Error, Number Invalid or Not Available*		X	STX	"W"	Mailbox number							DID Number or Space							ETX	LRC		
DID Assignment Error, Guest Already Assigned a DID*		X	STX	"V"	Mailbox number							DID Number or Space							ETX	LRC		
DID Assignment Error, Operation Failed*		X	STX	"U"	Mailbox number							DID Number or Space							ETX	LRC		
DID Re-sync	X		STX	"T"	Space							Space							ETX	LRC		
DID Info**	X		STX	"S"	Mailbox Number							Space							ETX	LRC		
DID Assigned & On**		X	STX	"R"	Mailbox number							DID Number							ETX	LRC		
DID Assigned & Off**		X	STX	"Q"	Mailbox number							DID Number							ETX	LRC		
DID Available		X	STX	"P"	Space							DID Number							ETX	LRC		
Guest Not Assigned a DID Yet**		X	STX	"O"	Mailbox							Space							ETX	LRC		
Turn On DID	X		STX	"N"	Mailbox number							DID Number							ETX	LRC		
Turn Off DID	X		STX	"M"	Mailbox number							DID Number							ETX	LRC		
Free DID (PMS->VM) or Free DID Done (VM->PMS)	X	X	STX	"L"	Mailbox number							DID Number							ETX	LRC		
Add DID	X		STX	"K"	Space							DID Number							ETX	LRC		
Remove DID	X		STX	"J"	Space							DID Number							ETX	LRC		

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