Unified Messaging Voice Mail System

Installation and Programming Manual

Version 1.3   August 2003   Proprietary

The information contained in this document is subject to change without notice.

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Safety

Safety Precautions

Observe the following safety precautions at all times.

⚡	**WARNINGS** Do not connect power to Voice Mail System before placing it in its permanent location. The unit is powered by a 9 V DC power supply. Remove the power connector before opening the unit.

Hardware Handling

Observe the following hardware precautions at all times.

⚠	**CAUTIONS** Remove any obstacles that may preclude connection of cables to the unit's rear panel or to the viewing of front panel indications. Only personnel qualified by Local Dealer is authorized to open the Voice Mail System case and replace components or cards.

Programming Cautions

Observe the following precautions at all times during programming.

⚠

CAUTIONS

Parameters applied when selecting a PBX may differ from the parameters of the existing PBX. In this case, ask for the assistance of the PBX manufacturer.

After the system initialization process, all previously recorded messages and settings will be deleted.

You can assign the same number to a mailbox and to a group of mailboxes. In this case, the message is sent to the mailbox.

Please notice that the Voice Mail System unit is off-line during information transfer to or from a VUP PC.

To prevent loss of line monitoring data, rename the log file before restarting line monitoring.

The backup extension key ought to be different from the retrieval key or the Operator's mailbox ID.

Before deleting a mailbox, remove any call transferred to the mailbox by the Automated Attendant scripts.

To prevent a system failure, any programmed script must be recorded with the Opening Greeting Message.

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1 Introduction

1.1 Manual Audience and Contents

The *Voice Mail System Installation and Programming Manual* is intended for System Installers and Administrators, responsible for the installation, setup and programming of the Voice Mail System.

> **NOTE**
> Please read this manual before installation, programming and operation.

This manual contains the following:

Chapter	Heading	Chapter	Heading
1	Introduction	7	VM System Messages
2	Installation	8	SMS Transmitter
3	VUP Programming	9	Modem
4	Administrator's Operations		
5	DTMF Programming		
6	Programming Forms		

1.2 Manual Conventions

The manual's typographic and command entry conventions are as follows:

Typeface	Usage
Manual	Book titles, new words or terms and words to be emphasized
NOTE text	Heading and text of a note, caution or warning
Bold Text	GUI items: dialogs, menu items, field names, etc.

1.3 System Description

This section contains the following:

▪ A functional description consisting of the Voice Mail System environment, functions and features

▪ A physical description consisting of the unit's connections and indications

▪ A technical data summary consisting of the unit's main characteristics

1.3.1   Functional Description
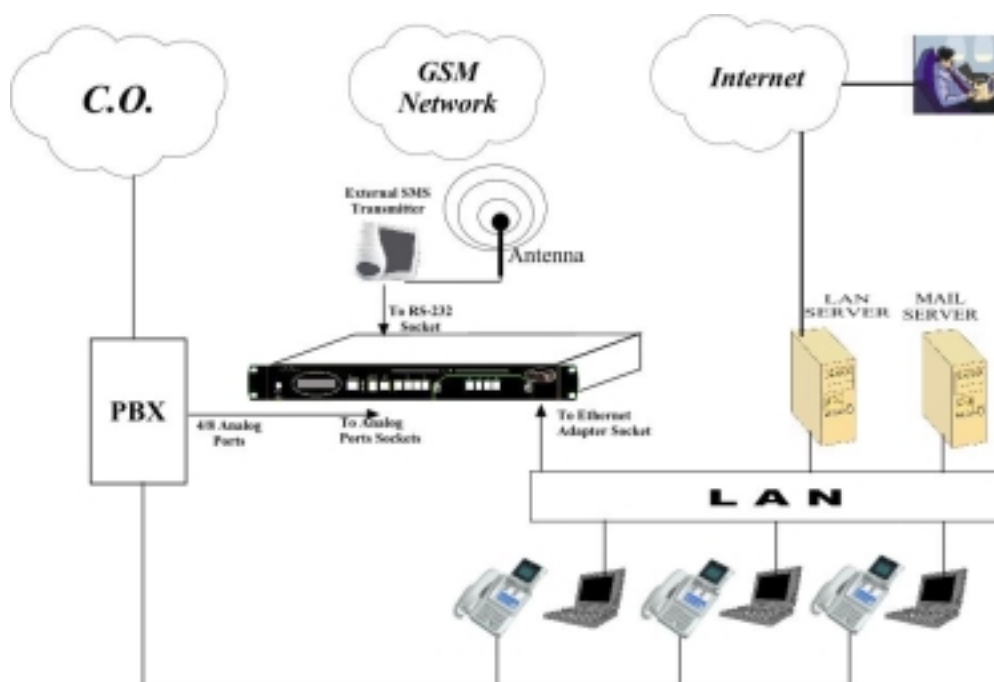
Figure 1-1: Voice Mail System Connections
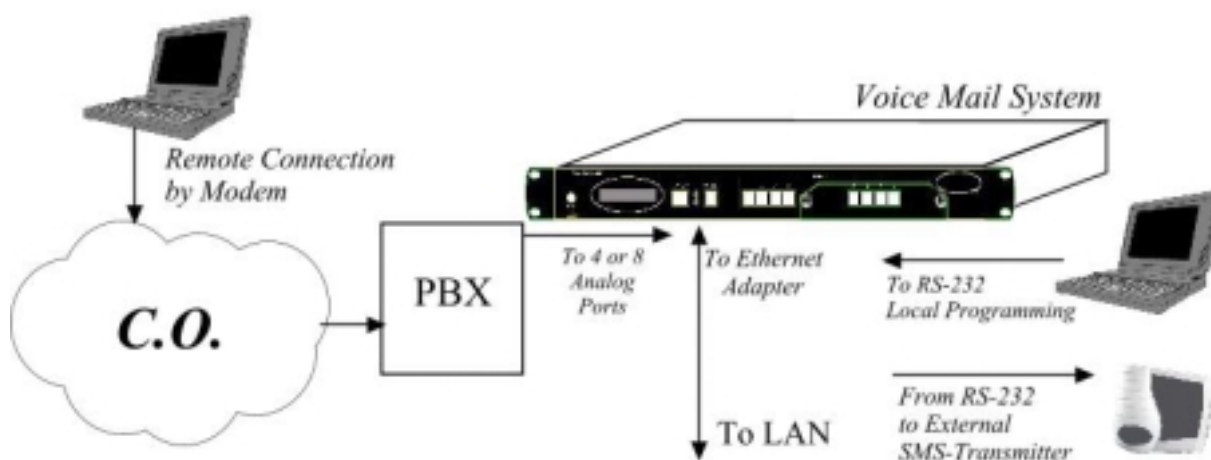
Figure 1-2: Additional Voice Mail System connections

The Voice Mail System shown in Figure 1-1 and Figure 1-2 is a stand-alone multi-lingual Automated Attendant/Voice Mail system for large to medium sized businesses with between 50 to 300 employees.

Featuring DSP, Digital Signal Processing, flash memory storage, SMT production and a real-time clock, the Voice Mail System contains most of the Automated Attendant (AA), Voice Mail (VM) and administrative features incorporated in PC-based systems.

The Voice Mail System is available in a 4 ports version with 38 hours of memory and in an 8 ports version with 72 hours of memory. It provides up to 500 mailboxes and integrates with most PBX systems via the analog port or by using the SMDI protocol.

The Voice Mail System can be integrated with a Local Area Network (LAN), using the LAN connection. This feature allows the Voice Mail System to send a notification to the recipients. The new messages are sent by email in the form of attached media files. They can be played on the user's PC. (See note.)

In addition, the mailbox owner can maintain the mailbox via the LAN, using the Personal Mailbox Management (PMM) utility.

NOTE

The Voice Mail System can be delivered with or without the email notification feature.

The media files can only be played on the user's PC after installation of the PMM utility and the Windows Media Player.

When using the SMDI integration (Out-Band = via RS-232), the SMS Transmitter can't be used.

As an option, an SMS transmitter can be connected to the Voice Mail System via the RS-232 port. When new voice mail messages arrive, this option will permit the Voice Mail System to send SMS notifications to the mailbox owner's cellular phone.

The system operates in a PBX environment, with its 4 or 8 ports connected to the analog ports (see Figure 1-1 and Figure 1-2) of the exchange. The Voice Mail System is locally programmed using a direct RS-232 connection with the PC running the Voice Mail System Voice Mail Utility Program (VUP). It can also be remotely programmed using a PC modem. DTMF programming is available using a touch-tone telephone connected to one of the PBX extensions.
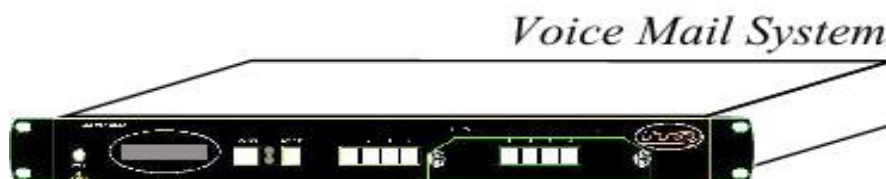
Figure 1-3: General View

Automated Attendant

The Automated Attendant is a menu-driven program used for transferring calls to specific departments, extensions and mailboxes. Its main features are:

Feature	Description
Opening Greeting	The Voice Mail System plays a pre-recorded greeting to callers. The opening greeting usually includes the organization's name and instructions on how to reach an extension, department or Operator, how to switch to different languages, how to leave a message and how to access a directory.
	While the greeting is being played, the callers can access a department by dialing a single digit, dialing an extension number or holding on for assistance.
Number of Script Repetitions	The Voice Mail System plays a pre-recorded greeting, the required number of times, before executing an operation at the end of the recording.
Operating Modes	Depending on the time and system schedule, the Voice Mail System assumes one of four operating modes:
	• The day mode for normal business hours. The Voice Mail System answers calls with a pre-recorded daygreeting, prompting the caller to enter a desired extension, mailbox, department or directory, or to switch to a different language.
	• The night mode for after working hours. The Voice Mail System answers calls with a pre-recorded night greeting that enables the caller to leave a message in a desired mailbox.
	• The holiday mode. During holidays calls are answered with a special greeting, prompting the caller to leave a message in a specific mailbox or in the Operator's mailbox.
	• The break mode. This enables the Administrator to program a special greeting for breaks during the day.
System Schedules (Auto-mode)	If your organization's operating hours vary from day to day, the Administrator can define the daily operating schedules on a weekly basis, including day, night and break time hours.

Feature	Description
	When the auto-mode is activated, the Voice Mail System automatically switches between the day, night and break modes, according to a pre-defined schedule.
	The Operator can override the pre-defined schedule and switch manually to the day, night, break, or holiday mode, using a password.
	The Voice Mail System switches automatically to holiday mode on dates programmed as holidays. During holidays, the Voice Mail System answers calls with the special holiday greeting, recorded by the administrator.
Fax Detection	If the Voice Mail System detects a fax tone (CNG) during the opening greeting, it automatically transfers the call to the pre-defined fax extension. There are up to four fax extensions available in the Voice Mail System.
Directory Listing (Dial By Name)	The Voice Mail System enables the caller to locate a mailbox owner. This is done by dialing the first three letters of the desired parties first or last name. The mailbox owner programs this feature.
Call Transfer	The call is transferred to an extension, in a predefined mode. The modes can be: • **Non-Supervised** – the Voice Mail System transfers the call immediately, without verifying the status of the extension. • **Supervised** – the Voice Mail System checks for a Busy or No Answer signal, before transferring the call to the extension. • **Semi-Supervised** – the Voice Mail System only checks for a Busy signal, before transferring the call to an extension. The Administrator can program the Voice Mail System to detect the Call Progress tone and DTMF signals sent by the PBX.
Multi-lingual Option	The Voice Mail System allows up to 3 languages per unit. Callers can choose the preferred language from the Automated Attendant during the opening-greeting menu. The Administrator can select the mailbox menu language for each mailbox owner.
Answering on the First Ring	To avoid delays, the Administrator can configure each individual port of the Voice Mail System to answer incoming calls on the first ring.
Script Menus	The Voice Mail System supports up to 98 script menus. A script menu is a recorded announcement that can accept a digit entry (0 to 9) while being played. Based on the digit entered, the Voice Mail System can perform one of the following actions: • Transfer the call to another script menu • Transfer the call to another script menu and change the

Feature	Description
	language
	• Transfer the call to an extension or hunt group
	• Transfer the call to a mailbox or a mailbox group
	• Transfer the call to a specified Operator
	• Dial a DTMF string
	• Retrieve messages from a mailbox
	• Disconnect the line
	• Leave a message
	• Play the directory listing
Transfer Call to Operator	Up to eight extensions can be defined as Operators and a call can be transferred from the Script Menu or from the Personal Greeting message to a specified Operator.
Dial a String	The Voice Mail System can be programmed to dial any predefined DTMF string, while the script opening-greeting message is being played. "Dial a String" can perform an internal PBX feature, i.e. during the company greeting, the external subscriber is instructed to press 7, to be able to connect to another external subscriber. "Dial a String" will convert the digit 7 to hook flash, plus the external line access code, plus the subscriber number and disconnect the Voice Mail System.
Greeting by Port	The Voice Mail System can be programmed to play an Opening Greeting Message, when detecting an incoming call on a specified port.
Import *.WAV file	Windows media files (*.wav) can be used to create Script Opening Greeting Messages. A source *.wav file can be transferred and automatically converted into the required Voice Mail System format.

Voice Mail

The Voice Mail System receives and delivers messages using mailbox ID numbers and mailbox owners' passwords. Messages can be saved, deleted or transferred to other mailboxes. The main features are:

Feature	Description
Real/Virtual Mailboxes	The Voice Mail System supports up to 500 real and virtual mailboxes. A real mailbox is associated with an extension, whereas a virtual mailbox is not.
Personalized Mailboxes	Mailbox owners can personalize their mailboxes by recording a personal greeting, assigning a personal password to the mailbox and setting optional parameters.
Message Waiting Notification	The Voice Mail System informs a mailbox owner about recorded messages by means of a local lamp, local ring notification or external notification to an external phone number, email notification to an email address and/or SMS

Feature	Description
	notification. Notification to pagers is also supported. Some features may require special hardware in order to operate.
Mailbox Features	• Personal Greeting – mailbox owners can record or change personal greetings from any touch-tone telephone at all times. First, callers hear the personal greeting of the called extension. Then they can leave a message or transfer the call to an Operator or to another extension.
	• Date and Time Stamp – the Administrator can program the Voice Mail System to indicate the start of a message and the date and time each message was recorded.
	• Message Deletion – messages are deleted, either manually by the mailbox owner or automatically after a maximum number of days, defined by the Administrator.
	• Message Forwarding – the mailbox owners can forward copies of messages to other mailboxes or mailbox groups. Mailbox owners can also record an introduction to the forwarded message.
	• Message Reply – mailbox owners can reply to messages and record messages in the sender's mailbox.
Unified Messaging	A user can receive an email with or without a media attachment in his regular email program.
Personal Mailbox Management	A mailbox owner can maintain a mailbox via the local network, based on the TCP/IP protocol, using the Personal Mailbox Management (PMM) utility.
Mailbox Groups	A caller can send a message to all the members of a mailbox group simultaneously.
	All defined mailboxes belong to the **All Group** mailbox group. In addition, the Administrator can create up to four mailbox groups, each containing up to twenty mailboxes. Mailboxes can belong to more than one group. Mailboxes can be added or deleted from a mailbox group by the Administrator. A mailbox group greeting can be assigned to each mailbox group.
Do Not Disturb Mode	Mailbox owners can set their mailboxes in the Do Not Disturb Mode.
	When a caller dials an extension that is in the Do Not Disturb mode, via the Automated Attendant menus, the Voice Mail System plays a special Do Not Disturb menu and does not transfer the call to the extension.
Individual Language Selection	The mailbox owner can select one of the languages supported by the Voice Mail System. When the mailbox owner enters the mailbox, the Voice Mail System automatically switches to the selected language.
Adjustable Recording Length	The Administrator can select the length of all Voice Mail System recorded messages. The selected length controls the following types of messages: scripts, greetings, names and

Feature	Description
	received messages.
Number of Stored Messages	Each mailbox can store up to 92 messages. The Administrator controls and can change this parameter for each mailbox. The default setting for this parameter is 30. The Administrator can also limit the number of days, for which messages can be stored in the mailboxes.

System Administration

The Voice Mail System is equipped with many administrative functions. They are intended to provide the Administrator with flexible tools for fast implementation, setup and programming, as well as for long-term operations like monitoring and maintenance. The main administrative features of the Voice Mail System are:

Feature	Description
Configuration	The basic Voice Mail System unit has four ports and 36 hours of recording time.
	A qualified technical person can increase the number of ports and recording time, by adding a four-port expansion module to the basic Voice Mail System unit.
Programming	The Administrator can program the Voice Mail System using:
	• A computer running the Voice Mail Utility Program. In this case, it is highly recommended to save the configuration files before each installation.
	• Via a modem connection.
	• Via a touch-tone telephone using DTMF Codes.
Integration with Your PBX	The Administrator can integrate the Voice Mail System with the PBX using:
	• The in-band DTMF Protocol. This type of integration is achieved by setting up the communication protocol of the PBX and the Voice Mail System unit (answering a call, transferring a call, recalling as a result of a Busy or No Answer condition, etc.).
	• The SMDI Integration via the RS-232 serial port. This type of integration must be specifically developed for each type of PBX.
Disconnection Methods	Some PBXs can notify the Voice Mail System when a call is terminated through the line interface, using Loop Disconnect, DTMF Codes or the Busy and Disconnect Cadence. When the Voice Mail System detects this situation, the line is disconnected and the unit is ready to receive another call.
Message Notification	The Voice Mail System automatically notifies the mailbox owner of new messages. Notification may be local (to a PBX extension) or remote (to a telephone at a remote location, a cellular telephone, a pager, SMS (to a mobile phone) or to

Feature	Description
	email (to a predefined email address)). The system administrator can give permission to use the external notification to mailbox's owners.
Security Passwords	The Voice Mail System supports three types of 4-digit passwords: • **Administrator** for accessing all data stored in the Voice Mail System. • **Operator** for accessing the system operating modes: Day, Night, Holiday and Break. • **Mailbox** for accessing individual mailboxes, where the mailbox owners can change their password at all times.
Line Monitor	This option has been enhanced with the possibility to display all incoming and outgoing DTMF and system codes through the RS-232 cable or modem connection.
Modem Support	The Voice Mail System unit is equipped with a built in V.32 bis modem, operating at 14.4 Kbps with a fallback rate of 9.6 Kbps. When the call is terminated, the Voice Mail System hangs up in order to clear the port for the next call. Modem support can be enabled or disabled.
LCD	On the front panel of the Voice Mail System the LCD display shows the status of all 4 or 8 ports, system error messages and the current mode of operation.
Reports and Configuration Print out	The Voice Mail System can provide a printout of the statistic and system configuration reports. The statistic reports contain general information about usage (memory, ports, mailboxes) and the configuration reports contain information regarding the Voice Mail System configuration.
Backup and Restore Feature	The Voice-mail Utility Program (VUP) creates a backup file via the local RS-232 connection, which includes the complete system configuration and recordings.
Software Upload	The VUP updates the system software only via the local RS-232 connection.
Extension Size	The Voice Mail System supports flexible extension sizes between 2 to 6 digits.
Memory Re-organization	The flash memory is re-organized in a manner, similar to the de-fragmentation process deployed for PCs hard disks. The Voice Mail System constantly monitors the memory usage and automatically activates the memory reorganization.
Memory Alarm	When 85% of the memory has been used, the Voice Mail System sends a voice alarm message to the "supervisor mailbox".
PBX Selection	The Voice Mail System can be easily configured for operation with a specific PBX. For this, use the PBX selection option in the VUP. This option supplies a list of PBXs with default integration parameters.

Feature	Description
Wizard	An Installation Wizard has been provided in the software.

1.3.2   Physical Description

The Voice Mail System unit is built in a 422 x 43 x 165mm metal case, suitable for mounting in a standard 19" communication rack or on a wall.

All Voice Mail System connection and display components are located on the unit's front panel, as shown in.
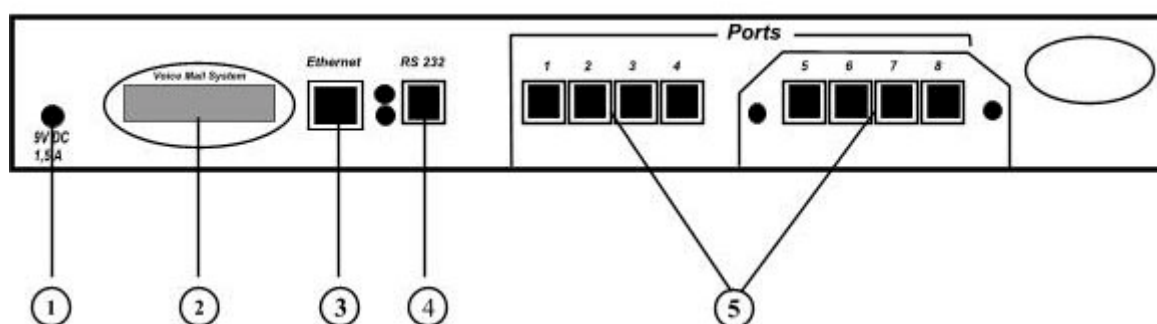
Figure 1-4: Front Panel.
For details regarding the front panel components, refer to Table 1-1

Table 1-1: Voice Mail System Connections and Display

No.	ID	Item	Function
①	**9VDC 1.5A**	Connector	Connects the Voice Mail System to an external power supply.
②	**-**	16x2 character LCD display	Displays the operational mode and populated ports of the unit or a brief message in case of error.
③	**Ethernet**	RJ-45 socket	Connects the Voice Mail System to the Local Network.
④	**RS-232**	RJ-11 socket	Connects the Voice Mail System to a PBX or PC.
⑤	**Ports**	RJ-11 sockets	Connects the Voice Mail System to 4 or 8 PBX extensions (the latest option is implemented using a 4-port expansion card).

1.3.3   Technical Data

General Data

Number of PBX extension ports	4 or 8
Extension size	2 to 6 digits flexible
Recording time	4 ports – 36 hours
	8 ports – 72 hours
Mailboxes	500
Messages per mailbox	Up to 92 (programmable)
Operator's extensions	Up to 8
Fax extensions	Up to 4
Script messages	Up to 98
DTMF strings	Up to 10
In-band DTMF entries	Up to 20
Legal extension groups	Up to 10
Modem support	
Interface	V.32 bis
Rates	14.4 Kbps with fallback to 9.6 Kbps
Number of languages	Up to 3

Features

Automated Attendant	Opening greeting
	Number of Opening Greetings repetitions
	Operating modes: day, night, holiday, break
	System schedules: daily, weekly, holidays
	Fax detection
	Directory listing (dial by name)
	Call transfer modes: non-supervised, supervised, semi-supervised
	Multi-lingual option
	Answering on first ring
	Script menus
	Transfer call to specific Operator
	Transfer call to extension, mailbox, group of mailboxes
	Dial a string
	Greeting per port

Features

Voice Mail	Real/virtual, announcer mailboxes
	Personalized mailboxes
	Unified messaging – email notification (This feature can be activated using special hardware.)
	Message waiting notification (Local – Lamp, Ring and External – External Phone Number, Pager, SMS*)
	* - The SMS feature can be activated using additional hardware.
	Personal greeting
	Day and time stamp
	Message handling: deletion, forwarding, reply, save
	Mailbox groups
	Do Not Disturb mode
	Adjustable recording length
	Quantity of stored messages
Administration	Configuration: 4 or 8 PBX extension ports
	Importing *.WAV files for Script opening greetings
	Programming: PC or touch-tone telephone
	Integration with PBX: in-band DTMF Protocol or out-of-band via RS-232 port
	Disconnection methods: Loop Disconnect, DTMF Disconnect, Busy Disconnect and Disconnect tones
	Security passwords: Administrator, Operator, mailbox
	Line monitor: incoming/outgoing calls via RS-232 port or modem connection
	Modem support: enabled/disabled
	LCD: front panel monitoring
	Reports: statistics and configuration print-out
	Backup and restore: system configuration and recordings
	Software download: via RS-232 port
	Memory re-organization
	Memory Alarm: when 85% in use
	Define mailbox owner's permission for external notification and unified messaging
	Wizard for first time programming

Characteristics

Electrical

DC Power Supply	9VDC/1.5 A
Line Voltage	24 to 72VDC
DC Leakage Current	10µA maximum
On-hook Insulation Resistance between Line Terminal and Ground	0 to 100VDC, 5MΩ minimum 100 to 200VDC, 30KΩ minimum 500 VAC/50Hz, 20KΩ minimum 100 VAC/25Hz, 100KΩ minimum
Ring Capacitor	0.47µF ± 10%
On-hook Impedance	@ 50VDC, 40 VAC/25Hz, 3000Ω minimum
Ring Detect	27 to 100VAC/16 to 60Hz
DC Resistance (off-hook)	24 to 66VDC @ 20 to 100mA, 100 to 350Ω
Impedance (off-hook)	300 to 3400Hz, 500 to 700Ω
Imbalance Ratio	300 to 3400Hz, 46dB minimum
Return Loss	300 to 3400Hz, > 18dB
Current during Break	700µA, maximum

DTMF Transmission:
    Frequency Tolerance
    Frequency Level (High Group)
    Frequency Level (Low Group)
	
	+1.5%
	-6 to -8dBm
	-8 to –10dBm

Inter-digit Pause in Tone Dialing	70 to 80ms
Fax CNG Tone Detection	1100Hz ± 38Hz

Mechanical

Dimensions (W x H x D)	422 x 43 x 165 mm
Weight	2.2 Kg

1.4 Workflow

Figure 1-5 provides the workflow for the Voice Mail System setup and programming operations, carried out according to this manual.
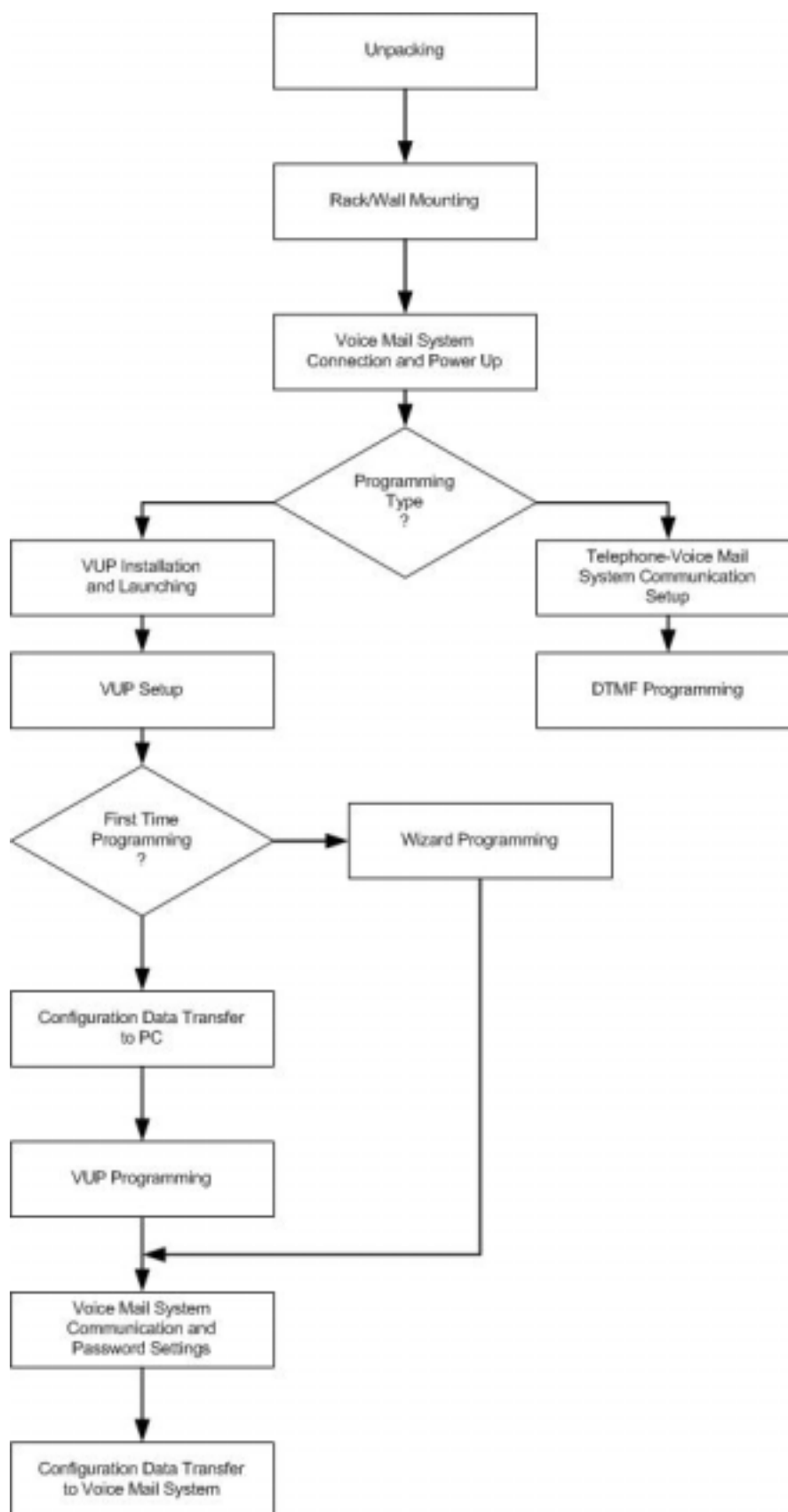
Figure 1-5: Voice Mail System Workflow

2 Installation

This chapter contains the following:

- Unpacking the Voice Mail System unit and accessories
- Installation of the Voice Mail System
- Installing and setup of the VUP software

2.1 Unpacking

Check if the Voice Mail System package complies with the packing list in Table 2-1.

Table 2-1: Voice Mail System Packing List

No.	Item	Quantity	Note
1	Voice Mail System Unit	1	
2	Rack/wall mounting brackets	2	
3	Screws (3mm) for brackets	4	
4	Plastic plugs for wall mounting	6	
5	Screws for outside strengthening	6	
6	Power Supply, 9VDC, 1.5A	1	
7	CD (VUP and PMM software and manual)	1	
8	Network cable RJ-45/RJ-45	1	
9	RS-232 cable	1	

📄 **NOTES**

Report any damage to the package or its contents to your local dealer.

For the electrical diagram of the RS-232 cable, see Figure 2-1.

In case the Voice Mail System includes the 4 ports extension and/or the Unified Messaging module, a metal cover with 2 screws for the expansion card hole will also be in the box.
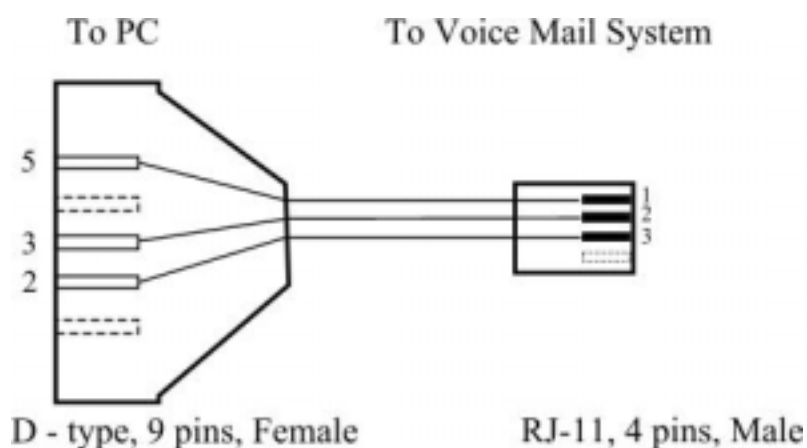
Figure 2-1: RS-232 Cable Electrical Diagram
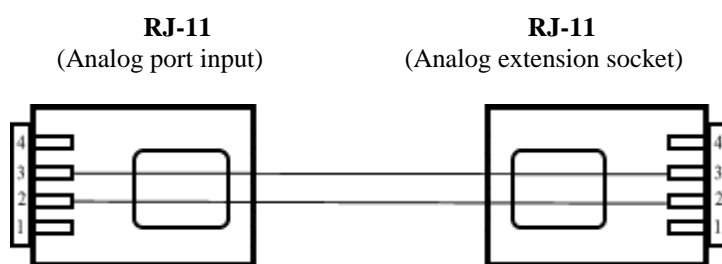
Figure 2-2: Analog Ports Input Cable

2.2 Hardware Installation

This section contains the following:

- Voice Mail System installation
- Connections, starting up and initial indications
- Voice Mail System expansion to eight ports

> **NOTE**
>
> VUP programming can be done prior to the hardware installation (see VUP Programming in Chapter 3). After the programming, proceed with the hardware installation and connections (see this section) and transfer the configuration and recording files to the Voice Mail System (see Accessing VUP Programming Data in Chapter 4).

2.2.1   Voice Mail System Installation

➢ **To install the Voice Mail System in a 19" rack:**

1.   Attach a bracket to each side of the Voice Mail System unit, adjacent to its front panel and fasten each bracket with the three screws provided.

2.   Place the Voice Mail System unit in the 19" rack and fasten it to the rack rails, using four screws, washers and spring washers.
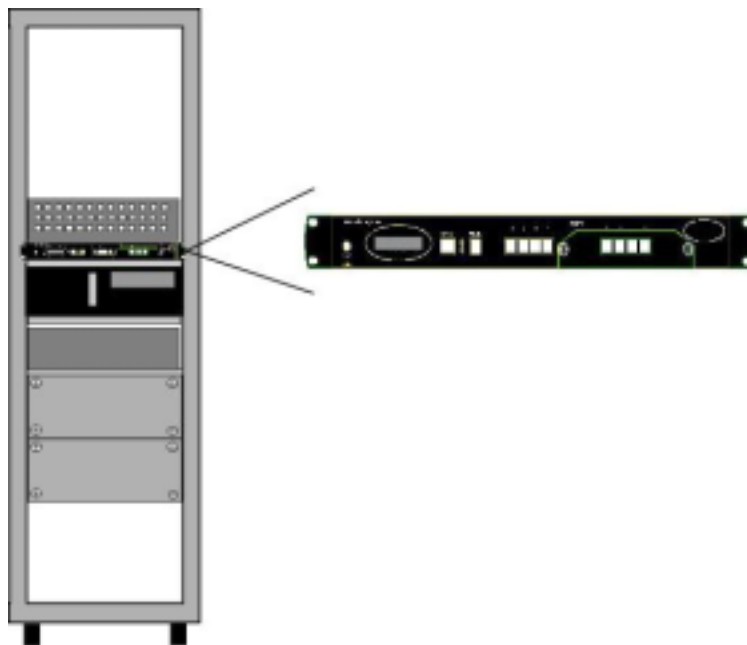
Figure 2-3: Installation of Voice Mail System in a 19" Rack

➢ **To install the Voice Mail System on a wall:**

1.   Attach a bracket to each side of the Voice Mail System unit, adjacent to its top panel (see Figure 2-2:) and fasten each bracket with the two screws provided.

2.   Drill four holes in the wall.

3.   Fasten the Voice Mail System unit to the wall using four screws, washers and spring washers provided.
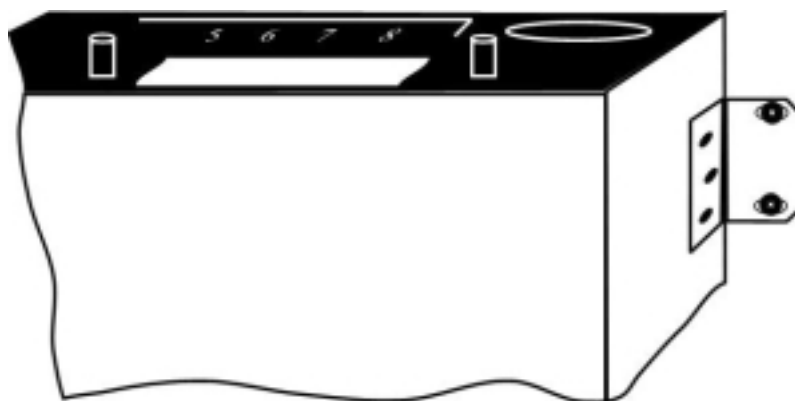
Figure 2-4: Installation of Voice Mail System on the Wall

2.2.2   Connections, Starting Up and Initial Indications

1.   Connect each port (4 or 8) to an extension line, using an RJ-11 cable. The ports can be found on the right side of the front panel of the Voice Mail System unit.

> **NOTE**
>
> Each RJ-11 socket on the front panel of the Voice Mail System supports one analog telephone line.
>
> Make sure that the Analog Ports Input Cables are according to the specifications in Figure 2-2:.Figure 2-2:Figure 2-2:

> ⚠ **CAUTION**
>
> In order to prevent damage to the RS-232 driver chip, DO NOT connect an analog telephone line to the RS-232 socket.

2.   Plug the RJ-45 Network cable into the "Ethernet" socket of the Voice Mail System front panel.

3.   Plug the 9V DC adapter jack into the power supply connector on the left side of Voice Mail System front panel.

4.   Plug the 9V DC adapter into the main power supply outlet, to turn the Voice Mail System on.

5.   Notice the indications on the LCD display. For details, see LCD Messages in Chapter 4.

6.   For local programming of the Voice Mail System, connect the RS-232 cable between the Voice Mail Systems RS-232 socket and the COM port of the PC running the VUP program.

7.   Plug the external SMS transmitter into the RS-232 socket. (The external SMS transmitter can't be connected simultaneously with the local programming PC. Details for using the SMS transmitter can be found in Chapter 8).

     Remote programming of the Voice Mail System can be done via a modem connected to the public network. The Administrator has to enable this option in the Voice Mail System.

> **NOTES**
>
> Voice Mail System connections for local and remote programming, are schematically shown in Figure 1-1 and Figure 1-2.
>
> For local programming, an RS-232 cable is included in the Voice Mail System package.
>
> The external SMS transmitter must be disconnected during local programming.

8. Call each Voice Mail System line from any extension and listen to the default greeting, informing you that the system has not been programmed yet (see VM System Messages, System Message No. 000).

2.2.3 Physical Expansion

The Voice Mail System can be configured in one of the following combinations:

- 4 or 8 analog ports
- 4 analog ports with unified messaging features
- 8 analog ports without unified messaging features
- 8 analog ports with unified messaging features

For a physical upgrade of the Voice Mail System, one of the following 3 expansion modules:

- Unified messaging expansion module
- 4 ports, 32 hours of memory expansion module
- 4 ports, 32 hours of memory and Unified Messaging expansion module

➢ **Upgrading a Voice Mail System unit**

1. Make sure that the Voice Mail System is not connected to the power supply.

2. Remove the two screws and the cover from the expansion slot on the right side of the front panel. (See Figure 2-5).

3. Slide the expansion card into the slot and carefully push it in until it fits into the unit's rear connector.

4. Fasten the expansion card, using its two captive screws to the unit's front panel.

5. Plug in the power supply.

The Voice Mail System will automatically detect the new module and activate the additional features.
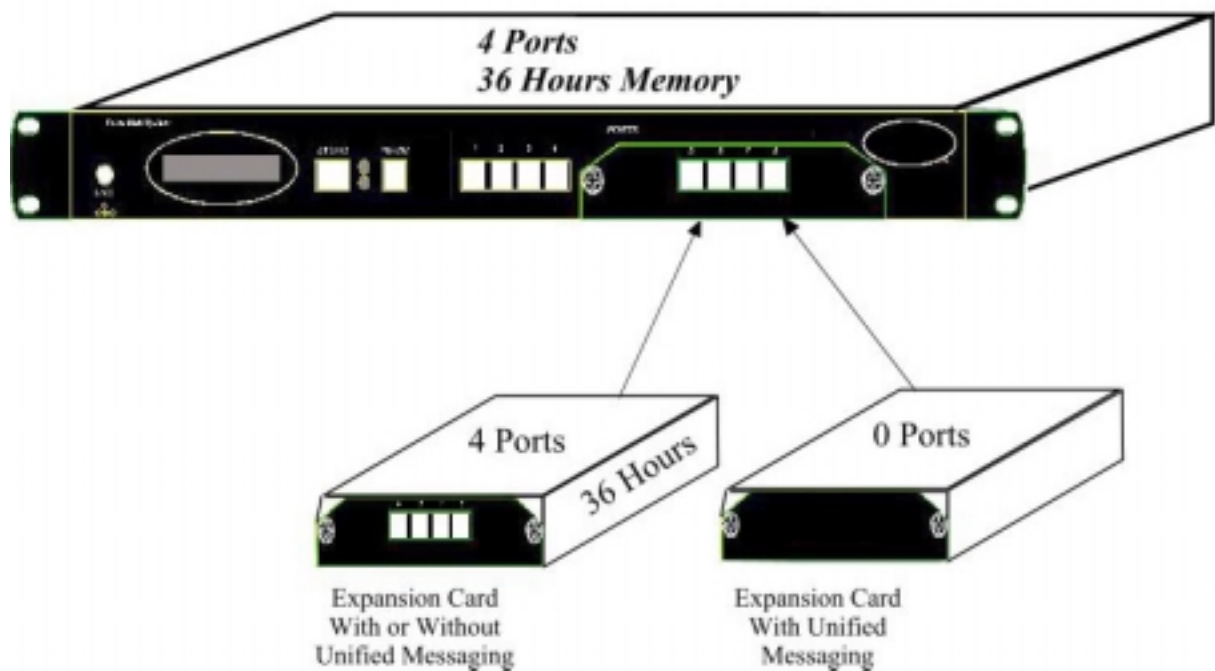
Figure 2-5: Expanding the Voice Mail System

2.3 Software Setup

This section contains the following:

- Installing the VUP software
- Selecting a PBX
- Configuring the VUP toolbars
- Setting the location of the Voice Mail System files

2.3.1   Installing the VUP Software

Install the VUP software on the Administrator's PC or laptop. This PC or laptop is being used for the setup, programming and managing of the Voice Mail System unit.

📄 **NOTES**

The VUP software can be installed and used for creating the Voice Mail System configuration and programming Scripts, without physically connecting the PC to the Voice Mail System unit.

The following may happen when the PC containing the VUP software is physically connected to the Voice Mail System unit. A message, indicating that the COM port of the PC has not been configured, may appear, when performing a software download. Press **OK** and configure the COM port.

To establish a connection, follow the relevant procedures: Connections, Powering Up and Initial Indications in Chapter 2 and Setting the VUP PC – Voice Mail System Communication in Chapter 4.

➢ **To install the VUP software**

1. Insert the VUP CD in the CD-ROM drive of your PC.

2. The CD should run automatically. If it doesn't, press **Start ➔ Run** and browse the CD for the **VUP Set up** icon.

3. Click on the **VUP Installation** icon and follow the instructions on the screen.

4. To start the VUP program, click **Start ➔ Programs ➔ Voice Mail System**. The VUP main screen appears (see Figure 2-6).
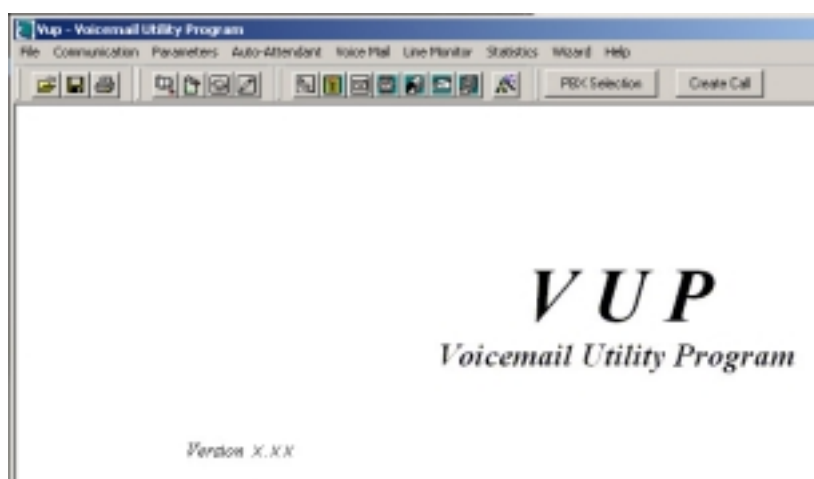
Figure 2-6: VUP Main Screen

Alternatively, double-click on the **VUP – Voice Mail System** icon on the PC desktop.

2.3.2   PBX Selection

Selecting a PBX from the PBX Selection list enables a quick and easy integration of the Voice Mail System. All the default parameters for the selected PBX will automatically be shown in the VUP. These parameters are: Transfer Code, Hook Flash Time, Message Light On and Off codes and In-band DTMF Protocol. Refer to PBX Settings in order to change the parameters not provided in the PBX selection.

➢ **To select a PBX**

1. Press the **PBX Selection** button in the VUP toolbar.

2. From the **PBX Selection** dialog (see Figure 2-7), select the relevant PBX and press **OK**.
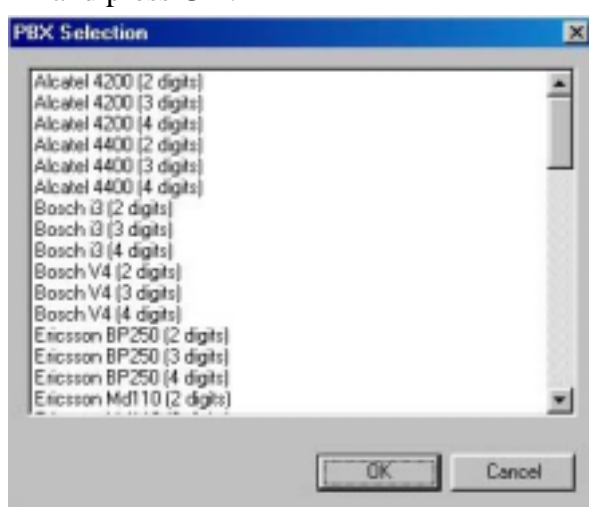
Figure 2-7: PBX Selection List

⚠ CAUTION

Parameters applied when selecting a PBX, may differ from the parameters of the existing PBX. In this case, request for assistance from the PBX manufacturer.

To obtain a list of the PBX parameters from the VUP main menu, select **File → Print Settings Menu → PBX Parameters**.

2.3.3   Configuring the VUP Toolbars

This function is used for selecting which toolbars and whether tooltips will be displayed.

➢ **To configure the VUP toolbars**

1. From the VUP main menu, select **File → Options**. The **Options** dialog appears (see Figure 2-8).
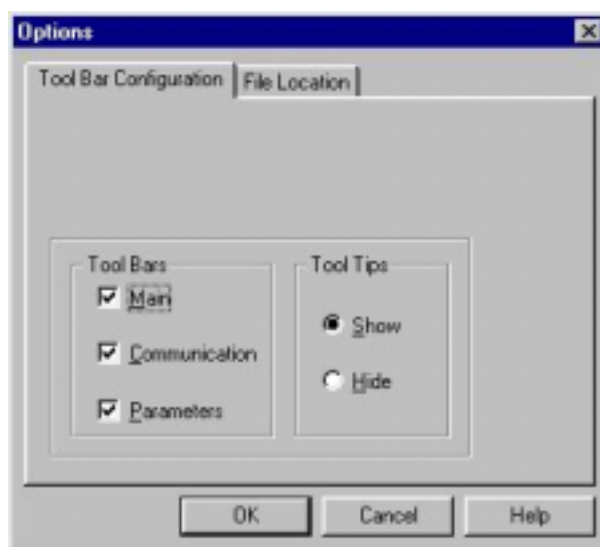
Figure 2-8: Toolbar Configuration Tab

2. In the **Tool Bar** section, check the boxes of the required toolbars.

3. In the **Tool Tips** section, click **Hide** to only show the tool name when moving the cursor over it.

4. Press **OK** to confirm your settings.

2.3.4   Setting the Location of the Voice Mail System Files

This function is used to set the path for the Voice Mail System configuration and data files.

➢ **To set the location of the Voice Mail System files**

1. Select **File → Options** and click the **File Location** Tab (see Figure 2-9) from the VUP main menu.
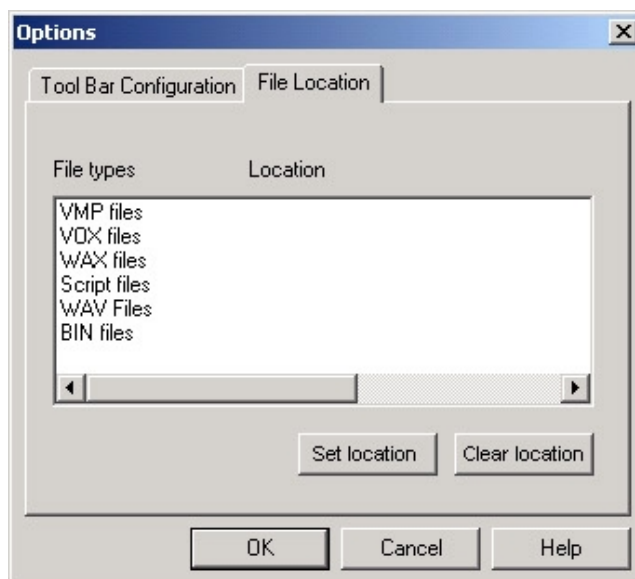
Figure 2-9: File Location Tab

The file list contains:

File Type	Usage
VMP	Configuration.
VOX	System initiation.
WAX	Backup.
Script files	Opening greeting script.
WAV	Window media format.
BIN	Voice Mail System Software version.

2. To change the location of a file type, highlight it, press the **Set location** button and type in the new location.

3. To delete the location of a file type, highlight it and press the **Clear location** button.

4. Press **OK** to confirm your changes.

3 VUP Programming

This chapter contains the following:

- Quick Voice Mail System Installation using the Installation Wizard
- Programming the Voice Mail System's system parameters
- Programming the Voice Mail System's Automated Attendant (AA)
- Programming the Voice Mail System's Voice Mail (VM)

To program the Voice Mail System unit using a touch-tone telephone, see Chapter 6, DTMF Programming.

3.1 Quick Installation Using the Installation Wizard

The Voice Mail System Installation Wizard is especially recommended as the initial fast, hands-on installation tool.

➢ **To use the Voice Mail System Installation Wizard**

1. Select **Wizard → Start** from the menu bar.

   Alternatively, click on the Installation Wizard icon on the toolbar.

2. After opening the **Wizard**, press **start**. The first out of the following ten dialogs will appear.

3. In these dialogs, enter the following parameters:

No.	Dialog	Description	Reference
1	**PBX Parameters**	Operator Extensions, Fax Extensions, PBX Legal Extensions	Figure 3-1
2	**PBX Parameters**	Transfer mode	Figure 3-2
3	**PBX Parameters**	Busy Tone, Disconnect Tone	Figure 3-3
4	**List of Mailboxes**	Range of mailboxes	Figure 3-15 (similar)
5	**Notification Parameters**	PBX code used to turn the message light on and off	Figure 3-18 (similar)
6	**In-band DTMF Protocol**	Codes from a PBX that supports the In-band DTMF Protocol to the Voice Mail extension	Figure 3-6

No.	Dialog	Description	Reference
7	**In-band DTMF Protocol**	Page 2 for additional 10 events	-
8	**Script Menu**	The operation associated with each script	Figure 3-8
9	**Network Parameters**	Relevant Network settings for the Voice Mail System	
10	**Final Wizard Script**	**Finish** to save your settings or **Cancel** to return to the Voice Mail System opening screen without saving the Wizard settings	

3.2 System Programming

To program the Voice Mail System's system parameters, the following procedures apply:

- Setting the PBX parameters
- Setting the system parameters
- Setting the In-band DTMF Protocol parameters
- Setting the Network Parameters

3.2.1 Setting the PBX Parameters

> NOTE
>
> For programming the PBX parameters of the Voice Mail System unit using a touch-tone telephone, see Table 5-2 in Chapter 5.

➢ **To set the PBX parameters**

1. Select **Parameters → PBX Parameters** from the menu bar. The PBX Parameters dialog appears (see Figure 3-1).

    Alternatively, click on the **PBX Parameters** icon on the tool bar.

Figure 3-1: PBX Parameters Dialog

2. In the **Extensions** tab, enter the numbers and ranges of the PBX extension types (enter two to six digits in the extension number fields of Figure 3-1):

Extension Type	Usage
Operator	Defines eight Operator extensions for script and mailbox programming.
PBX Legal Extension	Defines 10 extension ranges for Direct Call to Extension. Extensions outside these ranges can't be directly accessed via the Automated Attendant scripts.
Fax	Defines four extensions for "call transfer", on detection of the fax tone by the Voice Mail System. Leaving these fields empty disables the feature.

3. In the **Call Transfer** tab, set the call transfer parameters (see Figure 3-2):
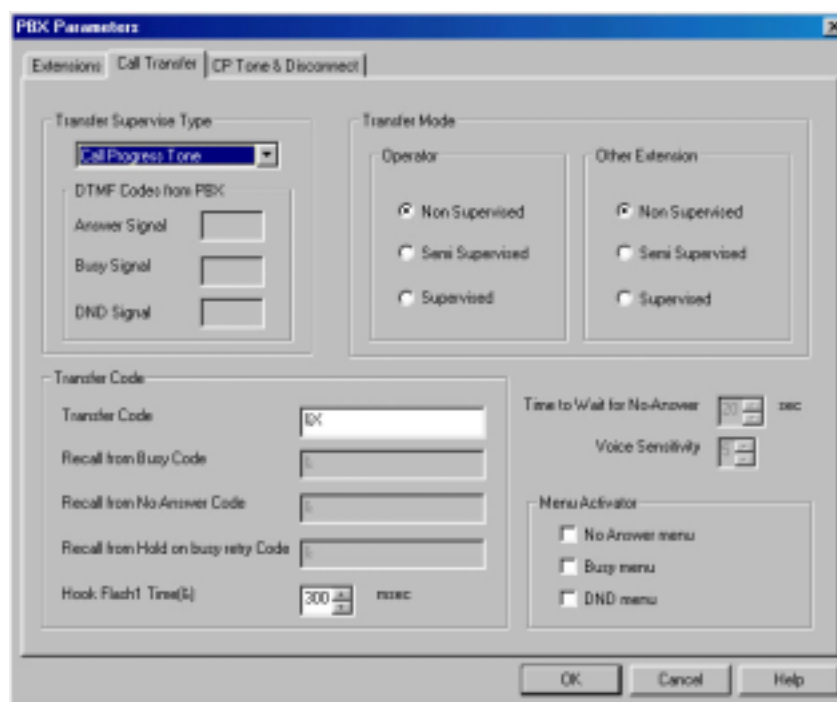
Figure 3-2: Call Transfer Tab

Parameter	Usage
Transfer Supervise Type	Defines the method for detecting the No Answer, Busy and Do Not Disturb (DND) status when a call is transferred to an extension in semi-supervised or supervised mode. Select:

Type	Details
Call Progress Tones	The Voice Mail System samples the sounds from the PBX (Busy tone, Disconnect tone, etc.).
DTMF	The Voice Mail System receives the DTMF signals for Busy, No Answer and DND from the PBX.

Parameter	Usage
DTMF Codes from PBX	Defines the "answer", Busy and DND signals after switching to **DTMF** in the **Transfer Supervise Type** drop-down menu.
Transfer Mode	Defines the transfer mode of the Operator and other extensions. Select:

Mode	To
Non-supervised	Transfer the call without checking the status of the extension.

Parameter	Usage	
	Semi-supervised	Check for a Busy signal on the required extension.
	Supervised	Check for a Busy or No Answer signal on the required extension.
Transfer Code	Transfers a call from the Script or Personal greeting to another telephone number. The applicable codes are:	

Code	To indicate
&	Hook flash.
X	Extension.
0-9, A-D	DTMF.
P	Pause.

Parameter	Usage
Recall from Busy Code	Defines the PBX code to return the caller to the Voice Mail System when the required party is busy (this code is applicable for semi-supervised or supervised mode only).
Recall from No-answer Code	Defines the PBX code to return the caller to the Voice Mail System when his/her call is not answered (this code is applicable for supervised mode only).
Recall from Hold on busy retry Code	Defines the PBX code to return the call placed on Hold during the "Busy menu" playback to the Voice Mail System.
Hook Flash Time (&)	Defines the hook flash time in milliseconds.
Time to Wait for No Answer	Defines the Voice Mail System waiting period for an answer after transferring a call in supervised mode (the default is 20 seconds).
Voice Sensitivity	Defines the sensitivity to human voice in supervised mode. (Default is 5.)
Menu Activator	Works only in Supervisor mode. Otherwise it will playback the personal greeting.

Menu	Details
No Answer menu	When a call is transferred from an extension with no answer to the Voice Mail System, the caller will hear a No Answer menu.
Busy menu	When a call is transferred from a busy extension to the Voice Mail System, the caller will hear a Busy menu.
DND menu	When a call is transferred from an extension set to Do Not

Parameter	Usage
	Disturb to the Voice Mail System, the caller will hear the DND menu.

4. In the **CP Tone & Disconnect** tab, the on-time and off-time of the following tones are set (see Figure 3-3):
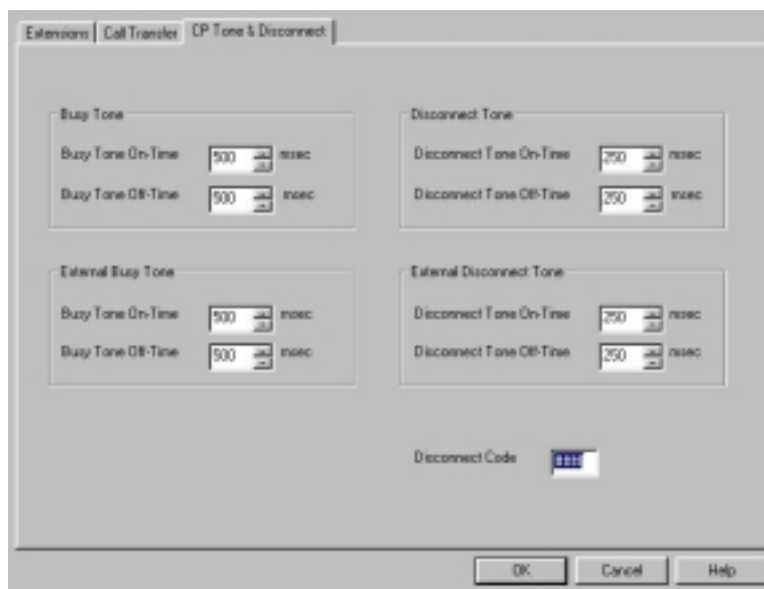
Figure 3-3: CP Tone & Disconnect Tab

Tone	Usage
Busy, External Busy	Detects a busy extension when a call is transferred in semi-supervised or supervised mode and disconnects the line when a Disconnect situation is detected.
Disconnect, External Disconnect	Disconnects the line when the caller hangs up and the disconnect tones are detected.

5. Enter the **Disconnect Code.** Defines the DTMF codes sent from the PBX to the Voice Mail System, in order to disconnect the line, when a caller has hung up.

3.2.2   System Parameters

> **NOTE**
> For programming the system parameters of the Voice Mail System unit using a touch-tone telephone, see Table 5-3 and Table 5-6 in Chapter 5.

➤ **To set the system parameters**

1. Select **Parameters → System Parameters** from the menu bar. The
    Parameters tab appears (see Figure 3-4).
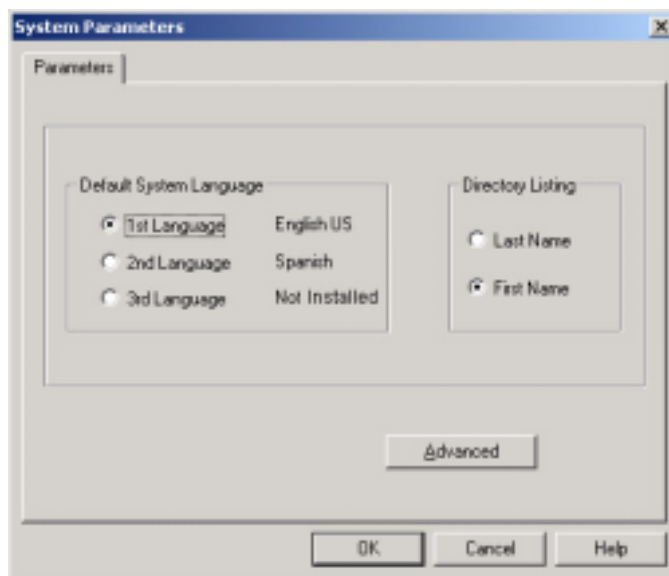
Figure 3-4: System Parameters Tab

2. Select the **Default System Language** by clicking on the appropriate
    radio button.

NOTES

The list of installed languages will only be shown after a Read Parameters
operation.

Use the Statistics window (see Using Statistics in Chapter 4) after a "Read
Parameters" operation, to check the number of the languages installed in
the system. For a new system, the number of installed languages is also
specified on the package.

---

3. Select **Last** or **First Name** to be used as selection, when using the
    Directory Listing feature.

4. Press the **Advanced** button to change parameters, which affect the unit's
    operation as indicated by an appropriate warning message.

5. On receiving the warning message, press **Yes** to enter the **Advanced
    Parameters** dialog (see Figure 3-5).
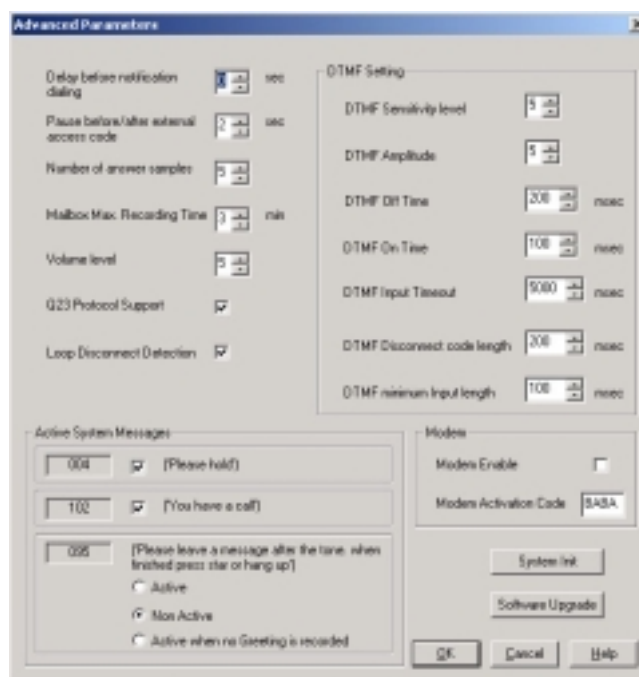
Figure 3-5: Advanced Parameters Dialog

6. Modify and mark the parameters in the advanced Parameters dialogue.

Define system parameters as follows:

Parameter	Usage
Delay before notification dialing	Defines the time delay in seconds, before a dialing notification string is sent.
Pause before/after external access code	Defines the time delay before/after dialing an external code.
Number of answer samples	Defines how fast the Voice Mail System in Supervisor mode will recognize a human voice from a called extension.
Maximum recording time	Defines the maximum recording time for user messages, mailbox greetings and names.
Volume level	Defines the volume level of a message played via an analog port.

Check boxes as necessary:

Check	To enable
Q23 protocol support	A special protocol, when integrating the Voice Mail System with the MATRA PBX.
Loop Disconnect Enable	Voice Mail System detection of a call interruption initiated by the caller.

In the **DTMF Setting** section, the dual arrow buttons can be used to enter the relevant DTMF parameters.

Parameter	Usage
DTMF Sensitivity Level	Defines the sensitivity for DTMF codes dialed by the PBX.
DTMF Amplitude	Defines the outgoing DTMF tone level.
DTMF Off Time	Defines the DTMF OFF time length.
DTMF On Time	Defines the DTMF ON time length.
DTMF Input Timeout	Defines the maximum time between DTMF signals, in which the caller has to enter the relevant data.
DTMF Disconnect Code Length	Defines the length of the DTMF cadence cycle, sent by the PBX, when a call is disconnected. This parameter is needed in order to calculate the amount of time that must be truncated from the end of a message, which was terminated by a Disconnect Code.
DTMF Minimum Input Length	Defines the length of the DTMF ON tone, used by the PBX. This parameter helps to differentiate between voice and actual DTMFs.

To enable **Active System Messages**, check boxes as follows:

Check	To enable
Please hold	System message 004 playback before transferring a call.
You have a call	System message 102 playback after the target extension answered.
Please leave a message after the tone	System message 095. Additional options after leaving a message.

To enable **the modem**, check boxes as follows:

Check	To enable
Modem Enable	Modem, connecting from a remote PC
Modem Activation Code	Activation code for the built-in Voice Mail System modem. (Valid codes are 0-9, A, B, C, D and #.) (* can't be used!)

7. To initiate the system and restore the default system parameters, press the **System Init** button. Use the **Browse** option to define the path of the *.VOX file.

> ⚠️ **CAUTION**
>
> Please notice that following the system initialization, all previously recorded messages are deleted.
>
> For a system initialization, a special *.vox file must be used, prepared by the manufacturer. Using the incorrect *.vox file can destroy a Voice Mail System.

8. To upgrade the Voice Mail System system software, press the **Software Upgrade** button. Use the **Browse** option to define the path of the *.bin file. For more details regarding this option, refer to Software Upgrade in Chapter 5.

3.2.3   In-band DTMF Protocol

The In-band DTMF Protocol is used for defining DTMF strings, sent from the PBX to the Voice Mail System unit. The Voice Mail System extension needs to be defined as a VM extension.

Each string is associated with an operation that is executed once the Voice Mail System receives a DTMF string. A string contains up to 20 digits: 0 to 9, A to D, #, and *.

> 📄 **NOTE**
>
> For programming the In-band DTMF Protocol of the Voice Mail System unit using a touch-tone telephone, see Table 5-4 in Chapter 5.

➢ **To define DTMF strings, using the in-band DTMF protocol**

1. Select **Parameters → In-band DTMF Protocol** from the menu bar. The **In-band DTMF Protocol** dialog appears (see Figure 3-6).

> 📄 **NOTE**
>
> On the two tabs of the **In-band DTMF Protocol** screen, up to 20 DTMF operations can be defined

Figure 3-6: In-band DTMF Protocol Dialog

2. Enter the **Code Received from the PBX** and select the required
    Operation from the operation drop-down menu on the right.

Select	To
Auto Attendant	Play the opening script of the Automated Attendant.
Transfer to a Script Message	Play a specific script.
Transfer to a script Message + 1st/2nd/3rd Language	Play a specific script and change to the specified language (1, 2 or 3).
Transfer to Busy Menu	Play the Busy menu.
Transfer to No Answer Menu	Play the No Answer menu.
Transfer to Do Not Disturb Menu	Play the Do Not Disturb menu.
Transfer to an Extension	Transfer a call to a required extension.
Transfer to a Mailbox	Transfer a call to a required mailbox.
Transfer to the Operator	Transfer a call to a required operator, 1 out of 8.
Directory List	Play the Directory Listing (DBN)
Call Recording	Record the conversation. (This is only applicable to a PBX, where the Call Recording feature is

Select	To
	supported.)
Leave a Message	Leave a message in a designated mailbox.
Retrieve Messages	Retrieve messages from a designated mailbox.
Disconnect	Disconnect the call.
Transfer to a Group of Mailboxes	Leave a message for a group of mailboxes.

3. Set the maximum time interval that the Voice Mail System has to wait in mili seconds, until the first DTMF string is received.

4. Set the maximum time delay between DTMF codes sent from the PBX to the Voice Mail System.

> **NOTE**
>
> The main opening greeting is played, if a DTMF is not received within the allocated time, defined in the two parameters above.

5. Press the **OK** button to confirm your settings and return to the VUP main screen.

3.2.4 Network Parameters

> **NOTE**
>
> Network Parameters will only be activated after the Send Parameters operation and physical hardware system reset have been performed.
>
> To define large-scale network parameters, you may need a Local Network Administrator's assistance.
>
> The Local Network Administrator needs to define a user for the Voice Mail System on the Exchange Server.

To enable network features, the Voice Mail System needs to be integrated into the TCP/IP protocol based Local Area Network. Enter the Voice Mail System to the LAN, as a regular Network user. This is possible via the definition of the Network Parameters.

To activate the possibility to send emails from the Voice Mail System to mailbox owners, the IP address of the SMTP server needs to be defined. A mailbox for the Voice Mail System needs to be defined on the Local Area Network. For this the help of the Local Network Administrator is needed.

➢ **To set the Network Parameters**

1. Select **Parameters ➔ Network Parameters** from the menu bar. The **Network Parameters** dialog appears (see Figure 3-7).

Figure 3-7: Network Parameters

Parameter	Usage
IP Address	Defines the permanent Voice Mail System IP Address, which has to be unique in the existing LAN. (It is recommended to us the permanent IP address and not a DHCP address.)
Subnet Mask	Defines the Subnet Mask stamp for the existing LAN.
Email Address	Defines the email address from the Voice Mail System, as defined in the LAN. This address is needed when the Unified Messaging feature is activated.
Display Name	Defines the name of the Voice Mail System, as originator from an email message, sent to the mailbox of a user. (Only when the Unified Messaging feature is activated.)
"Server Properties" – IP Address	Local SMTP Server IP Address.
"Gateway Properties" – IP address	IP Address of the Network Communication device (Router, Firewall, etc.), which establishes connection with external Network resources.

3.3 Automated Attendant Programming

The following steps apply to the programming of the Voice Mail System Automated Attendant:

- Script programming
- Schedule programming

3.3.1 Script Programming

- Define the operation executed when pressing any DTMF digit between 0 and 9, while the script message is being played, etc.

- Define the script opening conditions per port and the number of the script to be played for each port.

- Define a name for each necessary operational script, i.e. company greeting in English, script 00 and company greeting in Spanish, script 01, etc.

- Display of script listings for reviewing the script status.

📖 **NOTES**

For programming the AA script of the Voice Mail System unit, using a touch-tone telephone, see Table 5-5 in Chapter 5.

Please note that a script must be recorded and programmed with an announcement, in order for a script to operate.

➢ **To program scripts**

1. Select **AutoAttendant → Script Menu** from the menu bar. The **Script Menu** appears (see Figure 3-8).

Figure 3-8: Script Menu Dialog

2. To define an operation for each DTMF digit (0 to 9), select the respective **Type of Operation** from the drop-down menu. The operations to choose from are as follows:

Operation	When pressing appropriate DTMF digit
Transfer to a script menu	The caller is transferred to the sub-menu, defined in the respective **Destination** field.
Transfer to a Script Message + 1st Language, Transfer to a Script Message + 2nd Language, Transfer to a Script Message + 3rd Language	The caller is transferred to the sub-menu, defined in the respective **Destination** field and the selected language is used until the end of the session.
Directory List	The Voice Mail System requires the caller to enter the first three letters of the first or last name of the desired party (for details regarding the dial by name option, see System Parameters).
Transfer to an Extension	The call is transferred to the predefined extension, as defined in the relevant **Destination** field. (Up to six digits irrespective of the legal number of the extension.)
Transfer to a Mailbox	The caller is immediately allowed to dial the required mailbox, defined in the relevant **Destination** field.
Transfer to a Group of Mailboxes	Leave a message for a group of mailboxes.
Direct Call to an Extension	The caller is allowed to dial the required extension, which is a legal PBX extension, defined independently (see PBX Settings).
Direct Call to a Mailbox	The caller is allowed to dial the required mailbox, which is a legal extension.
Leave a Message	The caller is allowed to press a predefined digit from 0 to 9, and is then prompted to enter the requested mailbox number, for leaving a message.
Retrieve Messages	The caller is allowed to press a predefined digit from 0 to 9 and is then prompted to enter the required mailbox number and personal password, in order to retrieve messages.
Disconnect	The caller is disconnected.
Disconnect with Message	The caller is "politely" disconnected, as the Voice Mail System plays the message "Thank-you and good-bye" before disconnecting.

Operation	When pressing appropriate DTMF digit
Dial-a-String	Enter a string number from the dial-a-string table for special PBX applications (see the **Dial Strings** tab below in this section).
Transfer to Operator	A caller can be transferred from a script message to an Operator, as defined in the PBX Settings.
Import WAV	A *.wav file can be imported and can be transferred to a specified script, such as a greeting message.

3.   To define a number of times the Script Opening Greeting playback is played, set the **Repeat** script parameter.

4   To define the time interval after the Script Opening Greeting, in which the caller needs to respond, set the **EOM Timeout** in seconds.

5.   Define in each script 1 fax extension out of 4, to which a fax call will be directed. Please note that each script menu can have a different fax extension.

6.   To define a source *.wav file for a specified script, such as the opening greeting message, press the **Import WAV** button.

> **NOTE**
> The *.wav source file parameters are: 8kHz, 16-bit, mono.

➢   **To define the script opening conditions**

1.   In the **Script Menu**, click on the **Script Opening** tab (see Figure 3-9).
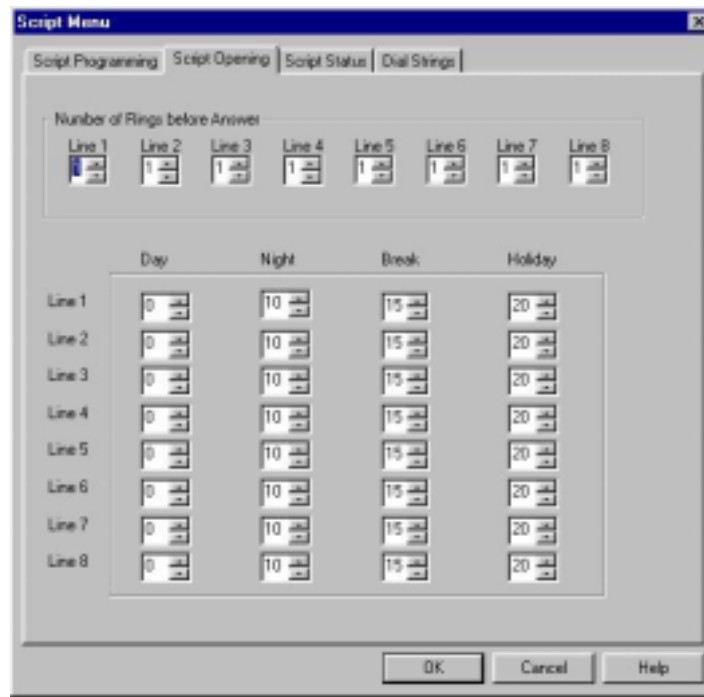
Figure 3-9: Script Opening Tab

2. Set for each line in use, the **Number of Rings** before a call is answered.

3. Set the script number played on each line. There can be up to four scripts - a script for each mode of operation, i.e. **Day**, **Night**, **Break** or **Holiday**.

➢ **To review the status of the scripts**

1. In the **Script Menu**, click on the **Script Status** tab (see Figure 3-10).

The status of all programmed and recorded scripts is displayed adjacent to the script number. The icon before a script is changed, if a script is recorded.
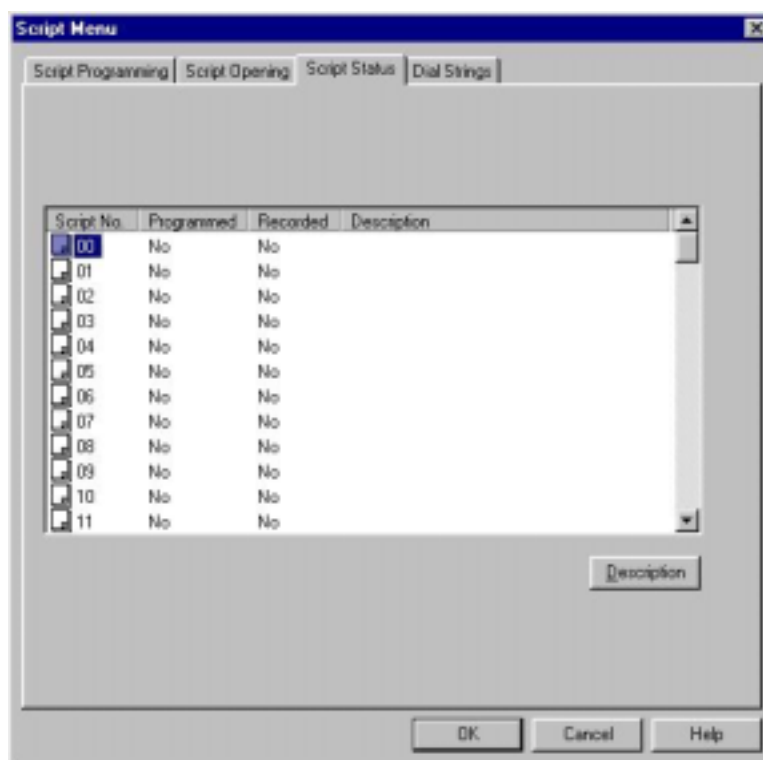
Figure 3-10: Script Status Tab

2. Press the **Description** button to enter script details (for example, the script file name for future reference).

➢ **To define dial strings**

1. In the **Script Menu**, click on the **Dial Strings** tab (see Figure 3-11).
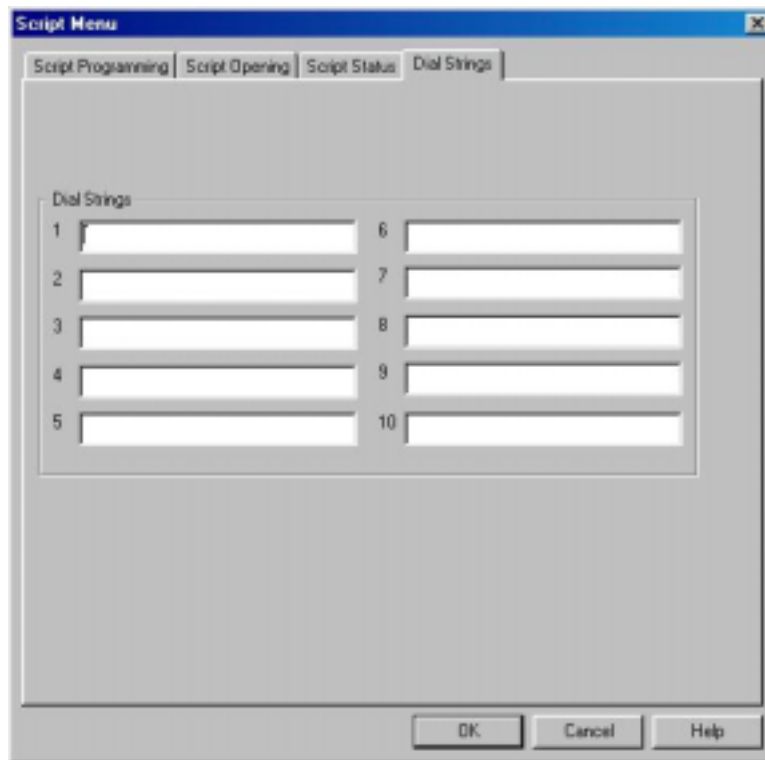
Figure 3-11: Dial Strings Tab

2. Define up to 10 dial strings.

> **NOTE**
> A dial string consists of up to 20 digits including 0 to 9, A to D, *, #, p for pause and & for hook flash.

➢ **To end the Script Menu session**

Press **OK** to save your settings or press **Cancel** to return to the Voice-mail Utility Program's (VUP) main screen, without saving any data.

3.3.2   Schedule Programming

Schedule programming describes the following:

▪ Defining the system time and scheduling modes

▪ Defining weekly schedules

▪ Defining holiday schedules

> **NOTE**
> For programming the AA scheduling script of the Voice Mail System unit using a touch-tone telephone, see Table 5-6 in Chapter 5.

➢ **To define the system time and scheduling modes**

1. Select **AutoAttendant → Time & Date** from the menu bar. **Time, Date and Weekly Schedules** appear (see Figure 3-12).

   Alternatively, click on the **Time & Date** icon 🖾 on the toolbar.
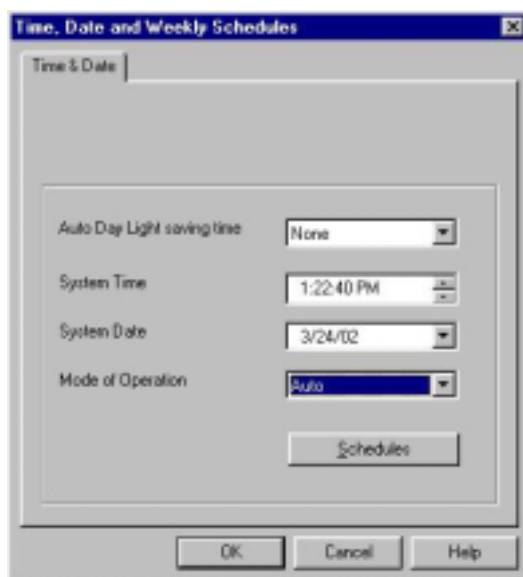
Figure 3-12: Time and Date Dialog

2. In the **Time & Date** tab, change the daylight saving clock by using the **Auto Day Light saving time** drop-down list as follows:

Select	To change the day light clock
American	Automatically on the 1st Sunday of April and the last Sunday of October.
European	Automatically on the last Sunday of March and the last Sunday of October.
None	Manually, using a touch-tone telephone and DTMF programming.

📄 **NOTE**
The time is automatically changed at 2:00 a.m. when selecting the **American** or **European** option.

3. To set the system time and date, use the appropriate fields in this tab.

📄 **NOTE**
The default **System Time** and **System Date** are automatically received from the PC, running the VUP software.

4. Select the scheduling modes from the **Mode of Operation** drop-down menu:

Select	To
Auto	Set the automatic scheduling mode.
Day, Night, Break, Holiday	Manually set the appropriate scheduling mode.

➢ **To define the weekly schedule**

1. In the **Time & Date** tab, select the **Auto** option from the **Mode of Operation** pop-down menu and press the **Schedules** button. The **Auto** (automatic scheduling) dialog appears (see Figure 3-13).
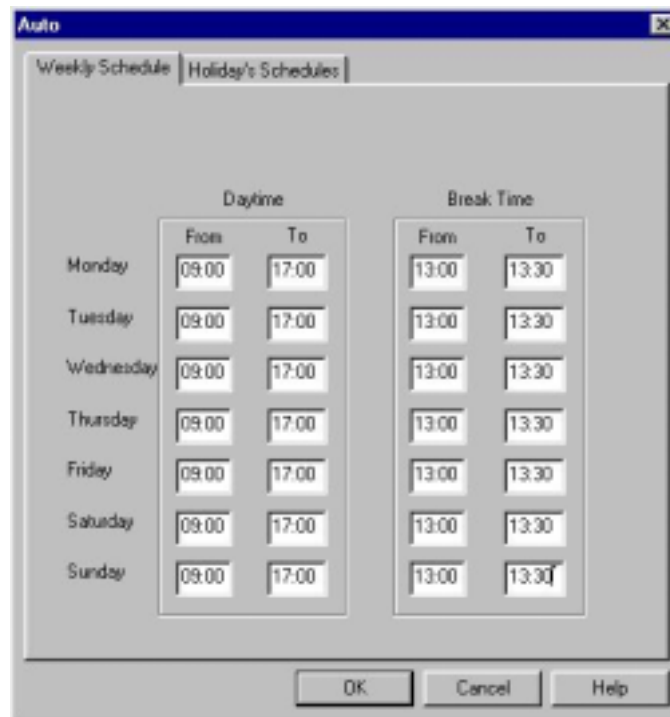
Figure 3-13: Automatic Scheduling Dialog

> **NOTE**
>
> Please notice that the **Schedules** button is only enabled, when selecting the **Auto** option from the **Mode of Operation** drop-down menu.
>
> **Break**, **Night** and **Holiday** scripts have to be recorded by the Administrator. Otherwise the Voice Mail System will automatically return to the **Day Time manual mode**.

2. In the **Weekly Schedule** tab, set the **Day Time** schedule and **Break Time** schedule.

   For the example in Figure 3-13, the Voice Mail System will play the day script message between 09:00 and 13:00 and between 13:30 and 17:00 every day. It will play the break script message between 13:00 and 13:30 and the night script message between 17:00 and 9:00 the next day.

➢ **To define the holiday schedules**

1. Click on the **Holiday Schedules** tab. The current list of holiday dates appears (see Figure 3-14).
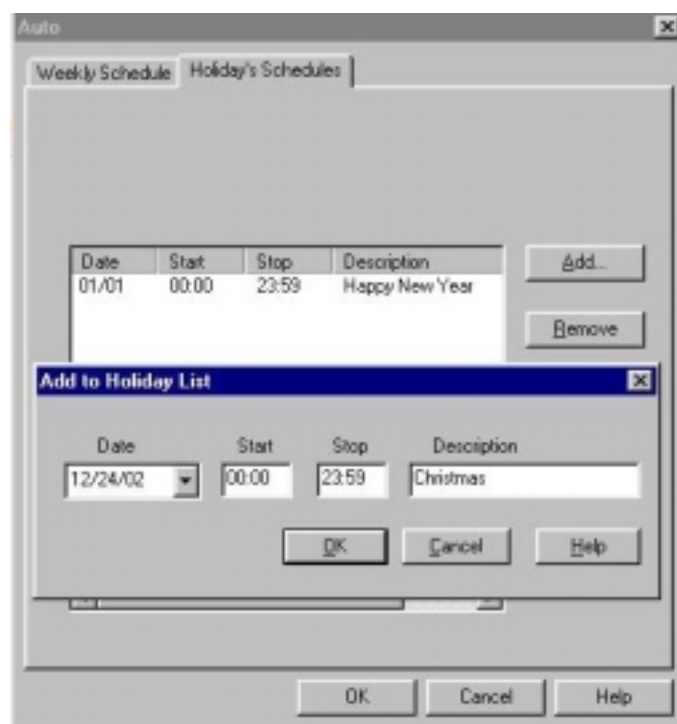
Figure 3-14: Holiday Schedules Tab

2. Press the **Add** button to add a new date to the list of holidays and set the time the holiday script message should be played.

📄 **NOTE**

If the holiday lasts more than one day, each day must be separately added to the list.

---

3. To remove a holiday date from the list, highlight it and press the **Remove** button.

➢ **To end your time and date scheduling session**

Press the **OK** button to confirm your settings or press **Cancel** to cancel your settings and return to the VUP main screen.

3.4 Programming the Voice Mail

Voice Mail programming contains the following:

- List of mailboxes

- Setting the message waiting notification

- Defining mailbox groups

3.4.1   Handling the List of Mailboxes

The tasks associated with the list of mailboxes are:

- Creating a range of mailboxes and defining a Supervisor Mailbox

- Editing the list of mailboxes

- Setting the parameters of the mailbox list

> **NOTE**
> To program the list of mailboxes of the Voice Mail System, using DTMF programming, refer to Table 5-7 in Chapter 5.

➢ **To create a range of mailboxes and define a Supervisor Mailbox**

1. Select **Voice Mail → List of Mailboxes** from the menu bar. The **List of Mailboxes** dialog appears (see Figure 3-15).

Alternatively, click on the **List of Mailboxes** icon on the toolbar.
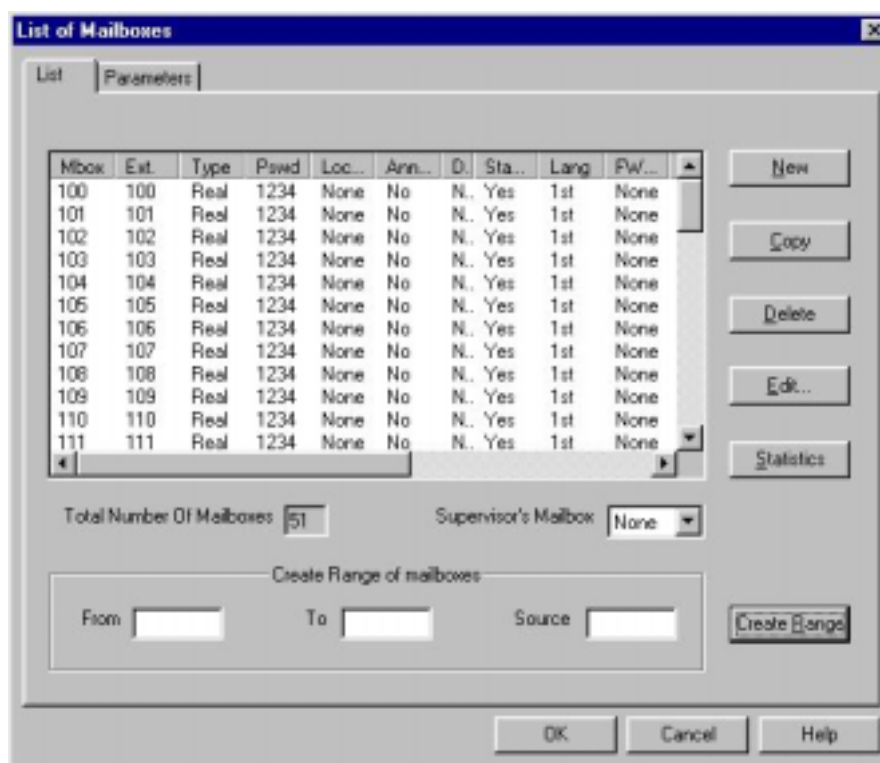
Figure 3-15: List of Mailboxes

2. To define a **Supervisor Mailbox**, select the correct mailbox from the drop-down menu.

> 📄 **NOTE**
> The Supervisor Mailbox can only be defined after a number of mailboxes have been created, as one of them will have to be assigned as the Supervisor Mailbox.
>
> The Supervisor Mailbox is used when the Voice Mail System memory is 85% full. The System Administrator is alerted to delete messages and reorganize the system memory.

3. To create a range of mailboxes, fill in the following:

Field	With
From	The first mailbox in the sequence.
To	The last mailbox in the sequence.
Source	The mailbox with specific parameters, e.g. language or operator, etc., which is the source for the new mailbox parameters.

4. When finished, press the **Create Range** button.

    The new mailboxes appear in the list of mailboxes and the **Total Number of Mailboxes** is updated.

> ➢ **To edit the list of mailboxes**

1. Use the right-hand buttons as follows:

Press	To
New	Create a new mailbox (see Figure 3-16).
Copy	Create a new mailbox based on the parameters of a highlighted mailbox.
Delete	Delete the highlighted mailbox.
Edit	Edit the parameters of the highlighted mailbox (see Figure 3-16).

2. To add a new mailbox, press the **New** button and the following screen appears (see Figure 3-16).

Figure 3-16: New Mailbox

Parameter	To define	Note
Mailbox	The number of the mailbox in the list of mailboxes.	
Extension	The number of the extension associated with the mailbox.	
Mailbox Type	The type of the mailbox, either real or virtual.	a
User Language	The language used by the mailbox to play messages.	

> 📄 **NOTE**
>
> a. A virtual mailbox has the same functionality as a real one, except that it has no extension.
>
> Email notification can only be activated in a Voice Mail System with a specific hardware configuration.
>
> To enable SMS notification, a special external SMS transmitter must be connected to the RS-232 socket. The SMS transmitter must be purchased separately. (See Chapter 8)

3. Press the **Reset** button to change the password to default. (The default password is 1234). When changing the **User Password**, four asterisks (****) appear.

4. To enable local notification for waiting messages, select one of the options from the **Local Notification** pop-down menu:

Option	Usage
Message Light 1	Turns on the light on the telephone or changes the dial tone of the extension by sending the code defined in the **Notification codes**.
Message Light 2	Identical to **Message Light** 1, but for PBX's that support more than one type message notification code.
Sign Ring	The Voice Mail System rings the extension number once to inform the mailbox owner of new messages.
Rings	The Voice Mail System rings an internal or external number for a period of time defined by the **Ring Notification Duration** and the **Ring Notification Retries** to inform the mailbox owner of new messages. After the call is answered, the unit plays a menu for retrieving the messages.

5. To enable external notification for waiting messages, select one of the following options:

Option	Usage
Phone Notification	Checks the **Allowed** and **Phone Enabled** boxes and enters the external telephone number dialed by the Voice Mail System for notifying the mailbox owner of new messages. The recorded message is played on the remote telephone after the mailbox owner enters the correct password.
Pager Notification	Checks the **Allowed** and **Phone Enabled** boxes and enters the pager number dialed by the Voice Mail System for notifying the mailbox owner to return a call and check his/her mailbox.

Option	Usage
SMS-Mobile Phone Number	Checks the Allow and Phone Enabled boxes and enters the mobile phone number, to which the SMS message will be sent, with information about the new recorded message.

6. To enable email notification and define required parameters, check the **Enabled** checkbox and fill the following fields:

Field	Usage
Email Target	Relevant email address, where the mailbox's owner can get the email messages.
Email Notification Type	From the drop-down menu, the email notification mode can be chosen:

Choice	Description
Without attachment	The email will be sent to the target email address, with information about a new recorded message, but without an attachment.
With voice message attached	The email with the attached media file, containing the recorded message, will be sent to the target email address.
Voice message attached and saved	The email with the attached media file, containing the recorded message, will be sent to the target email address and the message will be marked as saved in the Voice Mail System.
Voice message attached and deleted	The email with the attached media file, containing the recorded message, will be sent to the target email address and the message will be marked as deleted in the Voice Mail System (See Note)

> **NOTE**
>
> This delivery method is not secure! Network problems may corrupt the message and all information will be lost.

7. Check boxes as follows:

Check	Function
Announcer	Plays a personal greeting (announcement), without allowing a message to be left.
Do Not Disturb	Prevents call transfers from the Automated Attendant to extensions in DND mode and plays a Do Not Disturb message.
Time Stamp	Plays or does not play the time and date of the message.

8. Enter the maximum number of messages, which can be stored in the mailbox, using the appropriate parameter.

9. Select one of the **Forward Options**:

Option	To
Forward to Extension	Transfer a call from the Personal Greeting message to another extension. When the caller dials the specified digit while the Personal Greeting Message is played, a call is transferred to the predefined extension.
Operator	Transfer a call from the Personal Greeting Message to one of the eight local Operators defined in the PBX Settings.
Fax	Transfer a call to a fax extension, when a fax data signal is detected during the Personal Greeting Message, as defined in the PBX Settings

➢ **To set the mailbox parameters**

1. In the **List of Mailboxes**, click the **Parameters** tab (see Figure 3-17).
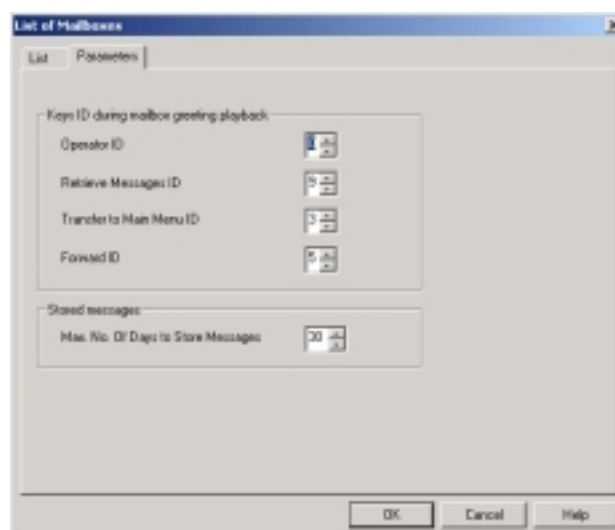
Figure 3-17: Parameters Tab for List of Mailboxes

2. Define the following general parameters for the list of mailboxes:

Parameter	Usage
Operator ID	Defines the key pressed, while a Personal Greeting Message is played, in order to transfer a call to the local Operator.
Retrieve Messages ID	Defines the key pressed, while a Personal Greeting to Retrieve Messages is played. The key is pressed during the time your personal greeting is played. Then the Voice Mail System asks for your password before playing the messages.
Transfer to Main Menu ID	Defines the key pressed, while in a Personal Greeting, to Transfer a call to a Main Menu, which is relevant for the present mode and time. (Default is 3.)
Forward ID	Defines the key that is pressed, while a Personal Greeting Message is played, in order to transfer a call to another extension.
Maximum Number of Days to Store Messages	Defines the number of days that messages are stored in a mailbox, before they are automatically deleted.

3.4.2   Setting Message Notifications

> **NOTES**
>
> To program message a notification for the Voice Mail System, using DTMF programming, refer to Table 5-8 in Chapter 5.
>
> Email and SMS text fields can only be defined when using the VUP software.

➢ **To set the notification parameters**

1. Select **Voicemail → Notification Parameters** from the menu bar. The **Local and External Notification Parameters** dialog appears (see Figure 3-18).

   Alternatively, click on the **Notification Parameters** icon on the toolbar.

Figure 3-18: Local and External Notification Parameters

2. Define the following notification parameters:

Parameter	Usage
Notification Status	Activates the notification function for the specified port.
Message Light 1-Code	Defines the code, dialed by the Voice Mail System, from the port defined in the **Notification Parameters** tab, in order to turn on the message notification light on the terminal. Legal entries are:

Entry	Meaning
X	Extension number
P	Pause
&	Hook flash
!	Number of new messages sent to the Voice Mail System LCD (applicable only if the PBX supports this feature)
DTMF	0 to 9, *, # and A to D

Parameter	Usage
Message Light 2-Code	Similar to **Message Light 1-Code** including legal entries for a PBX supporting more than one message notification code.

Parameter	Usage
Message Light Off-Code	Defines the code, dialed by the Voice Mail System, from the port activated in the **Notification Parameters** tab, in order to turn off the message notification on the terminal. Legal entries are as defined for the **Message Light 1-Code**.
Ring Notification Interval	Defines the time interval between ring notifications of new messages, in minutes.
Ring Notification Retries	Defines the number of times the Voice Mail System attempts to notify the user of received messages.
External Notification Start/Stop	Sets the time interval, during which the mailbox owner is notified of new messages.
Notification after Reorganizing	Activates a local Message Waiting Notification after the Memory Reorganizing process is finished. All mailbox owners that have new messages are notified.
Message Light Activation	Defines if the message notification light is turned on for every message or only after the first new message.
Ring Notification Duration	Enables a long or short time interval for the notification ring.

3. Click on the E-mail tab to edit the Notification parameters.
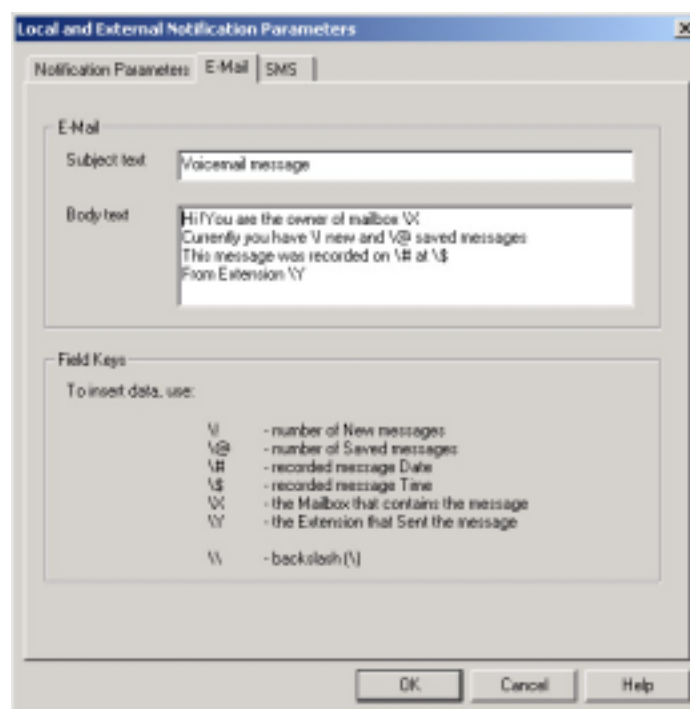
Figure 3-18: Email Notification Parameters

Parameter	Usage
Email – Subject text	Text, which will be written in the sent email's "Subject" field.
Email – Body text	Text, which will be written in the sent email's body field. This text can include information about mailbox status and a new recorded message.
Field Keys	List of relevant symbols, which can be used in the "Body text" window.

4. Click on the SMS tab to edit the Notification parameters.
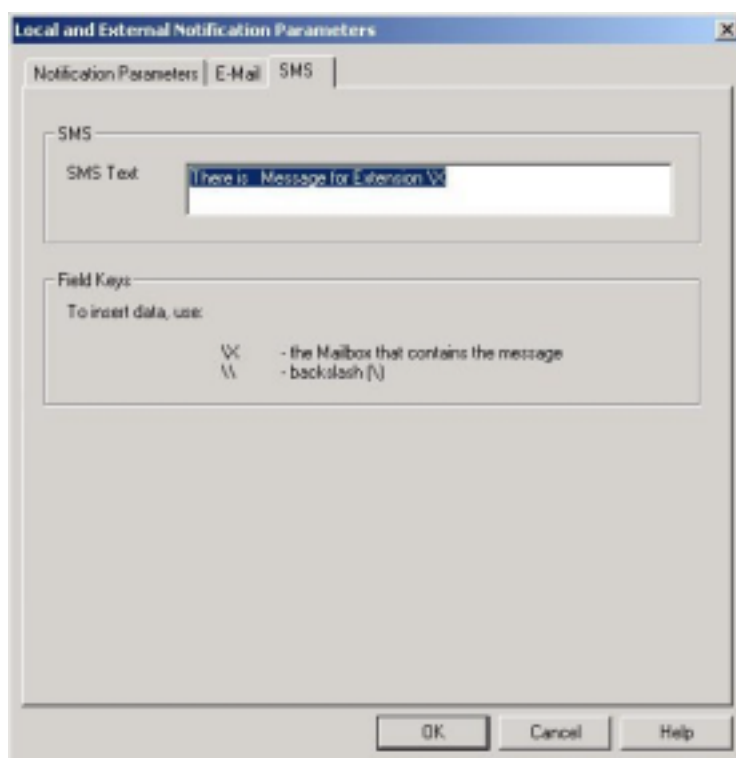
Figure 3-19: SMS Notification Parameters

Parameter	Usage
SMS – Text	Text, which will be displayed in the Mobile phone display.
Field Keys	List of relevant symbols, which can be used for the SMS message building.

> **NOTE**
> SMS notification will be sent to the recipient, depending on the set parameters. Apart from this, the user will only get a message for the first voice mail in the user's mailbox. Another message will be received once the mailbox has been emptied and a new voice mail arrives.

5. To end the notification programming session, press **OK** to confirm your settings or press **Cancel** to return to the VUP main screen, without saving any data.

3.4.3   Setting a Mailbox Group

📄
NOTE
To program mailbox groups for the Voice Mail System using DTMF programming, refer to Table 5-7 in Chapter 5.

➢ **To set the mailbox group parameters**

1. Select **VoiceMail ➔ Groups of Mailboxes** from the menu bar. The **Groups of Mailboxes** dialog appears.

    Alternatively, click on the **Groups of Mailboxes** icon 🔳 in the toolbar.

Figure 3-20: Groups of Mailboxes Dialog

2. Set a maximum of four groups of mailboxes for simultaneously addressing by dialing the group number.

    To add a mailbox to a group, select the required mailbox from the group of all mailboxes (column with 099) and press the **Add** button of the respective group.

> **NOTES**
>
> The group number size must be 3 digits.
>
> The group 099 is a list of all mailboxes defined in the system.
>
> Each group can contain up to 20 mailboxes, excluding the group of all mailboxes defined in the system.

3. Set the first digit for addressing any mailbox group in the **Groups** tab.

> **⚠ CAUTION**
>
> The same number can be assigned to a mailbox group and to a mailbox number. Is this the case, the message is sent to the mailbox.

4. To end the programming session for groups of mailboxes, press **OK** to confirm your settings or press **Cancel** to return to the VUP main screen, without saving any data.

4 Administrator's Operations

This chapter contains the following:

- Accessing VUP programming data (password setting and connection establishment)

- Handling configuration data transfers (from the PC containing the VUP software to the Voice Mail System and vice versa)

- Monitoring and problem solving (LCD display messages, line monitoring and statistics)

- Software upgrading

4.1 Accessing VUP Programming Data

4.1.1 Setting the VUP – Voice Mail System Communication

This section describes how to:

- Set a local (direct) or remote (modem) connection between the PC, containing the VUP software and a Voice Mail System unit

- Manage the contact list of remotely connected PCs containing the VUP software

Use a local PC for programming a Voice Mail System unit. Then use a local or remote connection for the configuration, monitoring and maintenance operations.

For a local connection, one of the COM ports of your PC or laptop should be connected to the RS-232 port of the Voice Mail System unit.

Via a remote connection, several Voice Mail System units can be managed, using a single PC, running the VUP software. The Voice Mail System only allows a remote connection with a PC, if that PC appears in the Voice Mail System contact list.

➢ **To set up the PC connection**

1. Select **Communication → Com Port** from the menu bar, The **Communication Selection** dialog appears (see Figure 4-1).

📄 **NOTE**
COM 1 is the default VUP port for communicating with the Voice Mail System.
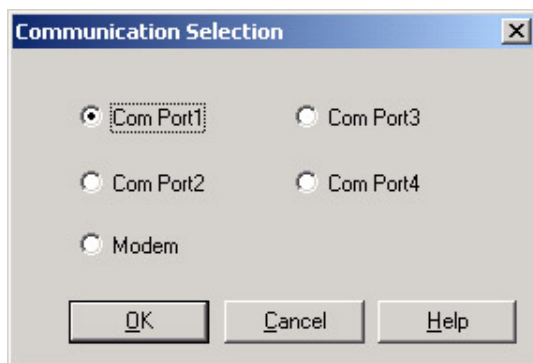
Figure 4-1: Communication Selection

2. Check one of the COM ports for a local (direct) connection of the PC, containing the VUP software, to the Voice Mail System or select **Modem** to connect the PC to the Voice Mail System via the public network.

3. Press **OK** to confirm your setting.

➢ **To manage the contact list of remotely connected PCs containing the VUP software:**

1. Select **Communication** ➔ **Modem Contacts** from the menu bar. The **Modem Contacts** appear (see Figure 4-2).
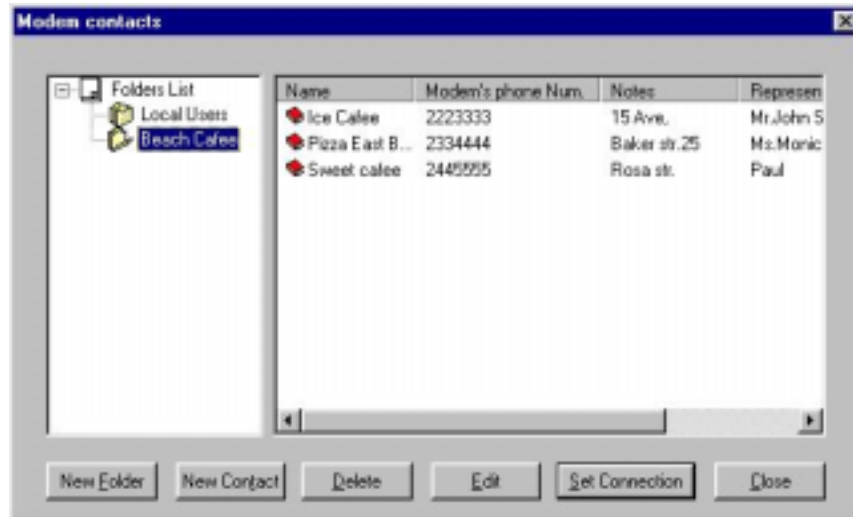
Figure 4-2: Modem Contacts

2. **To set a connection to one of the listed Voice Mail System units**

   Select one of the groups from the left column, then select a connection from the right column and press the **Set Connection** button (a dialing process will be activated upon selection of a transfer data operation, such as **Read Parameters**, **Send Parameters**, etc.).

📄 NOTES

Before setting a connection, please check that the **Modem** option has been chosen in the Communication Selection dialog (see Figure 4-1).

When the **Create Call** button on the VUP toolbar is used for an immediate call to a specified contact, the **Modem** option is automatically selected in the Communication Selection dialog.

3. **To set a new contact**

   If the new contact is not associated with one of the existing groups (folders on the left), press the **New Folder** button and enter the group's name.

   Highlight the folder and press the **New Contact** button. **New Contact Details** appear (see Figure 4-3). Fill in the required information:

Figure 4-3: New Contact's Details

Fill in	With
Contact's name	The name of the customer, on whose premises the Voice Mail System is installed.
Modem's phone number	The telephone number for communicating with the Voice Mail System by modem.
Representative's name	The contact person's name.
Representative's phone	The contact person's telephone number.
Notes	Free text.

To confirm the new contact, press **OK** and the new contact will appear in the right column.

4. **To delete contacts and groups of contacts**

   To delete a group of contacts, highlight the relevant group, then highlight each contact and press the **Delete** button.

   When the folder is empty, press **Delete** to erase the folder in the left column.

5. **To edit a contact**

   Highlight the contact group in the left column, to view the contacts, which will appear in the right column.

   Highlight the contact and press the **Edit** button. A dialog similar to the one shown in Figure 4-3 appears.

   Edit the fields, where necessary, and press **OK** to confirm your changes.

6. To end a modem contact session, press the **Close** button.

4.1.2   Setting a Password

You can use this function to set the Administrator's password, when first entering the Voice-mail Utility Program (VUP). Thereafter, you can use this function to change the current password.

> ➢ **To change the Administrator's password**

1. Select **Communication → Password** from the menu bar.

2. In the **Change Password** dialog**,** enter the current, 4-digit password and press **OK**.

📄 **NOTE**
The VUP default Administrator password is 1234.

---

3. In the second **Change Password** dialog**,** enter the new, 4-digit password and press **OK**.

4.2 Handling Configuration Data

Use the following to:

- Handle configuration files in the PC
- Transfer configuration files from the PC to Voice Mail System units
- Full back up and restore
- Transfer configuration data between Voice Mail System units
- Transfer scripts between Voice Mail System units
- Reset a Voice Mail System after a configuration or script data transfer

4.2.1 Handling Configuration Files

Use the **File** menu to save, display, edit, and print Voice Mail System configuration files.

> ➢ **To handle a Voice Mail System configuration file**

1. From the **File** menu select:

Item	To
Open	Display and edit a saved Voice Mail System configuration file.
Save	Save the configuration file.
Save As	Save the configuration file, using a different filename from the opened file.
Open Default	Display and edit the default configuration file.
Print Settings Menu	Print the Voice Mail System parameters: PBX, system, in-band DTMF signals, Automated Attendant, schedules, notification, list of mailboxes, statistics and list of messages.

4.2.2   Transferring the Complete Backup data to a Voice Mail System

This feature enables a full backup of the Voice Mail System data, consisting of the script recordings, messages, personal greetings and configuration data. The data is stored in a *.wax file, which can be used in a PC running the VUP software, for off-line programming. The data can then be transferred (restored) to other Voice Mail System units working with the same configuration system version.

➢ **To backup and restore the Voice Mail System data**

1. Establish a connection between the source Voice Mail System and the PC, containing the VUP software. For details, see the Setting the VUP PC – Voice Mail System Communication section.

NOTE

Please notice that the backup and restore functions are applicable only for local RS-232 connections.

It is recommended to perform a hardware reset after the Restore action.

---

2. Select **Communication → Backup** from the menu bar.

3. In the **Backup** dialog, enter the **File Name**, press the **Browse** button to set the file path in the VUP and press **OK** to transfer the file to the PC.

4. Select **Communication → Restore** from the menu bar and use the **Restore** dialog to set the name and path of the *.wax file, that needs to be transferred from the PC to a Voice Mail System unit.

4.2.3   Transferring Configuration Data between Voice Mail System Units

The VUP software enables the transfer of configuration data from one Voice Mail System unit to another. This is a two-fold operation, namely:

▪ Reading configuration data from a source Voice Mail System.

▪ Sending configuration data from the PC, containing the VUP software, to a target Voice Mail System.

CAUTION

Please note that the Voice Mail System unit is off-line, when transferring data to or from the PC.

> ➢ **To transfer configuration data from one Voice Mail System unit to another**

NOTE

An administrative password is needed to transfer configuration data from a PC to a Voice Mail System unit. For details, see Setting a Password.

---

1. Establish a connection between the source Voice Mail System and the PC, containing the VUP software. For details, see Setting the VUP PC – Voice Mail System Communication.

2. Select **Communication → Read Parameters** from the menu bar.

3. When prompted with a message, asking you to check the connection between the PC and Voice Mail System, press **OK** to read the parameters from the source Voice Mail System.

4. Select **Communication → Send Parameters** from the menu bar.

5. When prompted with a message, asking you to check the connection between the PC and Voice Mail System, press **OK**.

6. In the **Password** dialog enter your password and press **OK**.

4.2.4   Transferring Script Messages between Voice Mail System Units

The VUP software enables recorded scripts to be transferred from one Voice Mail System unit to another. This is a two-fold operation, namely:

- Reading scripts from a source Voice Mail System.

- Sending scripts from the PC containing the VUP software to a target Voice Mail System.

> ➢ **To transfer script messages from one Voice Mail System unit to another**

1. Establish a connection between the source Voice Mail System and the PC, containing the VUP software. For details, see Setting the VUP PC – Voice Mail System Communication.

2. Select **Communication → Read Recording** from the menu bar.

3. Press the **List of Script Recordings** button in the **Read Recording** dialog. The **List of Scripts to be Read** dialog appears (see Figure 4-4).
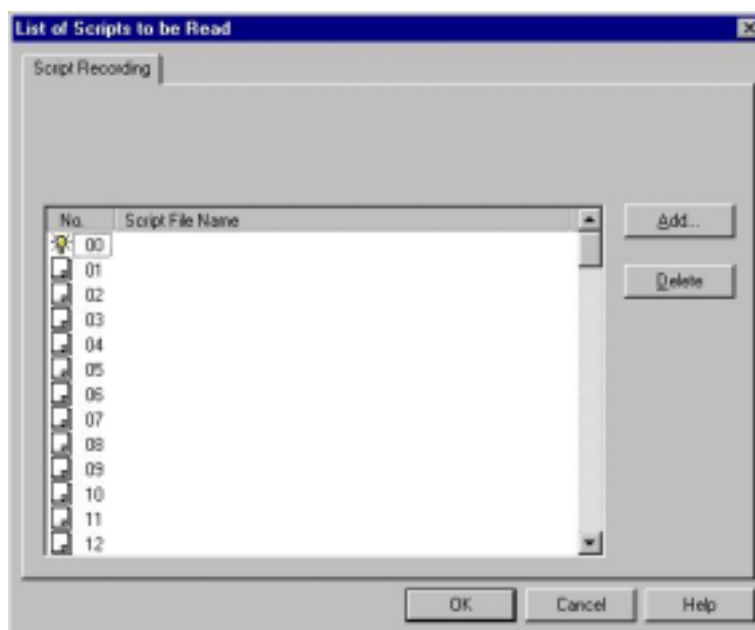
Figure 4-4: List of Scripts to be Read

4.   Choose a message to be read and press the **Add** button.

5.   In the **Select Script File**, set the PC path for storing the recorded script.

> **NOTE**
> Please note that script number xx is used as the script file extension (*<scriptname.xx>*).

6.   Repeat steps 3 to 5 for any number of scripts that need to be transferred to the PC.

7.   In the **List of Script Recordings**, press **OK**. Then press the **OK** button in the **Read Recording** dialog to transfer the script files.

8.   Establish a connection between the target Voice Mail System and the PC, containing the VUP software.

9.   Select **Communication → Send Recording** from the menu bar.

10. Repeat steps 2 to 7 for any number of scripts in the **List of Scripts to be Sent** that need to be transferred to the target Voice Mail System.

4.2.5   Resetting the Voice Mail System

You can reset the Voice Mail System hardware using the System Reset function from the VUP software.

➤ **To reset the Voice Mail System**

1.   Establish a connection between the Voice Mail System and the PC, containing the VUP software. For details, see Setting the VUP PC – Voice Mail System Communication.

2.   Select **Communication ➔ System Reset** from the menu bar.

4.3 Monitoring and Problem Solving

Use the following information to:

▪   Monitor the Voice Mail System's operations and detect system errors, using the unit's LCD display

▪   Monitor the Voice Mail System ports, using the line monitor (PBX extensions and RS-232)

▪   View the Voice Mail System's operation statistics

4.3.1   LCD Messages

The Voice Mail System LCD display provides a quick and reliable means for monitoring the unit's mode of operation and preventing programming and operation problems. For a list of messages and the display context for monitoring and diagnostics, see Table 4-1.

Table 4-1: Voice Mail System LCD Messages

LCD Display	Context	Action to be taken
VM Ver. X.XX	The unit has reset and is testing its components.	None
Day – Manual	The unit is in constant Day mode.	None
Night – Manual	The unit is in constant Night mode.	None
Break – Manual	The unit is in constant Break mode.	None
Holiday – Manual	The unit is in constant Holiday mode.	None
Day – Auto	The unit is in programmed Day mode.	None
Night – Auto	The unit is in programmed Night mode.	None
Break – Auto	The unit is in programmed Break mode.	None
Holiday – Auto	The unit is in programmed Holiday mode.	None
_	The port status is on-hook.	None
^	The port status is off-hook.	None
R	The port is ringing.	None

LCD Display	Context	Action to be taken
N	The port is notifying.	None
Reorganizing	The unit is reorganizing its database.	None
System Error 100 System Error 101 System Error 102 System Error 200 System Error 201 System Error 333 System Error 400 System Error 401 System Error 402 System Error 403 System Error 404 System Error 500 System Error 600 System Error 700	The unit is in not operational. The LCD displays the error code.	Reset the Voice Mail System power. If the message appears again, please contact your dealer.

4.3.2   Line Monitor

The Line Monitor is an on-line tool, which shows the incoming and outgoing DTMF signals simultaneously to and from the Voice Mail System. This is done for local management via analog telephone and RS-232 ports. A modem connection is used for remote management.

➢ **To activate the Line Monitor locally**

1. Connect the RS-232 cable between the appropriate PC COM port and the Voice Mail System RS-232 port and establish a connection (for details, see Setting the VUP PC – Voice Mail System Communication).

2. From the main screen, select **Line Monitor** and uncheck boxes to disable ports (all ports are checked by default, see Figure 4-5).
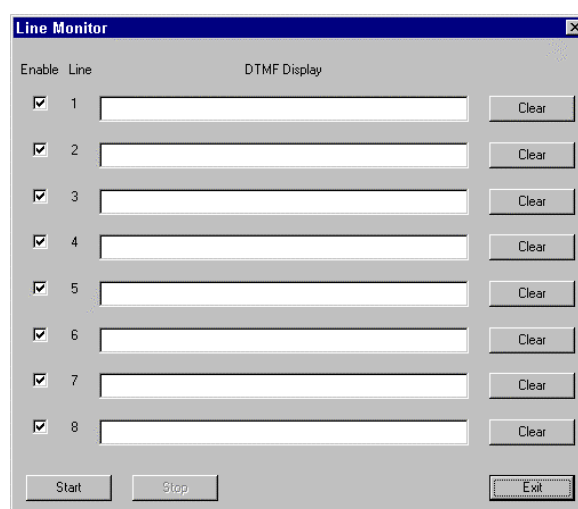
Figure 4-5: Line Monitoring Dialog

3. To display on-line DTMF signaling:

Press	To
Start	Start (or resume) display of DTMF signaling on all checked lines.
Clear	Clear DTMF signaling for a particular line.
Stop	To stop running the DTMF signaling display for all checked lines.

> **NOTES**
>
> After pushing the **Start** button, the **linemonitoring.log** file is created in the Voice Mail System directory (for example, **C:\Programming Files\Voice Mail System**) and the DTMF signaling is displayed on the active lines of the **Line Monitor** dialog.
>
> A typical log file, storing current events, is shown in Figure 4-6.
>
> The line codes and colors displayed in the **Line Monitor** dialog are shown in Table 4-2. Color conventions are: incoming DTMF signals red, outgoing DTMF signals green and on-hook and off-hook operations blue.

```
VM's Line Monitor log file
Monitoring lines number: 1, 2, 3, 4, 5, 6, 7, 8
Started on March 31, 2002, 10:54
----------------------------------------------------
Line 3 : Detect Ring, Off Hook, Detect 8, Detect
9, Detect 7, Detect 4, Detect #, Detect *, Detect
8, Detect 6, On Hook, (On Hook reason : Timeout
while waiting for DTMF (1 min((
----------------------------------------------------
Ended on March 31, 2002, 10:56
```

Figure 4-6: Typical Line Monitoring Log File

Table 4-2: Line Monitor Codes and Colors

Code	Color	Description	Code	Color	Description
0	Green	Dial 0	L1	Green	Dial LED notification 1
1	Green	Dial 1	L2	Green	Dial LED notification 2
2	Green	Dial 2	LO	Green	Dial LED off notification
3	Green	Dial 3	R	Green	Dial Ring notification
4	Green	Dial 4	SR	Green	Dial Sign Ring notification
5	Green	Dial 5	E	Green	Dial external notification
6	Green	Dial 6	PG	Green	Dial pager notification
7	Green	Dial 7	0 to 9	Red	Detect digits from 0 – 9
8	Green	Dial 8	*	Red	Detect *
9	Green	Dial 9	#	Red	Detect #
*	Green	Dial *	A	Red	Detect A
#	Green	Dial #	B	Red	Detect B
A	Green	Dial A	C	Red	Detect C
B	Green	Dial B	D	Red	Detect D
C	Green	Dial C	Rn	Red	Detect Ring
D	Green	Dial D	Bs	Red	Detect Busy
P1	Green	Dial pause 1 S (1 sec)	NA	Red	Detect No Answer
P4	Green	Dial pause 4 S (4 sec)	An	Red	Detect Answer
H1	Green	Dial hook Flash 1	DND	Red	Detect Do Not Disturb
H2	Green	Dial hook Flash 2	OnH	Blue	On-hook
			OfH	Blue	Off-hook

3.   To end the line monitoring session, press the **Exit** button.

⚠ **CAUTION**
To prevent loss of line monitoring data, rename the log file before restarting line monitoring.

4.3.3   Using Statistics

The Statistics tool provides general statistical information regarding the Voice Mail System operations and it's mailboxes.

➢ **To obtain the general statistics of the Voice Mail System unit**

> **NOTE**
> To obtain statistics, read the Voice Mail System parameters, before using the **Statistics** tool.

1.   Select **Statistics → General** from the menu bar to view the **General** statistics dialog (see Figure 4-7).

Take note of the following information sections:

Section	To view
Flash Usage	The Flash memory recording time.
Incoming Calls	The number of incoming calls per Voice Mail System line.
Languages	The number of programmed languages (up to three).
Version	Voice Mail System version.

Figure 4-7: General Statistics Dialog

2.   Press the **Close** button to exit the Statistics tool screen.

➢ **To obtain the Voice Mail System mailbox statistics**

1. Select **Statistics → List of Messages** from the menu bar (see Figure 4-8).
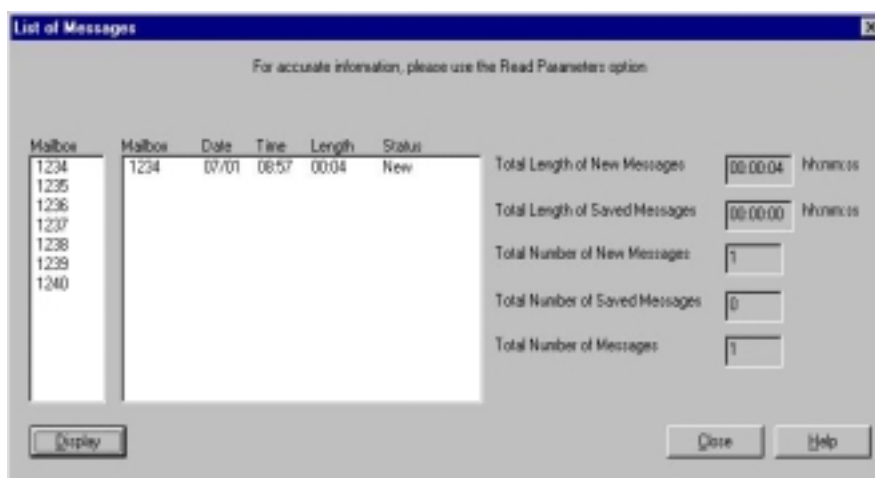
Figure 4-8: Mailbox Statistics

2. Highlight a mailbox in the mailbox section and press the **Display** button to view a list of messages in the message pane and the mailbox statistics on the right.

3. Press the **Close** button to exit the Statistics tool screen.

4.4 Software Upgrading

> **NOTE**
>
> Check that the Voice Mail System is connected to the PC, using the RS-232 cable or via a modem.
>
> Only Qualified and Authorized Technicians are allowed to upgrade the Vocie Mail System system software. Unauthorized updates can result in damage to the Voice Mail System.

➢ **To upgrade the Voice Mail System software**

1.   Select **Parameters** ➔ **System Parameters** from the menu bar.

2.   Press the **Advanced** button, then press **OK** to confirm that you are going to make modifications in the system parameters.

3.   In the **Advanced** dialog, press **Software Upgrade**. The **Send Software** dialog appears (see Figure 4-9).
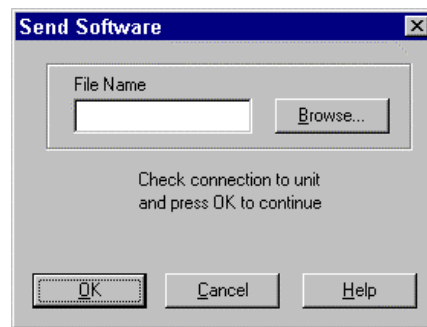
Figure 4-9: Software Upgrading

4.   Use the **Browse** button to find the *.bin file required to activate a software upgrade and press **OK**.

5 DTMF Programming

This chapter provides the necessary information for programming the Voice Mail System via a touch-tone telephone. The touch-tone telephone has to be connected to the PBX and using DTMF tones. It contains the following:

- The DTMF programming rules

- The steps to be taken, in order to enter and exit the DTMF programming mode

- A programming command reference, divided into functional groups of commands, regarding the VUP setup, Voice Mail System programming and Administrator's Operations

5.1 DTMF Programming Rules

Please observe the following rules for DTMF programming:

- The Voice Mail System can't handle calls, while in the programming mode

- A confirmation tone is heard, every time you enter a programming command

- The programming mode is exited, if no dialing is carried out for more than a minute

5.2 Entering and Exiting the Programming Mode

➢ **To enter the programming mode**

1. Connect a PBX analog line to the Voice Mail System.

2. Call the PBX analog line from any touch-tone telephone.

3. Wait until the Voice Mail System answers and plays the opening menu. Then dial *900.

4. Dial the Administrator's password (the default password is 1234) to enter the programming mode.

> ➢ **To exit the programming mode:**

Dial *900 or refrain from dialing for one minute.

When entering *900, the Voice Mail System plays the opening menu and you can test the new settings.

5.3 Programming Commands

This section provides the DTMF programming commands, divided into functional groups – each group or subgroup in a separate table.

Table 5-1 provides a cross-reference list to the DTMF programming tables and to the relevant VUP programming sections in this manual.

Table 5-1: Voice Mail System Programming Cross-reference List

Group	Subgroup 1	Subgroup 2	DTMF Programming Table
Voice Mail System Programming	System Programming	PBX Settings	Table 5-2
		System Parameters	Table 5-3
		In-band DTMF Protocol	Table 5-4
	Automated Attendant Programming	Script Programming	Table 5-5
		Schedule Programming	Table 5-6
	Voice Mail Programming	Handling the List of Mailboxes, Setting a Mailbox Group	Table 5-7
		Setting the Message Waiting Notification	Table 5-8
Administrator's Operations	-	Administrator Operations	Table 5-9

📄 **NOTES**

Some advanced system parameters, which are associated with the Voice Mail System programming for the required PBX, appear in Table 5-2.

Please note that the Administrator's operations, which involve a Voice Mail System – VUP PC connection, do not appear in Table 5-9.

Table 5-2: PBX Commands for DTMF Programming

Function	Code			
Recognizes a loop disconnect.	***002** + **X,** where			
	Argument	**Specifies**		
	X	The status of the "loop disconnect" function. Enter:		
		Value	**To**	
		0	Enable loop disconnect.	
		1	Disable loop disconnect.	
Defines which message will be played, if an incoming call is transferred from an extension to the Voicemail.	***302** + **X** + **Y,** where			
	Argument	**Specifies**		
	X	The line status. Enter:		
		Value	**For**	
		1	No Answer	
		2	Busy	
		3	DND	
	Y	The menu to be played. Enter:		
		Value	**For**	
		0	Mailbox greeting (default)	
		1	Menus	
Sets the number of rings before a line is answered.	***310** + **line number** + **number of rings,** where			
	Argument	**Specifies**		
	line number	A line number (1 to 4 or 1 to 8).		
	number of rings	The number of rings (1 to 9).		
Sets the waiting period for No Answer, when the supervised transfer **mode** is selected.	***311** + **XX** where			
	Argument	**Specifies**		
	XX	The waiting period in seconds (00 to 99, default 20).		
Defines a notification port.	***315** + **X** + **Y,** where			
	Argument	**Specifies**		
	X	The port number (1 to 4 or 1 to 8).		
	Y	The port notification state. Enter:		
		Value	**To**	
		0	Disable notification.	

Function	Code		
		1	Enable notification.
Defines up to 10 groups of legal extensions. (Up to six digits can be defined for an extension. If the caller dials an extension using direct dialing - code 170, the Voice Mail System checks if the extension is legal. If the extension is illegal, the Voice Mail System does not transfer the call.)	***320 + Y + First Ext. + * + Last Ext. + #,** where **Argument** | **Specifies** Y | A group of legal extensions (0 to 9). For example ***320 1 330 * 350** defines 21 legal extensions in group No. 1.		
Deletes all PBX legal extensions groups.	***320 + #**		
Resets a group of legal extensions (removes all mailboxes from the group).	***320 + Y + First Ext. + * + Last Ext. + #,** where **Argument** | **Specifies** Y | A group of legal extensions (0 to 9). For example ***320 1 330 * 350** removes 21 legal extensions from group No. 1.		
Defines the Operator's ID code for mailbox usage. (When the caller dials this digit during a mailbox greeting message, the call is transferred to the specified Operator.)	***330 + X** where **Argument** | **Specifies** X | The Operator's ID code (0 to 9).		
Defines the key to retrieve messages while the mailbox greeting is being played.	***331 + X,** where **Argument** | **Specifies** X | The retrieval digit (0 to 9).		
Defines the key for the backup extension.	***332 + X**		
⚠ **CAUTION** The backup extension key ought to be different from the retrieval key or Operator's mailbox ID.	**Argument** | **Specifies** X | A key between 0 and 9.		
Defines the Line Disconnect code when the caller hangs up. (The Voice Mail System terminates a call when it receives the Disconnect code.)	***333 + Code + #,** where **Argument** | **Specifies** Code | Line Disconnect code. The code can be up to four digits. Legal values for this code can be any combination of 0 to 9, *, #, and A to D.		

Function	Code
Deletes the Disconnect code. (The Line Disconnect code is not issued when the caller hangs up.)	***333** + **#**
Defines the key for transfer to the Main menu, while playing the mailbox greeting.	***334** + **X,** where

	Argument	Specifies
	X	The Main menu (0 to 9, default 3)

Defines the external access code for external notification.	***340** + **X** + **#,** where

Argument	Specifies
X	A digit between 0 and 9 for external access. (Enter *1 for a pause, when the external call is enabled, without pressing an access digit).

Clears the external access code.	***340** + **#**
Sets the pause duration before and after the external access code.	***341** + **X,** where

Argument	Specifies
X	The pause duration between 0 and 9 seconds (2 seconds is the default value).

Sets the input key time. This is the maximum time during which the caller is allowed to enter a DTMF input string: extension number, password, etc.	***342** + **XXXX,** where

Argument	Specifies
XXXX	The time in milliseconds between 0000 and 2000, in steps of 10 milliseconds.

Sets the transfer mode for all extensions.	***350** + **X** + **Y,** where

NOTE

For a description of the transfer modes, see PBX Settings.

Argument	Specifies		
X	The extensions to which the command applies. Enter:		
	Value	**To select**	
	1	All extensions, except the Operator's extension.	
	2	The Operator's extension only.	
Y	The transfer mode. Enter:		
	Value	**To set**	
	0	The non-supervised transfer mode.	
	1	The supervised transfer mode.	

Function	Code		
		2	The semi-supervised transfer mode.
Defines the Operator's extension number for script and mailbox programming.	***360 + X + YY + #,** where		
NOTE To transfer to an Operator, see command *125 in Table 5-5.	**Argument**	**Specifies**	
	X	The Operator's extension number (1 to 8).	
	YY	The extension number (up to six digits).	
Deletes an Operator's extension.	***360 + X + #,** where		
	Argument	**Specifies**	
	X	The Operator's extension number (1 to 8).	
Defines a fax extension number, to which a call is transferred, when the Voice Mail System detects the fax tone.	***361 + X + YY + #,** where		
NOTE To select a fax for a script, see command *103 in Table 5-5.	**Argument**	**Specifies**	
	X	The fax number (1 to 4) in the Voice Mail System.	
	YY	The fax extension number.	
Defines a supervised mailbox (When the mailbox reaches 80% of its capacity, an appropriate message is sent to the mailbox owner.).	***362 + X + YY + #,** where		
	Argument	**Specifies**	
	X	The mailbox type. Enter:	
		Value	**For**
		1	Supervised mailbox
		2	Reserved type
	YY	The mailbox number.	
Defines the volume level.	***369 + X,** where		
	Argument	**Specifies**	
	X	The volume level on a 0 to 9 scale, where 9 is the highest level. 5 is the default level.	
Sets the cadence of Flashlight 1.	***370 + XXX,** where		
	Argument	**Specifies**	
	XXX	The cadence in milliseconds, in steps of 10 milliseconds. (For example, ***370 300** sets Flash-1 to 300 milliseconds.)	

Function	Code			
Sets the cadence of the Voice Mail System input and output tones in milliseconds.	***371 + X + YYYY,** where			
	Argument	**Specifies**		
	X	The tone type. Enter:		
		Value	**To set**	**Range (ms)**
		0	Incoming DTMF length	0000-3000
		1	Busy 1 off time.	0100-3000
		2	Busy 1 on time.	0100-3000
		3	Disconnect 1 off time.	0100-3000
		4	Disconnect 1 on time.	0100-3000
		5	Busy 2 off time.	0100-3000
		6	Busy 2 on time.	0100-3000
		7	Disconnect 2 off time.	0100-3000
		8	Disconnect 2 on time.	0100-3000
		*	DTMF off time.	0000-3000
		#	DTMF on time.	0000-3000
	YYYY	The cadence in milliseconds in steps of 10 milliseconds.		
Length of DTMF cadence, sent by the PBX, e.g. a Disconnect code.	***372 +X,** where			
📄 **NOTE** This parameter is needed in order to calculate the time, which must be truncated from the end of the message, which is terminated via the Disconnect code.	**Argument**	**Specifies**		
	X	The length of DTMF cadence in ms (0 to 9) Each step represents 100ms. So by setting this parameter to 2, Voice Mail System will cut 200ms from the end of the recording.		
Checks the Busy signal cadence by dialing the busy extension number and playing the Busy cadence values.	***375 + XXXX + #,** where			
	Argument	**Specifies**		
	XXXX	The number of the busy extension.		
Sets the voice and DTMF sensitivity. That is the volume, at which the Voice Mail System detects voice, when the called extension answers or the volume level, at which the Voice Mail System detects DTMF tones.	***376 + X + Y,** where			
	Argument	**Specifies**		
	X	Voice (1) or DTMF (2)		
	Y	The sensitivity level on a scale of 0 to 9.		

Function	Code	
Sets the DTMF amplitude.	***379** + **X,** where	
	Argument	**Specifies**
	X	The volume level on a scale of 3 to 9, where 9 is the highest level and 5 is the default level.
Sets the procedural codes, sent to the PBX, to perform a specific task.	***380** + **X** + **Code** + **#,** where	
	Argument	**Specifies**
	X	The code type. Enter:
		Value — **To**
		1 — Turn on notification code LED1.
		2 — Turn on notification code LED2.
		3 — Turn off all LEDs.
		4 — Transfer code.
		5 — Recall from Busy.
		6 — Recall from No Answer.
		7 — Recall from Hold during Busy menu message playback
	Code	The PBX code.
Deletes a specific procedural code.	***380** + **X** + **#,** where	
	Argument	**Specifies**
	X	The code type. Enter:
		Value — **To**
		1 — Turn on notification code LED1.
		2 — Turn on notification code LED2.
		3 — Turn off all LEDs.
		4 — Transfer code.
		5 — Recall from Busy.
		6 — Recall from No Answer.
		7 — Recall from Hold during Busy menu message playback
Dials a string from the Automated Attendant to the PBX.	***381** + **X** + **YY** + **#,** where	
NOTE To dial a DTMF string, see command *121 in Table 5-5.	**Argument**	**Specifies**
	X	A string number (0 to 9).
	YY	A DTMF string.

Function	Code	
Answers a number of samples.	***386 + X,** where	
	Argument	Specifies
	X	The number of samples between 0 and 9 (the default is 5).
Enables or disables modem support.	***399 + X,** where	
	Argument	Sets
	X	The state of the modem. Enter:

		Value	To
		1	Enable the modem.
		0	Disable the modem.

Table 5-3: Voice Mail System System Commands for DTMF Programming

> **NOTE**
> The PBX codes contain digits 0 to 9, *, #, Flash 1, Flash 2, pause and extension numbers. When entering a code:
>
> | Dial | *0 | *1 | *2 | *3 | *4 | *5 | *6 | *7 | *8 | *9 | ** |
> |---|---|---|---|---|---|---|---|---|---|---|---|
> | For | Extension | Pause | Flash 1 | Flash 2 | # | A | B | C | D | No. of new messages in mailbox | * |

Function	Code	
Sets the format of the directory listing. (The first name or last name is selected as the criterion for locating a mailbox owner in the directory listing.)	***011 + X,** where	
	Argument	Specifies
	X	The listing criterion. Enter:

		Value	To arrange listing according to
		0	The last name.
		1	The first name.

Function	Code	
Sets the default language.	***118 + Z,** where	
	Argument	Specifies
	Z	The default language (1, 2 or 3)

Table 5-4: In-band DTMF Commands for DTMF Programming

> **NOTES**
>
> a. The DTMF codes are as follows:
>
> | Digits | 0 to 9 |
> |--------|--------|
>
> | Character | * | See Note b. | # | A | B | C | D |
> |-----------|---|-------------|---|---|---|---|---|
> | Code | ** | *2 | *4 | *5 | *6 | *7 | *8 |
>
> b. Dial *2 for each digit in the extension. For example, if your PBX is configured to support a 3-digit extension, dial *2 three times.
>
> c. For some of the tasks defined by DTMF in-band codes, a destination must be defined.
>
> d. To transfer to the Operator, enter ***202 + XX + Y + #,** whereXX is the event number and Y is the number of the local Operator (1 to 8).

Function	Code	
Defines an in-band DTMF code for an event.	***200 + XX + YY + #,** where	
	Argument	**Specifies**
	XX	The event number.
	YY	An in-band DTMF code (see notes above).
Deletes all in-band DTMF codes.	***200 + #**	
Deletes in-band DTMF codes for an event.	***200 + XX + #,** where	
	Argument	**Specifies**
	XX	The event number.
Selects a task for an in-band DTMF code.	***201 + XX + YY,** where	
	Argument	**Specifies**
	XX	The event number.
	YY	The task number. Enter:

		Value	To
		00	Play the Automated Attendant opening script.
		01	Leave a message.
		02	Retrieve a message.
		03	Play a specific script.
		04	Play a Busy menu.
		05	Play a No Answer menu.
		06	Play a Do Not Disturb menu.
		07	Disconnect a call.

Function	Code			
Selects a task for an in-band DTMF code.		**Value**	**To**	
		08	Record the conversation.	
		09	Change to the 1st language and play a specific script.	
		10	Change to the 2nd language and play a specific script.	
		11	Change to the 3rd language and play a specific script.	
		12	Play the Directory Listing (DBN).	
		13	Transfer to a mailbox (see Note c.).	
		14	Transfer to an extension (see Note c.).	
		15	Transfer to the Operator (see Note c.).	
		16	Transfer to a group of mailboxes.	
Selects a destination for an in-band DTMF event.	***202 + XX + YY + #,** where			
	Argument	**Specifies**		
	XX	The event number.		
	YY	The destination of the task (see Note d.).		
Deletes the destination for a specific in-band DTMF event.	***202 + XX + #,** where			
	Argument	**Specifies**		
	XX	The event number.		
Deletes all task destinations.	***202 + #**			
Defines MATRA support.	***204 + X,** where			
	Argument	**Specifies**		
	X	If the MATRA PBX support is enabled. Enter:		
		Value	**To**	
		0	To disable the PBX support.	
		1	To enable the PBX support.	
Defines the waiting period for the first DTMF character of the in-band DTMF code.	***210 + XXXX,** where			
	Argument	**Specifies**		
	XXXX	The waiting period between 0000 and 9980 milliseconds, in steps of 20 milliseconds.		
Defines the waiting period between adjacent DTMF characters received as part of the in-band DTMF code.	***211 + XXX,** where			
	Argument	**Specifies**		
	XXX	The waiting period between 000 and 980 milliseconds, in steps of 20 milliseconds.		
Defines the type of transfer	***220 + X,** where			

Function	Code		
supervision.	**Argument**	**Specifies**	
	X	The type of transfer supervision. Enter:	
		Value	**To use**
		0	Call progress tones.
		1	DTMF codes.
Defines the DTMF codes for the No Answer, Busy and Do Not Disturb conditions.	***221 + X + Code + #,** where		
	Argument	**Specifies**	
	X	The condition. Enter:	
		Value	**For**
		1	The No Answer condition.
		2	The Busy condition.
		3	The Do Not Disturb condition.
	Code	The DTMF code sent by the PBX for transfer supervision (see Note a.).	
Deletes the DTMF code for a specific condition.	***221 + X + #,** where		
	Argument	**Specifies**	
	X	The condition. Enter:	
		Value	**For**
		1	The No Answer condition.
		2	The Busy condition.
		3	The Do Not Disturb condition.
Deletes the DTMF code for all conditions.	***221** + #		

Table 5-5: AA Script Commands for DTMF Programming

📄 **NOTE**
The following conventions apply to the arguments of the DTMF commands, used to program the Voice Mail System Automated Attendant:
XX indicates the number of the played script messages.
B indicates the digit dialed to select the required service.
# indicates to press the respective key at the end of the command.

Function	Code	
Records a script message after the beep.	*100 + XX	
Plays a script message after the beep.	*101 + XX	
Deletes a script message.	*102 + XX	
Selects a fax for transferring a script, when the Voice Mail System detects the fax tone.	*103 + XX + Y, where	
📄 **NOTE** To define a fax extension, see command *361 in Table 5-2	**Argument**	**Specifies**
	Y	The fax number.
Select EOM timeout for each script.	***105 +XX + Y + #,** where	
	Argument	**Specifies**
	Y	Timeout in seconds
Number of Script repetitions	***107 + XX + N + #,** where	
	Argument	**Specifies**
	N	The number of times the script will be played, before the EOM operation will be executed (1 to 9)
Transfers to a script message defined by a submenu.	***110 + XX + B + YY + #,** where	
	Argument	**Specifies**
	YY	The script message in the submenu.
Transfers to the directory listing. (The Voice Mail System asks the caller to enter the first three letters of the first or last name of the required party.)	***111 + XX + B + #**	
Selects an opening menu to replace the existing one.	***112 + XX + YY + Z + #,** where	
	Argument	**Specifies**

Function	Code	
	YY	The number of the replacement script: 00 to 97.
	Z	The number of the line.
Transfers the caller to an opening (main) menu, when pressing the specified digit.	***115 + XX + B + #**	
Transfers to a script message played in the specified language.	***117 + XX + B + YY + Z + #,** where	
	Argument	**Specifies**
	YY	The number of the destination script.
	Z	The destination script language (1, 2 or 3).
Transfers the call to the specified extension.	***120 + XX + B + Extension + #,** where	
	Argument	**Specifies**
	Extension	Up to six digits, irrespective of the legal number of the extension.
Dials a DTMF string and the caller is asked to enter a string number from the PBX speed dial table.	***121 + XX + B + Y + #,** where	
	Argument	**Specifies**
	Y	The DTMF string number (0 to 9).
Transfers the call from the script message to a local Operator.	***125 + XX + B + Y + #,** where	
	Argument	**Specifies**
	Y	The Operator number (0 to 8).
Transfers to a mailbox. (The caller is asked to dial a mailbox, to which the call is directly transferred and a personal greeting is played.)	***130 + XX + B + Mailbox + #,** where	
	Argument	**Specifies**
	Mailbox	The mailbox number.
Disconnects the caller.	***140 + XX + B + Z + #,** where	
	Argument	**Specifies**
	Z	How to disconnect the line.
		Value — **Specifies to**
		0 — Disconnect the line without leaving a message.
		1 — Disconnect the line with a message.
Leaves a message in a mailbox. (After pressing on the defined digit, the Voice Mail System asks for a mailbox number to leave a message.)	***150 + XX + B + #**	

Function	Code
Retrieves messages from a mailbox. (After pressing the defined digit, the Voice Mail System requests the mailbox number and password.)	***160 + XX + B + #**

Function	Code		
Directly transfers the caller, who is instructed to dial to a legal extension.	***170 + XX + B + First Digit + #,** where		
	Argument	**Specifies**	
	First Digit	The first digit of the group of extension numbers.	

Function	Code		
Directly transfers the caller, who is instructed to dial to a PBX mailbox extension.	***175 + XX + B + First Digit + #,** where		
	Argument	**Specifies**	
	First Digit	The first digit of the group of extension numbers.	

Function	Code
Places a call on hold.	***180 + XX + B + #**
Transfers to a busy extension.	***185 + XX + B + #**
Resets the specified message to its default value.	***190 + XX + B + #**
Resets all messages to default values when the specified digit is pressed.	***190 + B + #**

Table 5-6: AA Scheduling Commands for DTMF Programming

Function	Code			
Sets the daylight saving time. (The daytime is moved by one hour backward or forward.)	***7 + XXXX + Y,** where			
	Argument	**Specifies**		
	XXXX	A 4-digit password.		
	Y	The change in daylight saving time, where:		
		Value	**Indicates**	
		0	One hour reduction.	
		1	One hour increase.	
Changes the operational mode, (scheduling mode and schedule type) using a password.	***8 + XXXX + Y,** where			
	Argument	**Specifies**		
	XXXX	A 4-digit password.		
	Y	The Voice Mail System schedule mode and type:		
		Value	**Specifies**	
		0	The daytime schedule.	
		1	The nighttime schedule.	
		2	The holidaytime schedule.	

Function	Code		
		3	Automatic scheduling per VUP programming.
		4	The break time schedule.
Changes the operational mode (scheduling mode and schedule type).	***400 + X,** where		
	Argument	**Specifies**	
	X	The Voice Mail System schedule mode and type:	
		Value	**Specifies**
		0	The daytime schedule.
		1	The nighttime schedule.
		2	The holidaytime schedule.
		3	Automatic scheduling per VUP programming.
		4	The break time schedule.
Selects the time stamp format.	***410 + X,** where		
	Argument	**Specifies**	
	X	The time stamp format as follows:	
		Value	**Specifies**
		0	12-hour format (default)
		1	24-hour format
Sets the time.	***420 + hh + mm,** where		
	Argument	**Specifies**	
	hh	The hour of a day (00 to 23).	
	mm	The minute in an hour (00 to 59).	
	For example, ***420 15 25** stands for 3:25 p.m.		
Sets the date.	***430 + DD + MM + YY,** where		
NOTE The day of the week is automatically calculated by the system.	**Argument**	**Specifies**	
	DD	The date of a month (01 to 31).	
	MM	The month (01 to 12).	
	YY	The year in a century (00 to 99, enter 00 for the year 2000).	
Enables listening to the system time.	***440**		
Sets the working hours schedule for each day of the week.	***450 + DD + hh mm + hh mm,** where		
	Argument	**Specifies**	
	DD	The day of the week between 1 and 7, where 1 is Monday.	

Function	Code	
	hh mm	The start of the workingday in the 24 hour format.
	hh mm	The end of the workingday in the 24 hour format.
	For example, ***450 1 08 30 17 00** means that the Voice Mail System will play the day schedule opening greeting on Monday from 8:30 until 17:00. It will play the night schedule opening greeting for the rest of the time.	
Sets the break time schedule for each day of the week.	***460 + DD + hh mm + hh mm** where	
	Argument	**Specifies**
	DD	The day of the week between 1 and 7, where 1 is Monday.
	hh mm	The start of break time in the 24 hour format.
	hh mm	The end of break time in the 24 hour format.
Sets the annual holidays schedule.	***470 + DD + MM + hh mm + hh mm,** where	
	Argument	**Specifies**
	DD	The day of the month (01 to 31).
	MM	The month (01 to 12).
	hh mm	The start time in a 24 hour format
	hh mm	The end time in a 24 hour format
Deletes all holiday schedules.	***470 + #**	
Deletes the holiday schedule for a specific date.	***470 + DD + MM + #,** where	
	Argument	**Specifies**
	DD	The day of the month (1 to 31).
	MM	The month (1 to 12).
Deletes all holiday schedules for a specific month.	***470 + ** + MM + #** where	
	Argument	**Specifies**
	**	Wildcard.
	MM	The month (1 to 12).
Defines the external notification active time.	***490 + hh mm + hh mm,** where	
	Argument	**Specifies**
	hh mm	The start time in a 24-hour format.
	hh mm	The end time in a 24-hour format.
	For example, enter ***490 09 00 20 00** to activate the external notification between 9 a.m. and 8 p.m.	
Enables or disables automatic daylight saving time.	***499 + X,** where	
	Argument	**Specifies**

Function	Code		
		Argument	**Specifies**
NOTE In the US, the time is changed on the 1st Sunday of April and on the last Sunday of October. In Europe, the time is changed on the last Sunday of March and on the last Sunday of October. In all cases, the time is changed at 2:00 a.m.			Value To activate the automatic saving. Enter:
			0	Disable automatic saving.
			1	Enable USA's automatic daylight saving time.
			2	Enable the European automatic daylight saving time.

Table 5-7: VM Mailbox Commands for DTMF Programming

Function	Code
Creates a range of mailboxes.	***500 + mailbox + * + mailbox + #,** where
	Argument | **Specifies**
	mailbox | The number of the first mailbox and the number of the last mailbox (up to 6 digits).
Creates a mailbox.	***501 + mailbox + #,** where
	Argument | **Specifies**
	mailbox | The number of the mailbox (up to six digits).
Switches to an announcer mailbox.	***502 + mailbox + Y + #,** where
NOTE It is impossible to leave a message in the announcer's mailbox.	**Argument** | **Specifies**
	mailbox | The number of the existing mailbox.
	Y | The type of mailbox. Enter:
	| **Value** | **For**
	| 0 | A regular mailbox.
	| 1 | An announcer mailbox.
	*505 + mailbox + * + mailbox + * + Extension + #, where
	Argument | **Specifies**
	mailbox | The numbers of the first and last mailbox in the range.
	Extension | The number of the first extension in the range.
	For example, ***505 300 * 350 * 500 #** defines mailbox 300 to 350 for a range of extensions starting with 500.
	*506 + mailbox + * + Extension + #, where
	Argument | **Specifies**

Function	Code	
	mailbox	The mailbox number.
	Extension	The extension number.
Allocates a backup extension to a range of mailboxes.	***507** + **mailbox** + ***** + **mailbox** + ***** + **Extension** + **#,** where	
📄 NOTE To define a backup extension, see command *332 in Table 5-2.	**Argument**	**Specifies**
	mailbox	The numbers of the first and last mailboxes in the range.
	Extension	The number of the backup extension.
Allocates a backup extension to a mailbox.	***508** + **mailbox** + ***** + **Extension** + **#,** where	
	Argument	**Specifies**
	mailbox	The number of the mailbox.
	Extension	The number of the backup extension.
Deletes a mailbox.	***510** + **mailbox** + **#,** where	
⚠ CAUTION Before deleting a mailbox, remove all calls transferred to the mailbox by the Automated Attendant scripts.	**Argument**	**Specifies**
	mailbox	The number of the mailbox.
Changes the type of a range of defined mailboxes.	***520** + **mailbox** + ***** + **mailbox** + **B** + **#,** where	
	Argument	**Specifies**
	mailbox	The numbers of the first and last mailbox in a range.
	B	The mailbox type. Enter:
		Value / **For** 0 / Real mailbox. 1 / Virtual mailbox.
Changes the type of a defined mailbox.	***521** + **mailbox** + **B** + **#,** where	
	Argument	**Specifies**
	mailbox	The mailbox to be created.
	B	The mailbox type. Enter:
		Value / **For** 0 / Real mailbox. 1 / Virtual mailbox.
Plays or skips the time and date stamp for a range of mailboxes.	***530** + **mailbox** + ***** + **mailbox** + **B** + **#,** where	
	Argument	**Specifies**

Function	Code		
	mailbox	The numbers of the first and last mailbox in a range.	
	B	The action to be taken. Enter:	
		Value	**To**
		0	Play the time and date.
		1	Skip the time and date.
Plays or skips the time and date stamp for a mailbox.	***531** + **mailbox** + **B** + **#,** where		
	Argument	**Specifies**	
	mailbox	The mailbox number	
	B	The action to be taken. Enter:	
		Value	**To**
		0	Play the time and date.
		1	Skip the time and date.
Sets the language for a range of mailboxes.	***532** + **mailbox** + ***** + **mailbox** + **Z** + **#,** where		
	Argument	**Specifies**	
	mailbox	The numbers of the first and last mailbox in a range.	
	Z	The language number (1, 2 or 3).	
Sets the language for a mailbox.	***533** + **mailbox** + **Z** + **#,** where		
	Argument	**Specifies**	
	mailbox	The mailbox number.	
	Z	The language number (1, 2 or 3).	
Defines an Operator for a range of mailboxes.	***534** + **mailbox** + ***** + **mailbox** + **Y** + **#,** where		
	Argument	**Specifies**	
📄 NOTE To define an Operator's extension, see command *360 in Table 5-2.	mailbox	The numbers of the first and last mailbox in a range.	
	Y	The number of the Operator (1 to 8).	
Defines an Operator for a mailbox.	***535** + **mailbox** + **Y** + **#,** where		
	Argument	**Specifies**	
	mailbox	The mailbox number.	
	Y	The number of the Operator (1 to 8, 1 is default).	
Defines a fax for a range of mailboxes.	***536** + **mailbox** + ***** + **mailbox** + **Y** + **#,** where		
	Argument	**Specifies**	

Function	Code	
NOTE To define a fax extension, see command *361 in Table 5-2.	mailbox	The numbers of the first and last mailbox in a range.
	Y	The number of the fax (1 to 4).
Defines a fax for a mailbox.	***537** + **mailbox** + **Y** + **#,** where	
	Argument	**Specifies**
	mailbox	The mailbox number.
	Y	The number of the fax (1 to 4).
Defines the maximum number of stored messages for a range of mailboxes.	***538** + **mailbox** + ***** + **mailbox** + **YY** + **#,** where	
	Argument	**Specifies**
	mailbox	The numbers of the first and last mailbox in a range.
	YY	The maximum number of stored messages.
Defines the maximum number of stored messages for a mailbox.	***539** + **mailbox** + **YY** + **#,** where	
	Argument	**Specifies**
	mailbox	The mailbox number.
	YY	The maximum number of stored messages.
Adds a mailbox to a group.	***540** + **group** + **mailbox** + **#,** where	
NOTE Define the mailbox before adding it to a group.	**Argument**	**Specifies**
	group	The group number.
	mailbox	The mailbox number.
Changes the first digit of the group numbers.	***545** + **X,** where	
	Argument	**Specifies**
	X	The first digit of the mailbox groups (0 is the default).
Deletes a mailbox from a group.	***550** + **group** + **mailbox** + **#,** where	
	Argument	**Specifies**
	group	The group number.
	mailbox	The mailbox number.
Resets a mailbox group. All mailboxes are removed from the group.	***560** + **group,** where	
	Argument	**Specifies**
	group	The group number.
Resets the user password to the default value (1234).	***570** + **mailbox** + **#,** where	
	Argument	**Specifies**
	mailbox	The mailbox number.

Table 5-8: VM Notification Commands for DTMF Programming

Function	Code			
Notifies after reorganization.	*001 + X, where			
	Argument	**Specifies**		
	X	The setting of the backup notification, after a memory re-organization process. Enter:		
		Value	**To**	
		0	Disable the backup notification.	
		1	Enable the backup notification.	
Sets local notification for a range of mailboxes.	*700 + mailbox + * + mailbox + X + #, where			
	Argument	**Specifies**		
	mailbox	The numbers of the first and last mailbox in a range.		
	X	The notification state and indication. Enter:		
		Value	**To**	
		0	Disable the notification.	
		1	Indicate notification by turning on Light 1.	
		2	Indicate notification by turning on Light 2.	
		3	Indicate notification using sign ring.	
		4	Indicate notification using the ring.	
Disables local notification for all mailboxes.	*700 + #			
Sets local notification for one mailbox.	*701 + mailbox + X + #, where			
	Argument	**Specifies**		
	mailbox	The mailbox number		
	X	The notification state and indication. Enter:		
		Value	**To**	
		0	Disable the notification.	
		1	Indicate notification by turning on Light 1.	
Sets local notification for one mailbox.	X	**Value**	**To**	
		2	Indicate notification by turning on Light 2.	
		3	Indicate notification using sign ring.	

Function	Code		
		4	Indicate notification using the ring.
Enables remote notification for a range of mailboxes.	**∗710** + **mailbox** + **∗** + **mailbox** + **Y** + **#,** where		
	Argument	**Specifies**	
	mailbox	The numbers of the first and last mailbox in a range.	
	Y	The notification state. Enter:	
		Value	**To**
		0	Disable the remote notification.
		1	Enable remote notification.
Disables remote notification for all mailboxes.	**∗710** + **#**		
Enables remote notification for one mailbox.	**∗711** + **mailbox** + **X** + **#,** where		
	Argument	**Specifies**	
	mailbox	The mailbox number.	
	X	The notification state. Enter:	
		Value	**To**
		0	Disable the remote notification.
		1	Enable remote notification.
Sets the interval between successive notification rings.	**∗720** + **XX,** where		
	Argument	**Specifies**	
	XX	The notification interval in minutes (1 to 99).	
Sets the ring notification duration.	**∗730** + **X,** where		
	Argument	**Specifies**	
	X	The notification duration. Enter:	
		Value	**For**
		0	A short ring duration (default).
		1	A long ring duration.
Sets the maximum number of days to store a message in the Voice Mail System.	**∗740** + **XX,** where		
	Argument	**Specifies**	
	XX	The number of days to store a message. Enter:	
		Value	**For**
		01 to 99	The number of days.
		00	No removal of messages.

Function	Code		
Sets the wait period after off-hook for notification dialing.	***741 + X,** where		
	Argument	**Specifies**	
	X	The time in seconds (0 to 9).	
Sets the number of ring notification attempts.	***750 + XX,** where		
	Argument	**Specifies**	
	XX	The number of attempts (1 to 99 and 5 is the default).	
Activates the LED notification.	***760 + X,** where		
	Argument	**Specifies**	
	X	Either the first or a subsequent message. Enter:	
		Value	**For**
		0	The first new message.
		1	Any subsequent message.
Sets the recording length.	***790 + X,** where		
	Argument	**Specifies**	
	X	The recording length in minutes (1 to 9).	

Table 5-9: Administrator's Commands for DTMF Programming

Function	Code
Changes the Administrator's password (four digits). **NOTE** Do not use the * and # keys for the password.	***600** + * + **Old password** + **New password** + #
Changes the Operator's password. **NOTE** Do not use the * and # keys for the password.	***601** + * + **Old password** + **New password** + #
Forces reorganization.	***610**
Resets the system to factory settings. (Use this operation to restore the settings of the initial PBX, in case the Voice Mail System has been programmed for a different PBX.)	***654** + * + **XXXX** + **#,** where 	Argument	Specifies
XXXX	The Administrator's password.	
Enables to listen to the software version number.	***680**
Plays a system message. (For a list of system messages, see the System Messages in Chapter 7)	***690** + **Z** + **XXX,** where 	Argument	Specifies
Z	The message language (1, 2 or 3).
XXX	The number of the system message.	
Plays all system messages.	***691** + **Z,** where 	Argument	Specifies
Z	The message language (1, 2 or 3).	
Enables or disables the playing of specific system messages.	***699** + **X** + **Y,** where | Argument	Specifies		
---	---	---	---
X	A system message. Enter:		
		Value	To
		1	Enable or disable message 004.
		2	Enable or disable message 102.
		3	Enable or disable message 095.
Y	If the message is played. Enter:		
		Value	To
		0	Enable message playing
		1	Disable message playing
		2	Play the message 095, if selected, for a mailboxe without a greeting message.	

6 Programming Forms

This chapter contains forms that are intended to facilitate and speed up the process of planning the setup and programming of the Voice Mail System unit.

It is strongly recommended to fill in these forms before starting a programming session. For programming procedures using the VUP software, refer to Chapters 3 and 4 in the manual. For DTMF programming, refer to the relevant tables in Chapter 5.

The forms divide the Voice Mail System parameters into four groups as follows:

- Basic PBX, AA and VM parameters (see Table 6-1)
- Notification parameters (see Table 6-2)
- Time, data and scheduling parameters (see Table 6-3)
- In-band DTMF protocol parameters (see Table 6-4)

Table 6-1: Basic PBX, AA and VM Parameters Form

Function	Code	Programming Reference	
		DTMF	VUP
Selects opening menu.	*112 ___ ___ __ # ___ ___ __ # ___ ___ __ # ___ ___ __ #	Table 5-5	Script Programming
Sets number of rings, before the line is answered.	Line 1: *310 1 _____ Line 2: *310 2 _____ Line 3: *310 3 _____ Line 4: *310 4 _____ Line 5: *310 1 _____ Line 6: *310 2 _____ Line 7: *310 3 _____ Line 8: *310 4 _____	Table 5-2	PBX Settings
Sets the waiting period for No Answer.	*311 _____	Table 5-2	PBX Settings
Defines legal PBX extensions.	Group 1: 320 0 ___* ___ # Group 2: 320 1 ___* ___ # Group 3: 320 2 ___* ___ # Group 4: 320 3 ___* ___ # Group 5: 320 4 ___* ___ #	Table 5-2	PBX Settings
Sets the Operator's ID code.	*330 _____	Table 5-2	PBX Settings
Sets the disconnect code.	*333 _____ #	Table 5-2	PBX Settings
Sets the external access code.	*340 _____ #	Table 5-2	PBX Settings
Sets the transfer mode.	*350 ___ _____ ___ _____	Table 5-2	PBX Settings
Sets the numbers of the Operators' extensions.	*360 ___ _____ # ___ _____ # ___ _____ # ___ _____ # ___ _____ # ___ _____ # ___ _____ # ___ _____ #	Table 5-2	PBX Settings
Sets the number of the supervised mailbox.	*362 _____ #	Table 5-2	PBX Settings
Sets Flash 1.	*370 _____	Table 5-2	PBX Settings
Sets the cadence of the system input and output tones in milliseconds.	*371 ___ _____ ___ _____ ___ _____ ___ _____	Table 5-2	PBX Settings

Function	Code	Programming Reference	
		DTMF	VUP
Sets the voice sensitivity.	*376 1 _____	Table 5-2	PBX Settings
Sets the procedural codes sent to the PBX, in order to perform specific tasks.	*380 ___ _____ #	Table 5-2	PBX Settings
Creates a mailbox or a range of mailboxes.	*500 _____* _____ # *501 _____ #	Table 5-7	Handling the List of Mailboxes
Creates a virtual mailbox or a range of virtual mailboxes.	*520 _____* _____ # *521 _____ #	Table 5-7	Handling the List of Mailboxes
Changes the first digit of the group numbers.	*545 __	Table 5-7	Setting a Mailbox Group
Adds a mailbox to a group.	Group 000: *540 000 _____ # Group 001: *540 001 _____ # Group 002: *540 002 _____ # Group 003: *540 003 _____ #	Table 5-7	Setting a Mailbox Group
Sets the maximum number of days to store a message.	*740 _____	Table 5-7	Handling the List of Mailboxes
Sets the maximum number of stored messages for a range of mailboxes.	*538 ____* ____ + __ + #	Table 5-7	Handling the List of Mailboxes

Table 6-2: Message Notification Form

Function	Code	Programming Reference	
		DTMF	VUP
Enables local notification for a range of mailboxes.	*700 _____ *_____ ___ #	Table 5-8	Setting Message Notifications
Enables local notification for one mailbox.	*701 _____ ___ #	Table 5-8	Setting Message Notifications
Enables remote notification for a range of mailboxes.	*710 _____* _____ ___ #	Table 5-8	Setting Message Notifications
Enables remote notification for one mailbox.	*711 _____ ___ #	Table 5-8	Setting Message Notifications
Sets the external notification active time.	*490 ___ ___ ___ ___	Table 5-6	Schedule Programming
Sets the interval between notification rings.	*720 _____	Table 5-6	Schedule Programming
Sets the duration of the ring notification.	*730 _____	Table 5-6	Schedule Programming
Activates the notification LED.	*760 _____	Table 5-6	Schedule Programming

Table 6-3: Time, Data and Scheduling Form

> **NOTE**
> Use the planning lists below, before programming the Voice Mail System schedule for the holiday dates and the working and break hours for each and every day.

Function	Code					Programming Reference	
						DTMF	VUP
Sets the time.	*420 __ __					Table 5-6	Schedule Programming
Sets the date.	*430 __ __ __					Table 5-6	Schedule Programming
Defines the annual holiday dates.	*470 __ __ __ __ __ __					Table 5-6	Schedule Programming
	Day	Month	Start Time	End Time	Holiday Name		
	__	__	__	__	_____		
	__	__	__	__	_____		
	__	__	__	__	_____		
	__	__	__	__	_____		
	__	__	__	__	_____		
	__	__	__	__	_____		
	__	__	__	__	_____		
	__	__	__	__	_____		
	__	__	__	__	_____		
	__	__	__	__	_____		
	__	__	__	__	_____		
	__	__	__	__	_____		
	__	__	__	__	_____		
	__	__	__	__	_____		
	__	__	__	__	_____		
	__	__	__	__	_____		
	__	__	__	__	_____		

Function	Code					Programming Reference	
						DTMF	**VUP**
Defines the working and break hours.	*450 __ __ __ __ __ *460 __ __ __ __ __					Table 5-6	Schedule Programming
			Work		**Break**		
	Day	**Start Time**	**End Time**	**Start Time**	**End Time**		
	1 Mon	__	__	__	__		
	2 Tue	__	__	__	__		
	3 Wed	__	__	__	__		
	4 Thu	__	__	__	__		
	5 Fri	__	__	__	__		
	6 Sat	__	__	__	__		
	7 Sun	__	__	__	__		
Sets the operational mode (scheduling mode and type).	*400 __					Table 5-6	Schedule Programming

📄 **NOTES**

a. This form contains the programming schedule for up to four script messages. Please copy the form if you need more than four script messages.

b. The following message numbers are dedicated by default to specific script messages:

   - Script message number 00 to the Day Mode Opening Menu
   - Script message number 10 to the Night Mode Opening Menu
   - Script message number 15 to the Break Time Opening Menu
   - Script message number 20 to the Holiday Mode Opening Menu

   The rest of the script messages (01 to 09, 11 to 14 and 16 to 19) may be used in all modes, without limitations.

Script No. ____	Script No. ____	Script No. ____	Script No. ____
0 _____	0 _____	0 _____	0 _____
1 _____	1 _____	1 _____	1 _____
2 _____	2 _____	2 _____	2 _____
3 _____	3 _____	3 _____	3 _____
4 _____	4 _____	4 _____	4 _____
5 _____	5 _____	5 _____	5 _____
6 _____	6 _____	6 _____	6 _____
7 _____	7 _____	7 _____	7 _____
8 _____	8 _____	8 _____	8 _____
9 _____	9 _____	9 _____	9 _____
EOM _____	EOM _____	EOM _____	EOM _____

Table 6-4: In-band DTMF Protocol Parameters Form

📄 NOTE
Use the planning list below, before programming the in-band DTMF codes and the associated tasks and destinations.

Function	Code	Programming Reference	
		DTMF	VUP
Defines an in-band DTMF code for an event.	*200 __ _____ #	Table 5-4	In-band DTMF Protocol
Selects a task for an in-band DTMF code.	*201 __ __		
Selects a destination for a specific in band DTMF event.	*202 __ ____ #		
Defines the waiting period for the first DTMF character in the in-band DTMF code.	*210 _____		
Defines the waiting period between reception of each DTMF character in the In-Band DTMF code.	*211 _____		
Defines the Transfer Supervision Type.	*220 __		
Defines the DTMF code for the Answer, Busy and Do Not Disturb conditions.	*221 __ ____ #		

Event	In-band DTMF Code Code: *200	Task Code: *201	Destination Code: *202
0			
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			

7 VM System Messages

This chapter provides the Voice Mail system messages. You can hear each of these messages in the programming mode by dialing ***690**, then programming the language digit (1, 2 or 3) and the 3-digit message number. You can also hear all system messages by dialing ***691** and setting the language digit (1,2 or 3).

Table 7-1: VM System Messages

Group	No.	Message		
System	000	This system has not been programmed. Please refer to the installation manual for instructions. Thank you!		
	001	Please hang up now.		
	002	Please enter your password.		
	003	Invalid entry. Please try again.		
	004	Please hold.		
	005	Message was received on…		
	006	At...		
	007	Zero		
	008	O'clock		
	009	No…		
Group	**No**.	**Message**	**No**.	**Message**
Numbers	010	One	024	Fifteen
	011	Two	025	Sixteen
	012	Three	026	Seventeen
	013	Four	027	Eighteen
	014	Five	028	Nineteen
	015	Six	029	Twenty
	016	Seven	030	Thirty
	017	Eight	031	Forty
	018	Nine	032	Fifty
	019	Ten	033	Sixty

Group	No.	Message		
	020	Eleven	034	Seventy
	021	Twelve	035	Eighty
	022	Thirteen	036	Ninety
	023	Fourteen		
Dates	037	First	048	Twelfth
	038	Second	049	Thirteenth
	039	Third	050	Fourteenth
	040	Fourth	051	Fifteenth
	041	Fifth	052	Sixteenth
	042	Sixth	053	Seventeenth
	043	Seventh	054	Eighteenth
	044	Eighth	055	Nineteenth
	045	Ninth	056	Twentieth
	046	Tenth	057	Thirtieth
	047	Eleventh		
Months	058	Of January	064	Of July
	059	Of February	065	Of August
	060	Of March	066	Of September
	061	Of April	067	Of October
	062	Of May	068	Of November
	063	Of June	069	Of December
System	070	…and…		
	071	You have…		
	072	…new messages		
	073	…new message		
	074	…messages		
	075	To retrieve messages, press 1. To change mailbox settings, press 2. To send a message, press 8. To return to the main menu, press 9.		
	076	You have no messages.		
	077	Message saved. Please hold.		
	078	To skip this message, press 1. To replay, press 2. To save, press 3. To forward, press 4. To reply to message sender, press 5. To delete, press 8. To return to the previous menu, press 9.		
	079	Message saved.		
	080	Message deleted.		

Group	No.	Message
	081	Please enter a new four digit password.
	082	To delete skipped messages, press 8. To save all messages, press 9.
	083	…yesterday…
	084	…today…
	085	Please enter your mailbox number.
	086	Invalid mailbox. Please try again.
	087	Incorrect password. Please try again.
	088	Please record your greeting after the tone. Press the hash key when you have finished.
	089	Please record your name after the tone. Press the hash key when you have finished.
	090	Calls will be transferred to your extension.
	091	Calls will not be transferred to your extension.
	092	Please enter the mailbox number.
	093	You have reached the mailbox of…
	094	You have reached mailbox number…
	095	Please leave a message after the tone. When you have finished, press star for further options or simply hang up.
	096	The required extension is busy. To try another extension, press 1 followed by the extension number. To hold, press 2. To leave a message, press 8. To transfer to the Operator, press 0. To return to the Main Menu, press 9.
	097	The required extension does not answer. To try another extension, press 1 followed by the extension number. To leave a message, press 8. To transfer to the Operator, press 0. To return to the main menu, press 9.
	098	The mailbox is currently unavailable.
	099	The system is busy. Please wait.
	100	a.m.
	101	p.m.
	102	You have a call.
	103	The required extension is busy. To try another extension, press 1 followed by the extension number. To hold, press 2. To transfer to the Operator, press 0. To return to the main menu, press 9.
	104	The required extension does not answer. To try another extension, press 1 followed by the extension number. To transfer to the Operator, press 0. To return to the main menu, press 9.
	105	You have exceeded the maximum message length. Your message will be sent.
	106	Sunday

Group	No.	Message
	107	Monday
	108	Tuesday
	109	Wednesday
	110	Thursday
	111	Friday
	112	Saturday
	113	O (As in Eight-O-Two for 8:02)
	114	Pause
	115	Please record your message after the tone. Press the hash key when you have finished.
	116	To change the external notification, press 1. To enter the telephone number, press 2. To listen to the current telephone number, press 3. To return to the previous menu, press 9.
	117	External notification is disabled.
	118	External notification is enabled.
	119	You have a new message. To retrieve messages press 1.
	120	Please enter the telephone number. Press the hash key when you have finished.
	121	The required extension is unavailable. To try another extension, press 1 followed by the extension number. To leave a message, press 8. To transfer to the Operator, press 0. To return to the main menu, press 9.
	122	Invalid extension number. Please try again.
	123	Skipped messages have been deleted.
	124	To listen to your recording, press 1. To re-record, press 2. To delete, press 8. To return to the previous menu, press 9.
	125	That recording does not exist.
	126	The Busy On-Time is…
	127	The Busy Off-Time is…
	128	To listen to your password, press 1. To edit, press 2. To return to the previous menu, dial 9.
	129	Message was received…
	130	For Pager notification, press 1. To enter the pager number, press 2. To listen to the pager number, press 3. To return to the previous menu, press 9.
	131	Pager notification is disabled.
	132	Pager notification is enabled.
	133	Please enter your pager number. Press the hash key when you have finished.
	134	…saved messages.

Group	No.	Message
	135	…saved message.
	136	That mailbox is currently unavailable.
	137	Storage space is nearing capacity.
	138	For…
	139	…press…
	140	To return to the previous list, press 7.
	141	For additional listings, press 8.
	142	To enter another name, press 0. To return to the main menu, press 9.
	143	No directory listing is available.
	144	To record your greeting, press 1. To record your name, press 2. To access directory listing options, press 3. To change your password, press 4. To change the Do Not Disturb mode, press 5. To change external notification, press 6. To change the pager notification, press 7. To return to the previous menu, press 9.
	145	To listen to your directory listing, press 1. To enter your directory listing, press 2. To delete your directory listing, press 8. To return to the previous menu, press 9.
	146	Operation Successful.
	147	Using your keypad, please enter the first 3 letters of your last name. For Q press 7, for Z press 9.
	148	Using your keypad, please enter the first 3 letters of the called person's last name. For Q press 7, for Z press 9.
	149	Using your keypad, please enter the first 3 letters of your first name. For Q press 7, for Z press 9.
	150	Using your keypad, please enter the first 3 letters of the called person's first name. For Q press 7, for Z press 9.
	151	Your call is being transferred to…
	152	To join the directory listing, please make sure your name is recorded.
	153	Product version is…
	154	To try another extension, press 1 followed by the extension number. To transfer to the Operator, press 0. To return to the Main Menu, press 9.
	155	This value has not been set.
	156	To change mailbox settings, press 2. To send a message, press 8. To return to the main menu, press 9.
	157	To skip this message, press 1. To replay, press 2. To save, press 3. To forward, press 4. To delete, press 8. To return to the previous menu, press 9.

Group	No.	Message
	158	To record your greeting, press 1. To record your name, press 2. To access to directory-listing options, press 3. To change your password, press 4. To change the Do Not Disturb mode, press 5. To return to the previous menu, press 9.

8 SMS Transmitter

The SMS Transmitter is a GSM SMS notification unit, controlled by the Voice Mail System, which sends SMS messages to mobile phones. This is done to notify the mailbox owner of new messages in his mailbox.

The SMS Transmitter and the Voice Mail System communicate via an RS-232 cable. The Voice Mail System only sends data to the SMS Transmitter.

The SMS Transmitter has the following features:

- Tri-band GSM module (900/1800/1900MHz)

- Maintenance free

- Easy operation

- Plug & Play installation

- LED status and error indicator

8.1 Physical Description

8.1.1 Front Panel

Figure 8-1: Front Panel

The Front Panel of the SMS Transmitter contains 6 LEDs, which will be described in the following table:

LED	Color	Indication
1	Orange	Signal level 25%.
2	Orange	Signal level 50%.
3	Orange	Signal level 75%.
4	Orange	Signal level 100%.
Traffic	Red	Data traffic – The light is on, when receiving data from the Voice Mail System or when sending an SMS message.
Ready	Red	Ready to operate – The light is flashing during registration. After this, the light will be on.

8.1.2   Side Panel
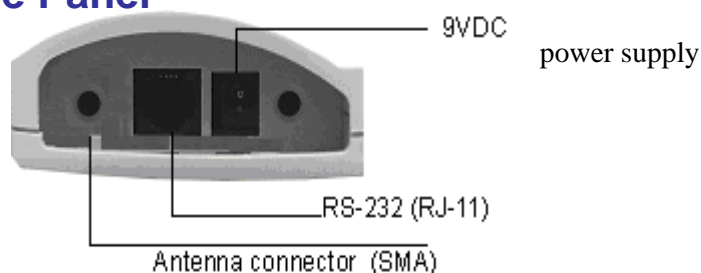
Figure 8-2: Side Panel of SMS Transmitter

The Side Panel contains the following connectors:

- SMA antenna connector.

- RJ-11 (female) connector for the RS-232 cable, linking the unit to the Voice Mail System.

- The External Power Supply (9V DC) connector.

8.1.3   Connection with the Voice Mail System

The SMS Transmitter is connected to the Voice Mail System with an SMS Transmitter Communication Cable. The specifications of this cable have been described below.

RJ-11   **RJ-11**
(SMS-transmitter)   (Voice Mail System RS-232 socket)
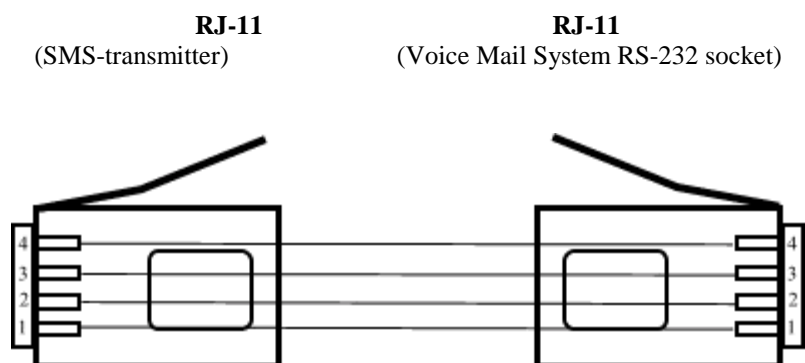
Figure 8-3: SMS Transmitter Communication Cable

8.2 Installation Instructions

The SMS Transmitter has a GSM engine. It therefore needs a SIM card from a GSM network operator on its main board. The registration of the SIM card to the local operator is similar to the registration of a mobile GSM phone.

The SIM card must be pre-programmed with the call center/service center number and the PIN & PUK must be disabled.

Should your SIM card come without these requirements, you can use any GSM mobile phone to modify the SIM card or contact the local GSM operator.

8.2.1   SIM Card Insertion in the SMS Transmitter

Caution

To avoid damage to the SMS Transmitter unit, the 9V adapter should be disconnected from the electric power-outlet and switched off.

1. Carefully open the 5 screws from the back of the SMS Transmitter and open the cover.

J5 (upside down)   SIM card hosting
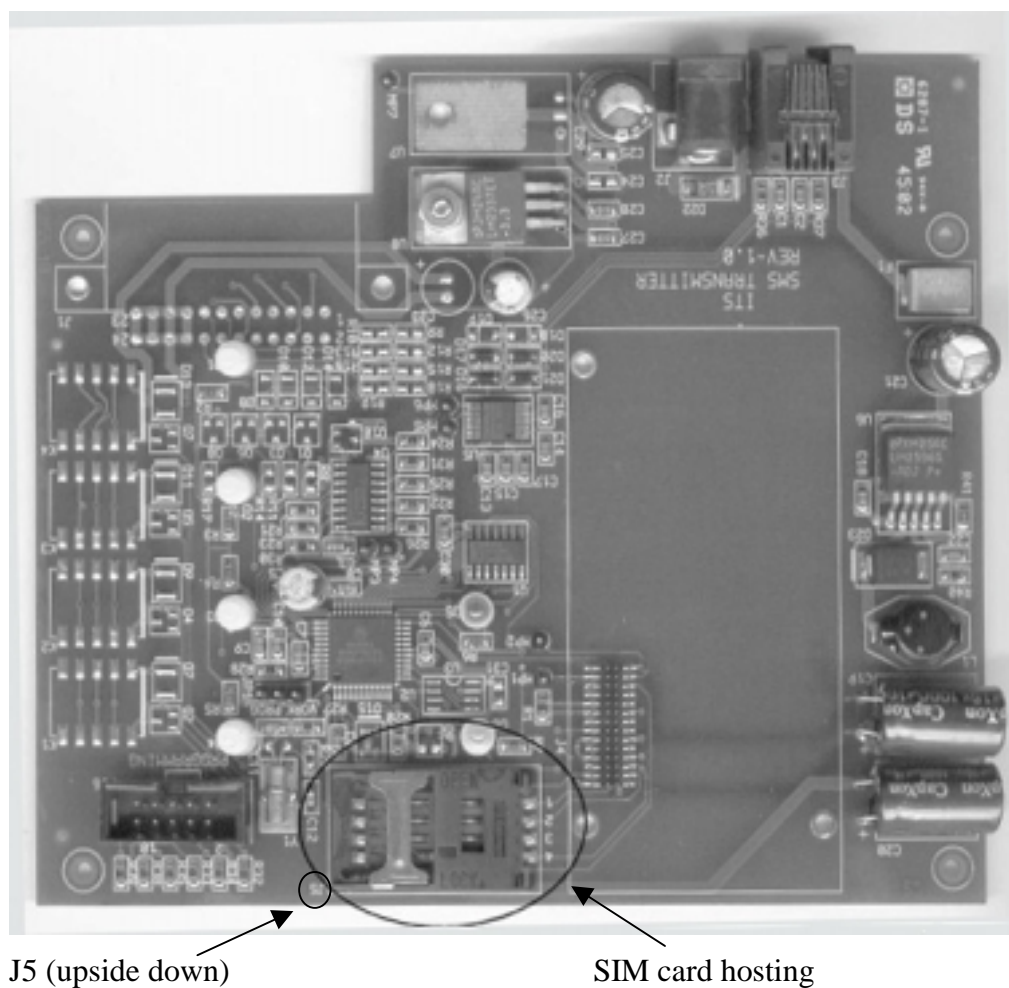
Figure 8-4: SMS Transmitter

2. Turn the SMS Transmitter, so that the antenna connector is facing away from you and that the SIM card hosting (next to J5 written upside down) is facing you.

3. Open the SIM card hosting (the J5 connector), and insert the SIM card.

4. Make sure that the contacts are facing down to the board and the cut off corner is facing you (on left bottom side, see below)
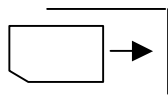
5. Close and lock the J5 connector. (Make sure that the SIM is in the right position.)

6. Close the cover and fasten the screws at the back of the SMS Transmitter.

8.3 SMS Transmitter Unit Physical Installation

1. Place the SMS Transmitter on the wall near the Voice Mail System.

2. Connect the external Antenna via the external antenna cable into the SMA connector of the SMS Transmitter (see notes).

3. Connect the SMS Transmitter via the RS-232 cable to the Voice Mail System. (Connect the cable to the RJ-11 connectors in both units).

4. Connect the power supply to the SMS Transmitter and perform a power up.

5. The unit will start the initialization and registration. At the end of the process, the Ready LED must be on (see notes).

NOTES

The location of the antenna should ensure a good quality signal (GSM reception).

Other LED indications (errors) have been described in the following paragraph.

The following figure gives a schematic representation of the SMS Transmitter setup.
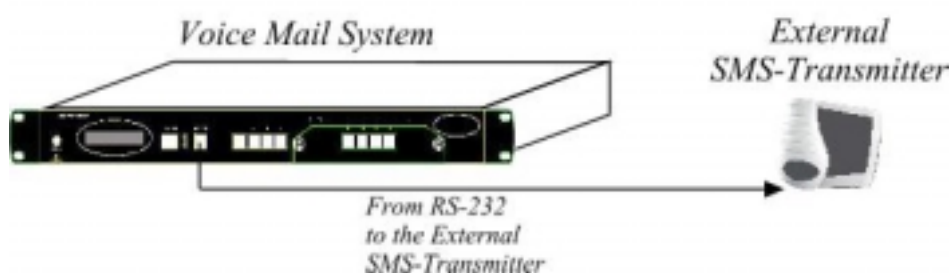
Figure 8-5:Voice Mail System Setup with SMS Transmitter

The VUP software contains the protocol and code to communicate with the SMS transmitter.

8.4 LED Error Indications and Solutions

The following two tables describe the possible error indications and solutions.

Error Description	LED 1	LED 2	LED 3	LED 4	LED "Traffic"	LED "Ready"
GSM engine problem	Flashing	Flashing	Flashing	Flashing	Flashing	Flashing
No Signal or Signal low (less than 25%)	Flashing	Flashing	Flashing	Flashing	Off	Off
Registration denied	Flashing	Off	Off	Off	Off	Off
PIN error	Off	Flashing	Off	Off	Off	Off
SIM card is not readable	Off	Off	Flashing	Off	Off	Off
No SIM card inserted	Off	Off	Off	Flashing	Off	Off
Call Center Number error	Off	Off	Flashing	Flashing	Off	Off
Transmission failed	Off	Off	Off	Off	Off	Flashing
Communication error	Off	Off	Off	Off	Flashing	Off

Problem	Solution
GSM engine problem	Refer to your local supplier.
No Signal or Signal low (less than 25%)	Check your antenna connection. Move your antenna to a location with a better reception.
Registration denied	Contact your local GSM operator.
PIN error	Disable the PIN & PUK number on the SIM Card. Contact your local operator.
SIM card is not readable	Check the SIM position. Replace the SIM card or contact your local operator.
No SIM card inserted	Check the SIM position. Insert the SIM card.
Call Center number error	Check the Call Center/Service Center Number with your local operator. Enter the correct number in the SIM card by using a mobile phone.
Transmission failed	Check the connection between the SMS Transmitter and the Voice Mail System. Check the antenna connection. Check the dialed number. Refer to your local supplier.
Communication error	Check the connection between the SMS Transmitter and the Voice Mail System.

9 Modem Installation Instructions

9.1 Introduction

The Voice Mail Utility Program enables data to be transferred via modem. For this purpose, an internal or external modem that supports DTMF codes (0123456789#*ABCD) must be installed on the PC, following manufacturers instructions.

When connecting to the Voice Mail System, choose 9600 bps as the connection speed. The maximum speed needs to be defined in the modem parameters window, which appears before starting a modem connection.

It is recommended to purchase and use the APACHE AE56SP-RA, Zoom V92 ext.model 3049 C or Dynamode (Conexant) 56k external VD56SP (V) modem. Please visit the modem manufacturers websites for more details: www.apache-micro.com, www.zoom.com, www.dynamode.com.

9.2 Basic External Modem Installation Instructions

Although it is best to follow the manufacturers instructions, the following basic rules can be given for all 3 mentioned external modems (Apache AE56SP-RA, Zoom C.92 ext. model 3049 C and Dynamode (Conexant) 56K VD56SP):

1. Enter the Windows Control Panel \ Modem Properties window.

2. Enter the Modem's properties window, using the "Properties" button.

3. Enter the "Connection" division and push the "Advanced" button. (The "Advanced Connection Settings" window will appear.)

4. The "*Use flow control*" checkbox must be unchecked (disabled).

9.3 Modem Installation and Configuration Process

The modem must be connected to the PC and installed. This paragraph describes the external modem installation process and configuration, in order to connect the VUP, via telephone lines, to the Voice Mail System.

The following subjects will be described:

1. Hardware installation
2. Modem software installation
3. Modem software configuration
4. Settings

9.3.1   Hardware Installation

The following diagaram gives a graphical description of the hardware installation:
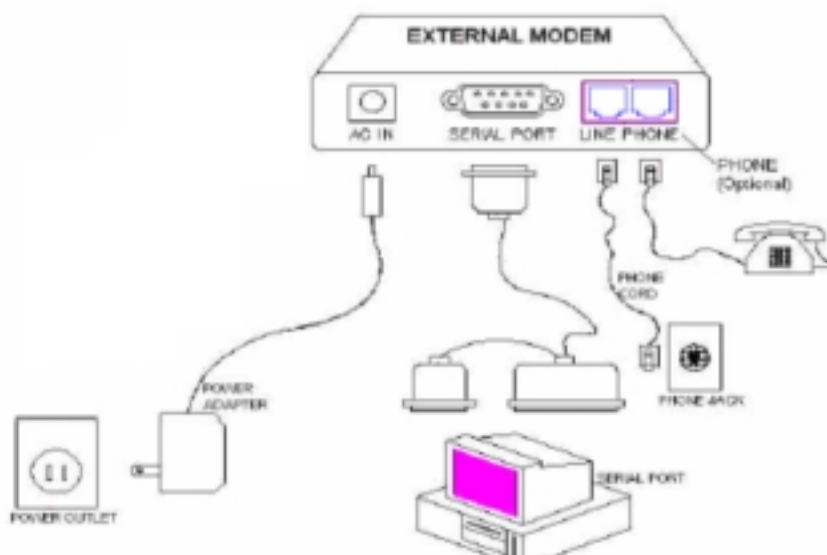
Figure 9-1: External Modem Connection

9.3.2   Modem Software Installation

📄 **NOTE**
In the following instructions we use the Dynamode (Conexant) 56K VD56SP extenal mode as the example.

1. Make sure the modem is switched on, before starting your computer.
2. Start your computer.
3. Insert the provided disk provided into the CD-ROM drive.

Follow the procedures for the appropriate platform.

➢ **Windows 95**

The wizard will automatically detect a new device.

1. Click on **Next.**

2. If prompted to insert disk, click on **Ok.**

3. Browse and find drives file from CD-ROM drive (F:\DRIVER\CONEXANT\EXTERNAL\Win9x\…).

4. The wizard will detect a new device.

5. Click on **Next**.

6. Windows will find the driver for the device.

7. Click on **Next** and **Finish**.

Now follow the steps described in the paragraph *Modem Software Configuration.*

➢ **Windows 98**

The wizard will automatically detect a new device.

1. Click on **Next.**

2. Check the box "Search for the best driver…" in window "What do you want to do?"

3. Check the box "Floppy disk drives" in window "Windows will search for new drivers… in any of the following selected locations…".

4. Windows will find the driver for the device.

5. Click on **Next** and **Finish**.

Now follow the steps described in the paragraph *Modem Software Configuration.*

➢ **Windows 2000**

The wizard will automatically detect a new device.

1. Click on **Next.**

2. If prompted to insert disk, click on **Ok.**

3. Browse and find drives file from CD-ROM drive (F:\DRIVER\CONEXANT\EXTERNAL\Win2000\…).

4. The wizard will detect a new device.

5. Click on **Next**.

6. Windows will find the driver for the device.

7. Click on **Next** and **Finish**.

Now follow the steps described in the paragraph *Modem Software Configuration.*

➢ **Windows Me**

The wizard will automatically detect a new device.

1. Click on **Next.**

2. If prompted to insert disk, click on **Ok.**

3. Browse and find drives file from CD-ROM drive (F:\DRIVER\CONEXANT\EXTERNAL\Win2000\…).

4. The wizard will detect a new device.

5. Click on **Next**.

6. Windows will find the driver for the device.

7. Click on **Next** and **Finish**.

Now follow the steps described in the paragraph *Modem Software Configuration.*

➢ **Windows NT**

1. Double click on the **My Computer** icon.

2. In the Control Panel box, find and double click the **Modems** icon.

3. In the "Modems Properties" box click on the **Add**… button.
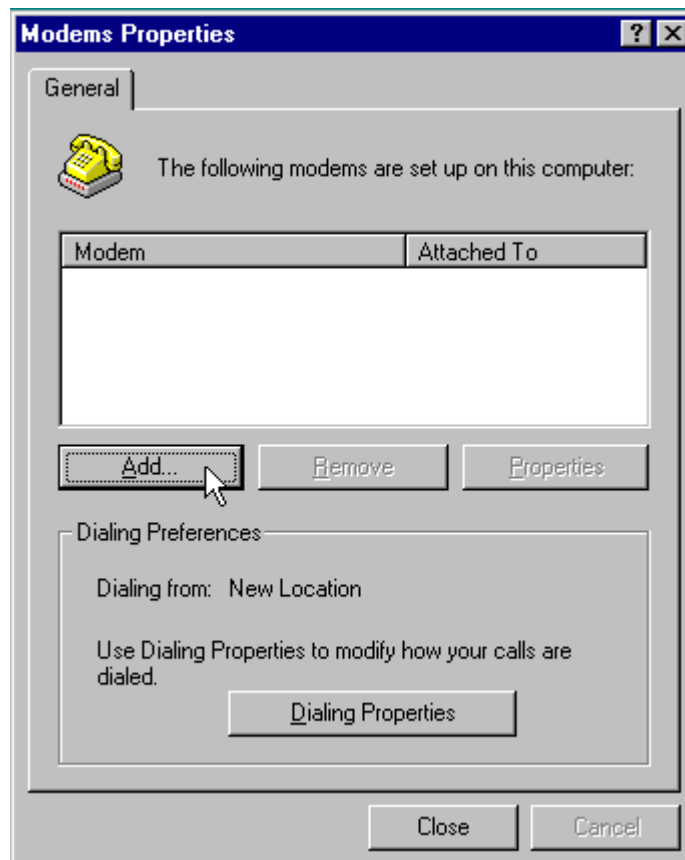
Figure 9-2: Modems Properties Screen

4.   In the "Install New Modem" box, check the box "Don't detect my modem…".
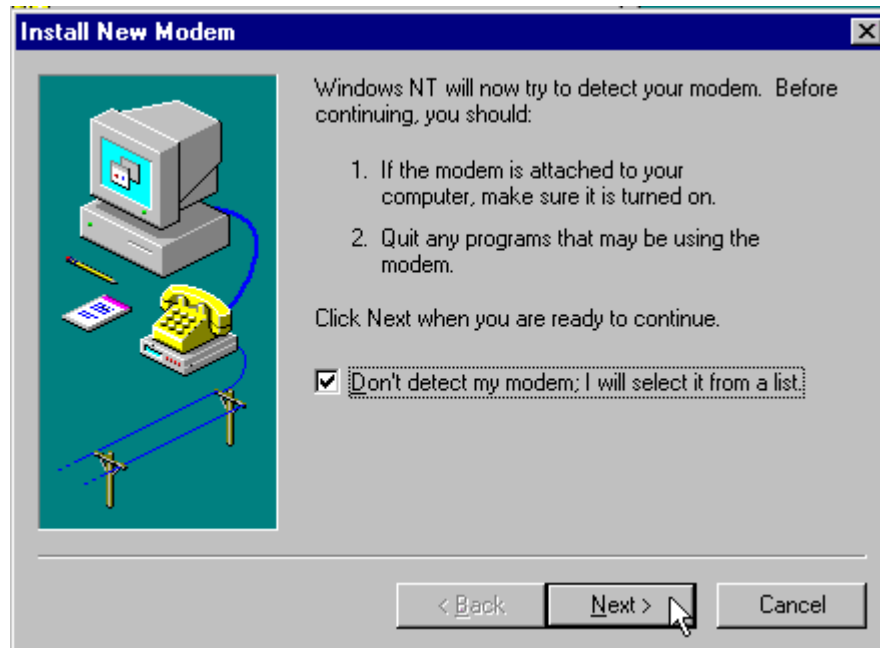
Figure 9-3: Install New Modem Screen

5.   Click the **Next** button.
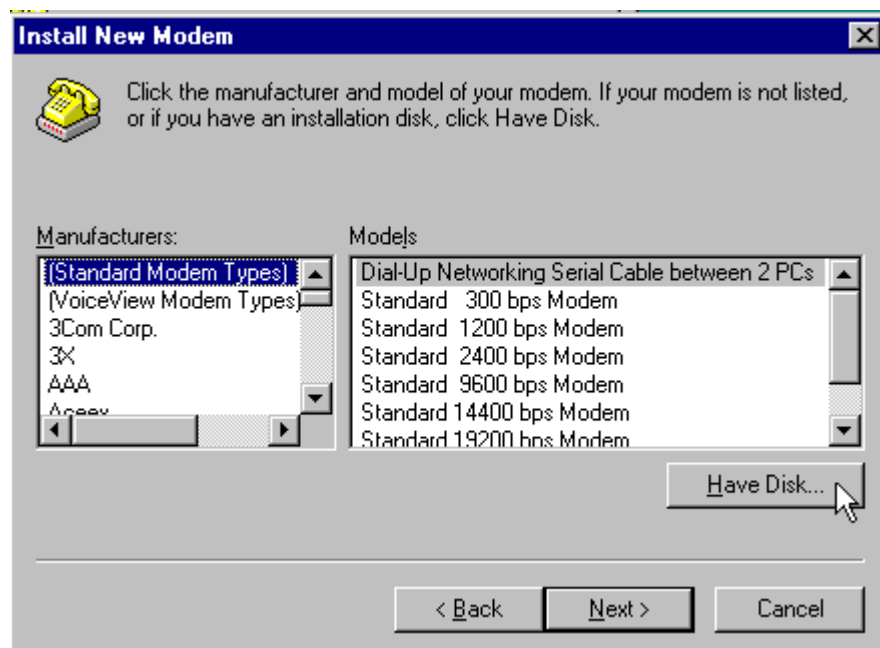
Figure 9-4:Selection of Modems Screen

6.   Click on **Have Disk….**
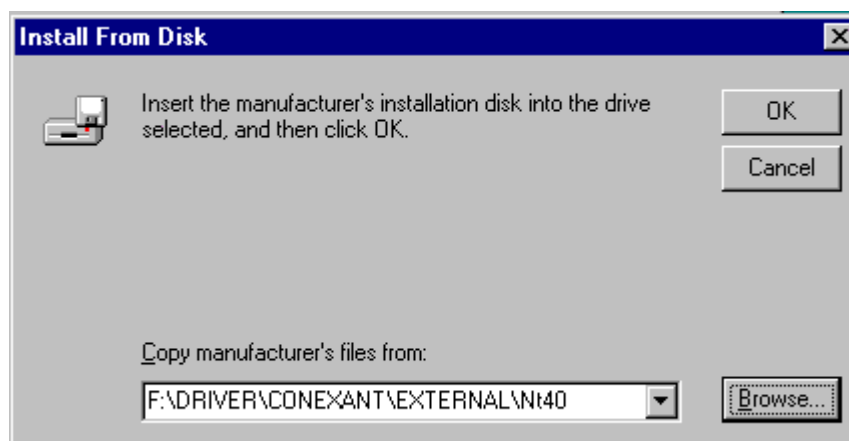
Figure 9-5: Insert Modem Driver Location Screen

7.   Make sure the provided disk is inserted into CD-ROM drive and Click on **Browse** and find the driver file on the CD-ROM.
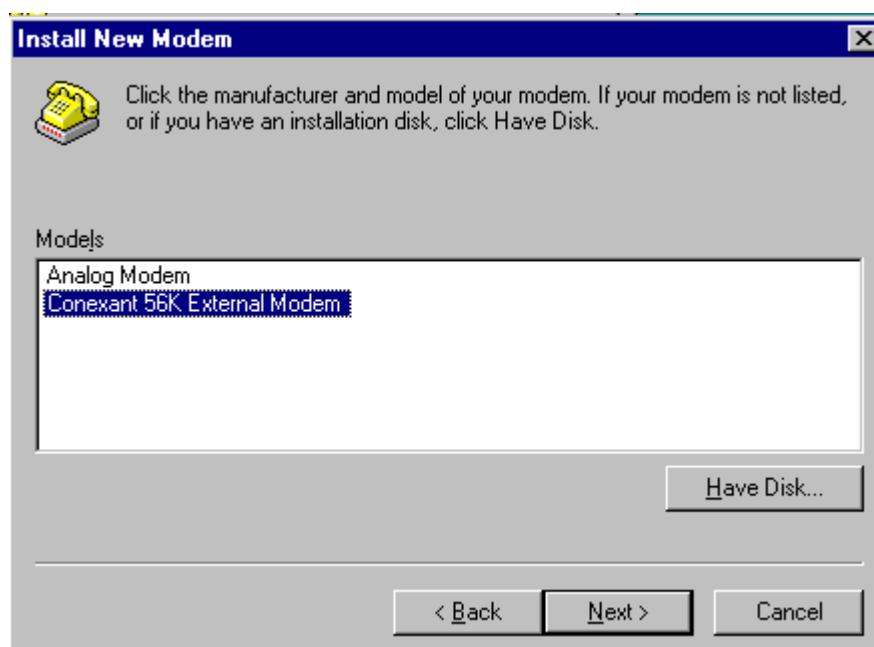
Figure 9-6: Select Appropriate Modem Screen

8.   Highlight the 'Conexant 56K External Modem' and click on **Next**.
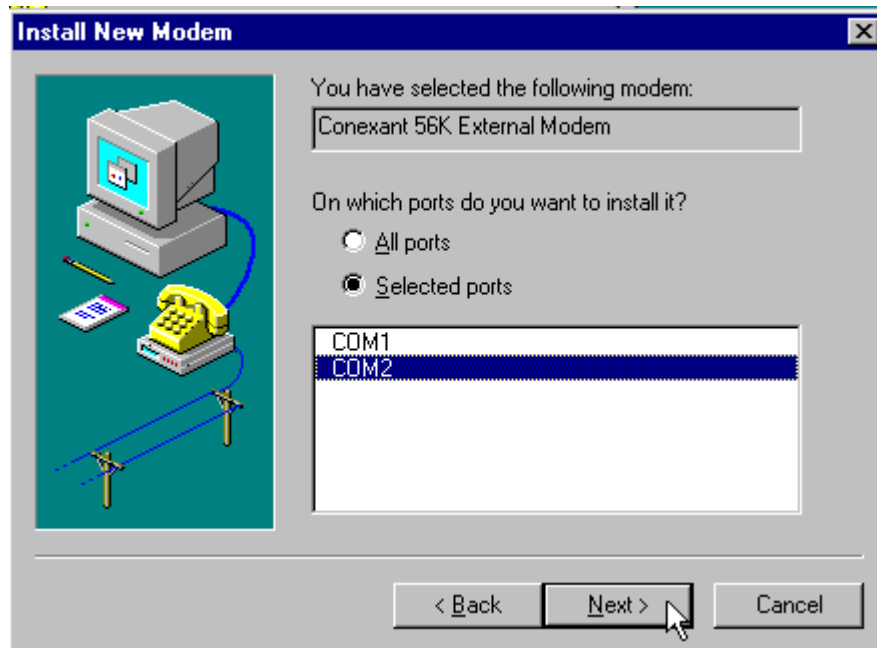
Figure 9-7: Select COM Port Screen

9.   Select the correct port and click on **Next**.

9.3.3   Modem Software Configuration

The following describes the Modem software configuration process.

1.   In the "Modems Properties" window, click on the Conexant Modem's **Properties** button.

> NOTE
> Pay attention to the Com port the modem is attached to. This information is needed at a later stage.
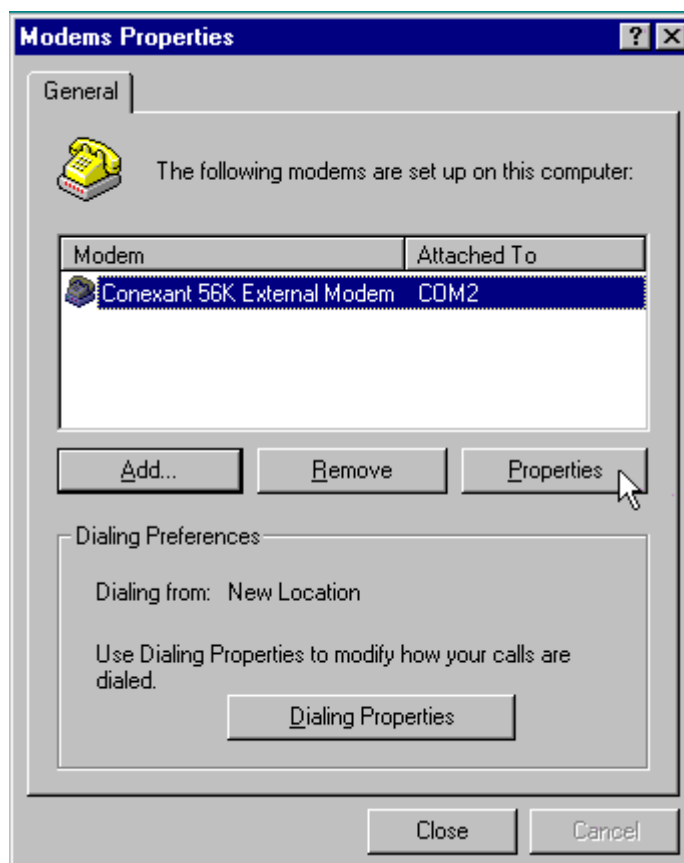
Figure 9-8: Modem Properties Screen

2.   Click on the **Advanced…** button.
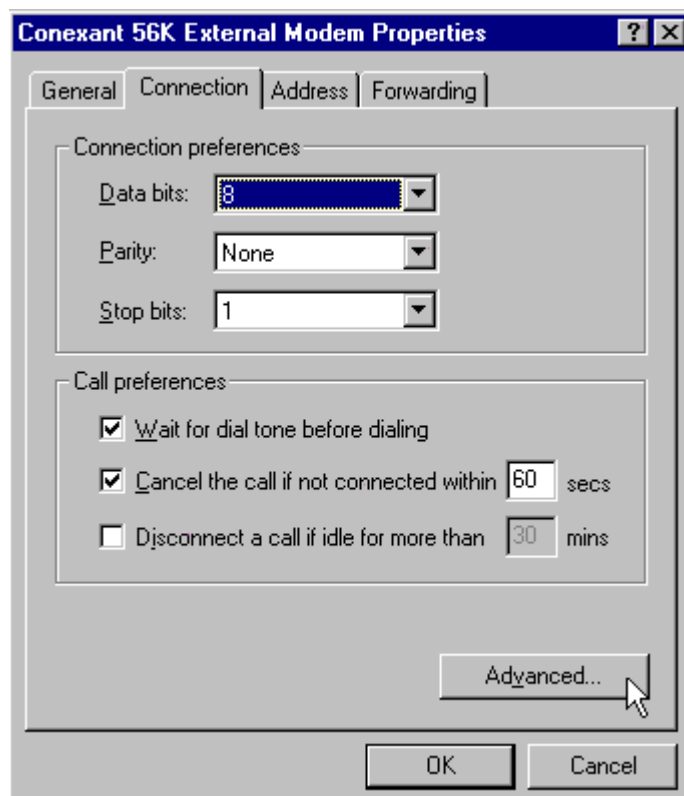
Figure 9-9: Specific Modem Properties Screen

3.   In the "Advanced Connection Setting" window, uncheck the "Use Flow control" section.
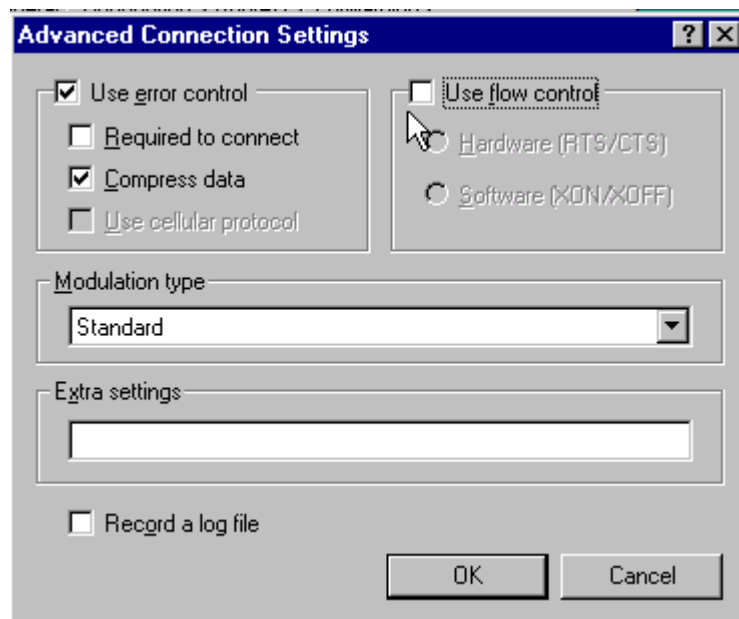
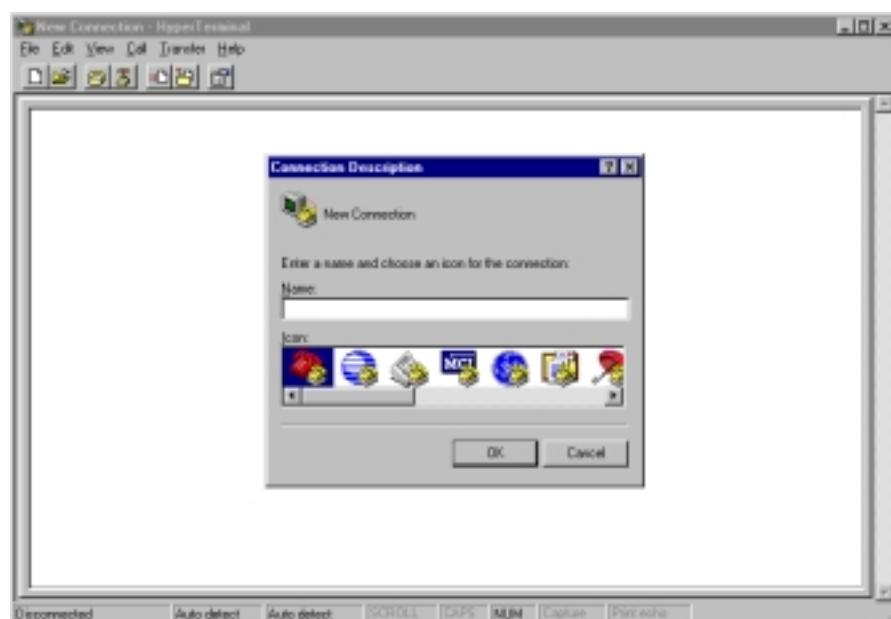*Figure 9-10: Advanced Connection Settings Screen*

4.   Click "OK" and close all windows.

9.3.4   Settings

In this paragraph a description of the modem communication settings will be given.

➢   **Start the "Hyper Terminal" program**

1.   In the Connection Description box, choose an icon and enter a name, followed by a click on the **OK**.
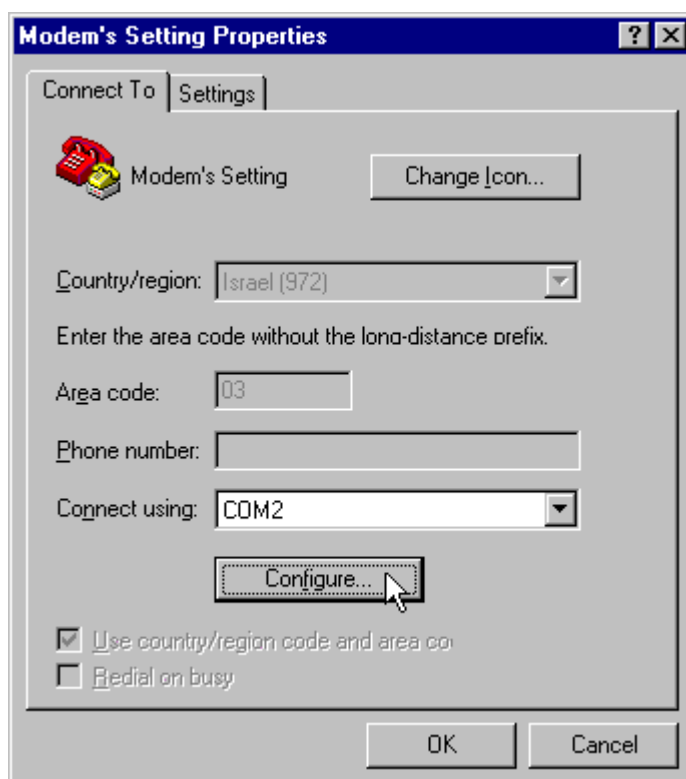
Figure 9-11: Connection Description Screen

2. In the "Connect To" window, select in the "Connect using" drop-down box, the COM port the modem is attached to.
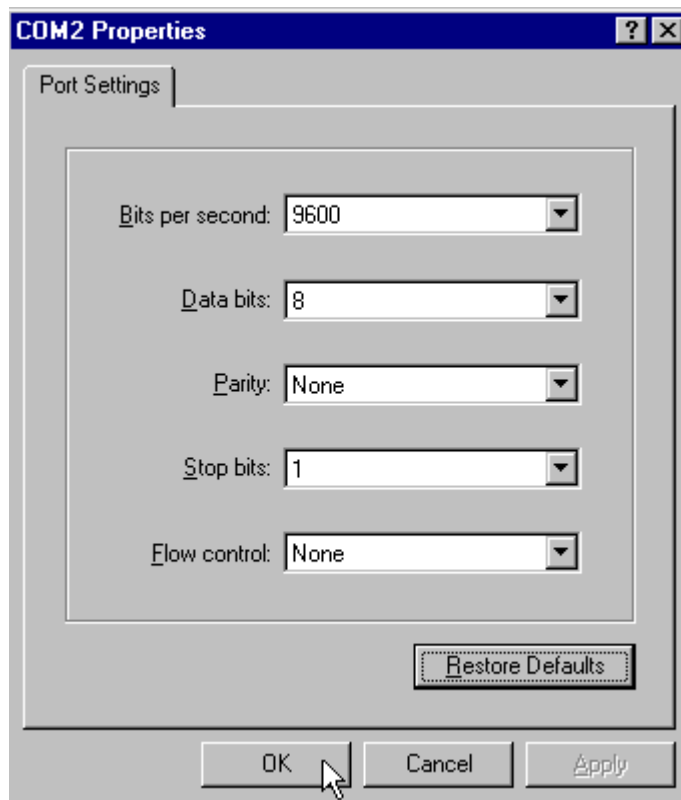

Figure 9-12: Connect To Screen

3. Click on **Next**

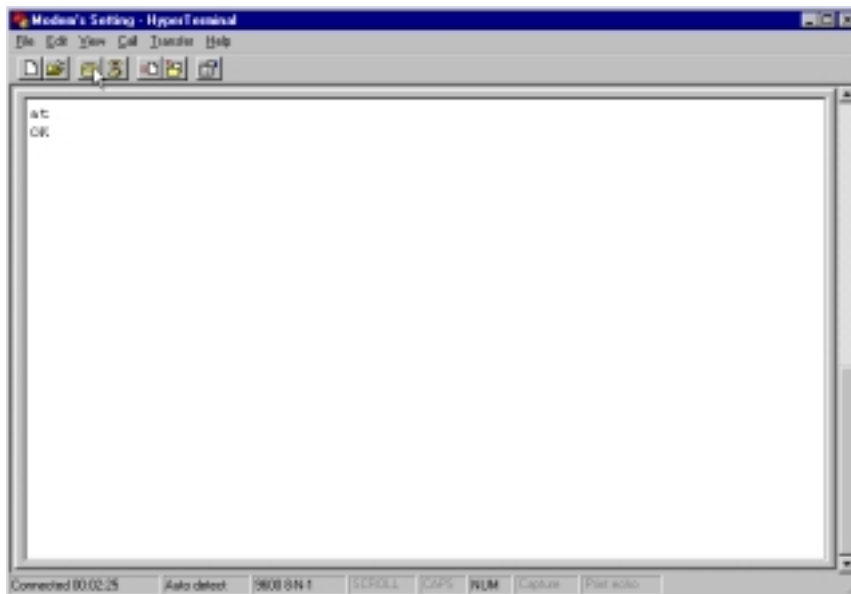*Figure 9-13: Modem's Setting Properties Screen*

4. Click on **Configure….**

5.   Insert the following values:

Field	Value
Bits per second	9600
Data bits	8
Parity	None
Stop bits	1
Flow control	None

Figure 9-14: COM2 Properties Screen

6.   Click on **OK** and you will return to the HyperTerminal main screen.

7.   Click on the "Connect" icon (Telephone).

Figure 9-15: HyperTerminal Main Screen

8.   Type **AT** and press the **Enter** key.

9.   The "OK" reply should appear.

> **NOTE**
>
> Type the modem commands in either upper or lower case. Do not combine cases. Use the Backspace key to delete errors. Ensure an "OK" reply by the computer after each carriage return (Enter button).

10.   Type the following commands (press the "Enter" key at the end of every line):
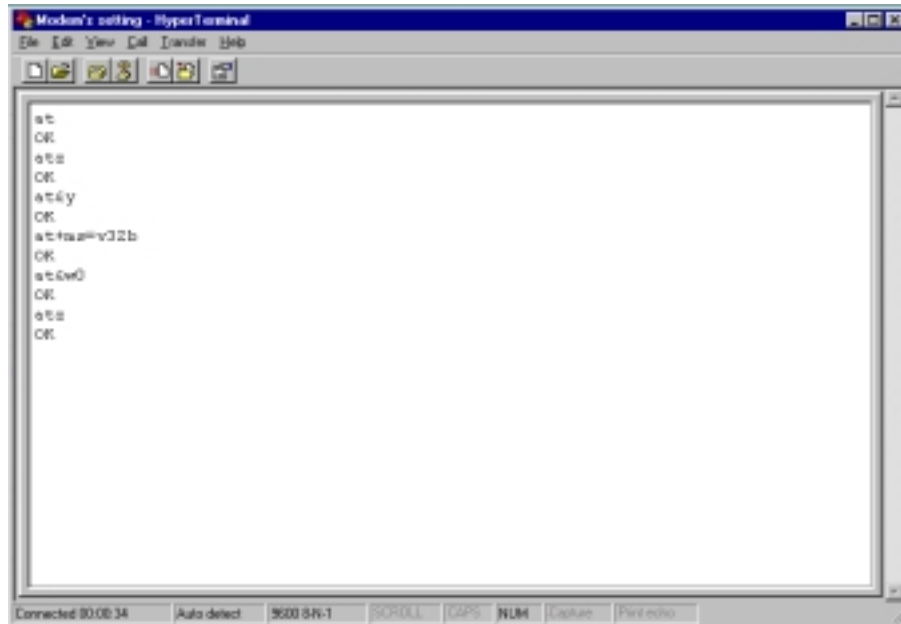
ATZ

AT&Y

AT+MS=V32B

AT&W0

ATZ

11.   The following should be shown in the HyperTerminal Main Screen:

Figure 9-16: HyperTerminal Screen with Modem Commands

12.   Click on the "Disconnect" icon.

13.   Close the HyperTerminal program.