

USER MANUAL

EZ VMS Lite

4 Port Stand Alone Voice Mail System

for the Hospitality Industry

EZ VMS Lite User Manual

Edition	September 2009
Firmware Version	7.02
RPI Software Version	1.0.18

All specifications, information contained herein is subject to change without prior notice.

Notice:

- Please read this manual thoroughly before operating the unit and retain it for future reference.
- To prevent fire or shock hazard, do not expose this unit to rain or moisture.
- To avoid electrical shock refer servicing of this product to the dealer from whom the purchase was made.
- No user serviceable parts inside.

Static Discharge Warning :

The discharge of electrostatic energy that accumulates on the surface of human body or other surfaces can disrupt the working of the unit or damage the electronic components inside the unit. Observe static safe procedures while handling, installing and maintaining the unit.

On Static discharge it is observed that the unit may experience temporary loss of function, which may require that the unit be powered off and then on to restore normal functioning.

Safety: This product has been tested to comply with the International safety standards as per IEC 60950 or the relevant AS/NZ Safety standards.

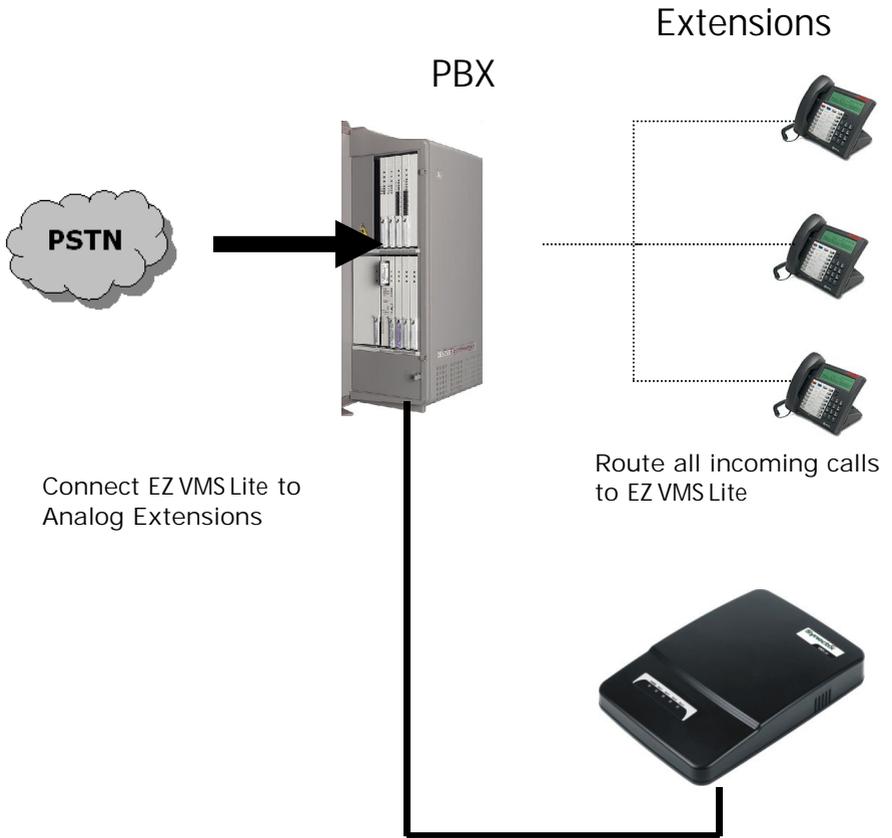
Caution: The EZ VMS Lite must only be used behind a PABX and shall not be connected to the PSTN.

Caution: The EZ VMS Lite shall not be set up to make automatic calls to the Telecom '111' Emergency Service in New Zealand.

TABLE OF CONTENTS

Connection Diagram	5
System Overview.....	7
General Features	7
Installation.....	9
Functional Check.....	9
Operating Basics	10
Programming the EZ VMS Lite.....	11
1.0 Administrator Mailbox	12
1.1 Mailbox Settings.....	12
1.2 Greeting Settings.....	14
1.3 Program Parameters	15
1.4 Shut Down	22
1.5 System Parameters.....	23
2.0 Staff Mailbox User Guide.....	30
2.1 Leave a Message	30
2.2 Mailbox Options.....	30
3.0 Guest Mailboxes and Hospitality features	35
3.1 Guest Mailbox	35
3.2 Hospitality Features	37
4.0 Remote Programming Interface.....	39
4.1 File Menu.....	40
4.2 Connection Setup	43
4.3 Update Unit date and time	43
4.4 Settings	44
4.5 Reports	56
5.0 Flow Charts	57
Statutory Information	77

Connection Diagram



Connect EZ VMS Lite to Analog Extensions

Route all incoming calls to EZ VMS Lite

Specifications

No. of ports	2 or 4
Message Memory	32 MB
No. of hours storage	8
Default Prompts	Built-in
Mailboxes	8 / 64 / 128
Max message length	7 minutes
Max no. of messages	240 Per mail box
Voice Sampling rate	64 Kbps
Serial Port	Two
Indicators	LED for each port and Power
Remote Maintenance	Through Serial Port or optional built in Ethernet port
Ethernet port	10 Mbps. Link, Active LED's
Power	9 VAC, 6W
Battery back up	Built-in rechargeable battery for RTC.

Remote Programming Interface

Minimum System Requirements

- Pentium PIV / Celeron, 1 GHz PC or higher
- 128 MB RAM
- 20 MB free hard disk space

For successful communication, the hardware requirements are:

- RS-232 serial cable
- Ethernet interface (Optional)

Operating System

- Microsoft Windows XP, Vista

System Overview

The EZ VMS Lite is a 4-port stand-alone Voice Mail System which integrates very easily with the PMS in a Hotel or Motel, featuring Plug-and-Play ease of installation and use combined with an unmatched Value-for-Money.

The EZ VMS Lite

- Handles 4 calls at a time,
- Answers incoming calls with a professional custom recorded greeting giving the various options to reach the desired person or department,
- Collects the digits dialed by the caller,
- Transfers the call to the desired person or Guest room,
- Checks if the called extension answered or is busy or there is no answer,
- If the call is answered, transfers the caller to that extension without any delay,
- If the called extension is busy or there is no answer, transfers the call to the mailbox of the called person,
- Plays the welcome greeting of the called person and allows the caller to record a message,
- Allows the caller to transfer to another extension or to the operator after leaving a message,
- Enables the message waiting notification feature on the called extension,
- Notifies the user of a new message on the user's cell phone.
- Automatic adjustment for Day Light Savings time

The users may call the EZ VMS Lite to retrieve their messages. When calling from their own extension, they may use the speed dial key to access the mailbox directly, or when calling from outside their premises or from some one else's extension, they may retrieve messages by pressing *#2 at the main greeting and then dialing their mailbox number.

Once they are logged into their mailbox, they may listen to their messages, save or delete the messages, forward them or distribute the message to multiple users etc.

The EZ VMS Lite is fully remote programmable through touch-tone or the Remote Programming Interface on the Desktop of any PC through the Internet.

General Features

Its extensive features may be listed below:

- It is an accessory to a PBX that does call handling, call routing, call-monitoring, message storage and retrieval among other useful features. EZ VMS Lite can handle 4 different calls through 4 ports at a time.
- EZ VMS Lite plays a welcome greeting when the call is answered by it.

- The mailbox user may personalize his/her mailbox by setting personal greetings and by adding mobile number.
- Voice message leaving facility, which includes record a message, re-record a message, and forward a message.
- Enable the Message waiting feature to make the recipient aware of new messages.
- Date and time stamp for messages.
- Auto fax homing.
- Remote monitoring, programming and trouble shooting
- Mailbox report giving number of mailboxes, number of new (i.e. unread) and saved messages per mailbox, total number of messages per mailbox and total number of new and saved messages stored in memory.
- Call Statistics report that involves number of calls landed per port and per operator. This report contains a statistics for calls for 8 days including the current date.
- A standard RJ14 phone jack is used to connect the EZ VMS Lite to the PBX as an extension.
- The unit works on 7.5 to 12 Volts AC or DC power input.
- The EZ VMS Lite may be wall mounted or kept on the tabletop. The unit has wall-mounting eyelets on the bottom of the unit, which are spaced 3 inches apart.
- The EZ VMS Lite does not need any batteries to retain its VOICE MESSAGES, Prompts or the Program Parameters, since they are stored in Non-volatile memory.
- The EZ VMS Lite can be put to use with a minimum of programming. It comes with default parameters and default voice messages programmed in the unit, which are adequate for most installations. At some places, the hook flash and other timings may need to be programmed to get the unit to work properly.

For the Staff Mailboxes :

- Mailbox owner's name recording option.
- External Notification option.
- Follow me option.
- Do not disturb option.
- Pager Notification option.
- Reminder call settings.
- Distribution Lists
- Single Digit Dial Plan.

For the Guest Rooms :

- Selectable global Guest room transfer enable or disable option
- Password disabled globally for Guests
- Check in through touch tone or PMS input string
- Check out through touch tone or PMS input string
- Room Move through touch tone or PMS input string

- Wake up call settings
- Wake up call reports for the Admin

Installation

Unpack the unit from its shipping carton and check that all the materials have been received in good condition. Any damages or shortfalls must be reported immediately to the distributor from whom the purchase was made.

Your EZ VMS Lite shipping carton must contain the following:

- The EZ VMS Lite Unit
- This User Manual
- Phone Line Cords
- RPI software installation CD
- Serial Cable
- Template for wall mounting

Select a suitable location for the EZ VMS Lite to be placed - it may be wall mounted or kept on the tabletop. A suitable location should have 4 analog phone extension sockets for the system, preferably another phone for testing and a power socket close by and should be easily accessible for any service or maintenance work.

If you plan to mount the unit on the wall please follow the wall mounting instructions given below:

Use the paper template, provided with the unit and secure two wood screws (Size 5 or 6) into the wall where you want to mount the unit. The distance between the center points of the mounting screws should be 3 inches. The wall on which the unit is to be mounted should be strong enough to support the weight of the unit. Also make sure that the screws are driven securely into the wall. Then, hang the unit onto the screws.

Plug in the mains cord into the Power socket and switch on the power to the unit. The Power lamp on the unit starts glowing steadily, then all the 4 Port LED's flash on and off twice and after about 5 seconds the Power LED continues to flash once a second, indicating normal operation.

Insert the Dual extension phone line cords into the phone sockets on the unit and insert the other end into the wall extension sockets for all the 4 ports.

You are now ready to do a Functional Check of the unit.

Functional Check

After the Installation has been completed satisfactorily, you should carry out a few preliminary checks, before putting the unit into operation.

If you are looking at the EZ VMS Lite while you are running the functional check, it is very easy to solve any problems that may be encountered as well as understand the programming methods.

You will need another extension with a phone from which you can call into the EZ VMS Lite to go through the functional check. Ascertain the extension numbers of the EZ VMS Lite and call into it from the phone. The unit should pick up the call and start playing the Main greeting.

If the EZ VMS Lite does not pick up the call, check the extension into which the EZ VMS Lite is plugged in by plugging that extension into a regular phone instrument. The extension may be faulty or you may be calling some other extension number.

Once the unit picks up and answers the call, listen to the voice message. As long as the unit remains off hook, the PORT lamp of that port glows steadily. Now, with the Port having answered the call, dial an extension number while the unit is playing the Main greeting. Confirm that the unit transfers the call to the extension that you had dialed. If a fax call is routed to the unit, it transfers the call to the fax extension, if programmed. If no digits are dialed, it transfers the call to the operator extension programmed in the unit.

Check similarly by calling into all the 4 ports of the unit and confirm that all the ports are working properly. If these basic functions worked properly, go into programming mode and set all the other parameters to suit your site.

Operating Basics

The EZ VMS Lite has several built-in features. To make the best use of these features, it is necessary to understand the working of the unit as well as some features of your PBX and the site where it is being installed.

Please note that the EZ VMS Lite comes with factory recorded default prompts, the Main Greeting, Welcome message for the Guests, Wake up call greeting. These greetings once recorded over cannot be retrieved. The default greetings may be recorded over in any order and as many times as desired.

The default parameters have been designed to work straight away for most of the installations. However, some sites may require additional programming. The Hook Flash duration, Delay after Hook flash and Extension Length parameters are required to be programmed correctly before calls may be transferred to any of the extensions or mailboxes.

The unit accepts any digits that are dialed while the MAIN greeting is being played. If no digits are dialed till the greeting is over, the unit transfers the call to the Operator depending on the current mode of operation.

In the Fully Supervised or the Semi Supervised mode of operation, when a caller encounters a BUSY or INVALID or NO-ANSWER from an extension, they have the option of leaving a message for that extension (if that extension has a mailbox assigned to it).

If that extension does not have a mailbox assigned to it, they may transfer the call to the Operator.

It is suggested that the users familiarize themselves with the programming of the unit and then change the default password so that unauthorized changes of the parameters are avoided.

Programming the EZ VMS Lite

The EZ VMS Lite may be programmed remotely through a Touch-tone phone by calling into the unit from any location and following the Prompts or through a Graphical User Interface on the PC Monitor.

The screen based Remote Graphical Programming Interface may be used by connecting the Serial port on the unit directly to the Serial port of a PC nearby OR through the Internet using the Ethernet port of the EZ VMS Lite.

The Remote Graphical Programming Interface is very easy to use but certain actions like Creation of Distribution Lists are not possible. The Touch-tone programming allows full programmability of all the features available on the unit except the PMS strings.

Reports giving information of the usage of the EZ VMS Lite may also be generated through the RPI. Binary data files imported from the EZ VMS Lite may be stored and opened or modified later and exported back to the unit through the RPI.

Touch-Tone Programming

Call into any port of the EZ VMS Lite and Press * # while the Main Greeting is being played. Press 1 to leave a message or Press 2 for mailbox options.

Leave a Message:

You may leave a message for any of the users without having to first transfer a call to that user's extension. If you press 1 at this stage, you are allowed to record your message for a particular user.

Refer Section 2.1 for more details on how to leave a message for a user.

Mailbox Options:

Mailboxes may be broadly classified into two different ways.

1. Staff Mailbox
2. Guest Mailbox

The Staff Mailboxes must be created before the user starts using the system and then the users may individually enable or disable certain features as allowed by the Global parameters set by the Admin.

The Guest Mailboxes may only be created by Checking In the guest and are automatically deleted when the Guest checks out from the room.

1.0 Administrator Mailbox

Dial 999 for Administrator mailbox where 999 is the mailbox number pre-assigned for the Administrator. Enter the Admin password to go into programming. The general password allows access to the following options:

1. Mailbox Settings (1.1)
 2. Greeting Settings (1.2)
 3. Program Parameters (1.3)
 4. Shut Down. (1.4)
- (The Installer password allows access to 'System Parameters')
5. System Parameters (1.5)

1.1 Mailbox Settings

The available options are:

- Press 1 to Create Mailboxes. (1.1.1)
- Press 2 to Delete Mailboxes. (1.1.2)
- Press 3 to Review Mailboxes. (1.1.3)
- Press 4 to Reset Password. (1.1.4)
- Press 5 for External Notification for a Particular Mailbox. (1.1.5)
- Press 6 for Global Mailbox Settings. (1.1.6)

1.1.1 Create Mailboxes

The available options are:

- Press 1 to Create Mailboxes with Extensions.
- Press 2 to Create Mailboxes without Extensions.

Points to be remembered while creating mailboxes:

1. The number of digits in the mailbox-number should be same as the extension length.
2. To terminate creation of mailboxes, press #.
3. First digit of a mailbox cannot be 0
4. Duplicate mailboxes are not allowed.
5. Maximum number of mailboxes that may be created is 128. These include mailboxes 'with extensions' and 'without extensions' for the Staff and the mailboxes for the Guests.

By default, the password of the mailbox is the same as the mailbox number.

1.1.2 Delete Mailboxes

Enter the mailbox number to be deleted. If an Invalid Mailbox number is entered, the unit prompts with "This entry is Invalid". If the Mailbox exists, the unit prompts with "Deleted" and returns to the previous menu.

1.1.3 Review Mailboxes

The available options are:

- Press 1 to Review Mailboxes with Extensions.
- Press 2 to Review Mailboxes without Extensions.

The existing mailbox numbers are played in the order in which they were created in both the cases.

1.1.4 Reset Password

In the EZ VMS Lite system, default passwords (which are the same as the mailbox numbers) are assigned for every mailbox at the time of creation and these may be changed by the user at any time. However, if the user forgets the password of his/her mailbox, only the Admin has the authority to reset it to the default password by entering the mailbox number of the user. EZ VMS Lite does not announce the default password.

1.1.5 External Notification for a Particular Mailbox

EZ VMS Lite can notify the mailbox-owner about the arrival of new message(s) through his/her pager or mobile phone or land phone. This feature must be enabled globally under the Global Mailbox options before exercising the option for individual mailboxes.

Once this feature is globally enabled, the Administrator may enable or disable this option for a particular mailbox. The user may log into his/her mailbox and may then enter his/her pager or phone number on which he/she wants to be notified.

1.1.6 Global Mailbox Settings

The Global Mailbox Settings are the settings that affect all the mailboxes in the EZ VMS Lite system. After you press 6 for Global Mailbox Settings, EZ VMS Lite prompts you with the following options...

- Press 1 to Edit Date & Time Stamp Option (1.1.6.1)
- Press 2 to Edit External Notification Feature (1.1.6.2)
- Press 3 to Edit Guest Room Call Transfer options (1.1.6.3)
- Press 4 to Edit Guest Room options (1.1.6.4)

1.1.6.1 Date & Time Stamp Option

EZ VMS Lite records the date and time when somebody leaves a message for a mailbox. It attaches this date and time with each message and plays the date & time along with new messages as well as with saved messages. The options available are:

- Press 1 to Enable
- Press 2 to Disable

1.1.6.2 External Notification Feature

This feature may be globally enabled or disabled by the Admin.
The options available are:

- Press 1 to Enable
- Press 2 to Disable

1.1.6.3 Guest Room Call Transfer options

If it is desired that an outside caller be restricted from directly accessing the guest rooms, the Administrator may globally disable the call transfers to guest rooms when dialing through the EZ VMS Lite. This option may be globally enabled or disabled for all guest rooms. The options available are:

- Press 1 to Enable
- Press 2 to Disable

1.1.6.4 Guest Room options

The Administrator may allow or disallow the Guests to record their name and personal greetings for their mailbox.

This option may be globally enabled or disabled for all guest rooms. The options available are:

- Press 1 to Enable
- Press 2 to Disable

1.2 Greeting Settings

The EZ VMS Lite system has 6 different types of greetings. You may listen to each of these or change them by recording over. The choices are listed below:

- Press 1 for Day Greeting.
- Press 2 for Welcome Greeting.
- Press 3 for Wake up call Greeting.
- Press 4 for Good Morning.
- Press 5 for Good Afternoon.
- Press 6 for Good Evening.

For options 1 to 6, EZ VMS Lite prompts you as follows:

- Press 1 to Record the Greeting
- Press 2 to Listen to the Greeting

When the greeting recording is over, EZ VMS Lite prompts you -

- Press 1 to Accept (greeting is saved)
- Press 2 to Listen to the Greeting
- Press 3 to Re-Record

- Press 9 to Cancel & Return to Previous Menu.

The Welcome Greeting has an additional option to enable or disable it. If this greeting is enabled, the Welcome greeting is sent to a Guest Mail box on Check-In and the Message Waiting lamp is made to glow. When the Guest logs in to his mail box, the Welcome Greeting is played back. If this option is disabled, then the Welcome message is not sent to the Guest mail box and the Message lamp will remain off.

1.3 Program Parameters

After you press 3 for 'Program Parameters', EZ VMS Lite prompts you with 6 choices:

- Press 1 For Time Settings (1.3.1)
- Press 2 For External Notification Feature (1.3.2)
- Press 3 For Extension Options (1.3.3)
- Press 4 For Distribution List (1.3.4)
- Press 5 to Change Admin. Password (1.3.5)
- Press 6 For Voice Settings (1.3.6)
- Press 7 for Day light Savings settings (1.3.7)
- Option 8 is a hidden feature and is not prompted. Press 8 to set Baud rate for PMS port. (1.3.8)

1.3.1 Time Settings

There is one option under the "Time Settings" menu and you are prompted with

- Press 1 For System Date & Time (1.3.1.1)

1.3.1.1 System Date & Time

After you press 1 to select 'System Date & Time', the unit prompts you as follows:

- Press 1 to Set Date & Time
- Press 2 to Listen to Date & Time

Now if you press 1 to set the Date & Time of the EZ VMS Lite, you need to enter year, month, date in two-digit format. For example, 29th July, 2003 is entered as 030729 (Year: 03, Month: 07 and Date: 29).

To set the time, you have to enter the Hour in 24-Hour format and Minute in two-digit format. For example: 1.05 P.M. should be entered as 1305 (Hour: 13 and Minute: 05).

If you enter an invalid date or time, the Unit will not accept that value and prompts back with "This entry is Invalid" and retains the old value.

1.3.2 External Notification Feature

The available choices are:

- Press 1 to Set Pager Display String (1.3.2.1)

- Press 2 to Set No. of Retries (1.3.2.2)
- Press 3 to Set Trunk Access Key (1.3.2.3)
- Press 4 to Set Answer Detection Time (1.3.2.4)
- Press 5 to Set Time Before No-Answer (1.3.2.5)

1.3.2.1 Pager Display String

The string that you enter under this option is sent to the Pager when an external Pager notification has been enabled for a Mailbox and this string appears on the screen of the Pager to indicate that the notification was sent by the EZ VMS Lite.

In this field, you are allowed to enter a total of 11 characters. This character-set may consist of digits and '*'. The first character of the pager display string cannot be '*'. If your pager display string does not contain 11 characters, (say, it is 7 character-long), press # to terminate your entry.

Note : You must check with your Paging Service Provider if any specific string restrictions are applicable (e.g. numeric only etc.)

1.3.2.2 No. Of Retries

This is the number of times the EZ VMS Lite tries to externally notify a New Message. Valid digits are 0 to 6. (If 0 is programmed, the unit will not retry at all).

1.3.2.3 Trunk Access Key

Trunk Access Key is also known as the 'Out Dial Digit'. This is the digit (or digits) to be dialed before dialing an external number. It may be a single digit or 2 digits and may also contain a Pause additionally. This information must be entered before attempting an External Notification. This field may also be left blank, in which case no digits are dialed.

1.3.2.4 Answer Detection Time

This is the amount of time for which the EZ VMS Lite will wait to detect a voice frame to decide that the call has been answered.

You may enter any value between 01 and 29. (This value must be entered in two-digit format). The actual Answer Detection time is equal to the entered value multiplied by 33 milliseconds. The Unit does not accept any value outside the range of 1 to 29.

Note: The Answer Detection time must be carefully set for each installation keeping in mind the type of lines and services available at that location.

1.3.2.5 Time Before No-Answer

It varies from 1 to 19 (both inclusive). You have to enter this value in two-digit format. The value chosen by you is multiplied by 3 Seconds by the Unit. The Unit does not accept any value that is outside the range of 1 to 19.

1.3.3 Extension Options

'Extension Options' includes single digit plan, creation and deletion of various kinds of extensions (Invalid Extensions, operator extensions, fax extensions etc.), enabling/disabling 'Extension prompting while transferring' feature. All these are Extensions without Mailboxes.

After you press 3 to select 'Extension Options', you have the following options:

- Press 1 For Invalid Extensions (1.3.3.1)
- Press 2 For Operator Features (1.3.3.2)
- Press 3 For Fax Extensions (1.3.3.3)
- Press 4 For Single Digit Plan (1.3.3.4)
- Press 5 For Extension Prompting While Transferring (1.3.3.5)

1.3.3.1 Edit Invalid Extensions

Invalid Extensions are those extensions to which calls will not be transferred. Under this option you may do the following –

- Add Extensions
- Delete Extensions
- Review Extensions

Add Extensions: The number of digits present in the extension should be the same as the extension length. For example, if extension length is 3, the number of digits in the extension number should be 3. If you enter 4-digit extension in this case, first 3 digits will be taken as extension-number and the 4th digit will be treated as the first digit of next extension.

Enter 4** to program a particular leading digit as an Invalid leading digit, i.e. to make all extensions from 400 to 499 as Invalid.

Maximum number of extensions that may be added here is 128. To terminate "Addition" of extensions, press #. Extensions with 9 or 0 as the first digit are not allowed in the EZ VMS Lite.

Delete Extensions: You will be prompted to enter the extension to be deleted. The existing extension is deleted by EZ VMS Lite. If that extension does not exist, you will hear "This entry does not exist".

Review Extensions: EZ VMS Lite plays all the existing extensions one by one, with a pause of 0.6 seconds between extensions.

1.3.3.2 Operator Features

The available choices are:

- Press 1 For Operator Digit
- Press 2 For Day Operator Extensions
- Press 3 For Operator Transfer Mode
- Press 4 For Time Before Deciding No-Answer

Operator Digit: Operator Digit may be any digit from 0 to 9 (both inclusive). When callers dial this digit at any time in the Main greeting, the call is transferred to the Operator.

OPERATOR EXTENSIONS : A maximum of 4 extensions may be programmed for the Operator. These extensions do not depend on the extension length and may be in any mix of 1, 2, 3 or 4 digits.

After pressing 2 for “day operator extensions”, the following choices are available:

- Press 1 to Edit
- Press 2 to Review

Edit Extensions: Add the extensions one by one as the EZ VMS Lite prompts with “Extension 1” or “Extension 2” etc. To terminate creating extensions, press #. The existing entries are always overwritten.

To delete all the extensions, press # when you listen to the prompt “Extension 1”. To delete a particular extension, re-enter all the desired extensions and press # at the end.

Review: The existing extensions are played back by EZ VMS Lite.

Operator Transfer Mode: Operator transfer mode may be of 3 types:

1. Blind mode of call transfer.
2. Semi-supervised mode of call transfer.
3. Fully supervised mode of call transfer.

You will hear the following prompt:

- Press 1 For Blind Mode of Call Transfer
- Press 2 For Semi-Supervised Mode of Call Transfer
- Press 3 For Fully-Supervised Mode of Call Transfer

The transfer mode will be enabled corresponding to the digit pressed.

Time before Deciding No-Answer: This is the time for which the EZ VMS Lite waits before deciding that there is no answer from the called Operator extension.

Enter the value in two-digit format in the range from 03 to 29. The actual `time` is equal to the value multiplied by 3 seconds.

1.3.3.3 Fax Extensions

If you press 3 to select ‘Fax Extension’ option in the ‘Extension Options’ under ‘Program Parameters’, you will hear the following prompt:

- Press 1 to Edit
- Press 2 to Review

Edit Extensions: Add the extensions one by one as the EZ VMS Lite prompts with "Extension 1" or "Extension 2" etc. To terminate creating extensions, press #. The existing entries are always overwritten. A maximum of 4 Fax extensions are allowed. The Fax extensions may also be repeated to have the same call tried twice or thrice

To delete all the extensions, press # when you listen to the prompt "Extension 1". To delete a particular extension, re-enter all the desired extensions and press # at the end.

Review: EZ VMS Lite plays the list of existing fax-extensions.

1.3.3.4 Single Digit Plan

You may access a group of extensions by dialing a single digit. When you press 4 for the Single Digit Plan, you will hear the following prompt:

- Press 1 to Edit
- Press 2 to Review

The Operator digit is excluded from the list of digits available in Single Digit Plan.

Edit: To program the Single digit plan extensions, dial the required single digit and then enter the extensions one by one. The extensions may be repeated for the same digit as well as across digits. A maximum of 4 extensions are allowed for each digit.

Add the extensions one by one as the EZ VMS Lite prompts with "Extension 1" or "Extension 2" etc. To terminate, press #. The existing entries are always overwritten. A maximum of 4 extensions are allowed. The extensions may also be repeated to have the same call tried twice or thrice.

To delete all the entries for a digit, press # when you listen to the prompt "Extension 1". To delete a particular extension or a message number, re-enter the desired ones and press # at the end.

Review: EZ VMS Lite plays the list of extensions for each digit.

1.3.3.5 Prompt Extension While Transferring

If this option is enabled, the EZ VMS Lite plays the prompt "Please hold while your call is transferred to <extension number>, when it transfers a call to that extension. If the call is being transferred to an Extension-with-Mailbox and if the Mailbox owner has recorded his/her Name and enabled it, the unit will play the name instead of the extension number in the above prompt.

When you press 5 to select "Extension Prompting While Transferring" option, EZ VMS Lite prompts you with following sub-options:

- Press 1 to Enable
- Press 2 to Disable

You may enable or disable the option as required. If this option is disabled, the entire prompt "Please hold..." will not be played back to the caller.

1.3.4 Distribution List

Distribution Lists are used for sharing or forwarding messages to multiple persons (mailboxes). Each Distribution List is associated with a "Name" for the list and is considered as created only when the name for it is recorded and saved by the Admin.

After Admin presses 4 to select the 'Distribution List' from 'Program Parameters', EZ VMS Lite prompts the following options...

- Press 1 to Create New List (1.3.4.1)
- Press 2 to Select an Existing List (1.3.4.2)

1.3.4.1 Create New List

First, record the name after you hear a beep sound and stop recording by pressing any key. After the name is recorded, the following 4 options are available :

- Press 1 to Accept Recording
- Press 2 to Listen to the Recording
- Press 3 to Re-Record
- Press 9 to Cancel & Return to Previous Menu.

If you accept the recording, the name of the distribution list is saved and the List is created. EZ VMS Lite now prompts you to add extensions for that newly created list. While adding mailboxes to a distribution list, the number of digits in the mailbox-number should be same as the extension length, the first digit of a mailbox cannot be 0 or 9 and duplicate mailboxes are not allowed. To terminate creation of mailboxes, press #.

Maximum number of mailboxes allowed for each Distribution list is 16. Only an already existing mailbox may be added to a distribution list. If you enter a mailbox number which does not exist, the unit prompts back with the error message.

1.3.4.2 Select an Existing List

After you press 2 to 'Select an Existing List', the EZ VMS Lite prompts you with the names of all the Distribution lists sequentially asking you to press a digit corresponding to each List. The following options are available after you choose a name.

- Press 1 to Add Mailboxes
- Press 2 to Delete Mailboxes
- Press 3 to Review Mailboxes
- Press 4 to Change Name
- Press 5 to Delete Entire List

Add Mailboxes one by one as prompted by the unit. Delete one Mailbox at a time. While reviewing the entries, all the Mailboxes are prompted back one by one in the order in which they were entered. The option to 'Change Name' allows you to record a new name for an existing list.

1.3.5 Change Admin. Password

The Default password for the Admin is 999. To change this password, enter a new Password (of 2, 3 or 4 digits). Special characters, like, *, # are not allowed. After entering the new password, re-enter the new password for confirmation. If you fail to confirm the new password three times successively, EZ VMS Lite will take you directly to main greeting and your password remains unchanged.

1.3.6 Voice Settings

After you press 6 for 'Voice Settings', EZ VMS Lite prompts you with the following options:

- Press 1 for Volume Control. (1.3.6.1)
- Press 2 for AGC Control. (1.3.6.2)

1.3.6.1 Volume Control

The EZ VMS Lite has the facility to adjust the output volume level digitally for all the messages being played back. This level control is common for all the ports and cannot be set differently for each port.

When you press 1, the EZ VMS Lite announces the current value for the Volume Control. Enter the new value in two-digit format in the range from 08 to 19. Default value is 12.

1.3.6.2 AGC Control

Automatic Gain Control (AGC) is required to be used when the volume level of the incoming calls varies widely for the different types of incoming calls e.g. local, long distance or international calls. When AGC is enabled, the recording level of the incoming messages is automatically adjusted so that when they are played back they sound uniformly loud even though they were received at different volume levels.

The current status of Automatic Gain Control (AGC) value is announced and then you may press 1 to enable AGC or press 2 to disable AGC.

1.3.7 Day Light Savings Time Settings

The DST settings are pre-programmed to the dates and times for the US and North American requirements and is enabled by default. However, the DST may be disabled if required.

The current status of DST is announced and then you may press 1 to enable or press 2 to disable DST.

1.3.8 PMS port Baud rate settings

The Baud rate and other settings for the PMS port may be set by using this hidden option which is not promoted.

The system prompts the current value as a 3 digit number and asks you to enter the new 3 digit value. Program the desired settings as follows :

Format of 3 digit number

1 st digit	: Baud rate	- 0 to 8 (for 300 to 115200 baud)
2 nd digit	: Parity bit	- 0,1,2 (None, Even, Odd)
3 rd digit	: Data bits	- 0,1 (8bit, 7bit)

Stop bit is fixed at 1.

Baud rate values for the 1st digit :

300	---> 0
1200	---> 1
2400	---> 2
4800	---> 3
9600	---> 4
19200	---> 5
38400	---> 6
57600	---> 7
115200	---> 8

Example : 1200,E,7,1 = 111

9600,N,8,1= 400

1.4 Shut Down

The EZ VMS Lite continuously performs various tasks such as playing back messages or recording messages and managing the Flash memory for efficient usage. If the EZ VMS Lite is abruptly powered off while it is in the middle of an important task, it could result in unexpected data loss. Hence, it is highly recommended that the EZ VMS Lite be powered down systematically to avoid unintended corruption of the voice messages and program parameters stored in the system.

Press 4 for 'Shut Down' option and EZ VMS Lite prompts with:

- Press 1 to Confirm Shut Down.
- Press 9 for Cancel & Return to Previous Menu.

If you confirm the shutdown procedure, the EZ VMS Lite terminates all its tasks one by one, busies out all its ports so that no calls are forwarded to it by the PBX and then goes into an idle mode. The unit may be safely powered off at this point. The unit must be powered off and then on again to put it back into normal operation.

1.5 System Parameters

It is very important that the System parameters be programmed correctly for the EZ VMS Lite to function properly. These parameters are protected by a password to ensure that only the installer has the permission to access these parameters.

The EZ VMS Lite should be configured to work correctly with the PBX to which it is connected, as a lot of parameters are very PBX-specific. Some global parameters (Usage Parameters) are also set through 'System Parameters'.

After you press 5 for 'System Parameters', the EZ VMS Lite prompts you with the following choices:

- Press 1 for PBX Parameters. (1.5.1)
- Press 2 for Usage Parameters. (1.5.2)
- Press 6 to Listen to Serial Number. (1.5.3)

1.5.1 PBX Parameters

Some system parameters require a special programming method, as some special characters are required to be entered.

For example, while programming the 'Enable String', 'Disable String' for Message Waiting Lamp, In-band Strings, Transfer & Retrieve Strings, you have to enter a Pause or a Hook-flash etc. as part of the desired string to be used by the EZ VMS Lite.

For all such special entries, the following two-digit combination must be used while programming :

**	=	*
*0	=	Hook-flash
*1	=	Pause
*2	=	#
*3	=	Extension place holder
*4	=	Ignore character
*5	=	A
*6	=	B
*7	=	C
*8	=	D

When you select the "PBX Parameters" programming menu, the EZ VMS Lite prompts you with:

- Press 1 to Edit Hook-flash Timing (1.5.1.1)
- Press 2 to Edit Off-hook To Message Delay (1.5.1.2)
- Press 3 to Edit Delay after Hook-flash (1.5.1.3)
- Press 4 to Select Dialing Mode (1.5.1.4)
- Press 5 for Message Waiting Lamp Parameters (1.5.1.5)
- Press 6 for In-band String (1.5.1.6)

- Press 7 for Transfer & Retrieve Strings (1.5.1.7)
- Press 8 for Cadence Values (1.5.1.8)

1.5.1.1 Hook-flash Timing:

The hook flash duration is programmable in steps of 50 msec (0.05 sec) from 0 to 2.45 seconds. If the Hook Flash duration is too short, the caller hears the digits being dialed by the PBX when the call is to be transferred to the extension. If the Hook Flash duration is too long, the call is disconnected.

The valid range is from 01 to 49, where Hook flash duration = $nn \times 0.05$ sec. The Default value = 06 (300 ms) Length of entry = fixed 2 digits.

1.5.1.2 Off-Hook to Message Delay:

This value determines the delay period between the unit going off hook and the start of the message playing.

Enter a value in the range 0 to 9 where $n \times 0.2$ sec gives the total delay period. The Default value = 5.

If this value is too small, the caller may miss the first few syllables or the first word of the main greeting.

1.5.1.3 Delay after Hook-flash:

This value determines the delay period after hook flashing and before dialing the digits for transferring a call.

Enter a value in the range 0 to 9 where $n \times 0.5$ sec gives the total delay period. Default value = 2

If this value is too small, the PBX will miss one or more of the digits dialed by the unit for transferring the call.

1.5.1.4 Dialing Mode:

The available options are:

- Tone
- Pulse
- Long Tone

EZ VMS Lite announces the current dialing mode by numbers. Enter new value in numbers to indicate tone, pulse or long tone dialing mode. Default value is 1 (Tone).

1.5.1.5 Message Waiting Lamp Parameters:

The Message Waiting Lamp (MWL) is normally available on most digital phone instruments and some analog phones. This lamp may be made to glow on or off by sending an appropriate string to the PBX and is usually made to flash when a mailbox-owner gets a new message.

EZ VMS Lite first announces the current status (enabled/disabled) for the MWL followed by the prompt:

- Press 1 to Enable Message Waiting Lamp
- Press 2 to Disable Message Waiting Lamp
- Press 3 to Enter Enable String
- Press 4 to Enter Disable string

The 'Enable String' and 'Disable String' may contain maximum 16 characters. If the strings are not 16 characters long, you may press '#' to terminate the entry and go to the next prompt. After entering the strings, press 1 to accept or cancel and return to previous menu by pressing 9.

Example: If the 'Enable String' is '*761E', you have to enter '**761*3':

1.5.1.6 In-band Strings:

Some PBX systems signal the status of a call that was transferred to an extension by sending a string called "In-band signaling strings". In such cases, it is necessary to have a special method for entering non-digit values as described earlier.

Maximum number of characters allowed = 16

Press the # key if the total number of digits entered is less than the maximum allowed. After you press 6 for In-band Strings, you will hear the following prompt:

- Press 1 for Wait Time for 1st Digit.
- Press 2 for Wait Time between Digits.
- Press 3 for Mailbox Login String.
- Press 4 for Busy String.
- Press 5 for Alternative Busy String.
- Press 6 for No-Answer String.
- Press 7 For Alternate No-answer String.
- Press 8 for Other Strings (Hang up string and Invalid string)

Wait Time For 1st Digit: This is the maximum time up to which the EZ VMS Lite waits after going off hook to receive the in-band strings. Enter new value in two-digit format. The wait time value ranges from 00 to 99 where the actual wait time is equal to the entered value multiplied by 50 milliseconds. The Default value = 30

If this value is set too small by the installer, the EZ VMS Lite may miss the first few digits of the string or treat the digits as extension transfer digits. If this value is set too high, outside callers may find a slightly longer silence between the time the unit answers the call and the main greeting starts playing.

Wait Time Between Digits: This is the maximum time the unit waits in between digits for the PBX to send the next digit of the In-band string. Enter the new value in two-digit format in the range 00 to 99. The actual wait time equals the entered value multiplied by 10 milliseconds. The Default value = 20.

If the PBX does not send the next digit by the time this wait time elapses, the unit processes the digits dialed so far and proceeds accordingly.

Mailbox Login String: This is the string to be dialed by a user to gain access to his/her mailbox. This string may also be programmed as a Speed Dial Key on the user's phone to allow single key access to his/her mailbox.

You may enter maximum 16 characters using the special entry method as before. You may accept the string by pressing 1 or cancel & return to previous menu by pressing 9.

Example: If the actual string is *#<Extn>, enter ** *2 *3

Busy / No answer strings : The Busy / No answer strings is a stream of characters sent by the PBX to the EZ VMS Lite to signal the status of a call which was transferred by the EZ VMS Lite earlier.

This method of signaling is required when the normal call transfer is done in the Blind mode, where the EZ VMS Lite dials the extension and hangs up. In such cases the PBX calls the EZ VMS Lite and sends the appropriate string to inform the unit that this is a call that was transferred earlier and is now being transferred back to it because the called extension was busy or there was no answer from it. The unit plays the appropriate message back to the original caller after decoding the string sent by the PBX.

Some PBX's use two different strings for each type i.e. two Busy strings and two no-answer strings. In such cases, you may program an Alternate Busy / No answer string in the EZ VMS Lite.

Maximum number of digits allowed = 16.

Busy String: E.g.: *52<Extn>. Enter ** 5 2 *3

Alternate Busy String: E.g.: *53<Extn>. Enter ** 5 3 *3

No-Answer String: E.g.: *54<Extn>. Enter ** 5 4 *3

Alternate No-Answer String: E.g.: *55<Extn>. Enter ** 5 5 *3

Hang-up String: This is a string that may be sent by the PBX at any time during the call that is already in progress, to signal the EZ VMS Lite that the caller has hung up and hence this call may be terminated. Example: ###. Enter *2 *2 *2

Invalid String: E.g.: *56<Extn>. Enter ** 5 6 *3

Note: If only the Busy string is programmed and the No-Answer string is left blank, the EZ VMS Lite prompts back "The person is not available" when the extension returns a Busy string. This is normally required to be done when the PBX returns the same string for both Busy or No answer and the unit has no method of distinguishing between the two.

1.5.1.7 Transfer & Retrieve Strings:

Normally, a call is transferred by hook flashing to put the caller on hold and then dialing the extension number, to which the call is to be transferred; and to retrieve this call, hook-flash again. However, for some PBX systems, instead of hook flashing to transfer or retrieve a call, a string - which may or may not include a hook flash - is to be dialed.

The EZ VMS Lite prompts you with the following choices:

- Press 1 for Transfer String.
- Press 2 for Retrieve String for Busy.
- Press 3 for Retrieve String for No-Answer.
- Press 4 for Retrieve String for Invalid.

Each of these strings contains maximum 16 characters including digits. After entering the string, you may accept it by pressing 1 or press 9 to cancel and return to previous menu. For Example:

Transfer string = *1<Hook-flash><Extn>. Enter ** 1 *0 *3

Retrieve string for Busy = *2<Hook-flash>. Enter ** 2 *0

1.5.1.8 Cadence Values:

Cadence values are the Timings corresponding to the different Call Progress patterns unique to each PBX. When the EZ VMS Lite transfers a call to an extension, it monitors the call progress cadences returned by the PBX and calculates the ON and OFF timings of the signal. These timings are stored in values that are multiples of 33 msec.

Each complete string consists of 12 digits where each value is entered as 3-digit number in the range 001 to 255. Alphabets and special characters are not allowed. The Cadence string consists of 1st Cycle - ON, 1st Cycle - OFF, 2nd Cycle - ON, 2nd Cycle - OFF. Hence a cadence string of 015-010-015-040 corresponds to a cadence-timing pattern of 0.50-0.33-0.50-1.32 seconds on-off-on-off pattern.

After you press 8 for "Cadence Values", EZ VMS Lite prompts you with the following choices:

- Press 1 for Busy Cadence.
- Press 2 for Reorder Cadence.
- Press 3 to Listen to the Last Call Progress.
- Press 4 for Wait Time before Call Progress.
- Press 5 for Answer Detection Time.

Busy: Typical Busy cadence pattern = "016 015 016 015" corresponding to a 500 msec On-Off-On-Off pattern.

Reorder: Typical Reorder cadence pattern = "007 008 007 008" corresponding to a 250 msec On-Off-On-Off pattern.

Listen to Last Call Progress: EZ VMS Lite plays back the 12-digit string for the cadence values detected for the last call handled by it. This is very useful in trouble shooting or setting up the EZ VMS Lite to interface with a new PBX.

When the unit is working in the Blind mode, the call progress cadences are not available and hence the unit prompts the last In-band string.

Wait Time Before Call Progress: Some times it is required to start the call progress detection after a short delay. For example, quite often, the PBX gives out a transfer tone immediately after a call is transferred and this interferes with the cadence detection if the detection is started immediately after the call is transferred.

You may program the delay period here and the EZ VMS Lite starts the cadence detection only after this delay period has elapsed. Enter the new value in two-digit format, which are in multiples of 40 milliseconds. The value ranges from 00 to 99 giving a maximum delay of 400 msec. Default value is 0.

Answer Detection Time: This is the minimum duration of voice frame that must be detected by the EZ VMS Lite to consider a call as having been answered.

Enter the new value in two-digit format that are in multiples of 33 milliseconds. The value ranges from 01 to 99. Default value is 07. Too small a value may result in false detection of a call as answered whereas too large a value may result in the caller missing the first word spoken by the called party.

1.5.2 Usage Parameters

After you press 2 for 'Usage Parameters' EZ VMS Lite plays the following prompt:

- Press 1 to Enter Rings to Pickup Per Port (1.5.2.1)
- Press 2 For Conflict Timer Value (1.5.2.2)
- Press 3 For Extension Length (1.5.2.3)
- Press 4 For Time Before Deciding No-Answer (1.5.2.4)
- Press 5 For Transfer Type (1.5.2.5)
- Press 6 For Hang-up Tone Detection Time (1.5.2.6)

1.5.2.1 Rings to Pickup per Port:

The EZ VMS Lite can handle four incoming calls at a time on its four ports. However, each port may be programmed separately for the number of rings to wait before answering the call by going off-hook. Valid range is from 0 to 9. By default, this value is 1 for each port.

1.5.2.2 Conflict Timer Value:

Conflict Timer Value is the time for which the EZ VMS Lite waits for the caller to dial the second digit after the caller has dialed the first digit.

If the second digit is not dialed before the conflict timer delay elapses, the first digit is treated as a Single digit dial entry and the call is transferred as per the Single digit dial plan. If that digit does not have any corresponding single digit plan entries, the call is transferred to the Operator. If the second digit is dialed, the unit waits for further entries if necessary and transfers the call accordingly.

This value ranges from 2 to 5 and is in seconds. Default value is 3.

1.5.2.3 Extension Length:

Extension Length determines the number of digits present in an extension or in a mailbox. Except operator extensions, all types of extensions and mailboxes depend on Extension Length.

After you press 3 for extension length, EZ VMS Lite plays the current Length. Valid extension lengths = 2, 3 or 4. Default is 3. To change the Extension Length, all entries under the extension list, mailbox list, fax extensions, distribution list and single digit plans must be deleted.

1.5.2.4 Time before Deciding No-Answer:

When a call is transferred to an extension and there is no answer from that extension, the EZ VMS Lite waits for a certain time before deciding that there is no answer from that extension. This no answer time is programmable from 9 seconds to 27 seconds.

Valid values : 3 to 9 (x 3 Seconds). Default = 3 (9 seconds)

1.5.2.5 Transfer Type:

The EZ VMS Lite supports three different modes of call transfers – Blind, Semi supervised and fully supervised. In the Blind mode, the unit transfers the call and hangs up. If the called extension is busy or if there is no answer, the PBX calls the EZ VMS Lite back and sends an in-band string to inform that this is a call-back on busy / no answer.

In the Semi supervised mode of transfer, the unit monitors the call after transferring and if the called extension is busy or an invalid extension, it retrieves the call and informs the caller accordingly. However, if it gets a ring-back signal from the called extension, the unit hangs up and thus connects the caller to the called extension.

In the fully supervised mode, the unit monitors the call till the called party answers the call or if there is no answer, it retrieves the call and informs the caller accordingly.

After you press 5 for 'Transfer type' in the 'Usage parameters', EZ VMS Lite prompts you with:

- Press 1 for Blind Mode of Call Transfer.
- Press 2 for Semi-supervised Mode of Call Transfer.
- Press 3 For Fully supervised Mode of Call Transfer.

Once you choose any one of these three options, EZ VMS Lite prompts you: <..... mode of call transfer is enabled>.

Default : Blind mode of call transfer.

1.5.2.6 Hang-up Tone Detection Time:

You have to enter this value in two-digit format. The value for this field may vary from 10 to 49 (both inclusive). Default value is 40. The value for this field gets multiplied by 33 milliseconds.

1.5.3 Listen to Serial Number

This option may be used to find out the serial number of different units in the field for maintenance etc. The EZ VMS Lite prompts the serial number of the unit and returns to the previous menu.

2.0 Staff Mailbox User Guide

This section describes the options available to the normal end user for his User Mailbox, who uses the system to retrieve his/her messages, reply or delete the messages etc.

Call in to the EZ VMS Lite and press * # while the main greeting is playing. The system responds with a prompt "Press 1 to leave a message or press 2 for mailbox options".

2.1 Leave a Message

Enter the mailbox number for which you want to leave a message. Start recording the message after you hear a tone and press any key to stop recording. After recording the message, the EZ VMS Lite prompts you with these choices :

- Press 1 to Send the Message and Return to the Previous Menu.
- Press 2 to Listen to the Message.
- Press 3 to Re-Record the Message.
- Press # to Send the message and Hang-up.
- Press 9 to Cancel and Return to Previous Menu.

If you press 1 at this stage, the message that you just recorded is sent to the recipient and you will hear the main greeting being played back. You may now transfer the call to any extension or repeat this process to leave a message to another user.

If you press #, the message is sent to the recipient and the call is terminated. If you press 9, the message that you just recorded is discarded and you will be returned to the main greeting.

If you press 2, the just recorded message is played back and then the above prompt is replayed so that you may choose the other options as desired. If you press 3, you will be allowed to record your message again and the previous message is discarded.

2.2 Mailbox Options

If you press 2 for mailbox options, you are asked to enter your mailbox number. Enter your mailbox number followed by the password. If your password is incorrect, you are

asked to re-enter the password. If you enter an incorrect password 3 times successively, you will be asked to hang-up and the call is disconnected.

Once you are logged into your mailbox, the EZ VMS Lite plays the number of new (unread) and saved (already read) messages that you have in your mailbox. Then EZ VMS Lite prompts you with:

- Press 1 to Listen to New Messages (2.2.1)
(If there is no New Message, this prompt is not played)
- Press 2 to Listen to Saved Messages (2.2.2)
(If there is no Saved Message, this prompt is not played)
- Press 4 for Mailbox Options. (2.2.4)
- Press 5 to Send a Message. (2.2.5)
- Press 6 for Reminder Call Options. (2.2.6)
- Press 7 to Undelete a Message. (2.2.7)

2.2.1 Listen to New Messages

After you press 1 to listen to new message(s), EZ VMS Lite plays the first new message along with date and time stamp and prompts you with the following options:

- Press 1 to Save the Message
- Press 2 to Play the Next Message
- Press 3 to Delete the message
- Press 4 to Replay the Current Message
- Press 5 to Forward the Message
- Press 6 to Play Date & Time Stamp

Save Message: You may save the message by pressing 1. Once you listen to a new message, it is regarded as a saved message when you skip to the next message, even though you did not press 1 to save the message.

Play Next Message: This option plays the next message if there is one more new message. After you press 2, the next new message is played and the same options are available as before. If there are no more new messages, the unit prompts with "This is the last message".

Delete the Message: This option deletes the current message from the list of messages for that mailbox. You may restore this message by pressing 7 in the previous menu (using the option "Undelete a Message" as explained in section 2.2.7)

Replay the Current Message: EZ VMS Lite repeats the current message along with the date & time stamp.

Forward the message: When you press 5 for the option "Forward the Message", EZ VMS Lite responds with:

- Press 1 to Send to a Mailbox.
- Press 2 to Send to a Distribution List

If you press 1 to send the current message to a mailbox, you have to enter an existing mailbox number so that EZ VMS Lite may forward the message to that particular mailbox.

If you select 2 to forward the current message to a distribution list, EZ VMS Lite gives you the following options:

- Press 1 to Select All
- Press 2 to Select Programmed List.

If you select the first option, the current message is forwarded to all existing mailboxes in EZ VMS Lite. If you select second option, current message is forwarded to a particular distribution list.

Play Date & Time Stamp: 'Date & Time Stamp' indicates the date and time of recording the message. If you select this option, EZ VMS Lite plays the date & time stamp of that particular message. For example: if somebody leaves a message on 30th July, at 10 A.M. to a mailbox, EZ VMS Lite plays the date & time stamp as: <30th July 10 A.M.>. The year is regarded as current year.

The 6 options under "Listen to New Messages" are played for each New Message.

2.2.2 Listen to Saved Messages

After you press 2 to listen to saved message(s), EZ VMS Lite plays the first saved message along with date and time stamp and prompts you with following options:

- Press 2 to Play Next Message
- Press 3 to Delete the message
- Press 4 to Replay the Current Message
- Press 5 to Forward the Message
- Press 6 to Play Date & Time Stamp

This is similar to the "Listen to new messages" option except that only the saved messages are played back.

2.2.4 Mailbox Options

After you press 4 for 'Mailbox Options', EZ VMS Lite prompts as follows:

- Press 1 to Record and Set Mailbox Greeting Options.
- Press 2 to Set Do-Not-Disturb Option.
- Press 3 For Follow Me Option. (This prompt is played only when the 'Usage Transfer Type' is set to Fully Supervised mode).
- Press 4 to Change Your Password.
- Press 5 for External Notification Option. (This prompt is played only when Admin. enables External Notification feature in 'Global Mailbox Settings' and 'External Notification for a Particular Mailbox').

Record and Set Mailbox Greeting Options:

You may record your name and personal greeting. EZ VMS Lite prompts you with "Press 1 for User Name, Press 2 for Personal Greeting".

After you record your name and personal greeting, EZ VMS Lite responds with "Press 1 to Accept, Press 2 to Listen, Press 3 to Re-record, Press 9 to Cancel & Return to Previous Menu."

Name & Greeting is saved if you press 1 to accept. Now EZ VMS Lite prompts you with "Press 1 to Enable, Press 2 to Disable, Press 3 to Record, Press 4 to Listen."

Do-Not-Disturb Option:

If this option is enabled, all the calls to your extension are automatically redirected to your mailbox. The caller hears the prompt "I am sorry; the person you are trying to reach is not available" and the caller may leave a message for that person.

You may enable this option by pressing 1 or may disable this option by pressing 2.

Follow Me Option:

This option is for transferring the call to another extension instead of the default/current extension. After you press 3 for Follow Me Option, the EZ VMS Lite prompts with "Press 1 to Enable Follow Me, Press 2 to Disable Follow Me, Press 3 to Enter Follow Me Extension."

'Follow Me Extension' may be a mailbox with extension, may be an operator extension and may be any extension that is not in the list of Invalid Extensions. The 'Follow Me' extensions may not be a virtual mailbox or a fax extension or an invalid extension.

Change Your Password:

When a mailbox is created, it has the mailbox number as the default password. You may change this password that may consist of 2, 3 or 4 digits only.

External Notification Option:

After you select 5 for External Notification option, EZ VMS Lite prompts you with the following options "Press 1 to Enable Personal Notification, Press 2 to Disable Personal Notification, Press 3 to Enter Pager Number, Press 4 to Enter Mobile Number.

After entering pager number or mobile number, you may accept the number or cancel the entry.

2.2.5 Leave a Message

After you press 5 to leave a message, EZ VMS Lite prompts with the following options:

- Press 1 to Send to a Mailbox.
- Press 2 to Send to a Distribution List.

If you press 1, you are prompted to enter the mailbox number. If you press 2, EZ VMS Lite prompts you with "Press 1 to Select All, Press 2 to Select a Programmed List" and

then if you press 2, all the Distribution list names are played back one by one – for example “Press 1 to select Sales Distribution list, press 2 to select Factory distribution list..” and so on till all the names are played back.

When the selection is over, you are asked to record the message. Once the recording is complete, EZ VMS Lite prompts you with the following options:

- Press 1 to Send Recorded Message & Return to Previous Menu.
- Press 2 to Listen to the Message.
- Press 3 to Re-record Message.
- Press # to Send and Hang-up.
- Press 9 to Cancel and Return to Previous Menu.

2.2.6 Reminder Call Options

If you want EZ VMS Lite to remind you of any important event at any given point of time, all you need to do is, set the time at which you want to be reminded of the event.

If there is no Reminder Call programmed, EZ VMS Lite directly asks you to set the time for reminder call. If it is already programmed, you are prompted with:

- Press 1 to Enable Reminder Call
- Press 2 to Disable Reminder Call
- Press 3 to Set the Time for Reminder Call

You cannot delete or remove a reminder call. If the Reminder Call is not required, it must be disabled.

After you press 3 for setting reminder call, EZ VMS Lite prompts you to enter the hour in 24-Hour format and minute in two-digit format. After entering the reminder call time, you are prompted with “Press 1 to set the reminder call only once, press 2 to set it daily”. If you set the reminder call ‘daily’, then you will get a reminder call everyday at the same time until the option is either changed or disabled.

2.2.7 Undelete Deleted Message

You may undelete a deleted message before midnight 12 o'clock. After 12 A.M., the deleted messages are permanently deleted. If you undelete a deleted message, EZ VMS Lite treats that message as a new message.

3.0 Guest Mailboxes and Hospitality features

This section describes the options available to the Guest staying at the Hotel to retrieve his/her messages, reply or delete the messages etc.

The Guest room phones are pre-programmed with a speed dial key which is set to dial the required digits to access the voice mail hunt group extensions followed by the digits for the mailbox login string.

The guest is automatically logged in to his / her mailbox and may access their messages without having to enter a password.

3.1 Guest Mailbox

Once the Guest is logged into their mailbox, the EZ VMS Lite plays the number of new (unread) and saved (already read) messages that they have in their mailbox. Then EZ VMS Lite prompts you with:

- Press 1 to Listen to New Messages (3.1.1)
(If there is no New Message, this prompt is not played)
- Press 2 to Listen to Saved Messages (3.1.2)
(If there is no Saved Message, this prompt is not played)
- Press 4 for Mailbox Options. (3.1.4) [If enabled by the Administrator]
- Press 6 for Wake up Call Options. (3.1.6)
- Press 7 to Undelete a Message. (3.1.7)

3.1.1 Listen to New Messages

After the guest presses 1 to listen to new message(s), EZ VMS Lite plays the first new message along with date and time stamp and prompts them with the following options:

- Press 1 to Save the Message
- Press 2 to Play the Next Message
- Press 3 to Delete the message
- Press 4 to Replay the Current Message
- Press 6 to Play Date & Time Stamp

Save Message: The message may be saved by pressing 1. If the guest skips to the next message after listening to the new message partially or fully, it is regarded as a saved message, even though the guest did not press 1 to save the message.

Play Next Message: This option plays the next message if there is one more new message. If the guest presses 2, the next new message is played and the same options are available as before. If there are no more new messages, the unit prompts with "This is the last message".

Delete the Message: This option deletes the current message from the list of messages for that mailbox. The guest may restore this message by pressing 7 in the previous menu (using the option “Undelete a Message” as explained in section 3.1.7)

Replay the Current Message: EZ VMS Lite repeats the current message along with the date & time stamp.

Play Date & Time Stamp: ‘Date & Time Stamp’ indicates the date and time of recording the message. If this option is selected, EZ VMS Lite plays the date & time stamp of that particular message. For example: if somebody leaves a message on 30th July, at 10 A.M. to a mailbox, EZ VMS Lite plays the date & time stamp as: <30th July 10 A.M.>. The year is regarded as current year.

These options under “Listen to New Messages” are played for each New Message.

3.1.2 Listen to Saved Messages

If the guest presses 2 to listen to saved message(s), EZ VMS Lite plays the first saved message along with date and time stamp and prompts the following options:

- Press 2 to Play Next Message
- Press 3 to Delete the message
- Press 4 to Replay the Current Message
- Press 6 to Play Date & Time Stamp

This is similar to the “Listen to new messages” option except that only the saved messages are played back.

3.1.4 Mailbox Options

These options would be available to the Guest only if the Administrator has enabled the Guest room options. If the option is disabled, this prompt will not be played.

If the option is enabled and the guest presses 4 for ‘Mailbox Options’, EZ VMS Lite prompts as follows:

- Press 1 to Record and Set Mailbox Greeting Options.
- Press 2 to Set Do-Not-Disturb Option.

Record and Set Mailbox Greeting Options:

The guests may record their name and personal greetings. EZ VMS Lite prompts you with “Press 1 for User Name, Press 2 for Personal Greeting”.

After they record their name and personal greeting, EZ VMS Lite responds with “Press 1 to Accept, Press 2 to Listen, Press 3 to Re-record, Press 9 to Cancel & Return to Previous Menu.”

Name & Greeting is saved if they press 1 to accept. Now EZ VMS Lite prompts with "Press 1 to Enable, Press 2 to Disable, Press 3 to Record, Press 4 to Listen."

Do-Not-Disturb Option:

If this option is enabled, all the calls to the guest's extension are automatically redirected to your mailbox. The caller hears the prompt "I am sorry; the person you are trying to reach is not available" and the caller may leave a message for that person.

You may enable this option by pressing 1 or may disable this option by pressing 2.

3.1.6 Wake up Call Options

The EZ VMS Lite allows the guests to set wake up calls, listen to the time set or cancel a previously set wake up call.

If there is no Wake up Call programmed, EZ VMS Lite prompts you to set the Wake up call. If a Wake up call has been previously set, you are prompted with the current time set for the Wake up call and then the following options are given :

- Press 1 to Set Wake up Call
- Press 2 to cancel Wake Up Call

After you press 1 for setting the Wake up call, the EZ VMS Lite prompts you to enter the hour in 24-Hour format and minute in two-digit format.

You will hear the prompt "Wake up call set at....." indicating that the Wake up call has been set as desired.

3.1.7 Undelete Deleted Message

You may undelete a deleted message before midnight 12 o'clock. After 12 A.M., the deleted messages are permanently deleted. If you undelete a deleted message, EZ VMS Lite treats that message as a new message.

3.2 Hospitality Features

The Guest Mailboxes in the EZ VMS Lite are created when a guest is checked in and these mailboxes are deleted when the guest checks out.

When a Guest is checked in, a Welcome message is automatically sent to the Guest's mailbox and the message waiting lamp will start glowing on the guest room phone.

The Check in and Check out operation may be initiated either through touch tone by calling in to the unit and dialing the pre-defined code or the unit may be easily integrated with the Hotel's PMS.

Touch tone operation : Call the hunt group of the unit, wait for the unit to answer the call and start with the main greeting.

Check in : Dial * * 555 <Extn> For example, to check in Room No. 315, you must dial **555315. The room number being checked in must not be present in the list of staff mail boxes or as an operator extension or as a Fax extension. If this condition is satisfied, the room is checked in by creating a mailbox for that room, a Welcome message is sent to that mailbox and the Message Waiting Lamp is set for that room phone. You will hear the prompt "Successful" indicating that the room has been checked in. If the condition was not satisfied, you will hear the prompt "This entry is Invalid".

Check out: Dial * * 556 <Extn> For example, to check out Room No. 315, you must dial **556315. The room number being checked out must be present in the list of already checked in rooms. If this condition is satisfied, the room is checked out by deleting the mailbox for that room and all messages in that mailbox are permanently deleted. You will hear the prompt "Successful" indicating that the room has been checked out. If the condition was not satisfied, you will hear the prompt "This entry is Invalid".

If there were some new and unread messages in that mailbox at the time of check out, you will hear the prompt "There are some new and unread messages in this mailbox. Press 1 to confirm check out or 2 to cancel". If you press 1, the room is checked out and even the new messages will be deleted. If you press 2, the check out process is aborted and there will be no change in the status of that room.

Room Move : Dial * * 557 <From Extn> <To Extn> For example, to move the guest from Room No. 315 to 430, you must dial **557315430. The "To.." room number must not be present in the list of staff mail boxes or as an operator extension or as a Fax extension. The "From.." room number must be present in the list of already checked in rooms. If both these conditions are satisfied, the "To.." room is created with a mailbox for that room, all messages of the "From.." room are moved to the new room. You will hear the prompt "Successful" indicating that the room has been moved as desired. If any condition was not satisfied, you will hear the prompt "This entry is Invalid".

Wake Up call Report :

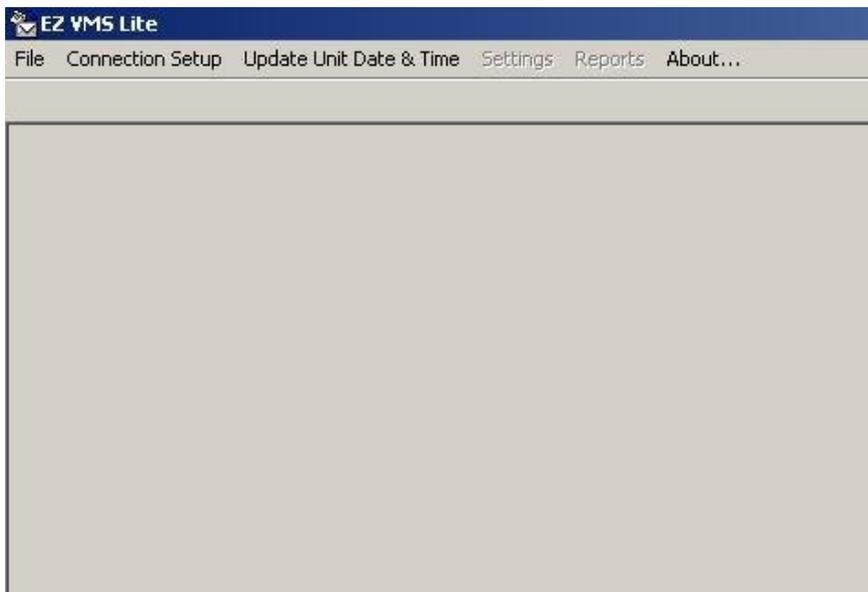
The Admin or the Front desk clerk may ascertain the Wake up call status for a particular guest room at any time. To do this, call into the unit and log in to the Mailbox 998 with the password as 998.

The system prompts you to enter the Room Number. After the room number is entered, the unit prompts with the current status for that room as "Wake up call Not set" or "Wake up call set at" or "Wake up call not answered" or "Wake up call answered".

4.0 Remote Programming Interface

EZ VMS Lite provides a user-friendly screen based GUI interface to program the various parameters of the EZ VMS Lite. However, it must be noted that this interface allows only the parameters to be programmed and any voice recordings like greetings, names etc., must be recorded by calling into the unit and going through the touch-tone programming.

Launch the EZ VMS Lite Remote Programming Interface (RPI) application and wait for the main screen to appear.



The main menu consists of the following options :

- File
- Connection Set Up
- Update Date & Time
- Settings
- Reports
- About

When the application starts up, only the options "File, Connection Set Up, Update Unit Date & Time, and About" are enabled. All the other menu options are enabled as shown below, once an existing binary file is loaded successfully or a new binary file is imported from a EZ VMS Lite unit.

4.1 File Menu

The sub options under File are...

- Open
- Save
- Save As...
- Export
- Detect IP Settings
- Exit

The option 'Open' has two sub options –

- Open Saved Configuration
- Import from Unit.

'Open Saved Configuration' allows you to select an already saved file (*.bin) from the hard disk and loads the parameters. If you select 'Import from Unit', the Import dialog screen opens up. The parameter file from the EZ VMS Lite may be imported through serial port or through the LAN port.

If data is imported from the unit or if a previously saved bin file is opened, the mailboxes present in the unit with all its attributes, the number of new / saved messages, wake up call status etc., are displayed on the main screen.

The main screen shows the existing mailboxes and creation / deletion of mailboxes is not allowed. All mailbox creation and deletion may take place during programming by touch tone only by calling into the unit. Mailboxes are dependent on the extension-length.

The attributes for the Staff & Admin mailboxes are :

- With/Without extensions
- External Notification – Allowed / Not Allowed (by Admin)
- Mobile number of the mailbox owner.
- Pager number of the mailbox owner.
- Mailbox owner's name – Recorded / Not recorded
- Mailbox owner' name playing – Enabled / Disabled
- Follow Me number – Programmed / Not programmed
- Follow me option – Enabled / Disabled.
- Follow-Me number of the mailbox is displayed if programmed.
- Do Not Disturb (DND) – Enabled / Disabled
- Pager Notification – Enabled / Disabled
- Reminder Call - Programmed / Not programmed.
- Reminder Call Time – is displayed if programmed.
- Reminder Call Frequency – Once / Daily (Blank if reminder call not set)

The attributes for the Guest mailboxes are :

- Do Not Disturb (DND) – Enabled / Disabled
- Mailbox owner's name – Recorded / Not recorded

4.1.3 Save / Save As

If you are working with an already previously saved file, when you click on the 'Save' option the changes are saved in the same file. If you are working with an unsaved file loaded from a EZ VMS Lite, the following screen appears to prompt you to "Save As". Choose a new file name to save as or overwrite an existing file.

4.1.4 Export

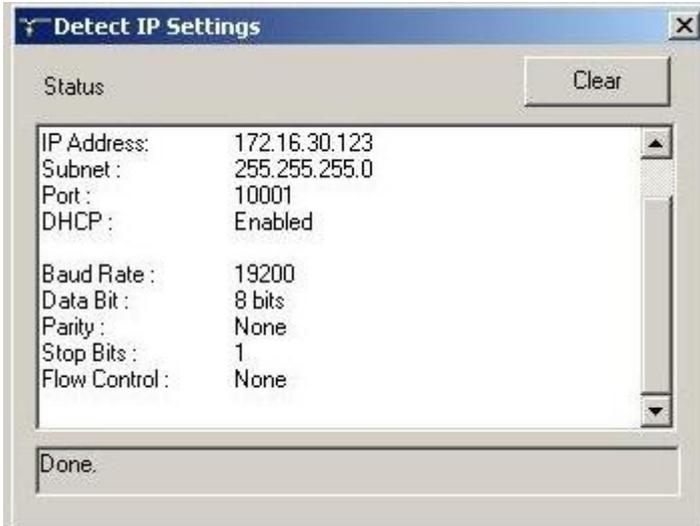
To export a binary file from the RPI to the Unit to configure it, click on the 'Export' menu option and a dialog box appears prompting you to choose a binary file for export.

If you want to export the file you have just collected from the Unit, you have to save and close the file and then export. If you try to export the file that is currently open, the RPI prompts you to save and close the file first and then export the desired file.

4.1.5 Detect IP Settings

Use this option to find the IP address of the built-in Ethernet port of the EZ VMS Lite or if an external Serial to Ethernet converter is being used.

Keep the unit powered off, select the "Detect IP address" option and then switch on the power to the unit.



The IP address is broadcast by the unit on power up and this will be captured and displayed in the window as shown above. Use these details to communicate with the EZ VMS Lite using the Ethernet mode.

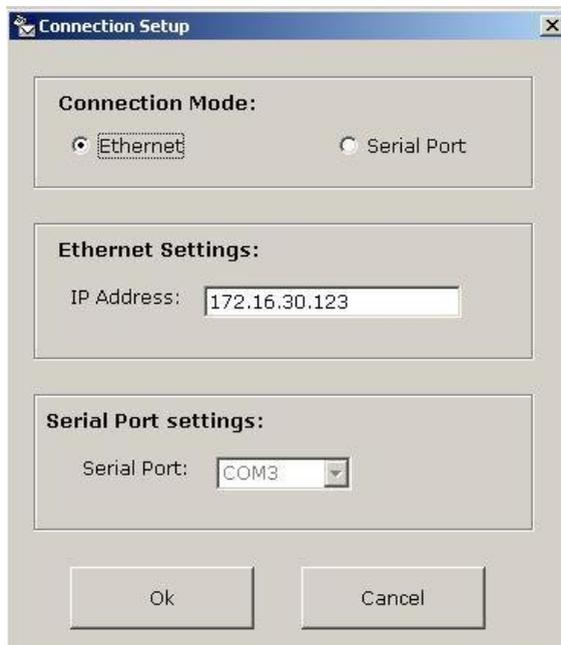
4.1.6 Exit

This option terminates the application.

4.2 Connection Setup

Set up the Communication Settings as shown below :

Select the Serial Port or the Ethernet port as applicable. For the Serial Port the baud rate settings are fixed at 19200,N,8,1. The Ethernet mode uses port 10001 to communicate with the EZ VMS Lite.

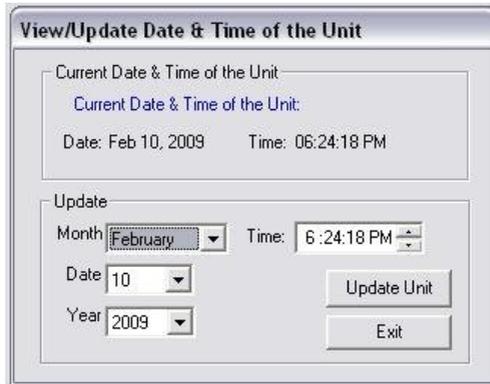


Each of the main menu options have several related sub menus to guide you through the various sections of EZ VMS Lite programming.

4.3 Update Unit date and time

The current date and time of the EZ VMS Lite may be imported from the unit and displayed by clicking the menu option "Update Unit Date & Time". An option to update the current date and time of the unit is also provided.

The date and time information may be imported from the unit through the serial port or through LAN port. The current date & time information is imported from the unit and displayed on screen.



After making the changes as desired, click on the 'Update Unit' button to send the new date and time information back to the unit. If the 'Admin' is logged into the remote unit at that time the unit will not accept the new date and time information and an error will be reported on the screen.

4.4 Settings

The Settings option has 4 sub-menu options.

- System Parameters
- Distribution List
- Admin Password
- View Serial Number

4.4.1 System Parameters :

Click on the "System Parameters " option to program all the parameters required for the proper operation of the unit. This wizard takes you through a sequence of pop up windows giving the essential operational settings that need to be programmed properly for the unit to function as desired.

4.4.1.1 Global Parameters

Global Mailbox Settings are the settings that affect all the mailboxes maintained by EZ VMS Lite. Any changes made to these parameters will be applied to all the mailboxes created so far. There are three different parameters shown which are considered to be global parameters as shown below.

External Notification: The Administrator must enable this option globally and then allow external notification for the individual user's extension. The user may only then enable or disable this option for their mailbox. If they enable the option, they must also enter a number for the external notification on his/her mobile or land phone or pager.

If the external notification is to be sent to a mobile phone or another land phone number, the EZ VMS Lite calls the mailbox owner, waits for the call to be answered, informs the owner of the new message and gives an option to play the message. If the mailbox owner chooses to listen to the message, the EZ VMS Lite asks for his password and then plays the message. The user is now logged into his mailbox and may thereafter save or delete the message, replay or forward the message to another user or exercise any of all the other options normally available to a mailbox user logging in from their own extension.

If the external notification is to be sent to a Pager, the EZ VMS Lite dials the pager number, waits for the answer beep and then dials the "Pager display string" programmed.

Pager Display String: Pager Display String is a string of characters, maximum 11 characters long and consists of digits 0 to 9 and *. The EZ VMS Lite notifies the mailbox owner about a new message by dialing his/her pager number and then dialing the "Pager display string". This string appears on the pager's screen and the mailbox owner can recognize this as a new message notification.

Global Parameters

External Notification:

Enabled Disabled

Pager Display String :

No. Of Retries :

Trunk Access Key :

Answer Detection Time : x 33 mSec.

Time Before No Answer : x 3 Sec.

Operator Options:

Extn. prompting while transferring

Operator Time Before No-Answer: x 3 Sec.

Operator Transfer Mode:

Operator Digit:

Time & Date Stamp:

Enabled Disabled

Volume Settings:

Volume :

AGC Control :

Guest Room Transfer:

Allow Disallow

Guest Room Options:

Enable Disable

Welcome Greeting:

Enable Disable

WakeUp Call Report Mailbox:

Mailbox No.

Password

Previous Next Cancel

No. of Retries: This is the number of times the EZ VMS Lite tries to call the external notification number to deliver a notification when the attempt fails to deliver because either the number was busy or the user was out of service area or if the user did not answer the call. Valid values are 0 to 6. (If 0 is programmed, the unit will not retry to send the notification).

Trunk Access Key: This is a single-digit or a two-digit number that must be dialed to gain access to the external trunk line. A pause may be added to the digits or the field may be left blank also.

Answer Detection Time: This is the minimum duration for which the voice must be present to decide that a call is answered. Valid values range from 1 to 29. These values are multiplied by 33 mSec.

Time before No Answer: When the EZ VMS Lite calls a number for external notification, this is the duration of time after which it decides that there is No-Answer from the called number when it does not receive any answer.

Operator Options :

Extension Prompting while transferring : If this feature is enabled, the EZ VMS Lite prompts "Please hold while your call is transferred to <the dialed extension number>" to the caller while transferring the call. However, if the user has recorded his/her name and enabled it, the name is prompted instead of the extension number. If this option is disabled, no prompt is played and the caller is put on-hold as soon as he dials the extension number.

Operator Time before No answer : This time may be set from a minimum of 9 seconds to a maximum of 90 seconds. The default value is 15 seconds.

Operator Transfer Mode is of three types:

1. **Blind Mode:** This is a mode of transfer where the EZ VMS Lite transfers the call and hangs up immediately without monitoring the call status. If the Operator's extension is busy, invalid or there is no-answer, the PBX rings the unit back.
2. **Fully Supervised Mode:** In this mode the EZ VMS Lite constantly monitors the call status after transferring the call until either the Operator answers or it can determine the status. For example, if the extension is busy or no-answer, the EZ VMS Lite retrieves the call and informs the caller accordingly.
3. **Semi Supervised Mode:** In this mode, the EZ VMS Lite monitors the call status only for the Busy or Invalid cadences. If the Operator's extension is not busy or invalid, the call is put through without waiting to check if the call was actually answered or not.

Operator Digit: Operator digit is the single digit to be pressed to reach to operator when the main greeting is playing. Any digit between 0 and 9 may be programmed as Operator digit.

Play Date & Time Stamp: If this option is enabled, the Date & Time when the message was recorded by a caller, is played back when the mailbox owner listens to that message by logging into his/her mailbox.

Voice Settings : The Volume and AGC settings are normally not required to be changed from the default values of 12 and OFF respectively. However, if the callers feel

that the playback volume is low or high, this level may be adjusted as desired. Max volume level is 19 and minimum is 1.

AGC – Automatic gain control is a feature by which the recording volume levels are automatically adjusted so that all the recorded messages are at a uniform volume level.

Guest Room Transfers : The facility for an outside caller to be able to transfer directly to a Guest room may be enabled or disabled globally. If the guest room transfers are disallowed, such calls will be directed to the Operator.

Guest Room Options : This option allows or disallows the Guests from recording their names and personal greetings. This option is disabled by default.

Welcome Greeting : The Welcome Greeting may be enabled or disabled under user control. If this greeting is enabled, the Welcome greeting is sent to a Guest Mail box on Check-In and the Message Waiting lamp is made to glow. When the Guest logs in to his mail box, the Welcome Greeting is played back. If this option is disabled, then the Welcome message is not sent to the Guest mail box and the Message lamp will remain off.

4.4.1.2 Extension Parameters

Invalid Extensions are those extensions to which calls will not be transferred. To program a particular leading digit as an Invalid leading digit, i.e. to make all extensions from 400 to 499 as Invalid, enter 4**.

Extension Parameters

Extension type:

Invalid Extensions

Fax Extensions

Operator Extensions

Add/Remove Extensions

Extension

Single Digit Plan

Single Digits

1	2	3
4	5	6
7	8	

Add/Remove Extensions

Current Digit

Extension No

Single Digit Plan Structure

Digits	Extensions
1	215,216,217
2	
3	
4	
5	
6	
7	
8	

Operator extensions are not dependent on extension-length. For example, if the extension length is 3, you may enter operator extensions that consist of 1, 2 or 4 digits also. The current entries are displayed in the window on the right side as well as the complete tree of the extensions is shown in the Extension details window.

Fax extensions are dependent on extension-length. Add or delete the entries as desired.

The Operator extension is not allowed to be an Invalid extension or a Fax extension.

Single Digit Plan: The Single Digit Plan allows the callers to dial a department directly by pressing a single digit. The digits 0, 9 and the Operator digit (if other than 0 or 9) are excluded from the Single digit plan digits. Hence, a maximum of 8 departments may be associated with a single digit plan. The Operator digit selected in the previous window is automatically excluded from the digits available for the single digit plan.

A maximum of 4 extensions are allowed for a particular digit. Extensions are dependent on extension-length.

To add or modify, first select a digit from 1 to 8 and add / delete the entries in the box on the right side of the screen. All the current entries for all digits are shown in the box below.

4.4.1.3 PBX Parameters

PBX parameters are very critical in order to perform all call handling activities and these must not be changed except by qualified service personnel.

Hook-flash timing:

The 'Hook flash' is a method of signaling the PBX by momentarily going 'on-hook' and then again going 'off-hook'. Normally, the hook flash is required for a call to be transferred.

Most PBX systems use hook-flash timings in the range of 200 to 800 msec. If the Hook Flash duration is too short, the caller hears the digits being dialed by the PBX when the call is to be transferred to the extension. If the Hook Flash duration is too long, the call is disconnected.

The valid range is from 01 to 49, where Hook flash duration = $n \times 0.05$ sec. The Default value = 06 (300 ms).

Delay after hook-flash:

This is the minimum amount of delay period after a Hook flash, during which no digits must be dialed out. If any digits are dialed out before this delay period elapses, the PBX ignores these digits.

Select a value in the range 0 to 9 where $n \times 0.5$ sec gives the total delay period. Hence minimum period is 0 and maximum is 4.5 seconds. Default value = 2 (1.0 second)

If this value is too small, the PBX will miss one or more of the digits dialed by the unit for transferring the call.

Off-hook to message delay:

This value determines the delay period between the unit going off hook and the start of the main greeting. If this value is too small, the caller may miss the first few syllables or the first word of the main greeting.

Select a value in the range 0 to 9 where $n \times 0.2$ sec gives the total delay period. Default value = 5 (1.0 second).

Dial mode:

There are three kinds of dial modes. The correct mode must be chosen for the PBX to work properly.

Tone: Most current PBX systems use this method where the digits are dialed as an audio tone comprising of two tones (DTMF method). The Tone is on for 100 msec and off for 100 msec.

Pulse: This is an older method of dialing where each digit was dialed out by making and breaking the connection rapidly resulting in a pulse on the line. For the digit 1, one pulse is dialed, two pulses are dialed for the digit 2 and for the digit 0, ten pulses are transmitted.

Long tone: It is another form of DTMF signaling where the time duration for each tone is 300 msec.

MWL parameters:

The Message Waiting Lamp (MWL) is normally available on most digital phone instruments and some analog phones. This lamp may be made to glow on or off by sending an appropriate string to the PBX and is usually made to flash when a mailbox-owner gets a new message.

The 'Enable String' and 'Disable String' may contain a maximum of 16 characters. The strings may be programmed only if the 'MWL Enabled' check box is selected.

Example: 'Enable String' = '*761E'. In this case, for example, to glow the Message Waiting Lamp of Extension 539, the EZ VMS Lite goes off hook and dials *761539 and to put off the lamp, it dials *762539.

Valid characters - digits, *, #, p, P, e, E, h, H where, "p, p = Pause", "E, e = Extension" and "H, h = Hook-flash".

Cadence values:

Cadence values are the Timing values corresponding to the different Call Progress patterns unique to each PBX. When the EZ VMS Lite transfers a call to an extension, it monitors the call progress cadences returned by the PBX and calculates the ON / OFF timings of the signal. These timings are stored in values that are multiples of 33 msec.

Each complete string consists of 12 digits where each value is entered as 3-digit number in the range 001 to 255. Alphabets and special character are not allowed. The Cadence string consists of 1st Cycle - ON, 1st Cycle - OFF, 2nd Cycle - ON, Busy and 2nd Cycle - OFF. Hence a cadence string of 015-010-015-040 corresponds to a cadence-timing pattern of 0.50-0.33-0.50-1.32 seconds on-off-on-off pattern.

Busy: Typical Busy cadence pattern = "016 015 016 015" corresponding to a 500 msec On-Off-On-Off pattern.

Invalid: Typical Invalid or Reorder cadence pattern = "007 008 007 008" corresponding to a 250 msec On-Off-On-Off pattern.

Call Progress value for last call: The 12 digit string for the cadence values detected for the last call handled by it is displayed here. This is very useful in trouble shooting or setting up the EZ VMS Lite to interface with a new PBX.

Wait Time Before Call Progress: Some times it is required to start the call progress detection after a short delay. For example, quite often, the PBX gives out a transfer tone immediately after a call is transferred and this interferes with the cadence detection if the detection is started immediately after the call is transferred.

PBX Parameters

Hookflash Timing [6] x 50 mSec

Dial Mode: [Tone]

Offhook to Message Delay [5] x 200 mSec

Delay after Hookflash: [2] x 500 mSec

Message waiting lamp parameters:

Enabled (Allowed alphabets are: 'E' -Extension, 'P' -Pause, 'H' -Hookflash)

Enable [*761E]

Disable [*762E]

Cadence Values:

Busy

1st Cycle: Hi [19] Lo [17]

2nd Cycle: Hi [19] Lo [17]

Invalid

1st Cycle: Hi [11] Lo [8]

2nd Cycle: Hi [11] Lo [8]

Call Progress Value for the last call:

[]

[Get Call Progress Value]

Wait Time Before Call Progress: [0] x 40 mSec

Answer Detection Time: [7] x 33 mSec

[Back] [Next] [Close]

You may program the delay period here and the EZ VMS Lite starts the cadence detection only after this delay period has elapsed.

Enter the new value in two-digit format, which are in multiples of 40 milliseconds. The value ranges from 00 to 99 giving a maximum delay of 400 msec. Default value is 0.

Answer Detection Time: This is the minimum duration of voice frame that must be detected by the EZ VMS Lite to consider a call as having been answered.

Enter the new value in two-digit format that are in multiples of 33 milliseconds. The value ranges from 01 to 99. Default value is 07. Too small a value may result in false detection of a call as answered whereas too large a value may result in the caller missing the first word spoken by the called party.

4.4.1.4 Strings

These are strings sent by PBX to inform EZ VMS Lite about the status of the call. There are various types of in-band strings as may be seen in the screen view. The text box for entering In-band signaling strings accept digits, *, # and a few alphabets like p, P, h, H, e, E, i, I, A, B, C, D where, "p, p = Pause", "H, h = Hook-flash", "E, e = Extension", "I, i = Ignore character" and A, B, C, D which are the DTMF digits for these alphabets.

Wait Time For 1st Digit: This is the maximum time up to which the EZ VMS Lite waits after going off hook to receive the in-band strings. Enter new value in two-digit format. The wait time value ranges from 00 to 99 where the actual wait time is equal to the entered value multiplied by 50 milliseconds.

Default value = 30

If this value set by the installer is too small, the EZ VMS Lite may miss the first few digits of the string or treat the digits as extension transfer digits. If this value is set too high, outside callers may find a slightly longer silence between the time the unit answers the call and the main greeting starts playing.

Wait Time Between Digits: This is the maximum time the unit waits in between digits for the PBX to send the next digit. Enter the new value in two-digit format in the range 00 to 99. The actual wait time equals the entered value multiplied by 10 milliseconds.

Default value = 20

If the next digit is not received by the time this wait time elapses, the unit transfers the call to the Operator.

Mailbox Login String: This is the string to be dialed by a user to gain access to his/her mailbox. This string may also be programmed as a Speed Dial Key on the user's phone to allow single key access to his/her mailbox. Allowed alphabets are 'E', 'e', and 'P', 'p'.

Example: *#E

Busy / No answer strings : Allowed alphabets are 'e', 'p', 'i', 'a', 'b', 'c', 'd' and their capitals.

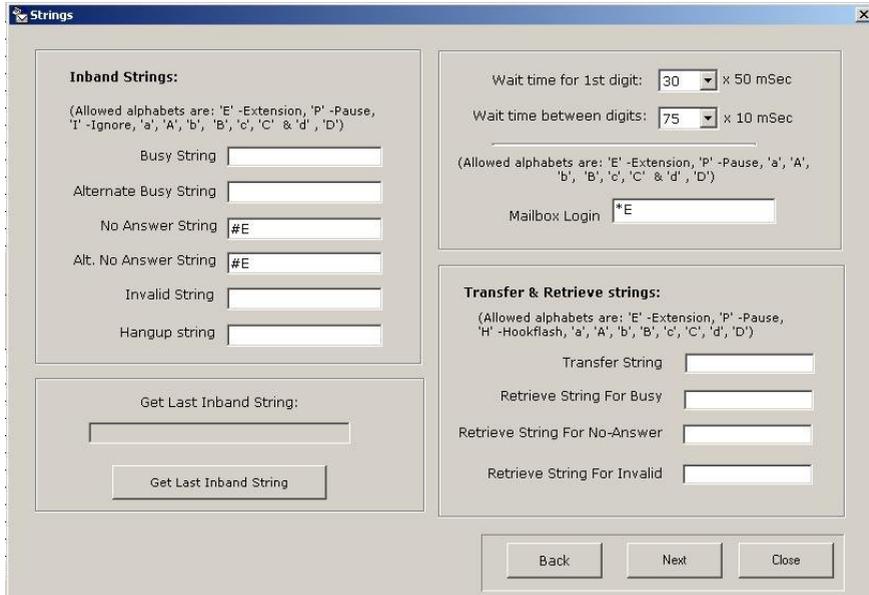
The Busy / No answer strings is a stream of characters sent by the PBX to the EZ VMS Lite to signal the status of a call which was transferred by the EZ VMS Lite earlier.

This method of signaling is required when the normal call transfer is done in the Blind mode, where the EZ VMS Lite dials the extension and hangs up. In such cases the PBX calls the EZ VMS Lite and sends the appropriate string to inform the unit that this is a

call that was transferred earlier and is now being transferred back to it because the called extension was busy or there was no answer from it. The unit plays the appropriate message back to the original caller after decoding the string sent by the PBX.

Some PBX's use two different strings for each type i.e. two Busy strings and two no-answer strings. In such cases, the EZ VMS Lite provides a facility to enter an Alternate Busy / No answer string also.

Maximum number of digits allowed = 16. Default = None



Busy String: E.g.: *52E

Alternate Busy String: E.g.: *53E

No-Answer String: E.g.: *54E

Alternate No-Answer String: E.g.: *55E

Hang-up String: This is a string that may be sent by the PBX at any time during the call that is already in progress, to signal the EZ VMS Lite that the caller has hung up and hence this call may be terminated.

Example: ###.

Transfer & Retrieve Strings:

Allowed alphabets are 'e', 'p', 'h', 'a', 'b', 'c', 'd' and their capitals.

Normally, a call is transferred by hook flashing to put the caller on hold and then dialing the extension number to which the call is to be transferred; and to retrieve this call, hook-flash again. However, for some PBX systems, instead of hook-flashing to transfer or retrieve a call, a string is to be dialed which may or may not include a hook flash.

Examples:

Transfer string = *1<Hook-flash><Pause><Extn>. Enter “*1HPE”

Retrieve string for Busy = <Hook-flash>*2. Enter “H*2”

4.4.1.5 Usage and PMS Parameters

Extension Length : Extension Length determines the number of digits present in an extension or in a mailbox. Except operator extensions, all types of extensions and mailboxes depend on Extension Length.

To change the Extension Length, all entries under the extension list, mailbox list, fax extensions, distribution list and single digit plans must be deleted.

The allowed extension lengths are 2, 3 or 4. Default is 3.

Time before Deciding No-Answer : When a call is transferred to an extension and there is no answer from that extension, the EZ VMS Lite waits for a certain time before deciding that there is no answer from that extension. This no answer time is programmable from 9 seconds to 27 seconds.

Valid value ranges from 3 to 9 where the value is in multiples of 3 Seconds. Default value is 3 (9 seconds).

Hang-up Tone Detection Time : You have to enter this value in two-digit format. The value for this field may vary from 10 to 49 (both inclusive). Default value is 10. The value for this field gets multiplied by 33 milliseconds.

Conflict Timer Value : Conflict Timer Value is the time for which the EZ VMS Lite waits for the caller to dial the second digit after the caller has dialed the first digit.

If the second digit is not dialed before the conflict timer delay elapses, the first digit is treated as a Single digit dial entry and the call is transferred as per the Single digit dial plan. If that digit does not have any corresponding single digit plan entries, the call is transferred to the Operator. If the second digit is dialed, the unit waits for further entries if necessary and transfers the call accordingly.

This value ranges from 2 to 5 and is in seconds. Default value is 3.

Transfer Type : The EZ VMS Lite supports three different modes of call transfers – Blind, Semi supervised and fully supervised. In the Blind mode, the unit transfers the call and hangs up. If the called extension is busy or if there is no answer, the PBX calls the EZ VMS Lite back and sends an in-band string to inform that this is a call-back on busy / no answer.

In the Semi supervised mode of transfer, the unit monitors the call after transferring and if the called extension is busy or an invalid extension, it retrieves the call and informs the caller accordingly. However, if it gets a ring-back signal from the called extension, the unit hangs up and thus connects the caller to the called extension.

In the fully supervised mode, the unit monitors the call till the called party answers the call or if there is no answer, it retrieves the call and informs the caller accordingly.

Default : Blind mode of call transfer.

Rings to Pickup per Port : The EZ VMS Lite can handle four incoming calls at a time on its four ports. However, each port may be programmed separately for the number of rings to wait before answering the call by going off-hook.

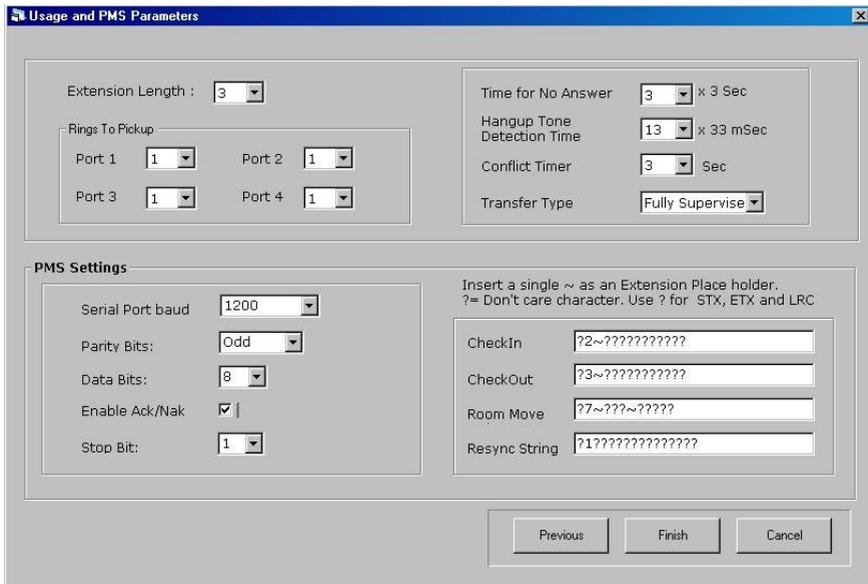
Valid range is from 0 to 9. By default, this value is 0 for each port.

PMS Settings :

The serial port settings for the PMS port and the strings for the various PMS functions must be set properly here to have the EZ VMS Lite interface correctly with a Hotel's PMS system.

The baud rate, number of data bits, the stop bits and parity may be set as desired by selecting the correct option from the drop down boxes giving all the available options.

Ack/Nak may be enabled if the PMS supports it. Click on the check box to enable this function.



PMS Strings : The Check in, Check out, Room Move and Resync strings are the format of the data received from the PMS to initiate these functions in the EZ VMS Lite unit.

These strings may be programmed using a few special characters.

- ~ Use a single ~ (tilde) character to indicate the place of the Extension number. Only one ~ is entered whether the Extension length is 2 digits or 3 or 4 digits.
- ? Use the ? character as a don't-care character for each position where the actual character received from the PMS does not matter.

The STX, ETX and LRC (BCC) characters are also required to be programmed with a ? in their positions.

All other characters will be treated as unique and desired characters for deciding on a match for the PMS string. If a match is found, the unit initiates the appropriate action. If none of the programmed strings match, a NAK is sent back to the PMS if Ack/Nak is enabled.

Maximum length of strings : 60 characters for each string

The unit waits for the ETX character to be received or a no-data-time-out, processes the string and sends an Ack/Nak as per the result of the processing.

If a valid check in string is received, the room is checked in by creating a mailbox for that room, a welcome message is set and the message waiting lamp is set to on status.

If a valid check out string is received, the room is checked out by deleting the mailbox and all messages are deleted for that room. New messages, if any for that room, will also be deleted and they may not be retrieved after the check out has been completed.

The Resync string is usually sent by the PMS to synchronize the operations between the two systems. The EZ VMS Lite sends an Ack to signify that it is present and listening.

4.4.2 Distribution List

The Distribution List is accessible to the Staff and Admin mailbox users only. The Distribution Lists must be first created through touch tone and a name recorded for them before the extensions are programmed for them through this software application.

4.4.3 Admin Password

If the Admin System programming password is changed here, you will need to save the file and then export it to the unit for the changes to take effect.

4.4.4 Serial Number

This option may be used to find out the serial number of the unit, to keep track of different units in the field for maintenance etc.

The Serial number of the unit and the Software Version currently installed in the EZ VMS Lite are displayed on the screen.

Please note that the information displayed is taken from the binary file opened for viewing and may not be for the unit connected to the PC at that time. To view the actual serial number and the Firmware version of the unit connected to the PC, import the data from the unit and view these details.

4.5 Reports

EZ VMS Lite provides following two types of reports:

- Mailbox Report
- Call Statistics Report

These reports may be exported in Excel or Text format for use by others or for archiving purposes.

Mailbox Report: This report consists of list of mailboxes, number of new messages, number of saved messages, number of total messages per mailbox, i.e. the details about each mailbox. The mailboxes will be displayed in a sorted order (ascending order).

Date and time for the field 'Data collected at:' is the date and time when the binary file was collected from the Unit. Date and time for the field 'Report generated at:' is the date and time when report was generated based on the binary file shown against the 'Report based on' field. This report may be generated by directly collecting the data from EZ VMS Lite or from a saved configuration.

Percentage of free memory is the percentage of amount of space left for recording in EZ VMS Lite. This field of information may vary from report to report as amount of free space may vary.

This percentage tells about the free memory of the unit when the binary file was created.

Call Statistics Report: This report shows the number of calls handled by each port for the current day plus the past 7 days (from the day when the binary file was created). The last column gives the total number of calls handled by each port for the past 8 days. The 'Grand Total' calls handled per day is also shown.

The report also gives the total number of Operator calls per day.

5.0 Flow Charts

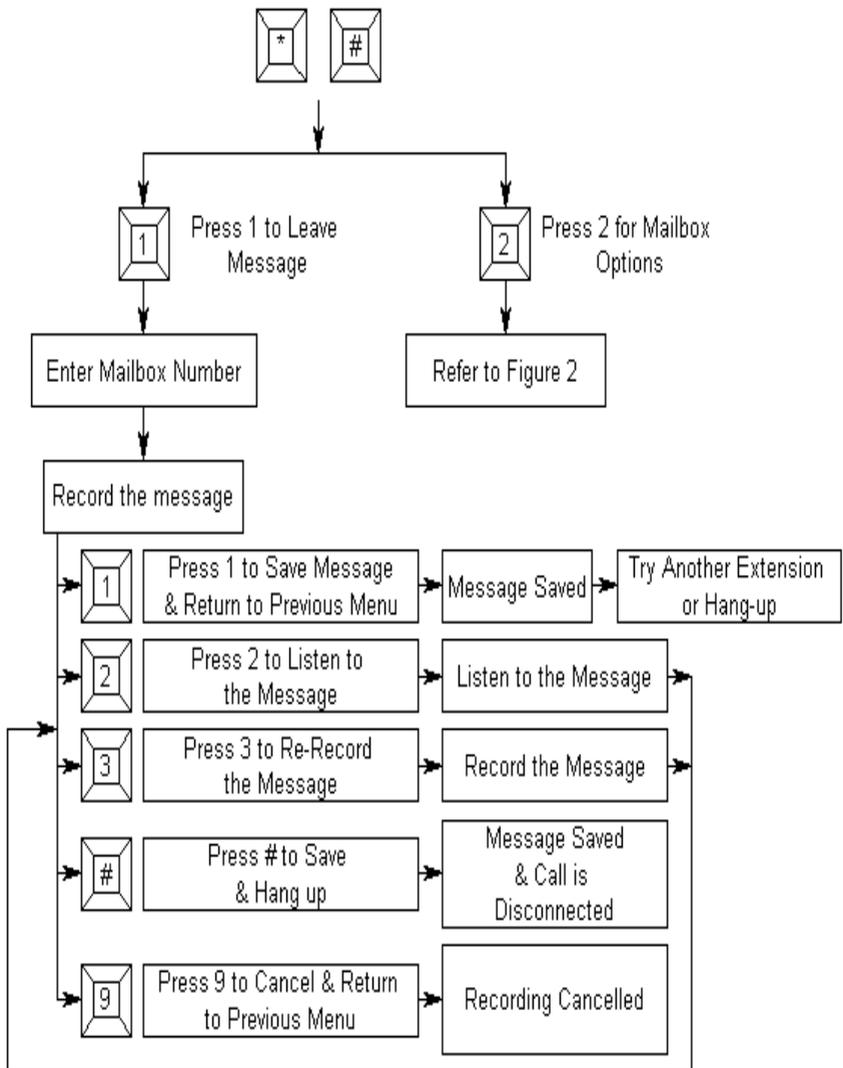


Figure 1

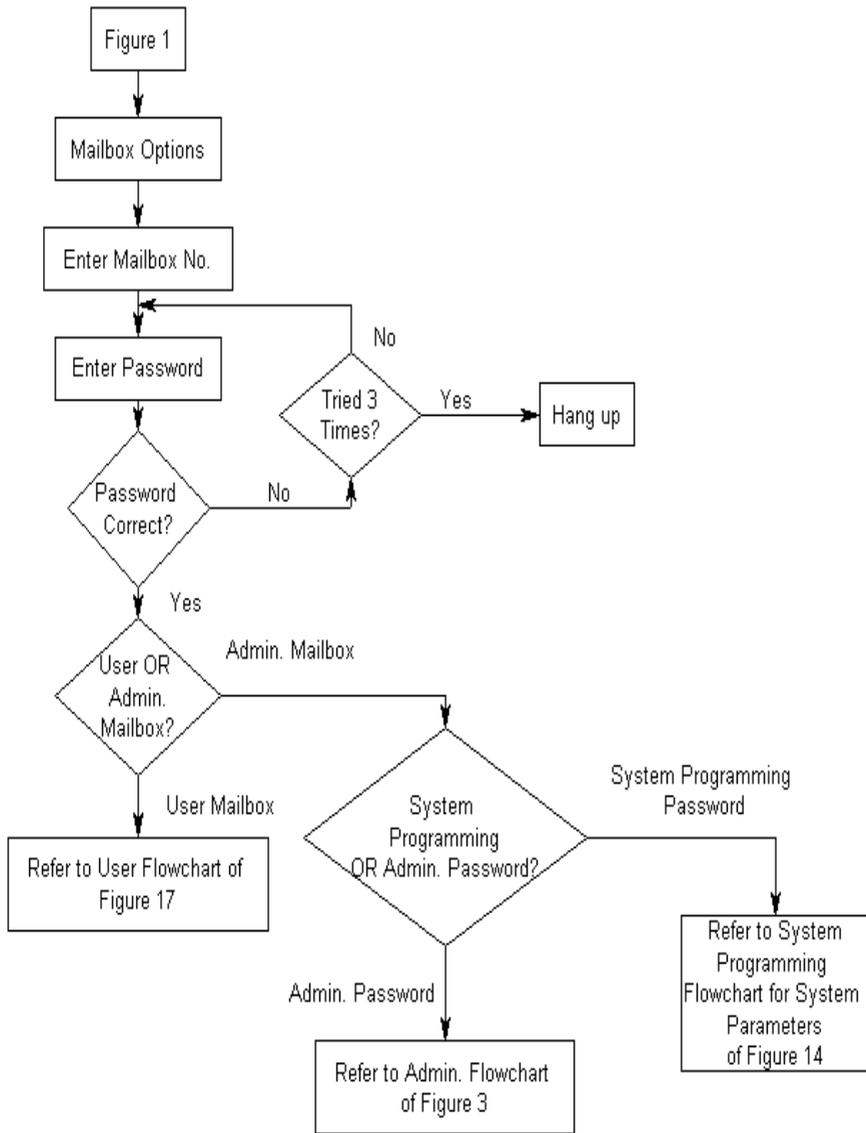
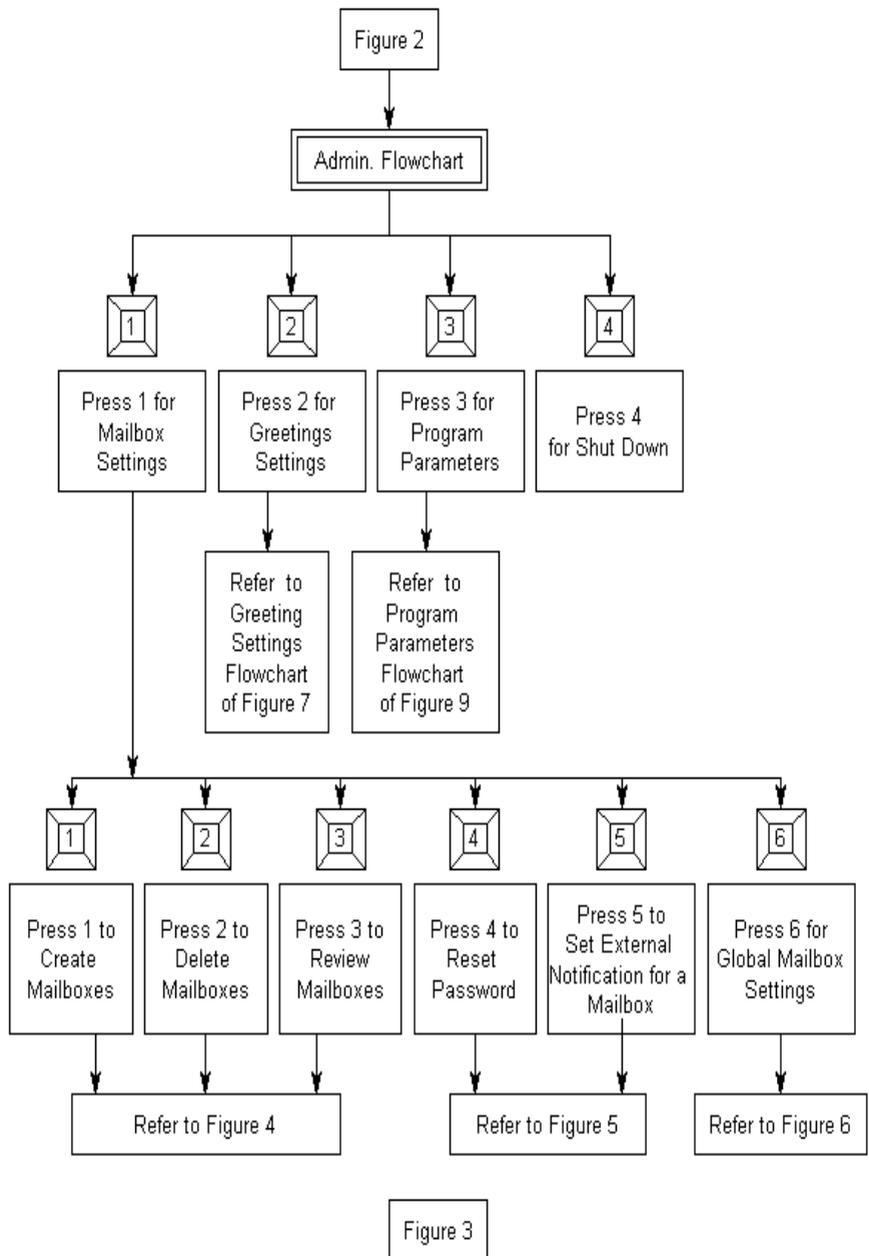


Figure 2



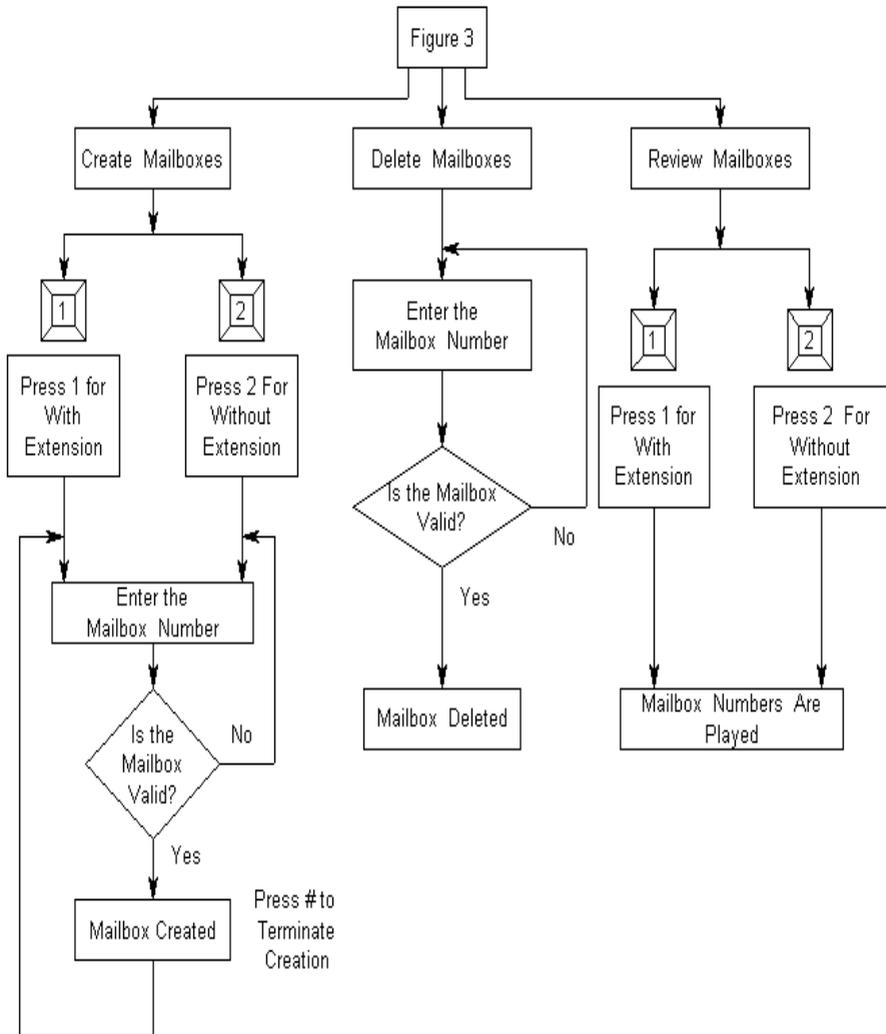


Figure 4

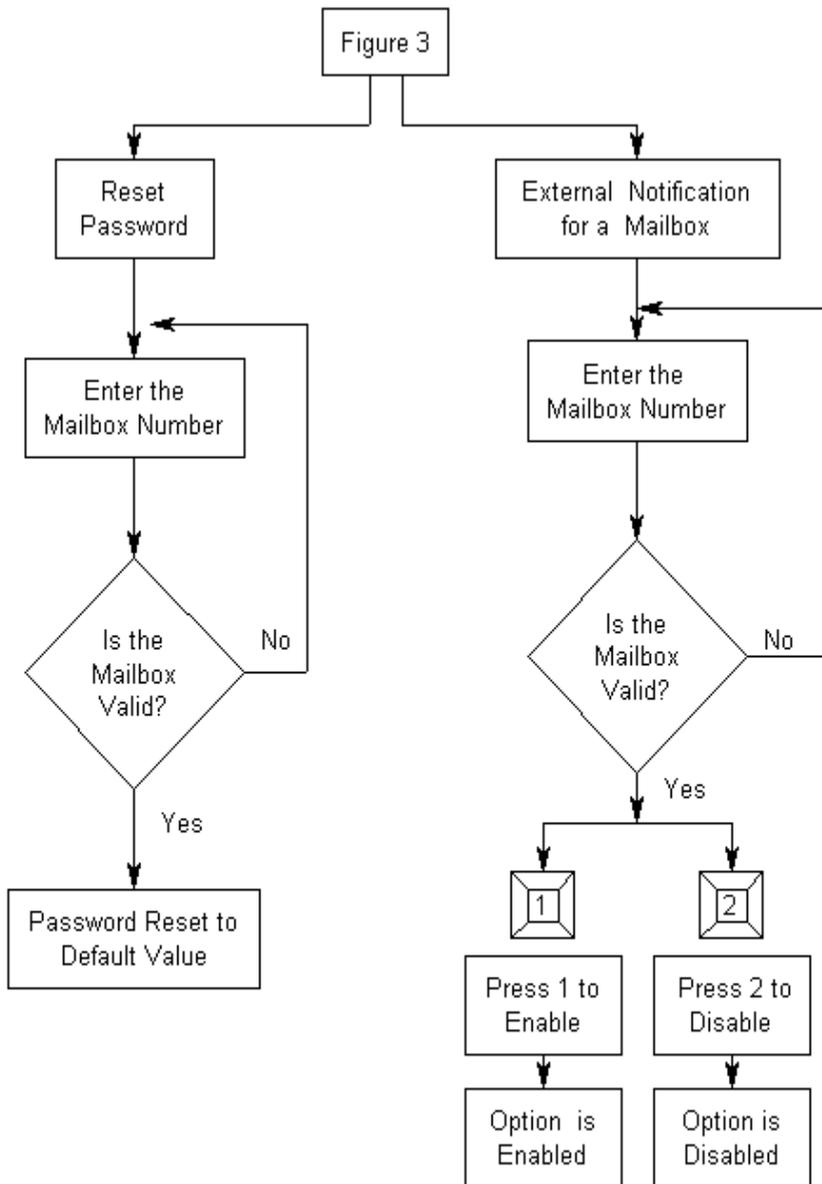
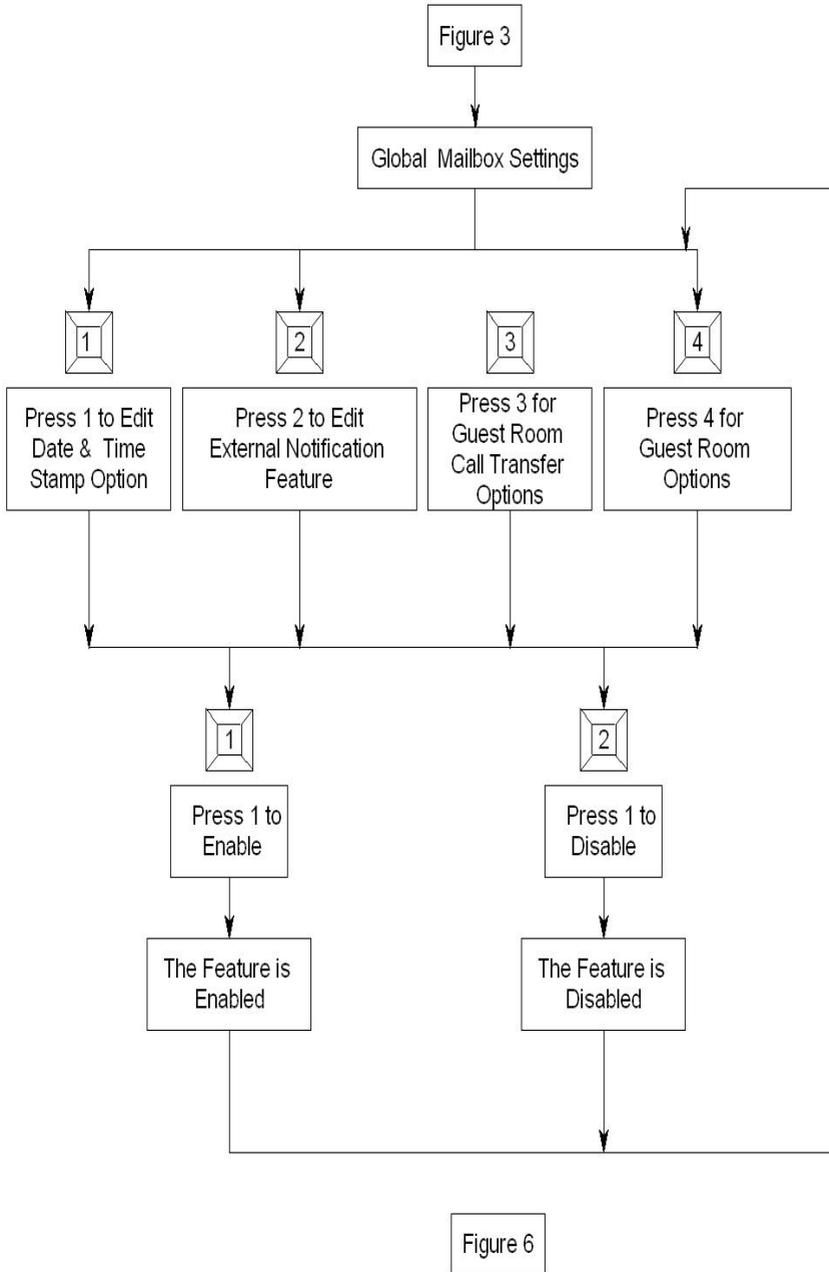
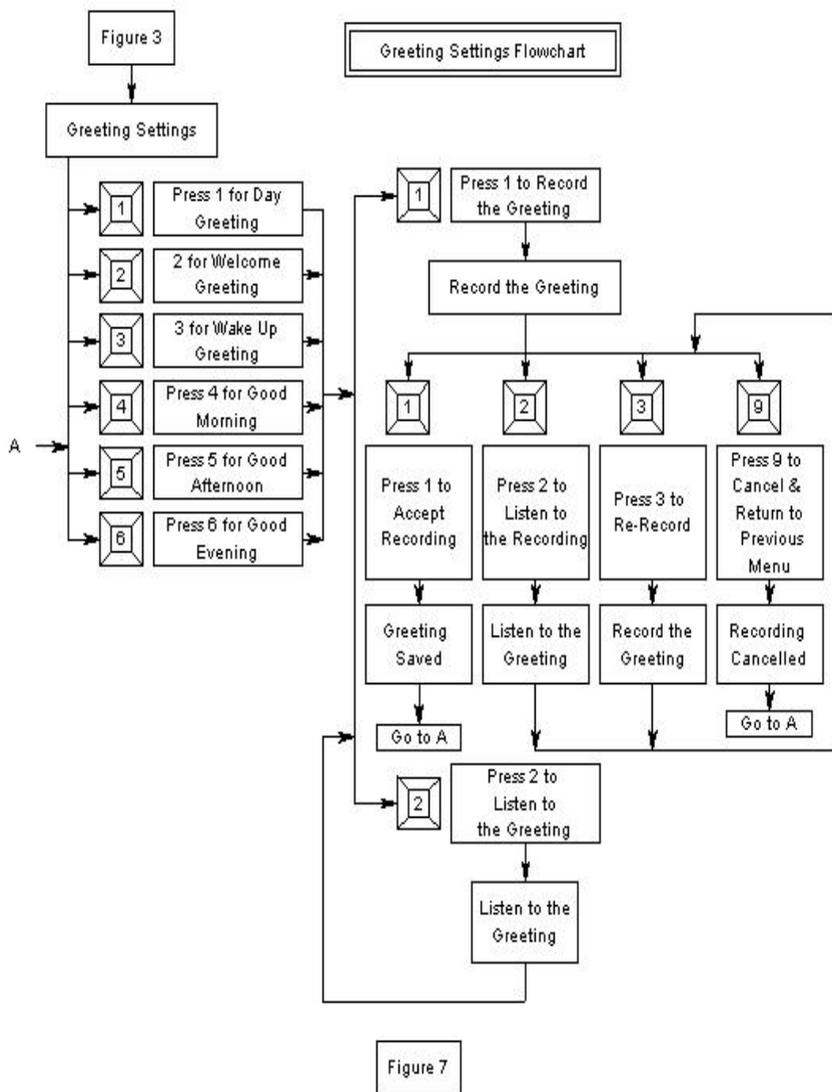


Figure 5





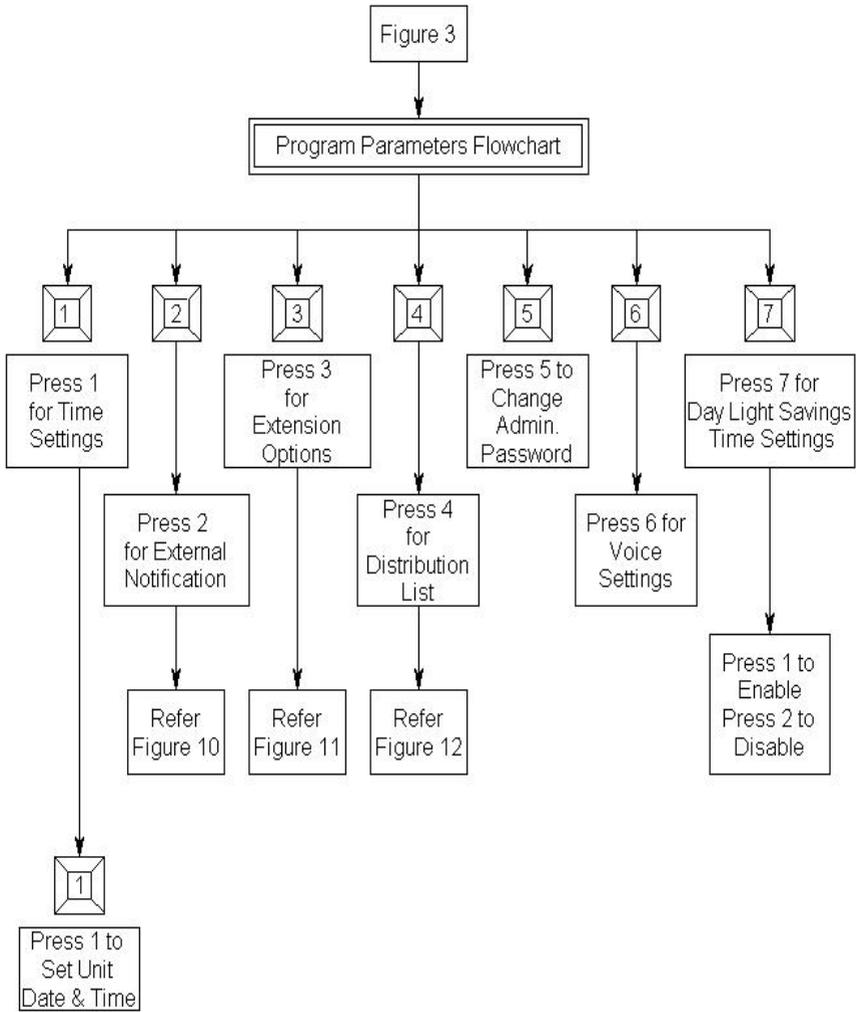


Figure 9

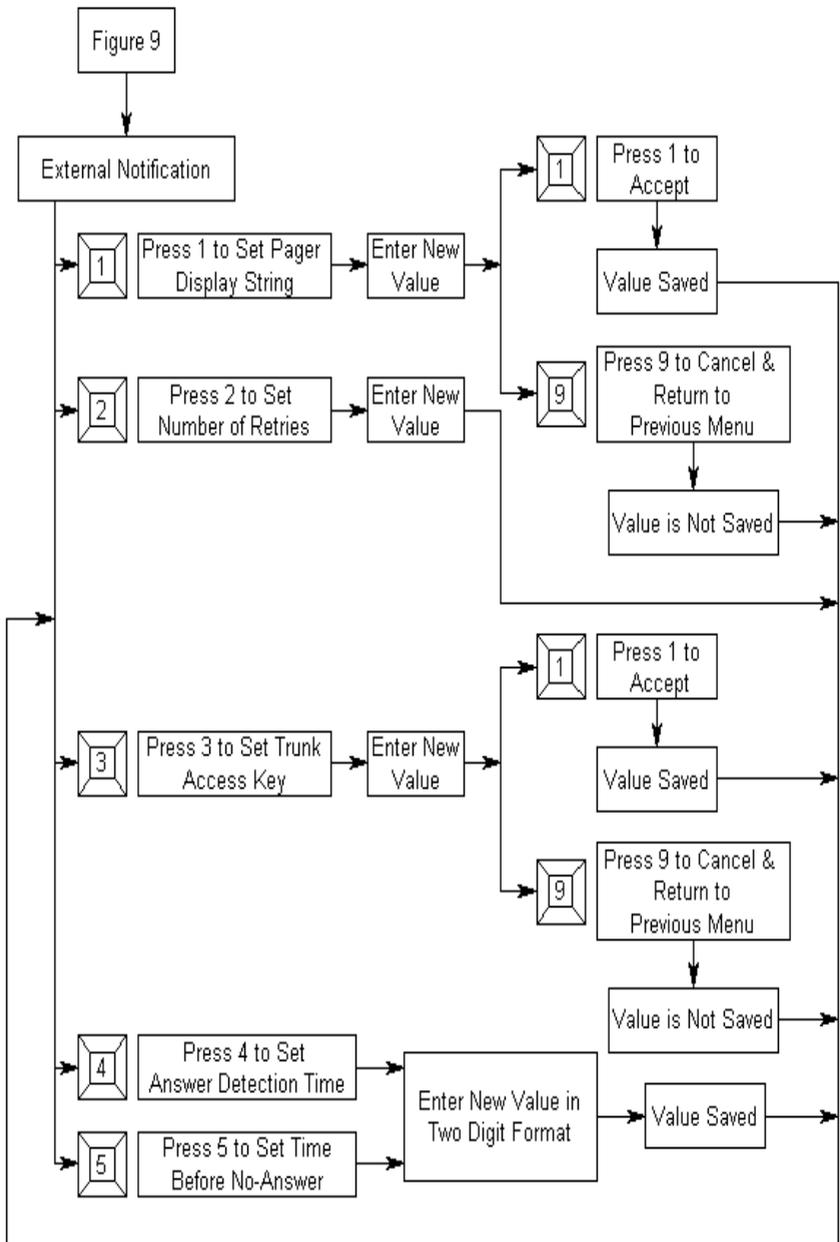


Figure 10

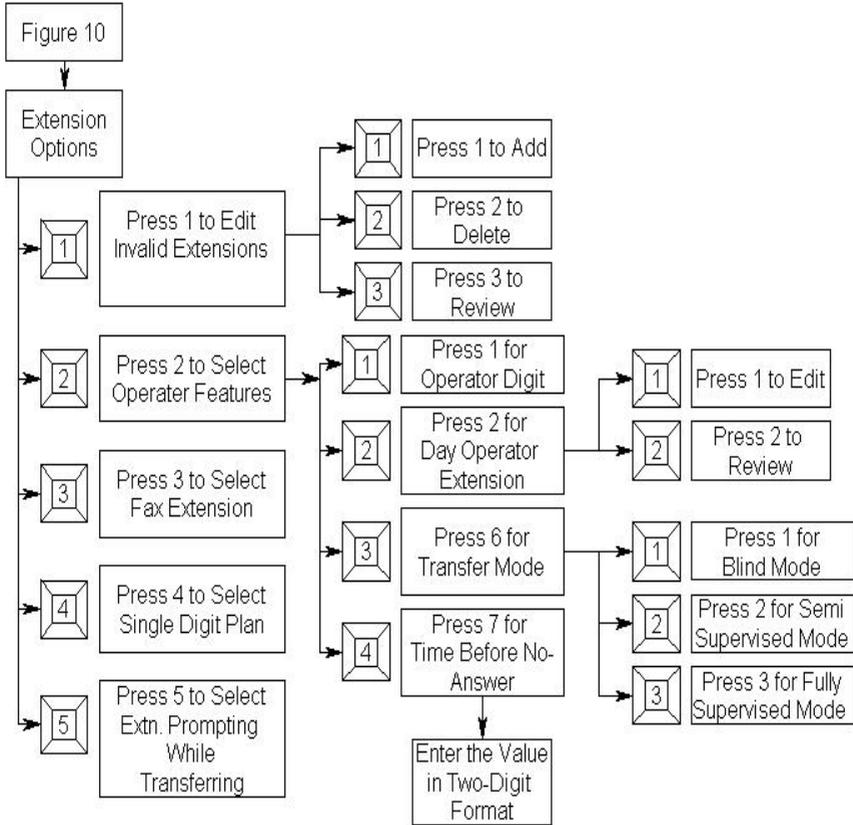


Figure 11

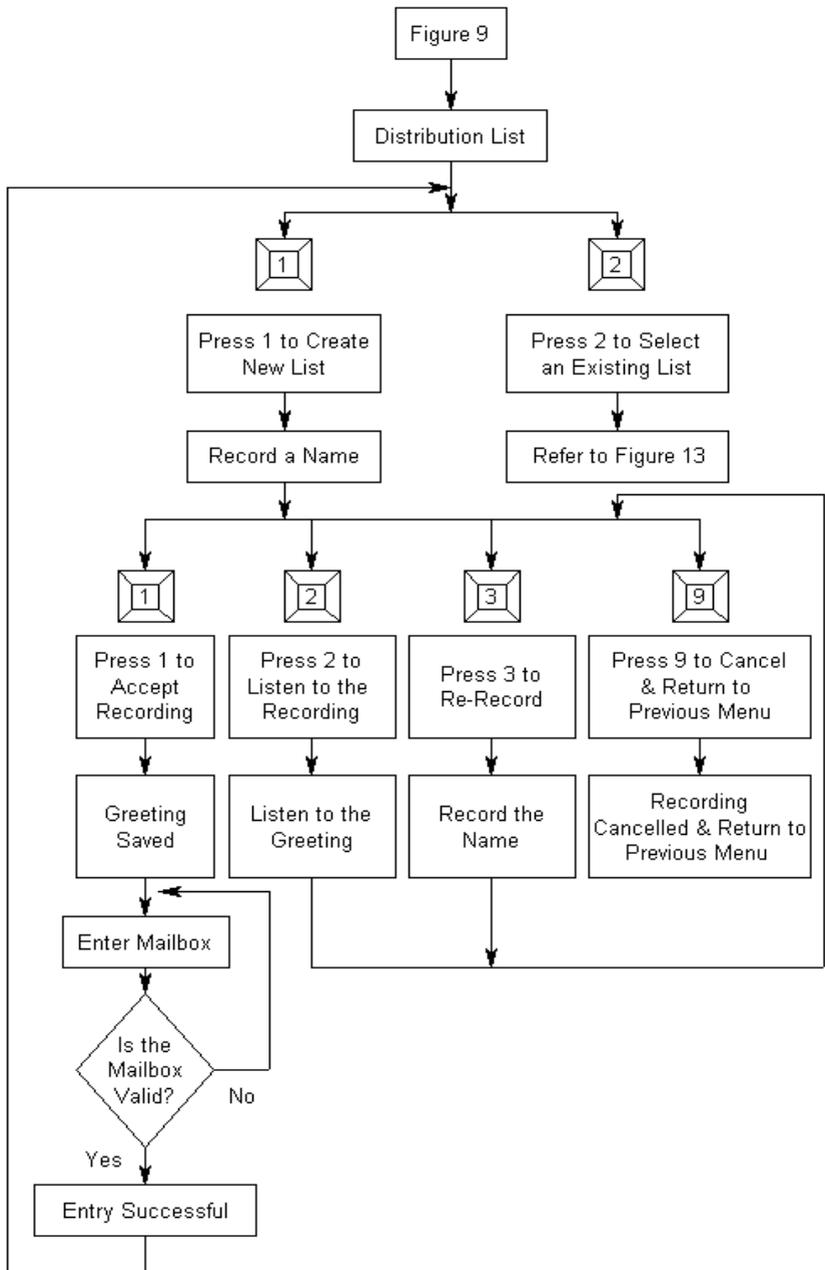


Figure 12

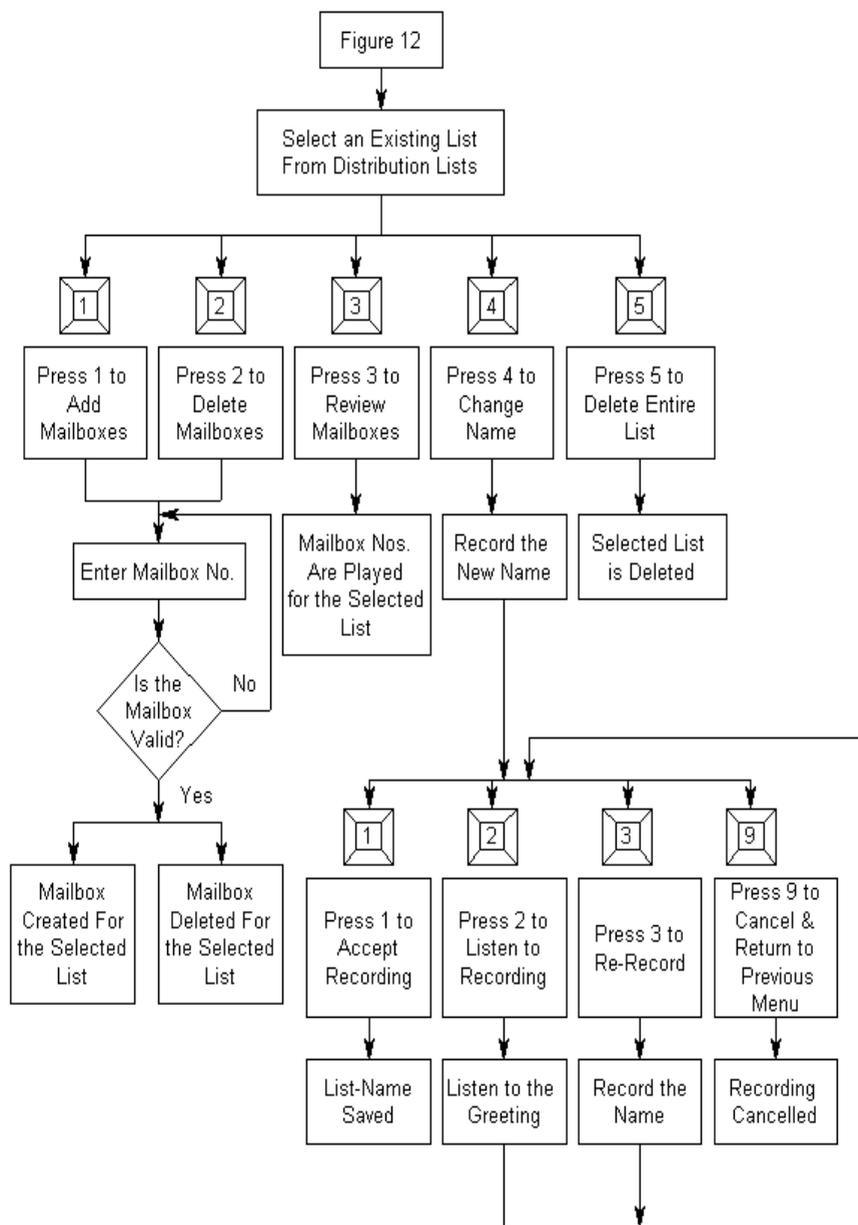


Figure 13

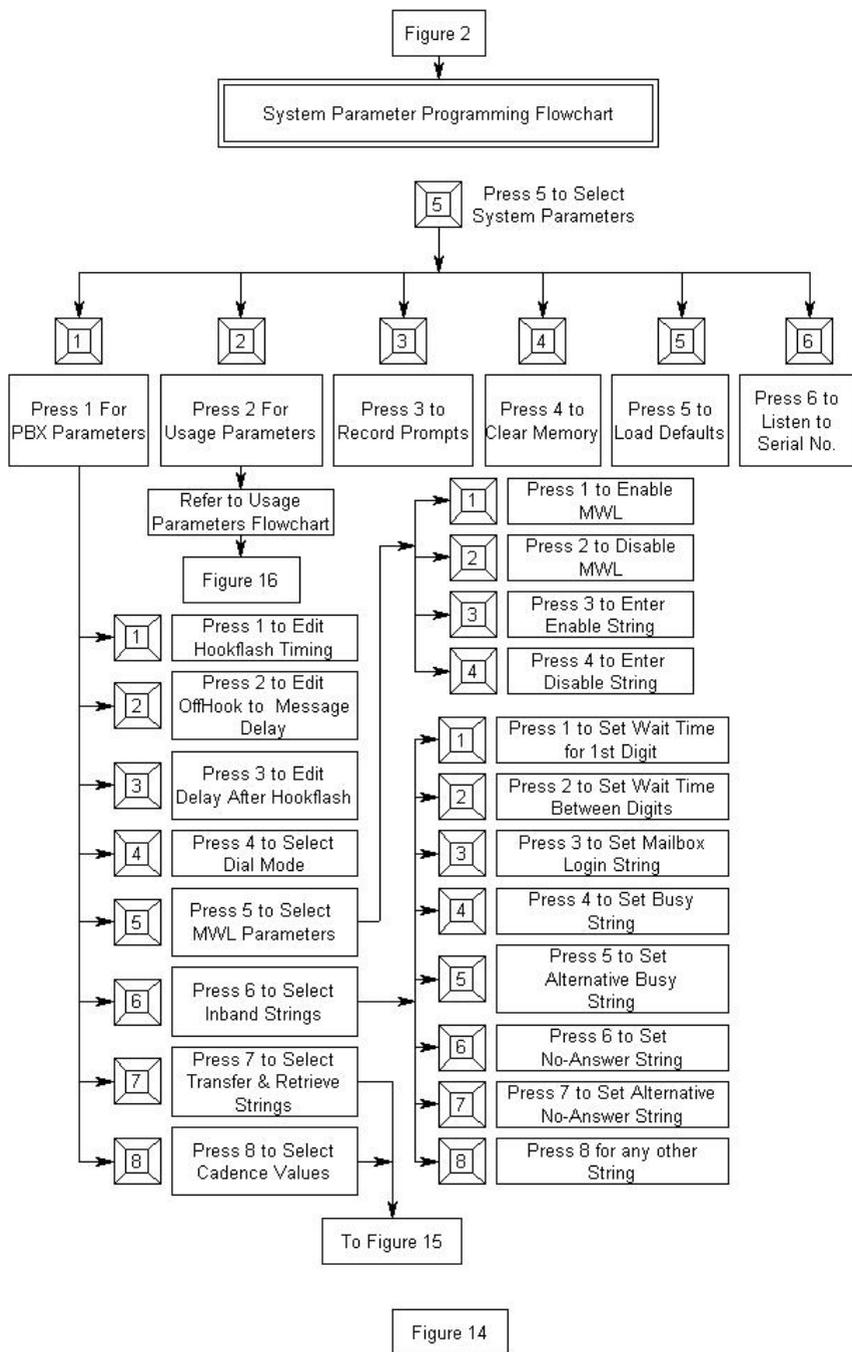


Figure 14

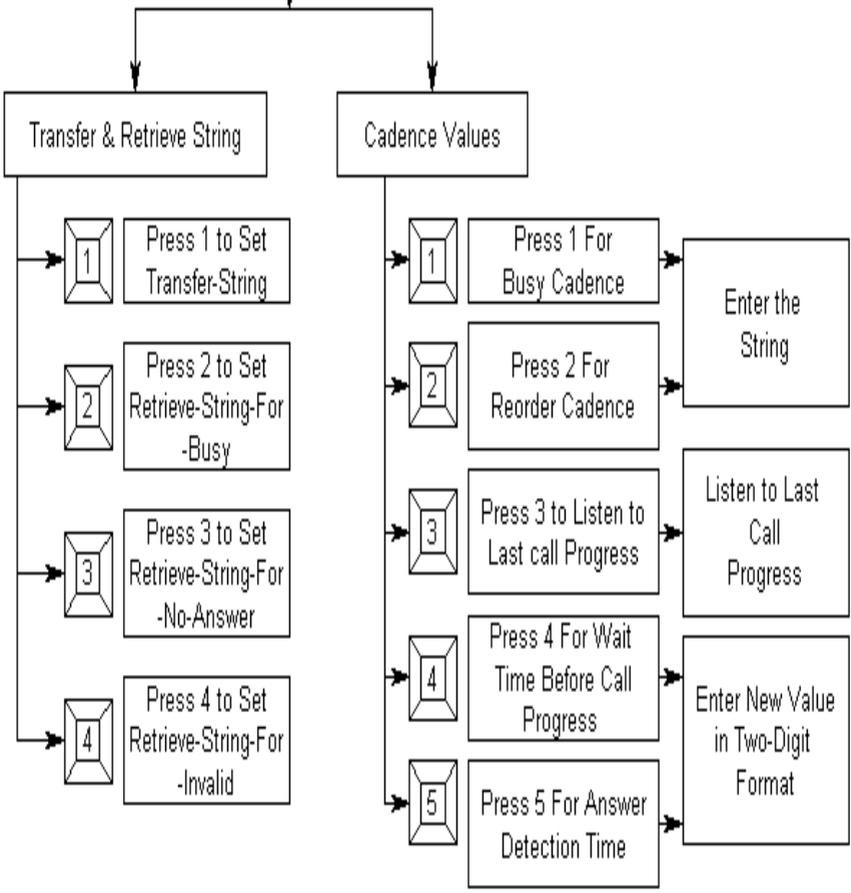


Figure 15

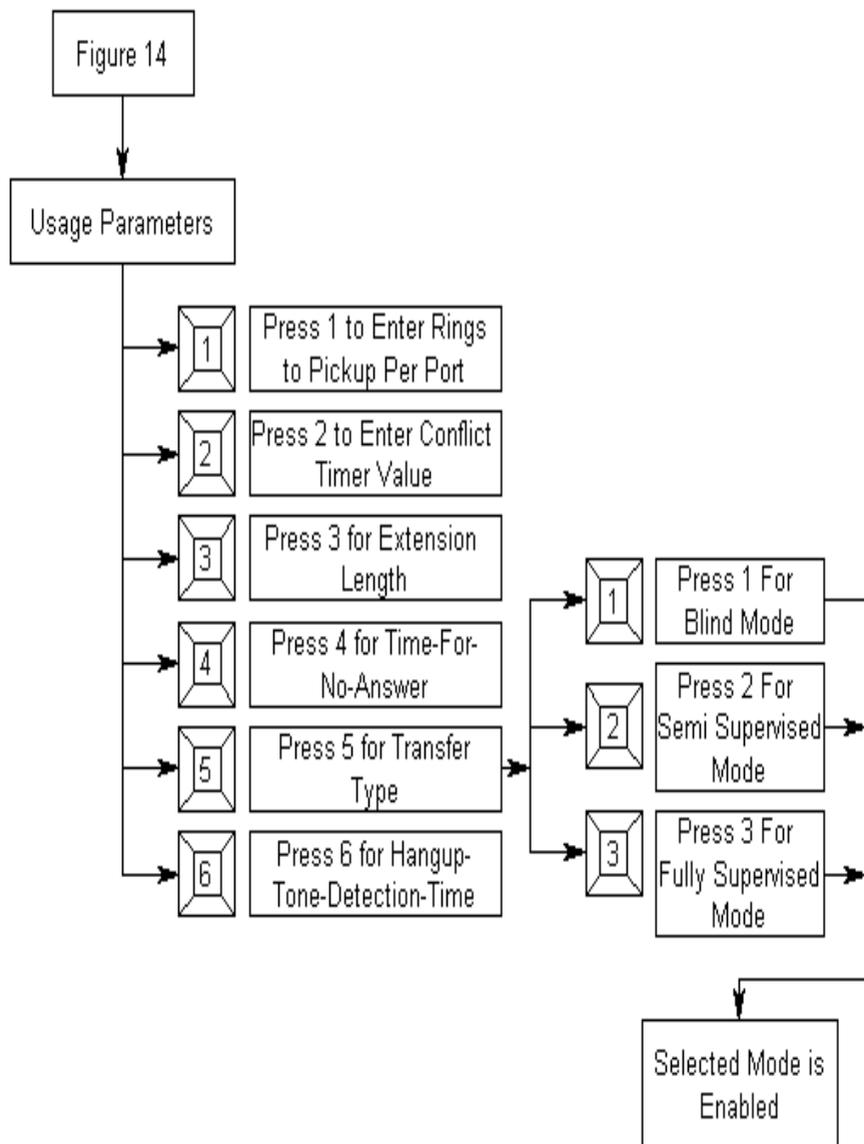
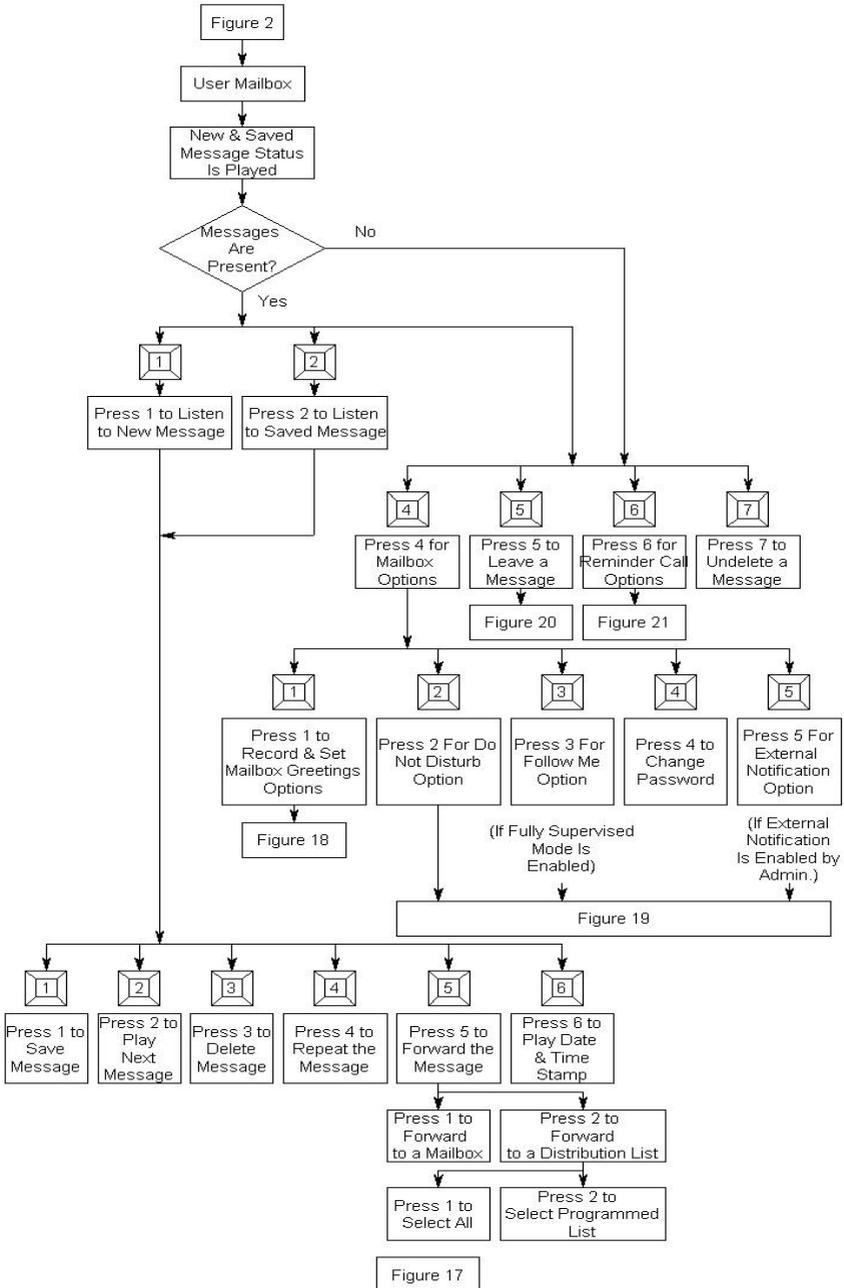
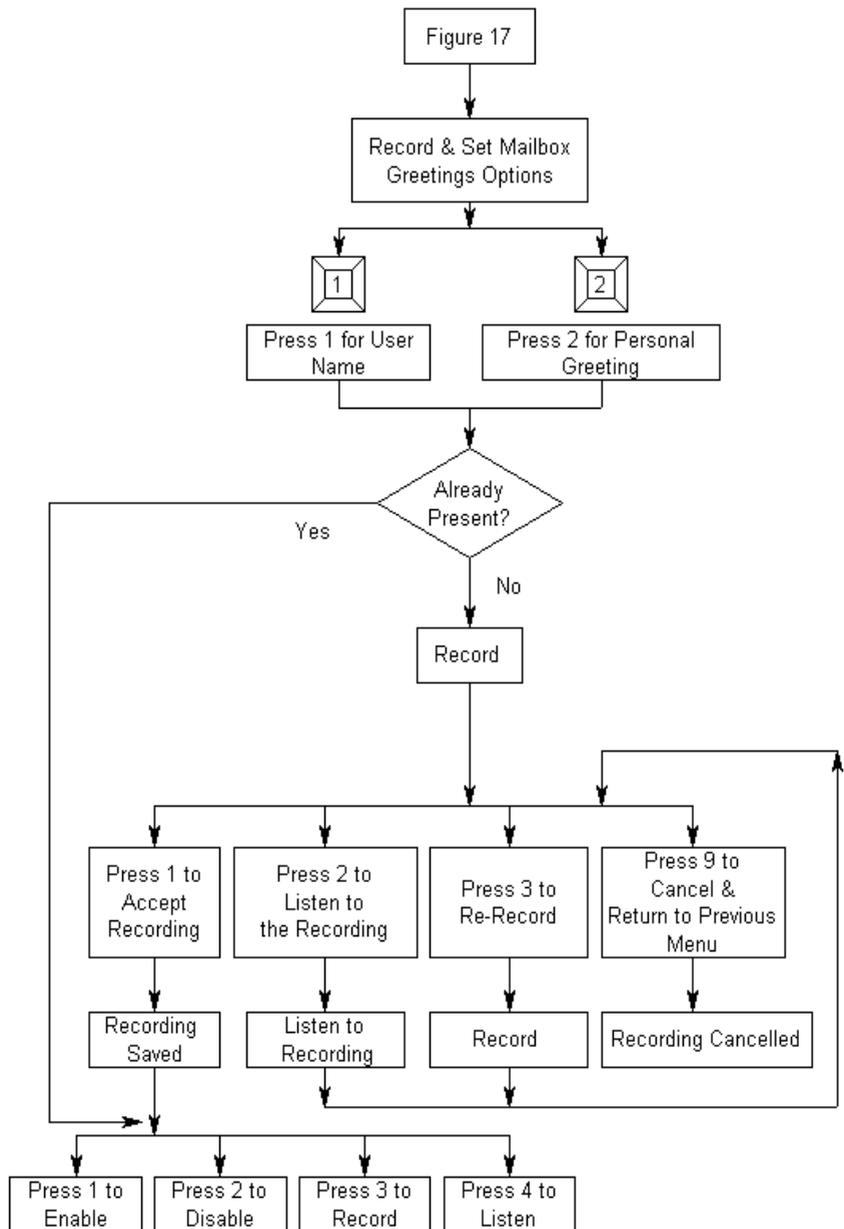


Figure 16

User Flowchart





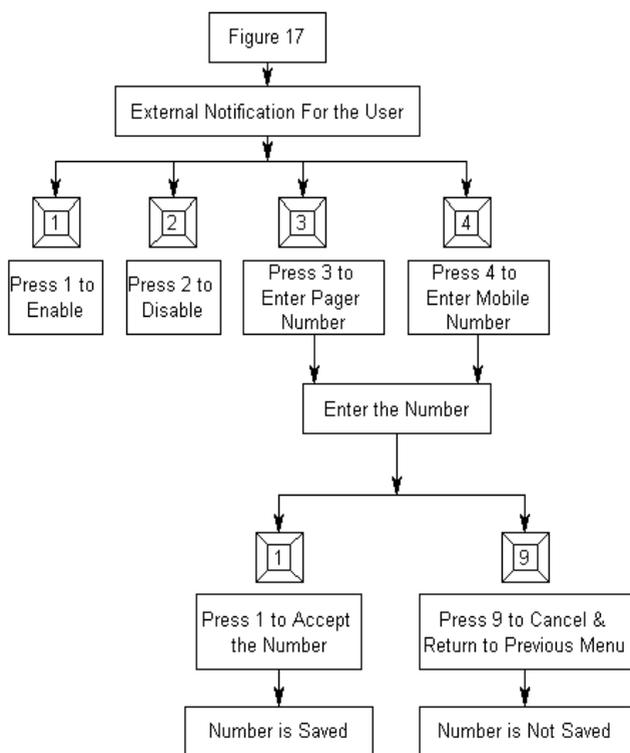
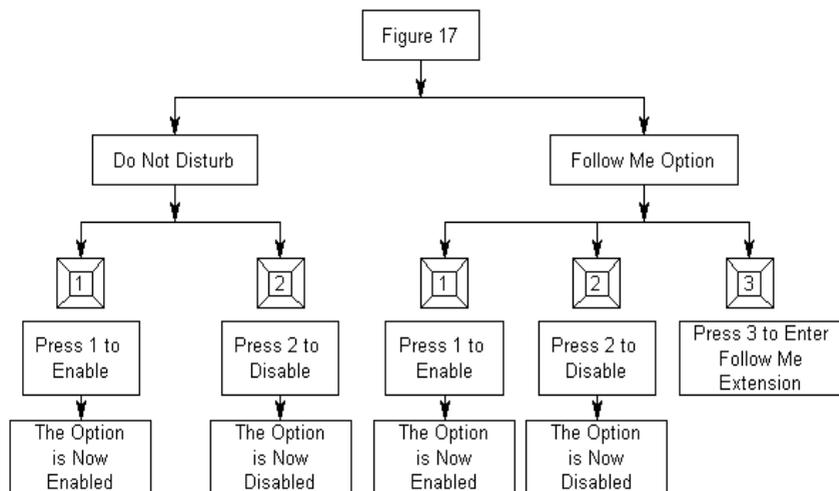


Figure 19

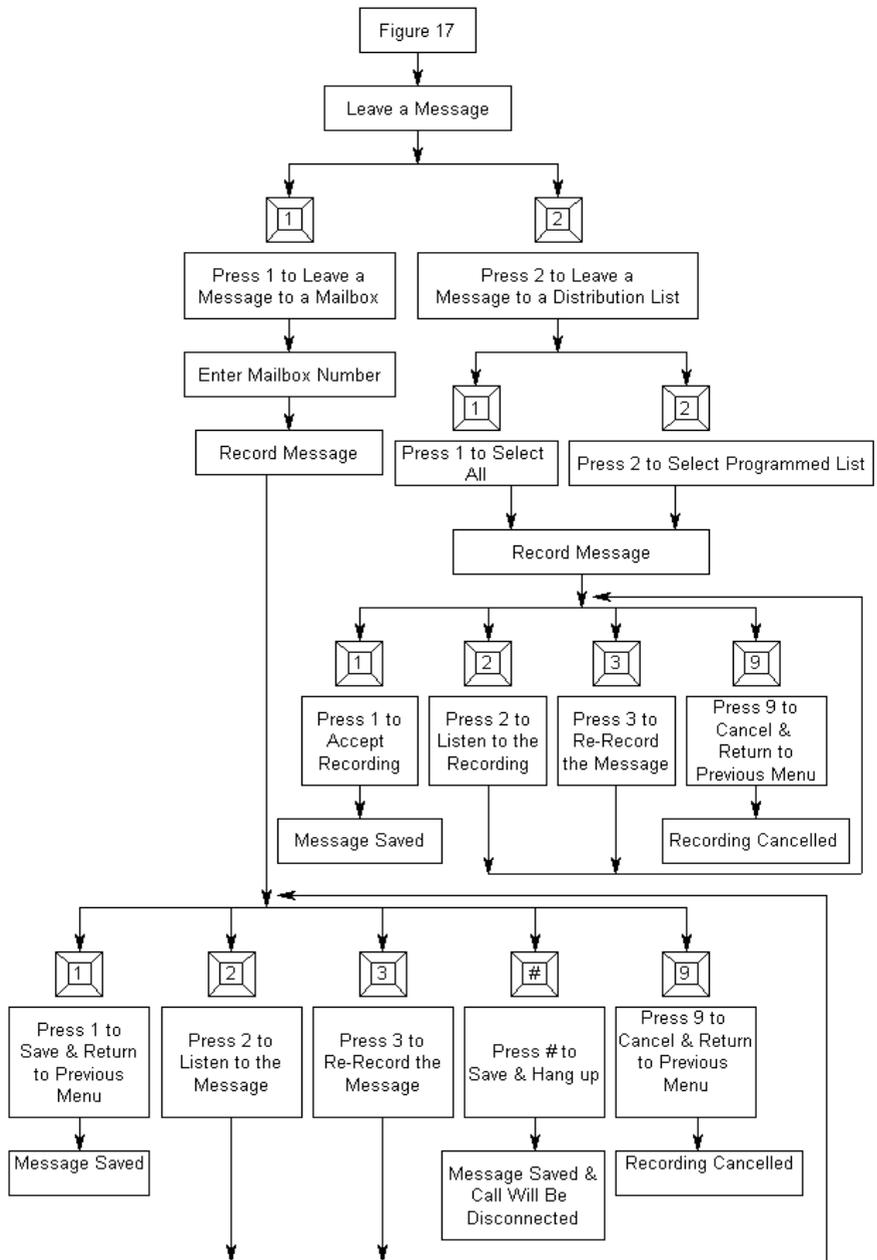


Figure 20

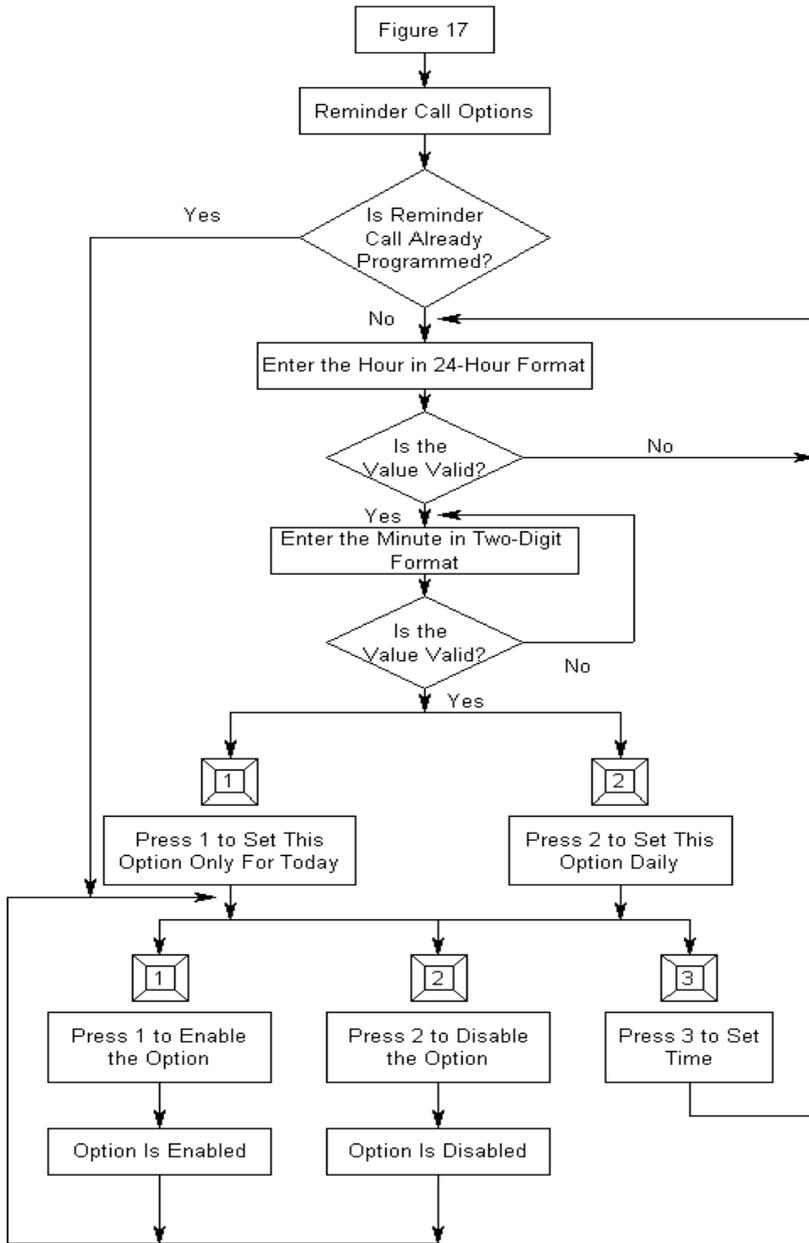


Figure 21

Statutory Information

FCC Information:

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced technician for help.

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

This Class A digital apparatus meets all the requirements of the Canadian Interference causing Equipment Regulation.

Cet appareil numérique de la classe A respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

This product complies with the requirements of the following European Directives: The EMC Directive 89/336/EEC; the Low Voltage Directive 73/23/EEC, both amended by the Directive 93/68/EEC.

Caution:

This unit should not be connected to or installed directly on a PSTN or any other Public, Government or Private Telecommunication Network which is in violation of any certification or Registration requirements of any State or Central Law or Act or is in contravention of any of the provisions of the local regulations. All direct, indirect and consequential liabilities arising out of the failure to comply with the above instruction is the sole responsibility of the user only.

Limited Warranty :

See the Limited Warranty Card supplied along with this unit for details.

Shipping the unit for repairs during or after the warranty period:

Before shipping ensure that the product is packed in either the original shipping carton or in a well-padded, heavy duty corrugated box to prevent damage to the unit in transit. Enclose a copy of your sales invoice (proof of purchase) and ship the unit freight prepaid and insured for a replacement value.