

# **AUDIX Voice Power Lodging Release 1.1 System Manager's Reference Guide**

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# INTRODUCTION 1

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## **INTRODUCTION**

The AUDIX Voice Power Lodging (AVPL R1. 1) Release 1.1 application package is a customized approach to providing hotel/motel guests with Call Answer service and the ability to retrieve messages.

This manual contains reference information about AVPL R1.1. This is information you may occasionally need to refer to when the need arises, such as how to clean floppy disk drives, or what function keys appear with which window.

## ABOUT THIS MANUAL

This document is divided into the following chapters:

- **Introduction**

Brief overview of document

- **Using AVPL R1.1 Menus and Screens**

Explanation of screen types, how to move through the screens, and function keys.

- **AVPL R1.1 Error Messages**

Lists and explains AVPL R1.1 error messages that may appear on the error log and describes what action to take. If you have PMS integration, refer to that documentation for more information.

- **Troubleshooting**

Contains basic troubleshooting information that can be used to isolate system problems.

- **Maintenance**

Contains information on maintaining the AVPL R 1.1 hardware, such as cleaning floppy disk drives and tape drives.

- **Index**

## IF YOU NEED ASSISTANCE

If you have questions or need technical assistance, contact the AT&T AUDIX Helpline at 1-800-56-AUDIX.

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## USING AVPL R1.1 2 MENUS AND SCREENS

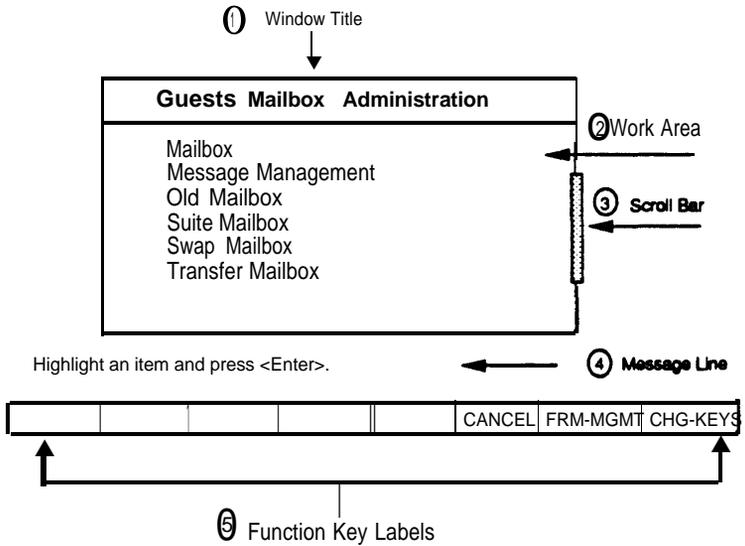
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### **USING AVPL R1.1 MENUS AND SCREENS**

Your video monitor is the primary means of communication between AVPL R1.1 and you, although, your phone may also be used to perform administrator type functions. The information on the monitor screen often changes, but the way the information is arranged does not.

The screen is divided into four areas, shown in Figure 2-1. The areas are:

1. **Window Title** - The window title is displayed along the top portion of the window.
2. **Work Area** - This is the largest portion of the screen. It contains one or more **windows** at any given time. Each window is a workspace where you provide information about a specific aspect of your application.
3. **Scroll Bar** - This bar allows you to scroll up and down the entire screen.
4. **Message Line** - This is the next-to-the-last line on the screen. It normally contains a brief instruction to help you decide what to do next. Sometimes the message line reports (un)successful completion of a task.
5. **Function Key Labels** - The boxed labels at the bottom of the screen correspond to **function keys** on your keyboard. The label describes the command conveyed to the system when you press the corresponding function key. This is the primary means of giving instructions to the system. The commands, or labels, which are available at any given time, vary depending on the window being used.



**Figure 2-1. Voice System Screen**

## WINDOWS

Windows are the medium through which you and AVPL R 1.1 exchange information. There are different **types** of windows to accommodate these different types of activities. However, all windows have the same basic structure. Window structure, window types, and certain “special-purpose” windows are described in the following subsections.

### Window Components

Since the work area may contain more than one window at the same time, each window is boxed so that it is clear what information the window contains.

Each window has a unique name, which appears at the top of the box. The window name describes the kind of information contained within the window, or the kind of activity you may accomplish using the window. In this guide, window names are always shown in bold face, the first letter of each word capitalized. Example window names include **Reports Administration**, **AUDIX Voice Power Lodging and Guest Mailbox Administration**.

There is always at least one window in the work area. At any given time, only one of the windows in the work area is designated the **active** window. It is usually the most recently opened window.

Located on the right side of the window, the scroll bar contains <up-arrow> and <down-arrow> symbols.

The <down-arrow> means you can use the cursor movement keys to view information below what is presently shown on the screen. An <up-arrow> means the cursor movement keys can be used to view information above what is currently displayed on the screen.

**CAUTION:** Use of the <Break> key or <Shift><Break> key combination stops the administration function. If used while in the Lodging Administration windows, you are abruptly returned to the

Voice System Administration. If used while in the Voice System Administration, you are abruptly returned to the UNIX\* system prompt. Unless you are experiencing some technical difficulty, such as no response from the system screen, this procedure is not recommended. Doing so risks damage to your work.

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\* Registered trademark of UNIX System Laboratories, Inc.

## **Types of Windows**

Windows can be grouped into three types, based on the kind of information they contain and the way it is presented:

- Menu
- Form
- Help

These types are explained on the following pages.

### *Menu Window*

A menu window contains a set of items from which to choose. One example of a menu window is the **Voice System Administration** window, which contains a menu of the items you may select from regarding the Voice System operations (Figure 2-2).

**Figure 2-2. Menu Window - Voice System Administration Window**

To choose an item, highlight it and then press <Enter>. There are typically two ways to highlight an item:

1. Use your keyboard's cursor movement keys to move the highlight bar.

### Form Window

Form windows are used widely throughout the Voice System. They are similar to paper forms and provide assorted information, all related to a single subject. The typical form contains prompts describing the information to be provided, and “blanks” where the information is to be filled in.

Figure 2-3 shows the **Switch Interface Administration** form window.

Switch Interface Administration			
Current Settings			
Switch Hook Flash Duration: _____			
Wink Disconnect Interval: _____			
Type of Signaling: _____			

Enter a flash duration between 300 and 1550 milliseconds.

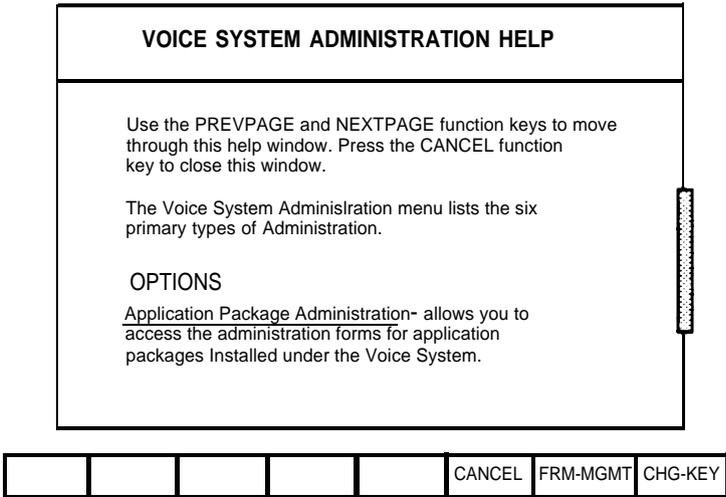
DEFAULTS					PRINT	FRM-MGMT	CHG-KEY
----------	--	--	--	--	-------	----------	---------

**Figure 2-3. Form Window - Switch Interface Administration Window**

### Help Window

Most windows have a companion text window available, containing helpful reference information. Figure 2-4 shows the **Help** window associated with the Voice System Administration window.

Voice System help windows are not designed to be a substitute for the documentation that accompanies the system. They indicate your activity options for a given window and briefly describe each of the options. They are intended to serve as “memory joggers” from any point within the Voice System as you decide what to do next



**Figure 2-4. On-line Help Window**

## Moving Within a Window

There are several ways to maneuver through the various Voice System windows. The following information reviews the different ways to move about in the windows.

### *Cursor Movement*

Following are the keys and key combinations to use to maneuver within a window.

<u>Type of Movement</u>	<u>Key(s)</u>
Next line in menu, list or text	<down-arrow>
Previous line in menu, list or text	<up-arrow>
Slide menu, list or text down one "screenful"	<PgDn>, <PageDown>
Slide menu, list or text up one "screenful"	<PgUp>, <PageUp>
Move to beginning of menu, text, or list	<Home>
Move to end of menu, text, or list	<End>
Next blank in a form	<down-arrow>, <Tab>, <Enter>
Previous blank in a form	<up-arrow>, <Shift><Tab>
Next character within a form blank	<right-arrow>

# Using AVPL R1.1 AVPL R1.1 System Manager's Reference Guide Menus and Screens

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Previous character within a form blank	<left-arrow>
Delete character to the left of the cursor	<BackSpace>
Delete character above the cursor	<Del>, <Delete>

*Note:* When at the bottom of a menu or list window, press <Home> to move to the top (or <End> to move from top to bottom). In a form window, press <down-arrow> to “wrap” from the last blank to the first (or <up-arrow> to wrap from first to last).

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### ***Form Fill-in Alternatives***

The fields on a form in which you enter information are input fields. There are three type of input fields:

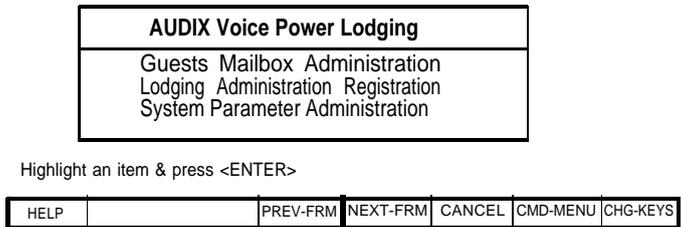
1. Exhaustive CHOICES Field -- a field for which the system has a predefine list of all possible values
  - When you type in this field, the system does a minimal match
  - When you press the CHOICES key,” a system-provided CHOICES appears from which you can choose an item.
2. Partial CHOICES Field -- a field for which the system has a predefine list of only some possible values
  - When you type in this field, all letters of the entry must be typed. The system does not do a minimal match on the entry
  - When you press the CHOICES key, a system-provided CHOICES menu appears from which you can choose an item.
3. Fill-in Field -- a field for which the system does not have a predefine list of values, but it may use some kind of validation routine on the input
  - You must type into this field to enter information; no CHOICES are available
  - If you press the CHOICES key, the system “beeps”.

## FUNCTION KEYS

Function keys are typically spread in a row across the top of your keyboard. They are typically labeled **F1** through **F8**.

The bottom line of every Voice System screen has boxes showing the commands which are at your disposal at any given moment. Figure 2-5 shows the AUDIX **Voice Power Lodging** window. At this point, you may press a function key to command the Voice System to:

- call up **HELP**
- view the previous frame with PREV-FRM
- examine the next frame with NEXT-FRM
- **CANCEL** out of this particular window
- look at the command menu with CMD-MENU
- or **CHG-KEYS**, (i.e., change to a different set of available commands).



**Figure 2-5. Standard Function Keys - AUDIX Voice Power Lodging Window**

### Standard Function Keys

The following table shows the standard set of function keys. The standard commands for **F2** and **F3** vary depending on the type of window. Also note that a given window may not require every command from the standard set.

**TABLE 2-1. STANDARD FUNCTION KEYS**

Function Key	Type of Window		
	Multi	Form	Text
F1	HELP	HELP	HELP
F2		CHOICES	PREV-PAGE
F3		SAVE	NEXT-PAGE
F4	PREV-FRM	PREV-FRM	PREV-FRM
F5	NEXT-FRM	NEXT-FRM	NEXT-FRM
F6	CANCEL	CANCEL	CANCEL
F7	CMD-MENU	CMD-MENU	CMD-MENU
F8	CHG-KEYS	CFIG-KEYS	CHG-KEYS

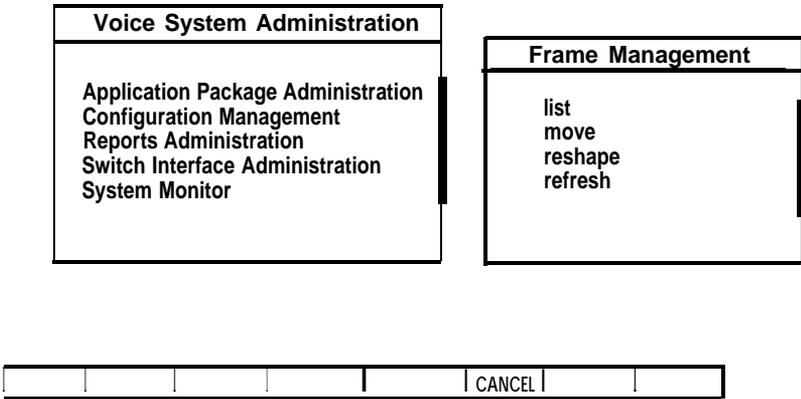
Following are descriptions of the standard set of commands. All window-specific commands are discussed in the detailed descriptions of individual windows.

In the case of **F2** and **F3**, where the standard command varies by window type, each standard is shown, with its window type in parentheses.

<b>F1 HELP</b>	Used to display a text window containing a brief description of the active window and the commands and operations available within the window.
<b>F2 CHOICES (form)</b>	Move the cursor to the blank you wish to fill in then press <b>CHOICES</b> . The Choices window opens, containing the menu for that blank.
<b>F2 PREVPAGE (text)</b>	Used to to scroll almost a full “page” backwards in a text window.
<b>F3 SAVE (form)</b>	Preserve all changes made so far in the window.
<b>F3 NEXTPAGE (text)</b>	Used to scroll almost a full “page” forward in a text window.
<b>F4 PREV-FRM</b>	Used to move the cursor to the previously opened window.
<b>F5 NEXT-FRM</b>	Used to move the cursor to the window listed after the current one. If additional windows are open, this function key will continue moving the cursor to the other windows in a rollover.
<b>F6 CANCEL</b>	Used to close the active window and cancel any additions, deletions or changes made since the last <b>SAVE</b> was performed
<b>F7 CMD-MENU</b>	Displays a menu window featuring a variety of procedures relating to the Voice System including “System Monitor” and “Exit”.
<b>F8 CHG-KEYS</b>	Used to switch the function key display from the standard to the window-specific set of commands, or vice versa.

### Frame Management

The Voice System gives you the opportunity to manipulate various screen features. This is done through the **Frame Management** menu window (Figure 2-6). The **FRM-MGMT** function key is an alternate function key accessed when the **CHG-KEY** function key is pressed.



**Figure 2-6. Frame Management Window**

Press **FRM-MGMT** to call up a five-item menu window which enables you to execute the following activities:

- **List Open Windows**

From the **Frame Management** window, highlight “list” then press <Enter>. The **Open Frames** menu window appears with a listing of all the currently opened windows on the screen. Highlight a window then press <Enter>. That window becomes the active window. Press <Enter> to close the **Frame Management** window.

- **Move Active Window**

From the **Frame Management** window, highlight “move” then press <Enter>. The previously opened window disappears and is replaced by a four-cornered outline of the window. Note that the cursor is blinking on the top-left corner of the window outline. Use the cursor movement keys to position the blinking cursor where you want the window to be moved. Press <Enter> to reposition the window.

- **Reshape Window**

From the **Frame Management** window, highlight “reshape” then press <Enter>. A blinking cursor appears on the top-left corner of the window. Use the cursor movement keys to position and resize the top-left corner. Press <Enter>.

Now use the cursor movement keys to position and resize the bottom-right corner then press <Enter>.

Reshaping of a window is only a temporary state. Once you have closed the reshaped window, the window returns to its original location assigned by *AT&T FACE*.

- **Refresh Screen**

From the **Frame Management** window, highlight “refresh” then press <Enter>. Any extraneous information is cleared from the screen and the screen is redrawn.

## Command Menu Procedures

The **CMD-MENU** function enables you to access a variety of Voice System procedures. This key appears on the standard function key set. Press **CMD-MENU** to display the following two-item menu window:

- **System Monitor**

Refer to the section entitled "System Monitor Overview" later in this section for additional information on the system monitor feature.

- **Exit**

From the **Command Menu** window, highlight "Exit" then press <Enter>. This immediately takes you out of the Voice Information System software program and returns you to the environment where you started Voice System Administration.

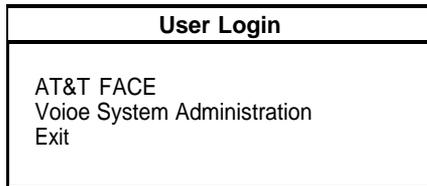
Command Menu
System Monitor Exit

HELP			PREV-FRM	NEXT-FRM	CANCEL	CMD-MENU	CHG-KEYS
------	--	--	----------	----------	--------	----------	----------

**Figure 2-7. Command Menu Window**

## WHERE TO GO FROM HERE

After you have logged into the Voice System, the **User Login** menu appears (Figure 2-8).

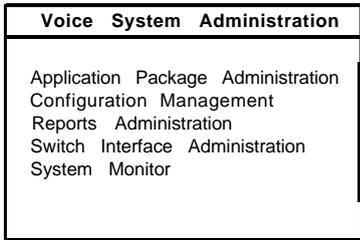


**Figure 2-8. User Login Menu**

From this menu, you can initiate two programs. Selecting "AT&T FACE" allows you to set up a variety of generic software operations including, backup, printer operations, and security privileges set-up. Refer to *AT&T FACE* documentation for additional information.

Selecting "Voice System Administration" brings up the program which allows you to reach the AVPL R1.1 program.

From the **User Login** menu, highlight "Voice System Administration" then press <Enter> to open the Voice System Administration menu (Figure 2-9).



**Figure 2-9. Voice System Administration Menu**

The **Voice System Administration** menu lets you choose which of the five Voice Power components to administer at a given time. The remainder of this section describes each component and its function.

## AVPL ERROR MESSAGES

Many internal software processes run within the Voice Power System. Some of these processes are common to the Integrated Voice Power (IVP) System Software R1.2, while others are application-dependent. Briefly, the generic software processes are:

- **Transaction State Machine (TSM)**

The TSM process serves as the main control point for all the software processes involved in the system's interaction. The application writer creates a set of instructions called a script. The script instructs TSM to perform a particular sequence of actions for a particular application.

- **IVP4 Input Process (TRIP)**

The TRIP looks for hardware events from the Integrated Voice Power (IVP4) UNIX\* driver and distributes them to the appropriate processes.

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- **Data Interface Process (DIP)**

The DIP responds to a request for data from a script running under TSM.

- **Voice Response output Process (VROP)**

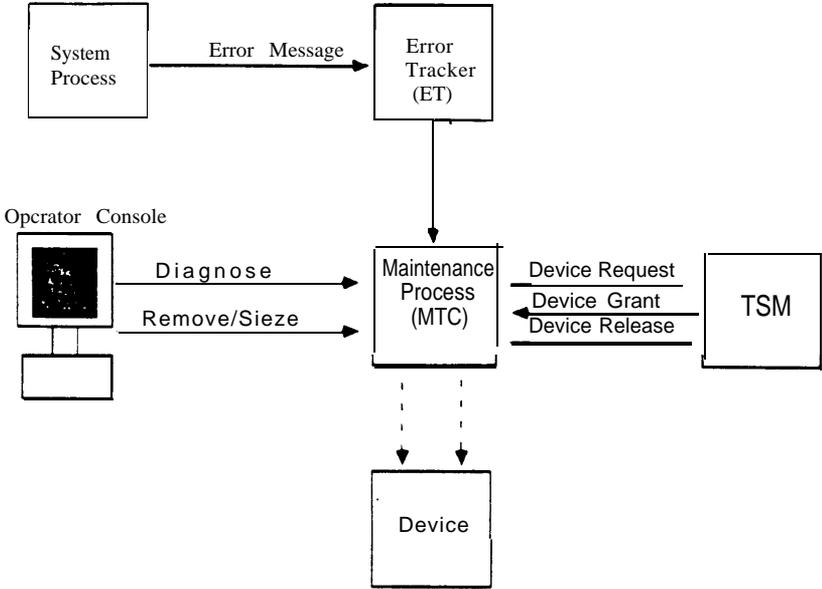
VROP receives request from a script running under TSM. The VROP directs the operation of the IVP4 board in the playing or recording of speech data.

- **Maintenance (MTC)**

The MTC process receives requests to run diagnostics and system checks from both the system administrator and the error tracker (ET) process (Figure 3-1 ). When MTC receives a diagnostic request, it sends a request to TSM to remove or seize the channel. When the channel is available, TSM sends a message to MTC granting it the device for diagnostics. When MTC has completed diagnostics, it notifies TSM that the device can be released. The results are passed to the originator of the request.

- **Error Tracker (ET)**

The ET process is responsible for maintaining system reliability by identifying error conditions, initiating troubleshooting procedures, and maintaining a history of errors. ET diagnoses, removes, or initiates a response from hardware devices. Occasionally, it is necessary for an operator to perform some action in response to ET messages.



**Figure 3-1. Maintenance Request Handling**

## Introduction

Error messages are logged automatically in an error log when problems or potential problems occur within the AVPL System. The system administrator can access the error log by choosing Error Summary from the **System Report** window. When an error message is received from the error log, refer to this section to determine the user action to be taken. If the action requires you to contact a “field service representative,” this means one of the following:

- If you are a system administrator and an error message appears on your machine, contact the AT&T AUDIX Hclpline (1 -800-56-AUDIX) for assistance.
- If you are a field technician supporting a customer per a maintenance agreement or time and material charge basis, you are the field service representative. If the problem is more serious, contact the next “tier” of support or AT&T’s for assistance.
- If you are a VAR (Value Added Reseller) software or hardware support person assisting an end customer, you are the field service representative. If you cannot solve the problem, contact the AT&T AUDIX Hclplinc at 1-800-56-AUDIX for assistance.
- If you are a VAR administrator and the error message appears on your machine, you are the field service representative. If you need assistance, contact the AT&T AUDIX Hclplinc (1-800)-56-AUDIX) for assistance.

When error conditions first occur, messages produced within the error tracker software appear as error messages. Messages call attention to the following types of conditions:

- Software failures
- Hardware failures at the board level

- Diagnostic test results (when initiated by the error tracker software)
- Alarm conditions
- System restart conditions.

Sometimes, messages require corrective action from an operator, but usually, the only action required by an operator is to report the condition to the system administrator and/or a National Support Center. The urgency of the message is specified with one of the following definitions in the message:

- **Critical** - the error is interrupting service, so immediate action is essential.
- **Major** - this is a potentially serious problem and should be fixed soon even though it is not interrupting service at this moment.
- **Informational** - no immediate action is necessary, but you should be aware of the system's condition.
- **Status** - this is not an error and no action is necessary. This is to inform you of a change of state within the system.

The messages are divided into subgroups according to the software process which outputs the messages. The following messages are IVPSS processes.

- SpeechProcessing Library (SPPLIB) - messages 108-299
- Transaction State Machine (TSM) Process - controls transactions via script execution and commands - messages 401-421
- Voice Response Output Process (VROP) - manages speech data base and downloads speech data to VRU - messages 109, 110, 548-599

- Error Tracker (**ET**) Process - provides error history - messages 601-655
- Maintenance (**MTC**) Process - runs temporary diagnostics - messages 700-750
- CDH -800-808
- Script - 1300-1301
- Data Base Initialization (**DBINIT**) - messages 1701-1799
- Tip/Ring Interface Process (**TRIP**) - messages 2000-2009
- Application Packages - messages 5000 and up.
- AVPL R1.1 messages 6000-6499
- PMS R 1.1 messages 6300-6399 (PMS error messages are part of the AVPL R 1.1 range if PMS integration is present.)

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## Error Message Format

When a system message is generated for the first time within an hour, it has the following format:

<priority> <msg\_id> <text> <time>

Following is a sample message:

CRITICAL 904 Cabinet Fuse Blown 15:30

If a system message is generated repeatedly within a short time (typically, within a few minutes), the following message format is used to avoid flooding the errors file with duplicate messages:

<priority> <#instances> <msg\_id> <mnemonic> <time>

The following is a sample message:

CRITICAL 40 instances of msg\_id 904 (CS\_C\_FUSE) by 15:31

The first, tenth, twentieth, fortieth, eightieth, and so on, messages are written to the errors file. A message with a large message number indicates a significant problem that should be dealt with as soon as possible.

In this section, the system messages are listed in a slightly different Format than they are written to the errors file. The messages listed here include **additional** information to help you understand the message and take the proper corrective action.

The system messages in this section begin with a message identification (msg\_id) number. Following the msg\_id number is the message mnemonic. The mnemonic is useful when identifying an error message for the National service representatives. If the message pertains to a hardware unit, the mnemonic is followed by the unit type in parentheses (TR, SP, and T1).

The message priority level (critical, major, informational) follows the mnemonic. A brief (description of the message is displayed immediately following the message priority,

Any variable fields within the message are shown enclosed within left and right arrows <> and appear as actual strings or integers on the monitor or printer.

The following example illustrates the format of a typical system message as listed in this section:

**311 (INITASH) (tr), MAJOR Initialization Error on**  
Channel: <channel> TR: <integer>

In the preceding example, the msg\_id is **311**. The mnemonic is **INITASH** and the associated hardware device is **TR**. The message priority is MAJOR. This possibly means some corrective action is required. The description of the error message follows for the TR <integer>. In this string, the <integer> signifies the board number.

## Using the EXPLAIN Command

An **explain** command is available for you to find out the problem specified by an error message. This command uses the error number to provide the user with information about how to respond to the error message.

To use the **explain** command,:

Open the **Voice Administration** window.

Select "Reports Administration" and press <Enter>.

From the **Reports Administration** window select "System Reports" and press <Enter>.

From the System Reports window select "Event Log Reports" and press <Enter>.

Press the **CHG-KEYS** to show the **EXPLAIN** function key.  
Press **EXPLAIN**.

The **EXPLAIN** form window appears. Enter the error message code that you want explained. Press **SAVE**.

An **Explanation of Event Message** appears.

For example, to get an explanation for the following error message,

```
401 (TSM_RCV), CRITICAL TSM: Cannot Receive  
Msg: ret = <integer> errno = <integer>
```

Type **401**

The system responds with the following explanation that matches the explanation in this document:

The message for error code 401 is:

TSM failed to receive a message from another process.  
The value of the errno indicates the reason for the error.  
Contact the AT&T AUDIX Helpline for assistance.

7. To return to the Voice Power System menu interface, type exit.

## ERROR MESSAGE LISTINGS

The messages are arranged in numerical order by msg\_ids. They are organized in subgroups according to the software process that outputs the message. Each message appears in **bold** type.

Following each message is a short explanation of the message and the recommended corrective action. The same explanation appears when you use the **explain** command. If no corrective action is provided, the message is either informational or is corrected automatically by the Voice Power System.

Some of the corrective actions must be performed by a system administrator or a field service representative. These messages are identified whenever possible.

When a corrective action requires you to contact AT&T, in most cases you will need to talk to a software support individual because there may be a problem with the software or the way you have your system set up. If a corrective action requires you to shut down, restart, diagnose the system, etc., refer to the procedures provided in other sections of this guide.

As new messages, explanations and actions are defined, they will be added to this section.

## System Messages

### **108 (SPP\_NOSAVE), MAJOR Cannot Save Shared Memory (<integer>) During <string> To Disk**

The Voice Power System is attempting to save recent changes entered into the configuration. The update was not completed successfully. Check the permissions on the directories and files in the path /gcnldb/shmcm/\*. Ensure that the root file system is not out of free space. Possible damaged file system (use fsck when the system is at single user level). Possible disk or disk controller problems.

### **109 (VROP\_GSEMA), MAJOR Cannot Get VROPQ Semaphore To Lock It**

An administrative command could not access a control semaphore. The failure of the command is not serious, but the failure indicates major interprocess communication failures in the system are likely to follow soon.

A reboot of the processor will correct the problem.

### **110 (VROP\_LSEMA), MAJOR Cannot Lock VROPQ Semaphore But It Should Be Available**

An administrative command was unable to lock a semaphore that was allocated to it. The failure of the command is not serious, but the failure indicates major interprocess communication failures in the system are likely to follow soon.

A reboot of the processor will correct the problem.

**401 (TSM\_RCV), CRITICAL TSM: Cannot Receive Msg: ret = <integer>, errno = <integer>**

TSM has failed to receive a message from another process. The value of the errno indicates the reason for the error. Reboot the system if this problem continues.

Contact the AT&T AUDIX Helpline for assistance.

**402 (TSM\_SND), CRITICAL TSM: Cannot Send Msg to <integer>: ret = <integer> errno = <integer> mcont = <integer>**

TSM failed to send a message to another process. The value of the errno indicates the reason for the error. If this problem continues, reboot the system.

Contact the AT&T AUDIX Helpline for assistance.

**403 (TSM\_ASS), MAJOR TSM: Cannot get script name for channel <channel>: ret = <integer>**

TSM was unable to find the specified script corresponding to a Channel. Return to the Configuration Screen to check that a service is assigned to the channel.

**404 (TSM\_TRAN), MAJOR TSM: Cannot load script <string> for channel <channel>**

TSM failed to load the specified script from disk. This message occurs if TSM encountered an error while opening or reading the script file. Reload application software if error persists. Ensure That:

1. The script file (.T file) is in directory /vs/trans.
2. The script file (.T file) is in the proper format, that is, it is the output produced by the tas assembler.

**405 (TSM\_NOSLOT), MAJOR TSM: No Slot Available for Script <string>**

Contact the AT&T AUDIX Helpline for assistance.

**406 (TSM\_NOSCRIP), MAJOR TSM: Cannot Find Script <string>; errno = <integer>**

TSM failed to open the specified script file. This occurs if the script file does not exist. The value of the errno indicates the cause of the error. Ensure that the script file (.T file) is in directory /vs/trans. Script needs to be assigned. Go to the configuration screen and assign script. Look up the value of errno in Intro(2), Introduction to Section 2 in the Programmer Reference Manual.

**407 (TSM\_BADSCRIPT), MAJOR TSM: Script <string> has Bad Format**

The format of the script file (.T file) is invalid. This can occur if the file is not the output of the tas assembler. Ensure that the script file is installed by an application package. Reload the application software if error persists.

**408 (TSM\_SCRD), MAJOR TSM: Read Error on Script <string>**

A read error occurred while TSM was reading the script file from disk. Hang up the telephone and try again several times. You may have UNIX disk problems. Reboot system, then reload the application software,

**409 (TSM\_MTSCRIPT), MAJOR TSM: No Data in Script <string>**

The specified script has no instructions. Reload the application software if error persists.

**410 (TSM\_SHMFAIL), CRITICAL TSM: Shared Memory failure: <string>, errno <integer>**

TSM failed to attach a shared memory segment. This error can only be seen at initialization. The errno indicates the reason for the error. Reboot the system and if the problem persists contact the AT&T AUDIX Helpline for assistance.

Contact the AT&T AUDIX Helpline for assistance.

**411 (TSM\_PC\_FAIL), MAJOR TSM: Script on Channel <channel> Failing PC at Instruction <integer>**

The program counter (PC) value is invalid. The PC value is too small or too large. This may be caused by an invalid location or the program size has exceeded the maximum allowable limit.

Contact the AT&T AUDIX Helpline for assistance.

**412 (TSM\_TSTART), MAJOR TSM: Cannot Start Transaction on channel <channel>: <string>**

The script was loaded into memory, but cannot start execution because the initial program counter (PC) value is incorrect.

Contact the AT&T AUDIX Helpline for assistance.

**413 (TSM\_NO\_SCPT\_P), MAJOR TSM: Cannot open script environment param file: ret=<integer> errno= <integer>**

TSM failed to open the script environment parameters file. The value of the errno indicates the reason for the error. Ensure that the file "script\_param" exists in "/gendb/data".

This error message is for an unsupported software feature. It should not appear normally. If it appears, it does not have serious implications.

For further information, contact the AT&T AUDIX Helpline.

**414 (TSM\_SEP\_READ), MAJOR TSM: Cannot read script environment params: ret=<integer> errno=<integer> rec=<integer>**

TSM failed to read the script environment parameters file. The value of the errno indicates the reason for the error. Remove the file "script\_param" from in "/gendb/data" and recreate it again.

This error message is for an unsupported software feature. It should not appear normally. If it appears, it does not have serious implications.

For further information, contact the AT&T AUDIX Helpline.

**415 (TSM\_INIT\_FAIL), CRITICAL TSM: Initialization Failure**

TSM process cannot be started due to some initialization failure. Reboot the system. If the failure persists, contact the AT&T AUDIX Helpline.

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**416 (TSM\_INVLD\_MSG), INFORM TSM: Ignored Message from <integer>, content <integer>, chan <channel>: <string>**

TSM did not process a message because it was inappropriate. The message originator, message content, channel number and reason for not processing are specified. TSM will continue execution after reporting the error.

This error does not have serious implication, but it should be reported to the AT&T AUDIX Helpline if the error occurs 15 times per minute.

**418 (TSM\_NOSPACE), MAJOR TSM: No space for <string>, errno <integer>**

TSM failed to allocate more space. The total size of all running scripts is too large. Contact AT&T AUDIX Helpline. Verify that 8 megabytes is installed and operating.

**419 (TSM\_TR\_CMD), MAJOR TSM: TR Device Driver Command (<string>)Failure: chan <channel>, board <device>**

TSM failed to execute a TR UNIX driver command. The command name and the errno is specified.

Contact the AT&T AUDIX Helpline for assistance if the problem occurs 15 times per minute.

**550 (VROP\_BADACT), MAJOR VROP Activity list is corrupted**

The activity list data structure in the VROP process is corrupted.  
Reboot the system.

**551 (VROP\_LRULIST), MAJOR VROP speech buffer lru data structure is corrupted**

The speech buffer data structures are corrupted. Reboot the system.

**552 (VROP\_SBM\_ERR), INFORM VROP speech buffer usage count error**

The speech buffer usage count has been corrupted. Reboot the system.

**553 (VROP\_USAGE\_CNT), MAJOR VROP in-use speech buffer in the speech buffer free list**

The speech buffer data structures are corrupted. Reboot the system.

**571 (VROP\_CONFIG), MAJOR VROP Config file <string> is incorrect**

**A line** in the spchconfig file is invalid. Edit the file /vs/data/spchconfig and fix the line indicated. The file should contain a line of the form:

```
nbufs 61
```

This line tells the Voice System how many speech buffers to allocate in memory. The number of speech buffers should be a minimum of 2.5 times the number of equipped voice channels. A default value will be used if no valid value can be found. The **Voice System will** need to be restarted after the file is fixed.

**572 (VROP\_HWERR), MAJOR Hardware Error on device  
<device>, chan <channel>**

A hardware error on the indicated Voice System board has occurred. Run diagnostics on the indicated board.

**573 (VROP\_NOSPACE), CRITICAL No space available in file  
system <string>**

No free space is available in the indicated speech file system. It is possible that the speech file system is corrupted. Use the purge option to clean up old mailboxes. Reboot the sysatem.

**574 (VROP\_BADFS), MAJOR Error occurred on file system  
<string>: (run audit when convenient)**

A file system error has occurred on the indicated speech file system. Reboot the system.

**575 (VROP\_UNIXFIO), MAJOR Error occurred accessing UNIX  
file <string>**

An error occurred accessing the indicated UNIX file. This could be caused by a disk error or by a corrupted UNIX file system.

Reboot the system.

**577 (VROP\_NONEX), MAJOR Attempt to use non-existent phrase  
<integer> in talki file <integer>**

A script attempted to access the nonexistent phrase indicated. Contact the AT&T AUDIX Helpline for assistance.

**571 (VROP\_SHMERR), MAJOR VROP: error using shared memory region <integer>**

An error occurred accessing a shared memory region used in access speech phrases. Reboot the system.

**579 (VROP\_MSGERR), MAJOR VROP: error using UNIX messages: <string> (target <integer>)**

An error occurred accessing a UNIX message queue. Reboot the system.

**580 (VROP\_UNIXOPEN), INFORM Error occurred opening UNIX file <string>**

An error occurred when attempting to open the indicated UNIX file. If the problem persists, perhaps the file can be obtained from a recent backup.

**581 (VROP-TIMEOUT), INFORM VROP: Timeout detected: action <integer>**

A timeout error occurred. These can occur because of other errors in the system or because of excessive system load. Restart or reboot the system if the error occurs 15 times per minute.

**582 (VROP\_NOACT), MAJOR VROP: no activity lists are available**

The activity list, a data structure used to keep track of speech commands in progress has been exhausted, causing some play or record operation to fail. Reboot the system.

**583 (VROP\_BADTAG), INFORM VROP: Invalid tag: action <integer>: event <integer>: act2 <integer>: type <integer>**

A software error occurred. These can be associated with timeouts if the system is experiencing excessive load. Reboot the system if the errors continue.

**584 (VROP\_NOSPCHBLK), MAJOR VROP: no speech buffer blocks available: resizing of spchconfig recommended**

No speech buffer blocks are available in shared memory. Resize the nbufs parameter in the file /vs/data/spchconfig and verify the nbufs number is 61. Reboot the system.

**585 (VROP\_BADCODE), MAJOR VROP: Software Error detected: action <integer>, type <integer>**

A software error was detected. Reboot the system. If the error continues and occurs 15 times per minute, contact the AT&T AUDIX Helpline for assistance.

**586 (VROP\_BADPHR), MAJOR VROP: phrase <integer> in talk file <integer> is bad**

The indicated speech phrase is corrupted. Reboot the system when convenient. The phrase can be recovered from a speech file system backup.

**588 (VROP\_NOTIMELIST), INFORM VROP: no timeout lists are available**

The timeout list data structure is exhausted. There are no direct harmful consequences, but the error may be an indication of system problems. Reboot the system.

**589 (VROP\_NODIRSLT), MAJOR VROP: no directory entry available in file system <string>**

The speech file system directory entries have been exhausted. No more phrases can be created until the situation is corrected. Use the purge option to clean up old mailboxes and reboot the system.

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**590 (VROP\_BADFREE), MAJOR Free list is corrupted on file system  
<string>**

The speech block free list is corrupted on the indicated file system. Reboot as soon as possible to correct.

**591 (VROP\_PLAY\_TMOUT), MAJOR Play request is not serviced fast enough**

A request to play phrases has not been serviced fast enough. The system load is excessive. Reduce the number of channels in use on the system to prevent poor service to customers. Avoid using features such as broadcast during busy hours.

**592 (VROP\_CODE\_TMOUT), MAJOR Coding request is not serviced fast enough**

A request to record a phrase has not been serviced fast enough. The system load is excessive. Reduce the number of channels in use on the system to prevent poor service to the customers. Avoid using features such as broadcast during busy hours.

**593 (VROP\_FSOPEN), INFORM Error opening file system  
<string>**

The system could not open the indicated speech file system. This can be caused by a disk error or by some system error. Reboot the system and if the problem remains replace the bad disk. Reload the application software.

**594 (VROP\_FSIO), MAJOR Access error to file system <string>:  
called from <integer>**

An error occurred accessing the indicated speech file system. This can be caused by a disk error or by some system error. Reboot the system and if the problem remains replace the bad disk. Reload the application software.

**595 (VROP\_BADCMD), INFORM Unrecognized command  
received**

An unrecognized command has been received by the VROP process. If the error occurs 15 times per minute, inform the AT&T AUDIX Helpline.

**596 (VROP\_DIORESPAWN), INFORM DIO process respawned**

The DIO process died and respawned. Reboot the system. If the error occurs 15 times per minute, inform the AT&T AUDIX Helpline.

**597 (VROP\_TROPEN), MAJOR Error opening TR device driver**

The VROP process failed when opening the IVP4 (TR) driver. No speech can be played or recorded on the IVP4 boards until the condition is corrected. Reboot the UNIX system to correct the problem.

**601 (SHMEM\_SHOW), STATUS Showing State of ET Shmem  
(ETCOUNTS)**

The user asked the Error Tracker (ET) to display the state of its shared memory (presumably for debugging purposes). This should not occur spontaneously. No need for immediate action.

**602 (READ\_DB), STATUS Change to Error Rules Recvd by ET**

ET just reread its error rules file because it changed.  
Informational Message - No action is required because this is seen only during system development and startup.

**603 (ET\_ATT), INFORM Unexpected EOF on Error Rules File after <integer> Lines**

There is an error in the rules file. Correct and recompile the rules file (run 'mkerr'). This message should only be seen during system development and startup.

**604 (ET\_BAD\_MSG), INFORM Invalid msg\_id (<integer>) Received from <string>**

ET received a message it does not understand. Call the AT&T AUDIX Helpline for assistance when convenient.

**605 (ET\_CKSHMEM), MAJOR ET has Tried to Check/Reinit its SHMEM (ETCOUNTS)**

ET tried to check/reinitialize its shared memory. If his message occurs continuously without a user's request, ET will not work properly until this is fixed. Try stopping and restarting the system. If this message persists, call the AT&T AUDIX Helpline for assistance.

**606 (ET\_ESLOT), INFORM ET Discarded Msg of Type <integer>:  
Error Count Array Full**

A software error exists or ET is getting an extreme number of messages. Attempt to resolve the reported problems. Call the AT&T AUDIX Helpline for assistance when convenient.

**607 (ET\_MSGRCV), CRITICAL ET Not Read Msg: errno =  
<integer>, rc = <integer>**

Something is wrong with the interprocess communication. ET cannot receive messages. Reboot the system and if the error persists, call the AT&T AUDIX Helpline for assistance.

**608 (ET\_MSGSND), CRITICAL ET Not Send Msg to <string>:  
errno = <integer>, rc = <integer>**

Something is wrong with the interprocess communication. ET cannot send a message to the specified process. Reboot the system and if the problem persists, call the AT&T AUDIX Helpline for assistance.

**609 (ET\_NO\_ATT), MAJOR Cannot Open ATT Error Rules File  
(/vs/data/errors)**

Check to see that the file /vs/data/errors exists and check its permissions. The permissions are owned by root: -r--r--r-- .

Call the AT&T AUDIX Helpline for assistance.

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**610 (ET\_NOQ), CRITICAL ET Cannot Open its Message Queue**

Something is wrong with the interprocess communication. ET cannot open its message queue. Reboot the system. If the problem persists, call the AT&T AUDIX Helpline for assistance.

**611 (ET\_NORULES), MAJOR ET Cannot Access Error Rules File (<string>)**

ET cannot access the specified error rules file, ET will not work properly until this problem is fixed. Reload the application software,

If the problem persists, call the AT&T AUDIX Helpline for assistance.

**612 (ET\_NOSHMEN), CRITICAL ET Cannot Attach SHMEM <string>**

ET is having problems with its shared memory. ET will not work properly until this problem is fixed. Diagnose the memory.

Call the AT&T AUDIX Helpline for assistance.

**613 (ET\_NQ\_VAR), INFORM Cannot Open VAR Error Rules File (gendb/data/errors)**

Informational message unless there is supposed to be a VAR error file. The application specific error rules file is missing. Reload the application software and if the error persists, call the AT&T AUDIX Helpline for assistance.

**614 (ET\_REBOOT), CRITICAL ET Attempting to REBOOT System**

A module or user told ET to reboot the system, so it is trying to do so. If ET is capable of automatically rebooting the system, it shuts down within two minutes; if not, nothing should happen except that ET will read but won't process messages. However, this message indicates that the system thinks that it is in serious trouble.

No action required if the system reboots itself properly. If it does not, manually reboot the system.

**615 (ET\_RESTART), CRITICAL ET Attempting to RESTART System**

A module or user told ET to restart the system, so it is trying to do so. The system software will be stopped and restarted in 2 or 3 minutes,

No action required if the system restarts itself properly. If it does not, manually restart the system.

**616 (ET\_SHMIT), INFORM ET Shared Memory (SHMEM ETCOUNTS) Init**

ET initialized its shared memory. Informational message - no action required.

**617 (ET\_SHOWER), STATUS ET Printing Rules as Requested**

This should not appear unless the user asks ET to print its rule file. Informational message - No action required.

**618 (ET\_VAR), INFORM Unexpected EOF on VAR Err Rules File after <integer> Lines**

There is an error in the VAR rules file. Contact the provider(s) of the application packages that are installed.

**620 (ET\_DEBUG), STATUS ET Verbose Mode for Debugging Toggled**

This message should not appear unless the user sends the MSG to ET.

If the verbose mode appeared unexpectedly, please report this to the AT&T AUDIX Helpline.

**621 (ET\_FLOOD), INFORM <string>**

This message is printed as a result of the flood control being turned on to prevent messages from flooding the screen or the ET history file.

**622 (ET\_URS), CRITICAL User Ordered ET to RESTART System**

The user ordered ET to restart the system.

**623 (ET\_URB), CRITICAL User Ordered ET to REBOOT System**

The user ordered ET to reboot the system.

**624 (ET\_WIPE), INFORM ET Removed Defunct Process <string> (<integer>) from Bulletin Board**

ET removed a defunct process or an invalid process entry it found in the bulletin board. No action required.

**626 (ET\_STUCK), MAJOR ET Noticed <string> (<integer>) to be Stuck**

ET noticed that the specified process was hung. This error message will continue to come out until something is done about the process' bulletin board entry. Stopping and restarting the system should clear the bulletin board.

If this message persists, it should be reported to the AT&T AUDIX Helpline.

**627 (ET\_BAD\_ARGS), INFORM Invlid channel(<integer>)/brd(<integer>) for msgid(<integer>) Recvd from <string>**

ET received a message with bad arguments (i.e. invalid board number, invalid channel number for the given board number, etc....). Check your IVP4 board addresses. Reboot the system, and if the problem persists, call the AT&T AUDIX Helpline.

**628 (ET\_NEW\_PID), MAJOR ET Noticed PID for <string> changed: <integer> to <integer>; Proc probably respawned**

ET noticed the process id for a given process to have changed, which indicates that the process probably died and respawned. This message should be reported to the AT&T AUDIX Helpline.

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**651 (ET\_DYKE), STATUS ET turned flood control <string> as requested**

The user ordered ET to turn its flood control on or off via the "etset" command.

**652 (ET\_NEWS), STATUS ET set summary to <string> as requested**

The user ordered ET to set the summary to be displayed only when it receives new error messages since it last displayed the summary or all the time regardless of whether it receives any new messages. The user made the request via the "etset" command.

**653 (ET\_PRIORITY), STATUS ET set summary priority to <string>-as requested**

The user ordered ET to set its summary priority level to the specified level via the "etset" command.

**654 (ET\_SUMSHOW), STATUS ET showed summary settings as requested**

The user ordered ET to display its current summary settings. The user made the request via the "etset" command.

**655 (ET\_SUMTIME), STATUS ET set summary interval to <integer> minutes as requested**

The user ordered ET to set its summary interval for the time between the display of summary messages to the specified number of minutes via the "etset" command.

**700 (STA\_CHAN), STATUS MTC reports channel <channel> is now in state <integer>.**

Maintenance reports: the permanent state of a channel has changed.

**701 (STA\_CARD), STATUS MTC reports card <device> is now in state <integer>.**

Maintenance reports: the permanent state of a card has changed.

**710 (INV\_RQST), INFORM MTC received invalid request, morig=<integer>, mcont=<integer>, reqst=<integer>.**

Maintenance received an invalid request message. The message has been ignored. This is an indication of software problems. If this error persists, try stopping and re-starting the Voice System.

**711 (INV\_TSMR), INFORM MTC received invalid tsmr, state=<integer>, mcont=<integer>.**

Maintenance received an invalid response from TSM. The response has been ignored. This is an indication of software problems. If this error persists, try stopping and re-starting the Voice System.

**712 (INV\_MSG), INFORM MTC received invalid message, state=<integer>, morig=<integer>, mcont=<integer>.**

Maintenance received an invalid message while interacting with TSM. The message has been ignored. This is an indication of software problems. If this error persists, Try stopping and re-starting the Voice System.

**714 (RCVE\_MSG), CRITICAL MTC cannot receive a message, return=<integer>, errno=<integer>, <string>,**

Maintenance cannot receive messages. This is an indication of system problems. Try rebooting the system. If the problem persists, call the AT&T AUDIX Helpline for assistance.

**715 (SEND\_MSG), CRITICAL MTC cannot send a message, return=<integer>, errno=<integer>.**

Maintenance cannot send messages. This is an indication of system problems. Try rebooting the system. If the problem persists, call the AT&T AUDIX Helpline for assistance.

**716 (UNK\_TYPE), MAJOR MTC detected an invalid type (<integer>), on card <device>.**

Maintenance detected an invalid device type in shared memory. This is an indication of system problems. Try stopping/re-starting the Voice System or re-booting the system.

**717 (SYS\_FAIL), MAJOR MTC cannot <string> for card <device>, return=<integer>, errno=<integer>.**

Maintenance failed a system call. This is an indication of system problems. Try stopping/re-starting the Voice System or re-booting the system.

**718 (NO\_CLOCK), MAJOR MTC cannot find clock on card <device>.**

Maintenance detected no clock on a system-master board. This is an indication of hardware problems. The board may need to be replaced. Try removing the device from service, and re-booting the system. If the device passes initial boot diagnostics, you may then restore the device.

**722 (GET\_SEMA), MAJOR MTC cannot acquire the semaphore.**

Maintenance cannot create the semaphore. This is an indication of system problems. Try stopping/re-starting the Voice System or re-booting the system.

**723 (SET\_SEMA), MAJOR MTC cannot set the semaphore.**

Maintenance cannot lock the semaphore. This is an indication of software problems. Try stopping/re-starting the Voice System or re-booting the system.

**724 (SHM\_FAIL), CRITICAL MTC cannot attach the <string> area.**

Maintenance cannot attach shared memory. This is an indication of software problems. Try stopping/re-starting the Voice System or re-booting the system. If the problem persists, diagnose the memory,

**725 (SHM\_INVLD), CRITICAL MTC detects an invalid <string> area.**

Maintenance detected invalid shared memory. This is an indication of software problems. Try stopping/re-starting the Voice System or re-booting the system.

**726 (OPN\_FAIL), CRITICAL MTC cannot perform a <string>**

Maintenance cannot open the tip/ring driver. This is an indication of software problems. Try stopping/re-starting the Voice System or rebooting the system.

**727 (CLR\_SEMA), MAJOR MTC cannot clear the semaphore.**

Maintenance cannot unlock the semaphore, This is an indication of software problems. Try stopping/re-starting the Voice System or re-booting the system.

**740 (DG\_START), STATUS MTC reports diag started on (<string>) card <device>.**

Maintenance reports: diagnostics have started on a hardware card.

**741 (DG\_RESLT), STATUS MTC reports diag results on card <device>, return=<integer>, errno=<integer>, <string>.**

Maintenance reports: diagnostic results.

**742 (DG\_PASSD), STATUS MTC reports diag passed on (<string>) card <device>.**

Maintenance reports: diagnostics have passed on a hardware card.

**750 (DG\_FAILD), STATUS MTC reports diag failed on card <device>, because <string>**

Maintenance reports: diagnostics have failed on a hardware card. This is an indication of hardware problems. The board may need to be replaced. Try removing the device from service, and re-booting the system. If the device passes initial boot diagnostics, you may then restore the device.

**1300 (VS\_BUG), STATUS Error in VS Software <string>**

Call your field service representative for assistance.

**1701 (NO\_DBFILE), MAJOR No <string> SHMEM File**

The system is unable to initialize its share memory properly. Reboot the system, and if the problem persists, diagnose the memory.

Call your field service representative for assistance.

**2000 (TRIP\_OPEN), CRITICAL TRIP: Tip/Ring Driver Open Failure, Reason <integer>**

The Tip/Ring Input Process is unable to access any of the tip/ring boards in the cabinet.

Ensure that only a single copy of the voice software is operational. Attempt a software restart. Make sure that the generic software has been properly installed. Attempt rebooting the system. As a last resort reload the generic software.

**2001 (TRIP\_DTBL), CRITICAL TRIP: Shared Memory (devtbl) Attach Failure, Reason <integer>**

This error indicates that the Voice System initialization failed; probably dbinit did not run or did not complete successfully.

Try rebooting the voice system.

**2002 (TRIP\_EVNT), CRITICAL TRIP: Tip/Ring Event Receipt Failure, Reason <integer>**

The tip/ring boards in the system have become inaccessible.  
Reboot the system.

**2004 (TRIP\_OVFL)(tr), MAJOR TRIP: Tip/Ring Event Lost, Base <device>, lines <integer>**

Too many simultaneous events have occurred on the indicated boards for the Voice System to process. DATA HAS BEEN LOST, affecting service to callers on one or more channels. System load may be too heavy. If this message occurs immediately after restarting the voice system, the message may be ignored. If error continues, reboot the system and evaluate system load while watching system monitor page.

**2005 (TRIP\_SBRK)(tr), MAJOR TRIP: Break in <string> detected on channel <channel>**

A gap has been detected during a coding or voice output session. Either the customer-coded voice is incomplete or the voice that the customer heard contained inappropriate silence.

This condition typically is related to excessive load on the system controller. This error typically appears at the same time as errors 591 (VROP\_PLAY\_TMOUNT) or 592 (VROP\_CODE\_TMOUNT). This indicates the same condition.

**2009 (TRIP\_CLIP), STATUS TRIP: Speech output clipping on channel <channel>**

This error indicates that the output signal level on a Tip Ring Channel approached the level deemed too loud for the Telephone Network by the FCC. The output signal was thus interrupted until the output signal level dropped below the threshold of non-compliance.

## Lodging Administration Messages

### **6000 (AADM\_SYSERR) MAJOR**

The Administration process encountered a system error while trying to access a file. The value of errno indicates the reason for the error. Check the file or directory named in the error message; it may be corrupted or missing. Ensure that the / and /usr file systems are not out of free space. Possible damaged file system or possible disk or disk controller problems, Reboot the system. If all else fails, contact your field service representative for assistance.

### **6001 (AADM\_MSGERR) MAJOR**

The Administration process encountered a problem while trying to send or receive an interprocess communication message. The value of errno indicates the reason for the error. If the problem persists, contact your field service representative for assistance.

**6100 (AVMD\_SYSERR) MAJOR <string> FAILED for <string> errno: <integer>** The Lodging Database DIP encountered a system error while trying to access a database file. The value of errno indicates the error reason.

Check the file or directory named in the error message; it may be corrupted. Ensure that the / and /usr file systems are not out of free space. There may be a damaged file system (use fsck when the system is at single user level) or disk/disk controller problems.

Contact your field service representative for assistance.

### **6101 (AVMD\_ENOENT) MAJOR <string> is missing**

A file is missing from the Lodging Database. Contact your field service representative for assistance.

**6102 (AVMD\_MWLUNEX) INFORM bad MWL event: <string>**

The Lodging Database DIP received an unexpected message concerning message waiting lamp updates. For example, if the DIP has requested a particular channel for MWL updates, it does not expect to receive notice from TSM that some other channel has been granted to it. If this message persists, 5 per minute, contact your field service representative.

**6103 (AVDM\_BADFORM) MAJOR <string> is badly formatted <string>**

This message indicates that a Lodging Database file is not formatted correctly. A software problem or a file system problem may exist. Reboot the system. Contact your field service representative' for assistance.

**6104 (AVMD\_OUTERR) INFORM asked to logout <string> -- already logged out**

A script requested that the Lodging Database DIP log out a subscriber who was not currently logged in. If this message persists, 5 per minute, contact your field service representative.

**6105 (AVMD\_SCRERR) MAJOR script error on chan <integer> <string>**

The Lodging Database DIP has received bad input data from a script. If this message persists, 1 per day, contact your field service representative.

**6106 (AVMD\_MWLLIST) INFORM MWL list problem: <string>**

The Lodging Database DIP encountered a problem while trying to change its list of message waiting lamp update requests. Thus, a message waiting lamp will not be updated properly. If this message persists, 5 per day, contact your field service representative.

**6107 (AVMD\_REFERR) INFORM MWL refresh problem:  
<string>**

The Lodging Database DIP encountered a problem while trying to refresh message waiting lamps. The process will try again.

**6108 (AVMD\_MSGERR) MAJOR <string> failed: ret code  
<integer>, errno <integer>**

The Lodging Database DIP encountered a problem while trying to send or receive an interprocess communication message. The value of errno indicates the error reason. Reboot the system. Contact your field service representative for assistance.

**6109 (AVMD\_PHRDEL) INFORM cannot remove phrase <integer>  
due to overflow**

The Lodging Database DIP was not able to ask VROP to delete a phrase from the speech database. The DIP's phrase removal list has overflowed. An audit of the Lodging Database may help resolve the problem. Administer the stop\_vs and the start\_vs function. If this message persists, 1 per year, contact your field service representative.

**6110 (AVMD\_REQERR) MAJOR failure for request <integer>  
(from <string>): <integer>**

The Lodging Database DIP encountered an error while trying to respond to a request. This message will usually be accompanied by another Error Tracker message which provides more specific information.

**6111 (AVMD\_MSGSRC) INFORM message received from  
unexpected source: <integer>**

The Lodging Database DIP received a message from an unrecognized process. Reboot the system. If this problem persists, 1 per week, contact your field service representative.

**6112 (AVMD\_STARTUP) CRITICAL startup failed**

The Lodging Database DIP could not start up properly. Reboot the system. If the problem persists, contact your field service representative for assistance.

**6113 (AVMD\_MSGUNEX) INFORM unrecognized message:  
<integer>**

The Lodging Database DIP received a message that it does not recognize. Reboot the system. If this problem persists, 1 per day, contact your field service representative.

**6114 (AVMD\_UNKCALL) INFORM**

The Lodging Database DIP was given a called extension for the call\_ answer service that it did not find in the database, This message is printed only when such extension was determined through integration with the switch. The probable explanation for the message is that the called party is not properly registered as a subscriber on the AUDIX Voice Power Lodging system. Verify the presence of the extension in the subscriber database through the display mailbox, If this problem persists, 1 per day, contact your field service representative.

## Switch Integration Messages

**6400 (SWIN\_SYSERR) MAJOR <string> FAILED for <string>, errno: <integer>**

The Switch Integration DIP encountered a system error while trying to access a file. The value of errno indicates the error reason.

Check the file or directory named in the error message; it may be corrupted. Ensure that the / and /usr file system (use fsck when the system is at single user level) or disk/disk controller problems.

Contact your field service representative for assistance.

**6401 (SWIN\_MWLUNEX) MAJOR bad MWL event: <string>**

The switch integration DIP received an unexpected message concerning message waiting lamp updates. For example, if the DIP has requested a particular channel for MWL updates, it does not expect to receive notice from TSM that some other channel has been granted to it. If this message persists, contact your field service representative.

**6402 (SWIN\_BADFORM) MAJOR <string> is badly formatted <string>**

The switch integration DIP has received bad data from an installed application package or switch integration package. Default service will be used for cases where the data does not correctly specify the service. This may result in a degradation in service.

Contact your field service representative for assistance.

**6403 (SWIN\_MWLLIST) MAJOR MWL list problem: <string>** The switch integration DIP encountered a problem while trying to change its list of message waiting lamp update requests. This probably means that its queue (of at least 2000 requests) became full. Thus, a message waiting lamp will not be updated properly.

If this message persists, contact your field service representative.

**6404 (SWIN\_MSGERR) MAJOR <string> failed: ret code <integer>, errno <integer>** The switch integration DIP encountered a problem while trying to send or receive an interprocess communication message. The value of errno indicates error reason.

Contact your field service representative for assistance.

**6405 (SWIN\_STARTUP) INFORM startup failed** The switch integration DIP could not start up properly.

Contact your field service representative for assistance.

**6406 (SWIN\_MSGUNEX) INFORM unrecognized message: <integer>** The switch integration DIP received a message that it does not recognize.

If this problem persists, contact your" field service representative.

**6407 (SWIN\_MWLUPD) INFORM MWL update failed: <string>** The switch integration DIP received notification that a script failed to update a message waiting lamp. The extension that failed was requeued, so that the update would be attempted again. An occasional occurrence may somewhat delay the update for a lamp, but is not generally serious.

If this problem persists, contact your field service representative.

## Lodging Reports Messages

### **6200 (RPT\_SYSERR) MAJOR**

The Lodging Reports DIP encountered a system error while trying to access a file. The value of errno indicates the error, reason.

Check the file or directory named in the error message; it may be corrupted or missing. Ensure that the / and /usr file systems are not out of free space. There may be a damaged file system (use fsck when the system is at single user level) or disk/disk controller problems.

Contact your field service representative for assistance.

### **6201 (RPT\_MSGERR) MAJOR**

The Lodging Reports DIP encountered a problem while trying to send or receive an interprocess communication message. The value of errno indicates the reason for the error. Contact your field service representative for assistance.

### **6202 (RPT\_MSGSRC) INFORM**

The Lodging Reports DIP received a message from an unrecognized process. If this problem persists, contact your field service representative.

### **6203 (RPT\_MSGUNEX) INFORM**

The Lodging Reports DIP received an unexpected message. If this problem persists, contact your field service representative.

# TROUBLESHOOTING 4

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## **TROUBLESHOOTING OVERVIEW**

This section assists you in identifying and locating problems that may arise during your work with AUDIX Voice Power Lodging (AVPL R1.1). If any of the listed symptoms occur, perform the given solution to correct the problem.

Problem areas are divided into three types:

- Administration
- Operations
- Call Handling

Read through the listed subjects to help isolate any inconsistencies in your work. If problems continue, contact an AT&T field service representative for assistance.

## VISUAL INSPECTION

The visual inspection helps you to identify any obvious equipment problems before you perform more exhaustive tests.

1. Verify that the power cords are plugged into the system controller properly and fully inserted into a 115 V, AC power outlet.
2. Verify that the power switches on the controller are in the "ON" position and that the correct power-up sequence was followed.
3. Verify the position of the keyboard lock key to insure that the keyboard is enabled.
4. If the fan on the rear does not rotate when power is applied, check the fuse located between the power cord and power switch. A spare fuse is provided in the fuse holder.
5. Check the status of the visual indicators listed in Tables 4-1,4-2 and 4-3. Notice that the second column of these tables lists the color of the indicator and the number of indicator lights on the unit.
6. If any of the indicators are not in the proper state, refer to Table 4-3 for the recommended action.
7. Check the following cables to make sure that the connectors are not damaged or loose:
  - Modular cable on IVP circuit board
  - Line Interface CablesCorrect any problem by replacing damaged cables or re-inserting loose connectors.
8. Check for proper circuit pack slot allocations.
9. Check that all circuit packs are fully inserted and fastened with a screw.

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10. Verify that the cooling fans in the system controller are operating.

Visually check the operation of the fan on the system controller. Looking at the rear of the unit, check to see that the fan blade is rotating. Hold your hand several inches in front of the fan to see if the fan is blowing.

If the fan is not operating and you are unable to fix it, call a field service representative.

TABLE 4-1. NORMAL STATE OF THE CONTROLLER'S VISUAL INDICATORS

Indicator Description	Color (number)	Indicator Location	Normal State
Power-On Indicator	Green (1)	Front of system controller	ON
Floppy Drive	Red (1) or Amber	Front of system controller	ON, OFF, or FLASH
Hard Drive	Amber (1)	Front of system controller	ON, OFF or FLASH
Lock engaged indicator	Amber (1)	Front of system controller	OFF

*Note:* The floppy disk drive and hard disk drive lights are on or flashing while the disks are accessed. This is normal. When there is no disk activity, the lights are off.

TABLE 4-2. NORMAL STATE OF THE PRINTER'S VISUAL INDICATORS

<b>Indicator Description</b>	<b>Color (number)</b>	<b>Indicator Location</b>	<b>Normal State</b>
Printer Power status	Green (1)	Front of printer	ON
Paper Status	Red (1)	Front of printer	OFF
Printer Ready	Green (1)	Front of printer	ON

Table 4-3 provides a brief description of the action a field service representative or user should take if the lights on the hardware indicate a potential problem.

TABLE 4-3. VISUAL INSPECTION FAULT ISOLATION

<b>Indicator Showing Fault</b>	User Response
Controller Status	1. Make sure the power cord is plugged into the power outlet and the power switch is turned on.
Floppy Disk Drive	1. If you suspect that the floppy disk drive is bad, insert the customer test diagnostics floppy and test drive. 2. Call a field service representative.
Hard Disk Drive	1. If you suspect that the disk drive is bad, insert the customer diagnostics floppy and test the drive. 2. Call a field service representative.
Lock-Engaged Indicator	1. Insert key and turn lock function "off".

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## **TROUBLE LOCATION AND RESOLUTION ROUTINE**

If a problem arises with the Voice System, perform the Visual Inspection before taking any further action. This should help identify the problem before proceeding with more exhaustive tests.

Trouble Indications are divided into three categories: Administration, Operations, and Call Handling. On the following pages are tables listing actions to try when various indications of trouble are observed. To use the table, find the condition that is best described by the problem listed under TROUBLE INDICATION, then follow the recommendations listed under USER RESPONSE. If the problem is not solved after performing the listed procedures, or if no category exists for the problem you are experiencing, contact a field service representative for assistance.

**ADMINISTRATION**

The following tables may be used to locate and resolve problems that may result during Administration of AVPL R1.1.

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**TABLE 4-4. ADMINISTRATION TROUBLE INDICATORS**

<b>TROUBLE INDICATION</b>	<b>USER RESPONSE</b>
A visual indicator shows a fault.	Perform the Visual Inspection provided in this section and follow the recommendations listed.
A response to a diagnostic command indicates a failure.	Refer to "Configuration Management" in Section 6 of this Guide. The <b>Diagnose Equipment</b> window provides error messages upon completion of a diagnostic procedure. Follow the recommendations of the error message.
The system does not boot into an operational state.	Check to see that the floppy disk drive(s) was empty when the system was rebooted. If this is the case, perform the diagnostics which are provided on the Customer Diagnostics Diskette.
A file system check shows a file system with 0 files, 0 blocks, or 0 free.	Reload the software from backup tape(s).

**TABLE 4-5. ADMINISTRATION TROUBLE INDICATORS-cont'd**

<b>TROUBLE INDICATION</b>	<b>USER RESPONSE</b>
Equipment does not appear in the Voice Equipment list screen.	<ol style="list-style-type: none"> <li>1. Check to see if card is physically present in unit.</li> <li>2. Check option settings for voice equipment display.</li> <li>3. Stop and restart the Voice System.</li> </ol>
Equipment is stuck in the <i>FOOS</i> State.	<ol style="list-style-type: none"> <li>1. Check the phone line connection to the equipment.</li> <li>2. Change the equipment stat to <i>MANOOS</i> and diagnose the equipment. If equipment is defective, replace card, if not, try to restore to the <i>INSERVE state</i>.</li> <li>3. Check the phone line for dial tone by plugging in a telephone handset.</li> </ol>

**TABLE 4-6. ADMINISTRATION TROUBLE INDICATORS-  
CONT'D**

<b>TROUBLE INDICATION</b>	<b>USER RESPONSE</b>
System monitor will not run.	Make sure that the Voice System is started.

**TABLE 4-7. ADMINISTRATION TROUBLE LOCATING  
PROCEDURES -AVPL R1.1**

<b>TROUBLE INDICATION</b>	<b>USER RESPONSE</b>
Message Waiting Lamp will not turn on or off.	Check the PBX administration of the Message Waiting Lamp for that station to verify that it was enabled.

**OPERATIONS**

The following table may be used to locate and resolve problems that may result during System Operations.

**TABLE 4-8. OPERATIONS TROUBLE INDICATORS**

<b>TROUBLE INDICATION</b>	<b>USER RESPONSE</b>
The system is not performing call transfers properly.	<ol style="list-style-type: none"><li>1. Check application package restrictions on call transfers.</li><li>2. Check PBX to see if phone lines are administered for transfer capability.</li></ol>
You get incorrect service for a channel.	<ol style="list-style-type: none"><li>1. Display services assigned to that channel and verify that it is correct.</li><li>2. Verify the phone number for that channel is what the user is dialing.</li><li>3. Check the telephone line connections to see if proper line is connected to that channel.</li><li>4. Check the PBX administration for that channel.</li></ol>

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**CALL HANDLING**

The following table may be used to locate and resolve problems that may result during AVPL R1.1 Call Handling.

**TABLE 4-9. CALL HANDLING TROUBLE LOCATING PROCEDURES - Page 1 of 4**

<b>TROUBLE INDICATION</b>	<b>USER RESPONSE</b>
Calls to guests go unanswered.	Check that room extension has the appropriate coverage path.
Caller hears a ring, but receives no answer.	<p>Verify that the telephone line is properly connected to the channel.</p> <p>Verify that service has been assigned to the channel and that it is in the INSERT state. If it is in the facility-out-of-service (FOOS) state, change it to the manual-out-of-service (MANOOS) state. If the channel is in the diagnose (DIAG) state, change it to the INSERT state.</p> <p>Also, check the PBX administration of that channel.</p> <p>Make sure the phone number for the channel is correct and that the phone number is a member of the hunt group.</p>

**TABLE 4-10. CALL HANDLING TROUBLE LOCATING PROCEDURES - Page 2 of 4**

TROUBLE INDICATION	USER RESPONSE
User hears: <i>‘This call is experiencing technical difficulties.’</i>	<i>The link between the AVPL RI. 1 and the PBX may not be functioning properly. Stop the voice system and restart it. If the problem persists, contact your field representative.</i>
User’s messages appear to be truncated. System terminates recording of message before user is finished.	A portion of the speech in the message being spoken by the user or played back by the system is simulating a touch tone. The false touch tone stops the playback or recording which is in progress.
System prompts for room extension when guests retrieve message from own room.	Room extension is not checked in to AVPL R1.1.
Unable to login to AVPL R1.1 service from the lobby phone.	Make sure that the correct password is being used. Verify that the individual logging in is checked in the system.

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TABLE 4-11. CALL HANDLING TROUBLE LOCATING PROCEDURES - Page 3 of 4

TROUBLE INDICATION	USER RESPONSE
Unable to leave messages.	Check to see if there is space available in the user's mailbox. If not have the user clean up the mailbox. Verify that there is space available on the disk. Use the Message Space Usage Report Purge old mailboxes, if necessary, if the speech Filesystem is full.
Busy signals received when attempting to call into the AVPL R 1.1 service.	Maintenance is in the process of diagnosing equipment. Please wait.
Line is busy during message retrieval.	All channels are currently in use. Try again later.
Fast busy signals received when attempting to call into the AVPL R 1.1 service.	Stop the voice system and restart it. If the problem persists, contact your field representative.

**TABLE 4-12. CALL HANDLING TROUBLE LOCATING PROCEDURES - Page 4 of 4**

TROUBLE INDICATION	USER RESPONSE
<p>AVPL R1.1 application goes down.</p>	<p>When you backup AVPL R1.1, do checkins and checkouts that occurred while AVPL R 1.1 was down before users can access their mailboxes. Make all lodging channels MANOOS until updates are complete. Then make channels INSERTV.</p>
<p>User hears, <i>“There is no one available to receive your call”</i> when requesting to transfer to the attendant.</p>	<p>Be sure the System Parameter Administration field “<i>Hunt Group</i>” is administered properly. The PBX should be administered so that this number is a hunt group with a queue, so that more than one caller can transfer at the same time.</p>

## **LINK TROUBLE**

For information regarding link trouble refer to the specific switch integration documentation package you are using. For example, if AVPL R 1.1 is associated with NEACS, then the NEACS switch integration package would be referenced for more detail.

## MAINTENANCE OVERVIEW

Standard maintenance activities should be performed periodically to keep the AUDIX Voice Power Lodging R1.1 system running efficiently. In general, customers should do the following:

- Back up administrative and data files (detailed in this section).
- Clean the floppy disk drive.
- Clean the tape drive (if installed).

## BACKING UP ADMINISTRATIVE FILES

In case of system failure, it is necessary to back up your administrative files. This section describes the backup procedure used with AUDIX Voice Lodging (AVPL) R 1.1 software.

The selective personal backup is used to back up administrative files for AVPL R1.1.

Follow these steps:

1. Log in to the system as *root*.
2. At the # prompt, type *face* and press "Enter"  
The **AT&T FACE** menu appears.
3. At the **AT&T FACE** menu, move the cursor to **System Administration** and press "Enter"  
The **System Administration** menu appears.
4. At the **System Administration** menu, move the cursor to **Backup to Removable Media** and press "Enter"  
The **Backup to Removable Media** menu appears.
5. At the **Backup to Removable Media** menu, move the cursor to **Personal Backup** and press "Enter"  
The **Personal Backup** menu appears.
6. At the **Personal Backup** menu, move the cursor to. **Selective Backup of Files Under/** and press "Enter"

If you have more than one floppy disk drive, or if you have a cartridge tape drive, the **Select Removable Medium** menu appears. Make your choice and press "Enter"

The **Selective Backup of Files Under/** screen appears.

7. Enter the names of the following directories. Separate the names with a space.  
/ usr/ ldgb / ldg / data / gendb
8. Press "F3" (SAVE).  
The system calculates the number of diskettes required and the amount of time the backup will take.
9. When prompted, insert the first formatted diskette, or if you have a tape drive installed, insert the tape cartridge and press "Enter"  
The backup begins.
10. When the backup is complete, remove the last diskette or the tape cartridge and press "Enter"  
The system returns to the Backup to Removable Media menu.
11. Press "F6" (CANCEL) repeatedly to return to the AT&T FACE menu.
12. At the AT&T FACE menu, move the cursor to Exit and press "Enter" to return to the Console Login prompt.

## BACKING UP SPEECH FILES

The selective speech backup is used to backup the speech files. Follow these steps:

1. Log in to the system as *root*.

2. At the # prompt, type **face** and press "Enter"

The **AT&T FACE** menu appears.

3. At the **AT&T FACE** menu, move the cursor to **System Administration** and press "Enter"

The **System Administration** menu appears.

4. At the **System Administration** menu, move the cursor to **Backup to Removable Media** and press "Enter"

The **Backup to Removable Media** menu appears.

5. At the **Backup to Removable Media** menu, move the cursor to **Speech Backup** and press "Enter"

The **Speech Backup** menu appears.

6. At the **Speech Backup** menu, move the cursor to **Selective Backup of Talkfiles/Phrases** and press "Enter"

The **Selective Backup of Speech Files** screen appears.

7. Enter the following names. The exact format to use is:

**talkfile 101 phrase all**

8. Press "F3" (SAVE).

If you have more than one floppy diskette drive, or if you have a cartridge tape drive, the **Select Removable Medium** menu appears. Make your choice and press "Enter"

The system calculates the number of diskettes required and the amount of time the backup will take.

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9. When prompted, insert the first formatted diskette, or if you have a tape drive installed, insert the tape cartridge, and press "Enter"  
The backup begins.
10. When the backup is complete, remove the last diskette or the cartridge tape and press "Enter"  
The system returns to the **Speech Backup** menu.
11. Press "F6" (CANCEL) repeatedly to return to the **AT&T FACE** menu.
12. At the **AT&T FACE** menu, move the cursor to **Exit** and press "Enter" to return to the Console Login prompt.

## RECOVERY FROM SYSTEM FAILURES

You may be responsible for recovering the system born cartridge tapes or diskettes after a system failure at the customer site.

Before you can recover the system after a crash, you must first determine what caused the crash to occur and then try to fix the problem.

There are three possible problems that might have occurred:

- Hard disk failure
- Motherboard failure
- Data corruption

Refer to *AVPL System Manager's Reference Guide*, 585-310-515, to determine what the problem is and how to resolve it. The remainder of this chapter explains how to recover system administrative and voice files after hard disk failure or data corruption.

*NOTE:* If the customer has a tape drive, it should be used for recovery. Recovery from diskette is much slower and should be used only if tape is not available.

## **Recovery from Hard Disk Crash**

If you are recovering the system from a hard disk crash, you must:

1. Replace the hard disk. Refer to the appropriate *AT&T WGS Service Manual* for this information. .
2. Reinstall the software. Refer to Chapter 3, *Software Installation*.
3. Restore system administrative and voice files from backup (if available). If backup files are not available, you must restart the system from scratch. See the *AT&T AUDIX Voice Power System Manager's Guide* for initial implementation procedures.

## **Recovering from Motherboard Failure**

If you are recovering from motherboard failure, you must replace the motherboard. It is not necessary to restore the files.

## **Recovering from Data Corruption**

If you are recovering the system from data corruption, you must restore system administrative and voice files from backup (if available). If backup files are not available, you must restart the system from scratch. See the *AT&T AUDIX Voice Power System Manager's Guide* for initial implementation procedures.

In more severe cases, you may have to use the hard disk recovery procedure.

## MATERIAL REQUIRED

You will need the following materials to recover the administrative and voice files after a hard disk crash.

- System administrative files backup diskettes or tape
- Voice files backup diskettes or tape

## RESTORING FILES ON ALL OTHER SYSTEMS

If the hard disk crashes, or if your disk data becomes corrupted, you must restore all or part of your system. You may only restore what you have previously backed up. It is therefore wise to back up the administrative and voice files according to the instructions given in the *AT&T AUDIX Voice Power System Manager's Guide*.

If you are recovering from a hard disk failure, follow these steps:

1. Reinstall the software and application files as described in Chapter 3, *Software Installation*.
2. The voice system will start automatically when the system is rebooted.
3. Restore all AUDIX Voice Power files containing administrative information using the *Restoring Administrative Files* procedure later in this chapter.
4. Restore all talk files and phrases using the *Restoring Speech Files* procedure later in this chapter.
5. Reset the Voice System using the following procedure:
  - a. Log in as the system administrator.
  - b. At the User Login menu, move the cursor to **Voice System Administration** and press "Enter"

The **Voice System Administration** menu appears.

- c. At the **Voice System Administration** menu, move the cursor to **Configuration Management** and press "Enter"

The **Configuration Management** menu appears.

- d. At the **Configuration Management** menu, move the cursor to **System Control** and press "Enter"

The **System Control** menu appears.

- e. At the **System Control** menu, move the cursor to **Stop Voice System** and press "Enter"

The voice system will stop.

- f. At the **System Control** menu, move the cursor to **Start Voice System** and press "Enter"

The voice system will start.

- g. Press "F8" (CANCEL) repeatedly to return to the **User Login** menu.

- h. At the **User Login** menu, move the cursor to **Exit** and press "Enter", then [F3] continue to return to the **Console Login prompt**.

## Restoring Administrative Files

The voice system should be running before restoring files. Both the administrative files and the speech files must be restored together. You cannot restore the system without both.

To restore the administrative files, follow these steps:

1. At the **Console Logging:** prompt log in as *root*.

2. At the # prompt type **face** press "Enter"

The **AT&T FACE** menu appears.

3. At the **AT&T FACE** menu, move the cursor to **System Administration** and press "Enter"

The **System Administration** menu appears.

4. At the **System Administration** menu, move the cursor to **Restore from Removable Media** and press "Enter"

The **Restore from Removable Media** menu appears.

5. At the **Restore from Removable Media** menu, move the cursor to **Personal Restore** and press "Enter"

The **Personal Restore** menu appears.

6. On the **Personal Restore** menu, move the cursor to **Restore Files** and press "Enter"

If you have more than one floppy diskette drive or a cartridge tape drive, the **Select Removable Media** menu appears. Make your choice and press "Enter"

The **Disk Restore** form appears asking if existing files on disk should be overwritten with files being restored.

7. Type y.
8. Press "F3" (SAVE).

A restore conflation message appears telling you to insert the diskette or tape containing the files that you want to restore.

9. Insert the diskette or tape and press "Enter"

After the restore starts, the following message displays:

**Restore in progress.**

10. When the system informs you that it has completed the restore, remove the cartridge tape or the last diskette and press "Enter"
11. Restore the speech files.

### RESTORING SPEECH FILES:

1. At the **Restore from Removable Media** menu, move the cursor to **Speech Restore** and press "Enter"

The **Speech Restore** menu appears.

2. At the **Speech Restore** menu, move the cursor to **Restore All Talkfiles and Phrases** and press "Enter"

If you have more than one floppy disk drive or a cartridge tape drive, the **Select Removable Media** menu appears. Make your choice and press "Enter"

A restore confirmation message appears telling you to insert the diskette or tape containing files you want to restore.

3. Insert the diskette or tape and press "Enter"

After the restore starts, the following message displays:

**Restoring speech.**

4. When the system informs you that it has completed the restore, remove cartridge tape or the last diskette and press "Enter"
5. Press "F6" (CANCEL) repeatedly to return to the **AT&T FACE** menu.
6. At the **AT&T FACE** menu, move the cursor to **Exit** and press "Enter" to return to the **Console Login** prompt.

### CLEANING THE FLOPPY DISK DRIVE

The floppy drive should be cleaned every six months. Visually inspect the equipment to help prevent equipment failures.

If frequent data backups are performed, you may need to clean the floppy disk drive. Also, clean the disk drive when any of the conditions are true:

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- the system has been in use 100 hours with the indicator light on.
- a floppy disk with magnetic oxide residue is removed.
- whenever you experience read or write errors when using the floppy disk drive.

A special floppy disk that cleans floppy disk drives is available wherever computer supplies are sold.

Use the following procedure to clean the system controller's floppy disk heads:

1. Read the instructions provided with the cleaning disk to determine the number of times it maybe used before you should discard it
2. Select a cleaning disk that has not exceeded the recommended number of uses and place it in the floppy drive.
3. "Mount" the floppy drive with the following command:

**`/etc/mount/dev/dsk/f0q15d/mnt`**

This causes the floppy drive to try to read from the disk continuously for about 10 seconds. This should cause the cleaning disk to rub off any contaminants that may have accumulated on the head.

4. Write the service date on the cleaning disk jacket. Remove the cleaning disk horn the floppy drive and place it in the jacket for storage.

## CLEANING THE TAPE DRIVE

Periodic cleaning of the head assembly is the only preventive maintenance required on the cartridge tape drive. It should be cleaned after every 24 hours of actual taper operation, or when tape errors are reported. When a new tape is used, it should be cleaned after the first two hours of use.

Since the cartridge tape drive is used primarily as a backup device, the cleaning schedule should be based on the amount of time the tape drive is used during backup and how often backup is performed.

A special tape cartridge that cleans the tape drive is available wherever computer supplies are sold.