AUDIX Voice Power Lodging R1.0 Installation Handbook

AT&T
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Issue 1, Version 1
September 1990

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INTRODUCTION

The AUDIX Voice Power Lodging Installation Handbook includes procedures for installing the AUDIX Voice Power Lodging (AVPL) product Technical personnel at customer sites and AT&T Technicians should use this manual as a guide for system installation.

Important: This guide replaces any other documentation that you may have received with the Integrated Voice Power (IVP4) board. It includes all information necessary for installing the AVPL product.

There are three general steps in the process which makes AVPL a working system:

1. Installing the hardware

2. Installing the software

3. Performing AVPL administration tasks.

This manual details Steps 1 and 2, installing the hardware and software. These steps are typically done by AT&T technical personnel. When the steps in the guide are complete, the AVPL hardware and software are in place, but the system is not operational.

The third step, AVPL administration, makes the system operational. This step is typically done by the customer, perhaps with the help of AT&T technical persomel. The *AUDIX Voice Power Lodging System Manager's Handbook (585-3 10-5 15)* details the administrative tasks.

ABOUT THIS GUIDE

This guide is divided into the following sections:

- **Section 1- Introduction**

  This section contains an explanation of the contents of this manual.

- **Section 2- Component Checklist**

  This section provides a checklist of hardware and software provided with AVPL.

- **Section 3- Installing Hardware**

  This section explains the procedures for setting up a 6386 Work Group Station (WGS) processor to support AVPL. This process includes installing circuit board hardware and connecting to the switch.

- **Section 4- Installing Software**

  This section explains the procedures for installing all software necessary for the proper operation of the AVPL.

- **Section 5- Completing Installation**

  This section explains the steps the customer should take next in regards to completing system setup.

- **Section 6- Removing Software**

  This section explains the procedures to follow for removing software.

- **Appendix A - Installing a Second Hard Disk**

  This section details how to add a second hard disk of equal size to your AVPL system.

- **Appendix B - Installing an IPC Card**

  This section details how to add an IPC Card to your AVPL system.

- **Appendix C - Installing Modems**

  This section contains information on adding a modem your AVPL system.

- **Appendix D - Troubleshooting**

  This section explains how to test your system for proper operation after ail the hardware and software has been installed, or if you suspect problems.

- **I n d e x**

RELATED DOCUMENTS

For more about administering and using AVPL, refer to the *AUDIX Voice Power Lodging System Manager's Handbook (585-3 10-5 15) and the AUDIX Voice Power Lodging System Manager's Reference Guide (585-310-516).*

CO-RESIDENCY WITH OTHER AUDIX VOICE POWER PACKAGES

AVPL can co-reside on your hardware with other AUDIX Voice Power packages. Ask your AT&T representative for more information on:

- AUDIX Voice Power (Generics 1.1 and 2.0)

- AUDIX Voice Power Stand-Alone Automated Attendant.

Other AUDIX Voice Power packages will be available in the future to meet all your voice mail needs.

IF YOU NEED ASSISTANCE

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

COMPONENT CHECKLIST 2

COMPONENT CHECKLIST

Before you begin to install AUDIX Voice Power Lodging (AVPL), make sure that you have the following hardware equipment and software.

Hardware

- AT&T 6386 Work Group System (WGS) with 8 megabytes of RAM.

- Integrated Voice Power (IVP4) Board (l-4 boards)

- GPSC-AT Card kit (Synchronous Card for X.25 software)

- Processor Interface Card, TN765 (for the AT&T System 75 Private Branch Exchange) System 75 IMPLEMENTATION MANUAL

- 884A Adaptor (one for each IVP4 board)

- Modem - asynchronous (installation detailed in Appendix C)

- IPC Card (optional) - for multi-port support (installation detailed in Appendix B).

Additionally, you can add a printer and/or a remote terminal to the AVPL system. Speak with your AT&T representative for equipment recommendations and follow standard peripheral information for installation.

Software

Set includes:

— Base System Package

— FMLI Package

— FACE Package

— FACE HELP Package

— Editing Package

— Remote Terminal Package

• X.25 Network Interface Software Version 1.2 SL 1.51.1.3

• Integrated Voice Power S ystem Software, Release 1.1

• AUDIX Voice Power Lodging Software, Release 1.0.

If You Need Assistance

If you have questions or need technical assistance, contact the AT&T

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* Registered trademark of UNIX System Laboratories, Inc.

This is a correction to the X25/GPSC card compatibility chart. The
only change was made to AVP R1.1 for X25 R1.2.1 for the AT/E card.
Please discard the first email you received.

The attached sheet is a compatibility chart for the
combinations of GPSC card, X25 software, and AVPL software
releases. This is particularly important for AVPL R1.O
upgrades to 1.1. One Marriott site received this upgrade free
of charge to resolve MWL problems with suites. So, expect to
see this upgrade often in the future.

There are several important things to remember in an AVPL R1.O
to 1.1 upgrade:

1) No new X.25 software is shipped with the upgrade. Since
   most AVPL R1.O sites have X25 R1.0, this is the software that
   will be used. This software will work for AVPL R1.1 without
   changing jumper settings on the GPSC AT card.

2) The Switch Communication Interface (SCI) R1.O Update #1
   for AVPL R1.1 will not work with X25 R1.O. Bell Labs
   will resolve this problem so the update will work properly.
   For the time being, do not load the update. If you do load
   the update, DIP 28 will not exist and the link will never come up.

3) If X25 R1.2.1 is loaded during an upgrade, jumpers must be
   set on the GPSC AT card.

AVPL/GPSC card/X.25 COMPATIBILITY CHART

AVPL R1.1:

	AT card	AT/E card
X.25 R1.0**	II Yes (JBZ A JB3 unjumpered) ||	not compatible ||
X.25 R1.2	II Yes (JB2 & JB3 unjumpered) ||	not compatible ||
X.25 Rlo2.1	1] Yes (JB2 & JB3 jumpered) ||	yes (pg 3-4) ||

AVPL R1.0:

	AT card	AT/E card
X.25 R1.0**	II yes (JB2 G JB3 unjumpered) ||	not compatible ||

```
X.25 R1.2     ||  yes (JB2 & JB3 unjumpered)           not compatible  ||
              ===============================================================
X.25 R1.2.1   ||      ? ? ? ? ? ? ? ? ? ?               ??????????      ||
              ===============================================================
```

** SCI update #1 will not currently work with X25 R1.O. Bell Labs
   is working to correct the update.

NOTE: According to Jeff Johnson, X.25 R1.O and X.25 R1.2 are exactly the
      same except for the name.

This file in /tools/avp/lib/goodies/x25.gpsc.chart

                                     revised 1/3/94 lpm aat

OVERVIEW

The AUDIX Voice Power Lodging (AVPL) package runs on an AT&T 6386 Work Group Station (WGS). AVPL may operate independently or may co-reside with other AUDIX Voice Power software packages.

AVPL requires the following hardw~e:

- Integrated Voice Power (IVP4) Board (14 boards)
- GPSC-AT Card kit (Synchronous Card for X.25 software)
- Processor Interface Card, TN765 (for the AT&T System 75 Private Branch Exchange)
- 884A Adaptor (one for each IVP4 board)
- Modular Processor Data Module (MPDM) (optional).

This section describes the nine steps necessary to install hardware for AVPL:

1. Verify hard disk size.
2. Change the values for base memory.
3. Remove cover and prepare slots for board installation.
4. Add additional memory to the 6386 WGS (if necessary).
5. Install the General Purpose S ynchronous Controller (GPSC-AT) Card for X.25.
6. Configure and install the IVP4 board(s).

7.   Replace cover.

8.   Make system connections to switch, either directly or via an MPDM.

9.   Connect telephone lines to the IVP4 boards.

VERIFY HARD DISK SIZE

Before beginning the hardware and software installation, the size of the hard disk installed in the 6386 WGS should be verified using the following procedure.

1. Insert the "Customer Diagnostics" or "Customer Test" floppy disk into the drive.

2. Press **<Reset>.**

3. Select "Setup Utility" and determine the type of hard disk installed.

4. Use Table 3-1 to match the hard disk type with the size in megabytes.

5. Record and keep the number. You will need it when installing the UNIX* Operating System and allocating cylinders. For example, a drive type 25 with 135 MB has 1021 cylinders.

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* Registered trademark of UNIX System Laboratories, Inc.

TABLE 3-1. HARD DISK DRIVE TABLE

Drive Type	Cyl	MBS
12	1024	68
13	925	69
24	820	136
25	1021	135*
27	823	68
31	814	304*
32	977	81
48	1021	84*
49	0	0**

* AT&T Drive Types
** User Definable Hardware Drive Type

CHANGE VALUES FOR BASE MEMORY

If the system base memory configuration is not set to 512K, it must be changed via the 386 Customer Diagnostic Package. System base memory size may be observed while the system is booting up; the value is the third non-blank line printed during the boot-up process. Legitimate values for base memory are 384K, 512K, and 640K, and 640K is the default.

Use the following procedure to change base memory value:

1. If the system currently is running, shut it down via the "shutdown --gO-y" command. This takes about one minute, and ends with the "Reboot the system now" display.

2. At this point (or if the system was already down), insert the Customer Diagnostic Floppy (also known as the setup disk) into the floppy drive.

3. Press **ALT-CTRL-DEL** simultaneously or turn on the power, whichever is appropriate.

4. When the Diagnostic Software is loaded, it displays a picture of a **PC** with instructions to "Press Enter to Continue"

5. When **<Enter>** is pressed, a menu appears. Using the down arrow key, select the "Setup Utility" option. A new screen containing several parameters will be displayed.

6. Select the "Base Memory Size" option. Press **<Enter>** to select the base memory value Held.

7. Using the arrow keys, select the "512K" option, then press **<Enter>.**

   Press **<Esc>** to continue to the next page.

8. Select the "Base Memory" option and press **<Enter>.**

 9. Using the arrow key, select the "Above 512K <DISABLED>"
     option, then press **<Enter>.**

10. Press **<ESc>** to return to the main menu.

11. Remove the floppy disk.

12. Press **<Esc>**   to reboot the system.

     The system should go through the reboot sequence, this time with
     Base Memory shown as 512K.

REMOVE COVER AND PREPARE SLOTS FOR BOARD INSTALLATION

Use the following procedure to remove the 6386 WGS main unit cover.

Note: The illustrations in this handbook pertain to the 6386 WGS (desktop). Refer to the model's installation manual for more specific information.

1. Remove the top equipment cover of the 6386 WGS'S main unit by unscrewing the captive screws on the main unit's rear cover with a flat blade screw driver until they are loose.

2. Standing in front of the unit, firmly slide the top cover approximately 0.5 inch toward you (Figure 3-1). The cover is designed to fit tightly so it may take some effort to slide it out of its normal position.

3. Remove the cover by keeping your hands on the sides of the cover and tilting it so that the rear section is higher than the base. Now lift the cover from the base and set it aside.
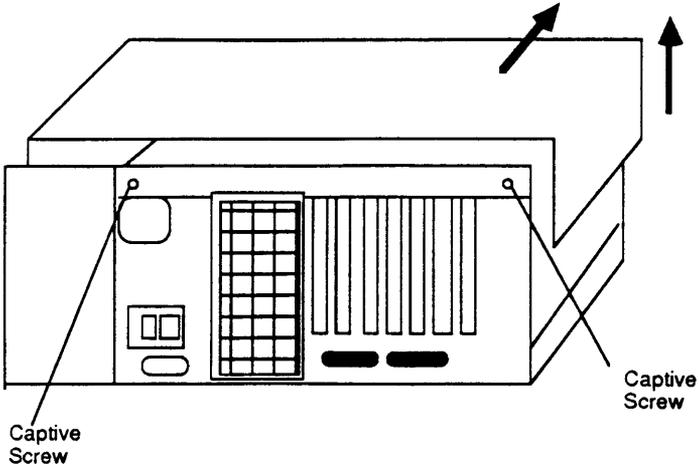
Figure 3-1. Removing the Main Unit's Top Cover

Now prepare the slots for installation of the tm.rds

1. Remove the screw from the metal cover of the expansion slot that you selected. Set the screw aside to use later (Figure 3-2).

2. Remove the expansion slot cover by sliding it up.

3. Break and discard the plastic cover protecting the slot if it has not already been removed.

You are now ready to add voice power boards to the system.

TABLE 3-2. CARD/EXPANSION SLOT TYPES

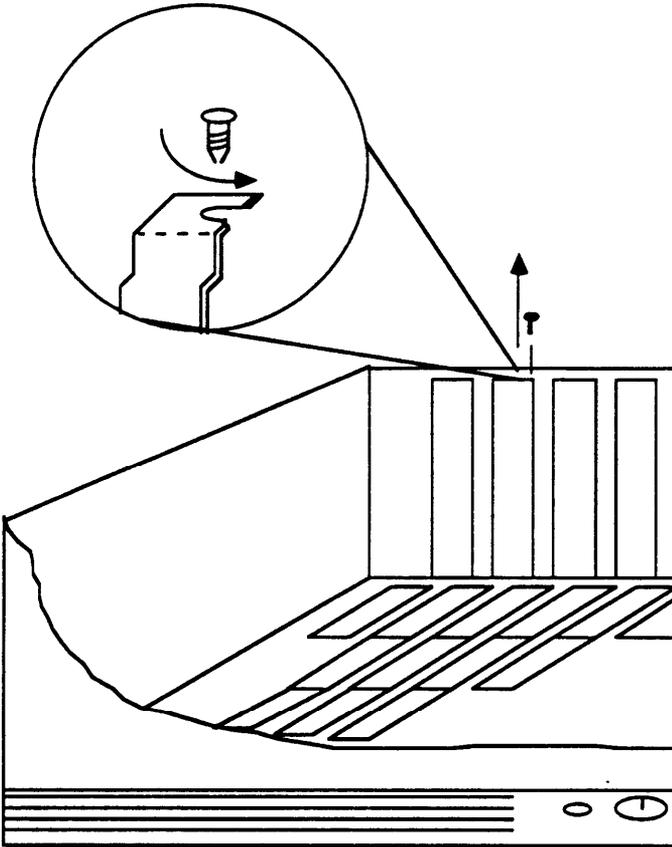| Board	Slot Type
IVP4	8-bit 16-bit 32-bit
GPSC	16-bit 32-bit
PC	16-bit 32-bit
Add. Mem Cards	32-bit

Figure 3-2. Removing a Bracket-Retaining Screw

ADD ADDITIONAL MEMORY TO THE 6386 WGS

The AT&T 6386 WGS must have 8 Megabytes (MB) of RAM for the AVPL system to operate.

The AT&T 6386 WGS is available in five models:

- 6386 WGS (desktop)
- 6386E WGS (floor model)
- 6386/25 WGS
- 6386/33 WGS
- 6386/SX WGS.

For the 6386 and 6386E models, you need to add one or two cards to bring the machine to 8 MB. Configure the memory using the following information.

For one card:

TABLE 3-3. MEMORY BOARD CONFIGURATIONS

Module Density	Number of Banks	Number of Modules	Total Memory
1 MB x 1	2	8	8 MB

For two cards:

TABLE 3-4. MEMORY BOARD CONFIGURATIONS

Module Density	Number of Banks	Number of Modules	Total Memory
256 kb x 1	4	16	4 MB*

* If you use 256 KB SIMM Strips, you must have two boards configured in this manner.

For the models 6386/25, 6386/33, and 6386/SX WGS, no additional cards are needed. Use the following information to configure to 8 MB.

TABLE 3-5. MEMORY BOARD CONFIGURATIONS

Module Density	Number of Banks	Number of Modules	Total Memory
1 MB x 1	2	8	8 MB

Figure 3-3 shows an example of a memory card bank.
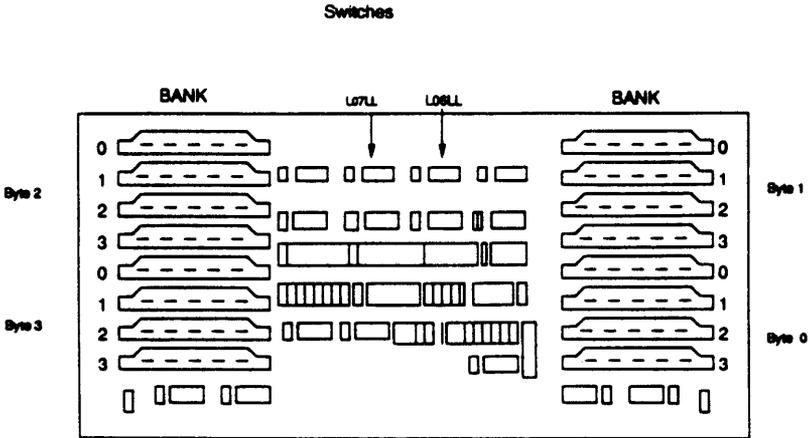

Figure 3-3. Memory Card Bank Example

When adding memory to the 6386 WGS or the 6386E WGS using the
256K SIMM strips, 4 MB of RAM fully populates the memory
controller card banks.

Tables 3-6 and 3-7 detail the physical placement of the SIMM Strips
and the configuration of the switch setting on the Memory Board.

Table 3-6 shows the memory board switch settings for 256 KB SIMM
strips.

**TABLE 3-6. CONFIGURATION SWITCHES (256 KB SIMM
STRIPS)**

Memory Board Switch Settings (256 KB SIMM strips)		Switch L07LL		Switch L06LL	
Board Number	Board Memory Capacity	1234	5678	1234	5678
1	4 MB	0000	0000	0011	0000
2	4 MB	0000	0000	0111	0100

0 = ON   1 = OFF

Table 3-7 shows the memory board switch settings for 1 MB SIMM Strips.

TABLE 3-7. CONFIGURATION SWITCHES (1 MB SIMM STRIPS)

Memory Board Switch Settings (1 MB SIMM strips)					
		Switch L07LL		Switch L06LL	
Board Number	Board Memory Capacity	1234	5678	1234	5678
	16 MB	0000	0000	1111	0000

0 = ON 1 = OFF

INSTALL GPSC-AT CARD

The GPSC-AT Card is used for synchronous protocol communication. Port 1 (called JO) of the 4-connector cable will use X.25 protocol to interface with the switch. This card is also refered to in AVPL documentation as X.25 and Switch Communications Interface (SCI).

Install the GPSC Card using instructions found in the *General Purpose Synchronous Controller for the AT&T 6386 WGS System User's Manual. See* detailed information on Shared Memory Size Settings (641U3), Shared Memory Address Settings (9FFFFh), 1/0 Address Settings (240h), and Interrupt Request Line Settings (IRQ1O). For additional information, refere to (pg ? software). These hardware settings must match those set on software. The GPSC Card must be installed in an 16- or 32-bit slot.

CONFIGURE AND INSTALL IVP4 BOARDS

Configure the IVP4 Boards

Before you begin installation of the IVP4 Board(s) you must perform the following tasks: setting the dip switches and setting the 110 addresses.

Setting Dipswifches

Most AVPL sites will have four IVP4 boards. Your system may be shipped with the IVP4 boards installed. If you need to add IVP4 boards to the system, the IVP4 boards must be configured before they are installed.

Each IVP4 board has two banks of switches. The location of the switches is shown in Fig 34.
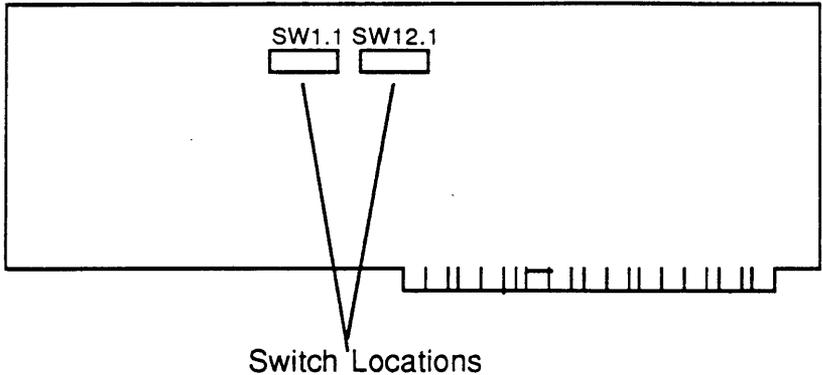
Figure 3-4. IVP4 Circuit Board Switch Locations

Identifying the WP4 Board Configuration

There are three versions of the IVP4 board that differ only in the type of switches used. To properly set the switches, you must identify which ~ configuration is used on the board.

Configuration of New Boards

If your IVP4 board is new and is still packed in the factory box, *take note of the type of switch and the factory switch settings.* The board is shipped from the factory with the switches correctly set for use as board 1. If the board has rocker switches, it is always configuration A as shown in Figure 3-5. If the board has slide switches, it will have one of

the configurations (B or C) shown in Figure 3-5. *Murk /he board with a small label to indicate whether configuration A, B, or C is used. H* you do not mark the board, it may be difficult to determine the correct configuration for future changes.
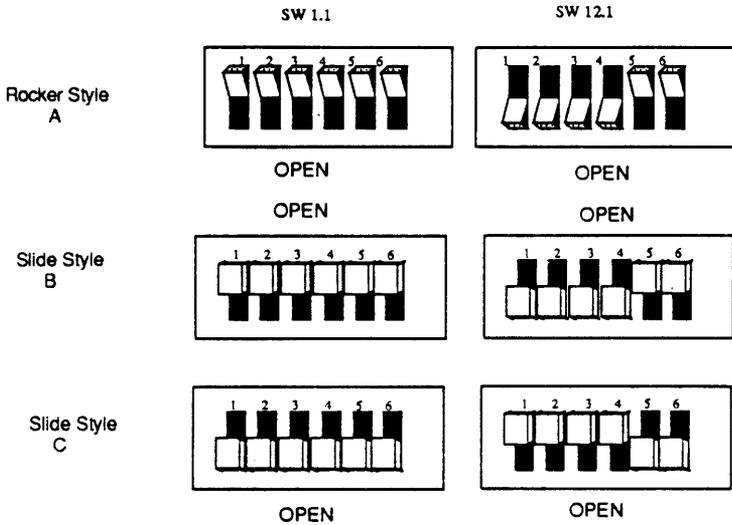

Figure 3-5. Factory Switch Configurations

Configuration of Previously Installed Boards

For boards which are already in use, examine the second bank of switches (SW12.1):

- If the board has rocker switches, the configuration is A.

- If the board has slide switches that are marked OPEN on the top or bottom (or on the side with an arrow toward the top or bottom), the configuration is B (top) or C (bottom) respectively.

- If the board has unmarked slide switches, the setting of the second switch (S W12. 1) should comspond to one of the settings shown in Figure 3-7. Use the configuration letter at the top of the column in which the match is found.

- If you are unable to determine the comet configuration by examining the switch settings, you will have to test the board as described later in this section to determine the correct configuration.

Mark the board with the corresponding configuration letter (A, B, or C) for reference in re-setting the switches.

Setting Switch SW!. 1

The first switch (SW1. 1) controls the line impedance. The settings should all be set to the OPEN position initially (as shown in Figure 3-6 for each configuration). If problems are encountered with touch tone recognition, change all of the switches on the fust bank (SW 1. 1) to the opposite (closed) position.

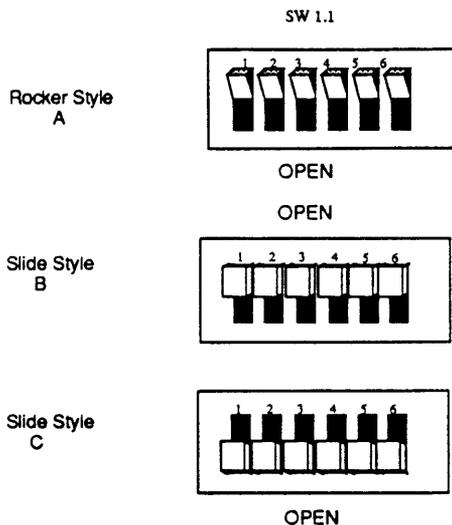**Figure 3-6. Settings for SW1.1**

Setting Switch SW12. 1

The second switch (SW 12. 1) sets the board address. Figure 3-7 shows the correct settings for up to four boards in each of the three configurations.
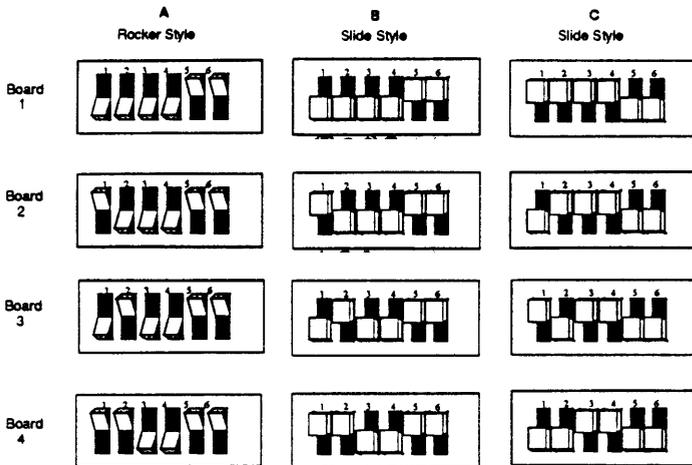
Figure 3-7. Settings for SW12.1

Setting the 1/0 Addresses

Each IVP4 board in a system requires a unique 1/0 addresses. The following table should be used to set your board(s) 1/0 addresses. The system has a maximum of 16 channels with 4 IVP4 Boards.

TABLE 3-8. I/O ADDRESSES FOR THE IVP4 BOARD SW 12.1

I/O ADDRESSES FOR THE IVP4 BOARD SW 12.1					
POS1	POS2	POS3	POS4	I/O ADDRESSES	BOARD #
0	0	0	0	0x100 - 0x11F	1
1	0	0	0	0x200 - 0x21F	2
0	1	0	0	0x300 - 0x31F	3
1	1	0	0	0x400 - 0x41F	4

0 = CLOSED (UP)
1 = OPEN (DOWN)

Any other binary combinations are not necessary.

WGS Expansion Slots

The AT&T 6386 WGS is available in five models:

- 6386 WGS (desktop)

- 6386E WGS (floor model)

- 6386/25 WGS

- 6386/33 WGS

- 6386/SX WGS.

The 6386 WGS has seven expansion slots. One slot is used by the video display controller, one by the hard disk controller, and one or two by the memory expansion board (you may need two boards to obtain the necessary 8 MG). This leaves three or four expansion slots available for other applications.

For each model, three types of slots are available in the the main slotted board at the bottom of the unit (often refered to as the "mother board"):

- 8-bit

- 16-bit

- 32-bit.

Some expansion boards, such as the memory board, may require a 16- or 32-bit slot. For this reason, the IVP4 board should be installed in an 8-bit slot. This may prevent reconfiguration problems in future installations. While it is recommended that IVP4 boards be installed in 8-bit slots, they will work in 16- or 32-bit slots as well.

Install the IVP4 Board

Before installing an IVP4 board, do the following:

- Stop any programs in progress.

- Shut the system down.

- Turn off the power to the computer.

- Turn off all peripherals connected to the computer.

- Unplug the computer's power cord from the electrical outlet.

  WARNING: Failure to disconnect the power cord and phone cables may damage the computer or cause personal injury.

- Disconnect any phone cables from previously installed Voice Power boards.

Remove the top cover of the 6386 WGS to access the expansion slots as detailed on page 3-7. Perform the following procedure for each IVP4 board that you want to install.

1. Locate an available expansion slot for the IVP4 board. If there are other boards inside the unit, you might need to remove them to install the IVP4 board. As mentioned earlier in this section, you might want to consider using an available 8-bit expansion slot for the IVP4 board.

2. Hold the IVP4 board by its top comer edges and lower it into the expansion slot. Do not try to insert it through the back of the unit. Place the IVP4 board so the electrical contacts are aligned with the receptacle in the expansion slot.

3. Press down on the top edge of the IVP4 board until you feel and hear it fit into place. The IVP4 board is in place when the metal faceplate on the end of the board is flush with the frame of the computer.

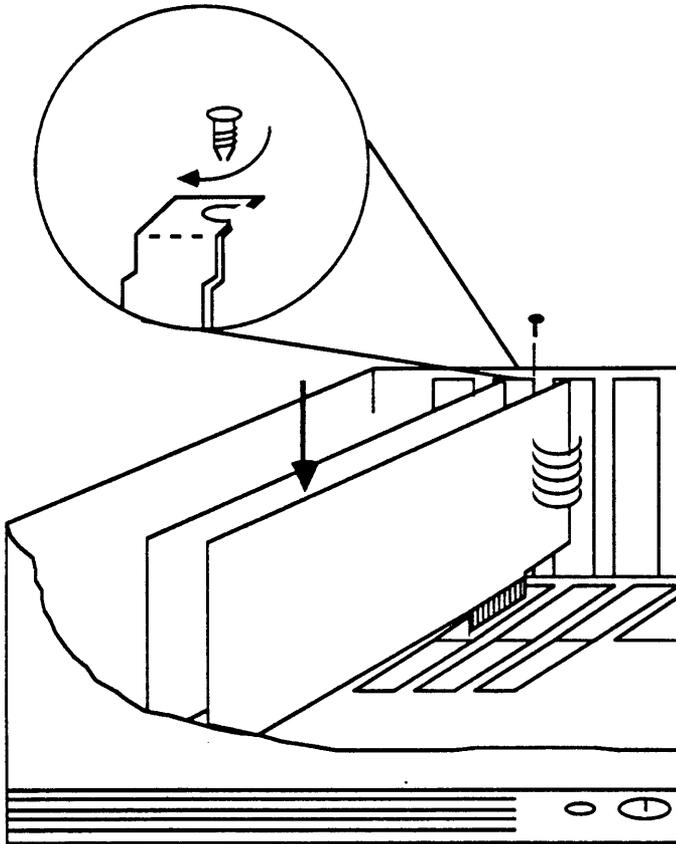4. Fasten down the IVP4 board using the screw you set aside when you took off the metal expansion slot cover.

Figure 3-8. Inserting IVP4 Board

REPLACE COVER

Replace the cover as follows:

1. Install the bracket retaining screw (that you removed in the
    procedure shown on page 3-9) to secure the brackets to the rear of
    the controller's chassis.

2. Replace the main unit's cover by carefully sliding it from the
    front of the main unit until it presses securely against the rear
    cover.

    Begin with the front of the cover is slightly higher than the rear.
    Slide the cover towards the back of the main unit until it is almost
    to the rear cover, then lower the front of the cover, pressing
    gently, until it fits securely in place.

3. Tighten the cover mounting screws.

SCI CONNECIION

The Switch Communications Interface can be set up in two ways: through the Processor Interface (PI) port on the switch (if free), or using a Modular Processor Data Module (MPDM).

Both of these connections are provided for you in the following figures. You may wish to write in the extensions that have been assigned from the switch to keep as a record.

Figure 3-9 shows a connection through the PI port on the switch.
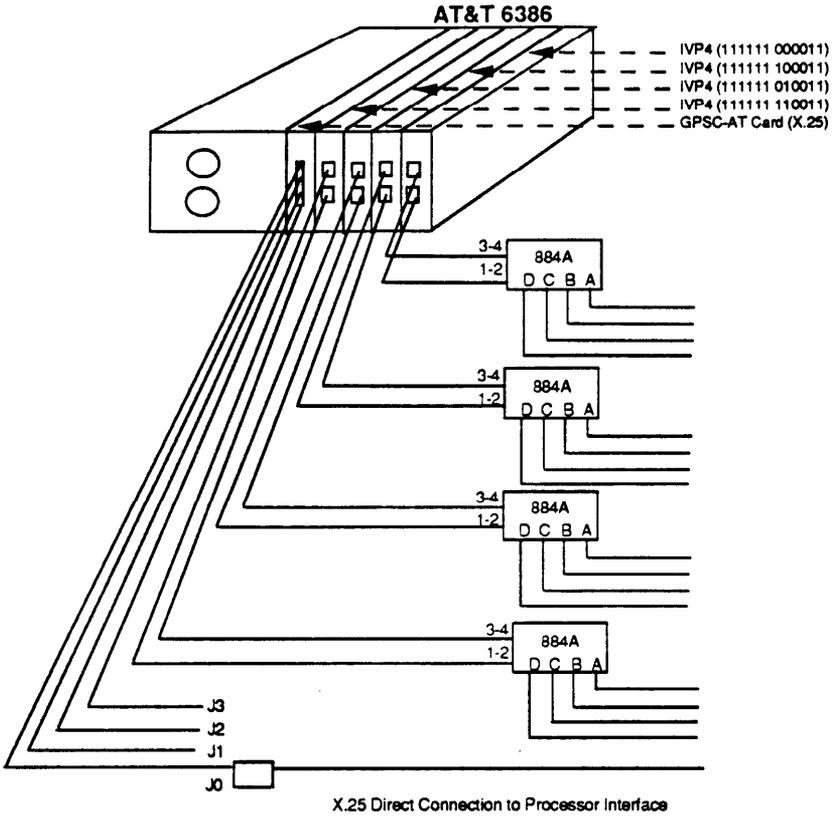
Figure 3-9. X.25 Direct Connections to PI Port

Figure 3-10 shows a connection using an MPDM.
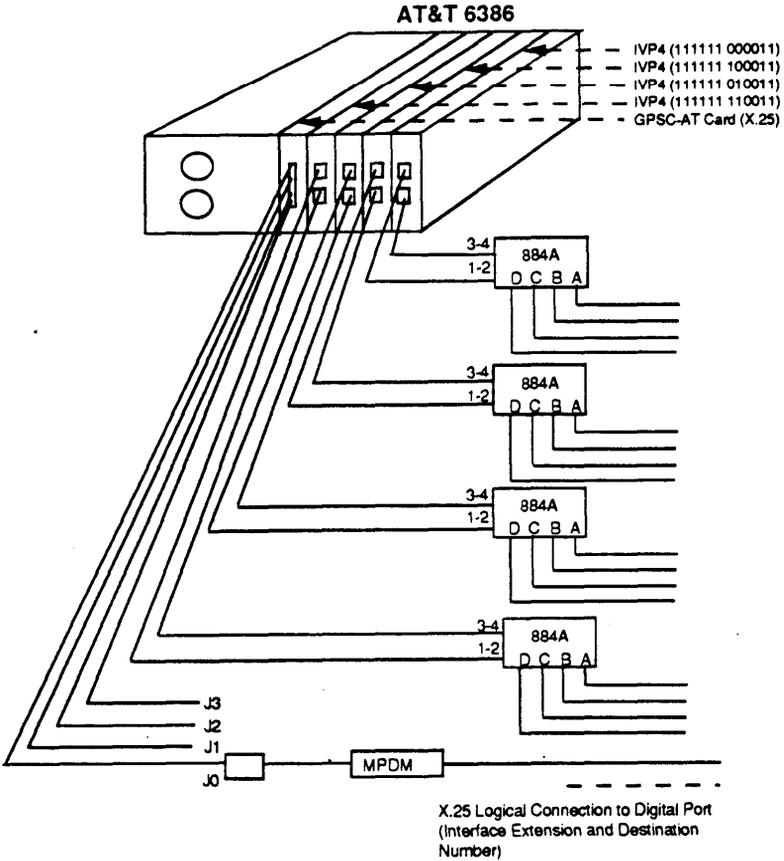
Figure 3-10. X.25 Logical Connection to Digital Port

Configure The MPDM

If an MPDM is used, the dip switches on the MPDM should be set in the manner outlined here. Dip switches are arranged in three groups:

First Group - Flip Switches (Figure 3-11)

- Set Test switch to **NORM**

- Set Loopback switch to its center position, **OFF**
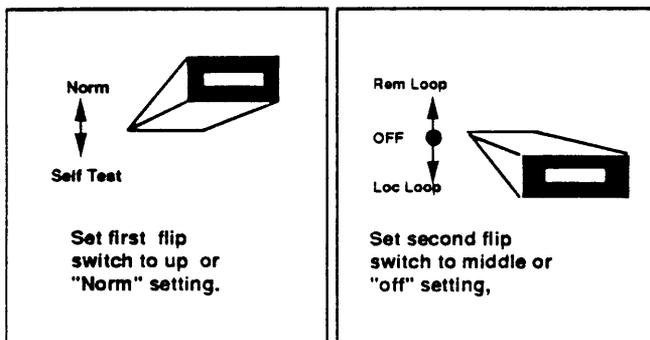
Figure 3-11. Flip Switch Settings (Group 1)

Second Group (Figure 3-12)

- Set Baud rate to 9600 baud

In other words, switch 6 should be up, and the others down.

Third Group (Figure 3-13)

- Set Synchronous transmission (SYNC) to ON

- Set Internal clocking (INT) to ON

- Set Keyboard (KEYBD) to ON.

- Set Signal loss disconnect (SIGLS) to ON.

- Set Auto answer (AANS) to ON.

In other words, switches 2, 3, 5, 11 and 12 should be up, and the others down.
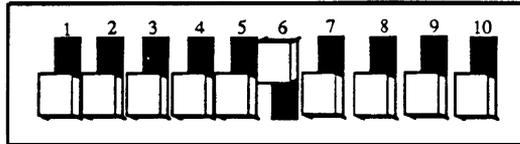
Figure 3-12. MPDM Group 2 Settings
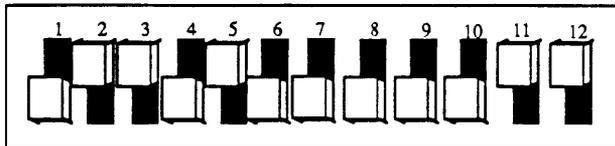
Figure 3-13. MPDM Group 3 Switch Settings

CONNECT TELEPHONE LINES TO THE IVP4 BOARD

You can connect up to four telephone lines to each IVP4 board with the 884A adaptor.

If you want to connect only one telephone line to an IVP4 board, you can connect it directly to the IVP4 board line jack (labeled 1-2) or connect it to the jack (labeled *A* on the 884A Adapter).

Figure 3-14 shows how to connect the 884A Adaptor to the IVP4 board.

To connect two or more lines to the IVP4 board, use the 884A Adapter and the four conductor telephone hook-up cords included with the IVP4 board.

Perform the following procedure for each IVP4 board in your computer

1. For each telephone line that you want to connect to the IVP4 board, connect the telephone line from the wall outlet to one of the four jacks on the fiQnt of the 884A Adapter.

   Use jack *A* first; then use jack B for the next telephone line, and so on.

2. Now connect the 884A Adapter to the the IVP4 board using two, 2 foot long, 4 conductor, telephone hook-up cords. Plug one end into the 884A Adapter's line jack, then plug the other end into the line jack on the IVP4 board. Make certain that each cable is plugged into a jack with a matching label. For example, (l-2) is connected to (l-2) and (34) is connected to (3-4).
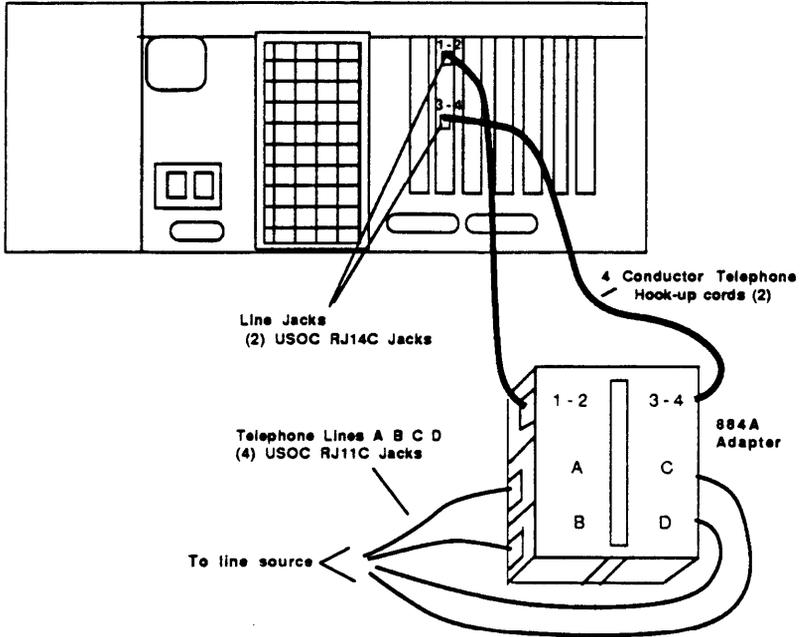
Figure 3-14. Connecting Devices to the IVP4 Board

INSTALLING SOFTWARE 4

OVERVIEW

This section describes how to install the software that makes up the AUDIX Voice Power Lodging system. Specifically, that software is:

- UNIX* System V R3.2.2 Software - The operating system software that drives the machine.

- X.25 Network Interface Software (Version 1.2 SL1.51. 1.3) - The software that interfaces with the General Purpose Synchronous Controller (GPSC-AT) card.

- Integrated Voice Power (IVP) System Software R1.1 - The base package upon which optional application software packages are built. Contains the driver for the IVP board, as well as the necessary utilities to enable start, stop, and disable the Voice System.

- AUDIX Voice Power Lodging (AWL) R1.0 Software - The application software.

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* Registered trademark of UNIX System Laboratories, Inc.

When you receive your system from the factory, you always should
load the UNIX Operating System, the X.25 Software, and the IVP
System Software from the floppy disks provided with the system. This
ensures that the latest version is on the system. It also alleviates any
potentiai problems if the software was not loaded into the cabinet or the
hard disk was damaged in transit.

The software must be loaded before the voice boards can be tested.

When Loading Lodging Only

If AVPL is the only AUDIX package you are installing (non-co-resident), software should be loading in the following order:

- UNIX Operating System V/386 Release R3.2.2 Foundation Set.

  Set includes:

  — Base System Package

  — FMLI Package

  — FACE Package

  — FACE HELP Package

  — Editing Package

  — Remote Terminal Package

- X.25 Network Interface Software Version 1.2 SL1.51. 1.3

- Integrated Voice Power System Software, Release 1.1

- AUDIX Voice Power Lodging Software, Release 1.0.

In Cases of Co-Residency

If AVPL will be co-resident with another AUDIX Voice Power
package, you should install the other package fwst, and then install
AVPL. Use the installation information provided with the AUDIX
Voice Power package to install that product, then reference this guide
for installation of AVPL software.

- UNIX Operating System V/386 Release R3 .2.2 Foundation Set.

  Set includes:

  - Base System Package

  - FMLI Package

  - FACE Package

  - FACE HELP Package

  - Editing Package

  - Remote Terminal Package

- X.25 Network Interface Software Version 1.2 SL1.51. 1.3

- Integrated Voice Power System Software Release 1.1

- AUDIX Voice Power Software Release 2.0

- Switch Integration Package Software

- AVPL Application Software Release 1.0

Restoring A VPL Error Codes Using Copy Command (LNA:

When AVPL is co-resident with another AVP package, the "ideal" order
of installation is the other package f~st and AVPL last. (For example:
AVP 2.0 is installed, followed by AVPL.) However, if packages are

not installed in that order, (For example: AVPL followed by AVP 2.0) AVPL error messages will be wiped out and you will have to restore them using the **cp_err_files** command.

This should be done immediately after you have installed another AVP package on top of AVPL using the following steps:

1. You must be logged on to the system as **root.**

2. At UNIX prompt (#), type

   /ldg/bin/cp_err_files.

3. When prompt returns, the restore process is complete. The AVPL error codes are now restored.

INSTALLING UNIX SOFTWARE

General Information

Begin installation of the AVPL software by installing the UNIX
Operating System software. If the system signals an error in the speech
file system during the installation procedures, then create a new file
system and backup your speech to that new file system. If you are
instailing software for the frost time, it is not necessq to perform a
backup.

The usr2 file system on Disk 0 (designated as 0s4) is dedicated to
speech storage. If your system has a second hard disk, you can partition
slices 3 and 4 (1s3 and 1s4) to be used for additional speech.

> Note: The UNIX system installation disk does not allocate space
> automatically for usr2. You MUST allocate this space or the IVP
> System Software will not run and the UNIX operating system will
> have to be reloaded.

The slice is divided (by the IVP System Software) into blocks that are
eight seconds, or 16 KBytes, long. Performance considerations require
block sizes to be this large, although many phrases are shorter.
Therefore, a 32 MB slice can have a maximum of approximately 4.4
hours of speech (full blocks) or a maximum of approximately 2,000
phrases (each shorter than eight seconds).

> Note: Allocate more space for speech than is needed because the
> allocation cannot be changed easily and the 16K blocking causes
> inefficient use of disk space. for short phrases.

Once the disks have been formatted, the sizes of the slices cannot be
changed except by reloading the UNIX operating system and the IVP
System Software package.

Procedure for Loading the UNIX Software

1.   Insert floppy disk 1 of the Base System Package of the UNIX
     Operating System V/386 Release 3.2.2 Foundation Set into the
     floppy disk drive. Be sure to use the replacement disk. Make
     sure the latch on the floppy drive is down before you press
     RESET.

     CAUTION: Never remove a disk while the disk drive warning
     light is on.

2.   If the controller is already on, press **RESET.**

     If the controller is not on, switch on the power.

3.   Resident diagnostics are initiated on the hardware and the results
     (PASS or FAIL) are indicated on the monitor.

     Floppy Disk 1 contains the software which is used to prepare the
     6386 WGS for the UNIX Operating System environment by
     partitioning and reformatting the hard disk.

     Note: If resident diagnostics fail at any time, remove the
     floppy disk when prompted. Insert the Customer Diagnostics
     (or Customer Test) floppy disk for a more specific hardware
     check on the device that failed and perform the
     recommended corrective actions. The Customer Diagnostics
     disk is provided in the back of the PC guide. When the
     problem is corrected, restart the procedure for loading the
     UNIX Operating System.

4.   Press **<Enter>** to install the UNIX Operating System on the hard
     d i s k .

5. The system prompts you with the message:

   Is this a new installation, or an upgrade to your existing system? (Strike n [new] or u [upgrade] followed by **<Enter>.)**

   Respond with **n** followed by **<Enter>.**

6. The system prompts you with the message:

   WARNING: A new installation of the UNIX Operating System will destroy all files currently on the system. Do you wish to continue (y or n)?

   Type y then press **<Enter>.**

7. The system prompts you to partition the hard disk. It asks if 90% UNIX/10% DOS is acceptable. Type **n** then press **<Enter>.**

8. The system prompts you to choose menu option 1 to create a partition. On the menu, choose **UNIX,** then select the 100% UNIX partition. Type y then press **<Enter>** for active partition.

   When the partitioning information has been selected, select menu option number 4- "Exit and Update the Disk Configuration".

9. The system displays the following message:

   A surface analysis will now be done. This will destroy all data on hard disk. Strike **<Enter>** to continue or **DEL** to abort.

   Press **<Enter>.** The surface analysis takes approximately ten to thirty minutes to complete depending on the size of the disk.

10. The system then displays the default file system assignments. They vary from system to system.

    The system prompts you to confm that the default assignments are acceptable. Type **n** then press **<Enter>.**

11.   The system prompts you to indicate whether you want separate root and usr file systems. Type y then press **<Enter>.**

12. The system prompts you to indicate whether you want an additional usr2 file system. Type y then press **<Enter>.**

13.   The system displays the following:

> Do you want to allocate a crash/dump area on your disk? If you do not, the swap/paging area will be used to save the memory image in the event of a system panic (y/n).

Type **n** then press **<Enter>.**

14. The system then prompts you to indicate the number of cylinders you want for the swap, root, usr, and usr2 areas on the disk.

Refer to the hard disk size you determined in Section 3, "Verifying Hard Disk Size", and use the appropriate cylinder assignments from the listing in Table 4-1.

If your disk size is not present in Table 4-1, use the following formula:

- For **root:** Divide the totaI number of cylinders on the disk by the number of megabyte on the disk and multiply that number by 18. The result is the number of cylinders to allocate for **root.**

- For **usr:** Divide the total number of cylinders on the disk by the number of megabyte on the disk and multiply that number by 21. The result is the number of cylinders to allocate for **usr.**

- For **swap:** Divide the total number of cylinders on the disk by the number of megabyte on the disk and multiply that number by 6. The result is the number of cylinders to allocate for **swap.**

For example:
For **root** -135 MB with 1021 total cylinders on the disk.

1021/135 x 18 = 136 cylinders to allocate for **root.**

The rest of the cylinders are allocated as **usr2** and are used for voice mail speech.

TABLE 4-1. CYLINDER ASSIGNMENTS

For a 68 MB Disk (1024 cylinders):

/swap -90 cylinders
/root -271 cylinders
/usr -316 cylinders
/usr2 -347 cylinders

For an 80 MB Disk (977 cylinders):

/swap -74 cylinders
/root -220 cylinders
/usr -256 cylinders
/usr2 -427 cylinders

For a 135 MB Disk (1021 cylinders):

/swap -45 cylinders
/root -136 cylinders
/usr -159 cylinders
/usr2 -681 cylinders

For a Single 300 MB Disk (814 cylinders):

/swap -17 cylinders
/root -49 cylinders
/usr -57 cylinders
/usfl -691 cylinders

For a Dual 300 MB Disk (814 cylinders):

Disk 1: /swap -17 cylinders
/root -49 cylinders
/usr -57 cylinders
/fsl -691 cylinders

Disk 2: /spchlll -123 cylinders*
/spch201 -691 cylinders

---

* See Appendix A "Installing a Second Hard Disk" for more information on using **a** second hard disk.

Your disk allocation is displayed and the following prompt appears:

Is this allocation acceptable to YOU (y/n)?

If it is correct, type y followed by **<Enter>.**

If it is incorrecq type **n** followed by **<Enter>** and re-allocate the cylinders.

15. Messages report that the UNIX Operating System is being built on the hard disk Floppy disk 1 takes approximately 25 minutes to copy to the hard disk.

16. When prompted, remove floppy disk 1 from the drive.

17. Press the CTRL-ALT-DEL keys simultaneously.

18. Identify the installation medium as **floppy disk.**

19. Insert floppy disk 2 into the drive. Continue loading disks as prompted.

> Note: Each remaining floppy disk takes approximately 2 to 3 minutes to copy to hard disk.

20. Remove floppy disk 2 when prompted, and load disk 3 into the floppy disk drive. Press **<Enter>.**

21. After the last floppy disk has been loaded and removed, you are prompted for the root and install passwords.

> Note: Make a note of these passwords and be sure to inform the customer of them. Stress the importance of remembering the passwords.

22. When prompted, reset the system by pressing the **CTRL-ALT-DEL** keys simultaneously. When you receive a Iogin prompt, log in as **root** (use the password you entered previously).

23. At the system prompt (#), type **installpkg.** Insert the fwst floppy of the FMLI software package then press **<Enter>.** When the installation of this package is complete, use the **installpkg** command to load the FACE, FACE HELP, Editing package (Version 2.0), and Remote Terminal packages.

     These software packages are included with the UNIX Operating System V/386 Foundation Set.

24. When complete, proceed to the next section "Create **Voice Administrator and Attendant Login IDs".**

Create Voice Administrator and Attendant Login IDs

Before installing the Integrated Voice Power (IVP) System Software, create a login for the voice administrator and any attendants through AT&T FACE.

> **Important:** Make a list of the logins and passwords you create here for use when entering the logins into the AVPL database (page 4-23).

1. Type **face** at the UNIX Operating System prompt (#).

2. Select "System Administration" then press **<Enter>.**

3. Select "User Login" then press **<Enter>.**

4. Select the **ADD** function key to add a user. A Iogin screen appears.

5. For the login name, use "audix" and for the full name, use "Audix Voice **Adm".**

   Allow "audix" to have system administrative privileges by changing "no" to "yes" in this window.

   A confiiation window appears confirming the information entered.

6. Press **SAVE.**

7. Press **CONT.**

   The system prompts you to select a Password.

8. Enter a password.

   Note: Make a note of these passwords and be sure to inform the customer of them. Stress the importance of remembering the passwords.

   It then asks you to re-enter the password.

9. Re-enter the same password and verify that the system accepts it.

10. A confiiation message appears which states: "User *audix* has been added to the system."

11. **Press <Enter>** to continue.

12. Again select the ADD function key to add a user. A login screen appears.

13. Now create an Attendant login. For the Iogin name, use "attend" and for the full name, use "Audix Voice Attend".

    Select "no" so that "attend" does not have system administrative privileges.

    A confirmation window appears confirming the information entered.

14. Press **SAVE.**

15. Press **CONT.**

    The system prompts you to select a Password.

16. Enter a password.

17. A conflation message appears which states: "User *attend* has been added to the system."

    If you wish to define multiple attendants, repeat steps 12-16. If you have multiple attendants, you might want to define them as **atten1 atten2,** etc.

> **Important:** Make a list of the Iogins and passwords you
> create here for use when entering the logins into the AVPL
> database (page 4-23).

18. Press **CANCEL** several times and select the option **Exit** to move
    out of AT&T FACE and return to the UNIX Operating System
    prompt (#).

You are now ready to install the GPSC-AT Card X.25 Software.

Installing GPSC-AT Card X.25 Software

Use the following steps to install the X.25 Network Interface Software:

1. Insert the **floppy** disk into the disk drive.

2. Type **installpkg** at the UNIX Operating system prompt.

   The system then prompts for disks one and two.

3. Answer the following questions (recommended answers appear in bold):

   - Enter the number of boards to be installed (0, 1-4) **1**

     Current board: #0

   - Is the shared memory range (C0000 - CFFFF) acceptable? (y/n) n

   - Is the shared memory range (D0000 - DFFFF) acceptable? (y/n) n

   - Is the shared memory range (80000 - 8FFFF) acceptable? (y/n) n

   - Is the shared memory range (90000 - 9FFFF) acceptable? (y/n)y

   - Is the IO address range (240 - 242) acceptable? (y/n) y

   - Is the interrupt vector (10) acceptable? (y/n) y

   - ENTER NUMBER OF SIMULTANEOUS X.25 PROCESSES (1 - 251)
     It is advisable not to choose too many because some memory is allocated for each one. Choose the number of X.25 processes that you expect to be running at the same time: 5

   - ENTER MAXIMUM PACKET SIZE (128, 256, 512) or "h" for more information: 128

4.   The following message appears on the screen:

> "Process is complete! PLEASE NOTE: On each X.25 link the following parameters should be changed in its INIT Table to reflect the actual packet size used on that link.
>
> — Maximum Receive Packet Size
>
> — Input/Output Data Packet Size
>
> The UNIX Operating System will now be rebuilt. This will take approximately 2 minutes. Please wait."

This is just an informational message, no action is necessary.

5.   After the installation is complete, remove the floppy disk. You are prompted to press **<Enter> to** shutdown the system or **<Esc>** to skip the shutdown.

Press **<Esc>to** skip the shutdown.

You are now ready to install the IVP System Software.

INSTALLING IVP SYSTEM SOFTWARE

Perform the following steps to install the Integrated Voice Power (IVP)
System software.

1. Insert the floppy disk number 1 into the disk drive.

2. Type **installpkg** at the UNIX Operating System prompt (#) and
    then press **<Enter>.**

    The system displays several prompts during the installation of the
    system software.

    You are prompted as the system needs additional floppies. Status
    messages are displayed as sections of the installation are
    completed.

3. After the system reads the last disk in the IVP System Software
    set, it prompts you for the following information:

    • Time Zone

       Select the time zone for this installation:

          1. Eastern

          2. Central

          3. Mountain

          4. Pacific

       Enter your selection. You receive the following message:

          Confirm: the installation time zone number is (selected
          number) (y/n)

       Enter y if the number matches the correct timezone.

    • Is Daylight Savings time ever used? (y/n)

Answer appropriately.

File listings are displayed.

4. After file listings are displayed, the following sequence of prompts appears:

    • Reserving a disk slice for speech.

        Disk 0 Slice 4 will be reserved for speech. Select (y/n).

        Enter **y.**

    • Confirm: a speech file system will now be built on slice 0s4. (y/n) (This will be 0s4 if the "chosen disk" is 0 and the "chosen slice" is 4).

        Enter y.

    • Confirm: A speech filesystem will now be built on slice 0s4. (y/n)

        Enter **y.**

    • Building speech fllesystem on slice 0s4.

        Inittab successfully rebuilt.

        Voice System successfully installed.

        Installing the IVP driver.

5. The following message is displayed:

    The UNIX Operating System will now be rebuilt. This will take approximately 2 minutes. Please wait.

    The UNIX Kernel has been rebuilt.

6. After the installation is complete, remove the floppy disk.

7. You are prompted to press **<Enter>** to shutdown the system or **<Esc>** to skip the shutdown.

8. Load the Interface Processor Card"(IPC) following directions in Appendix B, "Installing an Interface Processor Card" (optional).

9.   Determine which of the following situations applies to your installation and proceed:

   — **If the system is not co-resident with another AVP system,** press **<Enter>** to shutdown the system. When prompted to reboot, press the CTRL and ALT key simultaneously and strike the. DEL key.

   — **If the system is co-resident with another AVP system that involves installation of more drivers (e.g., Digital Communications Protocol Card),** press **<Esc>** to skip the shutdown and load the other packages before loading AVPL.

   — **If the system is co-resident with another AVP system and does NOT involve installation of drivers,** press **<Enter>** to shutdown the system. When prompted to reboot, press the **CTRL** and **ALT** key simultaneously and strike the **DEL** key. Load the other AVP software according to documentation accompanying the package.

You are now ready to install the AVPL software.

INSTALLING AVPL APPLICATION SOFIWARE

Before You Begin

If the site already has an AVP product in place, be sure the system memory is set to 512K, then load the X.25 Network Interface and AVPL software.

CAUTION: Should the site go co-resident, there may be problems with existing file partitions. If so:

1. Back up speech and database
   or

2. Start from scratch (starting with the UNIX Operating System), reload the application packages (including IVP System Software), restore the speech and database, then set memory to 512K and install X.25 Network Interface and AVPL software.

Loading the AVPL Application software takes approximately 15 minutes to complete. The application software set contains:

- Three 3 1/2 inch floppy disks

   o r

- Four *5* 1/4 floppy disks.

Prior to AVPL Application software installation, the "audix" login should have been created for the AUDIX System Administrator. (This was detailed at the end of the pr~edure for installing UNIX Operating System software.)

Application Software Installation Procedures

Use the following steps to install the AVPL Application software.

1. Be sure you are logged in as root.

2. Insert floppy disk number 1 into the disk drive.

3. Type **installpkg** at the UNIX Operating System prompt (#) then press **<Enter>.**

4. A conflation message appears on the screen. You are then prompted to insert floppy disk number 2 into the disk drive. Insert disk 2 then press **<Enter>** to continue.

5. A conflation message appears on the screen. You are then prompted to insert floppy disk number 3 into the disk drive. Insert disk 3 then press **<Enter>** to continue.

    This will be repeated if you have a fourth disk to install.

6. At the end of the last disk, you are asked:

    Is software being installed on an SX? (y/n)

    If you are installing software on a 6386SX WGS, enter y. If not, enter **n.** The system responds:

    "Enter the login id of the Lodging Administrator"

    At this point you have already assigned the administrator's login ID through AT&T FACE. Use the list of Iogins and passwords . you completed on page 4-14. This step identifies the administrator login ID to the Lodging package.

    Enter the login id assigned to the Lodging Administrator. The system responds:

    Confm: the Lodging Administrator's Iogin id is
    _____?(y / n)

The system then creates necessary files and directories and presents some informational messages about mailboxes. When complete, the system responds:

"Lodging Administrator is **<login id>** "

7. The system then prints a listing of attendant Iogin IDs, if available.

"The following is the current list of attendants."

This is the list of Iogins and passwords you completed on page 4-14 through AT&T FACE.

If no list is available, you are prompted to enter a list.

"No attendants currently defined. Do you wish to re-enter the list of attendants (y/n)?"

Press **y.**

"You will now enter the login id(s) of the Lodging attendant(s). When you have no more attendants to be entered, press the **<Enter>** key to proceed with the installation. Enter the login id of the fwst attendant (or press <Enter>)."

Enter the login id of the fiist attendant. Continue until the list is complete. When you are through, press **<Enter>.** The system responds:

"The following is the current list of attendants."

The system continues to create new mailboxes and install the Lodging files.

When the last disk is completed, the system informs you that AVPL Software has been installed.

8. Enter **displaypkg** and verify that the AVPL software package shows as an "installed" package.

9. Remove the floppy diskette. Press **CTRL D** to log off.

10. Login to the system as "audix":

    Console Login: **"audix"** (followed by **<Enter>).**
    Password: Enter the password you've chosen, followed by **<Enter>.**

    The User Login window appears.

11. Arrow down, highlight "Voice System Administration", then press **<Enter>.**

12. **Arrow** down, highlight "Configuration Management", then press **<Enter>.**

13. Highlight "System Control" then press **<Enter>.**

14. Arrow down, highlight "Start Voice System", then press **<Enter>.**

    The screen blacks out and informational messages are displayed. The system displays "Startup of the voice system is complete. Press ENTER to continue..."

    Press **<Enter>.** The System Control window appears again.

15. Press CANCEL three times to receive the User Login window.

16. Arrow down, highlight "Exit", and press **<Enter>.**

17. You receive the Console Login prompt again. "You are now finished with software installation.

CONFIRM IVP4 BOARDS ARE RECOGNIZED BY THE SYSTEM

As a final step, it is necessary to verify that the IVP4 boards are installed correctly and are recognized by the system. Do this using the following procedure:

1. Login to AVPL as **audix.**

2. Highlight "Voice System Administration" and press **<Enter>.**

   If the voice system is running, skip to Step 6, if not, proceed with Step 3.

3. Highlight "Configuration Management" and press **<Enter>.**

4. Highlight "System Control" and press **<Enter>.**

5. Highlight "Start Voice System" and press **<Enter>.** This starts the voice system.

6. Highlight "Voice System Administration" and press **<Enter>.**

7. Highlight "System Monitor" and press **<Enter>.**

8. Examine the System Monitor screen. If the IVP4 boards are installed correctly, the Service Status field on the screen will indicate the board status. This confiims that the IVP4 boards are recognized by the software.

   If these fields are blank, or the screen shows no fields at all, the IVP4 board is not installed correctly, and is not being recognized by the software. Verify that the dip swi{ch settings on the IVP4 board match those found in this-manual in Section 3 "Installing Hardware" on pages 3-19 through 3-24.

COMPLETING INSTALLATION

At this point, all of the hardware and software components of ,the AVPL system are installed. However, the system is not operational until you administer AVPL and the switch. Explain to the customer that it was your task to setup and install the 6386 WGS and AVPL software.

Now the customer needs to complete the administrative tasks detailed below. These administrative tasks are detailed in the *AUDIX Voice Power Lodging System Manager's Handbook (585-3 10-5 15).*

Administering AVPL

Administering AVPL is done in two parts: administering the application software and administering the Integrated Voice Power software. (Most application software administration is done once during system set-up with the exception of Guest Mailbox Administration which is on-going.)

Application software administration tasks are:

- • Initial set-up tasks:

  — Creating subscriber mailboxes in Guest Mailbox Adminis~ation

  — Assigning attendant and administrator extensions in Lodging Administrator Registration and System Parameter Administration

  — Administering Lodging Registration

  — Administering System Parameters.

- • Ongoing tasks:

  — Administering Guest Mailboxes

— Administering Reports

Integrated Voice Power administration tasks include:

- Configuration management
  - Assigning/Unassigning service to voice channels
- Phone to Channel Mapping
  - Verifying Channels are in service
  - Verifying Extensions
  - Assigning Extensions to channels

ADMINISTERING THE SWITCH

The AUDIX Voice Power Lodging (AVPL) Application is designed to operate with either an AT&T System 75 R 1 V3 PBX or an AT&T DEFINITY Generic 1 Telecommunications System.

You need to administer the switch for the following features:

- Processor Interface Card

  — Connect Card via Physical Port
    or

  — Comect Card via Logical Port

- Administer Hunt Group

- Administer Call Coverage Path

- Administer Station Call Coverage Assignment

- Disable Requests for message waiting lamp status (recommended).

REMOVING SOFTWARE 6

SOFTWARE   REMOVAL

The AUDIX Voice Power Lodging system must be removed in the reverse order of installation.

Remove the sofiware packages in this order

- AUDIX Voice Power Lodging Application Software.

- Integrated Voice Power (IVP) System Software.

- X.25 Network Interface Software

Removing AUDIX Voice Power Lodging Software

Use the following procedure to remove the AVPL Application Software:

1. Login as root.

2. At the UNIX* Operating System prompt, type **removepkg** and press **<Enter>.**

3. A numbered, alphabetical list of the various software applications installed on the system appears. Press the number that represents the AUDIX VP software package to be removed.

4. If you are asked if you want to save voice messages, subscriber data base information, and personal names and greetings, press **y** for yes.

5. A conflation message appears, informing you that the software package has been removed.

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* Registered trademark of UNIX System Laboratories, Inc.

Removing IVP System Software

After you have removed all existing application software, you may
remove the IVP System Software.

1. Type **removepkg** to display an alphabetical list of installed
   software packages.

2. Select the appropriate number for the IVP System Software
   package you wish to remove.

   The following conflation message is displayed:

   "Do you really want to remove? Press **<Enter>** when ready or
   ESC to Stop."

   "Removing system files for IVP System Software."

   A series of questions follows.

   > *Note:* It is important that the following questions are
   > answered consistently with the answers that were entered
   > during the previous removal of the application package. For
   > example, if you previously answered yes to saving Voice
   > Mail in the application package, then it is necessary that you
   > answer yes to saving the speech file system here. If you fail
   > to answer these questions consistently:
   >
   > - **Error** messages will be displayed
   >
   > - Inaccessible data may remain on the disk, taking up .
   >   space when you re-install another system

- The speech data base will function inaccurately.

3. "Save the speech file system?" (y/n)

   If you select y: The speech file system where all raw speech is stored is saved. All voice messages that were saved during the removal of the application software still remain.

   If you select **n :**

   All speech that was saved during the removal of the application software package is removed.

4. A confiiation message restating your intention to delete the speech file system appears. You must respond with a **y** or **n.**

   If you select **y :**

   The speech fde system is left intact.

   If you select **n:**

   The system displays an additional prompt:

   "UNIX file system name for device (file *name)."*

5. You must name the user file system with the file system replaced by the installation. The usual response is "usr2".

   Note: If you delete the file system, a new speech file system must be created the next time that system software is installed.

6. Before completion of the removal process, the following message appears:

    "Strike **<Enter>** when ready or ESC to stop."

    At this point, you can press **<Enter>** to shut down the system or ESC to bypass the shutdown process.

    The system has to be shutdown for the removal process to be completed.

Removing X.25 Network Interface Software

Use the following procedure to remove the X.25 Network Interface Software:

1. Type **removepkg** to display an alphabetical list of installed software packages.

2. Select the appropriate number for the X.25 Network Interface Software package you wish to remove.

   The following conflation message is displayed:

   "Do you Rally want to remove? Press **<Enter>** when ready or **ESC** to Stop."

   "Removing system fdes for X.25 Network Interface Software."

3. Before completion of the removal process, the following message appears:

   "Strike **<Enter>** when ready or **ESC** to stop."

   At this point, you can press **<Enter> to** shut down the system or **ESC** to bypass the shutdown process.

   The system has to be shutdown for the removal process to be completed.

INSTALLING A SECOND HARD DISK

In some systems it is desirable to increase the voice message space. If so, you can add a second hard disk the same size as the frost. For example, if the fmt hard disk is 135 MB, then the disk you add should also be 135 MB.

This appendix contains information about installing the second hard disk and making it operational.

Installing Second Disk Hardware

Note: We do not recommend that the customer install hardware for the second hard disk. These procedures are meant for an AT&T Technician.

1. Shut down the AUDIX Voice Power Lodging system by typing the following at the UNIX Operating S ystem prompt (#):

   /etc/shutdown -y -g0

2. Manually install the second hard disk. Follow the instructions packaged with the disk or in the appropriate *AT&T WGS Service Manual*.

3. Insert the Customer Diagnostic floppy and, power up the system.

   When the system comes up, you are in the Setup Utility program.

4. Change the setup parameters to indicate that there are two hard disks. Change the entry for **Hard Disk #2** to match the entry for **Hard Disk #1.** Both disks should be the same size.

5. Save and exit the screen and take out the floppy.

   Note: It may be necessary to do a low-level format on the second disk.

Activating the Second Disk for Storage of Voice Mail

   Note: Either the customer or an AT&T Technician can perform this procedure.

1. Boot the system using CTRL-ALT-DEL. The UNIX Operating System comes up and you receive the console login.

2. Login as **root.**

3. Stop the voice system using the command **stop_vs.**

4. At the UNIX prompt, type

   /vs/bin/util/addspdisk

   and press **<Enter>** to activate the second hard disk

5. Start the voice system using the command **start_vs.**

   The second disk is now in service for storing voice messages.

Date: May 21, 1991
Subject: Installing a Second Hard Disk Drive to AVPL

To: Kyle Stone
     Voice Power Team
From: Joe Vohs

There is a problem in UNIX with the command used to install a second Hard Disk Drive on an AVPL R1.O. The command used is Jladdspdisk^{vs} found in the /vs/bin/util directory. This command is referenced in Appendix A of the Audix Voice Power Lodging R1.O Installation Handbook. The command will not run because of an error in the shell script. The dollar sign "$" was left off of variables in three locations in the script. (this was discovered --by the way-- by a tech in the field) I am told by Jeff Johnson that the command will run from kshell but not from shell. Jeff has refered this problem to the developers who have agreed to fix the problem in the next release of software. Jeff is sending me additional info on what exactly needs to be modified to make this script work. If anyone runs into this problem again, they should be able to fix it by viing (c<is this a word??) the file "addspdisk". Any additional questions, please see me.

Thanks,
Joe

THE IPC CARD

The AT&T Intelligent Ports Card (IPC 802 or 900) is used to connect an additional terminal or the Property Management System (PMS) to your 6386 Work Group Station (WGS).

IPC Hardware

Hardware for the WC 802 includes:

- one bus adapter card

- one cable with shielded 37 conductor D-Shell connectors

- one external AT&T IPC 802 main unit with 8 ports.

Additionally, the IPC 802 requires a null modem adapter for proper installation.

Hardware for the IPC 900 includes:

- the 900 adapter card which plugs into the 16 bit expansion slot

- an 8-port adapter.

The IPC User's Guides outline the procedures for installing the IPC 802 and 900 hardware.

Before Installation

Before the IPC is installed in the expansion slot, three settings must be made on the adapter card: I/0 address, controller RAM start address, and IRQ (interrupt request) level. Each of these settings must be selected so they do not conflict with the settings of other devices in the computer system.

We recommend the following settings for both the IPC 802 and 900
  • **I/O address -290**
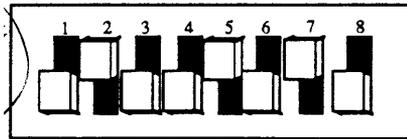
Figure B-1. I/O Address

  • **Controller RAM start address - D $\phi\phi\phi\phi$**
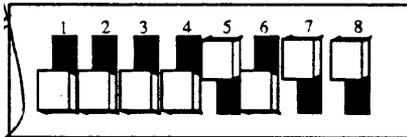
Figure B-2. Controller Memory Address

• **Interupt request (IRQ) level - 5.**

		IRQ15
		IRQ14
		IRQ12
		IRQ11
		IRQ10
		IRQ7
		IRQ6
JUMPER →		IRQ5
		IRQ4
		IRQ3

Figure B-3. Interrupt Request Level

Note: The Interrupt Request Level jumper uses the default (3)
when it is packaged. This jumper must be changed to 5 as shown
in Figure B-3 in order for the system to work properly.

Installing the IPC Software

A AT&T Technician will normally install the Intelligent Ports Card for the customer. However, if circumstances arise where that is not the case, the following procedure demonstrates the installation of the IPC.

1. Log in as root.

2. Enter the root password.

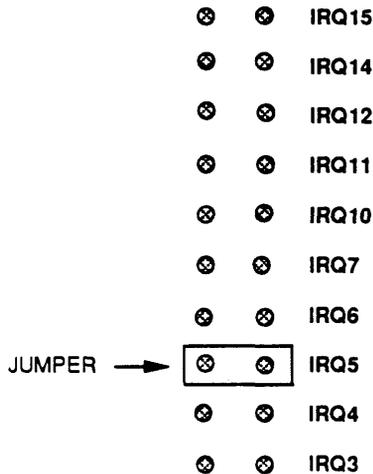3. Type **installpkg** and press **<Enter>.**

4. Insert the floppy disk.

   You will receive a message that indicates installation is in progress.

5. The system then displays the following message:

   > "The current system configuration will allow up to 4 IPC 802/900 controller boards to be installed. How many IPC 802/900 controller boards will you be installing? (l-4, Q to quit)."

   Type **1** and press **<Enter>.**

6. Next, the system asks you which type of ports card you will be instailing. Enter the card number, either 802 or 900. (The default is 900.) Then, press **<Enter>.**

7. You must begin to enter the system configuration information for the board that you have chosen.

   Type **IQR5** as the interrupt number and press **<Enter>.**

8. Type 290 as the starting I/0 address and press **<Enter>.**

9. Type **D0000** as the starting controller memory address **<Enter>.**

10.   You are given this message.

"Is this configuration acceptable? (y or n)"

Type y if the configuration is acceptable and **n** if it is not.

11. The system displays the following messages:

The UNIX* Operating System will now be rebuilt. This will take approximately 2 minutes. Please wait.

The UNIX Kernel has been rebuilt.

Confirm.

To complete the install/remove process a shut down is now being initiated automatically. Make sure your floppy drive is empty. If you are installing or removing controller boards, you may power down the system after the shutdown has completed.

Strike **ENTER** when ready or **ESC** to stop.

12. Press **<Enter>** to shutdown.

Installation of the controller board is now completed.

13.   Press **CTL-ALT-DEL** when the system requests a reboot.

---

* Registered trademark of UNIX System Laboratories, Inc.

14. To check if the package is properly installed, type **displaypkg**
and press **<Enter>.**

The W will be listed as "Intelligent Ports Card Driver Package

INSTALLING A MODEM

A modem is included with the AUDIX Voice Power Lodging system hardware.

Use the following procedures to install the modem.

1. Login as root

2. At the UNIX* Operating System prompt, type **face** and then press **<Enter>.**

3. Highlight "System Administration" and press **<Enter>.**

4. Highlight "Peripheral Setup" and press **<Enter>.**

5. Highlight "Serial Port Setup" and press **<Enter>.**

---

* Registered trademark of UNIX System Laboratories, Inc.

6. Populate the fields as follows:

- Serial Port Numben **01 (/dev/tty00)**

  This is the first choice, or default choice, on the **CHOICES**
  menu.

- Device type: Modem

- Device Sped Select the appropriate speed, 1200 or 2400

  Press **SAVE.**

- Another screen appears. Populate as follows:

    a. Modem Name:

       Press **CHOICES.** Select the modem type that you are
       installing. (The selection "Hayes Smartm 1200" or
       "Hayes Smartm 2400" usually will work.)

    b. Device Connection:

       Press **CHOICES.** Continue pressing **CHOICES** until
       it reads "Incoming calls only".

       Press **SAVE.**

       Press CONT.

Press CANCEL several times and select the option **Exit** to move
out of AT&T FACE and ~eturn to the UNIX Operating System
prompt (#).

   1. Connect the modem via a RS232 cable to serial port
      number 1 on the back of the 6386 WGS. Connect the
      phone line to the modem.

2. To make the modem connection operational in the voice
    system run level, a **start_vs** must be done.

    If the voice system is up and running:

    Stop the voice sytem using /vs/bin/stop_vs.

    Start the voice system using /vs/bin/start_vs.

    **If this is a new installation, or the voice system is not up
    and running:**

    Start the voice system using /vs/bin/start_vs.

A remote user can now dial into the system.

TROUBLESHOOTING D

TROUBLESHOOTING

This section contains troubleshooting hints and procedures to be used during the Integrated Voice Power (IVP) system controller and AUDIX Voice Power Lodging (AVPL). If you need to locate and/or resolve a system fault, turn to the information located under "TROUBLE LOCATION AND RESOLUTION ROUTINE".

If any of the listed symptoms occur, perform the given solution to correct the problem.

Read through the listed subjects to help isolate any inconsistencies in your work. If problems continue, contact 1-800-56-AUDIX 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 cord is plugged into the 6386 WGS properly and fully inserted into a 115 V, AC power outlet.

2. Verify that the power switch on the 6386 WGS is 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. Check the status of the visual indicators listed in Tables D-1, D-2 and D-3. Notice that the second column of these tables lists the color of the indicator and the number of indicator lights on the unit.

5. If any of the indicators are not in the proper state, refer to Table D-3 for the recommended action.

6. Check the foilowing cables to make sure that the connectors are not darnaged or loose:

    — Modular cable on IVP circuit board

    — Line Interface Cables

    Correct any problem by replacing damaged cables or re-inserting loose connectors.

7. Check for proper circuit pack slot allocations.

8. Check that all circuit packs are fully inserted and fastened with a screw.

9. Verify that the cooling fans in the system controller and expansion cabinet 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 hand several inches in front of the fan to see if the fan is blowing.

If the fan is not operating, call a field service representative.

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

Indicator Descri~tion	Color (number)	Indicator Location	Normal State
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 D-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 D-3. VISUAL INSPECTION FAULT ISOLATION

Indicator Showing Fault	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".

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.

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, contact 1-800-56-AUDIX for assistance.

INSTALLATION - SYSTEM SOFTWARE

If problems occur during the software installation process, either the installation terminates, or the Integrated Voice Power cannot be administered. You are alerted to disk space problems by error messages that appear on the screen. Problems with Integrated Voice Power services may occur because one or more steps were omitted during an administration procedure, or because the database was not updated.

TABLE D-4. INSTALLATION TROUBLE INDICATORS

TROUBLE INDICATION	USER RESPONSE
All possible interrupt choices for the IVP board are currently in use.	The System Administrator must free up an interrupt on the system by removing hardware/software that use one of the same interrupts as the IVP board.
Installation of System Software fails.	1. System software already exists on the system. Remove it before attempting to re-install, or 2. System software was not completely removed. The System Administrator must execute **rm -rf /vs.** Verify that /vs no longer exists. Install the software, or 3. The Installer does not have roof privileges. Login as *root* and do installation.

TABLE D-5. INSTALLATION TROUBLE INDICATORS CONT'D

TROUBLE INDICATION	USER RESPONSE
Removal of system software fails.	1. An application package was not removed. Remove it and then remove the system software, or 2.) An application package was not completely removed. The System Administrator must execute **rm -rf /ldg.** Verify that /ldg no longer exists. Remove the system software. or 3.) User does not have *root* privileges. Login as *root* and do the remove.

**TABLE D-6. INSTALLATION TROUBLE LOCATING
                PROCEDURES**

TROUBLE INDICATION	USER RESPONSE
During installation of the AUDIX VP package, you are prompted for a login for the voice administrator, however, one has not been created.	Stop the installation process by pressing the DELETE key and create a login for the voice administrator. Refer to Chapter 4 in this guide. Information on creating a Iogin is provided at the end of the "Installing Unix Software" section.

SUBJECT INDEX I

P

R

AUDIX™ Voice Power Lodging RI.0

AUDIX TM *Voice Power Lodging Technician Installation Package (585-31 0-106 Add)*

Use these Appendices in addition to those found in the
AUDIX 'M Voice Power Lodging Installation Handbook (585-310-106)

AUDIX VOICE POWER LODGING R1.0 INSTALLATION CHECKLIST

This checklist is to be used as a guide for the installation of an AUDIX Voice Power Lodging (AVPL) system. Detailed information can be found in the documentation referenced below. All steps should be verified prior to calling the AT&T AUDIX Helpline for assistance.

The following documents were used as references for this checklist. Be sure that you have the exact documentation listed below before beginning installation.

AUDIX Voice Power Lodging
Installation Handbook
585-310-106 (for R1.0)

AUDIX Voice Power Lodging
System Manager' sHandbook
585-310-515 (for R1.0)

AUDIX Voice Power Lodging
System Manager' preference Guide
585-310-516 (for R1.0)

AUDIX Voice Power Lodging
Attendant Quick Reference Card
585-310-705

The following documentation will also be required for CO-RESIDENT installations:

For AUDIX Voice Power R2.0

AUDIX Voice Power
Installation and Maintenance Guide

AUDIX Voice Power
System Manager's Guide
999-500-353

For Integrated Voice Power Automated Attendant R 2 . 0

Integrated Voice Power Automated Attendant Installation and Maintenance Guide
999-500-357

PRE-INSTALLATION (AVPL)

❑ Verify the location is suitable for installation of the AVPL 6386WGS hardware. (See Appendix I of AVPL Installation Handbook—packaged with this checklist.)

❑ Locate a non-switched, 115 VAC outlet for the exclusive use of the AVPL 6386 CPU and its associated equipment (modem, printer, etc.).

❑ Review the component checklist. (See Appendix J of AVPL Installation Handbook — packaged with this checklist.)

❑ Identify applications to be installed and the order to install. (See Appendix J of AVPL Installation Handbook —packaged with this checklist.)

INSTALL HARDWARE
(if system was not preconfigured by the factory)

❑ Remove cover for board installation. (See pages 3-7-3-10 of AVPL Installation Handbook.)

Note: The 6386 must have a minimum of 8 meg of RAM for AVPL R1.0.

❑ Install additional memory if neede. (See pages 3-11 3-16 of AVPL Installation Handbook.)

NOTE: If a DPC board is being installed for CO-RES application, COM2 must be disabled. On the 6386/SX system, serial port 2 must be disabled in Setup (Using setup floppy) instead of on motherboard.

❑ Set motherboard jumperf for 6386/25 or 6386/33 (See Appendix 1 of AVPL Installation Handbook —Packaged with this checklist.)

❑ Install VDC600 Video Display controller. (See Appendix I of AVPL Installation Handbook— packaged with this checklist.)

❑ Prepare for board installation by refering to card/ expansion slot type table. (See page 3-9 of AVPL Installation Handbook.)

❑ Configure and install IVP4 boards. (See pages 3-18 - 3-29 of AVPL Installation Handbook.)

❑ If a DCP board is provided, configure and install DCP board in first available 8 bit slot. (See page 2-43 of ABPL Installation and Maintenance Guide.)

❑ Install General Purpose Synchronous Controller Card (GPSCAT) for X.25 (See page 3-17 and Appendix F of AVPL Installation Handbook.)

❑ If provided, configure and install IPC-900 or 802 board. (See Appendix H of AVPL Installation Handbook—packaged with this checklist.)

❑ Replace cover on 6386. (See page 3-30 of AVPL Installation Handbook.)

❑ Connect peripherals and cables. (See Appendix E of AVPL Installation Handbook packaged with this checklist.)

❏ Connect the device and data lines toswitch. (See pages 3-38 and 3-39 of AVPL Installation Handbook.)

❏ If a DCP board is being installed, for CO-RES application, install wiring for DCP link from Switch to AVPL. (See page 2-53 of AVP Installation and Maintenance Guide.)

❏ Install wiring and MPDM for X.25 Switch Communications Interface (SCI) Link. (See pages 3-31-3-34 and Appendices E and G of AVPLInstallation Handbook.)

❏ Connect Property Management System (if used). (See section 8, Property Management System in the AVPL System Manager's Handbook or Appendix E of AVPL Installation Handbook — packaged with this checklist.)

❏ Run the Power-On Self Test. (See Appendix L of AVPL Installation Handbook — packaged with this checklist.)

❏ Verify hard disk size and number of cylinden by running the Setup Utility. (Seepage 3-3 and 3-4 of AVPL Installation Handbook.)

❏ Configure the system Base Memory Size to 512k in the setup utility for AVPL and change the Base Memory Configuration to "Above 512k <DISABLED>". (See pages 3-5 and 3-6 ofAVPL [nstallationHandbook.)

❏ If installing DCP for 6386/SX system, serial port 2 must also be disabled in the Setup Utility.

❏ Setup and connect printer if ordered. (See Appendix I of AVPL Installation Handbook — packaged with this checklist.)

❏ Configure remote access modem. (For DM224, see Appendix M of AVPL Installation Handbook —packaged with this checklist.)

INSTALL SOFTWARE
(if system was not preconfigured by the factory)

❏ Install UNIX (UNIX 3.2.2) Base System Package. (See page 4-7-4-13 of AVPL Installation Handbook.)

NOTE: AVPL requires a different disk partitioning than AVP R2.0. Use the hard disk size and numberofcylindem determined above from "Verify hard disk size" to determine the correct partition sizes from TABLE 4-1 CYLINDER ASSIGN-MENTS on page 4-11 OR the procedure beginning with #14 on page 4-9 of the AVPL Installation Handbook orAppendixJ of the AVPL Installation Handbook — packaged with this checklist.

CAUTION: DO NOT LOAD THE 2.2 TO 2.3 UPGRADE PACKAGE. UNIX3.2.3 IS NOTSUP-PORTED FOR AUDIX VOICE POWER LODG-ING AND SHOULD NOT BE LOADED.

❏ Install FMLI Package.

❏ Install FACE Package.

❏ Install FACE HELP Package.

❏ Install Editing Package.

❏ Install Remote Terminal Package.

❏ At the # prompt, type EXIT to logoff the system. Log back in as root. (This is done to set the environment variables.)

❏ Create logins for Voice Administration and Attendants. (See pages 4-14-4-16 of AVPL Installation Handbook.)

❏ If a DCP board is installed, disable serial port 2 thru FACE. (See page 3-13 of AVP Installation and Maintenance.)

❏ Install AVPL X.25 Network Interface Software R1.0 as specified on the ERRATA SHEET. (See page 4-17 and 4-18 of AVPL Installation Handbook.)

CAUTION: DO NOT INSTALL GPSC SOFT-WARE INCLUDED WITH THE GPSC CIRCUIT BOARD.

❏ Install Integrated Voice Power System Software. (See pages 4-19-4-20 of AVPL Installation Handbook.)

❏ Install Intelligent Port Card, Model 900, Software if required. (See Appendix B5 - B7 and Appendix H of AVPL Installation Handbook- packaged with this checklist.)

❏ If provided install Audix Voice Power R2.0 Application Software for CO-RES AVP R2.0. (Seepages 3-17 and 3-18 of AVP Installation and Maintenance Guide.)

❏ If provided install the Switch Integration Software for System 75/DEFINITY© for CO-RES AVP R2.0. (See page 3-19 of AVP Installation and Maintenance Guide.)

CAUTION: DO NOT USE THE DISKETTE IN-CLUDED WITH THE DCP BOARD. IT IS FOR DOS ONLY.

❏ If provided, install Automated Attendant Application Software R2.0 for CO-RES AA R2.0. (See page 3-15 of Integrated Voice Power Automated Attendant Installationand Maintenance Guide.)

❏ Install AUDIX Voice Power Lodging R1.0 Application Software. (See pages 4-22-4-25 of AVPL Installation Handbook.)

❏ If provided, install AVPL Property Management System (PMS) Integration Software R1.0. (See page 8-15 of AVPL System Manager's Handbook).

- ❏ If the system is CO-RES with AVP R2.0, install all patches provided with QPPCN 215MT. If Lodging only, install only Integrated Voice Power System Software Rl.l: Patch l.(If not provided, QPPCN 215MT <u>must</u> be ordered from CIC by calling 1-800-432 -6600.)

- ❏ Verify that all software for AVPL and your CO-RES application is now installed by doing a **displaypkg. (See** Appendix J of AVPL Installation Handbook —packaged with this checklist.)

- ❏ Confirm IVP4 boards are recognized by the system. (See page *4-26* of AVPL Installation Handbook.)

ADMINISTER AVPL

- ❏ Assign service to Voice Channels. (Seepages 4-5- 4-7 of AVPLSystemManager's Handbook.)

- ❏ Administer Phone to Channel Mapping by performing the following steps. (Seepage 4-10 of AVPL System Manager's Handbook).

  - ❏ Verify channels are in service. (Seepage 4-11 of AVPL System Manager's Handbook.)

  - ❏ Verify extensions. (See page 4-12 of AVPL System Manager's Handbook.)

  - ❏ Assign extensions to each channel. (Seepage 4-14 of AVPL System Manager's Handbook.)

- ❏ Administer System Parameters. (Seepages 4-19-4-22 of AVPL System Manager's Handbook.)

- ❏ Administer the Lodging Administrator. (Seepages 4-23 and 4-24 of AVPL System Manager's Handbook).

- ❏ Administer Switch Interface. (See pages 4-53 and 4-54 of AVPL System Manager's Handbook.)

NOTE: It is the customer's responsibility to administer the Switch and to contract this work with AT&T. Verify that service orders exist if the customer chooses to contract with AT&T. The following steps must be completed before the system will be operational.

- ❏ If PMS is NOT installed create Subscriber Mailboxes in Guest Mailbox Administration. (See pages 4-25-4-29 of AVPL System Manager's Handbook.)

ADMINISTER SWITCH

CAUTION: WHEN ADMINISTERING THE SWITCH FOR AVPL, THE NAME IN THE IDENTIFICATION FIELD OF THE INTERFACE LINKS FORM (386audix) MUST MATCH EXACTLY THE NAME IN THE NAME FIELD OF THE DATA MODULE FORM, AND THE NAME IN THE GROUP NAME FIELD OF THE HUNT GROUP FORM.

- ❏ If AVPL is CO-RES with AVP R2.0, administer Switch for analog ports and record assigned extensions on FORMA. (See Appendix B, page 7 of AVP System Manager's Guide.)

- ❏ If a DCP board is being installed, administer Switch for DCP link. (See Appendix C, page 26 of AVP System Manager's Guide.)

- ❏ Administer the Processor Interface Card for the X.25 Switch Communications Interface (SCI) Link byusingthe following forms (in order). (See pages 5-2-5-16 of AVPL System Manager's Handbook.)

  - ❏ Data Module Form

  - ❏ Processor Channel Assignment Form

  - ❏ Interface Links Form

- ❏ Administer the Hunt Group. (See pages 5-17-5-19 of AVPL System Manager's Handbook.)

- ❏ Administer the Call Coverage Path. (See pages *5-20-5-21* of AVPL System Manager's Handbook.)

VERIFY SYSTEM OPERATION

- ❏ Verify that dial tone can be detected on all IVP channels by running the IVP4 Circuit Board Diagnostics. (See pages 4-6 and 4-7 of AVP Installation and Maintenance Guide.)

- ❏ Initiate call-thru tests on all analog ports.

- ❏ Administer the systemfortwo test users/guests. If PMS is attached, create users utilizing PMS. (See pages4-25 -4-290fAVPLSystem Manager's Handbook.)

- ❏ Call the system and create personal greetings for test users/guests.

- ❏ Call the system and leave messages for test users/guests.

- ❏ Call the system and retrieve messages for test users/guests.

- ❏ Send and retrieve voice mail between test users/guests on CO-RESIDENT systems.

BACKUP THE SYSTEM

- ❏ Backup the system. (See Appendix K of AVPL Installation Handbook—packaged with this checklist).

CONNECTIVITY E
DIAGRAMS

INTRODUCTION

This appendix provides connectivity diagrams for the various hardware combinations of AUDIX Voice Power packages that an installer will encounter during the setup of an AUDIX Voice Power Lodging (AWL) system.

Specifically, this section provides listings for the following scenarios:

- AUDIX Voice Power Lodging (only)
- AUDIX Voice Power Lodging with Property Management System (PMS) feature
- AUDIX Voice Power Lodging co-resident with AUDIX Voice power R2.0
- AUDIX Voice Power Lodging with Property Management System (PMS) feature co-resident with AUDIX Voice Power R2.0.

Note: Co-residency of AWL with Stand Alone Automated Attendant R2.0 (SAA R2.0) is not listed separately, since SAA R2.O does not require any hardware changes other than additional IVP4 channels.

AVPL (ONLY)

Auto Attendmt an ca-faido an thh configumtion ● nd will use tha IV4 ports
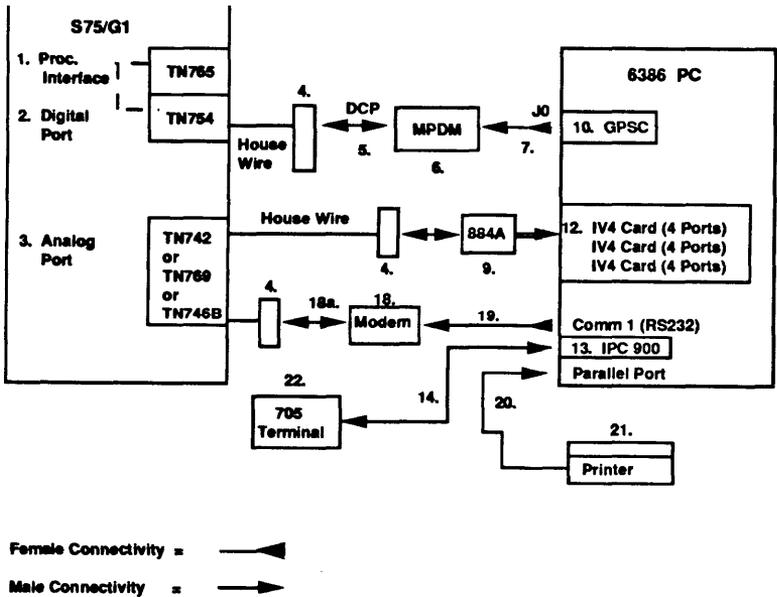
Figure E-1. System Connectivity for AVPL (Only)

TABLE E-1. COMPONENT TABLE - AVPL (ONLY) 1 of 4

Item	Description	PEC	Quantity
1	Processor Interface	63153A	1
2	Digital Port	63114	1
3	Analog Ports TN742	63111	x
	Analog Ports TN769	63?42	x
	Analog Ports TN746B	63?36	x
4	103A Connect Block	2750-D08	4
5	A cord for MPDM 7-foot 4-pair included with S/A MTG		
6	MPDM S/A MT(3 RS232 Interface	2161-PDM 21702 21611	1 1 1

Note: X = quantity determined by the size of the application.

TABLE E-2. COMPONENT TABLE - AVPL (ONLY) 2 of 4

Item	Description	PEC	Quantity
7	M25A Cord RS-232 - 9 Foot M/F	2721-OIJ	1
9	884A Adaptor and Four Cords for IV4 -7 Foot 4-Pair Included with IV4 Board		1
10	General Purpose Synch Controller	6950-CA1	1
12	Integrated Voice Power Card (4 Ports)	8304-IV4	1-4*
13	IPC-900 (8 Serial Ports) (optional)	69597	1

* Number of boards is user-defined. It depends on the number of channels the user wants.

TABLE E-3. COMPONENT TABLE - AVPL (ONLY) 3 of 4

Item	Description	PEC	Quantity
14	50-Foot, 10-Connector Modular Cable	69607	1
	or		
	25-Foot, 10-Connector Modular Cable	69606	1
	or		
	10-Foot, 10-Connector Modular Cable (optional)	69605	1
18	Modem (1200/2400)	2260-24A	1
18a	Included with Modem		
19	Cable RS-232 (M/F 5foot)	2721-28E	1

TABLE E-4. COMPONENT TABLE - AVPL (ONLY) 4 OF 4

Item	Description	PEC	Quantity
20	Cable (7-Foot 25-36 Parallel) (optional)	6950-EB1	1
21	Printer (9 Pin, 80 Column Parallel) (optional)	6950-EP3	1
22	705 terminal optional	6950-ET3	1-8

AVPL WITH PMS iNTERFACE

Auto Attendant CM co-reeide on thie configuration ● nd will uee the IV4 ports

Figure E-2. System Connectivity for AVPL with PMS Interface

TABLE E-5. COMPONENT TABLE - AVPL WITH PMS 1 of 3

Item	Description	PEC	Quantity
1	Processor Interface	63153A	1
2	Digital Port	63114	1
3	Analog Ports TN742	63111	x
	Analog Ports TN769	63:42	x
	Analog Ports TN746B	63?36	x
4	103A Connect Block	2750-D08	4
5	A cord for MPDM 7-foot 4-pair included with S/A MTG		
6	MPDM S/A MTG RS232 Interface	2161-PDM 21702 21611	1 1 1

Note: X = quantity **determined by the size of the application.**

TABLE E-6. COMPONENT TABLE - AVPL WITH PMS 2 of 3

Item	Description	PEC	Quantity
7	M25A Cord RS-232 - 9 Foot M/f?	2721-OIJ	
9	884A Adaptor and Four Cords for IV4 -7 Foot 4-Pair Included with IV4 Board		1
10	General Purpose Synch Controller	6950-CA1	1
12	Integrated Voice Power Card (4 Ports)	8304-IV4	1-4*
14	50-Foot 10-Connector Modular Cable or	69607	1
	25-Foot 10-Connector Modular Cable or	69606	1
	1O-Foot 10-Connector Modular Cable (PMS Vendor)	69605	1

* Number of boards is user-defind. It depends on the number of channels the user wants.

TABLE E-7. COMPONENT TABLE - AVPL WITH PMS 3 of 3

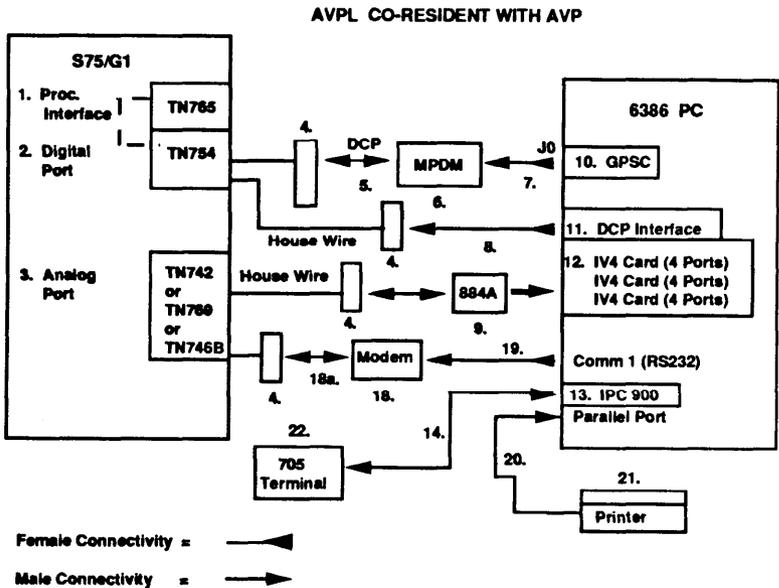| Item	Description	PEC	Quantity
15	RJ45 (10) to Male DB25 DTE (PMS Vendor)	69608	1
15a	J45 (10) to Female DB-9 Null Modern Plugs into PC Comm 2 (PMS Vendor)	69619	1
17	Gender Changer (PMS Vendor)	2750-A53f	1
18	Modem (1200/2400)	2260-24A	1
I8a	Included with Modem		
19	Cable RS-232 (5 foot M./F)	2721-28E	1
20	Cable (7-Foot 25-36 Parallel) (optional)	6950-EB 1	1

Figure E-3. System Connectivity for AVPL Co-Resident with AVP

**TABLE E-8. COMPONENT TABLE - AVPL CO-RESIDENT
WITH AVP 1 of 4**

Item	Description	PEC	Quantity
21	R-inter (9 Pin, 80 Column Parallel) (optional)	6950-EP3	1
1	Processor Interface	63153A	1
2	Digital Port	63114	1
3	Analog Ports TN742	63111	x
	Analog ports TN769	63742	x
	Analog Ports TN746B	63736	x
4	103A Connect Block	2750-D08	4
5	A cord for MPDM 7-foot 4-pair included with S/A MTG		

Note: X = quantity determined by the size of the application.

**TABLE E-9. COMPONENT TABLE - AVPL CO-RESIDENT
WITH AVP 2 of 4**

| Item	Description	PEC	Quantity
6	MPDM	2161-PDM	1
	S/A MTG RS232 Interface	21702 21611	1 1
7	M25A Cord RS-232 - 9 Foot M/F	2721-OIJ	1
8	8 Pin Mod Included with DCP Interface		1
9	884A Adaptor and Four Cords for IV4 7 Foot 4-Pair Included with IV4 Board		1
10	General Purpose Synch Controller	6950-CA1	1
11	DCP Interface	8302-101	1

**TABLE E-10. COMPONENT TABLE - AVPL CO-RESIDENT
WITH AVP 3 of 4**

Item	Description	PEC	Quantity
12	Integrated Voice Power Card (4 Ports)	8304-IV4	1A*
13	IPC-900 (8 Serial Ports) (optional)	69597	1
14	50-Foot, 10-Connector Modular Cable	69607	1
	or 25-Foot, 10-Connector Modular Cable	69606	1
	or 10-Foot, 10-Connector Modular Cable (optional)	69605	1
18	Modem (1200/2400)	2260-24A	1
18a	Included with Modem		

* Number of boards is user-defined. It depends on the number of
channels the user wants.

**TABLE E-Il. COMPONENT TABLE - AVPL CO-RESIDENT
WITH AVP 4 of 4**

Item	Description	PEC	Quantity
19	Cable RS-232 (5 foot M/F)	2721-28E	1
20	Cable (7 Foot 25-36 Parallel) (optional)	6950-EB 1	1
21	Printer (9 Pin, 80 Column Parallel) (optional)	6950-EP3	1
22	705 terminal (optional)	6950-ET3	1-8

AVPL WITH PMS INTERFACE CO-RESIDENT WITH AVP

Female Connectivity = �◀
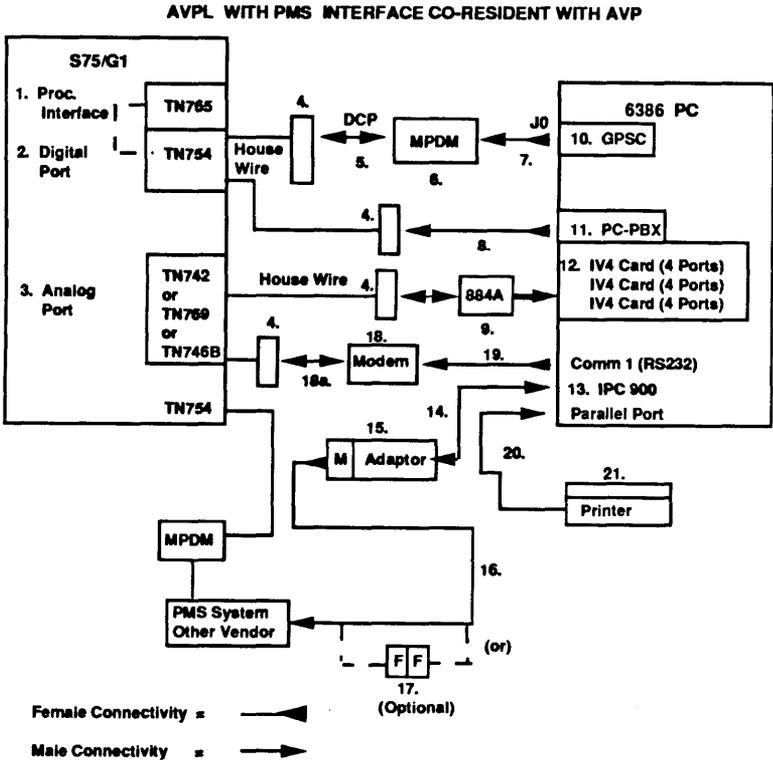
Male Connectivity = ▶

*This is a sample connection from Comm 2 to the PMS System. It is the PMS Vendor's responsibility
to provide the cables from the PMS to the AVPL System.

NOTE: Connection from PMS is assumed to be a DTE.

**Figure E-4. System Connectivity for AVPL with PMS Interface
Co-Resident with AVP**

**TABLE E-12. COMPONENT TABLE - AVPL CO-RESIDENT
WITH AVP W/PMS 1 of 5**

Item	Description	PEC Code	Quantity
1	Processor Interface	63153A	1
2	Digital Port	63114	1
3	Analog Ports TN742	63111	x
	Analog Ports TN769	63?42	x
	Analog Ports TN746B	63?36	x
4	103A Comect Block	2750-D08	4
5	A cord for MPDM 7-foot 4-pair included with S/A MTG		
6	MPDM S/A MTG RS232 Interface	2161-PDM 21702 21611	1 1 1

Note: X = quantity determined by the size of the application.

**TABLE E-13. COMPONENT TABLE - AVPL CO-RESIDENT
WXTH AVP W/PMS 2 of 5**

Item	Description	PEC Code	Quantity
7	M25A Cord RS-232 -9 Foot M/F	2721-O1J	1
8	8 Pin Mod Included with PC-PBX		1
9	884A Adaptor and Four Cards for IV4 7 Foot 4-Pair Included with IV4 Board		1
10	General Purpose Synch Controller	6950-CA1	1
11	DCP Interface	8302-101	1
12	Integrated Voice Power Card (4 Ports)	8304-IV4	1A*

* Number of boards is user-defined. It depends on the number of channels the user wants

**TABLE E-14. COMPONENT TABLE - AVPL CO-RESIDENT
WITH AVP W/PMS 3 of 5**

Item	Description	PEC Code	Quantity
13	IPC-900 (8 Serial Ports)	69597	1
14	50-Fcx)t, 10-Connector Modular Cable	69607	1
	or 25-Foot, 10-Connector Modular Cable	69606	1
7	or 10-Foot, 10-Connector Modular Cable	69605	1
15	RJ45 (10) to Male DB25 DTE (This DS25 will be provided by AT&T and is the Demarcation point.)	69608	**1**

**TABLE E-15. COMPONENT TABLE - AVPL CO-RESIDENT
WITH AVP W/PMS 4 of 5**

Item	Description	PEC Code	Quantity
16	Null Modem Cable 6-Foot M-F (This cable or an equivalent is the PMS Vendor/Customer responsibility).	2724-92G	1
17	Gender Changer (PMS Vendor)	2750-A53f	1
18	Modem (1200/2400)	2260-24A	1
18a	Included with Modem		

**TABLE E-16. COMPONENT TABLE - AVPL CO-RESIDENT
WITH AVP W/PMS 5 of 5**

Item	Description	PEC Code	Quantity
19	Cable RS-232 (5 foot M/F)	2721-28E	1
20	Cable (7-Foot 25-36 Parallel) (optional)	6950-EB 1	1
21	Printer (9 Pin, 80 Column Parallel) (optional)	6950-EP3	1

The following tables reflect pin assignments in relation to the IPC 802
and IPC 900 cards, the RJ45 (10) to Male DB25 Adapter DTE and the
Serial 9 pin connector assignment.

TABLE E-17. IPC 802 RS232 PIN ASSIGNMENTS (DTE)

Pin	Description
1	**Frame Ground (FG)**
2	**Transmit Data ('III)**
3	**Receive Data (RD)**
4	**Request to Send (RTS)**
5	**Char to Send (CTS)**
6	**Data Set Ready (DSR)**
7	**Signal Ground (SG)**
8	**Data Carrier Detect (DCD)**
20	**Data Terminal Ready (DTR)**
22	**Ring Indicator (RI)**

TABLE E-18. IPC 900 RS232 PIN ASSIGNMENTS (DTE)

Pin	Description
1	Frame Ground (FG)
2	Transmit Data ('ID)
3	Receive Data (RD)
4	Request to Send (RTS)
5	Clear to Send (CTS)
6	Data Set Ready (DSR)
7	Signal Ground (SG)
8	Data Carrier Detect (DCD)
20	Data Terminal Ready (DTR)
22	Ring Indicator (RI) NO CONNECTION

RJ45 (10) To Male DB25 Adapter **DTE**

IPC 900					RS232 Pin Assignment	
Reserved		1	→	6	Data Set Ready	(DSR)
Ring Indicator	(RI)	2		22	Ring Indicator (NO CONNECTION)	(RI)
Data Carrier Detect	(DCD)	3	←	20	Data Terminal Ready	(DTR)
Data Terminal Ready	(DTR)	4	→	8	Data Carrier Detect	(DCD)
Signal Ground	(SG)	5		7	Signal Ground	(SG)
Receive Data	(RD)	6	←	2	Transmit Data	(TD)
Transmit Data	(TD)	7	→	3	Receive Data	(RD)
Clear to Send	(CTS)	8	←	4	Request to Send	(RTS)
Request to Send	(RTS)	9	→	5	Clear to Send	(CTS)
Frame Ground	(FG)	10		1	Frame Ground	(FG)
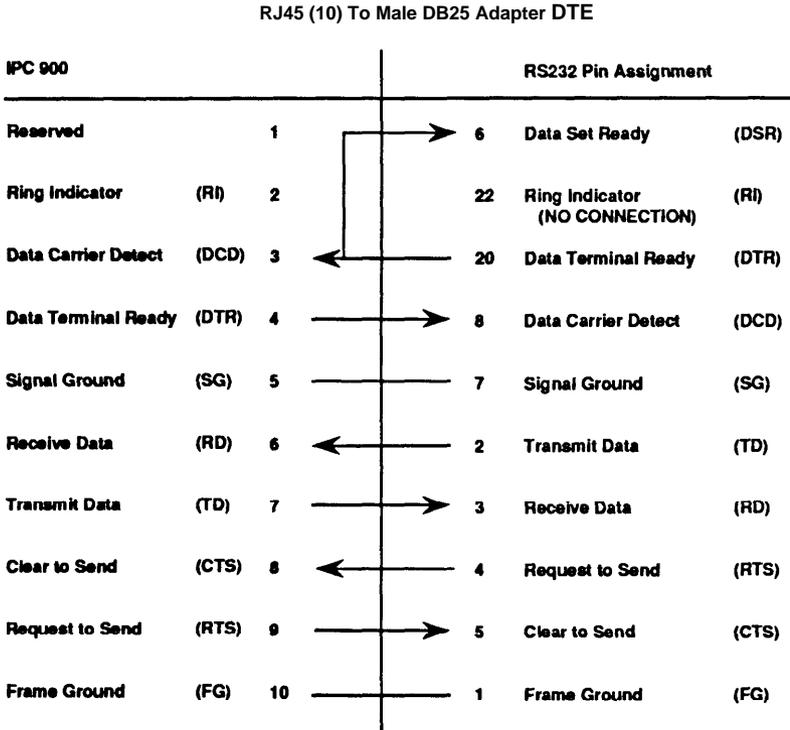
Figure E-5. RJ45 (10) To Male DB25 Adapter DTE

TABLE SERIAL 9 PIN CONNECTOR PINOUT (COMM 2 DCE)

Pin	Description
1	Data Carrier Detect (DCD)
2	Receive Data (RD)
3	Transmit Data ('I'D)
4	Data Terminal Ready (DTR)
5	Ground
6	Data Set Ready (DSR)
7	Request to Send (RTS)
8	Clear to Send (CTS)
9	Ring Indicator (RI) NO CONNECTION

INTRODUCTION

This appendix provides settings for the various switches found on the General Purpose Synchronous Controller Card (GPSC-AT).

Warning: When translating the switch, make sure all names match those found in the *AUDIX Voice Power Lodging Installation Handbook (585-310-106).*

Specifically, this section provides settings for the following switches:
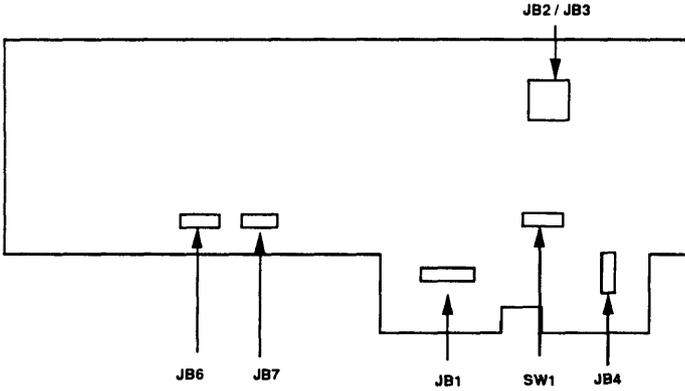
Figure F-1. Location of Switches on GPSC-AT Card

Figure F-1 shows the physical location of the switches on the GPSC-AT
%rd. These switches are very small. You may have to look carefully
=or them.
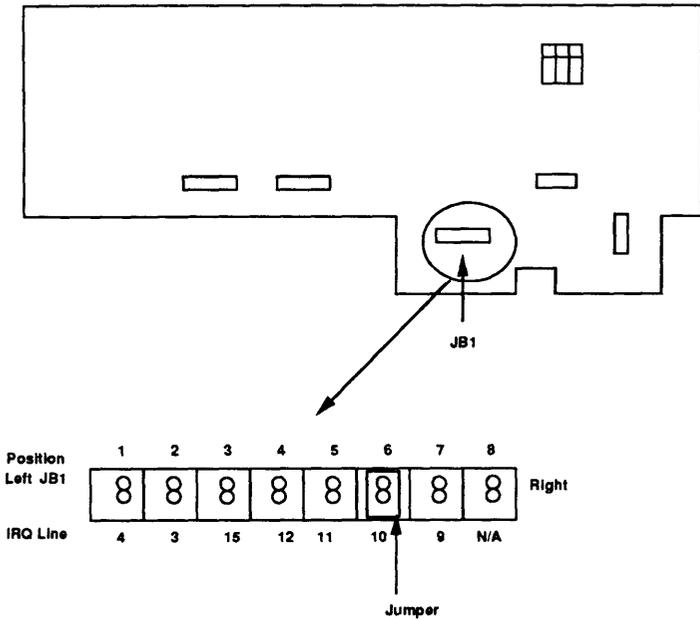
Figure F-2. Switch Settings for Switch JB1

Figure F-2 shows the switch settings for switch JB 1. Switch JB 1 has eight segments. Only segment 6 will be jumpered. All other segments remain "unjumpered."
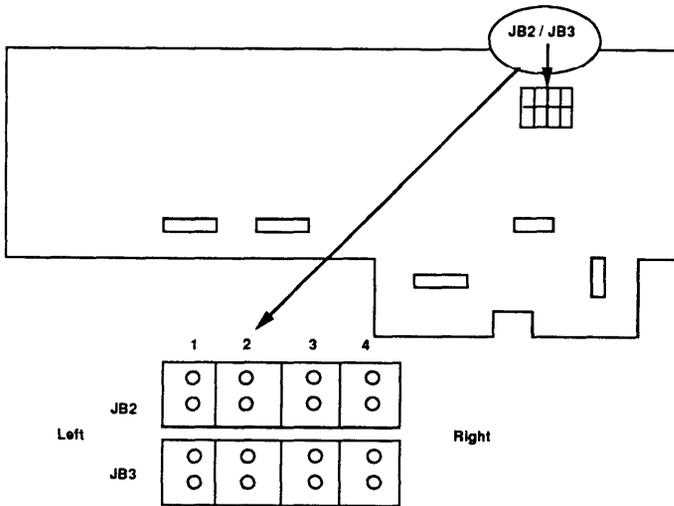
Figure F-3. Settings for Pins on JB2 and JB3

Figure F-3 shows the settings for switches JB2 and JB3. Switches JB2 and JB3 have four segments each. All segments are "unjumpered."
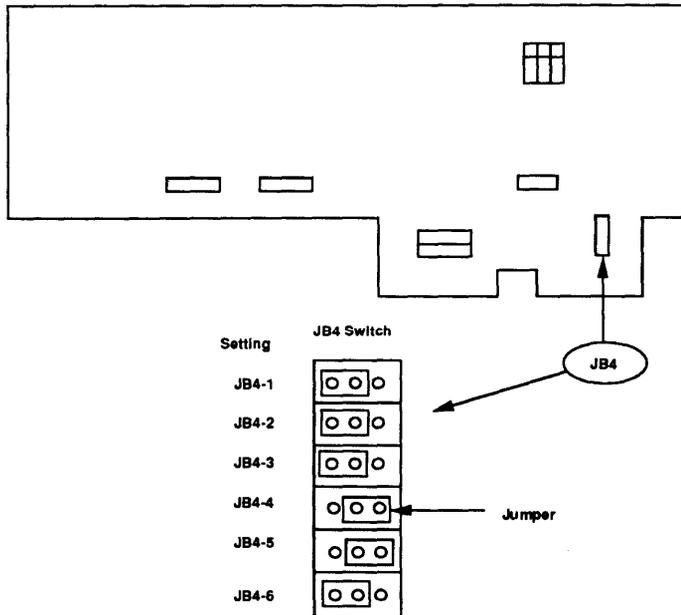
Figure F-4. Settings for Pins on JB4

Figure F-4 shows the jumper settings for switch JB4. Switch JIM has six segments. Segments 1, 2, 3, and 6 are jumpered over pins 1 and 2. Segments 4 and 5 are jumpered over pins 2 and 3.
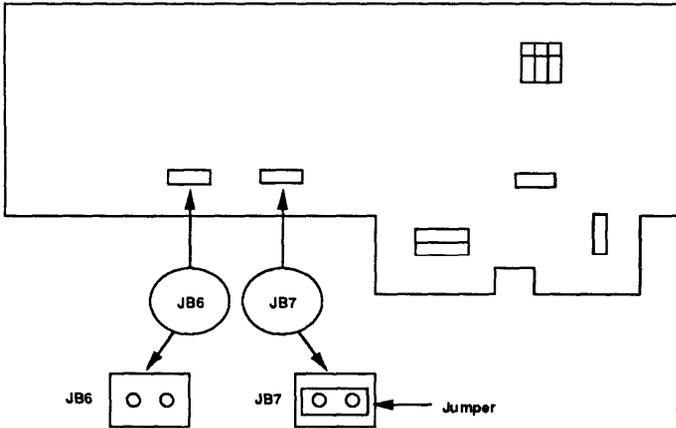
Figure F-5. Settings for Pins on JB6 and JB7

Figure F-5 shows the settings for switches JB6 and JB7. Switch J136 has two pins. They remain "unjumpered". Switch JB7 also has two pins which are jumpered.
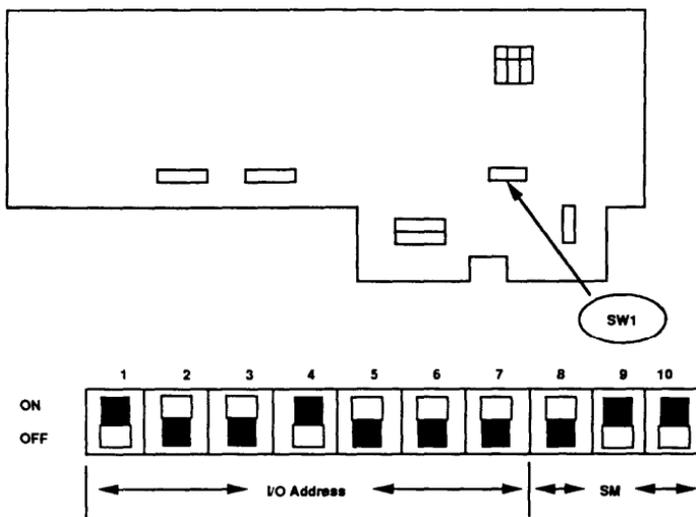
Figure F-6. Settings for Panel SW1

Figure F-6 shows panel SW1, which has ten small switches. Segments 1,4,9, and 10 are in the "Switch Off" position. Segments 2,3,5,6,7, and 8 are in the "Switch On" position.

SPECIFIC MPDM G
SWITCH SETTINGS

INTRODUCTION

This appendix provides settings for the two switches found on the Modular Data Processing Module (MPDM). For more information on the MPDM, see Chapter *3,* "Installing Hardware," in the *AUDIX Voice Power Lodging Installation Handbook (585-3 10-106).*
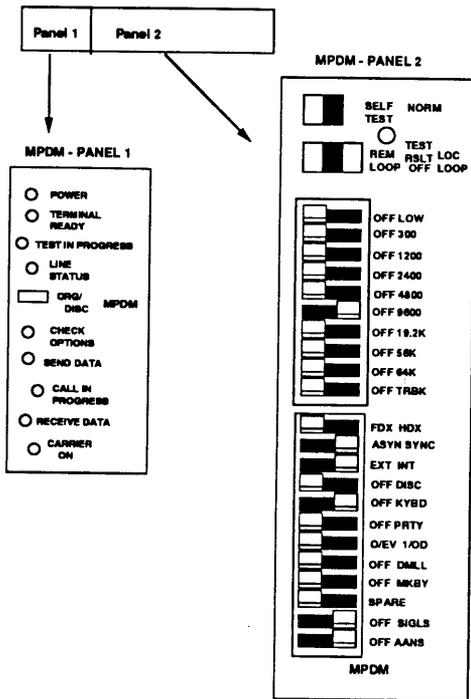
Figure G-1. Specific MPDM Switch Settings

Figure G-1 shows panels 1 and 2 on the MPDM. Panel 1 displays the status indicators and panel 2 displays the switch settings.

INTRODUCTION

This appendix provides connection diagrams and settings for the various switches found on the Intelligent Ports Card (Models 802 and 900.) For further information on the IPC-802 or -900 Cards, see Appendix B, "Installing an IPC Card," of the *AUD]X Voice Power Lodging Installation Handbook (585-3 10-106).*
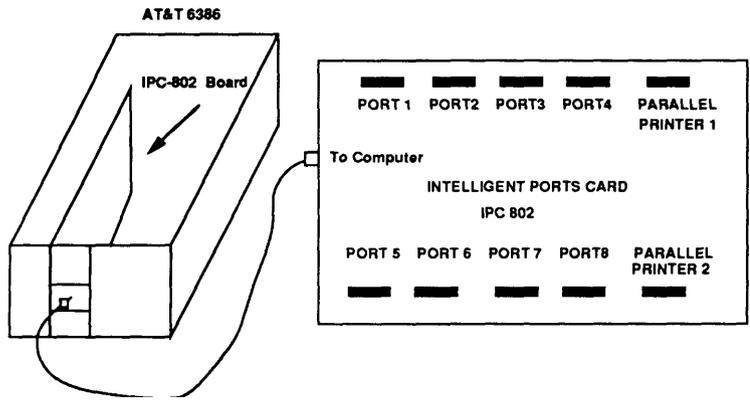
Figure H-1. Connection for IPC 802

The 802 Intelligent Ports Card uses an unattached board for its RS232
connections as shown in the diagram. The cabling and external
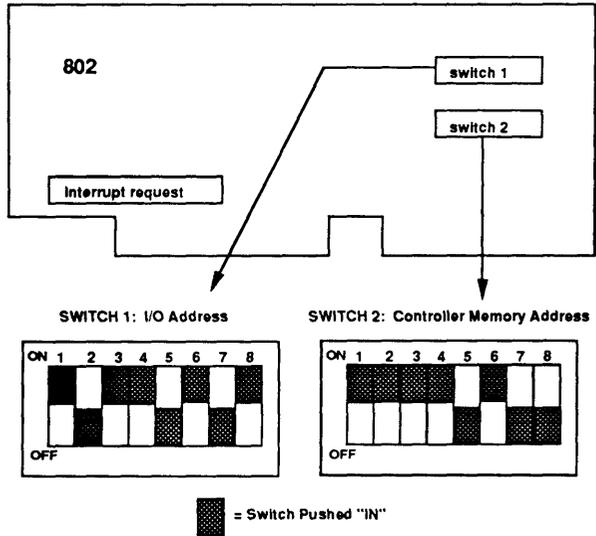interface board is part of a single PEC code.

Figure H-2. IPC 802 Switch Settings for Switches 1 and 2

Switch 1 has eight switches. Switches 1, 3,4,6, and 8 are pushed IN to the ON position. All others are in the OFF position.

Switch 2 has eight switches. Switches 1,2, 3,4, and 6 are pushed IN to the ON position. All others arc in the OFF position.

Figure H-3. IPC 802 Settings for Interrupt Request Switch

On the IPC *802* card, setting IRQ3 comes with a default strap in place.
You must move the strap to the IRQ5 setting.
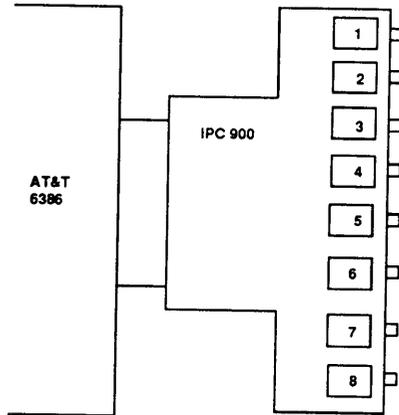
Figure H-4. ~onnectkm for **IPC 900**

The IPC 900 is directly conneacd to the AT&T 6386 and provides eight lo-pin serial ports with a general connector, whereas the IPC 802 card has a separate card with eight RS232 serial ports and two parallel ports.

Figure H-5. IPC 900 Switch Settings for Switches 1 and 2

Switch 1 has eight switches. Switches 1, 3,4,6, and 8 are pushed IN to the ON position. All others are in the OFF position.

Switch 2 has eight switches. Switches 1,2, 3,4, and 6 are pushed IN to the ON position. All others are in the OFF position.
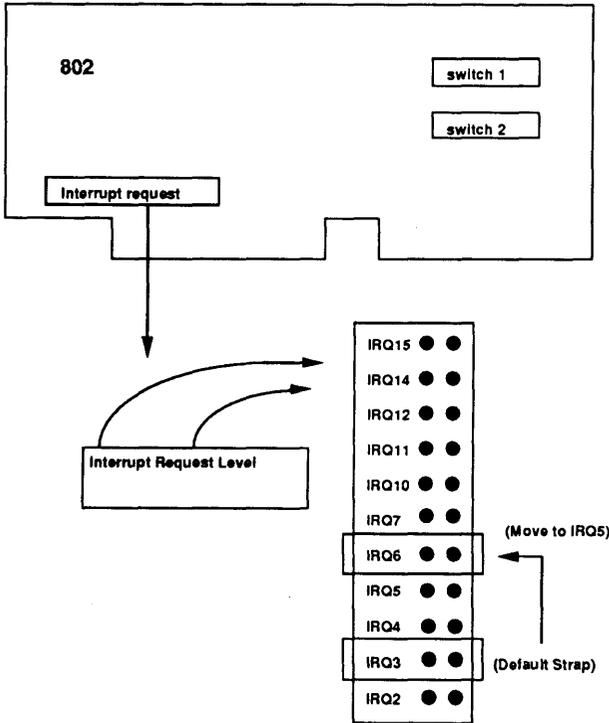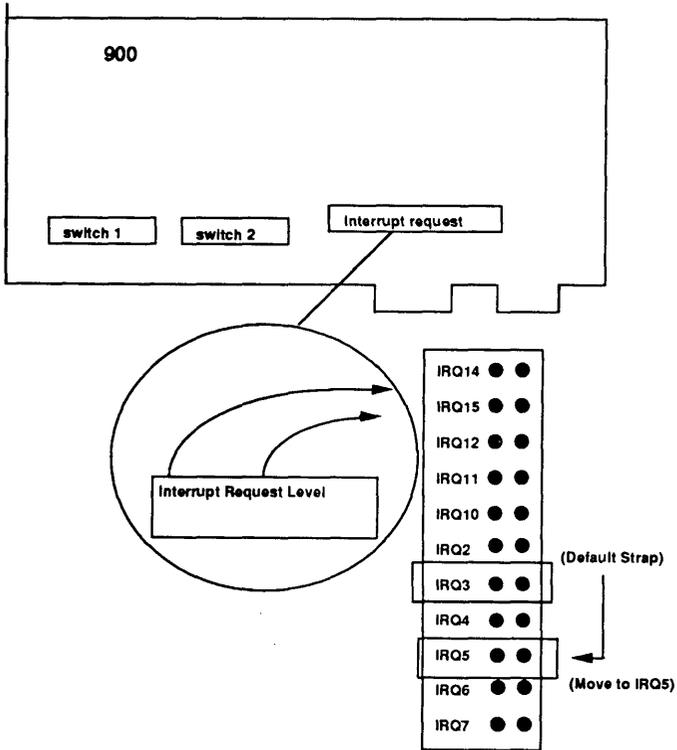
Figure H-6. IPC 900 Switch Settings for Interrupt   Switch

On the WC 900 card, setting IRQ3 comes with a default strap in place. You must move the strap to the IRQ5 setting.

MISCELLANEOUS **I**
HARDWARE INFORMATION

INTRODUCTION

This appendix provides miscellaneous AUDIX Voice Power Lodging (AVPL) hardware information including:

- Selecting a site for the system. See page I-2 of this addendum.

- Setting motherboard jumpers on 6386/25 and 6386E/33 WGS. See pages I-3 thru I-6 of this addendum.

- VDC600 board configuration and installation. See pages I-7 and I-8 of this addendum.

- Setting up a report printer. See pages I-9 thru 1-12 of this addendum.

SELECTING A SITE FOR THE SYSTEM

Before you begin to set up your equipment or to install the software, you should verify that you have selected an appropriate site and have received the materials necessary for installation.

Select a site for the AUDIX Voice Power processor that provides easy access for the cabling and also provides good workspace for the System Manager or operators who will be using the system. The site should be comfortable for the operators and should meet the following environmental requirements:

Temperature: 50 to 100 F (10 to 38 C)

Humidity: 20 to 80% noncondensing

Power 115 V, 50-60 Hz, 220 Watts

Protect your AUDIX Voice Power processor from sunlight, heat, cold, chemicals, static electricity, magnetic fields, vibration, and grime.

Be sure to use a grounded, nonswitched outlet for the processor.

SETTING MOTHERBOARD JUMPERS ON 6386/25 AND 6386E/33 WGS

On the 6386/25 and 6386E/33 WGS, jumper settings must be changed to provide the following system configuration information to the CPU:

- total onboard RAM (8 MB)

- serial port enable/disable (COM2 port disabled).

All other jumpers are left in the factory default configuration.

The location and correct settings for all jumpers are shown in Figures I-1 and I-2 for the 6386/25 and 6386/33, respectively.

Onboard RAM Configuration Jumpers

The onboard RAM configuration must be set to 8 MB.

On the 6386/25 WGS:

1. Leave the jumper between pins E60 and E62 in place.

2. Place an additional jumper between pins E61 and E63. Spare jumpers are packed in the plastic bag with the power cord.

On the 6386E/33 WGS:

1. Leave the jumper between pins E6 and E8 in place.

2. Remove the jumper between pins El 1 and E13 and place it between pins E7 and E9.

Serial Port *Configuration Jumpers (If Co-Resident with DCP Board)*

Serial port COM2 must be disabled since its interrupt request (IRQ) will be used by another board.

On the 6386/25 WGS, remove the jumper between pins E25 and E26, and place it between pins E26 and E27.

On the 6386/33 WGS, remove the jumper between pins E34 and E35, and place it between pins E35 and E36.

Note: If the system is not co-resident with a DCP Board, ensure that the port is enabled.

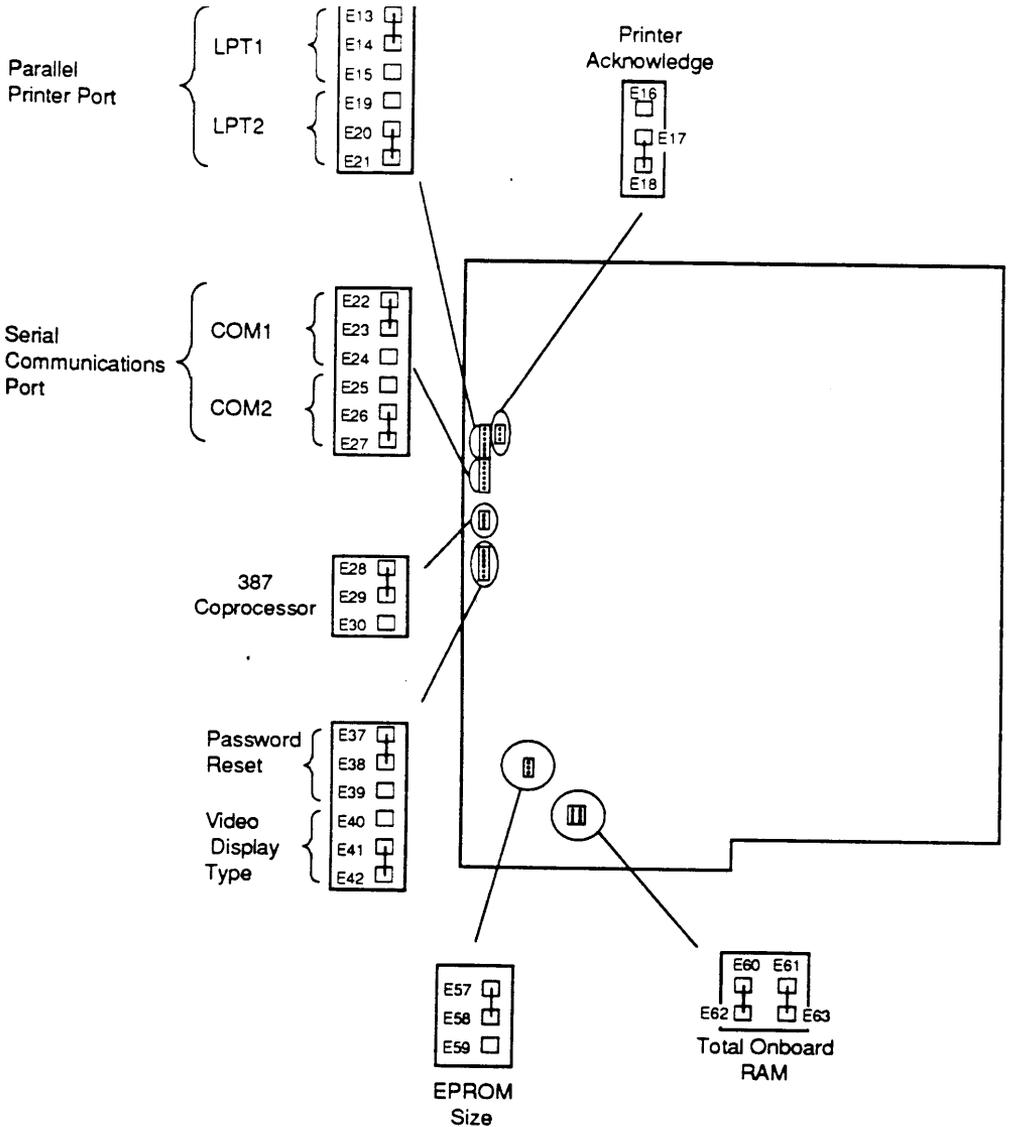**Figure I-1. Location of Motherboard Jumpers on 6386/25 WGS**

Figure I-2. Location of Motherboard Jumpers on 6386E/33 WGS
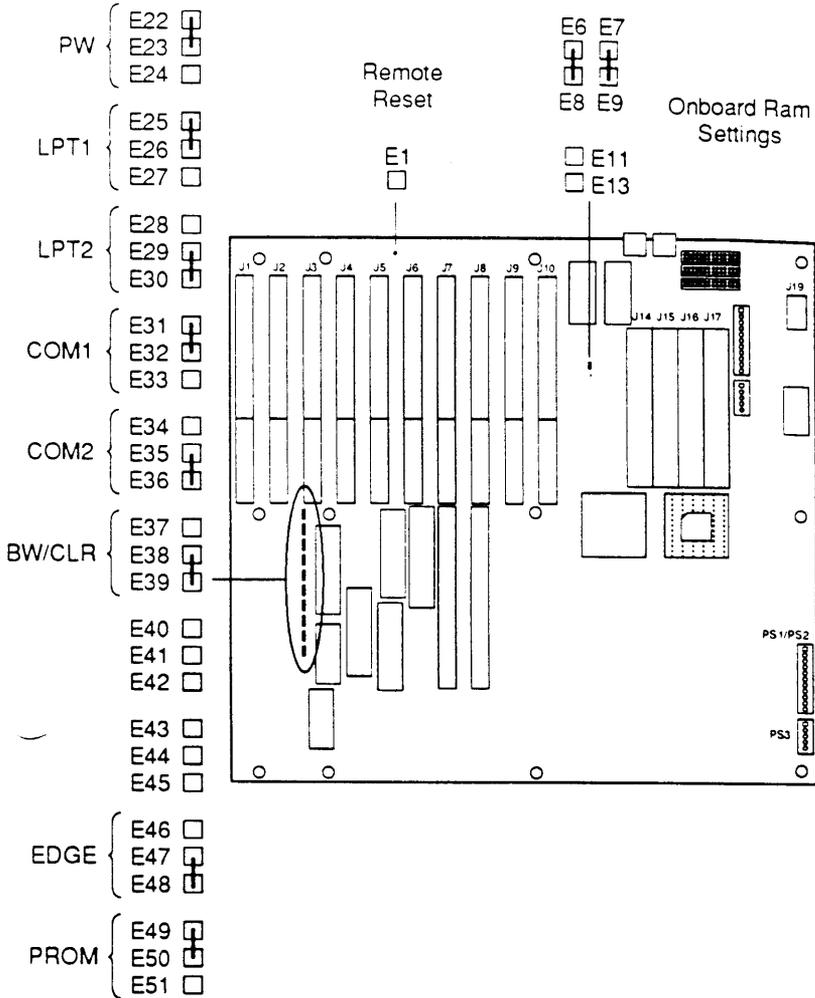
VDC600 BOARD CONFIGURATION AND INSTALLATION

The VDC600 is the AT&T equivalent of a Video Graphics Array
(VGA) board.

>   *Note:* The 6386SX WGS has a video controller built into
>   the motherboard. The VDC600 should not be used with the
>   6386SX WGS.

The default settings are used for the DIP switch and jumpers on the
Video Display Controller. The locations and settings are shown in
Figure I-3. For more information on default settings, see the Video
Display Controller Installation Guide packed with the board.

The VDC should be installed in the leftmost expansion slot on desktop
configurations or in the rearrnost expansion slot on floor models.
Follow the general instruction for installing expansion boards

   Note: The VDC600 must be installed in a 16 bit expansion slot.

Figure I-3. VDC600 Switch and Jumper Locations and Settings

Pins 1 and 2 are "jumpered."
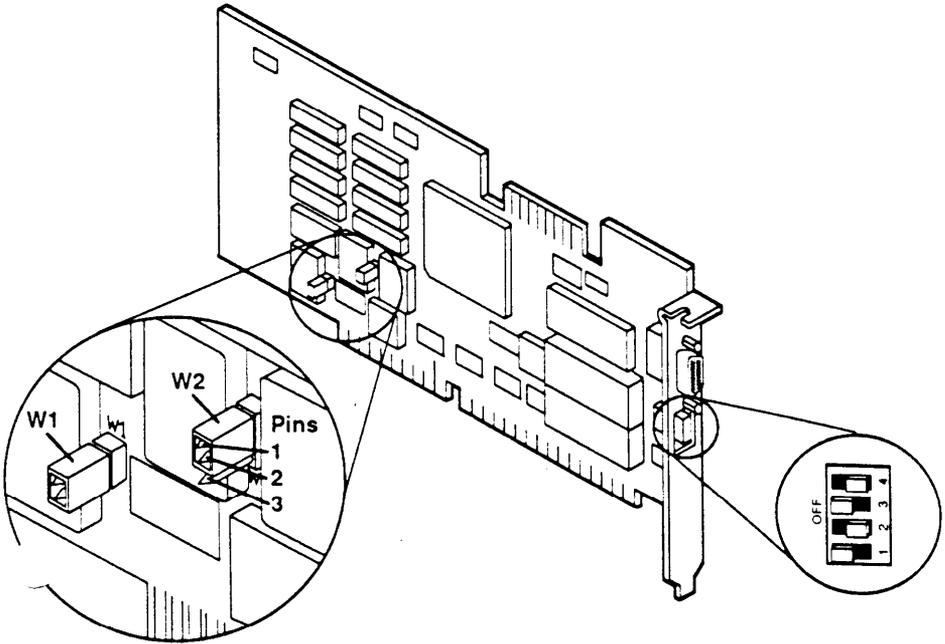
SEIIING UP *A* REPORT PRINTER

The AT&T 470/47 1, 570/571, and 580/581 printers are supported. This section describes the setup of the AT&T 570 (80 column) or 571 (132 column) printer. For other printers, please refer to the documentation received with the printer.

The switches and lamps have different meanings in Setup Mode than they do in Normal Print Mode. The printer operation panel is shown in Figure I-4 with the setup fimctions identified.
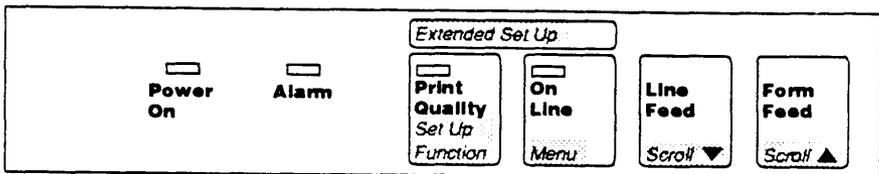
Figure I-4. Printer Operation Panel

In the Setup Mode, the switches have the following functions:

Set Up Function

When pressed while turning power ON, causes the printer to enter Setup Mode. (The printer will be in Function Mode with function 01 selected. Also pressing Scroll when power is turned on causes the printer to be in Function Mode with function 99 selected.)

When pressed while in Function Mode, causes the printer to return to Normal Print Mode.

When pressed while in Menu Mode, causes the printer to store the selected value for the selectal function.

Menu

When pressed, causes the printer to enter Menu Mode for the function selected.

Scroll ⬆

When pressed in Function Mode, causes the next function to be selected.

When pressed in Menu Mode, causes the next menu selection to be displayed for the selected function.

Scroll ⬇

When pressed in Function Mode, causes the previous function to be selected.

When pressed in Menu Mode, causes the previous menu selection to be displayed for the selected function.

Setting the Control Values

Follow this procedure to set the control values on the report printer.

Unpack and set up the printer according to the instructions in the documentation supplied with the printer.

Be sure that the printer has printer paper, that the ribbon is properly installed, and that the cover is closed. The printer will not enter Setup Mode if it is out of paper or if the cover is open.

Set the dcfiduh values by following these steps:

1. While holding down the Function and Scroll switches, turn the power ON. When the SELF TEST functions complete, setup function number 99 is automatically displayed.

2. Press the Scroll switch to select setup function number 98 (set default values).

3. Press the Menu switch to enter Menu Mode.

4. Press the Scroll switch to select menu item 02.

5. Press the Function switch once to set the default values.

6. Turn the power OFF.

Connecting the Printer

One parallel printer cable is required to connect the printer.

Follow these steps to connect the printer:

1. Unpack and set up the printer according to the instructions in the user's guide supplied with the printer. Do not plug in the printer.

2. Connect the 25-pin DB25 connector end of the parallel printer cable to the parallel port on the WGS system module. The cable connector has pins and the WGS connector has sockets. Secure the connector with the captive screws.

3. Connect the other end of the parallel printer cable to the matching Centronics port (Amphenol connector) on the printer. Use the spring clips to secure it.

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INTRODUCTION

This appendix provides listings of the disk file sizes, the chronological order of software installation, and the hardware ncccssary for the various combinations of AUDIX Voice Power packages that an installer will encounter during the setup of an AVPL system. These listings also include any software patches that may need m bc installed.

Specifically, this section provides listings for the following scenarios:

- Disk File Sizes. See page J-2

- AUDIX Voice Power Lodging R 1.0 (only). Scc pages J-5 and J-6 of this addendum.

- AUDIX Voice Power Lodging R 1.0 with Property Management System (PMS) package. See page J-7 of his addendum.

- AUDIX Voice Power Lodging R 1.0 co-resident with AUDIX Voice Power R2.0. See pages J-8, J-9 and J-10 of This addendum.

- AUDIX Voice Power Lodging with Property Management System (PMS) package co-resident with AUDIX Voice Power R2.0. See pages J-11, J-12 and J-13 of this addendum.

- AUDIX Voice Power Lodging co-resident Stand Alone Automated Attendant R2.O. See pages J- 14 and J-15 of this addendum.

- AUDIX Voice Power Lodging with Property Management System (PMS) package co-resident Stand Akmc Automated Attendant R2.0. See pages J-16 and J-17 of this addendum.

Disk File Size

Before beginning the hardware and software installation, the file system size should be verified using table J-1. If the drive type is not listed on this table, it will be necessary to calculate the figures using the following formulas listed below.

> *Note:* When calculating the figures, always round the number up to the next whole number. For example, if you calculate a number of 134.2, you must round the number up to 135.

Refer to chapters 3 and 4 of the *AUDIX Voice Power Lodging installation Handbook* for more information.

For **root:** Divide the total number of cylinders on the disk by the number of megabyte on the disk and multiply that number by 18. The result is the number of cylinders to allocate for root.

$$\text{no. of cylinders for root} = \frac{\{\#of \ cylinders(a)) \ x \ \{18 \ megabytes\}}{\{\#of \ megabytes(b))}$$

For **usr:** Divide the total number of cylinders on the disk by the
number of megabyte on the disk and multiply that number by 21. The
result is the number for cylinders to allocate for **usr.**

$$\text{no. of cylinders for user} = \frac{\{\#of\ cylinders(a)\} \times (21\ megabytes\}}{\{\#of\ megabytes(b))}$$

For **swap:** Divide the total number of cylinders on the disk by the
number of megabyte on the disk and multiply that number by 6. The
result is the number of cylinders to allocate for **swap.**

$$\text{no. of cylinders for swap} = \frac{\{\#of\ cylinders(a)\} \times (6\ megabytes]}{\{\#of\ megabytes(b))}$$

For example: For **root -135** MB with 1021 total cylinders on the disk.

$$\frac{1021 \times 18}{135} = 136 \text{ cylinders to allocate for } \textbf{root.}$$

The rest of the cylinders me allocated as **usr2** and are used for voice
mail speech.

TABLE J-1. DISK FILE SIZE

Drive Type	# of Cyl (a)	# of MBS (b)	root 18 (MBS)	usr 21 MBS)	swap 6 (MBS)
24	820	136	109	127	36
25	1021	135	136	159	45
31	814	304	49	57	17
32	977	81	220	256	74
33	1021	84	219	257	73
34	949	141	122	142	41
36	965	80	218	254	73

Note: Table J-1 represents all possible combinations.

AUDIX VOICE POWER LODGING (ONLY)

If you are installing an AUDIX Voice Power Lodging Release 1.0
package, install the software in the following order:

Software

1 . **386 UNIX* System V Release 3.2.2**
     Note: Do **not** install UNIX 3.2.3, or the 2.2 to 2.3 upgrade.

2 . FMLI Version 1.2 or later

3 . FACE Version 1.2.1 or later

4 . FACE HELP Version 1.2 or later

5 . Editing Package Version 2.0 or later

6 . Remote Terminal Package Version 2.0 or Inter

7 . AVPL X.25 Network Intcrhcc Version 1.0
     Note; Do **not** install the GPSC software shipped with the GPSC
     card.

8 . Integrated Voice Power System Software Release 1.1

9 . AUDIX Voice Power Lodging Sofware Release 1.0.

10. **(Patch)** Integrated Voice Power Systcm Software R1 .1: Patch 1

---

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AUDIX VOICE POWER LODGING (ONLY)

Hardware

- IVP4 cards
- 8 Mb RAM minimum
- 80 Mb hard drive minimum
- GPSC-AT Card
- IPC card (optional)
- MPDM Module
- 884A Adaptor
- Modem
- TN765

AVPL WITH PROPERIY MANAGEMENT SYSTEM PACKAGE

If you are installing an AUDIX Voice Power Lodging Release 1.0 with
the Property Management System (PMS) package, install the software
in the following order:

Software

1. 386 UNIX System V Release 3.2.2
   Note: Do **not** install UNIX 3.2.3, or the 2.2 to 2.3 upgrade.

2. FMLI Version 1.2 or later

3. FACE Version 1.2.1 or later

4. FACE HELP Version 1.2 or later

5. Editing Package Version 2.0 or later

6. Remote Terminal Package Version 2.() or kucr

7. AVPL X.25 Network Intcrfkcc Version 1.0
   No[e: Do **not** install the GPSC soflwwc shipped with the GPSC
   card.

8. Integrated Voice Power S ystcm %flwarc Release 1.1

9. AUDIX Voice Power Lodging Software Rclcasc 1.0

10. AVPL PMS Integration Software Package R 1.0

11. **(Patch)** Integrated Voice Power Systcm Soltwarc R1.1: Patch 1

Hardware

Installation of AVPL R1.0 with the PMS package requires an RS232
serial port and the same hardware as AVPL R 1.0 (only). See page J-5 of
this appendix.

AVPL CO-RESIDENT WITH AUDIX VOICE POWER 2.0

If you are installing an AUDIX Voice Power Lodging RI.0 co-resident
with the AUDIX Voice Power R2.O package, install the software in the
following order:

Software

1 . 386 UNIX System V **Release** 3.2.2
   Note: Do **not** install UNIX 3.2.3, or the 2.2 to 2.3 upgrade.

2 . FMLI Version 1.2 or later

3 . FACE Version 1.2.1 or later

4 . FACE HELP Version 1.2 or later

5 . Editing Package Version 2.0 or later

6 . Remote Terminal Package Version 2.0 or later

7 . AVPL X.25 Network Interface Version 1.0
   No~e: Do **not** install the GPSC software shipped with the GPSC
   Card.

8 . Integrated Voice Power System Software Release 1.1

9 . Intelligent Ports Card Drivers Package (8-Ports) *optional*

10. AUDIX Voice Power Application Software Release 2.0

11. AUDIX Voice Power S witch Integration Software for AT&T
     System 75/DEFINITY G1 PBX

12. AUDIX Voice Power Lodging Software Release 1.0

13. **(Patch)** Integrated Voice Power Systcm Sollwarc R 1.1 Patch 1

14. **(Patch) AVP** Application Software R2.() Patch 1

15. **(Patch) AVP** Switch Integration Software (for AT&T System 75
     or DEFINITY G 1 PBX) R2.O Patch 1

AVPL CO-RESIDENT WITH AUDIX VOICE POWER 2.0

Hardware

- IVP4 cards
- 8 Mb RAM minimum
- 80 Mb hard drive minimum
- GPSC-AT Card
- IPC card (optional)
- MPDM Module
- DCP Card
- 884A Adaptor
- Modem
- TN765

AVPL WITH PMS FEATURE CO-RESIDENT WITH AVP 2.0

If you are installing an AUDIX Voice Power Lodging Release 1.0 with
the Property Management System (PMS) feature, co-resident with the
AUDIX Voice Power R2.0 package install the software in the following
order:

Software

1 .   386 UNIX System V **Release** 3.2.2
      Note: Do **not** install UNIX 3.2.3, or the 2.2 to 2.3 upgrade.

2 .   FMLI Version 1.2 or later

3 .   FACE Version 1.2.1 or later

4 .   FACE HELP Version 1.2 or later

5 .   Editing Package Version 2.0 or later

6 .   Remote Terminal Package Version 2.0 or later

7 .   AVPL X.25 Network Interface Version 1.0
      Note: Do **not** install the GPSC software shipped with the GPSC
      card.

8 .   Integrated Voice Power System Software Release 1.1

9 .   Intelligent Ports Card Drivers Package (8-Ports)

10.   AUDIX Voice Power Application Software Release 2.0

      Continued on next page.

11. AUDIX Voice Power Switch Integration Software (for AT&T System 75 or DEFINITY G1 PBX)

12. AUDIX Voice Power Lodging Software Rclcasc 1.0

13. AVPL PMS Integration Software Package R 1.0

14. **(Patch)** Integrated Voice Power Systcm Software R 1.1 Patch 1

15. **(Patch) AVP** Application Software R2.0 P:uch 1

16. **(Patch)** AVP Switch Integration Software (for AT&T Systcm 75 or DEFINITY G 1 PBX) R2.0 Patch 1

AVPL WITH PMS PACKAGE CO-RESIDENT WITH AVP 2.0

Hardware

Installation of AWL R1.0 with PMS package co-resident with AVP2.0
requires a RS232 serial port and the same hardware used for the
installation of AWL RI.0 (only). Refer to page J-6 of this appendix.

AVPL CO-RESIDENT WITH AUTOMATED ATTENDANT R2.O

If you are installing an AUDIX Voice Power Lodging Release 1.0 co-
resident with the Automated Attendant R2.0 package, install the
software in the following order:

Software

1. 386 UNIX System V **Release** 3.2.2
   No/e: Do **not** install UNIX 3.2.3, or the 2.2 to 2.3. upgrade.

2. FMLI Version 1.2 or later

3. FACE Version 1.2.1 or later

4. FACE HELP Version 1.2 or later

5. Editing Package Version 2.0 or later

6. Remote Terminal Pdckage Version 2.0 or later

7. AVPL X.25 Network Interface Version 1.0
   Note: Do **not** install the GPSC software shipped with the GPSC
   card.

8. Integrated Voice Power System Software Release 1.1

9. Automated Attendant Application Software R2.0

10. AUDIX Voice Power Lodging Software Release 1.0

11. **(Patch)** Integrated Voice Power System Software R1.1 Patch 1

AVPL CO-RESIDENT WITH AUTOMATED ATTENDANT R2.0

Hardware

- IVP4 cards
- 8 Mb RAM minimum
- 80 Mb hard drive minimum
- GPSC-AT Card
- MPDM Module
- 884A Adaptors
- Modem
- TN765

AVPL WITH PMS CO-RESIDENT WITH AUTOMATED ATTENDANT R2.0

If you are installing an AUDIX Voice Power Lodging Release 1.0 with the Property Management System (PMS) package, co-resident with the Automated Attendant R2.0 package install the software in the following order:

Software

1 .   **386 UNIX Systcm V Release 3.2.2**
      Note: Do **not** install UNIX 3.2.3, or the 2.2 to 2.3 upgrade.

2 .   FMLI Version 1.2 or later

3 .   FACE Version 1.2.1 or later

4 .   FACE HELP Version 1.2 or later

5 .   Editing Package Version 2.0 or later

6 .   Remote Terminal Package Version 2.0 or later

7 .   AVPL X,25 Network Interface Version 1.0
      Note: Do **not** install the GPSC software shipped with the GPSC card.

8 .   Integrated Voice Power System Software Release 1.1

9 .   Automated Attendant Application Software R2.0

10.   AUDIX Voice Power Lodging Software Release 1.0

11.   AVPL Property Management System Integration Software Package R1.0

12.   **(Patch)** Integrated Voice Power System Software R1.1 Patch 1

AVPL WITH PMS CO-RESIDENT WITH AUTOMATED AllENDANT R2.O

Hardware

- IVP4 cards

- 8 Mb RAM minimum

- 80 Mb hard drive minimum

- GPSC-AT Card

- IPC card (optional)

- MPDM Module

- 884A Adaptors

- Modem

- TN765

BACKUP K
PROCEDURES

INTRODUCTION

This appendix provides inforrnat.ion on backing up and restoring the AUDIX Voice Power Lodging (AVPL) systcm. It specifically addresses the following areas:

- Backing up administrative files (See pt]gcs K-2, K-3, and K-4)

- Backing up speech files (See pages K-2, K-3, and K-4)

- Recovery from system failures (See pages K-5, K-6, and K-7)

- Restoring files on all other systems (See pages K-8 and K-9)

- Restoring administrative files (See pages K-10 and K-11)

- Restoring speech files (See page K-12)

BACKING UP ADMINISTRATIVE AND SPEECH FILES

In case of system failure, it is necessary to back up your administrative files. This section describes the procedure used to perform a selective personal backup to backup administrative files and 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 **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/lgdb /ldg/data /gendb

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

    The **Speech Backup** menu appears.

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

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

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

    talkfile 101 phrase all

14. **Press 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 backu~ will take.

15. 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.

16. When the backup is complete, remove the last diskette or the cartridge tape and press "Enter."

    The system returns to the **Speech Backup** menu.

17. Press **CANCEL** repeatedly to return to the AT&T FACE menu.

18. 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 from 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 dara 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," in the *AVPL Installation Handbook,*

3. Restore system administrative and voice files from backup (if available). If backup files are not available, you must restart the system from scratch.

Recovering from Motherboard Failure

If you are recovering from motherboard failure, you must replace the motherboard and check the strappings. 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.

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 speech files according to the instructions given
earlier in this section.

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," in the *AVPL Installation
   Handbook.*

2. The voice system will start automatically when the system is
   rebooted.

3. Restore all AUDIX Voice Power files containing administrative
   information using the *Resloring 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 CANCEL repeatedly to return to the User Login
   menu.

h. At the **User Login** menu, move tie 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 SAVE.

    A restore confirmation 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 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.

7. Reset the Voice System as described on page K-8.

POWER-ON SELF TESTING L

CONFIGURATION TESTING AND TROUBLESHOOTING

Troubleshooting is limited to two areas:

1. Hardware verification

   Hardware tests are limited to the Power-On Self Test (POST), the system diagnostics provided on the Customer Test diskette, and diagnostics for additional boards that have been installed as part of the software packages.

   After your system has been assembled, it should be tested before being put into service.

   The same techniques are used for troubleshooting when you suspect hardware problems.

2. Application operation problems

   When the system does not operate as anticipated, there maybe problems in the administration of the application or in the administration of the switch.

   If the application problem is described in the troubleshooting tables, you may be able to fix the problem by taking the action indicated.

Hardware Verification

Power-On Self Test

When the Power-On Self Test (POST) is initiated on booting the system, two columns of information appear on the screen. The left column identifies the item being tested; the right column indicates "PASS" or "FAIL," or the amount of memory allocated.

The following tables show the item being checked and indicate possible causes for failure. If there is more than one cause listed, try to resolve the problem starting with the first item listed.

Screen Item	Cause of Failure
CPU	Motherboard problem
CMOS RAM	a.) Battery backup problem b.) Motherboard problem
ROM Checksum	a.) ROM failure - replace ROM b.) Motherboard problem
Memory Refresh	Motherboard problem
DMA Controllers	Motherboard problem
Interrupt Controller	Motherboard problem
Keyboard	a.) Pressed key while booting - reboot system b.) Keyboard bad - replace keyboard c.) Motherboard problem
Dedicated memory	If not 0384 KB, a.) Memory problem - replace memory b.) Motherboard problem

TABLE L-1. Possible Causes of Failure - Page 1

Screen Item	Cause of Failure
Base memory	If not512 (AVPL), a.) Memory problem - replace memory b.) Motherboard problem c.) Not set
Extended memory	If not 7168 KB or more, a.) Memory problem - replace memory b.) Motherboard problem
Total memory	a.) Memory problem - replace memory b.) Motherboard problem
Clock/Calendar	Motherboard problem
Floppy disks	a.) Poor connection b.) Bad drive c.) Bad controller d.) Motherboard problem
Hard disks	a.) Poor connection b.) Bad drive c.) Bad controller d.) Motherboard problem

TABLE L-2. Possible Causes of Failure - Page 2

Please use the Customer Test diskette that was provided with the system to fully diagnose any problems.

For additional information, refer to the following manuals:

- *AT&T WGS Service Manual* (for the appropriate processor), especially Chapters 5-7.

- *AT&T WGS User's Guide* (for the appropriate processor), especially Chapter 5.

DM224 **M**
MODEM

Introduction

This appendix provides information for: activation of the Paradyne*
DM224 modem. For further information, refer to Appendix C,
"Installing a Modem," of the *AUDIX Voice Power- Lodging Installation
Handbook* (585-310-106).

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* **Registered trademark of AT&T.**

Installation

1. Login as root

2. At the UNIX* Operating System prompt, type face and then press **<Enter>.**

3. Highlight "System Administration" and press **<Enter>.**

4. Highlight "Peripheral Setup" and press **<Enter>.**

5. Highlight "Serial Port Setup" and press **<Enter>.**

6. Populate the fields as follows:

   - Serial Port Number: 01 (/dcv/tty00)

     This is the first choice, or dcfwlt choiw, on the **CHOICES** menu.

   - Device Type: Computer

   - Device Speed: 2400

     Press **SAVE.**

   Another screen appears. Populate as follows:

   a. Device Name: Direct

   b. Device Connection:

      Press **CHOICES.** Continue pressing **CHOICES** until it reads "Outgoing calls only."

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* Registered trademark of UNIX Systems Lziboratorics, Inc.

Press CANCEL several times and select the option EXIT to move out
of AT&T FACE and return to the UNIX Operating System prompt (#).

1 . Connect the modem via an RS232 straight through male to
    female cable (PEC Code #2721 -28E) to serial port number
    1 on the back of the 6386 WGS.

2 . There are four switches on the modem that must be set.
    These switches arc found under the front panel. To remove
    the front panel, usc your thumb to press in and slide the
    cover down until it is completely removed.

    Switches 1, 3, and 4 must be in the down or OFF position,
    and switch 2 must bc in the up or ON position.

3 . Power up the modem.

4 . At the UNIX Operating System prompt, type:
    "cu -1 /dev/tty00" and press **<Enter>.**

5 . While in the command mode with the modem whenever
    there is valid input the modcm will acknowledge the
    command with "OK". At the terminal type the following:

                    at&f<Enter>
                    ats0=<Enter>
                    at&c2<Enter>
                    at\n1 <Enter>
                    at\q0<Enter>
                    at&w< Enter>

6 . On the modem, set switch 1 to the up or ON position.

7 . Power down the modem.

8 . Replace the modem switch cover.

9. Power up the modem.

10. Connect the line plug of the modem to an analog station on the PBX.

11. At the UNIX Operating System prompt, type face and then press **<Enter>.**

12. Highlight "System Administration" and press **<Enter>.**

13. Highlight "Peripheral Setup" and press **<Enter>.**

14. Highlight "Serial Port Setup" and press **<Enter>.**

15. Populate the fields as follows:

> • Serial Port Number: 01 (/dev/tty00)
>
> This is the first choice, or default choice, on the **CHOICES** menu.
>
> • Device Type: Modcm
>
> • Device Speed: 2400
>
> Press **SAVE.**

Another screen appears. Populate as follows:

a. Modem Name: "Hayes Smartm 2400"

Press **CHOICES.** Select the modem type: "Hayes Smartm 2400"

b. Device Connection:

Press CHOICES. Continue pressing **CHOICES** until it reads "Incoming calls only. "

Press **Save**

Press **CONT**

Press **CONT**

Press **CANCEL** several times and select the option Exit to move out of AT&T FACE and return to the UNIX Operating System prompt (#).

To make the modem connection operational in the voice system run level, a start_vs must be done.

If the voice system is up and running:

Stop the voice system using **/vs/bin/stop_vs.**

Start the voice system using **/vs/bin/start_vs.**

If this is a new installation, or the voice system is not up and running:

Start the voice system using **/vs/bin/start_vs.**

A remote user can now dial into the system.