DXP

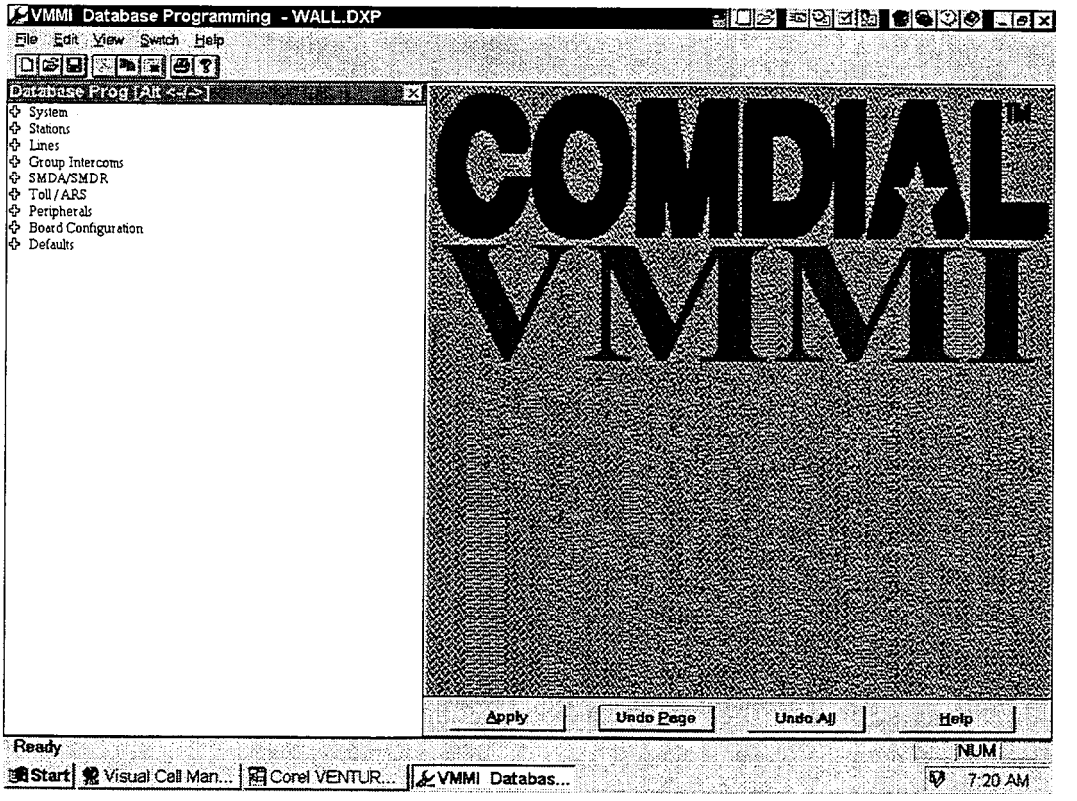
COMDIAL DXP Plus

and

FX Series

Digital Communications Systems

Understanding The Visual Man-Machine Interface



COMDIAL®

Comdial® strives to design the features in our communications systems to be fully interactive with one another. However, this is not always possible, as the combinations of accessories and features are too varied and extensive to insure total feature compatibility. Accordingly. some features identified in this publication will not operate if some other feature is activated.

Comdial® disclaims all liability relating to feature non-compatibility or associated in any way with problems which may be encountered by incompatible features. Notwithstanding anything contained in this publication to the contrary, Comdial® makes no representation herein as to the compatibility of features.

2/12/97

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Introducing VMMI

Using The Programming Screens

VMMI is a Microsoft* Windows based programming method that is menu-driven and allows you to enter choices in dialog boxes. The VMMI programming index is expandable much like the file manager on a computer's operating system software. As you use your computer mouse to move the screen cursor to the desired location, and double-click the mouse button on a main menu element, it expands to show sub-menus that, in turn, open at a click to show a particular programming area. A double-click on a main element collapses its expanded menu.

VMMI allows you to directly connect to the communications system and program it on-line. Alternately, you can program a database off-line, save it, and down-load it in the communications system at a later date.

When you make programming changes on some of the VMMI menus, note that the program places a ✳ to the right of a changed item to denote that you have altered the setting from its previous value. Once you click on either the **Apply** button or the **Undo Page** or **Undo All** buttons, the program removes the ✳ and either applies the new value or returns to the original value.

**Microsoft Windows is a registered trademark of Microsoft Corporation, Redmond Washington*

Using On-Line *Help*

A detailed on-line help file accompanies the VMMI programming menus. The menus are context sensitive so that you when you click on the **Help** button the system immediately takes you to the appropriate section in the help file. The help files parallel the programming menus. As you open a particular programming menu, the system provides context sensitivity that paths to appropriate technical discussions. As you click on the programming screen's **Help** button, discussion windows open to provide appropriate technical information. These discussion windows may include green-colored text words and phrases that you can click on to expand the technical discussion or to open other related help files.

From the discussion windows, you can click on the Browse, **< >**, buttons at the top of the window to move forward and backward through other discussion windows. At any time, you can click on the **Contents** button to return to the main contents menu. From the contents menu, you can click on a topic to open any discussion window that you wish to read.

The discussion windows provide a **Search** button for your use. When you click on the **Search** button, the help file opens a subject menu that you can scroll through as you search for a particular topic that you need help with. Once you locate the topic, you can click on it to jump directly to its discussion.

Often, the discussion windows provide additional jump paths that allow you to quickly review related topics. These jump paths may take several forms. They may appear as separate large windows that you can scroll through as you read the information, or they may appear as small windows that appear in the middle of the window that you are currently viewing. When you finish reading the information in the large windows, return to the starting point by clicking on the **Back** button as many times as necessary. Exit the small windows by clicking once outside the borders. If you wish to completely leave the help file when you finish using it, do so by clicking on the **Exit** button that is located on the button bar.

Obtainina a Printout Record

If you have a printer connected to your computer, you can make a hard copy printout of a programming menu after you make your programming choices. For this, use the tool bar located above the VMMI programming screen. Select the **File** drop down menu and then select the **Print** option. This action opens a window where you can pick the programming menu that you need and **OK** your choice. Alternately, you can click on the printer Icon on the tool bar to open the pick window.

Sometimes you may also want a hard copy of the help file. If **so, you** can press the **Print** button on the help dialog to obtain the printout. You can only print one topic at a time.

Using the Computer Mouse

A mouse is a device that allows you to move a cursor on the screen to specific points for data entry, and to select other menu selections. An arrow image, called the mouse pointer, moves on the screen when you move the mouse. Practice moving the pointer. If you make a menu appear, you can make it disappear by moving the pointer out of the menu and pressing and releasing the left mouse button.

Occasionally the pointer may seem to disappear. Usually, it is just off the visible screen. To make the pointer reappear, move the mouse in a circle a few times. To move the mouse without moving the pointer, lift the mouse. The pointer will not move while the mouse is in the air.

Clicking the Mouse Button

To click the mouse button to select an item, press the left button and immediately release it. By clicking, you can select a menu item, for programming entry or a help file for reading. Sometimes instructions require you to double-click your mouse. Double-clicking is pressing your left mouse button twice in rapid succession.

Dragging the Mouse

Dragging (or moving) a window consists of three steps:
1. pressing and holding the left mouse button,
2. moving the mouse,
3. releasing the mouse button.

Dragging allows you to move the position of a window on the screen. You can position help windows on the screen to give yourself a better view.

Determining Your Equipment Needs

Use VMMI to program the digital communications system from a personal computer (PC) that meets the following requirements:

- 80386SX–33 processor (minimum requirement-80486SX-33 recommended)
- four megabytes of random access memory (minimum requirement),
- 3.5–inch floppy disk drive,
- hard drive with at least 80 megabytes of storage capacity,
- available 9-pin or 25–pin serial data port (required for communications with DXP system),
- mouse that is supported by Microsoft* Windows software (optional but highly recommended for Microsoft Windows operation),
- VGA color monitor (highly recommended-VGA monochrome acceptable),
- Microsoft Windows, version 3.1 or later,
- VMMI program disk.

***Microsoft Corporation, Redmond, Washington*

Connecting a PC to the Digital Communications System

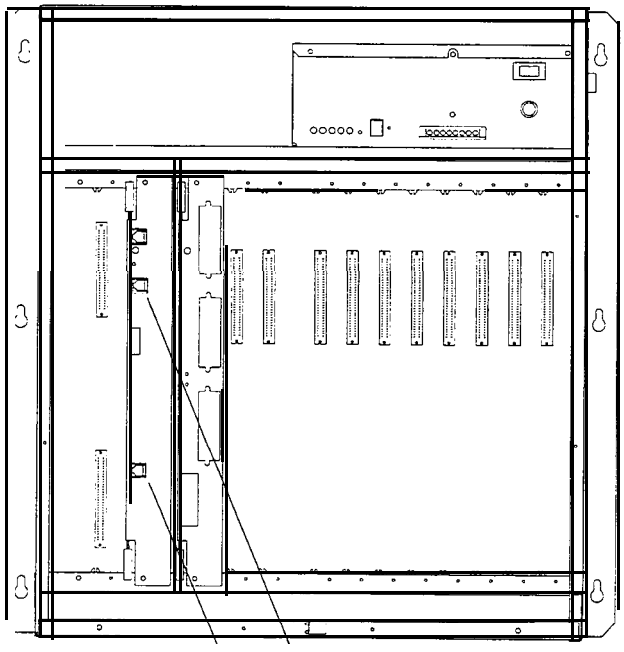
Connecting a PC to the DXP Plus

Connect the serial data port of the PC to the maintenance port of the DXP *Plus* central processor (CPU) board. The maintenance port is a dedicated serial data port reserved exclusively for system programming.

The default data format of these serial data ports are shown in the following chart.

Port Type	Baud Rate	Data Bits	stop Bits	Parity
Maintenance Port	9600	8	1	None
Modem Port	2400	8	1	None

You can connect the PC remotely through a telephone line to the DXP *Plus* using customer-supplied modems at both the PC and the DXP *Plus* common equipment. The DXP *Plus* includes its own modem that you can connect between the CPU board's modem port and an outside telephone line.



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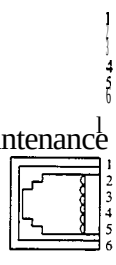
Serial Modem Port

Maintenance Port



(Front View of Jacks)

Modular Jacks
Pin 1 = Request To Send
Pin 2 = Clear To Send
Pin 3 = Receive Data
Pin 4 = Transmit Data
Pin 5 = Signal Ground
Pin 6 = Frame Ground

NOTES:
1. Maximum distance between each ofthe two dedicated serial data ports and its external data equipment is 25 feet.
2. Some data devices require CTS signal for proper operation. Route to device as needed.

Connecting a PC to the DXP

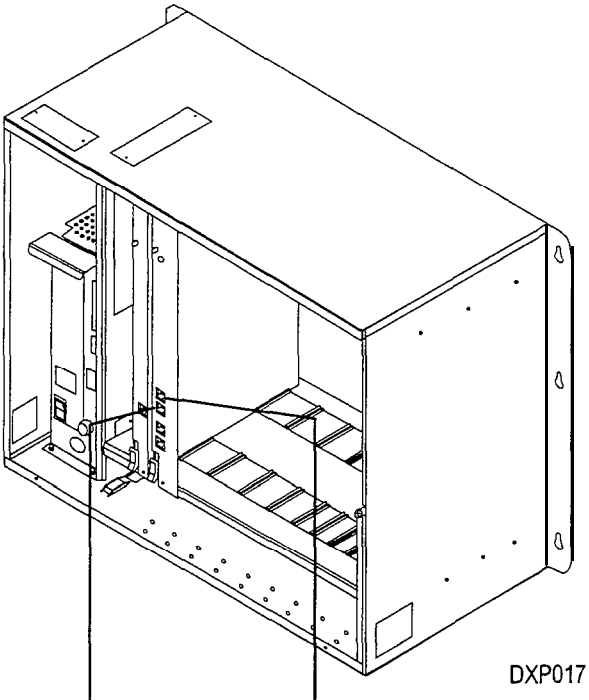
Connect the serial data port of the PC to either of the serial data ports that the DXP provides on the CPU board. The system designates these modular jacks as RS-232 1 and RS-232 2.

The default data format of the RS-232 1 and RS-232 2 data ports is shown in the following chart.

Port Type	Baud Rate	Data Bits	stop Bits	Parity
RS-232 1	9600	8	1	None
RS-232 2	300	7	2	None

If you have used the two CPU-provided serial data ports for connecting other DXP features (such as the PC Attendant Position and a serial data printer), you can add a communications card to the DXP and connect the programming PC to a serial data port that the card provides. See your DXP System Hardware *Instructions* (the Volume I binder) for complete installation details.

You can connect the PC remotely through a telephone line to the DXP using customer-supplied modems at both the PC and the DXP common equipment. The Comdial DXMDM modem is a DXP proprietary modem. With it, you can use either of the CPU board's serial data ports for connection.



(Front View of Jacks)

RS-232 Modular Jacks
Pin 1 = Request To Send
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Pin 4 = Transmit Data
Pin 5 = Signal Ground
Pin 6 = Frame Ground

Connecting Cablina for the FX Series

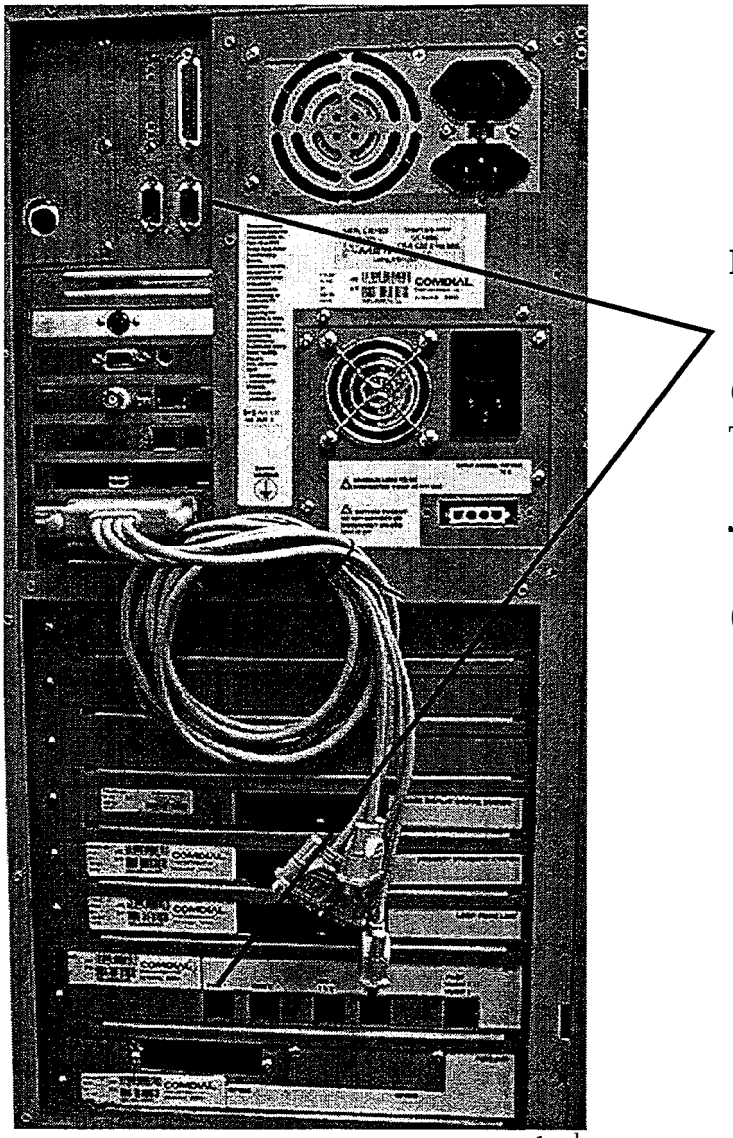
Making the Start-Up Connections

Once the telephony portion is operating properly. make the following cable connections:

- Connect a serial data cable between the computer portion's COM1 serial data port and the telephony portion's COM 1 or COM 2 serial data port. Be sure that the telephony portion's serial data port is configured for 9600 baud, eight data bits, one stop bit, and no parity bit when you turn on the system software; however, you can change the baud rate to 19,200 when you use Visual Man-Machine Interface (VMMI) for system database programming.

NOTE: If you use pcANYWHERE™ for remote operation of the computer portion, you must use VMMI to select either COM I or COM 2 as the internal modem 's data pipe port, and you must configure this data pipe port for 19,200 baud, RTS/CTS control, eight data bits, one stop bit, and no parity bit. Of course, the cable connection must match the data pipe port selection.

pcANYWHERE is a registered trademark ***of*** *Symantec Corporation. Cupertino CA*



pc_conn1.cdr

Maintenance Port
- System Software
- VMMI Programming

Connect Computer COM 1
To Telephony COM1 or COM 2

- pcANYWHERE for Remote Operation

(Use VMMI to set modem data pipe pipe to COM 1 or COM 2 to match connection or match connection to setting.)

Installing the VMMI Program and Help Software

The VMMI software is your entry to the communications system. Before you can log in to the system, you must first load the VMMI program and help software on your computer's hard drive. When installing the VMMI software, your PC need not be connected to the system equipment.

Loading VMMI With Windows 3.1

1. Turn on your PC and run your Windows software.
2. Insert the VMMI program disk in your computer's floppy disk drive.
3. From the Windows Program Manager screen, select the **File** pull-down menu.
4. From the File pull-down menu, select **Run.**
5. At the Run window, type **A:\setup**, and **OK** your entry.
6. The install window gives a default file location to receive the program; however, you can enter a different file location if you wish. **OK** the default file location or your new entry.
7. The install window gives a default location of the VMMI program disk; however, if you have installed the disk in a different drive enter that location. **OK** the default location or your new entry. The status window appears on the screen and the program loads automatically.
8. When the status window shows the install to be complete, **OK** the install.
9. The install program creates a program group and a VMMI icon in the Program Manager screen.

Loading VMMI With Windows 95

1. Turn on your PC and run your Windows software.
2. Insert the VMMI program disk in your computer's floppy disk drive.
3. From the Windows 95 screen, click **Start,** and then click **Run.**
4. At the prompt window, type **A:\setup**, and click **OK.**
5. Add information as required to any additional prompt lines that may appear on your screen.
6. The install program creates a program group and a VMMI icon in the Start menu under the Programming title.

Making the Programming Connection

Once you have loaded the VMMI software and made the necessary connections between the PC and the communications system equipment, you can make the program connection to the system by performing the following procedure.

1. Turn on your PC and load Windows.
2. Select the VMMI icon and double-click your left mouse button. The computer runs the installed VMMI software program
3. From the VMMI window, select the **Switch** pull-down menu.
4. From the **Switch** pull-down menu, select **Connect to. . .**
5. From the opened menu, choose either Administrator or Installer and enter the appropriate password. The system defaults all passwords to I✳746✳; however, you can customize the passwords as part of VMMI programming if you wish.
6. Select the communications port that your PC uses to communicate with the communications system.
7. If you are operating remotely through a modem, check the modem prompt.
8. Select the serial data parameters that match the requirements for the system (or for the modem if you are connected remotely through a modem). To speed up the data transfer process, you should use a data speed of 19.2 Kbs (kilobits per second) for the DXP *Plus* and FX Series, and 9600 bit per second for the DXP. If you plan to operate at this higher data speed, first connect at the default rate, then use the VMMI programming menu to change the data parameters of the system, and finally use the **Switch** drop-down menu to reconnect at the higher speed.

Note: A data speed of 19.2 Kbs might not operate reliably through modem connections. Plus both modems must support the higher data speed. The DXP and DXP Plus internal modem does not support data speeds above 2400 Kbs at this time.

9. When you finish making the connection settings, click the CONNECT button to return to the **Switch** pull-down menu. the system responds by presenting its serial number at the bottom of the VMMI screen for your reference, and shows an *on-line* message.

NOTE: If the system does not complete the connect procedure, check your cable connections, verify your serial data settings, and repeat the log in procedure.

10. Use the **Switch** drop-down menu to disconnect from the system, archive or restore a system database, or down-load system software.

Using VMMI Sofiware to Archive and Restore the Database

You can use the VMMI software to archive and restore the system's database. To archive and restore data, your PC must be connected to the system.

To archive a database,

1. Turn on your PC and load the Windows software.
2. Select the VMMI program from the Windows menu screen.
3. From the VMMI window, select the **Switch** pull-down menu.
4. From the **Switch** pull-down menu, connect to the system, and return to return to the pull-down menu.
5. From the **Switch** pull-down menu, select **Archive database.**
6. Choose a memory storage location for the archive operation to use and OK your choice. Since the database can be quite large, you should chose a location on your computer's hard drive to ensure that you have enough memory to store the database.
7. The system automatically archives its database.

To retrieve a database,

1. Turn on your PC and load the Windows software.
2. Select the VMMI program from the Windows menu screen.
3. From the VMMI window, select the **Switch** pull-down menu,
4. From the **Switch** pull-down menu, connect to the system, and return to the pull-down menu.
5. From the **Switch** pull-down menu, select **Restore database.**
6. Choose the memory storage location that contains an archived database and **OK** your choice.
7. The system automatically restores its database.
8. Reset the system after you restore the database

Using VMMI Software to Build a New Database

You can use the VMMI software to build a new database that you can later restore into a communications system. You do not need to connect your PC to the communications system to build a new database.

To build a new database,

1. Turn on your PC and load the Windows software.
2. Select the VMMI program from the Windows menu screen.
3. From the VMMI window, select the **File** pull-down menu.
4. From the **File** pull-down menu, select **New.**
5. Choose a destination platform for the new operation to use, and **OK** your choice. Since the database can be quite large, you should choose your computer's hard drive to ensure that you have enough memory to store the database.
6. Use the VMMI menus and program the database parameters.
7. Save your results for loading into the system. The system prompts you for the file name at this point.

To load the new database in the system,

1. Connect your PC to the communications system.
2. Turn on your PC and load the Windows software.
3. Select the VMMI program from the Windows menu screen.
4. From the VMMI window, select the **Switch** pull-down menu,
5. From the **Switch** pull-down menu, connect to the system, and return to the pull-down menu.
6. From the **Switch** pull-down menu, select **Restore database.**
7. Choose the newly created database file and **OK** your choice.
8. The system automatically restores the new database.
9. Reset the system after you restore the database

Up-Grading the System Software on the DXP Plus

The DXP *Plus* digital communications system includes system software when it ships from the factory. At initial system installation, you do not need to load system software to make the system operational. Should you need to later reload the system software (for software up-grade purposes for example), you can do so using the supplied system software disk. Use Windows or MS-DOS commands to save the disk's information from your computer's floppy drive to its hard drive. Having the software on your computer's hard drive allows the data to load into system memory much quicker than it would from the computer's floppy disk drive.

To load the system software information, your PC must be connected to the communications system.

1. Turn on your PC and load Windows.
2. Select the VMMI program from the Windows screen.
3. From the VMMI window, select the **Switch** pull-down menu.
4. If you have not previously archived the system database, do so now.
   a. From the **Switch** pull-down menu, select **Archive Database.**
   b. Choose a storage location for the archive operation to use and OK your choice. Since the database can be quite large, you should chose a location on your computer's hard drive.
   c. The system will archive its database.
   d. Return to the **Switch** pull-down menu.
5. From the **Switch** pull-down menu, select the **System software upgrade.**
6. The system automatically takes itself out of service and makes a backup of its database.
7. Choose the location where the new software data resides (select disk drive, directory, and file), and OK your choice.
8. The system loads the software data, reloads its database that it previously backed up, resets itself, places itself back in service.

Activating System Software on the FX System

Comdial manufacturing technicians load the FX Series system's operating software. They also load the upgrade software that you use to obtain your magic number. You need the magic number to activate the system operating software. Once you obtain your magic number and enter it in the up-grade software, the system automatically accesses the key through internal software mechanisms.

CAUTION

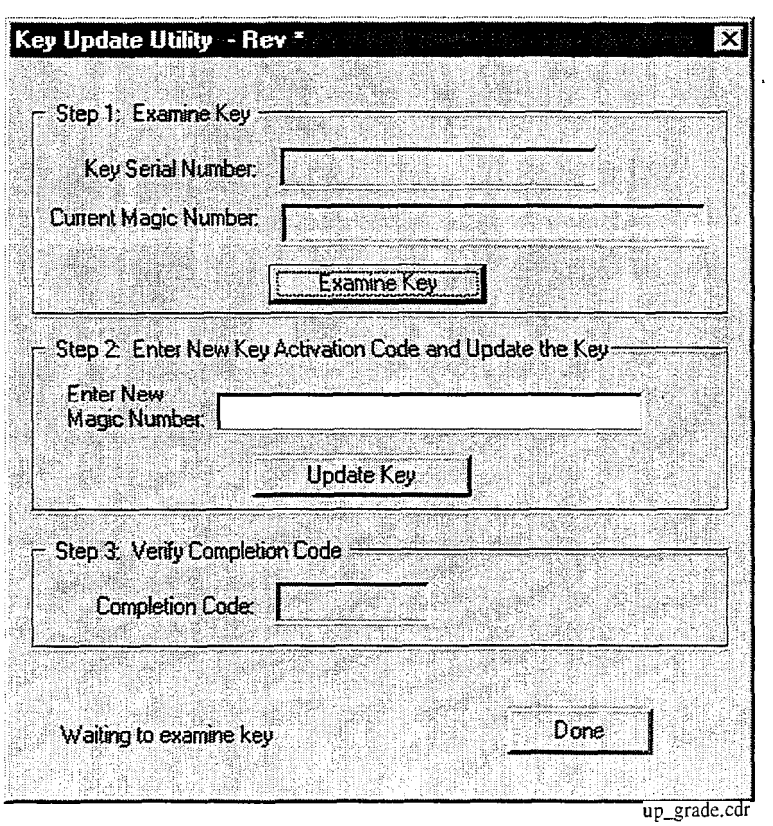
You must obtain your magic number to operate the telephony portion of the FX Series system. Otherwise, the system will reset itself every hour.

Obtain your magic number by following the procedure detailed below:

1. With the software key installed on the computer's parallel printer port, locate the software key icon on the main  desktop menu and double click on it. If the icon is not available, use the **Start/Programs/FX Software Key** menu to locate the software key program and double click there. This action opens the update utility.
2. From the update utility, click the **Examine Key** button. The system responds by showing the key's serial number and the current magic number of the installed key.
3. Contact Comdial Distributor Services at l-800-669-2663 to order the system software. At the same time you can order any of the following application features that you desire.
   - FXSSW-W01 (includes VVP, 5-user wideopen.office and 5-user wideopen.call)
   - FXSSW-W02 (includes VVP, 50-user wideopen.office and 25-user wideopen.call)
   - FXSSW-W03 (includes VVP, 5-user wideopen.office and 5-user wideopen.group)
   - FXSSW-W04 (includes VVP, 50-user wideopen.office and 25-user wideopen.group)
4. Provide to the Comdial representative the software key's serial number and the current magic number that you read from the update utility. He or she will respond by providing you with a new magic number and a completion code.

NOTE: This magic number and completion code **are** *unique and applies only to your particular software key.*

5. Enter this new magic number into the update utility, and then click the **Update Key** button.
6. Since you are initially performing this procedure to turn on the operating software for the system's telephony portion, the system opens the FX Series System Initialization window for further action on your part. See the next paragraph for a discussion of that action.



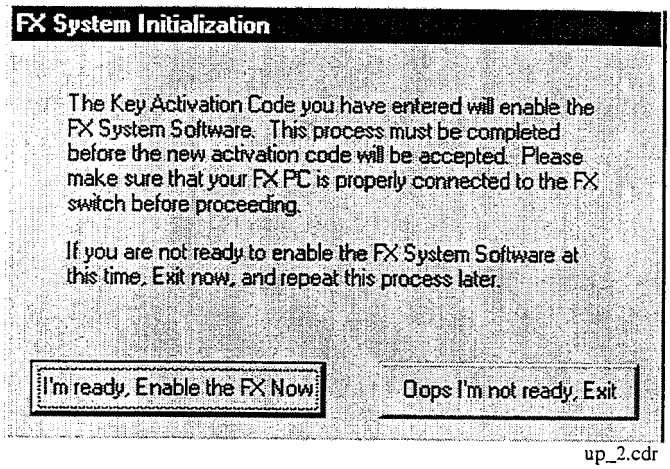
up_grade.cdr

Turning On the FX Series System Software

If the system opens the Initialization window, you must take several additional steps:

1. Be sure that you have a serial data cable connected between the computer portion's COM1 serial data port and the telephony portion's COM1 serial data port, and be sure that the telephony port is configured for 9600 baud, eight data bits, and one stop bit.

2. Click the **I'm ready, Enable the FX Now** button. This action enables the FX Series system software. The system returns the update utility window that now shows a completion code value to indicate that the procedure is finished. Verify that the completion code matches the completion code that the Comdial representative provided, and click the **Done** button to end the session.



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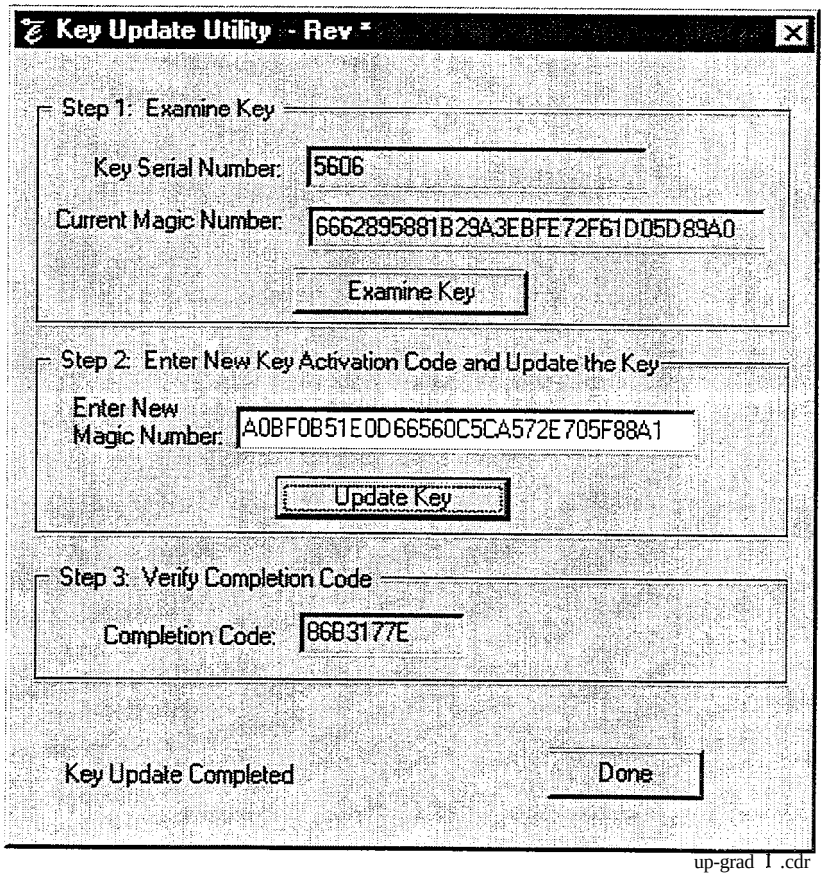

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Completing the FX Series System Start-Up Procedure

To complete the getting started process, you must run the Start-Up utility program. Running the Start-Up utility program places the Versatile Voice Processing (VVP) and the pcANYWHERE™ applications in the computer's start-up routine. With these applications in the start-up routine, the system automatically makes them active whenever someone restarts the FX Series system.

To run the Start-Up utility, locate the Start-Up icon on the Windows 95 desktop, and double-click it with your computer mouse.

Once the utility finishes running, you must exit the Windows 95 program, and restart the computer. This action is often referred to as *rebooting the computer*. When the computer restarts, and after you take care of any password needs, the FX Series system ends its start-up routine by making both VVP and pcANYWHERE™ active on the desktop.

Up-Grading the System Software on the DXP

To use VMMI on the DXP system, you must up-grade the DXP software to at least release 10A. Further, to preserve your existing database you must convert it through the PCMMI programming software that is at software release 9A. The software up-grade to release 10A requires that you install a new RAM card (DXRAM-EXPC) as well as the software memory card (DXPSW-DLRC) on the DXP's central processor unit. (Once you up-grade your system software to 10A, future up-grades beyond 10A will only require a new software memory card. The RAM card that you add to up-grade to 10A will support future software revisions.) To ensure that you execute the data base conversion and software up-grade correctly. perform the following detailed operations in the sequence that they appear on the following pages of this publication. If you need detailed procedures for doing these operations, refer to your DXP *System Hardware Instructions* and *Programming Instructions and Records* (Volume I and Volume II service binders).

Converting the DXP Database

Store the Current DXP Database

Employ a PC with an XMODEM communications program and use the DXP's embedded MMI programming method to store the current DXP database to the PC's hard drive. The saved database can include any or all of the following data: system information, station parameters, line parameters, toll restriction and automatic route selection parameters, and system speed dial numbers but it does not include the SMDA/SMDR records. If you need these SMDA/SMDR records, you must make a printout of them before you perform the database storage. This is necessary because this save/restore feature does not record the stored records and they will be lost.

Once you store the current database disconnect the PC from the DXP.

Convert the Current DXP Database

With your PC disconnected from the DXP, convert the current database to a 10A database.

1. Obtain a copy of revision 9A or later PCMMI programming software and load it on your computer. (Remember, you can always down load the latest PCMMI software from the Comdial Technical Services Bulletin Board by calling l-804-978-2583 or from the Comdial home page on the World Wide Web by connecting at: http://www.comdial.com/).
2. If the stored database is not at software release 9A, use the revision 9A or later PCMMI to convert the current DXP database to a software release 9A database.
3. Use the revision 9A PCMMI to down-load and store the software release 9A database to your computer's hard drive.
4. Load the new VMMI programming software on your computer, and use it to translate the stored data base to a 10A database. Refer to the paragraph titled *Translating The DXP Database* for the translation procedure.

Installing the RAM Card and Software Card in the DXP

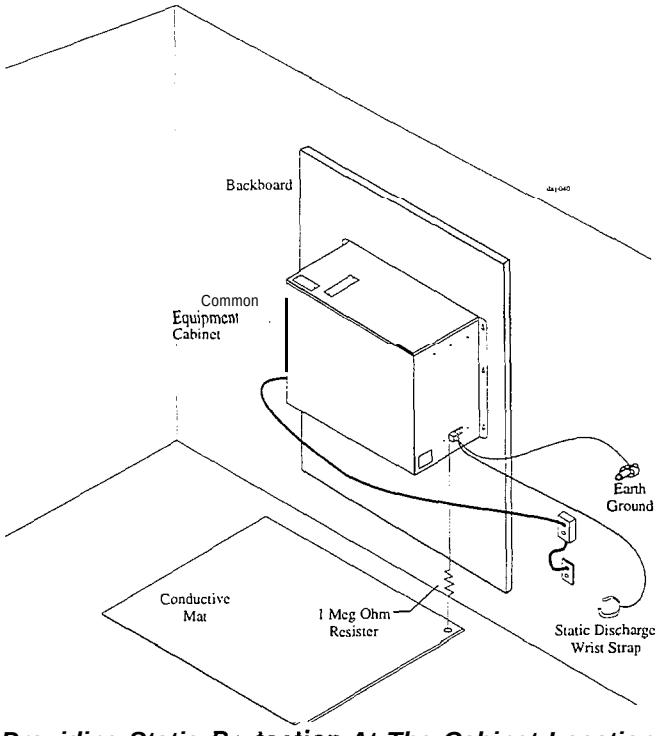
Turn off the power to the DXP, and install both the RAM card (DXRAM-EXPC.) and the software memory card (DXPSW-DLRC) on the central processor unit (DXCPU-68K) circuit board of the DXP digital communications system.

Preparing a Static-Safe Work Area.

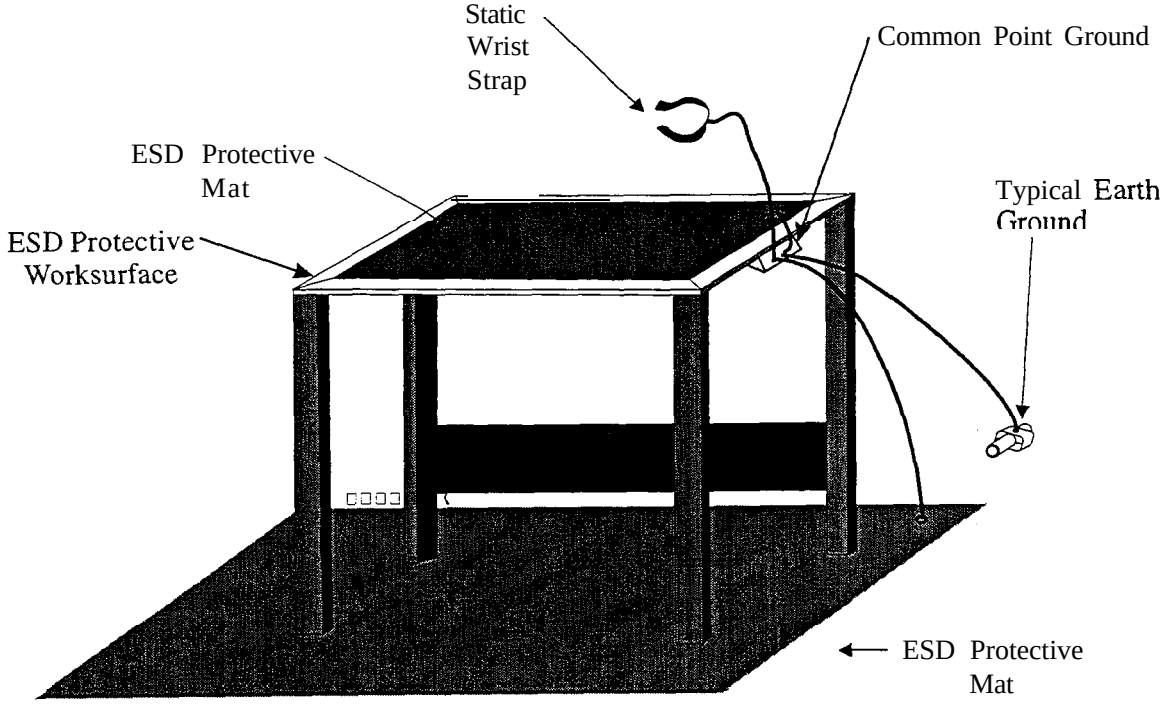
CAUTION

Electronic circuit boards are susceptible to damage caused by electrostatic discharge and must be handled accordingly. Refer to the Comdial publication IMI01–005, Handling Of Electrostatically Sensitive Components, for general information. Specific handling precautions are also included in this installation instruction. The expanded memory card (DXRAM-EXPC) and the system software memory card (DXPSW-DLRC) are supplied in static protection bags. Do not open a static protection bag prior to installation time.

When servicing electronic circuit boards, it is a good practice to do so at a static-safe work area prepared ahead of time for this purpose. The illustration details a typical static-safe work area.



Providing Static Protection At The Cabinet Location



***Creating A* Static Safe *Work* Area**

Installing the Cards in the DXP

1. Loosen the retaining hardware and remove the front panel from the DXP main cabinet.
2. Turn off the AC power switch, and disconnect the AC power cord from the AC outlet. Disconnect the cable of the optional battery back-up from the main cabinet power supply.
3. Place a conductive mat in front of the cabinet area and ground the mat to a good earth ground (the third wire ground of the AC power line is an acceptable grounding point). The grounded conductive mat will provide a safe static electric discharge path.
4. Install the static discharge wrist strap (supplied with the main cabinet) on your bare wrist; adjust it for a snug fit. Be sure that the strap is touching bare skin and is not isolated by clothing. Connect the wrist strap cord between the wrist strap and an AC or earth ground.

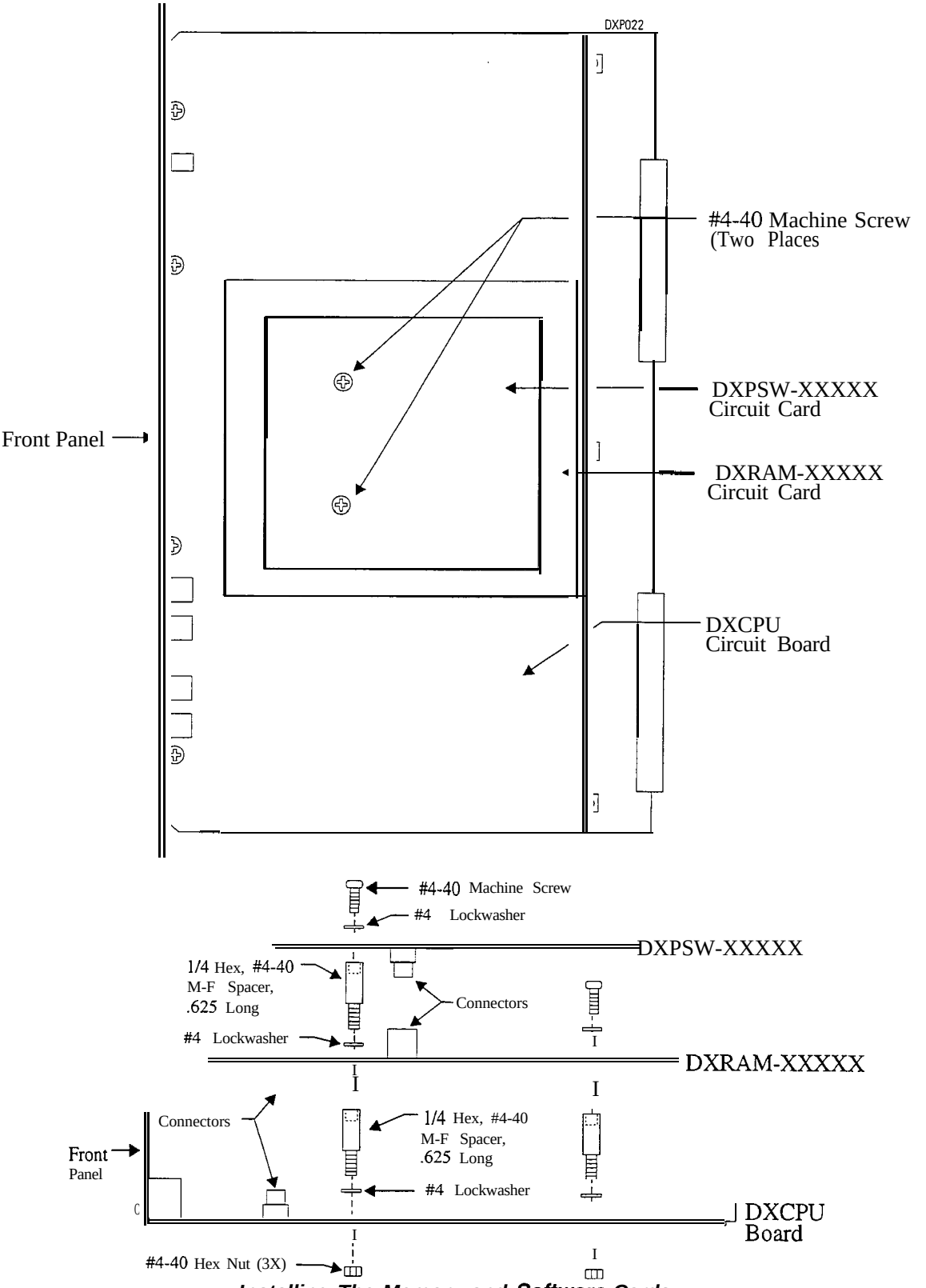
NOTE: With the common equipment in the installed position, the ground lug on the side of the cabinet is an appropriate grounding point since it should have a heavy ground wire connected between it and a good earth ground.

5. Locate the DXCPU–68K circuit board, loosen the retaining screws, remove it from the DXP main cabinet, place it in a static protection bag, and transport it to the static-safe work area.
6. At the static-safe work area, with your wrist strap in place, remove the DXCPU-68K circuit board, the new DXRAM-EXPC. expansion memory card and the new DXPSW-DLRC software memory card from their static protection bags.
7. Refer to illustration and remove the currently installed memory cards from the DXCPU–68K board.
8. Orient the DXCPU–68K board and the new memory cards as shown in the illustration, and attach them with the supplied hardware. (The screws and standoffs between the cards are essential to ensure proper grounding.)
9. Place the old memory cards in static protection bags and save them for later return for credit. Place the DXCPU-68K board and newly installed memory cards into a static protection bag and transport back to the DXP main cabinet.
10. With your wrist strap properly grounded, remove the DXCPU–68K circuit board from the static protection bag. Orient it with the top and bottom guides in the main cabinet board cage, and press it in firmly until the board edge connector properly mates with the backplane connector.

CAUTION

When pressing the DXCPU-68K board into place, press it only at the extractor lever locations. If you apply pressure at other locations, you may damage the board assembly.

11. Make a final inspection to ensure that the DXCPU–68K circuit board is in the correct slot, oriented correctly and mated properly; then install and tighten the supplied screws to secure it to the board cage.



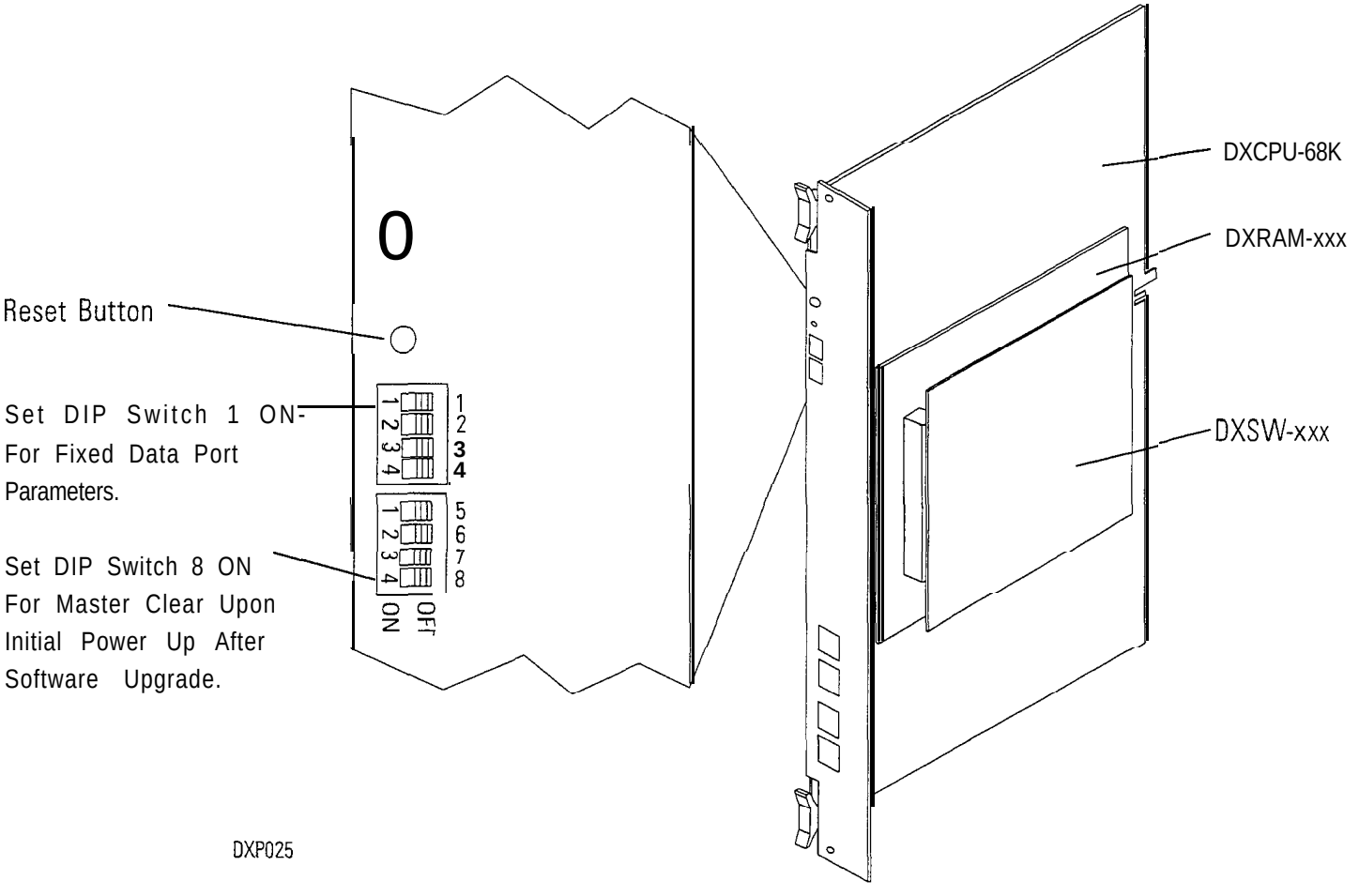
Installing The Memory and Software Cards

Master Clearing the DXP System

1. If you do not master clear the system, it is possible the DXP will not perform properly with the new memory card. The DXCPU-68K board provides a method for the master clear to occur automatically at the initial power up after you have changed or upgraded the software card. When you perform an upgrade, you must execute the following sequence of events exactly as they are stated here:
2. On the DXPCPU-68K circuit board, set DIP switch 8 to its ON position. This step enables the DXP to perform the master clear and is a required step; otherwise, the software upgrade will not occur and the system will not operate.
3. Connect the AC power cord to the AC outlet and turn on the AC power switch. At power up, the DXP automatically executes a master clear operation. Observe that the LED indicators on the DXCPU-68K board, the DXSRV services board, and all installed station and line boards flash in a random pattern during the master clear sequence. After the master clear sequence is complete, the indicators on the DXCPU-68K and DXSRV boards turn on steady and the indicators on the station and line boards wink ON for four seconds and OFF for four seconds.
3. After power up, set DIP switch 8 to its OFF position.
4. Press the RESET button on the CPU board to reset the system.

NOTE: The system performs the automatic master clear one time following the initial power up after you have up-graded the software. It will not perform an automatic master clear operation again after subsequent power ups. Because of this, you can leave DIP switch 8 ON if you wish. Leaving it ON will ensure that the DXP will always power up in a master cleared and operational mode after you have performed a software upgrade. However, by turning DIP switch 8 OFF, you prevent the DXP from becoming operational at power up after you have performed a software upgrade. This is good because, should you forget to save your database, it gives you an opportunity to reconsider your actions before the DXP erases the current database.

5. Replace the front panel on the DXP main cabinet.



Locating DIP Switch 8 and the Reset Button

Restorina the Converted Database to the DXP

Connect your PC to the DXP and use VMMI to restore the translated 10A database to the DXP. (Note that with VMMI, you do not need the XMODEM communications program that you needed to store the current database.)

Translating the DXP Database

You can use the VMMI to translate the database residing in a DXP to a format that is compatible with the 10A software release. Before you can translate the database, you must convert it to a 9A software release level as described in the paragraph titled *Converting the DXP Database.*

1. Select the **VMMI** program from the Windows menu screen.
2. From the *VMMI window*, select the **File** pull-down menu.
3. From the File pull-down menu, select **Open.** System default conditions cause the VMMI program to search for all ✳**.DXP** files in the VMMI directory; however, you may need to type the path location and DOS file name of the DXP database that you wish to translate.
4. From the *Open* Data Base *File* window, select the database for translation, and **OK** your choice.
5. Select a file location for the translated database and **OK** your selection.
6. Select the destination program for the system to use. *The Select Board Type* window opens.
7. Use the *Select Board Type* window to describe the board configuration of the DXP database that you are translating.
   (a) Make a record of the DXP's physical board configuration by entering product codes in the following table.

DXP Main Cabinet Universal Slot Designation	Product Code Of Installed Board	Station Number Of Slot	Line Number Of Slot	DXP Expansion Cabinet Universal Slot Designation	Product Code Of Installed Board	Station Number Of Slot	Line Number Of Slot
UNV1/AUX		1–16		UNV6		81–96	121–128
UNV2/AUX		17–32		UNV7		97–112	113–120
UNV3		33–48		UNV8		113–128	105–112
UNV4		49–54		UNV9		129–144	97–104
UNV5		55–80		UNV10		145–160	89–96
LINE1			25–32	UNV11		161–176	81–88
LINE2			17–24	UNV12		177–192	73–80
LINE3			9–16				
LINE4			1–8				

(b) Using your charted information, answer the prompts on the *Select Board Type* window. The prompts first asks for all installed station boards beginning with the DXP's left-most universal slot in the main cabinet. The prompts then ask for all installed line boards beginning with the DXP's left-most slot in the main cabinet.
When a slot in the original DXP contains an auxiliary board, select the *No Board* response.
When the prompt asks for a station board but a line board occupies that slot in the original DXP, select the No *Board* response.
When the prompt asks for a line board but a station board occupies that slot in the original DXP, select the No *Board* response.
When you finish listing the board configuration, **OK** your selections.

(c) The VMMI program presents a screen graphic that depicts the boards installed in a default arrangement in the main and expansion cabinets of a DXP *Plus* system. The default arrangement places station boards in ascending slot order beginning with slot 1 in the main cabinet; it places line boards in descending slot order beginning with slot 30 in the lower expansion cabinet. The VMMI program leaves a blank slot for any place that you answered a station or line board prompt with a *no board* response

(d) Since your system may not include one or both expansion cabinets or you do not care for the software arranged board layout, use your mouse to move the board images to the slots that you would rather that they occupy. Make a record of these board locations so that you or your installer can physically install the boards to match your plan.

DXP Plus Upper Expansion Cabinet Universal Slot Designation	Enter Product Code Of Installed Board
10(1-32)/AUX1	
11(1-32)/AUX2	
12(1-32)	
13(1-32)	
14(1-32)	
15(1-32)	
16(1-32)	
17(1-32)	
18(1-32)	
19(1-32)	
20(1-32)	

DXP Plus Main Cabinet Universal Slot Designation	Enter Product Code Of Installed Board
1(1-32)/AUX	
2(1-32)	
3(1-32)	
4(1-32)	
5(1-32)	
6(1-32)	
7(1-32)	
8(1-32)	
9(1-32)	

DXP Plus Lower Expansion Cabinet Universal Slot Designation	Enter Product Code Of Installed Board
21(1-32)/AUX1	
22(1-32)/AUX2	
23(1-32)	
24(1-32)	
25(1-32)	
26(1-32)	
27(1-32)	
28(1-32)	
29(1-32)	
30(1-32)	

8. From the **File** drop-down menu, select **SAVE. The** computer saves the translated DXP database to the file that you named in step 5.

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