

4190 Information Management System (IMS)



Installation
& Checkout
Instructions

579-409
Rev. Q

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All components, circuits, system operations, or software functions, known to be affected by a change, must be 100% tested. In addition, to ensure that other operations are not inadvertently affected, at least 10% of initiating devices that are not directly affected by the change, up to a maximum of 50 devices, must also be tested and proper system operation verified.



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How to Use this Publication

Conventions Used

Before you start using the *4190 Information Management System Installation and Checkout Instructions*, it is important to understand the conventions used in this publication.

The following conventions are used in this publication to identify special names or text.

- When a membrane panel key (located below the display) is referenced in this manual, it is normally shown between angle brackets. Examples are <ALARM SILENCE> and <SYSTEM RESET>.
- *Italic type* indicates important terms or titles of publications, such as the *4190 Information Management System Installation and Checkout Instructions*.
- Text enclosed in quotation marks indicates the title of a chapter or section of the manual, such as “How to Use this Publication.”
- Bulleted lists, such as this one, provide you with information. They are also used to indicate alternatives in numbered procedural steps.
- Numbered lists indicate procedures with steps that you must carry out sequentially.

Keyboard Conventions

The following conventions are used to describe keys and key combinations.

- Key names appear in bold type and in capital letters and are referred to by their names only, without the word “key.” For example, “press SHIFT” means press the keyboard key labeled “Shift.”
- A plus sign (+) between two key names means that you hold down the first key while pressing the second key. For example, “press SHIFT+F1” means hold down the SHIFT key while pressing the F1 key. If the key sequence includes three or more key names, hold down all of the keys except for the last one, and then press and release the last key. For example, “press CTRL+ALT+DEL” means hold down the CTRL and ALT keys, and then press the DEL key.
- A comma between key names means that you press and release the first key, and then press and release the second key, and so on. For example, “press ALT, F, P” means press ALT and release it, press F and release it, and press P and release it.
- “Arrow keys” is the collective name for the UP ARROW, DOWN ARROW, LEFT ARROW, and RIGHT ARROW keys.

Continued on next page

How to Use this Publication, *Continued*

Text Conventions

The following conventions are used to describe text combinations.

- Specific text that you are to type or options you are to select are shown in **bold**. What you type is always shown in lowercase letters, unless it must be typed in UPPERCASE letters to work properly.
- Placeholders for items such as filenames that you must supply yourself are shown in *italic*.

Using the Mouse

The following table lists four common terms related to mouse operation that you should know before using this Windows® application. Use the left mouse button for all actions unless instructed otherwise.

TERM	FUNCTION
Point	Move the mouse until the tip of the mouse pointer rests on the screen object or area that you wish to point to.
Click	Point to the item you want to select and press and immediately release the mouse button without moving the mouse.
Double-click	Point to the item you want to select and press and immediately release the mouse button twice in rapid succession without moving the mouse.
Drag	Point to the item you want to move and press and hold down the mouse button while you move the mouse. When you have moved the mouse pointer to the position you want, release the mouse button without moving the mouse.

Chapter 1

Before You Begin

Introduction

This publication describes how to install and check out the 4190 Information Management System (IMS). The 4190 IMS is a node on a 4120 Network used to announce and control the points contained within the network. If you are installing additional Network Interface Cards (up to four can be installed in one IMS), you can control up to four networks from one common IMS. The 4190 graphical interface software provided is a Microsoft Windows®-based application that makes it easy to interact with the network by entering input through a keyboard, mouse, or touchscreen.

In this Chapter

This chapter discusses the topics listed in the following table. Refer to the page number listed after the topic for information on that topic.

Topic	See Page #
Getting Started	1-2
Unpack the Equipment	1-2
Inspect the Equipment	1-2
Inventory the Equipment	1-2
Related Documentation	1-2

Getting Started

Unpack the Equipment

When you receive the equipment, immediately inspect the packaging for any signs of shipping damage. If there are any signs of shipping damage file a claim with the carrier and notify your local Simplex product supplier.

If there are no signs of shipping damage to the packaging proceed with unpacking the equipment. Remove all protective plastic covering, Styrofoam packaging material, and any other packaging material that may have been used.

Inspect the Equipment

After the equipment is unpacked, inspect it for damage. Look for cracked cases, shattered CRTs, etc. If the equipment appears to be damaged, notify your local Simplex product supplier; do not proceed with the equipment installation.

Inventory the Equipment

After the equipment is unpacked, locate the shipping papers that came with the equipment and inventory the equipment received. If equipment is missing, notify your local Simplex product supplier. If you received all the equipment listed on the shipping papers, proceed with the hardware installation.

Related Documentation

The following is a list of additional documentation that may assist you in the installation.

- *4120 Information Management System (IMS) Operating Instructions* 579-410
 - *4100 Field Wiring Diagram*..... 841-438
 - *4100/4120 Interconnect Diagram* 841-869
 - *4190 IMS Field Wiring*..... 842-435
-

Chapter 2

Installing the Hardware

Introduction

This chapter describes the necessary IMS hardware and shows you how to successfully install the IMS.

In this Chapter

This chapter discusses the topics listed in the following table. Refer to the page number listed after the topic for information on that topic.

Topic	See Page #
System Requirements	2-2
Positioning the Equipment	2-4
Connecting the IMS to the System	2-5

System Requirements

System Requirements for Windows 2000 Computers

For a Microsoft® Windows® 2000-based computer platform to operate properly as a IMS, it must meet or exceed the following *minimum* hardware requirements:

- An IBM-compatible personal computer with a Pentium® III (700 Mhz minimum) Processor
 - 6 Gb (or greater) Hard Drive
 - 3.5-inch (89 mm), high-density floppy disk drive
 - 1 parallel port
 - 2 serial ports
 - 128 Mb of RAM minimum
 - SVGA graphics controller
 - SVGA Monitor (with or without touchscreen)
 - PS/2 mouse
 - CD drive (CD-RW recommended)
 - Fan monitor card (required for 4190-8103)
-

Additional Hardware Requirements (Central Station Receiving Fire Applications)

NFPA72-1999 proprietary receiving and Central Station applications require the following additional equipment:

- A Model 4190-8103 Information Management System.
 - A La Marche Uninterruptible Power Supply (UPS), Series A-31 and A-36D.
 - A Simplex printer that is a UL-listed control unit accessory.
 - A Sur-Guard III DACR with Installation Manual, for Central Station Applications only.
-

Sur-Guard System III DACR/IMS Limitations

The following features that are supported by the Sur-Guard System III are not supported in the IMS:

Caller ID	SK FSK1	SIS Protocol 2
Sescoa Super Speed	ITI	International Caller ID
Ademco High Speed	FBI	Westec
Acron	DMP	Surtec
SK FSK2	10 digit acct contact ID	Calling Name

Continued on next page

System Requirements, *Continued*

Sur-Guard System III DACR/IMS Limitations (Continued)

The Sur-Guard System III and the Bosch D6600 DACR support the following protocol formats in the IMS:

- Ademco CID
- 3/1*
- 4-2*
- BFSK
- SIA Level 1

The IMS does not support the B32 Header option for the TCP/IP messages. The TCP/IP for the Sur-Guard III works with the configured IMS default settings. The IMS is able to receive messages from the Bosch D6600 DACR.

Electrical Input Ratings

The following ratings apply to selected system hardware:

Order Number (Reference Only)	Equipment	Watts (maximum)
4190-7005 or -7006	Computer	240
4190-7122	17" LCD Monitor	72
4190-7123	19" LCD Monitor	96
4190-7222	17" LCD Monitor w/TS	72
4190-7223	19" LCD Monitor w/TS	96
4190-7224	19" LCD Monitor w/TS Rack Mount	96
4190-9013	Printer	240

* Protocols are only available for security applications and signaling.

Positioning the Equipment

Considerations

When you are locating the equipment, take into consideration anything that may affect the installation. You may want to consider the following items:

- Will it be difficult to run cables to the 4190 Information Management System?
 - Will the equipment be installed in a dusty or dirty environment, or will the system be exposed to contaminants?
 - Is the location close enough to any locations you might want to get to quickly?
 - Is it a good location for future expansion?
-

Connecting the IMS to the System

Connecting the Equipment

After choosing the location for the equipment, you are ready to connect the equipment in preparation for the installation of the software.

Note: If you need to install additional cards into the IMS, or modify existing card settings, please do so before connecting the equipment.

To install the hardware, place the PC in the desired location and connect the equipment you will use with the system (printer, mouse, etc.). A typical 4190 Information Management System hardware configuration is shown in Figure 2-1.

Note: Re-seat the various PC boards into the motherboard. This helps ensure that you have complete electrical connections.

The IMS rack-mount (18" LCD monitor [459 mm]) is shown in Chapter 4.

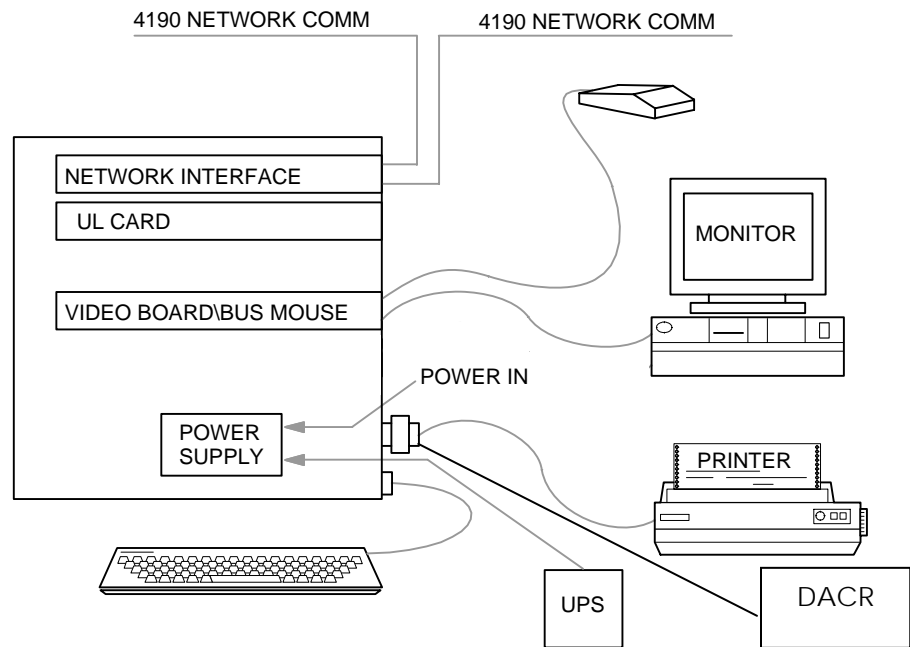


Figure 2-1. Typical 4190 Information Management System Block Diagram



WARNING: Do not plug the keyboard or keyboard adapter into a powered unit! This will damage the CPU board. All equipment must be powered down before adding any hardware.

Continued on next page

Connecting the IMS to the System, *Continued*

Connecting the Equipment *(Continued)*

As you connect the equipment, refer to the figures below and the instructions that follow.

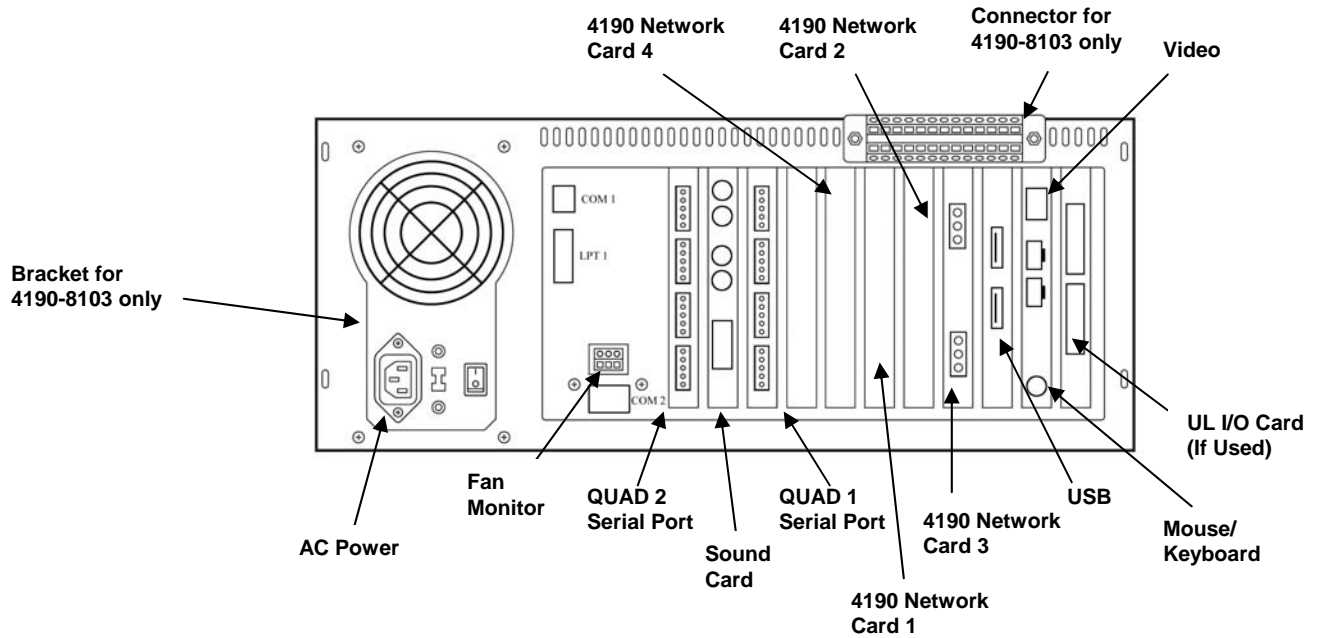


Figure 2-2. Computer Rear Panel Layout – 2.8 Ghz or Faster System using PCI 4190 Network Cards (Windows 2000 Platform)

Continued on next page

Connecting the IMS to the System, *Continued*

Connecting a Touchscreen Monitor

Position the monitor close enough to the PC so that you can connect the cables from the monitor to the PC and perform the following steps:

1. Connect the touchscreen controller cable to PC Serial Port, COM 1 or COM 2 is preferred.
 2. Connect the other end of the cable to the touchscreen input connector on the back of the monitor.
-

Connecting the Mouse

Connect the mouse by completing the following steps:

1. Locate the mouse/keyboard connector on the back of the PC.
 2. Plug the connector on the end of the mouse cable into the mouse/keyboard adapter cable on the PC.
-

Connecting the Keyboard

Connect the keyboard by completing the following steps:

1. Locate the mouse/keyboard connector on the back of the PC.
 2. Plug the connector on the end of the keyboard cable into mouse/keyboard adapter cable on the PC.
-

Connecting the Software Key

If you have a parallel software key, connect it by completing the following steps:

1. Locate the LPT1 connector on the back of the PC.
2. Plug the software key into the LPT1 connector.
3. If desired, plug the printer cable into the software key.

If your PC has a working USB port, you may connect a USB software key by inserting it into the USB Port.

NOTE: THIS SHOULD BE DONE AFTER THE SECURITY SERVICE SOFTWARE IS INSTALLED ON THE PC.

For instructions on installing the Security Service, refer to *Installing the Software Security System*, 579-825.

Connecting the Printer (Optional)

Connect the printer by performing the following steps:

1. Locate the serial Com port on the PC that was selected in the program.
 2. Plug harness 733-937 into the printer and complete the connections per Printer Installation Instructions 579-233.
-

Continued on next page

Connecting the IMS to the System, *Continued*

Connecting the Optional Uninterruptible Power Supply (UPS)

Connect the Uninterruptible Power Supply (UPS) by completing the following steps:

1. Plug the PC, printer, and monitor power cords into the AC outlet, which is integral to the equipment rack.
2. Connect the dedicated branch circuit to the AC power input of the UPS.
3. Connect the output of the UPS (in conduit) to the AC input terminals provided on the equipment rack.
4. Connect the transfer contacts of the UPS to the first of the general-purpose I/O points on the UL I/O card (see diagram 841-947 for interconnection specifics).

Note: A UPS (La Marche Series A-31 and A-36D) is required for fire-protective signaling applications.

Connecting to a Network

Complete the following steps for each network interface card you are installing. You can install up to four network interface cards in an IMS.

1. Locate the network interface card on the back of the PC.
 2. Connect the cable from the previous node's right port to the top connector on the network card.
 3. Connect the next node's left port to the bottom connector on the network card.
-

Chapter 3

Installing the IMS Software

Introduction

This chapter describes how to install the required software to successfully operate the IMS.

In this Chapter

This chapter discusses the topics listed in the following table. Refer to the page number listed after the topic for information on that topic.

Topic	See Page #
Software Requirements	3-2
Installing the Software	3-3
Installing and Operating the SPC 2120 Utility	3-8
Configuring the Computer Ports	3-10
Adding 2120 Points	3-13
Configuring the IMS to Communicate with DACRs	3-15
4190 IMS Checkout	3-17

Software Requirements

IMS Requirements

The following software is required for IMS operation. In some instances, this software may have already been installed:

- Windows® 2000 operating system
- Required software drivers (mouse, touchscreen, or printer drivers)
- 4190 Information Management System Executive Software

Optional Software

The following software may also be needed:

- 3M Touch System Inc Touchscreen Controller Software Version 5.64 SR6 or later (the disk is included with the touchscreen)
 - Microsoft Intellipoint for the Microsoft Mouse, latest version
 - IOMEGA Tape Drive Software drivers disk (required if you are installing a IMS tape drive in the field)
-

Installing the Software

Installing Windows 2000

If Windows 2000 operating system software must be installed on your computer, follow the instructions given in the Microsoft documentation for this product. After the Windows 2000 operating system has been installed, modify the computer for IMS operation in the following manner.

BIOS Setup: Modify the BIOS Setup as follows:

1. Select **PNP/PCI Configuration**.
2. Change IRQ 11 from PCI/ISA PnP to **Reserved**.
3. Select Power Management Change ACPI Function to disabled.
4. Press <ESC>, "Save Changes and Exit."

Taskbar: Modify the Taskbar as follows:

1. Click on the **Start** button and select **Settings**, then **Taskbar**, and **Start Menu**.
2. Remove Checkmark (✓) from "Always on top."

Display: Set the Display options as follows:

1. Click on the **Start** button and select **Settings**, then the **Control Panel** menu.
2. Double-Click the **Display** icon.
3. Under the **Settings** tab, set the "Desktop Area" to **800 by 600 pixels and 32 Bit True color**. Click on **Apply**. Windows will ask you to test-view the new setting, then make the change.
4. Under the **Screen Saver** tab, set the Screen Saver selection to **(None)**.
(Alarm messages on the computer screen can not be seen when the Screen Saver is running)

Continued on next page

Installing the Software, *Continued*

Installing Serial Touchscreen Software

This section describes the installation of the Serial Touchscreen software (driver) for Windows 2000.

1. Connect the two cables from the Serial Touchscreen monitor to the PC.
 - a. Connect one cable to the connector labeled Video.
 - b. Connect the other cable to the serial connector, COM 1 or Com 2 is preferred.
2. Check all other cables to ensure that they are secure.
3. Connect the AC power cord from the monitor to an AC source.
4. Turn on power to the PC and monitor.
5. During initialization, enter the BIOS SETUP by pressing the DEL key.
 - a. Enter the Integrated Peripherals screen and check the status of the COM port to which you will connect the touchscreen. It must be enabled.
 - b. Save the settings and exit.
6. Locate the disk that contains the serial touchscreen drivers and insert it into the PC drive.
7. From the Windows START icon, select RUN and BROWSE.
 - a. Go to the correct drive and select setup.exe program.
8. Follow the instructions and select the correct COM number before selecting YES to restart the PC.
9. Follow the directions on the screen. When calibrating, look for the red bull's-eye instead of the center of the screen.

Calibrating Touchscreen Software

This section describes how to calibrate Touchscreen software in Windows 2000.

1. Click the **Start** button to invoke the Windows 2000 system menu, and choose **Settings**, then **Control Panel**.
 2. Double-click **Touchware** to run the Touchscreen Control Panel.
 3. Click the **Align** button and touch each of the three targets as they appear on the screen. Click **Yes** when the cursor lines up correctly with your finger.
 4. Click **OK** to close the Touchscreen Control Panel.
-

Installing the Software, *Continued*

Installing the Optional Tape Drive Software from Floppy Disk

This section describes how to install the tape drive software for IMSs equipped with tape drives.

Note: Tape drives are not supported in the Run-time software.

1. Insert the IOMEGA Tape Drive Software Driver Disk into the IMS floppy drive.
2. From the Windows Program Manager, select **File|Run**. The system displays the Run box.
3. In the Run box, type **A:install** and select **OK**. Follow the prompts displayed on the screen and use the settings listed in Table 3-4.

Table 3-1. Tape Drive Software Installation Settings

Field	Setting/Action
Screen Selection	Color
Backup Install	Accept Default
Personalize your Company	Your Name Your Company
Tape Configuration	Start Test
Tape Configure	OK
Configuration Test	Start Configuration Test
DMA Test Complete	OK
Alert	Insert Tape and select Continue Backup
Tape Compatibility Test	Start Test
Compare Complete	OK
Compatibility Test Successful	OK
Configuration Test	OK
Backup AUTOSTART	NO
Update AUTOEXEC.BAT	OK
AUTOEXEC.BAT modifications	Save Changes
Update CONFIG.SYS	OK
CONFIG.SYS modifications	Save Changes
Configure	Save
Backup Install	Reboot

Continued on next page

Installing the Software, *Continued*

Installing the Optional Tape Drive Software from CD-ROM

Note: Tape drives are not supported in the Run-time software.

1. Insert the IOMEGA CD into the computer CD Rom drive.
 2. Select the **Install** icon.
 3. Follow the prompts on the screen.
-

Editing the Windows WIN.INI file for Optional Tape Drive

Modify the WIN.INI file as follows:

1. Click on the **Start** button and select **Programs**, then **MS DOS Prompt**.
 2. At the **C:\WINDOWS>** prompt, type **EDIT WIN.INI** and press **ENTER**. The WIN.INI (Windows Initialization) file is displayed on the text editor screen.
 3. Scroll to the line reading "Run=C:\QBWIN\DITTO.EXE."
 4. Place a semi-colon (;) at the beginning of this line. This will prevent this command from executing when Windows starts.
-

Installing the Security Service

Please refer to *Installing the Software Security System, 579-825* for instructions on installing the Key Security Service. This service is necessary for access to the program.

Continued on next page

Installing the Software, *Continued*

Installing the 4190 IMS Software

- Notes:**
1. Before installing the 4190 IMS software, make sure that Windows 2000 is installed.
 2. If the IMS is to be used for network programming, install the 4100 and 4100U Programmers first. This is required to establish proper ICON setup.
 3. If used for network programming, you also should install the updated Network Programmer.

The 4190 Information Management System software comes on a CD. The 4190 Information Management System CD also contains the following software:

- The 4190 Programmer software

The IMS software is easy to install and requires less than 20 Megabytes of free disk space on the target system. Minimum space requirements are automatically verified during installation and the installation process is terminated if the minimum system requirements are not met.

To install the 4190 Information Management System Software, complete the following steps:

1. Insert CD into the CD drive and change to that drive.
2. From the Windows 2000 **Start** menu, select **Run**. The system displays a command line dialog box.
3. On the command line, type **D:ims.exe** (where D: is the CD drive letter) and select **OK**. The system displays the message Install Shield dialog box.
4. Follow the on-screen instruction to install the IMS software.
 - During the installation, you may get messages such as, “The following file is already installed on your system.”, “Do you wish to overwrite this file?”, or “Read only file detected.” In all such cases, press the “Yes to all” button, or if there is no “Yes to all” button, then press the “Yes” button to overwrite all existing files.

Note: The RUNTIME NODE option has been eliminated because all systems now will require the Programmer for setting up drivers.

5. Remove the CD from the drive and store it in a safe place for future use.
6. Restart the computer by choosing **Shutdown** from the **Start** menu.
7. To prevent the IMS from starting, hold down the shift key when starting Windows.
 - Start up IMS after powering up your computer. Place the IMS shortcut in the Startup folder for All Users to start up IMS past the login.
8. Right click on **any** IMS Runtime or IMS Programmer shortcuts on the computer. Check in Start-Programs-Simplex-IMS, In Start-Programs-Startup, on the desktop, or any other created place. Select Properties and ensure that “Run in separate memory space” is checked.

Continued on next page

Installing the Software, *Continued*

Requiring or Disabling Logon Password in Workgroup Setting

Important: To meet the UL 864 proprietary workstation requirement, the system must bypass the Password screen and boot directly to IMS RUNTIME upon startup of the computer.

To require or disable a logon password in a workgroup setting:

1. Open Users and Passwords in Control Panel.
2. On the **Users** tab, do one of the following:
 - Click the **Users must enter a user name and password to use this computer** check box to require users to provide this information when they log on.
 - Clear the **Users must enter a user name and password to use this computer** check box to allow a user to automatically log on. You will be prompted to provide the name and password of the users who will be automatically logged on each time the computer starts.

Notes:

- The **Users must enter a user name and password to use this computer** check box only appears if your computer is not connected to a network domain.
- You must be logged on as an administrator or a member of the Administrators group to use Users and Passwords.
- To open a **Control Panel** item, click **Start**, point to **Settings**, click **Control Panel**, and then double click the appropriate icon.
- Requiring users to enter a name and password provides secure protection for your computer. Windows 2000 verifies each account and provides access to the computer only if the information is correct.
- If only one person uses the computer or the security risk is low, you might find it convenient to allow Windows 2000 to automatically log on each time that you start the computer.

Important: To meet the UL 864 proprietary workstation requirement, you must adhere to the **Important** note at the top of this page.

Installing and Operating the SPC 2120 Utility (RETROFIT APPLICATION ONLY)

Introduction

Note: Disregard this section if you do not have a 2120 interface. A SPC2120 and DACR cannot operate on the same PC.

This section describes the necessary steps to install and configure the 2120 Serial Point Collection Utility (SPC 2120).

For further information, consult the following publications:

- Publication No. 574-097 – *Multiport SLI Option Installation Instructions*
- Publication No. 574-122 – *Field Installation of the 2120 Multiport SLI Option*

Requirements

The SPC 2120 communicates with the 2120 to collect point information. This information is written to a file for the 4120 programmer to interpret for easier 4120 IMS point expansion.

Before you install the SPC 2120 software onto the PC, check to ensure that it meets the following minimum requirements:

- 80386 or greater processor
- 640 K RAM
- Hard disk with at least 350 K free
- One 3.5" (89 mm) floppy drive for installation purposes
- One available serial (COM) port
- One 2120 Serial cable, to be connected to a 2120 Computer port.

Installation Procedure

Use the following procedure to install the SPC 2120:

1. Insert the 3.5" (89 mm) program diskette into your floppy drive.
If you are using a Windows 2000 Operating System, open an MS-DOS command window by selecting the **Start** button, then the **Program** menu choice. Choose **MS-DOS Prompt** from the Program menu.
2. From the **C:** or **C:\WINDOWS** prompt type **A:install** and press **Enter**.
3. From the installation screen, select **I** to install the SPC 2120 or **E** to exit the installation.
4. The SPC 2120 installation program then asks you where you wish the utility installed. The typical installation is installed in the **C:\SPC2120** directory.
5. After a successful installation, the SPC 2120 installation program returns you to the DOS prompt.

Continued on next page

Installing and Operating the SPC 2120 Utility (RETROFIT APPLICATION ONLY), *Continued*

Operating the SPC 2120 Utility

Note: A serial cable must be connected from COM X of the PC to a 2120 Computer Port prior to running the SPC 2120 Utility.

To run the SPC 2120 Utility, type **SPC2120** [/option] from the **C:\SPC2120** directory. Typing SPC2120 without a specified option assumes a complete download from Port 1. The options are listed below.

- **/A** - Complete Download
- **/L** - Update Custom Labels
- **/P** - Update Priorities
- **/S** - Update Suppressions
- **/Nn** - Port number; n = the port number (only used as a file reference)
- **/H** or **/?** - Shows list of parameters (help)

In order to perform the updating options (/L, /P, or /S), a matching 2120_N.SLI (where “N” is the number of the 2120 node) file must already exist. When doing these updates, the point information is referenced from the existing 2120_N.SLI file. Then the specified update request information (/L, /P, or /S) is received from the 2120 and compared to the existing information before writing a new file. When doing a Complete Download, all information is received from the 2120. In both cases, the original file is backed up to 2120_N.SAV. If this file already exists, the program prompts you to enter a filename.

Once the SPC 2120 command is entered, the program asks you for a job name. You can type up to eight characters for a job name and press **Enter**. The SPC 2120 informs you when the system completes a successful download.

Before copying the SPC 2120 output file into the IMS/NPU directory structure, rename it from “2120IOOn.SLI” to the 2120 CMS file number **without the revision letter**. For example, if the CMS file number is “W123456A”, then rename the file from “2120IOOn.SLI” to “W123456.SLI”. Before an update option /L, /P, or /S can be performed, the file must be renamed back to “2120IOOn.SLI” for the SPC 2120 program to find an existing comparison file.

Before starting the SPC 2120 program, make sure all points to be copied to the IMS/NPU are vectored to the download port. Only the points vectored to the 2120 download port will be copied to the output file.

- Notes:**
- Print class 1 points are vectored to all ports and print class 0 points are not vectored to any ports. Points that were print class 0 and do not need to be printed at the 2120 strip printer should be changed to print class 7 and then vectored to the download port.
 - When running the SPC 2120 program, the PC should be connected to the port on the 2120 that will be connected to the IMS at runtime.
-

Configuring the Computer Ports

Port Configuration Procedure

The 4120 Network Programmer software is used to define the RS-232 ports to the network.

Note: All required hardware and software (e.g., controllers, drivers, etc.) must be installed before you can successfully complete the following configuration.

Use the following procedure to configure the RS-232 ports.

1. In Windows Program Manager, select the 4120 Programming icon. The system displays the 4120 Programming Unit screen shown in Figure 3-1.

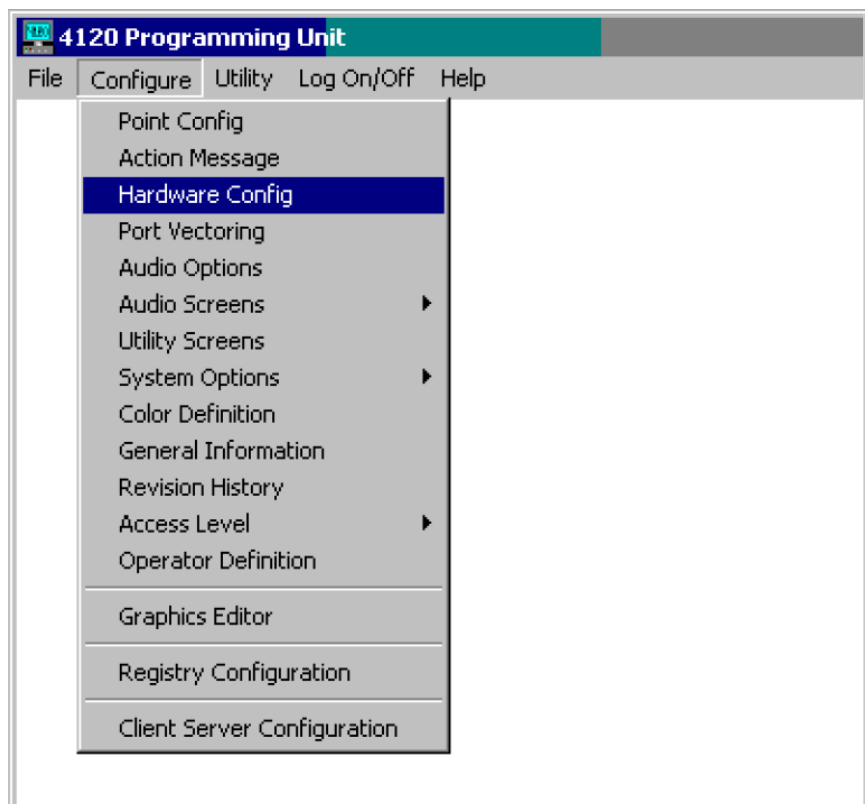


Figure 3-1. 4120 Programming Unit Screen

2. From the **Configure** menu, select the **Hardware Config** option. The system displays the Hardware Configuration screen shown in Figure 3-2.

Continued on next page

Configuring the Computer Ports, *Continued*

Port Configuration Procedure (Continued)

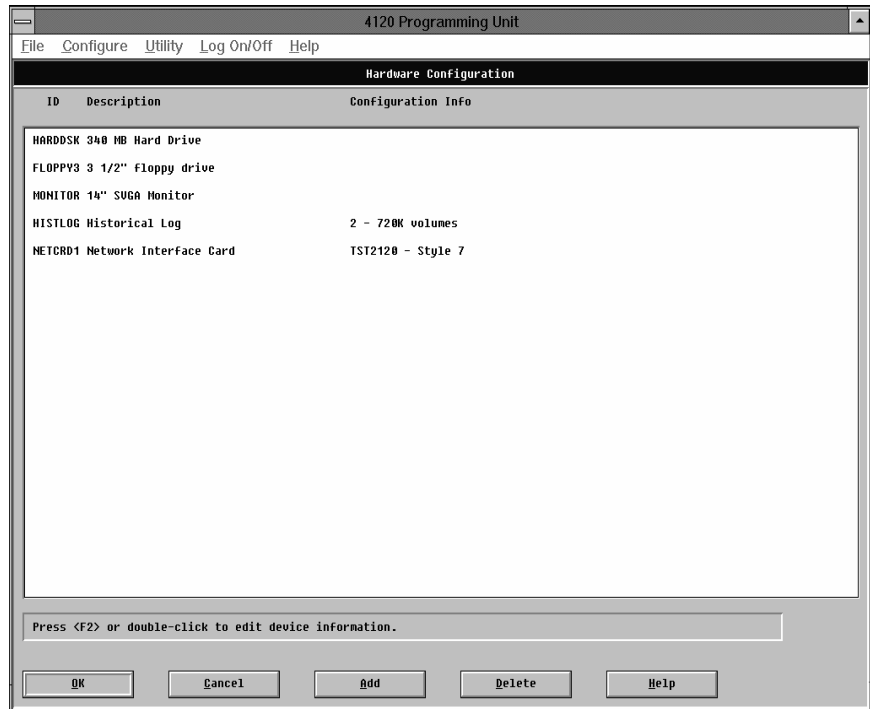


Figure 3-2. 4120 Programmer Hardware Configuration Screen

3. Check the current hardware settings. To change a specific hardware setting, highlight the setting with your mouse and double click or use the **Up** and **Down** arrow keys to highlight the setting you wish to change and press **F2**. The system displays the Add Run-Time Hardware dialog shown in Figure 3-3.

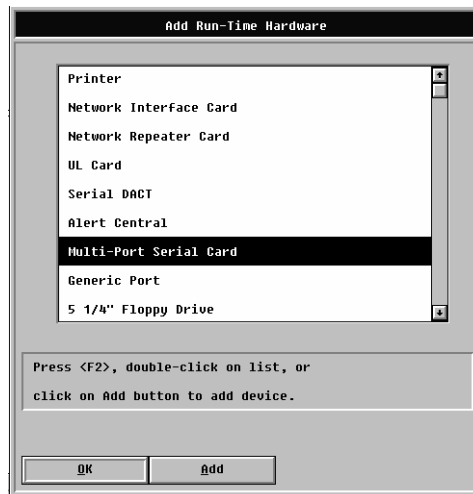


Figure 3-3. Add Run-Time Hardware Dialog

Continued on next page

Configuring the Computer Ports, *Continued*

Port Configuration Procedure (Continued)

4. Use the mouse to highlight the option, and then select the **Add** button at the bottom of the screen to configure the port controller card. The system displays the Generic Port Configuration screen shown in Figure 3-4.

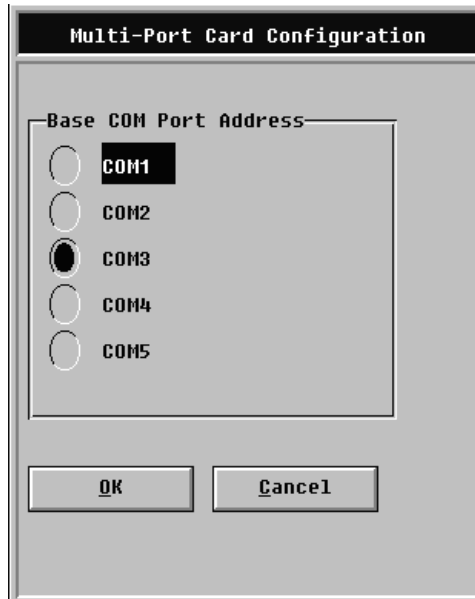


Figure 3-4. Multi-Port Card Configuration Dialog

5. Select an available COM port as the Base COM Port Address (**COM3** through **COM5**). Com 3 is recommended. When finished, select **OK**. The system returns to the original Configuration screen which now includes the Generic Port Serial Card.
6. Select **OK** at the bottom of the Configuration screen. The system will ask you if you want to save the new configuration. Select **OK** to save, or select **Cancel** to cancel the configuration.

Note: Do not attempt to assign port directories or dump files until you have saved the new hardware configuration.

Adding 2120 Points (RETROFIT APPLICATIONS ONLY)

How to Add 2120 Points to the Point Database and Network

Complete the following steps to add 2120 points to the network and to the point database.

1. Use Windows Explorer or File Manager to select the following directory:
`\netjobs\tst2120\n7`
2. In Windows 2000 Explorer select **New**, then **Folder** from the **File** menu.
In Windows 3.1 File Manager, select **Create Directory** from the **File** menu. The system displays the Create Directory screen.
3. Name the new Folder or Directory **2120_1** for Port 1, or **2120_2** for Port 2.

Notes:

- Before copying the SPC2120 output file into the IMS/NPU directory structure, rename it from "2120IOOn.SLI" to the 2120 CMS file number **without the revision letter**. For example, if the CMS file number is "W123456A", then rename the file from "2120IOOn.SLI" to "W123456.SLI".

- The IMS scans the new directory for a .SLI file. The IMS learns this file name only once. Do not change the name after the directory has been scanned.
4. Copy the 2120 dump file to the new directory. The file extension must be **.SLI** in order for the 4120 Programmer software to accept it.
 5. Return to the Program Manager and select the **4120 Programmer icon**. The system is now aware of the new port configurations and has automatically added certain system, channel and transponder information into the hardware configuration.
 6. Select **View** from the Point Configuration screen and scroll past **Point No. 52815** to display this information.
 7. From the 4120 Programmer Unit screen, select the **Configure** menu and select the **Point Config** option. The system displays the 2120 Port Selection dialog shown in Figure 3-5.



Figure 3-5. 2120 Port Selection Screen

Continued on next page

Adding 2120 Points (RETROFIT APPLICATIONS ONLY), *Continued*

How to Add 2120 Points to the Point Database and Network (*Continued*)

8. Select the ports you wish to configure and press OK. The system displays a tag list. (See Figure 3-6.)

Point Number	Point Name	Device Type	Point Type	Custom Label	Currently Tagged	Pr	Sp	Dev
001-704	NIGHTSM	DIGITAL	UTILITY	DAV-NIGHT SENS	3	1	P	
001-705	ALDIRTY	DIGITAL	TROUBLE	DEVICE ALMOST DIRTY	T	1	P	
001-706	CALTEST	DIGITAL	TROUBLE	CALIBRATION TEST	T	1	P	
001-707	DISDRIV	DIGITAL	TROUBLE	DIS DIRTY REPORT	T	1	P	
001-708	DISDRAT	DIGITAL	TROUBLE	DIS EXCESSIVE DIRTY	T	1	P	
002-301	PGHTEST	DIGITAL	TROUBLE	PROGRAM IN TEST	T	1	P	
002-308	PRI1BYP	DIGITAL	TROUBLE	PRIORITY 1 BYPASSED	T	1	P	
002-501	LUFAIL	DIGITAL	TROUBLE	LOCAL PORT FAILURE	T	1	P	
002-502	R2FAIL	DIGITAL	TROUBLE	REMOTE DEVICE 2 FAIL	T	1	P	
002-503	R3FAIL	DIGITAL	TROUBLE	REMOTE DEVICE 3 FAIL	T	1	P	
002-504	R4FAIL	DIGITAL	TROUBLE	REMOTE DEVICE 4 FAIL	T	1	P	
002-505	R5FAIL	DIGITAL	TROUBLE	REMOTE DEVICE 5 FAIL	T	1	P	
002-506	R6FAIL	DIGITAL	TROUBLE	REMOTE DEVICE 6 FAIL	T	1	P	
002-601	LOCSUP	DIGITAL	TROUBLE	SUPPRESS LOCAL PRINT	T	1	P	
002-602	NAMSUP	DIGITAL	UTILITY	NAME SUPPRESS OUTPUT	3	1	P	
002-603	FORCEPL	DIGITAL	UTILITY	MON UPDATE NEXT POLL	3	1	P	
002-608	FORCECL	DIGITAL	UTILITY	FORCE CONTROL UPDATE	3	1	P	

Figure 3-6. 2120 Points Tag List Screen

9. Highlight each 2120 point and press the space bar after selecting each point. When you are finished making your selections, press **OK**. The system displays the Port Selection screen.

Note: Monitor Points are default mapped to the IMS/NPU by priority only.

- 2120 PRI1 points (FIRE) are mapped as IMS/NPU FIRE
- 2120 PRI2 points (SECURITY) are mapped as IMS/NPU GENPRI2
- 2120 PRI3 points (UTILITY) are mapped as IMS/NPU UTILITY

This may result in points being incorrectly mapped at the IMS/NPU.

- 2120 "F" sense points must be changed to TROUBLE at the IMS/NPU
- 2120 "V" sense points must be changed to VERIFIED at the IMS/NPU

10. To add 2120 user points, use point numbers between 2816 and 52815, then press the **Add** button at the top of the screen.
11. Select the **Exit** button to return to the Select Category screen or select **OK** to return to the Point Configuration screen. The system displays the new 2120 points with LC2 as the class. To change the class to Public, highlight the Class field that you want to change and press the Up and Down arrow keys to toggle between the classes.
12. At this point, you can save the database and build using the standard method.

Configuring the IMS to Communicate with DACRs

Adding the DACR Port

Note: A SPC2120 and DACR cannot operate on the same PC.

You must configure the IMS to communicate with the DACR. To start, you need add the DACR port. To do so, you:

1. Select the hardware configuration item from the Configuration Menu.
 2. Hit the Add Button.
 3. Select DACR Port.
 4. In the DACR Port dialog box, select the COM port that is connected to the DACR.
 5. Select OK before saving and exiting the Hardware Configuration Screen.
-

Adding DACR Accounts and Points

Next, you need to add accounts and points. To do so, you:

1. Select Point Configuration from the Configuration Menu.
2. Scroll to an empty point in the user area.
3. Press the Add Button.
4. Press the DACR Points Button.

You are then prompted with three choices: Add Event Account, Manual Point Entry, and Import CID Points. Depending on what communication format is being used by the DACT for the panel and on what type of information you want annunciated at the IMS, select the appropriate button. The reporting formats supported by the IMS are 3/1, 4/2, BFSK, SIA, and Contact ID.

Adding the Event Account

You need to add an event account if the panel for the account that you are configuring is a format other than CID, or the format is CID but you don't care to annunciate events at the per point level. In this configuration, the IMS will indicate a FIRE, PRI2, Supervisory, or trouble condition at the panel but will not indicate the specific device that initiated the alarm condition.

To add an event account, do the following:

1. Enter the Account number being used by the dialing panel.
 2. Enter a label indicating the location of the panel.
-

Entering Points Manually

If you want to enter a few points manually and the dialing panel is Contact ID, you must do the following:

1. Enter the Account number being used by the dialing panel.
 2. Enter a label indicating the location of the panel. (This step is only necessary the first time that you enter a point for this account. Subsequently, the label will be automatically filled once the account number is entered).
 3. Enter the CID Group for the point that you are configuring.
 4. Enter the CID Point number for the point that you are configuring.
 5. Select the device type for how you want to annunciate this device.
 6. Select the point type for how you want to annunciate this point.
 7. Enter a label to identify the location of the configured point.
-

Continued on next page

Configuring the IMS to Communicate with DACRs, *Continued*

Importing CID Points

If you want per-point annunciation and have a comma-separated file describing the point information for a CID account, you must do the following:

1. Enter the account number being used by the dialing panel.
2. Enter a label to indicate the location of the panel. (This step is only necessary the first time that you enter a point for this account. Subsequently, the label will be automatically filled once the account number is entered).
3. Select the .csv file to import.

Note: The format of the .csv file is described below.

In order to import Contact-ID points from an external .csv file, the person programming will have had created a dedicated DACR subdirectory in the IMS node's database directory. The general naming scheme for the DACR subdirectory will be

```
..\netjobs\<networksite>\<imsnodename>\DACR_1\
```

Note: All CID account .csv files pertaining to the first DACR will be placed into the DACR_1 directory.

The Import file contains the following fields.

```
<Line #[Optional]><Account # [Optional]>,<CID GROUP[required]>,<CID NUMBER[required]>,<Point Type[Optional]>,<Label[required]>,<Alarm Category[Optional]>
```

Fields listed as optional must have the comma inserted for that field but can be left blank other than the comma.

If the point type field is present and it matches a valid IMS point type, that point type will be used. If no point type is present and the Alarm category field is present, the FIRE, PRI2, SUPERV, TROUBLE, or UTILITY point types will be used to match the category assigned. If neither is present, the point will default to MONB - FIRE.

Category Interpretation.

```
F (fire) = MONB - Fire  
P (priority 2) = MONB - GenPri2  
S (supervisory) = MONB - Superv  
T (trouble) = MONB - Trouble  
U (utility) = MONB - Utility  
O (output) = SIGB - SIGNAL
```

4190 IMS Checkout

How to Checkout the IMS

You can use the simulation function provided to check out the system. The simulation function shows you how the system will work when it is finally programmed and operating. For more information on using the simulation function, refer to the *4190 Information Management System (IMS) Operating Instructions*, Publication 579-410.

Testing Circuit Supervision

Use the following procedures in the table below to confirm that the network is supervising for opens, shorts and grounds. The right column in this table shows what is displayed on the IMS monitor screen when an open, short, or ground occurs on a circuit.

Condition	IMS Monitor Screen
Open -- Remove the end of line and make circuit impedance infinite.	Trouble Statement
Short -- Apply a zero ohm jumper across the circuit.	Trouble Statement
Earth Ground -- Place a 10k or smaller value resistor from supervised wiring to Earth Ground.	If an Earth Ground occurs on any circuit, the Earth Fault Trouble Statement occurs.

Chapter 4

Installing the IMS Rack-Mount Versions

Introduction

The 4190 Information Management System (IMS) is available as a rack-mount with an 18" (459 mm) LCD monitor.

In this Chapter

This chapter discusses the topics listed in the following table. Refer to the page number listed after the topic for information on that topic.

Topic	See Page #
Installing the Rack-Mount Components	4-2
Installation Procedure	4-2

Installing the Rack-Mount Components

Installation Procedure

The entire rack setup is assembled and tested at the factory. After testing is completed, the PC and monitor are removed and packed in their original shipping cartons. The rails and any other additional items are left on the PC and monitor. The rack is then shipped as an assembled unit.

Complete the following steps to install the remaining components:

1. Secure the rack to the floor.
2. Separate the conduits for the entry of power-limited and non-power limited supply lines through the bottom plate (there is a label on the bottom plate showing the desired location for these supply lines).
3. Install the PC in the rack (the rails are already assembled) and secure it with 10-32 screws (supplied).
4. Plug the monitor power cord into the PC power outlet.
5. Plug the PC power cord into the surge protector.
6. Secure the power wires to the back left rail using the tie wrap provided (leave a minimum service loop for sliding of the PC).
7. Secure all other wires (non-power limited) to the back right rail using the tie wrap provided.
8. Connect the incoming AC line to the AC termination block.
9. After you have set up the Rack-Mount IMS, you can continue installing it on the network.

Continued on next page

Installing the Rack-Mount Components, *Continued*

Installation Procedure (Continued)

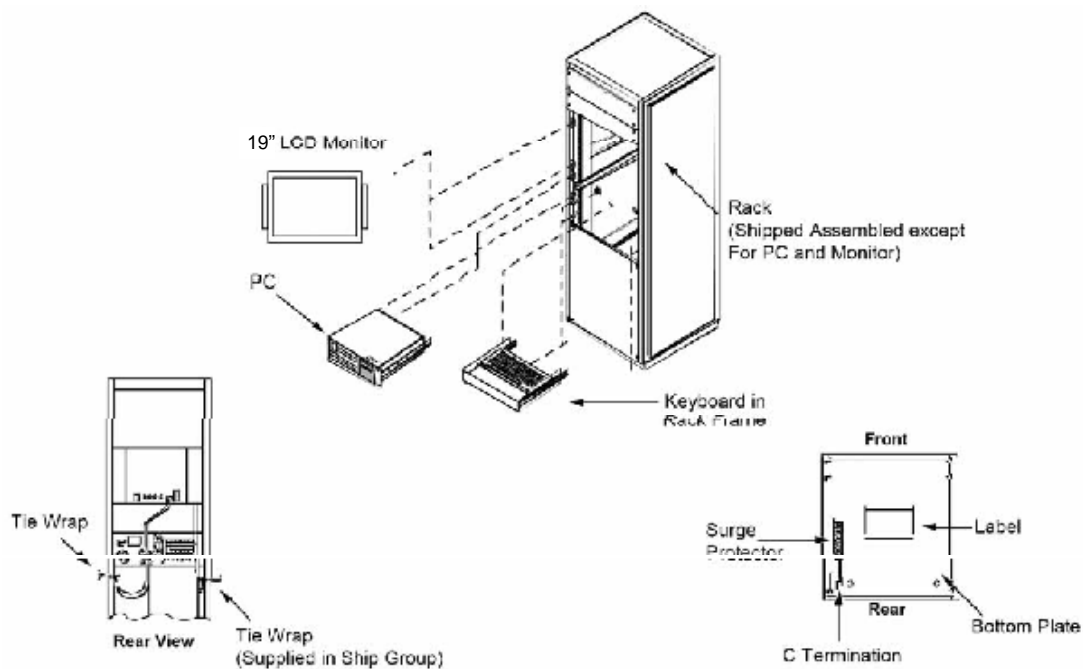


Figure 4-1. Rack-Mount Installation

Chapter 5

Connecting 2120 Nodes and DACRs (RETROFIT APPLICATIONS ONLY)

Introduction

This chapter describes how to connect 2120 nodes and DACRs (Digital Alarm Communicator Receivers) to an IMS using the existing RS-232 Serial Port.

Note: To connect 2120 nodes using the Multiport card, refer to the *SL/ Multiport Option - Installation Instructions*, Publication 574-097.

Note: A SPC2120 and DACR cannot operate on the same PC.

In this Chapter

This chapter discusses the topics listed in the following table. Refer to the page number listed after the topic for information on that topic.

Topic	See Page #
Hardware Requirements	5-2
Connecting the 2120 Nodes to the IMS	5-3
Connecting DACRs to the IMS	5-5

Hardware Requirements

Required Cables and Connectors

Table 5-1 lists the required cable and connectors to complete the installation. Figure 5-1 shows a diagram of how to connect the cables and connectors from the RS-232 port on each 2120 node to the RS-232 connector on the CPU.

Table 5-1. Cables and Connectors for IMS Installation

Part Number	Description
617-836*	6-foot (2 m) DB9 to DB25 adapter cable
733-571	Harness assembly (receptacle suppressor)
733-572	Harness Assembly (RS-232 suppressor)

*If the RS-232 ports on the IMS are DB25 male connectors, this adapter is not needed.

Connecting the 2120 Nodes to the IMS (Retrofit Applications Only)

Installing with Adapter Cable

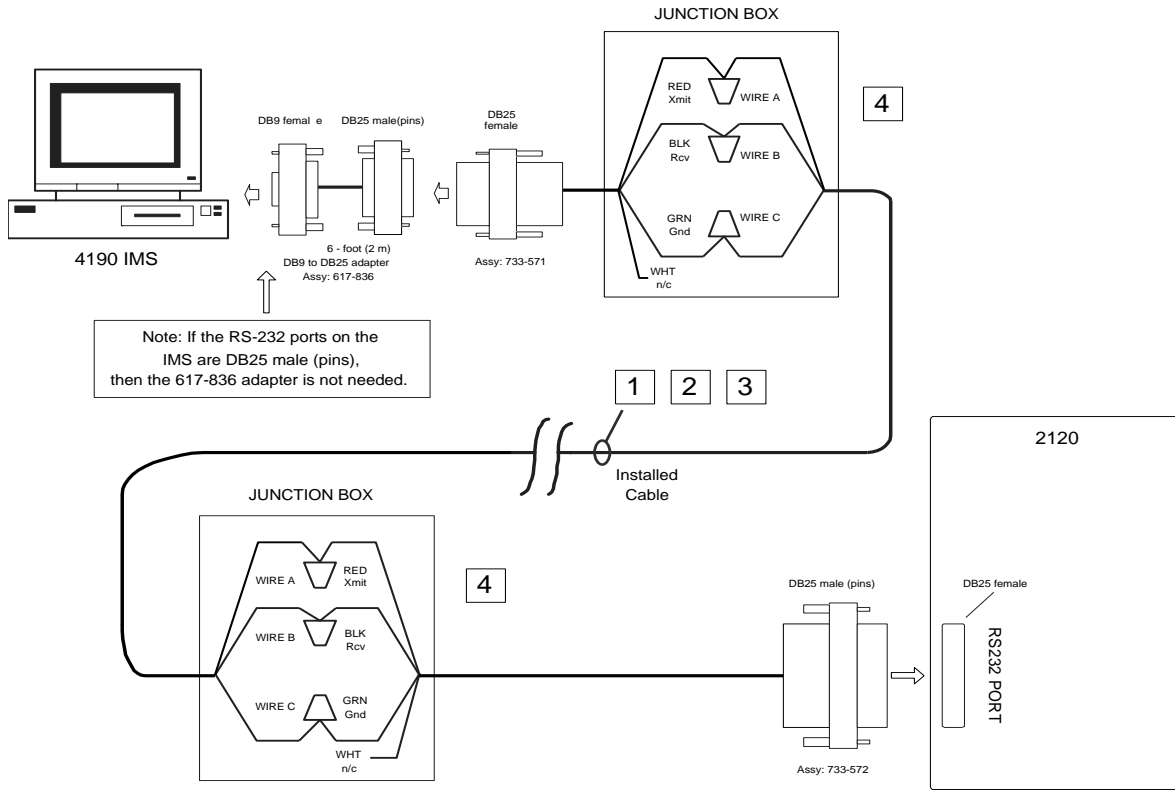
If the RS-232 card has a DB9 male connector, complete the following steps. Refer to the diagram in Figure 5-1 for help. If it has a DB25 male connector, skip this section, and continue to the next section.

1. Ensure that the power is OFF before starting this procedure.
2. Complete all wiring according to the wiring diagram shown in Figure 5-1.
3. Use the junction boxes at each end of the installed cable to terminate the field wiring between harness 733-571 and 733-572.
4. Complete Steps 1 through 6 for each node you are installing.
5. After connecting the node(s) to the IMS, turn the power ON. The IMS automatically boots up to the initial program screen.

Continued on next page

Connecting the 2120 Nodes to the IMS (Retrofit Applications Only), Continued

Installing with Adapter Cable (Continued)



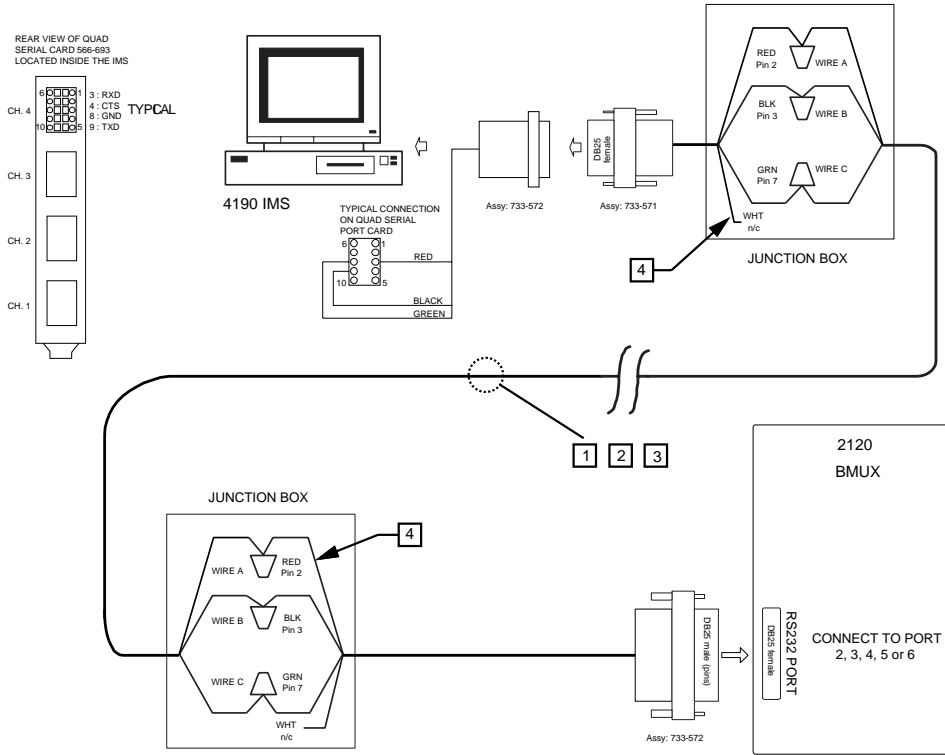
- NOTES:
1. Installed cable 18 awg or to local code, 2500 feet max
 2. RS232 Baud Rate is 1200
 3. RS232 power is 10mA max
 4. For Canadian installation, use locally accepted terminal block in electrical junction box.

Figure 5-1. Connecting 2120 Nodes to the IMS

Continued on next page

Connecting the 2120 Nodes to the IMS (Retrofit Applications Only), Continued

Installing with Adapter Cable (Continued)



NOTES

- 1 INSTALLED CABLE 18AWG, OR TO LOCAL CODE. 2500 FEET MAX.
- 2 RS232 BAUD RATE IS 1200.
- 3 RS232 POWER IS 10 mA (MAX.).

- 4 FOR CANADIAN INSTALLATIONS, USE LOCALLY ACCEPTED TERMINAL BLOCK IN ELECTRICAL JUNCTION BOX.

Figure 5-2. Connecting 2120 BMUX Nodes to the IMS

Installing without Adapter Cable

If your RS-232 card has a DB25 male connector, complete the following steps. Refer to Figure 5-1 for help. (If it has a DB9 male connector, complete the steps in the previous section.)

1. Ensure that the power is OFF before starting this procedure.
2. Complete all wiring according to the wiring shown in Figure 5-1.
3. Use the junction boxes at each end of the installed cable to terminate the field wiring between harness 733-571 and 733-572.
4. Complete Steps 1 through 3 for each node you are installing.
5. After connecting the node(s) to the IMS, turn the power ON. The IMS automatically boots up to the initial program screen.

Connecting DACRs to the IMS

Installing with Adapter Cable

If the RS-232 card has a DB9 male connector, complete the following steps. Refer to the diagram in Figure 5-4 for help. If it has a DB25 male connector, skip this section, and continue to the next section.

1. Ensure that the power is OFF before starting this procedure.
 2. Complete all wiring according to the wiring diagram shown in Figure 5-3.
 3. Use the junction boxes at each end of the installed cable to terminate the field wiring between harness 733-571 and 733-572.
 - The total wiring length from the RS-232 port of the CPU to the RS-232 port of the DACR must not exceed 20 feet (610 cm) and must be run in conduit.
 4. Complete Steps 1 through 6 for each DACR that you are installing.
 5. After connecting the DACR(s) to the IMS, turn the power ON to the DACR.
 6. Press ESCAPE to enter the configuration mode.
 7. Enter CAFÉ at access code screen.
 8. Press ENTER to go to the next menu item or use BACKSPACE to go to the previous menu item until the desired menu item appears. Then press ACK to select it.
 9. At Option 01: Sys Date/Time, enter the date and time using Digits 0 – 9. Press ENTER to move cursor to the right and BACKSPACE to move cursor to the left. Press ESCAPE to go to the next option menu.
 10. At Option 03: Numb of Lcard, change number to the actual number of active line cards in the panel being used (1 or 2 for a base unit).
 11. At Option 04: PrinterSelect, enter 0 at the enable field for no printer and 1 for printer enabled.
 12. Press ESCAPE and then ENTER to go to Option 6 (COM#1 Format) before pressing ACK.
 - Enter 1 to select Sur-Gard format before pressing ESCAPE.
 13. Press ESCAPE and then ENTER or BACKSPACE to go to Option 5 (COM#1 Configuration) before pressing ACK.
 14. Verify Option 5 settings.
 - The setting for COM1 should be 9600 baud, no parity, 8 bits, and 1 stop bit.
-

Connecting DACRs to the IMS, *Continued*

Installing with Adapter Cable *(Continued)*

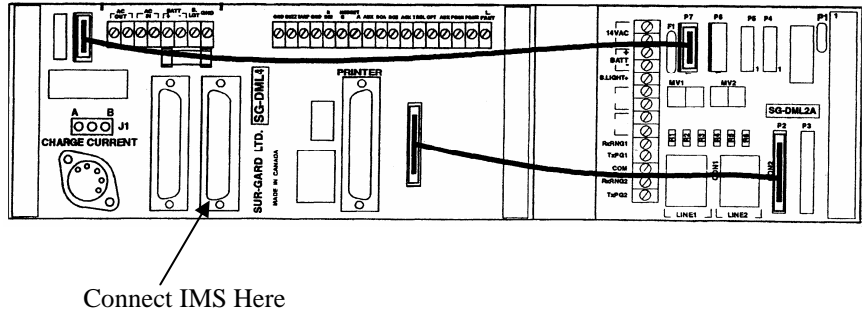


Figure 5-3. Typical Rear View of DACR

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Connecting DACRs to the IMS, *Continued*

Installing with Adapter Cable (Continued)

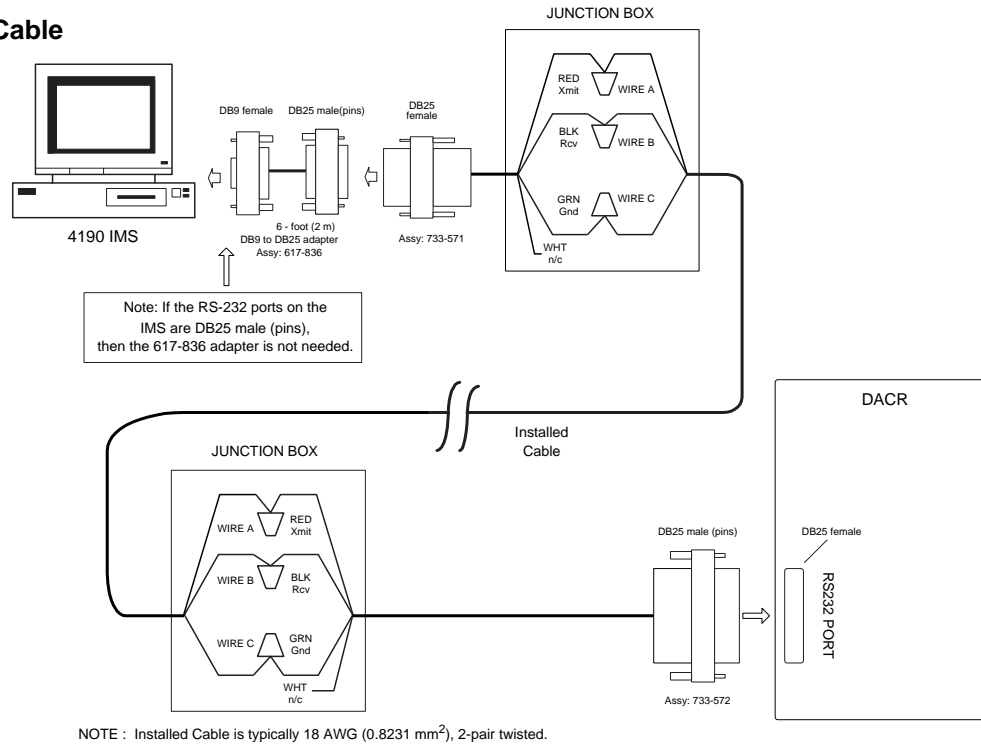


Figure 5-4. Connecting DACRs to the IMS

Installing MLR-2DG-DACR without adapter

If your RS-232 card has a DB25 male connector, complete the following steps. Refer to Figure 5-4 for help. (If it has a DB9 male connector, complete the steps in the previous section.)

1. Ensure that the power is OFF before starting this procedure.
2. Complete all wiring according to the wiring shown in Figure 5-3.
3. Use the junction boxes at each end of the installed cable to terminate the field wiring between harness 733-571 and 733-572.
 - The total wiring length from the RS-232 port of the CPU to the RS-232 port of the DACR must not exceed 20 feet (6 m) and must be run in conduit.
4. Complete Steps 1 through 4 for each DACR that you are installing.
5. After connecting the DACR(s) to the IMS, turn the power ON.
6. Press ESCAPE to enter the configuration mode.

Continued on next page

Connecting DACRs to the IMS, *Continued*

Installing MLR-2DG-DACR without adapter (*Continued*)

-
7. Enter CAFÉ at access code screen.
 8. Press ENTER to go to the next menu item or use BACKSPACE to go to the previous menu item until the desired menu item appears. Then press ACK to select it.
 9. At Option 01: Sys Date/Time, enter the date and time using Digits 0 – 9. Press ENTER to move cursor to the right and BACKSPACE to move cursor to the left. Press ESCAPE to go to the next option menu.
 10. At Option 03: Numb of Lcard, change number to the actual number of active line cards in the panel being used (1 or 2 for a base unit).
 11. At Option 04: PrinterSelect, enter 0 at the enable field for no printer and 1 for printer enabled.
 12. Press ESCAPE and then ENTER to go to Option 6 (COM#1 Format) before pressing ACK.
 - Enter 1 to select Sur-Gard format before pressing ESCAPE.
 13. Press ESCAPE and then ENTER or BACKSPACE to go to Option 5 (COM#1 Configuration) before pressing ACK.
 14. Verify Option 5 settings.
 - The setting for COM1 should be 9600 baud, no parity, 8 bits, and 1 stop bit.
 15. Press ESCAPE and then ENTER or BACKSPACE to go to option 8 (Heartbeat Select) before pressing ACK.
 16. Verify Option 8 settings. The setting for heartbeat should be changed to 20.
 17. Press ESCAPE twice.
-

Connecting DACRs to the IMS, *Continued*

Configuring System III DACR Options

1. After connecting the DACR(s) to the IMS, turn the power ON.
2. Press ENTER to bring up the login screen.
3. Enter CAFÉ as the access code screen.
4. Select the desired menu item:
 - System Functions: To change Date and Time
 - Line Card Programming: To program the line card
 - CPM Options
 - Set com settings
 - 07 – Baud Rate: 9600
 - 08 – Data Bits: 8
 - 09 – Parity: 0
 - Set heartbeat timer from 30 to 20
 - 12 – heartbeat timer: 20
 - Set number of line cards
 - 2E – number of line cards

Configuring Bosch 6600 DACR Options

1. After connecting the DACR(s) to the IMS, turn the power ON.
 2. Press M/E to log on.
 3. Enter 6600 and then M/E at access code screen.
 4. Use the arrow keys to scroll and M/E to select the desired menu item:
 - 2 CPU Configuration
 - 2.2 Global
 - 2.2.1 Time Setup
 - 2.2.2 Date Setup
 - 2.5 COM3 Automation Configuration
 - 2.5.2 Baud Rate: 9600
 - 2.5.3 Data Bit: 8
 - 2.5.4 Parity: 0
 - 2.5.5 Stop Bit: 1
 - 2.5.6 Link Test: 30
-

Chapter 6

Jumpers, Interrupts, and Switch Settings

Introduction

This chapter provides information about installing boards (cards) in the IMS. The IMS is usually shipped with the cards installed. However, if you do need to install a card or modify a configuration, you may find this information helpful. The jumper, switch and IRQ settings for the following cards are described in this appendix:

- Media cards for RS-232 and wired configurations
- UL card
- Network Interface card(s)

In this Chapter

This chapter discusses the topics listed in the following table. Refer to the page number listed after the topic for information on that topic.

Topic	See Page #
Interrupt (IRQ) Settings	6-2
Jumper Settings	6-4
Switch Settings	6-5
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Verifying the Tape Drive Installation	6-10
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Interrupt (IRQ) Settings

Recommended Interrupt (IRQ) Settings

This section describes the interrupt settings for the IMS. Table 6-1 lists the recommended IRQ settings for the IMS.

Note: Make sure that COM 1 and COM 2 are enabled. Use the Ports icon in the Control Panel Group to make these changes.

IMS IRQ Settings

Table 6-1 show the recommended IMS IRQ settings.

Table 6-1. Device IRQ Settings for Configurations Basic through 23
Configuration

	Basic	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
PS/2 Mouse	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Parallel Port	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
PC COM 1	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	**	**	**	**	**	**	**	**
PC COM 2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	**	**	**	**	**	**	**	**
Serial Touchscreen*																	**	**	**	**	**	**	**	**
Tape Backup			15	15			15	15			15	15			15	15		15		15		15		15
UL I/O**									11	11	11	11	11	11	11	11					11	11	11	11

Note:

1. In the BIOS settings, IRQs 11 should be set to Reserved. The exact setting depends on the options available in the BIOS.
2. In the 2.8Ghz or higher PC the 4190 network card is a PCI version thus the IRQ is selected automatically.
3. In the 2.8Ghz or higher PC the Rocketport card is replaced by 1 or 2 quad serial port PCI card. The IRQ is selected automatically.

* If the Serial Touchscreen is used on PC COM 1, use IRQ 4. (PC COM 1 is now unavailable for other use.) If the Serial Touchscreen is used on PC COM 2, use IRQ 3. (PC COM 2 is now unavailable for other use.)

** Port A and Port B are not available.

Continued on next page

Interrupt (IRQ) Settings, *Continued*

Possible IRQ Settings

Table 6-2 lists the possible IRQ settings for the IMS.

**Table 6-2. IMS Device - Reference IRQ Settings
(see Table 6-1 for recommended settings)**

IMS Device	Possible IRQ Settings								
	2/9	3	4	5	7	10	11	12	15
Parallel Port					X				
PS/2 Mouse								X	
Tape Backup									X
Serial Touchscreen		X	X						
Network Card or Repeater (ISA)	X					X	X		X
UL I/O	X			X		X	X	X	X
PC Serial COM 1			X						
PC Serial COM 2		X							

Jumper Settings

RS-232 Media Card (P/N 565-327)

Table 6-3 lists the jumper configurations for all RS-232 media cards.

Table 6-3. RS-232 Media Card — Jumper Positions

Jumper	Function	Position
P3	Network Media Mother Board	1-2 (default)
	Service Port	2-3
P4	Media Mother Board	1-2 (default)
	Network and Service Port	2-3
P5	Supervised	1-2 (default)
	Unsupervised	2-3

Wired Media Card (P/N 565-413)

Table 6-4 lists the jumper configurations for all wired media cards.

Table 6-4. Wired Media Card — Jumper Positions

Jumper	Function	Position
P2	18 AWG (0.8231 mm ²) Cable	1 & 2
		3 & 4
		5 & 6
		7 & 8
	24 AWG (0.2047 mm ²) Cable	3 & 4

Fiber Optic Media Assembly

There are no jumpers on the fiber optic media assembly.

Switch Settings

UL Card (P/N 565-283)

This section explains how to configure the UL Card (Model 4190-8103 IMS only). Ensure that the switches are set on the UL card as listed in Tables 6-5 and 6-6.

Table 6-5. UL Card — Host Address I/O Selection Via SW1

Switch	State
SW1-1	OFF
SW1-2	OFF
SW1-3	OFF
SW1-4	OFF

Table 6-6. UL Card — Configuration Via SW2

Switch	No COM Ports (No Daughter Cards (Default))
SW2-1	OFF
SW2-2	OFF
SW2-3	OFF
SW2-4	OFF
SW2-5	OFF
SW2-6	OFF
SW2-7	OFF
SW2-8	OFF

Configuring the Devices

Configuring Device Drivers for Windows 2000

To configure device drivers for Windows 2000, complete the following steps:

1. Start the 4190 Programmer.
 2. Load Job Configuration.
 3. Select the Registry Configuration from the Configure menu.
 - When the Configuration dialog box appears, click the Apply button , exit the programmer, and reboot the computer.
-

Quad Serial Port Card

Up to 2 Quad Serial port cards can be installed. Refer to Figure 2-2 for location. The cards are Plug and Play.

1. With the unit powered down insert the Quad Serial card and apply power.
2. Plug and Play will display "New Hardware Found". Select Next, Next, and Specify Location.
3. Browse to "Downloads" "Quad Serial Win2K XP, Ser 15x"
4. Select Open, OK, Finished.
5. A nexw message, "Found New Hardware" will be displayed.
6. Browse to "Downloads": "Quad Serial Win2K XP, X8790 Port".
7. Select Open, OK, Finished. Ports 3-6 are now loaded.
8. If a second card is needed. Repeat steps 1 and 2. The drivers will be automatically loaded. Ports 7-10 are now loaded.

Interfacing with the 4120 Network

Network Interface Card

This section explains how to install the 655-273 Network Interface Card (Wired) or the 655-272 Network Interface Card (Modular).

You can install up to four Network Interface Cards into one PC to support a multi-network configuration. Each Network Interface Card can support one network containing up to 98 nodes. An IMS can support up to four networks consisting of up to 392 nodes. Ensure that the jumpers are set to the positions listed in Tables 6-7 and 6-8 for each network card used.

Table 6-7. Network Interface Card — Jumper Positions

Jumper	655-272 & 273 Network Card	
	Position	Function
P1	1-2 2-3	57600 baud 9600 baud
P2	1-2 2-3	9 bit 8 bit
P6	1-2 2-3	Bypass Disabled Bypass Enabled (default)

Table 6-8. Network Interface Card — Setting Card Address range in the Programmer

Address Range	SW2-4	SW2-3	SW2-2	SW2-1	Device
200 - 207					Not Used
2B0-2B7					Network Card #1 (Default)
2B8-2BF					Network Card Repeater* #2
2C0-2C7					Network Card Repeater* #3
2C8-2CF					Network Card Repeater* #4
2D0-2D7	OFF	ON	OFF	ON	TBD
300-307	OFF	ON	ON	OFF	TBD
308-30F	OFF	ON	ON	ON	TBD

*A Network Repeater card cannot serve as the network interface for point changes on the network.

Continued on next page

Installing Cards and Jumpers

Inserting and Connecting Cards in the IMS

This section explains how to insert cards and connect the cables to the IMS Desktop Models 4190-8102 and 4190-8103. Tables 6-9 and 6-10 list the correct slot positions in the IMS backplane. Refer to Figure 2-2

Table 6-9. IMS Desktop Models — Card Slot Positions

Card	Slot #
SBC	Slot #2
Network Card	See Page 2-6.

4190-8103 — Card Slot Positions

This section provides information about installing the cards and connecting the cables for the 4190-8103. Table 6-10 lists the correct slot positions in the IMS backplane for the Network Card(s), Controller Card and UL Card. Refer to Figure 2-2

Table 6-10. IMS 4190-8103 Model — Card Slot Position

Card	Slot #
SBC	Slot #2
UL Card	Slot #1 (furthest from P.S.)
Network Card	See Page 2-6.

Continued on next page

Installing Cards and Jumpers, *Continued*

Continuity Check for Model 4190-8103 with UL Card Installed

For 4190-8103 IMS systems with the terminal block mounted to the PC chassis, verify the information listed in Table 6-11.

**Table 6-11. IMS 4190-8103 Model with UL Card — Device
Connection Points for Outputs 1 and 2**

Location	Value	Function
TB1-2 to TB1-4	Short (<1 ohm)	Output #1 Relay Normally Closed
TB1-8 to TB1-10	Short (<1 ohm)	Output #2 Relay Normally Closed
TB1-4 to TB1-6	Open Circuit	Output #1 Relay Normally Open
TB1-10 to TB1-12	Open Circuit	Output #2 Relay Normally Open

Verifying the Tape Drive Installation

Verifying Tape Drive Installation (Optional)

Verify that the tape drive has been installed, as follows:

1. Verify that no jumper exists on the tape drive jumpers DSP, DS0, or DS1.
 2. Install the Tape Drive into the IMS as defined in the IOMEGA instruction manual.
 3. Disconnect the connector from the IMS floppy and connect it to the connector on the tape drive.
-

Disabling the Reboot Watchdog

Reboot Watchdog

If a UL Card (P/N 565-283) is installed and you want to exit the IMS application because you plan to run other applications, run the Watchdog32 application from the Start menu to disable the reboot watchdog on the UL card. Disabling the reboot watchdog prevents the PC from rebooting.

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