

Features

Network annunciation:

- Graphical annunciation and control for up to 50,000 points or point groups
- Over 30,000 custom field generated and edited graphic screens
- Importing of drawing files (DXF), metafiles (WMF), and bitmap files (BMP)
- Custom alarm and trouble messages guide operator dispatch response
- Multiple operator levels with password control

Network multiple loop interface:

- Connect up to four network loops

Optional interface to Digital Alarm Communicating Receiver (DACR*):

- Annunciate information communicated from remote fire alarm control panels equipped with Digital Alarm Communicating Transmitters (DACTs)

Extensive historical logging:

- Up to 500,000 events
- Compatible with spread sheet and data base programs for report customization
- Operator notations can be added

Selectable packaging:

- Rack mount or desktop enclosures
- High resolution monitors, 17" for rack mount, 17" or 21" for desktop applications
- Touchscreen and/or mouse operation

Set-host service functions:

- Access remote node data including information on all individual TrueAlarm® analog sensors** on the network loop(s)
- View or print TrueAlarm service reports (printing requires separate remote printer)

Multiple IMS systems on same network can perform redundant operation or different functions

Graphical diagnostic tools identify status of network nodes

RS-232 ports are available for optional connections to printers or paging systems

2120 Multiplex systems interface:

- Connect up to eight, 2120 Multiplex systems



Information Management Workstation Main Menu Screen

Features (Continued)

UL listings:

- Listed to UL Standard 864 for Fire Alarm and UL Standard 1076 for Security
- Available as a UL Listed Primary Operator Workstation

Description

The Information Management System (IMS) provides annunciation, status display, and control for Simplex® Fire Alarm Networks using a Microsoft® Windows® 2000 operating system based graphical interface with a high resolution, color display. Response buttons with realistic icons provide control switches specific to the operation being performed.

Point capacity is capable of up to 50,000 network points or point groups (lists). Up to four network loops can be interfaced, allowing for significant future expansion.

Multiple IMS systems can be installed on the same network for redundancy or to accommodate vectored point type annunciation where points are routed to the appropriate IMS depending on type, location, or other criteria. A separate IMS can also be dedicated as a maintenance/engineer's terminal for performing higher level network investigations and modifications.

For systems requiring connections to remote fire alarm control panels via DACTs, the IMS can be equipped to communicate directly with a Sur-Gard DACR (refer to page 5 for details).

* DACR interface is not FM approved as of document revision date. Listings and approvals do not apply to software-only products; refer to page 6 for details. This product has been approved by the California State Fire Marshal (CSFM) pursuant to Section 13144.1 of the California Health and Safety Code. See CSFM Listing 7300-0026:195 for allowable values and/or conditions concerning material presented in this document. It is subject to re-examination, revision, and possible cancellation. Accepted for use – City of New York Department of Buildings – MEA35-93E. Additional listings may be applicable, contact your local Simplex® product supplier for the latest status.

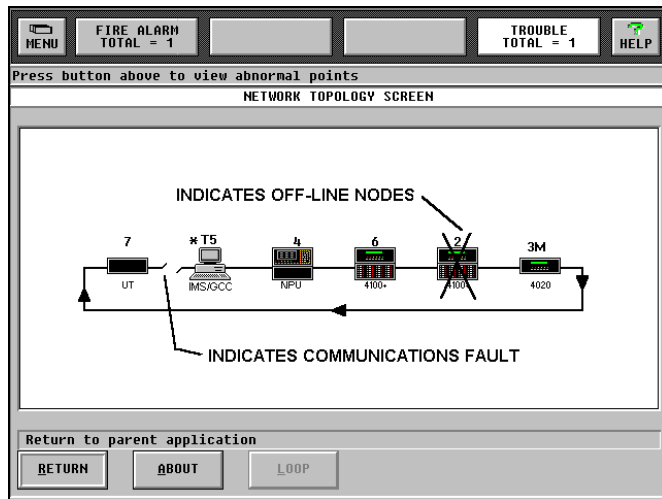
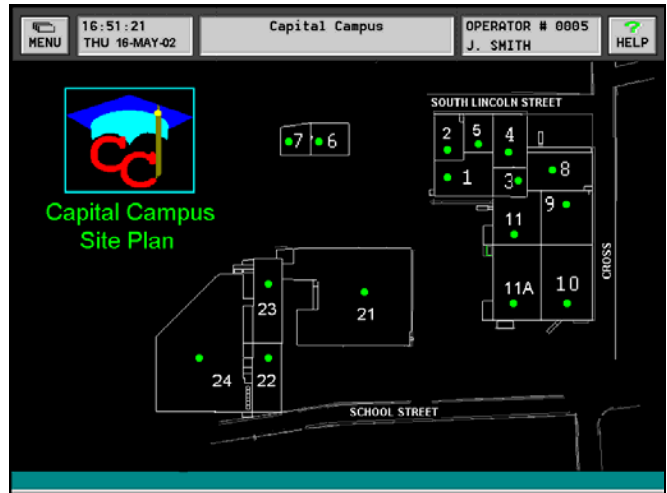
** TrueAlarm analog detection is protected by US Patent Nos. 5,155,468, and 5,173,683.

Graphic Screens

Graphic screens can provide easily recognizable site plan and floor plan information. The level of detail can be customized for the specific facility to easily and accurately direct the operator to the immediate area of interest.

Icons can be optionally added to identify the exact device of interest and optional travel keys can be used to directly “zoom” to other predetermined screens for more detail.

In addition to screen text or graphic information, the operator will be presented with specific action messages that provide emergency response information and directions. These action messages are easily field edited to customize for local requirements.



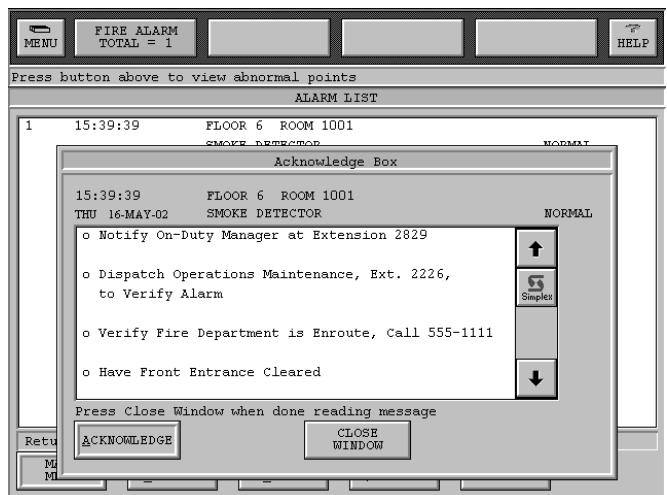
Network Diagnostics

Automatic, built-in diagnostics provide graphical views of the network topology and present status. Missing communications links due to wiring breaks or shorts as well as inactive network nodes are indicated clearly to guide in returning the system to normal. Information screens are available to provide detail about each specific network node. Node designations such as timekeeper node “T”, monitor node “M”, and identification of the node being used “*” are also designated for further network information.

IMS Operation

When a fire alarm network status change occurs, the screen displays the type and location of the alarm (or other activity). The operator then touches the screen area in alarm (or uses the mouse control) to access a more detailed view of the alarmed zone or device. With the proper password access, the operator has the ability to acknowledge alarm conditions, silence audible and extinguish visible notification appliances, and perform system reset directly from the IMS screens.

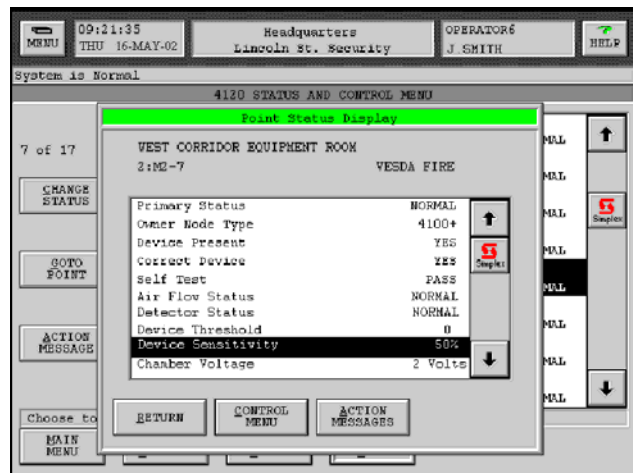
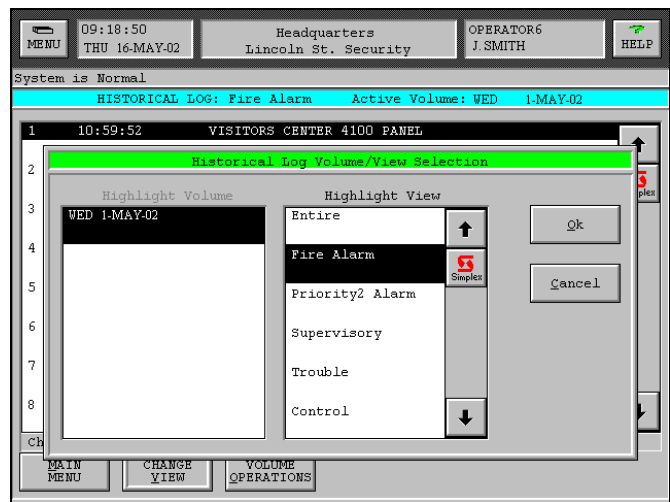
Custom alarm and trouble messages can be added and field edited to provide operator dispatch assistance. Point specific information, such as hazardous material storage and lists of people to notify, can be automatically or selectively displayed.



IMS Historical Log Information

When historic details are required for network point information, historical log screens can easily and accurately access the required data. Data can be accessed as all types of information, by specific categories, or sorted by date or day reference. Historical data reports can be reviewed on the screen, printed at a local or remote system printer, or can be written to a 3.5" floppy disk.

Report information can be formatted to be compatible with standard spreadsheet and data base programs. The day of week and the date are separated into separate fields to facilitate information sorting. With this feature, detailed records of the system history can be kept by adding information such as problem investigation details.



Individual Point Service Access

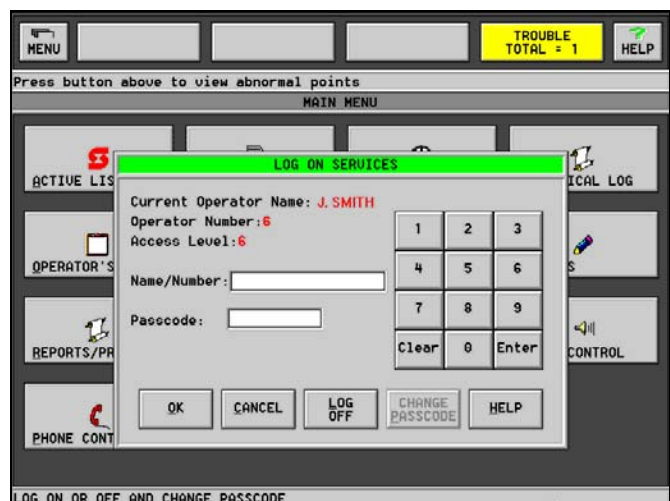
The IMS operator's interface provides service level access to network information that is not normally "public." Network "private" point information can be accessed using the Set-Host feature, and logging into the data base of the network and node of interest. With this operation, individual point information can be accessed and programmed as required by qualified service personnel with proper password access.

This screen lists some of the parameters available when viewing a point that is an intelligent interface to a VESDA® early warning air aspiration smoke detector. With this access, parameters that are programmable can be analyzed and reprogrammed when required.

Password Control

IMS operator access level is determined during the log-on process. Functional access needs to be selected to match the training and responsibility of the operator. The screen to the right illustrates the log-on procedure as it appears on the IMS screen.

Operators with additional IMS and fire alarm network training may be qualified for access to sensitive areas. For operators who are primarily concerned with immediate facility security, a lower level access will provide the information necessary for proper response but will not allow access to key parameters that determine overall system/network operation.



Multiple Network Connections

When extensive network expansion or interconnection of existing, separate networks is required, up to four network loops may be interfaced using the IMS.

Each network loop is connected to its own network interface module, allowing the IMS to appear as a node in each individual loop. With the IMS as a network loop interface, information from one loop can be passed along to another loop as required.

With a multi-loop network connection, the IMS is a node member of each network loop with up to 98 additional nodes per loop. This allows up to 392 total nodes and the IMS (393 total) to be interconnected.

Multi-Loop Operation Features

Improved survivability:

- Individual network loops operate independently
- In the event of loss of one or more loops, remaining loops continue to operate

Loop independence:

- Loops can operate at different data rates to satisfy individual conditions (9600 or 57,600 bps, selectable per loop)
- New loops can be added without impacting existing loops
- If point data information is required to be exchanged between loops, it can be conveniently programmed one loop at a time

Assists with phased-in system expansion:

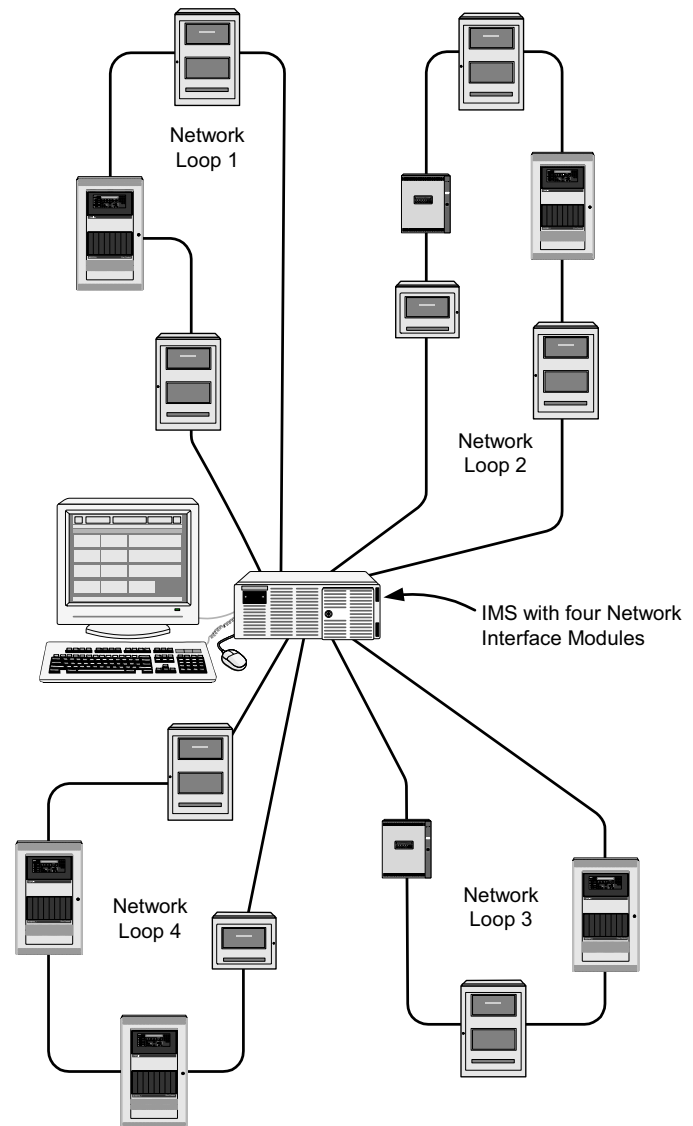
- Each loop can be installed as a stand-alone network allowing local node programming to evolve as required
- When construction or renovation reaches completion, loops can be combined for coordinated facility protection
- Information can be processed using point groups allowing each loop to know the others' status without needing to process data that only concerns the local loop

Hardware Requirements:

- Each loop requires a dedicated Network Interface Card with two media modules.
- A maximum of four Network Interface Cards are allowed per IMS.

Software Requirements:

- All nodes require system software revision 8.03 or higher.
- IMS requires revision 4.01 or higher.
- Each node of the network requires its Network Interface card to be revision 3.02 or higher.



Typical Interface of Multiple Network Loops Using an IMS

IMS Interface to DACR

DACR Support. For fire alarm control panels that are not network compatible or may be too remote for a network connection, the IMS can communicate to the **Sur-Gard DACR model MLR2-DG** (Digital Alarm Communicating Receiver) via an RS-232 port (requires application software option 4190-5008). Remote fire alarm panels equipped with DACTs communicate their local event status (or individual point status if capable) to the DACR using dial-up telephone connections. The DACR forwards the individual panel status to the IMS for information processing and history logging.

DACR Events. The IMS handles DACR points as though they were network points. Graphics can be displayed and point status changes can be easily acknowledged. Point acknowledgement occurs locally on the IMS since communications between the DACT and DACR are from DACT to DACR only. Remote panels need to be Acknowledged, Silenced, or Reset at the panel. Point events are entered into the IMS history log as part of its 500,000 event storage capacity.

Supported DACR/DACT Formats. The Sur-Gard MLR2-DG supports standard reporting formats including: **SIA, BFSK, 4/2, and ADEMCO CID** (Contact ID[®] format). A CID account can be configured on the IMS to be either panel event reporting or with individual point reporting. The other formats provide panel event reporting only.

IMS Points for DACR Accounts. IMS points are associated with a DACR account number. Standard event points have up to a 19 character label for each point. CID point reporting has up to a 40 character label. DACR event categories include: **Fire Alarm, Priority 2 Alarm, Supervisory Alarm, Trouble, Utility Status, and Unknown Point** (CID format only). An occurrence of any of these events will be prefixed with the 19 character account label.

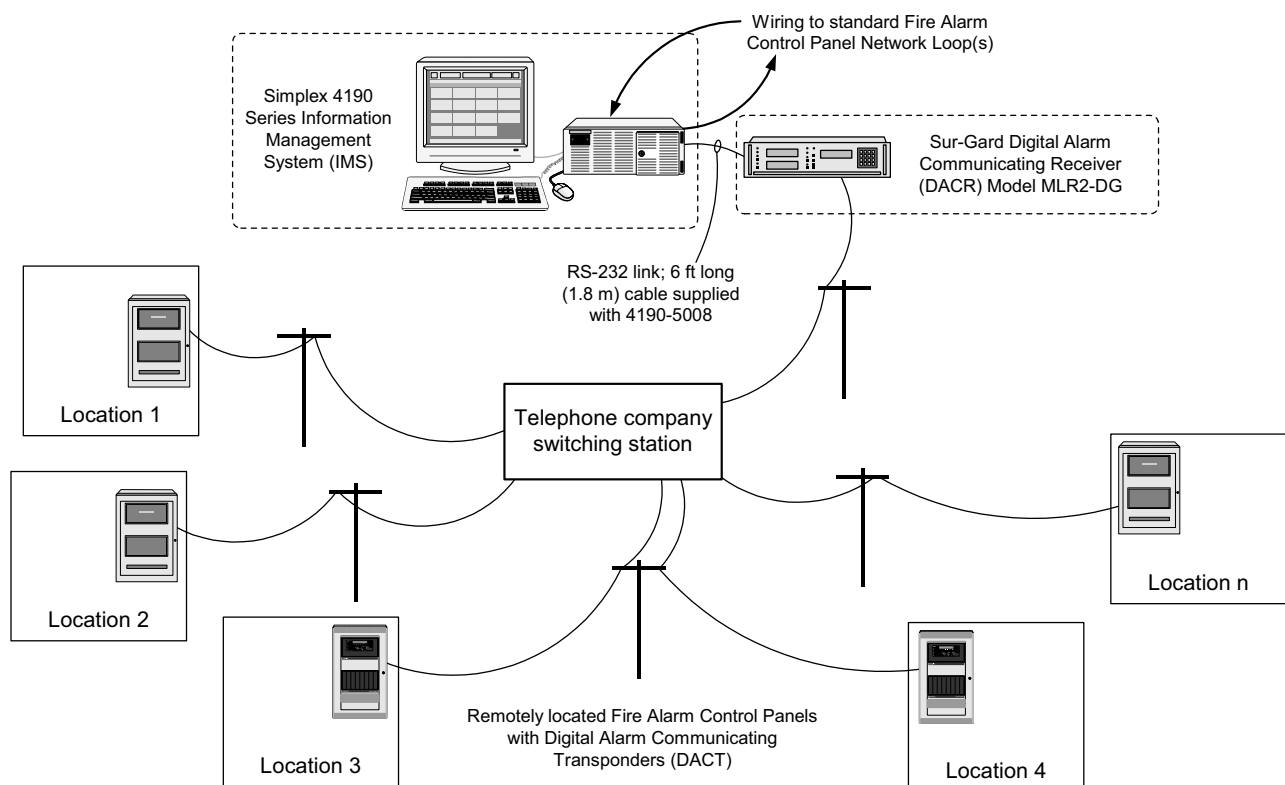
Public Points. The IMS can be selected to make DACR associated points public to the fire alarm network for monitoring by other network nodes if required.

DACR Status Tracking by the IMS. The DACR connection to the IMS is supervised with the following trouble conditions tracked by the IMS: **Communications Loss**, (between DACR and IMS), **Initialization Failed** (the IMS to DACR connection did not successfully establish), **Unknown DACR Message**, (the DACR sent a message that was not understood by the IMS), and **Unknown DACR Account** (the account information received does not correlate to an IMS point).

Supervision of DACTs. The IMS is programmed to expect and log periodic supervisory transmissions from the DACTs via the DACR. Failure to receive a supervisory transmission will cause a trouble event on the IMS.

Event Restoration. When the IMS receives an event restoration from the DACR, it restores that point's status record to normal. The IMS has the ability to manually restore a point to normal in the event that a restoration occurred that was not forwarded to the IMS.

IMS Interface to DACR Reference Diagram



Product Selection

Category	Model	Description	
System Type (select as required)	4190-8101	Standard IMS Command Center	
	4190-8102	Redundant IMS Command Center	
	4190-8103*	UL Listed Primary Operator Workstation, includes bracket for securing AC input wiring (ULC listed as IMS Command Center)	
	4190-8601	Software only package; see Accessories below if Microsoft Windows 2000 Operating System is required (listings and approvals are not applicable)	
	4190-8901	Aftermarket Addition	
Computer Type (select one)	4190-7003	Desktop Computer with keyboard and mouse	
	4190-7004	Rack Mount Computer with keyboard and mouse	
SVGA Color Monitor (select one)	Model	Size	Type
	4190-7105	17"	Desktop, monitor only
	4190-7107	21"	
	4190-7106	17"	19" Rack Mount, monitor only
	4190-7109**	19"	
	4190-7210	17"	Desktop with touchscreen and built-in serial controller
	4190-7213	21"	
	4190-7211	17"	19" Rack Mount with touchscreen and built-in serial controller
4190-7212**	19"		
Options (select as required)	4190-6002	RS-232 Port Transient Protected Connector	
	4190-6025	Suppressed RS-232 Connector with terminal blocks, one required per port connected to 4190-6017	
	4190-6017	Eight Port RS-232 Serial Line Interface Communications Module and Eight Port Interface Box. (Eight port interface box mounts internally for console mount and is packaged for desktop use with the desktop IMS package.)	
Hardware Options (select as required)	4190-6005	Tape Back-Up Unit	
	4190-6006 *	UL I/O Card, required with 4190-8103	
Applications Software (select one)	4190-5007	IMS with Historical Event Log and Graphics (English); standard operation	
	4190-5008**	IMS with Historical Event Log and Graphics (English); with DACR interface	
Accessories	4190-9807**	Upgrade standard operation IMS to IMS with DACR interface	
	4190-9808	Microsoft Windows 2000 Professional Operating System; order with 4190-8601 Software only package if required (listings and approvals are not applicable)	
Network Connection (select as required)	4190-7554	IMS Interface to Fire Alarm Network	
Network Interface (4 maximum)	4190-6030	Network Interface for fixed, wired in/out connections	
	4190-6031	Network Interface for Media Modules (requires one media module for Style 4 and two media modules for Style 7)	
Media Modules (select as required)	4190-0142	Wired Media Module (requires 4190-6031)	
	4190-0143	Fiber Optic Media Module (requires 4190-6031)	
	4190-0144	Modem Media Module, maximum of four per network (requires 4190-6031)	

Graphics Programming

Category	Model	Description
Graphic Screen Programming (select one)	4190-8121	Graphic Screen Programming
	4190-8921	Aftermarket Graphic Screen Programming
Graphic Screen Type (select as required)	4190-4001	One Screen, DXF Type
	4190-4003	25 Status Icons
	4190-4004	25 Control Functions: On/Off, Bypass, etc.
	4190-4005	25 Travel Screen Keys (selective zooming)
	4190-4051	Convert Existing Color Graphics + Screens to IMS Screens

* For UL listing as a Primary Operator Workstation, the marked items are required. Specific applications may have additional requirements such as a separate UPS (uninterruptable power supply).

** The DACR interface operation and the designated model numbers are not FM Approved as of document revision date.

Please note that equipment may vary due to computer design changes. Contact your local Simplex product supplier for exact equipment specifications.

IMS Equipment Specifications

Computers and Accessories*

Model	Description	Dimensions	Power
4190-7003	Desktop Computer	16-1/4" W x 6-1/2" H x 16-13/16" D (411 mm x 165 mm x 427 mm)	230 W, 120 VAC, 60 Hz or 240 VAC, 50/60 Hz (switch selectable)
4190-7004	Rack Mount Computer	19" W x 7" H x 16-3/16" D (483 mm x 178 mm x 427 mm)	
NA	Rack Mount Keyboard Tray (included with computer)	19" W x 1-3/4" H x 12-3/4" D (483 mm x 44 mm x 324 mm)	NA

Monitors*

Model	Description	Dimensions	Power
4190-7105 4190-7106	17" Desktop or Rack Mount Monitor	Monitor only 16-1/8" W x 16-7/8" H x 16-1/2" D (409 mm x 427 mm x 419 mm)	90 W, 120 VAC to 240 VAC, 50/60 Hz (automatic selection)
4190-7210 4190-7211		With touchscreen 16-3/8" W x 16-7/8" H x 17-1/2" D (417 mm x 427 mm x 444 mm)	
4190-7107	21" Desktop Monitor	Monitor only 19-1/4" W x 19" H x 18-3/4" D (488 mm x 483 mm x 475 mm)	120 W, 90 to 264 VAC, 47 to 63 Hz (automatic selection)
4190-7213		With touchscreen 19-5/8" W x 19-1/4" H x 19-3/4" D (498 mm x 488 mm x 500 mm)	
4190-7109 4190-7212	19" Rack Mount Monitor	17-5/8" W x 17-7/8" H x 16-5/16" D (447 mm x 455 mm x 414 mm)	150 W, 90 to 264 VAC, 47 to 63 Hz (automatic selection)

Computer Minimum Specifications Reference*

Enclosure	Motherboard with: 7 ISA slots, 2 PCI slots, and 1 CPU slot; key lock reset switch; fan monitor card; and locked door protecting access to the floppy and CD R/W drives
Computer	800 MHz Pentium III CPU with: 512 kB cache; 128 MB RAM; 2 Serial ports; 1 Parallel port; 1 PS/2 mouse port; SVGA video output with 8 MB VRAM; CD R/W, 101 key keyboard; 1.44 MB floppy drive; 6.4 GB minimum hard drive, two button PS/2 mouse with scroll wheel

* Please note that equipment and specifications may vary due to equipment design changes.

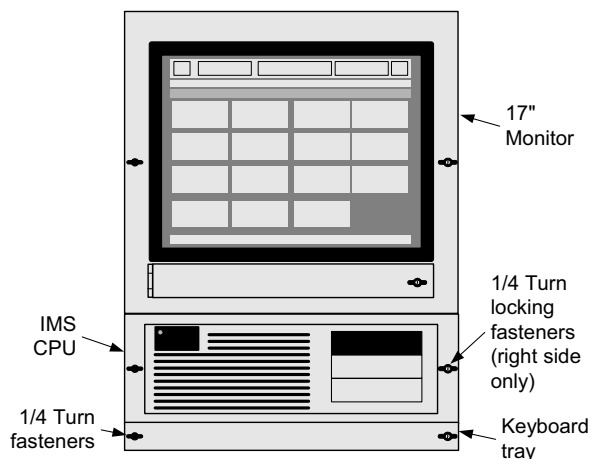
Environmental Specifications

Operating Temperature	32° to 120° F (0° to 49° C)
Operating Humidity	up to 85% RH, non-condensing, at 86° F (30° C)

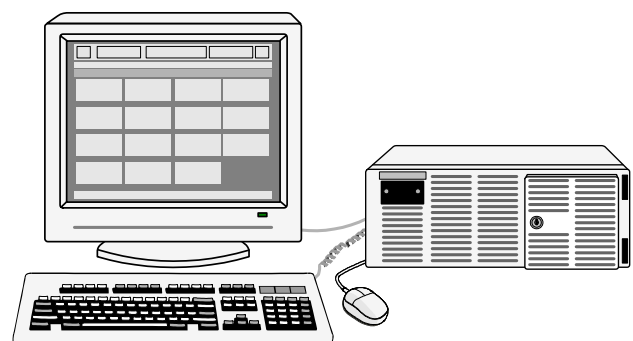
Computer Port Reference

RS-232 Serial Ports	Two standard, up to 8 total with optional 4190-6017 port expander
Parallel Port	One available
Printable Information	Historical log reports, TrueAlarm Service Reports, and System Activity Reports
Automatic Printer Selection	Information can be routed (vectored) by type
Printer Compatibility	4190-9013 recommended; other printers per Microsoft Windows 2000 operating system compatibility

IMS System Packaging Reference with 17" Monitors



19" Rack Mount IMS



Desktop IMS Reference

Serial Line Interface (SLI)

The Serial Line Interface (SLI) capability of the IMS allows existing 2120 Multiplex systems to be easily interfaced with network products. With this interface, the operator conveniences of the IMS is available for monitoring the status of the 2120 Multiplex systems as well as allowing system expansion with networked fire alarm control panels.

With central annunciation via the SLI connections, operator actions are simplified and programming can be easily accomplished to allow activity from the individual systems to be mapped for control in another system, interfacing each sub-system into an integrated fire alarm system.

Point Level Control. Individual points and point groups within the 2120 Multiplex systems consider the IMS to be their “owner node.” With this designation, points can be selectively declared “public” and made available for network communications.

As required by the specific facility, individual network fire alarm control panel nodes can be programmed to respond to the 2120 point activity and implement required system actions.

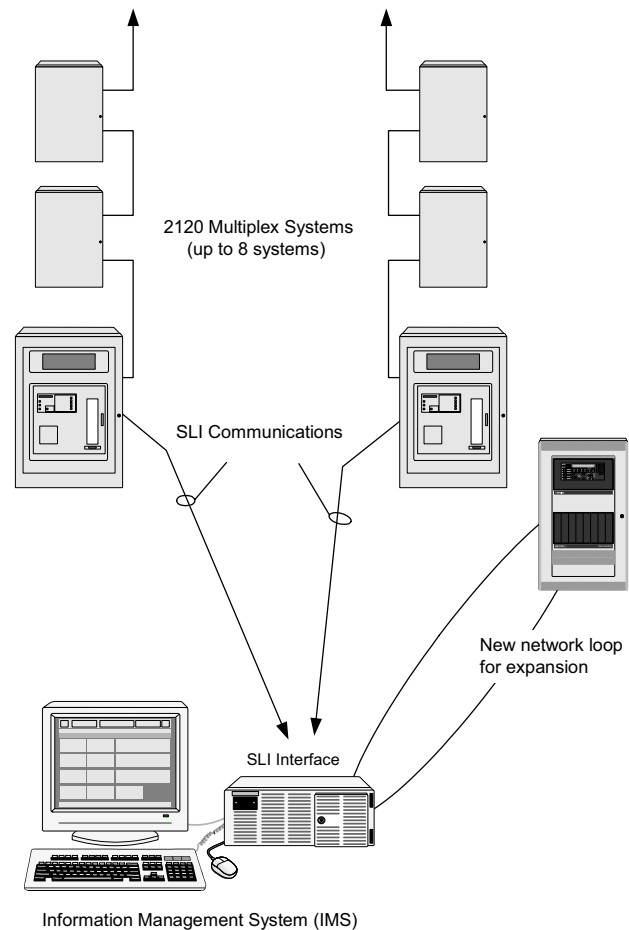
When 2120 Multiplex systems are connected without network fire alarm control panel nodes, each 2120 provides its own internal response to its off-normal conditions while reporting status changes to the IMS annunciator.

Hardware Requirements:

- Up to two, 2120 Multiplex systems may be connected to a IMS using the standard RS-232 ports dedicated for these connections. (These ports will not be available for other functions.)
- Each 2120 requires a dedicated RS-232 port in its CPU, configured for “Computer” interface.
- For SLI connections exceeding two, up to eight 2120 Multiplex Systems can be connected using the expanded SLI Interface module 4190-6017. (Refer to page 7 of this document and to data sheet S4190-0009 for additional information.)
- Disk copy of SLI “dump” file for each 2120 Multiplex System’s existing point data must be downloaded using service software.
- Each 2120 connection requires a 4190-6002 RS-232 transient protection kit.

Software Requirements:

- All connected 4100/4120 network nodes require revision 8.03 or higher software.
- IMS software must be revision 4.01 or higher.
- 2120 CPU software must be revision 5.44 or higher.
- Network Interface firmware must be 3.02 or higher.



Serial Line Interface Connections

Tyco, Simplex, the Simplex logo, MINIPLEX, and TrueAlarm are trademarks of Tyco International Services AG or its affiliates in the U.S. and/or other countries. Microsoft and Windows are registered trademarks of Microsoft Corporation in the United States and/or other countries. VESDA is a registered trademark of Vision Products Pty Ltd. Contact ID is a trademark of Pittway Corporation.