FPT-WKS-WS

FocalPoint® Workstation

Listing Document

1. Installation

1.1 Agency Listings

1.1.1 Standards

■ **Compliance** - This product has been investigated to, and found to be in compliance with, the following standards:

National Fire Protection Association

- NFPA 72 National Fire Alarm and Signaling Code

Underwriters Laboratories

- UL 864 Control Units for Fire Alarm Systems, Tenth Edition

■ **Installation** - This product is intended to be installed in accordance with the following:

Local

- AHJ Authority Having Jurisdiction

National Fire Protection Association

- NFPA 70 National Electrical Code
- NFPA 72 National Fire Alarm and Signaling Code

1.1.2 Agency Restrictions and Limitations

- If the FPT-WKS-WS or the transmitter is sharing on-premises communications equipment, the shared equipment shall be "listed for the purpose"; otherwise the transmitter must be installed ahead of the unlisted equipment. “Listed for the purpose” has been formally interpreted by NFPA (Formal Interpretation 72-99-1) for equipment on packet switched networks as being listed to the requirements applicable to general purpose communications network equipment.
- The FPT-WKS-WS is UL listed only for monitoring when using an Ethernet connection for communications with a life safety network. The Ethernet connection can be part of, or connected to, a shared bandwidth network that operates over topologies such as an intranet, the Internet, or a frame relay.
- The UL listing for the FPT-WKS-WS includes the ability for the workstation to send emails. These emails are intended to be transmitted to a limited number of staff (refer to Table 2 for details) for maintenance purposes and system status reasons. This feature is approved by UL as supplementary.
- The FPT-WKS-WS must be manned 24/7 by trained competent personnel.
- When operating as a Proprietary Receiving Unit, the FPT-WKS-WS is UL listed only for monitoring of fire devices.

1.2 Connections

1.2.1 Component Connections

The location of the connections to the workstation PC are shown in Figure 1. Each connection is described in Table 1.

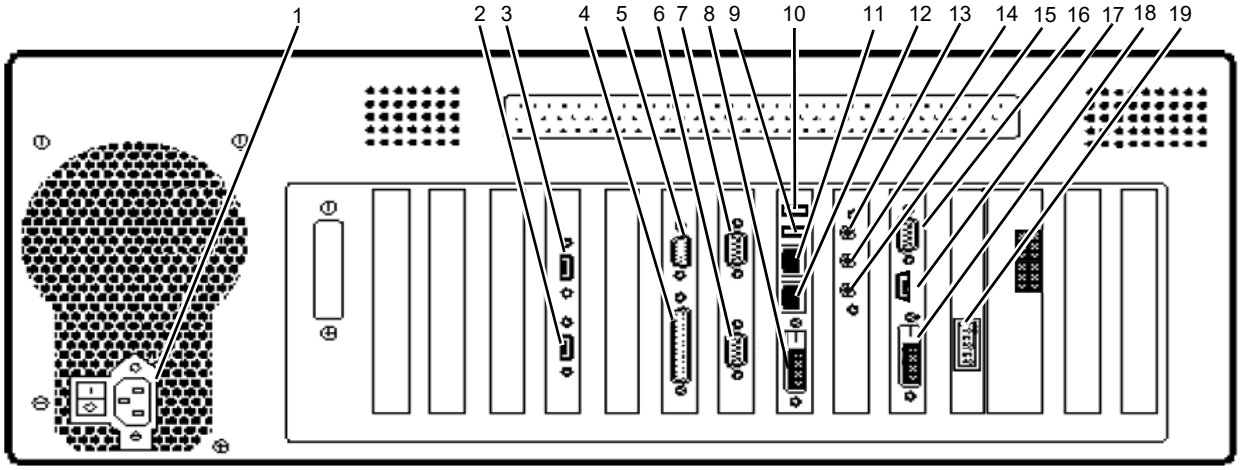


Figure 1. Computer Component Connections

Table 1. Connection Specifications

Item	Reference Designator	Description	Circuit Class	Specifications	Connection
1	Power	AC Power for Computer		• Voltage 120 VAC, 60 Hz • Current: 0.6 – 0.8 amps during normal operation	Refer to 1.2.3.
2	USB 2	USB 3.0 Type A Connector	2	• Line impedance 90±15% • Max distance 40 meters • Power limited • Supervised	
3	USB 3	USB 3.0 Type A Connector	2	• Line impedance 90±15% • Max distance 40 meters • Power limited • Supervised	
4	Parallel Port	Printer Port			Not Used
5	Com 3	RS-232	2	• Line impedance 5K ohm • Max distance 50 ft • Connection is power limited • Connection is supervised	
6	Com 2	RS-232	2	• Line impedance 5K ohm • Max distance 50 ft • Connection is power limited • Connection is supervised	
7	Com1	RS-232	2	• Line impedance 5K ohm • Max distance 50 ft • Connection is power limited • Connection is supervised	
8	DVI 0	DVI		Not Used	Not Used
9	USB 1	USB 2.0 Type A Connector	2	• Line impedance 90 ohm ±15% • Max distance 40 meters • Power limited • Supervised	Keyboard or Mouse
10	USB 0	USB 2.0 Type A Connector	2	• Line impedance 90 ohm ±15% • Max distance 40 meters • Power limited • Supervised	Keyboard or Mouse

Table 1. Connection Specifications (Continued)

Item	Reference Designator	Description	Circuit Class	Specifications	Connection
11	LAN 1	RJ45	2	• Line impedance 100 ohm • Max distance 328 ft. (100 m) • Power limited • Supervised - Except for ground faults	Refer to 1.2.2
12	LAN 2	RJ45	2	• Line impedance 100 ohm • Max distance 328 ft. (100 m) • Power limited • Supervised - Except for ground faults	Refer to 1.2.2
13	Line In	3.5 mm		Audio Input	
14	Mic	3.5 mm		Microphone	
15	Speaker (Line Out)	3.5 mm		Audio Output	
16	VGA	VGA		Video	Display
17	HDMI	HDMI		Video	Display
18	DVI 1	DVI		Not Used	Not Used
19	J7	Digital I/O		Not Used	Not Used
Not Shown	USB	USB 2.0 Type A Connector on Front of PC	2	Maintenance Use Only	

1.2.2 Network (LAN) Connections

CAUTION: LAN TRANSIENT PROTECTION
IF LAN CONNECTIONS ARE REQUIRED TO LEAVE THE ROOM, TRANSIENT SUPPRESSION IS REQUIRED. USE SURGE SUPPRESSOR P/N PNET-1.

For a workstation that uses a single Ethernet connection for communications, attach the cable as shown in Figure 2.

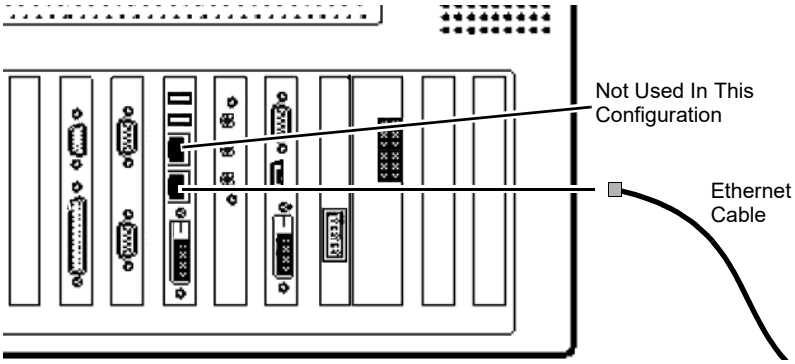


Figure 2. Single LAN Connection

For a workstation that uses dual connections for communications, attach the cable as shown in Figure 3.

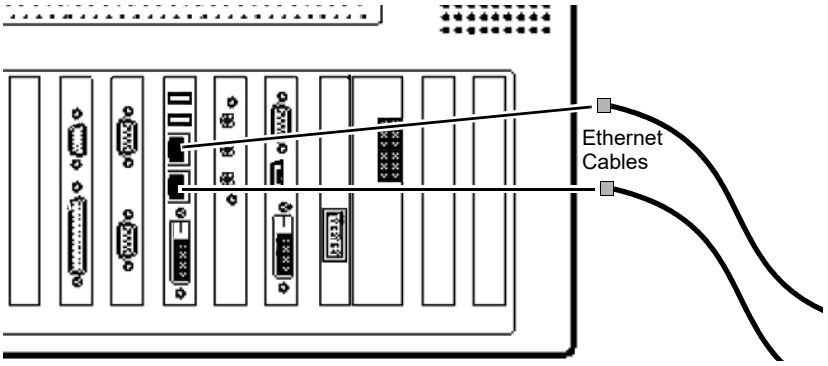
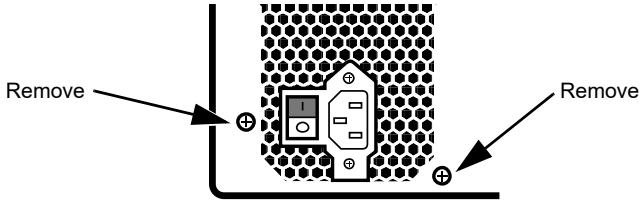


Figure 3. Dual LAN Connection

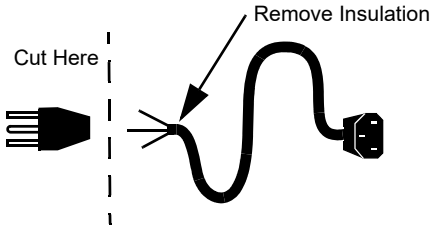
1.2.3 AC Power Connection

Connect AC power to the FPT-WKS-WS computer as follows:

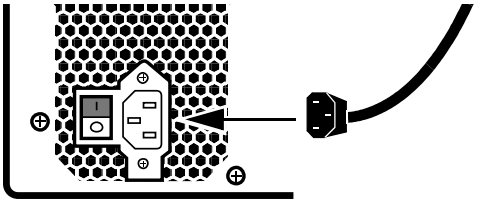
1. Verify that the voltage selection switch is in the correct position.
2. Verify that the rear-panel power switch is set to the **ON** (|) position.
3. Verify that the functional power switch, located behind the locking front door, is set to the **OFF** (O) position.
4. Remove the two screws shown below and retain for later use.



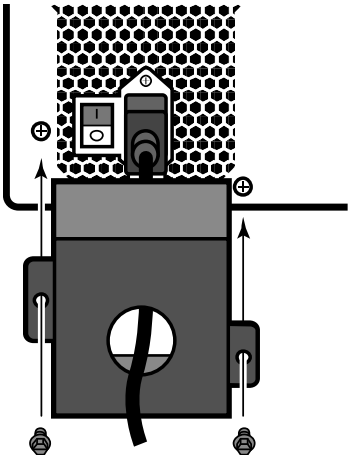
5. Cut the end off of the factory supplied AC power cord and remove outer insulation.



6. Plug the power cord into the FPT-WKS-WS computer's AC power receptacle.



7. Feed the cut end of the power cord through the hole in the power cord locking bracket (PCLB) and reinstall the two screws removed earlier.



8. Strip the insulation from the ends of the three AC power cord wires and connect them to the UPS in accordance with manufacturer's instructions.

1.3 UPS Installation

Install the uninterruptible power supply (UPS) and connect the power cord and monitor module in accordance with manufacturer's instructions.

For UPS supervision, connect a monitor module from an FACP to the low current connectors of the UPS battery charger. The monitor module must be rated for 2A @ +30 VDC.

Relay output is used to enable annunciation by any external device:

- That uses power limited dry contacts.
- The common relay output is a contact that is not supervised and is rated for 2A @ +30VDC.

1.4 Environmental Requirements

This product meets the following requirements for operation:

- Temperature - 0°C to 49°C (32°F - 120°F)
- Relative Humidity - 93 ±2% non-condensing at 32 ±2°C (90 ±3°F)

However, it is recommended that this product be installed in an environment with a normal room temperature of 15-27º C (60-80º F).

2. Operation

The FPT-WKS-WS monitors building and life-safety systems and annunciates events (status change signals) that are received from the attached network(s). It functions as a Proprietary Receiving Unit. Multiple user accounts are supported with monitoring and control permissions configured individually for each of the user accounts.

The FPT-WKS-WS supports one or more gateways. The use of multiple gateways allows for the ability to monitor multiple networks. One or more FPT-WKS-WSs may be installed on a network. Multiple FPT-WKS-WSs can be used to monitor a single network or a single FPT-WKS-WS can monitor multiple networks. The FPT-WKS-WS can be located at the protected premises or at a different location. The protected property may be contiguous or noncontiguous, but must be under one ownership.

3. Functionality

3.1 System Functions

The FPT-WKS-WS provides the following major functions:

- Displays events by priority. New events are displayed in the list based upon their event type priority.
- Displays acknowledged and new events in separate lists.
- Visual and audible annunciation of events.
- Maintains a history of life safety events.
- Monitors the communications path between workstation and gateway.
- Annunciates a trouble event when communications with gateway is lost.
- Displays device location information.
- Annunciates CPU fan failure.
- Acts as a time server for gateways on the life safety network.
- Ability to send emails (see Table 2 for limitations).
- Displays an icon  that when clicked, displays a list of the silenced fire panels.

3.2 System Limits

The workstation is designed to operate within the limits listed below:

Table 2. Limitations

Limit	Feature	Maximum Allowed
Physical Network Limit	Gateways	200 Total
	Workstations per System	50 Maximum
Logical Network & Screen	Screens	10,000
	Devices	250,000
	Devices Per Screen	1,000
	Macros	250
	Macro Buttons	2,000
	Navicons	1,000
	Monitoring Profiles	100
	Node Control Profiles	100
Workstation	Output Formats	25 per Workstation
	Email Recipients	10 per Workstation
User Manager	Users	500

4. Programming Options

This section describes the available programming options for the FPT-WKS-WS.

4.1 Field-programmable Settings

This product incorporates field-programmable software. The features and/or options listed below must be approved by the local AHJ.

Table 3. UL 864 Field-programmable Settings

NOTICE TO USERS, INSTALLERS, AUTHORITIES HAVING JURISDICTION, AND OTHER INVOLVED PARTIES			
This product incorporates field-programmable software. In order for the product to comply with the requirements in the Standard for Control Units and Accessories for Fire Alarm Systems, UL 864, certain programming features or options must be limited to specific values or not used at all as indicated below.			
Program Feature or Option	**Permitted in UL 864 (Y/N)**	**Possible Settings**	**Settings Permitted in UL 864**
Use Node Control	No	• Yes • No	Yes

4.2 User Security Options

User accounts can be created with differing levels of access to the FocalPoint system. The user's security option choice determines which functions are visible or selectable. Refer to the table below for detailed information.

Table 4. Basic PC Functionality

Basic PC Functionality	Windows User Account Privileges	
	Limited User Account	Administrator Privileges Account
Run Workstation	YES	YES
Reset Operating System	NO	YES
Change PC Settings	NO	YES
Change/Install Software Programs	NO	YES
Change/Create Local PC User Accounts	NO	YES
Set Time and Date	NO	YES

4.2.1 Display Configuration Privileges

The primary and secondary displays can be configured only by users with administrative privileges.

4.3 Windows Settings

In order for the workstation to operate properly, the following settings must be made in Microsoft® Windows®:

Table 5. Windows Settings

Setting	Required Value
IP Address	Enter a valid IP Address if connecting to a LAN.
Power Options	Screen: Turn off the display after: **Never** Sleep: PC goes to sleep after: **Never**
Time Zone	Set the local time zone.
Daylight Savings Time	Set as appropriate for the local area.
Display Settings for the following Monitors: MON-22LCDW MON-22LCDW-TS MON-42LCDW MON-42LCDW-TS	• Display Resolution: **1920 x 1080** • Display Scale: **100%**

4.4 FPT-WKS-WS Settings

The following settings are available from the workstation application **Menu > Configure > Options** menu. The settings apply to the local workstation only.

4.4.1 General Tab

Table 6. General Tab Settings

Setting	Possible Settings	Description
Event Label: The event label is displayed in event lists throughout the workstation. The event label options are described below.		
Network Label	Description	Display the network description (alias).
	None	Default. No label is displayed.
Node Label	Description	Display the node description (alias).
	Address	Display the system-assigned node address.
	None	Default. No label is displayed.
Point Label	Description	Default. Display the point description (alias).
	Address	Display the system-assigned point address.
	None	No label is displayed.
History Backup: The external backup file is named with the date: YYYMMDD.HIS. History backup options are described below.		
Automatically Backup History	Scheduled	Activates the Backup Frequency field. Schedule history backup interval by number of days (1-62) or months (1-12).
	When Full	Default. History is backed up when the history database is full (2.5 million entries).
General: Options are described below.		
Show Only Off-normal Devices	Yes	Display only icons of points that are off normal. If there are no current events on the system, no points are visible in the graphics display.
	No	Default. Show all points regardless of state.
Auto-activate Next Event After Acknowledge	Yes	Once the first event in the New Events pane is acknowledged, the next event automatically activates. The workstation plays any media files linked to the event.
	No	Default. When the first event is acknowledged in the New Events pane, the next event does not auto-activate.
Automatically Navigate On Event	Yes	Default. Once an event reaches the top of the New Events list, the workstation navigates to the screen containing the device icon associated with the event.
	No	Do not automatically navigate to the screen with the off- normal event.
Show Navigation Icon Labels	Yes	Default. Display the user-defined text below the navigation icons.
	No	Hide the user-defined text located below the navigation icons.
Show Background Events on Navigation Icons	Yes	Navigation icons “illuminate” to indicate a status change of points that are in the floor plan or nested floor plans for mapped background events.
	No	Default. Navigation icons do not illuminate.
Save Toner When Printing	Yes	Causes the optional graphics printer to invert dark colors (i.e. black to white) when printing the floor plan. For optimum print quality, the floor plan background should be set to black or white.
	No	The graphics printer will print screen as it appears on the workstation.
Fire Alarm Reminder	Disabled	The fire alarm reminder feature is not enabled.
	4 hrs or 24 hrs	After the selected number of hours has passed, an on-screen reminder alerts the user that a system trouble has not been acknowledged. (Default is 24 hours.)
CO Alarm Reminder	Disabled	The CO alarm reminder feature is not enabled.
	4 hrs or 24 hrs	After the selected number of hours has passed, an on-screen reminder alerts the user that a system trouble has not been acknowledged. (Default is 24 hours.)

Table 6. General Tab Settings (Continued)

Setting	Possible Settings	Description
Supervisory Reminder	Disabled	The supervisory alarm reminder feature is not enabled.
	4 hrs or 24 hrs	After the selected number of hours has passed, an on-screen reminder alerts the user that a system trouble has not been acknowledged. (Default is 24 hours.)
Trouble Reminder	Disabled	The trouble reminder feature is not enabled.
	4 hrs or 24 hrs	After the selected number of hours has passed, an on-screen reminder alerts the user that a system trouble has not been acknowledged. (Default is 24 hours.)
Enable Emails (Optional Software Feature)	Yes	Default. The workstation sends emails as configured on the Email tab.
	No	Email function is disabled.
Use Node Control (Optional Software Feature)	Yes	Default. Proprietary Receiving Unit (PRU) modes only. Requires a user with control privileges to take manual control of nodes or networks via the Control Profiles window before sending commands to the node/network. Refer to 4.1, "Field-programmable Settings" for regulatory considerations.
	No	PRU modes only. Allows any user with control permissions to send commands to any nodes/networks on the system. Control Profiles window is inaccessible.
Monitor Fan	Yes	A fan trouble event appears in the New Events window on the workstation screen if a PC cooling fan malfunctions.
	No	Default. Fan monitoring is not enabled.

4.4.2 User Features Tab

Table 7. User Features Settings

Setting	Possible Settings	Description
Unacked Event Alarm Configuration: This feature is used to automatically activate a user-defined macro if an alarm is present in the new event list for more than the configured amount of time.		
Use Unacked Event Supervision	Yes	Automatic Unacked Alarm Operation enabled.
	No	Default. Automatic Unacked Alarm Operation disabled.
Unacked Event Timeout	3 - 60 minutes	Amount of time before the user-defined macro is executed. (Default is 3 minutes)
Macro Activated on Alarm	Macro Name	Select a macro from the drop-down list. Macros are configured in the workstation configuration tool.
	None	Default. Do not activate a macro.
Security:		
Inactivity Timeout	1-20 minutes	Amount of time with no activity after which a user is automatically logged out.
	0	Default. Do not automatically log out a user.
User Responses:	8 User-defined Responses	Enter text to be stored in history as responses to events. These are displayed when a user right-clicks on a floor plan icon.

4.4.3 Event Printer Tab

The Event Printer tab allows the user to enable or disable the optional printer. An event printer is not required for UL 864 operations. A default output format and monitoring profile are preconfigured for a local event printer. It is only necessary to enable the printer in Windows. The local event printer must be named “Local Event Printer” through Windows. Consult Windows information for details about naming the printer. To modify the printer configuration, a user-definable monitoring profile must be selected along with a user-definable output format. A sample event is displayed using the selected output format.

4.4.4 Email Tab

The Email tab of the configuration allows the user to configure the optional email capabilities of the workstation.

Email notifications are only intended to be transmitted to a limited number of staff for maintenance and system status purposes. This feature is approved by UL as supplementary.

4.4.5 Output Tab

The user-defined output formats defined on the Output tab are used by the event printers, and e-mails. Each format can consist of various fields which define an event. The list of available fields is: Action, Actual Time, Card Facility Code, Card Number, Card Time, Description, Network Alias, Node Alias, Point Type, Status, and User-defined.

4.5 Configuration Tool Settings

The following settings are found in the configuration tool and are shared among the workstations on a network. From the workstation application, go to **Menu > Configure > Launch Configuration Tool**.

4.5.1 Main Menus and Toolbars

Table 8. Configuration Tool Menus and Floor Plan Toolbar Settings

Location	Description
Main Menu Bar	Located along the top of the configuration tool main screen.
	File Menu: **Merge Database** - Allows the user to import the data from an existing system database into the currently open system database. This creates a single database with the contents of both databases merged. **Save** - Saves the configuration tool settings without closing the configuration tool. **Exit** - Closes the configuration tool.
	System Menu: **Networks** - Allows the user to add, delete, modify networks and nodes. **System Options** - Allows the user to select options as to how the workstation interface will operate. Refer to Table 9 for additional information. **Monitoring Profiles** - Allows the user to configure the monitoring profiles which can be selected by the users in the workstation software. **Users** - Allows the user to set workstation user passwords and privileges. **Chemicals** - Opens the Chemicals screen where information about hazardous chemicals is stored. The user can add or remove chemicals from the list. Chemical information can be associated with a hazardous material icon on the floor plan. **Database Editor** - Allows the user to edit the workstation database in a spreadsheet format.
	Control Menu: **Macros** - Opens the Macro Editor Screen where the user can configure macros. **Control Profiles** - Allows the user to configure the control profiles which can be selected by the users in the workstation software.
	Graphics Menu: **Default Icons** - Allows the user to view, search, and customize the icons in the currently selected icon set. **Status Classes** - Allows the user to configure custom colors and sounds for each event status class. **Floorplan Options** - Allows the user to configure the text displayed above the icons, the floor plan foreground and background colors, and the icon set to be used.

Table 8. Configuration Tool Menus and Floor Plan Toolbar Settings (Continued)

Location	Description
Floor Plan Tool Bar	Allows the user to configure and place/draw a variety of informational objects on the floor plan screen.
	Objects: **Screen** - Allows the user to add screen backgrounds, titles, and specify parent screens. **Navigation Area** - Allows the user to create and select the destination for a navigational area. **Navigation Icon** - Allows the user to create and select the destination for a navigation icon. **Point** - Allows the user to create and configure points. For each event status class, a point can be assigned an icon and linked media for text, image, audio, and video; each of which can be auto-activated. **Macro Button** - Allows the user to create and place buttons that activate configured macros. **Information Label** - Allows the user to configure and place information labels that provide important user information.
	Draw - Provides drawing tools for use on the floor plan screen. Hover to display the meaning of symbols.
	Text - Provides text settings for use on the floor plan screen. Active when text tool "**T**" is clicked.
	View: **Gridlines Button** - When clicked, grid lines are displayed on the floor plan to aid in placement of information. Does not appear on the workstation screen. **Events Button** - When this button is clicked, all device icons on the floor plan display in an alarm state. This includes tinting of each icon, placing a box around it, and displaying event text below each icon. The purpose of this option is to assist users when laying out floor plan icons. For instance, they can use it to ensure that the event text is easily readable and does not overlap lines on the floor plan background.

4.5.2 System Options

To access the following settings in the configuration tool, go to **System > System Options** in the menu bar.

Table 9. System Options Configuration

Setting	Possible Settings	Comments
Operating Mode	Proprietary Receiving Unit	Proprietary Receiving Unit (PRU) mode supports multiple gateways and workstations. FocalPoint networks configured for mass notification operations are not supported in PRU mode.
Logged-Out Monitoring Profile	• All Nodes, All Events (Default) • Custom Profiles	Select the desired monitoring profile from the drop-down list. If no one is logged in to the workstation, the selected monitoring profile is activated.
Extract Description from Panel	• Yes	Default. Use point descriptions as received from the FACP.
	• No	Use point descriptions as defined by the configuration tool and discard point descriptions received from the FACP.
Time Server Settings	IP Address	This field is used to enter the IP address of the server that is used to synchronize the FocalPoint system time. If the IP address for the time server is the same IP address as this workstation PC, then this workstation will function as the time server. Otherwise, the workstation PC will use the time server at the specified IP address.
System Description	Enter a unique system description.	This description is an alias by which the system can be easily identified. This aids the user during off-line configuration where multiple systems may be configured.
System Password	Enter a unique password.	20 characters maximum, case sensitive. In order for the workstation to connect to a gateway, the system password must match the system password configured on the gateway. The system password must be manually entered individually on each workstation PC by entering this setting in the configuration tool residing on that PC. On workstation PCs, this setting is only available when editing the live system.

Table 9. System Options Configuration (Continued)

Setting	Possible Settings	Comments
Require Confirmation	• Field Acknowledge • Silence • Reset • Manual Evacuation • Enable/Disable • Activate/Deactivate	Selecting 'Yes' causes a confirmation message to display before the action is performed. (Default is "No").

5. Testing/Maintenance

Testing shall be performed in accordance with NFPA-72.

Before performing any testing on a fire alarm system:

1. Notify the fire department and the central alarm receiving station if transmitting alarm conditions.
2. Notify the people occupying the facility about the impending test, the expected time period of the test, and to disregard any alarm during the test period.
3. When appropriate, disable activation of alarm notification appliances and speakers to prevent their sounding.

6. Compatibilities

The FPT-WKS-WS is compatible with the following equipment. For additional documentation on this product, go to gamewell-fci-esd.com. This additional documentation may be used as a reference only.

Table 10. Compatible Equipment

Type	Equipment	Description
Monitors:	• MON-22LCDW	22" Wide Screen LCD Monitor
	• MON-22LCDW-TS	Touchscreen 22" Wide Screen LCD Monitor
	• MON-42LCDW	42" Wide Screen LCD Monitor
	• MON-42LCDW-TS	Touchscreen 42" Wide Screen LCD Monitor
	Note: • To remain compliant with UL listing and to meet the "Condition of Acceptability", the keyboard and mouse must be connected when using a touchscreen monitor.	
Network Gateway:	• FPT-GATE-3	FocalPoint Gateway-3
Other Products:	• FPT-GATE-DACR	Digital Alarm Communicator Receiver Gateway

7. System Configuration

The following table describes the required and optional configurations needed to meet the FPT-WKS-WS's intended applications.

Table 11. System Configuration

Accessory/Subassembly	Part No.	Description	Proprietary Receiving Unit
Fire Panels		Current UL-listed Fire Panels	R
Workstation		UL listed PC with FocalPoint Software	R
Monitors	**Refer to Table 10.**	Current UL-listed Monitors	R[1]
Network Gateway		Current UL-listed Network Gateway	R[2]
Receivers Gateway		Digital Alarm Communicator Receiver Gateway	O
UPS		Uninterruptible Power Supply	R
Keyboard		USB Keyboard	R
Mouse		USB Mouse	R
Software License		Enables FPT-WKS-WS features.	R

R - Required component for functionally minimal system.
O - Optional

Notes:
1 - At least one of the monitors listed in Table 10 is required for a functional system. A second monitor from Table 10 may be used, but is not required.
2 - At least one of the network gateways listed in Table 10 is required for a functional system.

8. System Power

NOTE: This equipment is not suitable for use in locations where children are likely to be present.

8.1 Primary and Secondary Power

The FPT-WKS-WS requires connection to a separate dedicated primary AC fire alarm circuit as the primary power source. The circuit must be labeled "FIRE ALARM" and must connect to the line side of the main power feed of the protected premises. No other equipment can be powered from the fire alarm circuit. This circuit must run continuously, without disconnect devices, from the power source to the workstation. Overcurrent protection for this circuit must comply with Article 760 of the National Electrical Code as well as local codes.

If available, backup power for the workstation must be supplied by the building emergency power source. A supervised Uninterruptible Power Supply (UPS) is required to provide power continuity during the transition period from the primary power source to the emergency power source. The UPS must be UL 1481 or UL 864 listed, regulated, and power limited.

8.2 System Power Requirements

Table 12. System Power Requirements

Device Type	Max Current (Amps)	Power
FPT-WKS-WS	7.0	120 VAC, 60 Hz
MON-22-LCDW	1.97	
MON-22-LCDW-TS	1.97	
MON-42-LCDW	1.2	
MON-42-LCDW-TS	2.00	