

# FireWorks™

## Graphical Command Interface



### Overview

FireWorks is a powerful family of software and hardware options that work in concert with Chubb Edwards' Emergency Communication System/Mass Notification System/Life Safety System (ECS/MNS/LSS). FireWorks also provides the platform and processing power to integrate third-party systems with Chubb Edwards' solutions to provide the user with clear, concise, and coordinated information.

FireWorks provides an intuitive user interface, taking what could be an overwhelmingly large amount of information and presenting it in an easy-to-understand format. FireWorks does this by dividing major system functions into easy-to-manage viewports.

FireWorks is event driven. This greatly increases the user's ability to deal with system events by eliminating the confusion sometimes experienced when systems present all information at once. FireWorks automatically prioritizes the events for the user in an Event Viewport. Here the highest priority event is displayed first, and the lowest priority event is displayed last. This allows the user to quickly determine which events warrant the most immediate attention.

Each of the other supporting viewports provides specific information and/or control options that relate data to the event highlighted in the Event Viewport. Related information may include event action information (specific tasks the user may need to perform in response to the event), or information about the area where the event has taken place (any hazardous materials present in the area, etc.). Images, CCTV, video, audio messages and graphical maps may also be presented to aid in the understanding of an event and how it should be managed.

### Standard Features

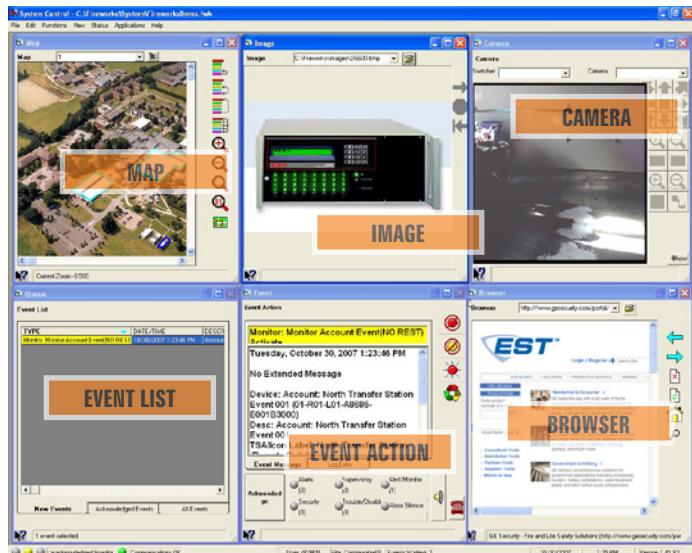
- Listings include ECS/MNS/LSS, Life Safety, Central, Remote and Proprietary Station operation
- Event-driven configurable multiple viewport display
- Automatic prioritization of events simplifies the system
- Interactive life safety control
- Monitor and control for single or multi-line Life Safety networks
- Email events to multiple recipients
- Web Client options allow for remote diagnostics, textual event and status viewing along with running reports
- Powerful HTTP/HTTPS Communication Engine
- Password-defined user access
- Context-sensitive event action messages
- Provides event-specific instructional text
- Use native graphic formats to create event maps
- Import most standard graphic formats, such as wmf, dwg
- Optional network solutions available
- Listed, rugged networking solutions can be used for command/control, VoIP as well as annunciation
- Optional Digital Alarm Receiver Connectivity
- Optional DACR and IP solutions for interfacing with Chubb Edwards and/or third-party fire/life safety panels

## Application

FireWorks gathers, consolidates, disseminates, displays and controls systems and points throughout a facility or campus.

## Operation

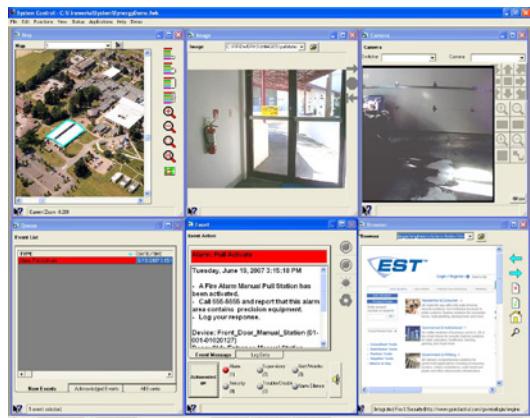
Each operator can configure the system to have anywhere from 2 to 6 viewports. Viewport options are Map, Image, Event List, Event Action, Browser and CCTV.



### Event List Viewport

Upon receipt of a change of state, the event information is displayed in the Event List Viewport. If several events are received, all events are displayed in the Event List viewport and are colour coded by priority. The highest priority event is displayed at the top of the list. The lowest priority event is displayed at the bottom of the list. Alarm events display in red, Supervisory and Trouble events display in yellow, Restores display in green.

FireWorks automatically selects the first event received. To display information on any other event, the user simply selects the event by clicking on it. The other viewports automatically change to display information on the selected event.

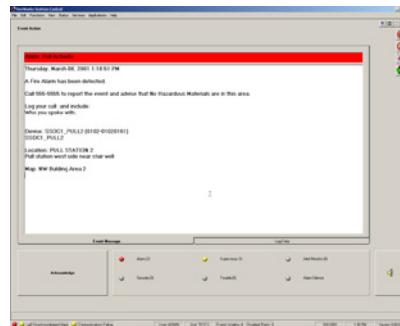


**Alarm Event:** Summary information is displayed in the Event List (lower-left), while more detailed text and graphics show in the other viewports. The first alarm is selected by default.

### Event Action Viewport

The Event Action Viewport displays any custom instructional text associated with the event. This text could include information about hazardous materials present at the location, or instructions for implementing the facility's emergency action plan.

Common control switches for Alarm Silence, Panel Silence, Drill and Reset are also available in the Event Action viewport — if enabled and user access levels permit. Also accessible from this viewport are the Event Acknowledge button, the Computer Silence button, and the Event Log tab.



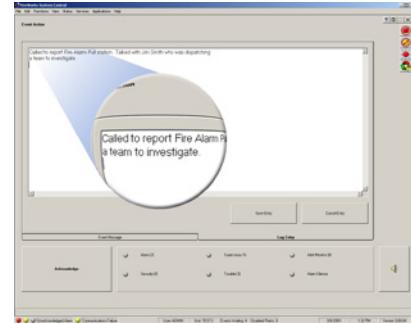
### Event Action

**Viewport:** This window is used to provide instruction on how to respond to the selected event, and also to acknowledge that these instructions have been carried out.

Acknowledgment of events is accomplished from the Event Action Viewport. FireWorks supports the use of custom audio messaging through the use of .wav files. These audio messages are used to reinforce the action a user should take for a given situation. Audio messaging and the PC buzzer may be silenced by the user without affecting the connected life safety networks or panels. This unique feature of FireWorks allows the PC to be silenced without having to acknowledge events. The user only acknowledges each event when all response procedures have been carried out. Once acknowledged, the event moves from the Event List new messages tab to the Acknowledged Events tab.

By selecting the Log Entry Tab on the Event Action Viewport, the user can record the steps taken in response to the selected event. Event logs are attached to the history file for the event and are available for review when needed.

**Event Log:** Selectable as a tab in the Event Action Viewport, this area allows the user to record actions taken in response to the selected event.



## **Image Viewport**

A picture says a thousand words. That's the idea behind the FireWorks Image Viewport. The Image Viewport has endless possibilities. Any event, any device, or any combination of devices and events can retrieve instant graphical information that is relevant to the occurrence and can be understood at a glance. The viewport can display still images of the active device with a brief description of its function. It can show what a gate valve looks like, or which model of smoke detector is in alarm, or what kind of motion detector is active.



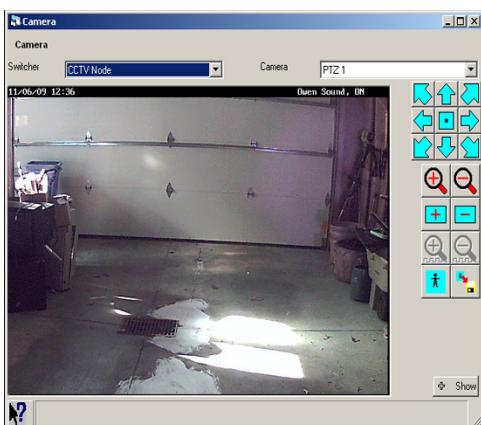
### **Image Viewport:**

Displays images relevant to the occurrence.

## **Camera Viewport**

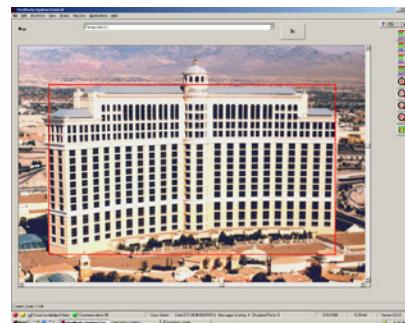
With the SiteVision option (only available with Windows XP version), if the project has CCTV, live video can be displayed, giving the operator a real-time view of the area where the event is taking place. With the SiteVision Plus option, when cameras supporting pan/tilt and zoom are used, these functions can be controlled right from the FireWorks computer. There is no need to use a separate joystick to move the camera.

With FireWorks and CCTV, a user can view an area before going to it to investigate the event. This provides additional safety for the investigating employee by allowing the opportunity for a visual check that establishes the severity of an event before making a physical inspection. (See FireWorks compatible CCTV listings for a complete list of compatible CCTV manufacturers.)



## **Map Viewport**

This viewport provides a graphical display of the event's physical location. This viewport is customized to the layout of the facility. A site map may be displayed showing one or multiple buildings. This gives the user an overview of the event's location in the context of its surroundings and the entire facility.



### **Map Viewport:**

This gives the user an overview of the event's location in the context of its surroundings and the entire facility.

In this configuration an event will begin to flash the appropriate TSA (touch-sensitive area) or alarm area in red. TSAs for supervisory events display with a gold or yellow border (field selectable). Trouble or monitor events in yellow and Restorations in green. This gives a clear indication of the event area of the alarm. The operator may then touch the flashing area to advance to the next screen providing a more detailed view of the area of incident. The operator may also choose to go directly to the device in alarm.

From within the Map Viewport the operator may, if given authority through Fireworks password protection, enable or disable devices, retrieve device sensitivity, or modify specific extended message text for any device. The Enable /Disable devices option is useful when a device needs to be removed from the system because, for example, construction work in an area may create an unwanted alarm. Any disabled devices put the fire panel in trouble and annunciate on the FireWorks PC. This ensures the operator understands that the system is not fully operational.

The Sensitivity option allows the operator to access sensitivity reports on specific devices. The Extended Message option gives the operator the ability to modify the text displayed in the Event Message Viewport. This is useful for keeping emergency plan information updated and for helping ensure instructional text is kept current when building occupancy changes.

In addition to the FireWorks simplified event driven operator interface that brings unparalleled ease of operation, FireWorks continues the ease of operation design with report functionality that allows the system administrator or other user with the proper authority to retrieve panel reports. Reports include Panel Status, Disabled Points and Sensitivity. Meanwhile, a full history report generator allows the review of historical panel events.

To enhance off-premise notification, FireWorks supports connection to a Simple Mail Transfer Protocol (SMTP) mail server, allowing event information to be e-mailed. This provides the ability to get event information automatically, efficiently and inexpensively to the people who need to know about events in your facilities.

## Browser Viewport

When the FireWorks workstation is provided with an Internet/network connection, the Browser Viewport can be configured to automatically connect to emergency information sites, network accessible building automation and other 3rd party systems

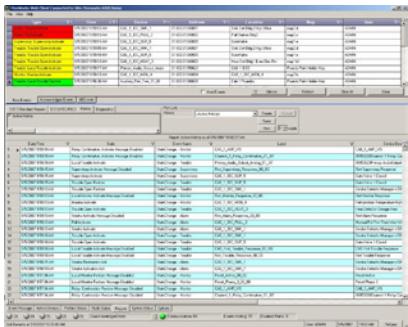
## Integration

FireWorks is equipped with a powerful HTML/HTTP/HTTPS/XML Command Processor that supports robust integration for Distributed Recipient Mass Notification Systems (DRMNS) and other 3rd party systems.

## Web Clients

FireWorks automatically conveys new events to any logged-in web client so that they are always in touch with current system status from a remote location in real time. Events mirror the display on the host system and are colour coded for easy identification by type and source. Events may also be filtered at the Web Client and sound files can be added per alarm, supervisory, trouble or monitor event category.

FireWorks can support up to a maximum of 15 concurrent web clients at any given time. The web client can also run reports for the remote workstation and print them to a local printer or output them to a .csv file.



## Engineering Specification

The Graphic Workstation Functions shall display the address of the alarm or off-normal point with type and description and time of the event in a prioritized color-coded event list. Selecting an event in the event list shall automatically cause the other viewports to display information relating to the selected event. The workstation shall display color graphical mapped representation of the area in which the alarm or off normal device is located. It shall be possible to set the primary display language to English or French and have the ability to toggle between languages as defined by user password. It shall be possible for the operator to manually zoom down to any portion of a vector-based graphic without aliasing, artifacting, or pixilation of the image. Pre-set zoom levels shall not be considered equal. There shall be a set of written operator instructions for each point. It shall be possible to display a <pre-set CCTV video> and/or <stored image of the device>. The operator must be able to Log comments for each event to history with time and date. The history must be accessible for future review.

It must be possible to operate common control functions from the Workstation including acknowledging, silencing, and resetting of fire alarm functions while maintaining ULC-S527 listing. It must be possible to manually activate, deactivate, enable,

and disable individual fire alarm points. The workstation shall be capable of generating status, maintenance and sensitivity reports for all fire alarm components. The workstation must be capable upon receipt of a fire alarm to activate an audio WAV file over the workstation speakers alerting the operator to an alarm<, and providing audible instructions.>

The workstation must be capable upon receipt of <Fire Alarm>, <System Trouble>, <Monitor Event>, <Mass Notification Event> to send e-mail messages to appropriate recipients via a SMTP mail server.

It must be possible to control Closed Circuit Television (CCTV) by <providing a video display on one viewport of the workstation as received from the CCTV switcher-matrix><the workstation commanding the switcher matrix to a specific camera and CCTV monitor.> The workstation shall command the switcher-matrix to direct the appropriate camera to the pre-set azimuth and elevation for each event, and send this image to the <workstation><CCTV monitor>. Where the CCTV image is displayed on the workstation it shall provide manual pan, tilt, and zoom control signals to the switcher-matrix. The workstation must provide Maintenance and Control Functions that include Control capability, Reports, status, sensitivity. The workstation must provide an extended message per event, site programmability of the message must be provided allowing modification by the end user to suit occupancies and emergency plans.

It shall be possible via a compatible remote PC connection through an accessible connection to a VPN, LAN, or WAN to obtain status, diagnostics, and reports from the workstations. The graphics work station shall act as a server to simultaneously communicate the status of all systems connected to the graphics work station to up to fifteen (15) concurrent remote PCs running graphics client software over the owner's data network or VPN. Client software shall actively poll the graphic work station server to determine event status. All event changes shall be automatically announced on the client PC. No operator interaction shall be required to retrieve or display incoming events. Web browser technology shall not be considered as equal. All workstation to client communications shall be encrypted for privacy. It shall be possible to capture at the remote PC events that take place on the workstation. It shall be possible from the remote PC to run workstation and panel reports.

The workstation shall be capable of communicating through one or multiple digital alarm receivers to display events from any panel that supports Contact ID or 4/2 industry standard protocols.

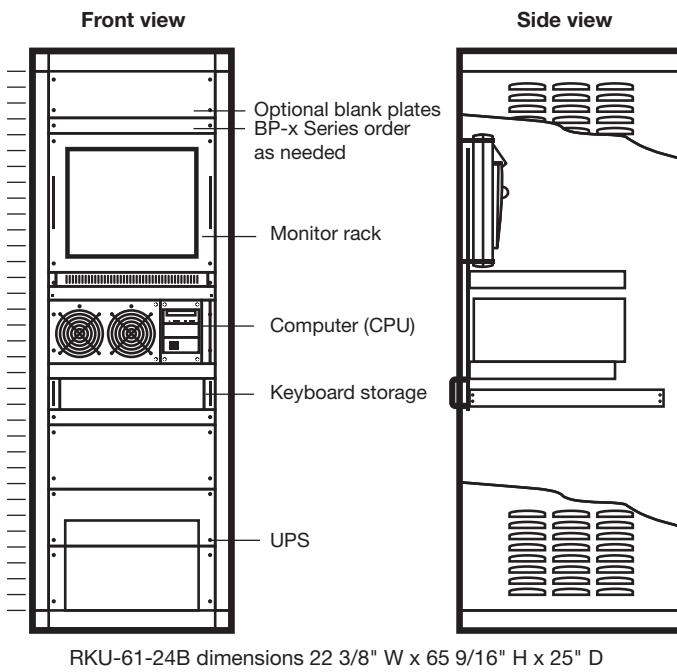
The workstation shall provide the ability to automatically schedule the running of reports. Reports shall be capable of being scheduled daily, weekly or monthly. Scheduled reports shall be automatically stored electronically for easy retrieval, or emailed to specified recipients.

The Workstation shall provide for simple control via a computer mouse, touchscreen and keyboard commands.

## Installation and Mounting

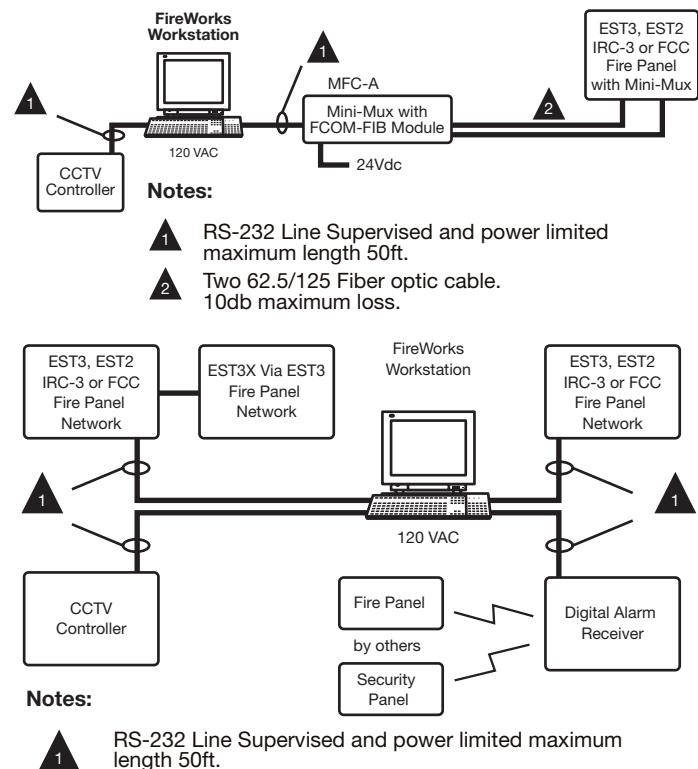
FireWorks meets ULC requirements when desk, floor or rack mounted. For floor and desk mounting, a PCCA must be used for conduit connection of PC to junction box. The FireWorks workstation must be UPS backed. Refer to latest ULC-S527 Control Units standard and ULC-S524 Installation standard for hardware configuration requirements, and ULC-S559 and ULC-S561 for monitoring requirements.

**Note:** The RKU reference drawing does not necessarily depict a complete system. Specific application may have additional requirements. While every effort is taken to ensure that specifications accurately represent FireWorks workstations Chubb Edwards reserves the right to change FireWorks computer hardware and/or software specification without notice.



## Typical Wiring

### Extending workstation to control panel distances



## Specifications

### FireWorks

Computer type	Industrial grade Dual Core 3.0 GHz Intel processor, 800 MHz front side bus
Dimensions	17" w x 22.5" d x 7" h (432 mm x 572 mm x 177 mm)
Weight	44 lbs. (20.0 kg) - actual weight depends on the installed options
Keyboard and mouse	Standard 101 key, black; black two button PS2 mouse
Power supply	350 Watts voltage range selected automatically. Acceptable inputs are: 100 - 127 (nominal) Vac; 50/60 Hz; 6 Amps max. 200 - 240 (nominal) Vac; 50/60 Hz; 3 Amps max. Comes complete with conduit adapter for desktop or tower applications
RAM	4 Gb standard memory
Hard drive	500 GB
Operating system	Windows 7 Ultimate Edition. 64 bit
Fire systems monitored/controlled	EST3 or EST2 (Non-networked), iO Series, IRC-3, or FCC, EST3X (when FWKs connected via EST3 network)
Communication format	RS-232 (workstation to life safety system) and/or TCP/IP
Log text	65000 characters per event max.
Graphic zoom fields	Unlimited (32 max recommended)
History archive	Subject to hard drive space (budget 2 meg per 10,000 events)
Operator log/on log/off	Three-security control access levels. Complete customization of user access attributes by password
Operating temperature	0° to 49° C (32° to 120° F)
Relative humidity	5% to 95% non-condensing
Optical drive	DVD-RW
Mounting	Desktop or floor mounting or rack/panel mount in 19" RKU series. Use RKU-61-24B when rack mounting with monitor (FW-19CDTWS rack mount monitor - order separately)
Network controller	100Base-TX compatible
RAID 1 hard drive array	Specify FWUL5RAIDW7 computer for standard features plus RAID 1 mirrored hard drive array
Approvals	ULC-S527, ULC-S559
<b>I/O</b>	
Parallel Port	25-pin D type
Serial Ports	4 port 9-pin D type-expandable to 8 port, order FW-SP41 serial port expander
USB	8 USB ports, 2 front, 6 rear
Available expansion slots	4 PCI slots, one PCI express slot

# Specifications

## Fireworks

### Monitor - 19" black (liquid crystal display) (FW-19LCDWTS) (rack mount only)

Dimensions	17.4" x 15.6" x 8.0" (442 mm x 396 mm x 203 mm)
Diagonal viewing area	19"
Weight	15 lbs. (6.8 kg)
Power	120 Vac, 1.5 A, 60 Hz, 180 W max.
Screen resolution	1440 x 900
Speakers	Two built-in speakers in display head
Mounting	Rack mount only with FW-19LCDWRACK (order separately)
Environment	Operating temperature: 0° to 49° C (32° to 120° F). Relative humidity: 5% to 93% non-condensing.
Touch screen	Capacitive /w USB Controller
Brightness	230 cd/m <sup>2</sup> typical
Approvals	ULC-S527, ULC-S559

### Monitor - 22" black (liquid crystal display) (FW-22LCDWTS) (supplied standard /w FWUL5W7-CAN & RAID computers)

Dimensions	20.2" x 15.9" x 8.7" (513 mm x 404 mm x 222 mm)
Diagonal viewing area	20"
Weight	16.5 lbs. (7.48 kg)
Power	120 Vac, 1.5 A, 60 Hz, 180 W max.
Screen resolution	1680 x 1050 VGA
Speakers	Two built-in speakers in display head
Mounting	Desk mount
Environment	Operating temperature: 0° to 49° C (32° to 120° F). Relative humidity: 5% to 93% non-condensing.
Touch screen	Capacitive /w USB Controller
Brightness	300 cd/m <sup>2</sup> typical (depending on panel spec)
Approvals	ULC-S527, ULC-S559

### Monitor - 42" black (liquid crystal display) (FW-42LCDWTS) (optional, ordered separately)

Dimensions	41.3" x 25.2" x 5.0" (1049 mm x 640 mm x 127 mm)
Diagonal viewing area	42"
Weight	70 lbs. (32 kg)
Power	120 Vac, 1.97 A, 60 Hz, 236 W max.
Screen resolution	1920 x 1080 VGA
Speakers	N/A
Mounting	Wall mount - order mounting kit separately
Environment	Operating temperature: 0° to 49° C (32° to 120° F). Relative humidity: 5% to 93% non-condensing.
Touch screen	Capacitive touch screen
Brightness	500 cd/m <sup>2</sup> typical
Approvals	ULC-S527, ULC-S559
Cables	Comes with 15 ft. VGA cable, 15 ft. power cable, and 15 ft. USB cable (15 feet is maximum distance allowed)

## Ordering Information

All workstations come complete with industrial grade 22 inch LCD touchscreen monitor with built-in speakers and industrial grade computer. Windows 7 Ultimate, 64 bit, DVD-RW optical, 2Gb memory, 500Gb hard drive, 128M video driver card, 4 serial ports, 1 parallel port, 8 USB connectors, on-board sound card, watchdog card to monitor fans and temperature and anti-virus software.

Catalog No.	Description
FWUL5W7-CAN	ULC Listed 4 Port workstation with full common control of fire alarm system (note 1, 5)
FWUL5RAIDW7-CAN	ULC Listed 4 Port workstation, with full common control of fire alarm system and 500Gb RAID hard drive array configured as RAID2 for redundant drive monitoring (note 1, 5)
<b>Option W7 Components</b>	
FW-SP4I	Serial port expander. Provides 4 additional serial ports for FW4-CAN
FW-VIDTVC	TV card required when using SV+ software to display CCTV on FireWorks (note 2)
FW-MOD	Modem card required for ACDB downloads through telephone lines
FW-NIC	Ethernet interface card, 100BASE-TX
<b>Optional Accessories</b>	
MINI-MUX	Communication interface board - ULC listed to extend distance from FireWorks to fire alarm panel
FCOM-FIB	Fiber optic data line card for Mini-Mux
FW-NCCA5	Network Conduit Adapter, provides protection for ethernet connection to FW-NIC - order separately
MN-NETRLY4	Ethernet controllable multi iO module. 4 unsupervised inputs & 4 unsupervised outputs. Comes with on MN-NRKB1.
MN-TK10	10 position, 4 pole terminal kit for use with MN-NETRLY4 or MN-FVPN
MFC-A	Accessory enclosure for mounting Mini-Mux at FireWorks workstation
MN-FVPN	Voice over internet Protocol (VoIP) encoder/decoder, includes power and audio cable.
<b>Optional Software</b>	
SV	SiteVision Software - allows FireWorks to communicate with video switcher to command CCTV cameras to turn on to existing CCTV monitors. For Windows XP only.
SV+	SiteVision Plus Software - allows FireWorks to communicate with video switcher and integrate the display of CCTV cameras on the FireWorks monitor. For Windows XP only.
FW-1S	Remote Web Client, one seat
FW-4S	Remote Web Client, four additional seats. Used in conjunction with FW-1S to provide 4 additional remote client seats for a total of 5 concurrent seats supported
FW-10S	Remote Web Client, ten additional seats. Used in conjunction with FW-1S and FW-4S to provide a total of 15 concurrent seats.
FW-DARCOM	Digital Alarm Receiver Software provides connectivity for 1 to 8 Digital Alarm Receivers (note 3)
FW-IPMON1000	IP Monitoring for 1000 connections to iO series panels. Requires companion software option FW-DARCOM.
<b>Monitors</b>	
FW-19LCDWTS	Rack mount UL/ULC 19" LCD, 1440 x 900, capacitive TS order FW-19LCDWRACK rack mount kit separately
FW-22LCDWTS	UL/ULC listed 22" 16:9 LCD, 115 VAC, 1680 x 1050 resolution, capacitive touchscreen, with integral speakers. C/W desk stand, cable set, driver disk.
FW-42LCDWTS	UL/ULC listed 42" 16:9 LCD, 115 VAC, 1920 x 1080 resolution, surface acoustic wave (SAW) touchscreen, with integral speakers. Comes cable set and driver disk. Requires wall mounting bracket kit ordered separately.
<b>Optional Enclosure and Mounting Accessories</b>	
RKU-61-24B	Optional 19" rack mounting cabinet (note 4)
FW-19LCDWRACK	Rack mount kit for FW-19LCDWTS monitor
FW-42LCDHMKI	42" wall mount bracket kit - 1 display horizontal
FW-42LCDVMKI	42" wall mount bracket kit - 1 display vertical
FW-42LCDVMK2	42" wall mount bracket kit - 2 display vertical

**Note 1:** UPS required to comply with ULC-S527 and ULC-S559. Ordered separately if required.

**Note 2:** Supported CCTV Systems: For Windows XP only:

Pelco Matrix Systems: CM6700 Series, 8500, 9500.

Philips: LTC8100, 8200, 8300, 8500, 8600, 8800, 8900 Series.

Vicom: Nova V142.

Kalatel: KTD-348

**Note 3:** Compatible digital alarm receiver is a Bosch D6600.

**Note 4:** Additional hardware and components may be required for your installation. Review with local sales support and/or head office personnel.

**Note 5:** To meet ULC requirements a PT-1P printer is required, order separately.

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