Fire Alarm System Limitations

While a fire alarm system may lower insurance rates, it is not a substitute for fire insurance!

An automatic fire alarm system—typically made up of smoke detectors, heat detectors, manual pull stations, audible warning devices, and a fire alarm control with remote notification capability—can provide early warning of a developing fire. Such a system, however, does not assure protection against property damage or loss of life resulting from a fire.

The Manufacturer recommends that smoke and/or heat detectors be located throughout a protected premise following the recommendations of the current edition of the National Fire Protection Association Standard 72 (NFPA 72), manufacturer’s recommendations, State and local codes, and the recommendations contained in the Guide for Proper Use of System Smoke Detectors, which is made available at no charge to all installing dealers. A study by the Federal Emergency Management Agency (an agency of the United States government) indicated that smoke detectors may not go off in as many as 35% of all fires. While fire alarm systems are designed to provide early warning against fire, they do not guarantee warning or protection against fire. A fire alarm system may not provide timely or adequate warning, or simply may not function, for a variety of reasons:

Smoke detectors may not sense fire where smoke cannot reach the detectors such as in chimneys, in or behind walls, on roofs, or on the other side of closed doors. Smoke detectors may also not sense a fire on another level or floor of a building. A second-floor detector, for example, may not sense a first-floor or basement fire.

Particles of combustion or "smoke" from a developing fire may not reach the sensing chambers of smoke detectors because:

- Barriers such as closed or partially closed doors, walls, or chimneys may inhibit particle or smoke flow.
- Smoke particles may become "cold," stratify, and not reach the ceiling or upper walls where detectors are located.
- Smoke particles may be blown away from detectors by air outlets.
- Smoke particles may be drawn into air returns before reaching the detector.

The amount of "smoke" present may be insufficient to alarm smoke detectors. Smoke detectors are designed to alarm at various levels of smoke density. If such density levels are not created by a developing fire at the location of detectors, the detectors will not go into alarm.

Smoke detectors, even when working properly, have sensing limitations. Detectors that have photoelectric sensing chambers tend to detect fast-flaming fires better than smoldering fires, which have little visible smoke. Detectors that have ionizing-type sensing chambers tend to detect fast-flaming fires better than smoldering fires. Because fires develop in different ways and are often unpredictable in their growth, neither type of detector is necessarily best and a given type of detector may not provide adequate warning of a fire.

Smoke detectors cannot be expected to provide adequate warning of fires caused by arson, children playing with matches (especially in bedrooms), smoking in bed, and violent explosions (caused by escaping gas, improper storage of flammable materials, etc.).

Heat detectors do not sense particles of combustion and alarm only when heat on their sensors increases at a predetermined rate or reaches a predetermined level. Rate-of-rise heat detectors may be subject to reduced sensitivity over time. For this reason, the rate-of-rise feature of each detector should be tested at least once per year by a qualified fire protection specialist. Heat detectors are designed to protect property, not life.

IMPORTANT! Smoke detectors must be installed in the same room as the control panel and in rooms used by the system for the connection of alarm transmission wiring, communications, signaling, and/or power. If detectors are not so located, a developing fire may damage the alarm system, crippling its ability to report a fire.

Audible warning devices such as bells may not alert people if these devices are located on the other side of closed or partly open doors or are located on another floor of a building. Any warning device may fail to alert people with a disability or those who have recently consumed drugs, alcohol or medication. Please note that:

- Strobes can, under certain circumstances, cause seizures in people with conditions such as epilepsy.
- Studies have shown that certain people, even when they hear a fire alarm signal, do not respond or comprehend the meaning of the signal. It is the property owner’s responsibility to conduct fire drills and other training exercises to make people aware of fire alarm signals and instruct them on the proper reaction to alarm signals.
- In rare instances, the sounding of a warning device can cause temporary or permanent hearing loss.

A fire alarm system will not operate without any electrical power. If AC power fails, the system will operate from standby batteries only for a specified time and only if the batteries have been properly maintained and replaced regularly.

Equipment used in the system may not be technically compatible with the control. It is essential to use only equipment listed for service with your control panel.

Telephone lines needed to transmit alarm signals from a premise to a central monitoring station may be out of service or temporarily disabled. For added protection against telephone line failure, backup radio transmission systems are recommended.

The most common cause of fire alarm malfunction is inadequate maintenance. To keep the entire fire alarm system in excellent working order, ongoing maintenance is required per the manufacturer’s recommendations, and UL and NFPA standards. At a minimum, the requirements of Chapter 7 of NFPA 72 shall be followed. Environments with large amounts of dust, dirt or high air velocity require more frequent maintenance. A maintenance agreement should be arranged through the local manufacturer’s representative. Maintenance should be scheduled monthly or as required by National and/or local fire codes and should be performed by authorized professional fire alarm installers only. Adequate written records of all inspections should be kept.
Installation Precautions

Adherence to the following will aid in problem-free installation with long-term reliability:

**WARNING** - Several different sources of power can be connected to the fire alarm control panel. Disconnect all sources of power before servicing. Control unit and associated equipment may be damaged by removing and/or inserting cards, modules, or interconnecting cables while the unit is energized. Do not attempt to install, service, or operate this unit until this manual is read and understood.

**CAUTION** - System Reacceptance Test after Software Changes. To ensure proper system operation, this product must be tested in accordance with NFPA 72 Chapter 7 after any programming operation or change in site-specific software. Reacceptance testing is required after any change, addition, or deletion of system components, or after any modification, repair or adjustment to system hardware or wiring.

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.

**This system** meets NFPA requirements for operation at 0-49° C/32-120° F and at a relative humidity of 85% RH - 93% per ULC - (non-condensing) at 30° C/86° F. However, the useful life of the system's standby batteries and the electronic components may be adversely affected by extreme temperature ranges and humidity. Therefore, it is recommended that this system and all peripherals be installed in an environment with a nominal room temperature of 15-27° C/60-80° F.

**Verify that wire sizes are adequate** for all initiating and indicating device loops. Most devices cannot tolerate more than a 10% I.R. drop from the specified device voltage.

Like all solid state electronic devices, this system may operate erratically or can be damaged when subjected to lightning-induced transients. Although no system is completely immune from lightning transients and interferences, proper grounding will reduce susceptibility. Overhead or outside aerial wiring is not recommended, due to an increased susceptibility to nearby lightning strikes. Consult with the Technical Services Department if any problems are anticipated or encountered.

**Disconnect AC power and batteries** prior to removing or inserting circuit boards. Failure to do so can damage circuits.

**Remove all electronic assemblies** prior to any drilling, filing, reaming, or punching of the enclosure. When possible, make all cable entries from the sides or rear. Before making modifications, verify that they will not interfere with battery, transformer, and printed circuit board location.

**Do not tighten screw terminals** more than 9 in-lbs. Over-tightening may damage threads, resulting in reduced terminal contact pressure and difficulty with screw terminal removal.

Though designed to last many years, system components can fail at any time. This system contains static-sensitive components. Always ground yourself with a proper wrist strap before handling any circuits so that static charges are removed from the body. Use static-suppressive packaging to protect electronic assemblies removed from the unit.

**Follow the instructions** in the installation, operating, and programming manuals. These instructions must be followed to avoid damage to the control panel and associated equipment. FACP operation and reliability depend upon proper installation by authorized personnel.

---

**FCC Warning**

**WARNING:** This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with the instruction manual, may cause interference to radio communications. It has been tested and found to comply with the limits for class A computing device set out in the Radio Interference Regulations of the Canadian Department of Communications.

**Canadian Requirements**

This digital apparatus does not exceed the Class A limits for radiation noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

Le present appareil numerique n’emet pas de bruits radioelectriques depassant les limites applicables aux appareils numeriques de la classe A prescrites dans le Reglement sur le brouillage radioelectrique edite par le ministere des Communications du Canada.

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Related Documentation

| Network Installation Manual            | 51539 | UniLogic                  | 51547 |
| Workstation                           | 51540 | System Utilities          | 51592 |
| BCI ver. 3-3                          | 51543 | Wide Area Server          | 51545 |
| Local Area Server                     | 51544 | Event Manager             | 51546 |
Foreword

The contents of this manual are important and must be kept in close proximity of the hardware. If building ownership is changed, this manual and all other testing and maintenance information must also be passed to the current owner of the facility. A copy of this manual was shipped with the equipment and is also available from the manufacturer.

This equipment has been designed to comply with standards set forth by the following regulatory agencies:

**NFPA Standards**
- National Fire Protection Association Standards 72.
- National Electric Code (NFPA 70).

**Underwriters Laboratories U.S. Documents**
- UL-864 Control Units for Fire Protective Signaling Systems.

**Other**
- Requirements of the Local Authority Having Jurisdiction (LAHJ).

**WARNING:** Improper installation, maintenance, and lack of routine testing could result in system malfunction.

Introduction

The NFN NION is a plug-in component of the UniNet™ Workstation. It allows the UniNet™ network and related devices to communicate with the NOTI•FIRE•NET™ network or a stand-alone Onyx Series panel.

UniNet™ consists of graphical workstations monitoring and controlling local or remote twisted pair or fiber optic networks. Remote network monitoring is achieved through the use of a Building Communications Interface (BCI), which has a maximum capacity of 32 nodes. Each Local Area Server (LAS) has a maximum capacity of 200 nodes, using twisted pair or fiber-optic cabling. A twisted pair network topology (FT-10) may be a maximum length of 6000 feet per network segment with no T-taps, allowing communications between 64 nodes in each segment. In addition, FT-10 allows dedicated runs of 8000 feet point-to-point or multiple T-taps within 1500 feet of any other node on the segment. Fiber-optic cable runs can be configured in either a bus or ring topology. The network is supervised for shorts, opens and node failures as dictated in Style 4 wiring.

The network power is 24 VDC nominal and receives operating power from a power limited, filtered source listed for use with fire protective signaling units.
Section 1: Hardware Installation

1.1 Network Options

The NFN NION may be used as a standalone interface connecting directly to a NUP compatible fire panel or networked using the NCM.

Figure 1-1: NFN NION Direct Panel Interface

NOTE: When used in the direct panel interface, the NION is powered by the fire panel through P1. The external power input (TB5) should not be used. Refer to section 1.4 for power connection details.
Figure 1-2: NOTI•FIRE•NET™ Network Interface

NOTE: When using the NFN NION on a NOTI•FIRE•NET™, the NION must be externally powered through TB5. The NION supplies power to the NCM through P1.

NOTE: The CHS-M2 chassis is used when installing the NFS-640 panel into the same cabinet as the NFN NION and NCM boards.
1.2 NFN NION Board Layout

The PC motherboard used for the NFN NION is a NION-SPB, which is shown in Figure 1-3.

NOTE: TB5 is only used when the NION is connected to an NCM (it is not used for direct panel interfacing).
1.3 NFN NION Connectors

Power Connector (TB5) - +24VDC input power connector.
TB6 - Relay output; both Normally Open/Normally Closed are available. Contacts are rated at 2A 30VDC.
TB7 - Not used.
TB1 - Not used.
Serial Port (P1) - NUP style data connection between the NION and external equipment that communicates using EIA-232 for serial channel A. This is the NUP port used to connect the NFN NION to the NCM or NUP compatible fire panel.
Serial Port (P2) - Not used.
Echelon Network Transceiver Connector(J1) - Pin connection header for SMX Transceiver.
Reset Pin (SW1) - Resets the NION and restarts the software.
Bind Pin (SW2) - Sends a message to the Local Area Server requesting to be added to the network.
Battery Terminal (BT1) - 3V Lithium battery terminal (RAYOVAC BR2335).
Network Communication PLCC (U24) - The flash module that specifies the network transceiver.
Application PLCC (U6) - The flash module that contains the application software.

![NOTE] All devices listed below require version 5.0 of the NOTI•FIRE•NET™ network firmware. Refer to section 2.6, Compatible Panels.

<table>
<thead>
<tr>
<th>Panel/Device Model</th>
<th>Network Interface</th>
</tr>
</thead>
<tbody>
<tr>
<td>NFS-640</td>
<td>NCM-W/NCM-F</td>
</tr>
<tr>
<td>NFS-3030</td>
<td>NCM-W/NCM-F</td>
</tr>
<tr>
<td>AM2020/AFP-1010</td>
<td>SIB-NET</td>
</tr>
<tr>
<td>AFP-400</td>
<td>NAM-232W/F</td>
</tr>
<tr>
<td>AFP-200</td>
<td>NAM-232W/F</td>
</tr>
<tr>
<td>Network Control Station (NCS)</td>
<td>NCS-NCW/F</td>
</tr>
<tr>
<td>Network Control Annunciator (NCA)</td>
<td>NCM-W/F</td>
</tr>
</tbody>
</table>

**Figure 1-4: NOTI•FIRE•NET™ Panel Compatibility**
1.4 NION Power Requirements and Connection

The NION requires 24VDC @ 250mA nominal in accordance with local code requirements. It can be powered by any supervised power limited, regulated source that is UL listed for use with fire protective signaling units. Conform to UL or ULC standards as applicable in your area. When interfacing directly to the NFS-640 or NFS-3030 panel, the NFN NION is powered through P1 NUP Port by the NFS-640 or NFS-3030 Panel. When interfacing through an NCM to the NOTI•FIRE•NET™, the NFN NION is powered by external +24VDC supply at TB5.

NOTE: TB5 is only used for the network application (it is not used for direct panel interfacing).

1.5 SMX Network Connection

The UniNet™ facilities monitoring system is distributed via a LonWorks™ network. This high-speed network allows communication between field nodes and a Local Area Server or a BCI. NION modules provide the communication links between monitored equipment and the network.

J1 SMX Connection

A twisted pair of wires or dedicated fiber-optic cable is used for data transmission in the UniNet™ network. The SMX transceiver connects the NION to the network using one of these wiring types. The network SMX transceiver daughter board is a component of every NION. This transceiver provides the network medium interface for NION network communication.

There are four styles of SMX transceivers: FTXC (Free Topology), S7FTXC (Style 7 FTXC), DFXC, and FOXC. The proper transceiver must be ordered separately for the specific medium it is to utilize.

FTXC

The FTXC transceiver is used for FT-10 (Free Topology) wire bus and star network configurations.

The wire must be:

- Twisted pair cable.
- UL listed for use in a power-limited fire-detection system (if used in conjunction with a fire monitoring network).
- Riser, plenum, or non-plenum cable, according to local fire alarm wiring codes.

FOXC

The FOXC transceiver is used for point-to-point optical fiber. For the FOXC, two strands are required per segment; one dedicated to transmit, the other to receive. The FOXC can have no more than 8dB of attenuation between nodes.

DFXC

The DFXC is a bidirectional optical fiber transceiver; it requires only one strand between nodes. The DFXC can have no more than 12db of attenuation between nodes.

Transceivers are mounted to the NION motherboard using a header strip and two standoffs. Refer to the board layout diagram for the placement of the SMX transceivers.
FTXC-PCA and FTXC-PCB Network Transceivers

When used by the FTXC transceiver, FT-10 allows up to 8,000 feet (2438.4 m) per segment in a point-to-point configuration, up to 6,000 feet (1828.8 m) per segment in a bus configuration, or up to 1,500 feet (457.2 m) per segment in a star configuration. Each segment can support 64 nodes, and with routers, the system can be expanded up to 200 nodes.

NOTE: All network connections are transformer isolated, making all network communication immune to ground fault conditions. Therefore, no ground fault supervision of the Echelon network is required or provided.

![FTXC-PCA and FTXC-PCB Network Transceivers](image)

Figure 1-6: SMX Transceivers: FTXC-PCA and FTXC-PCB

S7FTXC-PCA (Style-7) Network Transceiver

The S7FTXC-PCA combines two FT-10 interface ports that allow the transceiver to meet Style-7 wiring requirements. The two ports on the S7FTXC-PCA, when used with true style-7 wiring requirements, create a point-to-point type network segment allowing up to 8,000 feet between nodes that use the S7FTXC-PCA. The separate FT ports allow two twisted pair connections so that a cabling fault on one segment will not affect the other.

The S7FTXC-PCA has four diagnostic LEDs that are visible when the board is installed onto a NION.

- **Packet** - Blinks when a packet is received or transmitted.
- **Status** - Blinks steadily when no network traffic is present, and blinks rapidly when processing.
- **P1 ERR and P2 ERR** - These LEDs (P1 for Port 1, P2 for Port 2) denote error conditions when they blink.

NOTE: The S7FTXC temporarily stops processing when an error occurs. This suppresses noise propagation throughout the network. For more information about Style-7 network configuration refer to the Local Area Server manual 51544.

![S7FTXC-PCA (Style-7) Network Transceiver](image)

Figure 1-7: FTXC-PCA Transceiver Wiring

FOXC-PCA and DFXC-PCA Fiber Optic Network Transceivers

The FOXC-PCA allows up to 8db of attenuation between nodes in a point to point configuration only.

The DFXC-PCA can operate in either a bus or a ring format. The regenerative properties of the DFXC transceiver allow runs of up to 12db of attenuation between each node, with up to 64 nodes.

NOTES: See Section 1.1.3 of the Network Installation manual for fiber optic cabling requirements for these transceivers.
1.6 NUP Connection

Use a NUP cable (P/N 75576 (3” Cable) or 75577(30” Cable) to connect the NFN NION with the NCM or NUP compatible fire panel. Use the appropriate NUP cable to go from the P1 port on the NFN NION board to the NUP port on the NCM or the fire panel’s CPU, and Match the notched side of the cable connector with the notch on the left-hand side of the NUP port on the NION board.

![Network Communication PLCC (U24) and Application PLCC (U6)](image)

Figure 1-10: P1 Pinout Diagram

1.6  NUP Connection

Use a NUP cable (P/N 75576 (3” Cable) or 75577(30” Cable) to connect the NFN NION with the NCM or NUP compatible fire panel. Use the appropriate NUP cable to go from the P1 port on the NFN NION board to the NUP port on the NCM or the fire panel’s CPU, and Match the notched side of the cable connector with the notch on the left-hand side of the NUP port on the NION board.

![Network Communication PLCC (U24) and Application PLCC (U6)](image)

Figure 1-10: P1 Pinout Diagram

1.7 Software Replacement/Upgrade Installation

When replacing or upgrading the software and network PLCCs, execute the following steps:

1. Disconnect all power to the NFN NION. **IMPORTANT:** Always exercise ESD precautions when directly handling the NFN NION or any other hardware.
2. Place the flash modules in their respective sockets according to Figure 1-11. Orient the notch on the chip with the notch in the socket.
3. Re-apply power to the NION.

![Network Communication PLCC (U24)](image)

Figure 1-11: NION Software Replacement
1.8 Installation Description

Required Components

- NION-SPB
- SMX Transceiver (FTXC, S7FTXC, FOXC, or DFXC)
- Software kit for NFN NION interface
- Enclosure (CAB-3 or CAB-4 series cabinet, NISCAB-1, or ABS-4DB)

The following paragraphs describe all required and optional components used to assemble a functional NFN NION. All of the items described must be ordered separately.

Environmental Conditions

The NFN NION can be installed in the following environmental conditions:

- Temperature range of 0°C to 49°C (32°F - 120°F).
- 93% humidity non-condensing at 30°C (86°F).

Mounting Location

The NION is designed to be installed on a wall within 20 feet of the monitored equipment in the same room. The type of hardware used is at the discretion of the installer but must be in accordance with local code requirements.

Cabinet Mounting Information

The NION board can be installed in any NOTIFIER® CAB-3 or CAB-4 series cabinet, a NOTIFIER® NISCAB-1, or an ABS-4DB Annunciator Backbox (surface mount). The NISCAB-1 allows the installation of one NION.

CAB-3/CAB-4 Series Installation

The CHS-4L or CHS-M2 chassis gets mounted into a CAB-3 or CAB-4 series cabinet.

Figure 1-12: CAB-A3/4 Enclosure
ABS-4DB Installation

The Annunciator Backbox (ABS-4D) cabinet has a hinged door with a key lock (to diminish unauthorized use) and a transparent window. The mounting panel and door are both hinged at the bottom for easy access. Power must be supplied externally if the cabinet is surface mounted. Knockouts are provided for use with a 1/2-inch (12.7mm) conduit. The height of the cabinet is 12 inches (30.48 cm), the width is 19-7/8 inches (50.483 cm), and the depth is 3-1/2 inches (8.9 mm). If the cabinet is a surface mount, the door adds an additional 1-1/4 inches (31.75) to the depth. A trim ring will be required if the cabinet is a semi-flush mount.

Figure 1-14: ABS-4DB Annunciator Backbox
**NISCAB-1 Installation**

The NISCAB-1 is a single gang backbox and uses self-tapping screws.

**Mounting the enclosure to its wall position**

1) Use the provided key to unlock the enclosure cover.
2) Remove the enclosure cover.
3) Mount the enclosure to the wall. Refer to the enclosure mounting hole layout below.

---

![Diagram of NISCAB-1 Mounting Hole Layout](image)

**Figure 1-15: NISCAB-1 Mounting Hole Layout**

---

1.9 Operation

The NION contains several LEDs which are used as aids in diagnosing proper operation. The NION has 6 diagnostic LEDs.

- **Service LED** - Indicates binding status of node on Echelon network.
  - Slow blink indicates NION not bound.
  - Off indicates NION bound.
  - On indicates nonrecoverable error.

- **Network Status** - Indicates status of Echelon network interface.
  - Slow blink indicates network operation normal.
  - Off indicates network interface not functioning.
  - Fast blink indicates a network communication error.

- **Network Packet** - Blinks briefly each time a data packet is received or transmitted on the Echelon network.

- **Serial 2** - Slow blink indicates the NION is operational.

- **Serial 1** - Rapid blink indicates activity on the serial port.

- **NION Status** - Indicates status of the NION.
  - Rapid blinking indicates proper NION operation.
  - On or Off indicates critical error and that the NION is not functioning.
1.10 Event Reporting Format

All Event reporting from the NFN NION appears at the Workstation in the following format:

NNNSSSSSSSS

Where NNN is the network node number for the NFN NION.
Where SSS is the node number programmed in the NFS-640 or NFS-3030 panel.
Where XXXXXXXX is an 8 digit device ID.

The 8 digit ID will conform to one of the following formats, depending on the nature of the device.

87654321

Detectors: LllDddd Lll = loop, Dddd = detector
Modules: LllMmmm Lll = loop, Mmmm = module
Annunciators: ANNUNaa aa = annunciator
Annunciator Points: AaaPppp Aaa = annunciator, Pppp = point
Bell Circuits: BC cc cc = circuit
Panel Circuits: PC cc-p cc = circuit, p = point
Zones: ZONEzzz zzz = zone
Panel: Panel
Ground: GROUND
Battery: BATTERY
AC Power: ACPOWER
Audibles: Audible

Example 1:
Echelon Node 001, NFS-640 or NFS-3030 Panel programmed as node 007, Loop 02, Detector 003 reports with the following device ID:

001007 L02D003

Example 2:
Echelon Node 007, NFS-640 or NFS-3030 Panel programmed as node 003, Bell Circuit 01 reports with the following device ID:

007003 BC 01

Example 3:
Echelon Node 003, NFS-640 or NFS-3030 Panel programmed as node 001, Zone 004 reports with the following device ID:

003001 ZONE004
1.11 Relay output - Fault Annunciation

TB6 on the SPB board is used to annunciate a trouble condition; Normally Open and Normally Closed contacts are available. The trouble relay will activate when the NFN NION cannot communicate with either the NCM/NFS panel or the Echelon server.

**Figure 1-17: NION Fault Annunciation**
Section 2: NFN Explorer Plug-In

2.1 NFN Explorer Overview

The NFN Explorer is a Windows application incorporated into the UniNet™ facilities monitoring system. The NFN Explorer allows the user to browse and edit properties of devices existing on the NOTI•FIRE•NET™ (in network mode) or a single NUP compatible fire panel (in standalone mode) using the familiar Windows Explorer style interface.

IMPORTANT: UniNet™ 2000 version 2.0 and Service Pack 2 or higher are required to support the NFN NION plug-in.

2.2 Registering the NFN Explorer with UniNet

Before the NFN Explorer can be used with UniNet™, it must first be properly registered. This is accomplished by a simple two-step process.

- From the Workstation main screen, go to the Workstation Configuration menu, and then select Nion Applications. Locate the NION Type drop-down box. Using this drop-down box, scroll down and select NotiFireNet. Click the Change button on the form. This will cause a dialogue box to be displayed with the names of all available configuration files. Select NFN-EX.cfg, then click the Open button. Finally, click Done to end the registration process.

- From the Workstation, go to the Tools menu and click on Node Control Selection. Take control of the node by clicking on the node number for the NFN NION, then click on the button labeled Activate Control For This Node. Click on the Done button to end the process.

2.3 Launching the NFN Explorer

To launch the NFN Explorer, the user must first be running the UWS and have at least one NFN NION related device icon created on a graphics screen. For assistance in device creation, see section 3.4.3 in the Workstation Manual. To launch the explorer, simply right click on any NFN NION device icon, then select Network Explorer from the pop-up menu. The application should load and appear on the screen within a few seconds.

If a fire alarm comes in from a device on the fire panel, you must right click on the device and choose Alarm Acknowledge to send an acknowledge command to the panel. You cannot acknowledge it by clicking on the ACK button in the Workstation main screen.

NOTE: Performing the Reset command on a panel that has an active alarm will display an Alarm-Off condition at the workstation.

Figure 2-1: Starting the NFN Explorer


2.4 The NFN Explorer

Once opened, the NFN Explorer plug-in looks very much like the Windows Explorer. The style of the Explorer is a two pane window, displaying all known panels monitored by that NFN NION on the left side, and properties and values of each device on the panels on the right. The Object line operates much like the address bar of an internet browser, telling you which panel you are currently looking at, right down to the device.

![Figure 2-2: The NFN Explorer](image)

2.5 Operation

The NFN Explorer is a browser application that allows the user to view and edit properties of panels and devices that exist on the NOTI•FIRE•NET™ or a standalone NUP compatible fire panel from the Workstation. When the application loads, it displays a list of all panels identified on the NOTI•FIRE•NET™ on the left side of a two-pane window. For each object found, a node number and name are listed. Using the familiar explorer style interface, the user may expand objects on the left side of the screen to reveal the individual devices inherent to that object. When the user clicks on an individual device (such as a detector), the properties attributed to that device are displayed on the right half of the screen.

There are four functional buttons on the NFN Explorer:

- **Update** - This button sends out edits made to the appropriate panel.
- **Cancel** - This button will cancel all pending updates. All edits (noted in the green font) will be lost.
- **Exit** - This button closes the NFN Explorer.
- **Send To Back/Stay On Top** - This button toggles between keeping the Explorer window on top when other tasks are running on the PC, or sending the Explorer window to the background while other tasks are running. When Stay On Top is chosen, the NFN Explorer will remain on top regardless of new events coming in. The default setting is Stay On Top.

The bottom bar of the Explorer displays the Site ID and the Panel Type of the panel that is currently being viewed.

NOTE: The last panel to send the time is the master timekeeper. However, each time another node on the network becomes the timekeeper, the NFN NION automatically takes steps to become the new timekeeper. There can be only one timekeeper at a time. This is non-configurable.
2.6 Compatible Panels

The NFN NION and the NFN Explorer are compatible with NOTI•FIRE•NET™ version 5.0 or higher of the following panels.

- AFP-200 (Version 5.0 or higher NAM-232W/F required)
- AFP-300 (Version 5.0 or higher NAM-232W/F required)
- AFP-400 (Version 5.0 or higher NAM-232W/F required)
- AFP-1010 (Version 5.0 or higher SIB-NET required)
- AM2020 (Version 5.0 or higher SIB-NET required)
- NCA (Network Control Annunciator version 2.0 or higher NCM-W/F required)
- NCS (Network Control Station version 3.0 or higher NCM-W/F required)
- NFS-640 (Version 2.0 or higher NCM-W/F required)
- NFS-3030 (Version 2.0 or higher NCM-W/F required)

*NFN Explorer will show that a device exists on the network, but will not display any properties for AFP-200, NCA, or NCS.

2.7 Editing Panel Properties

Some panel properties will have an asterisk (*) next to their name that denotes an editable property field. Properties without an asterisk are read-only. To change the value of an editable property, click on the property value to highlight the text, type in the new information, and press the <enter> key. The text associated with the edited property (the value and the node) will turn from blue to green, signifying that it has been changed but has not yet been sent to the panel. Once all edits have been sent to the panels, the values and nodes associated with the change will display in blue. This process may be repeated for multiple devices on the network without making any updates to the associated panels. There are three different options available for sending the edited information out to the panel(s).

- The user may send information to an individual panel by right-clicking on the device name and selecting Update from the pop-up menu.
- The user may send all edits to a panel by right-clicking on the panel name and selecting Update from the pop-up menu.
- The user may click on the Update button at the top of the screen to send changes out to all edited panels.

At any time after properties are edited, but before updates are sent to the panels, the user may abandon all changes by simply exiting the NFN Explorer program, or by clicking on the Cancel button located at the top of the form. Click the Cancel button to refresh the NFN Explorer’s display with the original information extracted from the panel(s). The edited properties will then change from green to blue.

![Figure 2-3: Updating Changes](image-url)
2.8 Detectors, Modules, Panel Circuits and Annunciators

The first time the plug-in application is loaded, the Explorer will automatically detect devices connected to NFS-640 or NFS-3030 panels.

For AFP-200, AFP-300/400 and AFP-1010/AM2020 panels, the plug-in will only detect detectors, modules, panel circuits and annunciators that have reported to the workstation.

Modules

You can Enable, Disable, Activate, or Deactivate Modules:

1. Click on the desired panel in the Panels list
2. Click on the desired Loop
3. Click on Module
4. Right-click on the appropriate Module number
5. Select Enable, Disable, Activate or Deactivate.

If the Module has had changes made to it, and has not been sent out to the network, then Update will also appear in that list. Modules will display an (I) or (O) next to each to identify either a monitor (I) or control (O) module.

NOTE: The Deactivate command is not intended to silence active alarm outputs.

Figure 2-4: Module Controls

In cases where Activate and Deactivate do not apply, the pop-up box will only display Enable and Disable.

Figure 2-5: Enable and Disable
2.9 Viewing the Silenced Panels List

The UniNet™ 2000 workstation displays a list of all panels that are currently silenced. This list is accessed by clicking the Audibles Silenced heading above the Event Counter in the upper right corner of the workstation main screen.

Figure 2-6: Silenced Panels List
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