

# Network Control Display

Instruction Manual



Document LS10210-051NF-E Rev: C 2/18/2019 ECN: 18-0487

# Fire Alarm & Emergency Communication System Limitations

While a life safety system may lower insurance rates, it is not a substitute for life and property 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 panel (FACP) 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.

An emergency communication system—typically made up of an automatic fire alarm system (as described above) and a life safety communication system that may include an autonomous control unit (ACU), local operating console (LOC), voice communication, and other various interoperable communication methods—can broadcast a mass notification message. Such a system, however, does not assure protection against property damage or loss of life resulting from a fire or life safety event.

The Manufacturer recommends that smoke and/or heat detectors be located throughout a protected premises 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. This document can be found at http:// www.systemsensor.com/appguides/. 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 also may 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, chimneys, even wet or humid areas 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, such as air conditioning vents.
- 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 photoelectronic sensing chambers tend to detect smoldering fires better than flaming 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, compromising its ability to report a fire.

Audible warning devices such as bells, horns, strobes, speakers and displays 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:

- An emergency communication system may take priority over a fire alarm system in the event of a life safety emergency.
- Voice messaging systems must be designed to meet intelligibility requirements as defined by NFPA, local codes, and Authorities Having Jurisdiction (AHJ).
- Language and instructional requirements must be clearly disseminated on any local displays.
- 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 to or comprehend the meaning of the signal. Audible devices, such as horns and bells, can have different tonal patterns and frequencies. 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 life safety 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 panel. It is essential to use only equipment listed for service with your control panel.

**Telephone lines** needed to transmit alarm signals from a premises 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 life safety system malfunction is inadequate maintenance. To keep the entire life safety 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 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 life safety system installers only. Adequate written records of all inspections should be kept.

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# **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 manuals are read and understood.

#### **CAUTION - System Re-acceptance Test after Software**

**Changes:** To ensure proper system operation, this product must be tested in accordance with NFPA 72 after any programming operation or change in site-specific software. Re-acceptance 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 . 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 its peripherals be installed in an environment with a normal 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 interference, 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, or 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.

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.

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# **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 devices pursuant to Subpart B of Part 15 of FCC Rules, which is designed to provide reasonable protection against such interference when devices are operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference, in which case the user will be required to correct the interference at his or her own expense.

#### **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 edicte par le ministere des Communications du Canada.

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# **Software Downloads**

In order to supply the latest features and functionality in fire alarm and life safety technology to our customers, we make frequent upgrades to the embedded software in our products. To ensure that you are installing and programming the latest features, we strongly recommend that you download the most current version of software for each product prior to commissioning any system. Contact Technical Support with any questions about software and the appropriate version for a specific application.

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# Section 1: About this Manual

# **1.1 Standards and Specifications**

The NCD has been designed to comply with standards set forth by the following regulatory agencies:

- Underwriters Laboratories Standard UL 864.
- UL 916 Energy Management Equipment.
- UL 1076 Proprietary Burglar Alarm Units and Systems.
- Underwriters Laboratories Standard UL 2017 for General-Purpose Signaling Devices and Systems.
- NFPA 72 National Fire Alarm Code.

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.



WARNING: IMPROPER INSTALLATION, MAINTENANCE, OR LACK OF ROUTINE TESTING COULD RESULT IN SYSTEM MALFUNCTION.



CAUTION: Read all bundled documentation for detailed instructions on upgrade/downgrade installation information.



WARNING: DO NOT CONNECT OR DISCONNECT THE OCULINK CABLE BETWEEN THE CORE AND DIM BOARDS (UPPER AND LOWER BOARDS) WHILE POWER IS APPLIED TO PREVENT SYSTEM DAMAGE.

# 1.2 UL 864 Tenth Edition Compliance



This product has been certified to comply with the requirements in the Standard for Control Units and Accessories for Fire Alarm Systems, UL 864 10th Edition.

Operation of the NCD with products not tested for UL 864 9th Edition has not been evaluated and may not comply with NFPA 72 and/or the latest edition of UL 864. These applications will require the approval of the local Authority Having Jurisdiction (AHJ).

UL 9th Edition
NFS-320
NFS2-640
NFS2-3030
NCA-2

## **1.3 Related Documentation**

The table below provides a list of documents referenced in this manual, as well as documents for selected other compatible devices.

Compatible Conventional Devices (Non-addressable)	Document Number
Device Compatibility Document	15378
Off-line Programming Utility	Document Number
VeriFire™ Tools CD help file	Available for download on www.notifier.com
Cabinets & Chassis	Document Number
CAB-3/CAB-4 Series Cabinet Installation Document	15330
Battery/Peripherals Enclosure Installation Document	50295
BMP-1 Blank Module Plate Installation Document	51008
Heat Dissipation for Cabinets with Digital Audio Products	53645
Control Panels and Power Supplies	Document Number
NFS2-3030ULLD	LS10006-051NF
NFS2-640/EULLD	52741LD
NFS-320SYSULLD	52745LD
AMPS-24/E Power Supply Manual	51907
ACPS-610 Addressable Power Supply Manual	53018
Networking	Document Number
Noti•Fire•Net Manual, Network Version 5.0 & Higher	51584
High Speed Noti•Fire•Net Manual	54013
NCM-W/F Installation Document	51533
HS-NCM High Speed Network Communications Module Installation Document	54014
ONYXWorks Manual	52342
System Components	Document Number
DVC Digital Voice Command Manual	52411
DAL Devices Reference Sheet	52410
DS-DB Digital Series Distribution Board and Amplifier Manual	53622
DVC-RPU UL Listing Document	50107424-001
AA Series Audio Amplifier Manual	52526
DAA2 and DAX Amplifiers Manual	53265
SWIFT Gateway Manual	LS10036-00NF-E

Table 1.1 Related Documentation



NOTE: Supplemental information for a topic, such as tips and references.



## CAUTION:

Information about procedures that could cause programming errors, runtime errors, or equipment damage.



#### WARNING:

Indicates information about procedures that could cause irreversible equipment damage, irreversible loss of programming data or personal injury.

# 1.4 Compatibility with NOTI•FIRE•NET<sup>™</sup> Panel Nodes

FACP	Network Board
NFS2-640	NCM-W/F, HS-NCM-W/SF/MF/WSF/WMF/MFSF
NFS-320	NCM-W/F, HS-NCM-W/SF/MF/WSF/WMF/MFSF
NFS2-3030	NCM-W/F, HS-NCM-W/SF/MF/WSF/WMF/MFSF
DVC Series	NCM-W/F, HS-NCM-W/SF/MF/WSF/WMF/MFSF
NCA-2	NCM-W/F, HS-NCM-W/SF/MF/WSF/WMF/MFSF
Note: To be compatible with the	NCD, all networked nodes must be running NOTI•FIRE•NET <sup>™</sup> version
5.0 or higher or a high-speed N	OTI•FIRE•NET™.

## **1.5 General Description Conventions**

This manual uses the following conventions as listed below:

When you see	Specifies	Example
Text in small caps	The text as it appears in the Touch Screen display or on the control panel	CO ALARM CO MONITOR FIRST FLOOR GUEST ROOM
Text in quotes	A reference to a section or a touch screen menu	"Status Change" specifies the Status Change section or menu screen
Italic text	A specific document	Section 3.3, "User Login", on page 20

#### 1.6 Overview

The NCD is a Network Control Display for High Speed or Standard NFN Networks. It offers a direct connect display for stand-alone ONYX panels (version 26 or higher), and the DVC. It has a High Definition 10 inch color touch screen display, and is capable of displaying up to 3,000 simultaneous events.

#### 1.7 Features

The NCD incorporates the following features:

- List of active events organized by status, event type and event time
- Alert Bar with color coded event icons indicating the status and event counts
- Fire Alarm, CO Alarm, Supervisory, Trouble, and Disable Event Monitoring
- Panel Event Signal Silence Capability
- Color Coded Header Bar
- Touch points for Acknowledge (ACK), Silence, and Reset
- Adjustable back-light intensity
- User defined informational text
- Audio and visual feedback on touch point
- Reminder for Fire, Supervisory, CO, and Trouble
- Trouble Relay
- Event LED to indicate an off normal status on the NCD
- AC power LED to indicate primary power status
- Piezo to indicate unacknowledged events
- Tamper and Trouble inputs
- 3 USB Ports
- Lamp Test locally on NCD

## 1.8 NCD Display

The NCD has as high definition 10 inch touch screen to display system and panel events. A touch point for menu access, a Header Bar which shows color coded event status, and touch points for acknowledge, signal silence, and reset.

#### Menu/Home Button

The Menu/Home Button is always present and located on the top left of the screen. Tapping on this touch point will take the user to the menu list from the home screen or back to the home screen from any menu screen.

#### • User Login Button

The User Login Button is always present and located on the top left of the screen. Tapping on this touch point will bring the user to the login screen for individual users. For more information on User Login, refer to Section 3.3, "User Login", on page 20.

#### Header Bar

The "Header Bar" is always present and located along the top of the screen. It displays all active events, system normal, and the "Acknowledge", "Silence" and "Reset" touch points. The date and time are also displayed in the Header Bar. It provides system status as well as highest priority unacknowledged events.

#### • Instructional Text Area

The Instructional Text Area is used to provide user instruction in an off normal condition. The instructional Text can be enabled and disabled, and is fully configurable through VeriFire Tools.

#### Alert Bar

The "Alert Bar" is always present and located along the side of the screen. The Alert Bar event categories can be configured though VeriFire Tools . It shows color coded events, such as "Fire Alarm", "CO Alarm", "Supervisory" activation, "Trouble" activation, along with event counts and whether the outputs have been silenced.

#### Events List

The "Events List" (Main Display Area) shows all events and their status. It indicates if events have been acknowledged or silenced and is color coded as well as scrollable.

Menu/ Log in	Header Bar
	Instructional Text Area
Alert Bar	Events List

Figure 1.1 Display Regions

#### **Display Conditioning**

Every 30 minutes the display will enter Display conditioning mode. During Display Conditioning the display will transition through various screens including a completely blank screen. This process takes about seven seconds. It is done to prevent image persistence, and keeps information clear and undistorted. Any display interaction will abort Display Conditioning mode. Display conditioning mode will not activate if there are active alarm conditions.



**NOTE:** Display Conditioning mode is not configurable.

# **1.9 Technical Specifications**

#### Power Input: 24VDC.

**USB Ports:** USB is 2.0, USB A and USB Micro are located on the Core Board, USB C is located on the front of the NCD display. **Touch Screen Display:** 10 inch High Definition Touch Screen Display.

Current draw: 360mA in Standby. 380mA in Alarm.

Tamper and Trouble Input: Tamper and Trouble inputs.

Trouble Relay: 30VDC 2A

# **Section 2: Installation**

# 2.1 Preparing for Installation

Choose a location for the NCD that is clean, dry, and vibration-free with moderate temperature. The area should be readily accessible with sufficient room to easily install and maintain it. There should be sufficient space for cabinet door(s) to open completely.

Carefully unpack the system and inspect for shipping damage. Count the number of conductors needed for all devices and find the appropriate knockouts.

Before installing the fire alarm system, read the following:

- Review the installation precautions at the front of this manual.
- Installers should be familiar with the standards and codes specified in Section 1.1 "Standards and Specifications".
- All wiring must comply with the National and Local codes for fire alarm systems.
- Do not draw wiring into the bottom 9 inches (22.86 cm) of the cabinet except when using a separate battery cabinet; this space is for internal battery installation.

Review installation instructions in Section 2.1 "Installation Checklist".



#### WARNING: Risk of irreparable equipment damage

Make sure to install system components in the sequence listed below. Failure to do so can damage the control panel and other system components.



WARNING: Risk of irreparable equipment damage Wear a static discharge strap on wrist to prevent equipment damage.



# WARNING: ADJUSTING THE SCREEN BRIGHTNESS GREATER THAN 75% WILL REDUCE THE LIFE OF THE DISPLAY.

## 2.2 Installation Checklist

The checklist that follows contains references to information included in other manuals; see "Related Documentation" on page 7 for document part numbers.

	Task	Refer to:
1.	Mount the cabinet backbox to the wall.	Section 2.3 "CAB-4 Series Cabinet"
2.	Attach NCD to dress panel.	Section 2.5 "Dress Plate Mounting"
3.	Attach option boards (e.g. network	Refer to the Installation document for the specific device and dress plates.
	communications modules and other devices of the	
	same size) to chassis and dress plates.	
4.	Attach chassis in assembled dress plate to	Section 2.3 "CAB-4 Series Cabinet"
	cabinet.	
5.	Wire Relays	Figure 2.6
6.	Digital Voice components.	Digital Voice Control Manual, etc.
7.	Network devices.	Noti•Fire•Net Version 5.0 & Higher Manual, or High-Speed Noti•Fire•Net
		Manual and/or Installation document for specific device(s).
8.	Main power supply.	Main Power Supply Manual
		BB-100/200 Cabinet Installation Instructions.
9.	Install main power supply and batteries. Run	Applicable system and power supply manuals.
	cables to main and optional power supplies, DC	
	power outputs, relays, etc.	
	WARNING: DO NOT ACTIVATE POWER A	T THIS TIME. DO NOT CONNECT BATTERIES.
10.	Check that all mounting holes are secured to insur	e a proper Earth Ground connection.
11.	Connect wire shielding to Earth Ground.	
12.	Apply AC power to the power supply or the control	panel.
	Do NOT connect batteries until AC power is ch	ecked (see next step).
13.	Check AC power.	Power Supply manual.
14	Connect the batteries using interconnect cable as	described in power supply manual.
15.	Install the dress panels, doors and covers.	CAB-3/CAB-4 Series Cabinet Installation Document.
16.	Program the NCD.	Section 3, "Programming", on page 20
17.	Field test the system.	









# Typical Configurations for Systems Using the NCD as a Display

In this diagram, the term:

"NCM" includes standard and high-speed network communication modules.

"Noti-Fire-Net" includes standard and high-speed network versions.

#### Figure 2.1 Possible Configurations with the NCD

## 2.3 CAB-4 Series Cabinet

This section provides instructions for mounting the CAB-4 Series backbox to a wall. Follow these guidelines when mounting the backbox:

Locate the cabinet backbox on a surface that is in a clean, dry, vibration-free area. The top should be located so that all operational buttons, switches, displays, etc. are easily accessible and/or viewable to the operator - usually no more than 66 inches (1.7m.) above the floor. Allow sufficient clearance around the cabinet for the door to swing freely, and for easy installation and maintenance of equipment.

- Use the four holes in the back surface of the backbox to provide secure mounting (See Figure 2.2, "Backbox-Mounting Holes and chassis-Mounting Studs" on page 13).
- Mount the backbox on a surface that is in a clean, dry, vibration-free area.
- Mark and pre-drill holes for the top two keyhole mounting bolts.
- Select and punch open the appropriate knock-outs.
- Using the keyholes, mount the backbox over the two screws.
- Mark the location for the two lower holes, remove the backbox and drill the mounting holes.
- Mount the backbox over the top two screws, then install the remaining fasteners. Tighten all fasteners securely.
- Feed wires through appropriate knockouts.
- Install NCD and other components according to this section, before installing hinges and door (see *CAB-3/CAB-4 Series Cabinet Installation Document*).



Figure 2.2 Backbox-Mounting Holes and chassis-Mounting Studs

# 2.4 Installing the NCD on ONYX Series panels. Mounting the NCD on the NFS2-3030

NOTE: The Network Control display (NCD) must be installed in position one on the LEFT side of the CHS-MS for NFS2-3030 mounting

The NFS2-3030 CPU mounts in the CHS-M3 chassis located in the top row of the cabinet. The CPU will occupy the left half of the chassis.

When using the NCD as a primary display, the NFS2-3030 CPU will need to be remounted with shorter 1/4 inch standoffs (PN 42138) included with the NCD.

The NCD can be directly connected to the NUP port of the CPU2-3030.

When using the NCD as an alternate display on a standard Noti•Fire•Net, the panel becomes standalone and is not networkable, since there is only one NUP port available on the NCM. If the panel is on a High-Speed Noti•Fire•Net, the panel can be networked using the second NUP available on the HS-NCM.

The NFS2-3030 CPU should be installed according to Figure 2.3 to accommodate the NCD. If this is a retrofit, you will need to remove the LCD Display, Keypad, and Header Pins. The CPU will be reinstalled in slot 3.

To install the NFS2-3030 CPU do the following:

- Attach three standoffs (PN 42138) to chassis as shown in
- Slide circuit-board tabs into slot 3 on the chassis.
- Place the board over the stand-offs so that mounting holes line up with those on the chassis. Secure all stand-offs with screws provided.
- The NCD will be mounted to the dress plate, see "Dress Plate Mounting" on page 16 for more information.





# 

IT IS CRITICAL THAT ALL MOUNTING HOLES OF THE NETWORK CONTROL DISPLAY (NCD) AS WELL AS THE NFS2-3030 CPU ARE SECURED WITH GROUNDING SCREWS AND STANDOFFS TO INSURE CONTINUITY OF EARTH GROUND.

#### 2.4.1 Using the NCD as Primary Display on the NFS2-640 and NFS-320SYS

The NCD can be directly connected to the NUP port of the CPU2-640 or the NFS-320SYS

The NFS2-640/E and NFS-320SYS can be set up to use the NCD as the primary display.

When the NCD is used as the primary display, the KDM-R2 needs to be removed.

When using the NCD as an alternate display for the NFS2-640 or NFS-320SYS on a standard Noti•Fire•Net, the panel becomes standalone and is not networkable, since there is only one NUP port available on the NCM. If the panel is on a High-Speed Noti•Fire•Net, the panel can be networked using the second NUP available on the HS-NCM.

The NCD can only be mounted on the left side of the DP-GDIS1 dress plate, Refer to "Dress Plate Mounting" on page 16 for NCD mounting.

**NOTE:** If the NFS2-640/E, or NFS-320SYS and NCD are being used as a stand-alone pair, each device must be programmed using VeriFire Tools. Connect the VeriFire Tools PC to NFS2-640 or NFS-320SYS using USB B Port J3 and program as described in VeriFire Tools on-line help.

NOTE: For older PCs without USB connectors, NFS2-640/E, or NFS-320SYS and NCD must be temporarily disconnected and separately programmed, because VeriFire Tools also uses the network/service port. Follow VeriFire Tools instructions for off-line programming mode.

#### NFS-320SYS and NFS2-640 Mounting

The Network Control Display (NCD) can only be installed in the LEFT mounting position on the dress plate DP-GDIS1



Top view of the NFS2-640 and the NFS-320SYS with NCD and Option boards installed.



Figure 2.4 Installing the NCD on the NFS2-640 and the NFS-320SYS

## 2.5 Dress Plate Mounting

Refer to Figure 2.5 for information on mounting the NCD to the DP-GDIS1 (for row A of the CAB-4 Series Cabinet) or DP-GDIS2 (for rows B-D of the CAB-4 Series Cabinet).

- Locate the four mounting studs on the dress plate.
- Locate the two ground screw standoffs on the dress plate.
- Line up mounting holes on the NCD with the mounting studs on the dress plate with the screen facing out.
- Secure the NCD to the dress plate using the four #4-40 nuts to fasten the NCD to the dress plate.
- Install Ground Screws on the dress plate using two #6-32 screws.

NOTE: It is important to secure ground screws on both the Core (top) and DIM (bottom) board for proper operation.



Figure 2.5 Dress Plate Mounting

# 2.6 Board Layout and Wiring Requirements



Figure 2.6 Board Layout and Wiring Requirements

WARNING: DO NOT CONNECT OR DISCONNECT THE OCULINK CABLE BETWEEN THE CORE AND DIM BOARDS (UPPER AND LOWER BOARDS) WHILE POWER IS APPLIED TO PREVENT SYSTEM DAMAGE.

Designator	Connection	Wire Connections
TB1 REQUIRED	Alt 24 Volt Power	Pin 1 = IN+ Pin 2 = IN- Pin 3 = OUT+ Pin 4 = OUT-
TB2	Trouble Relay	Pin 1 = Normally Open Pin 2 = Normally Closed Pin 3 = Common
J10	NUP Connection	Keyed
J11	USB A	N/A
J12	USB Micro	N/A
J7	Trouble Input	
J8	Tamper Input	
J9	Future Use	Future Use
ТВЗ	Future Use	Future Use
ТВ4	Future Use	Future Use
TB5	Future Use	Future Use



NOTE: 24VDC is required to power the NCD (TB1 located on the NCD).

#### **Ground Screw Locations**

Ground screws are located at the center top and bottom center on the front of the NCD. It is important to secure each screw to maintain proper grounding. See Figure 2.7



Figure 2.7 Ground Screw Locations

#### **Event Indicator Locations**

There are two LED indicators located on the bottom right of the NCD front panel. A power LED to indicate if A/C is present, and an off normal LED for any off normal condition. See Figure 2.8



Figure 2.8 LED Locations

#### Piezo Enable/Disable

To enable the Piezo, position SW16 in the UP position. To disable the Piezo, position SW16 in the DOWN position.

When the Piezo is disabled the NCD will display a trouble condition until it is re-enabled. See Figure 2.9



Figure 2.9 Piezo Enable/Disable

# **Section 3: Programming**

This section describes the programing options for the NCD

## 3.1 USB Port C

There is an available USB port located on the front panel of the NCD, see Figure 3.1. This USB port can be used to conveniently connect to the VeriFire Tools PC.



Figure 3.1 USB C

## 3.2 Password Requirements

When power is first applied, the NCD will prompt the user to change the password. A trouble message stating CHANGE THE PASSWORD will be displayed. The master password can only be set through the NCD display.

The password guidelines are as follows: Passwords must be 8 to 16 characters, which can be a combination of alpha-numeric upper and lower case characters and numbers. The password does not have a minimum of character types and is case sensitive

## 3.3 User Login

The USER LOGIN touch point is always present and located in the upper left hand corner of the screen. This option allows the user to create and manage up to 50 unique password protected user accounts on the NCD. This login will allow access for various programing options and programming levels on the NCD.

#### 3.3.1 Adding and Removing a User

A user name cannot exceed 16 alpha numeric characters. **Adding a User** 

- At the main menu tap on the touch point SETTINGS and then USERS
- In the users menu tap on ADD USER. The screen will prompt you to create a user name and a unique password for that user name.
- The virtual keyboard will appear
- Once a user name and password has been entered tap on ADD USER to save the information

#### **Removing a User**

- At the main menu tap on the touch point SETTINGS and then USERS
- In the users menu tap on the REMOVE USER touch point
- The virtual keyboard will appear enter the user name to be removed then tap on REMOVE USER



Figure 3.2 User Login Screen

#### 3.3.2 Changing Password and Recovering a Password

The user has the ability to change and recover the password in the User Login screen.

#### Changing the Tue 01/22/18 X P 02:38:06PM System Normal Password 8 Master Ack Silence Reset • At the main menu tap Menu - > Settings - > User Accounts on the touch point 6 SETTINGS and then **FIRE ALARM** < User Accounts USERS Current user access level 5 ≋ Once in the user menu tap on CHANGE CO ALARM Add User Username .... PASSWORD 働 **Remove User** The virtual keyboard New will appear and SUPERVISORY Password **Change Password** prompt to enter the A Re-enter Change Password user name to change Password TROUBLE the password Enter the new 0 password 0 DISABLE Tap on CHANGE ... PASSWORD to save the new password OTHER SHIFT **Recovering a Master** SIGNALS ?123 Enter Password SILENCED Figure 3.3 Password Screen

- At the main menu tap on SETTINGS and USERS
- Once in the users menu tap on RECOVER PASSWORD and then tap on GENERATE RECOVERY CODE
- · Record the code and contact NOTIFIER Technical Support
- Once the temporary password has been received and entered into the panel the master password must be changed..
- The temporary password is only active for five days. Once it expires the recovery process must be re-initiated.

#### 3.3.3 Levels of Programing Access for Users on the NCD

There are four access levels (1-4) that can be assigned to 49 of the 50 programmable users. Additionally there is a master user whose access level is fixed at level five (5). Only one level five user allowed. Refer to Table 3.1 for default information on user level capabilities. Through the user setup screen Actions defaulted to YES can be changed to NO. This applies to user levels 4 though 1.

#### **User Level Permissions**

- Master User (level 5 user)
- A Level 4 user can be programmed to be logged in by default if there are no other users logged in. There is no default user name for Level 4
- A Level 3 user can be programmed to be logged in by default when there is no other user logged in. There is no default name for Level 3
- A Level 2 user can be programmed to be logged in by default when there in no other user logged in The default user name is set at "General Access"
- A Level 2 user can also be programmed to be logged in via a key-switch wired to the back of the panel. The default user name is set at "Key-switch Access"
- A Level 1 user can be programmed to be logged in by default when there is no other user logged in. The default user name is set at "Public Access"

\*All user names can be customized to a unique user name in VeriFire Tools.

Action	Master (Level 5)	Level 4	Level 3	General Access (Level 2)	Public Access (Level 1)
Acknowledge	Yes	Yes	Yes	Yes	Yes
Signal Silence	Yes	Yes	Yes	Yes	Yes
Reset	Yes	Yes	Yes	Yes	Yes
Enable/Disable	Yes	Yes	Yes	Yes	No
Change Password	All Users	Individual Level 4 All Level 3 and 2	Individual Level 3 All Level 2	Individual Level 2	N/A
Read Status	Yes	Yes	Yes	Yes	Yes
Force ON/OFF	Yes	Yes	Yes	Yes	No
Upload Database	Yes	Yes	No	No	No
Download Database	Yes	Yes	No	No	No
Change Time/Date	Yes	Yes	Yes	No	No
Set Network Configuration	Yes	Yes	No	No	No
Ability to Revoke Other Users	Yes	No	No	No	No
View General History	Yes	Yes	Yes	Yes	Yes

#### Table 3.1 User Level Programming Capabilities

# 3.4 Menu Navigation

The MENU touch point is always present and located in the upper left hand corner of the screen. Tap this touch point to bring up the menu options for settings, programming and test/diagnostics. The MENU screen navigation is not accessible when there are current unacknowledged active events. An incoming alarm will automatically exit the MENU screen to the Events List.

**Settings** Tap the SETTINGS touch point to access the settings menu. This menu provides access to display settings, brightness clean mode, hardware version, software version, user accounts, and about. Refer to section 3.4.1, "Settings"

**Programming** Tap the PROGRAMMING touch point to enter the programming menu. This menu provides access to network programming. Refer to "Programming" on page 25.

**Custom Actions** Only programmable though VeriFire Tools. Refer to"Custom Actions" on page 28 as well as VeriFire Tools.

Test/Diagnostics Tap the TEST/DIAGNOSTICS touch point to enter the test/diagnostics menu. This menu provides access to Lamp Test and CPU temperature along with panel the history view.

# 3.4.1 Settings

Tapping the SETTINGS touch point on the Menu screen will display the Settings options on the NCD.

Display Tap on the DISPLAY touch point to adjust brightness or enter clean mode. Refer "Display" on page 24

About Tap the ABOUT touch point to display information about the panel. Refer to "About" on page 24

**User Accounts** Tap the users touch point to access the user menu Refer to"Users" on page 24 and "User Login" on page 20

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<b>=</b> A	System Normal			Silence	<b>↓</b> Reset	Tue 01/22/18 02:38:06PM Master
FIRE ALARM	Menu -> Settings					
CO ALARM	DISPLAY	ABOUT		U	SER ACCO	DUNTS
SIGNALS SILENCED						



ھ ≡	System Normal		Ack	Silence	Reset	Tue 01/22/18 02:38:06PM Master		
٨	Menu					,		
FIRE ALARM	SETTINGS	Clean Mode, Display Bright Versions, User Accounts	Clean Mode, Display Brightness, Hardware Versions, Software Versions, User Accounts					
CO ALARM	PROGRAMMING	Network Mapping, Node Ac	ddress			>		
	TEST/DIAGNOSTICS	Circuit Board Temperature,	, CPU Temp	erature, Lar	np Test, Hi	story >		
	CUSTOM ACTIONS	Custom Actions				>		
0								
DISABLE								
OTHER								
SIGNALS SILENCED								
Figure 3.4 System Normal Screen								

#### Display

Tap the DISPLAY touch point to access the back-light brightness setting, wallpaper settings and clean mode.

**Brightness** Tap and hold the slide touch point to adjust the back-light brightness. Setting the display brightness above 75% for prolonged periods of time will decrease the overall life of the display.

**Clean mode** Tap the touch point CLEAN to activate clean mode. Once activated, clean mode disables the touch response to allow for cleaning of the screen. A count-down timer is displayed providing indication of time left before the system exits Clean Mode. The Clean Mode countdown timer is programmable through VeriFire Tools and defaulted to 15 seconds. Refer to the VeriFire Tools for additional information.

**Wallpaper** A Wallpaper image can be downloaded from VeriFire Tools, to be displayed on the System Normal screen.

≡   ∧	System Normal	Ack	Silence	Reset	Thu 2/22/18 1:38:06PM
FIRE ALARM	Menu -> Settings -> Display           Settings -> Display           Brightness           Move the slider to increase/decrease the screen brightness.			41	
SUPERVISORY	Clean Mode Tap the CLEAN button to temporarily disable touch screen respo cleaning of the screen	nses to allow			CLEAN
SIGNALS SILENCED	Figure 3.6 Display	Scree	n		

**NOTE:** It is recommended to use only a dry clean, lint free/microfiber cloth to clean the display. If additional cleaning is needed, apply a small amount of Isopropyl alcohol to the cloth and wipe clean. Do not use detergents, solvents, or water for cleaning. Do not spray liquid directly onto the display.



# CAUTION: SETTING THE DISPLAY BRIGHTNESS ABOVE 75% FOR PROLONGED PERIODS OF TIME WILL DECREASE THE OVERALL LIFE OF THE DISPLAY.

**About** Tap the touch point ABOUT to display the model number, application, boot version, kernel version, database, database revision, network, and system update information.

System Update Tap the touch point SYSTEM UPDATE to access application, kernel, full system, and wallpaper update capabilities. To update the application tap the touch point UPDATE APPLICATION. To update the kernel tap the touch point UPDATE KERNEL. To update the full system tap the touch point UPDATE FULL SYSTEM. To update the wallpaper tap the touch point UPDATE WALLPAPER. For all updates the virtual keyboard will appear once the selected update is tapped on, tap in the file name to update and then tap the touch point PREFORM UPDATE to complete the update. Updates can be done from a file on a USB drive connected to the panel.

**Users** Tap the touch point USERS to add or remove a user, change the password for a user account, or recover a password for a user account.

۹	System Normal	- Ack	Silence	Reset	Tue 01/22/18 02:38:06PM Master
6	Menu -> Settings -> About				
FIRE ALARM	< About				
≈	System Update				
CO ALARM	Model				
⊕	NOTIFIER NCD				
SUPERVISORY	Application				
A	Version: 1.000.226 Date: 9/01/2016 Time: 11:12AM				
TROUBLE	Boot				
$\oslash$					
DISABLE					
	Kernel				
OTHER	Unknown				
	Database				
SIGNALS SILENCED	Version: 1.000Date: 9/01/2016 Time: 11:12AM				

#### Figure 3.7 About Screen

# 3.4.2 Programming

Tapping the PROGRAMMING touch point on the menu screen will display the programming options menu.

**Network** Tap the NETWORK touch point to display the Network options for the NCD.

۸ =	System Normal	Ack	Silence	Reset	Thu 2/22/18 1:38:06PM
6	Menu - > Programming				
FIRE ALARM	Programming				
CO ALARM	NETWORK				
SUPERVISORY					
A					
TROUBLE					
0					
DISABLE					
OTHER					
SIGNALS SILENCED					

#### Figure 3.8 Programming Screen

**Node Number** Displays the network node number for the NCD. If there is no network, the node number will be zero.

**Network Mapping** Displays the network nodes the system is monitoring. See Section 3.4.3 on page 26 for more information on mapping.

۹	System Normal	Ack	<b>X</b> Silence	<b>↓</b> Reset	Thu 2/22/18 1:38:06PM
6 FIRE ALARM	Menu -> Programming -> Network				
≈ CO ALARM	Node Number The network node number for this panel. When the panel is not cor network, the network node number is zero.	nnected to	o a	50	
SUPERVISORY	Network Mapping				
A TROUBLE	Tap the MAPPING button to view the network nodes that this pane monitoring along with the type(s) of mapping speci?c to each node	lis e.		MAPPING	
Ø					
DISABLE					
OTHER					
SIGNALS SILENCED					

Figure 3.9 Network Screen

# 3.4.3 Mapping

Tapping the MAPPING touch point on the Network Setting screen will display the Network Mapping options for the NCD.

**View** Tap the touch point VIEW to display the menu view options for the network nodes connected to the NCD.



Figure 3.10 Mapping View Screen

#### All Online Nodes.

Allows the user to view all nodes that are on-line and will indicate whether or not they are mapped nodes. It allows the user to view what panel the node is mapped to, and what node number it is assigned to.

#### Mapped Nodes

Allows the user to view all mapped nodes on a system. It will show the node number and what panel it is assigned to.

**Unmapped Nodes** Allows the user to view all unmapped nodes on a system. It will show the node number and what panel it is assigned to.

≡ ∧	Systen	Ack	Silence	Reset	Thu 2/2 1:38	22/18 :06PM	
6	Menu -> Programming -	> Network - > Mapping			_		
FIRE ALARM	< Mapping	- Mapped Nodes (2	2)			VIEW	
≈ CO ALARM	Node:025	2017ADC - NFS2-3030		All Or	nline No	odes	
⊕	NF52-3030	Mapped for: Events, Dritt		<b>√</b> Mapp	ed Noo	des	
	Node:050 (This Node)	NCD Prototype Mapped for: Events, Drill		Unma	apped I	lodes	
TROUBLE							
$\oslash$							
DISABLE							
•••							
OTHER							
SIGNALS SILENCED							

Figure 3.11 Mapping Screen

Tapping on the Test/Diagnostics touch point on the menu screen will display diagnostic and lamp test options for the NCD.

Lamp Test Tap the LAMP TEST touch point to turn on all pixels on the screen. This will illuminate the entire screen as well as the AC Power and Off Normal LED for approximately four seconds. During this time a tone will sound. A black spot on the screen will indicate that a pixel is out.



Figure 3.12 Test/Diagnostics Screen

**Diagnostics** Tap the DIAGNOSTICS touch point allows the user to view the Circuit Board temperature and the CPU temperature. It displays the highest circuit board temperature and the highest CPU temperature, each may be reset by tapping on them. The user will be prompted to tap RESET to reset the readings.

**History** Tap the HISTORY touch point allows the user to view the panel history as well as the network history. History views may also be filtered. Tap on the touch point FILTER. A touch point for SEARCH and CLEAR will appear along with a virtual keyboard Tap in a date under date range to search a specific date range. Tap in a keyword in the CONTAINS TEXT section to search the history for particular text. To clear a search tap the touch point CLEAR. Tap on the EXCLUDE BACKGROUND ACTIVATIONS check box to select that feature. Tap again to clear the field.

≡ ۸	System Normal	Ack	Silence	Reset	Thu 2/22/18 1:38:06PM
♦ FIRE ALARM ≈	Menu -> Test/Diagnostics -> Diagnostics		<u> </u>	<u> </u>	
CO ALARM	Circuit Board Temperature The current temperature of the main circuit board in this panel			86.9 ° 30.5 °	°F C
	CPU Temperature The current temperature of the central processing unit (CPU) in this p	panel.		131.3 55.2 °	°F C
Ø DISABLE					
OTHER					
SIGNALS SILENCED					

Figure 3.13 Diagnostics Screen

# 3.6 Custom Actions

Custom Actions are virtual buttons that can be mapped and employed to manually control common system commands such as enable/disable points. Custom Actions are completely programmable and can be user defined within VeriFire Tools.

**Disable Points/Functions** To disable a group of points, special functions, or zones tap on the touch point CUSTOM ACTIONS, select the point to disable and tap on the touch point DISABLE. The ENABLE touch point will be grayed out if the point is enabled.

**Enable Points/Functions** To enable a group of points, special functions or zones from the main menu tap on the touch point CUSTOM ACTIONS, select the group of points to enable and tap on touch point ENABLE. The DISABLE touch point will be grayed out if the group of points is disabled and there will be a trouble message on the panel stating which point is disabled.

**Turn ON/OFF points** To turn ON or OFF a group of points from the main menu tap on the touch point CUSTOM ACTIONS, select the point to turn ON/OFF and tap on either TURN ON or TURN OFF. One will be grayed out depending on whether the point is ON or OFF.

= ~	System	No	rma	al		Ack		Silence	Reset	Tue 01/22/18 02:38:06PM Master
6	Menu - > Custom									
FIRE ALARM	< Custom A	ction	s							
≈ CO ALARM	Disable N210	0%	0%	0%	ENA	BLE	DIS	ABLE		
•	Detectors Modules	Trouble	Disable	Active						
SUPERVISORY	Disable N210	0%	0%	0%	ENIA					TUDN OFF
A	Zones	Trouble	Disable	Active	ENA	DLC		DADLE		TORNOFF
TROUBLE	- N210Z1	Δ	$\oslash$	•						
$\oslash$	- N210Z10		$\oslash$							
DISABLE	- N210Z100		0	•						
	- N210Z200	<u> </u>	0	•						
OTUED	- N210Z300	<u> </u>	0	<u> </u>						
UITER	- N210Z400	<u>A</u>	0	<u>+</u>						
SIGNALS	- N2102500	<u>A</u>	0	+						
SILENCED	- NZTUZ600	A.	0	- T						



NOTE: The maximum number of actions that can be preformed at one time is eight (8)



# Notes

# **Section 4: Operation**

This section describes the NCD operation and how events are portrayed.

EVENT	SYMBOL	DISPLAY INDICATION
Fire Alarm	6	Fire Alarm is indicated in RED
CO Alarm	*	CO Alarm is indicated in BLUE
Supervisory	<b>4⊞</b> ⊳	Supervisory is indicated in YELLOW
Trouble	A	Trouble is indicated in YELLOW
Disabled Point	0	Disabled Point is indicated in YELLOW
Other Event	()	Other is indicated as the highest priority that is not categorized.
	Table 4.1 Event Symbo	ls

## 4.1 Fire Alarm

An active FIRE ALARM will display as follows on the NCD:

- Produce a steady audible tone
- FIRE ALARM appears in the Header Bar
- FIRE ALARM illuminates in the Alert Bar as a red color indicator and provides fire event counts
- Illuminates the yellow Off Normal Event LED
- Displays FIRE ALARM and specific device information in the Events List
- Displays information on how to react to the event in the Instructional Text Area
- Latching events must be corrected and a Reset performed to clear the alarm state from the NCD

 $\checkmark$ 2 P Thu 2/22/18 **FIRE ALARM** ≡ 8  $\mathbf{E}$ 1:38:06PM Ack Silence Reset 1 Step 1 Acknowledge each event. This is secondary text to explain what acknowledging an event means and who should do it. ٠ FIRE ALARM SUNACKNOWLEDGED FIRE ALARMS (1) Thu 02/22/18  $\approx$ FIRE ALARM Third Floor, Storage Room 1:45:57 PM CO ALARM MONITOR Zone Z001 (Z001) N025L01M026 働 SUPERVISORY A TROUBLE 0 DISABLE ... OTHER SIGNALS SILENCED

Figure 4.1 Fire Alarm Event Screen

#### 4.1.1 Responding to a Fire Alarm

To acknowledge the event and silence the NCD sounder, do the following:

- The Informational Text Area on the screen will indicate step by step how to acknowledge and silence the event.
- Tap on the ACKNOWLEDGE touch point located in the Header Bar, which will be highlighted in blue. A check mark will appear next to the acknowledged event. ACKNOWLEDGE will need to be tapped for each Fire Event. Block Acknowledge is not available. Once all the events have been acknowledged, the blue highlight indicator will move from the ACKNOWLEDGE touch point to the SILENCE touch point.
- Tap on the SILENCE touch point located in the Header Bar. The SILENCE icon in the Alert Bar will illuminate blue once the NCD has silenced and all silenceable outputs will turn off.
- Investigate and correct the condition that activated the Fire Alarm.
- Once the NCD has been silenced the blue highlight indicator will move from the SILENCE touch point to the RESET touch point.
- Tap the RESET touch point located in the Header Bar to return the NCD to normal operations.

#### 4.2 Carbon Monoxide Alarm

An active Carbon Monoxide X Alarm will display as follows P Thu 2/22/18 ≈ CO ALARM Ξ 8 1:38:06PM on the NCD: Ack Silence Reset Produces a pulsed Step 1 Acknowledge each event. This is secondary text to explain what acknowledging an event means and who should do it. 6 audible tone. FIRE ALARM ≈ UNACKNOWLEDGED CARBON MONOXIDE ALARMS (1) CO ALARM appears in the Header Bar. [ 1 Thu 02/22/18 CO ALARM First Floor, Guest Room CO ALARM illuminates in 1:52:57 PM  $\approx$ CO ALARM CO MONITOR Zone Z115 (Z115) N025L01M011 the Alert Bar as a blue color indicator and 曲 provides CO event SUPERVISORY counts. Illuminates the vellow A Off Normal LED. TROUBLE Displays CO ALARM and 0 specific device information in the Events DISABLE List. ... Displays information on how to react to the event OTHER in the Instructional Text SIGNALS Area. SILENCED Latches the NCD in CO Alarm. Figure 4.2 CO Alarm Event Screen

#### 4.2.1 Responding to a Carbon Monoxide Alarm

To acknowledge the event and silence the NCD sounder do the following:

- The Informational Text Area on the screen will indicate step by step what needs to be done to acknowledge and silence the event.
- Tap on the ACKNOWLEDGE touch point located in the Header Bar. The ACKNOWLEDGE touch point will be highlighted in blue. A check mark will appear next to the acknowledged event. Once all the events have been acknowledged the blue highlight indicator will move from the ACKNOWLEDGE touch point to the SILENCE touch point.
- Block Acknowledge allows for multiple events to be acknowledged at once.
- Tap on the SILENCE touch point located in the Header Bar. The SILENCE icon in the Alert Bar will illuminate blue once the NCD is silenced all silenceable outputs will turn off.
- Investigate and correct the condition that activated the CO Alarm point.
- Once all events on the NCD have been silenced the blue highlight indicator will move from the SILENCE touch point to the RESET touch point.
- Tap the RESET touch point located in the Header Bar to return the NCD to normal operations.

# 4.3 Supervisory Activation

A Supervisory activation will display as follows on the NCD.

- Produces a warbling audible tone.
- SUPERVISORY appears in the Header Bar.
- SUPERVISORY illuminates on the Alert Bar as a yellow color indicator and provides Supervisory event counts.
- Illuminates the yellow off normal LED.
- Displays SUPERVISORY and specific device information in the Events List.
- Displays information on how to react to the event in the Instructional Text Area.

ш						
	ھ ≡		Ack	Silence	Reset	Thu 2/22/18 1:38:06PM
	٨	Step 1 Acknowledge each event. This is secondary text to explain w	hat acknowledgir	ng an event m	eans and wl	ho should do it.
in	FIRE ALARM	UNACKNOWLEDGED SUPERVISORY (1)				
rt	<b>≈</b> CO ALARM	SUPERVISORY First Floor, Guest LATCH SUPERV Zone Z392 (Z392	Room 2)			Thu 02/22/18 1:52:57 PM N025L01M011
	• 1					
	SUPERVISORY					
,	A					
_	TROUBLE					
(	0					
	DISABLE					
on						
ent	OTHER					
xt	SIGNALS SILENCED					

Figure 4.3 Supervisory Event Screen

## 4.3.1 Responding to a Supervisory Activation

To acknowledge the event and silence the NCD sounder do the following:

- The Informational Text Area on the screen will indicate step by step what needs to be done to acknowledge and silence the event.
  Tap on the ACKNOWLEDGE touch point located in the Header Bar. The ACKNOWLEDGE touch point will be highlighted in blue. A check mark will appear next to the acknowledged event.
- Tap on the SILENCE touch point located in the Header Bar. The SILENCE icon in the Alert Bar will illuminate blue once the NCD is silenced. All silenceable will turn off.
- BLOCK ACKNOWLEDGE allows for multiple events to be acknowledged at once.
- Investigate and correct the condition that activated the Supervisory point.
- Once all the events have been acknowledged the blue highlight indicator will move from the ACKNOWLEDGE touch point to the SILENCE touch point.
- For a non- latching event, the NCD will return to normal once the supervisory condition is corrected.
- For a latching event, tap on the RESET touch point located in the Header Bar to return the NCD to normal.

# 4.4 Trouble Event

A System Trouble, Point Trouble, electrical or mechanical fault will display as follows on the NCD if no higher priority unacknowledged events exists on the system.:

- Produces a pulsed audible tone.
- Turns on the Trouble Relay.
- TROUBLE appears in the Header Bar.
- TROUBLE appears in the Alert Bar as a yellow color indicator and provides Trouble event counts.
- Flashes the Event LED yellow.
- Displays TROUBLE and specific device information in the Events List.
- Displays information on how to react to the event in the Informational Text Area.

= ∧	<b>A</b> TROUBLE			Silence	Reset	Thu 2/22/18 1:38:06PM					
6	Step 1 Acknowledge each event. This is se	Step 1 Acknowledge each event. This is secondary text to explain what acknowledging an event means and who should do it.									
FIRE ALARM	A UNACKNOWLEDGED TR	DUBLES (1)									
<b>≈</b> CO ALARM	TROUBLE-Open Circuit TROUBLE MON	First Floor, Guest Roo	m			Thu 02/22/18 1:52:57 PM N025L01M011					
TROUBLE											
OTHER											
SIGNALS SILENCED											

Figure 4.4 Trouble Event Screen

**NOTE:** If an unacknowledged, higher priority event exists, the NCD will retain the indications of the higher priority event, such as the LED, audible tone, etc. The Trouble Relay, and flashing event LED will still react at the time of the event

## 4.4.1 Responding to a Trouble Event

To acknowledge the event and silence the NCD sounder do the following:

- The Informational Text Area on the screen will indicate step by step what needs to be done to acknowledge and silence the event
   Tap on the ACKNOWLEDGE touch point located in the Header Bar. The ACKNOWLEDGE touch point will be highlighted in blue. A check mark will appear next to the acknowledged event.
- BLOCK ACKNOWLEDGE allows for multiple events to be acknowledged at once.
- Tap on the SILENCE touch point located in the Header Bar the silence icon in the Alert Bar will illuminate blue once the NCD is silenced.
- Investigate and correct the condition that initiated the trouble condition.
- Once all the events have been acknowledged the blue highlight indicator will move from the ACKNOWLEDGE touch point to the SILENCE touch point.

# 4.5 Disabled Point

When a system point is disabled it will display as follows on the NCD:

- Produces a pulsed audible sound.
- Turns on the trouble Relay.
- DISABLED appears in the Header Bar.
- DISABLED illuminates in the Alert Bar as a yellow icon and indicated device event count.
- Illuminates the yellow off normal LED.
- Displays DISABLED and specific point information in the Screen Area.
- Displays information on how to react to the event in the Informational Text Area.

۹ 🛋	ØDISABLED	<b>↓</b> Reset	Thu 2/22/18 1:38:06PM								
6	tep 1 Acknowledge each event. This is secondary text to explain what acknowledging an event means and who should do it.										
FIRE ALARM	OUNACKNOWLEDGED DISABLES (1)										
<b>≈</b> CO ALARM	DISABLED DISABLE MON Third Floor, Storage Room	Thu 02/22/18 1:35:57 PM N025L01M023									
⊕											
SUPERVISORY	-										
A											
TROUBLE											
0 1											
DISABLE											
OTHER	-										
SIGNALS SILENCED											

Figure 4.5 Disabled Screen

NOTE: If an unacknowledged, higher priority event exists, the NCD will retain the indications of the higher priority event, such as the LED, audible tone, etc. The Trouble Relay, flashing event LED will still react at the time of the event

## 4.5.1 Responding to a Disabled Point

To acknowledge the disabled point and silence the NCD sounder do the following:

- The Informational Text Area on the screen will indicate step by step what needs to be done to acknowledge and silence the event.
- Tap on the ACKNOWLEDGE touch point located in the Header Bar. The acknowledge touch point will be highlighted in blue. A check mark will appear next to the acknowledged event.
- BLOCK ACKNOWLEDGE allows for multiple events to be acknowledged at once.
- Tap on the SILENCE touch point located in the Header Bar. The SILENCE icon in the Alert Bar will illuminate blue once the NCD is silenced.
- Enable the disabled point.
- Once all the events have been acknowledged the blue highlight indicator will move from the ACKNOWLEDGE touch point to the SILENCE touch point.

# 4.6 Other: Events that are listed as Other are as follows:

Events listed as Other are as follows:

- CO Pre-Alarm (blue).
- Critical Processes (yellow).
- Security (blue).
- Pre-Alarm (red).
- Hazard/Weather Alert (Yellow).

When more than one of these conditions have been activated they will be listed in order of priority. CO-Pre Alarm will be listed first, followed by Critical Processes, Security, Pre-Alarm and Hazard/Weather Alert.

= A	SECURITY ALARM	.8 M
6	Step 1 Acknowledge each event. This is secondary text to explain what acknowledging an event means and who should do it.	
FIRE ALARM	UNACKNOWLEDGED SECURITY ALARMS(1)	
<b>≈</b> CO ALARM	SECURITY ALARM First Floor, Guest Room Thu 02/22/1 SECURITY L Zone Z553 (Z553) N025L01M01	8 1
	-	
A TROUBLE		
0		
DISABLE 1 OTHER		
SIGNALS SILENCED		

Figure 4.6 Other Event Screen

## 4.6.1 Responding to an Other event.

To acknowledge an Other event and silence the NCD sounder do the following:

- The Informational Text Area on the screen will indicate step by step what needs to be done to acknowledge and silence the event.
- Tap on the ACKNOWLEDGE touch point located in the Header Bar. The acknowledge touch point will be highlighted in blue. A check mark will appear next to the acknowledged event.
- BLOCK ACKNOWLEDGE allows for multiple events to be acknowledged at once.
- Tap on the SILENCE touch point located in the Header Bar. The SILENCE icon in the Alert Bar will illuminate blue once the NCD is silenced.
- Once all the events have been acknowledged the blue highlight indicator will move from the ACKNOWLEDGE touch point to the SILENCE touch point.
- Tap RESET for an latched event.

# Notes

## Section 1 Operating Information

#### Normal Standby Operation.

- 1. System Normal indicated on the Header Bar.
- 2. Green POWER LED lit steadily.
- 3. No Red FIRE ALARM indication.
- 4. No Blue CO ALARM indication.
- 5. No Yellow SUPERVISORY, TROUBLE, DISABLE, OTHER or SIGNALS SILENCED indications.

#### Alarm Condition.

- 1. Red FIRE ALARM, Blue CO ALARM, and/or Yellow OTHER indication(s) on the touch screen display.
- 2. Alarm signaling devices activated.
- 3. Alarm information is visible on the touch screen display

#### Pre-Alarm Condition.

**Alarm Reset.** After locating and correcting the alarm condition, reset the control panel by tapping the RESET touch point.

**Trouble Condition.** Activation of trouble signal under normal operation indicates a condition that requires **immediate** attention. Contact your local service representative. Silence the audible signal by tapping the ACK touch point. The trouble indication will remain on the NCD till the trouble is cleared.

#### **Section 2 NCD Touch Point Functions**

**ACK (ACKNOWLEDGE).** This silences the piezo sounder, steadies the flashing event on the header bars, and changes each condition to Acknowledged. If more than one event exists, it advances the display to the next item and displays it until ACKNOWLEDGE is tapped again. Only one tap is necessary for non-fire, trouble, or supervisory signals. Fire alarms require one tap for each activation.

**SILENCE.** The SILENCE touch point turns off all silenceable circuits and illuminates the SIGNALS SILENCED indicator on the Alert Bar. A subsequent alarm will then resound the system.

**RESET.** Resets the NCD in standalone applications. Resets the associated panel when enabled in network applications.

**LAMP TEST.** A Lamp Test can be performed via the Test/Diagnostics option on the NCD. Press the Menu option and select Test/Diagnostics. Tap the LAMP TEST touch point to turn on all pixels on the screen, sound the piezo, and illuminate the Power and Off Normal Event LEDs for four (4) seconds.

#### **Section 3 Event Indicators**

**Fire Alarm.** Red indication that flashes on the Alert Bar when one or more alarms occur. Illuminates steadily after alarms are acknowledged, and turns off when RESET is pressed after the alarm(s) clear.

**CO Alarm.** Blue indication that flashes on the Alert Bar for a CO alarm. Illuminates steadily after alarms are acknowledged, and turns off when RESET is pressed after the alarm(s) clear.

**Supervisory.** Yellow Indication that flashes on the Alert Bar when a Supervisory or Tamper condition occurs, such as a sprinkler valve tamper condition. The indication illuminates steady after conditions are acknowledged, and turns off when the conditions are cleared. A Tamper indication will latch until RESET is pushed. RESET is required for any latched event.

**Security.** A blue indication flashes on the Alert Bar when a security activation occurs. Illuminates steadily after acknowledge is pressed, and turns off when the security activation is cleared. RESET is required for any latched event.

**Trouble.** Yellow indication that flashes on the Alert Bar when one or more troubles occur. Illuminates steadily when ACKNOWLEDGE is pressed, and turns off when all trouble conditions are cleared.

**Disable.** Yellow indication that flashes on the Alert Bar when one or more points are disabled. The display will indicate which points have been disabled. Turns off when points are re-enabled.

**Other Event.** Yellow indication that flashes on the Alert Bar when a Critical Process or Hazard /Weather Alert occurs . When a CO Pre-alarm occurs, indication flashes blue, and a Pre-alarm indication will flash red. Illuminates steady when Acknowledge is pressed, and turns off when the condition is cleared.

**Signals Silenced.** Yellow indication that illuminates after SIGNALS SILENCED has been pressed. Turns off when RESET is pressed.

#### Section 4 LED Indicators

**Power.** Green LED which illuminates when primary power is applied to the NCD.

**Off Normal.** Yellow LED which illuminates when any off normal event is present on the NCD.

#### Section 5 NCD Audible Sounder

Alarm. A continuous sounding tone.

Trouble, Disable, Pre-alarm. One beep per second.

CO-Alarm. Four beeps per second.

Supervisory. Four beeps per second.

**Security.** Eight beeps per second.

Other Event. Four beeps per second.

#### **Section 6 Periodic Testing and Maintenance**

To ensure proper and reliable operation, system inspection and testing should be scheduled monthly, or as required by NFPA 72 or local fire codes. A qualified Service Representative should perform testing.

**Before Testing:** Notify fire department if alarm condition is transmitted. Notify facility personnel of the test so alarm sounding devices are ignored during the test period. *Physically disconnect all releasing devices*.

**After Testing:** Notify all fire, and/or building personnel when testing is complete. *Re-connect releasing devices*.

#### Section 7 Local Service Representative:

NAME: \_\_\_\_

ADDRESS:

TELEPHONE NUMBER:

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# Manufacturer Warranties and Limitation of Liability

**Manufacturer Warranties.** Subject to the limitations set forth herein, Manufacturer warrants that the Products manufactured by it in its Northford, Connecticut facility and sold by it to its authorized Distributors shall be free, under normal use and service, from defects in material and workmanship for a period of thirty six months (36) months from the date of manufacture (effective Jan. 1, 2009). The Products manufactured and sold by Manufacturer are date stamped at the time of production. Manufacturer does not warrant Products that are not manufactured by it in its Northford, Connecticut facility but assigns to its Distributor, to the extent possible, any warranty offered by the manufacturer of such product. This warranty shall be void if a Product is altered, serviced or repaired by anyone other than Manufacturer or its authorized Distributors. This warranty shall also be void if there is a failure to maintain the Products and the systems in which they operate in proper working conditions.

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