



NetworX

NetworXTM Series

NX-870E Fire Supervision Module

Installation and Startup

These instructions do not purport to cover all details or variations in equipment nor to provide every possible contingency to be met during installation, operation, and maintenance. If further information is desired or if particular problems arise that are not covered sufficiently for the purchaser's purpose, the matter should be referred to GE Security, Gladewater, Texas, USA.

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

I. ORDERING INFORMATION

<u>PART #</u>	<u>DESCRIPTION</u>	<u>PART #</u>	<u>DESCRIPTION</u>
NX-8-CF	NX-8 Commercial Fire Control Panel	NX-8E-CF	NX-8E Commercial Fire Control Panel
NX-8-CF-KIT	NX-8 Commercial Fire Control Panel in NX-003-CF Enclosure, NX-148E-CF LCD keypads (2); NX-870E Fire Supervision module; 16.5V 50VA Transformer	NX-8E-CF-KIT	NX-8E Commercial Fire Control Panel in NX-003-CF Enclosure, NX-148E-CF LCD keypads (2); NX-870E Fire Supervision module; 16.5V 50VA Transformer
NX-148E-CF	NX148E LCD Keypad for Commercial Fire panel (Red plastic)	NX-208E	2 Wire Smoke Loop Expander
NX-148E-CF-W	NX148E LCD Keypad for Commercial Fire panel (White plastic)	NX-320E	Remote Power Supply
NX-216E	16 Zone Expander	NX-2192E	PinPoint ID Module
NX-508E	Eight Output Module	NX-003-CF	Commercial Fire Enclosure (Red)
NX-870E	Fire Supervision Module		

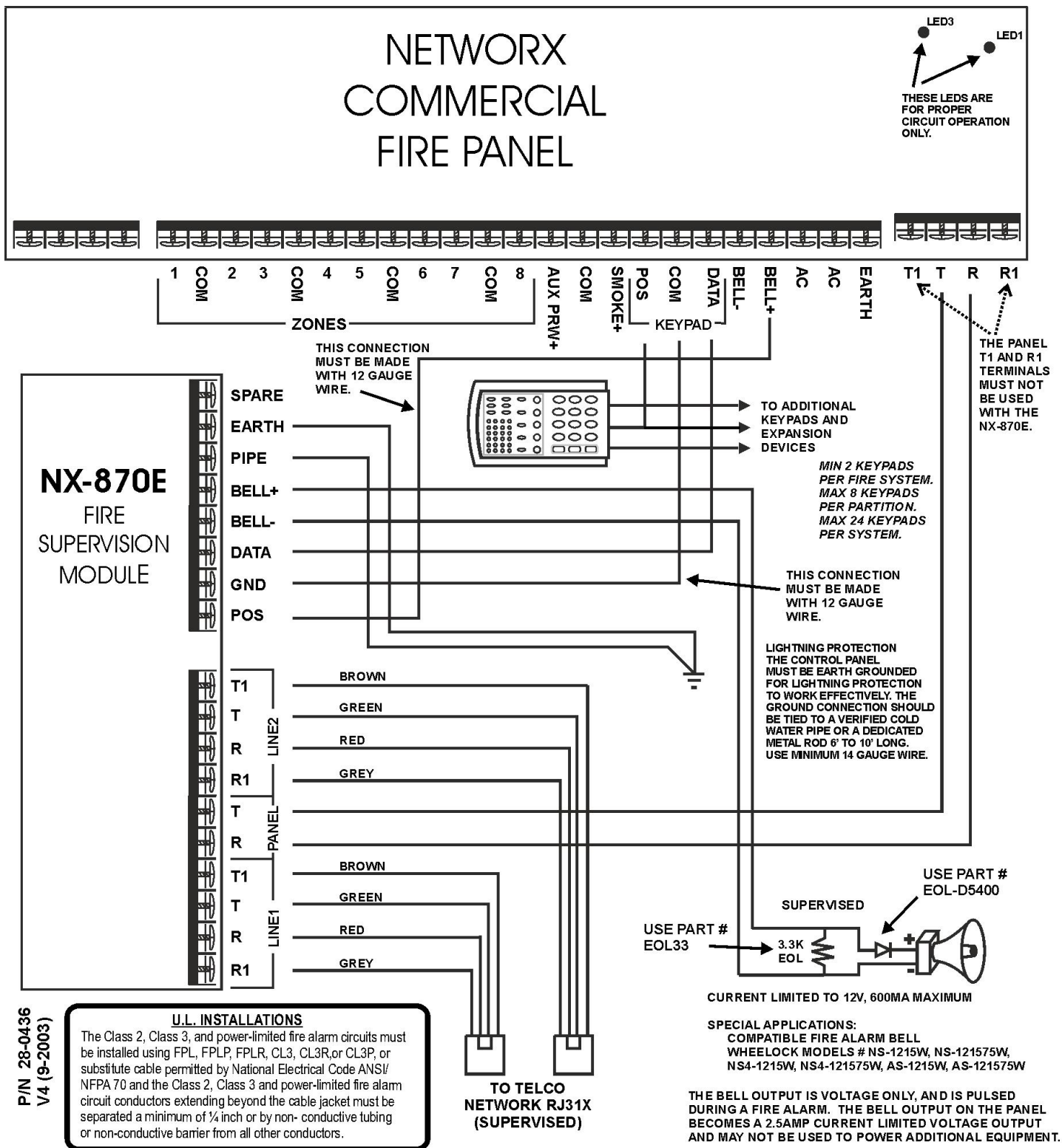
II. GENERAL DESCRIPTION

The NX-870E Fire Supervision module is a microprocessor-controlled expansion module that provides the features necessary in most fire system installations. The module facilitates the connection of two (2) phone lines to the NX-8-CF or NX-8E-CF control panel. It provides the necessary monitoring and switching of these phone lines for a quick and easy addition to those systems that require the additional security of a second phone line. The fire supervision module also provides a separate fully supervised bell output that can be used to power fire annunciators separate from burglary annunciators. Additionally, it provides full supervision of the earth ground connection required by most fire installation standards.

III. TERMINAL DESCRIPTIONS

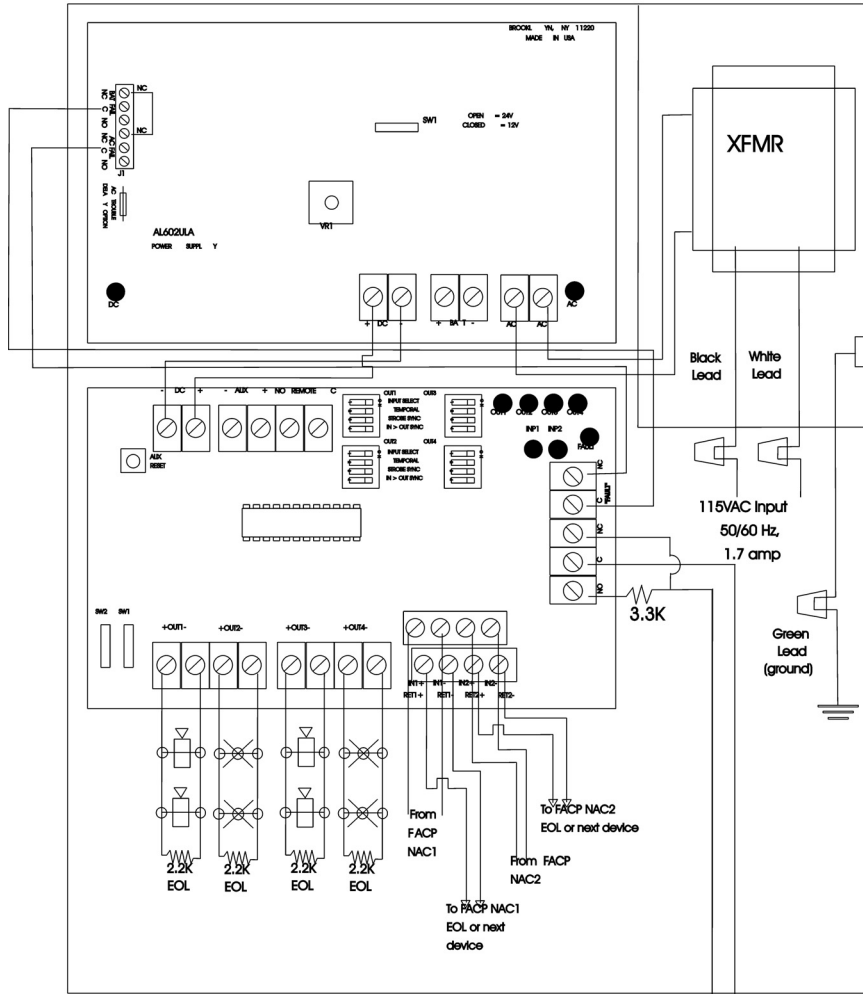
Terminal	Description
Line 1 R	Ring terminal for the incoming primary phone line.
Line 1 T	Tip terminal for the incoming primary phone line.
Line 1 R1	Ring terminal for the building phones connected to the primary phone line. This terminal, along with T1, feeds the incoming primary phone line to the building phones.
Line 1 T1	Tip terminal for the building phones on the primary phone line. This terminal, along with R1, feeds the incoming primary phone line to the building phones.  The primary phone line will always be connected to the control when it is available.
Line 2 R	Ring terminal for the incoming secondary phone line.
Line 2 T	Tip terminal for the incoming secondary phone line.
Line 2 R1	Ring terminal for the building phones connected to the secondary phone line. This terminal, along with T1, feeds the incoming secondary phone line to the building phones.
Line 2 T1	Tip terminal for the building phones on the secondary phone line. This terminal, along with R1, feeds the incoming secondary phone line to the building phones.  The secondary phone line will only be connected to the control if the primary is not available. A failure of the secondary phone line will be reported to the control even if it is not being used by the control.
POS	Connect to control panel BELL+ terminal. This terminal supplies power to the Fire Supervision board. With the NX-870E connected, the BELL terminals on the NetworX control panel cannot be used as a speaker or siren output.
GND	Connect to the control panel COMMON terminal. This terminal supplies the common side of the power to the Fire Supervision board.
DATA	Connect to the control panel DATA terminal. This terminal is the data-signaling terminal to all the devices on the buss.
BELL +	Connect the positive side of fire warning devices to this terminal. For full supervision of these devices connect according to the diagram on page 4.
BELL	Connect the negative side of fire warning devices to this terminal. For full supervision of these devices connect according to the diagram on page 4.
PIPE	Connect this terminal to the cold water pipe ground. This terminal provides supervision of the earth ground connection to the system.
EARTH	Connect to a cold water pipe ground or rod driven into the ground.  When using the Fire Supervision module, it is important not to connect a separate earth ground to the earth ground terminal of the control panel. This will be interpreted by the control as a ground fault. Ground is provided to the control panel via the GND terminal of the power connection.

IV. WIRING THE MODULE

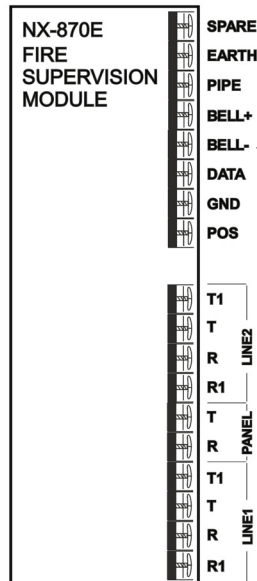


V. WIRING TO ALTRONIX POWER SUPPLY

When used with Altronix Model AL602ULADA Power Supply (12/24VDC 6.5A):



* All trouble conditions will cause Bell fault on the NX-870E, which will notify the panel and keypad of a trouble condition.



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VI. INSTALLING THE MODULE

The Fire Supervision module can be installed in a simple two-step process. First, wire the NX-870E according to the wiring diagram on page 4. Second, use the procedure below to enroll the Fire Supervision module into the NX-8-CF or NX-8E-CF. All functions associated with the Fire Supervision module will be performed automatically. No programming is required beyond the enrolling process.

VII. ENROLLING THE MODULE

For supervision purposes, the NetworX control panel has the ability to automatically find and store in its memory, the presence of all keypads, zone expanders, wireless receivers, and any other module connected to the data terminal. This allows these modules to be supervised by the control panel. To enroll the modules, enter the Program Mode of the NetworX control panel as follows. To enter the Program Mode, press [*]-[8]. At this time, the five function LEDs (Stay, Chime, Exit, Bypass, & Cancel) will begin to flash. Next, enter the "Go To Program Code" (FACTORY DEFAULT IS [9]-[7]-[1]-[3]). If the "Go To Program Code" is valid, the "Service" LED will flash and the five function LEDs will illuminate steady. You are now in the Program Mode. When the Program Mode is exited by pressing the [Exit] key, the control panel will automatically enroll the devices. The enrolling process takes about 12 seconds, during which time the "Service" LED will illuminate. User codes will not be accepted during the enrolling process. If a speaker is attached to the control panel, it will click at this time. If a siren or bell is attached to the control panel, it will sound for about 1 second. Once a module is enrolled, if it is not detected by the control, the "Service" LED will illuminate. **NOTE:** In the event of a trouble condition, the address reported for the Fire Supervision module will be "9".

VIII. ENCLOSURE DIAGRAM

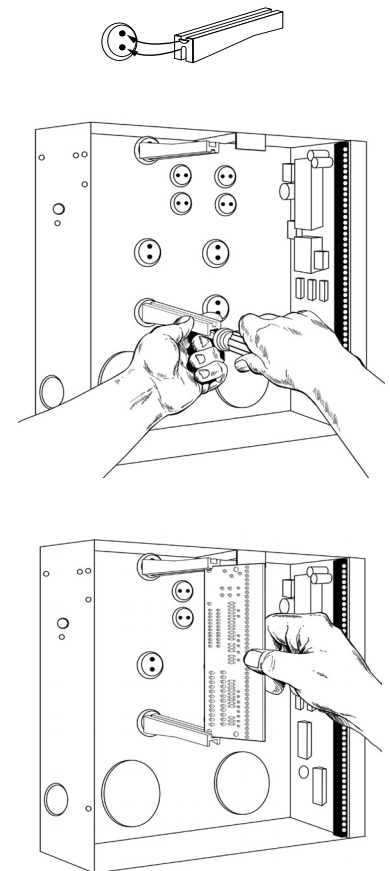
Inside the can, several 3-holed insertion points have been constructed. This allows for either vertical or horizontal placement of the modules. **Notice that the insertion points have two sizes of holes – a larger hole and two smaller holes.**

Diagram 1: The black plastic PCB guides are grooved on the top where the PC Board is to be situated. This grooved side goes into the larger hole, while the other side has a deep notch for the screw to be secured into on one of the smaller holes.

Diagram 2: Take the black plastic PCB guide, grooved side down, and place it in the top insertion point. The grooved/notched side will be in the large hole, facing the inside of the can. It should not require force, and you will detect a slight settling when it is in place. Insert one of the provided screws into the small hole (from inside the can) to secure it in place. **Note:** The screw will be in the small hole on the top or bottom if the board is positioned vertically, or it will be in the right or left hole if the board is placed horizontally.

The second PCB slide should be positioned upside down from the first (grooved side up) and placed in the lower insertion point, using the same procedures described above. Once mounted, screw it in securely.

Diagram 3: The PC board should slide freely in the grooves of both guides.



IX. UNDERWRITERS LABORATORIES REQUIREMENTS

Special Applications: UL Commercial Fire

- Must be used in conjunction with NetworX NX-8-CF or NX-8E-CF Commercial Fire panels.
- Compatible Fire Alarm bell: Wheelock models: NS-1215W, NS-121575W, NS4-1215W, NS4-121575W, AS-1215W, AS-121575W

X. LOCAL TELEPHONE COMPANY INTERFACE

TELEPHONE CONNECTION REQUIREMENTS

Except for telephone company provided ringers, all connections to the telephone network shall be made through standard plugs and standard telephone company provided jacks or equivalent in such a manner as to allow for immediate disconnection of the terminal equipment. Standard jacks shall be so arranged that if the plug connected thereto is withdrawn, no interference to the operation of the equipment at the customers premises, which remains connected to the telephone network, shall occur by reason of such withdrawal.

INCIDENCE OF HARM

Should terminal equipment or protective circuitry cause harm to the telephone network, the telephone company shall, where practical, notify the customer that temporary discontinuance of service may be required. However, where prior notice is not practical, the telephone company may temporarily discontinue service if such action is deemed reasonable in the circumstances. In the case of such temporary discontinuance, the telephone company shall promptly notify the customer who will be given the opportunity to correct the situation. The customer also has the right to bring a complaint to the FCC if he feels the disconnection is not warranted.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a residential environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

CHANGES IN TELEPHONE COMPANY EQUIPMENT OR FACILITIES

The telephone company may make changes in its communications facilities, equipment, operations, or procedures where such action is reasonably required and proper in its business. Should any such change render the customers terminal equipment incompatible with the telephone company facilities, the customer shall be given adequate notice to make modifications to maintain uninterrupted service.

GENERAL

The FCC prohibits customer provided terminal equipment be connected to party lines.

IMPORTANCE OF THE RINGER EQUIVALENCE NUMBER

The Ringer Equivalence Number (REN) of this device is 0.1B. This number is a representation of the electrical load that it applies to your telephone line.

MALFUNCTION OF THE EQUIPMENT

In the event that the device should fail to operate properly, the customer shall disconnect the equipment from the telephone line to determine if it is the customer's equipment that is not functioning properly. If the problem is with the device, the customer shall discontinue use until it is repaired.

EQUIPMENT INFORMATION

MANUFACTURER OF CONNECTING EQUIPMENT: **CADDX CONTROLS, INC.**
FCC REGISTRATION NUMBER: GCQALO1BNX-870E; RINGER EQUIVALENCE: 0.1 B

XI. SPECIFICATIONS

OPERATING POWER	12 VDC, Supplied from NX-8-CF or NX-8E-CF
CURRENT DRAW	Standby 20 mA Operating 110 mA Communicating with Phone Line 2 Selected
BELL LOAD	600mA Maximum
DIMENSION	6" Wide 3.25" High 1" Deep
SHIPPING WEIGHT	9 lbs.



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