

# Model T8-NCA Network Interface for FireSpy® Tracker Control Panels

## SAFETY MESSAGE TO INSTALLERS

People's lives depend on your safe installation of our products. It is important to read, understand and follow all instructions shipped with this product. Listed below are some other important safety instructions and precautions you should follow.

- This unit must be installed and maintained by a qualified electrician in accordance with NFPA 72 and National and local Electrical and fire codes, under the direction of the authority having jurisdiction.
- Do not connect this unit to system wiring when circuits are energized.
- After installation and completion of initial system test, provide a copy of this instruction sheet to all personnel responsible for operation, periodic testing and maintenance of this equipment.
- Failure to follow all safety precautions and instructions may result in property damage, serious injury, or death to you and others.

## GENERAL

The T8000-NCA network interface (NCA) connects to a FireSpy Tracker control panel's RS485 connection. The NCA provides an interface between the panel and the panel peer-to-peer network.

NCA modules may be mounted in the main enclosure or in UL864 listed remote enclosures.

## INSTALLATION

Refer to the control panel installation manual for battery calculations and other additional requirements for installing the assembly in the fire panel system.

### Mounting

The NCA mounts in a UL864 Listed enclosure. The installation location should be reasonably free of dust, vibration, and moisture. To avoid degradation of the operating circuitry, it is recommended that the circuit boards be removed during cabinet mounting, wire installation, and any other procedures that may introduce dust, metal shavings, grease or any other foreign matter into the area of the electronic circuitry.

To mount the module, secure the module to four standoffs in the cabinet with screws.

### Wiring

#### WARNING

*To reduce the risk of electrical shock, make sure that all power has been turned off or disconnected prior to attempting to install wiring or connect power.*

1. Connect module power supply wiring to the 24VDC supply circuit. Connect RS485 communication wiring to the panel's communication circuit. See Figure 1.
2. If the NCA is the last device on the panel's RS485 communication circuit, place the jumper on J3. Otherwise, remove the jumper.
3. Connect the panel network communications wiring (Figure 1).

## OPERATION

Refer to the control panel documentation for operation and programming details.

Specification	Rating
Listed	ETL, Standard UL864
Use / Environment	Commercial / Indoor, dry
Temperature range	32 to 120° F
Maximum relative humidity	95%
Input voltage	Regulated 24 DC
Input current draw	
Standby	60 mA
Alarm	60 mA
Max impedance	
Local RS-485 wiring (total)	100 ohms
Panel network RS-485 wiring (total)	100 ohms

Table 1: Specifications

## ORDERING INFORMATION

Model	Stock No.
T8000-NCA Network interface	T-NCA
T8000-EXP remote enclosure	T-EXP
T8000-EXPD remote enclosure, small	T-EXPD
Mounting hardware kit	T-KIT

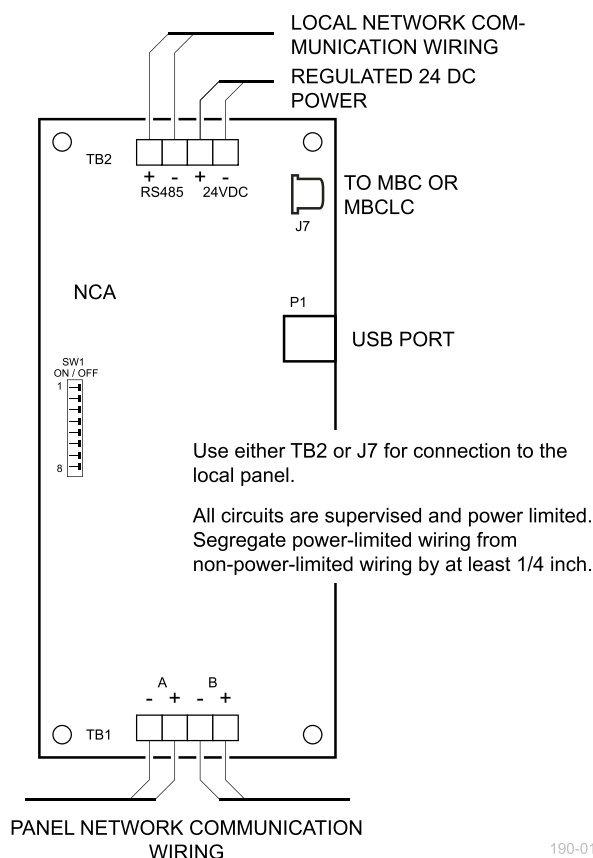


Figure 1: Wiring

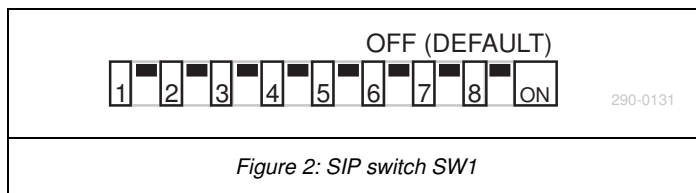


Figure 2: SIP switch SW1

Switch number	Position	Programmed Mode
1	OFF*	Normal
	ON	NCA operates as network repeater only - does not send events to connected panel
2	OFF*	Normal
	ON	Diagnostic mode
3	OFF*	Reserved
	ON	Reserved
4	OFF*	Style 4 wiring
	ON	Style 7 wiring
5	OFF*	(Style 4 wiring only) "A" terminals are wired
	ON	(Style 4 wiring only) "A" terminals are not connected
6	OFF*	(Style 4 wiring only) "B" terminals are wired
	ON	(Style 4 wiring only) "B" terminals are not connected
7	OFF*	Online to network
	ON	Offline to network (pass-through mode)
8	OFF*	Normal mode
	ON	Firmware program mode. To prevent network trouble, turn on switch 7 before turning this switch on.

\* Factory default

Table 2: NCA SIP switch settings (SW1)

Jumper	Position	Programmed Mode
J1	Installed*	Use onboard terminating resistor for RS845 OUT
	Removed	No terminating resistor
J3	Installed*	Use onboard terminating resistor for RS845 connection to local panel
	removed	No terminating resistor
J5	1&2*	RS485 data wiring
	2&3	Fiber optic cable
J6	1&2*	RS485 data wiring
	2&3	Fiber optic cable
J8	Installed*	Turn off 12V fiber optic connection
	Removed	Turn on 12V fiber optic connection
J9	Installed*	Use onboard terminating resistor for RS845 IN
	Removed	No terminating resistor

\* Factory default

Table 3: NCA jumper settings

Pattern	LED / Indication
	<b>D1 STATUS Green</b>
Steady	(ON or OFF) Firmware is not operating
Flashing	Firmware is operating normally
	<b>D2 POLL Green</b>
Flashing	Indicates a communication from panel to NCA, normally once per second.
	<b>D3 MCC ACTIVE Green</b>
ON	Panel has initialized NCA
OFF	NCA has not been initialized
	<b>D4 MCC FAULT Yellow</b>
Flashing	NCA has not received communication from panel for more than 60 seconds
	<b>D5 A ACTIVE Green</b>
Flashing	Indicates a communication on the network "A" terminal (from local panel or another networked panel)
	<b>D6 A FAULT Yellow</b>
Flashing	Fault between this NCA's "A" terminals and the next NCA's "B" terminals, e.g. open, short, or module failure.
	<b>D7 B ACTIVE Green</b>
Flashing	Indicates a communication on the network "B" terminal (from local panel or another networked panel)
	<b>D8 B FAULT Yellow</b>
Flashing	Fault between this NCA's "B" terminals and the next NCA's "A" terminals, e.g. open, short, or module failure.

Table 4: NCA LEDs

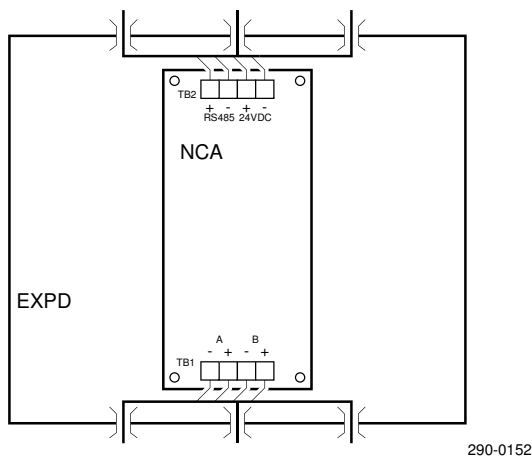


Figure 3: Wire routing in remote cabinet

## SERVICE

To get help with problems or questions not covered in these instructions, contact:

Technical Service Department  
Harrington Signal Inc.  
2519 - 4th Avenue  
Moline, IL 61265  
(800) 577-5758

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