

Networking Guide 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

A FireSpy Tracker network consists of up to 254 Tracker 8000 or Tracker 2000 panels. A T8000-NCA network interface (NCA) connects to each control panel's RS485 connection to provide an interface between the panel and the Tracker network.

Each panel operates the same as it would in a standalone (non-networked) system. When networked, panels broadcast their local events across the network for reporting, monitoring, and control.

The network is peer-to-peer; no one particular panel is required to coordinate communication or control over the network. However, one or more panels can be designated as a master panel. Master panels synchronize time and date on all panels and provide network-wide silence, resound, and reset control. The network will continue to function even if one or more panels are not powered up or operational.

The network provides several features for fault tolerance and reliability. If wiring faults split the network, each network segment continues to operate on its own. If a panel becomes isolated from the network, it continues to operate in standalone mode. The communication speed is automatically adjusted to provide tolerance to noise on the communication circuits. Each node is electrically isolated and operates as a buffer and repeater to regenerate network communication signals.

INSTALLATION

Refer to the installation manuals and installation sheets for the control panels, NCA and any other equipment used.

OPERATION

For standalone operation, refer to the operation manuals and installation sheets for the control panel and any other equipment used. Currently, all panels operate as master panels.

Events

Network events are displayed on master panel annunciators. Any panel can generate or respond to a network event. To configure an input to generate a network event or to configure an output to respond to a network event, add it to the appropriate network groups. For example, if a panel needs a NAC to activate upon a network alarm event, the NAC must be included in Group 204.

Group 204: Network alarm event

Group 205: Network trouble event

Group 206: Network supervisory event

Control

The following network actions are performed globally, i.e. the action affects all panels on the network: reset, signal silence, resound. For example, pressing the reset button on one panel will cause all panels on the network to reset.

The first master panel to see that it is on a network during power-up initialization becomes the designated time and date synchronizer for the network. The synchronizer controls the time and date on all other panels on the network.

Faults

For Style 7 wiring, any single wiring fault between NCA modules will not affect the network operation. For a single wiring fault on Style 4 or for multiple wiring faults on Style 7, the network will split into segments on each side of each fault and continue to operate. However, network operation will be limited to each segment.

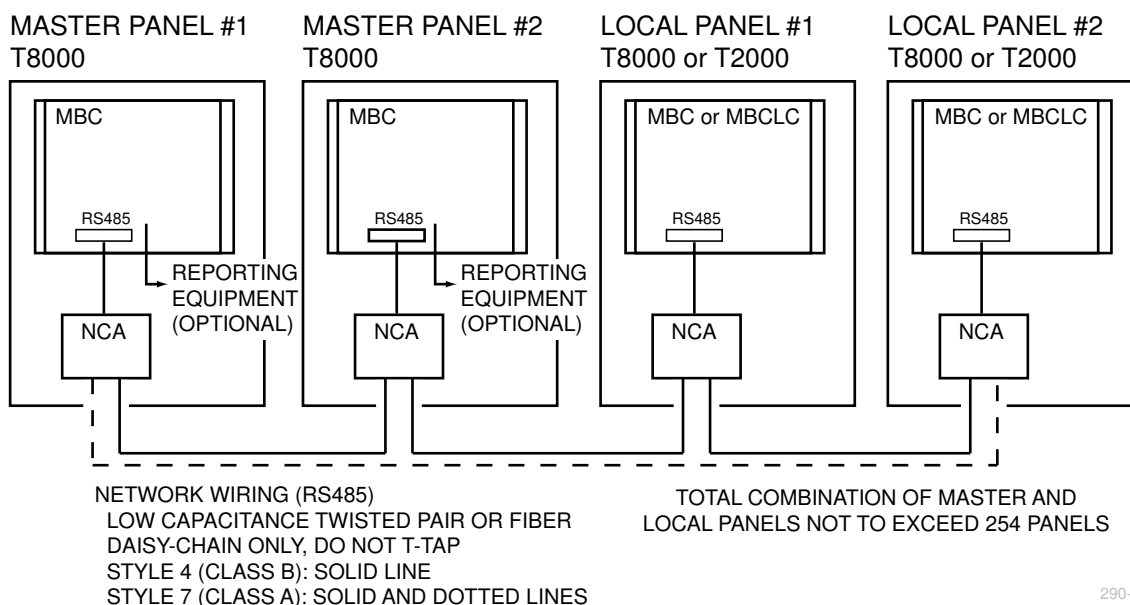


Figure 1: Network layout

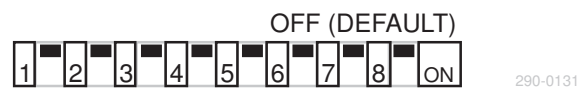


Figure 2: SIP switch SW1

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		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 1: NCA SIP switch settings (SW1)

If an NCA module fails completely, the associated panel is disconnected from the network and operates in standalone mode. Upon restoral of a wiring or communication fault, all events that occurred during the fault condition are retransmitted over the network so previously isolated panels can receive and respond to the network events it was not able to receive during the fault. A global reset overrides and cancels these delayed response actions.

ORDERING INFORMATION

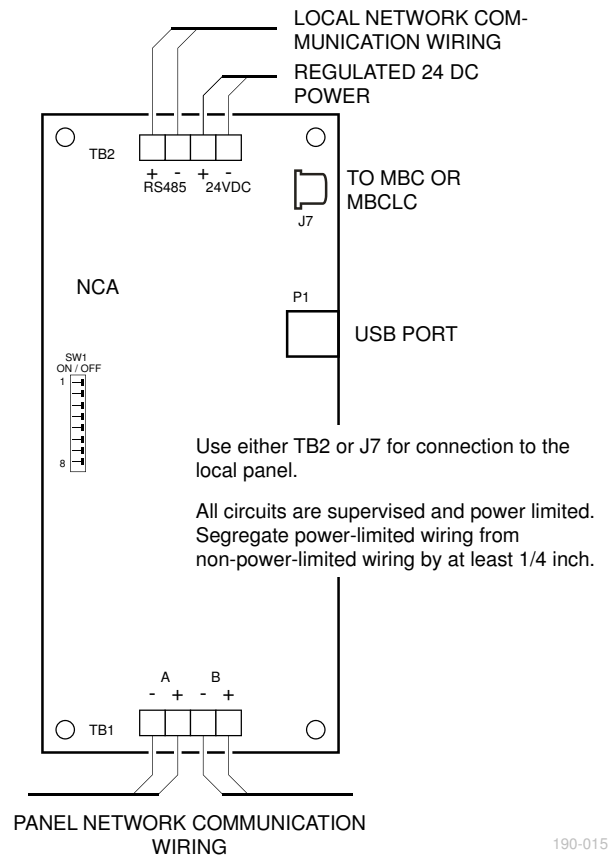
Model	Stock No.
T8000-NCA Network interface	T-NCA
T8000 panel with NCA pre-installed	T8-P-UN
T2000-panel with NCA pre-installed	T2-P-N
Mounting hardware kit	T-KIT

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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Figure 3: Wiring