

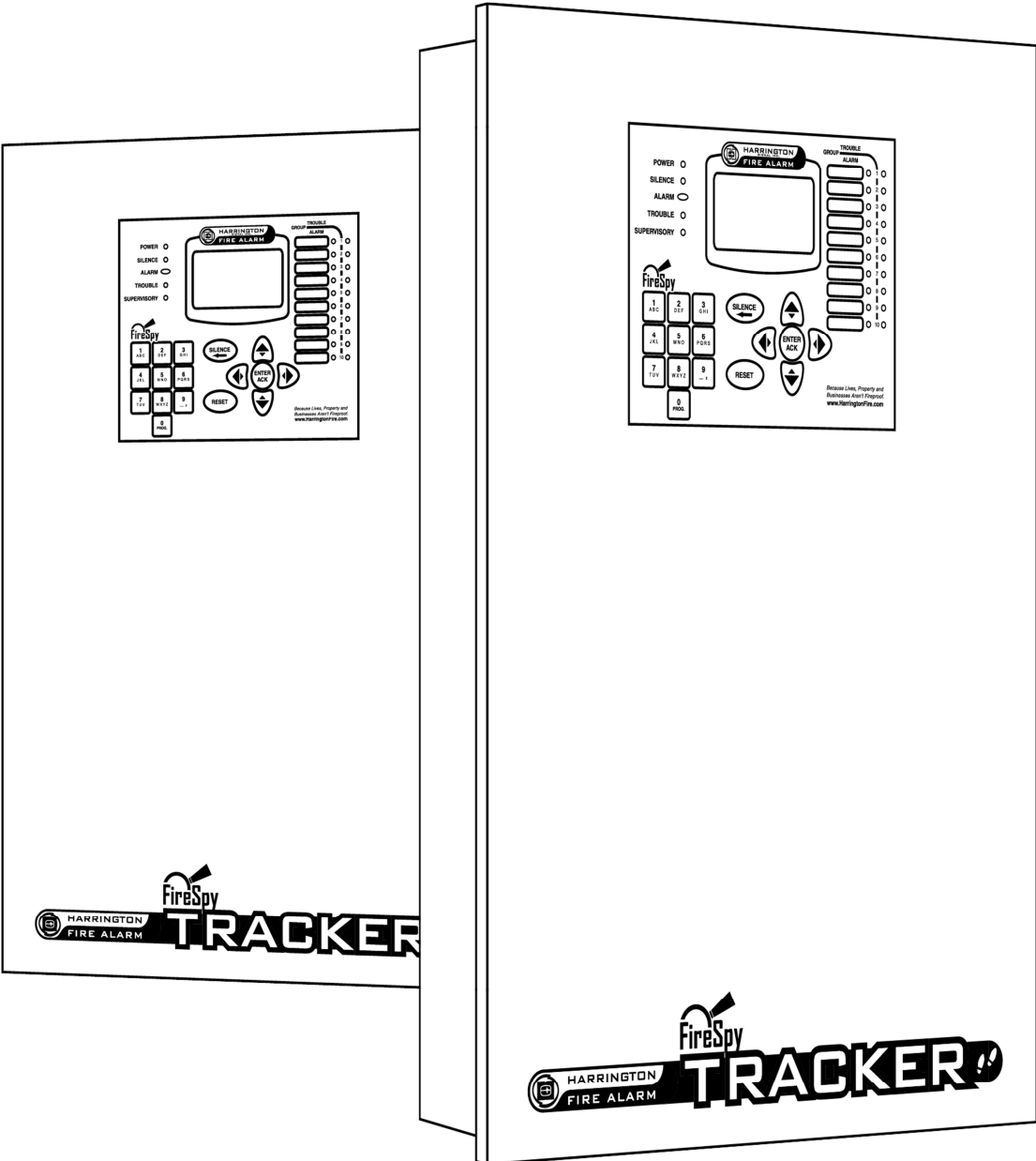
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Operation Manual

FireSpy® Tracker

T1000, T2000, T8000

Fire Alarm Systems



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1 Preliminary Information

1.1 Safety messages – Please read before proceeding

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. The equipment described herein is listed by the NRTL only when installed and configured in the manner described herein

It is possible to install equipment incorrectly or arrange system components and installation wiring in such a manner that life safety functions are not properly performed and, as a result, lives may be lost. To minimize this possibility, become familiar with the system layout and operation of the entire Fire-Protective Signaling System. Do not alter any mechanical or electrical features of the equipment supplied. Become familiar with the Building Code and Fire Prevention Code or other authority having jurisdiction requirements in the area of the installation.

The Facilities Engineer and the Safety Engineer should make selection of mounting location for this equipment and routing of wiring. Listed below are some other important safety instructions and precautions you should follow:

- This unit must be installed 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.
- Only authorized and competent personnel must be allowed access to panel controls or panel power source, to limit the possibility of malfunction or failure.
- Do not connect this unit to system wiring when circuits are energized. Check field wiring lines to ensure that voltages are not present. Warranty is void if the equipment is damaged by improperly connected untested wiring or if fused improperly.
- The equipment must be connected to a dedicated source of reliable AC power adequate for the rating of the system as configured. The source must be secure and properly labeled "Fire Alarm Circuit Control".
- A suitable battery set must be used to assure required operation in case of primary power loss. The battery set must be replaced after 4 years, or earlier if capacity is excessively reduced. The batteries should be checked at least twice per year, or more often if required by local codes.
- Wiring used in the system must be adequate for the service and installed in accordance with applicable codes.
- Devices used in the system and connected to the control panel must be verified compatible with the panel.
- All effective warning speakers produce loud sounds which, in certain circumstances, may cause permanent hearing loss. Take appropriate precautions such as wearing hearing protection. Recommendations in OSHA Sound Level Standard (29 CFR 1910) should not be exceeded.
- 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.
- After installation, ensure that all bolts and threaded joints are tightened.
- After installation and completion of initial system test, a program for periodic testing of this device must be established. Proper periodic maintenance is required to assure operation through the life of the system, and to determine that point at which useful life of the system or of any of its components has been reached. Any malfunctioning units must be repaired or replaced immediately by competent, authorized personnel. Refer to NFPA 72, local Fire Codes and the authority having jurisdiction.
- Instructions for proper response by building occupants must be developed and distributed in accordance with the Building Code and Fire Prevention Code or other authority having jurisdiction.
- Unauthorized repair or servicing of equipment may result in degradation of performance and/or property damage, serious injury, or death to you or others. If a malfunctioning unit is encountered, do not attempt any field repair/retrofit of parts.

Failure to follow all safety precautions and instructions may result in property damage, serious injury, or death to you and others.

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The programming technician is ultimately responsible for conformance to the applicable codes and purchase order.

This manual cannot cover all details or contingencies which could exist in a system application. Refer to the authorized distributor if additional information is required.

Specifications are subject to change without notice.

1.2 Settings not allowed by regulations

NOTICE TO USERS, INSTALLERS, AUTHORITIES HAVING JURISDICTION, AND OTHER INVOLVED PARTIES

This product incorporates field-programmable software. In order for the product to comply with regulations, certain programming features or options must be limited to specific values or not used at all as indicated below.

Feature or option	Regulation*	Settings not allowed	Settings allowed
Alarm verification	36.5.3, 36.6.3	Alarm verification is not permitted on any device that is used as part of the cross-zone or multiple detector initiating operation.	Verify that alarm verification is not used on any device used in cross-zone or multiple detector initiation.
Abort switch	36.3.1	Abort switches shall not be used on systems intended to perform pre-action or deluge water functions.	Do not assign the abort or halt function to modules used in the releasing operation.
Time delay	36.1.7	An automatic delay provided prior to release operation by a system shall be a maximum of 60 seconds.	Verify that the time delay is set to 60 seconds or less.

* Sections cited are from the Standard for Control Units and Accessories for Fire Alarm Systems, UL 864 ninth edition

1.3 Warranty

Harrington Signal products are covered by a limited warranty. See Harrington's warranty statement for more details (document #780-0762). CPG products are covered by a limited warranty. See CPG's warranty statement for more details.

1.4 Support

If you have any questions or concerns about installation, operation, or programming of our equipment, please contact us at:

Harrington Signal Inc.
 Commercial Products Group
 2519 – 4th Ave
 Moline, IL 61265

Toll Free: (800) 577-5758
 Phone: (309) 762-0731
 Fax: (309) 762-8215
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 Web: www.cpglifesafety.com

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2 Operation

This manual describes the operation of FireSpy Tracker 1000, 2000, and 8000 Fire Alarm Control Panels.

2.1 Standalone vs. networked panel(reserved)

A networked panel provides the same local operations and features as a standalone panel, plus the operations and features offered by the network connection. A panel performs building monitoring of its location regardless of whether it is standalone or networked.

2.2 Inputs, outputs, and groups

A panel responds to alarm and supervisory alarm events using inputs and outputs. Each input is placed in one or more groups and is programmed to detect a certain type of event. When an event activates an input, the system activates the outputs that are programmed in the same groups as the input.

Trouble conditions indicate that something on the system needs maintenance or servicing or is improperly configured.

2.3 Types of inputs

Each input device on a panel can be programmed as one of the types of inputs below.

2.3.1 Alarm

Alarm is the normal type of input for automatic smoke detectors, heat detectors, etc. They are required to activate building notification devices as well as the ALARM light on annunciators. They can optionally operate relays and output modules in the system.

2.3.2 Pullstation

Pullstation is the normal type of input for manual pullstations. They operate similar to alarm inputs.

2.3.3 Waterflow

Waterflow is for water flow detectors. They are required to activate building notification devices as well as the ALARM light on annunciators. They can optionally operate relays and output modules in the system. Waterflow inputs can be programmed so that the outputs they activate are silenceable or nonsilenceable.

2.3.4 Supervisory

Supervisory inputs are for items such as shut-off valves and pressure detectors for sprinkler systems. They cannot operate building notification devices, but can optionally operate relays and output modules in the system.

2.3.5 Non-reporting

Non-reporting inputs allow associated outputs to be triggered without affecting the condition of the panel or being reported by the DACT. The panel remains in its previous condition (normal standby, etc.) when a non-reporting event is active.

2.3.6 FACP Reset

The FACP Reset input performs a fast reset. This clears any events that qualify as resettable, i.e. the inputs that triggered the event have returned to normal.

2.3.7 Releasing: Release

Modules or detectors assigned to operate as a Release function initiate a sequence that will cause the associated releasing device to energize. The sequence includes the delay timer.

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2.3.8 Releasing: Fast Release

Modules or detectors assigned to operate as a Fast Release function energize the releasing device without performing the delay.

2.3.9 Releasing: Halt

Modules assigned to operate as a Halt function are able to interrupt the releasing delay timer, thus preventing energization of the releasing device. Restoring the halt input does not allow the delay timer to restart; the releasing sequence remains halted. The halt function has no effect if it is activated after the delay time has expired.. The halt can only be cleared by resetting the panel.

2.3.10 Releasing: Abort

Modules assigned to operate as an Abort function are able to stop the delay timer when it reaches 10 seconds, thus preventing energization of the releasing device. Restoring the abort input allows the delay timer to restart. Subsequent activation of the abort input will again stop the timer. The Abort function has no effect if the delay timer has timed out.

2.4 User control interface

System control and programming can be done through the LCD annunciator on the panel. The main status display is an LCD screen with 8 line by 20 character text capability. Five system LEDs indicate alarm (red), alarm silence (red), supervisory alarm (red), trouble (yellow), and AC power (green). Ten zones of programmable alarm and trouble LEDs are located on the right hand side of the annunciator. A piezoelectric sounder provides audible annunciation of off-normal indications. LCD remote annunciators are similar and provide the same functionality as the panel's local LCD annunciator.

Security is provided by a locking door or requiring activation of a keyswitch for most annunciator commands. Maintenance and programming functions are further protected by passwords.

2.4.1 Resets

There are three types of resets available.

Fast reset

If all events qualify as resettable, i.e. the condition that triggered the event is no longer present, a fast

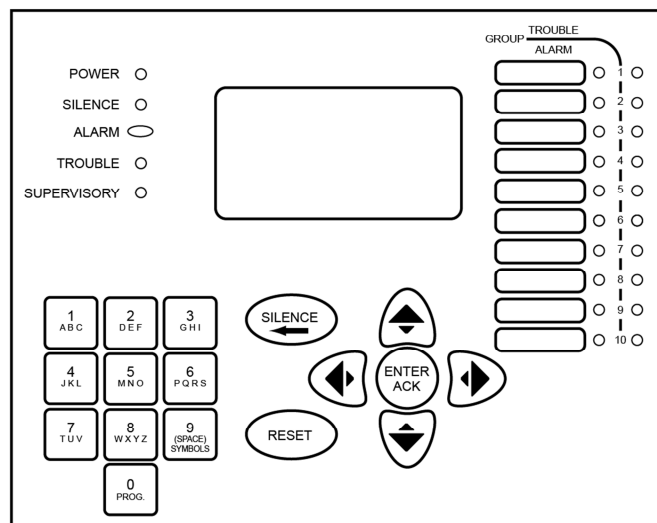


Figure 2-1. LCD annunciator

reset will return the panel to its normal operating condition. To perform the fast reset, **press** the **RESET** button. The panel completes a fast reset in approximately 5-10 seconds.

Forced reset

The forced reset is similar to the fast reset, except that non-resettable events are forced to reset. To force a reset, **press and hold** the **RESET** button until the panel starts to reset (approx. 5 seconds). After the panel has restarted, it is likely that some events will reactivate because the condition that caused them is still present. The panel completes a forced reset in approximately 5-10 seconds.

Full reset

The full reset powers down all circuits, even non-resettable circuits, during the reset. All modules perform their startup initialization. To perform a full reset, press **PROG** to enter the passcode screen, then press **RESET**. If you are in programming mode and press **RESET**, this is the type of reset that occurs. The panel completes a full reset in approximately 20-30 seconds, with SLCs completing their startup 10-20 seconds after that.

Table 2-1: Annunciator Buttons

Button	Action (normal mode*)
◀ ▶	Browse forward or backward through alarm event list
◀ ▶	Browse forward or backward through the non-alarm event list
ACKNOWLEDGE	Turn off the annunciator's buzzer
SILENCE	Turn off building notification and other outputs activated by off-normal events. The SILENCE LED flashes when this button is activated.
RESET	Reset devices that are in alarm to a normal condition. See 2.4.1 for details. Fast Reset: press RESET Forced Reset: press and hold RESET Full Reset: press PROG , then press RESET .
Alphanumeric keypad (other than 0)	Used for programming only.
PROG	Enter the menu system.
* Refer to the programming sections of this manual and the programming manual for the programming mode functions of the buttons.	

2.5 System conditions and annunciation

2.5.1 Normal standby condition

Display

The system is considered to be in normal standby condition unless an off-normal condition or event occurs.

The log of previous events can be viewed from this screen by pressing **ENTER** until the bottom of the screen shows *Activity Journal* and then press one of the arrow keys. To exit viewing the log, stop pressing buttons until the display returns to the normal standby screen (about 45 seconds).

```
[BANNER MESSAGE 1]
[BANNER MESSAGE 2]
T1000 Vers 6.00
[date] [day] [time]
```

Audible and visual indicators

The buzzer is off, and all visual indicators are off, except for POWER, which is on.

Available keys

- ENTER** toggle which type of log to view (active or journal)
- ⬇ / ⬆ view next/prev alarm or supervisory alarm event in log
- ⬅ / ➡ view next/prev trouble event in selected log
- RESET** hold to perform forced reset
- PROG/RESET** perform full reset
- PROG** enter maintenance or programming menus

2.5.2 Non-normal condition (event counter)

Display

When there are active events, the display shows a counter for each type of possible event. If an alarm is present, the lower portion of the display will show information about the alarm event.

```
Active Events
ALARM-0000 SUPV-0000
PRALM-0000 TBL-0001
```

Audible and visual indicators

The buzzer sounds a pattern according to the highest priority event type and the system LEDs corresponding to active events are turned on.

Available keys

- SILENCE** (If all events are acknowledged) Silence notification devices.
- ACK** Acknowledge all events and turn off the buzzer.
(If all events are acknowledged) Toggle the list browsed by the right/left arrow keys (Active Troubles or Activity Journal).
- RESET** Press once to reset alarm events.
Press and hold to reset conventional zone alarm events.
To restart the panel, press **PROG** and then **RESET**.
- ⬇ / ⬆ Step backwards/forwards through the list of alarm/supervisory events
- ⬅ / ➡ Step backwards/forwards in time through the Active Trouble list or Activity Journal
- PROG** Enter programming mode

(alarm present)

```
Active Events
ALARM-0001 SUPV-0000
PRALM-0000 TBL-0001

01/01/11 Su 12:00:00
001-Device in Alarm
Lobby Photo Smoke
```

2.5.3 Non-normal condition (browsing event list)

Display

After pressing ◀ / ▶ or ⬇ / ⬆ from a non-normal condition screen, the display shows details of the most recent event.

```
TR:0075      02:0064
[date] [time]
037-Device Added
< Active Troubles >
```

The top left corner displays NR for return to normal, AL for alarm, TR for trouble and pre-alarm, or SU for supervisory. The number following the colon is the number of the event.

The top right corner shows the loop circuit number followed by the point address.

The third line shows the event type -- a three digit event type code followed by a textual description.

The display returns to the normal standby or the event counter screen if an event occurs or after 45 seconds of inactivity.

Available keys

SILENCE (If all events are acknowledged) Deenergize notification devices.

ACK Return to the normal standby or event counter screen

RESET Press once to reset alarm events.

Press and hold to reset conventional zone alarm events.

To restart the panel, press **PROG** and then **RESET**.

⬇ / ⬆ Step backwards/forwards through the list of alarm/supervisory events

◀ / ▶ Step backwards/forwards in time through the Active Trouble list or Activity Journal

PROG Enter programming mode

2.5.4 Alarm condition

An alarm signal coming from an input device configured for an alarm function puts the panel into the alarm condition. The outputs associated for that input are turned on and the panel's buzzer sounds in the alarm pattern. The alarm relay on the motherboard is activated. The ALARM LED turns on and the display shows the non-normal screen.

2.5.5 Supervisory alarm condition

An alarm signal coming from an input device configured as a waterflow device puts the panel into the supervisory alarm condition. The outputs associated for that input are turned on and the panel's buzzer sounds in the supervisory alarm pattern. The SUPERVISORY LED turns on and the display shows the non-normal screen.

2.5.6 Trouble condition

A signal indicating a trouble from a device or the absence of a signal where one is expected puts the panel into the trouble condition. The outputs associated for trouble conditions are turned on and the panel's buzzer sounds in the trouble pattern. The TROUBLE LED turns on and the display shows the off-normal screen.

2.5.7 Pre-alarm condition

The pre-alarm condition is a special type of trouble condition caused by a signal from an analog smoke detector indicating that the detector is approaching an alarm level.

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2.5.8 *Programming mode*

While the panel is in programming mode, the panel is still performing its normal monitoring functions. You will need to reset the panel in order to review and address any events that occur while in programming mode.

2.5.9 *Other conditions*

The fire drill test turns on building notification devices, output modules, and relay outputs according to how they are programmed.

The walk test is a special operating mode. See 3.1.2 *Walk test* for details.

2.6 **Features**

2.6.1 *Alarm Verification*

The panel performs alarm verification on photo and ion intelligent smoke detectors (Apollo XP95 only). The verification time is a global system program selection of 0 to 60 seconds.

2.6.2 *Drift Compensation*

The panel performs drift compensation on all addressable smoke detectors that don't have drift compensation built in. Drift compensation counteracts changes in each detector's sensitivity over time. Sensor drift is typically caused by dirt or dust in the sensing chamber (indicated by a positive drift value), but it can also be caused by changes in the detector's electrical components due to long-term exposure to harmful environmental conditions (a negative drift value). Drift compensation allows the panel to more accurately determine the threshold for a genuine fire alarm, where a non-drift-compensated detector under the same conditions would cause a nuisance alarm or an alarm to go unreported. However, there is a maximum amount of drift that can be compensated. When the detector reaches the limit, it needs to be serviced or replaced. The panel reports a trouble event when a detector reaches the drift limit.

The analog value that the panel displays for a detector is calculated from two numbers: the base value (always 23) and the drift value (-15 to +15). A new or recently cleaned detector reports a raw analog value of 23. The drift value is a long-time average of a detector's deviation from 23. For example, if a detector reports a raw analog value of 28 for several weeks, it will eventually have a drift value of +5 (raw value - base value = drift value, or $28 - 23 = +5$). The panel will calculate a compensated value of 23 (raw value - drift value = compensated value, or $28 - (+5) = 23$). So the panel is able to use a consistent numeric value over the long term serviceable operation of the detector.

2.6.3 *Releasing*

The panel provides 16 releasing circuits. The interface to a releasing device consists of a power source, an Apollo / I-Spy input/output (IO) module, a URM relay, and a polarizing end-of-line device. The modules needed for the releasing function are available pre-assembled and pre-wired in a cabinet. The power source can be a NAC circuit on the Tracker panel set to continuous auxiliary power mode or any UL864 listed control unit with a power limited output rated Regulated 24 DC.

2.6.4 *Smoke Control*

The smoke control interface relies heavily upon the following items.

Fan and Damper Control Module (FDC)

An FDC is an SLC addressable output device that has timed supervisory functions needed for smoke control operation. The FDC's output controls a fan or damper and the input monitors the state of the fan or damper. The first two of the FDC's group slots are special "smoke control" groups, so sets of FDCs can work in conjunction to turn on and turn off sets of HVAC components (intake and exhaust fans and dampers). For example, to exhaust a floor, the FDCs controlling the exhaust fans and exhaust dampers will turn on, while the FDCs controlling the intake fans and intake dampers will turn off.

Smoke detector control

Smoke detectors need to control both on and off states of fans and dampers in the building. This is accomplished through group settings, FDC modules, and zone settings. Each smoke detector that participates in smoke control is assigned to the special “smoke control” groups of several FDCs in order to turn on and off the correct set of fans and dampers (e.g. two groups for “same floor”, two groups for “floor above” and two groups for “floor below”).

Annunciation and control interface

The LDV provides outputs to drive lamps or LEDs which annunciate the status of fans and dampers in the smoke control system. The LDV can also use switch inputs for manually controlling the smoke control system.

Zones

Zone numbers are used to define the prioritization of actions. If an FDC is activated by multiple inputs in its smoke control groups, the one that has the same zone number as the FDC takes precedence (a “same floor” event takes precedence over a “floor above” or “floor below” event). Zone number 255 is a special zone number which overrides all other zone numbers and provides a means for manual control.

Fully programming a system for smoke control can be very complex. Please refer to the smoke control applications guide for more details.

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Contents

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3 Test and maintenance

When any test or maintenance procedure is conducted, all building occupants and others who may receive artificial alarms or trouble signals must be notified before starting and after completion.

These operations require entering the controlling annunciator into the maintenance mode with the necessary password.

NFPA 72 and/or the authority having jurisdiction may have additional test and maintenance requirements that must be followed.

NOTE *On any system including remote signaling, the local fire department and/or monitoring agency should be informed before any test or maintenance functions.*

3.1 System test

System test must be performed as required by the authority having jurisdiction. In the absence of other instructions, test schedules for fire alarm systems are included in NFPA 72.

Tests should be performed in accordance with the manufacturer's instructions by qualified personnel, and should be fully documented. The panel's internal history provides a record of test functions that enter the event list.

On completion of testing, ensure that all panel conditions have been reset or otherwise returned to normal, and notify any agencies previously advised of the commencement of testing.

3.1.1 Initial acceptance testing

Refer to the Installation manual for details of initial acceptance testing.

3.1.2 Walk test

The panel includes the capability of one person making detector calibration tests on site, by either momentarily sounding the notification appliances or just printing out results when pre-selected devices are tested.

The silent walk test records the change of state of activated inputs for viewing or printing at the completion of the test. When an input device is activated, only the buzzer on the annunciator sounds (not any other output devices) in the pattern for the respective type of input.

The audible walk test additionally activates the outputs related to the activated input. Outputs related to an alarm or supervisory alarm input are activated for approximately 2 seconds.

If no change of state is found for a period of 15 minutes during a walk test, the panel times out and returns to a normal standby state.

Initiate the walk test from the annunciator (see 5.4 Menu 2.1: Normal Walk Test). Press **SILENCE** or **RESET** on the annunciator to end the walk test.

3.2 System maintenance

The Tracker system does not require regularly scheduled maintenance except that it is kept clean and dry.

Check the sealed lead acid batteries occasionally for terminal corrosion and replace every four years or if proper voltage is not maintained under load test.

Perform maintenance of any other system devices in accordance with the manufacturers' instructions.

3.2.1 Fuse replacement

WARNING To reduce the risk of electrical shock, make sure that all power has been turned off or disconnected prior to disconnecting wiring or removing modules.

NOTE On any system that includes remote signaling, the local fire department and/or monitoring agency should be informed before performing test or maintenance functions.

If the system does not have power despite having sufficient line input voltage and battery voltage, a fuse may need to be replaced. To check and replace the fuses, perform the following steps.

For T2000 and T8000:

1. Disconnect all power.
2. Disconnect wiring to the chassis assembly (MBC or MBCLC).
3. Remove the four nuts that secure the chassis assembly to the enclosure.
4. Remove the chassis assembly and turn it over.
5. Check the fuse on the T8000-PC board at location F1. If the fuse needs replacement, use a standard automotive miniature fuse rated 15A (Littelfuse 997015 or equivalent).
6. Check the fuse on the RL9801 power supply at location F1. If the fuse needs replacement, use a standard 5x20mm cartridge fuse rated T6.3AL250V (Littelfuse 021806.3 or equivalent).

For T1000:

1. Disconnect all power.
2. Check the fuse on the MB main board at location F1. If the fuse needs replacement, use a standard automotive miniature fuse rated 15A (Littelfuse 99707.5 or equivalent).
3. Disconnect wiring to the chassis assembly (MB).
4. Remove the four nuts that secure the chassis assembly to the enclosure.
5. Remove the chassis assembly and turn it over.
6. Remove the power supply and the power supply's metal cover.
7. Check the fuse on the LS100 power supply at location F1. If the fuse needs replacement, use a standard 5x20mm cartridge fuse rated F4AH250V (Littelfuse 0216.004XEP or equivalent).

4 Using the menu system

4.1 Accessing the menu system

To access the menu system, press the **PROG** key and enter the access code for the desired level. The default code for Level 1 (maintenance functions) is 11111111. The default code for Level 2 (programming functions) is 22222222.

The SLCs must finish their startup before the menu system can be accessed. The SLC startup takes 10-30 seconds after the panel is reset.

4.2 Exiting the menu system

The changes you make are saved after you press **ENTER** on each screen. There is no extra step to save changes before exiting the menu system. To leave the menu system at any time, press **RESET**; this will also reset the panel.

4.3 About the numbering used

Each menu in this manual is given a number based on how to navigate to it starting from the main menu:

- A number means press the number to select an option.
- A letter indicates which "more" screen the option is chosen from (A is the first screen, press **▼** to get to B, the second screen).
- Levels are separated by periods.

So to navigate to the Level 2 Menu 1.2B from normal standby press **PROG** (enter the passcode for Level 2), press 1 for child menu 1, press 2 for child menu 2, then press **▼** to get to the second screen of options.

4.4 Menu navigation

Display

The display shows available menu options.

Available keys

- 0 to 9** go to child menu corresponding to number
- ←** go back to parent menu
- RESET** exit the menu system and reset the panel

```

Program Menu
1. Clock
2. System Options
3. RS-485 Settings
4. Input Settings
5. Output Settings
6. Point Settings
7. Group Settings
    
```

4.5 Assign a setting

Display

When a screen shows some values to change, highlight the value you wish to change and then change it.

Available keys

- ▼ / ▲**: highlight the value you wish to change
- ◀ / ▶**: change the highlighted value
- ←** go back to parent menu
- ENTER** go back to parent menu and save changes
- RESET** exit the menu system and reset the panel

```

Serial Port Configs
Mode: PC Link
Dial Number:

Modem Init Strings:
    
```

4.6 Text and number entry

Entering text

Several places in the menu system ask for text to be entered.

Use alphanumeric keys to enter text. Press the key repeatedly until the desired letter appears. Use ◀ or ▶ keys to move the cursor.

Example: To select the letter C, press the **1** (A B C) key three times.

Available keys

(for numerical entries)

- 0 - 9** enter a number
- ◀ / ▶ move the cursor

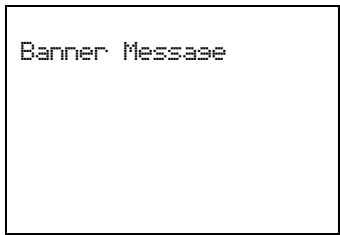
(for alphanumeric entries)

- 0 - 9** cycle through the available characters for the key. Does not advance cursor.
- ◀ / ▶ move the cursor

← go back to parent menu

ENTER go back to parent menu and save changes

RESET exit the menu system and reset the panel



5 Maintenance menu

5.1 Level 1 main menu

The date format is yyyy.mm.dd.
 The time format is hh:mm (24 hour time)

Available keys

- 0 to 9** go to child menu corresponding to number
- ←** go back to parent menu
- RESET** exit the menu system and reset the panel

```
Options:
1.Set Clock
2.Test Panel
```

5.2 Menu 1: Real time clock

The date format is yyyy.mm.dd.
 The time format is hh:mm or hh:mm am/pm

Available keys

- ◆ / ▲** highlight the value you wish to change
- ◀ / ▶** change the highlighted value
- ←** go back to parent menu
- RESET** exit the menu system and reset the panel

```
Set Clock
Date: 2012.01.01
Time: 00:00
```

5.3 Menu 2: Test

Available keys

- 0 to 9** go to child menu corresponding to number
- ←** go back to parent menu
- RESET** exit the menu system and reset the panel

```
Panel Test
1. Normal Walk Test
2. Silent Walk Test
3. NACs Outputs
4. Relay Outputs
5. LCD Display
6. Fire Drill
```

5.4 Menu 2.1: Normal Walk Test

While on this screen, devices that go into alarm are displayed on the screen and the NACs sound a single round of alarm code.

Available keys

- ◆ / ▲** browse through the items placed into alarm
- ←** go back to parent menu
- RESET** exit the menu system and reset the panel

```
Walk Test Active
Press <SILENCE> to
end Walk Test
```

5.5 Menu 2.2: Silent Walk Test

While on this screen, devices that go into alarm are displayed on the screen.

Available keys

- ◆ / ▲ browse through the items placed into alarm
- ◀ go back to parent menu
- RESET** exit the menu system and reset the panel

```
Walk Test Active
Press <SILENCE> to
end Walk Test
```

5.6 Menu 2.3: Test NACs

Available keys

- ◆ / ▲ highlight the NAC you wish to test
- ◀ / ▶ toggle testing on the highlighted NAC
- ◀ go back to parent menu
- RESET** exit the menu system and reset the panel

```
NAC Immediate On/Off
NAC1: OFF NAC2: OFF
NAC3: OFF NAC4: OFF
```

5.7 Menu 2.4: Test Relays

Available keys

- ◆ / ▲ highlight the relay you wish to test
- ◀ / ▶ toggle testing on the highlighted relay
- ◀ go back to parent menu
- RESET** exit the menu system and reset the panel

```
Relay Test
Trouble Relay: OFF
Alarm Relays: OFF
```

5.8 Menu 2.5: Test LCD Display

As soon as you enter this menu option, the PDC screen will alternately turn all pixels on and all pixels off row by row and also turn all PDC LEDs on and off.

Available keys

- ◀ go back to parent menu
- RESET** exit the menu system and reset the panel

(alternately filled and cleared)

5.9 Menu 2.5: Drill Test

The drill test will activate all outputs that are configured to operate during a fire drill.

Available keys

- ◀ go back to parent menu
- RESET** exit the menu system and reset the panel

```
<<< Fire Drill >>>
Press <SILENCE> to
end Fire Drill
```

Appendix A. Glossary

Terms used in this manual are defined as follows:

Acknowledge- An operator action indicating that an off-normal panel condition has been observed.

Alarm Signal- A signal indicating a fire alarm from a manual station, a waterflow alarm, or an automatic smoke detector.

Alarm Silence Inhibit- An option that prevents silencing the notification appliances for a preset period of time.

Alarm System- A system of compatible initiating devices, notification appliances, control panel, and accessories assembled to provide warning signals and remote alarms in the event of a fire.

Alarm Verification- A programmable option that requires a repeated alarm signal from smoke detectors before indicating an alarm.

Annunciator- A remote display, in communication with the control panel, indicating the status of an alarm system.

Audible Signal- A sound made by audible notification appliances, such as bells or horns.

Authority Having Jurisdiction (AHJ)- The office or officer responsible for approving fire or safety systems for the area or community involved.

Auto-Silence- The option by which a panel may automatically silence the notification appliances after a preset time period time.

Auxiliary Relays- Relays used to energize or de-energize other equipment.

Class A Circuit- A circuit connected so that a single open or ground will not prevent its function. These are NFPA Style 6 and Style 7 initiating device circuits and NFPA Style Z notification appliance circuits.

Class B Circuit- A circuit connected such that a single open or ground may prevent normal operation. These are NFPA Style 4 initiating device circuits and NFPA Style Y notification appliance circuits.

Counting Zone- A configuration in which two detectors in a specified area must operate before the alarm is recognized.

Detector – Ionization (Ion)- A smoke detector using the effect of smoke on the passage of current in an ionized air chamber.

Detector – Photoelectric (Photo)- A smoke detector sensing reflection or obstruction of a light beam by the smoke.

Digital Alarm Communications Transmitter (DACT)- A device by which off-normal conditions indicated on the panel may be communicated to a remote location by dial-up telephone lines.

Drift Compensation- An algorithm applied to changes in a smoke detector's sensitivity over time in order to provide a stable level of sensitivity.

End Of Line (EOL)- A resistor or other electronic device terminating a supervised circuit, to allow continuous monitoring of the connection.

Firefighter Ignore- A provision by which an authorized firefighter may disable detection points found to be causing a false alarm. This will indicate a system trouble and require repair service.

General Alarm- Simultaneous operation of all the notification appliances on a system.

Ground Fault- A system trouble indicating appearance of a leakage resistance between any system wiring and the system ground.

Initiating Device- Any manual or automatic device used to indicate an off-normal condition. This includes manual pull stations, smoke detectors, heat detectors, and waterflow or tamper switches.

Initiating Device Circuit (IDC)- The circuit by which initiating devices communicate with the control panel.

Labeled Equipment- Devices or materials, identified by an appropriate label which have been certified as acceptable by a laboratory or agency recognized by the "authority having jurisdiction". This certifies that the equipment complies with appropriate standards.

Listed Equipment- Devices or materials included in a list of conforming equipment published by a laboratory or agency acceptable to the "authority having jurisdiction" and authorized to bear their label.

National Electrical Code (NEC)- A national standard for electrical system safety, published by the National Fire Protection Association as NFPA standard 70.

Notification Appliance- An electrical device indicating system status, including bells, horns, strobe lights, and speakers.

Notification Appliance Circuit (NAC)- The circuit by which notification appliances are connected to the control panel.

Positive Alarm Sequence (PAS)- A process in which an off-normal response by a designated detector alerts an attendant, who may, by acknowledging within 15 seconds, delay the general alarm for 3 minutes, giving time to investigate and reset the system, if desired.

Power Supply- The circuit in a fire alarm panel which provides system operating power, either derived from the building supply or, in case of building power failure, from batteries maintained at full charge during normal operation.

Pre-Alarm Signal- A signal from an analog smoke detector indicating that the detector is approaching an alarm level.

Pre-Signal- A process by which an off-normal response by a designated detector initiates an alarm with only selected notification appliances operating, and may be programmed to then sound a general alarm if not silenced within a selected period of over a minute.

Signaling Line Circuit (SLC)- A circuit or path between any combination of circuit interfaces, control units, or transmitters over which multiple-system input signals or output signals, or both, are carried.

Smoke Control- Integration between the fire alarm system and a building's HVAC system (fans and dampers) to prevent the spread of smoke and fire.

Style W- A Class B NAC configuration in which a circuit reports troubles from grounds, shorts, or opens, but cannot operate the notification appliances with the abnormal condition.

Style X- A Class B NAC configuration in which a circuit reports troubles from grounds, shorts, or opens, and can operate the notification appliances with a single open.

Style Y- A Class B NAC configuration in which a circuit reports troubles from grounds, shorts, or opens, and can operate the notification appliances with a single ground fault.

Style Z- A Class A NAC configuration in which a circuit reports troubles from grounds, shorts, or opens, and can operate the notification appliances with a single open and/or a single ground fault.

Style 4- A Class B signaling line circuit in which the circuit reports troubles on ground faults, shorts, and/or opens, and can communicate an alarm with a single ground fault.

Style 6- A Class A signaling line circuit in which the circuit reports trouble on ground faults, shorts, and/or opens, and can communicate an alarm with a single open or a single ground fault.

Style 7- A Class A signaling line circuit in which the circuit reports trouble on ground faults, shorts, and/or opens, and can communicate an alarm with a single open, single ground, open and ground, or wire-to-wire short. This is the same panel connection as Style 6, with specialized isolation modules included in the loop.

Supervisory Alarm- A signal initiated by operation of a supervisory device.

Supervisory Device- A device monitoring the status of a fire sprinkler system, such as gate-valve closure, unacceptable water level, low water pressure switch, low temperature, or unready fire pump.

Trouble Signal- A signal indicating a condition which may threaten normal system operation, such as a circuit break, ground, power or equipment failure.

Walk Test- A test mode in which pre-selected initiating devices may be operated and indicate operation without alarming the system.

Waterflow Switch- An assembly constructed and installed to detect water flow from one or more sprinkler heads in a sprinkler system, thereby initiating an alarm signal.

Zone- An area grouping of inputs in the control panel for purposes of ordering the desired response.

A

B

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A

FireSpy Tracker Operating Instructions

Frame these instructions and place adjacent to the panel for ready reference

Condition	Description and some common responses
<p>Normal standby</p>	<p>When the system is operating normally and there are no off-normal conditions, the green AC POWER light is on and the display screen shows the banner message.</p>
<p>Alarm</p>	<p>In case of alarm, the ALARM light flashes, the buzzer sounds, and display screen shows the oldest alarm event. Audible and visual notification devices and remote alarm signals operate.</p> <p>To view alarm conditions: Press ◀ / ▶ keys to browse through alarm events.</p> <p>To silence the alarm: WARNING: <i>For Authorized Personnel Only</i> This will silence audible NACs and change panel indications to the alarm silenced condition.</p> <ul style="list-style-type: none"> • Acknowledge the reported events by pressing ACK. • Verify that no waterflow or other non-silenceable devices are involved. • Wait until the alarm silence inhibit timer has expired, if in use. • Press SILENCE. <p>To reset the panel: NOTE: <i>Any normally-energized relay control devices operated by the system may momentarily reverse on panel reset.</i> Only after the alarm condition is cleared, press RESET to return the panel to standby operation.</p>
<p>Trouble</p>	<p>When the system detects a trouble, the TROUBLE light flashes, the panel buzzer sounds, and the trouble event shows on the display screen.</p> <p>If the trouble has not been cleared within 24 hours, the trouble display will return to its initial condition and the buzzer will sound.</p> <p>WARNING: <i>Some trouble conditions may prevent response to a fire alarm.</i></p> <p>To view trouble conditions: Press ◀ / ▶ keys to browse through trouble events.</p> <p>To silence the trouble buzzer:</p> <ul style="list-style-type: none"> • Press ACK to acknowledge. The buzzer will silence and the resound timer will start.

If service is required, contact the installer or local Harrington dealer below.

Name	
Address	
Phone/Fax	



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