

# FireWarden-50C

## Intelligent Addressable FACP with Built-In Communicator


**Addressable**

### General

The **NOTIFIER FireWarden-50C (NFW-50C)** is a Fire Alarm Control Panel (FACP) and Digital Alarm Communicator/Transmitter (DACT) combined into one circuit board. This compact, intelligent addressable control panel supports up to 50 addressable devices in any combination of detectors or modules. With an extensive list of powerful features, the FireWarden-50C programs easily, and fits into applications previously served only by conventional panels.

The FireWarden-50C's integral DACT transmits system status (alarms, troubles, AC loss, etc.) to a Central Station via the public switched telephone network. It also allows remote and local programming of the control panel using the PS-Tools Upload/Download utility. In addition, the control panel may be programmed or interrogated off-site via the public switched telephone network. Any personal computer with Windows™ 95 or greater, and compatible modem with a speed of 14.4 kbps or faster and PS-Tools Upload/Download software, may serve as a Service Terminal. This allows download of the entire program or upload of the entire program, history file, walk-test data, current status and system voltages.

The power supply and all electronics are contained on a single circuit board supported on a new quick install chassis and housed in a metal cabinet. Available accessories include local and remote upload/download software, remote annunciators, and reverse polarity/city box transmitter. (4XTM).

### Features

- Listed to ULC S527-99, S559-04.
- Auto-program (learn mode) reduces installation time. Reports two devices set to the same address.
- On-board DACT.
- Two independently programmable Class A or Class B NAC circuits.
- Selectable strobe synchronization for System Sensor, and Wheelock devices.
- Two programmable relays and one fixed trouble relay.
- Built-in Programmer.
- Telephone Line Active LEDs.
- EIA-232 PC interface.
- Integral 80-character LCD display with backlighting.
- Real-time clock/calendar with automatic daylight savings control.
- History file with 500 event capacity.
- Automatic detector sensitivity testing.
- Automatic device type-code verification.
- Point trouble identification.
- Waterflow selection per module point.
- Alarm verification selection per detector point.
- Maintenance alert warns when smoke detector dust accumulation is excessive.
- One person audible or silent walk test with walk-test log and printout.
- System alarm verification selection per detector point.
- PAS (Positive Alarm Sequence) and Pre-signal per point.


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- Remote Acknowledge, Alarm Silence, Reset and Drill via addressable modules or remote annunciator.
- Upload/Download (local or remote) of program and data via integral DACT.

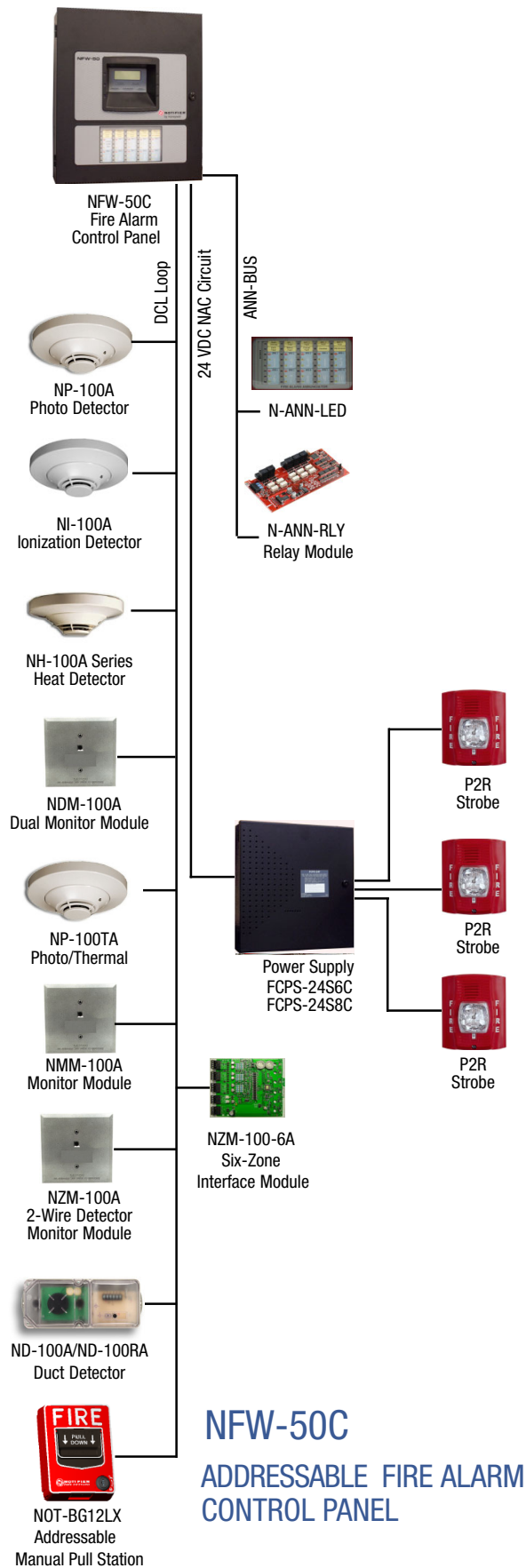
### DCL COMMUNICATION LOOP

- Single addressable DCL loop which meets ULC DCLA, DCLB and DCLC requirements.
- 50 addressable device capacity (any combination of addressable detectors and modules).
- Compatible with NOTIFIER FireWarden addressable devices (refer to the *FireWarden SLC Wiring Manual*).

### NOTIFICATION APPLIANCE CIRCUITS (NACS)

- Two independently programmable output circuits. Circuits can be configured for the following outputs:
  - **Class B**
  - **Class A**
  - **Door Holder Service** (cannot be used for notification appliances)
  - **Aux Power Source** (cannot be used for notification appliances)
- Silence Inhibit and Autosilence timer options.
- Continuous, March Time, Temporal or California code for main circuit board NACs with two-stage capability.
- Selectable strobe synchronization per NAC.
- 2.5 A total power for NACs.

**NOTE:** Maximum or total 24VDC system power shared between all NAC circuits and the ANN-BUS is 2.7 A.



## PROGRAMMING AND SOFTWARE

- Autoprogram (learn mode) reduces installation time.
- Custom English labels (per point) may be manually entered or selected from an internal library file.
- Two programmable Form-C relay outputs.
- 20 software zones.
- Continuous fire protection during online programming at the front panel.
- Program Check automatically detects common errors not linked to any zone or input point.
- **OFFLINE PROGRAMMING:** Create the entire program in your office using PS-Tools, Windows®-based software package, and upload/download system programming locally. PS-Tools is available on [www.magni-fire.com](http://www.magni-fire.com).

## User interface

### LED INDICATORS

- AC Power (green)
- Fire Alarm (red)
- Supervisory (yellow)
- Trouble (yellow)
- Alarm Silenced signals (yellow)

### KEYPAD

- 16 key alpha-numeric pad
- Acknowledge/Step
- Alarm Silenced
- Drill (Manual Evacuate)
- Reset (lamp test)

## Product Line Information

**NFW-50C:** Combination DACT/Fire Alarm Control Panel with one DCL loop. Includes main circuit board with display, chassis with transformer, backbox with door, plastic bag containing screws, cables, key, etc., manual.

**TR-CE-B:** Optional trim ring for semi-flush mounting. (Black. For red, order **TR-CE**.)

**BB-XP:** Optional cabinet for one or two modules.

**BB-25:** Optional cabinet for up to six modules mounted on CHS-6 chassis.

**BB-26:** Battery backbox, holds up to two 25 AH batteries.

**NFS-LBB:** Battery box, houses two 55 AH batteries

**CHS-6:** Chassis, mounts up to six multi-modules in a BB-25 cabinet.

**CHG-120:** Remote battery charging system for lead-acid batteries with a rating of 55 to 120 AH. Requires additional NFS-LBB for mounting. Note: Required for batteries larger than 18AH.

**BA Series:** Batteries.

**PRT/PK-CABLE:** Cable printer/personal computer interface cable.

**AC-TRMBLK:** AC Terminal Block mounts to a metal bracket, in turn, mounts to the FACP chassis. Use AC-TRMBLK when wire nuts are not allowed for AC connections to the transformer.

### OPTIONAL MODULES

**4XTM Reverse Polarity Transmitter Module:** Provides a supervised output for local energy municipal box transmitter, alarm and trouble. Includes a disable switch and disable trouble LED.

**ANN-SEC:** Optional secondary ANN-BUS interface module.  
*Note: Used only with firmware 3.0 or higher.*

### COMPATIBLE ANNUNCIATORS

**N-ANN-LED:** Annunciator Module provides three LEDs for each zone: Alarm, Trouble and Supervisory. Built-in.

**N-ANN-RLY:** Relay Module provides 10 programmable Form-C relays. Can be mounted inside the cabinet.

### ADDRESSABLE DEVICES

*All feature a polling LED and rotary switches for addressing.*

**NI-100A:** Addressable low-profile ionization smoke detector.

**NP-100A:** Addressable low-profile photoelectric smoke detector.

**NP-100RA:** Remote-test capable addressable low-profile photoelectric smoke detector; for use with DNRA duct-detector housing.

**NP-100TA:** Addressable low-profile photoelectric smoke detector with thermal sensor.

**NH-100A:** Fast-response, low-profile heat detector.

**NH-100RA:** Fast-response, low-profile heat detector with rate-of-rise option.

**NH-100HA:** Fast-response, low-profile heat detector that activates at /88°C.

**NP-A100A:** Addressable, acclimate detector.

**DNRA:** InnovairFlex low-flow non-relay duct-detector housing. (Order NP-100A separately.)

**NMM-100A:** Addressable Monitor Module for one zone of normally-open dry-contact initiating devices. Mounts in standard 10.16 cm. box. Includes plastic cover plate and end-of-line resistor. Module may be configured for either a Style B (Class B) or Style D (Class A) IDC.

**NDM-100A:** Dual Monitor Module. Same as NMM-100A except it provides two Style B (Class B) only IDCs.

**NMM-100PA:** Miniature version of NMM-100A. Excludes LED and Style D option. Connects with wire pigtails. May mount in device backbox.

**NZM-100A:** Similar to NMM-100A. Addressable Monitor Module for one zone of conventional two-wire detectors. Requires resettable 24 VDC power. Refer to the *Device Compatibility Document* for listed compatible devices and quantity limitation.

**NZM-100-6A:** Six-zone interface module. Mount one or two modules in a BB-XP cabinet (optional). Mount up to six modules on a CHS-6 chassis in a BB-25 series cabinet.

**NMM-100-10A:** Ten-input monitor module. Mount one or two modules in a BB-2 cabinet (optional). Mount up to six modules on a CHS-6 chassis in a BB-25 cabinet.

**NC-100A:** Addressable Control Module for one Style Y/Z (Class B/A) zone of supervised polarized Notification Appliances. Mounts directly to a 10.16 cm. electrical box. Notification Appliance Circuit option requires external 24 VDC to power notification appliances.

**NC-100RA:** Addressable relay module containing two isolated sets of Form-C contacts, which operate as a DPDT switch. Mounts directly to a 10.16 cm. box, surface mount using the SMB500-C.

**NOT-BG12LX:** Addressable manual pull station with interface module mounted inside.

**NFW-MPS Series:** Manual pull stations, addressable and conventional. For use in Canada only with FireWarden panels.

**N100-ISOA:** Fault Isolator Module.

**SMB500-C:** Used to mount all modules except the NMM-100PA.

**NOTE:** For more information on Compatible Addressable Devices for use with the FireWarden-50, see the following data sheets (document numbers): N100-ISO (DN-6994), NP-100/NP-100T (DN-6995), NI-100 (DN-6996), NH-100/NH-100R (DN-6997), NP-A100 (DN-6998), NMM-100/NMM-100P/NDM-100/NZM-100 (DN-6999), NC-100/NC-100R (DN-7000), NMM-100-10 (DN-6990), and NOT-BG12LX (DN-7001).

### ADDRESSABLE DEVICE ACCESSORIES

**End-of-Line Resistor Assembly (R-47K and R-3.9K):** The 47k ohm assembly supervises the NMM-100A, NDM-100A, NMM-100PA, and NC-100A module circuits. The 3.9k ohm assembly supervises the NZM-100A module circuit. These resistors are included with each module.

**Power Supervision Relay:** Supervises the power to 4-wire smoke detectors and notification appliances.

**EOL-CR, EOL-CW:** Single End-of-Line resistor plate (required). EOL-CR is red; EOL-CW white. (See DN-5994.)

### Wiring Requirements

While shielded wire is not required, it is recommended that all DCL wiring be twisted-pair to minimize the effects of electrical interference. Refer to the panel manual for complete details.

# SYSTEM SPECIFICATIONS

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## System Capacity

- Intelligent DCL Circuit Loops ..... 1
- Addressable device capacity ..... 50
- Programmable software zones ..... 20
- Annunciators ..... 2

## Electrical Specifications

**AC Power:** FireWarden-50C 120 VAC, 60 Hz, 0.3 A. Wire size: minimum 14 AWG (2.00 mm<sup>2</sup>) with 600 V insulation. Non-power-limited, supervised.

**Battery:** Two 12 V 18 AH lead-acid batteries. Battery Charger Capacity: 7-18 AH (FireWarden-50C cabinet holds maximum of two 18 AH batteries.)

**Communication Loop:** Supervised and power-limited.

**Notification Appliance Circuits:** Terminal Block provides connections for two NACs, Class B or Class A. Special Application power. Power-limited, supervised circuitry. Maximum signaling current per circuit: 2.5 A. End-of-Line Resistor: 4.7k ohm, ½ watt for Class B NAC. Refer to the NOTIFIER Device Compatibility Document for listed compatible devices.

**Two Programmable Relays and One Fixed Trouble Relay:** Contact rating: 2.0 A @ 30 VDC (resistive), 0.5 A @ 30 VAC (resistive). Form-C relays, nonpower-limited, nonsupervised.

## Cabinet Specifications

**Door:** 48.92 cm. high x 42.73 cm. wide x 1.82 cm. deep. **Back-box:** 48.26 cm. high x 42.29 cm. wide x 13.34 cm. deep. **Trim Ring (TR-CE):** 55.88 cm. high x 49.91 cm. wide.

## Shipping Specifications

**Weight:** 12.20 kg. **Dimensions:** 50.80 cm. high x 57.15 cm. wide x 21.59 cm. deep.

## Temperature and Humidity Ranges

This system meets NFPA requirements for operation at 0 – 49°C and at a relative humidity 93% ± 2% RH (noncondensing) at 32°C ± 2°C. 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.

## Agency Listings and Approvals

The listings and approvals below apply to the basic FireWarden-50C control panel. In some cases, certain modules may not be listed by certain approval agencies, or listing may be in process. Consult factory for latest listing status.

- **ULC listed:** File DAYRC S635, UOJZC S635

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