PTW-NCA
Network Control Annunciator

General

The PTW-NCA is a second-generation Network Control Annunciator for the PTW•FIRE•NET network, compatible for use with Protectwell's nodes such as the PTW-3300 fire alarm control panels, as well as first-generation NCA Network Control Annunciators. Additionally,the PTW-NCA may be configured with DVC Series products to create one or more Digital Audio Command Centers on PTW•FIRE•NET. The PTW-NCA provides system control and display capabilities for all, or for selected network nodes.The PTW-NCA display consists of a 640-character back-lit LCD display, and a control interface consisting of "soft" keys used to navigate screen menus, "hard" keys with fixed control func-tions, and a QWERTY keypad.

When connected to one or more networked panels the PTW-NCA provides network control and status/history display capabilities. It may also be configured as the Primary Display for displayless nodes on the network.

PTW-NCA in ABS-2D backbox

Hardware Features

- Certified for seismic applications when used with the appropriate seismic mounting kit.
- Full supervision of all inputs and network integrity.
- Enhanced-format 640-character LCD display with backlighting.
- ACS bus for LED or graphic annunciators (EIA-485).
- Optically isolated printer interface (EIA-232).
- 11 LED status indicators: Power, Controls Active, Fire Alarm, Pre-Alarm, Security, Alert, Supervisory, Trouble,Signal, Silence, CPU Failure, Point Disabled, Other Event.
- Alphanumeric QWERTY rubber keypad.
- Four status relays: Alarm, Trouble, Supervisory, Security (Form-C).
- Non-volatile real-time clock can be synchronized with network by master node.
- Optional Security Keyswitch enables keypad functions.
- Optional Security Tamper switch.
- Supports up to 32 remote ACS annunciators and modules.
- Requires 24 VDC, and a network connection.
- RDP port for LCD-160 or terminal mode LCD2-80.

NOTE: PTW-NCA Firmware version 14.0 (and higher) can support LCD-160 on the RDP port, or LCD2-80 in terminal mode,but not both at the same time.

Function Features

- Individual Enable/Disable or Group Enable/Disable local for networked Protectwell PTW-3300 ONYX series panels.

- Control ON/OFF networked PTW-3300 ONYX series panel control points.
- Read Status networked PTW-3300 ONYX series panel points and zones.
- Network paging control/HVAC control .
- Network-wide: Acknowledge, Silence, Reset.
- Lamp Test (local to PTW-NCA).
- History Buffer (1,000 Alarm events; 4,000 System events).
- Print PTW-NCA programming and history reports.
- Report status of networked panels and their respective field devices to a central station via a single UDACT-2.
- One Master level, nine User level passwords. The Master can assign each User access levels (programming, alter status).
- Interactive Summary Event Count display, event handling package.
- Online programming and alter-status programs.
- Intuitive user guidance program including interactive soft keys.
- Enhanced Read Status/Alter Status displays.
- New history filters for report displaying and printing: All Events, Only Alarms, Only Troubles, Only Supervisory,Only, Security, Time Interval, Point Range.
- Fully programmable node-mapping subsystem.
- Advanced/Basic Walk-Test program.
- Timer control for Auto Silence, AC Fail Delay.
- Meets Canadian ULC display requirements.
- Environmental adjustment controls to maximize LCD legibility.
- Meets NFPA requirements for Firefighter Smoke Control Station (FSCS) and HVAC.
- PTW-NCA version 20 and higher complies with UL Mass Notification Systems.

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PTW-NCA Indicators and Controls

LED INDICATORS

- POWER (green) illuminates when 24 VDC power is applied;LED goes out if power is removed and PTW-NCA is using a battery.

- CONTROLS ACTIVE (green) illuminates to indicate that the PTW-NCA control functions are active.

- FIRE ALARM (red) illuminates when at least one fire alarm event exists; flashes when any of these events remain unacknowledged.

- PRE-ALARM (red) illuminates when at least one pre-alarm event exists; flashes when any of these events remain unacknowledged.

- SECURITY (blue) illuminates when at least one security event exists; flashes when any of these events remain unacknowledged.

- SUPERVISORY (yellow) illuminates when at least one supervisory event exists (i.e., sprinkler valve off normal, low pressure, fire pump running, guard's tour, etc.); flashes when any of these events remain unacknowledged.

- SYSTEM TROUBLE (yellow) illuminates when at least one trouble event exists; flashes when any of these events remain unacknowledged.

- OTHER EVENT (yellow) illuminates for any category of event not listed above; flashes when any of these events remain unacknowledged.

- SIGNALS SILENCED (yellow) illuminates if the PTWNCA-2 Silence key has been pressed or if any other node sent a Network Silence command; flashes if only some points on a node are silenced.

- POINT DISABLED (yellow) illuminates when at least one disable exists on the network or in the system.

- CPU FAILURE (yellow) activated by the watchdog timer hardware, indicates an abnormal hardware or software condition. Contact technical support.

FIXED FUNCTION KEYS

- Acknowledge
- Signal Silence
- System Reset
- Drill/Alarm Signal
- Fire Alarm Scroll/Display
- Security Scroll/Display
- Supervisory Scroll/Display
- Trouble Scroll/Display
- Other Event Scroll/Display

The five keys labeled SCROLL/DISPLAY allow the user to scroll through messages for the particular event type. For example, pressing the FIRE ALARM SCROLL/DISPLAY key will scroll through all fire alarm events, as details of each are shown in the display area of the PTW-NCA.

NOTE: The OTHER EVENT SCROLL/DISPLAY key also scrolls between Pre-Alarm and Disabled events.

- ACKNOWLEDGE – press this key to acknowledge off all active events.

- SIGNAL SILENCE – press this key to turn off all control modules, notification appliance circuits, and panel output circuits that have been programmed as Silenceable.

- SYSTEM RESET – press this key to clear all latched alarms and other events and turn off event LEDs.

- DRILL HOLD 2 SEC – press this key, holding it down for two seconds, to activate all silenceable output circuits.

SPECIAL FUNCTION KEYS

- PRINT SCREEN – press this key to print what is currently on the LCD screen.

- LAMP TEST – press this key to test the LED indicators on the left of the keypad and to check firmware revision numbers.

- NEXT SELECTION/PREVIOUS SELECTION – these keys are used when setting parameters in PTW-NCA data fields; for example, choosing a device type as a filter for requesting a Node History.

- BATTERY LEVEL – press this key to display voltage and charging current level for system batteries. Displays levels for local AMPS-24E or AMPS-24E connected to associated PTW-3300 node.

Specifications

Temperature and humidity ranges: This system meets NFPA requirements for operation at 0°C to 49°C (32°F to 120°F);and at a relative humidity (non-condensing) of 85% at 30°C (86°F) per NFPA. 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 all peripherals be installed in an environment with a nominal room temperature of 15°C to 27°C (60°F to 80°F). Product weight is 3 lbs (1.36 kilograms).

ELECTRICAL REQUIREMENTS

The PTW-NCA may be powered from a Main Power Supply AMPS-24E mounted in a separate cabinet (see specifications below); or from any UL Listed non-resettable 24 VDC source from a Protectwell fire panel. The battery on the PTW-NCA mother-board is for RTC and SRAM;holds the history memory through power failure.Replacements are available. Power source: AMPS-24E(240 VAC, 50/60 Hz, 2.25 A max-imum) power supply.The current of the PTW-NCA is 400 mA with backlight and 200 mA with the backlight off.

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Product Line Information

- **PTW-NCA:** Network Control Annunciator. Requires a network communications module for networking. In direct connect applications NCM not required.

- **NCM-W, NCM-F:** Standard Network Communications Modules. Wire and multi-mode fiber versions available.

- **HS-NCM-W/MF/SF/WMF/WSF/MFSF:** High-speed network communications modules. Wire, single-mode fiber, multimode fiber, and media conversion models are available.

- **ABS-2D:** Annunciator Backbox, Surface, black. Mounts one PTW-NCA and one NCM-W/-F.

- **ABS-2DR:** Same as above, but red.

- **ABS-4D** Annunciator Surface Box.

- **ABF-1B** Annunciator Flush Box.

- **ABF-1DB** Annunciator Flush Box with Door.

- **ABF-2B** Annunciator Flush Box.

- **ABF-2DB** Annunciator Flush Box with Door.

- **ABF-4B** Annunciator Flush Box.

- **ABS-1TB** Annunciator Surface Box.

- **ABS-1B** Annunciator Surface Box.

- **ABS-1TB** Annunciator Surface Box.

- **ABS-2B** Annunciator Surface Box.

- **CHS-2D:** Chassis, required whenever the PTW-NCA is mounted in an ABS-2D.

- **CHS-M3:** Chassis, mounts an PTW-NCA in a single row of a CAB-4 Series cabinet.

- **CA-2:** Chassis, Audio, 2 rows. Mounts an PTW-NCA and the DVC Digital Voice Command in two rows of a CAB-4 Series cabinet.CAB-4 Series Enclosure: Available in four sizes, "A" through"D". Backbox and door ordered separately; requires BP2-4 battery plate.

- **DP-DISP:** Annunciator Dress Plate. Dress plate is used when PTW-NCA is mounted in the top row of a CAB-4 Series cabinet with a CHS-M3 chassis.

- **NCA-2RETRO:** Kit for retrofit mounting the PTW-NCA to a DP-DISP dress plate.

- **NCA/640-2-KIT:** Mounting kit for directly mounting the PTW-NCA to CPU2-640 chassis.

- **LCD-160:** 160 character LCD annunciator.

- **LCD2-80:** 80 character LCD annunciator.

- **TR-ABS2D:** Trim ring for semi-flush mounting of ABS-2D.

PAgency Listings and Approvals

These listings and approvals apply to the PTW-NCA and PTW-NCA. In some cases, certain modules or applications may not be listed by certain approval agencies, or listing may be in process. Consult factory for latest listing status.

- UL Listed: file S24647.

- FM approved.