

## MODULAR COMMAND CENTRES



### FEATURES

- 1, 2 and 4 loop modular command centres
- Audio/visual synchronisation (panel & network wide)
- Two standard sizes (3x3 and 3x5)
- Up to 200 networked panels
- Multiple control options

### PRODUCT INFORMATION

NEO modular command centres are built on the backbone of our NEO intelligent fire panels to support a wide variety of configurations and applications. The NX10-CC01 and NX10-CC02 command centres are supplied in modular format for easy expansion and customisation. They have been designed to support a wide variety of applications and are fully compatible with the full range of NEO fire alarm control panels.

Our command centres are also fully compatible with NEO audio and telephone options and can be configured for master control or peer-to-peer. Master control mode allows only one command centre to manually operate audio and main system control functions. Shield's telephone Riser module can be mounted inside the command centre or remotely for added security.

To simplify installation, programming, troubleshooting, training and support, all command centres can be programmed using the same Windows-based programming tools. In addition, they are fully compatible with a range of NEO main PCBs, option modules, peripherals and intelligent devices.

To simplify control and operation of a large, networked, wide area or high rise system, each modular command centre will support up to 252 individually assignable switches through the use of up to sixteen NX10-EM-ASW-16 Switch LED Modules. These modules mount to the inner doors. The switch action can be either toggle, on/off or hold for 2 seconds. Each switch is associated with 3 LEDs that are red, yellow and green. These LEDs are fully programmable and can be set to turn on

with a steady light and/or to flash. There is also space for user-defined text to clearly identify the function of each switch LED. This versatility simplifies operation and control and means that status is readily available and quickly identified.

Examples of switch operations include an and HVAC control, paging area select, message select, telephone control, purging and zone/area/point bypass. The total number of switches supported across a maximum configured network is 51,200. A key feature is that individual switch and LED response time is not affected by the size of the network and each switch and LED can be assigned to network functions as well as individual panel functions.

Modular command centres can be configured to support firefighter telephone systems. The NX10-TEL2 system range contains a command centre telephone and a single telephone riser control module with associated devices such as switch cards and dedicated telephone display LCD. It may be easily installed to the inner door. Up to 250 addressable firefighter phones can be wired/monitored per telephone riser. Risers are supervised for open circuits, short circuits and grounds, and will continue to operate should these conditions occur. Firefighter telephones themselves are fully supervised as well. When a field telephone is taken off the hook, a buzzer sounds at the command centre and a corresponding LED blinks. When the command centre operator presses the individual phone select button, the field telephone is then connected. At that time, the LED at the field telephone station is illuminated indicating successful connection.

Up to 5 field telephones, per riser, may be connected to the command centre phone at one time on a "party line" (30 for six risers). In addition to a broad range of firefighter telephones, the NX10-JACK is an addressable firefighter phone jack that includes a red "phone active" LED that turns on when the command centre telephone connection is made. Wiring to each NX10-JACK is fully supervised. Firefighter phones and jacks are available as addressable or conventional, meeting both new and retrofit installation requirements.

An NX10-AMP-80 audio amplifier module, with associated NX10-EM-PSU6 power supply/charger and NX10-MIC microphone assembly installed in a modular command centre adds audio capability at the head end of a fire system. Each NX10-AMP-80 has two 40 Watt speaker circuits (these can be programmed as 1:1 backup) and can play up to 16 different messages. Live or recorded audio messages can be sent to any location in a facility through either manual or automatic controls.

Control functions include: All Call, All Evac, All Alert, Message Select and Area Select. For immediate control of paging to all areas, press the All Call button. To generate and play an evacuation, alert or mass notification message throughout a facility, push the All Evac, All Alert or Mass Notification

Message button. To play a particular message in specific areas, use individual message selection buttons followed by the individual area selection buttons.

A typical high-rise application can be configured with Shield NX10-VB audio boosters on a per floor (area) basis. The boosters are controlled by the Control-by-Event logic at the command centre to generate specific messages upon specific conditions. For example, it is easy to program a typical fire floor, floor above and floor below evacuate message that is simultaneous with adjacent floor alert messages, while simultaneously providing the capability to override automatic messages at any time with manual paging to all or selective areas. While offering all of this power and flexibility, the audio and visual signals maintain full synchronisation when required.

The modular command centres are available in two basic enclosure sizes. The smaller of the two enclosures (also referred to as the 3x3 modular command centre) measures 22.6"H x 20.25"W x 5.5"D. The larger of the two enclosures (also referred to as the 3x5 modular command centre) measures 35.9"H x 20.3"W x 5.5"D.

Selecting the right components to create a customised modular command centre is straightforward. Follow steps 1-6 below.

## Step One: Enclosure Selection - Small Enclosure

**Backbox – NX10-CC01-BB. Dimensions: 22.6"H x 20.25"W x 5.5"D**

Provides 3x3 module support. Supports one NEO Series main PCB (base card), one expandable NX10-EM-PSU power supply, one NX10-AMP-80 Amplifier, one NX10-EM-PSU6 Power Supply Charger, or one of either NX10-EM-RL4 or NX10-EM-RL8 Relay Module.

**Inner Door Options – NX10-CC01-ID1, NX10-CC01-ID2, NX10-CC01-ID3**

**NX10-CC01-ID1:** 1 double aperture and 7 single aperture openings. Attaches to NX10-CC01-BB back box. Has 1 double aperture, which supports mounting of NX10-ACS-DSP Display/Keyboard Module or NX10-FA-DAP blank plate, and 7 single aperture openings. Single aperture openings support NX10-FA-SAP, NX10-EM-I/O48, NX10-EM-ASW-16, NX10-FA-LED16RY, NX10-FA-LED32R, NX10-FA-LED32Y, NX10-EM-PRN, NX10-EM-ACM6 and NX10-MIC modules. Metalwork and mounting hardware only.

**NX10-CC01-ID2:** 2 double apertures and 5 single aperture openings. Attaches to NX10-CC01-BB back box. Has 2 double apertures, which support mounting of NX10-ACS-DSP Display/Keyboard Module, NX10-FA-DAP blank plate and NX10-TEL Telephone Module, and 5 single aperture openings. Single aperture openings support NX10-FA-SAP, NX10-EM-I/O48, NX10-EM-ASW-16, NX10-FA-LED16RY, NX10-FA-LED32R, NX10-FA-LED32Y, NX10-EM-PRN, NX10-EM-ACM6 and NX10-MIC modules. Metalwork and mounting hardware only.

**NX10-CC01-ID3:** 9 Single aperture openings. Attaches to NX10-CC01-BB back box. Has 9 single aperture openings. Single aperture openings support NX10-FA-SAP, NX10-EM-I/O48, NX10-EM-ASW-16, NX10-FA-LED16RY, NX10-FA-LED32R, NX10-FA-LED32Y, NX10-EM-PRN, NX10-EM-ACM6 and NX10-MIC modules. Metalwork and mounting hardware only.

**Outer Door – NX10-CC01-OD:** Attaches to NX10-CC01-BB back box. Metalwork, plexiglass, key lock and mounting hardware only.



NX10-CC01-ID1

NX10-CC01-ID2

NX10-CC01-ID3

## Step One: Enclosure Selection - Large Enclosure

**Backbox – NX10-CC02-BB. Dimensions: 35.9"H X 20.25"W X 5.5"D**

Provides 3x5 module support. Supports one NEO series main PCB (base card), one expandable NX10-EM-PSU power supply, two NX10-AMP-80 amplifiers, two NX10-EM-PSU6 power supply chargers, and one of either NX10-EM-RL4 or NX10-EM-RL8 relay modules.

**Inner Door Options – NX10-CC02-ID1, NX10-CC02-ID2, NX10-CC02-ID3**

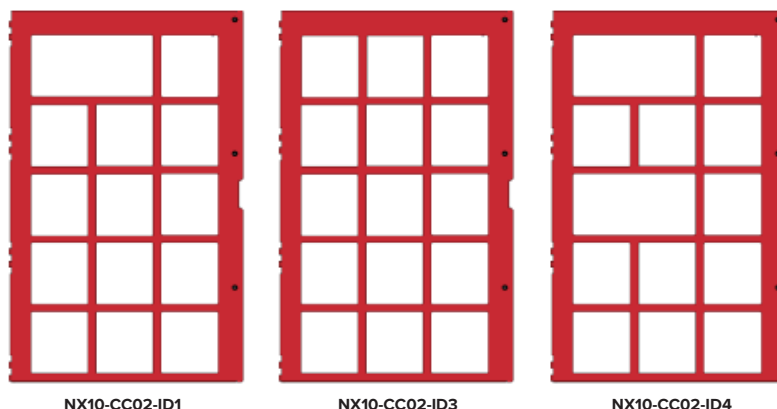
**NX10-CC02-ID1:** 1 double aperture and 13 single aperture openings. Attaches to NX10-CC02-BB back box. Has 1 double aperture opening, which supports mounting of NX10-ACS-DSP display/keyboard module or NX10-FA-DAP blank plate, and 13 single aperture openings. Single aperture openings support NX10-FA-SAP, NX10-EM-I/O48, NX10-EM-ASW-16, NX10-FA-LED16RY, NX10-FA-LED32R, NX10-FA-LED32Y, NX10-EM-PRN, NX10-EM-ACM6 and NX10-MIC modules. Metalwork and mounting hardware only.

**NX10-CC02-ID3:** 15 Single aperture openings. Attaches to NX10-CC02-BB back box. Has 15 single aperture openings. Single aperture openings support NX10-FA-SAP, NX10-EM-I/O48, NX10-EM-ASW-16, NX10-FA-LED16RY, NX10-FA-LED32R, NX10-FA-LED32Y, NX10-EM-PRN, NX10-EM-ACM6 and NX10-MIC modules. Metalwork and mounting hardware only.

**NX10-CC02-ID4:** 2 double apertures and 11 single aperture openings. Attaches to NX10-CC02-BB back box. Has two double aperture openings, which support mounting of AX-DSP display/keyboard module, NX10-FA-DAP blank plate and NX10-TEL2-MCCS telephone module, and 11 single aperture openings. Single aperture openings support NX10-FA-SAP, NX10-EM-I/O48, NX10-EM-ASW-16, NX10-FA-LED16RY, NX10-FA-LED32R, NX10-FA-LED32Y, NX10-EM-PRN, NX10-EM-ACM6 and NX10-MIC modules. Metalwork and mounting hardware only.

**Outer Door – NX10-CC02-OD**

Attaches to NX10-CC02-BB back box. Metalwork, plexiglass, key lock and mounting hardware only.



NX10-CC02-ID1

NX10-CC02-ID3

NX10-CC02-ID4

## Step 2: Main PCB's

**Standard System Modules - select one each:**

- NX10-ACS-ACB: AC input power interface PCB. Required for NX10-ACS-1L and NX10-ACS-2L
- NX10-ACS-DSP: NX series display/keyboard PCB. Comes with mounting plate, membrane switch, cables and mounting hardware.

- NX10-ACS-2L (Base Card): Two-loop control board with internal PSU.
- Optional expansion power supply for NX10-ACS-2L: Add NX10-EM-PSU expansion power supply module, 5.0A @ 24VDC, filtered and regulated, if required.

**System Base Card - select one of the following:**

- NX10-ACS-1L (Base Card): Single-loop control board with internal PSU. Cannot expand system power with NX10-EM-PSU.

## SLC and/or NAC Expansion for NX10-ACS-2L (Base Card) ONLY, select one of the following:

- NX10-EM-LPD: Includes 2 SLCs and 2 NACs
- NX10-EM-NAC: Includes 2 NACs

## Optional Network Module, select one if networking Remote Annunciators, Command Centers and NEO Series Intelligent Fire Alarm Panels::

- NX10-FANET4: Ad-NeT-PluS network interface module Class B. Maximum 64 nodes; panels and/or remote annunciators.
- NX10-FANET7: Ad-NeT-PluS network interface module Class X(A). Maximum 200 nodes; panels and/or remote annunciators.

## Step 3: Audio Support

For systems requiring audio support, the following modules are required:

**NX10-AMP-80:** Audio amplifier module includes built-in 16 message generator, dual booster inputs and two 40 watt, 25 Vrms speaker outputs. Includes mounting plate and mounting hardware. The smaller modular command centre will support one amplifier; the larger modular command centre will support two amplifier modules.

**NX10-EM-PSU6:** Power Supply Charger Module, 5.0A @ 24VDC, filtered & regulated, for use with NX10-AMP-80 Amplifier. The smaller modular command centre will support one NX10-EM-PSU6; the larger modular command centre will support two NX10-EM-PSU6 modules.

**NX10-MIC:** Microphone with enclosure. Mounts to all modular command centre inner doors, in a single aperture location.

## Step 4: Firefighter Telephone Support

The NX10-TEL2-MCCS module is required for firefighter telephone support. This mounts in a double aperture location on the inner door.

**NX10-TEL2-MCCS:** Is a firefighter phone for use with the NX10-TEL2-RISER6. The NX10-TEL2-RISER6 provides a single riser supporting 250 addressable or conventional firefighter telephones/jacks.

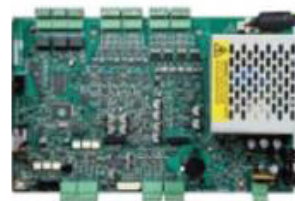
## Step 5: Options Modules Mounted to Back Box

**NX10-EM-RL4:** Four Relay Output Card, Form C relays rated 1.0A @ 30 VDC/VAC, freely programmable. Cannot be installed if NX10-AMP-80 is installed, however, can be installed in a remote enclosure.

**NX10-EM-RL8:** Eight Relay Output Card with two (2) Form C and six (6) - Form A relays rated 1.0A @ 30 VDC/VAC, freely programmable. Cannot be installed if NX10-AMP-80 is installed.



NX10-EM-LPD 2 SLC & 2 NAC Expansion



NX10-ACS-2L Base Card



NX10-AMP-80 Audio Amplifier



NX10-MIC Microphone

## Step 6: Option Modules that Mount to Inner Doors

- Each of the modules below mounts in a single aperture location on the inner door. Mounting hardware and cabling included.
- NX10-FA-SAP: Single aperture blank metal plate. Comes with mounting hardware.
- NX10-EM-ASW-16: 16 switches, with three integrated, programmable LEDs per switch (red, yellow, green).
- NX10-EM-I/O48: 16 switch inputs and 48 LED driver outputs. Supports up to 5 optional NX10-EM-RL10 relay output modules, for a total of 50 relay outputs. Each NX10-EM-RL10 module provides 10 Form C A relays rated 1.0A @ 30 VDC/VAC. Comes with a 1-foot long ribbon cable.
- NX10-FA-LED16RY: LED annunciator module, 16 red and 16 yellow LEDs. NX10-FA-LED32R: LED annunciator module, 32 red LEDs.
- NX10-FA-LED32Y: LED annunciator module, 32 yellow LEDs.
- NX10-EM-PRN: Axis AX thermal printer with mounting hardware. NX10-EM-ACM6: Fan/damper module
- NX10-MIC: microphone assembly
- Each of the modules below mounts in a double aperture location on the inner door. Mounting hardware and cabling included. NX10-ACS-DSP: Keyboard display.
- NX10-TEL2-MCCS: Firefighter telephone assembly with standard telephone.
- NX10-FA-DAP: Double aperture blank metal plate. Comes with mounting hardware.

## ORDERING INFORMATION

NX10-CC01-BB	22.6"H X 20.25"W X 5.5"D, 3X3 Back Box
NX10-CC01-ID1	Inner Door 1 Double and 7 Single Apertures
NX10-CC01-ID2	Inner Door 2 Double and 5 Single Apertures
NX10-CC01-ID3	Inner Door 9 Single Apertures
NX10-CC01-OD	Outer Door
NX10-CC02-BB	35.9"H X 20.25"W X 5.5"D, 3X5 Back Box
NX10-CC02-ID1	Inner Door 1 Double and 13 Single Apertures
NX10-CC02-ID3	Inner Door 15 Single Apertures
NX10-CC02-ID4	Inner Door 2 Double and 11 Single Apertures
NX10-CC02-OD	Outer Door

Note: Specifications are subject to change without notice.