

MPC-Net Control Panel Networking

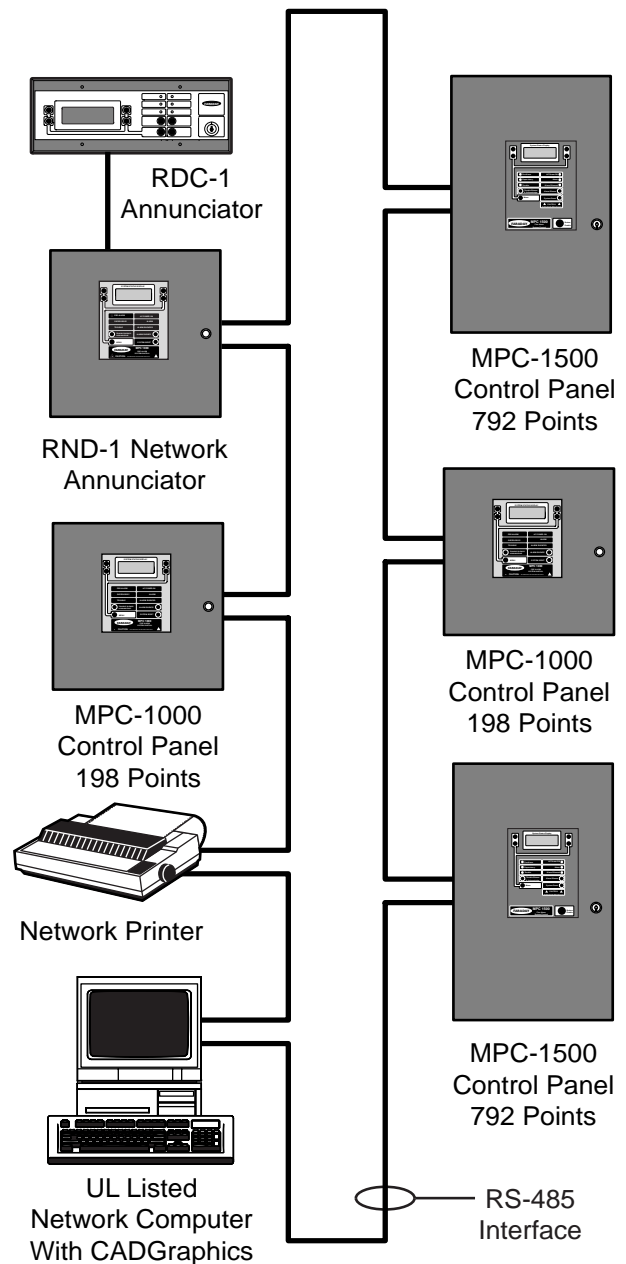
Features

- 127 nodes with total capacity of over 100,000 points
- True peer-to-peer communications with each node storing it's own program and easily communicating it's status to the network
- True distributed intelligence
- NIB module connects MPC-Plus panels anywhere on the network
- No "Master Node" necessary
- Each node acts as a repeater to regenerate data signals
- Each node is electrically isolated
- Failure of one node does not affect the operation or communication of other nodes on the network
- NFPA style "4" or style "7" network operation
- It is possible to install multiple Network Annunciator Units (RNDs) anywhere on the network
- Alarm silence, acknowledge and panel reset controls are programmable at each Network Annunciator
- MPC-Net network computers with graphic software (CADGraphics) will provide detailed annunciation or instruction via computer interface
- UL listed, CSFM and MEA pending

Description

Faraday's **MPC-Net™** Control Panel Networking will allow Faraday MPC-Plus Series Intelligent Fire Alarm Control Panels to form a network. Each local control panel (node) maintains it's own area of protection, while monitoring and controlling other network nodes. Local information is displayed at each network node. Central annunciation and control can be attained by mounting a Network Annunciator Unit (RND-1) or CADGraphics at an area such as a security desk.

The Faraday MPC-Net is an RS-485 based network that allows a maximum of 127 nodes with a total capacity of over 100,000 points. Since installation and programming of the MPC-1500 Plus and MPC-1000 Plus Fire Alarm Control Panels is easily accomplished, the configuration of the MPC-Net is simple, yet powerful.



Network Computer/CADGraphics (12533P/G/S) or 12534P/G/S)

The network computer is a UL 864 listed desktop computer with the CADGraphics software installed. The network computer comes with either a 19" monitor or a 19" touch screen monitor.

CADGraphics is a graphical program designed to announce activity on the network. There are three versions available; Silver, Gold and Platinum. It has the ability to show floor plans with device placement, descriptive written, and audible messages that can be unique to every initiating device on the network. The software is loaded on a UL 864 listed computer, running Windows NT 4.0. Requires a (12526) NIB-I board

NIB - Network Interface Board (12523 or 12526)

The Faraday **MPC-Net** network is a way to link Faraday MPC-1000 Plus and MPC-1500 Plus Fire Alarm Control units, RND-1 Remote Network Annunciators, and devices such as printers, and computers together to form a peer-to-peer network. Each device connected to the network requires a **NIB** (network interface board). The NIB communicates with the attached device through an RS232 port. It receives 24VDC from a MPC-1000 Plus, MPC-1500 Plus or RND-1. The network is wired from node to node in a daisy chained ring configuration for style 7 operation. It can also be wired node to node in a daisy chained "flat" configuration with two ends for style 4 operation. (Style 7 is recommended). The network side of the NIB has 2 ports. Port 1 (reverse direction) is an isolated port and port 2 (forward direction) is a non-isolated port. Port 2 of a NIB must be wired to port 1 of the next NIB (see wiring diagrams). The signals are regenerated at each NIB allowing a distance of 3000 feet between NIBs. A total of 127 NIBs (note: address 121-127 are reserved for certain devices) can be connected on a network.

There are two versions of NIBs:

1. P/N **12523** is a NIB designed to connect to a MPC-1000 Plus, MPC-1500 Plus, RND-1 and the MPC-Net.
2. P/N **12526** is a NIB with an isolated RS232 port. It is designed to connect printers and computers to the MPC-Net. The computer may be used as a terminal or to run the CADGraphics software.

NIBs mount in a 6 gang box supplied by others or a (12411-0-14) surface back box.

RND-1 Network Annunciator (12529)

The RND-1 is designed to announce network events (alarms, troubles and supervisories). It is capable of scrolling through network events. These events can be acknowledged either globally or for the RND-1 only. Alarms may also be silenced globally. There is also the ability to reset all panels on the network or just the RND-1. There is also a network event history that can be retrieved.

The RND-1 can log on to any panel on the network. At that point, access to user and maintenance levels for that panel are available at the RND-1.

Up to 16 RDC-1s (12506) remote annunciators can be slaved off of one RND-1. The RDC-1 duplicates the display and control functions of the RND-1. Requires a (12523) NIB board.

Line Surge Suppressor (12525)

The 12525 is a data line surge suppressor and is required when networking from building to building. The surge suppressor comes mounted in a surface backbox and can be used with a NIB for mounting.

Applications

- Campus settings
- Large multiple building complexes
- Hospitals
- Industrial buildings and facilities
- High rise buildings

Engineering Specification

It shall be possible, by adding a NIB, to place a MPC-1500 Plus or MPC-1000 Plus panel into a network (Faraday MPC-Net) consisting of other MPC-1500 Plus or MPC-1000 Plus Fire Alarm Panels. The NIB shall provide a means for the control panel to be addressed as a "node" on and communicate with the Faraday MPC-Net.

Under normal conditions, each node on the MPC-Net monitors and controls it's own local programming and field devices. Each MPC-1500 Plus or MPC-1000 Plus panel on the network shall provide the means for local annunciation of individual system status. Multiple Network Annunciators (RND-1) may be connected to the network and each shall take up one node address. Normal display on the RND-1 shall be Date; Time and Text indicating network status.

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When any node on the MPC-NET is activated into alarm state by one of its field devices, the following shall occur:

- The node shall perform all output and control functions programmed into its configuration for the input device or software zone that has been activated.
- The node shall broadcast its status information onto the MPC-NET where it shall be displayed on the Network Annunciator (RND-1) or through the computer graphic interface (CADGraphics).
- Any other nodes that have been individually programmed to respond to the "network zone" alarm shall also perform pre-programmed output and control functions based upon the node and "network zone" that has been activated. It shall not be necessary for every node on the MPC-NET to be programmed to respond to the "network zone" activation.
- The Network Annunciator (RND-1) shall display the alarm condition with text identifying the node address and node point that has been activated. This display shall include the time and date of the event. It shall be possible to perform Alarm Silence, Acknowledge or Panel Reset of the affected node via push-button controls on the RND. It shall be possible to enable or disable these remote functions on a per RND basis or system-wide.
- The display shall be 80 character, LCD, backlit with LED indicators for ALARM, TROUBLE, POWER ON, SUPERVISORY and ALARM SILENCED. Control switches for ACKNOWLEDGE, ALARM SILENCE, PANEL RESET and LAMP TEST shall be included.
- The MPC-NET shall be capable of displaying event status graphically through the use of a CADGraphics software program residing on a computer dedicated to the MPC-NET. This computer shall be capable of providing the same control functions as the RND units.

Ordering Information

Order No.	Cat. No.	Spec Sht.	Description
12523	NIB	FAC-14	Network interface module
12526	NIB-I	FAC-14	Network interface module w/isolated RS232 (computer)
12533P	12533P		UL listed computer w/(Platinum) CADGraphics, 19" monitor and Windows NT
12533G	12533G		UL listed computer w/(Gold) CADGraphics, 19" monitor and Windows NT
12533S	12533S		UL listed computer w/(Silver) CADGraphics, 19" monitor and Windows NT
12534P	12534P		UL listed computer w/(Platinum) CADGraphics, 19" touch screen monitor and Windows NT
12534G	12534G		UL listed computer w/(Gold) CADGraphics, 19" touch screen monitor and Windows NT
12534S	12534S		UL listed computer w/(Silver) CADGraphics, 19" touch screen monitor and Windows NT
12529	RND-1	FAC-15	Network annunciator
12525	12525		NIB surface back box w/surge protection, red
12411-0-14	12411-0-14		NIB surface back box, red

Note: Older versions of the MPC-1500 and MPC-1000 can be added to the network, but must be upgraded to a Plus series. Consult factory for details.



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