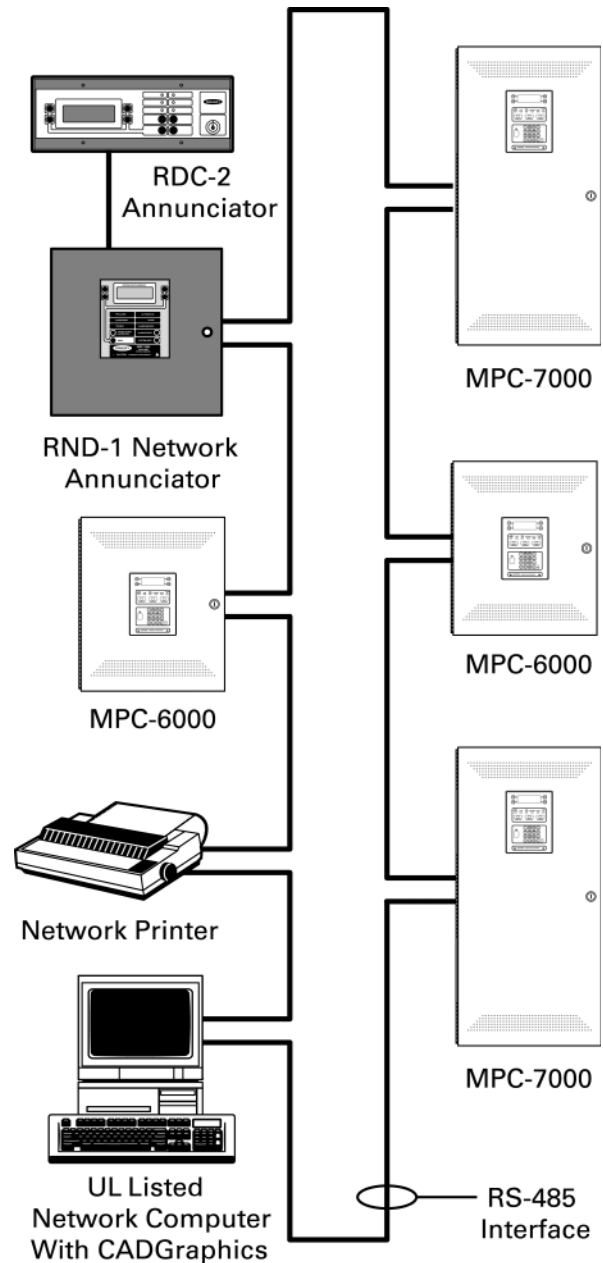# ⫼⫼FARADAY

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 connect MPC-6000 & MPC-7000 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, CSFM and MEA Listed

- Nodes may be connected using category 5 or fiber optic cable

Description

Faraday's MPC-Net™ Control Panel Networking will allow Faraday MPC-6000 & 7000 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 remote network display (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-6000 and MPC-7000 Fire Alarm Control Panels is easily accomplished, the configuration of the MPC-Net is simple, yet powerful.

RDC-2 Annunciator

RND-1 Network Annunciator

MPC-6000

Network Printer

UL Listed Network Computer With CADGraphics

MPC-7000

MPC-6000

MPC-7000

RS-485 Interface

9406

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 annunciate 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 (12526A) NIB-I board

NIB - Network Interface Board (12523A,12526A or 12603A)

The Faraday MPC-Net network is a way to link Faraday MPC-6000 and MPC-7000 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 though an RS232 port. It receives 24VDC from a MPC-6000, MPC-7000 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 three versions of NIBs:

1. P/N 12523A is a NIB designed to connect to an RND-1, MPC-6000 and MPC-7000 (mounts externally) to the MPC-Net.

2. P/N 12526A 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.

3. P/N 12603A is a NIB designed to connect the MPC-6000 and MPC-7000 to the MPC-NET and mounts inside the enclosure of either the MPC-6000 or MPC-7000.

12523A's mount in a 6 gang box supplied by others or a (12411014) surface back box.

Fiber Optic Converters

It is possible to convert one or both of the network ports of an "A" version NIB to use fiber media instead of Category 5 wire with the use of optional fiber converters 12535 or 12536. Each converter converts one port of the NIB to fiber media. There is a converter for single mode fiber and one for multi-mode fiber. The converters plug directly into sockets onto the NIBs. Different media types can be mixed on the same NIB. A maximum of 2 media types can be used per NIB.

The 12535 & 12536 Fiber Optic Converters allow nodes to be connected via Fiber Optic Cable. The multi-mode converter 12535 is designed to use duplex 62.5/125 µm multi-mode fiber cable with ST connectors. The single mode converter 12536 is designed to use duplex 9/125 µm single mode fiber cable with SC connectors. The maximum loss allowed between each NIB with fiber converters is 10dB

RND-1 Network Annunciator (12529)

The RND-1 is designed to annunciate 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-2 remote annunciators can be slaved off of one RND-1.The RDC-2 duplicates the display and control functions of the RND-1. The RND-1 requires a (12523A) 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-6000 or MPC-7000 panel into a network (Faraday MPC-Net) consisting of other MPC-6000 or MPC-7000 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.

Ordering Information

Model	Description	Part No.
12523A	Network interface module, connects RND-1, MPC-6000 & MPC-7000 (mounts externally) to network	500-649106FA
12526A	Network interface module w/isolated RS232 (computer)	500-649105FA
12533P	UL listed computer w/(Platinum) CADGraphics, 19" monitor and Windows NT	500-649121FA
12533G	UL listed computer w/(Gold) CADGraphics, 19" monitor and Windows NT	500-649122FA
12533S	UL listed computer w/(Silver) CADGraphics, 19" monitor and Windows NT	500-649123FA
12534P	UL listed computer w/(Platinum) CADGraphics, 19" touch screen monitor and Windows NT	500-649124FA
12534G	UL listed computer w/(Gold) CADGraphics, 19" touch screen monitor and Windows NT	500-649125FA
12534S	UL listed computer w/(Silver) CADGraphics, 19" touch screen monitor and Windows NT	500-649126FA
12529	RND-1 remote annunciator	500-699693FA
12525	NIB surface back box w/surge protection, red	500-699647FA
12411014	NIB surface back box, red	500-699639FA
12603A	Network Interface module that mounts in MPC-6000 and MPC-7000 enclosure	500-649107FA
12535	Multi-mode Fiber Converter	500-649109FA
12536	Single Mode Fiber Converter	500-649108FA
RDC-2	Remote 80 character LCD annunciator	500-648980FA

**If MPC-7000 has both loop and signal expansion modules installed,
you must use the 12523A as the 12603A will not fit in the enclosure.**