

MPC-1000 *Plus* Intelligent Fire Alarm Control Panel

Features

- One analog/addressable SLC (Faraday devices: 60 pts. or System Sensor: 198 pts.)
- MPC-Net networking compatible
- Supports Faraday or System Sensor SLC protocol
- Four NACs, style "Z" (Class A) and style "Y" (Class B)
- Three (3) amp power supply
- 80 character, backlit LCD with custom labeling
- LEDs for panel status indication
- Connection for 16 remote 80 character display/control LCD annunciators, backlit on activation
- Optional internal DACT
- Fully field programmable via PC, removable keypad or automatic programming
- 500 event history log in nonvolatile memory
- Dynamic "quick test" functions
- Day/Night sensitivity mode
- NFPA 72 sensitivity testing
- Manual alarm silence with 0, 1, 3, or 6 minute inhibit
- Auto-silence selectable for each NAC (10, 20, or 30 minute, or none)
- "Quick Test" by device or the entire panel
- Silent or audible Quick Test
- 59 Software zones, 255 notification and 255 relay software circuits
- Two password levels – tech. & maintenance
- UL listed, standard 864, CSFM and MEA pending
- Made in USA, ISO 9001 quality crafted

Description

The **MPC-1000 Plus** is an advanced modular fire alarm panel. It features analog/addressable detection, programming, and memory capability. It's base configuration includes one analog/addressable loop, with four conventional notification appliance output circuits.



MPC-1000 *Plus*

Operating controls and indicators are mounted behind a locked cabinet door and an 80-character LCD display provides specific indications for addressable devices, while LEDs indicate general panel status.

Hardware Configuration

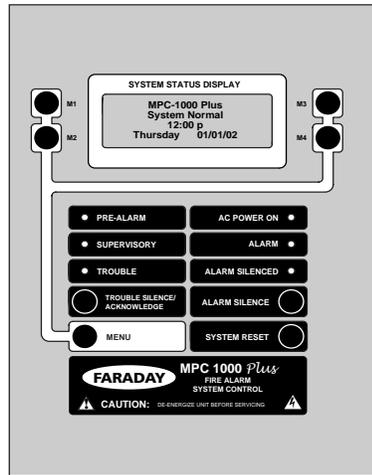
The main termination board mounts in the rear of the panel. The main power supply is physically contiguous with the main termination board. The MPC-1000 Plus main termination board provides the interface for external analog system connections, the analog loop interface PCB, four signaling circuits, remote signaling circuits and indicating interfaces, and the electronics of the main system power supply.

The front main logic PCB mounts in the back box, allowing it to carry the controls and displays which are accessible from the front locked panel door. Displays for any number of zones are handled through this board.

All normal operation is controlled from the front of the panel via push-button switches. Displays are provided by an 80-character, alphanumeric, backlit LCD display and by discrete LED indicators for major panel functions.

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The 80-character LCD display is used to display event data, including alarms and troubles, identification of zone or device, and presentation of history. The display is controlled by a set of four push-button switches commanding the control processor. A back light is included in the display to assure visibility in low light, but to conserve power, it is only activated during a reported event or operation of a display control switch.



Minimum Control Unit Configuration

- A. **Addressable Device Circuit** – The addressable main termination board has addressable loop interface circuitry supporting one addressable device circuit. Supports Faraday or System Sensor SLC protocol.
- B. **Notification Appliance Circuits** – The base panel has four independent NACs. Each circuit can be selected to give continuous output, one of eight sounding patterns, or zone coding. NACs are style Z or Y capable, without additional modules.
- C. **Dry Contacts** – Three form "C" dry relay contacts are provided. These contacts are dedicated to alarm, trouble and supervisory indications.
- D. **Remote Annunciation** – The MPC-1000 Plus panel will drive up to 16 annunciators and 8 remote processors on an RS-485 communication line.
- E. **Power Supply** – A 3.0A, 24V nominal power supply provides all operating power to the panel for both standby and alarm conditions. 2.5 Amps are available for the NAC circuit..

Auxiliary Devices

- A. **Remote LCD Annunciator (RDC-1)** – The remote LCD annunciator consists of a backlit 80 character, alphanumeric display, 4 menu buttons, 4 dedicated buttons for operator interaction, 6 LED indicators, and a security key switch.
- B. **Serial Annunciator (SAU-1)** – Consists of remote processor and annunciator driver board capable of providing 16 supervised outputs for LEDs or incandescent lamps. Expansion to drive 512 LEDs or lamps is via additional processor boards and annunciator drive boards.
- C. **Serial Annunciator Extender (SAE-16)** – Each remote processor board receives commands from the control unit and is capable of controlling three relay boards and four annunciator boards. Maximum of 8 remote processor boards in one system. Auxiliary power supplies will be required to power units beyond the control unit capability.
- D. **Serial Relay Unit (SRU-1)** – Consists of remote processor and relay board which provides 8 relays with form "C" dry contacts rated at 1 amp. Expansion to 192 relays is via additional remote processor boards and relay boards (**SRE-8**).

Optional Control Unit Configuration

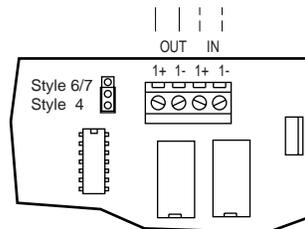
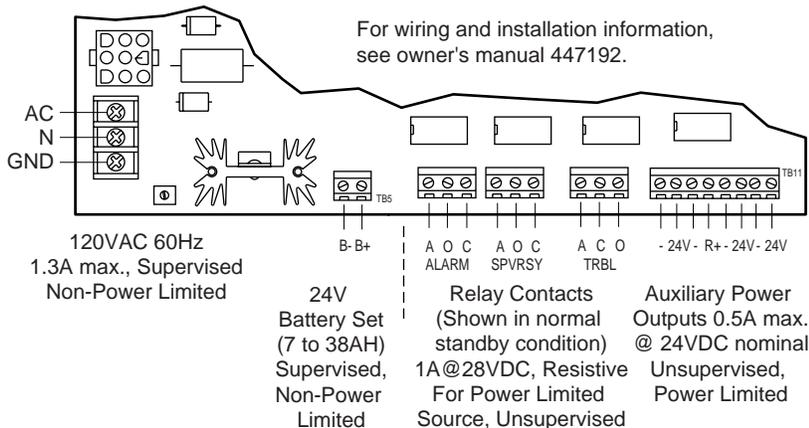
- A. **DACT Expansion Module (DC1K)** – The DC1K provides a dual line digital alarm communications transmitter. It's parameters are set via the control unit programming sequence.

The DC1K is compatible with the following formats: SIA DCS 8, SIA DCS 20, Ademco Contact ID, 3/1 1400 Hz., 3/1 2300 Hz., 4/2 1400 Hz. and 4/2 2300 Hz.
- B. **City Tie Module (CT-1K)** – This module provides local energy and reverse polarity connections and is easily connected.
- C. **RS-232 Module (IM232A)** – Used for connection to a printer or NIB for MPC-Net Network connectivity.
- D. **MPC-Networking** – The MPC-1000 Plus is MPC-Net networking compatible.

Wiring, Main Termination Board

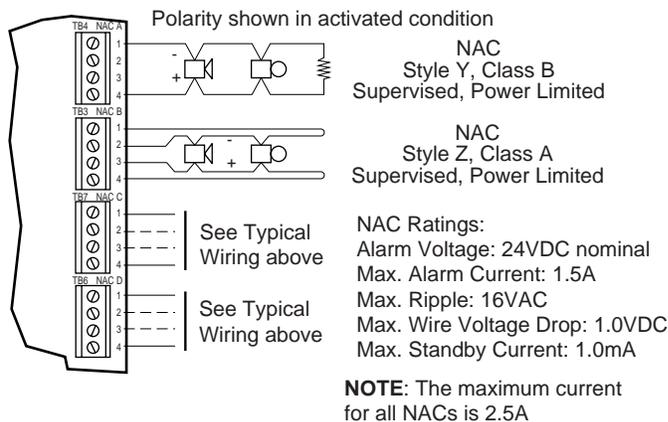
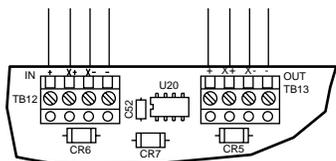
Note: All wiring must be in accordance with local codes and National Electric Code. Use only FPL, FPLR and/or FPLP as described in Article 760 of N.E.C.

Addressable Device Circuit
 Style 4, 6 or 7 Operation
 (set jumper P1 for proper style)
 24VDC nominal
 Wire Resistance-20 ohms/line
 Supervised, Power Limited
 See Owner's Manual for Compatible Devices



Keep All Non-Power Limited Wiring
 Separate from Power Limited Wiring

Serial Interface Circuit
 24VDC nominal, 0.4A max.
 Wire Resistance-25 ohms/line (4000ft. max.)
 Wire Type - Twisted pair for Data
 Supervised, Power Limited



General Specifications

Environmental
 Operating temperature -
 32-120°F (0-49°C)
 Relative Humidity -
 85% @ 86°F

Primary Supply
 Primary input voltage -
 120 Vac (50/60 Hz.), 240 Vac (50/60 Hz.)
 Maximum primary input current -
 1.3 amp @ 120 Vac

Secondary and Trouble Power Supply
 24 volt lead-acid battery with 7 AH-38 AH capacity

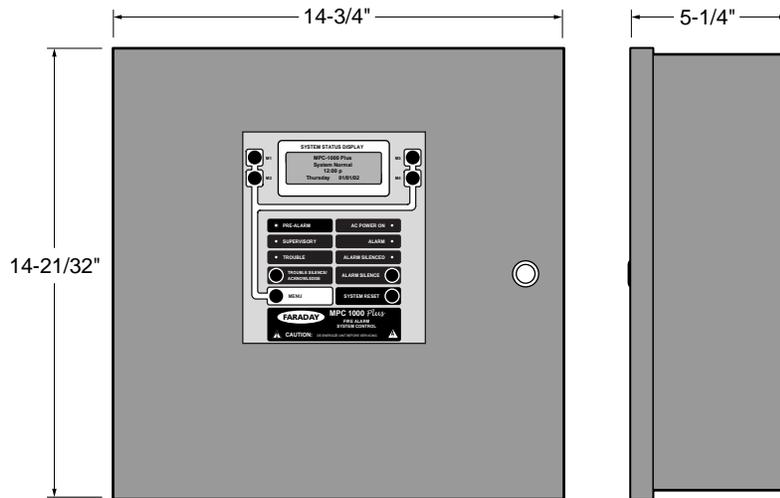
Auxiliary Power Outputs
 Current - 0.5 amp resettable/non-resettable power outputs

Status System Relays
 3 relays rated @ 1 amp, 28 Vdc resistive

NAC Circuits
 Rating per NAC circuit, 1.5A ea., 2.5 max.

Battery
 Base cabinet will accommodate a 7 AH battery set. Larger batteries will require separate enclosure

Dimensions



Ordering Information

Model No.	Order No	Spec Sheet	Description
MPC-1000 Plus ...	12120-0-(*)-120		Base unit with surface cabinet, 120 Vac, 60 Hz.
MPC-1000 Plus ...	12121-0-(*)-120		Base unit with DACT (DC1K)

Options

RDC-1	12506-0-14	FAC-9	Remote 80 character LCD annunciator
SRU-1	12507		Serial relay unit
SRE-8	12508		Serial relay extender
SAU-1	12509		Serial annunciator unit
SAE-16	12510		Serial annunciator extender
IM232A	12103A		RS-232 interface module
DC1K	12105		Communicator (DACT)
CT-1K	12101		City tie module
15216	15216		Semi-Flush trim
CIS-3	12106CD		Upload/Download programming software (includes software, cable & board)
401513	401513		Spare CIS-3 programming board
MPC-Net		FAC-7	MPC-Networking

* Available colors – (14) red, (21) off-white



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