



Monaco Enterprises, Inc.

14820 East Sprague Avenue, P.O. Box 14129, Spokane, Washington 99214-0129

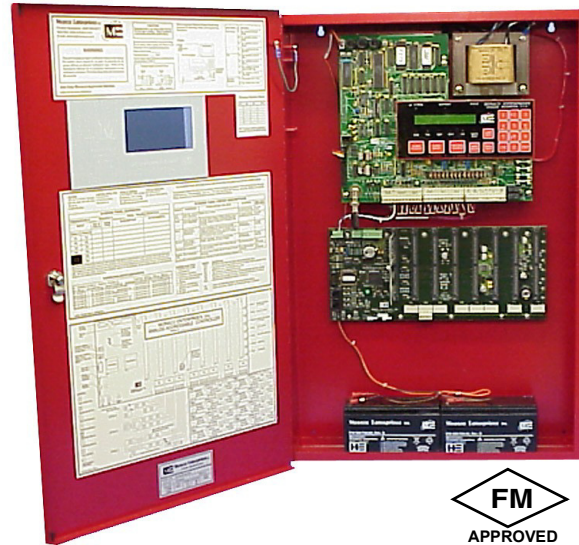
Telephone: (509) 926-6277 Facsimile: (509) 924-4980 E-mail: service@monaco.com Web: www.monaco.com

Addressable Fire Alarm Control Panels

Monaco Analog Addressable+ (MAAP(+)) FACP with Integrated Radio Transceiver

Features

- Combines the Narrowband Radio Transceiver and Addressable (and/or conventional) Fire Alarm Control Panel in one modular, compact unit; no interconnection wiring or interfacing needed
- Monaco Analog Addressable Panel (MAAP(+)) with Point Reporting capability individually reports every addressable sensor or addressable monitor module to a D-21 Central Receiving System
 - Heat or Smoke detector status (Alarm Trouble)
 - Monitor module status (Alarm Trouble)
- Combines Monaco original zone reporting with point reported status
 - Fast response using well established protocol for zone information
 - Point Reporting of sensors and monitor modules to the central receiving system for detailed real-time alarm and trouble status which can be graphically displayed at the D-21 Central in dispatch or on scene using the D-21 Mobile Client system
- Enhanced diagnostic information
 - Panel troubles and loop faults uniquely identified
 - Control Module and NAC module faults reported
- Supports traditional grouping of multiple devices to a common zone number for transmission to a D-700 or D-21(FSK) Central Receiving System
- Now supports a combined zone and point reporting features to D-21 Central Reporting Systems enabled for MAAP(+) Point Reporting
- Monitors and transmits zone alarms (fire and supervisory), troubles and restorations, and Addressable Control Panel status for up to 64 zones or 48 zones with all points reporting active
- Provides up to eight Analog Driver Cards (ADCs) (one standard, seven optional) that may be configured as Class B, Class A, or Class X Signaling Line Circuits (SLCs)
 - Each ADC has a capacity for up to 99 analog addressable smoke or heat sensors and 99 addressable monitor or control modules for a total system count of up to 792 analog addressable smoke or heat sensors and 792 addressable monitor or control modules
 - **IMPORTANT** Large systems with many optional modules such as sounder bases and fault indicators draw more current than smoke and heat detectors and monitor and control modules. If using these items, refer to the MAAP(+) I-O-M (P/N 001-353-01) for capacity calculations. **SLC wiring shall be unshielded twisted pair (UTP).**
- Provides two Class A or four Class B Notification Appliance Circuits (NACs)
- Provides two Class A or four Class B Initiating Device Circuits (IDCs). Expandable through installation of an Expansion Backplane and expansion cards.
- Quick scanning algorithm for fast reporting
- Plain English display (LCD)
 - Enable / disable sensor (point) event is sent to Central
 - Enhanced walktest and system checkout through D-21
 - Radio Key-up test
 - Local History output to LCD, printer or laptop
- LEDs indicate the operational status of the Addressable Control Panel
- Internal clock and calendar synchronized with the D-21
- 48 character display for device identification and description
- Provides 24 Vdc filtered power
- New MAP(+) Planner creates a master configuration file for programming the Panel. The D-21 Central System Admin Client imports the master configuration file, eliminating the need to manually enter the MAAP(+) panel configuration, zone, and point information.





- A copy of the master configuration file is stored on the D-21 for backup purposes: the master file cannot be lost or misplaced
- The Panel configuration and Central configuration are compared to ensure that any changes to the configuration are verified
- Nuisance alarms reduced by new sensor grouping, alarm verification, auto drift compensation, and pre-alarm levels
- Includes lamp test, drill test, walk test, maintenance test, and transmitter disable for all or individual zones and devices
- RS-232 and EIA 422 communications ports
- Addressable Control Panel configuration can be transferred to/from a computer with Windows® based MAP(+) Planner software
- Up to 1.5 A of power available for each NAC with a combined maximum of 3.5 A for all NACs
- 4 W RF output power; (Some UHF frequencies may be limited to 2 W)
- Integrated battery charger; meets the requirements of NFPA 72 and UL 864
- Battery backup
- Operates on 120 or 240 Vac, 50/60 Hz
- Narrowband radios meet requirements of NTIA (National Telecommunications and Information Administration) Manual of Regulations and Procedures for Federal Frequency Management
- Integrates with D-21 base-wide mass notification systems

Description

The MAAP(+) is a low voltage, automatic, integrated Narrowband Radio Transceiver and Addressable Fire Alarm Control Panel that incorporates the latest in solid-state addressable technology and Monaco expertise in radio transmission-based systems. All monitoring, supervision, signaling, and reporting functions are incorporated into this one unit.

Each MAAP(+) can support up to 792 analog addressable smoke or heat sensors and 792 addressable monitor or control modules. The addressable devices may be grouped together to form virtual zones and are individually reported to the D-21 Central Receiving System through Monaco's new Point Reporting transmission protocol. Only one antenna system is required for reporting status of 64 zones or 48 zones combined with all points reporting turned on. The Panel LCD identifies the individual addressable device or point that has generated the alarm or trouble.

The new sensor group feature allows smoke detectors to work together to control local sounder bases and prevent nuisance alarms, which is particularly useful in dormitory environments.

The basic panel provides two Class B SLCs or one Class A or Class X SLC (expandable to sixteen Class B or eight Class A or Class X SLCs); two Class A or Class X or four Class B NACs; two Class A or Class X or four Class B IDCs; an auxiliary output circuit; an auxiliary power output circuit; two programmable Form C relays; and a remote trouble circuit.

The NACs can be programmed as silenceable or non-silenceable and can be assigned to specific zones, group of zones, or specific addressable devices. The auxiliary output may be assigned to activate for waterflow alarm, positive alarm sequence, or publicly accessible manual pull station alarms or it may be used as another bell circuit and assigned to specific devices or groups of devices. The two programmable Form C relays may be assigned to common alarm or common trouble or can be assigned to specific zones, a group of zones, or specific addressable devices. Additional outputs can be provided by using addressable devices.

The MAAP(+) provides 2 A of filtered, 24 Vdc auxiliary power to operate conventional and addressable devices, as well as other auxiliary devices. All circuits are internally protected by power limiting or fuses. Batteries are connected to the unit for continued operation in the event of an ac power failure. The battery charging circuitry is built-in.

Configuration programming is performed using the MAP(+) Planner software (P/N 207-617-00). The Planner exports the panel configuration information to the D-21 Central.

The MAAP(+) indicates alarms with an on-board audible, a red LED, and a message in the LCD that identifies the zone input or the specific addressable device and description. The Panel indicates zone and panel troubles with an onboard audible alert, a yellow LED, and a message in the LCD that identifies the zone input, the specific addressable device, or the specific panel trouble. A list of the last 500 alarms and troubles are maintained in panel history.



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Ordering Information

Part Category	Part Number	Description
Panels	227-855-xx**	MAAP(+) Point Reporting, Narrowband surface-mount M-2 Addressable Control Panel with one Analog Addressable Controller (AAC), one Analog Driver Card (ADC), and two 12 V/18 Ah batteries in a 28-inch-high x 18-inch-wide x 3.6-inch-deep NEMA 1 enclosure, Specify Frequency
	227-855-MN	MAAP(+) Point Reporting MNS, 28-inch-high x 18-inch-wide x 3.6-inch-deep NEMA 1 surface mount enclosure, no radio, with interface to BT-XM2
	227-865-xx**	MAAP(+) Point Reporting, flush mount (same as 227-855-xx except for mount), Specify Frequency
	227-865-MN	MAAP(+) Point Reporting MNS, 28-inch-high x 18-inch-wide x 3.6-inch-deep NEMA 1 flush mount enclosure, no radio, with Interface to BT-XM2
	227-856-xx**	MAAP(+) Point Reporting, Narrowband surface-mount M-2 Addressable Control Panel with one AAC, one ADC, and four 12V/18 Ah batteries in a 43-inch-high x 18-inch-wide x 3.6-inch-deep NEMA 1 enclosure with space for one optional expansion backplanes, Specify Frequency
	227-856-MN	MAAP(+) Point Reporting MNS, 43-inch-high x 18-inch-wide x 3.6-inch-deep NEMA 1 surface mount enclosure, no radio, with interface to BT-XM2
	227-866-xx**	MAAP(+) Point Reporting, flush mount (same as 227-856-xx except for mount), Specify Frequency
	227-866-MN	MAAP(+) Point Reporting MNS, 43-inch-high x 18-inch-wide x 3.6-inch-deep NEMA 1 flush mount enclosure, no radio, with Interface to BT-XM2
	227-857-xx**	MAAP(+) Point Reporting, Narrowband surface-mount M-2 Addressable Control Panel with one AAC, one ADC, and four 12V/18 Ah batteries in a 60-inch-high x 18-inch-wide x 3.6-inch-deep NEMA 1 surface mount enclosure with space for three optional expansion backplanes, Specify Frequency
	227-857-MN	MAAP(+) Point Reporting MNS, 60-inch-high x 18-inch-wide x 3.6-inch-deep surface mount enclosure, no radio, with interface to BT-XM2
	227-869-xx**	MAAP(+) Point Reporting 24" Nema 3R enclosure, Specify Frequency
	227-811-xx**	MAAP(+) electronics package assembly upgrade for existing MAAP-2 (legacy addressable) and M-2 Conventional (except 19" enclosures). Replaces the M CPU, power supply, display, and radio (Specify Frequency). Provides replacement AAC and one ADC. Note: Existing ADC cards may be used with the upgrade.
	227-811-MN	MAAP(+) electronics package assembly MNS upgrade for existing MAAP-1 and MAAP-2 (legacy addressable) and M-2 Conventional panels (except 19" enclosures). Replaces the M CPU, power supply, and display. Provides replacement AAC and one ADC, and a BT-XM2 MNS interface. Note: Existing ADC cards may be used with the upgrade
	Addressable Backplane and Cards	176-193-01
176-194-00		Analog Driver Card (ADC)
Conventional Expansion Backplane and Cards	176-185-00	Expansion Backplane, supports seven expansion cards (ZEC, AOC, UIC)
	176-186-00	Zone Expansion Card (ZEC), two Class A or four Class B Zones
	176-187-00	Auxiliary Output Card (AOC), eight-circuit
	176-197-00	Universal Input Card (UIC), four pair of input terminals to connect up to four, two-wire input zones
Batteries	081-156-00	Two 12 V / 26 Ah batteries in an 18-inch x 12-inch x 6-inch (45.7 x 30.5 x 15.2 cm) red, surface mount enclosure
Printer	205-032-00	MAAP(+) Printer Kit
Configuration Software	207-617-00	MAP(+) Planner Kit (Required)
	225-163-00	Monaco Planner / Programmer Kit - contains Monaco FACP, D-700R and BT-X planner software and interface cables

* Specify frequency when ordering. # FM Approved

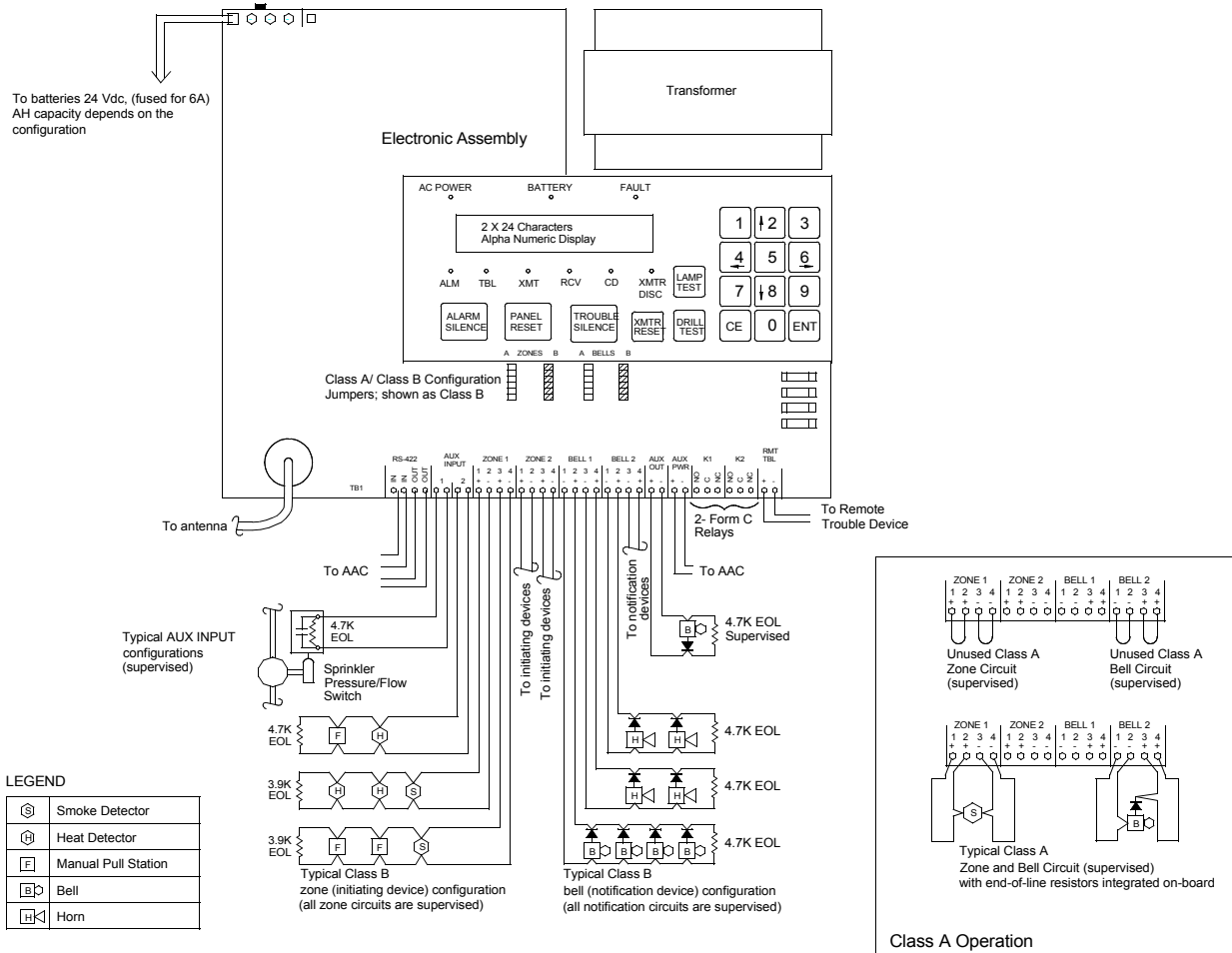
NOTES Other battery options available depending on total Ah requirement. Ah capacity depends on system configuration. Contact Monaco for assistance in determining battery requirements. Antenna network accessories also required; see "Antenna Network Accessories" in the Monaco Addressable Catalog.



Wiring Diagrams

Wiring the MAAP(+) Electronic Assembly, the AAC, and the optional Expansion Backplane, is shown in the following wiring diagrams.

Electronic Assembly



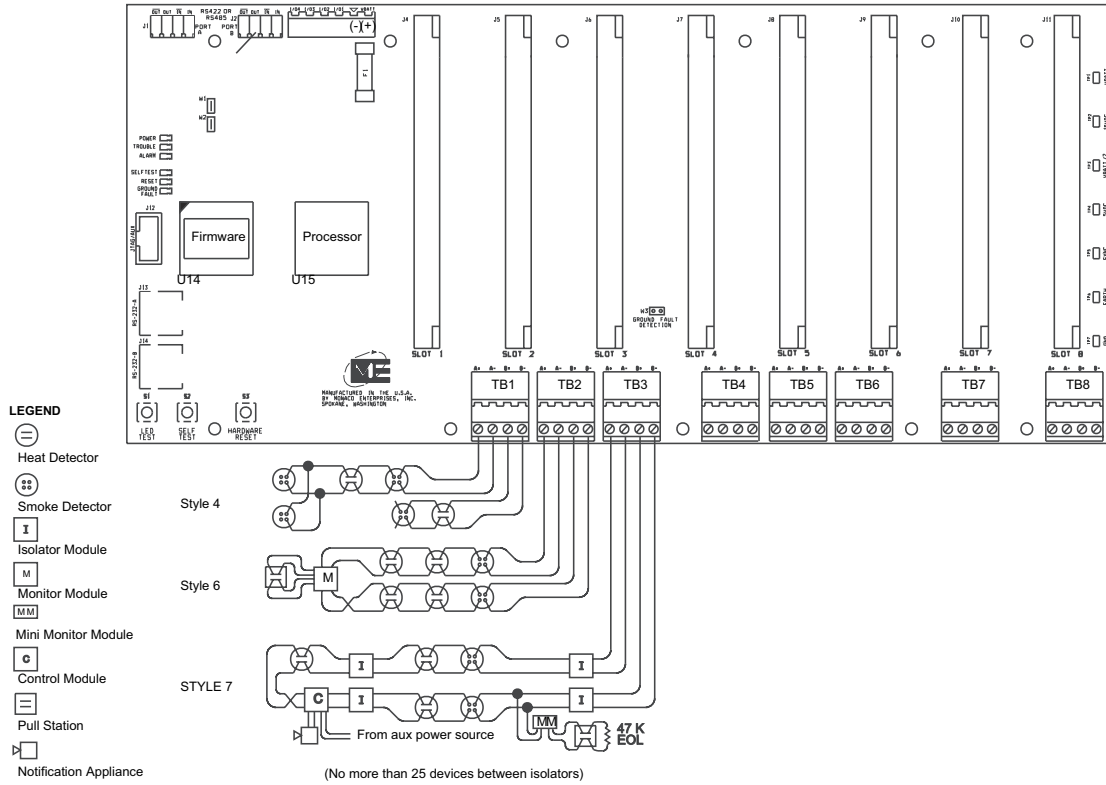


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Analog Addressable Controller



Conventional Expansion Backplane

