MPC-2000 Addressable Fire Alarm Control Panel

Features

- UL listed, file no. S405, standard #864, power limited

- CSFM listed no. 7165-0065:123

- BSA approved, calendar no. 524-77-SA under the MPC-2000

- FM listed, no. OV7A2.AY

- Configurable for NFPA-71, 72 systems

- UL listed for NFPA-72E testing and drift compensation of addressable/analog smoke detectors

- Microprocessor controlled

- Modular construction

- Non-coded or zone coded

- Expandable to 104 input zones and 96 output circuits

- Expandable to 1584 analog/addressable points

- Expandable up to 30 amps of combined regulated and unregulated 24VDC system power

- Supervised inter-module data links

- Custom programming field design flexibility

- Programmable from laptop computer

- Both conventional and analog/addressable system status displays and controls with expanded software driven system status

- 32 character backlighted alphanumeric programmable system status display

- User friendly display, programming and control functions

- Manual, automatic, waterflow and supervisory device monitoring capabilities

- Alarm verification, 1 person quick test and drill/recall programming formats

- Extensive built-in transient protection

- CRT compatible

- Event hard copy record compatible

- DMO degraded mode operation

- Made in USA, ISO 9001 quality crafted

MPC-2000 (3-Window Cabinet)

General

The **MPC-2000** Fire Alarm Control Unit provides a series of modular building blocks and software packages to construct a variety of configurations of hard-wired/conventional non-coded, zone coded and analog/addressable fire alarm control systems. The array of standard modules along with a wide selection of software gives the MPC-2000 the maximum versatility for the most demanding field requirements. The MPC-2000 can be configured to meet most common national, state and local codes. The combinations of proven solid state function modules, high performance microprocessor control and expanded software work together to make the MPC-2000 a versatile, durable and serviceable system control unit.

Description

The MPC-2000 consists of basic function modules, a microprocessor controller and system software which together may be configured in limitless numbers of arrangements to allow for custom tailoring of each control panel for specific and changing building fire protection system requirements. Along with the above flexibility, the MPC-2000 offers surface mounting

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cabinets and true flush mounting cabinets which are easily configured for multiple cabinet installations where required. Matching surface or semi-flush system standby battery cabinetry is also available. With all of its versatility the MPC-2000 can be expanded from a simple conventional two zone system to the most complex multi-zone or analog/addressable multifunction control system.

Safety and convenience features have been engineered into the MPC-2000 to provide the capability for the most complex system control and information reporting and recording needs without sacrificing simplicity of operation and data retrieval. The end result is maximum system performance with maximum user friendliness.

Sub-chassis and modular construction allows each control unit to be tailored for versatility, serviceability and simple operation. No components are mounted on the cabinet doors assuring economical expansion or re-configuration in the field without rework of existing components and cabinetry.

The MPC-2000 is intended for use in the medium to large commercial, institutional and industrial applications. With it's wide variety of function modules, software and powerful microprocessor control, the MPC-2000 will provide an economical and versatile control package for a wide selection of applications. Like any control panel, basic functions must be included in the unit to comply with basic UL and NFPA criteria.

A **minimum** complete **conventional** MPC-2000 control must include:

(1)   Choice of control unit cabinet

(1)   Choice of battery cabinet

(1)   Choice of appropriate sized battery

(1)   CU-2 main CPU control/display unit

(1)   MP-3 main power supply module

(1)   BC-2 battery changer module

(2)   TX-1 transformer modules

(1)   AP-5 unregulated power supply module

(2)   BB-1 buffer board module

(1)   Choice of ZN-1,2,3 dual zone module

(1)   Choice of SC-1,2,3 dual signal module
        Appropriate number of BK-1 blank modules

(?)   Appropriate number of BK-1 blank modules

A **minimum** complete **analog/addressable** MPC-2000 control must include:

(1)   Choice of control unit cabinet

(1)   Choice of battery cabinet

(1)   Choice of appropriate sized battery

(1)   CU-2 main CPU control/display unit

(1)   MP-3 main power supply module

(1)   BC-2 battery charger module

(2)   TX-1 transformer modules

(1)   AP-5 signal power supply module

(1)   BB-2 buffer board module

(1)   AM-1 analog/addressable loop module

(?)   Appropriate number of BK-1 blank modules

All additional requirements and features specified may then be satisfied by including various combinations of power and/or function modules and software packages described in the following pages.

Specifications

■ **Cabinetry** (R) = Red, (B) = Black

2 Window - 28 Module and 4 transformer spaces
  Back box: 27-17/32"H x 27"W x 5-11/16"D
  Surface Door: 27-25/32"H x 27 1/4"W x 1/2"D
  Flush Door: 29-5/32"H x 29"W x 1/4"D
    CB-2U: (R) or (B) Universal Back Box
    CD-2S: (R) or (B) Surface Door, hinged on left
    CD-4S: (R) or (B) Surface Door, hinged on right
    CD-2F: (R) or (B) Flush Door, hinged on left
    CD-4F: (R) or (B) Flush Door, hinged on right

3 Window - 42 Module and 4 transformer spaces
  Back box: 36-3/16"H x 27"W x 5-11/16"D
  Surface Door: 36-7/16"H x 27-1/4"W x 1/2"D
  Flush Door: 37-13/16"H x 29"W x 1/4"D
    CB-1U (R) or (B) Universal Back Box
    CD-1S (R) or (B) Surface Door, hinged on left
    CD-3S (R) or (B) Surface Door, hinged on right
    CD-LF (R) or (B) Flush Door, hinged on left
    CD-3F (R) or (B) Flush Door, hinged on right

Battery Cabinets
  BE-1S (R) or (B) Surface cabinet
  16"H x 27 1/4"W x 8 57/64"D
  BT-1F (R) or (B) Semi flush trim ring for BE-1S
  18-27/32'H x 30-1/8"W
  14050 (R) or (B) Surface Cabinet
  14-3/8"H x 14-3/8"W x 5"D
  15216 (R) or (B) Semi flush trim ring for 14050, 17 1/2"H x 17-1/2"W

■ **Control Modules**

CU-2 Central Processing Unit: Includes control processor assembly with key pad, system indicators and 32 character alphanumeric back lighted status display.

  Function Switches Provided: System Reset, Alarm Silence, Trouble Silence, Circuit Cutoff, Drill Test/Recall, Lamp Test, Program System, Enter, Back Space, Skip, No/Down, Yes/Up.

  Module Indications Provided: Green "Power On", Red "System Alarm", Amber "Alarm Silenced", "System Trouble", "Trouble Silenced", "Input Power Fault", "Standby Power Fault", "System Ground", and "CPU Fault", LEDS. Also 32 character backlighted LCD display for standard or custom loaded system alarm and trouble status readouts. Normal display is time and date.

  Current Draw: none (contained in MP-3 figures)
  Space Required: (5) module spaces
  Shipping Weight: 1.5 lbs.

BB-1 Power/Control Buffer Module: Provides means of power and control distribution to control unit conventional initiation and signaling option modules. (1) BB-1 module is required for each conventional communication channel used within the control unit (i.e.. input and output). A header for linking an additional buffer module within a communication channel group is provided on the module.

  Function Switches Provided: none
  Module Indications Provided: none
  Current Draw: Alarm = .006A, Standby = .006A
  Space Required: (1) module space
  Shipping Weight: 1.0 lbs

BB-2 Control Buffer Module: Provides means of control distribution to control unit AM, CI, SI and PR option modules. (1) BB-2 module is required when the printer/parallel communication channel is used within the control unit (i.e.. printer, serial drive, analog/addressable or remote computer functions). Each

buffer module has the capacity to buffer the full compliment of printer/parallel modules up to (1) PR, (8) AM, (1) SI and (2) CI modules. (Total of 10 modules)

  Function Switches Provided: none
  Module Indications Provided: none
  Current Draw: Alarm =.110A, Standby =.006A
  Space Required: (1) module space
  Shipping Weight: 1.0 tbs.

MP-3 Main Power Supply Module: Provides a battery backed means of supplying up to 1.5 amp of filtered, regulated, non-resettable and 1.5 amp resetable @ 24VDC power limited operating power for control unit modules and/or "4-wire" detection devices. Module must be paired with (1/2) TX-1 transformer (filtered).

  Function Switches Provided: none
  Module Indications provided: none
  Current Draw: Alarm =.110A, Standby =.100A
  Space Required: (2) module spaces
  Shipping Weight: 2.0 tbs.

AP-4 Regulated Auxiliary Power Supply Module: Provides a battery backed means of supplying up to 1.5 amp @ 24VDC of filtered, regulated, resettable and 1.5 amp @ 24VDC non-resettable system operating power for the MPC-2000. This power is provided for operating control unit option modules and/or "4-wire" detectors that require resettable or non-resettable power. Module must be paired with (1/2) TX-1 transformer (filtered).

  Function Switch Provided: none
  Module Indications Provided: green "power on" and amber "trouble" LEDS.
  Current Draw: Alarm = .030A, Standby = .030A
  Space Required: (2) module spaces
  Shipping Weight: 2.0 lbs.

BC-2 Battery Charger Module: Provides means of automatically charging 17-76 amp/hr. battery sets of lead acid, sealed lead acid, and gell cells. Module must be paired with (1/2) TX-1 transformer (filtered).

  Function Switch Provided: none
  Module Indications Provided: green "power on" and amber "trouble" LEDS.
  Current Draw: Alarm =.010A, Standby = .010A
  Space Required: (2) module spaces
  shipping Weight: 2.0 lbs.

TX-1 Filtered/Unfiltered Power Transformer: Provides (1) ckt. 26-48VDC @ 3.0 amp of filtered power to MP-3, AP-4, or BC-2 module. Also provides (1) ckt. 19.5-3OVDC @ 3.0 amp of unfiltered power for AP-5 module.

   Current Draw: 2.5 A @ 120VAC 60 HZ.
   Space Required: (1) transformer space
   Shipping Weight: 6.5 lbs.

AP-5 Unregulated Auxiliary Power Supply Module: Provides a battery backed means of supplying up to 3.0 amp @ 24VDC of unfiltered, unregulated and nonresettable power. This power is provided for system signaling and auxiliary function devices. Module must be paired with (1/2) TX-2 transformer (unfiltered) or (1/2) TX-1 transformer (unfiltered).

   Function Switch Provided: none
   Module Indicators: green "power on" and amber" trouble" LEDS.
   Current Draw: Alarm =.035A, Standby = .035A
   Space Required: (1) module space
   Shipping Weight: 6.5 lbs.

TX-2 Unfiltered Power Transformer: Provides (2) ckts. 19.5-30VDC @ 3.0 amp each of unfiltered power for AP-5 module(s).

   Current Draw: 2.5A @ 120VAC 60 HZ
   Space Required: (1) transformer
   Shipping Weight: 6.5 lbs.

■ **Initiation Modules**

ZN-I* Style D/B Dual Zone Module: Provides (2) independently programmable, power limited and supervised conventional initiation zone monitoring circuits for compatible initiation devices. Each circuit can be configured for either Style "D" (Class "A") or Style "B" (Class "B") operation. Each circuit will accept either Class "A" (4-wire) or Class "B" (2-wire) wiring formats and/or devices.

***Note**: ZN-1 or ZN-3 modules must be used if alarm verification is desired.

   Function Switch Provided: none
   Module Indication Provided: Individual red "alarm" and amber "trouble" LEDS.
   Current Draw: Alarm = .100A, Standby = .020A
   Space Required: (1) module space
   Shipping Weight: 1.0 lbs.

ZN-2 Style B Dual Zone Module: Provides (2) independently programmable, power limited and supervised conventional initiation zone monitoring circuits for compatible initiation devices. Each circuit can be configured for Style "B" (Class "B") operation only. Each circuit will accept either Class "A" (4-wire) or Class "B" (2-wire) wiring formats and/or devices.

   Function Switches Provided: None
   Module Indications Provided: Individual red "alarm" and amber "trouble" LEDS
   Current Draw: Alarm = .100A, Standby = .020A
   Space Required: (1) module space
   Shipping Weight: 1.0 tbs.

ZN-3* Style D/B Dual Zone Module W/Hardware Cutoff Switches: Provides (2) independently programmable, power limited and supervised conventional initiation zone monitoring circuits for compatible initiation devices. Each circuit can be configured for either Style "D" (class "A") or Style "B" (Class "B") operation. Each circuit will accept either Class "A" (4-wire) or Class "B" (2-wire) wiring formats and/or devices.

***Note**: ZN-1 or ZN-3 modules must be used if alarm verification is desired.

   Function Switches Provided: Individual zone cutoff switches.
   Module Indications Provided: Individual red "alarm" and amber "trouble" LEDS.
   Current Draw: Alarm = .100A, Standby = .020A
   Space Required: (1) Module
   Space Required: (1) module space
   Shipping Weight: 1.0 lbs.

AM-1 Style 4/6/M7 Single Loop Module: Provides (1) independently programmable, power limited and supervised input/output loop circuit for compatible analog/ addressable devices. The loop circuit can be configured for Style 4,6 and modified 7 operation. The module will accept either 2-wire or 4-wire wiring formats.

   Function Switches Provided: none
   Module Indications Provided: red "alarm", green "scan" and individual amber "supervisory" and "trouble" LEDs
   Current Draw: Alarm = .100A, Stand by = .100A
   Space Required: (2) module spaces
   Shipping Weight: 1.5 lbs.

■ Signaling Modules

SC-1 Style Z/Y Dual Signaling Module: Provides (2) independently programmable, power limited and supervised conventional signal monitoring/drive circuits for compatible audible and/or visual signaling devices. Maximum load capability for each circuit is 2.5 amp @ 24VDC. Each circuit can be configured for either Style "Z" (Class "A") or Style "Y" (Class "B") operation. Each circuit will accept either Class "A" (4-wire) or Class "B" (2wire) wiring formats.

Function Switches Provided: none
Module Indication Provided: Individual amber "trouble/status" LEDs.
Current Draw: Alarm = .100A, Standby = .010A
Space Required: (1) module space
Shipping Weight: 1.0 lbs.

SC-2 Style Y Dual Signaling Module: Provides (2) independently programmable, power limited and supervised conventional signal monitoring/drive circuits for compatible audible and/or visual signaling devices. Maximum load capability for each circuit is 2.5 amp @ 24VDC. Each circuit can be configured for Style "Y" (Class "B") operation only. Each circuit will accept Class "B" (2-wire) wiring formats.

Function Switches Provided: none
Module Indications Provided: Individual amber "trouble/status" LEDs.
Current Draw: Alarm = .060A, Standby = .010A
Space Required: (1) module space
Shipping Weight: 1.0 lbs

SC-3 Style Y Dual Controlled Signaling Module: Provides (2) independently programmable, power limited and supervised conventional signal monitoring/drive circuits for compatible audible and/or visual signaling devices. Maximum load capability for each circuit is 1.5 amp @ 24VDC. Each circuit can be configured for Style "Y" (Class "B") operation and will accept Class "B" (2 wire) wiring formats.

Function Switches Provided: Individual "auto/off/on" control switches
Module Indications Provided: Individual green "normal", red "energized" and amber "trouble/off" LEDs.
Current Draw: Alarm = .085A, Standby = .025A
Space Required: (1) module space
Shipping Weight: 1.0 lbs.

■ Auxiliary Function Modules

AR-1 Dual Controlled Auxiliary Relay Module: Provides (2) independently programmable auxiliary relays. Each relay provides (1) "C" form dry contact rated for 5 amp @ 30VAC/VDC switching.

Function Switches Provided: Individual "auto/off/on" control switches
Module Indications Provided: Individual red "energized/status" and amber "off normal/status" LEDs.
Current Draw: Alarm = .085A, Standby = .010A
Space Required: (1) module space
Shipping Weight: 1.0 lbs.

AR-2 Dual Auxiliary Relay Module: Provides (2) independently programmable auxiliary relays. Each relay provides (1) "C" form dry contact rated for 5 amp @ 30 VAC/VDC switching.

Function Switches Provided: None
Module Indications Provided: individual red "energized" LEDs.
Current Draw: Alarm = .075A Standby = .010A
Space Required: (1) module space
Shipping Weight: 1.0 lbs.

AR-3 Style Y Dual Auxiliary Relay Driver Module: Provides (2) independently programmable supervised conventional auxiliary relay driver circuits. Each circuit provides a 24VDC reverse polarity type Style "Y" (Class "B") (2-wire) connection for operating compatible R711 polarized relays.

Function Switches Provided: Individual "auto/off/on" control switches
Module Indication Provided: Individual green "normal", red "energized" and amber "trouble/off" LEDs.
Current Draw: Alarm = .085A, Standby = .025A
Space Required: (1) module space
Shipping Weight: 1.0 lbs.

CT-1 Universal City Tie Module: Provides programmable, power limited and supervised (where applicable) city tie formats for leased line, local energy and shunt type connections. Lease line (remote station) formats are provided for single line (alarm or alarm/trouble), dual line (alarm or alarm/trouble and supervisory) and triple line (alarm, trouble, and supervisory).

    Function Switches Provided: none (disconnect available thru software)
    Module Indications Provided: amber "trouble/disconnected" LED.
    Current Draw: Alarm = .070A, Standby = .020A
    Space Required: (1) module space
    Shipping Weight: 1.5 lbs.

SI-2 Serial Interface Module: Provides (2) power limited and supervised (4) line data links for interfacing system control functions and system status reporting functions with up to (4) RDC-700A and/or other compatible serial drive remote annunciator/controller/auxiliary control units on each circuit. Requires power from an AP-4 or MP-3 power supply.

    Functions Switches Provided: none
    Module Indications Provided: none
    Current Draw: Alarm = .2A Standby =.05A
    Space Required: (1) module space
    Shipping Weight: 1 lb.

SI-3 Serial Interface Module: The SI-3 Serial Interface is a serial communication driver. The SI-3 provides a means of connecting remote displays and/or control units to the MPC-2000 Fire Alarm System Control Unit. Many different device units can be connected to the SI-3. The following supported units are:

    RDC-700A: Thirty-Two Character Remote Annunciator

    *RDC-800: Eighty Character Remote Annunciator

    D700 Series: LED/locandescent Directory Annunciators

    G700 Series: LED/Graphic Directory Annunciators

    R710 Remote Control Relay Units

* Requires SME-1, LM-3, CM-104 Software Options

The S1-3 module provides (2) power limited and supervised four line data/power links for interfacing system data to remote units. Up to (4) remote annunciator/ controller/driver units per circuit in any combination may be used. Power for the SI-3 module should be attained from an AP-4 or MP-3 power supply.

Function Switches Provided: none
Module Indications Provided: none
Current Draw: Alarm = .331 A Standby = .195A
Space Required: (2) module spaces
Shipping Weight: 1.5 lbs.

CI-1 Communications Interface Module: Provides (1) supervised power limited RS232-D communications port for temporary connection to a remote computer for panel programming. CIS-1 software package is required. Requires power from an AP-4 or MP-3 power supply.

    Function Switches Provided: none
    Module Indications Provided: none
    Current Draw: Alarm = .1A Standby = .1 A
    Space Required: (2) module spaces
    Shipping Weight: 1.5 lbs.

CI-2 Communications Interface Module: Provides (1) supervised power limited RS232-D communications port for connection to a remote serial printer or CRT. Board provides for event history option. Requires power from an AP-4 or MP-3 power supply.

    Function Switches Provided: none
    Module Indications Provided: none
    Current Draw: Alarm = .1A, Standby = .1 A
    Space Required: (2) module spaces
    Shipping Weight: 1.5 lbs.

PR-1 System Status Printer with Interface Assembly: Provides system interface and internal thermal panel printer for providing a timed and dated alphanumeric log of all system trouble, alarm and restoration activities. Requires power from an AP-4 or MP-3.

    Function Switches Provided: advance paper
    Module Indications Provided: none
    Current Draw: Alarm = .050A, Standby = .020A
    Space Required: (4) module spaces
    Shipping Weight: 2.5 lbs.

DI-1 Digital Communicator Interface Module: Provides (4) dry form "C" contacts (trouble, alarm, supervisory, power fail) for connection to digital communicator.

    Contact Rating: 1 amp @ 30VDC resistive
    Function Switches Provided: none
    Module Indications Provided: none
    Current Draw: none
    Space Required: (1) module space
    Shipping Weight: 1.00 lbs.

PD-1 Power Distribution Module: Provides 6 extra terminal connections for distributing power to panel and field connections.

Function Switches Provided: none
Module Indications Provided: none
Current Draw: none
Space Required: (1) module space
Shipping Weight: 1.00 lbs.

PD-4 Power/Terminal Distribution Module: Provides 16 sets of extra terminal connections for inter and intra cabinet connections.

Function Switches Provided: none
Module Indications Provided: none
Current Draw: none
Space Required: (1) module space
Shipping Weight: 1.00 lbs.

BK-1 Blank Module: Provides means to cover (1) unused module space in the "CD/CB" enclosures.

Function Switches Provided: none
Module Indications Provided: none
Current Draw: none
Space Required: (1) module space
Shipping Weight: .25 lbs

■ **Standard Software Package Features and Functions**

System Reset
Subsequent Alarm Silence (with acknowledge)
Subsequent Trouble Silence
Circuit Cutoff Functions:
    Zone Circuit Cutoff (software)
    Signal Circuit Cutoff (software)
    *Relay Cutoff (hardware)
    City Tie Cutoff (software)
Drill Test Functions: Drill (with automatic city tie and auxiliary relay cutoff) Recall
Lamp Test: automatically sequencing
System Programming Matrix: assignments of zones to signals and/or auxiliary relays.
Time Set: standard format with AM/PM, automatic leap year and optional daylight savings

Date Set: month/date/year numeric format

Service/Programming Lock-Out Code
System Programmable Timers:
    (4) 5-255 seconds adjustable delay on (latching or non-latching)
    (2) 5-255 minutes adjustable cut out (latching or non-latching)
    (1) 5-255 seconds sig. silt inhibit

System Testing Functions: Quick test (one man system device/field wiring testing with automatic watch dog timer)

Internal Control Panel Diagnostics:
Communications faults (CPU to modules and CPU to remote) Systems Ground Detection (positive and negative faults) System Brown Out Protection (automatically engaged and disengaged) Primary Power Input Supervision (loss and brownout) Standby Power Input Supervision (loss and low voltage)

Programmable Zone Alarm Verification: Manual and automatic device compatible

Programmable Waterflow Operations: Silencing and non-silencing

Programmable Supervisory Operations: Off-normal and restoration

Programmable Signaling Formatting:
    System activation matrixing
    March time beat ringing
    Temporal code ringing
    Steady ringing
    Zone coded ringing
    Automatic adjustable timed silencing (time limit cut out)
    Automatic adjustable timed activation (presignal/general alarm)
    Audible/visual device formatting (silencing & non-silencing)

Automatic Field Wiring Short Protection: Signal circuit short circuit disconnect

Programmable Relay Formatting:
    System activation matrixing
    Alarm activations
    System trouble activations
    March time beat formatting
    Temporal code formatting
    Continuous on formatting
    Automatic adjustable time cut out
    Automatic adjustable time delay on
    Alarm verification formatting (4-wire) smoke detectors)
    *First round of code formatting
    *Code condition formatting

Code Message Alpha-Numeric System:
Alarm status display (auto-scrolling)
Trouble status display (auto-scrolling)

Automatic Alarm Information Priority Override
* Remote Control and Status Display Port
* Printer Activity Log Reporting Port

*   **Note**: Requires use of appropriate optional function modules, software, and/or devices to access.

The above is an abbreviated listing of some of the features and functions a available. Thru constant software enhancements and introduction of new hardware, many more operations are now available. A complete listing of features and functions may be obtained by referring to the individual component data sheets.

■ **Optional Software Package Features and Functions**

ZCP-1 Zone Coding Package: Provides for assignment of (4) digit, (up to 15-15-15-15), (4) round positive, non-interfering successive, prioritized zone coding and master coding. Package also allows for accessing of signal circuit and auxiliary relay coded operation such as: code rate operation, 1st round of code delay on, code condition on and march time beat/temporal rate after code. Also allows for California Code ringing.

CIS-1 Computer Interface Package: Provides for access of CI-1 module's RS232-D port. Package provides software to upload, down load, edit and print out MPC stored system programming. Software will run on IBM compatible 386SX/16MHZ with EGA or better running Microsoft Windows 3.1, 4 Meg Ram, 2 Meg of usable hard drive space, serial port, mouse recommended. Includes 3.5" disks with manual.

EH-1: 100 Event History Software for CI-2

EH-4: 400 Event History Software for CI-2

LM-3: Addressable Loop Message Chip for SI-3 (for up to 3 AM-1's)

CM-104: Conventional Loop Message Chip for SI-3

SME-1 Message Editor Software for SI-3: Provides for upload/download of 80 character messages for RDC-800

■ **Communicator**

The Faraday DC-100/101 is a four channel "slave" digital communicator designed to monitor UL listed local fire alarm systems. The installer can configure the inputs as either a voltage input, active high or low, or a contact closure input. The inputs can be wired as either supervised or non-supervised.

The different channels are listed below:

Channel 1 (Zone 1): Fire Alarm
Channel 2 (Zone 2): Fire Trouble
Channel 3 (Zone 3): Sprinkler Supervisory
Channel 4 (Zone 4): Undefined Alarm

Consult sheet FAC-2-6 for a list of compatible receivers and features.

■ **Accessories**

RDC-700A Remote Display/Controller Unit: Provides complete remote visual system status display with audible buzzer and remote system control station which interfaces to the MPC-2000 control unit via a (4) line supervised data link from the SI-2 or SI-3 module. Up to (4) RDC-700A units may be paralleled together and driven on each circuit from the SI-2 or SI-3 module. The RDC-700A also provides a 5 digit security access code for lock out of unauthorized use of the system control function keypad switches. Individual system control function switches may be enabled or disabled by individual programming jumpers at time of installation so that custom (limited) control access can be achieved at any or all particular remote units.

RDC-800 Remote Display/Controller Unit: Same as RDC-700A except 80 character (40 x 2) display. Software for SI-3 required for full 80 character display.

RDC Function Switches Provided: System reset alarm, silence trouble silence, drill test/recall, lamp test Indications provided: green "power on", red "system alarm", amber" alarm silenced", "system trouble" and "trouble silenced" LEDS. Also 32 or 80 character alphanumeric backlighted LCD display for all standard or custom loaded system alarm and trouble status readouts (auto-scrolling). Normal display is time and date.

Wiring: (2) twisted pair, #20 awg. min. 2000 ft maximum
Current Draw: Alarm = .065A**,** Standby = .055A
Space Required: Standard 5 gang box (by others)
Shipping Information: Weight: 1.5 lbs., Dimension: 4.5"H x 10"L x 1.75"D

D700: Remote LED/Incandescent Directory Style Serial Drive Annunciators/Controllers

G700: Remote LED/Incandescent Custom Graphic Serial Drive Annunciators/Controllers

R710: Remote Alarm/Trouble Serial Drive Remote Relay Units

R711: Remote Polarized Control Relay Units

RPR-100 Remote Printer: 80 column serial printer for complete log of all events and restorations. Duplicates system display information.

CRT-100 Remote CRT: 14" Diagonai flat screen. Displays up to 26 lines by 80 columns, Used for display of system reporting information only.

■ Batteries and Cabinets

14049 Battery Set: Provides 18 amp/hr of recharge-able system standby power at 24VDC. Construction is maintenance free sealed lead-acid.

> **Space Required**: (1) "BE" or 14050 system battery enclosure
> **Shipping Information**: Weight: 25 lbs.
> **Dimension**: 7.25"H x 3"L x 6 5/8 "D per cell (2 required)

14053 Battery Set: Provides 24 amp/hr of recharge-able system standby power at 24VDC. Construction is maintenance free sealed lead-acid.

> **Space Required**: (1) "BE" system battery enclosure
> **Shipping Information**: Weight: 34 lbs.
> **Dimension**: 7"H x 7"L x 5"D per cell (2 required)

14052 Battery Set: Provides 38 amp/hr of recharge-able system standby power at 24VDC. Construction is maintenance free sealed lead-acid.

> **Space Required**: (1) "BE" system battery enclosure
> **Shipping Information**: Weight: 60 lbs.
> **Dimension**: 8"H x 7"L x 7"D per cell (2 required)

14051 Battery Set: Provides 65 amp/hr of recharge-able system standby power at 24VDC. Construction is maintenance free sealed lead-acid.

> **Space Required**: (1) "BE" system battery enclosure
> **Shipping Information**: Weight: 100 lbs.
> **Dimension**: 14"H x 7"L x 7"D per cell (2 required)

401287/BE-1SR: Red Surface Battery Enclosure

> **Dimension**: 15-23/32" x 27" x 8-3/4"

401288/BE-1SB: Black Surface Battery Enclosure

> **Dimension**: 15-23/32" x 27" x 8-3/4"

401289/BT-1FR: Red Semi-Flush Trim for BE-TSR

> **Dimension**: 18-27/32" x 30-1/8"

401290-BT-1FB: Black Semi-Flush Trim for BE-1SB

> **Dimension**: 18-27/32" x 30-1/8"

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WARNING - The information contained in this document is intended only as a summary and is subject to change without notice. The devices described in this document have specific instruction sheets which cover various technical, limitation and liability information. Copies of these instruction sheets and the General Product Warning and Limitations Document, which also contains important information, are provided with the product and are available from the Manufacturer. Information contained in these documents should be consulted before specifying or using the product. For further information or assistance concerning particular problems contact the Manufacturer.