Addressable Fire Alarm Control Panel

Description

The DMP XR2400F Addressable Fire Alarm Control Panel is an expandable Fire Alarm Control with built-in DACT and 32 character LCD annunciator. The complete system provides 234 programmable inputs and 200 programmable outputs for commercial and industrial fire alarm applications. The 24 VDC 4 Amp notification appliance power is distributed between two class B style W notification appliance circuits. Additional NAC's can be added with conventional or addressable power supply/boosters. Addressable detectors and input modules (along with a variety of conventional accessories) round out the XR2400F to deliver a truly flexible and expansive fire detection and notification system.

- 24 VDC 4 Amp NAC Power Supply, Power Limited
- Addressable Reporting System
- Expandable to 200 addressable smoke detector capacity with CleanMe and drift compensation
- Built-in Two Line DACT with Line Supervision
- Up to two 4-wire Digital SLC Loop, 100 Devices each
- Expand to four Class A inputs
- Onboard 32 Character Annunciator
- Graphic Annunciator output for every input in system
- Expands to 200 Addressable Form C Relay Outputs
- Program from panel keyboard, laptop, or remote computer
- Additional Printer Output Option
- One man Walk Test and Fire Drill Operation
- Pager output

Four Amp Power Supply

The XR2400F provides a built-in 24 VDC 4 Amp power supply for NAC operation. Up to 6 Amps of peak power is available for inrush current demands. Two notification circuits are supplied for independent or simultaneous operation.

- Two Class B Style W NAC Outputs
- Shared 4 Amp 24 VDC Power
- Inherently Power Limited
- Electronic Overcurrent Protection, No Fuses

Notification Circuit Expansion

NAC outputs can be easily added to the XR2400F system. In addition to the two standard NAC outputs, up to eight additional class A or B modules can be supported at the FACP. Model 865 class A or 866 class B NAC modules may be combined with the Model 504-24 Power Supply to provide additional 4 Amp NAC outputs.

Built-In Communication

The XR2400F is unmatched in communication capability with its Digital Dialer, Multiplex, Paging, and Supplementary Data Network communication to one or two receivers. The DMP Serial 3 SDLC format supports 16-character point names to improve central station notification. Modem IIe and Contact ID reporting to non-DMP receivers may be programmed to meet a wide range of monitoring requirements.

System Operation

The XR2400F can be easily operated using the 20 key keyboard and LCD display. A keyswitch enables four system function keys provided for silence, reset, test, and fire drill operation. All of these functions are also available on the 630F Remote Fire Command Center.

Remote Link

The Remote Link™ remote programming software takes advantage of the easy to use simplicity of the Microsoft® Windows™ program. The XR2400F includes an RS-232 interface for connection to an installers laptop computer.

- Allows Direct Programming of XR2400F panel from laptop or remote computer

Listings and Approvals

- UL 864 Control Units for Fire Protective Signaling
  - Central Station
  - Remote Station
  - Local
  - Proprietary
- NFPA 72
- CSFM
- MEA (Pending)
- UL 294 Access Control
- UL 1610 Central Station

XR2400F SYSTEM

The XR2400F comes fully assembled from the factory with the following components:

- XR2400F PCB and transformer
- 20 key keyboard and 32 character LCD display
- 504-24 power supply and transformer
- 866 Class B NAC module (two)
- 893A Dual Phone Line module
- 462N SLC Loop Interface with RS-232 Programming Input

XR2400F System

XR2400F Control Panel

The XR2400F Fire Alarm Control Panel provides complete system control for local NAC operation, DACT communication to the Central Station, and support of the local and remote LCD annunciators. The microprocessor based FACP also provides input for Class A zone expansion, conventional 521B(XT) smoke detectors, pull stations, and heat detectors.

XR2400F

Fire Command Center

The Fire Command Center is a 20 key, 32 character LCD annunciator that is used for system operation, annunciation, and programming. A keyswitch is provided to enable the four function buttons; silence, reset, test, and fire drill. All functions are available using a code at the keyboard. The optional 630F Remote Fire Command Center provides identical operation and can be installed up to 1,000 feet from the FACP. Up to seven Remote Command Centers can be attached to the XR2400F.

Fire Command Center

504-24 Power Supply

The factory installed 504-24 Power Supply is a cost effective, 4 Amp, 24 VDC power supply that provides Notification Appliance Circuit (NAC) power to the two 866 NAC modules. Two Amps are available for both circuits. Additional 504-24 and 504-24LX Power Supplies may be added to expand the system.

504-24

- 24 VDC @ 4 Amps NAC power supply

866 Class B NAC Module

Two 866 modules provide Style W notification and supervision for DMP Series 800 and 900 UL listed notification appliances. This includes bells, strobes, and horns. Each 866 contains a set of Normally Closed trouble contacts to indicate off normal conditions to the panel. A NAC Silence switch is also provided for use during testing or service.

866

- Supports DMP Series 800 and 900 Appliances
- NAC Silence switch for testing and service

893A Dual Phone Line Module

The factory installed 893A is a dual telephone line supervision module that allows the XR2400F to indicate a phone line failure to the premises and central station and switch to secondary phone line communication when the primary line is down.

893A

- Phone line supervision
- Central Station reporting
- Switches to secondary when primary is down

462N SLC Loop Interface

The 462N Interface provides connection for the Digital 4-wire SLC Loop. The 4-wire bus supports addressable smoke detectors, relay output modules, graphic annunciator modules, and a variety of conventional expansion modules. Up to 100 individual device addresses are supported on one SLC loop. A second SLC loop can be added to the XR2400F by the addition of the 481 Interface Card. The 462N also provides an RS-232 port for connection to an installers laptop computer. This allows on-sight programming using the DMP Remote Access software.

462N

- Provides one 4-wire SLC loop connection
- Supports up to 100 addressable smoke detectors or

DMP SERIES 800 AND 900 NOTIFICATION APPLIANCES

The DMP family of notification appliances are UL cross listed for use with the DMP XR2400F System. A full line of appliances are available including bells, strobes, and horns.

expansion inputs and outputs
- Allows connection to laptop for panel programming

802

802 Multitone Horn

The 802 Multitone Notification appliance (24 VDC) offers a choice of eight (8) nationally and internationally recognized alerting sounds: Horn, Bell, March Time Horn, Code-3 Tone, Code-3 Horn, Slow Whoop, Siren or Hi/Lo Tone. The Code-3 horn and tone patterns are engineered to comply with NFPA/ANSI temporal pattern specifications without requiring additional equipment.

- Superior sound penetration for various ambient and wall conditions
- Code-3 Horn and Tone meet ANSI/NFPA

803

803 & 923 Standard Horn & Horn/Strobe

The Model 923 Series Horn/Strobes, and the Model 803 Horn Appliance (24 VDC) are a low current design with zero inrush. The Horn appliance provides a *Selectable continuous* horn tone or *temporal pattern (Code 3) tone* when ***constant voltage*** from a Fire Alarm Control panel (FACP) is applied.

923

- Low current
- Zero inrush
- Two selectable tones and dB levels

901 Mini Horn

901

The 901 Piezoelectric Mini Horn (24 VDC) is a compact electronic alarm appliances that is listed under UL 464 for Audible Appliances in public mode Fire Protection Systems. It is ideal for alarm signaling in individual rooms, apartments, hotels, motels, and offices – where attractive appearance, dependable performance and economical installation are prime concerns.

- Approvals Include: Underwriters Laboratories UL 464 Listings and California State Fire Marshal
- Designed to meet or exceed NFPA/ANSI Standards

906 Motor Bell

The Model 906 Motor Bell (24 VDC) provides higher dBA, low current draw, built-in trimplate for semi-flush mounting, low frequency aluminum shells, and low RFI noise. The motor for these bells is a durable, high torque, permanent magnet motor selected for its high performance and long life.

906

- Low frequency aluminum shell for better audibility through walls, doors, and other structures.
- 6 or 10 inch 24 VDC models

904 & 924 Horn & Horn/Strobe

924

The 924 Series Horn Strobe Appliances and 904 Horns (24 VDC) offer more features with Less Current and Zero Inrush. The Horn provides a *Selectable* choice of either a *continuous* horn tone or *temporal pattern* (code 3) tone when ***constant voltage*** from a Fire Alarm Control Panel (FACP) is applied. Each tone has 3 dBA settings to choose from. All models (Horn only or Horn/strobe) may be Synchronized when used in conjunction with the 831 or 832 Sync Modules.

904

- Continuous Horn or Temporal (code 3) Tones.
- Ability to silence the horn while maintaining strobe

921 & 922 Strobe & Strobe Plate

921

The Model 921 Series and 922 Series Non-Sync/Sync Strobes (24 VDC) have low current draw and zero inrush while maintaining outstanding performance, reliability and cost-effectiveness. Synchronized strobe flash is achieved when used with the 831 or 832 Sync Module(s).

922

- Meets or exceeds NFPA/ANSI Standards and ADA Guidelines.
- 922 Strobe Plate incorporates 921 Non-Sync/Sync Strobe(s)
- Allows retrofit applications

831 & 832 Sync Modules

831/832 Front

The Model 831 and 832 Sync Modules are used with sync notification appliances (24 VDC). When used with the 923, and 924 Horn/Strobes, the sync modules provide independent operation of *synchronized* temporal pattern (code 3) horn and synchronized strobe flash. The sync modules also allow the ability to silence the horn while maintaining the strobe flash.

831/832 Back

- Synchronize appliances
- Silence horn and maintain strobe

XR2400F SYSTEM EXPANSION

A variety of expansion methods may be used with the XR2400F to provide up to 234 programmable inputs and 200 programmable outputs. This includes addressable smoke detectors, single point addressable expanders for connection of conventional pull stations and heat detectors, as well as four, eight or sixteen point addressable expanders. Outputs can be provided by relay output modules and graphic annunciator interfaces. All of this capability make the XR2400F a truly expansive fire alarm system.

521LX & 521LXT Addressable Smoke Detectors

The 521LX and LXT Addressable Smoke Detectors are the industry's first conventional smoke detector with analog features such as remote maintenance reporting, drift compensation, CleanMe™ and multi-criteria detection. Additionally, the smoke detectors contain a single point, addressable module which allows connection to the digital 4-wire SLC loop.

521LX/521LXT

The XR2400F FACP expands to 200 521LX or 521LXT Smoke Detectors. The first 100 detectors operate from the included 462N Interface. A second SLC loop may be added by installing a 460 Interface Adaptor and a 481 Expansion Card. A 505-12 Power Supply may also be needed.

- CleanMe maintenance reporting reduces false alarms
- Field replaceable optical chamber for easy servicing
- Built-in drift compensation reduces false alarms and meets NFPA 72-7-3.2.1 Field Sensitivity Testing

521B(XT) Smoke Detector

The ESL 521 Series self-diagnostic, two-wire smoke detectors are the industry's first conventional direct-wire smoke detectors with analog features such as remote maintenance/trouble reporting (CleanMe), drift compensation, and multi-criteria detection. The 521 Series continually monitor their own sensitivity and operational status, and provide a visual and remote trouble condition if they drift out of the sensitivity range or fail internal diagnostics.

521B(XT)

- Extremely low profile at only 2.0" high
- Direct 2-wire configuration
- 6-24 VDC operation

600 Series Heat Detectors

The 600 Series Conventional Heat Detectors feature combination rate-of-rise and fixed temperature operation, with 135^{0}F (57^{0}C) or 200^{0}F (94^{0}C) models, visual indication, single circuit operation, and normally open contacts. These features are incorporated in an attractive, durable, and low profile design. The unit protrudes only 1-3/8 inches from the ceiling surface with a junction box mounting. The pleasantly contoured, all-white finish design conforms aesthetically to most ceilings.

600 Series

- Operates from 711 or 714 Addressable Input Expander
- 135^{0}F (57^{0}C) or 200^{0}F (94^{0}C) models available in attractive, low profile design

850 Pull Stations

The 850 Series Pull Station is a high quality, die-cast metal manual pull station available in either single or dual action configurations with SPST contacts and terminal strip connections. The normally open contact, which closes when the pull station is activated, is rated for 1 Amp @ 30 VDC. The 850 series has been tested by UL for compliance to the latest requirements of the Americans with Disabilities Act (ADA). The 850 can connect to the model 711 to provide an addressable pull station.

850 Series

- Approvals: UL and CSFM
- Single or dual action
- Available with or without 711 Addressable Input Expansion Module

711 and 711E Conventional Zone Expansion

The 711 and 711E Single Input Expander Modules provide a single addressable input you can use to connect non-powered fire devices to the XR2400F. Both modules are contained in attractive, impact resistant plastic cases with removable covers and bases. Wire entry points are provided on the case to accommodate a variety of installation requirements.

711/711E

711 Zone Expander Module

- Easy rotary addressing; no difficult binary switches
- Set the address with a small screwdriver

711E Zone Expander Module

- Push button addressing reduces expander cost
- Data LED flashes to confirm address entry

714 Zone Expander

The 714 contains four inputs and is suitable for use with normally open and normally closed fire devices. Individual loops are supervised with 1k EOL resistors and can be programmed for any fire loop type.

714

- Four inputs on each module
- Connects to 4-wire bus from panel
- Also available in 8 and 16 input modules in metal enclosure, Model 714-8 and 714-16
- Connect any conventional non-powered fire device

715 Input Zone Expansion Module

715

The 715 expander contains four Class B powered inputs and is suitable for use with the 2-wire 521B(XT) smoke detectors. Individual inputs supervised with an end-of-line resistor and can be programmed for any zone type.

- Powered from panel or 505-12 auxiliary power supply
- Connects to 4-wire SLC loop or Remote Annunciator bus from panel
- Also available in 8 and 16 input modules in metal enclosure, Models 715-8 and 715-16

714-8/16 715-8/16

716 Output Expander Module

The 716 Output Expander Module provides four independently programmable Form C relays and four input following annunciator outputs (open collector) for use by XR2400F panels in a variety of remote annunciation and control applications. You can connect multiple 716 modules to the digital SLC loop of the panel for up to 200 auxiliary relays and 234 annunciator outputs on the XR2400F.

716

- Powered from panel or auxiliary 505-12 power supply
- Four independent Form C relays on each module
- Four open collector annunciator outputs on each module

717 Graphic Annunciator

The 717 module provides 20 input following annunciator outputs (open collector) for use by DMP XR2400F Fire Alarm Control panel in a variety of remote annunciation and control applications. You can connect multiple 717 modules to the SLC loop of the XR2400F. This capability allows you to provide an annunciator output for each input of the system.

717

- Annunciates normal, alarm, trouble, wireless low battery, missing, and bypassed zone conditions

460 Interface Adapter

460

When adding the 481 SLC Expansion card, or 462P Printer Card, a model 460 Interface Adapter is needed. This adaptor plugs directly into the XR2400F PCB and provides five expansion slots.

462P Printer Card

The 462P Printer Interface Card allows you to connect a serial printer to the XR2400F panel for printing real-time events such as alarms, troubles, and system reports. Service technicians can also periodically connect a printer to the 462P and, accessing a restricted option in the panel's User Menu, print all events currently in the panel's memory.

462P

- Connects 40 or 80 character serial printer to panel

481 SLC Expansion Card

481

The 481 Expansion Interface Card allows you to expand the XR2400F panel by 100 additional inputs. The 481 provides one 4-wire SLC loop connection.

869 Class A Input Waterflow

The optional 869 Module provides two class A, style D, 4-wire initiating loops for connecting waterflow switches and non-powered fire devices to the XR2400F. The 869 supervises both loops for opens, shorts, or ground fault conditions and connects to two panel inputs of the XR2400F PCB.

869

- Two class A, style D waterflow inputs
- Supervises for open, short, and ground faults
- Connects to XR2400F PCB

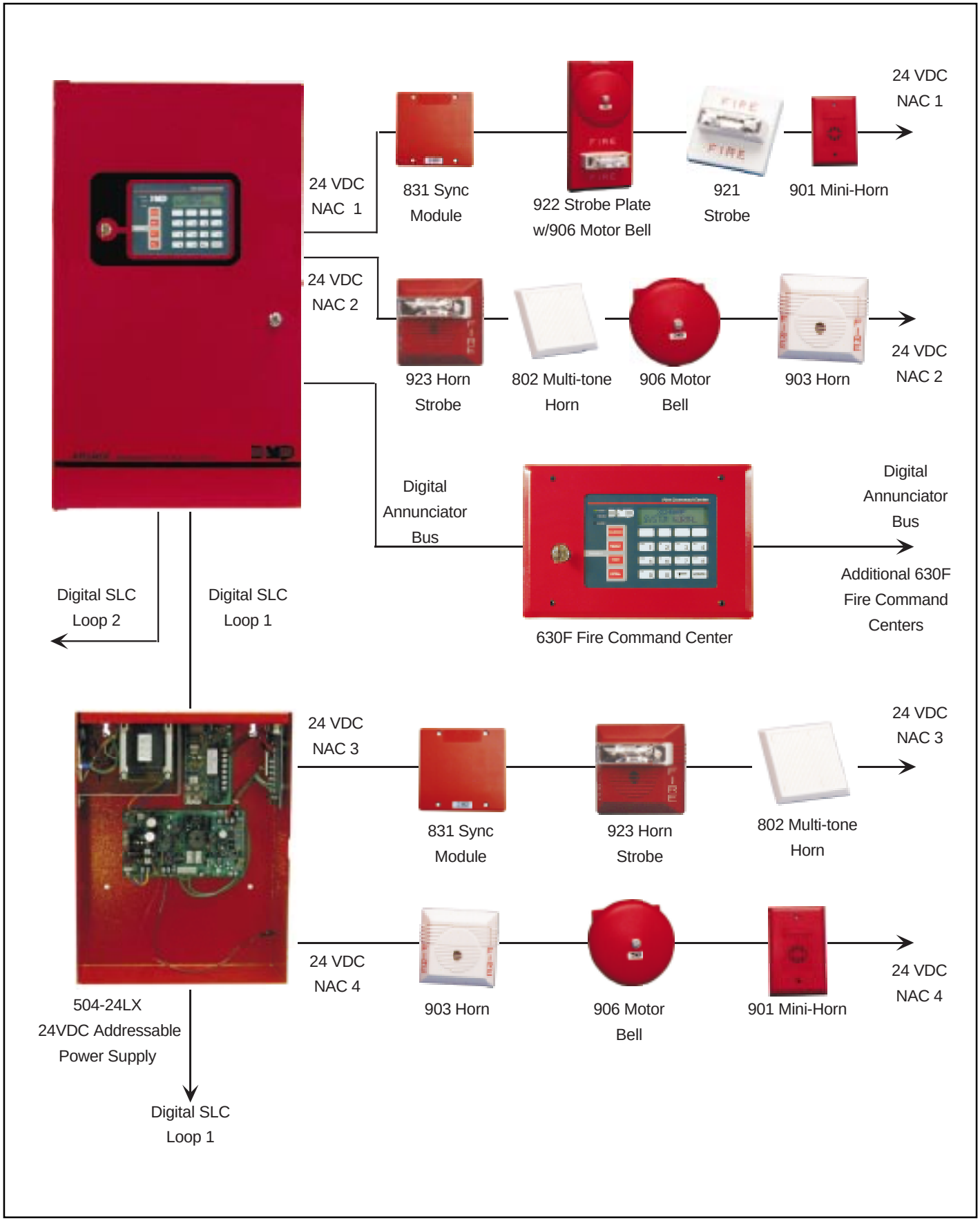
504-24LX Addressable Power Booster

The optional 504-24LX provides intelligent 4 Amp 24 VDC class B style W NAC operation. The power booster can be remotely mounted and individually assigned to one of 200 independent addresses for operation via the 4-wire digital SLC loop. Multiple power boosters can be programmed for simultaneous or independent operation. Various sections of a facility can be zoned for separate fire alarm notification by the XR2400F control. The 504-24LX Power Booster supervises AC and battery power to the supply and the condition of the NAC circuit. All information is reported to the XR2400F via the polled digital SLC loop.

504-24LX

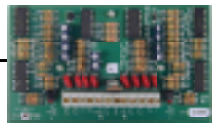
- 24 VDC @ 4 Amp Class B operation
- Assign to one of 200 independent addresses
- Allows remote mounting for zoning of alarm notification

XR2400F Typical Notification/Annunciation



XR2400F Typical Input/Output

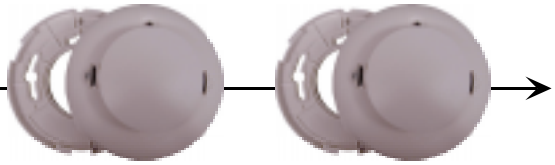
869 Class A
Input Module



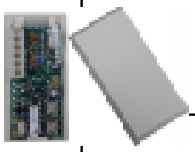
Two Class A Inputs

Two 869 modules may be used to provide four Class A inputs total

Digital SLC
Loop 1



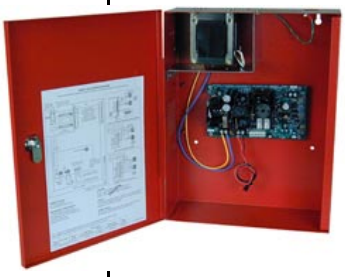
521LX(T) Addressable Smoke Detector Up to 100 Devices



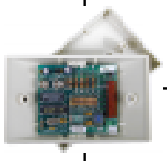
711 Single
Input Expander

850 Pull
Station

Digital SLC
Loop 2



505-12 Power Supply
with 716 Relay Output
for smoke reset



714 Single
Input Expander

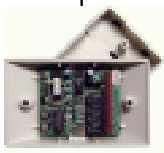
600 Series Heat
Detector

521LX(T) Addressable
Smoke Detector

715 Single
Input Expander

521B(XT)
Addressable
Smoke Detector

521LX(T) Addressable
Smoke Detector

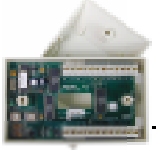


716 Relay
Output Expander

Four Form C
relay outputs

Four open collector graphic
annunciator outputs

Digital SLC
Loop 2



717 Graphic
Annunciator

Twenty open collector
graphic annunciator outputs

Up to 100 Devices
Any expansion device can
operate on SLC Loop 1 or 2

Specifications

Panel Input Voltage/Current	120 VAC @ 350mA
Panel Auxiliary Power	1 Amp @ 12 VDC
NAC Power Input Voltage/Current	120 VAC @ 1.5 Amp
NAC Output Voltage/Current	24 VDC @ 4 Amp

Remote Annunciators

Model	Description
630F	Fire Command Center

Detectors

Model	Description
521LX	Addressable Smoke Detector w/CleanMe
521LXT	Addressable Smoke Detector w/heat and CleanMe
521B	Addressable Smoke Detector w/CleanMe
521BXT	Addressable Smoke Detector w/heat and CleanMe
601	Heat Detector 135 with Rate of Rise
602	Heat Detector 200 with Rate of Rise
603	Heat Detector 135 with Fixed Temperature
604	Heat Detector 200 with Fixed Temperature

Expanders/Interfaces for SLC Loop

Model	Description
711/711E	Single Input Expander
714	Input Expander (4)
714-8/16	Input Expander (8 or 16)
715	Input Expander (4) 2-wire smoke detectors
715-8/16	Input Expander (8 or 16) 2-wire smoke detectors
716	Relay Output Expander - 4 Form C and 4 switched grounds (open collector)
717	Graphic Annunciator Module - 20 open collectors
460	Interface Card Adaptor Board/accepts up to 5 cards
462N	SLC Loop RS-232 Interface
462P	Printer Interface
481	SLC Loop Interface

Panel Accessories

Model	Description
322	100VA Transformer (required for 60hr standby)
367	Sealed lead-acid 12V battery
370RJ	Lightning Suppressor with dual RJ jacks
394	Direct programming cable
865	Style Y or Z Notification Circuit Module
866	Supervised Notification Circuit Module
867	Supervised SLC Loop Notification Circuit Module
869	Dual Style D Initiating Circuit Module

Power Supplies

Model	Description
504-24	24 VDC 4 AMP Power Supply
504-24LX	2NAC 24 VDC 4 AMP Power Booster
505-12	12 VDC 5 AMP Power Supply

Pull Stations

Model	Description
850S	Single Action Pull Station
850D	Dual Action Pull Station
850S/711	Single Action Addressable Pull Station
850D/711	Dual Action Addressable Pull Station

12/24 VDC Notification Appliances

DMP Model	Description
802	Multitone Notification Appliance
803	Horn Appliance
831	Single Sync Module
832	Dual Sync Module

24 VDC Bell and Horn Appliances

DMP Model	Description
901	Piezoelectric Mini Horn
904	Horn Appliance
904WP	Horn Appliance, Weather-proof
906-6	Motor Bell 6"
906-10	Motor Bell 10"

24 VDC Remote Strobe Appliances

DMP Model	Description
921-15C	Remote Strobe, Ceiling Mount, 15cd
921-15W	Remote Strobe, Wall Mount, 15cd
921-30C	Remote Strobe, Ceiling Mount, 30cd
921-30W	Remote Strobe, Wall Mount, 30cd
921-75C	Remote Strobe, Ceiling Mount, 75cd
921-75W	Remote Strobe, Wall Mount, 75cd
921-100C	Remote Strobe, Ceiling Mount, 100cd
921-110W	Remote Strobe, Wall Mount, 110cd
921-1575W	Remote Strobe, Wall Mount, 15/75cd
922-15W	Remote Strobe, Retrofit Plate, 15cd
922-30W	Remote Strobe, Retrofit Plate, 30cd
922-75W	Remote Strobe, Retrofit Plate, 75cd
922-110W	Remote Strobe, Retrofit Plate, 110cd
922-1575W	Remote Strobe, Retrofit Plate, 15/75cd

24 VDC Horn/Strobe Appliances

DMP Model	Description
923-15W	Horn/Strobe, Flush Mount, 15cd
923-30W	Horn/Strobe, Flush Mount, 30cd
923-75W	Horn/Strobe, Flush Mount, 75cd
923-110W	Horn/Strobe, Flush Mount, 110cd
923-1575W	Horn/Strobe, Flush Mount, 15/75cd

24 VDC Audible Strobe Appliances

DMP Model	Description
924-15C	Audible Strobe, Ceiling Mount, 15cd
924-15W	Audible Strobe, Wall Mount, 15cd
924-30C	Audible Strobe, Ceiling Mount, 30cd
924-30W	Audible Strobe, Wall Mount, 30cd
924-75C	Audible Strobe, Ceiling Mount, 75cd
924-75W	Audible Strobe, Wall Mount, 75cd
924-100C	Audible Strobe, Ceiling Mount, 100cd
924-110W	Audible Strobe, Wall Mount, 110cd
924-1575W	Audible Strobe, Wall Mount, 15/75cd

Digital Monitoring Products

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