

# FPD-7024 Fire Alarm Control Panels

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Invented for life



- ▶ Four initiating zones (expandable to eight); up to 20 two-wire smoke detectors per zone
- ▶ Programmable through keypads or remote programming software (RPS) through a Conettix interface module
- ▶ Two notification appliance circuits (NACs) on board with a shared internal regulated 24 VFWR, 4 A NAC power supply
- ▶ Easily converts to addressable with the addition of a D7039 Multiplex Expansion Module

The FPD-7024 Fire Alarm Control Panels (FACPs) can be used in commercial and public building applications such as schools, universities, manufacturing plants, and health care facilities. They are listed by UL for central station, local, auxiliary, and remote station systems.

The FPD-7024 FACPs support four on-board initiating zones that can be expanded to eight using the FPC-7034. Each initiating zone supports two-wire and four-wire detectors configurable as Class A, Style D or Class B, Style B loops. Each zone can support up to 20 two-wire detectors, or any number of four-wire detectors depending on available power. Each FACP has a built-in digital fire alarm communicator transmitter (DACT).

Enhance the FPD-7024 conventional system features by adding a D7039 Multiplex Expansion Module. Adding a D7039 Multiplex Expansion Module to the FPD-7024 turns the conventional FACP into an addressable FACP. The D7039 adds up to 247 addressable points to the base system and adds an additional 400 events to the history buffer for a total of 499 events. The D7039 also increases the number of programmable relay outputs from 19 to 59 and expands system users to 100.

## Functions

### Notification Appliance Circuits (NACs)

Two Class A, Style Z or Class B, Style Y NACs provide up to 4 A of regulated 24 VFWR power to operate horns, strobes, bells, and other notification appliances. Each NAC can be programmed to provide Temporal Code 3, California March, steady, pulsed, and synchronized output for Wheelock, Gentex, or System Sensor notification appliances.

### User Interface

A viewing port in the locked control panel enclosure door shows the system status light-emitting diodes (LEDs) and liquid-crystal display (LCD) while maintaining system keypad security. Unlocking the enclosure door provides access to the system controls for silencing off-normal conditions, zone bypassing, detector resetting, testing, other fire functions, and programming. These functions are also available on all FMR-7033 LCD Keypads connected to the system.

### Organized Event Display

Sorts alarm, trouble, and supervisory events into categories and allows scrolling through specific events.

## History Buffer

The system stores events in a 99-event history buffer.



### Notice

The number of events that can be stored in the history buffer increases to 499 with the addition of a D7039 Multiplex Expansion Module.

## Central Station Reporting

The FPD-7024 FACPs send reports to two telephone numbers (or, if a Conettix interface module is installed, IP addresses) to an appropriate Conettix receiver at the central station with full single, double, and backup reporting. The panel supports communication in BFSK, SIA, Contact ID, Modem IIIa<sup>2</sup>, and 4/2 or 3/1 Tone Bursts.

## Dirty Smoke Detector Monitoring

All on-board zones and FPC-7034 zones are continuously monitored for smoke detectors signaling a dirty condition using the Bosch Chamber Check feature and CleanMe protocol. If a detector's smoke chamber is dirty, the detector sends a CleanMe signal on the two-wire loop or a dirty detector signal on the addressable loop. The control panel annunciates that there is a dirty detector on the loop or the address. The Chamber Check feature signals a dirty smoke chamber using the LED on the detector head.

## Accessories

The FPD-7024 enclosure has space for additional accessory modules and two D1218 (18 Ah) batteries or two D126 (7 Ah) batteries.

## Certifications and approvals

| Region | Certification |   |
|--------|---------------|---|
| USA    | UL            | UOJZ: Control Units, System (ANSI/UL 864) |
|        | FM            | FPD-7024                                  |
|        | CSFM          | see our website                           |
|        | FCC           | ESVAL04B7024                              |
|        | FDNY-CoA      | #6173                                     |

## Installation/configuration notes

### Compatible Products

The following products are compatible (refer to the product datasheet for country-specific certifications/approvals) with the FPD-7024 FACP:

| Category                     | Product ID and Description             |
|------------------------------|--|
| Batteries and Power Supplies | D126 12 V, 7 Ah battery                |
|                              | D1218 12 V, 18 Ah battery              |
|                              | FPP-RNAC-8A-4C Remote NAC power supply |

|                                     |  |
|-------------------------------------|--|
| Detectors                           | For two-wire detector compatibility, refer to <i>FPD-7024 Smoke Detector Compatibility List Technogram</i> (P/N: F01U010790) |
| Keypads and Annunciators            | D7030X Eight-point LED annunciator (eight red)   |
|                                     | D7030X-S2 Eight-point LED annunciator (two yellow, six red)  |
|                                     | D7030X-S8 Eight-point LED annunciator (eight yellow)   |
|                                     | D7032 Eight-point LED annunciator expander (eight red)   |
|                                     | FMR-7033 LCD fire system keypad  |
| Modules                             | FMR-7036 LCD annunciator   |
|                                     | D132B Smoke detector reversing relay module  |
|                                     | D184A Local energy kit   |
|                                     | D185 Reversing polarity module   |
|                                     | D275 EOL power supervision module  |
| Option Bus Devices                  | FPC-7034 Four-point expander   |
|                                     | D7039 Multiplex expansion module   |
|                                     | D7035 Octal relay module   |
|                                     | D7035B Octal relay module in box   |
|                                     | DX4010V2 USB/serial interface module   |
|                                     | DX4020 Network interface module  |
|                                     | B420 Ethernet communicator   |
|                                     | B426 Ethernet communication module   |
|                                     | B440 Conettix plug-in cellular   |
|                                     | B441 Conettix plug-in cellular   |
| B442 Conettix plug-in GPRS cellular |  |
| NAC Devices                         | B443 Conettix plug-in HSPA+ cellular   |
|                                     | B450 Conettix plug-in communicator interface   |
|                                     | ITS-DX4020-G GPRS/GSM communicator   |
|                                     | Refer to <i>FPD-7024 Device Compatibility List Technogram</i> (P/N: F01U010791)  |

The following additional products are compatible with the FPD-7024 Addressable FACPs:

| Category                 | Product ID and Description                                     |
|--------------------------|--|
| Detector Heads and Bases | D7050 Addressable Photoelectric Smoke Detector Head            |
|                          | D7050TH Addressable Photoelectric Smoke and Heat Detector Head |
|                          | D7050-B6 Detector Base   |
| Modules                  | D7042 Multiplex eight-input remote module                      |

D7042B Multiplex eight-input remote module in box

D7044 Multiplex single-input module

D7044M Mini multiplex single-input module

D7048 Multiplex octal driver

D7048B Multiplex octal driver in box

D7052 Multiplex dual-input module

D7053 Multiplex input-output module

Pull Stations FMM-7045 Single-action manual station

FMM-7045-D Double-action manual station

### Parts included

#### FPD-7024

| Quant. | Component   |
|--------|---|
| 1      | FPD-7024 board in a static-resistant bag              |
| 1      | Enclosure   |
| 1      | Lock set with two #1358 (D102) keys (P/N: F01U083084) |
| 1      | Transformer (P/N: F01U033706)                         |
| 6      | 2.21 kΩ end-of-line (EOL) resistors (P/N: F01U034504) |
| 1      | Hardware pack   |
| 1      | Literature pack                                       |



#### Notice

For the FPD-7024 to be addressable, a D7039 Multiplex Expansion Module must be installed. The D7039 is purchased separately.

#### FPD-7024-LC

| Quant. | Component                                |
|--------|--|
| 1      | FPD-7024 board in a static-resistant bag |
| 1      | Hardware pack                            |
| 1      | Literature pack                          |

#### FPD-7024-LT (Latin America only)

| Quant. | Component   |
|--------|---|
| 1      | FPD-7024 board in a static-resistant bag              |
| 1      | Enclosure   |
| 1      | Lock set with two #1358 (D102) keys (P/N: F01U083084) |
| 6      | 2.21 kΩ end-of-line (EOL) resistors (P/N: f01U034504) |
| 1      | Hardware pack   |
| 1      | Literature pack                                       |

#### FPC-7024-FK1

| Quant. | Component  |
|--------|--|
| 1      | FPD-7024 FACP  |
| 1      | F220-B6E 6-in. (15.24-cm) diameter, 4-wire base with EOL relay |
| 1      | F220-P photoelectric spot smoke detector                       |
| 1      | SS-P2R Two-wire Horn Strobe                                    |
| 1      | FMM-100SATK manual station (red)                               |
| 2      | D162@24 2-ft (60.96-cm) dual modular phone cord                |
| 2      | D166@24 RJ31X phone jack                                       |

### Technical specifications

#### Electrical

|                     |   |
|---------------------|---|
| Current (alarm)*:   | 380 mA  |
| Current (standby)*: | 200 mA  |
| Power (primary):    | 120 VAC , 1.2 A maximum, 60 Hz or 240 VAC , 0.75 A maximum, 50 Hz |

\* For product-specific current values, see the product's *Installation Instructions*.

#### Environmental

|                          |                                |
|--------------------------|--------------------------------|
| Environment:             | Indoor, dry                    |
| Relative Humidity:       | Up to 95%, non-condensing      |
| Temperature (operating): | +32°F (0°C) to +120°F ( +49°C) |

#### Mechanical Properties

|                     |  |
|---------------------|--|
| Color:              | Red  |
| Dimensions (HxWxD): | 20.8 in. x 15 in. x 4.3 in. (52.8 cm x 38.1 cm x 10.9 cm)                |
| Material:           | Cold-rolled steel<br>Base: 18 gauge (1.2 mm)<br>Cover: 19 gauge (1.1 mm) |

#### Indicating Device Circuits (IDC)

|                  |                        |
|------------------|------------------------|
| Current:         | 44 mA maximum per loop |
| Line resistance: | 150 Ω                  |
| Voltage:         | 24 VDC nominal         |

#### Outputs

|                   |  |
|-------------------|--|
| NAC:              | 24 VDC nominal, 4 A maximum  |
| On-board Relays:  | Three Form C contacts rated at 5 A, 28 VDC   |
| Off-board Relays: | Up to two D7035 Octal Relay Modules with each providing eight Form C relay outputs; contacts rated at 5 A, 28 VDC<br>In an addressable system, up to 20 D7053 Multiplex Input-Output Modules are allowed per bus for a total of 40 |

### Trademarks

All hardware and software product names used in this document are likely to be registered trademarks and must be treated accordingly.

### Ordering information

#### FPD-7024 FACP

Four detector zones (expandable to eight); up to 20 two wire smoke detectors per zone  
Order number **FPD-7024**

#### FPD-7024-LC FACP without Enclosure and Transformer

Four detector zones (expandable to eight); up to 20 two wire smoke detectors per zone  
Order number **FPD-7024-LC**

#### FPD-7024-LT FACP without Transformer

Four detector zones (expandable to eight); up to 20 two wire smoke detectors per zone. **Available only in Latin America.**  
Order number **FPD-7024-LT**

### Accessories

#### FPC-7024-FK1 Basic Fire Panel Kit

Four-zone FACP with one four-wire photoelectric smoke detector and base with EOL relay, one two-wire horn/strobe, one manual station, and two RJ31X phone jacks with dual modular phone cords.  
Order number **FPC-7024-FK1**

#### D102 Replacement Key

Replacement key (#1358) for the D101 lock.  
Order number **D102**

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