

Addressable Agent Release & Fire Alarm Control Panel

FW2107



Overview

The FW2107 is an intelligent fire suppression control panel designed for fire suppression facilities. It can also be used as an Intelligent Fire Alarm Control Panel (FACP) for small to medium-sized facilities and fits standalone applications and multi-panel networks.

It features a digital signal processor-based design that is fully configurable from the front panel with password protection.

The FW2107 control panel has one Signaling Line Circuit (SLC), two Notification Appliance Circuits (NACs), 3 Form C dry relay contacts dedicated for Alarm, Trouble, and Supervisory.

The FW2822 addressable module supports hazardous agent-releasing applications programmed to the two releasing zones.

The FW2107 is compatible with the Series 2 Maple Armor devices, and it meets the requirements of UL 864, and CAN/ULC-S527.

Features

- 2.8" true color LCD
- 29 Input keys including a keypad with navigation buttons, alpha-numeric buttons, and Function buttons.
- 10 LED indicators, making it a highly intuitive fire alarm interface with a full
- Two releasing zones
- One signaling line circuits (SLC), Class A or Class B. Supporting 252 intelligent devices
- Supports Series 2 intelligent detectors, manual stations, and modules
- Programmable via PC configuration software or Field programmable through front panel.
- Ethernet and USB ports for local programming and firmware upgrade.
- Supports remote annunciators' network for wide system configurations and applications.
- Form C dry relay contacts dedicated for Alarm, Trouble, and Supervisory.
- Supports positive alarm sequence to avoid false alarms
- Configurable for Two Stage operation
- Supports an RS232 and RS485 connections
- Three-levels of password protection with field-programmable definitions enable the installer to determine which functions are accessible at each password level

SYSTEM CONFIGURATION

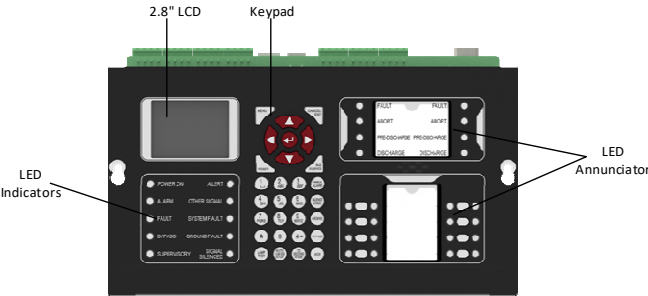
The standard FW2107 control panel comes equipped with MBU and PSU complete with the panel enclosure.

Model	Description	Configurable	Qty	Standby	Alarm
FW2203	MBU (Main Board Unit)	Fixed	1	0.123	0.133
FW2391	PSU (Power Supply Unit)	Fixed	1	0.067	0.067
FW2194L	CPE (Control Panel Enclosure)	Fixed	1	0	0

**All currents are in Ampere*

Main Board Unit (MBU)

The main board unit contains the system's CPU, all the primary components, circuit connection terminals, and all user interface LCDs, buttons, and status LEDs.



System Wiring

Addressable Device Loop

The FW2107 control panel supports a single signaling line circuit (SLC) with a capacity of 252 device addresses. The loop features built-in isolation and is supervised for opens, shorts, and grounds.

Circuit Specification	
Loops	Class B or A loop, supporting 252 addressable devices
Output Voltage Range	26 ~ 27 VDC
Standby Current	100 mA max
Alarm Current	250 mA max
Circuit Impedance	20Ω, 0.5 μF, max
Isolators	50 max

Auxiliary Power Outputs

The Power Supply Unit (PSU) provides an auxiliary power output. It can be configured as resettable or non-resettable.

The resettable terminal interrupts the power for seconds after a reset condition. The output is limited to 3.0 A alarm and 650 mA in normal standby maximum.

Circuit Specification	
Outputs	One configurable
Circuit Voltage Range	19.3 – 27.9 VDC
Output Current	650 mA max Standby 3.0 A max Alarm

Notification Appliance Circuits

The FW2107 panel supports 2 notification appliance circuits (NAC), each with a capacity of 252 device addresses. Each circuit is supervised.

Circuit Specification	
Circuits	Class B or Class A
Voltage	24VDC
Circuit Current	2.0 A per circuit or Regulated 1.0 A total
EOLR	10 KΩ
Max line loss	2.2 V
Synchronization	Built-in
Bell code	Steady ANSI Temporal 3 Temporal 4 March Time 20/60/120 bpm

**Voltage drop calculations are required to determine the number of notification appliances per circuit.*

Relay Outputs

The control panel provides three non-programmable relays to connect to remote monitoring stations.

Circuit Specification	
Relay 1	Alarm
Relay 2	Supervisory
Relay 3	Trouble
Contact Rating	30 VDC at 2 A
Type	Form C contacts

Panel Mounted Annunciation Modules

The FW2107 fire alarm control panel offers versatile panel-mounted annunciation options, featuring button inputs and LED status indicators to improve the operator interface. The annunciation modules are designed for convenience and efficiently utilize the front panel space.

The annunciation modules support a range of selectable functions. The color of the multi-color LED and the function of the buttons can be programmed when the control panel is configured for site-specific requirements. Installers print module custom labels to indicate the exact zone/function of the buttons and LEDs.

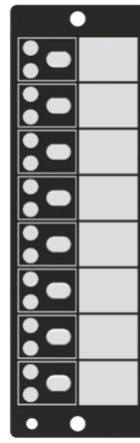
The FW2107 control panel supports up to five annunciation modules (see module options below). LED colors are designed to meet the International Building Code (IBC) requirements.



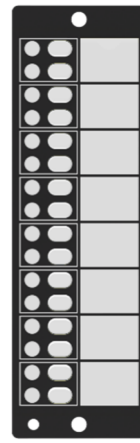
FW2252-8-RGY



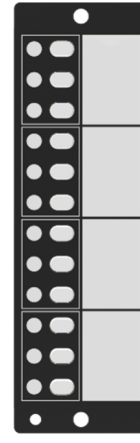
FW2252-8-2RY



FW2252-8-S2L



FW2252-8-2S2L



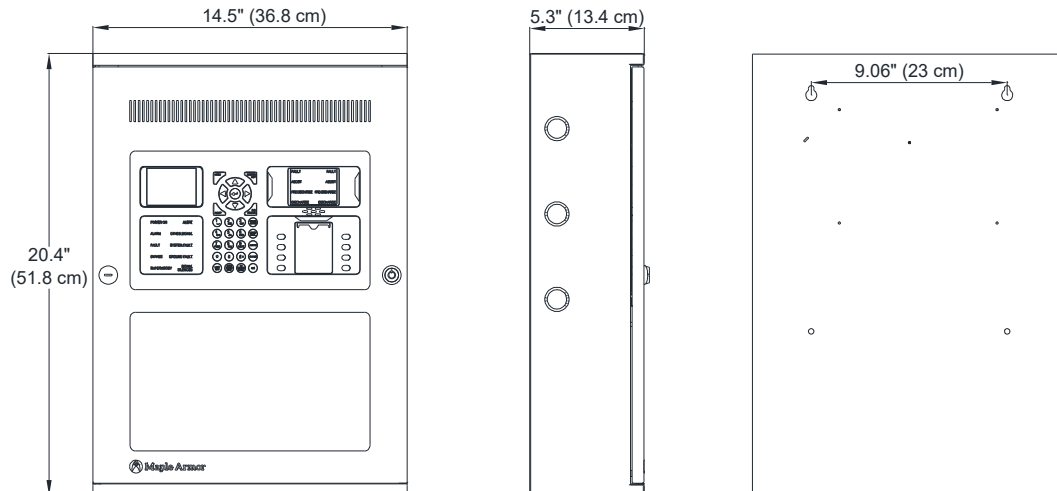
FW2252-4-3S3L

Annunciation Models and Accessories Options

Model	Description	LED Colors	LED Quantity	Button Quantity
FW2261	LAU (LED Annunciator Unit), provides 5 slots for configurable annunciation modules c/w with the LED/Button controller FW2552-CORE			
FW2252-CORE	Core processing unit, mounts behind the LED/Button modules and provides communication with the AMI			
LED only and LED/Button Modules		LED Colors	LED Quantity	Button Quantity
FW2252-8-RGY	Eight (8) LED Module with Multi-Color configurable LEDs; custom label area per LED/Zone	Red/Green/Yellow	8	-
FW2252-8-2RY	Sixteen (16) LED Module with Multi-Color configurable LEDs; custom label area per LED/Zone pair	Red/Yellow	16	-
FW2252-8-S2L	Sixteen (16) LED Module/ Eight (8) button with multi-color configurable LEDs on top; custom label area per LED/Zone	Red/Green on top Yellow on bottom	16	8
FW2252-8-2S2L	Sixteen (16) LED Module/button with Red LED; custom label area per LED/Zone pair	Red	16	16
FW2252-4-3S3L	Four Function HOA (Hand-Off-Auto), with LEDs; custom label area per LED/button set	Green on top/bottom Red/Yellow on middle	12	12
FW2252-DMMY	Single Blank Display Cover			

Dimensions

The FW2107 features a compact design and suitable for surface and semi-flush installations.

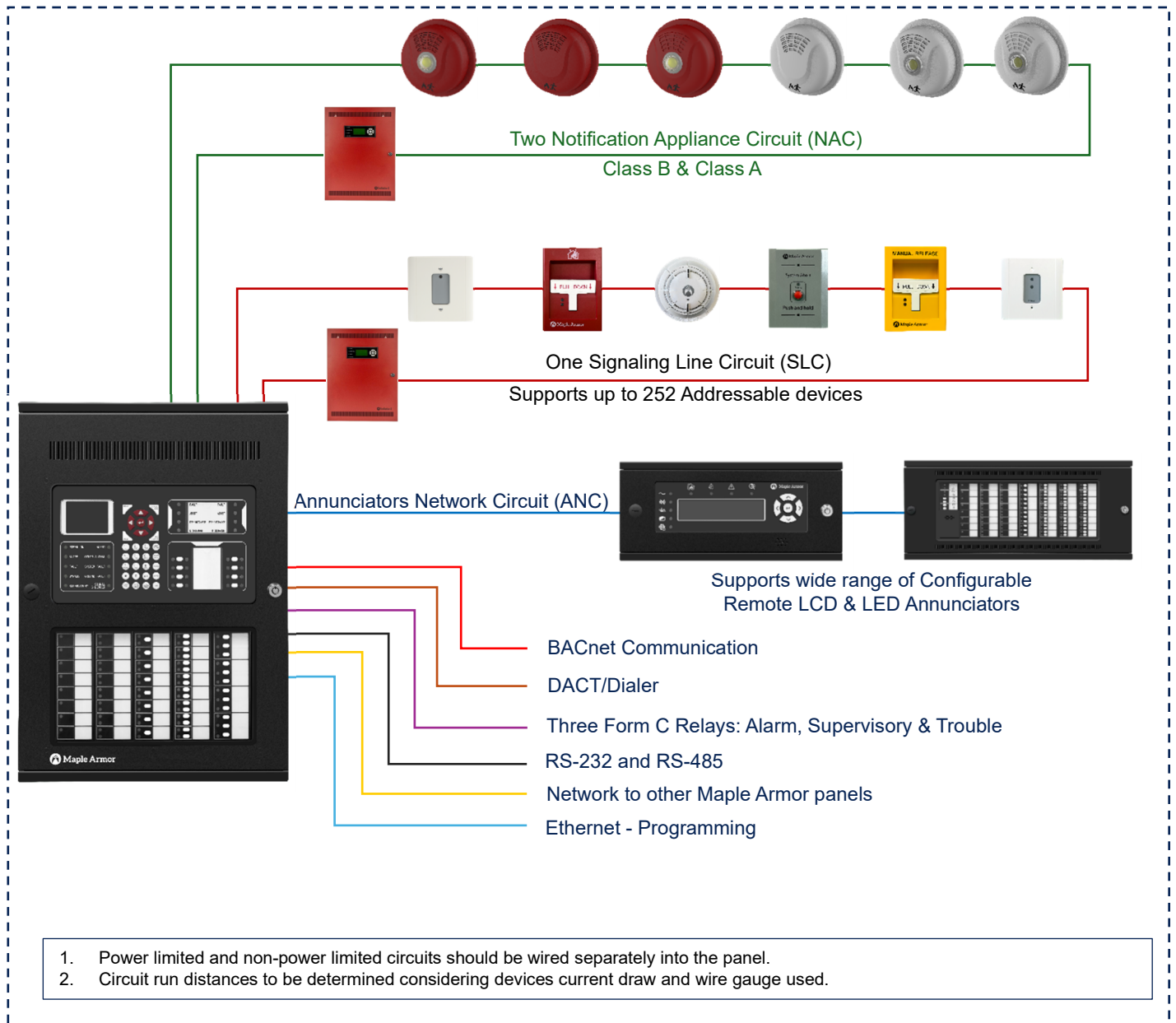


General Specifications

Features	Specification
Primary Supply	110 - 120 VAC 60Hz, 3.2 A max. 220 - 240 VAC 50Hz, 2.0 A max. <i>*Set the switch to the desired option</i>
Secondary Supply Backup battery	Voltage: 24 VDC, Two 12VDC in series Type: Sealed lead acid Charging capacity: 55AH Charging current: 2.8 A max Up to two 18 Ah batteries can fit in the control panel enclosure
Auxiliary power Source	One Power Limited Outputs Output range: 19.3 ~27.9 VDC Output current: 650mA in total (normal standby), 3.0A in total (alarm) Non-Resettable/Resettable Power Output (configurable) Special application: Compatible devices are I/O Module FW2821 & the Supervised Output Module FW2822
Environmental	Operating temperature: 14 - 131°F (-10 - 55°C) Relative humidity: 0 to 95% at 90°F (32°C), non-condensing To be installed in normal dry indoor environment only
Signaling Line Circuit	1 loop, Class A and Class B, supporting up to 252 addressable devices Maximum normal standby current: 100mA Maximum alarm current: 250mA
Notification Appliance Circuits	2 Class A/DCLA and Class B/DCLB circuits, Regulated 1.0 A total, or Special Application 2.0 A each circuit.
Relays Output	Three form C relays: Alarm, Supervisory, and Trouble. Contact Rating: 2A @30VDC, 0.6 pF
Recommended Testing impedence	6.6 kΩ for ground fault 10MΩ for open circuit 0.1 Ω for short circuit

System Layout

The FW2017 comes with below capabilities to serve different system configurations and applications.



Ordering Information

Model	Description
FW2107	Addressable Release Agent Fire Alarm Control Panel One Signaling Line Circuit (SLC), Two Class A/B Notification Appliance Circuits (NAC)
Panel Mounted LED/Button Modules	
FW2261	LAU (LED Annunciator Unit)
FW2252-CORE	LED/Button controller
FW2252-8-RGY	Eight Multi-Color LED (R/G/Y) Module
FW2252-8-2RY	Sixteen Multi-Color LED (R/Y) Module
FW2252-8-S2L	Eight Button/ Sixteen Multi-Color LED Module
FW2252-8-2S2L	Sixteen Button/Red LED Module
FW2252-4-3S3L	Four Function HOA (Hand-Off-Auto), with G/(R/Y)/G LEDs
FW2252-DMMY	Single Blank Display Cover
Replacement Parts	
FW2203	MBU (Main Board Unit)
FW2393	PSU (Power Supply Unit)
FW2194L	CPE (Control Panel Enclosure)
FWPK	Panel key

* LED/Button Modules are ordered separately



This document is for marketing and informational purposes only. It is not intended to be used for installation, operation, or maintenance of the device.

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For complete and accurate installation instructions, wiring details, and operational guidelines, refer to the official Device Installation Sheet provided with the product. The manufacturer reserves the right to make changes to product specifications without prior notice.