EXISTING FIRE ALARM CONTROL PANEL

Data Sheet

Cerberus PRO

50-Point Addressable Fire Alarm Control Panel Model FC901

-ARCHITECT AND ENGINEER SPECIFICATIONS

- Fire alarm control panel (FACP) for up to 50 addressable points that is comprised of the following three (3) system components:
 - Main board (Model FCM901-U3)
 - 6.5 Amps (170-Watt power supply (Model FP2011-U1)
 - System enclosure (Model FH901-U3 / R3)

System features:

- Supports 50 addressable devices on one (1) 'Class A', or two (2) 'Class B' circuits
- Includes one (1) `Class A', or two (2) `Class B' notification appliance circuits (NACs)
- Built-in digital alarm communication transmitter (DACT)
- Supports Carbon Monoxide (CO) detection
- Downloads, prints system-event history & detector sensitivity
- Supervised remote printer (Model FCA2018-U1)
- Optional connectivity to a leased-line / city-tie module (Model FCI2020-U1)
- Built-in RS_485 connection for remote annunciators
- Resettable and non-resettable 24VDC auxiliary power
- Off-normal warning message prior to reset
- Fast and easy set-up with custom-configuration tool
- Supports a 182-character display

Product Overview

Model FC901 is an intelligent FACP that provides a cost-effective, feature-rich solution for small fire-alarm system applications.

Small and compact in design, Model FC901 is ideal for small fire-protection applications using less than 50 addressable devices:

- Retail outlets / strip malls
- doctors' offices
- Dry-cleaner shops
- restaurants, etc.

With its built-in DACT and two (2) NACs, Model FC901 is powerful enough to economically meet the needs of these applications. Each 50-point FACP has City of Chicago, Class 1 Approval, as well as being FM (#3010); CSFM (#7165-0067:0259) and FDNY (#6104) Approved.

Specifications

The Model FC901 FACP consists of a main board (Model FCM901-U3); a 170-Watt power supply (Model FP2011-U1), and a Model FH901-U3 / R3 system enclosure. The programming software for Model FC901 is held in flash electrically erasable

Cerberus® PRO

Fire Safety Products



- - for manual configuration
- ®UL 864 9th Edition Listed; FM, CSFM & NYC Fire Department Approved City of Chicago, Class 1 Approval

Main Board

The Model FCM901-U3 main board provides system display and control, as well as connections for system field wiring, via removable terminal blocks.

The 3.5-inch (8.9 centimeters) by 1.5" (3.8 centimeters) liquid-crystal display (LCD) screen shows all system messages and event status. Each screen supports 182 characters: seven (7) lines with 26 characters per line. Each event may have a custom message up to 40 characters that describes the event's location.

The backlit LCD screen illuminates on any system event or manual key press. New, 'unacknowledged' events are indicated by a flashing exclamation point ('!'). Once 'acknowledged,' the exclamation point changes to a check mark (' $\sqrt{\ }$ '). A system-status line shows the quantity of events presently active.

Since each main board contains a built-in RS-485 communication bus, Model FCM901-U3 readily supports system-status light-emitting diodes (LEDs) for Power, Alarm, Trouble, Supervisory and Ground Fault system commands.

Feature-rich solution for 50-pt. addressable FACPs



Specifications

Main Board — (continued)

There are also LEDs to indicate when audible circuits are 'active' or 'silenced.' The main board supports four (4) system-control buttons, including: Acknowledge; Alarm Silence; Unsilence, and Reset.

The system offers an off-normal warning feature, alerting users when active devices are not ready for reset. These active devices may include manual stations that have not been reset; smoke detectors with smoke remaining in the optical chamber, etc.

Additionally, the main board supports an alphanumeric keypad, as well as navigation keys, which are used for scrolling maintenance functions and system configuration.

The main board supports connection for up to 50 addressable devices, via one (1) 'Class A', or two (2) 'Class B' circuits. The loop supports all C-NET devices, including the Cerberus PRO intelligent and Model 'H'series devices. The main board also supports one (1) 'Class A' or two (2) 'Class B' NACs.

Each NAC supports a maximum 2.5 Amps — with 2.5 Amps, max, allowed between the NACs. Each NAC can be set to a synchronized strobe, for horn-strobe devices, or for audible devices. Audible devices can be set for:

- 'STEADY'
- 'ANSI Temporal 3' / 'ANSI Temporal 4'
- 'March Time 30 / 60 / 120 Codes'

The main board supports four (4) 'Form C' relays for Alarm, Trouble, Supervisory and User Programmable events. Each relay is rated at 2 Amps at 30VDC maximum, resistive. The main board supports two (2) auxiliary 24VDC connections. Upon system reset, one (1) connection interrupts the power for five seconds for use with (4) four-wire conventional detectors. Each auxiliary-power output is 24VDC, nominal — rated at 0.75 Amps.

The main board contains a built-in DACT that provides communication between Model FC901 and with the central or remote monitoring station. The built-in DACT supports two (2) separate programmable accounts, as well as two (2) connections to the public-switched telephone network. The connections support RJ31X male connectors.

(For compatibility with each Model FC901 FACP, see the **Central Station Receiver Compatibility Table** on the last page of this data-sheet document.)

The main board contains a battery-charging circuit, providing connection to lead-acid batteries rated at 24VDC, nominal. The main board can charge up to 18 AH batteries.

The main board contains a universal serial bus (USB) connector that supports connection for system configuration and module firmware upload, via the custom-configuration tool.

Model FC901 can be configured using the custom-configuration tool or manually from the alphanumeric keypad on the main board. An auto-configuration feature creates a basic system configuration of all connected devices to accelerate initial system commissioning.

50-Point Addressable System Enclosure

The Model FH901-U3 / R3 enclosure for the 50-point addressable fire system, Model FC901, supports all system modules. The enclosure also supports up to 12AH batteries.

Note: For systems requiring larger than 12AH batteries, use a @UL Listed battery box.

The Model FH901-U3 / R3 enclosure for the 50-point panel is comprised of a dual-mounting setup that allows the main board to be partially mounted in a lower-to-upper position. When temporarily installed in the lower position, technicians are allowed more space to install field wiring at the time of system setup. When field-wiring installation is complete, the main board shall be moved to the upper position for standard mounting prior to applying power to the system.

Additionally, the enclosure supports an optional battery bracket (Model FHA901-U1) that can be used to secure batteries up to 12AH. Model FHA901-U1 is required to comply with seismic certification, pursuant to ASC / SEI 7-05, Section 13.2.2.

A flush-mount trim kit (Model FHA902-U1 / R1) is also available for use when flush mounting Model FH901-U3 / R3.

50-Point Power Supply

The Model FCM901-U3 main board also supports connection to the system power supply. The 6.5A (170-Watt) power supply (Model FP2011-U1) incorporates a 4.0A, non-resettable slow-blow fuse on the primary input, and includes a built-in AC-line filter for surge and noise suppression.

Model FP2011-U1 mounts in a standard Siemens – Fire Safety enclosure, and there are no serviceable Siemens – Fire Safety parts to be maintained.

Specifications – (continued)

- Optional Accessories -

Leased-Line / City-Tie Module

The Model FC901 FACP has the capability of operating an optional leased-line, city-tie module (Model FCI2020-U1) that provides a local-energy output for municipal call-box connection.

A wiring harness, Model FCA901-U1, is required for use, and must be ordered separately. The leased-line, city-tie module is installed on the back of the main board of the Model FC901 FACP, and field wiring is connected to the main board.

50-Point Remote Annunciator

The fire-system displays (FSD901-U3 / R3) are remote LED / LCD units that show the existing status of the Model FC901 FACP. The Model FSD901-U3 / R3 optional display supports the following LEDs for system-status conditions:

- Power
- Alarm
- Trouble
- Supervisory
- Ground-Fault

There are also LEDs to indicate when audible circuits are 'active' or 'silenced.' The main board supports four (4) system-control buttons, including: Acknowledge; Alarm Silence; Unsilence, and Reset.

For Model FSD901-U3 / R3, a LED will illuminate for any given *Alarm*, *Supervisory* and *Trouble* Cerberus PROsystem event. A 3.5-inch (8.9 centimeters) by 1.5" (3.8 centimeters) LCD screen will give details of the event in alphanumeric form. The display screen can be scrolled to reveal additional events. Optional remotesystem-control capabilities are also available.

The Remote Peripheral Module (FCA2018-U1) provides a means of connecting a Cerberus PRO 50-point addressable panel to a parallel printer for creating a hard copy of system-status events.

This supervised, intelligent module contains built-in transient protection and plain-decimal addressing.

When Model PAL-1 is used with the remote peripheral module, Model FCA2018-U1 supervises the printer for ON, OFF Line | POWER ON | PAPER OUT | PAPER JAM, and wiring-fault conditions, as required by ©UL for NFPA 72 proprietary systems.

The following are the dimensions based upon connection to a one-height-unit enclosure (1HU) for Model FC901:

<u>Approximate size</u>: 16.5" (41.9 cm.) [H];

18.13" (46.1 cm.) [**W**];

5.11" (13 cm.) [**D**]

The weight (without operating unit or batteries) is approximately 9 pounds [4082 g].

LED Annunciator Driver: 32 Outputs | 16 Inputs

Model FT2007-U1 serves as the main component for allowing custom graphic annunciators to operate on Model FC901 FACPs. There are 16 inputs on each Model FT2007-U1 to accommodate user-defined system commands, which include: Reset; Silence/Unsilence; Acknowledge, and Lamp Test. Inputs can also be programmed as ``Generic'', which allows additional flexibility for customized functionality.

Shipments of each Model FT2007-U1 driver include two (2) PC boards [PCBs]; one (1) built-in RS-485 interface, and one (1) LED driver. Additionally, one (1) ribbon cable is packaged, allowing connectivity between the two (2) PCBs.

Tabular Annunciator Drivers: 16 Zones | 32 Zones

The Tabular Annunciators allow system events sent from Cerberus PRO 50-point addressable panels to be displayed remotely in real-time.

The Model FT2008 series of tabular annunciators has 16 zones and the Model FT2009 series uses up to 32 zones. Additionally, no more than two (2) light-emitting diodes (LEDs) can be used per zone.

A built-in RS–485 communication bus controls the operation and supervision of the 16-zone and 32-zone Tabular Annunciators, which are available in **black** or red.

Temperature and Humidity Range

Model FC901 is \odot UL 864 9th Edition Listed for indoor dry locations within a temperature range of 120 +/- 3°F (49 +/- 2°C) to 32 +/- 3°F (0 +/- 2°C) and a relative humidity of 93 +/- 2% at a temperature of 90 +/- 3°F (32 +/- 2°C).

Related Documentation

Product Data Sheet	Number
170-Watt power supply	9806
Leased-Line / City-Tie Module	9810
Remote Peripheral Module	9811
50-Point Remote Annunciator	9817
LED Annunciator Driver, FT2007-U1	9824
16-Zone (FT2008-U1) / 32-Zone (FT2009-U1) Tabular Annunciators	9825

Central Station Receiver Compatibility Table

The following table shows a list of central station receivers that are compatible with the Cerberus PRO 50-point addressable system, Model FC901 —

Protocol	MX-8000	Sur-Gard System III	Sur-Gard System IV	Telguard TG7GFS04	Silent Knight 9800	Bosch D6600	Bosch D6100
SIA 8	✓	✓	√	✓	✓	√	✓
SIA 20	✓	✓	✓	✓	✓	✓	✓
Ademco Contact ID	\	*	*	*	*	*	
4/2	1	✓	✓				
3/1	✓	✓	✓				

<u>Note</u>: Multiple central station receivers are compatible with the Cerberus PRO 50-point FACP, Model FC901.

Although the table above illustrates central station receivers that have been verified by Siemens with the Model FC901 FACP, additional receivers and formats can also be used with each 50-point addressable system.

After completing the installation, communication between the Digital Alarm Communication Transmitter (Model DACT) and Central Station Receiver must be tested and verified.

Details for Ordering

Model	Part Number	Description
FCM901-U3	S54433-B101-A1	Cerberus PRO Main Board {for the 50-point FACP}
FH901-U3	S54433-B103-A3	System Enclosure, Black {for the 50-point FACP}
FH901-R3	S54433-B103-A4	System Enclosure, Red {for the 50-point FACP}
FP2011-U1	500-450222	170-Watt Power Supply

Details for Ordering — (continued)

— Optional Accessories —

	— Optional Accessories —				
Model	Part Number	Description			
FCA2018-U1	S54400-A65-A1	Remote Peripheral Module			
FCI2020-U1	S54400-A57-A1	Leased-Line / City-Tie Module			
FCA901-U1	S54433-C106-A1	Wiring Harness (for use with Cerberus PRO Model FC901 control panels)			
FHA901-U1	S54433-B107-A1	Battery Bracket			
FHA902-U1	S54433-B106-A1	Flush-Mount Trim Kit, Black			
FHA902-R1	S54433-B106-A2	Flush-Mount Trim Kit, Red			
FSD901-U3	S54433-C102-A1	System Display, Black {specifically for the 50-point FACP}			
FSD901-R3	S54433-C102-A2	System Display, Red {specifically for the 50-point FACP}			
FT2007-U1	S54400-A142-A1	LED Annunciator Driver {32 Outputs 16 Inputs }			
FT2008-U1	S54400-A143-A1	16-Zone Tabular Annunciator, Black			
FT2008-R1	S54400-A144-A1	16-Zone Tabular Annunciator, <mark>Red</mark>			
FT2009-U1	S54400-A145-A1	32-Zone Tabular Annunciator, Black			
FT2009-R1	S54400-A146-A1	32-Zone Tabular Annunciator, <mark>Red</mark>			

— Electronics Package —

Model	Part Number	Description		
FC901-U3	S54433-C105-A1	Cerberus PRO Kit for the 50-Point Addressable FACP		
			■ 170W power supply, Model FP2011-U1 (Qty. 1)	
		Includes:	 System main board, Model FCM901-U3 (Qty. 1) 	

SIEMENS Cerberus® PRO

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NOTICE — The information contained in this data-sheet document is intended only as a summary, and is subject to change without notice. The devices described here have specific instruction sheets that 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.

NEW WIRELESS COMMUNICATOR HW-TG7LAF02 / HW-TG7LVF02

CLSS-Enabled LTE Commercial Fire Alarm Communicators for AT&T® and Verizon®

The dialer capture solution to connect commercial fire systems to central monitoring stations and the CLSS Cloud.

Enabled by cooperation between Telguard® and Honeywell®, the HW-TG7L Fire Series starts with Telguard's model TG-7FS and adds the powerful capabilities of Honeywell's Connected Life Safety Services (CLSS) Cloud.

The CLSS LTE Fire Communicator transmits alarm signals from the fire panel over the LTE networks of AT&T (HW-TG7LAFO2) and Verizon (HW-TG7LVFO2) to the designated monitoring station while leveraging connectivity with CLSS to enable powerful tools. Compliant with 2019 and earlier editions of NFPA 72, the CLSS LTE Fire Communicator can serve as the sole communication path. For existing installations, all landlines dedicated to the master control unit can be replaced with a single CLSS LTE Fire Communicator because of its 5 or 60-minute supervision modes.

HONEYWELL CONNECTED LIFE SAFETY SERVICES (CLSS)

Honeywell CLSS is an innovative, all-in-one cloud platform that enables systems integrators and facilities managers to deliver an enhanced fire safety service, while maximizing the performance efficiencies offered by Honeywell's trusted detection and alarm systems. The CLSS platform enables users to:

- Get a "bird's eye" view of all accounts
- Obtain real-time information on event generation, enabling diagnosis before dispatch
- Conduct tests and inspections using a mobile app (available in select markets)
- Provide end users with multi-site asset information and event alerts

TELGUARD INTERNET PORTAL

Telguard makes adopting cellular easy with a secure internet portal that provides total account management of UL-listed Telguard cellular alarm communicators. Quickly access Telguard-based services 24/7.

TELGUARD CELLULAR SERVICE

Telguard Cellular Service provides AT&T and Verizon® LTE network coverage for all Telguard units. In Canada, cellular service may be provided by Rogers, Bell, TELUS, or SaskTel. Telguard's Communication Center is UL compliant and provides seamless connectivity between the alarm panel, the Telguard family of products, and the central station. Telguard technical support provides a single point of contact for both cellular service and Telguard product questions.



TURBOCHARGED BY (a) HONEYWELL FORGE

A powerful software platform that enables Honeywell to provide realtime data and intelligence in its applications for connected buildings.

FEATURES AND BENEFITS

- Integration with CLSS enables monitoring of event transmission data & management of device inventory from the CLSS mobile app and web portal (available only when using Contact ID and point-based reporting)
- Alarm format support for contact ID, SIA2, pulse (3x1, 4x2), modem lle, IIIa, and DMP
- Certified for use on the AT&T and Verizon LTE networks
- Meets UL 864 requirements for sole primary or backup path communications

- Minimizes false alarms by providing dual paths for self-tests
- Falls back to 3G/4G if an LTE network is not available, for extended network coverage
- 60- or 5-minute cellular supervision available; 180-seconds available in Canada
- Telephone line monitor built-in, with standard line security
- Automatic self-test (daily or 6-hour)
- Available relay output for tripping the alarm control panel when a trouble condition occurs

- Locking, red metal enclosure
- Two programmable supervisory trip outputs
- Allows full data reporting for unlimited point-to-point signal details and maximum transmitting power for superior in-building penetration





HW-TG7LAF02 / HW-TG7LVF02 TECHNICAL SPECIFICATIONS

Electrical

- Power Consumption: 40 mA (Standby) 160 mA (Transmission) with link supervision enabled
- **Source:** 12 VAC, 800mA UL listed plug-in transformer (included)

Physical

- **Dimensions:** 7.5" (190.5 mm) H x 11.5" (292 mm) W x 3.5" (89 mm) D
- Shipping Weight: 8 lbs. (3.63 kg)
- Operating Environment: 32°F (0°C) to 122°F (50°C); up to 95% humidity (noncondensing)

Radio Transceiver

- Transmit Power: 200 mW in all bands
- LTE Bands: 2, 4 & 17
- **3G Bands:** 2 & 5
- Antenna: 9" dipole with 2dBi gain 12 ft of cable and universal mounting bracket
- FCC: Part 15, 22, 24, 27 and 68 compliant

ORDERING INFORMATION

HW-TG7LAF02: CLSS LTE Fire Communicator for AT&T

HW-TG7LVF02: CLSS LTE Fire Communicator for Verizon

Accessories Available from Telguard:

- Low Loss, High Performance Cables:
 - ◆ **ACD-12:** 12 ft (3.7m)
 - ◆ ACD-35: 35 ft (10.7m)
 - ◆ ACD-50: 50 ft (15.2m)
 - ◆ ACD-100: 100 ft (30.5m)
- **HGDL-0:** High Gain Directional LTE Antenna

- **EXDL-0:** External Omnidirectional LTE Antenna
- **TP-PEM:** Power & Expansion Module (supports 24V aux power from FACP to TG-7FS and multiple inputs)

STANDARDS AND CODES

UL Listings:

- 864: Control units and accessories for fire alarm systems
- 365: Police Station connected burglar alarm units and systems
- 1610: Central station burglar alarm units; Line security services
- 985: Household fire warning systems
- 1023: Household burglar alarm systems

ULC Listings (AT&T only)*:

- S545: Canadian household fire warning systems
- S304: Canadian commercial burglary alarm systems
- S559: Equipment for fire signal receiving centres and systems
- CO123: Canadian household burglary alarm systems

*In Canada, cellular data may be carried by Rogers, Bell®, TELUS®, or SaskTel.

Other:

- NYC Fire Department Certificate of Approval #6316
- Los Angeles Fire Department Approved
- CSFM: 7300-1402:0109, 7300-1402:0500

Visit www.telguard.com for the most current product listings.

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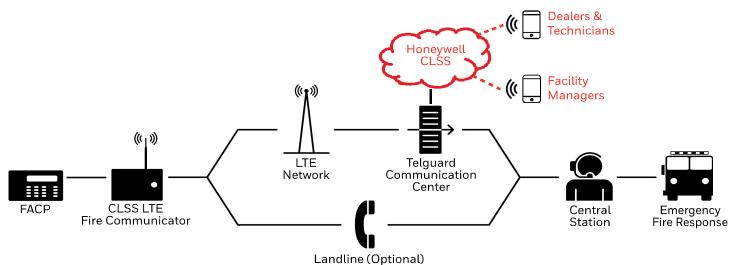
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Country of origin: U.S.A.



Honeywell International, Inc.

www.fire.honeywell.com

Telguard



