

Cerberus[®] PRO

Intelligent Voice Communication

Advanced fire-protection system with integrated voice evacuation

Architect & Engineer Specifications

- Powerful, intelligent and user-friendly fire and voice-communication panel
 - Model FV922 is the Cerberus PRO 252-point addressable intelligent voice communication system
 - Model FV924 is the Cerberus PRO 504-point addressable intelligent voice communication system
- Voice systems exceed intelligibility requirements
 - Three channel message player supporting 300 messages, max.
 - 150 Watts amplification per unit
 - Three (3) simultaneous audio signals for each panel
- Communication with Cerberus PRO detection devices
 - Full support of Advanced and Standard line of intelligent detectors
 - Models OOHC941, OOH941 OH921, OP921 and HI921
- Gas Alarm events for CO detection, per NFPA 72
- Networkable fire and voice systems over CAT5 or fiber-optic cables
 - Supports up to 32 fire and voice panels
 - Uses voice-over-IP (VoIP) technology
 - All fire and voice signals sent over the same conductors
- Support of multiple command stations
 - Cerberus DMS Danger Management Station can monitor and control up to 64 Model FV922 / FV924 systems
- UL Listed for Fire [UL 864 / ULC-S527] and Mass Notification [UL 2572 / ULC-S527] in one (1) fire alarm control panel (FACP)
 - Separate event queues for MNS events
 - MNS events can have higher and lower priority (versus fire events)
 - Supports MNS events from devices on the addressable loop
- Supports pre-action, deluge and Sinorix agent release
 - Releasing-valve monitoring
 - Sprinkler Supervision
- Supports multiple global display annunciators
- UL and ULC Listed; FM, CSFM and NYCFD Approved
 - Per UL 464, Model FV922 / FV924 systems meet the requirements for low-frequency signal tone (520 Hz) as described in the section for 'Determination of Low Frequency Signal Format' in the *Standard for Audible Signal Appliance* – when used with an Amplifier Card or Booster Amplifier in conjunction with Siemens HiFi Speakers / Speaker-Strobes and 'S' Series (ceiling-only) appliances
 - UUKL Listing for smoke control
- Supports built-in TCP/IP Connectivity

Product Overview

The Cerberus PRO Intelligent Voice Communication from Siemens – Fire Safety is a technologically advanced, addressable fire-with-voice system. Through the use of its unique multiprocessor 'Network' design – along with its ability to utilize intelligent detection devices – Cerberus PRO epitomizes a flexible and highly configurable fire-protection system with integrated voice evacuation.

Cerberus PRO voice panels are ideally suited for small and mid-market applications via each panel's capability to provide up to 252 (Model FV922) and 504 (Model FV924) addressable, networkable points with up to a 10,000 event history log.

Each Cerberus PRO fire-protection system with voice capability is easily accessible for operation: push-button soft keys; a backlit LCD screen, and a (4) four-way navigation push button are all located in the upper portion on the panel's front end.

Cerberus PRO IVC panels are UL 864 10th Edition, UL 1711, UL 2017 & UL 2572 Listed; ULC-S527 & ULC-S559 Listed.

Used in conjunction with Models FV922 / FV924 is a new, innovative series of audible (sounder) bases. For example, Model ABHW-4B is the first base of its kind to attain agencies' approval for its option to power directly from a signal line circuit (SLC) in a two-wire configuration — when used with Cerberus PRO intelligent detectors.

Designed for sleeping areas, Model ABHW-4S generates a 520 Hz, square-wave audio signal that complies with NFPA 72 Standard, as well as Underwriters' Laboratories applications.



Cerberus PRO 252 / 504-Point Addressable Intelligent Voice Communication System

Additionally, the Cerberus PRO Advanced and Standard line of intelligent detectors presents distinctive features and cost-efficient solutions that offer superior detection found in an array of Siemens system applications.

Characteristics related with the Advanced and Standard line include High Sensitivity with Very Early Warning Fire Detection (VEWFD); Carbon Monoxide (CO) Gas Detection, and seven (7) field-adjustable heat-detection temperature settings.



Cerberus PRO 252 / 504-point Fire / Voice System

The Cerberus PRO Model FV922 (252-point) / Model FV924 (504-point) intelligent voice-communication system is an addressable control panel designed to meet the protection needs of mid-size buildings.

This advanced fire-protection system with integrated voice evacuation offers features typically required in mid-size buildings in a package that is easy to install and competitively priced. Additionally, Models FV922 and FV924 are networkable panels.

A three-height-unit enclosure is used exclusively with Models FV922 and FV924. The following components comprise a complete three-height-unit (3HU) enclosure:

- Operating unit (Standard-type or with light-emitting diodes [LEDs])
- Periphery board
- 300W power supply

Main System Components

Operating Interface Unit



Model
FCM2018-U3

The Operating Interface Unit functions as the operator interface and central microprocessor for the Fire Terminal (Model FT924) and Cerberus PRO FACP (Models FV922 and FV924).

Model FCM2018-U3 is the Standard Operating Unit, or Model FCM2019-U3 – the Operating Interface Unit with LEDs each provides multi-use capabilities:

- Easily 'Acknowledge' events
- Quickly control the notification-appliance circuits (NACs) of the corresponding FACP
- Permit a manual reset of the respective system

Detailed information about the nature and location of the events are displayed via a 2"–x– 4-3/4" (5.1 cm. –x– 12.1 cm.), backlit liquid-crystal-display (LCD) screen.

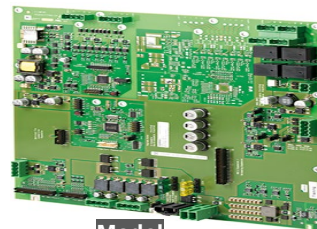
Each Operating Interface Unit contains the site-specific program configuration created in the custom-configuration software tool, 'Cerberus Works'.

The controller in each interface module provides all system logic and supervision. Additionally, the Operating Interface Units allow for connection to the Remote Peripheral Module (Model FCA2018-U1) and / or the Remote Terminal Displays (Models FT2014-U3 / R3; FT2015-U3 / R3).

Note: For applications in **Canada** that require the use of a Cerberus PRO operating unit with LEDs, **Model FCM2035-U3** must be ordered.

Main System Components (cont.)

Periphery Boards



Model
FCI2016-U1

The periphery boards (Models FCI2016-U1 and FCI2017-U1) are integral components for operating the Cerberus PRO panels (Models FV922 and FV924). Each module operates and monitors input-device identity; as well as controls the signaling-line circuits that communicate with smoke detectors and other field devices (i.e. – C-NET).

Each periphery board is equipped with two (2) programmable 'Class B' (Style Y) or 'one (1) Class A' (Style Z) NAC, providing 24VDC, nominal at a 5A per circuit maximum of audible / visual notification appliances.

The periphery boards mount directly on the enclosure back boxes of the Model FV922 and Model FV924 Cerberus PRO panels. Models FCI2016-U1 / FCI2017-U1 provide two (2) parallel auxiliary powered, short-circuit-protected connections (regulated 24VDC, 1.5A max) that supply power to external devices or modules.

Power Supply Module



Model
FP2012-U1

The 300-Watt power supply (Model FP2012-U1) provides primary, regulated (24VDC, nominal) power for normal operation to the Cerberus PRO 252 / 504-point addressable systems. Filtered and regulated, Model FP2012-U1 is rated 11.5 Amps at 24VDC, nominal.

Each 300-Watt power supply incorporates two (2) 6.3A replaceable, non-resettable slow-blow fuses on the primary input and includes a built-in AC-line filter for surge and noise suppression. Model FP2012-U1 mounts into the Model FHB2005-U1 / R1 backbox.

For applications requiring greater than 300W of power, the Model FP2013-U1 power supply can optionally power a Model FV922 or FV924 voice system.

Model FP2013-U1 consists of two (2) power supply units and one (1) interconnection cable, in order to balance the power from Model FP2013-U1. Consequently, this power-supply configuration can provide up to 600W at 24VDC. Mounting for Model FP2013-U1 is provided on the back surface inside each FACP's 3HU backbox, Model FHB2005-U1.

Voice System Components

Voice System Card Cage



Model
VCA2002-A1

The voice-system card cage (Model VCA2002-A1) is used to support the mounting and field wiring for the following cards used on a Model FV922 / FV924 panel:

- Voice CPU Card, Model VCC2001-A1 [supports one (1) CPU card]
- Voice I/O Card, Model VCC2002-A1 [supports one (1) I/O Card]
- 25V / 70V Voice Amplifier Card, Model VCI2001-U1 [supports one (1) to four (4) 50W amplifier cards]

Up to six (6) card-cage slots are configured for use.

Voice System CPU Card



Model
VCC2001-A1

Model VCC2001-A1 is a central-processing unit (CPU) card that controls and monitors all modules and functions for Cerberus PRO IVC FACPs. Model VCC2001-A1 mounts in a Model VCA2002-A1 card cage (positioned in the 2nd slot from the left), and works with the Voice I/O card (Model VCC2002-A1) to control the voice system.

In / Out Voice System Card

Model VCC2002-A1 is the Input / Output card for the Cerberus PRO IVC system. Model VCC2002-A1 mounts in the Voice Card Cage (Model VCA2002-A1) — 1st slot on the left, and works with the Voice CPU Card (Model VCC2001-A1) to control a Cerberus PRO intelligent voice-communication system.

Two (2) local audio inputs (for microphones or external low-level audio signals), and one (1) low-level audio output (with all audio-signal wiring connected to the card cage) are supported by the In/Out Voice System CPU card.

Voice Amplifier (25 / 70 V) Card



Model
VCI2001-U1

Used in 'real time', emergency communication, the 50W amplifier card (Model VCI2001-U1) provides AC power between a Model FV922 / FV924 panel and a site's speaker system. Each 50W amplifier card mounts inside the Model VCA2002-A1 card cage – with all speaker-zone wiring connected to Model VCA2002-A1 card cage

Up to four (4) Model VCI2001-U1 amplifiers are supported in a 3-to-1 backup, or 1-to-1 backup schematic on a single Cerberus PRO intelligent voice-communication system: configured as one (1), two (2) or three (3) main amplifiers, and one (1) or two (2) optional backup amplifiers. Amplifiers are mounted in the Model VCA2002-A1 card cage.

MoNET Connection Module



Model
FCA2031-A1

The MoNET connection module is used for communication between a Model FCM20-series operating unit and a Voice CPU card (Model VCC2001-A1) in each Cerberus PRO IVC panel.

MoNET (Model FCA2031-A1) can additionally provide in-system integration between an operating unit and a Modular Ethernet Switch (Model FN2012-A1 in each Cerberus PRO (non-voice) FACP. Model FCA2031-A1 mounts in Position #1 on a Cerberus PRO Model FCM20-series operating unit.

Remote Microphone Kit

The Remote Microphone Kit (Model VR2005-U3/R3) is a package of necessary components used for an optional remote voice station. Each kit includes one (1) 1HU back box with one (1) outer door; one (1) inner door; one (1) terminal board; one (1) microphone module; one (1) switch module, and two (2) blank plates. Kits are available in **Black** or **Red**. Up to four (4) remote voice stations are allowed per Cerberus PRO IVC panel.

See: **Details for Ordering** section for the complete rundown of parts included in each Remote Microphone Kit.

Microphone Option Module

The Microphone Option Module (Model VTO2004-U3) is used to provide live, non-pre-recorded voice communication on a Cerberus PRO intelligent voice-communication panel.

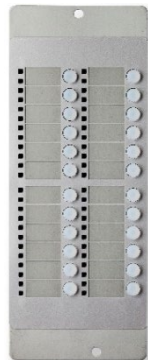
Model VTO2004-U3 can serve either as a main microphone installed in the main-system enclosure, or as a remote microphone in a remote enclosure. Up to two (2) Model VTO2004-U3 microphones are supported for each Model FV922 / FV924 FACP.

Switch Option Module

The Switch Option Module (Model VTO2001-U3) is a series of front-end, illuminated and programmable pushbuttons primarily mounted in the middle inner door of each Cerberus PRO intelligent voice-communication FACP.

Each Model VTO2001-U3 module has 24 group-switches, thus totaling 48 LEDs, and consists of up to 96 multi-color LED-status indicators:

- **RED** / **GREEN** / **BLUE** variant in the upper portion [for activation]
- one (1) **YELLOW**-only LED [for fault or disable]



Model VTO2001-U3

Each LED switch-group is assigned specific functionality during the configuration process. Additionally, a pushbutton {for each affected zone} will illuminate to acknowledge the command has been received at the Voice System CPU Card, Model VCC2001-A1.

If no microphone is used, up to eight (8) Model VTO2001-U3 switch-option modules can be used in a given three-eight-unit (3HU) enclosure (Model FHD2007-U3/R3) –

- four (4) modules in the middle inner-door, Model FHD2004-U1
- four (4) additional Model VTO2001-U3 modules in the bottom inner-door, Model FHD2004-U1

Battery Fixing Bracket

The battery fixing bracket (Model FHA2044-U1) is specifically used in all Cerberus PRO IVC system configurations — housing and securing 33AH system battery sets, which provide auxiliary system power. Model FHA2044-U1 bracket complies with seismic certification.

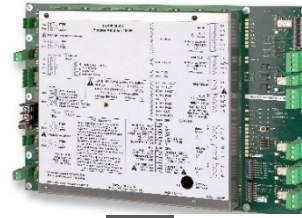
DIN rail kit

The optional DIN Rail Kit (Model FHA2031-U1), which also functions in intelligent voice- communication systems, mounts in the backbox of a 3HU enclosure, and provides connection between internal-system wiring and field wiring.

100W Booster Amplifier (and Enclosure)

As an option, the Model EBA2004-A1 Booster Amplifier is a main board that allows for expansion of speaker zones for additional power to a Cerberus PRO intelligent voice-communication system.

100W Booster Amplifier and Enclosure (cont.)



Model EBA2004-A1



Model FH2016-U1

Model EBA2004-A1 consists of a single board with two (2) 50W amplifiers, one (1) built-in battery charger, and removable terminal blocks for all field wiring.

Model FH2016-U1/R1 is the enclosure used to house the 100W Booster Amplifier.

Approximate size:

- 23.6" (60 cm.) (H)
- 18.1" (46 cm.) (W)
- 5.1" (13 cm.) (D)

Three-Height-Unit Enclosure

The three-height-unit (3HU) enclosure is the largest housing available for Cerberus PRO panels, and is used exclusively for voice-system applications.

Orderable in either **red** or **black**, the following components comprise a complete three-height-unit enclosure:

- One (1) backbox (Model FHB2005-U1/R1)
- Two (2) inner doors (Model FHD2004-U1)
- Two (2) clear lenses (Model FHD2006-U1)
- One (1) outer door (Model FHD2007-U3/R3)
- One (1) blank plate (Model FHD2009-U1/R1)



Three-Height-Unit (3HU) Enclosure

Notes: An enclosure cover (Model FHA2041-R1) is used to protect the ventilation holes found at the top of red-only, 3HU backboxes (Model FHB2005-R1).

Model FHA2041-R1 prevents condensation from entering the FACP, and consequently meets New York City code for uncovered ventilation holes on fire-systems enclosures.

Approximate size:

- 42" (106.7 cm.) (H)
- 21" (53.3 cm.) (W)
- 7.75" (19.7 cm.) (D).

Three-Height-Unit Backbox

The three-height-unit backbox is part of the Cerberus PRO intelligent voice-communication system hardware for use with 3HU system enclosures. Specifically, each backbox is used to fasten with a 3HU outer door.

Each 3HU backbox can be ordered in **black** (Model FHB2005-U1) or **red** (Model FHB2005-R1).

Approximate size: 42" (106.7 cm.) high; 21" (53.3 cm.) wide, and 7.75" (19.7 cm.) deep.



Model FHB2005-U1

S-Series License Keys

The S1 license key (Model FCA2033-A1) allows for virtual monitoring and control between a Cerberus PRO IVC panel and a personal computer. The S2 license key (Model FCA2034-A1) is a BACnet output, and is used for monitoring-only purposes by a 3rd-party system for life-safety objects.

The S3 license key (Model FCA2035-A1) is a combination license key that allows for virtual monitoring and control, as well as for distribution of BACnet (monitoring-only) communications.

Three-Height-Unit Outer Door

For each Model FV922 / FV924 FACP, one (1) **red** or **black** backbox supports one (1) equivalent **red** or **black** outer door. Each three-height-unit outer door contains three (3) horizontal openings (in order for easy access to the system operating unit), voice system card cage, and battery brackets.



3HU Outer Door

Clear Lens

The window (Model FHD2006-U1) is a rugged Lexan® lens that can be mounted to any of the rectangular cut-outs found on each Model FHD2007-series outer door.

Approximate size: 10.25" (26.04 cm.) high and 17" (43.2 cm.) wide.

Three-Height-Unit Blank Plate



Model FHD2009-U1

Instead of using a Lexan clear lens, an installer has the option of using a 3HU blank plate, Model FHD2009-U1, which covers empty spaces in a given row of a 3HU enclosure, (in place of any redundant operator interface switch and / or microphone option module).

Three-Height-Unit Enclosure Trim Kit

This optional trim kit is used to provide a tidy appearance of a 3HU enclosure when used in flush-mount applications. Each trim kit can be purchased in either **red** (Model FHA2043-R1) or **black** (Model FHA2043-U1), and comes unassembled in four (4) slats.

Inner Doors

There are two (2) inner doors available for Cerberus PRO system enclosures. The inner door, which is available exclusively in **black**, specifically stores the Standard Operating Unit, or the Operating Unit with LEDs.

Additionally, the Model FHD2004-U1 inner door supports one (1) system operating unit, or one (1) to four (4) LED option modules. When less than four (4) LED option modules are used, the blank-option module (Model FCM2022-U3) covers unused module spaces in the inner door.

Approximate size: 13.25" (33.7 cm.) high and 20" (50.8 cm.) wide

Note: Model FHD2005-U1 is a solid-**black**, inner-door blank plate used to provide dead-front protection

Modular Ethernet Switch

The Modular Ethernet Switch (Model FN2012-A1) serves as a network connector between Models FC922, FC924 and FT924 fire-only Cerberus PRO FACPs and with Model FV922 / FV924 Cerberus PRO intelligent voice-communication systems.

Panel-to-panel communication is transmitted via CAT5, single-mode fiber or multi-mode fiber. One (1) or two (2) Ethernet modules are supported by each Modular Ethernet Switch, which serves as a connector to:

- Model VN2001-A1 for CAT5 connection (or better)
- Model VN2002-A1 for multi-mode fiber connection
- Model VN2003-A1 for single-mode fiber connection

Model FN2012-A1 mounts in the backbox of one-height-unit or two-height-unit enclosures, in place of a standard fiber module.



Model FN2012-A1

Electric Ethernet Module

The Electric Ethernet Module (Model VN2001-A1) serves as a network connector between Siemens fire-only FACPs and with intelligent voice-communication systems.

Model VN2001-A1 mounts in either or both of:

- Voice CPU Card, Model VCC2001-U1 [used in voice systems]
- Modular Ethernet Switch, Model FN2012-A1 [for use in FACP-only connections]

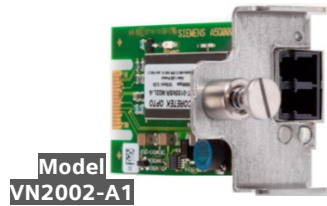
Single-Mode Ethernet Module

The Single-Mode Ethernet Module (Model VN2003-A1) serves as a network connector between Siemens fire-only FACPs and with intelligent voice-communication panels, via single-mode fiber-optic cables.

Model VN2003-A1 mounts in either or both of:

- Voice CPU Card, Model VCC2001 [used in voice systems]
- Modular Ethernet Switch, Model FN2012-A1 [for use in FACP-only connections]

Multi-Mode Ethernet Module



The Multi-Mode Ethernet Module (Model VN2002-A1) serves as a network connector between Siemens fire-only FACP's and with intelligent voice-communication panels, via multi-mode fiber-optic cables.

Model VN2002-A1 mounts in either or both of the following:

- Voice CPU Card, Model VCC2001-U1 [used in voice systems]
- Modular Ethernet Switch, Model FN2012-A1 [for use in FACP-only connections]

Voice-Over-IP Module



The VOIP module (Model VCI2003-A1) is used to convert audio signals between analog and digital Voice-over-IP signals. This module is mounted to a connection point on the voice CPU card (Model VCA2001), and is required for all network voice applications.

For system configurations, the Voice CPU card provides voice-network support to the following:

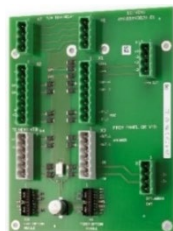
- VoIP Module (Model VCI2003-A1) [for Voice-over-IP conversion of audio signals]
- up to four (4) CAT5 connections, via the Electric Ethernet Module, Model VN2001-A1a single-mode (Model VN2003-A1) or a multi-mode (Model VN2002-A1) Ethernet module

Remote ('Class B') Terminal Board

The Remote ('Class B') Terminal Board (Model VTA2001-A1) provides system support to the 24-Switch Option Module (Model VTO2001-U3) and the Microphone Option Module (Model VTO2004-U3) when the aforementioned option modules function from a remote enclosure.

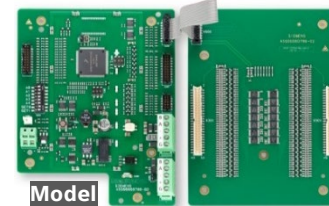
Model VTA2001-A1 terminal board, which mounts in a 1HU enclosure, serves as a central station for audio output, system communication and 24VDC power wiring from the Cerberus PRO intelligent voice-communication FACP on its network.

Plug-in connectors for the ribbon cables used on the 24-Switch Option Module (Model VTO2001-U3) and the Microphone Option Module (Model VTO2004-U3) are also included on each 'Class B' board.



Model VTA2001-A1

LED Driver and Tabular Annunciators



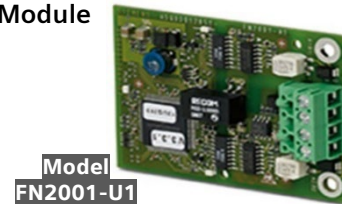
Model FT2007-U1

The LED Annunciator Driver, Model FT2007-U1, is the key component for custom graphic annunciators on all Cerberus PRO addressable fire panels. This optional system module provides outputs for system status as well as zone status. Model FT2007-U1 is supervised via a RS-485 interface. A maximum eight (8) modules are allowed on each RS-485.

The Tabular Annunciators allow system events sent from Cerberus PRO addressable panels to be displayed remotely in real-time. Tabular annunciators are available in either red or black. The Model FT2008 series of tabular annunciators has 16 zones, and the Model FT2009 series uses 32 zones. Up to two (2) LEDs can be used per zone.

Cerberus PRO Fire Components

C-WEB Network Module



Model FN2001-U1

The C-WEB network module (Model FN2001-U1) is used to network up to 32 FACP's and the Fire Terminal (Model FT924), via the C-WEB system bus. The C-WEB network module is plugged into a Standard Operating Unit or an Operating Unit with LEDs. 'Peer-to-peer' networking is supported by the C-WEB module on 252 / 504-point addressable systems, as well as on a Fire Terminal Board (Model FT924).

Model FN2001-U1 connects to system-bus inputs and outputs. The network module has ground-fault monitoring, as well as an integrated degrade-mode function.

Redundant networking is accomplished with one (1) network module [simple loop trouble] per panel. There is electrical isolation between the system bus and the FACP.

Leased-Line / City-Tie Module

The leased-line / city-tie module (Model FCI2020-U1) is used as an optional module, providing a local-energy output for municipal call-box connection. Model FCI2020-U1 also gives a reverse-polarity output for leased-line connection. Model FCI2020-U1 is installed on the periphery board for Cerberus PRO FACP's, respectively.

When used for connection to a municipal call box, the city-tie function supports *Alarm*-event transmission. When used for leased-line connection, the module supports two (2) leased telephone lines for transmitting *Alarm*, *Trouble* and *Supervisory* events.



Model FCI2020-U1

Releasing Module

The releasing module (Model XCI2001-U1) is an optional module that is connected to the peripheral boards (Models FCI2016-U1, FCI2017-U1), providing two (2) circuits of optional releasing, respectively.

Model XCI2001-U1 supports activation of releasing valves in pre-action / deluge systems (including double-interlock pre-action systems, or Sinorix Engineered Fire Suppression Systems). Model XCI2001-U1 supports two (2) 'Class B' or one (1) 'Class A' releasing circuits.



Model XCI2001-U1

Remote Display Terminal (with RS-485 interface)



Model FT2015-U3

The Remote Display Terminals (Models FT2014-U3 / R3 and FT2015-U3 / R3) are LED / LCD units that show the existing status of a Cerberus PRO 252 / 504-point system.

A LED will illuminate for any given Alarm, Supervisory and Trouble Cerberus PRO-system event. A LCD screen will give details of the event in alphanumeric form. The display screen can be scrolled to reveal additional events. Optional remote-system-control capabilities are also available.

When an event has been triggered to the Cerberus PRO panel, the LCD screen will show the following:

- Event type and zone
- Time of the event [only possible in a menu-driven function]
- Custom message for that zone
- Usage of the zone
- 'Unacknowledged' or 'Acknowledged' event

The display has a backlight feature that operates upon receiving any event information or when any operator buttons are pressed.

The Model FT2014-series display terminal has a button used to silence the local sounder. Meanwhile, the Model FT2015-series display terminal has three (3) control buttons for 'acknowledging' events, silencing audible circuits and resetting the system. Additionally, there are three (3) user-programmable buttons available. The Model FT2015-series has a key switch that enables the control buttons to operate.

The remote display terminals are remotely connected to the Cerberus PRO FACP, via the RS-485 interface. Cerberus PRO panels require the Model FCA2016-U1 RS-485 module to provide communication to the remote display terminals. Model FCA2016-U1 supports Style 4 or Style 6 wiring.

Up to eight (8) modules can be supported on a RS-485 bus.

Note: In compliance of **Canadian fire code**, the Model FHD2012-U1 Inner Door must be ordered and used for housing the Remote Display Terminal (Model FT201x-Series)

Single-Mode / Multi-Mode Fiber-Optic Module

The single-mode (Model FN2006-U1) / multi-mode (Model FN2007-U1) fiber-optic interface module can be used to transmit RS-485 communication for the Cerberus PRO FACP, as well as the Model FT924 Fire Terminal.

The single-mode / multi-mode fiber-optic module provides C-NET peer-to-peer network communication between the Cerberus PRO 252-point and 504-point addressable systems. Models FN2006-U1 / FN2007-U1 require 24 Volts DC [nominal] power, and the networked Cerberus PRO panel serves as the main source in meeting this power requirement. Models FN2006-U1 / FN2007-U1 can also be powered from any UL Listed, regulated 24VDC power supply, such as the Siemens (Model PAD-series) Distributed Power Module & NAC Extender.

Models FN2006-U1 / FN2007-U1 can be mounted in a Cerberus PRO one-height-unit or two-height unit enclosure, and can operate in a daisy-chain configuration.

Two (2), high-quality duplex 9/125 fiber-optic cables and ST-style fiber connectors are used for connection between single-mode fiber-optic modules. The duplex fiber-optic cable has two (2) cables in a single shield that is similar to an electrical zip cord. When using single-mode fiber, each segment of the fiber network can be up to almost 10 miles (16.1 km).

For 'Class B' installations, each FACP or terminal at either end of the daisy chain use one (1) duplex cable for connection to the next networked panel or terminal. FACP or terminals within the daisy chain require two (2) duplex cables: one (1) duplex cable for connection to the previous FACP, and one (1) duplex cable for connection to the next FACP.

For 'Class A' installations, each FACP or terminal requires two (2) duplex cables: one (1) duplex cable for connection to the previous FACP, and one (1) duplex cable for connection to the next FACP.

Digital Alarm Communicator Transmitter



Model FCA2015-U1

The Digital Alarm Communicator Transmitter (DACT) is used to provide communication between a 252 / 504-point (FIRE or IVC) addressable FACP and an off-premises monitoring station.

Each DACT (Model FCA2015-U1) can also support additional third-party Internet Protocol (IP) and Global System Mobile (GSM) communication technologies, which include: Bosch, Telguard and DSC. Consequently, Model FCA2015-U1 is UL Listed as compatible with third-party IP and GSM dialers.

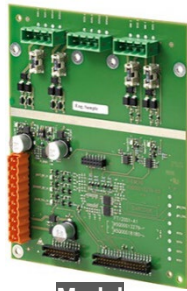
The Model FCA2015-U1 module mounts directly on the back enclosure and connects to the periphery boards. The DACT enables remote transmission of alarms and events via a public telephone line.

Model FCA2015-U1 supports two (2) lines and four (4) accounts, and can transmit serial information (including the address of the event) to the monitoring station.

Fire Terminal Board (and equipment)

The Fire Terminal (Model FT924) consists of the Fire Terminal Board (Model FTI2001-U1); that stores the Standard Operating Unit (or the Operating Unit with LEDs), and a one-height-unit enclosure.

Each Model FT924 terminal contains one (1) backlit, 2" —x— 4-3/4" (5.1 cm. —x— 12.1 cm.) Video Graphics Array (VGA) monochrome LCD screen with LEDs for displaying system status. An audible will sound when there are 'unacknowledged' events on the system.



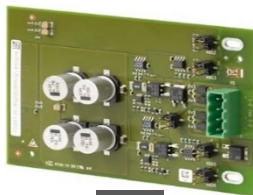
Model FTI2001-U1

The display of each operating unit categorizes events by type, providing a separate event tab for **Alarm**, **Gas Alarm**, **Supervisory**, and **Trouble** events. The quantity of active events of each type is listed in each event tab. The display provides two (2) full lines of text message for each event.

Each event can have a 40-character custom message describing the location for a given event. In addition to the text message, the system displays the category of the active event: (e.g. – **Automatic Alarm**, **Water Flow**, **Manual**, etc.) – the category means more to responding officials than models.

The Fire Terminal Boards contain the site-specific program configuration which is created in the custom-configuration tool, 'Cerberus Works'.

NAC Expansion Module



Model FCI2011-U1

The NAC expansion module (Model FCI2011-U1) is an optional module that is connected to the peripheral boards (Models FCI2016-U1, FCI2017-U1), providing additional NACs to 252-point and 504-point systems, respectively.

One (1) 'Class A' or two (2) 'Class B' NACs are provided with the following Cerberus PRO systems:

- Model FV922 (252-point)
- Model FV924 (504-point)

Each NAC is rated at 3A. Each NAC expansion module is monitored for open-line and short-circuit conditions.

When installed on a Model FV922 or Model FV924 Cerberus PRO FACP, the releasing module contains an integral manual-disconnect switch for releasing circuits. This essential feature protects the releasing circuits from accidental discharge during maintenance.

Activation can be accomplished via cross zoning of automatic detectors or manual activation within one (1) FACP. A pre-discharge countdown timer is available for display at either the Standard Operating Interface Unit, or Operating Interface Unit with LEDs.

Remote Peripheral Module (with RS—485 interface)

The Remote Peripheral Module (FCA2018-U1) provides a means of connecting a Cerberus PRO panel to a parallel printer for creating a hard copy of system-status and configuration reports. This supervised, intelligent module contains built-in transient protection and plain-decimal addressing.



Model FCA2018-U1

Model FCA2018-U1 is remotely connected to the Model FCA2016-U1 RS—485 communication bus from any Cerberus PRO system enclosure. Model FCA2018-U1 uses 'Class B' (Style 4) or 'Class A' (Style 6) wiring, and provides two (2) RS—232 (serial) ports and a single parallel port that allow connection to the parallel printer (Model PAL-1).

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.

Event and report printing is generated either at the Standard Operating Interface Unit, or Operating Interface Unit with LEDs on the main Cerberus PRO system.

LED Option Module(s)

LED option modules provide LED annunciation of system activity. For instance, Model FCM2023-U3 can either be configured for up to 24 indicator zones, or for 48 individual LEDs. Each zone for Model FCM2023-U3 contains one (1) **RED / GREEN** bi-color LED and one (1) **YELLOW** LED.



Model FCM2023-U3

Model FCM2034-U3 is the other version of the Cerberus PRO LED option module. Used exclusively in Canadian applications, Model FCM2034-U3 can also either be configured for up to 24 indicator zones, or for 48 individual LEDs. However, each zone contains one (1) **RED / YELLOW** bi-color LED and one (1) **YELLOW** LED.

Any event can be assigned to each LED, which may be configured as a 'static' or 'flashing' indicator using the Cerberus PRO custom-configurable software tool, 'Cerberus Works'. Normally, the LED indicator is used as a zone indicator.

The LED option module is connected to the peripheral data bus, and can be cascaded to up to a maximum of four (4) LED modules. A space is provided for labeling of LED functions. The label slides behind a clear, protective membrane.

Blank Option Module

Model FCM2022-U3 is a blank-option module intended to cover any blank LED areas where LED modules are not being occupied. The Blank and LED Option Modules are mounted on the inner door of a Cerberus PRO enclosure. Any combination of modules may be mounted on the inner door. Up to four (4) total modules can be supported.

Temperature and Humidity Range

The Cerberus PRO Intelligent Voice Communication System is UL 864 10th 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

Model	Data Sheet #	Product
----	9300	Cerberus DMS Management Station
OH921	9900	Multi-Criteria Fire Detector
HI921	9901	Thermal (Heat) Detector
OP921	9902	Photoelectric Smoke Detector
OOHC941	9903	Multi-Criteria Fire / CO Detector [with ASAtechnology.]
OOH941	9904	Multi-Criteria Fire Detector [with ASAtechnology.]
FDCIO422	9905	4-Input / 4-Output Interface Module
FDBZ492 / -HR,-R-PR	9906	'FDBZ' Series Air-Duct Housings
DB2-HR, DB-11 / DB-11E	9907	'DB' Series Detector Base
ABHW-4B	9909	Intelligent Audible (Sounder) Base
ABHW-4S	9910	Audible (Sounder) Base for Sleeping Areas

Cerberus PRO Voice Enclosure Package

MODEL OR TYPE	PART NUMBER	PRODUCT
FHK2004-U3	S54400-C168-A1	Voice Enclosure Kit (Black) Includes:
		Two (2) Inner Doors (Model FHD2004-U1)
		One (1) 3HU backbox, Black (Model FHB2005-U1)
		Two (2) Clear Lens (Model FHD2006-U1)
		One (1) Outer Door, Black (Model FHD2007-U3)
FHK2004-R3	S54400-C169-A1	Voice Enclosure Kit (Red) Includes:
		Two (2) Inner Doors (Model FHD2004-U1)
		One (1) 3HU backbox, Red (Model FHB2005-R1)
		Two (2) Clear Lens (Model FHD2006-U1)
		One (1) Outer Door, Red (Model FHD2007-R3)
FHK2004-R3	S54400-C169-A1	One (1) 3HU Outer Door Blank Plate, Red (Model FHD2009-R1)

Cerberus PRO Voice Electronics Package

MODEL OR TYPE	PART NUMBER	PRODUCT
FV920-EK	S54400-C167-A1	Voice Electronics Kit Includes:
		One (1) Voice CPU Card (Model VCC2001-A1)
		One (1) Voice I/O Card (Model VCC2002-A1)
		One (1) 50W Voice Amplifier Card (Model VCI2001-U1)
		One (1) Voice Card Cage (Model VCA2002-A1)
		One (1) MoNET Connection Module (Model FCA2031-A1)
		One (1) Option Module [24 switches] (Model VTO2001-U3)
		One (1) Microphone Option Module (Model VTO2004-U3)

Cerberus PRO Boost Amplifier Package

MODEL OR TYPE	PART NUMBER	PRODUCT
EBA2001-U1	S54400-B140-A1	100W Booster Amplifier Kit (Black) Includes:
		One (1) Main board (Model EBA2004-A1)
		One (1) Black enclosure (Model FH2016-U1)
		One (1) 170W power supply (Model FP2011-U1)
EBA2001-R1	S54400-B141-A1	100W Booster Amplifier Kit (Red) Includes:
		One (1) Main board (Model EBA2004-A1)
		One (1) Red enclosure (Model FH2016-R1)
		One (1) 170W power supply (Model FP2011-U1)

Cerberus PRO Remote Microphone Package

MODEL OR TYPE	PART NUMBER	PRODUCT
VR2005-U3	S54400-C90-A1	Remote Microphone Kit (Black) Includes:
		One (1) 1HU Back box (Model FHB2001-R1)
		One (1) Inner door (Model FHD2004-U1)
		One (1) Outer door (Model FHD2001-R3)
		Two (2) Blank plates (Model FCM2022-U3)
		One (1) Lexan clear lens (Model FHD2006-U1)
		One (1) Microphone option module (Model VTO2004-U3)
		One (1) Option module [24 switches] (Model VTO2001-U3)
		One (1) 'Class B' voice terminal board (Model VTA2001-A1)
		VR2005-R3
One (1) 1HU Back box (Model FHB2001-R1)		
One (1) Inner door (Model FHD2004-U1)		
One (1) Outer door (Model FHD2001-R3)		
Two (2) Blank plates (Model FCM2022-U3)		
One (1) Lexan clear lens (Model FHD2006-U1)		
One (1) Microphone option module (Model VTO2004-U3)		
One (1) Option module [24 switches] (Model VTO2001-U3)		
One (1) 'Class B' voice terminal board (Model VTA2001-A1)		

Details for Ordering (Parts)

MODEL OR TYPE	PART NUMBER	PRODUCT
EBA2004-A1	S54400-B137-A1	Main Board (for the 100W Booster Amplifier)
FCA2015-U1	S54400-A63-A1	Digital Alarm Communicator Transmitter
FCA2016-U1	S54400-A39-A1	RS-485 Interface
FCA2018-U1	S54400-A65-A1	Remote Peripheral Module
FCA2031-A1	S54400-A153-A1	Module Network (MoNet) Connection
FCA2032-U1	S54400-B145-A1	Battery Disconnect Module
FCA2033-A1	S54400-P154-A1	License Key (S1) for remote access remote view remote operation
FCA2034-A1	S54400-P155-A1	License Key (S2) BACnet output (monitoring only)
FCA2035-A1	S54400-P156-A1	License Key (S3) for remote access remote view remote operation BACnet output
FCI2011-U1	S54400-A54-A1	NAC Expansion Module
FCI2016-U1	S54400-A55-A1	Periphery Board (for 252-pt. panels)
FCI2017-U1	S54400-A56-A1	Periphery Board (for 504-pt. panels)
FCI2020-U1	S54400-A57-A1	Optional Leased-Line / City-Tie Module
FCM2018-U3	S54400-C40-A2	Operating Interface Unit
FCM2019-U3	S54400-C41-A2	Operating Interface Unit [with LED]
FCM2022-U3	S54400-C44-A2	Front-End Blank Option Module
FCM2023-U3	S54400-C45-A2	LED Option Module Red / Green bi-color LED (one {1} standalone Yellow LED)
FCM2034-U3	S54400-C138-A1	LED Option Module Red / Yellow bi-color LED (one {1} standalone Yellow LED)
FCM2035-U3	S54400-C140-A1	Operating Interface Unit [with LED] [used in Canadian-FACP installs]
PAB-ENCL	S54339-A8-A1	100W Booster Amplifier Enclosure, Black
PAB-ENCL-R	S54339-A9-A1	100W Booster Amplifier Enclosure, Red
FH2072-UA	S54433-A5- A1	Universal Battery Cabinet
FTH2073-UA	S54433-A6- A1	Universal Annunciator Cabinet
FHA2031-U1	S54400-B44-A1	Optional DIN Rail Kit
FHA2041-R1	S54400-B93-A1	Three-Height-Unit (3HU) Enclosure Cover, Red
FHA2042-U1	S54400-B55-A1	33AH Battery Bracket (used with Cerberus Intelligent Voice Communication FACPs)
FHA2043-U1	S54400-B56-A1	Three-Height-Unit Trim Kit, Black
FHA2043-R1	S54400-B57-A1	Three-Height-Unit Trim Kit, Red
FHA2044-U1	S54400-B167-A1	Battery Fixing Bracket (for the 100W Booster Amplifier)
FHA2054-U1	S54400-B58-A1	Audio Transformer Kit
FHB2005-U1	S54400-B110-A1	3HU Enclosure Backbox, Black
FHB2005-R1	S54400-B110-A2	3HU Enclosure Backbox, Red
FHD2004-U1	S54400-B52-A1	Inner Door, Black (open center space for module access)
FHD2005-U1	S54400-B53-A1	Inner Door, Solid Black (no open space / insert)

Details for Ordering (Parts)

MODEL OR TYPE	PART NUMBER	PRODUCT
FHD2006-U1	S54400-C46-A1	Lexan® Clear-Lens Window
FHD2007-U3	S54400-B113-A1	3HU Outer Door, Black (contains three {3} window cutouts)
FHD2007-R3	S54400-B113-A2	3HU Outer Door, Red (contains three {3} window cutouts)
FHD2009-U1	S54400-B114-A1	3HU Blank Plate, Black
FHD2009-R1	S54400-B114-A2	3HU Blank Plate, Red
FHD2012-U1	S54400-C135-A1	Inner Door, Black [used in Canadian-RDT installs]
FN2001-U1	S54400-A60-A1	C-WEB Network Module
FN2012-A1	S54400-B152-A1	Modular Ethernet Switch
FP2012-U1	S54400-Z60-A1	300-Watt Power Supply
FP2013-U1	S54400-Z61-A1	600W Cascading Pwr. Supply
FT2007-U1	S54400-A142-A1	LED Annunciator Driver
FT2008-U1	S54400-A143-A1	16-Zone Tab Annunciator, Black
FT2008-R1	S54400-A144-A1	16-Zone Tab Annunciator, Red
FT2009-U1	S54400-A145-A1	32-Zone Tab Annunciator, Black
FT2009-R1	S54400-A146-A1	32-Zone Tab Annunciator, Red
FT2014-U3	S54400-B80-A1	Remote Display Terminal, Black
FT2014-R3	S54400-B73-A1	Remote Display Terminal, Red
FT2015-U3	S54400-B88-A1	Remote Display Terminal, Black (contains three {3} buttons)
FT2015-R3	S54400-B16-A1	Remote Display Terminal, Red (contains three {3} buttons)

Details for Ordering (Parts)

MODEL OR TYPE	PART NUMBER	PRODUCT
FTI2001-U1	S54400-A58-A1	Fire Terminal Board
VCA2002-A1	S54400-A47-A1	Voice System (4A) Card Cage
VCC2001-A1	S54400-A40-A1	Voice CPU Card
VCC2002-A1	S54400-A41-A1	Voice Input / Output Card
VCI2001-U1	S54400-A45-A1	Voice Amplifier Card (25V or 70V)
VCI2003-A1	S54400-A141-A1	VoIP Module
VN2001-A1	S54400-A42-A1	Electric Ethernet Module
VN2002-A1	S54400-A43-A1	Multi-Mode Ethernet Module
VN2003-A1	S54400-A44-A1	Single-Mode Ethernet Module
VR2005-U3	S54400-C90-A1	Remote Microphone Kit, Black
VR2005-R3	S54400-C92-A1	Remote Microphone Kit, Red
VTA2001-A1	S54400-F163-A1	Remote Terminal Board (‘Class B’)
VTO2001-U3	S54400-C60-A2	Option Module, 24 switches
VTO2004-U3	S54400-C61-A2	Option Module, Microphone
XCI2001-U1	S54400-A69-A1	Releasing Module

NOTICE – The information contained in this data-sheet document is intended only as a summary, and is subject to change without notice. The product(s) described here has/have a specific instruction sheet(s) that cover various technical, limitation and liability information.

Copies of install-type, instruction sheets – as well as the *General Product Warning and Limitations* document, which also contains important data, are provided with the product, and are available from the Manufacturer.

Data contained in the aforesaid type of documentation should be consulted with a fire-safety professional before specifying or using the product.

Any further questions or assistance concerning particular problems that might arise, relative to the proper functioning of the equipment, please contact the Manufacturer.

SIEMENS

Cerberus® PRO

Siemens Industry, Inc.
Smart Infrastructure - Building Products
2 Gatehall Drive • Parsippany, NJ 07054
Tel: (973) 593-2600

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