

# Cerberus PRO Fire Safety

## System Peripheral Boards

Models FCI2016-U1 and FCI2017-U1

### ARCHITECT AND ENGINEER SPECIFICATIONS

- **Used with Cerberus PRO panels**
  - Model FCI2016-U1 is used with Model FC922 panel
  - Model FCI2017-U1 is used with Model FC924 panel
- **Maximum 252 point device addresses per integrated loop card**
  - Up to 252 addresses are used with Model FCI2016-U1
  - Up to 504 addresses are used with Model FCI2017-U1
  - Model FCI2017-U1 has two (2) integrated loop cards (Loop A / Loop B) with EMC surge protection for eight (8) Style 4, or four (4) Style 6 / 7 loops
  - Model FCI2016-U1 has one (1) integrated loop card (Loop A / Loop B) with EMC surge protection for four (4) Style 4, or two (2) Style 6 / 7 loops
- **NAC connection for one (1) Class A or two (2) 'Class B' functions**
  - 3 Amps max. for NAC for synchronization and alarms
- **Two (2) plugs for optional extensions**
  - Leased line / city-tie module
  - Notification Appliance Circuit (NAC) Expansion Module or Releasing Module
- **Additional peripheral-data bus connection for LED or digital alarm communication transmitter (DACT) modules**
- **Field-wiring configuration via removable terminal blocks**

### Product Overview

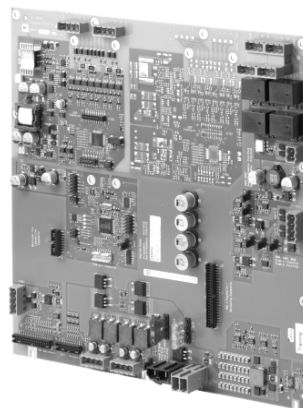
The peripheral boards (Models FCI2016-U1 and FCI2017-U1) are the main components for operation of the Cerberus PRO panels (Models FC922 and FC924). Both models are FM (#3010); CSFM (#7165-0067:0259) and FDNY (#6104) Approved.

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). All functions are supported by the power supplies of either Model FP2011-U1 or Model FP2012-U1.

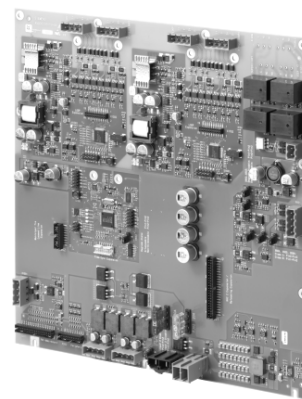
Model FP2011-U1 provides regulated 24VDC, nominal, 6 amps (max), while Model FP2012-U1 offers regulated 24VDC, nominal, 11.5 Amps (max) to the Models FC922 and FC924 Cerberus PRO systems.

## Cerberus™ PRO

Fire Safety & Security Products



**FCI2016-U1**  
(Peripheral board for 252-pt.  
Cerberus PRO Fire Safety system)



**FCI2017-U1**  
(Peripheral board for 504-pt.  
Cerberus PRO Fire Safety system)

- **Degrade-mode functions**
- **Four (4) configurable relay outputs**
- **Battery charger included**
- **Auxiliary output**
  - (24VDC, nominal; 1.5 Amps)
- **UL 864 9<sup>th</sup> Edition Listed, ULC Listed; FM, CSFM and NYC Fire Dept. Approved**

### Specifications

Each peripheral board is equipped with two (2) programmable 'Class B' (Style Y) or 'one (1) Class A' (Style Z) NAC, providing 24VDC, nominal @ up to 3A per circuit of audible / visual notification appliances.

Either peripheral board has an integrated C-NET loop circuit with built-in EMI surge protection, thus allowing automatic devices to be installed and configured for 'Class B' or 'Class A' circuit operation.

Model FCI2016-U1 supports (1) one-to-four (4) 'Class B' circuits – or supports (1) one-to-two (2) 'Class A' circuits that can supervise and control up to 252 devices. Model FCI2017-U1 supports (1) one-to-eight (8) 'Class B' circuits – or supports (1) one-to-four (4) 'Class A' circuits that can supervise and control up to 504 devices.

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Peripheral Boards

## Product Overview – (continued)

The following devices work with the C-NET loop:

- Model 'H'-series devices
- Model 'S'-series devices
- Model 'C'-series devices
- Monitor module

Each periphery board has a built-in, microprocessor-controlled battery charger that supervises the status of the battery, and provides four (4) modes of operation: *trickle*, *bulk*, *over-charge* and *float*. The charger also contains an automatic power-transfer circuit that switches the FACP to standby batteries during reduction and / or loss of primary AC power sources (automatically switching back to AC power when normal, regulated power is restored). The battery connects directly to Model FCI2016-U1/ FCI2017-U1 module. The battery connects directly to each periphery board.

The periphery boards mount directly on the enclosure backboxes of the Model FC922 and Model FC922 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. The system periphery boards also include a Bell Follower terminal connection, allowing the NACs to follow external-coded signals.

The periphery boards support connection to the following optional modules:

- City Tie / Leased Line
- Notification Appliance Circuit (NAC) Expansion Module
- Releasing Module
- Digital Alarm Communicator Transmitter (DACT)
- Light-emitting diode (LED) module

Models FCI2016-U1 and FCI2017-U1 contain four (4) 'Form C' relays and defaults to the following system events:

- *System Alarm*
- *Supervisory*
- *Trouble*
- [User Programmable]

Built-in system firmware is also resident in flash electrically erasable programmable read-only memory (EEPROM), and can be upgraded by software upload – eliminating the need for upgrade chips.

## Technical Data

<b>Supply Inputs</b>	<b>Operating Voltage:</b>	Regulated 24VDC, nominal
	<b>Operating Current:</b>	6A (with FP2011-U1); 11.5A (with FP2012-U1)
<b>NACs</b>	<b>Operating Voltage:</b>	Regulated 24VDC, nominal
	<b>Max. Operating Current (Cumulative)</b>	6A (for Model FP2011-U1), 11.5A (for Model FP2012-U1)
<b>Aux Power</b>	<b>Operating Voltage:</b>	Regulated 24VDC, 1.5A (max)
<b>Relay Contact Rating</b>	<b>'Form C'</b>	30VDC @ 5A (max); 120VAC @ 5A (max)
<b>D E T E C T O R  L O O P S</b>	<b>Output Voltage:</b>	33VDC, max.
	<b>No. of Integrated Loop Cards:</b>	One (1) for Model FCI2016-U1, Two (2) for Model FCI2017-U1
	<b>Output Current:</b>	1A, max.
	<b>Addressable Devices:</b>	252 max. (with FCI2016-U1), 504 max. (with FCI2017-U1)
	<b>Connectable Loops:</b>	Two (2) 'Class A' loops or four (4) 'Class B' loops for FCI2016-U1, Four (4) 'Class A' loops or eight (8) 'Class B' loops for FCI2017-U1 {mixed variants are possible}
	<b>Protocol:</b>	C-NET
	<b>Cable Types:</b>	All types (recommended: twisted); {for detailed specifications, see IOM: A6V10337045}
<b>Monitored For:</b>	<ul style="list-style-type: none"> <li>▪ Ground fault</li> <li>▪ Short-circuit</li> <li>▪ Open loop</li> </ul>	
<b>Connection Terminals</b> {Inputs, Outputs & C-NET}	<b>Design:</b>	Removable terminal blocks
	<b>Cable size:</b>	12 – 22 AWG [American Wire Gauge]
<b>Physical Properties</b>	<b>Dimensions:</b> { W -x- H -x- D }	11" -x- 11.25" -x- 0.125" (28 cm. -x- 29 cm. -x- 0.32 cm.)
	<b>Weight:</b>	0.44 Lbs. (20g)

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## Temperature and Humidity Range

Models FCI2016-U1 and FCI2017-U1 are cUL 864 9<sup>th</sup> Edition Listed for operation within the temperature range of 32° to 120°F (0°C to 49°C) and a relative humidity of 93+/-2% at a temperature of 90+/-3°F (32+/-2°C).

## Related Documentation

Product	Data Sheet Number
FC922	9815
FC924	9815

## Details for Ordering

Model Number	Part Number	Description
FCI2016-U1	S54400-A55-A1	Periphery Board for the Model FC922 Cerberus PRO panel
FCI2017-U1	S54400-A56-A1	Periphery Board for the Model FC924 Cerberus PRO panel

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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.