SIEMENS FCA2018-U1 Remote Peripheral Module Instruction Manual

Contents

SIEMENS

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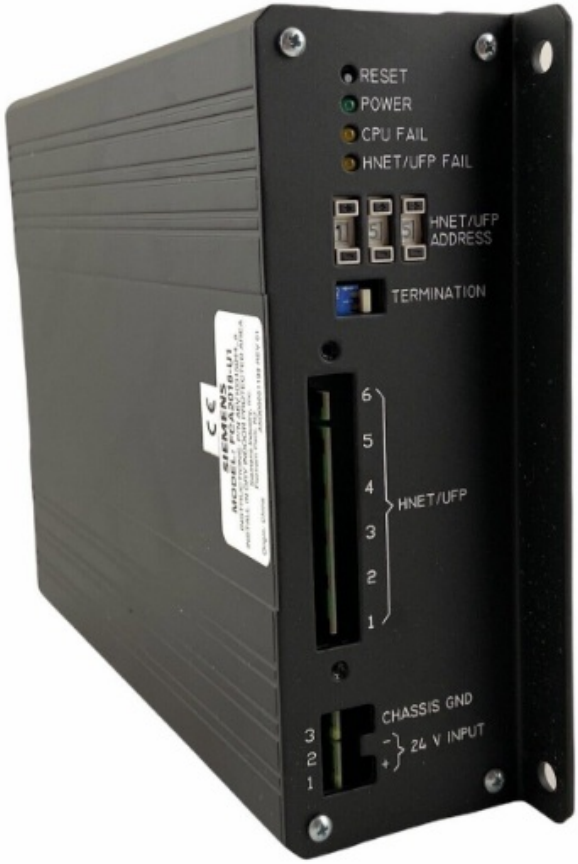


INTRODUCTION

The Model FCA2018-U1 from Siemens Industry, Inc., is a Universal Fire Protocol module that interfaces to a Centronics parallel printer. It must be located where access to the FS20 System UFP network and 24VDC power limited output are available. The FCA2018-U1 is required whenever a logging printer is needed. It translates the UFP messages into a standard Centronics printer interface. When used in conjunction with the PAL-1, it provides a supervised logging printer meeting the requirements of NFPA 72 Proprietary or UL 1076 Security systems. For NFPA 72 Local, Auxiliary or Remote Station applications any UL EDP listed Centronics parallel printer may be used (See notes 2, 3, and 4 on Figure 3).

Features

FCA2018-U1 features are as follows

- Supervision of the PAL-1 includes paper out, paper jam, printer off line,printer power off and printer disconnected.
- Can be connected to the UFP Style 4 or Style 6.
- Includes diagnostic LEDs to indicate failure of the UFP or the CPU. It alsohas a power on indicator.
- Includes a reset switch in the event that the FCA2018-U1 requires a hardware reset.
- Can be mounted on any smooth surface within 6 feet of the PAL-1.

OPERATION

When a system event occurs, the Operating Unit sends a print message to the FCA2018-U1 via UFP. The FCA2018-U1 is responsible for printing the message. The FCA2018-U1 contains a buffer to ensure that events that occur at a rate faster than the PAL-1 can print them are not lost.The FCA2018-U1 continuously monitors the connection to the PAL-1 checking for any error that would inhibit printing. Any errors that are detected are

communicated the OperatingUnit via UFP for annunciation. Restoration to the normal condition is also detected and communicated to the operating unit. Print messages that arrive at the FCA2018-U1 during a printer fault are stored in the buffer.

Controls and Indicators

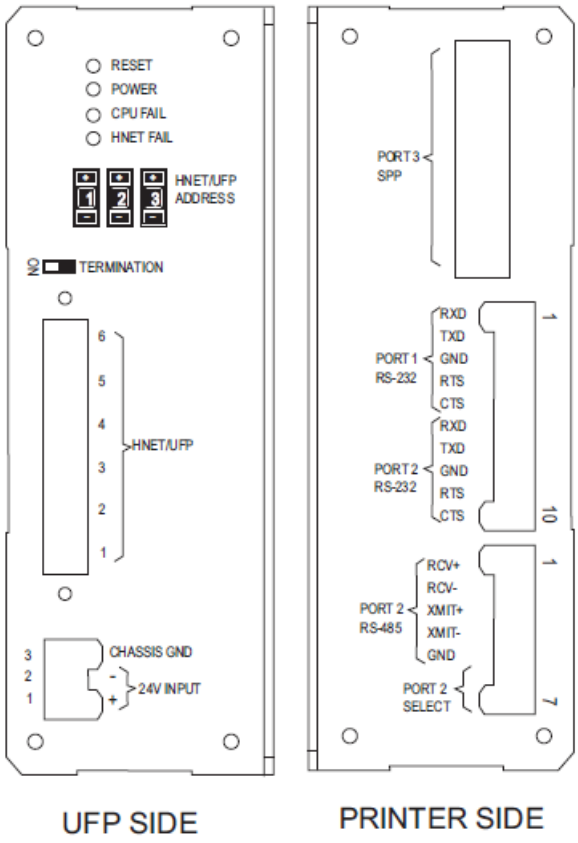


Figure 2
FCA2018-U1 Side Panel Detail

The UFP side panel of the FCA2018-U1 contains one reset switch, three LEDs, one termination switch and one UFP address switch as shown in Figure 2. A reset switch is located on the top of the panel. Pushing the reset switch re-initializes the FCA2018- U1 operation.

- **POWER (Green):** Normally ON. When illuminated, indicates that power for the FCA2018-U1 is applied to the module.
- **CPU FAIL (Yellow):** Normally OFF. When illuminated, indicates that the module microprocessor has failed.
- **UFP FAIL (Yellow):** Normally OFF. When illuminated, indicates that the UFP communication with the FCA2018-U1 has terminated.

A three-position switch located directly beneath the LEDs on the UFP side of the FCA2018-U1 is used to set the UFP network address of the FCA2018-U1.

PRE-INSTALLATION

Before connecting either the printer, power or the UFP, the network address must be set for the FCA2018-U1 using the three-position switch. (Refer to Figure 2 for the location of the switch.) The address for the FCA2018-U1 must be the same as the address selected for it in the FS20 Configuration Tool. To increment each digit of the address, press the “+” button above the desired digit; to decrement each digit, press the “-” button below the desired digit. The range of allowable addresses is from 001 to 8 (leading zeros must be used).

NOTE: If the FCA2018-U1 is located at the end of the UFP network (Style 4 only), the termination switch must be set to ON. Otherwise it must be set to OFF.

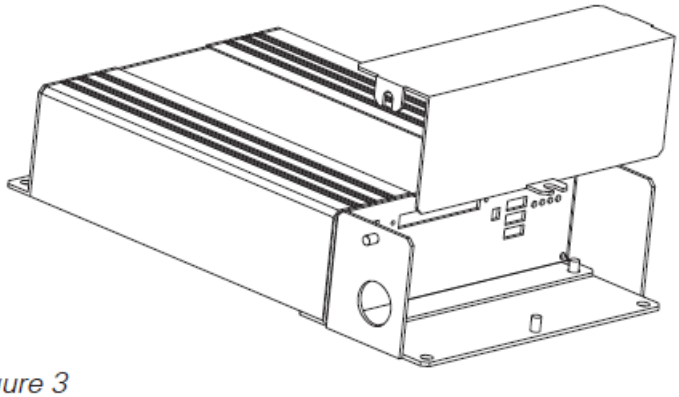
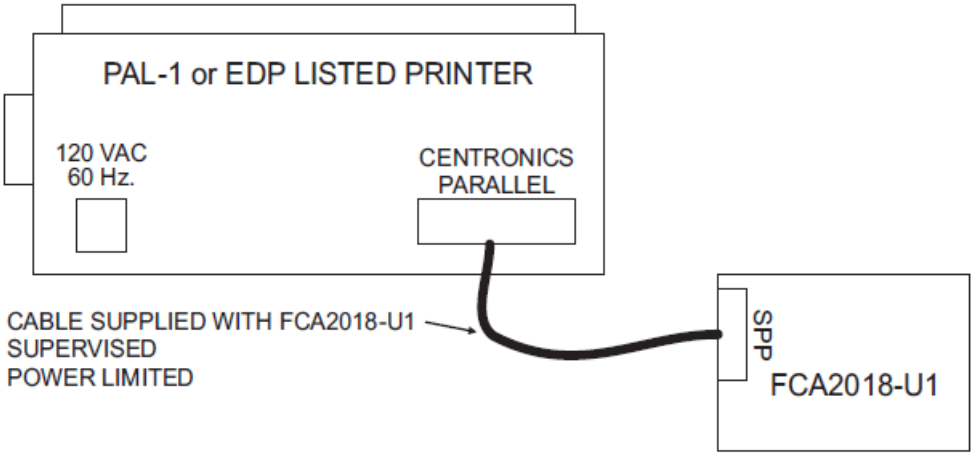


Figure 3
Installing The FCA2018-U1 Terminal Block Covers

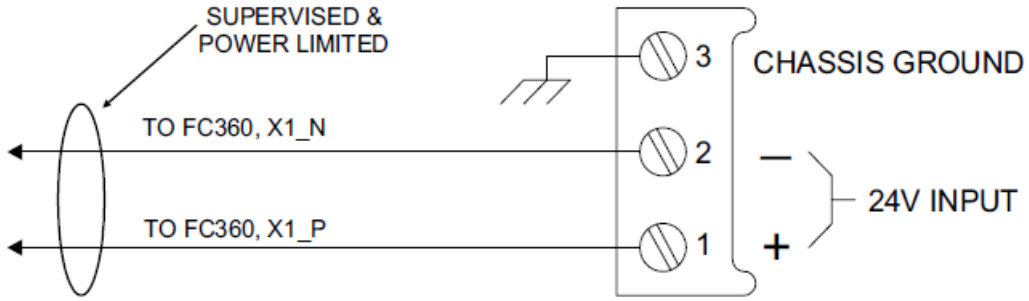
Two terminal block covers are provided with the FCA2018-U1. Each comes as two separate parts, a lower bracket which has a ¾ inch conduit opening and a cover. Attach the lower bracket to each end of the FCA2018-U1 using four of the #10 nuts provided in the FCA2018-U1 hardware kit. Reserve the covers and the remaining hardware until the FCA2018-U1 is mounted and wired. Mount the FCA2018-U1 to either the wall or desk where the PAL-1 is located. Use the four mounting holes in the lower bracket.

NOTES



1. The maximum distance from the FCA2018-U1 to the PAL-1 is 6 feet. The two modules must be in the same room.
2. For NFPA 72 Local, Auxiliary and Remote Station configurations, connect the output of the FCA2018-U1 to any UL EDP listed printer.
3. The printer must support the EPSON FX command set.
4. For NFPA 72 Proprietary of UL 1076 configurations use printer SIEMENS Model PAL-1, a UL listed for fire Centronics parallel printer.
5. The printer is supervised for AC loss, off line, paper out, paper jam, and connection to the FCA2018-U1.
6. After loading the paper in the PAL-1 printer, turn off the power and follow the steps below.
    - While pressing the LOAD PARK button, turn on the power to the PAL-1 printer. Keep pressing the LOAD PARK button for 5 seconds.
    - Release the LOAD PARK button.
    - The current setting will print.
    - When printing is completed, the ON LINE indicator will be lit. If the ON LINE indicator is not lit, press the ON LINE button.

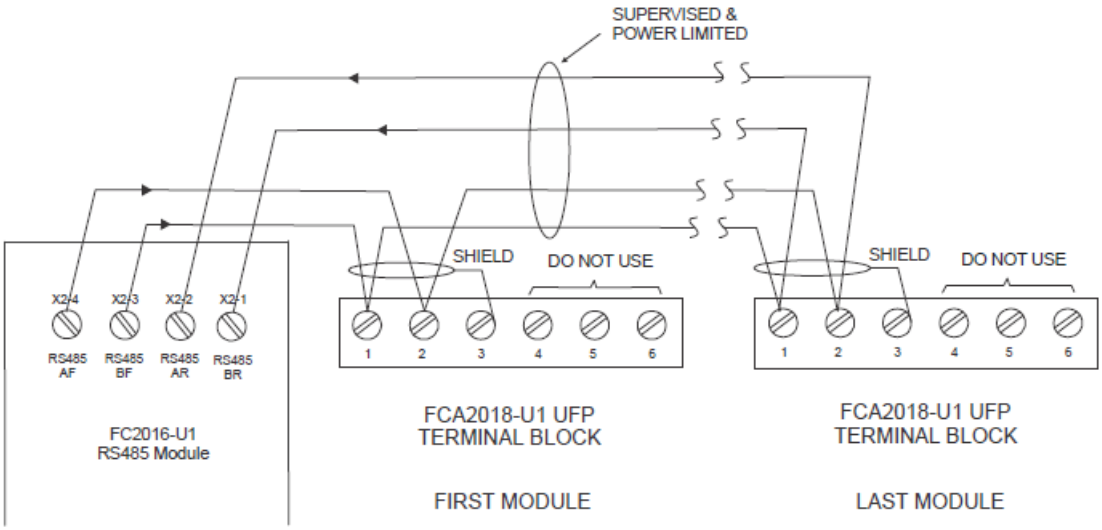
Remove all system power before installation, first battery then AC. (To power up, connect the AC first, then the battery.) The PAL-1 is connected to the FCA2018-U1 with a standard PC printer cable. This cable is supplied with the FCA2018-U1. Connect the PAL-1 to the FCA2018-U1 using this cable. The two ends of the cable are different, ensuring proper connection. See Figure 4. The FCA2018-U1 requires 24VDC to operate.

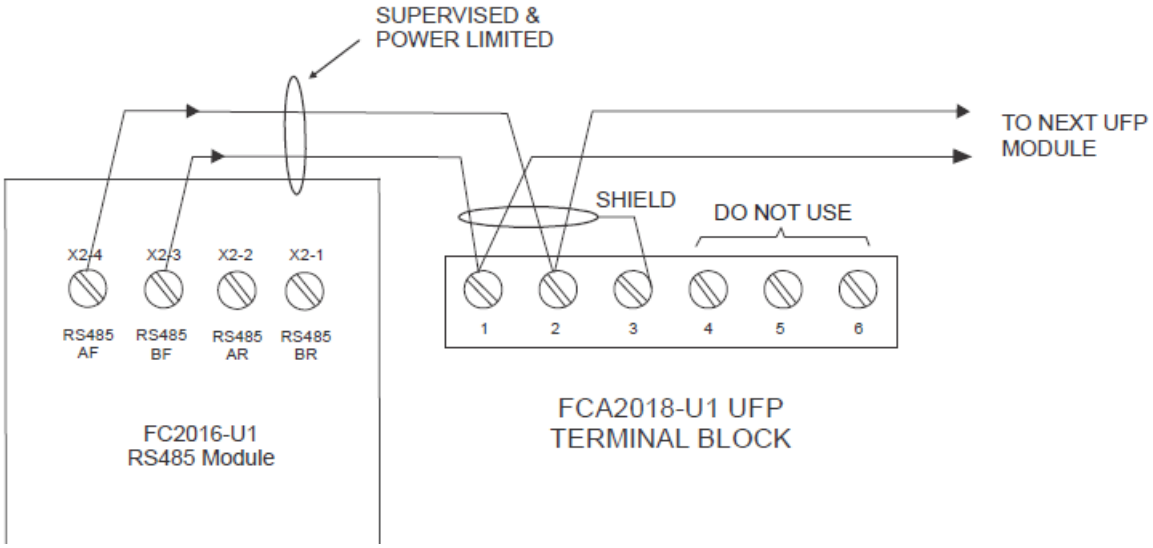


This power is available on the Aux Power Terminal (X1001) on the FS20 Periboard. See Figure 5 for wiring details.

NOTES

1. 18 AWG min., 12 AWG max.
2. Power limited to NFPA72 per NEC 760.
3. No end of line device required.
4. 50Ω max. total wire resistance.
5. Refer to FS20 Product Data Manual, P/N A6V10315015, for ground fault detection impedance.

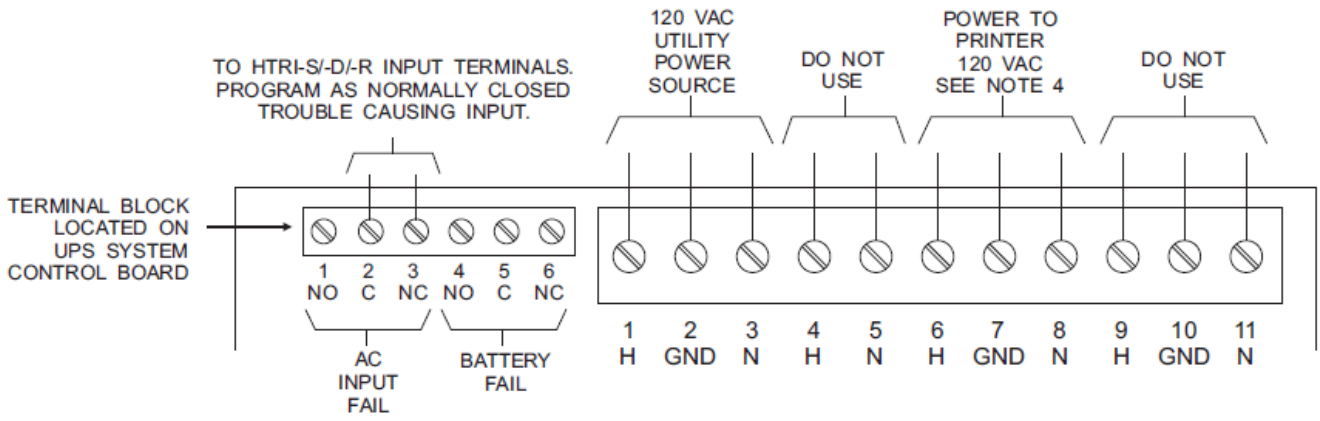




The FCA2018-U1 can be connected to the UFP Style 6 or Style 4. Refer to the FS20 configuration for the proper Style. If the FCA2018-U1 is connected at the end, care must be taken to properly terminate the UFP. See Figure 6 for the wiring instructions when the FCA2018-U1 is connected as Style 6 and Figure 7 when the FCA2018-U1 is connected as Style 4.

NOTES

1. 18 AWG min., 12 AWG max.
2. 2000 ft max between RS485 Module and FCA2018-U1.
3. Use twisted pair or shielded twisted pair.
4. Terminate shield at one end only.
5. Power limited to NFPA72 per NEC 760.
6. Reference RS485 Module Installation Instructions, Document ID A6V10334252.



The PAL-1 requires a standby power source in the event of the loss of primary input power (AC mains). Refer to Figure 8 for the connection of a UPS to meet this requirement.

NOTES

1. All wires 14 AWG min., 600V insulation.
2. Wiring to the printer must be 14 AWG min., 600V insulation in conduit.
3. Use the UPS ICS Lifeline Model 9300057.

4. **Standby Power requirements:** 120 VAC, 0.6A for 24 hours.

INSTALLATION

The FCA2018-U1 mounts with two flanges on the side of the terminal block covers. Select a smooth surface within 6 feet of the PAL-1 for the FCA2018-U1. Position the FCA2018-U1 and attach it to the mounting surface using the four #6 self-tapping screws provided. Install the terminal block covers using the 6 remaining #10 nuts. Refer to Figure 3.

ELECTRICAL RATINGS

24V Back Plane Current	0
Screw Terminal 24V Current	150mA Max.
6.2V Back Plane Current	0
24V Standby Current	150mA Max.
Output Power	
CAN Network Pair	8V peak to peak max.
	75mA max. (during msg transmission)

ADDRESS

Siemens Industry, Inc.

- Building Technologies Division
- Florham Park, NJ

firealarmresources.com

P/N A5Q00050826
Document ID A6V10315044_enUS_c

Documents / Resources

	**SIEMENS FCA2018-U1 Remote Peripheral Module** [pdf] Instruction Manual FCA2018-U1, FCA2018-U1 Remote Peripheral Module, Remote Peripheral Module, Peripheral Module, Module

References

- Fire Alarm Resources | Download fire alarm documents