

COM SERIES UNIVERSAL ALARM COMMUNICATOR

Compliance Listing Guide

BEFORE YOU BEGIN

This guide provides compliance information for the Com Series Universal Alarm Communicator. Read through the contents of this guide before starting the installation process. It describes the functions along with available installation options. Information contained in this guide allows you to learn the operation, functionality, and programming features of the communicator to meet specific applications.

The Com Series Universal Alarm Communicator provides a fully supervised alarm communication path for commercial control panels. This section applies to the following models:

- DualComNF Cellular Communicator with Network/LTE for Commercial Fire
- DualComNF-FN Cellular FirstNet Communicator with Network/LTE for Commercial Fire
- DualComN Cellular Communicator with Network/LTE for Commercial Burglary
- PowerComF Cellular Communicator with Network/LTE and backup battery for Commercial Fire

PROGRAMMING REQUIREMENTS

Notice to users, installers, authorities that have jurisdiction, and other involved parties: This product incorporates field-programmable software. In order for the product to comply with the requirements of a certificated installation, certain programming features or options must be limited to specific values or not used at all as indicated below.

Program feature or option	Standard	Permitted?	Possible settings	Settings permitted
System Reports, RESTORAL	ANSI/UL 864	Y	NO, YES, DISARM	YES, DISARM
Communication, CHECKIN MINUTES	ANSI/UL 864	Y	3-240	3-238 (Dual Path) 3-58 (Single Path)
Communication, FAILTIME MINUTES	ANSI/UL 864	Y	3-240	3-240 (Dual Path) 3-60 (Single Path)

COMMERCIAL FIRE INSTALLATION

CID Dialer Connection

Directly connect one or both tip and ring terminals from the control panel to the communicator. Connect the included 100K Ohm EOL across Tip 2 and Ring 2. See Figure 1.

Note: Do not connect telephone company wires to the communicator. Remove any connected telephone company wires from the control panel.

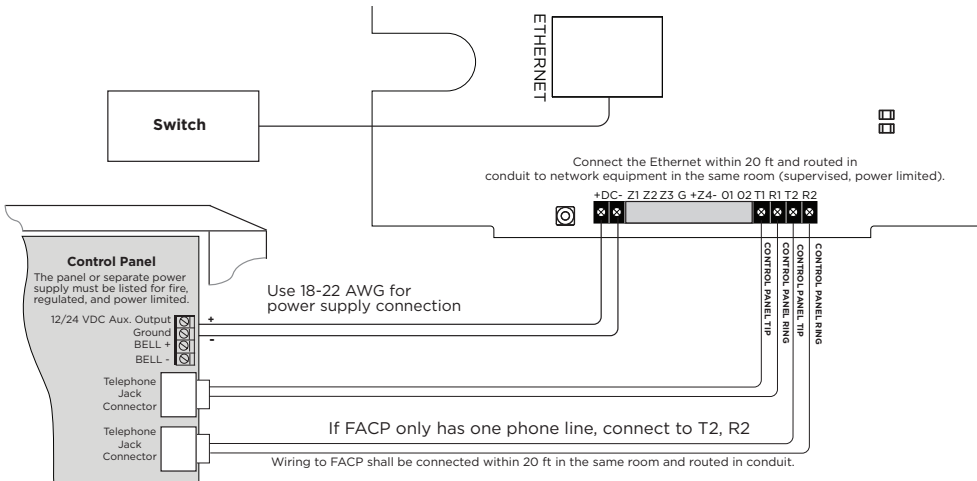


Figure 1: Wiring Diagram for Tip and Ring Connection

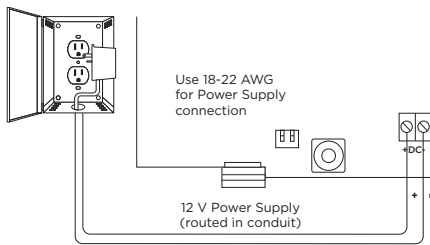


Figure 2: Transformer Connection for PowerComF

This connection captures Contact ID messages from any fire panel that are based on the SIA communication standard DC-05-1999.09-DCS. Messages are then formatted into a Serial 3 message and sent to an SCS-IR Receiver or SCS-VR Receiver.

Messages can also be sent as a DMP string with raw CID message appended. This feature requires SCS-VR Version 1.4.6 and higher or SCS-150 Version 107 and higher.

Zones 1-4 Input Connection

The communicator's zones have been evaluated by UL and may be connected to output relays on the control panel to provide annunciation of alarm and trouble conditions. When connected to the normally closed side of an output relay, wire the 1K EOL resistor in series with the zone terminals. If connected to the normally open side, wire the 1K EOL resistor in parallel with the zone terminals.

Note: When the zones are used to indicate status changes from the panel, only the zone information programmed in the communicator is sent to the Central Station.

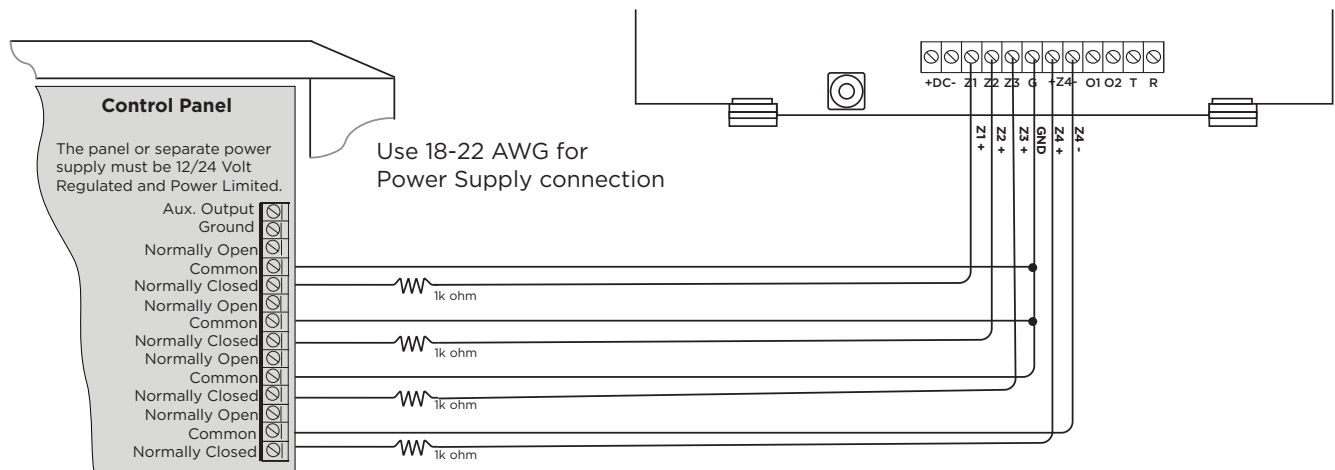


Figure 3: Wiring Diagram for Zones 1-4

Trouble Annunciation

The phone line voltage on the second tip and ring will drop when the DualComNF or PowerComF is in a communication failure, battery trouble, or DC input trouble state. This triggers the host panel to annunciate a phone line trouble. When the trouble condition has restored, voltage will be restored on the second tip and ring terminal, allowing the host panel to see a restoral on the phone line.

ANSI/UL 864

Fire Protective Signaling Systems using Internet/Intranet/Cell Networks

A Performance Based Technologies system as defined in UL 864 10th Edition may be configured as the following:

Network Primary and Cellular Backup Programming

Network Programming	Cellular Programming
Comm Type = NET	Comm Type = CELL
Checkin Min = 238	Checkin Min = 238
Faulttime Min = 240	Faulttime Min = 240
Comm Trbl = Yes	N/A

Cellular Primary with no Backup

Path 1 Programming	
Comm Type = CELL	Checkin Min = 58
Path Type = Primary	Faulttime Min = 60
Test Rpt = No	Checkin = Yes
Comm Trbl = Yes	N/A

Network Primary with no Backup

Path 1 Programming	
Comm Type = NET	Checkin Min = 58
Path Type = Primary	Faulttime Min = 60
Test Rpt = No	Checkin = Yes
CommTrbl = Yes	N/A

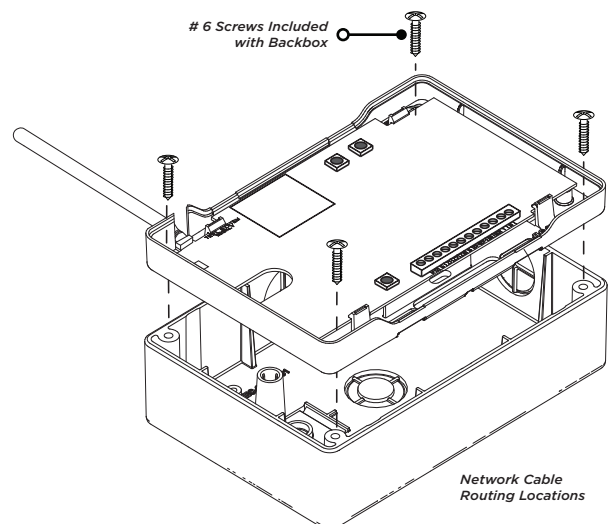


Figure 4: Model 685-R Backbox Installation

Model 685-R Backbox Installation

For Commercial Fire applications using the the included red plastic Model 685-R backbox, mount the backbox to the wall with the 1" #6 screws included with the fire communicator.

For the PowerComF, place the battery in the backbox and route the wires through the cutouts. Connect the battery lead connector to the PowerComF header.

Mount the fire communicator to the backbox with the 1/2" #6 screws. See Figure 2. Locate the fire communicator in the same room within 20 feet of the control panel and route all wire in conduit.

Refer to the DualCom Series Programming and Installation Guide (LT-1859) for communication test procedure.

Cellular Communication Failure Test Procedure

For Commercial Fire applications, the following test procedure can be used to demonstrate local annunciation of a communication path failure where required by the AHJ.

1. Connect the communicator to the FACP as shown in Figure 1 and program the communicator according to the tables above.
2. Program the appropriate settings for the central station receiver and allow the communicator to check in with the receiver.
3. Enter the programming menu and change the receiver port number to an invalid (closed) port.
4. Exit programming and allow the communicator to resume operation.
5. The communicator will unsuccessfully attempt to communicate and then drop the voltage on the second tip and ring terminals which will cause the FACP to annunciate a phone line trouble.
6. After successfully demonstrating local annunciation, return to the programming menu and change the receiver port back to the correct (open) port to verify communication.

Replace the Backup Battery

The PowerComF's 3.7V 5000mAH rechargeable battery provides up to 24 hours of backup battery power when AC or DC power is not available. The battery is intended for backup power only. It should not operate the PowerComF on a daily basis. If the battery is low, or not plugged into the battery connector, a low battery condition is indicated.

Replace the battery every three years. Use the steps below to remove and install a new backup battery:

7. Remove the PowerComF from the backbox.
8. Disconnect the battery lead connector from the PowerComF battery header.
9. Remove the battery from the backbox.
10. Place the new battery in the backbox and route the battery wires through the cutouts.
11. Connect the new battery lead connection to the PowerComF battery header.
12. Install the PowerComF on the backbox.

NEW YORK CITY (FDNY) SPECIFICATIONS

Introduction

The programming specifications contained in this section must be completed when installing the DualComNF for New York City (FDNY) fire alarm IP communication applications. Refer to the FDNY Certificate of Approval for the complete conditions of approval.

Network and Cellular Communication, Primary and Secondary

When installed as a central station Internet (Network) communicator or slave transmitter, both primary and secondary channels of communication shall be required and shall meet the conditions below. Network communication shall be used as the primary channel of communication to the Central Station and a Cellular Communicator shall be used as the secondary channel of communication or in reverse order: Cellular Communicator as the primary channel and Network connection as the secondary channel.

Network Primary And Cellular Backup Programming

NETWORK PROGRAMMING	CELLULAR PROGRAMMING
Comm Type = NET	Comm Type = CELL
Checkin Min = 5	Checkin Min = 5
Failtime Min = 5	Failtime Min = 5
Test Rpt = Yes	Test Rpt = Yes
Test Freq = 1 Dy	Test Freq = 1 Dy

Cellular Primary and Network Backup Programming

CELLULAR PROGRAMMING	NETWORK PROGRAMMING
Comm Type = CELL	Comm Type = NET
Checkin Min = 5	Checkin Min = 5
Failtime Min = 5	Failtime Min = 5
Test Rpt = Yes	Test Rpt = Yes
Test Freq = 1 Dy	Test Freq = 1 Dy

COM SERIES UNIVERSAL ALARM COMMUNICATOR

Specifications

Primary Power Nominal 12 - 24 VDC

PowerComF

Current Draw at 12 VDC

Standby 248 mA

Alarm 308 mA Peak Cellular Communication

Current Draw at 24 VDC

Standby 150 mA

Alarm 142 mA Peak Cellular Communication

Max Battery Charging 0.421 A

DualComNF/DualComN

Current Draw at 12 VDC

Standby 75 mA

Alarm 96 mA Peak Cellular Communication

Current Draw at 24 VDC

Standby 45 mA

Alarm 85 mA Peak Cellular Communication

DualComNF-FN

Current Draw at 12 VDC

Standby 75 mA

Alarm 134 mA Peak Cellular Communication

Current Draw at 24 VDC

Standby 45 mA

Alarm 99 mA Peak Cellular Communication

Dimensions and Color

PowerComF/DualComNF

Housing Dimensions 5.5"W x 3.75"L x 1"H

Housing Color Red

DualComN

Housing Dimensions 5.5"W x 3.75"L x 1"H

Housing Color White

Certifications

Los Angeles (LAFD) (DualComNF)

New York City (FDNY) (DualComNF)

California State Fire Marshal (CSFM) (DualComNF)

Cellular

FCC Part 15: XMR201707BG96

XMR201907BG95M3

XMR201909EC25AFX

IC: 10224A-201709BG96

10224A-2019BG95M3

110224A-2019EC25AFX

Underwriters Laboratories (UL) Listed

PowerComF/DualComNF/DualComNF-FN

Underwriters Laboratory (UL) Listed

ANSI/UL 864 Fire Protective Signaling Systems

DualComN

ANSI/UL 1610 Central Station Burglar



Designed, engineered,
and manufactured in
Springfield, Missouri using U.S.
and global components.
LT-1899 1.02 24075

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