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. You will 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:

- CellCom-LTE Cellular Communicator
- CellCom-2 Cellular Communicator (Verizon and AT&T)
- CellComF-LTE Cellular Communicator for Commercial Fire
- CellComF-2 Cellular Communicator for Commercial Fire (Verizon and AT&T)
- PowerCom-2 Cellular Communicator with Network/LTE for Commercial Burglary (Verizon and AT&T)
- PowerComF Cellular Communicator with Network/LTE and backup battery for Commercial Fire
- PowerComF-FN Cellular FirstNet Communicator with Network/LTE and backup battery for Commercial Fire
- PowerComF-2 Cellular Communicator with Network/LTE and backup battery for Commercial Fire (Verizon and AT&T)
- DualComNF Cellular Communicator with Network/LTE for Commercial Fire
- DualComNF-FN Cellular FirstNet Communicator with Network/LTE for Commercial Fire
- DualComNF-2 Cellular Communicator with Network/LTE for Commercial Fire (Verizon and AT&T)
- DualComN Cellular Communicator with Network/LTE for Commercial Burglary
- DualComN-2 Cellular Communicator with Network/LTE for Commercial Burglary (Verizon and AT&T)

PROGRAMMING REQUIREMENTS

Notice to users, installers, authorities that have jurisdiction, and other involved parties: This product incorporates field-programmable software. 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)
Output Options, COMM FAIL OUT	ANS/UL 864	Y	0, 1, 2	1, 2

COMMERCIAL FIRE INSTALLATION

CID and 4-2 Dialer Connection

Directly connect the tip and ring from the control panel to the communicator. See Figure 1. Connect the included 100K Ohm EOL across Tip 2 and Ring 2. See Figure 1. For PowerComF, connect only one phone line to T2, R2.

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

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-1R 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.

The panel or separate power supply must be listed for fire, regulated, and power limited. Use 18-22 AWG for power supply connection. If FACP only has one phone line, connect to T2, R2.

Zones 1-4 Input Connection

The communicator's zones 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.

Trouble Annunciation

The phone line voltage on the second tip and ring drops when the DualComNF Series or PowerComF Series 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
Failtime Min = 240	Failtime Min = 240
Comm Trbl = Yes	

Cellular or Network with no Backup

CELLULAR PRIMARY WITH NO BACKUP		NETWORK PRIMARY WITH NO BACKUP	
Comm Type = CELL	Checkin Min = 58	Comm Type = NET	Checkin Min = 58
Path Type = Primary	Failtime Min = 60	Path Type = Primary	Failtime Min = 60
Test Rpt = No	Checkin = Yes	Test Rpt = No	Checkin = Yes
Comm Trbl = Yes		CommTrbl = Yes	

Cell Primary with no Backup* (Dualsim)

PATH 1 PROGRAMMING	
Comm Type = CELL	Checkin Min = 238
Path Type = Primary	Fail Time Min = 240
Test Rpt = No	Sub Code = Yes
Checkin = Yes	Send Comm Trbl = Yes
Comm Path Trbl = Yes DualSIM programmed as BOTH (Diagnostics menu)	

Model 685-R Backbox Installation

For Commercial Fire applications using 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 Series, 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.

Refer to the following guides for communication test procedures:

- CellCom Series Installation and Programming Guide (LT-1817)
- DualCom Series Installation and Programming Guide (LT-1859)
- PowerCom Series Installation and Programming Guide (LT-2815)

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 Output 1 to terminal with lowest voltage on the FACP.
2. Connect the communicator to the FACP and program the communicator according to the tables above.
3. Program the appropriate settings for the central station receiver and allow the communicator to check in with the receiver.
4. Enter the programming menu and change the receiver port number to an invalid (closed) port.
5. Exit programming and allow the communicator to resume operation.
6. 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.
7. After successfully demonstrating local annunciation, return to the programming menu and change the receiver port back to the correct (open) port to verify communication.

CellComF Series for FACP Communication Fail Output

24 VDC Applications

For 24 VDC applications using the fire communicator, connect a keypad using a Model 330-24 4-wire programming harness with in-line resistor.

Output 1

Output 1 must be programmed as a Communication Failure Output in **OUTPUT OPTIONS**.

FACP Zone Input

Program FACP Zone Input to indicate a communication trouble locally.

PowerComF Series 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.

Replace the Backup Battery

Use the steps below to remove and install a new backup battery:

1. Remove the PowerComF from the backbox.
2. Disconnect the battery lead connector from the PowerComF battery header.
3. Remove the battery from the backbox.
4. Place the new battery in the backbox and route the battery wires through the cutouts.
5. Connect the new battery lead connection to the PowerComF battery header.
6. Install the PowerComF on the backbox.

Standby Battery Calculation

If an AHJ requires a standby battery calculation for the battery, the following information may be submitted:

STANDBY CURRENT (AT 3.7 VDC)	ALARM CURRENT (AT 3.7 VDC)
156mA x 24 hours = 3,744 mAh	180mA x 5 minutes (.083) = 14.94 mAh
3,744 mAh + 14.94 mAh = 3,789 mAh total capacity required	

Additional Requirements

Program and install the equipment to comply with NFPA basic fire requirements. Refer to the Universal Fire Alarm Specifications and ANSI/UL 864 Specifications in this document.

Z-Wave

Z-Wave functionality has not been evaluated by UL.

NEW YORK CITY (FDNY) SPECIFICATIONS

The programming specifications contained in this section must be completed when installing the CellComF-LTE, DualComNF, and PowerComF for New York City (FDNY) fire alarm IP communication applications. Refer to the FDNY 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		CELLULAR PRIMARY AND NETWORK BACKUP	
Network	**Cellular**	**Network**	**Cellular**
Comm Type = NET	Comm Type = CELL	Comm Type = CELL	Comm Type = NET
Checkin Min = 5	Checkin Min = 5	Checkin Min = 5	Checkin Min = 5
Failtime Min = 5	Failtime Min = 5	Failtime Min = 5	Failtime Min = 5
Test Rpt = Yes	Test Rpt = Yes	Test Rpt = Yes	Test Rpt = Yes
Test Freq = 1 Dy	Test Freq = 1 Dy	Test Freq = 1 Dy	Test Freq = 1 Dy

Wiring

All wiring must be in accordance with NEC, ANSI, and NFPA 70. All network cabling must be installed in accordance with NFPA 70 for communication circuits.

FCC INFORMATION

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

The antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons.
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

If necessary, the installer should consult the dealer or an experienced radio/television technician for additional suggestions. The installer may find the following booklet, prepared by the Federal Communications Commission, helpful:

"How to Identify and Resolve Radio-TV Interference Problems."
This booklet is available from the U.S. Government Printing Office, Washington D.C. 20402
Stock No. 004-000-00345-4

Information furnished by DMP is believed to be accurate and reliable.
This information is subject to change without notice.

COM SERIES COMMUNICATOR

Specifications

Primary Power	Nominal 12 - 24 VDC

CellCom-LTE-V and CellCom-2

Primary Power	Nominal 12 VDC
Current Draw	12 VDC:
Standby	75 mA
Alarm	95 mA (Cell Communication)

CellComF-LTE-V and CellComF-2

Primary Power	Nominal 12 VDC or 24 VDC
Current Draw	12 VDC:
Standby	75 mA
Alarm	95 mA (Cell Communication)
Current Draw	24 VDC:
Standby	45 mA
Alarm	85 mA (Cell Communication)

PowerCom, PowerCom-2, PowerComF, PowerComF-2, and PowerComF-FN

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

DualComN, DualComN-2, DualComNF, DualComNF-2, and DualComNF-FN

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

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) (Fire Series Communicators)
California State Fire Marshal (CSFM) (Fire Series Communicators)

CellCom-LTE-V

FCC Part 15: CCKPC0207
IC: 5251A-PC0207

Cellular

FCC Part 15: XMR201707BG96
XMR201907BG95M3
XMR201909EC25AFX

IC: 10224A-201709BG96
10224A-2019BG95M3
110224A-2019EC25AFX

Underwriters Laboratories (UL) Listed

CellCom-LTE-V

ANSI/UL 1023 Household Burglar
ANSI/UL 985 Household Fire Warning

CellComF-LTE-V/PowerComF/DualComNF/DualComNF-FN

ANSI/UL 864 Fire Protective Signaling Systems

CellCom-LTE/DualComN/PowerCom-2

ANSI/UL 2610 Central Station Burglar

Designed, engineered, and manufactured in Springfield, MO using U.S. and global components.
LT-1899 1.03 25395

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