Honeywell

Honeywell Connected Life Safety Services

CLSS Pathway

Cellular and IP Communicator

HW-AV-LTE-M

Installation and Operation Manual

P/N:LS10340-000HW-E

ECN: 00004957

REV. B | February 2024

FIRE ALARM & EMERGENCY COMMUNICATION SYSTEM LIMITATIONS

WHILE A LIFE SAFETY SYSTEM MAY LOWER INSURANCE RATES, IT IS NOT A SUBSTITUTE FOR LIFE AND PROPERTY INSURANCE!

An automatic fire alarm system—typically made up of smoke detectors, heat detectors, manual pull stations, audible warning devices, and a fire alarm control panel (FACP) with remote notification capability—can provide early warning of a developing fire. Such a system, however, does not assure protection against property damage or loss of life resulting from a fire.

An emergency communication system—typically made up of an automatic fire alarm system (as described above) and a life safety communication system that may include an autonomous control unit (ACU), local operating console (LOC), voice communication, and other various interoperable communication methods—can broadcast a mass notification message. Such a system, however, does not assure protection against property damage or loss of life resulting from a fire or life safety event. The Manufacturer recommends that smoke and/or heat detectors be located throughout a protected premises following the recommendations of the current edition of the National Fire Protection Association Standard 72 (NFPA 72), manufacturer's recommendations, State and local codes, and the recommendations contained in the Guide for Proper Use of System Smoke Detectors, which is made available at no charge to all installing dealers. This document can be found at http://www.systemsensor.com/appguides/. A study by the Federal Emergency Management Agency (an agency of the United States government) indicated that smoke detectors may not go off in as many as 35% of all fires. While fire alarm systems are designed to provide early warning against fire, they do not guarantee warning or protection against fire. A fire alarm system may not provide timely or adequate warning, or simply may not function, for a variety of reasons:

Smoke detectors may not sense fire where smoke cannot reach the detectors such as in chimneys, in or behind walls, on roofs, or on the other side of closed doors. Smoke detectors also may not sense a fire on another level or floor of a building. A second-floor detector, for example, may not sense a first-floor or basement fire. Particles of combustion or "smoke" from a developing fire may not reach the sensing chambers of smoke detectors because:

- Barriers such as closed or partially closed doors, walls, chimneys, even wet or humid areas may inhibit particle or smoke flow.
- Smoke particles may become "cold," stratify, and not reach the ceiling or upper walls where detectors are located.
- Smoke particles may be blown away from detectors by air outlets, such as air conditioning vents.
- Smoke particles may be drawn into air returns before reaching the detector.

The amount of "smoke" present may be insufficient to alarm smoke detectors. Smoke detectors are designed to alarm at various levels of smoke density. If such density levels are not created by a developing fire at the location of detectors, the detectors will not go into alarm. Smoke detectors, even when working properly, have sensing limitations. Detectors that have photoelectronic sensing chambers tend to detect smoldering fires better than flaming fires, which have little visible smoke. Detectors that have ionizing-type sensing chambers tend to detect fast-flaming fires better than smoldering fires. Because fires develop in different ways and are often unpredictable in their growth, neither type of detector is necessarily best and a given type of detector may not provide adequate warning of a fire.

Smoke detectors cannot be expected to provide adequate warning of fires caused by arson, children playing with matches (especially in bedrooms), smoking in bed, and violent explosions (caused by escaping gas, improper storage of flammable materials, etc.).

Heat detectors do not sense particles of combustion and alarm only when heat on their sensors increases at a predetermined rate or reaches a predetermined level. Rate-of-rise heat detectors may be subject to reduced sensitivity over time. For this reason, the rate-ofrise feature of each detector should be tested at least once per year by a qualified fire protection specialist. Heat detectors are designed to protect property, not life.

IMPORTANT! Smoke detectors must be installed in the same room as the control panel and in rooms used by the system for the connection of alarm transmission wiring, communications, signaling, and/or power. If detectors are not so located, a developing fire may damage the alarm system, compromising its ability to report a fire.

Audible warning devices such as bells, horns, strobes, speakers and displays may not alert people if these devices are located on the other side of closed or partly open doors or are located on another floor of a building. Any warning device may fail to alert people with a disability or those who have recently consumed drugs, alcohol, or medication. Please note that:

- An emergency communication system may take priority over a fire alarm system in the event of a life safety emergency.
- Voice messaging systems must be designed to meet intelligibility requirements as defined by NFPA, local codes, and Authorities Having Jurisdiction (AHJ).
- Language and instructional requirements must be clearly disseminated on any local displays.
- Strobes can, under certain circumstances, cause seizures in people with conditions such as epilepsy.
- Studies have shown that certain people, even when they hear a fire alarm signal, do not respond to or comprehend the meaning of the signal. Audible devices, such as horns and bells, can have different tonal patterns and frequencies. It is the property owner's responsibility to conduct fire drills and other training exercises to make people aware of fire alarm signals and instruct them on the proper reaction to alarm signals.
- In rare instances, the sounding of a warning device can cause temporary or permanent hearing loss.

A life safety system will not operate without any electrical power. If AC power fails, the system will operate from standby batteries only for a specified time and only if the batteries have been properly maintained and replaced regularly.

Equipment used in the system may not be technically compatible with the control panel. It is essential to use only equipment listed for service with your control panel.

Alarm Signaling Communications:

- **IP connections** rely on available bandwidth, which could be limited if the network is shared by multiple users or if ISP policies impose restrictions on the amount of data transmitted. Service packages must be carefully chosen to ensure that alarm signals will always have available bandwidth. Outages by the ISP for maintenance and upgrades may also inhibit alarm signals. For added protection, a backup cellular connection is recommended.
- **Cellular connections** rely on a strong signal. Signal strength can be adversely affected by the network coverage of the cellular carrier, objects and structural barriers at the installation location. Utilize a cellular carrier that has reliable network coverage where the alarm system is installed. For added protection, utilize an external antenna to boost the signal.
- **Telephone lines** needed to transmit alarm signals from a premise to a central monitoring station may be out of service or temporarily disabled. For added protection against telephone line failure, backup alarm signaling connections are recommended.

The most common cause of life safety system malfunction is inadequate maintenance. To keep the entire life safety system in excellent working order, ongoing maintenance is required per the manufacturer's recommendations, and UL and NFPA standards. At a minimum, the requirements of NFPA 72 shall be followed. Environments with large amounts of dust, dirt, or high air velocity require morefrequent maintenance. A maintenance agreement should be arranged through the local manufacturer's representative. Maintenance should be scheduled as required by National and/or local fire codes and should be performed by authorized professional life safety system installers only. Adequate written records of all inspections should be kept.

INSTALLATION PRECAUTIONS

ADHERENCE TO THE FOLLOWING WILL AID IN PROBLEM-FREE INSTALLATION WITH LONG-TERM RELIABILITY:

WARNING – Several different sources of power can be connected to the fire alarm control panel. Disconnect all sources of power before servicing. Control unit and associated equipment may be damaged by removing and/or inserting cards, modules, or interconnecting cables while the unit is energized. Do not attempt to install, service, or operate this unit until manuals are read and understood.

CAUTION – System Re-acceptance Test after Software Changes:

To ensure proper system operation, this product must be tested in accordance with NFPA 72 after any programming operation or change in site-specific software. Re-acceptance testing is required after any change, addition or deletion of system components, or after any modification, repair or adjustment to system hardware or wiring. All components, circuits, system operations, or software functions known to be affected by a change must be 100% tested. In addition, to ensure that other operations are not inadvertently affected, at least 10% of initiating devices that are not directly affected by the change, up to a maximum of 50 devices, must also be tested and proper system operation verified.

This system meets NFPA requirements for operation at 0-49º C/32-120º F and at a relative humidity 93% ± 2% RH (non-condensing) at 32°C ± 2°C (90°F ± 3°F). However, the useful life of the system's standby batteries and the electronic components may be adversely affected by extreme temperature ranges and humidity. Therefore, it is recommended that this system and its peripherals be installed in an environment with a normal room temperature of 15-27º C/60-80º F.

Verify that wire sizes are adequate for all initiating and indicating device loops. Most devices cannot tolerate more than a 10% I.R. drop from the specified device voltage.

Like all solid state electronic devices, this system may operate erratically or can be damaged when subjected to lightning induced transients. Although no system is completely immune from lightning transients and interference, proper grounding will reduce susceptibility. Overhead or outside aerial wiring is not recommended, due to an increased susceptibility to nearby lightning strikes. Consult with the Technical Services Department if any problems are anticipated or encountered.

Disconnect AC power and batteries prior to removing or inserting circuit boards. Failure to do so can damage circuits.

Remove all electronic assemblies prior to any drilling, filing, reaming, or punching of the enclosure. When possible, make all cable entries from the sides or rear. Before making modifications, verify that they will not interfere with battery, transformer, or printed circuit board location.

Do not tighten screw terminals more than 9 in-lbs. Over-tightening may damage threads, resulting in reduced terminal contact pressure and difficulty with screw terminal removal.

This system contains static-sensitive components. Always ground yourself with a proper wrist strap before handling any circuits so that static charges are removed from the body. Usestatic suppressive packaging to protect electronic assemblies removed from the unit.

Units with a touchscreen display should be cleaned with a dry, clean, lint free/microfiber cloth. If additional cleaning is required, apply a small amount of Isopropyl alcohol to the cloth and wipe clean. Do not use detergents, solvents, or water for cleaning. Do not spray liquid directly onto the display.

Follow the instructions in the installation, operating, and programming manuals. These instructions must be followed to avoid damage to the control panel and associated equipment. FACP operation and reliability depend upon proper installation.

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FCC REQUIREMENTS

Warning: This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with the instruction manual may cause interference to radio communications. It has been tested and found to comply with the limits for Class A computing devices pursuant to Subpart B of Part 15 of FCC Rules, which is designed to provide reasonable protection against such interference when devices are operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference, in which case the user will be required to correct the interference at his or her own expense.

Canadian Requirements

This digital apparatus does not exceed the Class A limits for radiation noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

Le present appareil numerique n'emet pas de bruits radioelectriques depassant les limites applicables aux appareils numeriques de la classe A prescrites dans le Reglement sur le brouillage radioelectrique edicte par le ministere des Communications du Canada

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SOFTWARE DOWNLOADS

In order to supply the latest features and functionality in fire alarm and life safety technology to our customers, we make frequent upgrades to the embedded software in our products. To ensure that you are installing and programming the latest features, we strongly recommend that you download the most current version of software for each product prior to commissioning any system.

Contact Technical Support with any questions about software and the appropriate version for a specific application.

DOCUMENTATION FEEDBACK

Your feedback helps us keep our documentation up-to-date and accurate. If you have any comments or suggestions about our online

Help or printed manuals, you can email us.

Please include the following information:

- Product name and version number (if applicable)

- Printed manual or online Help

- Topic Title (for online Help)

- Page number (for printed manual)

- Brief description of content you think should be improved or corrected

- Your suggestion for how to correct/improve documentation

Send email messages to:

FireSystems.TechPubs@honeywell.com

Please note this email address is for documentation feedback only. If you have any technical issues, please contact Technical Services.

TABLE OF CONTENTS

SECTION 1: GENERAL INFORMATION

1.1 ABOUT THIS MANUAL

This manual provides a product description and detailed procedures for installation, commissioning, and troubleshooting the CLSS Pathway communicator.

■ Using This Manual

This manual is written with the understanding that the user is trained in the operations and services required for this product.

Honeywell reserves the right to modify and revise this manual without notice.

■ Usage of Terms

In this manual, terms used for this product name are as follows:

- The CLSS Pathway may also be referred as the communicator.

- The Connected Life Safety Services mobile app may also be referred as the CLSS App.

1.2 INFORMATION SOURCES

Honeywell offers suitable information sources based on informational requirements.

1.2.1 TRAINING MODULES

Training modules are available when logged onto:

https://fire.honeywell.com/#/help-videos

1.2.2 RELATED DOCUMENTS

The table below lists documents related with the CLSS Pathway:

<div align="center">Table 1.1   Related Documents</div>

Purpose	Refer to...
Install and wire the CLSS Pathway inside the enclosure	CLSS Pathway - Product Installation Document P/N: LS10338-000HW-E
Quickly install and configure for the central station communication	CLSS Pathway - Quick Start Guide P/N: LS10339-000HW-E
Use various installation and configuration options	CLSS Pathway - Installation and Operation Manual (This document) P/N: LS10340-000HW-E

1.3 DOCUMENTATION FEEDBACK

Your feedback helps us keep our documentation up-to-date and accurate. If you have any comments or suggestions about our Online Help or printed documents, you can email us.

Please include the following information:

- Product name and version number (if applicable)

- Printed document or Online Help

- Topic title (for Online Help)

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1.4 AGENCY LISTINGS AND APPROVALS

- ETL

  No. 5013005 (conforms to UL 864)

- Federal Communication Commission

  FCC ID: PV3CGWMB

1.5 LIMITED LIABILITY

The user agrees that despite the Device could reduce the risk of fire, or other dangers, it does not guarantee against such events. Honeywell will not take any responsibility regarding personal, property or revenue loss while using the Device. Honeywell responsibility according to local laws does not exceed the value of the purchased system. Honeywell is not affiliated with GSM operators providing cellular services, therefore is not responsible for network services, coverage, or its operation.

1.6 MANUFACTURER WARRANTY

The Device carries a non-transferable hardware limited warranty by the manufacturer. This warranty does not cover any postal or labor costs for the removal and re-installation of the Device. This warranty does not cover any subscriber agreements or failure of services provided under the terms of such subscriber agreements, or failure of cellular, GPRS, LAN or other related networks functions and services.

The warranty is not valid if the device has been modified or used in a manner contrary to its intended purpose and does not cover damage to the Device caused by installation or removal of the Device or any of its components. This warranty is voided if the Device has been damaged by improper maintenance, SIM card removal, accident or unreasonable use, negligence, acts of God, neglect, improper service, or other causes not arising out of defect in materials or construction. This warranty does not cover the elimination of externally generated static or noise, or the correction of antenna problems or weak signal reception, damage to software, accessories or alarm system external components, cosmetic damage or damage due to negligence, misuse, abuse, failure to follow operating instructions, accidental spills or customer applied cleaners, damage due to environmental causes such as floods, airborne fallout, chemicals, salt, hail, windstorms, moisture, lightning or extreme temperatures, damage due to fire, theft, loss or vandalism, damage due to improper storage and connection to equipment of another manufacturer, modification of existing equipment,

faulty installation or short circuit.

Honeywell will not be liable in any event of incidental, special or consequential damages (including loss of profits), and the Client shall have no claim against Honeywell for termination of contracts, indemnification, compensation for loss of customers, loss of profits, prospective profits, distribution rights, market share, goodwill, investments made or any similar losses that may result from any faults in the operation of the Device and the services provided by Honeywell.

1.7 SAFETY INSTRUCTIONS

- A qualified technician must check this device, once a year.

- The HW-AV-LTE-M device contains a radio transceiver operating in LTE CAT-M1 band.

- Do not use the Device with medical devices, in places or where it could interfere with other devices and cause any potential danger.

- Do not expose the Device to high humidity, chemical environment, or mechanical impacts.

- Do not use the Device in hazardous environment. Do not store or install the Device in overheated, dusty, wet or overcooled places.

- The Device is mounted in limited access areas. Any system repairs must be done only by qualified, safety aware personnel. Do not disassemble or refit the Device. Do not attempt to personally repair it.

- Main power must be disconnected before any installation or tuning work starts. The device installation or maintenance must not be done during stormy conditions.

- The device must be powered by DC 12-29V power supply.

- Blown fuses or any other components of the Device must not be replaced by the user.

- Keep the Device dry. Any liquid, i.e., rain, moisture, may destroy or damage the inside circuitry.

- Handle carefully. Do not vibrate or shake it violently.

- Do not clean it with chemicals or detergent.

- Please read the user manual carefully before installation and operation of the Device. Otherwise, it may not work properly or be damaged.

1.8 TECHNICAL SUPPORT

For support in the USA contact Honeywell Technical Support at:

- Phone: For US, Canada, LATAM -1-480-936-7425

- Email: CLSS.Tech@honeywell.com

- Website: fire.honeywell.com

- Address:

  Honeywell International Inc.

  12 Clintonville Rd.

  Northford, CT 06472

  (800)-627-3473

1.9 DISCLAIMER

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SECTION 2: OVERVIEW

2.1 DESCRIPTION

The CLSS Pathway (HW-AV-LTE-M) is a sole path cellular communicator or dual-path IP/cellular communicator using 12VDC to 24VDC- from the fire alarm control panel, it supports both Verizon LTE and AT&T networks. The SIM cards are configured in an active/active state, and will automatically fail over from Verizon to AT&T in the event of a cellular outage. It transmits Contact ID, SIA, or 4X2 data from the fire alarm control panel to the supervising station or monitoring center.

Pathway will Auto detect Cotnact ID and SIA format form the FACP. If 4x2 to be used, this has to be specified during pathway installation in CLSS.

2.2 OPERATIONAL MODES

The communicator can operate in one of the following mode:

- Dialer Capture Mode: Analog life safety events are captured from the panel's dialer interface and transmitted digitally over the cellular or IP network.

- Dry Contact Relay Monitor Mode: Output relays from the fire alarm control panel are used to trigger four pre-configured pathway inputs. The inputs are locked to IN1: Trouble, IN2: Fire Alarm, IN3: Waterflow, and IN4: Supervisory. Additional PAM1 relays are required to initiate a trouble condition on the FACP indicating a communication path failure.

2.2.1 WORKING WITH A CENTRAL MONITORING STATION

In a sole-path connection, it uses the default cellular connection only.

The communicator has dual-SIMs to support Verizon and AT&T cellular connections. Verizon will be the primary carrier and fail over to AT&T in the event the Verizon network becomes unavailable. Once locked onto the AT&T network, the CLSS pathway will periodically check the Verizon network availability and return to its primary carrier.

Note : If Verizon have poor network in the location where pathway is getting installed, contact Honeywell Tech Support to switch AT&T as primary and Verizon as secondary .

In a dual-path connection, it can use both cellular and IP connections. The LAN will be the primary communication path and the cellular connections will be the backup connection. The CLSS pathway does not support sole path IP.

2.3 MAIN FEATURES

- Universal Panel Compatibility

    - Dial capture interface supporting the Contact ID, SIA, and 4x2

- Exceptional Redundancy

    - Dual-SIM device in an active/active state

- Connection monitoring

    - Adjustable fault reporting time

- High reliability due to multiple transmission channels

    - LTE CAT-M1, IP and redundant servers

- The CLSS Site Manager

    - Web-based application for device configurations, administration, and test and inspect compliance reports.

- The Connected Life Safety Services App

    - Supports alarm, events, and email notifications

- Can use sole path (Cellular only) or dual path (Cellular and IP)

- Optional four inputs for monitoring Fire Alarm Panel dry contact relays and trouble output relays (additional hardware required)

- 12VDC – 29VDC auxiliary constant power directly from the panel

2.4 SPECIFICATIONS

Table 2.1 CLSS Pathway Specifications

Operational Requirements	
Supply Voltage	+12VDC to +29V DC
Current	Standby: 60mA Peak: 200mA
Frequency	LTE CAT-M1 700/850/1700/1900/2100 MHz
GSM Providers	AT&T, Verizon, or other networks available in the area
Physical Characteristics	
Dimensions	2.48" x 3.54" x 1.26" (6.3cm x 9cm x 3.2cm)
Weight	2.56 oz (72.6 gm) without antenna
Environmental Conditions	
Temperature	0°C to 49°C (32°F to 120°F)
Relative humidity	1% to 85%	Non-condensing

2.5 CLSS PATHWAY PARTS

Table 2.2   CLSS Pathway Parts

Part Number	Part Name	Photo
HW-AV-LTE-M	CLSS Pathway Module	
HW-AV-ENC	Enclosure with Mounting Plate	

SECTION 3: SECURITY RECOMMENDATIONS

3.1 USER GUIDELINES

An Administrator should observe the following guidelines:

- Regularly review the user roles and permissions for a CLSS account

- Immediately remove users who should no longer have access to CLSS

- Setup each employee with their own unique login under the "Customer and Employee Management" section of CLSS

    A technician should observe the following guidelines:

- Use discretion to allow or deny a location access request

3.2 POTENTIAL RISKS

Security threats applicable to networked systems include unauthorized access, communication snooping, viruses, and other malicious software agents.

3.2.1 UNAUTHORIZED ACCESS

Unauthorized access results from unsecured user name and password, uncontrolled access to the equipment, or uncontrolled and unsecured access to the network. It results the following:

- Loss of system availability

- Incorrect execution of controls causing damage to the equipment

- Incorrect operation, spurious alarms, or both

- Theft or damage to the contents of the system

- Capture and modification or deletion of data causing possible liability to the installation Site and Honeywell

3.2.2 USER ACCESS AND PASSWORDS

Observe the following good practices:

- Ensure physical security of passwords. Avoid writing user names and passwords where they can be seen by unauthorized personnel.

- Ensure that passwords contain characters, numbers, and a mix of lower and uppercase letters.

- Passwords should be complex and not easily guessed and should not contain phrases used in common speech.

- Do not use personally identifiable information as a password, such as national identification numbers, addresses, and birth dates.

- Set the minimum level of access for each user.

- Do not provide users with privileges that they do not need.

- Periodically audit user accounts and remove any that are no longer required.

3.3 MEMORY MEDIA

- Use only authorized removable media.

- Use an up-to-date anti-virus software to scan the removable media and check for viruses and malware.

- Ensure that the memory media is not used for other purposes to avoid risk of infection.

- Control access to media containing backups to avoid risk of tampering.

3.3.1 SOFTWARE AND FIRMWARE UPDATES

System software and firmware updates may be offered from time to time. Ensure that your local representative:

• Has the up-to-date contact details, and

• Periodically visits the Honeywell web site for up-to-date product information

• Ensure to follows UL and NFPA codes and standards when deploying firmware upgrades or remote programming

3.3.2 VIRUSES AND OTHER MALICIOUS SOFTWARE AGENTS

Malicious Software include the following:

- Viruses

- Spyware

- Worms

- Trojans

These may be present in a computer using a Monitoring Station Software or in a USB pen drive, which is used to copy data to computer.

The intrusion of malicious software agents can result in performance degradation, loss of system availability, and the capture, modification, or deletion of data ¡X including configuration and device logs.

USB devices from other infected systems on the network or malicious Internet sites can also transfer viruses.

3.3.3 NETWORK AND FIREWALL SETUP

Inbound (In) Port: The port another computer uses to access a pathway functionality. An application on the pathway will be actively listening on this port for client connections.

Outbound (Out) Port: The pathway uses outbound ports to connect to Internet or CLSS. The CLSS Cloud services will be listening on these ports waiting for a connection from the Pathway.

By default, block all inbound and outbound connections and allow only the ports listed in the following table:

Table 3.1 IP Port Settings

Port Number	Type	In/Out	Purpose
9000	TCP	Out	Pathway devices and NOC communications
9000	UDP	Out	Pathway devices and NOC heartbeat communications

SECTION 4: CENTRAL STATION COMMUNICATIONS

The CLSS Pathway sends events from a panel to a specified Central Monitoring Station according to the settings in the CLSS Site Manager and CLSS App.

4.1 PREREQUISITES

The following are required to set up CLSS Pathway communications:

01. The organization's administrator configuring CLSS Site Manager must have a CLSS account.

02. A technician installing the CLSS Pathway must have a CLSS account.

03. The CLSS Site Manager should already have details of the Customer, Site, and Building.

04. Central station details such as its account number, DNIS number, and prefix number.

05. Serial number and the configuration key of the CLSS Pathway. (Available on the Quick Start Guide.)

4.2 RECEIVING A CLSS ACCOUNT FOR YOUR ORGANIZATION

Configuring the CLSS Pathway requires a CLSS account. If you already have the CLSS account, then proceed to section 4.3, "Assigning the Device to a Customer".

If You Do Not Yet Have a CLSS Account. Your organization's Administrator* should visit fire.honeywell.com or scan the QR code below for instructions to request a CLSS Account:

> **NOTE:** The Administrator is the person who can sign on behalf of the organization.

Using the CLSS account received, the Administrator should add customers and employees in CLSS Site Manager. Refer to the help section of CLSS Site Manager for more information.

4.3 ASSIGNING THE DEVICE TO A CUSTOMER

Associate your device with a CLSS Site and Building for your Customer as follows:

01. Log into the CLSS mobile App.

02. Tap the three dots at the top-right corner of the dashboard

03. Tap Install Dialer Capture.

04. Follow the on-screen instructions.

4.4 CONFIGURING ALERTS IN THE CENTRAL STATION

4.4.1 ADD A CENTRAL STATION TO YOUR CLSS ACCOUNT

The organization's Administrator should perform the following for each central station associated with the panel.

01. Log onto CLSS Site Manager: fire.honeywell.com

02. Click your profile icon at the top-right corner and select External Accounts.

03. Click ADD NEW at the Central Stations section in the External Accounts page.

04. Follow the on-screen instructions.

4.4.2 ASSIGN A CENTRAL STATION ACCOUNT TO THE DEVICE

Provide the central station account details associated with the specific site.

01. Provide the central station account details associated with the specific site.

02. Navigate to the Customer > Site, where the device is installed.

03. Click the **Feature Activation** icon at the bottom of the left sidebar.

04. Click the **CLSS Pathway** section at the left.

05. Click on your CLSS Pathway communicator in the list.

06. Click **Configure Central Station Alerting** in the details view.

07. Follow the on-screen instructions.

SECTION 5: MOUNTING AND WIRING

> **CAUTION:** REQUIRED ENCLOSURE
> THE COMMUNICATOR SHOULD ONLY BE MOUNTED WITHIN THE HW-AV-ENC ENCLOSURE.

5.1 PREREQUISITES

The following are required:

01. Know whether to install CLSS Pathway for dialer capture or for panel relay monitoring.

02. Know whether to install the CLSS Pathway for dialer capture with LAN (dual-path communications) or without LAN (sole path).

03. The panel should be programmed to support the CLSS Pathway.

5.2 PROGRAMMING THE CONNECTED PANEL

Program the following in accordance with the panel's programming document:

- Enable the panel PSTN dialer.

- Select the DTMF mode (for tone dialing).

- Select the Contact ID communication format.

- Provide any telephone number for dialing. Ex: 999999

- Enter the 4-digit account number.

> **NOTE:** If the panel has two central stations at two locations, program each account identically.

5.3 BEFORE MOUNTING

- Inform the central monitoring station to put your CLSS Account on test.

- If installing on an existing operational panel, inform the operator and the local authority that the panel will be a temporarily out of service.

- Ensure that the panel is powered down.

5.4 IMPORTANT CONSIDERATIONS

- Check that you have the communicator, 3-ft antenna, and the Quick Start Guide from the carton box.

- Only a regulated UL-listed UOJZ, UTOU, or NBSX control panel or power supply should power the communicator.

- The communicator must be connected to a UL-listed control panel with power limited circuits.

- Install the communicator only at a dry indoor location.

- The location and wiring methods must be in accordance with ANSI/NFPA 70, National Electrical code.

- Install in accordance with the NFPA 72, National Fire Alarm and Signaling Code.

- The enclosure should be close nipple to the fire alarm control panel.

5.5 MOUNTING PROCEDURE

01. In the *Quick Start Guide*, locate the installation sticker at the bottom right of the last page.

02. Check that the sticker has the serial number and the configuration key to program the communicator.

03. Place the sticker on the inside lid of the enclosure for programming steps and for future reference.

04. Mount the HW-AV-ENC enclosure on the wall next to the fire panel using the wall mounting holes.

05. Mount the enclosure onto the two mounting holes as shown in Mounting the CLSS Pathway into the Enclosure and secure it with the supplied hardware.

06. Slide the CLSS Pathway onto the mounting studs and secure with the hex nuts provided in the enclosure kit.
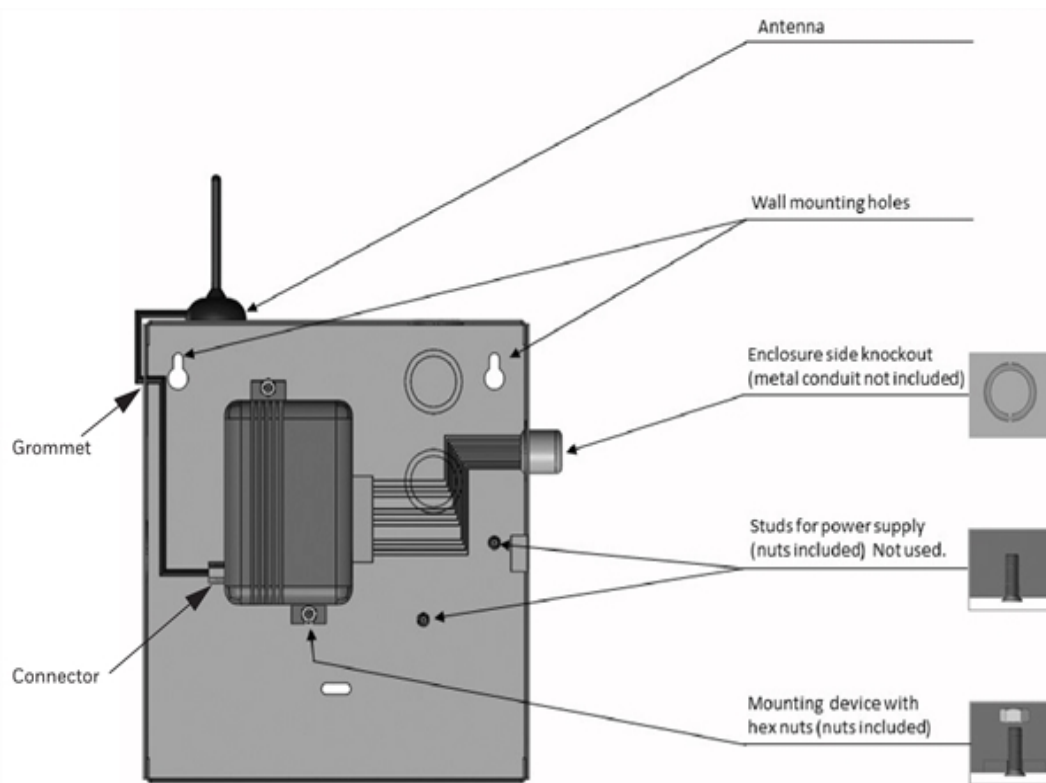

Figure 5-1: Mounting the CLSS Pathway into the Enclosure

5.6 INSTALLING THE ANTENNA

5.6.1 INSTALLATION CONSIDERATIONS

- Do not use a damaged antenna with the communicator. Replace the damaged antenna immediately.

- Use only a manufacturer approved antenna. Non-approved antennas or modifications could impair service quality, damage the device, and violate FCC regulations.

- A location below the ground level or a metal structure may impact the network coverage.

- The antenna should be positioned perpendicularly to the ground, either right side up or upside down.

- Keep the antenna away from any sources interfering with or blocking the RF signal. For example, a metal object may shield the cellular radio RF signal. The antenna should be at least 7.8" (20 cm) away from people.

- The antenna must not be co-located or operating with any other antenna or transmitter.

- Ensure that the panel supplies 24V DC power from its constant power output.

5.6.2 CONNECTING THE ANTENNA

The antenna comes with an SMA connector, which provides easy connection with the communicator. Connect as follows:

01. Route the antenna cable through the small rubber grommet located on the top left side of the enclosure as shown in [Mounting the CLSS Pathway into the Enclosure](#).

02. Attach the magnet on the bottom of the antenna onto the top wall of the enclosure.

03. Locate the antenna connector on top of the communicator.

04. Thread the antenna cable end onto the antenna connector and tighten.

05. Loop the excess cable length inside the enclosure.

5.7 WIRING THE COMMUNICATOR

The communicator can be wired either for capturing dialer data from a panel's dialer interface or for monitoring dry contact relay outputs.

5.7.1 WIRING FOR DIALER CAPTURE

For dialer capture, connect both telephone dialer ports of the fire panel with the communicator. If a dual-path connection is needed, connect the LAN port of the CLSS Pathway with the customer's network router.

Preparations

- For panel dialer ports with 8-pin RJ type connectors, use an RJ45 connector with the other end as a pigtail.

- Use only the Pin 4 wire, which is typically Blue with White stripe, for RING connection.

- Use only the Pin 5 wire, which is typically solid Blue, for TIP connection.

- Cut all other wires.

- Enclosure should be close nipple to the fire alarm control panel.

- All wirings must be within a conduit.

- The terminal strips can accommodate solid or stranded wires with sizes from 14 to 22 AWG.

Panel-to-Communicator Wiring

> **CAUTION:** RESETTABLE POWER TERMINALS PROHIBITED
> DO NOT USE RESETTABLE POWER TERMINALS.

01. Connect the panel to the communicator as specified in Wiring for Dialer Capture.
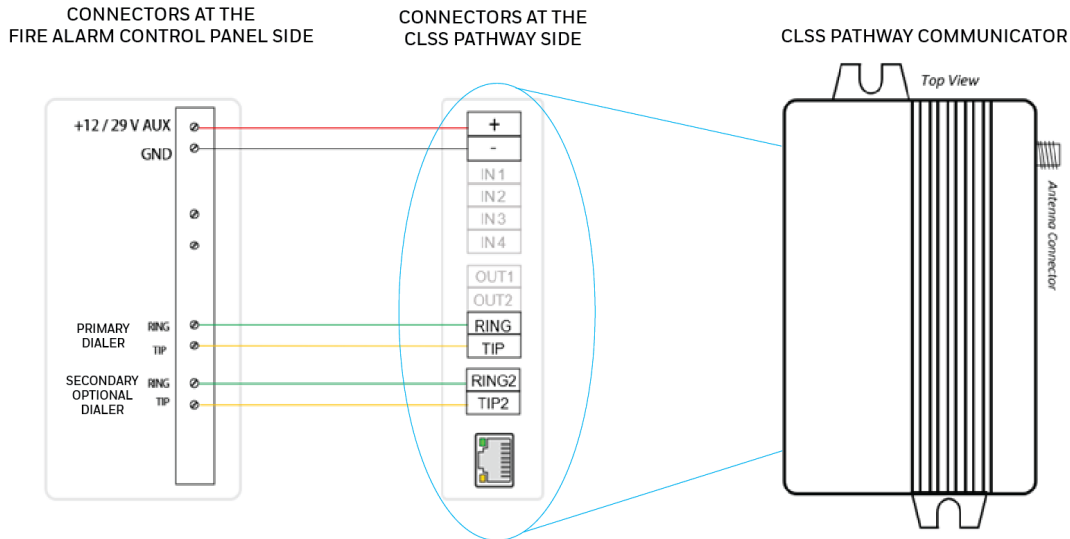
02. Power up the system as specified in Powering On.

Figure 5-1: Wiring for Dialer Capture

Panel Terminal	Panel Connector	Pathway Connection
AUX	+	+
GND	–	–
PRIMARY DIALER	RING	RING
	TIP	TIP
BACKUP DIALER	RING2	RING2
	TIP2	TIP2

5.7.1 WIRING FOR DRY CONTACT RELAY OUTPUTS

The communicator can be wired to monitor dry contact relay outputs. This wiring is done without connecting to a dialer interface.

> **CAUTION:** WIRING RESTRICTIONS
> ALL WIRING MUST BE WITHIN A CONDUIT.
> DO NOT USE RESETTABLE POWER TERMINALS.

Wiring for Dry Contact Relay Outputs

01. Install a 10K resistor between the communicator ground and its each input.

02. Connect the panel relay terminals and the communicator as specified in <u>Wiring for Dry Contact Relay Monitoring</u>.

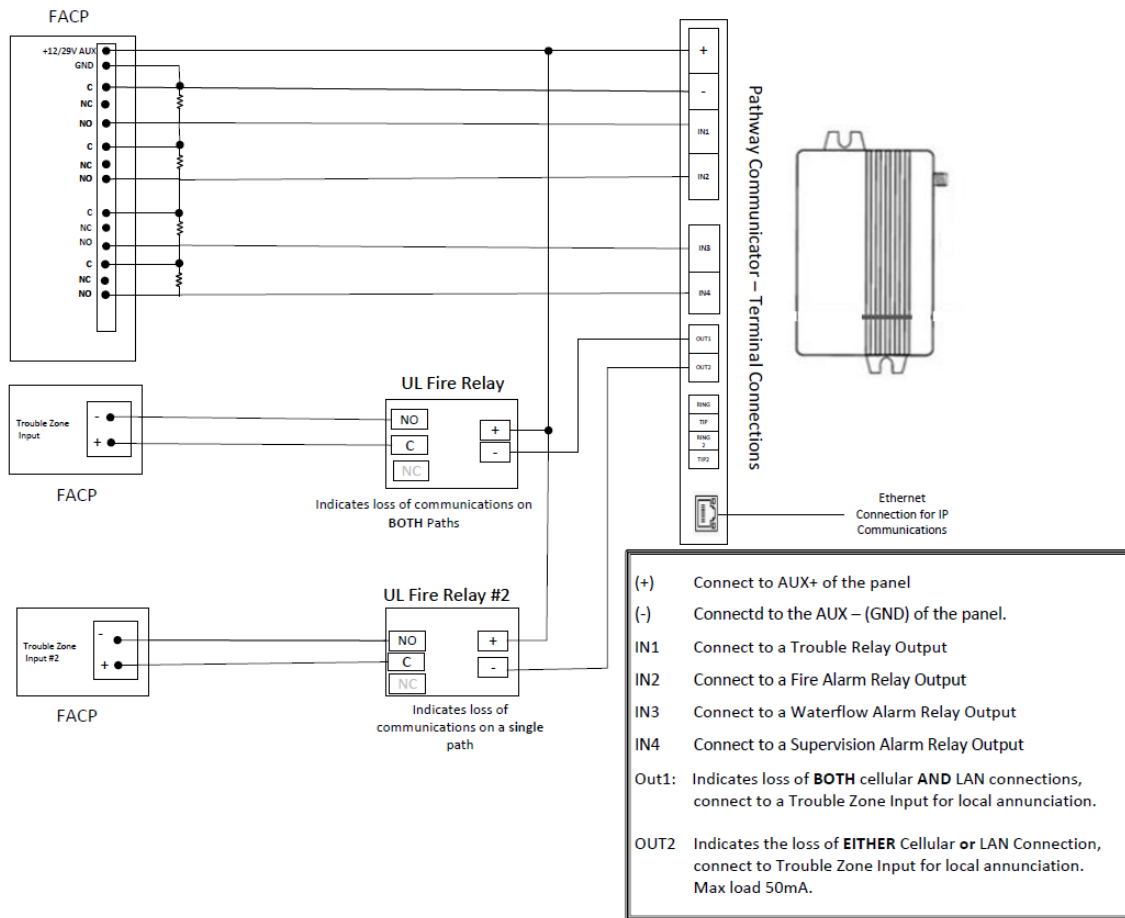03. Power up the system as specified in <u>Powering On</u>.

Figure 5-1: Wiring for Dry Contact Relay Monitoring

> **NOTE:** Note : To connect with Normally Closed (NC), the wiring will remain same as shown in the diagram above.

Make sure you have connected a 10K resistor between the Input and Common (C) both for Normally Open (NO) and Normally Closed (NC) setup.

If it is connected to Normally Closed, a template change is required to be made in CLSS site manager.

5.8 POWERING ON

01. Power ON the communicator and the panel.

02. Ensure that the panel and the communicator are receiving power.

03. Ensure that the Green LED on the communicator is continuously ON indicating successful connections.

> **NOTE:** Refer to Troubleshooting if there is an issue to resolve.

ACTIVATING CENTRAL STATION COMMUNICATION

> **CAUTION:** VERIFY ALL CONNECTIONS
> BEFORE ACTIVATING THE CENTRAL STATION COMMUNICATION, CHECK ALL CONNECTIONS.

When the CLSS Pathway receives its first event from its panel, it registers itself with CLSS Site Manager and the central monitoring station, and then becomes active.

The panel event appearing on CLSS Site Manager confirms that the communicator is activated. Create a test event on the panel to perform this one-time activation.

> **NOTE:** Connection results such as the signal strength can be checked in the CLSS App.

5.9 DUAL-PATH COMMUNICATIONS

01. Connect the LAN port of the communicator to the customer's network.

02. Observe that the Yellow LED for network connectivity is flashing to indicate a live Ethernet connection.

5.10 VERIFYING THE COMMUNICATIONS

The RJ45 connector LEDs should have the following states:

RJ45 Connector	LED State	Indication
Yellow LED	Constantly ON	Connected with good signal.
Green LED	Blinking	Cable connection and communication with the router are good.

> **NOTE:** Refer to Troubleshooting if there is an issue to resolve.

5.11 CELLULAR SIGNAL STRENGTH

Once the CLSS Pathway is activated, you can check the signal strength shown on the activation screen in the CLSS App.

> **NOTE:** The signal bar shown is in the RSSI (Received Signal Strength Indicator) rating format. The signal bar is not in the dBm rating.

Table 5.1 Signal Strength

Bar Signal	Strength Rating
1	1 to 9
2	10 to 15
3	16 to 23
4	24 to 31

5.11.1 IMPROVING THE SIGNAL QUALITY

Honeywell recommends that the signal strength rating should be 5 or above for a consistent good connection.

If the signal rating is lower than 5, reposition the antenna, and monitor the signal strength bars in the CLSS App.

If required, contact Honeywell Technical Support.

SECTION 6: TROUBLESHOOTING

The CLSS Pathway sends events from a panel to a specified Central Monitoring Station per the settings in CLSS Site Manager and CLSS App.

6.1 CONNECTION TROUBLES

Resolved Status Indication: The Communicator LED starts flashing. Continuous ON indicates a good connection.

LED Status	Possible Causes	Corrective Actions
Off	The communicator is not connected to the panel.	Ensure that the wirings are as per the wiring diagrams.
	The panel is not supplying power.	Measure the AUX output of the panel.
	The communicator device is damaged.	Replace with an undamaged communicator.
Flashing Slow	Trying to establish connection.	Reposition the antenna.
	No cellular signal available.	
Flashing Every 5 Seconds	Low signal connectivity	Reposition the antenna.

6.2 LAN NETWORK TROUBLE

Resolved Status Indication: The RJ45 connector's flashing LED indicates data transfer. Continuous ON indicates a good connection with the panel and router.

LED Color	LED Status	Possible Causes	Corrective Actions
Yellow	OFF	The LAN cable is not plugged into the communicator.	Ensure that the wirings are as per the wiring diagrams.
			Measure the AUX output of the panel.
			Replace with an undamaged communicator.
Green	OFF	The router is not providing an IP via DHCP.	Check your DHCP server settings if DHCP is in use.
		There is no Internet access.	Use another device in the same network and check your router settings.

6.3 EVENT TROUBLES

Resolved Status Indication: The RJ45 connector's flashing LED indicates data transfer. The Connected Life Safety Services App as well as CLSS Site Manager start receiving events.

Trouble	Corrective Actions
No Events Are Received	01. Verify the RING and TIP connections. • Ensure that the RING and TIP terminals are connected to a TELCO ring and tip, and not to the R-1/T-1 terminals. • Ensure that there is no connection trouble. 02. Then, check for communication failure error messages at the panel and fix the error, if any. 03. Disable the Wait for Dial Tone options in the panel.
Cellular Connectivity Issues	01. Go to the Device Registration screen in the CLSS App. 02. Ensure that the signal strength shown on it is at least one to two bars. 03. Reposition the antenna for higher signal strength.

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