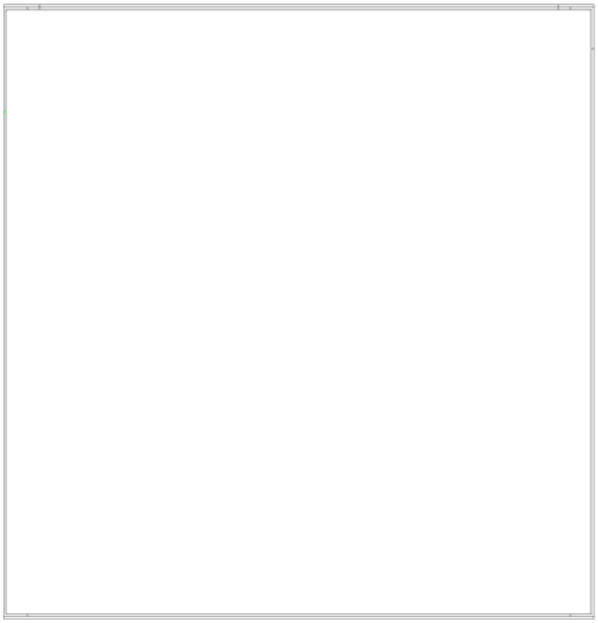
Honeywell

AREA OF REFUGE

USER MANUAL AND INSTALLATION GUIDE

Read and save these instructions before installation and use



Model number(s)

HON-AOR-CGW-4G-GSM

HON-AOR-CGW-4G-V

www.honeywellareaofrefuge.com
aorsupport@talkaphone.com

771-00014
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CAUTION	**THIS PRODUCT MUST BE INSTALLED IN ACCORDANCE WITH THE NFPA 72 STANDARD, THE NATIONAL ELECTRIC CODE (NEC), AND ALL APPLICABLE FEDERAL, STATE, AND LOCAL STATUTES, REGULATIONS, AND BUILDING CODES.** **THIS PRODUCT MUST BE INSTALLED IN ACCORDANCE WITH THE APPLICABLE INSTALLATION CODE BY A PERSON FAMILIAR WITH THE CONSTRUCTION AND OPERATION OF THE PRODUCT AND THE HAZARDS INVOLVED.**

Table of contents

About this guide

Scope

This installation guide describes how to install, program, operate, and maintain Model **HON-AOR-CGW-4G-GSM** or Model **HON-AOR-CGW-4G-V**.

It is recommended that this instruction set be read completely prior to the start of any installation.

Revision history

Revision	Supported Release	Date	Description
1.0		July 15, 2024	• Initial release of **HON-AOR-CGW-4G-GSM** and **HON-AOR-CGW-4G-V**.

Intended audience

This guide is primarily intended for field personnel who install and configure the product.

Related documents

The following list identifies publications that may contain information relevant to the information in this document:

- None at this time

Contents

Please ensure receipt of each of the included **HON-AOR-CGW-4G Cellular Gateway** components:

Qty	Part Number	Description
1	**HON-AOR-CGW-4G-GSM**,	AT&T 4G/LTE cellular gateway for analog AOR systems.
	Or **HON-AOR-CGW-4G-V**	Verizon 4G/LTE cellular gateway for analog AOR systems.

ATTENTION	**You should inspect the HON-AOR-CGW-4G Cellular Gateway when unpacking the box for possible damage in shipment. If it is damaged or any of the components are missing, please contact your distributor immediately. Do not discard any hardware or packing material before you are certain you have all the items listed above, and the unit is installed and functioning correctly.**

CAUTION	**THIS PRODUCT MUST BE INSTALLED IN ACCORDANCE WITH THE NFPA 72 STANDARD, THE NATIONAL ELECTRIC CODE (NEC), AND ALL APPLICABLE FEDERAL, STATE, AND LOCAL STATUTES, REGULATIONS, AND BUILDING CODES.** **THIS PRODUCT IS INTENDED FOR INDOOR USE ONLY.**

Technical Requirements

Specifications

Input: 115VAC, 60Hz, 3.5A

Supervision: AC fail supervision (form “C” contact)
Low battery and battery absence (shared form “C” contact)

Input Fuse Rating: 5A/250V

CAUTION	**THIS PRODUCT MUST BE INSTALLED IN ACCORDANCE WITH THE NFPA 72 STANDARD, THE NATIONAL ELECTRIC CODE (NEC), AND ALL APPLICABLE FEDERAL, STATE, AND LOCAL STATUTES, REGULATIONS, AND BUILDING CODES.** **THIS PRODUCT IS INTENDED FOR INDOOR USE ONLY.**

Cellular Service

Please contact aorsales@talkaphone.com for information on ordering prepaid or month-to-month Voice over LTE service.

Agency Listings and File Numbers

Model **HON-AOR-CGW-4G-GSM** is AT&T certified and PTCRB certified.

Model **HON-AOR-CGW-4G-V** is Verizon certified and PTCRB certified.

Battery Backup

The **HON-AOR-CGW-4G Cellular Gateway** power supply supports a backup battery (not included). Alternatively, the unit can be connected to an auto-start generator that meets NFPA 72 requirements.

Backup battery specification is: **9Ah, valve regulated lead–acid (VRLA) or gel type battery**

Backup battery charging output is: **12VDC at 0.7A**

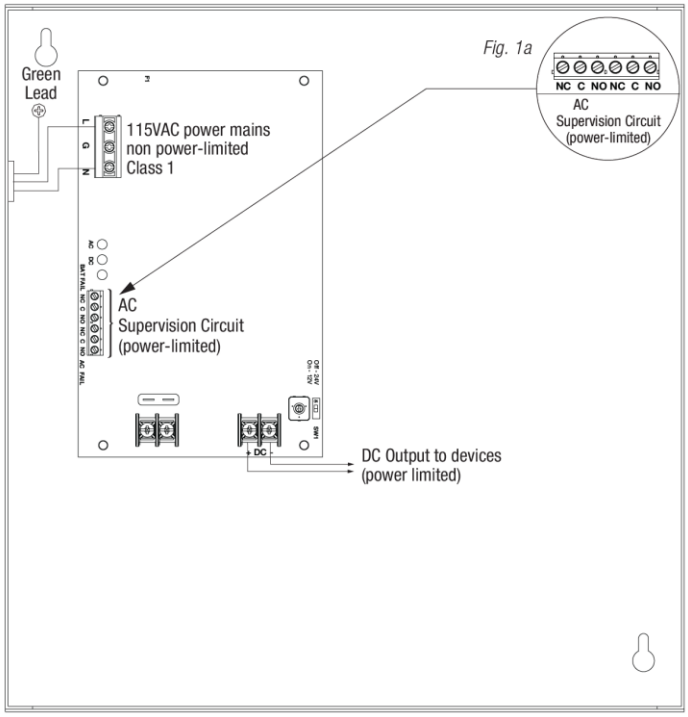
Installation

CAUTION	**It is the installer's obligation to ensure compliance with all national, regional, and local regulations. Installation should be performed only by qualified personnel in accordance with the National Electrical Code (NEC), NFPA 72, and other federal, state, and local statutes and building codes. Using shielded cable is recommended to avoid noise, hum, and other operational anomalies.** **This product is intended for indoor use only.**

CAUTION	**DE-ENERGIZE POWER SUPPLY PRIOR TO SERVICING.** **For continued protection against risk of electric shock and fire hazard replace fuse with the same type and rating. Do not expose to rain or moisture.**

Connections for the Power Supply Board

The input and output terminal connections for the power supply board are labeled and their locations shown below.



[L] and **[N]:** This is the primary AC power input terminal and connects to a 115VAC, 60Hz source.

[+ DC -]: This is the DC output terminal that connects to the **12 VDC** input terminal on the internal modem of the **HON-AOR-CGW-4G Cellular Gateway** via a factory-supplied cable.

[+ BAT -]: This is the terminal for connection of a backup battery (not included).

AC Fail [NC] [C] [NO]: This is the primary AC power fail supervision terminal and connects to an addressable fire alarm control panel (FACP).

Bat Fail [NC] [C] [NO]: This is the shared low battery and absence of battery supervision terminal and connects to an addressable fire alarm control panel (FACP).

Terminal Identification for the Power Supply Board

The following table provides further details and specifications on the input and output terminals of the power supply board.

Terminal Legend	Function Description
L, N	Connect 115VAC, 60Hz to these terminals: **L** to **Hot** **N** to **Neutral** **Do not use the [G] terminal.**
+ DC –	12VDC @ 2.5A continuous power-limited output.
+ BAT –	Connect a 12V, 9Ah valve regulated lead–acid (VRLA) or gel type battery to this terminal. The maximum charging output is 0.7A.
AC Fail **NC, C, NO**	Indicates loss of primary AC power and connects to an addressable fire alarm control panel (FACP). This relay is normally energized when AC power is present. Contact rating 1A @ 28VDC. AC Fail condition will report within approximately one (1) minute after loss of primary AC power.
Bat Fail **NC, C, NO**	Indicates either (shared output) a low battery condition or an absence of a backup battery. This output connects to an addressable fire alarm control panel (FACP). This relay is normally energized when DC power is present. Contact rating 1A @ 28VDC. Low battery condition will report at approximately 10.5VDC. Battery absence detection will report within approximately one (1) minute after battery is undetected (disconnected or missing).

LED Indicators and Connection Ports of the Internal Modem

One side of the internal modem provides the following:

(1) Cellular signal strength indicator;

(2) LED indicators for **POWER**, **STATUS**, **CELL**, and **GPS**;

LED Name	LED State	Indication
POWER	ON	Internal modem is powered
	OFF	Internal modem is not powered
	BLINKING	Fault on the internal modem
STATUS	ON	Command Unit is actively using the cellular gateway. Also, occurs during initial boot-up of the internal modem.
	BLINKING FAST	Command Unit is not using the cellular gateway
CELL	GREEN	Registered to the cellular base station or roaming
	RED	Not registered to the cellular base station and not connected to the carrier network
GPS	GREEN	Internal modem has GPS/geolocation fix
	RED	No GPS/geolocation fix

(3) **DATA** port reserved for future use;

(4) **MODE** button reserved for future use;

(5) **RESET** button for rebooting the cellular interface;

(6) **PHONE-FXS** port for connecting to an analog Area of Refuge Command Unit.

(Continued) LED Indicators and Connection Ports of the Internal Modem

The other side of the internal modem provides the following:

(1) Input terminal for 12VDC labeled **[+ -]**;

(2) **CELL 1** connector for the external antenna;

(3) **CELL 2** connector for the external antenna;

(4) **GPS** connector for the external antenna;

(5) **SIM** slot for a micro-SIM (3FF) card;

(6) **CONFIG** port for a mini-USB connection (for technical support purposes only).

Hardware Installation

CAUTION	**It is the installer's obligation to ensure compliance with all national, regional, and local regulations. Installation should be performed only by qualified personnel in accordance with the National Electrical Code (NEC), NFPA 72, and other federal, state, and local statutes and building codes. Using shielded cable is recommended to avoid noise, hum, and other operational anomalies.** **This product is intended for indoor use only.**

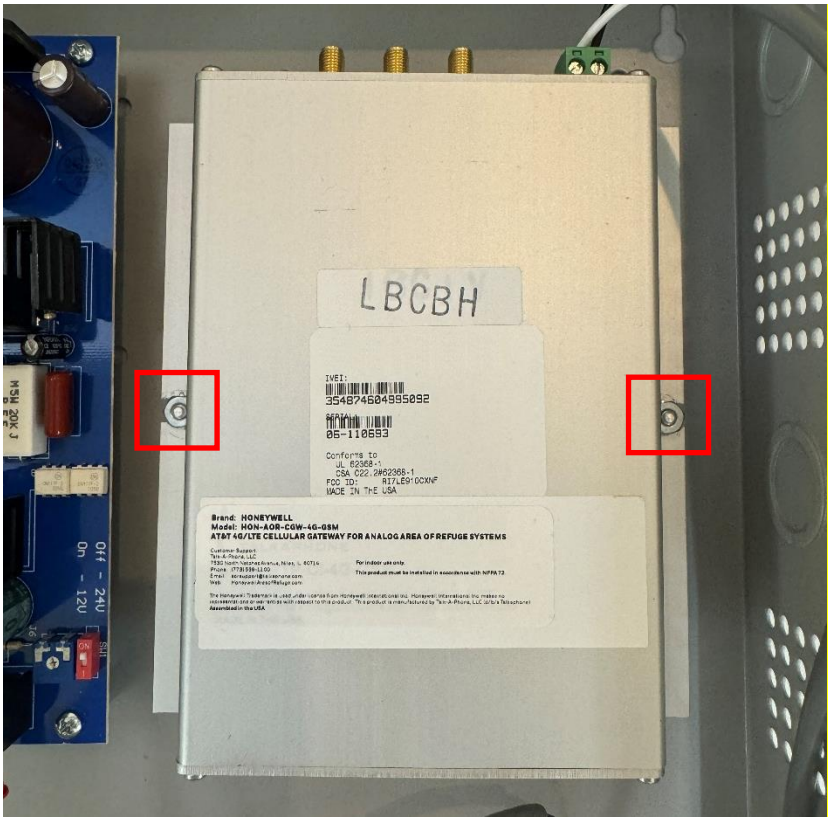
1. Mount the **HON-AOR-CGW-4G Cellular Gateway** in the desired location. See, Enclosure Dimensions (p.16), for further details.
    a. Mark and pre-drill holes in the wall to line up with the top two keyholes of the enclosure.
    b. Install two upper fasteners and screws in the wall with the screw heads protruding.
    c. Place the upper keyholes of the enclosure over the two upper screws; level and secure.
    d. Mark the position of the lower two holes.
    e. Remove the enclosure.
    f. Drill the lower holes and install two fasteners.
    g. Place the upper keyholes of the enclosure over the two upper screws.
    h. Install the two lower screws and make sure to tighten all screws.
    i. Secure enclosure to earth ground.
2. Ensure that the enclosure has been secured to earth ground.

ATTENTION	**Please take note of the following specifications for wiring and spacing.** • **Use 14 AWG or larger for power connections (AC input).** • **Use 22 AWG to 18 AWG for power-limited circuits (supervision outputs).** • **Keep power-limited wiring separate from non-power-limited wiring (115VAC, 60Hz input wires and supervision wires). Minimum 0.25-inch spacing must be provided.**

CAUTION	**CAUTION:** **Do not touch exposed metal parts.** **Shut off branch circuit power before installing or servicing equipment.** **There are no user serviceable parts inside. Contact Talkaphone Area of Refuge (AOR) Support for servicing. See,** Servicing (p.18)**, for contact information.**

3. Route the external antenna cables into the enclosure. The external antenna and its cables are sold and installed separately as Model HON-AOR-CGW-6-KIT or Model HON-AOR-CGW-17-KIT.

4. Remove the internal modem from the internal mounting plate by unfastening the two (2) 8-32 x 5/16 hex nuts located in the two outlined areas as shown below.



5. Insert the micro-SIM (3FF) card into the slot labeled **SIM**.

   Using a plastic spudger or a small flat head screwdriver, push the micro-SIM card into the slot until a click is heard.

   To remove the micro-SIM card, push the card until a click is heard and the card springs out of the slot.

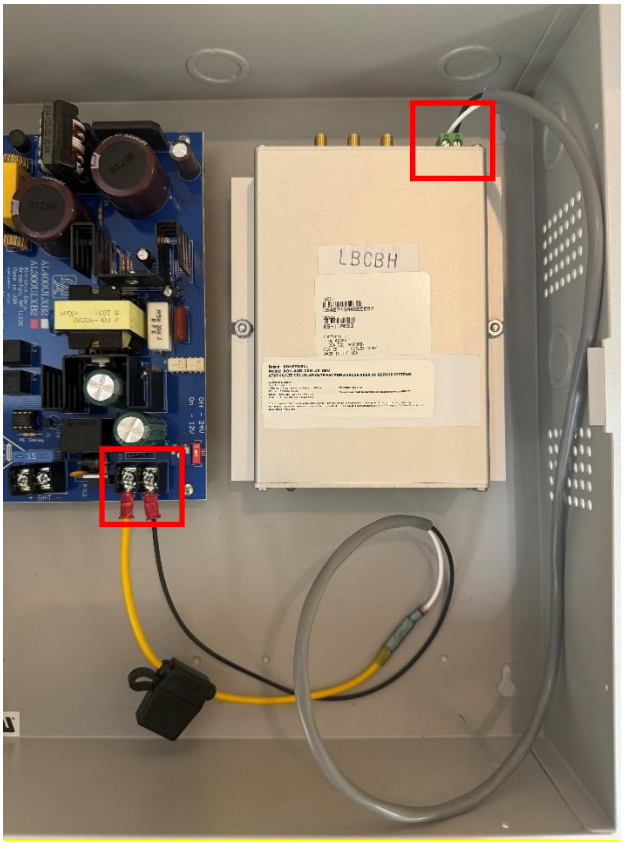
6. Connect the cables from the external antenna to the **CELL 1**, **CELL 2**, and, **GPS** connecters on the internal modem.

   On the built-in cable assembly of the external antenna, there are two (2) cables labeled **CELL** – any of the two **CELL** cables can connect to either **CELL 1** or **CELL 2** connector.

7. Crimp an RJ11 connector to the field cable that originates from the **TELCO IN** or **PSTN Line** terminal on the Command Unit.

8. Connect the RJ11 terminated field cable to the **PHONE-FXS** port on the internal modem.

9. Connect the supplied cable assembly (with the green terminal block) from the **[+ DC -]** terminal on the power supply circuit board to the **[+ -]** terminal on the internal modem.



10. Reinstall the internal modem onto the internal mounting plate using the two (2) 8-32 x 5/16 hex nuts that were removed in **Step (4)**.

11. Connect primary AC power (115VAC, 60Hz to the terminals marked **[L]** and **[N]**. See Connections for the Power Supply Board (p.8) to locate these terminals.

12. Turn on the primary AC power—the green **"AC"** LED on the power supply board will illuminate. This LED can be seen through the LED lens (labeled **"POWER"**) on the door of the enclosure.

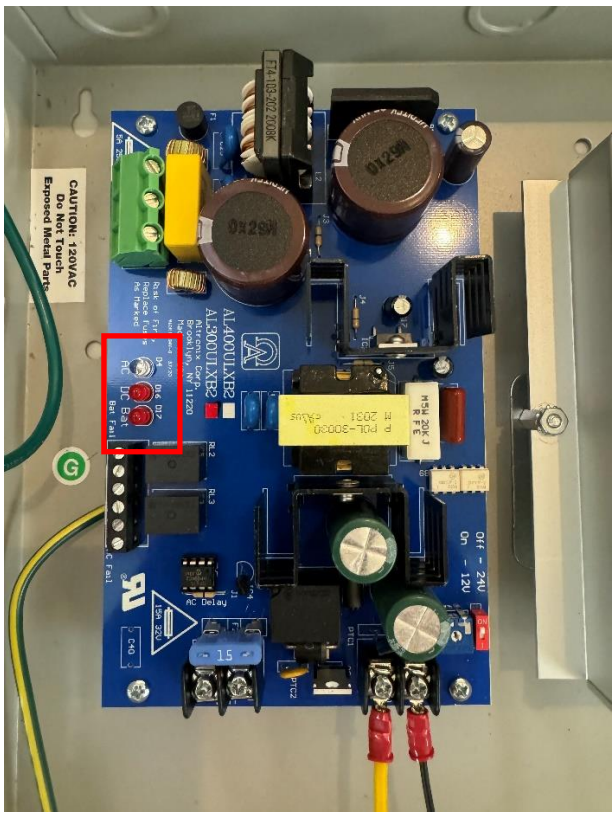
CAUTION	**DE-ENERGIZE POWER SUPPLY PRIOR TO SERVICING.** **For continued protection against risk of electric shock and fire hazard replace fuse with the same type and rating. Do not expose to rain or moisture.**

13. Close and secure the cover with the provided key lock.

CAUTION	**CAUTION:** **Do not touch exposed metal parts.** **Shut off branch circuit power before installing or servicing equipment.** **There are no user serviceable parts inside. Contact Talkaphone Area of Refuge (AOR) Support for servicing. See,** Servicing (p.18)**, for contact information.**

Diagnostic LEDs for the Power Supply Board

The diagnostic LEDs on the power supply board are located in the outlined area shown below:



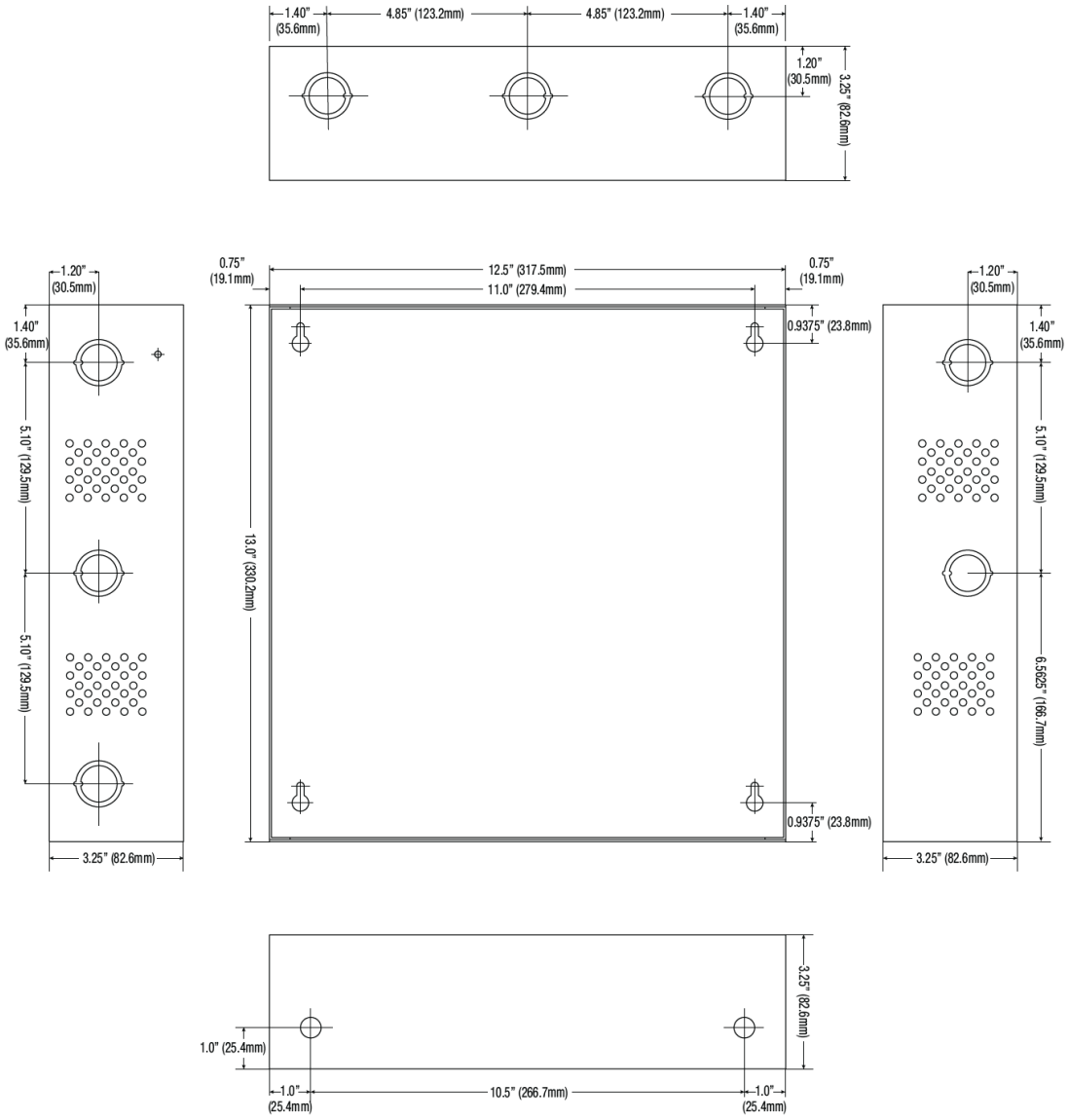
The following table defines the status information provided by the onboard LEDs of the power supply board.

DC (Red LED)	AC (Green LED)	Power Supply Status
ON	ON	Normal operating condition
ON	OFF	Loss of AC. Backup battery is supplying power.
OFF	ON	No DC output
OFF	OFF	Loss of AC. Backup battery fully discharged or failure. No DC output.

Bat (Red LED)	Backup Battery Status
ON	Normal operating condition
OFF	Low battery or battery failure

Enclosure Dimensions

The overall dimensions of the enclosure for the **HON-AOR-CGW-4G Cellular Gateway** measure 12.5” x 13.0” x 3.25” (317.5mm x 330.2mm x 82.6mm). Further details are dimensioned below.



System Maintenance

Annual Testing

NFPA 72 requires that area of refuge two-way communication systems be **inspected, tested, and maintained** on an **annual basis**. NFPA 72 specifies the method required as “verify location and condition”.

As such, the following guidelines are highly recommended:

- An annual inspection and testing be scheduled as part of the facility/building preventative maintenance schedule.
- Each **HON-AOR-CS Analog Call Station** should be inspected and tested.
- The Command Unit should be inspected and tested.
- The Sub-Command Unit should be inspected and tested.
- Verify the condition of the backup battery and replace if necessary.

Servicing

For product service and repair, please contact:

Talkaphone Area of Refuge (AOR) Support

Email: aorsupport@talkaphone.com

Phone: 773.539.1100

Limited Warranty Information

For the latest warranty information, please visit:

https://www.honeywellareaofrefuge.com/warranty

HON-AOR-CGW-4G Cellular Gateway Installation Information Sheet

The below installation information sheet must be completed and securely retained for ready reference for future maintenance and operation of this **HON-AOR-CGW-4G Cellular Gateway**.

Area of Refuge Cellular Gateway

Model Number: HON-AOR-CGW-4G -GSM or -V
(Circle One)

Installation Date: _____

Cellular Service Provider: _____

SIM Card Phone Number: _____

In the event of trouble, please contact the below local service representative.

Name: _____

Company: _____

Address: _____

_____

_____

Phone: _____

IMPORTANT NOTE:

THESE NOTES AND CONTACT INFORMATION ARE TO BE SECURELY RETAINED FOR READY REFERENCE.

Notes: _____

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