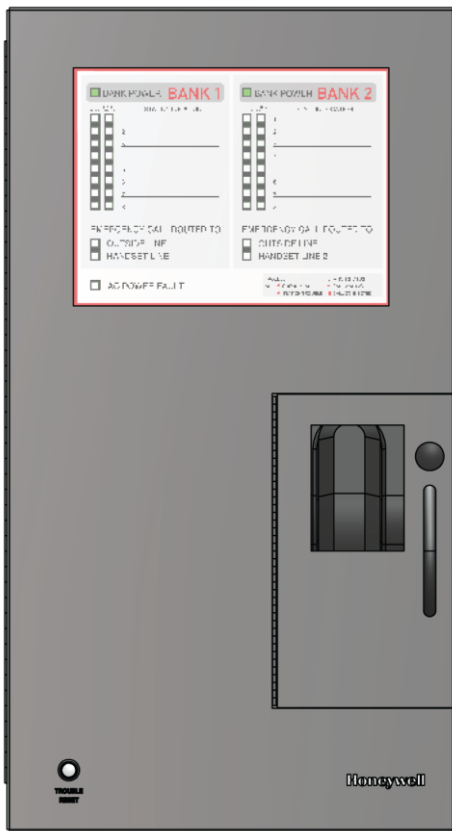




## AREA OF REFUGE

### USER MANUAL AND INSTALLATION GUIDE

Read and save these instructions before installation and use



---

Model number(s)

HON-AOR-16

HON-AOR-16-R

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 <p>CAUTION</p>	<p><b>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.</b></p> <p><b>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.</b></p>
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## About this guide

### Scope

This installation guide describes how to install, program, operate, and maintain the Model Series **HON-AOR-16\***.

For instructions on installation or programming of Area of Refuge (AOR) Call Stations, please refer to the manual for the HON-AOR-CS Analog Call Station.

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	Software Releases TPAORC V1.6	June 12, 2024	<ul style="list-style-type: none"> <li>Initial release of <b>HON-AOR-16*</b>.</li> </ul>

### 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

 <b>ATTENTION</b>	This installation guide only applies to Software Release TPAORC V1.6.
---	---

## Contents

Please ensure receipt of each of the included **HON-AOR-16 Command Unit** components:

Qty	Part Number	Description
1	HON-AOR-16*	16-Station Area of Refuge Command Unit
1	68430	Siren/strobe
2	68684	12VDC, 5Ah Backup Battery

\*-R provides a red enclosure instead of black

Accessory components (sold separately) include:

Qty	Part Number	Description
1	HON-AOR-TR16	Flush mount trim ring for HON-AOR-16 Command Unit. Unit is painted black.
1	HON-AOR-TR16-R	Flush mount trim ring for HON-AOR-16-R Command Unit. Unit is painted red.
8	42970	6-18 Phillips Screw for Flush Mount Trim Ring (for replacement).
2	HON-AOR-CGW-4G-GSM	AT&T 4G/LTE cellular gateway for analog AOR systems. Does not include MIMO antenna kit (Model <b>HON-AOR-CGW-ANT-6-KIT</b> or <b>HON-AOR-CGW-ANT-17-KIT</b> ). <b>NOTE:</b> If used, Qty. (2) required for HON-AOR-16 systems.
2	HON-AOR-CGW-4G-V	Verizon 4G/LTE cellular gateway for analog AOR systems. Does not include MIMO antenna kit (Model <b>HON-AOR-CGW-ANT-6-KIT</b> or <b>HON-AOR-CGW-ANT-17-KIT</b> ). <b>NOTE:</b> If used, Qty. (2) required for HON-AOR-16 systems.
2	HON-AOR-CGW-ANT-17-KIT	MIMO antenna with 17-foot cable assembly. Includes U-bolts and 2-inch right-angle mounting bracket. <b>NOTE:</b> If used, Qty. (2) required for HON-AOR-16 systems.
2	HON-AOR-CGW-ANT-6-KIT	MIMO antenna with 6-foot cable assembly. Includes U-bolts and 2-inch right-angle mounting bracket. <b>NOTE:</b> If used, Qty. (2) required for HON-AOR-16 systems.

## Technical Requirements

### Programming


At time of installation or programming, please have a telephone test set ready—while DTMF programming commands can be issued from the built-in local phone of the **HON-AOR-16 Command Unit**, the telephone test set will be helpful in some cases.

A telephone test set can be purchased from any telecom retailer—examples include the Fluke TS30 Series or a basic corded trimline telephone.

### Power for Command Unit

For the **HON-AOR-16 Command Unit**, please provide:

- **110-240VAC, 50/60Hz, 2.5A**

 CAUTION	<p><b>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.</b></p> <p><b>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.</b></p>
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### Battery Backup

Backup battery specification is: **5Ah, valve regulated lead–acid (VRLA) battery, Qty. (2)**

Backup battery charging output is: **+27.6VDC at 2.0A**

For a replacement battery, please order Talkaphone P/N **68684**, Power Sonic **PS-1250 F2**, or an equivalent.

## HON-AOR-CS Analog Call Station Compatibility

The following table outlines the compatibility of each **HON-AOR-CS Analog Call Station**.

HON-AOR-CS Analog Call Station Model	Compatible Command Unit Models
HON-AOR-CSE-NM	Any <b>HON-AOR-16 Command Unit</b>
HON-AOR-CSE-NM-1RO-ETL	Not compatible with the <b>HON-AOR-16 Command Unit</b>

## Power for HON-AOR-CS Analog Call Stations


HON-AOR-CS Analog Call Stations are line-powered by the **HON-AOR-16 Command Unit**.

When connected to the Command Unit, the line must provide a minimum of 24V at 20 mA off-hook (no current is drawn on-hook).

Cabling should meet these specifications:

- Twisted, shielded pair specifically designed for use with analog telephones
- Connect shield to earth ground at the Command Unit
- Recommended wire gauges along with the respective wire run distance ranges are provided in the table below:

Distance from Command Unit to HON-AOR-CS Analog Call Station	Recommended Wire Gauge
0 to 1,000 feet	24 AWG
1,001 to 1,500 feet	22 AWG
1,501 to 2,500 feet	20 AWG
2,501 to 3,500 feet	18 AWG

 ATTENTION	HON-AOR-CS Analog Call Stations are connected to a Class B Pathway.
--	---



## PSTN/POTS Telephone Line

### For Local Mode Only:

No external phone line (i.e. POTS/PSTN telephone line) or cellular gateway is required if the on-premise answering point is constantly attended.

### For Remote Mode:

**Two (2)** dedicated POTS/PSTN telephone lines (i.e. analog telephone line or analog PBX extension line).

If connected to a PBX, the **two (2)** analog extensions must provide:

1. Minimum of 24V talk battery and 20 mA off-hook loop current
2. Either a CPC (Calling Party Control) disconnect pulse (voltage drop at end of call) or 30-seconds of silence after hang-up (no re-order or howler feature)

If connected to a POTS/PSTN line, there must be no special features, such as hook-flash, call-waiting, auto-redial when busy or voicemail. If the telephone company has activated any such features, contact them to have these features turned off.

Alternatively, **two (2)** cellular gateways can be utilized instead of POTS/PSTN telephone lines or analog PBX extension lines. Each bank of eight (8) call stations would require a cellular gateway—for a total of two (2) cellular gateways.

Models **HON-AOR-CGW-4G-GSM** and **HON-AOR-CGW-4G-V** are available for the AT&T network and Verizon network, respectively.

## System Overview

### Local Mode

Local Mode is primarily used when a central control point is constantly attended.

In Local Mode, pressing the button on any of the HON-AOR-CS Analog Call Stations will call the built-in local phone within the **HON-AOR-16 Command Unit** and cause it to ring.


### Remote Mode

Remote Mode is primarily used when a central control point is not always constantly attended.

In Remote Mode, the Command Unit will allow any of the HON-AOR-CS Analog Call Stations access to a phone line for remote dial out.

In this mode, HON-AOR-CS Analog Call Stations can dial, in round robin fashion, from a list of up to five (5) remote phone numbers.

For this configuration, connect **two (2)** outside telephone lines or **two (2)** cellular gateways (Model **HON-AOR-CGW-4G-\***) to the **TELCO IN** terminals.

 ATTENTION	See, <a href="#">PSTN/POTS Telephone Line (p.8)</a> , for outside phone line requirements.
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### Mixed Mode

Mixed Mode is primarily used when a central control point is not constantly attended at all times.

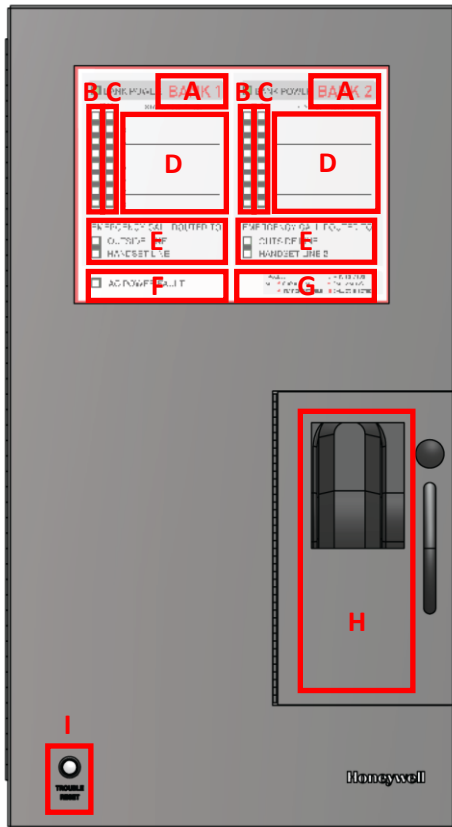
When a HON-AOR-CS Analog Call Station calls and the **HON-AOR-16 Command Unit** is in Mixed Mode, it will ring the built-in local phone of the **HON-AOR-16 Command Unit** first, ring it a second time if no one answers the first time, then if no one answers the second time it will dial a remote number. If no one should answer the remote number, it will re-ring the local phone and continue this cycle until either the phone is answered or times out (See, [Timing/Dialing Options for the HON-AOR-CS Analog Call Station \(pp.29-30\)](#), for information on setting the time-out).

Alternatively, Mixed Mode can be configured to dial a remote number for the first and second call cycles with the built-in local phone as the third call cycle.

For Mixed Mode, connect an outside phone line(s) to the “**TELCO IN**” terminal(s). Programming for Mixed Mode must be done for each of the controller boards (i.e. twice for the **HON-AOR-16 Command Unit**).

 ATTENTION	See, <a href="#">PSTN/POTS Telephone Line (p.8)</a> , for outside phone line requirements.
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## Front Operating Panel – HON-AOR-16\*



Item	Component
A	Label for <b>BANK</b> Number
B	LEDs for Call Status of Call Stations
C	LEDs for Call Station Cabling Faults (Opens/Shorts)
D	Physical Location Labeling for Call Stations
E	LEDs for Telephone Line and Local Phone Status
F	LED for Primary Power Fault
G	Legend for Call Station Status and Trouble Status
H	Local Phone (Behind Door)
I	<b>TROUBLE RESET</b> Button

Figure 1. Model HON-AOR-16\*, front operating panel.

## Internal Components – HON-AOR-16\*

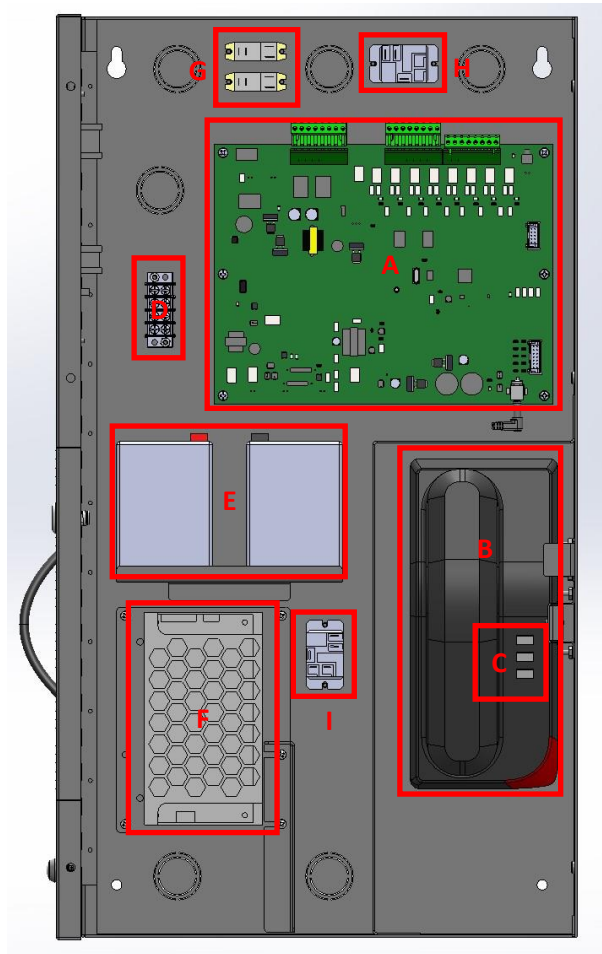


Figure 2. Model HON-AOR-16\*, internal components.


Item	Component
A	8-channel Controller Board, Qty. (2), Stacked
B	Local Phone
C	Local Phone Bank Selector Buttons
D	TELCO IN Terminals, Qty. (2)
E	Backup Batteries, Qty. (2)
F	Internal Power Supply
G	Relays for Open/Short/System Ground Fault, Qty. (2)
H	HON-AOR-CS Analog Call Station Activation Relay
I	AC Power Fail Relay


# Installation


1. Remove the **HON-AOR-16 Command Unit** from its packaging carton and inspect for any possible damage. If the unit is damaged or if any components are missing, please contact your distributor immediately.

Do not discard any hardware or packaging prior to checking for all included components listed above and ensuring that the unit is installed and functioning as expected.

2. Open the local phone compartment and remove the packaged front cover door handle. Install the handle onto the outside surface of the local phone compartment door using the provided screws.
3. Remove the three (3) Phillips screws from the right-side of the unit—these screws secure the hinged front cover.
4. Carefully open the hinged front cover taking care there are no loose items which may have shifted during transportation.
5. The **HON-AOR-16 Command Unit** may be either surface or flush mounted to a wall.

 ATTENTION	<p>For flush mounting, HON-AOR-16 units should be ordered with the available HON-AOR-TR16 Flush Mount Trim Ring in black (sold separately).</p> <p>For flush mounting, HON-AOR-16-R units should be ordered with the available HON-AOR-TR16-R Flush Mount Trim Ring in red (sold separately).</p>
--	---

 CAUTION	<p>Conduit knockouts are provided on the rear, top, and bottom sides of the cabinet for access to power and communication lines. Determine the method of bringing in these power and communication lines <u>before</u> mounting the enclosure.</p>
--	--

 CAUTION	<p>Whenever possible, it is best to keep the maximum clearance possible between analog phone lines and alternating current. Running phone lines too close to hot VAC lines will lead to noise or interference on the phone line.</p>
--	--

6. **Surface Mounting onto an Interior Wall:**

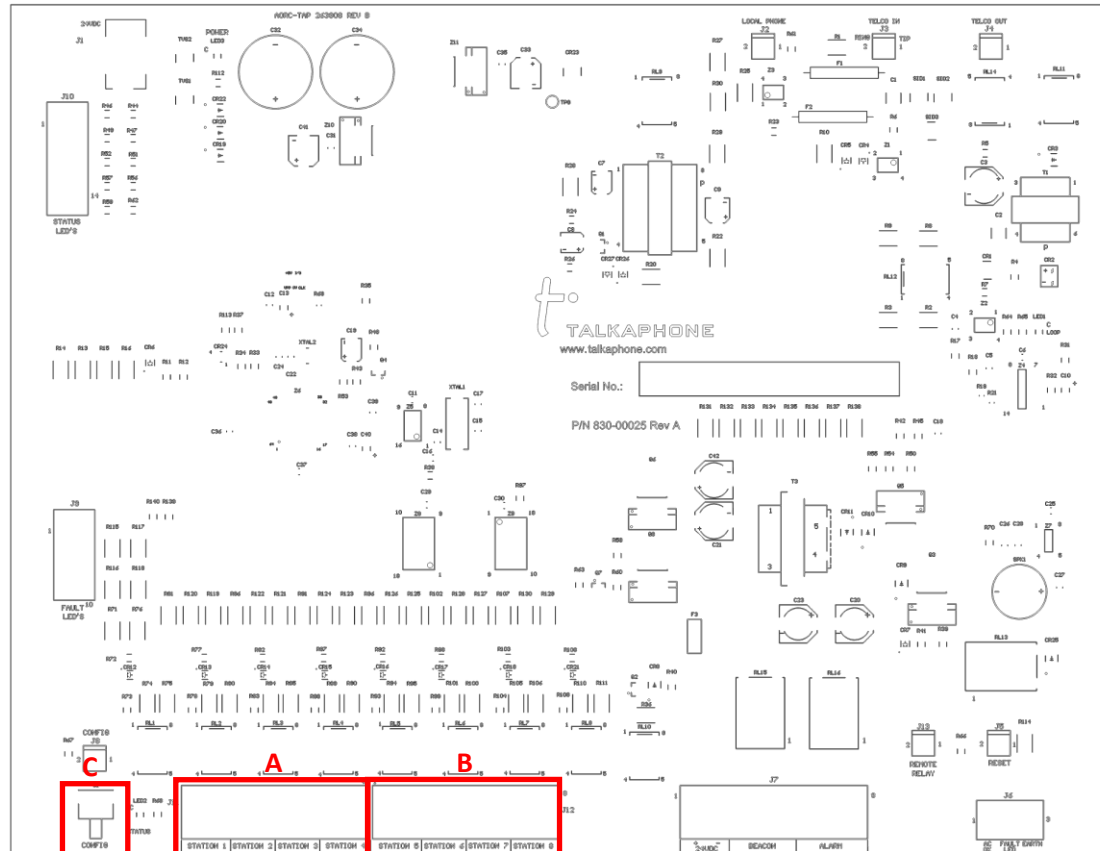
The **HON-AOR-16 Command Unit** has four (4) surface mounting keyholes located on the rear of the chassis.

7. **Flush Mounting into an Interior Wall:**

The **HON-AOR-16 Command Unit** has six (6) screw points on the sides which can be used to mount the Command Unit within a wall.

Both halves of the **HON-AOR-TR16 / HON-AOR-TR16-R** trim ring should be secured to the wall using the provided 6-18 screws. The trim ring may be installed in contact with the closed cover without inhibiting the functionality of the hinge.

8. Interfaces for HON-AOR-16\* Controller Board



This section outlines the interfaces on the **HON-AOR-16\*** controller board. The **HON-AOR-16 Command Unit** contains **two (2)** of these controller boards.

- (A) **STATION 1** – For the first **HON-AOR-CS Analog Call Station**
- STATION 2** – For the second **HON-AOR-CS Analog Call Station**
- STATION 3** – For the third **HON-AOR-CS Analog Call Station**
- STATION 4** – For the fourth **HON-AOR-CS Analog Call Station**
- (B) **STATION 5** – For the fifth **HON-AOR-CS Analog Call Station**
- STATION 6** – For the sixth **HON-AOR-CS Analog Call Station**
- STATION 7** – For the seventh **HON-AOR-CS Analog Call Station**
- STATION 8** – For the eighth **HON-AOR-CS Analog Call Station**

- (C) **CONFIG** – This push button is used to configure fault detection for the **HON-AOR-CS Analog Call Stations**

## 9. Installation of Siren/Strobe:

Mount the siren/strobe assembly on a wall in an appropriate location per the instructions packaged with the siren/strobe assembly.

**Black, Red, and Orange lead wires** from the controller boards in the internal compartment of the HON-AOR-16 Command Unit.

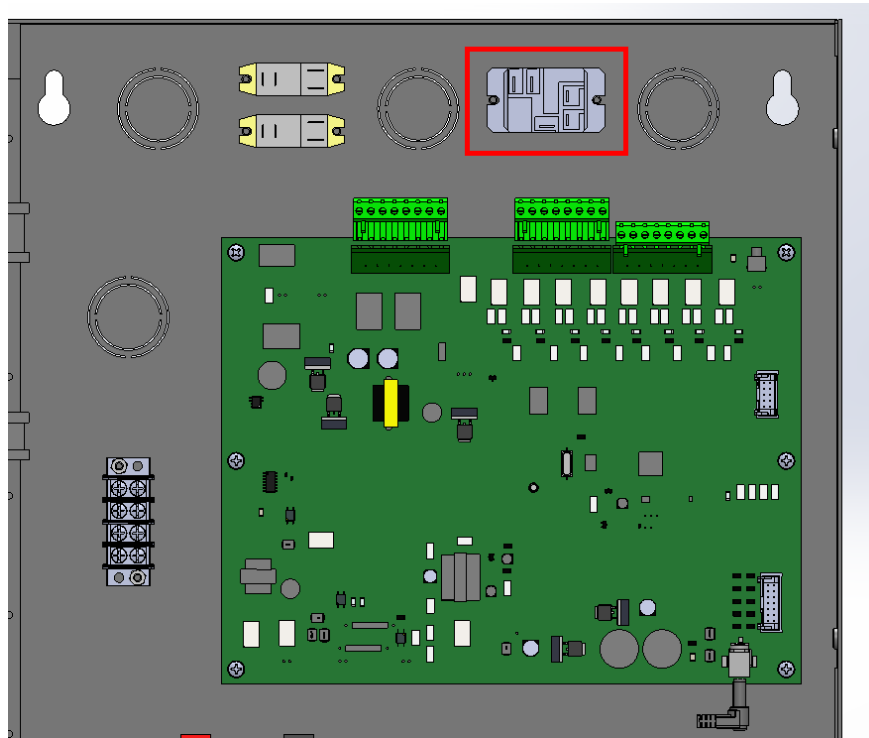
The **Black wire is a common negative** and needs to be connected to **both the strobe and siren negative terminals**.

The **Red wire** is connected to the **positive terminal of the strobe**.

The **Orange wire** is connected to the **positive terminal of the siren**.

## 10. Connecting Relay Output for Any HON-AOR-CS Analog Call Station Activation:

- a. This output is normally closed (NC) and will provide an open when an HON-AOR-CS Analog Call Station goes off-hook (i.e. a call is placed).
- b. Connect the two (2) quick connects terminated onto **yellow** and **yellow-white** wires to the relay input on the addressable Fire Alarm Control Panel (FACP).
- c. These wires should originate from the COM and NC/NO of the relay block located in the upper-right area boxed in red as illustrated here:

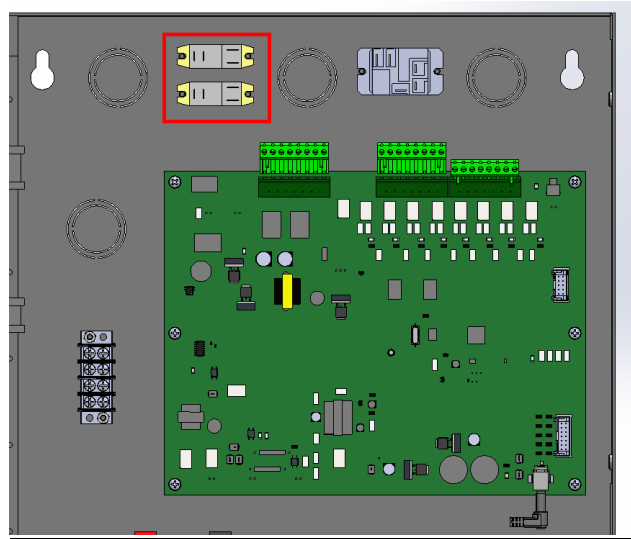


**Figure 3.** Activation relay block for any HON-AOR-CS Analog Call Station activation.

**11. Connecting to Relay Output for Fault Conditions:**

- a. Normally closed (NC) outputs are available for the following fault conditions:
  - Open/short fault on cabling to HON-AOR-CS Analog Call Stations
  - System ground fault occurs on the Command Unit
  - AC power fail (primary power loss)
- b. For open/short/system ground faults, connect the two (2) quick connects terminated onto **purple** and **purple-white wires** to the relay input on the addressable FACP.

These wires should originate from the set of relay blocks located in the upper-left area boxed in red as illustrated here:

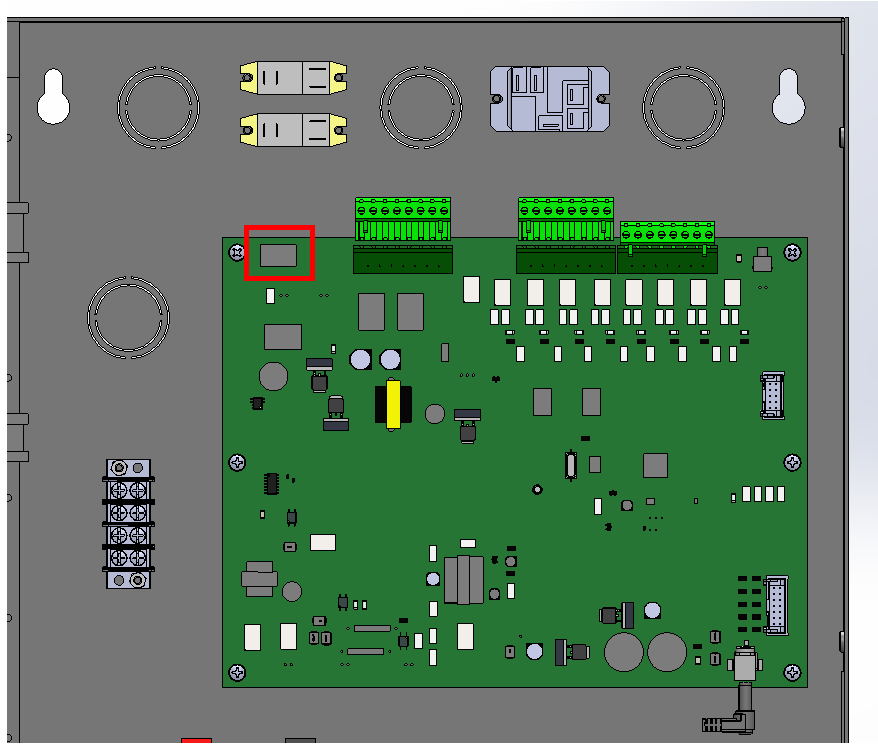


**Figure 4.** Open/short/system ground fault relay block, QTY (2), on the HON-AOR-16 Command Unit.



- c. For AC power fail (primary power loss), connect the two (2) quick connects terminated onto **tan** and **tan-white wires** to the relay input on the addressable FACP.

These wires should originate from the terminal block on the upper-left of the controller board—see area boxed in red as illustrated below:



- 12.** The **HON-AOR-16 Command Unit** can support up to sixteen (16) HON-AOR-CS Analog Call Stations divided into two (2) banks of eight (8).

The HON-AOR-CS Analog Call Stations can dial out through an analog (PSTN/POTS) telephone line/cellular gateway or to the local phone in the Command Unit.

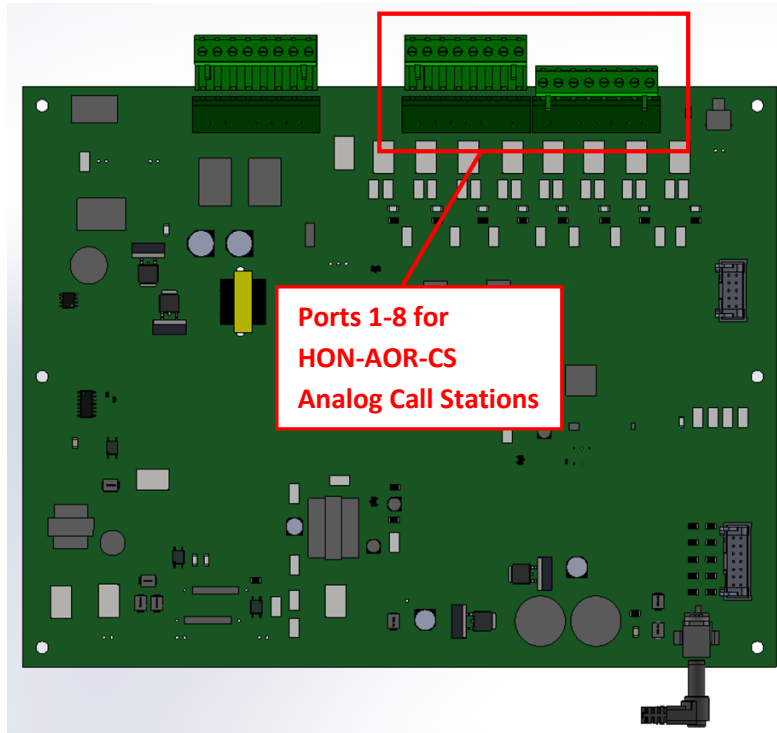
**13. Routing Cabling:**


Route the HON-AOR-CS Analog Call Station cabling and the analog (PSTN/POTS) telephone lines (depending on the local jurisdiction, may or may not be required) through the conduit knockouts located on the rear, top, or bottom sides of the Command Unit. Always try to separate power lines from communication lines in order to mitigate the risks of noise or interference on the communication lines.

**14. Terminating HON-AOR-CS Analog Call Station Cabling:**

Terminate the cabling for each HON-AOR-CS Analog Call Station to **Ports 1 through 8** (see below illustration) of the appropriate controller board (i.e. bank).

The tip and ring connections for the HON-AOR-CS Analog Call Stations are **NOT** polarity sensitive.



 ATTENTION	HON-AOR-CS Analog Call Stations are connected to a Class B Pathway.
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**15. Terminating PSTN/POTS Telephone Line for Off-site Dialing:**

If an analog (PSTN/POTS) telephone line, analog PBX extension line, or cellular gateway is to be used for off-site dialing, terminate the connection to the **TELCO IN** terminals for each respective bank—this connection is **NOT** polarity sensitive (see below).



The **TELCO IN** terminals are located on the left side of the **HON-AOR-16 Command Unit** chassis—just above the backup batteries.

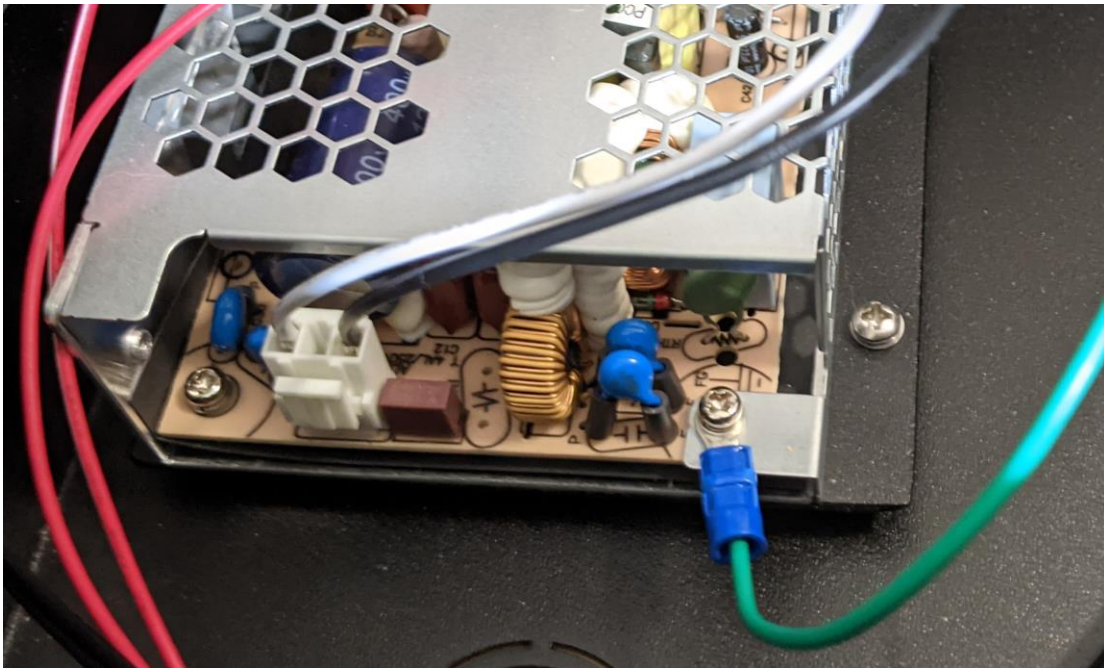
Each controller board (i.e. bank) supports one (1) dedicated POTS/PSTN telephone line or cellular gateway—a **total of two (2)** POTS/PSTN telephone lines, PBX extension lines, or cellular gateways are required for off-site dialing.


 ATTENTION	See, <a href="#">PSTN/POTS Telephone Line (p.8)</a> , for outside phone line requirements.
--	--


**16. Connecting Primary Power:**

Once the appropriate low voltage field cabling terminations have been completed, connect the primary power (See, [Power for Command Unit \(p.6\)](#), for primary power requirements) to the internal power supply located in the lower-left of the Command Unit internal compartment.

The **LINE** and **NEUTRAL** leads are located on the lower-left side of the internal power supply (see photo below). The AC ground should be connected to the bottom-right mounting screw of the internal power supply.




 CAUTION	<p>Verify all connections and take precautions from unintended electrical shock prior to connecting the backup batteries and primary power.</p>
--	---


 CAUTION	<p>It is the installer's obligation to ensure compliance with all national, regional, and local regulations.</p>
--	--


**17. Connecting Backup Batteries:**


Install the backup batteries and connect them to the power supply board by inserting the connector onto the header pins located on the bottom right of the internal power supply.

Match and connect the cables marked “3” through “6” to the corresponding terminals marked “3” through “6”.

 CAUTION	<p>Once the backup batteries are connected, power will be supplied to the Command Unit.</p> <p>Verify all connections and take precautions from unintended electrical shock prior to connecting the backup batteries and primary power.</p>
--	---

 CAUTION	<p>The order in which 100-240 VAC 50-60Hz or backup batteries is connected does not matter. However, once either backup batteries are connected OR the primary 100-240 VAC line is energized, THE COMMAND UNIT WILL BE ENERGIZED OR “HOT”.</p>
--	--

 CAUTION	<p>It is the installer’s obligation to ensure compliance with all national, regional, and local regulations.</p>
--	--


 CAUTION	<p>It is the installer’s obligation to mark the “date of installation” on each battery.</p>
--	---

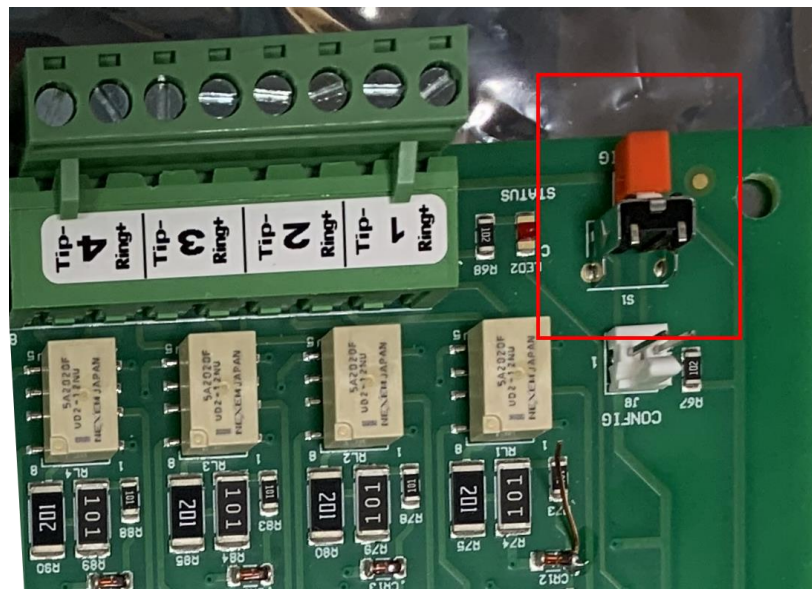
**18. Fault Detection Configuration for HON-AOR-CS Analog Call Stations:**

Carrying out this procedure on the controller board is required for proper open/short fault detection on the system.

In the upper-right of each controller board (i.e. bank), there is an orange-red configuration button located to the left of **Ports 1-4**.

Once you have the HON-AOR-CS Analog Call Stations and the two (2) PSTN/POTS telephone lines or cellular gateways (if required) terminated to both controller boards, press and hold the orange-red button for three (3) seconds—the LED will flash rapidly. When the LED turns solid, release the orange-red button.

 ATTENTION	This fault detection configuration procedure must be carried out for <u>BOTH</u> controller boards.
--	---



## System Programming

### List of Programming Codes for the Command Unit

Command	Function
* 31 * [up to 8 digits] *	Guard Access Code entry for phone programming [Default * 31 * *]
* 30 * [up to 8 digits] *	Master Access Code entry to change Guard Access Code or Master Access Code [Default * 30 * 12345678 *]
* 30 * 14725836 *	Resets controller board programming to factory defaults. Requires prior Master Access Code entry.
* 32 * [up to 8 digits] *	Programs and stores a new Master Access Code. Requires prior Master Access Code entry.
* 33 * [up to 8 digits] *	Programs and stores a new Guard Access Code. Requires prior Master Access Code entry.
* 34 * [up to 2 digits] *	Sets number of rings before controller board picks up when it is dialed [Default 3]
* 35 *	In Mixed Mode, call LOCAL PHONE then TELCO IN
* 36 *	In Mixed Mode, call TELCO IN then LOCAL PHONE [Default with * 63 *]
* 37 *	Local Mode <b>NOTE:</b> All calls will route to the local phone.
* 62 *	Remote Mode [Default Setting]
* 63 *	Mixed Mode (Local and Remote)
* 4 [Select Port 1-8] *	Enter this code when connected through the local phone or a remote call – routes to a specific HON-AOR-CS Analog Call Station on Port 1-8. Does not require Guard Access Code or Master Access Code entry.
#	Terminate Connection

## Programming the Command Unit

1. Each controller board (i.e. bank) of the **HON-AOR-16 Command Unit** is programmed individually. There are two (2) methods to program each controller board of the Command Unit:
  - At the **HON-AOR-16 Command Unit** via the keypad of the built-in local phone;
  - Remotely by calling the phone number of one of the two (2) connected PSTN/POTS telephone lines.

In either case, the controller board will answer and output one (1) beep.
2. When entering programming codes, the controller board will provide the following feedback:

System Feedback	Definition or Meaning
One (1) Beep	Programming code successfully accepted
Silence	Error code—please re-enter the programming code

If you hear silence, re-enter the programming code again. If you continue to hear silence a second time, hang up and try again.

### 3. Remote Mode:

In Remote Mode, the controller boards do not require any programming. Move onto [Programming the HON-AOR-CS Analog Call Stations](#).

### 4. Local Mode:

The **HON-AOR-16 Command Unit** has two (2) controller boards—you will need to repeat this programming procedure for the second controller board.

- a. Pick up the local phone handset and press the button corresponding to the bank of HON-AOR-CS Analog Call Stations (i.e. controller board) to be programmed (or remotely call into the connected PSTN/POTS telephone line). Listen for one (1) beep.
- b. Enter the Guard Access Code to enter programming mode: **\* 31 \*\***
- c. Program the controller board for Local Mode: **\* 37 \***
- d. To exit programming and disconnect, hang up the local phone handset or press: **#**
- e. Repeat **Steps (4)(a) through (4)(d)** for the remainder of controller boards.
- f. Move onto [Programming the HON-AOR-CS Analog Call Stations](#).




**5. Mixed Mode:**

The **HON-AOR-16 Command Unit** has two (2) controller boards—you will need to repeat this programming procedure for the second bank or controller board.

- a. Pick up the local phone handset and press the button corresponding to the bank of phones (i.e. controller board) to be programmed handset (or remotely call into the connected PSTN/POTS telephone line). Listen for one (1) beep.
- b. Enter the Guard Access Code to enter programming mode: **\* 31 \*\***
- c. Program the controller board for Mixed Mode: **\* 63 \***
- d. Program the controller board with the call routing order:
  - Local phone first, then remote (off-site): **\* 35 \***
  - Remote (off-site) first, then local phone: **\* 36 \***
- e. To exit programming and disconnect, hang up the local phone handset or press: **#**
- f. Repeat **Steps (a) through (e)** for the remainder of controller boards.
- g. Move onto [Programming the HON-AOR-CS Stations](#).

## Programming the HON-AOR-CS Analog Call Stations


Once the **HON-AOR-16 Command Unit** has been programmed, the HON-AOR-CS Analog Call Stations will need to be programmed individually.

 ATTENTION	<p>For the HON-AOR-16 Command Unit, there are <b>two (2)</b> controller boards—you will need to repeat the programming procedure for the HON-AOR-CS Analog Call Stations connected to the second controller board.</p>
--	--

1. Calling into the HON-AOR-CS Analog Call Station to enter programming mode.
  - a. To call from a remote phone, dial the telephone number of the analog (PSTN/POTS) telephone line or cellular gateway connected to a particular controller board. Go to **Step (1)(c)**.
  - b. To call from the local phone, simply pick up the handset and press the bank button (i.e. “**BANK 1**” or “**BANK 2**”) corresponding to the appropriate controller board where the HON-AOR-CS Analog Call Station in question is terminated.
  - c. In either case, you will hear one (1) beep when the controller board is ready.
  - d. Enter the code to route to a specific HON-AOR-CS Analog Call Station:

**\* 4 [Select Port 1 through 8] \***

There will be a short pause and then the HON-AOR-CS Analog Call Station will answer with an open channel (microphone and speaker are active).

 ATTENTION	<p>After each HON-AOR-CS Analog Call Station programming code, two (2) beeps indicate the code has been accepted. Four (4) beeps indicate an error—re-enter the code again.</p>
--	---

2. Enter the security code: **827827**
3. Program the Primary Phone Number to dial: **[0-20 digits for phone number] # 00**

For **local mode** (i.e. calling the local phone), use **any number** as the phone number.

For **remote mode** (i.e. calling an outside phone number), use the **10-digit phone number of the remote answering point** as the phone number.

For **mixed mode** (i.e. alternating between local and remote), use the **10-digit phone number of the remote answering point** as the phone number.

Please program the phone number in the following format depending on whether a PSTN/POTS telephone line, analog PBX extension line, or cellular gateway is connected.

For a Central Office (CO) line from the telephone company or cellular gateway:

**9 + 1 + Area Code + 7-digit Phone Number**

For a PBX extension:

**1 + Area Code + 7-digit Phone Number**

4. Program the Second Phone Number to dial: **[0-20 digits for phone number] # 01**

Follow the same dialing rules as outlined in **Step (3)**.

5. Set the call length, silence time out, ring count, and dial next number on busy:

**294521 # 18**

See, [Timing/Dialing Options for the HON-AOR-CS Analog Call Station \(p.29\)](#), for further details or other options.

6. Recording a Location Message:

- a. Record the location message for the HON-AOR-CS Analog Call Station in question: **\* 4**

Wait for the tone to begin speaking/recording. The recorded message has a maximum length of **16 seconds**.

- b. Press any key to stop recording or it will end after 16 seconds. The recorded message will automatically play back.


- c. To review the recorded message again, press: **\* 5**

- d. To delete the recorded message, press: **\* 3**

7. To exit programming and disconnect, press: **# 7**

## List of Programming Codes for the HON-AOR-CS Analog Call Station

Command	Memory Slot	Function
0-20 digits	#00	Primary autodial phone number
0-20 digits	#01	Secondary autodial phone number
0-20 digits	#02	Third autodial phone number
0-20 digits	#03	Fourth autodial phone number
0-20 digits	#04	Fifth autodial phone number
6 digits	#18	Timing/dialing options. For further details, see <a href="#">“Timing/Dialing Options for the HON-AOR-CS Analog Call Station” (p.29)</a> . [Default 234721]
6 digits	#19	Change the security code [Default 827827 or TAPTAP]
* 7		Add 4-second pause at any point of the dial string
[Enter No Digits]	#00 through #04	Clear autodial phone numbers
# 7		Exit programming mode and disconnect
# # #		Reset to factory defaults

 ATTENTION	After each HON-AOR-CS Analog Call Station programming code, two (2) beeps indicate the code has been accepted. Four (4) beeps indicate an error—re-enter the code again.
--	--

## Timing/Dialing Options for the HON-AOR-CS Analog Call Station

The timing/dialing option code is comprised of six (6) digits defined in the table below.

Parameter	Function	Values	Definition
<b>A</b>	<b>Talk/Listen Delay.</b> Switching time between talk and listen modes (i.e. VOX switching time).	1	0.1 seconds
		2	0.2 seconds <b>[Default]</b>
		3	0.3 seconds
		4	0.4 seconds
		5	0.5 seconds
		6	0.6 seconds
		7	0.7 seconds
		8	0.8 seconds
		9	0.9 seconds
<b>B</b>	<b>Call Length.</b> Sets maximum length of time the HON-AOR-CS Analog Call Station can be connected to a call.	0	Disabled
		1	1 minute
		2	2 minutes
		3	3 minutes <b>[Default]</b>
		4	4 minutes
		5	5 minutes
		6	6 minutes
		7	7 minutes
		8	8 minutes
		9	9 minutes

## (Continued) Timing/Dialing Options for the HON-AOR-CS Analog Call Station

Parameter	Function	Values	Definition
C	<b>Silence Time Out.</b> Sets the length of time a call will be connected without any voice transmission.	0	Disabled
		1	10 seconds
		2	20 seconds
		3	30 seconds
		4	40 seconds <b>[Default]</b>
		5	50 seconds
		6	60 seconds
		7	70 seconds
		8	80 seconds
		9	90 seconds
D	<b>Dial Next Number Timer.</b> Sets the number of rings before the HON-AOR-CS Analog Call Station dials the next phone number in the number list.	0 or 1	Disabled
		2, 3, 4, ... , 9	Dials next number after 2, 3, 4, ... , 9 rings
E	<b>Dial Next Number on Busy.</b> When a busy is detected the HON-AOR-CS Analog Call Station will dial the next phone number in the number list.	1	Disabled
		2	Enabled <b>[Default]</b>
F	<b>Not Used</b>	Always set to 1.	-

# Operating Instructions

## General Information

When the push button on the HON-AOR-CS Analog Call Station is pressed, it will automatically either ring the local phone or dial out using the phone lines connected to the **TELCO IN** terminals according to how the controller board is programmed (i.e. local mode, remote mode, or mixed mode).

When a call comes into the **HON-AOR-16 Command Unit**, an LED will light indicating which HON-AOR-CS Analog Call Station is calling in. If a call is already in progress, any other calls which come in will cause the appropriate LED to blink to indicate they are awaiting an open line.

As soon as the initial call has been completed, any calls that were waiting will be put through in the order in which they were placed.

## Calling Into HON-AOR-CS Analog Call Stations from the Command Unit

1. To call from a remote phone, dial the telephone number of the phone line connected to a particular controller board. Go to **Step (3)**.
2. To call from the local phone, simply pick up the handset and press the bank button (i.e. **"BANK 1"** or **"BANK 2"**) corresponding to the appropriate bank of the HON-AOR-CS Analog Call Station in question.
3. In either case, you will hear one (1) beep when the command unit is ready.
4. Enter the code to route to a specific HON-AOR-CS Analog Call Station:

**\* 4 [Select Port 1-8] \***

There will be a short pause and then the HON-AOR-CS Analog Call Station will answer with an open channel (microphone and speaker are active).

## Answering Calls at the Command Unit

1. When calls are routed to the local phone at the **HON-AOR-16 Command Unit**, the local phone will ring and the siren/strobe will activate.
2. To answer the call, pick up the local phone handset **and press the appropriate bank button ("BANK 1" or "BANK 2" buttons to the right of the handset) corresponding to the bank with the active HON-AOR-CS Analog Call Station.** The LED next to the bank button will also flash.

The siren/strobe will deactivate the siren, but the strobe will remain flashing.

3. A prerecorded voice message with physical location information may play at the beginning of the call.

## Answering Calls Off-site or at a Central Station

When calls are routed off-site (i.e. monitoring service, call center, central station, or 911), calls are answered accordingly and a prerecorded voice message with physical location information may play at the beginning of the call.



## System Faults

### Fault Conditions

- **Audible Indicator** – When any fault occurs, a steady 2,300 Hz tone at 85db will be emitted from the **HON-AOR-16 Command Unit**.
- **Visual Indicator for Opens** – When an open occurs on an HON-AOR-CS Analog Call Station cable run, the respective **TROUBLE** LED(s) will solidly illuminate on the Command Unit panel indicating the specific call station location(s) with the fault.
- **Visual Indicator for Shorts** – When a short occurs on an HON-AOR-CS Analog Call Station cable run, both the respective **TROUBLE** LED(s) and the **STATION STATUS** LED(s) will solidly illuminate on the Command Unit panel indicating the specific call station location(s) with the fault.
- **Visual Indicator for System Ground Fault** – When a system ground fault occurs at the Command Unit, all **TROUBLE** LEDs will flash simultaneously on the Command Unit panel.

### Correcting Faults

- **Opens/Shorts on an HON-AOR-CS Analog Call Station Cable Run** – Check cable for continuity and repair or replace cable.
- **System Ground Faults** – Check the Command Unit for proper electrical grounding and correct any ground loops.

### Temporarily Silencing a Fault Condition

Press the **TROUBLE RESET** button to silence the audible fault indicator. The audible alarm will be temporarily silenced until the next timed supervisory test occurs (every 24 hours). If the fault remains during the next timed supervisory test, the audible alarm will be provided again.

The LED fault indicators will remain in their trouble condition until the faults have been fully corrected.

### Resetting Fault Condition

When any faults have been corrected, press the **TROUBLE RESET** button on the Command Unit panel to have it conduct its supervisory tests and clear audible and visual alarms for any corrected faults.

Any faults that have not been corrected will continue to provide a visual alarm. The audible alarm will return on the next timed supervisory test (every 24 hours) if the fault is still present.

### Primary Power Loss

When the **HON-AOR-16 Command Unit** loses primary power and begins to run on battery backup, the **AC POWER FAULT** LED will solidly illuminate on the Command Unit panel.

The **AC POWER FAULT** LED will disengage once the primary power has been restored.

## System Maintenance

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.
- Verify the condition of the backup batteries and replace if necessary. If any battery is replaced, please make sure to mark the “date of installation” on each battery.

## Frequently Asked Questions

**1. Can the system support more than one (1) local answering point?**

No, the **HON-AOR-16 Command Unit** does not currently support additional local answering points.

**2. Can each controller board (i.e. bank) share a single PSTN/POTS telephone line or single cellular gateway?**

No, because an Area of Refuge system is considered a life safety system, each controller board **HON-AOR-16 Command Unit** requires a dedicated telephone line or dedicated cellular gateway (i.e. a total of two (2) telephone lines or two (2) cellular gateways).

**3. If I forgot the Guard Access Code or the programming configuration, can I reset the programming on the Command Unit?**

If you have forgotten the Guard Access Code or the programming configuration, you can reset the programming on a particular controller board by first entering the Master Access Code: **\* 30 \* 12345678 \***

Then enter the factory default code: **\* 30 \* 14725836 \***

After the factory reset has been completed, you will need to reprogram the controller board. If both controller boards have been factory reset, you will need to reprogram all of them.

After the factory reset has been completed, you will need to perform the procedure outlined in **Fault Detection Configuration for HON-AOR-CS Analog Call Stations (p.21, Section 18)** and reprogram the controller boards.



ATTENTION

You will NOT have to reprogram the individual HON-AOR-CS Analog Call Stations.

**4. Does the Command Unit controller board retain its programming if there is complete power loss?**

Yes, memory is non-volatile and does not require a backup battery.

**5. Are the HON-AOR-CS Analog Call Stations powered by the Command Unit?**

Yes, they are line-powered by the Command Unit.

## General Troubleshooting

Problem	Possible Causes
<p><b>The Command Unit does not function at all. It cannot dial out or it cannot be called into.</b></p>	<ol style="list-style-type: none"> <li>1. The internal power supply is not properly connected (check primary power and the backup batteries).</li> <li>2. The cabling for the PSTN/POTS telephone lines, analog PBX extension lines, or cellular gateways may not have been properly terminated inside the Command Unit. Verify the internal connections.</li> <li>3. The cabling for the PSTN/POTS telephone lines, analog PBX extension lines, or cellular gateways may have been disconnected. Please verify continuity throughout the cable run.</li> <li>4. The Command Unit has been damaged by a power surge. Contact Technical Support.</li> </ol>
<p><b>I hear noise on the line.</b></p>	<ol style="list-style-type: none"> <li>1. The cabling run for the HON-AOR-CS Analog Call Station may not be twisted, shielded wire. Fluorescent lights, elevator machinery, and other devices can emit noise onto the wire run if they are not twisted and shielded.</li> <li>2. See, <a href="#">Power for HON-AOR-CS Analog Call Stations (p.7)</a>, for further details.</li> </ol>
<p><b>The Local Phone rings briefly, but then when I pick up the handset I hear one beep.</b></p>	<ol style="list-style-type: none"> <li>1. The HON-AOR-CS Analog Call Station that called in was not programmed with a phone number.</li> </ol>
<p><b>The controller board will not accept the Guard Access Code.</b></p>	<ol style="list-style-type: none"> <li>1. You may be remotely programming through a PSTN/POTS telephone line or analog PBX extension line that does not transmit in-band DTMF. Please ensure that in-band DTMF is available.</li> <li>2. The Guard Access Code has been changed. You can reset the code by first entering the Master Access Code (default is * 30 * 12345678 *).</li> </ol> <p>Then enter the following command to change the Guard Access Code:  <b>* 33 * [0-8 digits] *</b></p>

## Servicing

For product service and repair, please contact:

Talkaphone Area of Refuge (AOR) Support

Email: [aorsupport@talkaphone.com](mailto:aorsupport@talkaphone.com)

Phone: 773.539.1100

## Limited Warranty Information

For the latest warranty information, please visit:

<https://www.honeywellareaofrefuge.com/warranty>

## System Installation Information Sheet

**IMPORTANT NOTE:** This installation information sheet has been provided in order to record and safely retain information for future maintenance and operation of this Area of Refuge system.

### Area of Refuge System

**Installation Address:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Installation Date:** \_\_\_\_\_

1. To reach this Command Unit, call this(these) phone number(s):

\_\_\_\_\_  
\_\_\_\_\_

2. Phone Number for Off-site Dialing (e.g., Central Station or Monitoring Center):

\_\_\_\_\_

3. Termination Location of Telephone Line for Off-site Dialing:

\_\_\_\_\_

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

**Name:** \_\_\_\_\_

**Company:** \_\_\_\_\_

**Address:** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Phone:** \_\_\_\_\_

# Operating Instruction Sheet for the Command Unit

This sheet must be completed, framed, and placed adjacent to the Command Unit for ready reference.

## Area of Refuge System

**Model Number:** HON-AOR-16 \_\_\_\_\_ **Issue Date:** \_\_\_\_\_

### OPERATING INSTRUCTIONS:

#### ANSWERING A CALL

- (1) An initial call will **RING** the local phone handset.
  - (1)(a) Press the **BANK** button with the quickly flashing **RED** LED.
  - (1)(b) Pick up the handset to answer the call. The **BANK** button LED will change to solid **GREEN** when communication is established.
  - (1)(c) An LED on the **MONITORING PANEL** will solidly light up **RED** indicating the calling unit and location.
- (2) A secondary call on a **DIFFERENT BANK** as the initial call will **RING** the local phone handset.
  - (2)(a) The other **BANK** button will light up **RED** and flash quickly.
  - (2)(b) An LED on the **MONITORING PANEL** (under a **DIFFERENT BANK**) will solidly light up **RED** indicating the calling unit and its location.
  - (2)(c) Terminate the initial call once ready to do so by hanging up the handset.
  - (2)(d) Press the quickly flashing **RED BANK** button for the secondary call and pick up the handset. The **BANK** button for the secondary call will change to **GREEN** when communication is established.
- (3) A secondary call on the **SAME BANK** as the initial call will slowly blink a **RED** LED on the **MONITORING PANEL** (under the **SAME BANK**) indicating the calling unit and its location.
  - (3)(a) Terminate the initial call once ready to do so by hanging up the handset.
  - (3)(b) The local phone handset will **RING** and the same **BANK** button will light up **RED** and flash quickly.
  - (3)(c) To answer the secondary call, pick up the handset.

#### CALLING INTO A SPECIFIC AREA OF REFUGE CALL STATION

- (1) Press the appropriate **BANK** button corresponding to the Area of Refuge Call Station in question. Reference the monitoring panel or the tables below to determine the assigned **BANK**.
- (2) Lift local phone handset and listen for a single beep.
- (3) Enter the appropriate **CODE** for the desired Area of Refuge Call Station—see table below for **CODE**.
- (4) There will be a short pause and then the Area of Refuge Call Station will auto-answer with the microphone and speaker active and ready for conversation.

	CODE	BANK 1
STATION 1	*41*	
STATION 2	*42*	
STATION 3	*43*	
STATION 4	*44*	
STATION 5	*45*	
STATION 6	*46*	
STATION 7	*47*	
STATION 8	*48*	

	CODE	BANK 2
STATION 1	*41*	
STATION 2	*42*	
STATION 3	*43*	
STATION 4	*44*	
STATION 5	*45*	
STATION 6	*46*	
STATION 7	*47*	
STATION 8	*48*	

**TERMINATING CALLS – HANG UP HANDSET TO TERMINATE CALLS.**



## Fault Conditions and Service Contact Instruction Sheet

**IMPORTANT NOTE:** The below fault conditions and service contact instruction sheet must be completed and then framed and placed adjacent to the Command Unit for ready reference.

### Area of Refuge System

**Model Number:** HON-AOR-16 \_\_\_\_\_ **Issue Date:** \_\_\_\_\_

#### **FAULT CONDITIONS:**

- **TEMPORARILY SILENCING THE AUDIBLE FAULT ALARM** – USE THE **TROUBLE RESET** BUTTON. IF THE FAULT REMAINS DURING THE NEXT TIMED SUPERVISORY TEST (IN 24 HOURS), THE AUDIBLE FAULT ALARM WILL RESUME AGAIN.

LED FAULT INDICATOR(S) WILL REMAIN ACTIVATED UNTIL THE FAULT(S) HAVE BEEN CORRECTED.

- **RESETTING FAULT CONDITIONS AFTER CORRECTIONS** – WHEN THE FAULTS HAVE BEEN CORRECTED AND THE **TROUBLE RESET** BUTTON USED AFTER THE CORRECTION, THE AUDIBLE FAULT ALARM WILL SILENCE, AND THE LED FAULT INDICATOR(S) WILL EXTINGUISH.

- **LED FAULT INDICATORS**

**TROUBLE** – THERE IS AN OPEN FOR A SPECIFIC CALL STATION—  
CHECK CABLING AND CORRECT.

**TROUBLE & STATUS** – THERE IS A SHORT FOR A SPECIFIC CALL STATION—  
CHECK CABLING AND CORRECT.

**ALL TROUBLE FLASHING** – CHECK THE COMMAND UNIT FOR PROPER  
GROUNDING AND CORRECT ANY GROUND LOOPS.

**AC POWER FAULT** – PRIMARY POWER LOSS HAS OCCURRED

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

**Name:** \_\_\_\_\_

**Company:** \_\_\_\_\_

**Address:** \_\_\_\_\_

\_\_\_\_\_

**Phone:** \_\_\_\_\_

**Talk-A-Phone, LLC**

7530 N. Natchez Ave.

Niles, IL 60714

773.539.1100

[aorsupport@talkaphone.com](mailto:aorsupport@talkaphone.com)

[www.honeywellareaofrefuge.com](http://www.honeywellareaofrefuge.com)

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