Area of Rescue Command Unit
Installation Guide
Model AOR-24 / Model AOR-32
Product Revision 2.0

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

CE PRODUIT DOIT ÊTRE INSTALLÉ SELON LE CODE D'INSTALLATION PERTINENT, PAR UNE PERSONNE QUI CONNAÎT BIEN LES PRODUIT ET SON FONCTIONNEMENT AINSI QUE LES RISQUES INHÉRENTS

I. Introduction

This installation guide provides instructions for installation, programming, and operation of **Model AOR-24 or Model AOR-32**. For instructions on installation or programming of Talkaphone Area of Rescue Call Stations, please refer to the manual for the AOR-CSE Analog Call Station.

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

II. Contents

Please ensure receipt of each of the included **AOR-24 / AOR-32** components:

QTY	Part Number	Description
1	AOR-24 or AOR-32	24- or 32-Station Area of Rescue Command Unit
4	68684	12VDC, 4.5Ah Backup Battery
1	68430	Strobe/Siren

Optional components (sold separately) include:

QTY	Part Number	Description
1	AOR-TR32	Trim Ring for Flush Mounting Model AOR-24 or Model AOR-32
8	42970	#6-18 Phillips Screw for Flush Mount Trim Ring

III. Technical Requirements

Power for Command Unit:
120/240 VAC, 150W, 50-60Hz power source

Power for AOR-CSE Analog Call Stations:
AOR-CSE Analog Call Stations are line-powered by the AOR-24 / AOR-32 Command Unit.

Cabling should meet these specifications:

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

Distance from Command Unit to AOR-CSE Analog Call Station or Local Phone(s)	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

PSTN/POTS Telephone Line:

For Local Mode Only:
No external phone line (i.e. POTS/PSTN telephone line) is required.

For Remote Mode or Mixed Mode:

Model AOR-24: Three (3) dedicated POTS/PSTN telephone line (i.e. analog telephone lines or analog PBX extension lines).

Model AOR-32: Four (4) dedicated POTS/PSTN telephone lines.

If connected to a PBX, the analog extension(s) 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.

IV. System Overview

1. Local Mode

In Local Mode, pressing the button on any of the Talkaphone Analog Call Stations will cause the built-in local phone at the command unit to ring.

2. Remote Mode

In Remote Mode, pressing the button on any of the Talkaphone Analog Call Stations will cause them to access a phone line to dial out. For this configuration, connect an outside phone(s) line to the "Telco IN" position(s) on the appropriate bank(s).

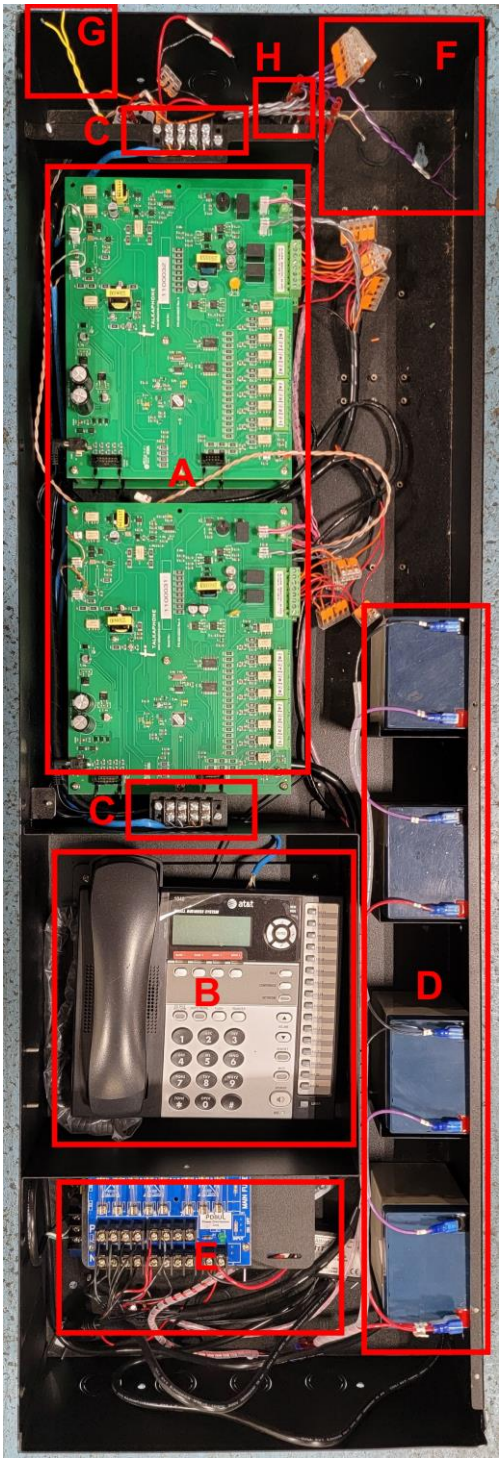
3. Mixed Mode

Mixed Mode is primarily used when a central control point is not constantly attended at all times. When a Talkaphone Analog Call Station calls and the **AOR-24 / AOR-32** unit is in Mixed Mode, it will ring the **AOR-24 / AOR-32** command unit's built-in local phone 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 **Emergency Phone Manual** for information on setting the time-out).

When an attendant leaves, that person can enter the code ***36*** to configure the controller board to ring the remote phone first and then switch to the local phone (See p.14, **Section VII**, **System Programming**). For Mixed Mode, connect an outside phone line(s) to the **"TELCO IN"** terminal(s). This programming must be done for each of the controller boards (three (3) controller boards for the AOR-24 or four (4) controller boards for the AOR-32).

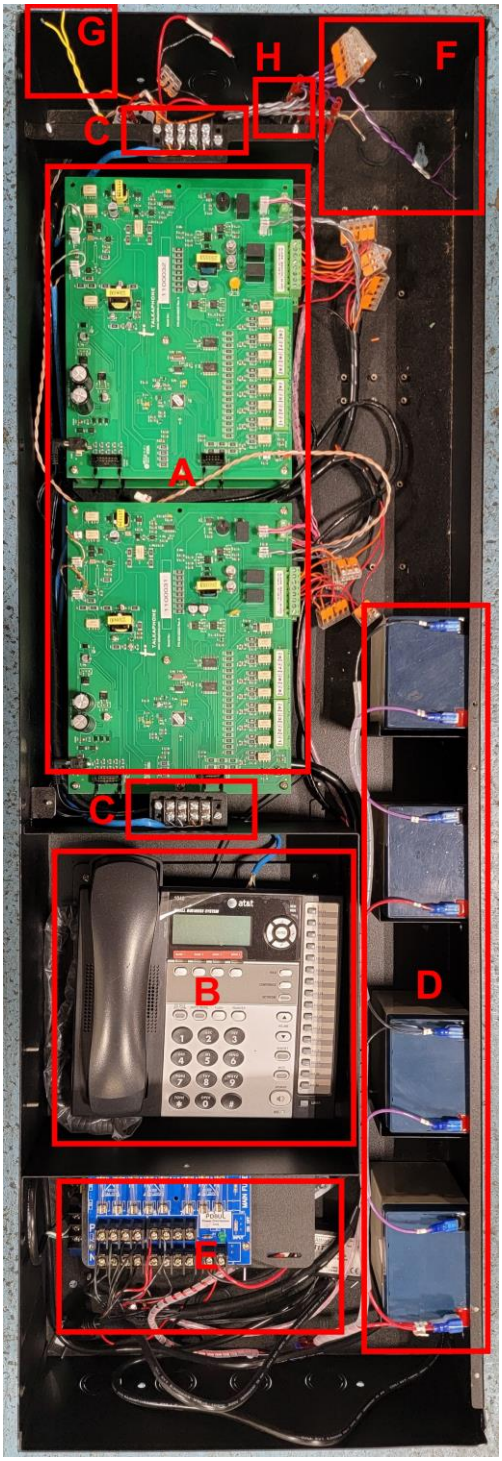
NOTE: See p.2, **Technical Requirements**, for outside phone line requirements.

V. Internal System Components



Item	Component
A	Controller Boards, QTY (3)
B	Local Phone
C	**"TELCO IN"** Terminals, QTY (3)
D	Backup Batteries, QTY (4)
E	Internal Power Supply
F	Open/Short/System Ground Fault Relay Output Leads
G	AOR-CSE Station Activation Relay Output Leads
H	AC Power Fail Relay Output Leads

Figure 1. **Model AOR-24** internal components.



Item	Component
A	Controller Boards, QTY (4)
B	Local Phone
C	**"TELCO IN"** Terminals, QTY (4)
D	Backup Batteries, QTY (4)
E	Internal Power Supply
F	Open/Short/System Ground Fault Relay Output Leads
G	AOR-CSE Station Activation Relay Output Leads
H	AC Power Fail Relay Output Leads

Figure 2. **Model AOR-32** internal components.

VI. Installation

1. Remove the **AOR-24 / AOR-32** 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 Talkaphone distributor immediately.

   Do not discard any hardware or packaging prior to checking for all included components listed above, and the unit is installed and functioning correctly.

2. Open the command unit 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 packaged 9-volt battery from the command unit local phone compartment and install into the command unit local phone. This battery is only for retaining the programming configuration on the command unit local phone.

   a. Remove the command unit local phone by sliding it upwards about 1/2-inch then lifting away from the command unit and out of the compartment. This will expose the local phone mounting points within the command unit local phone compartment.

   b. After installing the 9-volt battery, reinstall the local phone into its compartment by holding the local phone against the rear surface of the compartment and sliding about 1/2-inch downward.

      If the local phone will not slide downward into the locking position, the 6-32 screws at the mounting points may need to be adjusted. Loosen the screws 1/4 turn by hand and repeat mounting the local phone.

      Similarly, if the local phone slides into the locking position, but does not feel secure in place, tighten the 6-32 screws 1/4 turn by hand and repeat mounting the local phone.

   c. Plug the phone line and power connections back into the local phone.

4. Remove the five (5) Phillips screws from the left-side of the unit—these screws secure the hinged front cover.

5. Carefully open the hinged front cover taking care there are no loose items which may have shifted during transportation.

6. The **AOR-24 / AOR-32** unit may be either surface mounted or flush mounted to a wall.

NOTE: For flush mounting units, **AOR-24 / AOR-32** units should be ordered with the available **AOR-TR32** Flush Mount Trim Ring (sold separately).

NOTE: Conduit knockouts exist on the rear, top, and bottom sides of the enclosure for access to power and communication lines. Determine the method of bringing in these power and communication lines **before** mounting the enclosure.

NOTE: 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 produce undesired effects on the phone line.

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

   The **AOR-24 / AOR-32** unit has four (4) surface mounting keyholes located on the rear of the chassis.

   Please note that two (2) of the mounting keyholes are located behind the local phone. The local phone will need to be removed and the phone line/power cables will need to be disconnected.

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

   The **AOR-24 / AOR-32** has ten (10) 1/4-inch screw points on the top, bottom, and sides which can be used to mount the Command Unit within a wall.

   The **AOR-TR32** trim ring may be installed in contact with the closed cover without inhibiting the functionality of the hinge. Secure both halves of the **AOR-TR32** to the wall using the provided 6-18 screws.

9. **Installation of Strobe/Siren:**

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

   Black, Red, and Orange lead wires from the controller board(s) in the **AOR-24 / AOR-32 Command Unit's** internal compartment.

   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 AOR-CSE Station Activation:**

    a. This output is normally closed (NC) and will provide an open when the AOR-CSE 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 FACP.

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

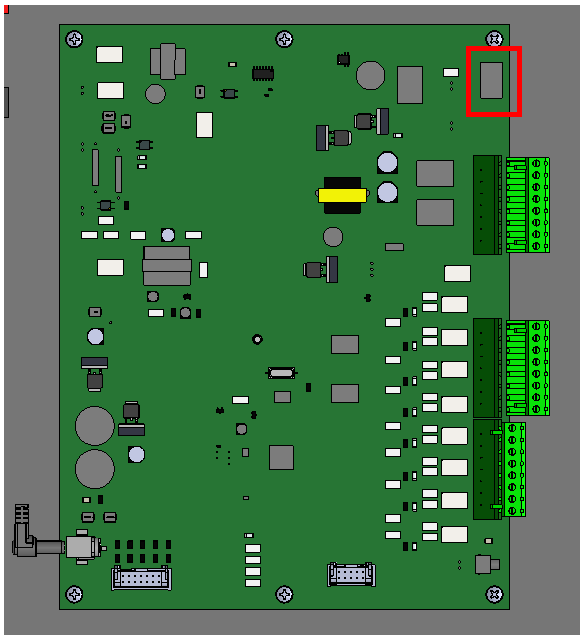
    a. Normally closed (NC) outputs are available for the following fault conditions:

    - Open/short fault on cabling to AOR-CSE 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.

    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-right of the controller board—see area boxed in red as illustrated here:



12. The **AOR-24** can support up to twenty-four (24) AOR-CSE Stations divided into three (3) banks of eight (8).

    The **AOR-32** can support up to thirty-two (32) AOR-CSE Stations divided into four (4) banks of eight (8).

    The AOR-CSE Stations can dial out through the analog (PSTN/POTS) telephone line(s) or to the local phone in the Command Unit.

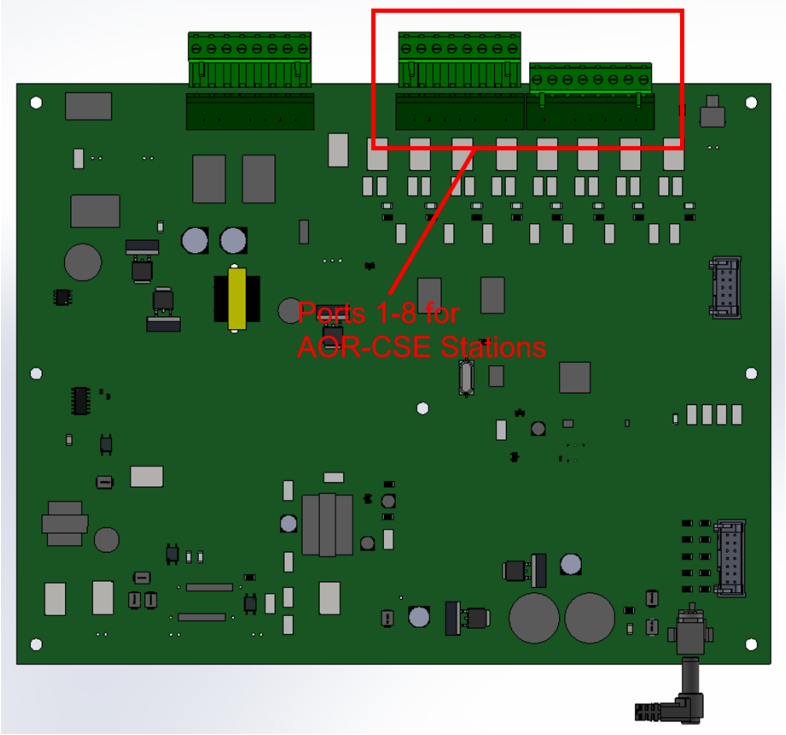
13. **Routing Cabling:**

    Route the AOR-CSE Station cabling and any analog (PSTN/POTS) telephone line(s) through the conduit knockouts located on the rear, top, or bottom sides of the Command Unit chassis. Always try to separate power lines from communication lines as much as possible to reduce undesired effects on the communication lines.

14. **Terminating AOR-CSE Station Cabling:**

    Terminate the lines for each AOR-CSE Station to **Ports 1 through 8** (see below illustration) on the appropriate bank (controller board).

    The tip and ring connections for the AOR-CSE Stations are **NOT** polarity sensitive.



15. Terminating PSTN/POTS Telephone Lines for Off-site Dialing:

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

On the **AOR-24 / AOR-32**, there is one (1) **"TELCO IN"** terminal located above the controller boards and a second below the controller boards.

Each bank (controller board) supports one (1) dedicated POTS/PSTN telephone line.

IMPORTANT NOTE:

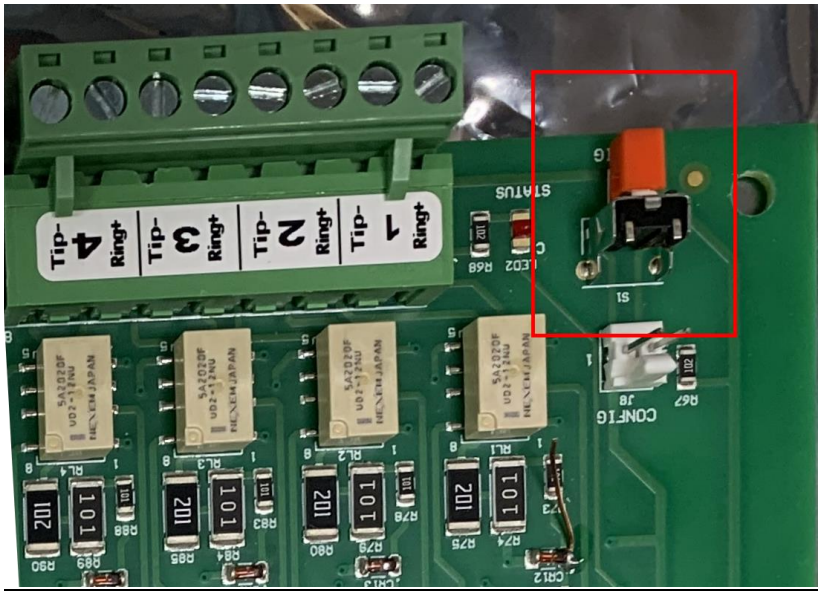
See Technical Requirements (p.2), for analog PSTN/POTS telephone line specifications.

16. Configuring the Number of AOR-CSE Stations Installed:

Configuring the number of AOR-CSE Stations is required on each controller board—this step is required for proper open/short fault detection on AOR-CSE Station cabling.

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

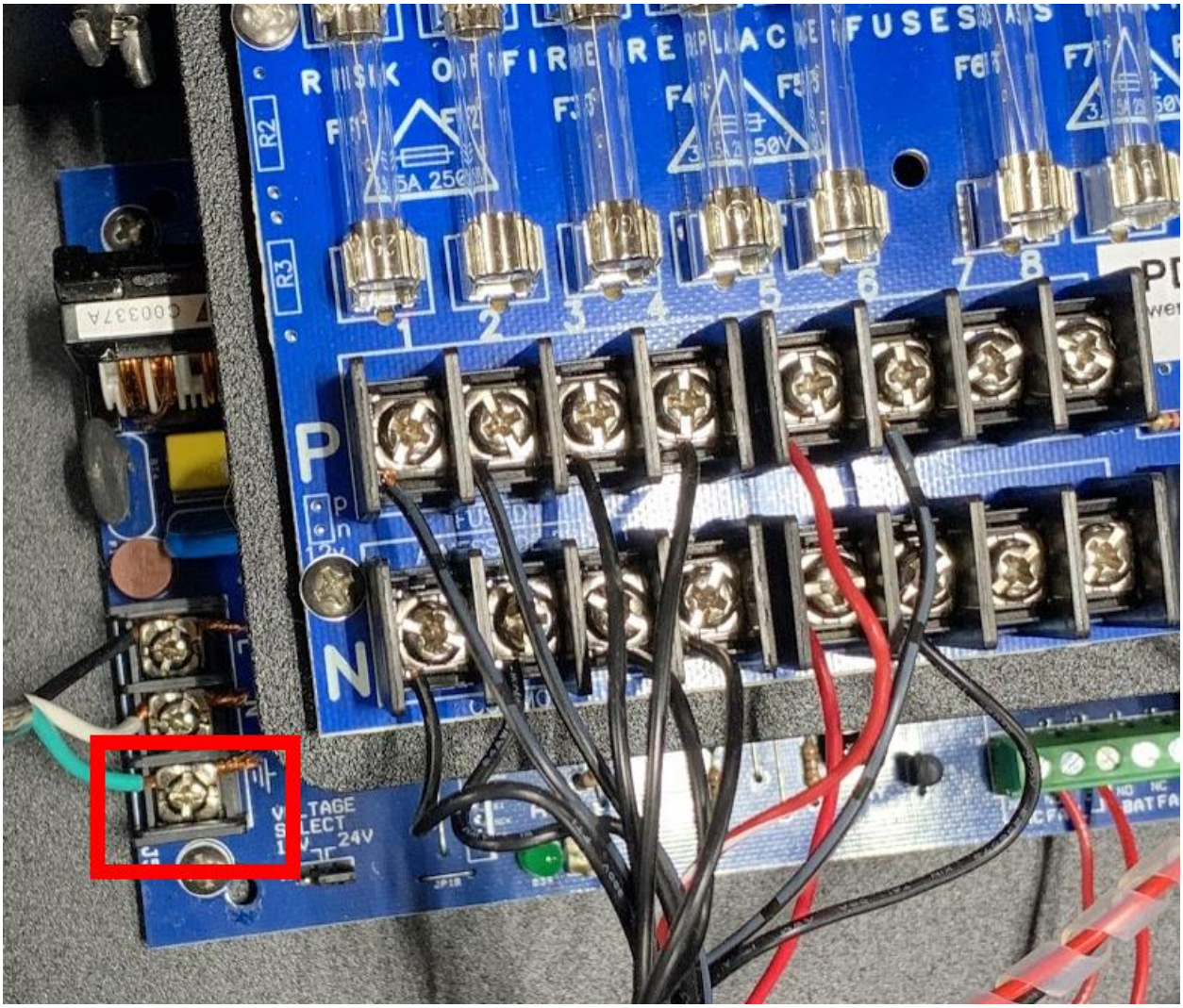
Press and hold the orange-red pushbutton for three (3) seconds—the LED will flash rapidly. When the LED changes to solidly lit, release the orange-red pushbutton.



17. Connecting Primary Power:

Once the appropriate low voltage field cabling terminations have been completed, connect the primary power (120/240 VAC, 50-60Hz) to the internal power supply located in the lower-left of the Command Unit internal compartment.

The **L** (Line) and **N** (Neutral) terminals are located on the lower-left corner of the internal power supply (see photo below). The AC ground should be connected to the bottom grounding terminal on the internal power supply.



WARNING: Once the backup batteries are connected, power will be supplied to the Command Unit. Verify all connections and take precautions from unintended electrical shock at this time.

18. 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 **"10"** to the terminals marked **"3"** through **"10"**.

WARNING: The order in which 100-240 VAC 50-60Hz or backup batteries is connected does not matter. However, once either backup battery is connected OR the primary 100-240 VAC line is energized, THE COMMAND UNIT WILL BE ENERGIZED OR "HOT".

It is the installer's obligation to ensure compliance with all national, regional, and local regulations.

It is the installer's obligation to mark the "date of installation" on each battery.

VII. 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 **NOTE:** 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 AOR-CSE Station on Port 1-8. Does not require Guard Access Code or Master Access Code entry.
#	Terminate Connection

Programming the Command Unit

1. To program the Command Unit, each controller board (bank of eight (8)) must be configured individually.

There are two (2) options for programming each controller board:

- At the Command Unit through use of the local phone;
- Remotely by calling the phone number of the connected PSTN/POTS telephone line(s).

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:

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 board(s) does(do) not require any programming. Move onto **Programming the AOR-CSE Stations**.

4. **Local Mode:**

1. **AOR-24 –** This command unit has three (3) controller boards—you will need to repeat this programming process for the second and third banks/controller boards.

   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.

   AOR-32 – This command unit has four (4) controller boards—you will need to repeat this programming process for the second, third, and fourth banks/controller boards.

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.

2. Enter the Guard Access Code to enter programming mode: ***31****
3. Program the controller board for Local Mode: ***37***
4. Repeat **Steps (1) through (3)** for the remainder of controller boards.
5. Move onto **Programming the AOR-CSE Stations**.

5. **Mixed Mode:**

1. **AOR-24 –** This command unit has three (3) controller boards—you will need to repeat this programming process for the second and third banks/controller boards.

   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.

   AOR-32 – This command unit has four (4) controller boards—you will need to repeat this programming process for the second, third, and fourth banks/controller boards.

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.

2. Enter the Guard Access Code to enter programming mode: ***31****
3. Program the controller board for Mixed Mode: ***63***
4. 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***
5. Repeat **Steps (1) through (5)** for the remainder of controller boards.
6. Move onto **Programming the AOR-CSE Stations**.

Programming the AOR-CSE Stations

Once each controller board has been programmed, the AOR-CSE Stations will need to be programmed individually.

IMPORTANT NOTE:
For the **AOR-24 Command Unit**, there are three (3) controller boards—you will need to repeat the programming process for the second and third banks/controller boards.

For the **AOR-32 Command Unit**, there are four (4) controller boards—you will need to repeat the programming process for the second, third, and fourth banks/controller boards.

1. Calling into the AOR-CSE Station to enter programming mode.
    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 command unit local phone, simply pick up the handset and press the line button (i.e. **"BANK 1"**, **"BANK 2"**, **"BANK 3"**, or **"BANK 4"**) corresponding to the appropriate bank of the AOR-CSE 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 AOR-CSE Station:

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

        There will be a short pause and then the AOR-CSE Station will answer with an open channel (i.e. microphone and speaker are active).

NOTE:
After each AOR-CSE Station programming code, a double-beep indicates the code has been accepted. Four (4) beeps indicate an error—re-enter the code again.

2. Enter the security code: **827827** (or **TAPTAP**)
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 answering point as the phone number.

    For mixed mode (i.e. alternating between local and remote), use the **10-digit phone number** of the answering point as the phone number.
4. Program the Second Phone Number to dial: **[0-20 digits for phone number] # 01**

    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 answering point as the phone number.

    For mixed mode (i.e. alternating between local and remote), use the **10-digit phone number** of the answering point as the phone number.
5. Set the call length, silence time out, ring count, and dial next number on busy: **294521 # 18**

    See **Timing/Dialing Options for the AOR-CSE Station (p.18)** for further details.
6. Recording a Location Message:

1. Record the location message for the AOR-CSE Station in question: *** 4**

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

2. Press any key to stop recording or it will end after 16 seconds. The recorded message will automatically play back.
3. To review the recorded message again, press: *** 5**
4. To delete the recorded message, press: ***3**

List of Programming Codes for the AOR-CSE 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 **"Timing/Dialing Options for the AOR-CSE Station"** below. **[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

* For **Remote Mode with CO Line Mode**, **7** can be used as the phone number to reach the local phone and **9** can be joined with a 10-digit phone number to route the call through the **"TELCO IN"** port.

NOTE:
After each AOR-CSE Station programming code, a double-beep indicates the code has been accepted. Four (4) beeps indicate an error—re-enter the code again.

Timing/Dialing Options for the AOR-CSE Station

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

Parameter	Function	Values	Definition
A	**Talk/Listen Delay.** Switching time between talk and listen modes (i.e. VOX switching time).	**1**	0.1 seconds
		2	0.2 seconds **[Default]**
		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	**Call Length.** Sets maximum length of time the AOR-CSE Station can be connected to a call.	**0**	Disabled
		1	1 minute
		2	2 minutes
		3	3 minutes **[Default]**
		4	4 minutes
		5	5 minutes
		6	6 minutes
		7	7 minutes
		8	8 minutes
		9	9 minutes
C	**Silence Time Out.** 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 **[Default]**
		5	50 seconds
		6	60 seconds
		7	70 seconds
		8	80 seconds
		9	90 seconds
D	**Dial Next Number Timer.** Sets the number of rings before the AOR-CSE 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	**Dial Next Number on Busy.** When a busy is detected the AOR-CSE Station will dial the next phone number in the number list.	**1**	Disabled
		2	Enabled **[Default]**
F	**Not Used**	Always set to **1**.	-

VIII. Operating Instructions

1. General Information

When a push button on the AOR-CSE Station is pressed, it will automatically either ring the local phone or dial out using the phone line connected to the **"TELCO IN"** port according to how the controller board is programmed (i.e. local mode, remote mode, or mixed mode).

When a call comes in to the **AOR-24 / AOR-32 Command Unit**, an LED will light indicating which AOR-CSE Station is calling in. If a call is already being answered, 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.

2. Calling Into AOR-CSE 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 command unit local phone, simply pick up the handset and press the line button (i.e. **"BANK 1"**, **"BANK 2"**, **"BANK 3"**, or **"BANK 4"**) corresponding to the appropriate bank of the AOR-CSE 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 AOR-CSE Station:

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

   There will be a short pause and then the AOR-CSE Station will answer with a series of tones.

3. Answering Calls at the Command Unit

1. When calls are routed to the local phone at the Command Unit, the local phone will ring and the strobe/siren will activate.
2. To answer the call, pick up the local phone handset **and press the appropriate line button ("BANK 1", "BANK 2", "BANK 3", or "BANK 4" buttons to the right of the handset) corresponding to the bank with the active AOR-CSE station**. The LED next to the line button will also flash.

   The strobe/siren 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.

4. 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.

IX. System Faults

1. Fault Condition:

a. **Audible Indicator –** When any open, short, or system ground fault occurs, a steady 2,300 Hz tone at 85db will be emitted from the system.

b. **Visual Indicator for Opens –** When an open occurs on an AOR-CSE Station cable run, the respective **TROUBLE** LED(s) will solidly illuminate on the Command Unit panel indicating the specific port(s) or station location(s) with the fault.

c. **Visual Indicator for Shorts –** When a short occurs on an AOR-CSE 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 port(s) or station location(s) with the fault.

d. **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.

2. Correcting Faults:

a. **Opens/Shorts on an AOR-CSE Station Cable Run –** Check cable for continuity and repair or replace cable.

b. **System Ground Faults –** Check the Command Unit for proper electrical grounding and correct any ground loops.

3. Resetting Fault Condition:

When any faults have been corrected, press the **TROUBLE RESET** button to silence the audible alarm and to clear any will be silenced and any corrected faults will have their corresponding indicator turned off.

4. Temporarily Silencing a Fault Condition:

Press the **TROUBLE RESET** button to silence the audible fault indicator. The audible alarm will be temporarily silenced for 24 hours.

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

5. Primary Power Loss:

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

Restoring primary power will reset this fault indicator LED.

X. 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 AOR-CSE 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.

XI. Frequently Asked Questions

1. **If I have more than one Command Unit can each one be connected to same PSTN/POTS telephone line?**

   Because an Area of Rescue system is considered a life safety system, each bank of eight (8) AOR-CSE Stations requires a dedicated telephone line.

2. **Can I reset the programming on the Command Unit?**

   If you have forgotten your access code, you may reset the programming on that particular controller board to factory default 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.

   NOTE: You will NOT have to reprogram the individual AOR-CSE Stations.

3. **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.

4. **Are the AOR-CSE Stations powered by the Command Unit?**

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

5. **Is the ETP-500 Series Analog Call Station compatible with the Command Unit?**

   Yes, however, the ETP-500 Series can **ONLY** support either remote mode with a single phone number or local mode (i.e. mixed mode is **NOT** supported). In remote mode, a secondary phone number **NOT** supported.

XII. General Troubleshooting

Problem	Possible Causes
The Command Unit does not function at all. It cannot dial out or it cannot be called into.	1. The internal power supply is not properly connected (check primary power and batteries). 2. The cabling for the PSTN/POTS telephone line or analog PBX extension line may not have been properly terminated inside the Command Unit. Verify the internal connections. 3. The cabling for the PSTN/POTS telephone line or analog PBX extension line may have been disconnected. Please verify continuity throughout the cable run. 4. The Command Unit has been damaged by a power surge. Contact Talkaphone Technical Support.
I hear noise on the line.	1. The cabling run for the AOR-CSE 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. 2. See **Section II – Technical Requirements** for further details.
The Local Phone rings briefly, but then when I pick up the handset, I hear one beep.	1. The Analog Call Station that called in was not programmed with a phone number.
The controller board will not accept the Access Code.	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. 2. The Access Code has been changed. You can reset all codes to factory defaults by first entering the Master Access Code: ***30*12345678*** Then enter the factory default code: ***30*14725836***