



## Installation & Operations Manual



### *Multi-Line Command Center*



N56W24720 N. Corporate Circle • Sussex, WI 53089  
800-451-1460 • [www.rathcommunications.com](http://www.rathcommunications.com)

RP8500NE10DG  
Ver. 4  
02/20

# ORATH Multi-Line Command Center Installation Guide

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Thank you for purchasing RATH's Multi-Line Command Center. We are the largest Emergency Communication Manufacturer in North America and have been in business for over 35 years.

We take great pride in our products, service, and support. Our Emergency Products are of the highest quality. Our experienced customer support teams are available to remotely assist with site preparation, installation, and

maintenance. It is our sincere hope that your experience with us has and will continue to surpass your expectations.

Thank you for your business,  
The RATH® Team



**Command Center Options**



**Distribution Module Options**

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## **Items Needed**

### **Included**

- Command Center phone with phone line cable
- Distribution Module
- System wiring (pigtail cables, power cord, Ethernet cable for programming the Distribution Module if needed)
- Cabinet (wall mount) or stand (desk mount)

## Not Included

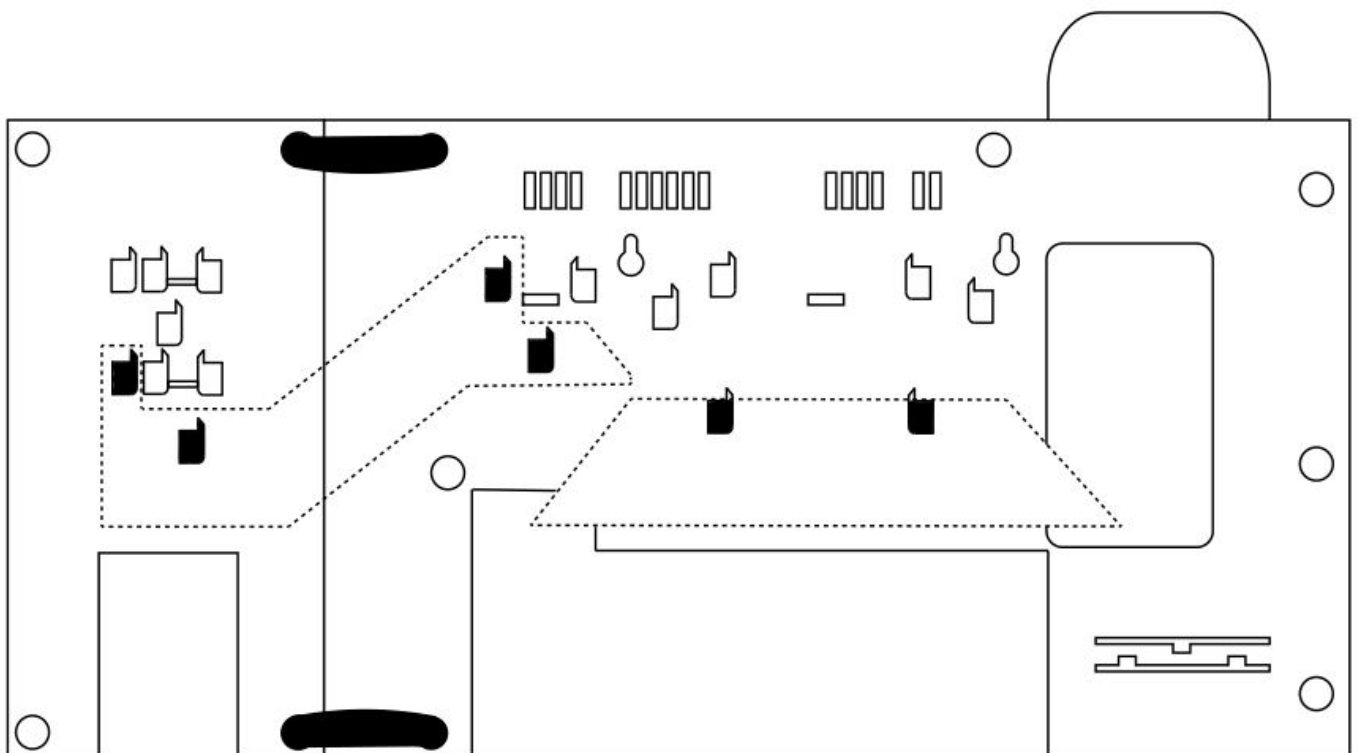
- 22 or 24 AWG twisted, shielded cable
- Multimeter
- Analog phone for troubleshooting
- Recommended: Biscuit jack for each phone  
(not applicable for elevator systems)

## Pre-Installation Steps

### Step 1

Mount the Distribution Module and Power Supply with battery backup in an appropriate location, installing the Command Center for wall mount units or the stand for desk mount units accordingly, then remove the knock outs (if applicable). The recommended location to mount the Distribution Module and Power Supply is in a network closet or Machine Room. Mount the Command Center according to the owner's specifications.

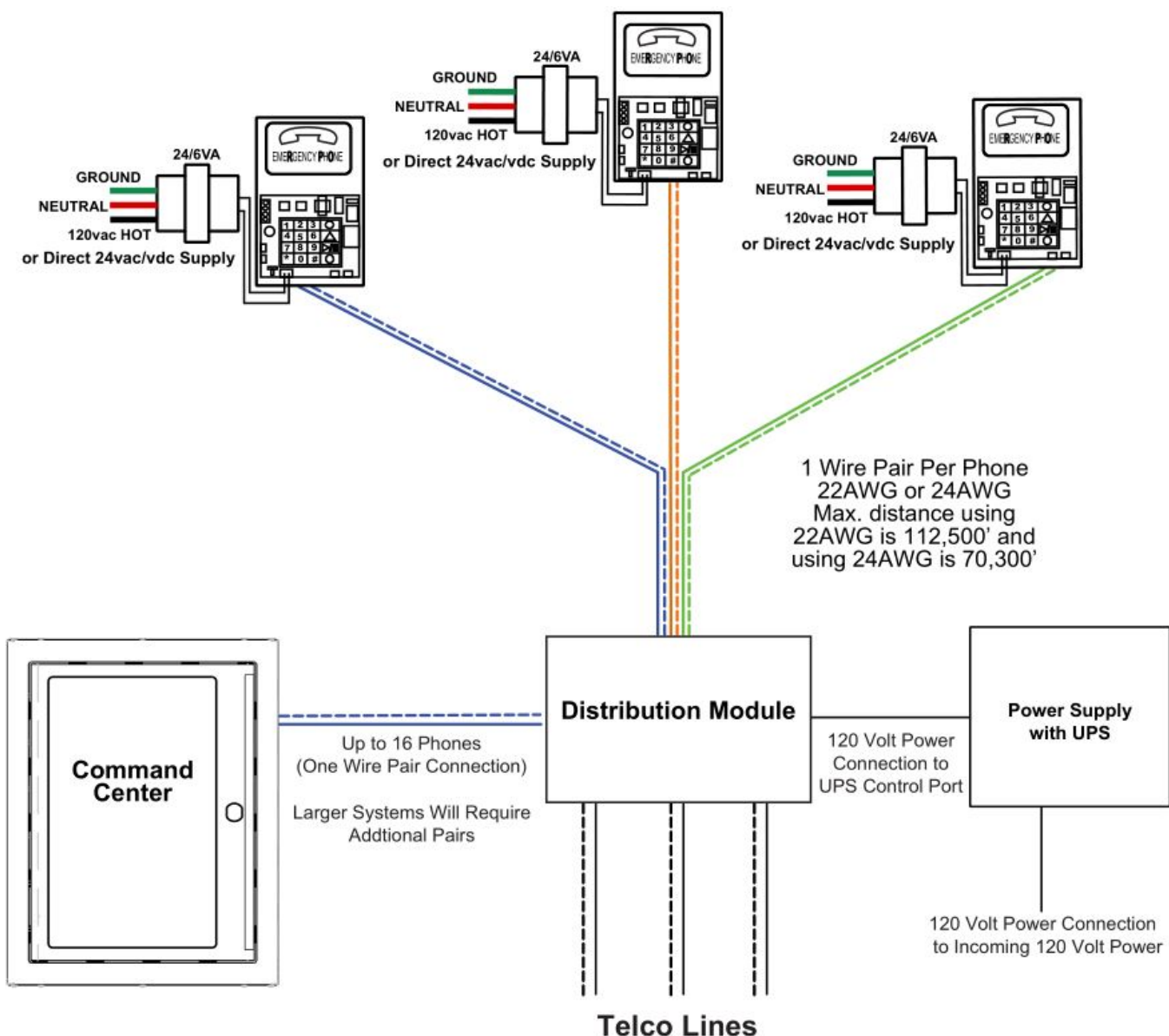
Follow the diagram below for attaching the extender and foot stand to the back of the Command Center phone as needed.



### Step 2

For 5-16 line systems, remove the screws on the back of the Distribution Module and remove the cover to expose the internal RJ45 interface connections.

## Typical System Layout



## Distribution Module Wiring

### Step 3

- These instructions apply for connecting the Command Center to the Distribution Module as well as for connecting Emergency Phones to the Distribution Module.
- The maximum cable run to the Distribution Module from the Command Center is 6,200' for 22 AWG cable.
- The maximum cable run to an Emergency Phone is 112,500' for 22 AWG and 70,300' for 24 AWG cable.
- When connecting Emergency Phones to the Distribution Module, EIA/TIA Standards MUST be followed for wiring the locations to single pair 22 AWG or 24 AWG UTP twisted, shielded cable.
- The outbound CO lines are assigned to the respective SLT connections in the numbered order. For example, CO connection 1 is assigned to SLT connection 1.

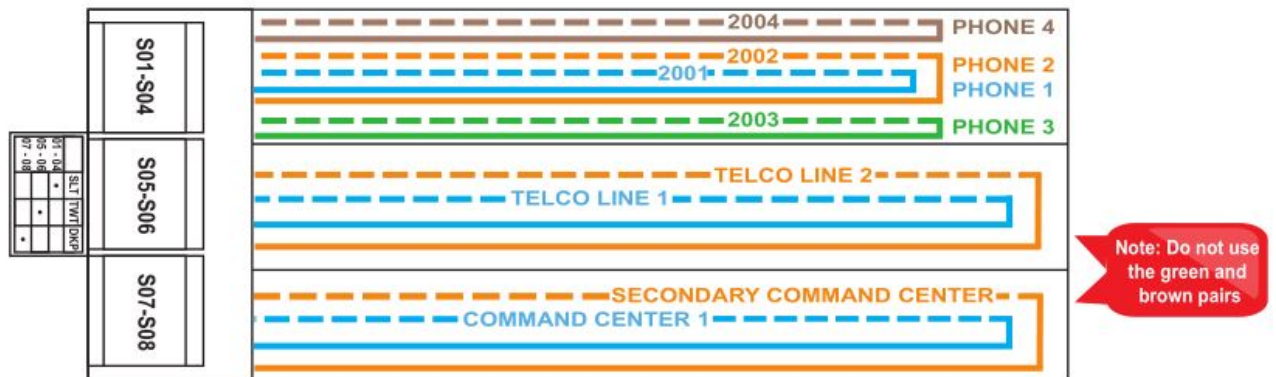
**Note:** When using the Command Center for non-elevator applications, it is recommended to use a biscuit jack for connecting each phone. The communication wire pair should be connected to the red and green screw terminals on the biscuit jack. This will prevent loose connections that can cause the system to malfunction.

### Option 1

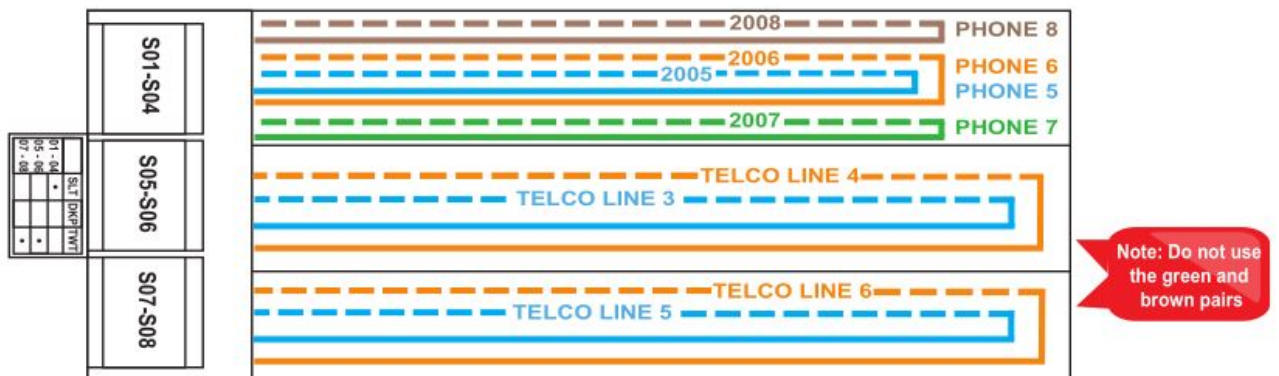
## 5-16 Line System:

- On top of each RJ45 interface there is a label indicating connection:
  - SLT** is the port used for connecting elevator phones
  - DKP** is the port used for connecting Command Center phone(s)
  - TWT** is the port used for outside Telco lines
- Plug the supplied RJ45 pigtail cables into the RJ45 interface connections following the wiring chart and pin out color scheme on the next page.
  - Refer to the top of the cards to see what type of RJ45 interface and number of extensions.
  - The same pin-out color scheme should be used for the primary card and for all additional cards. The system uses T568-A for pin-out wiring.
  - Each card installed in 5-16 line units will have three RJ45 interface connections.
- The first card installed will always be:
  - Interface 1 (01-04): connection for up to 4 phones (SLT)
  - Interface 2 (05-06): connection for up to 2 Telco lines (TWT)
  - Interface 3 (07-08): connection for up to 2 Command Center phones (DKP)
- Each additional card is used for connecting phones and phone lines:
  - Interface 1 (01-04): connection for up to 4 phones (SLT)
  - Interface 2 (05-06): connection for up to 2 Telco lines (TWT)
  - Interface 3 (07-08): connection for up to 2 Telco lines (TWT)

### Card 1 Example



### Card 2 Example

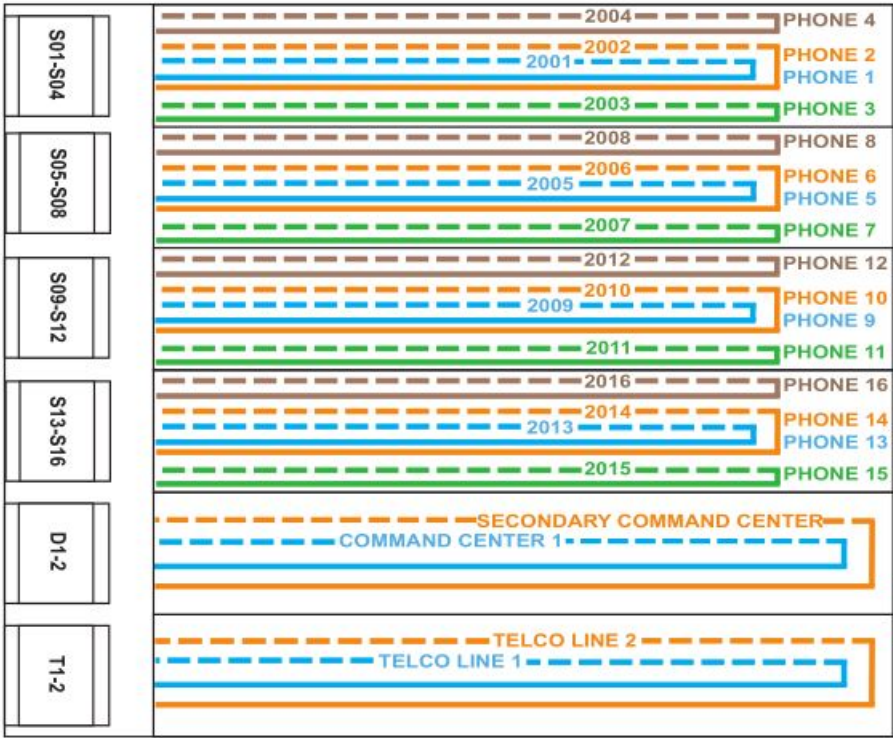


## Option 2

### 17+ Line System:

- On top of each RJ45 interface there is a label indicating connection:
  - S\_ is the port used for connecting elevator phones
  - TD(1-2)(3-4) with a dot under the D is the port used for connecting Command Center phone(s)
  - TD(1-2)(3-4) with a dot under the T is the port used for outside Telco lines
- Plug the supplied RJ45 pigtail cables into the RJ45 interface connections following the wiring chart and pin out color scheme on the next page.
  - Refer to the top of the cards to see what type of RJ45 interface and number of extensions.
  - The same pin-out color scheme should be used for the primary card and for all additional cards. The system uses T568-A for pin-out wiring.
  - Each card installed in 17+ line system will have six RJ45 interface connections.
- The first card installed will always be:
  - Interface 1 (S01-S04): connection for up to 4 phones
  - Interface 2 (S05-S08): connection for up to 4 phones
  - Interface 3 (S09-S12): connection for up to 4 phones
  - Interface 4 (S13-S16): connection for up to 4 phones
  - Interface 5 (D1-2): connection for up to 2 Command Center phones
  - Interface 6 (T1-2): connection for up to 2 Telco lines
- Each additional card is used for connecting phones:
  - Interface 1 (S01-S04): connection for up to 4 phones
  - Interface 2 (S05-S08): connection for up to 4 phones
  - Interface 3 (S09-S12): connection for up to 4 phones
  - Interface 4 (S13-S16): connection for up to 4 phones
  - Interface 5 (S17-S18): connection for up to 2 phones
  - Interface 6 (S19-S20): connection for up to 2 phones
- Or for connecting phone lines:
  - Interface 1 (TD1-TD4): connection for up to 4 Telco lines
  - Interface 2 (TD5-TD8): connection for up to 4 Telco lines
  - Interface 3 (TD9-TD12): connection for up to 4 Telco lines
  - Interface 4 (TD13-16): connection for up to 4 Telco lines

Card 1 Example

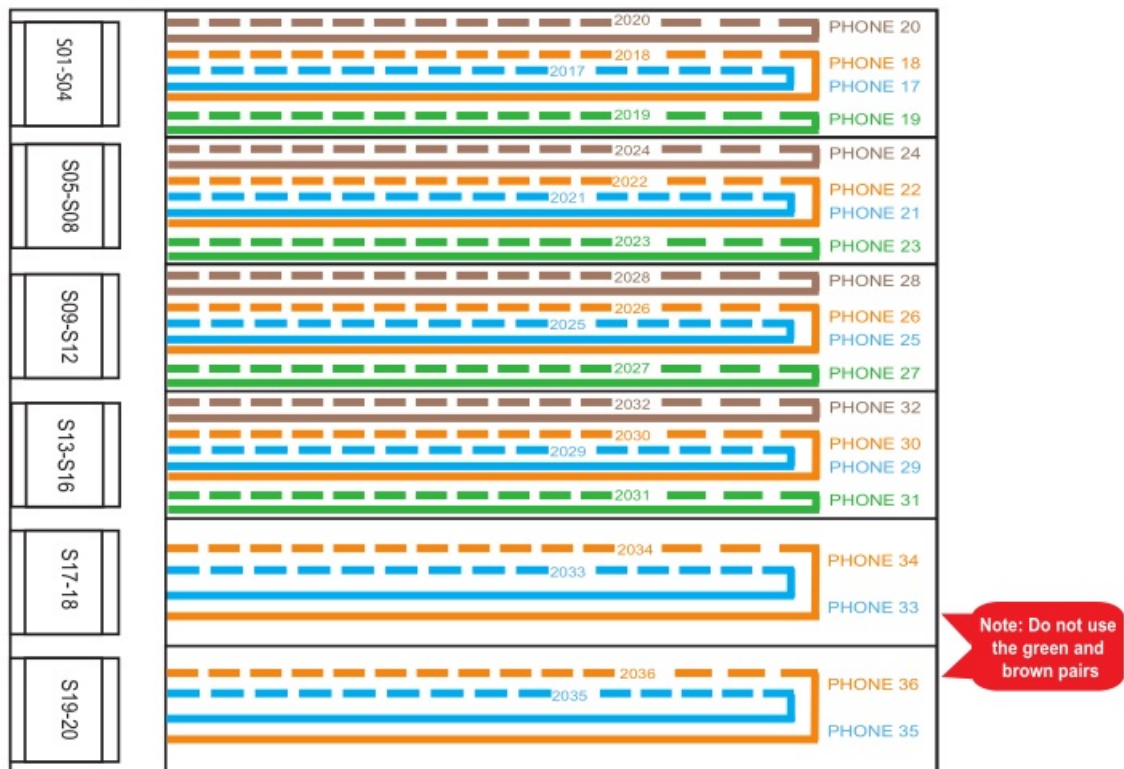


Note: Do not use the green and brown pairs

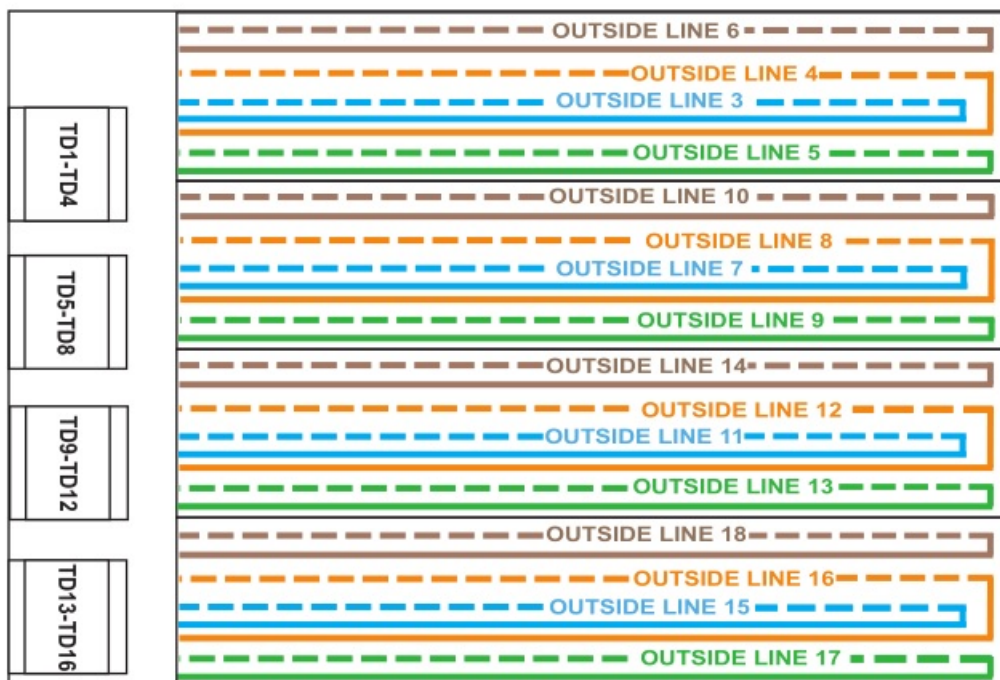


## Card 2 Example

### Option 1: For connecting phones



### Option 2: For connecting outside phone lines



## Step 4

Apply AC power to the Distribution Module by connecting the supplied power cable from the Distribution Module to the RATH® model RP7700104 or RP7701500 Power Supply.

## Step 5

Turn on the Power Supply.

## Setting the Date and Time

## Step 6

All Distribution Module programming will be done from the Command Center handset.

1. Enter Program Mode
  - a. Dial **1#91**
  - b. Enter Password: **7284**
2. Program the Time Zone
  - a. Dial **1002** followed by the appropriate Time Zone code Eastern Time Zone = **111** Central Time Zone = **112** Mountain Time Zone = **113** Pacific Time Zone = **114**
  - b. Touch the **GREEN** button in the middle of the phone when finished
3. Program the date (month-day-year format):
  - a. Dial **1001** followed by the appropriate date (xx/xx/xxxx) Example: February 15, 2011 = 02152011
  - b. Touch the **GREEN** button in the middle of the phone when finished
4. Program the time (military time including hour-minute-second):
  - a. Dial **1003** followed by the appropriate time (xx/xx/00) Example: 2:30 pm = 143000
  - b. Touch the **GREEN** button in the middle of the phone when finished
5. To exit Program Mode dial **00** followed by the **GREEN** button

## Phone Programming

### Step 7

#### Option 1

**Emergency Phone calls a number outside the building:**

1. For the Phone to call a number outside the building, it must be programmed to first dial 9, Pause, Pause, then the phone number.
2. Follow the directions that came with the Phone to program Memory Location 1 to dial 9, Pause, Pause, then the digits of the outside phone number.

#### Option 2

**Emergency Phone calls the Command Center first, then a number outside the building:**

1. The Phone can be programmed to call the Command Center first and, if that call is not answered, call an outside number.
2. Follow the directions that came with the Phone to program Memory Location 1 to dial 3001, then program Memory Location 2 to dial 9, Pause, Pause then the outside phone number.

**Note:** Do NOT use "Ring Down" lines on multi-line systems.

**Note:** When using the location message feature on the Phone, it is recommended to add two pauses at the end of the programmed dialed number.

**Example:** For dialing the Command Center, program the Phone to dial 3001, Pause, Pause.

## Testing

### **Step 8**

Once the installation and programming steps are complete, test each extension by placing a call to confirm the connections. If all testing is successful, replace the cover on the Distribution Module and secure with the provided screws (if applicable).

## **Command Center Operating Instructions**

### **Indicator Status:**

1. Red LED Light = Incoming Call or Connected to Outside Party
2. Blue LED Light = Active Call
3. Blue LED Flashing = Call on Hold

### **Answering Call at Command Center:**

1. Lift handset to answer first incoming call
2. Press Call Answer Button 1
3. If multiple calls, press subsequent Call Answer Button 2, 3, etc. (this will place the previous calls on hold)
4. To rejoin a call on hold, press the flashing blue LED next to the desired location

### **Joining a Call Already in Progress:**

1. Pick up the handset and press the red LED
2. Listen for a busy tone
3. Press the number 5 button on the numeric keypad

### **Disconnect Calls:**

#### **Option 1**

1. Hang up the handset to disconnect an active call

#### **Option 2**

1. Select the blue flashing LED to take the call off hold
2. Hang up the handset to disconnect the call (each call must be disconnected individually)

### **Calling a Location:**

1. Pick up the handset and press the desired location key (blue LED will light)


### **Call the Last Location that Dialed Out:**

1. Pick up the handset and dial 1092

## **Troubleshooting**

Problem	Possible Cause & Solutions
Command Center will not power on:	<ul style="list-style-type: none"> <li>• Check wires for voltage. It should be 28vdc.</li> <li>• If no voltage is detected, confirm you are connected to the DKP interface on the Distribution Module.</li> <li>• If you have 48vdc, you are incorrectly connected to an SLT interface.</li> </ul>
Emergency Phones will not call out:	<ul style="list-style-type: none"> <li>• Check wires for voltage. It should be 48vdc.</li> <li>• If no voltage is detected, confirm you are connected to the SLT interface on the Distribution Module (Note: Some SLT interfaces only use the blue and orange pairs).</li> <li>• If you have 28vdc, you are incorrectly connected to the DKP interface.</li> <li>• Make sure you dial any access digit that may be required to dial out of the building.</li> </ul>
Emergency Phones will make internal calls, but not external calls:	<ul style="list-style-type: none"> <li>• Check that the phone line is connected to the correct interface on the Distribution Module.</li> <li>• Verify the phone line by making sure it has 48-52vdc on the line and use an analog phone to verify you are able to call in and out.</li> </ul>
Insufficient volume on Emergency Phones:	<ul style="list-style-type: none"> <li>• To adjust the volume on SmartPhones, turn the VR1 potentiometer.</li> <li>• To adjust the volume on 2400 Series Phones, use the VOL key.</li> </ul>
Lights continuously blink on button for Emergency Phone:	<ul style="list-style-type: none"> <li>• The phone is not properly hung up. Lift the Command Center handset, select the blinking light, then hang up the handset.</li> </ul>
Lights periodically blink on Command Center:	<ul style="list-style-type: none"> <li>• This indicates that the phone is doing a phone line check. This is a normal function of the system and no action is needed.</li> <li>• To disable this function, refer to the SmartPhone Programming Guide.</li> </ul>

## Documents / Resources

 <p>ORATH Installation &amp; Operations Manual</p> <p>Multi-Line Command Center</p>	<p><a href="#">ORATH Multi-Line Command Center</a> [pdf] Installation Guide Multi-Line Command Center, WI 53089</p>
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