Command Center Engineering Specifications

RATH
by AVIRE

Part 1 - General

1.0   Summary

1.1 The Command Center is to be located at a central control point on the first floor or as determined by local Authority Having Jurisdiction. RATH® Command Center Call Boxes are to be located on all floors above and below the first floor, ideally next to a stairwell emergency exit or elevator landing on each floor.

1.2 The Command Center must include visual indicators to allow rescue personnel to know which Call Box needs assistance. The Command Center must allow rescue personnel to speak to each Call Box individually. The Command Center must include both a handset and speakerphone to communicate back to the Call Boxes.

1.3 The emergency communication hardware shall comply with the Americans with Disabilities Act (ADA). The Call Boxes shall have the ability to be programmed with up to 2 emergency phone numbers (either both off-site or Base Station and one off-site). Upon activation of the emergency push button, a call will be automatically placed to the Command Center. If no one answers at the Command Center, the Call Box must dial a secondary location outside the building to activate **two-way off-site person to person voice communications** via landline, cellular, or IP device.

2.0   Submittals

2.1 Submit product data sheets. Include operation manuals.
2.2 Wiring or shop diagrams detailing wiring schematics, cabling.

3.0   Construction

3.1 The Command Center (2500 series) shall include both the Base Station and Distribution Module. The Base Station must have a powder coated steel housing (surface or flush mount) or be desk mounted, include a black handset with coil cord and be powered from the Distribution Module.

3.2 Distribution Module must be a surface mount enclosure, include connections for the Call Boxes and power both the Base Station and 2400 series Call Boxes. The Distribution Module shall be powered from 120vac power with a battery backup that provides power for a minimum of 4 hours
(part # RP7700104, 2500- PWRUPS, or RP7701500).

3.3 The Call Boxes (2400 series) must be in full compliance with ADA requirements. Call Boxes require a hands-free speakerphone with an LED to indicate status of call.

3.4 The Call Boxes must allow the programming of a specific location message of the unit. This allows rescue personnel to know the location of the activated Call Box.

3.5 The Call Boxes are to be located no higher than 48" front reach, or 54" side reach to the center of the button above ground level to ensure conformance with the ADA requirements.

3.6 The Call Boxes must have a Braille face plate to ensure conformance with the ADA requirements.

3.7 The Command Center must provide an audible and visual indicator that a Call Box has been activated.

3.8 The 120vac Power Supply RATH® part # RP7700104, 2500-PWRUPS, or RP7701500 must be capable of supplying power to the Distribution Module.

4.0   Mounting

4.1 The Command Center is to be mounted on a flat wall surface or a desktop.
4.2 The Call Boxes are to be wall, surface or flush mounted.

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5.0   Electrical

5.1 The Command Center and Call Boxes (2400 series) are to be powered by the Distribution Module (Note: 2100 series require separate power).

5.2 Distribution Module shall be powered by the RATH® part # RP7700104, 2500- PWRUPS, or RP7701500 Power Supply. It shall require 120vac power and provide battery backup capable of providing a minimum of 4 hours of electrical backup in case of building power failure.

5.3 The Base Station shall connect to the Distribution Module with single wire pair.

5.4 Each Call Box shall connect to the Distribution Module with a single wire pair. Wire pairs shall be shielded if near any power runs, otherwise standard pair is acceptable. Wiring shall be RATH® Custom Communication Cable (part #RP7500094). If CI 2 hour fire-rated cable is required, use RATH® Communication Cable (part # RP6600300M). For a UL Listed option use part # RPP66010002.

5.5 System shall be in compliance with all state and local electrical codes.

5.6 If protective covers are required on the Call Boxes per local municipal codes, use RATH® 2400-XXXSSPC2.

5.7 If the monitoring of the system integrity is required per NFPA 72, use RATH® Supervisor Board 2500-XXSPVSR.

6.0   Communications

6.1 The Call Boxes shall be an ADA compliant and vandal resistant speakerphone.

6.2 The Call Boxes shall be hands-free and be a push-button-once to talk system. Once the button has been pushed, the Call Box will call the Base Station. If no answer at the Base Station, it will automatically call a pre-programmed emergency number. The Call Box must be capable of being programmed with up to 2 emergency numbers (either both off-site or Base Station and one off-site).

6.3 The Call Box shall have location message capability. Call Box must have a minimum 18 second recordable message capability, programmable to play 1 or 2 times. Call Box shall notify called party of the location of the call upon being received at the emergency dispatch center.

6.4 The Call Box shall be capable of allowing the called party to replay the location message if necessary to ensure an understanding of the caller location.

6.5 If system is not attended to 24 hours a day, the Call Box must dial a secondary location outside the building to activate two-way off-site person to person voice communications.

6.6 Once a call has been made (button pushed), the call can only be terminated by the called party.

6.7 The Call Box must have a red LED that will light up upon push of the button. The light shall be a solid color when the Call Box is activated and will flash when call has been answered.

6.8 The Call Box must be capable of being programmed and re-programmed on-site.

6.9 Standard Call Box features:
   6.9.1 Two number programming (either both off-site or Base Station and one off-site).
   6.9.2 Operating temperature of between -40˚F to +150˚F (-40˚ to + 65˚ C).
   6.9.3 On-site programmable.
   6.9.4 EEPROM memory to protect programming.

7.0   **Signage**

7.1 System shall consist of a minimum of one 120/277vac edge light sign (part #7050 or 7050E), a "location" and "instruction" sign (part # 7049SS) to clearly indicate location of designated area.
A tactile sign (part # 7043/7044 or 7087) with raised letter and Braille shall be located at entrance to area.

8.0   **Graphics**

8.1 Command Center must include wording identifying the location of each Call Box and light an LED when a particular Call Box has been activated.

8.2 The Call Box wording must include "Emergency Phone", International Phone Symbol, and raised Braille lettering.

9.0   **Cabling**

9.1 Cabling for two-way communication system shall meet the applicable requirements for pathway survivability. Cabling installation shall consist of one or more of the following:

> 9.1.1 2 hour fire-rated circuit integrity (CI) cable – RATH® part # RP6600300M
> (for a UL Listed option use part # RPP66010002).
> 9.1.2 2 hour fire-rated cable system.
> 9.1.3 2 hour fire-rated enclosure or protected area.

10.0   **Warranty**

10.1 The Command Center and Call Boxes shall be warranted for a period of two years.

11.0   **Manufacturer**

The manufacturer shall be:
RATH® Communications
N56 W24720 North Corporate Circle
Sussex, WI 53089
800-451-1460
Website: www.rathcommunications.com