



Section 273000: Area of Refuge/Elevator Landing - Two-Way Communication System

- SmartRescue Base Station, Call Boxes and Signage

Part 1 - General

1.0 Summary

- 1.1 The *Base Station* is to be located at a central control point on the first floor or as determined by local Authority Having Jurisdiction. RATH® *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 *Base Station* must be capable of handling a minimum of 5 RATH® *Call Boxes*. Visual indicators on the *Base Station* allow rescue personnel to know which *Call Box* needs assistance. The *Base Station* must allow rescue personnel to speak to all *Call Boxes* or individual *Call Boxes*.
- 1.3 The emergency communication hardware shall comply with the Americans with Disabilities Act (ADA). The *Call Box* shall have the ability to be programmed with up to 5 emergency phone numbers. Upon activation of the emergency push button, a call will be automatically placed to the *Base Station*. If no one answers at the *Base Station*, the *Call Box* must dial a secondary location outside the building to activate two-way off-site person to person voice communication via landline, cellular device (part # 2100-LTEGSM4), or IP (part # 2100-VOIP2CS).

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 *Base Station* (models 2500) must have a Stainless Steel or powder coated steel housing, red coil cord emergency handset, be 24vdc or 120vac powered and include a rechargeable battery to maintain backup power for a minimum of 4 hours of talk time.
- 3.2 The *Call Boxes* (models 2100) must be in full compliance with ADA requirements. *Call Boxes* require a hands-free speakerphone with an LED to indicate status of call.
- 3.3 The *Call Boxes* must allow the programming in of a specific location message of the *Call Box*. This allows rescue personnel to know the location of the activated *Call Box*.

- 3.4 The *Call Boxes* are to be located no higher than 48” front reach, or 54” side reach to the center of the push button above ground level to ensure conformance with the ADA requirements.
- 3.5 The Area of Refuge *Call Boxes* must have a Braille face plate to ensure conformance with the ADA requirements.
- 3.6 The *Base Station* must provide an audible and visual indicator that a *Call Box* has been activated.
- 3.7 The 24vdc *Power Supply* part # 2500-PWR24U must be capable of supplying power to a minimum of 10 *Call Boxes* and the *Base Station*.

4.0 Mounting

- 4.1 The *Base Station* is to be mounted on a wall, surface or flush mounted.
- 4.2 *Call Boxes* are to be wall, surface or flush mounted.

5.0 Electrical

- 5.1 *Call Boxes* and *Base Station* are to be powered by RATH® 24vdc *Power Supply* part # 2500-PWR24U. *Base Station* to have option of 120vac power. Wiring shall be RATH® Custom Power Cable (part # RP7500094P).
- 5.2 Wiring from the *Base Station* to the *Call Boxes* shall be RATH® Custom Communication Cable (part # RP7500094). If CI 2 hour fire-rated cable is required, use RATH® Communication Cable part # RP6600300M.
- 5.3 *Call Boxes* must have built-in battery backup and include a rechargeable battery to maintain backup power for a minimum of 4 hours of talk time. If *Call Boxes* require protective covers per local municipal codes, use RATH® 2100-XXXSSRC2.
- 5.4 *Base Station* must have a built-in battery backup and include a rechargeable battery to maintain backup power for a minimum of 4 hours of talk time.
- 5.5 System shall be in compliance with all state and local electrical codes.

6.0 Communications

- 6.1 The *Call Boxes* shall have 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 pre-programmed emergency numbers. The *Call Box* must be capable of being programmed with up to 5 emergency numbers.

- 6.3 *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 *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 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 call has been made (button pushed), the call can only be terminated by the called party.
- 6.7 *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 and remotely.
- 6.9 Standard *Call Box* features:
 - 6.9.1 Five number programming.
 - 6.9.2 Operating temperature of between -40°F to +150°F (-40° to + 65° C).
 - 6.9.3 Programmable passwords.
 - 6.9.4 On-site or remote programmable.
 - 6.9.5 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), and 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 *Base Station* must include wording identifying the location of each *Call Box* and light an LED when a particular *Call Box* has been activated.
- 8.2 *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 *Base Station* and *Call Boxes* shall be warranted for a period of three 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