

SECTION 273226

AREA OF RESCUE ASSISTANCE COMMUNICATION SYSTEM

1 General Description

- 1.1 "Areas of Rescue Assistance" are mandated by the Americans with Disabilities Act (ADA) as a means of providing greater safety to people with disabilities in case of an emergency. An Area of Rescue Assistance system enables two-way communication between a rescue site and a central command station.
- 1.2 The Area of Rescue Assistance (ARA) system shall consist of a microprocessor-based Command Unit, model CU-8R, and up to 8 ARA Stations, Model ETP-100EB, manufactured by Talk-A-Phone Co. This system shall meet the Federal Government's guidelines as an Areas of Rescue Assistance system under the ADA.
- 1.3 Manufacturers:
 - A. Rath Microtech.
 - B. Talk-A-Phone.

2 Construction

2.1 Command Unit

- 2.1.1 Unit shall be protected in a 16-gauge #4 brushed stainless steel cabinet including all necessary components except Strobe/Siren and mounting hardware.
- 2.1.2 Unit shall be contained within an enclosure approximately 12.62" W x 24.12" H x 3.19" D inside the wall and 0.87" D outside the wall. A 1.00" thick rim with 0.25" radius corners shall surround the enclosure.
- 2.1.3 Enclosure shall include two Lexan windows: one revealing handset and operating instructions, the other enabling emergency personnel to monitor the ARA Station LEDs.
- 2.1.4 Unit shall have 11 RJ11 modular phone ports for connecting 8 ARA stations, a local phone, a telco line in and a telco line out.
- 2.1.5 Conduit hole knockouts shall be provided on both top and bottom of enclosure.

2.2 ARA Stations

- 2.2.1 ARA Stations shall be highly vandal-resistant and fully ADA compliant.
- 2.2.2 Face plates shall be 12 gauge #4 brushed stainless steel.
- 2.2.3 Speaker and microphone shall be protected by a metal screen.

- 2.2.4 Units shall incorporate all-metal raised letter and Braille plate which reads "EMERGENCY" in both Standard English and Braille. Call button shall be incorporated into the plate for easy identification and use by the visually impaired. All letters shall be raised by 3/32" and comply fully with all requirements of the ADA.

3 Features

- 3.1 Vandal resistant ARA Stations shall be hands-free at all times and complies fully with the Americans with Disabilities Act (ADA).
- 3.2 System shall provide for dedicated communications lines from ARA Stations to Command Unit.
- 3.3 During an Emergency Call, system shall provide two way visual and audible communications between Command Unit and ARA Stations.
- 3.4 When a call is placed from an ARA Station, a strobe/siren shall be activated at the Command Unit.
 - 3.4.1 Siren shall offer eight sound options and two volume levels, selected via dipswitches.
 - 3.4.2 Sound output shall range from 90dBA to 100dBA
 - 3.4.3 Strobe/Siren assembly shall mount into a standard 4 inch square box.
- 3.5 System shall require no phone lines for on-site calling.
- 3.6 Only one phone line--either CO line or PBX extension--shall be required for off-site calling. This line may be shared with another device. If the Command Unit requires the line it shall have line seizure capability.
- 3.7 Unit shall be programmable where if the local phone is busy or not answered, an ARA Station's call will be automatically routed to a Telco line and a pre-programmed number dialed. If the call is not answered at this number, a secondary number shall be automatically dialed. The process shall continue until someone answers the call or the ARA Station times out.
- 3.8 Command Unit shall include an Uninterruptible Power Supply (UPS), mounted outside of the cabinet, so that system shall function for at least 4 hours of active use during a power outage.
- 3.9 Command Unit shall have the ability to originate a call to each ARA Station.
- 3.10 When an ARA Station is activated, a phone shall ring at the Command Unit.
- 3.11 ARA system shall be able to function if multiple rescue calls come in simultaneously. When the operator is in conversation with one ARA Station, secondary calls shall be placed in queue and automatically put through when the first call is completed.

4 Lighting

4.1 LEDs

- 4.1.1 Unit shall have one LED for each of 8 ARA Stations. When the Station is ringing the Command Unit, the LED shall blink. When the Station is in communication with the Command Unit, the LED shall light solidly. When the Command Unit is in communication with one Station and secondary Stations are activated, the LEDs for those secondary Stations shall blink.
- 4.1.2 Unit shall have four separate LEDs to indicate: system power, telco line in use, telco line ringing, and local phone off-hook.

4.2 Strobe

- 4.2.1 When an ARA station is activated, a strobe shall begin flashing at the Command Unit location. Strobe shall continue to flash as long as any Stations are active.
- 4.2.2 Strobe shall be rated at 15 candela and flash 60 times per minute.

5 Electrical

5.1 Command Unit

- 5.1.1 Command Unit shall include a UPS to enable operation of system for at least 4 hours in a power failure. UPS shall operate on 120VAC power.
- 5.1.2 ARA Stations, Local Phone, Telco line in and Telco line out shall plug into RJ11 receptacles on Command Unit. All other components shall be plugged into included Power Strip, which in turn is plugged into UPS.
- 5.1.3 Strobe/Siren assembly and its power supply, all relays and power strip shall be UL listed.

5.2 ARA Stations

- 5.2.1 All ARA Stations shall receive power from Command Unit and require no other source of external power.
- 5.2.2 ARA Stations shall require only one twisted, shielded pair home-run to Command Unit and terminating in RJ11 plugs.
- 5.2.3 Wiring between ARA Stations and Command Unit shall not exceed resistance of 25 Ohms.
- 5.2.4 ARA Stations shall be varistor lightening suppressed and full wave polarity guarded.

6 Mounting

6.1 Command Unit

- 6.1.1 Conduit hole knockouts shall be provided in top and bottom of enclosure to allow easy connection between Master Station and ARA Stations, Strobe/Siren and 120VAC power source.
- 6.1.2 Unit shall be recess mountable such that 0.75" protrudes from the wall.
- 6.1.3 Unit shall be available in a surface mounting alternate version, model CU-8.

6.2 ARA Stations

- 6.2.1 ARA Stations shall be surface mounted, model ETP-100MB, or flush mounted, models ETP-100EB and MS-400.
- 6.2.2 For ADA compliance, top of ARA Station shall be at most 51" above finished floor for a forward reach and at most 57" above finished floor for a side reach.
- 6.2.3 ARA Stations shall be affixed to surface using 4 #6 Tamper-proof screws.

7 Options

7.1 ARA Stations shall include a recorded message location identifier.

- 7.1.1 Surface mounted stations shall be model ETP-100MBV. Flush mounted stations shall be models ETP-100EBV and MS-400.
- 7.1.2 Message shall transmit as soon as emergency call is answered.
- 7.1.3 Message shall be repeatable upon request of operator.
- 7.1.4 Message duration shall be programmable as 5, 10 or 16 seconds.
- 7.1.5 Location identifier message and duration shall be programmable from local phone handset or remote location using Telco line in.

7.2 ARA Stations shall include an ARA sign designating the area as an Area of Rescue.

- 7.2.1 Sign shall be self-adhesive, model ETP-SIGN, made of ultra-violet light resistant polycarbonate. Sign shall read "AREA OF RESCUE" in both Standard English and Braille for ADA compliance.
- 7.2.2 Sign shall be wall or ceiling mounted, model ETP-SIGN/L, made of white steel with red lettering. Sign shall be backlit and read "AREA OF RESCUE".

- 7.2.3 Sign shall be wall or ceiling mounted, model ETP-SIGN/LD, with a metal frame and lighted Lexan plate. Lexan plate shall read "AREA OF RESCUE". Sign shall include built-in battery back-up in case of power failure.

8 Warranty

- 8.1 Equipment shall be warranted against any defects in material and workmanship, under normal use, for a period of twelve months from date of installation. In the event system is found by manufacturer to be defective within the warranty period, manufacturer shall repair and/or replace any defective parts, provided the equipment is returned to manufacturer.

END OF SECTION