



Product Specification

- Solar/Cellular Phone Tower: Model 2100-850

1.0 General Description

- 1.1 The Solar/Cellular Tower is required to eliminate the need to trench for electrical and phone lines.
- 1.2 The Emergency Phone Tower shall be rectangular in appearance and made of continuous steel construction $\frac{1}{4}$ " in thickness. The Phone Tower shall stand 9' from the base to the top of tower. The words "EMERGENCY" with bright reflective lettering shall be located on all four sides and each letter shall be a minimum of 3" in height. The Phone shall be compliant with the American with Disabilities Act and be powered with a solar panel accompanied with a battery for power storage.
- 1.3 The Emergency communication component shall comply with the American with Disabilities Act. The phone 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, the strobe shall instantaneously flash until the call has been disconnected by the called party.

2.0 Construction

- 2.1 The Emergency Phone Tower shall be constructed of $\frac{1}{4}$ " galvanized steel that is weatherproof and manufactured with a weather and corrosion resistant finish.
- 2.2 The Emergency Phone Tower is to stand 9' tall from base to top, 12" wide and 6" deep and all aspects of its construction will be vandal resistant.
- 2.3 The Emergency Phone plate shall be made of 11 gauge stainless steel and be 13" inches high and 7" inches wide.
- 2.4 The Emergency phone button shall be located approx. 36" above the base to ensure conformance with the American with Disabilities Act (ADA) requirements.
- 2.5 Tower must have a Braille faceplate located approx. 36" above the base to ensure conformance with the ADA requirements.
- 2.6 Base of Emergency Phone Tower shall be $\frac{3}{4}$ " in thickness, welded to body of tower, with 4 built in $\frac{3}{4}$ " mounting holes to attach to a concrete mounting pad.



- 2.7 The strobe shall be mounted on a 1' stainless steel pipe extension on top of the tower. Strobe will come fully assembled.
 - 2.8 The strobe electronics access opening shall be 7 ¼ inches high and 6 inches wide and located on the back side of the tower.
 - 2.9 Phone electronics and most electrical connections must be housed in a Nema 4 enclosure within the Emergency Phone Tower.
 - 2.10 Tower shall have a rear access panel located on the tower backside directly behind the Phone plate that provides access to the electrical and phone connections.
 - 2.11 The Phone Tower must have a rear access door located less than 2 feet above ground to allow for solar battery installation and maintenance.
- 3.0 Mounting
- 3.1 The Emergency Phone Tower is constructed of ¼" steel that is of one continuous piece with a welded base ¾" thick containing four built in mounting holes. A template for installing the Anchor bolts is to be included. The unit shall be mounted on a concrete pad with ¾" galvanized anchor bolts, galvanized nuts and washers provided by Rath Microtech.
 - 3.2 Solar Panel is to be mounted at the top of the Tower affixed to the 1' stainless steel extension below the strobe. A mounting bracket is provided. The Solar panel must face south and be at an angle equal to the locations latitude * .9 + 29degrees. Example. 45 latitude will equal 69.5 degrees from horizontal.
- 4.0 Electrical
- 4.1 The phone shall be powered by a 43 watt solar panel along with a 36.5 amp battery for energy storage.
 - 4.2 Battery is connected at time of installation with a nut/bolt/washer combination. (Provided by Rath as part of Solar/Cellular Unit)
 - 4.3 A voltage regulator with an input power of 6.5 amps at 12 volts must be installed. (Provided by Rath as part of Solar/Cellular Unit)
 - 4.4 The power consumption can not exceed 1.4 amps with a fully active phone, telular unit, strobe and power supply.



5.0 Lights

- 5.1 Strobe light shall be located at the top of the Emergency Phone Tower. The strobe shall be activated upon pushing of the emergency phone button. The strobe shall have an output of approx. 1,000,000 Candlepower and flash at a rate of a minimum of 70 times per minute.
- 5.2 Blue light Single Element Strobe flashes when phone is activated.

6.0 Communications

- 6.1 The unit shall have an ADA compliant and Vandal resistant speaker phone.
- 6.2 The Phone shall be a 1 push to talk phone. Once the button has been pushed, the phone will call programmed emergency numbers. The Phone must be capable of being programmed with up to 5 emergency numbers.
- 6.3 Phone shall have "Call Tracker" capability. Phone must have a minimum 18 second recordable message capability programmable to play 1, 2 or 3 times. Phone shall notify called party of the location of the call upon being received at the Emergency dispatch center.
- 6.4 Phone shall be capable of allowing the called party to replay the location message (Call Tracker feature) if necessary to ensure an understanding of the location of phone tower.
- 6.5 Once call has been made (button pushed) the call can only be terminated by the called party.
- 6.6 Phone plate must have a red LED that will light up upon push of the button. The light shall be a solid color when the Phone is activated, and will flash when call has been answered.
- 6.7 The speakerphone must be capable of being programmed and reprogrammed on-site and remotely.
- 6.8 Line powered phones and Dip Switch programming are not acceptable.
- 6.9 Internal cellular unit supports the following carriers. If your carrier doesn't appear on the list, check with Rath Microtech for options 1-800-451-1460.
 - 6.9.1.1 U.S. Cellular®, T-Mobile®, AT&T®, Cingular®, Verizon®, Sprint®, Alltel®



- 6.10 Standard Phone features:
 - 6.10.1 Five number programming.
 - 6.10.2 Weatherproof speaker.
 - 6.10.3 Weatherproof microphone.
 - 6.10.4 Operating Temperature of between -40°F to +150°F (-40° to + 65° C)
 - 6.10.5 Programmable passwords.
 - 6.10.6 On-Site or Remote Programmable.
 - 6.10.7 EEPROM memory to protect programming.
 - 6.10.8 Adjustable speaker and microphones levels.

- 7.0 Finish
 - 7.1 Unit shall be powder coated white with a weatherproof and corrosion resistant finish. End user must be capable of requesting custom colors.
 - 7.2 Unit must be UV resistant

- 8.0 Graphics
 - 8.1 All wording shall be made of highly reflective vinyl lettering.
 - 8.2 The Standard text like “EMERGENCY” shall be available in Blue with each letter to be a minimum of 3” in height.

- 9.0 Options
 - 9.1 There shall be custom paint options for the Emergency Phone Tower.
 - 9.2 System must allow for custom school or company’s logo on the tower similar to how the words “Emergency” is affixed.
 - 9.3 System must allow for custom tower notification lettering in place of “Emergency” if requested.
 - 9.4 Strobes must also be available in Red and Amber

- 10.0 Warranty
 - The unit shall be warranted for a period of two years.

- 11.0 Manufacturer
 - The manufacturer shall be:
 - Rath Microtech
 - N56 W24720 North Corporate Circle
 - Sussex, WI 53089
 - 1-800-451-1460
 - Website: www.rathmicrotech.com