



Product Specification

- Solar/Radio Tower: Model 2100-850RF

1.0 General Description

- 1.1 The Emergency Radio Tower shall be rectangular in appearance and made of continuous steel construction. The Radio 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.

2.0 Construction

- 2.1 The Emergency Radio Tower shall be constructed of galvanized steel that is weatherproof and manufactured with a weather and corrosion resistant finish.
- 2.2 The Emergency Radio 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 Radio plate shall be made of stainless steel and be 13" inches high and 7" inches wide.
- 2.4 The Emergency Radio 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 Radio Tower shall be, welded to body of tower, with 4 built in 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 1/4 inches high and 6 inches wide and located on the backside of the tower.
- 2.9 Radio electronics and most electrical connections must be housed in a Nema enclosure within the Emergency Radio Tower.





- 2.10 Tower shall have a rear access panel located on the tower backside directly behind the Radio plate that provides access to the electrical and Radio connections.
- 2.11 The Radio 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 Radio Tower is constructed of steel that is of one continuous piece with a welded base $\frac{3}{4}$ " 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 $\frac{5}{8}$ " 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 Radio shall be powered by a 43-watt solar panel along with a 58-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/Radio 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/Radio Unit)
- 4.4 The power consumption cannot exceed 2.4 amps with a fully active radio unit, strobe and power supply.

5.0 Lights

- 5.1 Strobe light shall be located at the top of the Emergency Radio Tower. The strobe shall be activated upon pushing of the emergency Radio 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 radio is activated.
- 6.0 Communications
 - 6.1 The Radio shall be a 1 push to talk Radio. The Radio will only transmit when the push button is pressed. When the button is released it will receive transmission from Base unit or other mobile radio's.
 - 6.2 Radio plate must have a red LED that will light up upon push of the button. The light shall be a solid color when the Radio is transmitting or receiving information.
 - 6.3 Standard Radio features:
 - 6.3.1 Weatherproof speaker.
 - 6.3.2 Weatherproof microphone.
 - 6.3.3 Operating Temperature of between -40°F to +150°F (-40° to + 65° C)
 - 6.3.4 Programmable passwords.
 - 6.4 Frequency Range Options 66-88MHz, 136-174MHz, 400-430MHz, 440-480MHz, 450-490MHz, 480-512MHz
- 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 Radio 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

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Website: www.rathsecurity.com

