**SECTION 10 17 16**

**TELEPHONE ENCLOSURES**

**PART 1 GENERAL**

**1.01 SUMMARY**

1. Equipment and materials used shall be standard components that are manufactured and available for purchase as standard replacement parts as long as the product is commercially available from the manufacturer.

**1.02 QUALITY ASSURANCE**

1. All tower installation, configurations, setup, program, and related work shall be performed by electronic technicians thoroughly trained by the manufacturer in the installation and service of the equipment provided.
2. The tower shall be warrantied against any defects in material and workmanship under normal use for a period of five (5) years from date of installation, provided that manufacturer receives a completed "Installation Certification" certifying the date on which the system has been installed. An "Installation Certification" card shall be enclosed with every unit. In the event that no "Installation Certification" is received by manufacturer, the five (5) years will commence on the date of shipment by the manufacturer.
3. The LED blue light and LED panel light shall be warrantied against any defects in material and workmanship under normal use for a period of twenty-four (24) months from date of installation, provided that manufacturer receives a completed "Installation Certification" certifying the date on which the system has been installed. An "Installation Certification" card shall be enclosed with every unit. In the event that no "Installation Certification" is received by manufacturer, the twenty-four (24) months will commence on the date of shipment by the manufacturer.

**1.03 CERTIFICATIONS AND STANDARDS**

1. The tower shall have a Nationally Recognized Testing Laboratory (NRTL) recognized component mark that indicates:
	1. Conformance to ANSI/UL Standards 60950-1 and 60950-22.
	2. Certification to CAN/CSA Standard C22.2 Nos. 60950-1 and 60950-22.
2. The included LED blue light (model: ETP-EL or ETP-EL12/24) shall be listed to:
	1. UL Std 1598
	2. CSA Std C22.2 No. 250.0-08
3. The included LED panel light shall be a component recognized by UL to the following standards:
	1. UL Std 1638
	2. CSA 22.2 No. 205-M1983

**PART 2 PRODUCTS**

**2.01 GENERAL**

1. The tower shall:
	1. Consist of a highly vandal-resistant free-standing steel call station tower mount with an integrated flashing LED blue light.
	2. Have an integrated LED panel light, mounted directly above the call station faceplate.
	3. Have an integrated extension arm for mounting a dome camera.
	4. Have an enlarged access panel and include additional mounting hardware.

**2.02 HARDWARE**

1. The tower shall:
	1. Be constructed of 0.25” thick steel and weigh approximately 335 lbs.
	2. Measure:
		1. Tower only: 10.0” W x 8.0” D x 108.2” H, with a 0.5” radius on each corner.
		2. Tower with extension arm and LED blue light: 10.0” W x 17.0” D x 168.2” H.
	3. Utilize a high-gloss, corrosion-inhibitive coating that shall be applied to withstand prolonged exposure to hard environments.
		1. Tower shall be sandblasted to SSPC-6 standards before a 2-3 mil layer of rust-inhibitive primer is applied.
		2. Tower shall be hand sanded for smoothness before a second 2-3 mil layer of primer is applied.
		3. Tower shall have a 2-3 mil layer of customer specified color coat applied.
		4. Tower shall have a 1-2 mil layer of clear coat applied.
2. The tower base plate shall:
	1. Be 2.0” above the tower base.
	2. Be constructed of 0.75” thick A-36 Structural Steel.
	3. Have a 4” diameter center hole for wiring access.
	4. Have four 1” holes for anchor bolt attachment.
3. The tower wiring access opening shall:
	1. Measure 18”H x 7.38” W.
	2. Be located 15” above the base of the tower.
	3. Have a flush cover plate that shall:
		1. Be constructed of 0.25” thick steel.
		2. Be held in place by four 10-24 countersunk, tamper-resistant Torx screws.
4. The tower shall be equipped with a removable horizontal shelf for internal mounting of a battery or other devices.
5. The tower shall be equipped with a removable vertical mounting panel for secure internal mounting of battery charging or other equipment.
6. The tower shall have a provision for a panel mount (through-hole) antenna. The provision shall:
	1. Be a 1.0-inch diameter through-hole located on the front and near the top of the tower.
	2. Be plugged with a weather-rated seal if not used.
7. The tower shall have an opening in the front to accommodate flush mounting a call station. The call station opening shall:
	1. Measure 10” H x 6.75” W.
	2. Have six self-clinching 10-24 stainless steel threaded nuts to mount the call station.
8. Directly below the tower call station opening, the tower shall have a section with a 30° downward slope from rear to front, spanning the depth of the call station opening to the full tower depth.
9. The tower shall have the word “EMERGENCY” emblazoned on all four sides in 3.25” high reflective white letters. Custom lettering, sizes, and colors are available.
10. The LED blue light shall:
	1. Be mounted at the top of the tower extension arm with three 10-24 tamper-resistant Torx screws.
	2. Have a polycarbonate refractor lens assembly with a prismatic pattern to increase visibility at greater distances.
11. The tower shall have a 1.6” wire opening surrounded by four pre-drilled holes for mounting the tower extension arm.
12. The tower extension arm shall:
	1. Measure 64.81”H x 16.44” D.
	2. Have a provision for mounting the LED blue light at the top.
	3. Have a 1.5 inch NPT female coupling for mounting a dome camera below the LED blue light.
13. The tower shall have one pressure compensating aerator to increase airflow and reduce internal condensation.

**2.03 FUNCTIONALITY**

1. LED Blue Light
	1. The LED blue light shall remain lit at all times.
	2. The LED blue light shall automatically flash 78 times per minute when triggered by the call station.
	3. The LED blue light shall have an illumination rating of 209 lumens (peak).
	4. The LED blue light shall retain 70% of its initial output intensity after 50,000 hours of operation.
2. LED Panel Light
	1. The LED panel light shall remain lit at all times.
	2. The LED panel light shall have a concealed, ultra-bright LED design.
	3. The LED panel light LEDs shall have no less than 50,000 hour lifetime.

**2.04 POWER REQUIREMENTS**

1. The tower shall be powered by one of the following power sources:
	1. 12VDC – Nominal: 9 Watts
	2. 24VDC – Nominal: 9 Watts
	3. 24VAC – Nominal: 9 Watts
	4. 120VAC – Nominal: 9 Watts

**2.05 MANUFACTURED UNITS**

1. The tower shall be a Talkaphone ETP-MT-OP4-PCS Call Station Tower.

**PART 3 EXECUTION**

**3.01 INSTALLATION**

1. The Contractor shall carefully follow instructions in documentation provided by the manufacturer to ensure all steps have been taken to provide a reliable, easy-to-operate system.
2. All equipment shall be tested and configured in accordance with instructions provided by the manufacturer prior to installation.
3. The tower shall include 24-inch long J-bolts for mounting into a minimum 12” diameter by 36” deep concrete foundation. Depth to vary according to local regulations and other site-specific considerations such as soil conditions, frost line, and water table conditions.
4. The J-bolts shall protrude approximately 5 inches from the surface of the foundation.
5. The tower extension arm shall mount to the back of the tower by fitting included bolts through pre-drilled holes in the tower.

**END OF SECTION**