# GENERAL DESCRIPTION

* 1. The unit shall be a vandal-resistant communications device that is a multi-functional, freestanding pedestal constructed of carbon steel with a top-mounted solar array, model CB 1-w from Code Blue Corporation, no substitutions. It shall include a high quality, hands-free communications device illuminated by a high intensity faceplate light and a powerful combination blue beacon/strobe light that serves to easily identify it from a distance.

# CONSTRUCTION

* 1. The unit shall be a cylinder constructed of ASTM A500 seamless carbon steel structural tube, 12.75” outside diameter x 0.135” thick wall, at a height of 119.76” and weigh approximately 280 lbs.
  2. The unit shall have an internal anchor base plate that is MIG welded 2” above the base and fabricated with a minimum of 0.50” thick A-36 grade steel plate. It shall have a 5” diameter center hole for electrical conduit access. The base plate shall have four oblong holes on an 8” circular bolt pattern for attachment.
  3. Two access doors measuring 14” H x 9.64” W will be placed 13” and 70.81” from the bottom of the base to provide access for mounting to the anchor bolts and connectivity to electrical facilities. The openings shall have a cover plate, which mounts flush and is the same steel and radius as the unit. The cover plates shall fit into the opening and have a weather-resistant gasket. The cover plate shall be held in place by two ¼-20 x 1” countersunk proprietary fasteners.
  4. Tamper resistant proprietary fasteners manufactured for Code Blue Corporation shall be used. It shall not be possible to acquire the custom-designed bit from any other source.
  5. A recessed opening shall be cut at a point beginning 36.6” above the bottom of the unit. The opening shall be 15.1” tall at the forward edge and 12.8” tall at the rear edge, creating a 35-degree angle from the horizontal and an arc of 160 degrees in the face.
     1. The opening shall be enclosed by a 7 gauge steel plate with a single opening for a communication device.

# MOUNTING

* 1. The unit shall be mounted onto four anchor bolts that are set 0.50” above the concrete. Standard 0.75” x 24” galvanized steel anchor bolts, nuts and washers shall be supplied.
  2. The concrete foundation shall measure 24” x 24” minimum and the anchor bolts shall protrude 6” from the foundation.
  3. Unit shall include a weather-resistant, vented rubberized gasket mounted into the base to prevent entry of sediment and pests.

# ELECTRICAL

* 1. All electrical components shall have a modular plug for easy service and replacement, and will be equipped with a fuse for protection from transient voltage conditions.
  2. The unit shall be equipped with a 180-watt solar array with the following specifications:

|  |  |
| --- | --- |
| **Electrical Characteristics** | |
| STC Power Rating Pmp (W) | 180 |
| Open Circuit Voltage Voc (V) | 24.03 |
| Short Circuit Current Isc (A) | 9.64 |
| Voltage at Maximum Power Vmp (V) | 19.44 |
| Current at Maximum Power Imp (A) | 9.26 |
| Power Tolerance | +/- 5% |
| Maximum System Voltage Vmax (V) | 1000V DC |

|  |  |
| --- | --- |
| **Temperature Coefficients** | |
| Temperature Coefficiency of Isc | (0.065±0.015)%/ °C |
| Temperature Coefficiency of Voc | -(80±10)mV/°C |
| Temperature Coefficiency of Pmp | -(0.5±0.05)%/ °C |
| **Mechanical Characteristics** | |
| Cell Type | Monocrystalline |
| Number of Cells | 36 (4 × 9) |
| Dimensions | 1500 × 675 × 35mm (59.06 x 26.5 x 1.38 inches) |
| Weight | 12.0Kg (26.46lbs) |
| Junction Box | High quality, weather-proof junction box for extended life in  harsh conditions |
| Cable Length | 914.4mm (36.0 inches) |
| Plug Connector (Type, Safety) | Multi Contact MC4 |
| Front Cover (Thickness, Material) | High-transmission 3.2mm tempered glass (over 92 - 95% transmission) |
| Backsheet Cover (Color, Thickness, Material) | Polyester |
| Encapsulation Materials | EVA |
| Frame Material | Clear anodized aluminum alloy type 6063T6 Universal frame; Color: silver |
| **Operation Conditions** | |
| Nominal Operating Cell Temperature (NOCT) | 47.0°C |
| Operating Temperature | -40.0°C to 85.0°C/-40°F to 185°F |
| **Certification** | |
| Certificates | * UL 1703 * CEC California * IEC 61215 Ed.2 * IEC 61730 Ed.2 |

* 1. The unit shall be equipped with a solar controller with the following specifications:

|  |  |
| --- | --- |
| **Electrical Characteristics** | |
| Rated Solar Input | 20A |
| Rated Load | 20A |
| Maximum Load Inrush Current | 140A |
| Regulation Voltage |  |
| Sealed Battery | 14.1V |
| Flooded Battery | 14.6V |
| Low Voltage Disconnect Voltage | 11.5V |
| LVD Reconnect Voltage | 12.6V |
| Temp. Comp. (mV/oC) | -30 |
| Self-consumption | <8 mA |
| **Mechanical Characteristics** | |
| Solar Wire Size | #12 AWG |
| Case | Anodized aluminum |
| Terminals | Marine rated |
| Branch Circuit Breaker Breaking Mechanism | Hydraulic Magnetic |
| Electronics | Epoxy encapsulated |
| Weight | 10.89Kg (24.0lbs) |
| **Operation Conditions** | |
| Operating Temperature | -40.0°C to 60.0°C/-40°F to 140°F |

* 1. The unit shall be equipped with two batteries with the following specifications:

|  |  |
| --- | --- |
| **Electrical Characteristics** | |
| Nominal Voltage  Operating Temperature | 12V  -40.0°C to 60.0°C/-40°F to 140°F |
| Rating | 73.6 Ampere-Hours @ 20 hr rate to 1.75 VPC |
| **Mechanical Characteristics** | |
| Plate Alloy | Pure Lead, Calcium Alloy |
| Size | 259 x 173 x 209mm (10.2 L x 6.8 W x 8.24 inches) |
| Weight | 23.0Kg (51.5lbs) |
| Posts | Forged ¼-20 Insert |
| Container/Cover | Polypropylene |
| Vent | Low positive pressure, self-sealing |

# LIGHTS

* 1. LED Beacon/Strobe: Located in the dome top assembly with a rating of no less than 270 Lumens/92 candela, it shall have a factory-set flash rate of up to 375 flashes per minute and be programmable. A deep blue UV-rated polycarbonate prismatic refractor shall surround the LED Beacon/Strobe and be used to distribute light in a horizontal pattern for maximum brightness and visibility.
     1. The communication device shall be factory programmed to activate the LED Beacon/Strobe for the duration of a call.
     2. The LED Beacon/Strobe shall be 5.10” tall and 5.50” in diameter.
  2. Faceplate light: LED will direct light onto the communications device and be vandal resistant.
     1. The opening shall measure 4.50” W x .50” H.
     2. The light shall have a lifetime of 100,000 hours and a rating of 100 Lumens.

# COMMUNICATIONS

* 1. The unit shall have a speakerphone communication device.
     1. LS1000/LS2000 – VoIP: Refer to the ***LS1000 and LS2000 Architect and Engineering Specification*** for further information.
     2. IP5000 - VoIP: Refer to the ***IP5000 Architect and Engineering Specification*** for further information.
     3. IA4100 - Analog: Refer to the ***IA4100 Architect and Engineering Specification*** for further information.
  2. The unit shall be capable of communicating via third party IP wireless and cellular devices, which can be housed within the unit.
  3. EIA/TIA, ANSI, CSA and BICSI cabling or similar standards shall be adhered to for proper operation of devices connected to copper or fiber infrastructure.

# FINISH

* 1. Four-coat paint process, with zinc-rich primer for corrosion resistance and baked-on polyurethane enamel for maximum gloss and shine.
     1. Optional clear coating process available to provide additional environmental protection.
  2. Substrate preparation shall be as required to comply with applicable ASTM impact and adhesion standards: D2794 Direct and Reverse Impact, D523 Gloss @ 60 Degrees, D3359B Cross hatch Adhesion, D1654 Corrosion Creep, D714 Scribe Blisters and D714 Field Blisters.
  3. The finish shall be available in 7 standard colors: Safety Blue, Safety Red, Safety Yellow, Gloss White, Gloss Black, Dark Bronze and Bright Silver. Custom colors shall be available.
  4. Minimum coverage thickness of 2.0 mils.

# COMPLIANCE

* 1. Americans with Disabilities Act (ADA) compliant
  2. UL 62368-1
  3. CSA C22.2 No. 62368-1
  4. NFPA 72 Chapter 24 (2010) compliant
  5. Meets NEMA 3 requirements

# GRAPHICS

* 1. Engineering grade reflective vinyl for high visibility and legibility.
  2. Standard 3.25” tall and 30” long graphics text offerings: Emergency, Assistance, Security, Courtesy, Police, Information or Help Point.
  3. Standard graphics color offerings: Reflective White, Reflective Blue, Reflective Black, Reflective Green, Reflective Red and Reflective Yellow.
  4. Custom text, length and color options shall be available.

# OPTIONS

* 1. Please refer to the associated resource documents for the following equipment:
* 4G LTE Cellular
* 5G Cellular

# WARRANTY

* 1. The CB 1-w shall be warrantied against any defects in material and workmanship, under normal use, for a period of 2 years from date of installation. If 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.

# MANUFACTURER

* 1. The Manufacturer shall be Code Blue Corporation. 800-205-7186, 259 Hedcor Street, Holland, Michigan 49423. www.codeblue.com. THERE ARE NO EQUIVALENTS.