

1.0 RESPONSIBLE PARTY

- 1.1 Any and all questions or correspondence regarding this document and specifications herein shall be directed to:

Code Blue Corporation
92 East 64th Street
Holland, MI 49423
616-392-8296
aespecs@codeblue.com

2.0 SCOPE

- 2.1 This document is intended to provide complete and accurate specifications of the PAS2e product offering by Code Blue Corporation for the purpose of inclusion in project specifications, requirements and recommendations required by potential users of Code Blue products and services.
- 2.2 The PAS2e will be referred to as “unit” throughout this document.
- 2.3 Code Blue Corporation will be referred to as “manufacturer” throughout this document.

3.0 PRODUCT DESCRIPTION

- 3.1 The unit shall be an easily identifiable, vandal resistant communications device that is Americans with Disabilities Act (ADA) compliant, multi-functional, wall or pole mounted and constructed of stainless steel. The unit shall be aesthetically pleasing and virtually impervious to damage, and shall include a high quality, vandal resistant, hands-free communication device and a combination high powered strobe light/vivid blue beacon that serves to identify the unit from a great distance.

4.0 CONSTRUCTION

- 4.1 The housing front shall be fabricated from a single sheet of 12 gauge, stainless steel that is brushed to a number 4B finish after fabrication and shall be 32”H x 11.9”W x 7.6”D. A separate back plate piece shall be formed out of 12 gauge steel. The back plate shall be welded to the housing front.
- 4.2 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 source other than Code Blue Corporation. It shall not be possible to enter nor remove any component without this bit. All other types of fasteners shall not be acceptable under any circumstance.



Architectural & Engineering Specifications

- 4.3 All openings in the housing shall be laser, plasma or water jet cut to provide clean, straight and defect free edges with no stains or discoloration from cutting or welding.
- 4.4 The unit shall have a single lens opening cut into the face of the housing 5”H x 11.75”W opening shall be approximately 2.34” from the top of the unit. The corners of the cuts shall be uniformly rounded while the edges of the cuts shall be straight and free of burrs or other visual imperfections. The four edges of the opening shall form a square when viewed in elevation from the front of the unit.
 - 4.4.1 A 0.187” thick transparent lens formed of a single sheet of clear polycarbonate shall be inserted into the housing behind the lens opening and shall be chemically and mechanically fastened to the housing front.
- 4.5 A top cap fabricated from 12 gauge stainless steel shall house the LED Beacon/Strobe assembly and be attached with four (4) 10-24 x .75” stainless steel, tamper resistant proprietary fasteners supplied by the manufacturer.
- 4.6 An opening for the speaker shall be cut into the face of the housing at a point approximately 13.41” below the top of the housing to center.
- 4.7 An opening for the communications device shall be cut into the face of the housing at a point approximately 23.50” below the top of the housing to center.

5.0 MOUNTING

- 5.1 The unit shall be mounted to a wall using four (4) 3/8” x 3” lag bolts and 3” lag bolt anchors included with the unit. The lag bolts shall pass through (4) openings the back plate and be inaccessible without removing the communications device and top cap.

6.0 ELECTRICAL

- 6.1 All electrical components shall have a modular plug for easy service and replacement. All electrical wiring shall be concealed within the bollard and shall not be visible from the outside of the unit.
- 6.2 All electrical components in the unit shall be equipped with a fuse for protection from transient voltage conditions.
- 6.3 The unit shall require 1 ampere at 24v AC standard.
- 6.4 The unit shall have the option of a Power Brick for connectivity to 120v AC, 240v AC, 277v AC and 347v AC primary power. Refer to the Power Brick Architect and Engineering Specification.
- 6.5 The installer shall follow all NEC and local electrical codes when installing the unit power systems.

7.0 LIGHTS

7.1 LED Beacon/Strobe: An LED Beacon/Strobe shall be located in the dome top assembly and have a Lumen rating of no less than 14.5. The LED Beacon/Strobe shall have a factory set flash rate of no less than 60 flashes per minute and be programmable. A deep blue UV rated polycarbonate prismatic refractor shall surround the LED Beacon/Strobe and shall be used to distribute the light in a horizontal pattern for maximum brightness and visibility at a distance.

7.1.1 The communication device shall be factory programmed to activate the LED Beacon/Strobe for the duration of a button 1 (“Red Button”, “Emergency” or “Push for Help”) call. The LED Beacon/Strobe cannot be deactivated at the unit.

8.0 COMMUNICATIONS

8.1 The unit shall have a high quality vandal resistant and ADA compliant speakerphone communication device.

8.1.1 IP5000 - VoIP: Refer to the IP5000 Architect and Engineering Specification for further information.

8.1.2 IA4100 - Analog: Refer to the IA4100 Architect and Engineering Specification for further information.

8.2 The unit shall be equipped with a PAS assembly for mass notification capabilities:

8.2.1 The PAS assembly shall be equipped with an amplifier with the following specifications:

<u>Parameters</u>	<u>Symbols</u>	<u>Test Condition/ Comment</u>	<u>Min</u>	<u>Typ</u>	<u>Max</u>	<u>Unit</u>
Load Resistance:	RL		2.5	-	-	Ohms
Max Output Power:	Pmax	f=20Hz-20KHz (1% THD)		160	-	W
Output Power:	Po	f=20Hz-20kHz (0.1% THD)	-	150	-	W
Sensitivity:	Pmaxb	1% THD		500		W
Gain:						
Mute Gain:	Vsen	Input Signal to Po	-	3.5	-	Vrms
Distortion:	A		21	22	23	dB
Freq. Response:	THD+N	10Hz< f <20kHz,	-	0.03	0.05	%
Noise Floor:		100mW< Pout < Po				

Code Blue® • 92 East 64th ST • Holland, MI 49423 • 800.205.7186 • www.codeblue.com

Specifications are subject to change without prior notice. Latest information available at www.codeblue.com.
Code Blue is a registered trademark of Code Blue Corporation.

Architectural & Engineering Specifications

Maximum Current:	f	20Hz-20kHz	-	+/- 0.5	-	dB
Damping Factor:	VNF	Input Shorted, A-weighted	-	25	35	uV
Power Bandwidth:	I _{max}		18	20	25	A
Small Signal Bandwidth:	I _{pk}			27		A
Signal to Noise:	DF	RL = 4 ohms @ 100 Hz	-	375	-	Ohms

8.2.2 The PAS assembly shall be equipped with a 180 degree speaker with the following specifications:

Parameters Impedance:	<u>Unit</u> 8 Ohms
Frequency Range:	450 Hz to 7000 Hz
Power Capacity:	70 Watts Continuous Program

8.2.3 The amplifier shall have the following additional features:

- Patented One-Cycle Sound™ Control
- Synchronized Switching Frequencies
- Output Feedback
- THD+N < 0.05%, 0.1W to 150W per channel
- Full range 20 to 20kHz Bandwidth
- Efficiency: Amp > 95%
- Damping Factor > 375 @ 100Hz 4 Ohms
- DC offset < 25mV
- Remote Disable
- Silent Turn-On
- Full Protection:
 - Over Current Speaker Short
 - Over Current Short to Chassis Ground
 - Over Temperature Protection
 - Power Supply Under Voltage Lockout
- Monitor Outputs:
 - Output Current Monitor
 - Temperature Monitor
 - Protect and Power On
- Internal and remote volume adjustment



Architectural & Engineering Specifications

- 8.2.4 The amplifier and speaker shall not be powered on during non active states. The unit will be powered on during use by the IA4100 or IP5000.
- 8.2.5 The amplifier shall be monitored by the IA4100 or IP5000 and report any of the following fault conditions:
- Speaker Array Open
 - Speaker Array Short
 - Excessive Clipping
 - Over Current Protection
 - High Temperature
- 8.2.6 No additional infrastructure cabling or wireless shall be needed for PAS communications.
- 8.3 EIA/TIA, ANSI, CSA and BICSI cabling or similar standards shall be adhered to for proper operation of Code Blue communication devices connected to copper or fiber infrastructure.

9.0 FINISH

- 9.1 Stainless Steel: The unit housing shall be fabricated of stainless steel, and shall be brushed to a number 4B finish after fabrication. The finish shall be uniform and free of visible defects. The unit shall be finished with a highly graffiti and UV resistant coating process.
- 9.2 Painted: 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
 - D714 Field Blisters
- 9.2.1 The polyurethane finish shall be a multi coat system available in 10 standard colors:
- Safety Blue
 - Safety Red
 - Safety Yellow
 - Midnight Blue
 - Gloss White
 - Gloss Black
 - Medium Bronze
 - Dark Bronze



Architectural & Engineering Specifications

- British Racing Green
- Cardinal Red

9.2.2 Custom colors shall be available as specified by the user and approved by the manufacturer.

9.2.3 The primer coat and finish coat shall each have a minimum coverage thickness of 2.0 mils.

9.2.4 No other types of finishes are acceptable.

10.0 GRAPHICS

10.1 The graphics shall be a durable Nikkalite engineering grade reflective vinyl for high visibility and legibility.

10.2 Standard 20" inch length graphics text offering shall be:

- EMERGENCY
- ASSISTANCE
- SECURITY
- POLICE
- COURTESY

10.3 Standard graphics color offering shall be:

- Reflective White
- Reflective Blue
- Reflective Black
- Reflective Green
- Reflective Red
- Reflective Yellow

10.4 Custom graphics text, length and color shall be available by the manufacturer.

11.0 WARRANTY

11.1 The unit shall be warranted for a period of two (2) years. Reference manufacturer's warranty for further details.

12.0 MANUFACTURER

12.1 The manufacturer shall be Code Blue Corporation of Holland, Michigan. There are no known equivalents.



Architectural & Engineering Specifications

- 12.2 Code Blue Corporation manufactures its products according to the most recent revision of our product specifications and shall not be held responsible for obsolete or outdated specifications. For the latest revision please refer to www.codeblue.com or contact Code Blue Corporation directly.