



INSTRUCTION MANUAL PHB-37001-M POINT MORSE CODE BEACON

MORSE CODE MESSAGE: _____

The Point LED Heliport Beacon (US Patent 2011/0121734 A1) is a medium intensity identification beacon used to mark a heliport or airport location. The Morse code option shall flash the message "H" unless the user specifies a different message. The flash message is factory programmed and preformed by internal components of the beacon. All exterior aluminum cast beacon parts shall be powdercoat painted aviation yellow for corrosion resistance that meets the US Military Standard Salt Fog Test conducted per MIL-STD-810E, method 509.3 Procedure I.

CATALOG NUMBERING SYSTEM

Point Type	-Color	-Fixture Voltage	-Options
PHB-37001	R: Red	1: 120 Volt AC	MT: Marine Treatment
	G: Green	2: 220 Volt AC	M: Flashing Morse Code Message
	C: Clear/White	3: 12 Volt DC	NC: NVG Compatible
	Y: Yellow	4: 24 Volt DC	
		5: 48 Volt DC	



CONFORMS TO:
UL STD 1598
UL STD 1598A
CERTIFIED TO:
CSA STD C22.2 No. 250.0

WARNING: TURN OFF THE ELECTRICITY AT THE SOURCE BEFORE INSTALLING.

WARNING: OPENING THE BEACON BEFORE INSTALLATION VOIDS THE WARRANTY. NO INTERNAL WIRING IS NECESSARY IN THE FIELD

WARNING: DO NOT OPEN THE BEACON UNLESS THERE HAS BEEN AN IN-SERVICE FAILURE. IF THE BEACON IS OPENED FOR ANY REASON, THE UPPER AND LOWER LENS GASKETS MUST BE REPLACED.

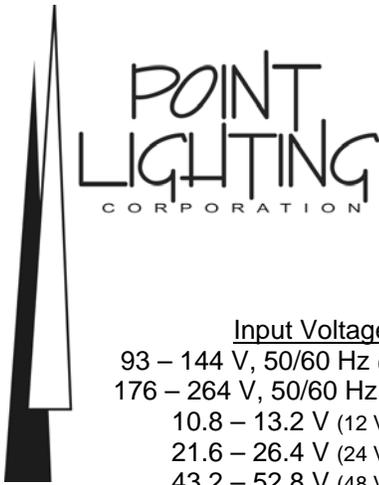
WARNING: ALL SERVICE MUST BE PERFORMED INSIDE A MAINTENANCE FACILITY UNDER CLEAN AND DRY CONDITIONS. DO NOT ATTEMPT ANY TESTING OR REPAIR PROCEDURE NOT STATED IN THE MANUAL.

CONTACT POINT LIGHTING FOR RETURN/REPAIR SERVICE INSTRUCTIONS. FURTHER SERVICE INSTRUCTIONS CAN BE FOUND IN THE SERVICE MANUAL, IS37001-M-SERVICE.

WARNING: DO NOT INSTALL AIR TERMINALS (LIGHTNING RODS) NEAR OR ON ANY POINT LIGHTING FIXTURES. AIR TERMINALS WILL INCREASE THE POSSIBILITY OF FAILURES AND WILL VOID THE FACTORY WARRANTY. FIXTURE GROUND WIRES MUST NOT BE CONNECTED TO BUILDING/TOWER LIGHTNING PROTECTION SYSTEM DOWN CONNECTORS.

IMPORTANT NOTICE

The installer assumes full responsibility for the proper application and safe installation of this unit in accordance with these instructions, the National Electric Code, and all other state and local codes and practices. POINT LIGHTING CORPORATION accepts no responsibility for damages to property or injury to personnel for the improper use of this product or its failure under any circumstances. POINT LIGHTING CORPORATION's warranty is limited to the replacement of the defective unit only if the failure is the result of a manufacturing defect.



PRODUCT OVERVIEW

Input Voltage Range

93 – 144 V, 50/60 Hz (120 Volt AC Nominal)
176 – 264 V, 50/60 Hz (220 Volt AC Nominal)
10.8 – 13.2 V (12 Volt DC Nominal)
21.6 – 26.4 V (24 Volt DC Nominal)
43.2 – 52.8 V (48 Volt DC Nominal)

Wattage

102.2 watts Peak (AC Only)
109.2 watts Peak (DC Only)
*Average Wattage depends on Morse Code Message

Volt – Amps

162.4 VA (120 Volt Only)

Intensity

2,000 Candelas (color)
2,500 Candelas (white)

Current

1.35 Amps Peak (measured @ 120 V, 50/60 Hz)
0.69 Amps Peak (measured @ 220 V, 50/60 Hz)
9.10 Amps Peak (measured @ 12 Volt)
4.54 Amps Peak (measured @ 24 Volt)
*Average Current depends on Morse Code Message

Temperature Rating

± 55°C, -67°F – 131°F

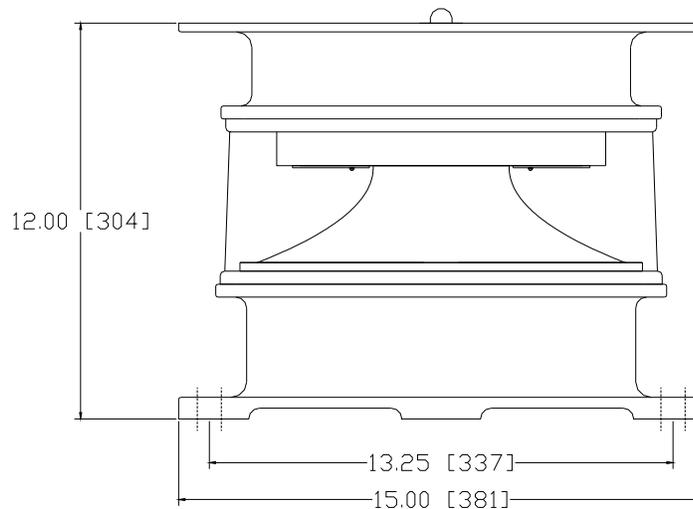
Dimensions (L x W x H)

15 (381) x 15 (381) x 12 (304)
Inches (mm)

Weight

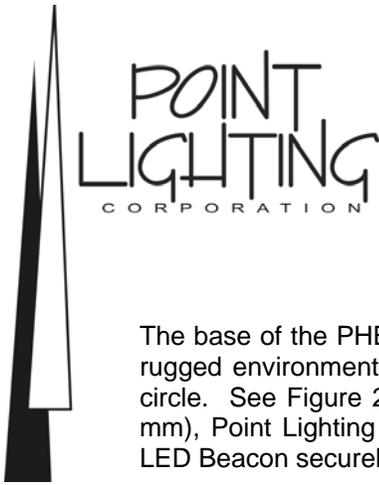
41 Lbs, 18.6 kg

FIGURE 1
PFB-37001 OUTLINE DRAWING



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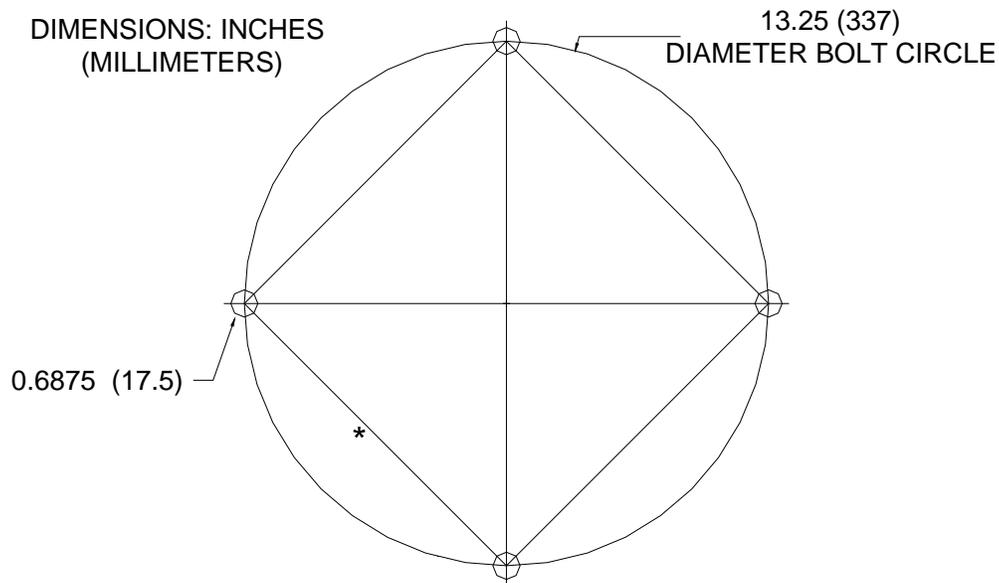
Mail: P.O. Box 686, Simsbury, CT 06070 Plant: 61 West Dudley Town Rd, Bloomfield, CT
Tel 01 860.243.0600 USA Fax 01 860.243.0665
email: info@pointlighting.com website: www.PointLighting.com



MOUNTING INSTRUCTION

The base of the PHB LED Beacon is made of industrial grade cast aluminum for use in the most rugged environments. The base has a four (4) hole bolt pattern on a 13.25 inch diameter bolt circle. See Figure 2, Mounting Bolt Pattern. The holes have a diameter of .6875 inches (17.5 mm), Point Lighting recommends using 5/8 inch hardware, supplied by other. Mount the PHB LED Beacon securely on a flat horizontal surface, the PHB LED Beacon must be level.

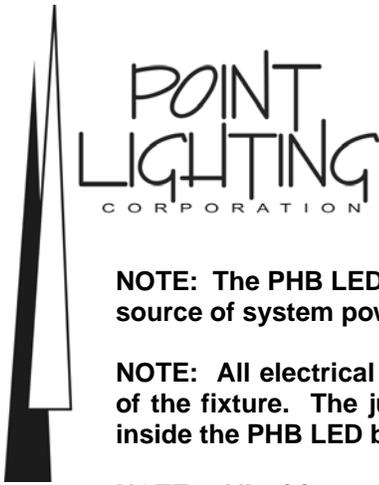
FIGURE 2
MOUNTING BOLT PATTERN



* BOLT HOLES FORM A
SQUARE WITH SIDES 9.375 (238)

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WIRING INSTRUCTION

NOTE: The PHB LED Beacon must be protected by a current limiting circuit breaker at the source of system power.

NOTE: All electrical connections must be made inside a suitable junction box within 6-feet of the fixture. The junction box is provided by others. Unauthorized wiring modifications inside the PHB LED beacon will void the warranty.

NOTE: All wiring connections and splices must be made using proper electrical practices per the National Electric Code (NEC) as well as any local electrical codes.

NOTE: This product contains metal oxide varistor type surge protection. Due to the leakage current inherent in this surge protection, Point Lighting does not recommend using ground fault interrupter or similar type circuit breakers. Circuit breakers such as GFI (Ground Fault Interrupter), ELCB (Earth Leakage Circuit Breaker) or similar type circuit breakers may experience nuisance tripping.

The PHB LED Beacon is shipped with six (6) feet of SOOW cable. The cable has three (3) conductors colored black, white and green.

Cable Information:

- Jacket: Black PVC
- Conductors: Three (3) conductor, 14 AWG
- Outer Diameter: .5 inches (12.8 mm) - .55 inches (13.9 mm)
- Maximum Voltage: 600V
- UL Rated

The fixture wiring instruction is different for AC and DC fixtures, read the appropriate wiring section below.

AC Fixture Wiring (120 or 220 Volt AC Fixtures):

The fixture neutral (zero) wire is white, splice the fixture neutral wire to the system neutral (zero). The fixture line power wire is black, splice it to the system line (hot). The green wire is the fixture's ground; splice it to the system ground. See Figure 3, [AC Fixture Wiring Diagram](#). Make splices using proper electrical practices in suitable splice box per NEC and local codes. Once the wiring has been connected properly, see "Power-Up Procedure" for details on Power-Up procedure and system operations.

DC Fixture Wiring (12, 24 or 48 Volt DC Fixtures):

The negative (-) wire is white, splice the negative wire to the system negative (-). The positive (+) wire is black, splice it to the system positive (+). The green wire is the fixture's ground; splice it to the system ground. See Figure 4, [DC Fixture Wiring Diagram](#). Make splices using proper electrical practices in suitable splice box per NEC and local codes. Once the wiring has been connected properly, see "Power-Up Procedure" for details on Power-Up procedure and system operations.

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FIGURE 3
AC FIXTURE WIRING DIAGRAM
(120 OR 220 VOLT AC)

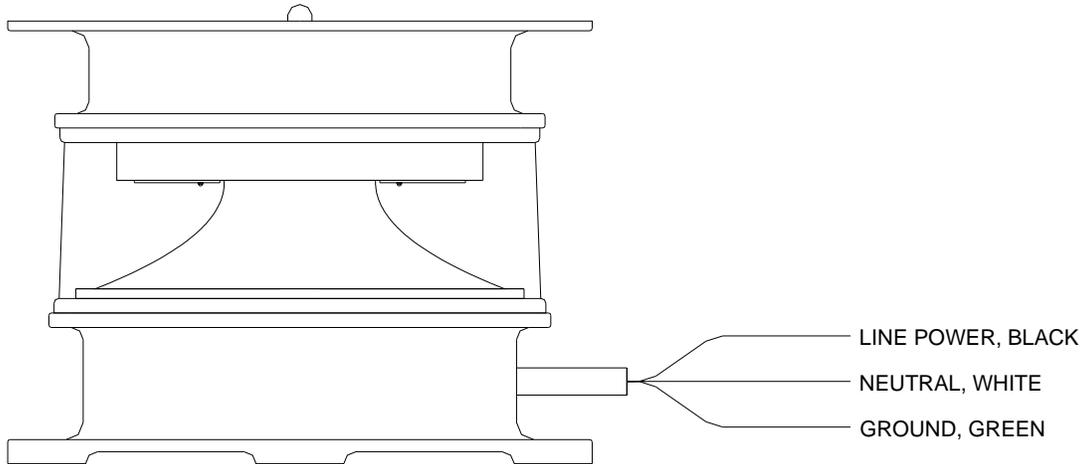
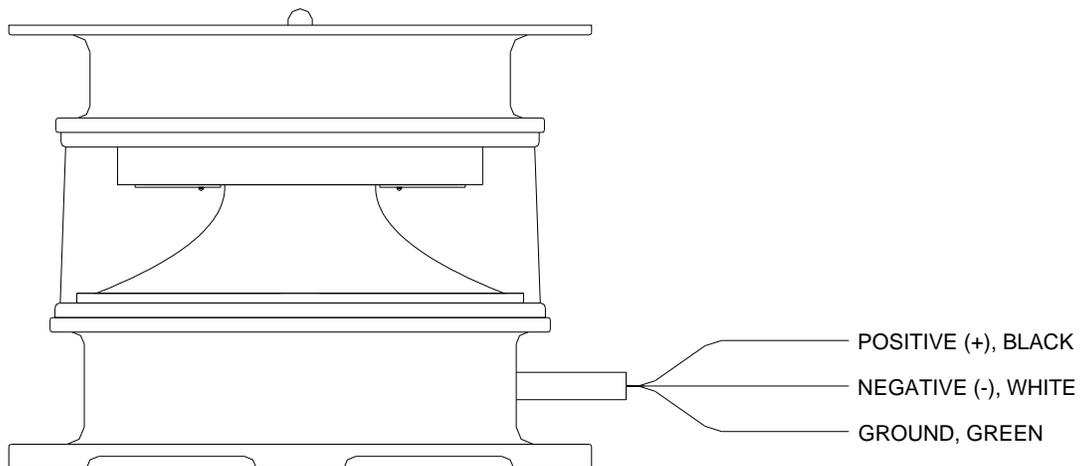
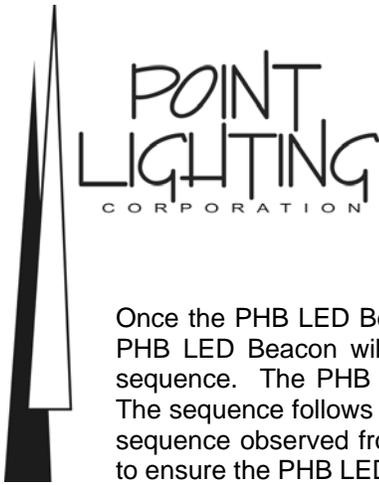


FIGURE 4
DC FIXTURE WIRING DIAGRAM
(12, 24 OR 48 VOLT DC)



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POWER-UP PROCEDURE

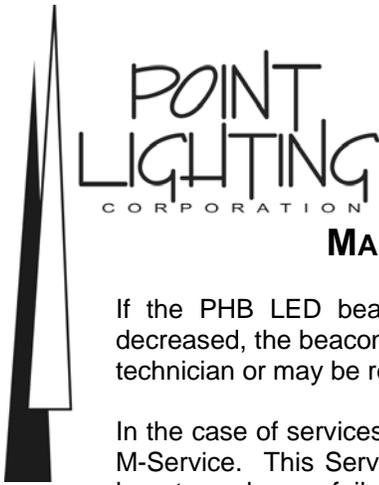
Once the PHB LED Beacon has been installed properly the system power may be activated. The PHB LED Beacon will take about 2 seconds to initialize light output and start the Morse code sequence. The PHB LED beacon will repeat the Morse code sequence until power is removed. The sequence follows International Morse Code Standards on characters and timing. Compare the sequence observed from the PHB LED beacon to Figure 5, International Morse Code Characters, to ensure the PHB LED beacon is flashing the correct message.

FIGURE 5
INTERNATIONAL MORSE CODE CHARACTERS

A	.-	N	-.	0	-----
B	...-	O	---	1	.----
C	-. -.	P	...-	2	..---
D	-. -.	Q	-. -.	3	...--
E	.	R	.-.	4-
F	..-.	S	...	5
G	--.	T	-	6	-....
H	U	..-	7	--...
I	..	V	...-	8	---..
J	.----	W	.-.	9	----.
K	-. -.	X	-. -.	Fullstop-
L	.-...	Y	-. -.	Comma	--...-
M	--	Z	---.	Query	...--.

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MAINTENANCE AND SERVICE INSTRUCTIONS:

If the PHB LED beacon has stopped flashing, turned off or the light output has noticeably decreased, the beacon will need repairs. The repairs may be performed in the field by a knowledge technician or may be returned to Point Lighting for repairs.

In the case of services in the field, Point Lighting will provide a separate Service Manual, IS37001-M-Service. This Service Manual explains in detail how to troubleshoot any beacon problem and how to replace a failed internal component. A PFB-37001-M-Service Manual can be obtained by contacting Point Lighting or emailing: info@pointlighting.com. Opening the beacon for service without contacting Point Lighting will voids the warranty.

If the beacon needs to be returned to Point Lighting for repairs, return instructions can be obtained by contacting Point Lighting or emailing: info@pointlighting.com.

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