



POINT LIGHTING CORPORATION

POINT HELIPORT LIGHTING HAPI LED HELICOPTER APPROACH PATH INDICATOR

Compliances: ETL Listed to UL 1598A Marine Vessels, IP66 & IP67
 ETL Listed to CSA C22.2 No. 137:1981 & No. 250.0:2018 Canada
 ETL Listed to UL 1598 at -40 deg C to +55 deg C
 Class I, Division 2, Groups A B C D, T5 at -40 deg C to +55 deg C
 Class I, Zone 2, Groups IIA IIB+H2 IIC, T5 at -40 deg C to +55 deg C
 ICAO Annex 14, Volume II, Heliports, 5th ed. (2020)
 ICAO Doc 9261, 5th ed. (2021), Part II
 American Bureau of Shipping (ABS) Type Approval
 FAA AC 150/5390-2D, paragraphs 219, 318 & 418
 ONGC (India) FS-4044, paragraph 6.6
 Registered ISO 9001:2015



HAPI is a system for use as visual slope guidance on heliports and offshore helidecks. One HAPI system is for one helicopter approach path. It is installed on the side opposite the approach, facing across the landing area. Digital leveling and aiming by means of a handheld field programming device. This may also program the alarm tolerances. For the portable HAPI, see catalog file HL272.

Point Type	Voltage	Classification	Form*	Options
HAPI-89001	1: AC, 96-264V 50/60 Hz 3: 24 volts DC	(blank): Safe Area EX: Class I, Division 2 Class I, Zone 2	F: Frangible	See page 2

* The frangible universal mounting is less than 25 cm tall when installed. Frangible mounting includes four threaded legs with frangible couplings, mounting plate & anchor bolts. The HAPI includes a 3m cable loop as standard.



Certificate # 10604



HAPI SIGNALS:



Flashing – Above Slope



On Slope



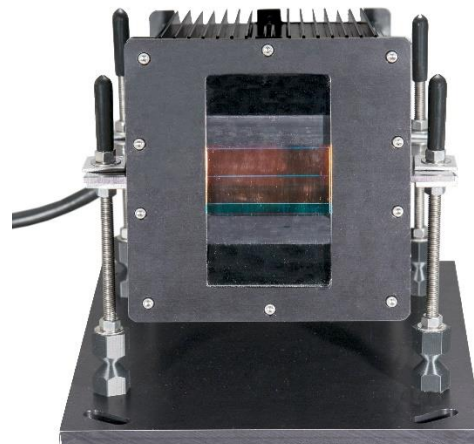
Slightly Below Slope



Flashing – Below Slope

Weights:	lbs.	kg.	Dimensions:	L: 15.5 (394)
Light Unit	25	11.3	Light Unit	W: 12.0 (305)
Hardware Kit	15	6.8	Inches (mm)	H: 9.5 (241)
ROS/ROSW	15	6.8	Power Use:	70 watts 75 VA
PLS Assembly	12	5.4	Adjustment:	0° to 15°
PLS Assembly	14	6.4	Brightness:	Three (3) steps
			Control	
			Alarms:	Flasher Failure LED Array Failure Alignment

HAPI-89001-1-F



Important Note:

The HAPI system is a visual slope guidance aid to assist the pilot in aligning the aircraft for approach to landing. It does not replace the pilot's judgment, skill and responsibility to land the aircraft safely with or without this visual aid.

OPTIONS & ACCESSORIES

EX	Hazardous Area Class I, Division 2 (Zone 2) HAPI unit.
JB JBX	Junction Box safe area (JB) or Class I, Division 2 (JBX): For mating the cable loop connection at the HAPI with contractor supplied conduit/cabling to the remote mounted PHC, ROS or ROSEX.
PHC	See PHC system controller data files HL409 & HL411. HAPI operation requires either a PHC controller with option -HC or the -ROS option below must be added to the HAPI.
ROS	Remote Operator Station: Includes ON-OFF switch, brightness control, surge protection, alignment alarm indication and remote alarm contacts in a NEMA 4X (IP66) enclosure. Required except when the control unit is integral with a PHC system controller.
RF	Radio Frequency wireless ON-OFF operation via a key fob operating at 918 MHz when set in the AUTO position. The fob is paired to the HAPI ROS. Note: Requires option -ROS or -ROSEX. Note that the ROS unit is hardwired to the HAPI; only the key fob operation is wireless.
ROSEX	Same as -ROS except Class I, Division 2 (Zone 2) & NEMA 4X (IP66) enclosure. It is available with option -RF wireless operation.
SS	Stainless Steel 316L enclosure when used with -ROS or -ROSW.
SOL	Solar Powered including solar array & controller with connection for remote ON-OFF switching using option -RF wireless operation. Requires option -ROS. Requires either option -JB or -PLS. Typically permits three (3) 15-minute operations per day with automatic time-out.
GS	Gyro-Stabilized Mounting (safe area only)
PLS	Adds the PLS-40304 wiring junction box recessed in the pavement with baseplate & cable gland for the HAPI's standard cable loop. For land-based installations only.

RECOMMENDED OR REQUIRED ACCESSORIES

Required	PL11248-HAPI Programmer This handheld device is required to install and maintain the HAPI system. It plugs into the HAPI unit to set the leveling and the aiming angle.
Optional	PRC-65004 Radio Controller for direct ON-OFF control of a standalone HAPI-ROS or HAPI-ROS-SOL
Optional	PPC-40700-1-34T Photoelectric Control FAA photoelectric control used with ROS set in AUTO position.

View our YouTube flight test video of the HAPI & VAGS Systems at:

<https://youtu.be/SnmX5vEYuCQ>

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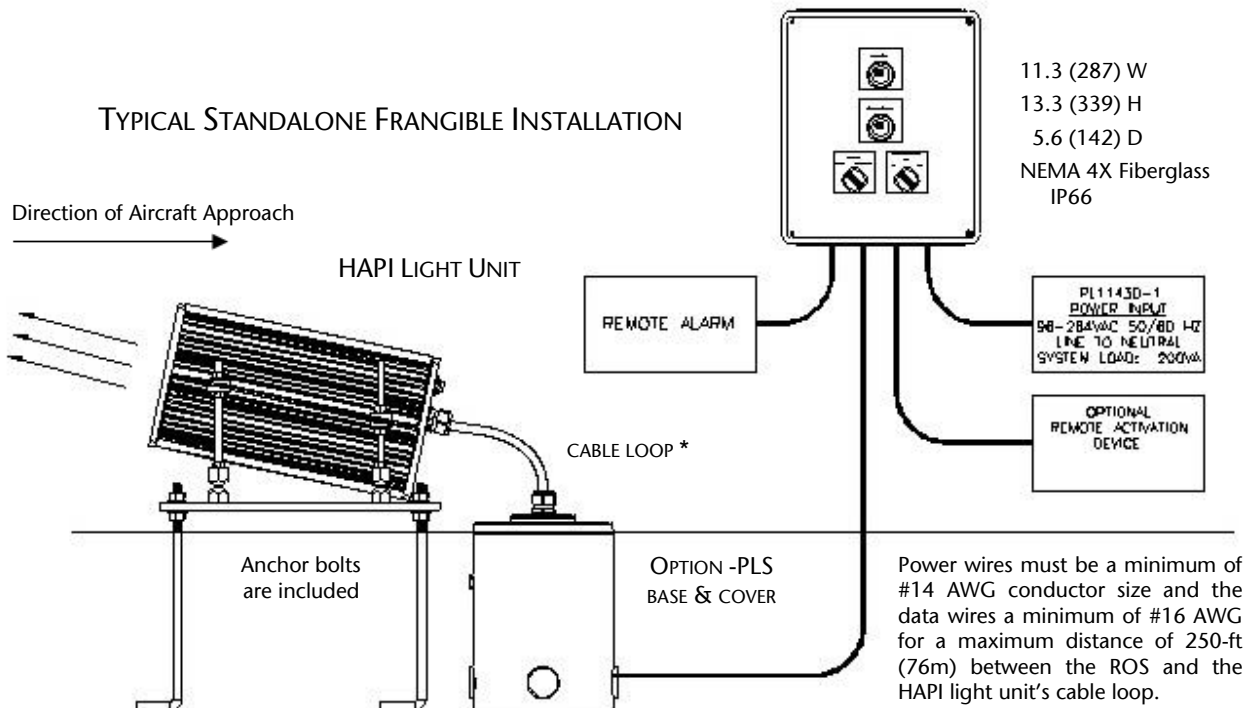
HAPI UNIT SIDE VIEW
FRANGIBLE MOUNTING



HAPI LEG ASSEMBLY DETAIL
SHOWING BEVELED WASHERS FOR
POSITIVE MECHANICAL CONTACT



REMOTE OPERATOR STATION (-ROS)
OR AS -ROS WITH OPTIONAL WIRELESS CONTROL

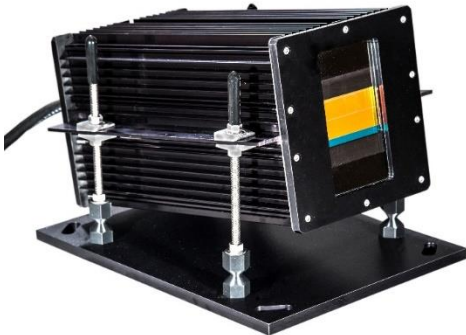


* The 3-meter cable loop consists of seven (7) conductors all #16 AWG: Line-Neutral-Ground and four (4) data wires.

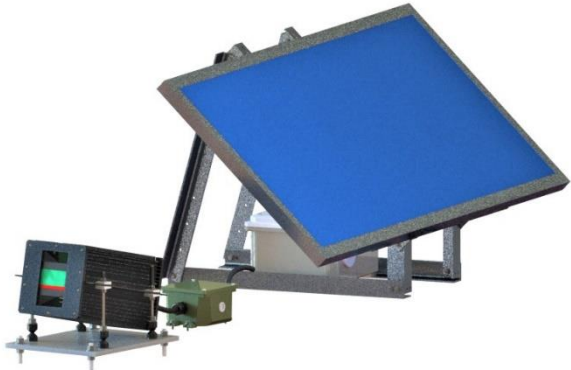
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HAPI-89001-1-F
FRANGIBLE MOUNTING



HAPI-89001-1-F-ROS-SOL-JB
SOLAR POWERED



PL11248-HAPI
SYSTEM PROGRAMMER

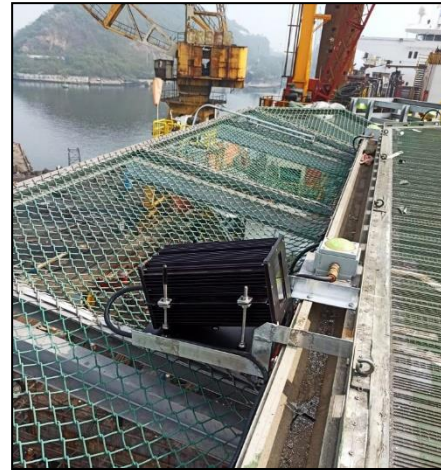
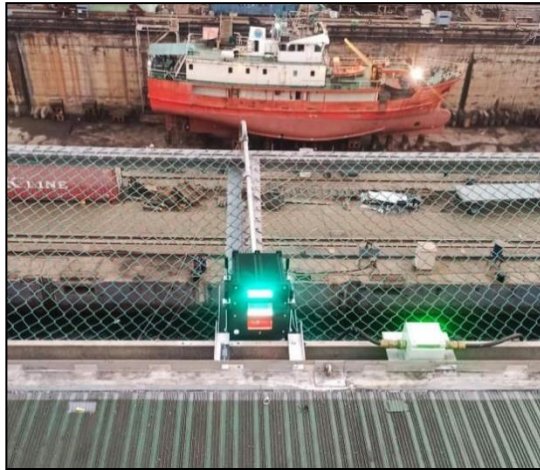
Plugs into the rear of the HAPI unit for leveling and for setting of the aiming vertical angle.



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HAPI & VAGS INSTALLATIONS AROUND THE WORLD



ON COURSE FINAL APPROACH



VAGS SYSTEM FOR HORIZONTAL
ALIGNMENT ON APPROACH
SEE FILE HL275



POINT LIGHTING

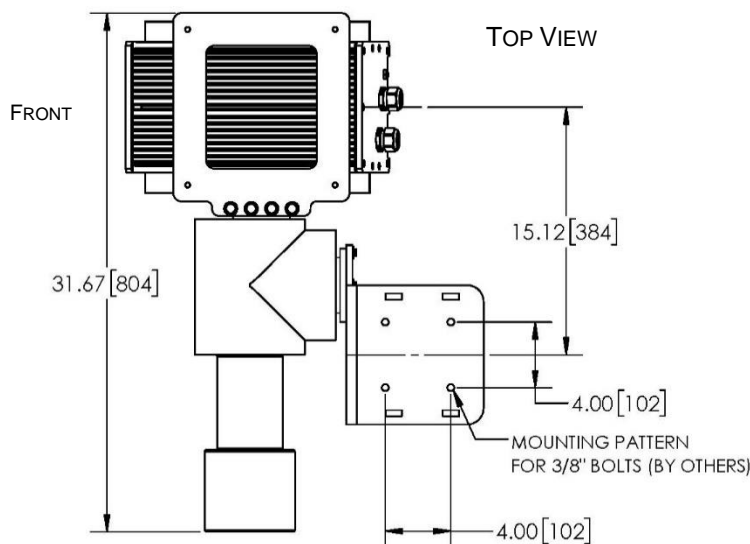
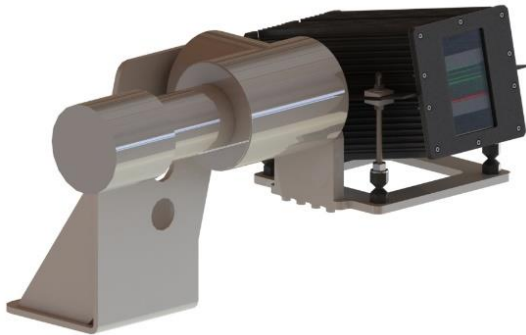
POINT HELIPORT LIGHTING HAPI LED

HELICOPTER APPROACH PATH INDICATOR

GYRO-STABILIZED MOUNTING OPTION -GS

This option is used for a HAPI light unit installed on a mobile marine vessel. The gyro unit stabilizes on the Bank (X) and Elevation (Y) axis so that the mounting arm with HAPI unit will always stay level, regardless of the motions of the vessel.

Note: The HAPI-GS unit operates at 24V DC. For 120V and 230V AC power systems, the DC is produced by the ROS control unit.



Weights:	lbs.	kg.
HAPI-GS Unit	102.4	46.5
ROS/ROSW	15.0	6.8

Dimensions:	Inches (mm)
Width:	31.7 (804)
Height:	18.6 (473)
Depth:	21.9 (555)

Power Use:	156 VA at 120V AC
(system)	299 VA at 230V AC

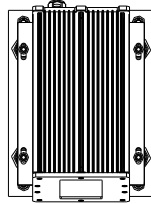
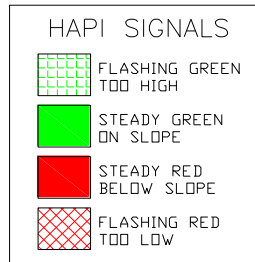
MADE IN USA



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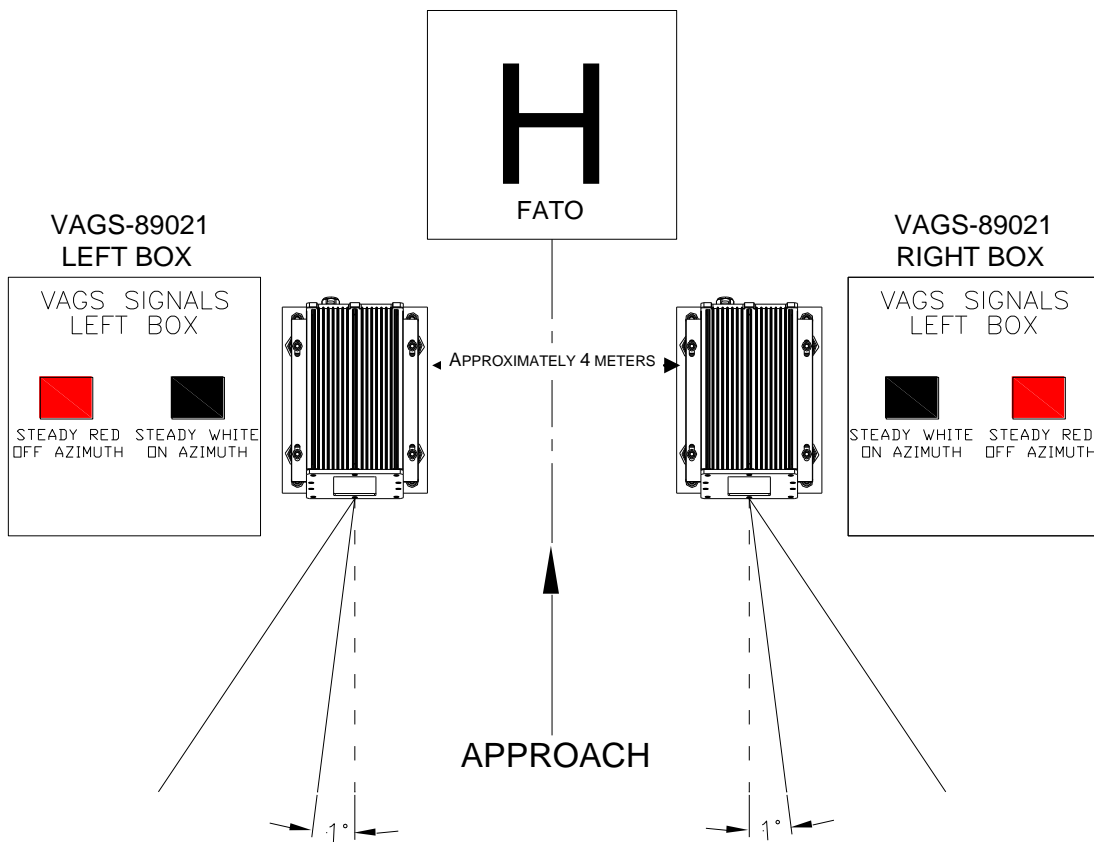
HAPI-89001



AIMING:

If the HAPI system is installed with a VAGS system, both systems should be aimed at the same vertical angle. We recommend an On Slope vertical angle setting between 5 and 10 degrees. The HAPI angle must be set so the transition line to flashing red allows the aircraft to clear any obstacles in the approach path.

Not to Scale



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