

POINT HELIPORT LIGHTING PHC HELIPORT LIGHTING CONTROLLER WITH TOUCHSCREEN

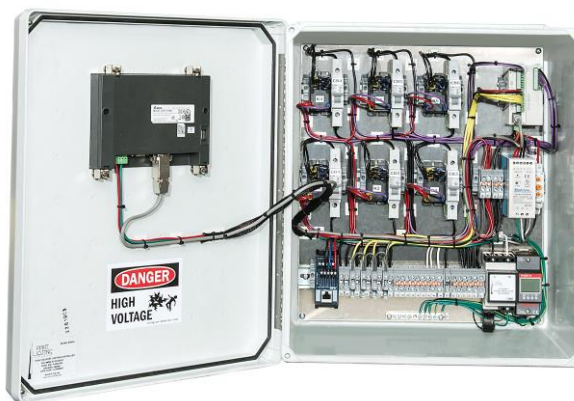
POINT LIGHTING CORPORATION IS AN INTERTEK ETL CERTIFIED BUILDER OF INDUSTRIAL CONTROL PANELS UNDER UL 508A 2ND AND CSA C22.2 NO. 286. PHC PANELS ARE LABELED WITH THE ETL LISTED MARK.

The PHC-6600x controller provides manual and automatic operation of the heliport lighting system. The touchscreen is a high brightness, color TFT touch panel display with LED backlighting that controls all system operations. Simulated pilot lights and switches allow the user to control all heliport output circuits. In the AUTO position, the controller operates automatically from a pilot actuated FAA radio controller or an FAA photoelectric controller that activates per FAA light level requirements. The non-metallic enclosure is rated NEMA 4X and IP66. The PHC and lighting circuits are protected from transient voltage spikes by a 50kA interrupting surge suppressor and each load output is protected by a current limiting circuit breaker. The touchscreen circuit layout is factory customized to the actual heliport lighting system. All switch labels are configurable in the field.

Note: Uninterruptible Power Supply (UPS) available; see file OL306UPS.

	Point Type	Voltage	Options
Basic Model:	PHC-66001	AC: 96 – 264v	See list on page 2
Advanced Model:	PHC-66002	6: 277v ** DC: 10 - 36v	If installing outside, options -HTR & -SV may be required.
Mimic Panel:	PL11515 *		
	* PHC-66002 only	** Input 277v; output 120v; lights must be 120v	

HELIPORT LIGHTING SYSTEM TOUCHSCREEN CONTROLLER PHC-66002-AC



* The optional mimic panel may be added to the PHC-66002 at any time. The remote mimic panel consists of a second touchscreen that mimics all functions displayed on the main PHC touchscreen. The remote mimic panel is mounted in a fiberglass reinforced polyester enclosure that is NEMA 4X and IP66 rated. A standard category 6 ethernet cable with RJ45 connectors (by others) will be used to connect the main PHC-66002 controller to the remote mimic panel. All power and data will be conveyed by the category 6 cable.

Dimensions:	Inches (mm)
PHC-66001	17.4 (441) x 15.3 (339) x 6.7 (169)
PHC-66002	19.3 (490) x 17.3 (440) x 9.6 (243)



PHC HELIPORT LIGHTING CONTROLLER AVAILABLE OPTIONS

EX	Use PHC-61001 for Class I, Division 2; see file HL411PHC.
AX	Use PHC-61001 for ATEX-IECEx zones 1 & 2; see file HL411PHC.
SS	Stainless Steel 316L Enclosure
HTR	Heater, prewired. Required if installed outside & the temperature goes below freezing.
SV	Sun Visor for the touchscreen. Protects the screen from damaging direct sun by closing over it. Improves screen readability outside. See page 5.
BC	Brightness Control for PSF-53063 Floodlights (maximum of 4 per each of 2 circuits). Available for PHC-66002 only.
HC	HAPI Controls for one (1) approach. Available for PHC-66002 only. Includes ON-OFF, 3-step brightness control and alarm indication
HC2	HAPI Controls for two (2) approaches. Available for PHC-66002 only.
VC	VAGS-SAGA Controls for one (1) approach. Available for PHC-66002 only. Includes ON-OFF, 3-step brightness control and alarm indication
VC2	VAGS-SAGA Controls for two (2) approaches. Available for PHC-66002 only.
SEQ	Sequence flashing landing direction lights. See file HL137SEQ.
LA	Lightning Arrestor
---	Uninterruptible Power Supply (UPS) (see below and see file OL306UPS)

UNINTERRUPTIBLE POWER SUPPLY PL11609-1 UPS UNIT

This UPS is a standalone wall-mounted uninterruptible power supply battery backup for the LED lighting system supplied by Point Lighting Corporation. Upon failure of the normal power, the UPS will automatically switch to its standby power source with a run-time of at least 30 minutes*. Upon restoration of power, the UPS automatically returns to steady-state.

The standard system will handle a maximum load of 400 watts.

For any AC power available, the lighting must be ordered as 120V AC.

Additional third party loads must not be connected to the UPS. Contact Point Lighting Corporation for review of customization feasibility for longer time periods and different loads.

The voltage code used for the PHC catalog number is the normally available input voltage.

For AC power: 96-264V AC in; 120V (-1) or 230V (-2) out.

The UPS will be in a separate enclosure mounted next to the PHC enclosure and the commercial power will be connected to the UPS which sends power to the PHC controller.

FEATURES & FUNCTIONS:

Automatic operation upon loss of power & upon restoration of power. ● Automatic battery charging. ● AC power Input: 96-264V AC
 Temperature range: -20-deg C (-4-deg F) to +55-deg C (131-deg F) ● The UPS sends 120V AC to the load
 Use universal AC or 120V lights ● Battery low voltage disconnect to protect the battery ● The output has a true pure sine wave
 NEMA 4X (IP66) non-metallic enclosure ● Includes 2 x ¾-inch NPT hubs and 1 x ¾-inch cable gland

* Notes on run-times and battery capacity:

Specific run-time depends on the total load which Point will calculate upon request.

Run-times are based on a 77-deg F (25-deg C) ambient temperature.

Battery capacity will be between 65-85% at 0-deg C (32-deg F)

Battery capacity will be between 25-45% at -20-deg C (-4-deg F)

See the next page for more options

PHC HELIPORT LIGHTING CONTROLLER AVAILABLE OPTIONS

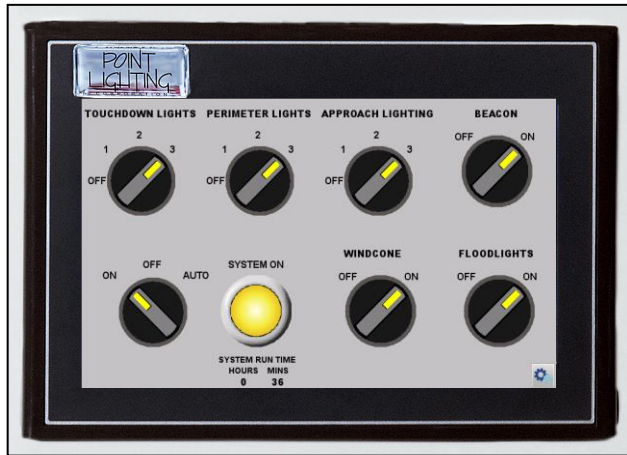
RADIO & REMOTE CONTROL OPTIONS

HWC	<p>Helipad Web Control</p> <p>Direct control of the lighting system by mobile device or computer workstation. Connects to the site's internet server by means of Ethernet cable (by others) into the PHC and password logon. Mimics the touchscreen display on your mobile device or PC. Available for PHC-66002 only.</p>
RC	<p>Radio Control ON-OFF</p> <p>Incorporates into the PHC a passive VHF radio receiver that permits the pilot to remotely activate the lighting system ON-OFF by keying the microphone on the controller's fixed frequency when the PHC master switch is preset to the AUTO mode. All PHC circuits preset to ON will activate. The timer will reset the system to OFF after fifteen (15) minutes. The allowable cable length to the antenna (included) is limited to 50-ft and fixed. Add option -A10 for a fixed length 100-ft antenna cable. Contact Point Lighting for the specific application. Available for PHC-66002 only.</p>
RC3	<p>Radio Control 3-Step (for use as remote brightness control with fixture option -VB)</p> <p>Same as option -RC except there are three (3) digital relays for brightness control steps activated in turn based on 3 (low), 5 & 7 (full) keys of the microphone by the pilot. When the PHC is set in the radio control position and activated by the pilot, all VB circuits will turn ON and react to the same brightness setting. Available for PHC-66002 only with the same antenna cable options.</p>
SA	<p>System Activity Status</p> <p>Adds relay and terminal blocks for NO/NC (normally open/normally closed) contacts. The user can connect their BMS, BAS or other remote indication to the contacts to tell them when the lighting system is ON. That means when the PHC output circuits to the lights are energized. This remote method of indication is in addition to the standard yellow indicator on the screen for "System ON".</p>
ROS	<p>Remote Override Station</p> <p>Provides for remote manual operation of the helideck lighting system. When ordered, this station uses line voltage and connects to the PHC controller. When the PHC main switch is set in the AUTO position, the ROS will be active for switching the PHC ON-OFF. It will switch ON whatever circuits are preset in the ON position at the PHC. It simply "remotes" the ON-OFF function at the PHC.</p>

OPTIONS SPECIFIC TO OFFSHORE MARINE HELIDECKS

M	<p>Marine Helideck</p> <p>Required for electrical safety on all offshore marine helidecks.</p>
PSS	<p>Power Source Selector – Manual (safe area only)</p> <p>A DNV requirement to accommodate selecting between two external power sources.</p>
PTS	<p>Power Transfer Switch – Automatic</p> <p>A DNV requirement to accommodate selecting between two external power sources. When the primary power experiences under or over voltage, the system will transfer to the backup power.</p>
SL	<p>Combination Marine Status Light System Control</p> <p>Add this option for integrated control of an offshore helideck lighting system and a status light system. The PSL marine status light system control unit will be integral with the PHC. The PHC enclosure is safe area unless option -EX or -AX is added to the PHC.</p>
-15CMx	<p>Option -15CM1 or -15CM2 means there are 1 or 2 status light power supplies integrated into the PHC. These apply only when the PSL status light system is using 15 cm tall main lights.</p>

HELIPORT LIGHTING CONTROLLER
PHC-66002-AC-HC-RC-SA-VC
with Integral Radio Control
and HAPI & VAGS Controls
and Perimeter Lighting Brightness Control
and System Activity Status



HELIPORT LIGHTING CONTROLLER
PHC-66002-AC-SA
with Brightness Control
and System Activity Status

HELIPORT LIGHTING CONTROLLER
Configuration Screen
The brightness steps may be customized
as desired for each site by the authorized person

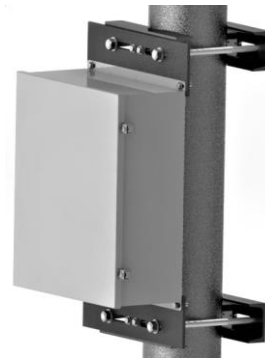


Option -SV Sun Visor

- Protects the touchscreen from damaging direct sun by closing over it.
- Improves screen readability outside in daylight.
- Padlockable (padlock by others)



BRACKET PL11371 FOR
WALL MOUNTING
Black Anodized Aluminum
with Stainless Steel Hardware



BRACKET PL11371-TPM FOR
TOWER OR POST MOUNTING
Black Anodized Aluminum
with Stainless Steel Hardware



POINT HELIPORT LIGHTING PHC HELIPORT LIGHTING CONTROLLER WITH TOUCHSCREEN

PHC-66002 SPECIFICATION

The heliport LED lighting system shall be controlled by means of a POINT LIGHTING CORPORATION system controller type PHC-66002. The standard circuit layout shall be modified to accommodate the lighting system per the project plans.

The controller manufacturer shall be an Intertek ETL certified builder of Industrial Control Panels under UL 508A 2nd and CSA C22.2 No. 286 that are labeled with the ETL Listed Mark.

The controller shall include a touchscreen consisting of high brightness, color TFT touch panel display with LED backlighting that controls all system operations. The display shall have a minimum backlight brightness of 450 cd/m² and a rated life of 30,000 hours. The touchscreen shall be IP65, NEMA 4, UL Type 4X rated. Simulated pilot lights and switches allow the user to control all heliport output circuits. All switch labels shall be field configurable.

The controller shall have the ability to enable user level security to protect unauthorized system activation as well as configuration settings changes.

There shall be brightness control for Point LED lights with the option -VB. Four position simulated switch on the touchscreen for 3-step dimming control (Variable Brightness) of each output circuit. The dimming levels shall be configurable by an authorized person.

The PHC enclosure shall be non-metallic rated NEMA 4X (IP66). All components shall be panel mounted. The enclosure may be punched or drilled for conduit entry. The enclosure shall be certified to IEC 529, CSA, KEMA and UL 508A Type 4X & 12, IP66 watertight and dust tight.

All internal wiring and component spacing shall comply with the US National Electric Code. All components shall be prewired to IEC terminal blocks. Power shall be single phase measured line to neutral, 50 or 60 Hz.

The circuits shall be protected from transient spikes by a DIN-rail mounted surge suppressor with a 50kA maximum surge current to IEC 61643-1.

There shall be six (6) output circuits, each protected by a 15-amp circuit breaker.

There shall be transient monitoring via a DIN-rail mounted transient event monitor with LCD screen. The LCD screen shall display total number of surge events as well as exact time and date the event(s) occurred. The transient monitor shall comply with IEC/EN 62561-6.

There shall be a three (3) position simulated master switch on the touchscreen for ON-OFF-AUTO operation. There shall be one (1) input for use with a remote activation device when set in the AUTO position. The remote activation device may be a user supplied switch, a PPC photoelectric controller or a PRC pilot actuated FAA radio controller (order PRC or PPC separately).

Each load output shall be protected by a DIN-rail mounted current limiting circuit breaker providing thermal magnetic overcurrent protection in accordance with UL, CSA and IEC standards. The UL and IEC rated short circuit capacity shall be 5,000 amps. The breaker is resettable, and the status is color coded.

Optional Mimic Panel PL11515:

The mimic panel may be added to the PHC-66002 at any time. The remote mounted mimic panel consists of a second touchscreen that mimics all functions displayed on the main PHC touchscreen. The remote mimic panel is mounted in a fiberglass reinforced polyester enclosure that is NEMA 4X and IP66 rated. A standard category 6 ethernet cable with RJ45 connectors (by others) shall be used to connect the main PHC-66002 controller to the remote mimic panel. All power and data shall be contained in the category 6 cable.

Option -HWC Helipad Web Control:

Performs the same function as a the mimic panel for direct control of the lighting system by mobile device or computer workstation. Connects to the site's internet server by means of Ethernet cable (by others) into the PHC and password login. Mimics the touchscreen display on your mobile device or PC. Available for PHC-66002 only.

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