

# POINT RADIO CONTROLLER PRC AIR TO GROUND REMOTE CONTROL

## HELIPORT & AIRFIELD LIGHTING RADIO RECEIVER

The PRC radio controller is a special VHF radio receiver that permits the pilot to remotely activate the lighting system. The PRC is often used for a heliport or airfield lighting system that may be unattended for periods of time. The system is remotely activated by the aircraft pilot keying the microphone on the controller's preset frequency. For the PRC-65001, three "clicks" of the microphone within five seconds activates the 30-amp rated power relay. The timer will reset the system to OFF after fifteen (15) minutes. At any time during the fifteen minutes, the microphone may be rekeyed in the proper sequence to reinitiate the fifteen minute cycle.

The fiberglass reinforced polyester enclosure is rated NEMA 4X and IP66. There are two industrial grade pilot lights on the door: green **POWER ON** indicating power presence and amber (yellow) **SYSTEM ON**. The PRC is protected from transient voltage spikes by a 50kA interrupting surge suppressor and the load output is protected by a current limiting circuit breaker.

The remote mounting antenna is included with a 50-ft coaxial cable and connectors. The facility owner must obtain the frequency assignment from local aviation authorities. The double conversion superheterodyne receiver is preset to the specified frequency between 118.000 and 136.000 MHz.

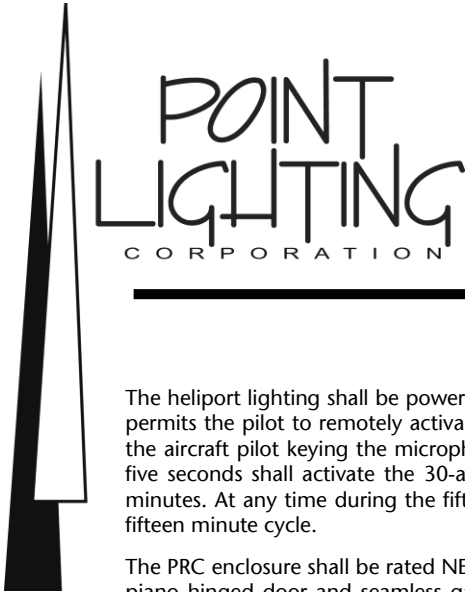
	Point Type	— Voltage—	Options
1-Relay Unit	PRC-65001	AC: 96V-264V	SOP: Separated Operation**
3-Relay Unit	(use PRC-65004)	50/60 Hz	SS: Stainless Steel Enclosure
		DC: 9V-36V ^	P: Photoelectric Control*
			RS1: Remote Operator Station (1)
			RS2: Remote Operator Stations (2)

^ Protected by a 30 amp circuit breaker.  
Maximum load 360 watts at 12v.  
Maximum load 720 watts at 24v.

\* Prevents daytime activation  
\*\* When distance to antenna exceeds 50-ft  
See information page 4

POINT RADIO CONTROLLER  
PRC-65001-AC





# POINT RADIO CONTROLLER PRC AIR TO GROUND REMOTE CONTROL

## PRC SPECIFICATIONS

The heliport lighting shall be powered through a PRC radio controller. The PRC is a special VHF AM radio receiver that permits the pilot to remotely activate the heliport lighting system. The lighting system shall be remotely activated by the aircraft pilot keying the microphone on the controller's preset frequency. Three "clicks" of the microphone within five seconds shall activate the 30-amp rated power relay. The timer shall reset the system to OFF after fifteen (15) minutes. At any time during the fifteen minutes, rekeying the microphone in the proper sequence shall reinitiate the fifteen minute cycle.

The PRC enclosure shall be rated NEMA 4X (IP66) fiberglass reinforced polyester in gray (RAL 7036) with stainless steel piano hinged door and seamless gasket. The door is to be secured by two captive screws. All components shall be panel mounted. The dimensions in inches (mm): 11.31(287) x 9.31(236) x 5.43(138). The enclosure may be punched or drilled for conduit entry. The enclosure shall be manufactured by Vynckier and 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 heliport lighting system shall be protected from transient voltage spikes and other surges by means of a POINT LIGHTING CORPORATION surge protector. Surges must be clamped and shunted to ground to prevent equipment damage. The PRC and lighting circuits shall be protected from transient voltage spikes by a DIN-rail mounted surge suppressor with a 50kA maximum surge current to IEC 61643-1. There shall be a 30mm industrial grade pilot light on the door: green **POWER ON** indicating power is present at the input terminals of the PRC. There shall be a 30mm industrial grade pilot light on the door: amber (yellow) indicating **SYSTEM ON**. There shall be a three (3) position master switch mounted on the door. In the AUTO position, the circuit shall operate automatically from a pilot actuated signal.

Option –RS1: An indoor/outdoor remote operator station allows the user to walk up and turn ON the lighting system. This remote station will have a momentary push button and an amber "System ON" pilot light. The user can push the button to enable the system for a set period of time which we set to be the same length of time as the normal PRC timer which is 15 minutes. This option must be ordered with the PRC. It cannot be added in the field.

The load output shall be protected by a DIN-rail mounted current limiting 30-amp 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 10,000 amps. The breaker is resettable and the status is color coded. The radio controller shall include a remote antenna with 50-ft of cable. At the factory preset sensitivity, the reception range should be about five (5) miles depending on local conditions.

The owner must obtain authorization of a fixed frequency between 118.000 and 136.000 MHz. A wiring schematic and manual shall be included with the radio controller. The heliport lighting radio controller shall be type PRC-65001 manufactured by POINT LIGHTING CORPORATION.

### RECEIVER SPECIFICATIONS

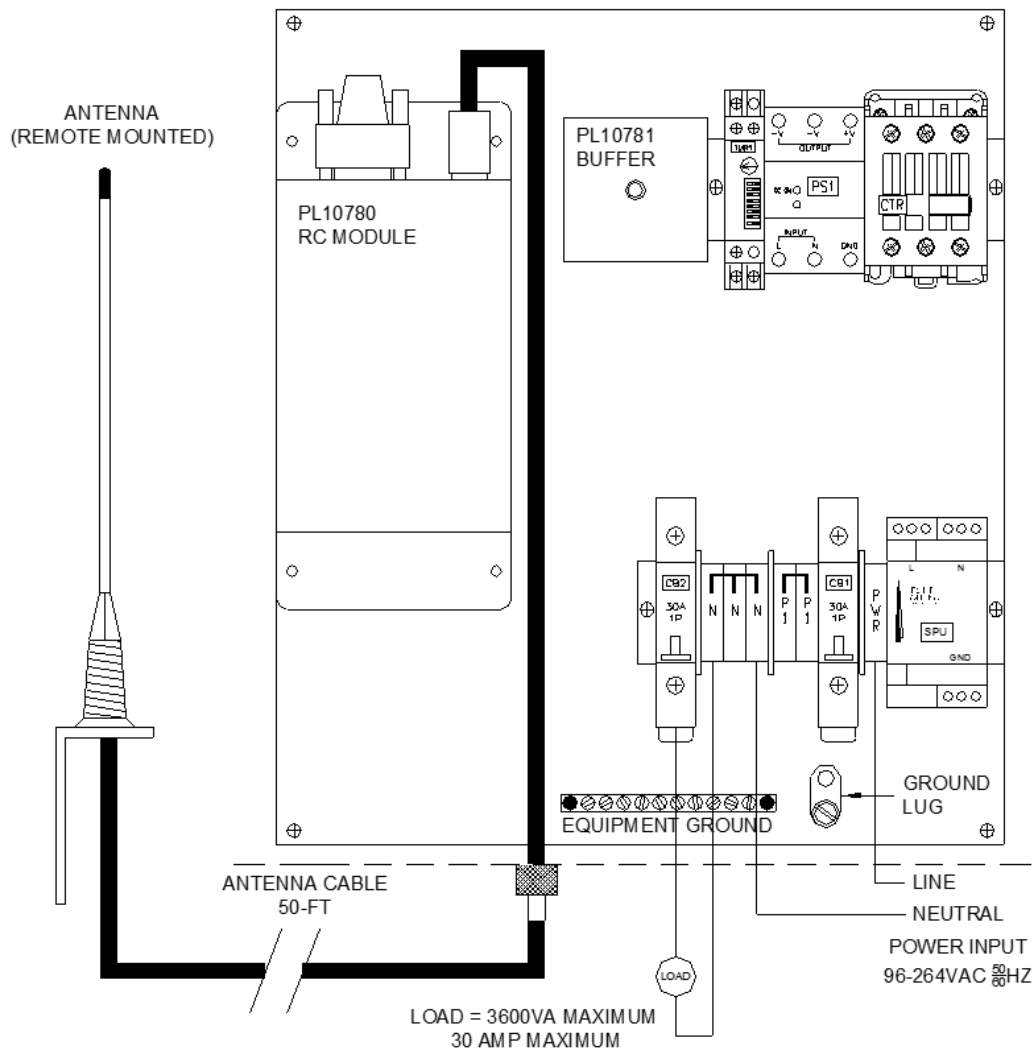
Effective reception range:	> 10 miles (> 6.2 km) *
Temperature rating:	-55 deg C to +55 deg C
Channel spacing:	25 kHz
Receive system:	Double conversion superheterodyne
Intermediate frequencies:	1st: 46.35 MHz, 2nd: 450 kHz
Sensitivity:	COM band (6 dB S/N) –6 dBμ typical
Squelch sensitivity (threshold):	AM Less than 0 dBμ FM Less than –5 dBμ
Selectivity:	6 dB (More than 7.5 kHz) 60 dB (Less than 25 kHz)
Spurious response rejection:	AM more than 60 dB FM more than 30 dB



\* The PRC is a passive radio receiver. The effective range depends on line of sight to the antenna, the atmospheric conditions and the power of the transmitter sending the signal.

Note: The antenna must be located in the clear air visible to the aircraft in 360-degrees. If that is not possible, select the option –SOP for the functions to be divided into central and auxiliary units. See page 4.

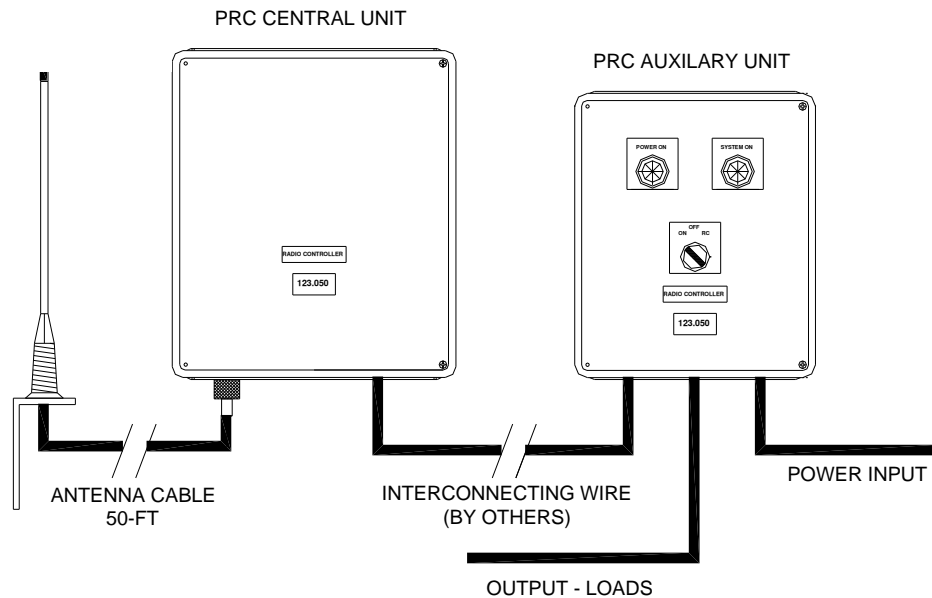
PRC-65001 RADIO CONTROLLER  
GENERAL ARRANGEMENT DRAWING



The antenna must be located in the clear air visible to the aircraft in 360-degrees. If that is not possible, select the option -SOP for the functions to be divided into central and auxiliary units. See page 4.

**SEPARATED OPERATION OPTION -SOP**

When the desired location of the manual operator must exceed 50-ft run from the antenna, this option provides an auxiliary unit separated from the PRC central unit. The circuit load has power distributed from the PRC auxiliary unit.



PRC-65001-AC- SOP 1-CIRCUIT UNIT

INCHES (MM)

**CENTRAL UNIT**

UNIT THAT THE ANTENNA CONNECTS TO VIA 50-FT CABLE

NEMA 4X ENCLOSURE DIMENSIONS: 15.32 (389) x 13.32 (338) x 6.60 (168)

SCREW HOLE MOUNTING PATTERN: 14.75 (375) x 10 (254) SCREW HOLE DIAMETER (4): 0.32 (8)

**AUXILIARY UNIT**

LOCATED AT THE HELIPAD - LOADS ARE CONNECTED TO THIS UNIT.

NEMA 4X ENCLOSURE DIMENSIONS: 13.30 (338) x 11.29 (287) x 5.58 (142)

SCREW HOLE MOUNTING PATTERN: 12.75 (324) x 8 (203) SCREW HOLE DIAMETER (4): 0.32 (8)

**POINT LIGHTING CORPORATION**

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