



# KH INDUSTRIES

The Permanent Name in Temporary Lighting & Power

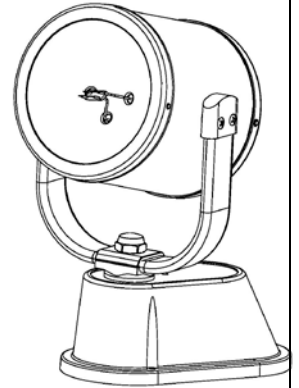
## NightRay<sup>®</sup> Hardwired Spotlights

(Models: 475-20, 675-20, 775-20 & 955-20)

### Introduction

Congratulations on the purchase of a new NightRay remote control spotlight. The NightRay has been designed for use in adverse environmental conditions with all materials being corrosion resistant. A "slip drive" protects the drive unit from damage should manual positioning of the light be required. The bulb on the 475-20 and 675-20 features a spot-flood combination controlled by a switch on the control panel while horizontal and vertical movement of the beam is controlled by joystick. With normal care this light will give many years of service. NightRay is manufactured to exacting standards for performance, convenience, and reliable service.

Please read all of the warnings before using or installing the NightRay.



### Warnings

**READ ALL WARNINGS BEFORE USING OR INSTALLING THE NIGHTRAY!**

**IMPORTANT! This light can cause fatalities if shined at a person operating a motor vehicle!  
Some municipalities require work lights be covered while vehicle is driven.  
Consult local laws before placing this light into operation!**

DO NOT use light on road or highway. Intended for off-road use only.  
DO NOT shine light into anyone's eyes, especially if operating a vehicle or other equipment.  
DO NOT use light in explosive atmosphere. This device is NOT explosion proof!  
DO NOT touch hot bulbs. Allow bulbs to cool before replacing.  
DO NOT leave light face down on any surface during operation. Fire or surface damage may result.  
DO NOT place arms or legs near the device when operating. Observe pinch points and keep clear.  
DO NOT attempt to service the NightRay. Return to KH Industries for repairs.  
It is advisable to keep the vehicle's engine running while operating the NightRay for extended periods of time, to avoid draining the battery.

**ONLY ELECTRONIC TECHNICIANS (QUALIFIED BY KH INDUSTRIES, INC.) SHOULD ATTEMPT TO MAKE REPAIRS TO THE ELECTRONIC CIRCUITRY. IF PROPER TESTS AND REPAIR PROCEDURES ARE NOT FOLLOWED, DAMAGE MAY OCCUR, AND WILL VOID YOUR WARRANTY.**

*KH INDUSTRIES ASSUMES NO LIABILITY FOR DAMAGES RESULTING FROM MISUSE OR ABUSE OF THIS PRODUCT.*

### Pre-Installation

The Night Ray includes the following items:

- NightRay unit
- Hardwired control panel with joystick
- Adhesive backed mounting gasket
- 20 feet of wiring harness
- 3 body mounting screws
- 2 panel mounting screws
- 14 crimp style wire connectors

### Installation

**Important! Be sure to read all of the installation procedures before beginning installation.**

**Attention:** Care must be taken when selecting a mounting location to provide sufficient strength to support the light and access to the wiring.

**NIGHTRAY BODY MOUNTING INSTRUCTIONS**

1. Using the mounting template, (see NightRay Mounting Template, Page 4) drill three 3/32" dia. holes in the mounting surface. One 1/2" dia. hole should be drilled anywhere within the inner ring of template for the wiring harness.
2. Remove protective paper backing from the mounting gasket and adhere mounting gasket to bottom of light base.  
**WARNING: DO NOT USE CORROSIVE SEALERS** (such as silicone sealant) on (or next to) the light base or mounting surface when mounting light. Proper installation of mounting gasket will prevent moisture from entering this area.
3. Insert wiring harness through the 1/2" dia. clearance hole. Secure light to mounting surface with the provided screws.

**CONTROL PANEL MOUNTING INSTRUCTIONS**

4. Select an area for mounting the control panel to provide maximum protection from moisture and access to wiring.  
**Attention:** A minimum depth of 3" must be provided to allow clearance for the joystick switches and harness assembly.
5. Carefully cut a 3" X 2" opening in the mounting surface and drill two (2) 1/16" dia. screw holes.

**WIRING INSTRUCTIONS**

6. Route the harness from the light to the control panel.
7. Connect the colored wires from the control panel with that from the light (black from light to black from control panel, orange with orange, etc.).
8. Use the provided crimp connectors to splice the wires.
9. Connect the 36" long **yellow wire** through the 15 amp fuse to battery **positive (+)**.
10. Connect the 36" long **black wire** to battery **negative (-)**.

**Operation**

Use the joystick on the control panel to move the light up, down, left and right.

Vertical and horizontal movement can be accomplished at the same time by proper position of the joystick, as shown in the picture to the right.

**NR-475 & NR-675:**

Toggle the switch up to the "FLOOD" position to provide a wide area of light.

Toggle the switch down to the "SPOT" position to provide a brighter more focused beam of light.

The Indicator lamp on the toggle switch will illuminate when the light is turned on.

To turn the light off, position the FLOOD/SPOT switch exactly center.

**NR-775 & NR-955:**

Toggle the switch up to the on position to turn on the light.

Toggle the switch down to turn the light off.

**Maintenance**

If re-lamping is required, the sealed beam bulb can be removed by sliding a thin screw driver blade under the rim, near the exposed pin and carefully depressing and pushing the rim over the pin.

**Warranty**

This product has a three-year limited warranty from any factory defects on parts and labor as per the **KH Industries Terms and Conditions of Sale** distributed with the product invoice. Please contact KH for warranty service (see "Contact" section) if required.

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**Contact** For questions, sales or service please contact:

**Phone:** 716-312-0088

**Fax:** 716-312-0028

**Email:** [sales@khindustries.com](mailto:sales@khindustries.com)

**Web:** [www.khindustries.com](http://www.khindustries.com)

**Address:** KH Industries  
160 Elmview Avenue  
Hamburg, NY 14075  
USA

# Mounting Templates

