

## LED Lamp PATLITE® INSTALLATION MANUAL

[ Type : KHE ]

Thank you for purchasing **PATLITE** product. Please read all instructions before using this product. Keep all instructions for future reference, and be sure to carefully re-read before product maintenance, inspection, repair etc.

If you have any further question, please contact your nearest PATLITE sales office listed on the last page of this manual.

### 1. Important Safety Precautions

#### Precautionary measure for safety

Read thoroughly and follow these instructions carefully for your safety.

■ These possible risks and degree of damages when precautions are ignored are classified as follow:

**Warning**

Improper use may result in death or serious injury.

**Caution**

Improper use may result in injury, product damage or destruction.

**Warning**

- Be sure to turn off the power supply before wiring, for there is a danger of internal circuit burnout and electric shock due to short circuit.
- For lens maintenance and repair, make sure to turn off the power and that the internal temperature is low, as it may cause electric shock and burn injury.
- Do not use this product without the lens or with a damaged lens, as it may cause electric shock.
- Ask a specialist about a construction work, as it may cause electric shock, fire, and product to fall.
- For security use, daily inspection and simultaneous use with other devices are required in case of any possible product failure and/or trouble.
- Be careful not to get hooked by the product when climbing on a machine while holding the product and/or when removing the lens. It is dangerous as it may cause you to fall.
- Lens (plastic type) is easy to crack and/or break. When handling, please be careful not to get hurt.
- Do not stare at the light from close range when it is flashing, as it may cause visual impairment.

**Caution**

- Ensure to use ONLY specified operating voltage range.
- Ensure to use ONLY specified optional and repair parts as stated on this manual.
- For your safety, ensure to insert external fuse like the wiring example. It prevents power burnout if incorrect wiring is operated.
- Do not carry the product by holding the lead wire, as it may cause damages.

### 2. Model No. configuration

K H E - 2 4 □ - □ - □

■ Rated voltage  
24V DC (Nonpolar)

■ Case color  
U : Silver  
No mark : Light gray

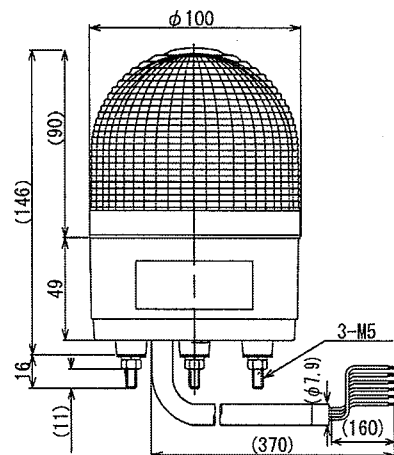
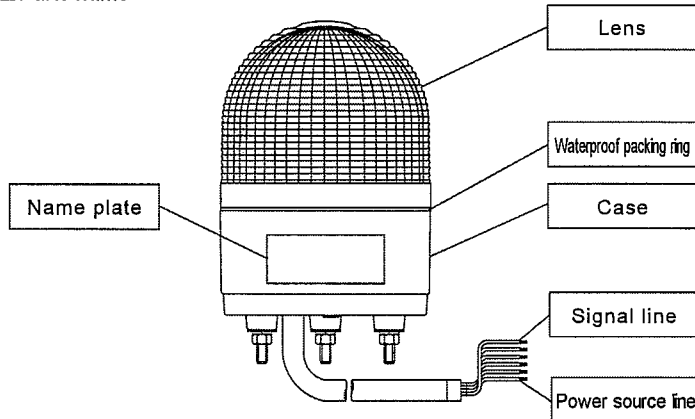
■ Luminous color  
R : Red  
Y : Amber  
G : Green  
B : Blue

■ Lens color  
Z : Clear  
No mark : The same color as luminous color

### 3. Parts name and Dimensions

■ Parts name

■ Dimension



※ Four signal lines:  
 Common line : Yellow  
 Strobe line : Brown  
 Flash line : Green  
 Blink line : Red

※ There are two power source line in white and gray.

(Unit: mm)

## 4. Installation

### ■ Installation Process

- Drill a hole for mounting the product. (See right: example of drilling steps)
- Firmly fix the product's mounting part by using nuts provided.
- Ensure to install this product at a place with sufficient strength and minimal vibration.

### Caution

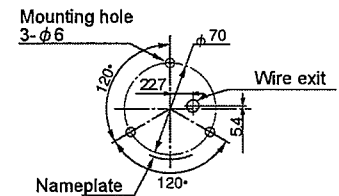
- This product can be used even for outdoors if installed upright, by using an optional accessory, a rubber mount (SZ-200A).
- Do not install this product horizontally nor up-side-down even with a mount rubber. It may cause electric shock and power burnout for water may enter from the hole under the case and be flooded.
- Do not use for outdoors without a mount rubber.
- Ensure to use ONLY specified operating voltage range.
- Do not use nor neglect this product without the lens.
- Use damp soft cloth to wipe off stains on the lens and case.  
(Do not use thinner, benzine, gasoline nor oil for wiping)
- Do not remove the water-proof ring, as it will ruin the waterproof construction.
- When installing on a high location, be sure to have an easy access to repair if required.

### Drilling Procedure for Mounting Hole

1. Confirm the position of a mounting hole.
2. Secure the 「MOUNTING HOLE TEMPLATE」 to the mounting surface using a tape.
3. Mark the surface with using nail punch.
4. Drill the holes on the mounting surface.

※Confirm the direction of nameplate and the wiring exit, before drilling.

### ■ Dimension of installation (mm)



Mounting direction in outdoor  
(Please use a rubber mount)

※For indoors use which does not require dust- and water-proof features, no need to use a mounting rubber and it is possible to install in all three directions. If needed, follow the same installation process as for outdoors use.

※Application in a moist environment, a mount rubber must be used to prevent short circuit.

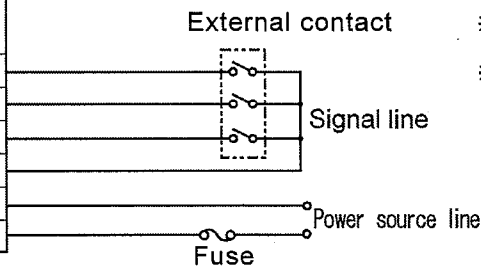
## 5. Wiring Procedure

### ■ Please confirm the procedures below before wiring

- Connect wires according to the wiring example.
- Once wiring is completed, insulate the end of each unused lead wires with insulation tape.
- ※ Insert an external fuse to power supply.
- ※ Use Class-II circuit or UL1950 approved power supply(of less than 100VA).
- ※ Ensure to use the specified rated circuit for mounting on your device.
- For multiple and simultaneous use, connect each common wire (Yellow) to each other.

### Wiring Example

Lead wire color	Operation
Brown	Strobe
Green	Rotation
Red	Blinking
Yellow	Common
White	Power source (Nonpolar)
Gray	Power source (Nonpolar)



※Ensure to use specified rated fuse required for the device which will be installed to.  
 ※The rush current of 20A·5μs or less will flow in a power source line.  
 Consider the rush current and the capacity of the power source line when choosing the power source line.

#### [Signal line]

Voltage	Internal applied voltage
	DC24V
Rated current	5 mA

#### [External contact specification]

Leak current	0.1 mA or less
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- Wire the power source line to the power source. Please ensure the specified rated voltage.
- Signal line is voltage free contact. Do not connect the power source.
- This product operates by connecting each signal line (Brown/Green/Red) with a common line (Yellow).  
 『(Example) Connecting brown to Yellow : Strobe』
- When multiple signal lines are simultaneously connected to a common line, the order of operation is based on the priority level.  
 priority level : Strobe (Brown) > Rotation (Green) > Blinking (Red)  
 『(Example) Connecting Brown and Green to Yellow : Strobe』  
 『(Example) Connecting Green and Red to Yellow : Rotation』  
 『(Example) Connecting Brown, Green and Red to Yellow : Strobe』

### Caution

- Ensure to use this product under the voltage specified on the nameplate.
- Make sure the power is OFF before wiring. A short circuit may damage internal circuits or cause an electric shock.
- Do not remove the lens, as it may damage the product from a short circuit or electric shock.
- Be aware of a short circuit caused from overflowing of the cable core when wiring.
- Do not pull from or push the lead wire into the case, as it may damage the product due to wire severance.
- Ensure to pay close attention when wiring. If miswired, it may cause internal circuit to burnout.
- Do not apply voltage directly to signal wires, as it may damage the internal circuit from burnout.
- To prevent the possibility of a fire, ensure to insert the external fuse into a power source as shown in the wiring example.

## 6. Repair/Optionnal parts

We provide the following repair- and optional parts. To purchase, please contact your nearest sales office listed at the last page of this manual.

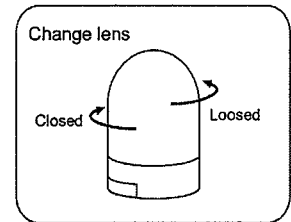
Repair parts	Part No.
Lens Clear	B 3 2 1 3 0 0 3 3
Lens Red	B 3 2 1 3 0 0 3 3 - 1
Lens Amber	B 3 2 1 3 0 0 3 3 - 2
Lens Green	B 3 2 1 3 0 0 3 3 - 3
Lens Blue	B 3 2 1 3 0 0 3 3 - 4
Waterproof packing ring	Z 3 5 7 2 1 0 0 1 - 0 9 0

### ■ Maintenance procedure

#### Lens Change

To change a lens, please follow the procedure below.

- ① Turn OFF the power.
- ② Remove the lens by turning it to the left.
- ③ Place the new lens on the case and fix tightly by turning it to the right.



Option parts	Model	Remarks
Rubber mount	S Z - 2 0 0 A	Waterproof
Pole	S Z - 3 0 T	With circular mounting bracket
	S Z - 3 0 L	With L-shaped mounting bracket
Wal mounting bracket	S Z - 0 0 7	

※Please install waterproof packing ring on the case.  
If not, It affects the waterproof construction.  
Please exchange when waterproof packing ring is damaged.

## 7. Before requesting a repair

Before requesting service, first review the chart below. If the product still does not operate properly and/or should you have further questions, contact our sales offices listed on the last page of this manual. Upon request, always identify your warning light by Lot No. found on the nameplate.

Problem	What to check	What to do
The unit does not emit light.	Is the power ON ?	Check the power source, power source line, plug connection and fuse. If a switch is installed, check that it is turned on.
	Is the signal line connected?	Check the Signal line connection and external contact.
	Is the signal line correctly connected?	It operates by connecting each signal line with a common line. Please check the connecting.
	Are not you impressing the voltage to the signal line?	Signal line is voltage free contact. There is a possibility of breaking down when impressing the voltage by mistake. Please request the repair.

※Malfunctions and damage caused by unauthorized modifications will not be covered by warranty.

## 8. Specification

Model	Rated voltage	Rated power consumption	Stroke pattern	Flashing cycle	Blinking cycle	Operating temperature range	Waterproof	Mass	Vibration proof
KHE-24□-R-□	DC 24 V	8.2 W	Double	175 Flashes/min	55 Blinks/min	-30°C ~ +60°C	IP23 Rubber mount is installed (SZ-200A) IP55	0.45 kg	68.6m/s <sup>2</sup> (7G)
KHE-24□-Y-□		8.2 W							
KHE-24□-G-□		10.1 W							
KHE-24□-B-□		21.6 W							

### Caution

- PATLITE Corporation is not responsible for any mishandling, product failure and damage caused from remodeling and accident occurred, as a result of an act contrary to the instructions, warnings and precautions stated in this manual.
- Please note that product specifications may change without notice due to ongoing product.

