



# LED Signal Light

## Model PSE

### INSTRUCTION MANUAL

Installation Operation Maintenance

[Maintenance Version]

**Notice to Customer**

- Thank you very much for purchasing our PATLITE product.
- Request the installation and wiring be performed by a professional contractor if construction work is involved.
- Prior to installation, read this manual thoroughly before using this product to ensure correct use.
- After reviewing this manual, if there are any questions regarding this product, please contact the nearest PATLITE office listed on the back cover of this manual.

**Notice to Contractor**

- Read this manual carefully prior to installation.
- Be sure to return this manual to the customer.

## 1 Safety Precautions

### Safety Precautions

**WARNING** Failure to observe the following may result in death or serious injury.

<p><b>ON</b> <b>OFF</b></p> <p>✗</p>	<p>To prevent from short-circuits, electric shock or damage, observe the following:</p> <ul style="list-style-type: none"> <li>Be sure the power is disconnected before replacement (Globe exchange, etc.) or repair.</li> <li>Please use this product in a properly maintained condition. (If parts such as the body or globe are damaged, they should be repaired.)</li> </ul>	<p>✗</p> <p>Do not apply excessive torque or strong shock to this product. Failure to comply will result in product damage.</p>
<p>✗</p>	<p>To ensure proper safety while using the Signal Light, observe the following:</p> <ul style="list-style-type: none"> <li>Perform periodic pre-maintenance. (→ "6 Inspection" (P.7))</li> <li>As a precaution against problems occurring, use this product together with other equipment.</li> </ul>	<p>✗</p> <p>Request the installation and wiring be performed by a professional contractor if construction work is involved. Failure to comply may result in fire, electric shock or falling from high places may occur.</p>
<p>✗</p>	<p>Properly secure this product to prevent from falling, particularly from high places. Failure to comply may result in death, serious injury, or product damage.</p>	<p>✗</p> <p>Do not, by any means, disassemble or modify this product. This product contains high voltage, which is very dangerous, so only remove replacement parts. ※Replacement parts are removable.</p>
<p>✗</p>	<p>Do not look directly into the light source during operation of this product. The excessive brightness may impair vision.</p>	<p>✗</p> <p>To ensure safety when this product is installed onto equipment, observe the following:</p> <ul style="list-style-type: none"> <li>Do not use this product as leverage when climbing up onto the equipment. Failure to comply will result in falling from a high place, or damage to the product.</li> <li>When performing tasks such as opening covers on the equipment, be careful not to snag anything on this product. Failure to comply will result in product damage.</li> </ul>

**CAUTION** Failure to observe the following may result in personal injury or product damage.

<p>✗</p> <p>Use only the specified replacement parts listed in this manual.</p>	<p>✗</p> <p>Install an external fuse between the power supply and product to protect the internal circuitry. (→ "5 Installation and Wiring" (P.6))</p>
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### Signal Light Application

This product is useful for warning indications by flashing, and can be used on equipment, in factories and other applications.

### Instruction Manual Objective

- The images in this manual may vary in comparison to the actual product and are only for the purpose of illustration.
- Store this manual in a location for future reference.

## 2 Model Number Configuration

Model No.	Model	Rated Voltage	Color
	PSE-		

**Model Number Example**  
**PSE-M1-R**  
 • Rated Voltage ... DC 12 / 24 V  
 • Color ..... Red

The luminescence color is indicated:※  
**R** Red **Y** Amber **G** Green **B** Blue

※ Due to LED and Globe color compatibility, changing the Globe cannot be done without the LED Unit being changed as well.

## 3 Installation

The following is the procedure for installing this product.

- Before mounting the product, drill holes into the mounting surface in accordance to the dimensional drawing.
- Insert the Power Cord into the wire hole before inserting the body into the mounting hole.
- Fasten with the (M4) nuts included and tighten. (Recommended Torque : 1.4 N · m)
- Properly wire to the power supply. (→ "Wiring Example" (P.7))

**Point**  
 • Prior to drilling, the work will become easier if marking the holes with a punch, etc., is done first.

(Note) Because the figure is an illustration, the mounting and distribution hole positions may vary from actual dimensions. Refer to the dimensional drawing for proper position and sizes.

**Dimensional drawing**  
 (Units : mm)  
 Hole Installation (φ5x3 Holes)  
 Wire Hole (φ10)  
 Nameplate position

(Scale: 4/5)  
 If using a copier machine, increase the size to 1.25 times (125%) to scale for actual size. (Ensure that it is actual size)

### Wiring Example

The wiring example is indicated for every model. If the Signal Light is being used under special conditions and there are any questions, contact our PATLITE office prior to performing any wiring.

<p><b>Product specifications</b> DC 12 / 24 V Model PSE-M1</p> <p>※1 A 2A fuse is built-inside the product. ※2 Use an external fuse with the recommended rating for the product being used. ※3 Be sure to ground the earth wire.</p>	<p><b>Product specifications</b> AC 100 / 200 / 230 V Model PSE-M2</p>
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## 6 Inspection

To ensure safe operation, it is recommended to perform the following.

Inspection Item	Inspection Repair
Is the LED flashing?	Refer to the "7 Troubleshooting" section (→ P.7) if it does not flash.
Check the outside appearance. Is there any damage?	If there is any external damage such as cracks, or missing parts, stop using the Signal Light and replace the necessary parts or the Main Unit. (→ "9 Replacement Parts" (P.8))
Is the mounting nut loose?	If the nut is loose, tighten it with the recommended torque. (→ "5 Installation and Wiring" (P.6))

## 7 Troubleshooting

If a problem occurs, check the following table to remedy the problem before calling for service.

Problem	Where to Check	Solution
The LED does not flash.	Is the wiring properly connected?	Refer to "5 Installation and Wiring" (→ P.6) to double-check the wiring connection.
	Is the power supply at the correct voltage?	Be sure to use this product at its rated voltage.
	Is the fuse blown?	If the external fuse is blown, replace it.

If the problem is not corrected, even after the above remedies have been performed, use the table below to make detailed notes of the product, its problem, and then contact either the place of purchase or your nearest PATLITE Sales Representative.

Product Details			
Product name	LED Signal Light	Purchase Date	/ /
Model	(→ "2 Model Number Configuration" (P.5))	Symptoms of Problem	With as much detail as possible

## 3 Part Names and Outer Appearance

(Units: mm)

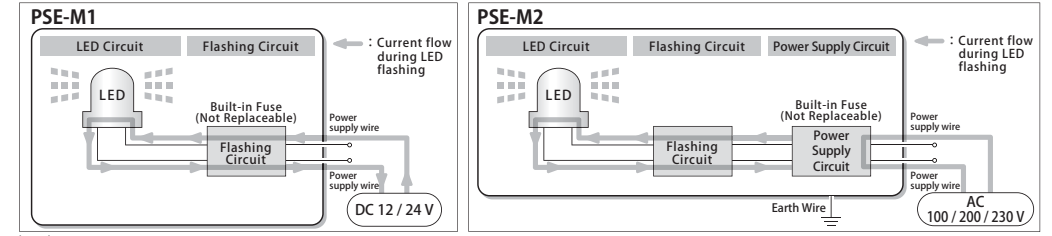
LED Unit  
 Cut Lens  
 Globe  
 O-ring  
 Nameplate  
 Body  
 Power Wire※  
 Mounting Bolt (M4 x3)

**Accessories**  
 Nuts (M4) x3  
 Spring Washer x3  
 Washer x3

**Power Cord Specifications**  
 M1 Wire length : 340  
 Cord Diameter : Approx φ7  
 Red  
 Black  
 M2 Wire length : 340  
 Cord Diameter : Approx φ7  
 Green / Yellow  
 White  
 Black

## 4 Block Diagram

The following illustrates the internal block diagram for the Signal Light. Use it as reference when wiring.



## 5 Installation and Wiring

**WARNING**

**ON**  
**OFF**

Prior to wiring, ensure the power supply is disconnected from the Signal Light.

Verify the power supply voltage and whether it is direct current or alternating current.

Be sure to ground the earth wire. Failure to comply may result in electric shock or possible fire. (M2)

**CAUTION**

- The following requirements are necessary for proper installation.
  - Install the Signal Light where excessive vibration is not present.
  - Install the Signal Light on a sturdy surface.
  - Install the Signal Light on a level surface.
- Use a soft cloth, etc., dampened with water to wipe the main Signal Light unit. (Do not use cleaners containing chemicals such as thinner, alcohol, gasoline or oil.)
  - Thinner
  - Alcohol
  - Gasoline
  - Oil
- Install in an upright position when placed in a wet environment. Failure to comply will result in a decrease in waterproofing performance. (Protection Rating: IP23)
- To protect the power supply and other internal circuitry, be sure to install an external fuse. (→ "Wiring Example" (P.7))
- Use a fuse to match the appropriate rating for the equipment being connected. (A 2A fuse is built-inside the product.) (→ "Wiring Example" (P.7))
- Do not remove the Cut Lens for any reason. Failure to comply may result in electric shock.
- Do not pull the power cord or push it inside the body.
- Do not use the product with the O-ring removed. Failure to comply will result in a decrease in waterproofing performance.

## 8 Specifications

Model	Rated Voltage	Installation Location	IP Protection Rating	Maximum surrounding air temperature rating	Power Consumption	Flashing Frequency	Mass
PSE-M1	DC 12 / 24 V	Indoor or Outdoor Use	IP23	60°C	Max. 2.4W	110 ±10 times/min. (Triple-flash)	0.3kg
PSE-M2	AC 100 / 200 / 230 V				Max. 3.2W		0.35kg

• This product complies with EN regulations and shows the CE symbol.  
 • This product conforms to the RoHS directive (DIRECTIVE 2011/65/EU).

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

## 9 Replacement Parts

The following are replacement parts available for this product. For further details, refer to our company website.

Part Name	Remarks
Globe Red RS	The Globe (Red) is a single article.※
Globe Amber RS	The Globe (Amber) is a single article.※
Globe Green RS	The Globe (Green) is a single article.※
Globe Blue RS	The Globe (Blue) is a single article.※
O-ring, PES, RU etc.	The O-ring is a single article.

※ Since a different Globe and the LED Unit are mounted by model (color), change of the luminescent color by exchange of only a Globe cannot be performed.

## 10 Option Parts

This product includes the following option parts. For details, refer to our company website.

**Product name** Rubber Gasket  
**Model** SZ-210

Use the Mount Rubber SZ-210 accessory to increase the IP rating to IP55. (For Upright Installation)

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G1C

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<http://www.patlite.com/>

(Note) • Dimensions, specifications and structure are subject to change for improvement without notice.  
 • Responsibility will not be taken if failure or damage, etc., is caused by handling in contrary to the warnings and notes written in this operation manual.