

LED Light Bar

INSTRUCTION MANUAL

[Type : CLA]

Thank you for purchasing the PATLEDs LED Work Light for your application. Prior to installation, please read through this manual for proper installation and precautionary steps. In addition, please store this manual for future reference when performing maintenance, repairs or inspections. If you have any questions regarding this product, please contact our PATLITE Sales Representative.

Safety Precautions

In order to prevent any damage to the user and other personnel or to assets, note the following:

◆ The following symbols classifies the following precautions into two categories and explains the level of harm inflicted when caution is disregarded while using this product.

- WARNING** Displays the warning "Failure to follow warning may lead to death or severe injury".
- CAUTION** Displays the warning "Failure to follow caution may lead from light to medium injury or may lead to property loss or injury to others".

◆ The following symbols indicate and explains the nature of the information to be observed.

- This symbol indicates "Prohibited", which should not be carried out by all means.
- This symbol indicates "Enforced", which should be observed and carried out by all means.

1. For safe application, observe the following:

WARNING

- Do not modify or disassemble the product. Failure to comply may result in electric shock or fire.
- After installing this product, be careful not to use this product to climb onto a machine, or to get anything snagged onto this product while it is mounted on equipment, etc. Failure to comply may result in falling off the machinery or product damage may occur.

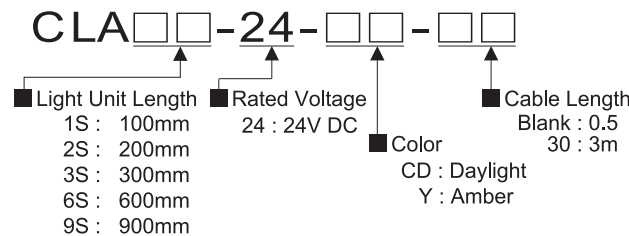
- Be sure to disconnect the power when wiring, mounting, exchanging, or repairing the product. Failure to comply may result in damage of the internal circuitry and the danger of electric shock due to short-circuiting.
- Request the installation and wiring to be accompanied by a professional contractor. Failure to comply may result in electric shock, fire, or falling from high places.
- When this product is used for security purposes, it should be inspected daily, and to be used in conjunction with other security products, in case a malfunction should occur.
- Verify the installation location is a firm location which can handle the weight of the product and has no adverse vibrations. If installed in a place where vibration is frequent and/or exceeds the specifications, damage to the product may occur.

CAUTION

- In order to avoid danger to the eyes, do not stare into the beam, do not view directly into the optical instrument, and don't turn the beam towards someone's eyes. The LED beam is hazardous to the eyes.
- Do not loosen any screws. It will have an adverse effect on the protection rating.

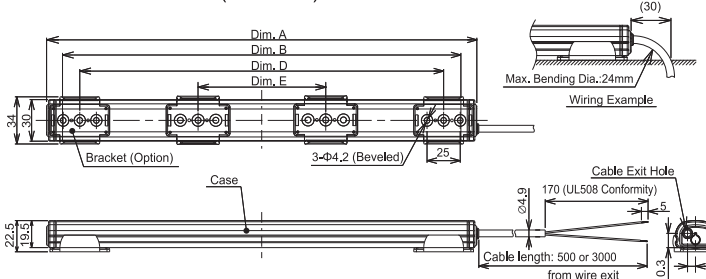
- Verify that the specified operating voltage is not exceeded.
- Connect an external fuse for protection from the power supply. The product can be protected by short-circuiting due to mis-wiring and overcurrents or overvoltages which can damage it.
- Avoid installation in the following locations:
 - In direct sunlight, near space heaters or places where high temperatures are present.
 - In locations where iron powder, oil, chemical or explosive gasses, etc., are present.

2. Model Number Configuration



3. Part Names and Dimensions

Outer Dimensions (Unit: mm)



[Dimension Chart]

Model Name	Dim. A	Dim. B	Dim. D	Dim. E	Accessory Brackets
	Maximum	Lighting	Attachment Pitch		
CLA1S	1124	100	74	-	2
CLA2S	224	200	174	-	2
CLA3S	324	300	274	-	2
CLA6S	624	600	574	-	2
CLA9S	924	900	874	290	*4

Corresponding Bracket Table

Model Name	SZ-310AS	SZ-310-ASB	SZ-310ARM
CLA1S	Yes	No	Yes
CLA2S	Yes	No	Yes
CLA3S	Yes	Yes	Yes
CLA6S	Yes	No	Yes
CLA9S	Yes	No	Yes

4. Installation

WARNING

- Do not modify or disassemble the product. Failure to comply may result in electric shock or fire.
- After installing this product, be careful not to use this product to climb onto a machine, or to get anything snagged onto this product while it is mounted on equipment, etc. Failure to comply may result in falling off the machinery or product damage may occur.

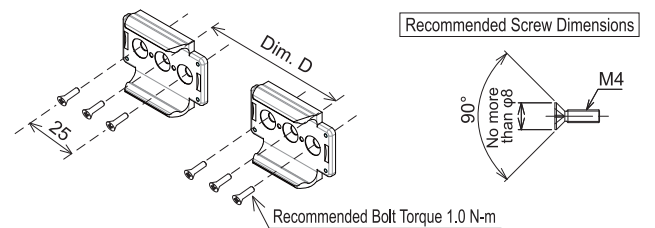
- Be sure to disconnect the power when wiring, mounting, exchanging, or repairing the product. Failure to comply may result in damage of the internal circuitry and the danger of electric shock due to short-circuiting.
- Verify the installation location is a firm location which can handle the weight of the product and has no adverse vibrations. If installed in a place where vibration is frequent and/or exceeds the specifications, damage to the product may occur.

CAUTION

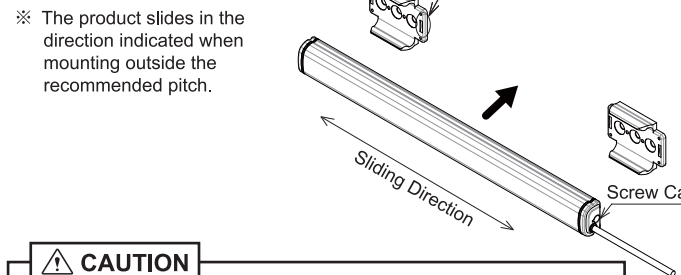
- Be careful to properly install the product to prevent it from falling, etc.
- This product is designed for indoor use only (Not for outdoor Use).
- Because the bracket is made of polycarbonate resin, damage may occur if solvents such as screw locking agents or such adhesives are used.

Installation Location

- After making mounting holes on a flat and sturdy surface, attach the bracket. Referring to the drawing below, install the bracket with M4 flush-mount screws (Use two screws per bracket).
- For the 9S, orientate the four SZ-310AR brackets included with the product.



- After the bracket is mounted to a sturdy surface, snap the main unit into place. A slide lock is possible when attaching with the recommended installation pitch. Installation is possible for other mounting pitches.
- The screw cap can be removed.



CAUTION

- The screw cap may fall out during high-pressure washing, etc. Please remove it in advance to prevent it from falling out before a problem occurs. (Example: Contamination in a food processing line)

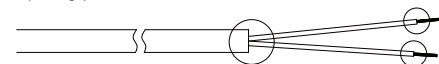
5. Wiring and Proper Use

WARNING

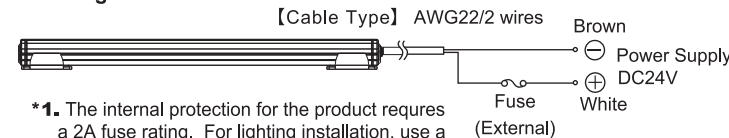
- Be sure to disconnect the power when wiring, mounting, exchanging, or repairing the product. Failure to comply may result in damage of the internal circuitry and the danger of electric shock due to short-circuiting.

CAUTION

- Check that the proper voltage is connected before applying power.
- Do not pull on the cable, or try to push it inside the unit. Possible cause of failure may occur. In addition, allow a margin of slack for the wire and cable to prevent stress.
- Use a constant-voltage regulated power supply. Possible cause of failure may occur with the use of a constant current power supply.
- Connect an external fuse for protection from the power supply. The product can be protected by short-circuiting due to mis-wiring and overcurrents or overvoltages which can damage it.
- The Protection Rating does not include the cable ends. If the ends of the cable are in contact with water or exposed to dew or condensation, refer to the indications below to dress the cable ends for water resistance.
 - Connect the wire ends in a location which will not expose the ends to water.
 - Use Fillers, such as silicon, etc., to seal the cable ends. Refer to the circled part of the figure below for the sections requiring protection from water intrusion.



Wiring



- The internal protection for the product requires a 2A fuse rating. For lighting installation, use a fuse with a rating of 2A or higher.
- Use a UL authenticated Class 2 power supply unit to connect power to this product. The power supply unit is a constant voltage type.
- (For UL508A conformity for LED lighting installation designs) In case the supplying power from power unit is beyond 15V, ground the primary power unit side to earth ground.

[Recommended Fuse]	
Voltage	125V
Current	2A or more

Operation

- Referring to the "Wiring" section above, by applying DC 24V, the LED will turn on.
- LED's will start to light-up when 0.1mA or more is applied.

6. Maintenance and Inspection

Refer to the table below before requesting repairs. If the product does not work after referring to the table below, please request for repair. In addition, if there are any questions concerning this product, feel free to contact your PATLITE Sales Representative.

Problem	Where to Check	What to do
Does not light up	Is the power properly supplied?	Verify the voltage has been connected.
		Verify the proper polarity. (White: +, Brown: -)
		Verify the proper voltage is supplied (24V DC).
		Check whether the external fuse has been blown-out.

7. Specifications

CAUTION

- Specifications and dimensions may change without prior notice for improvements, etc.
- Due to the characteristics of the LED, color temperature, brightness and hue will differ for every LED and every product.
- Since all IP examinations are done according to specified conditions and regulated time, the protection rating is not guaranteed for an extended period of time.

Model	CLA1S-24-CD(-30)	CLA2S-24-CD(-30)	CLA3S-24-CD(-30)
Luminous Color	Daylight (CD)		
Color Temperature (typ.)	6800 K		
Illuminance (at 24VDC)	0.5m: 140 lx 1.0m: 35 lx	270 lx 70 lx	400 lx 105 lx
Luminous Flux	125 lm	240 lm	360 lm
Rated Voltage	24V DC (Polarized)		
Operating Voltage Range	24V DC ±10%		
Rated Current Consumption	104 mA ±10%	208 mA ±10%	240 mA ±10%
Rated Power Consumption	2.5 W	5 W	5.7 W
Operating Ambient Temperature	-40°C to -60°C The environmental condition for UL and CUL authentication is at the operating ambient air temperature of 50°C		-40°C to -60°C
Operating Ambient Humidity	Less than 90% (No condensation)		
Mounting Location	Indoors		
Mounting Direction	All Directions		
Protection Rating	IP66/67 (IEC 60529) / 69K (DIN 40050 part9) (Except Cable Terminal)		
Insulation	More than 5MΩ at 500VDC		
Withstanding	500VAC applied for 1min		
Vibration	19.6 m/s ² (30Hz, Back and Forth:2h, Right to Left:2h, Up and Down:2h)		
Main Body Material	Polycarbonate Resin (Waterproof Packing: Silicon)		
Mass	80 g ±10%	130 g ±10%	180 g ±10%

Model	CLA6S-24-CD(-30)	CLA9S-24-CD(-30)	CLA3S-24-Y
Luminous Color	Daylight (CD)		Amber
Color Temperature (typ.)	6800 K		-
Wavelength	-		590 nm
Illuminance (at 24VDC)	0.5m: 650 lx 1.0m: 200 lx	810 lx 280 lx	220 lx 60 lx
Luminous Flux	690 lm	980 lm	195 lm
Rated Voltage	24V DC (Polarized)		
Operating Voltage Range	24V DC ±10%		
Rated Current Consumption	480 mA ±10%	720 mA ±10%	240 mA ±10%
Rated Power Consumption	11.6 W	17.3 W	5.7 W
Operating Ambient Temperature	-40°C to -60°C The environmental condition for UL and CUL authentication is at the operating ambient air temperature of 50°C		
Operating Ambient Humidity	Less than 90% (No condensation)		
Mounting Location	Indoors		
Mounting Direction	All Directions		
Protection Rating	IP66/67 (IEC 60529) / 69K (DIN 40050 part9) (Except Cable Terminal)		
Insulation	More than 5MΩ at 500VDC		
Withstanding	500VAC applied for 1min		
Vibration	19.6 m/s ² (30Hz, Back and Forth:2h, Right to Left:2h, Up and Down:2h)		
Main Body Material	Polycarbonate Resin (Waterproof Packing: Silicon)		
Mass	340 g ±10%	500 g ±10%	180 g ±10%

This product conforms to EN standard and shows the CE Marking. This product has been tested and found to comply with the limits for a Class A device, pursuant to EMC DIRECTIVE. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This product must not be used in residential areas.

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