

LED Work Light

INSTRUCTION MANUAL

[Type: CLN-24]

Thank you very much for purchasing our Patlite products. 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
	[Prohibited] <ul style="list-style-type: none">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.
	[Enforced] <ul style="list-style-type: none">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.Only use the designated mounting screws. Any parts used that are not specified may result in product damage or personal injury.

	CAUTION
	[Prohibited] <ul style="list-style-type: none">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 the cable gland. It will have an adverse effect on the protection rating.
	[Enforced] <ul style="list-style-type: none">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:<ul style="list-style-type: none">Near space heaters or places where high temperatures are present.In locations where chemical or explosive gasses, etc., are present.

2. Model Number Configuration

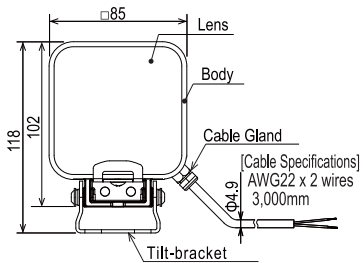
CLN-24-CD-□

- Rated Voltage
24: 24V DC
- Luminous Color
CD: Daylight
- Movable Type
T: Tilt
PT: Pan/Tilt

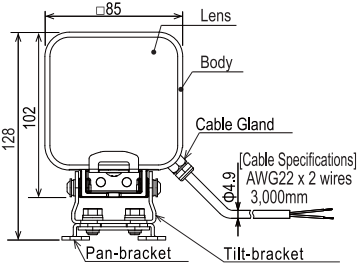
3. Part Names and Dimensions

3-1. Part Name and Dimensions

• T Type

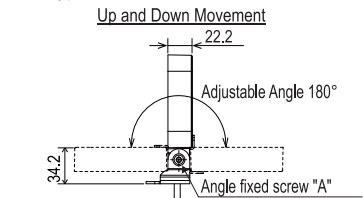


• PT Type

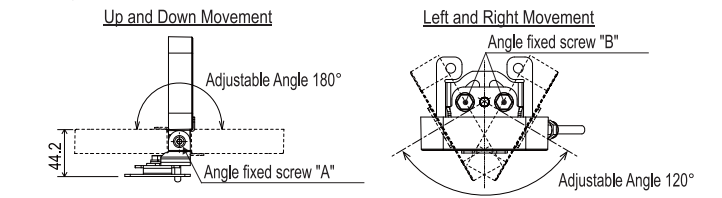


3-2. Angle Adjustment

• T Type



• PT Type



4. Installation

4-1. Installation Location

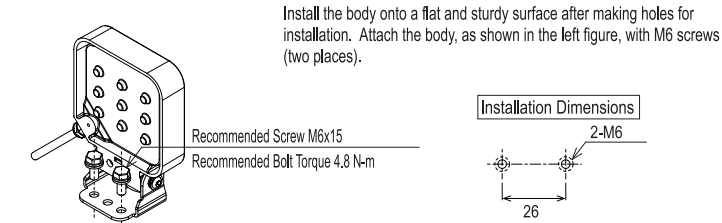
- Waterproofing for indoor applications is possible.

	WARNING
	[Prohibited] <ul style="list-style-type: none">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.
	[Enforced] <ul style="list-style-type: none">Be sure to turn off the power to prevent from electric shock before performing any maintenance.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.Only use the designated mounting screws. Any parts used that are not specified may result in product damage or personal injury.Screws "A" and "B" for the angle bracket are loosely tightened at the time of shipment. Be sure to properly tighten as recommended in this manual.
	CAUTION
	[Enforced] <ul style="list-style-type: none">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).

4-2. Mounting Method

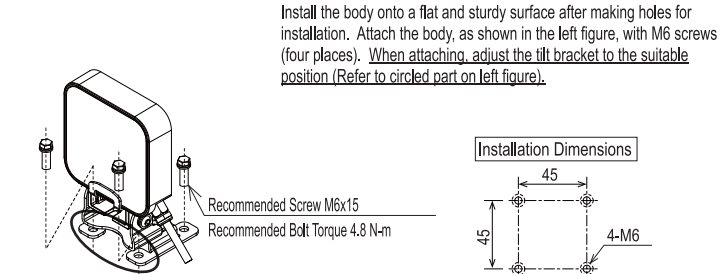
• T Type

1. Tilt-bracket Attachment



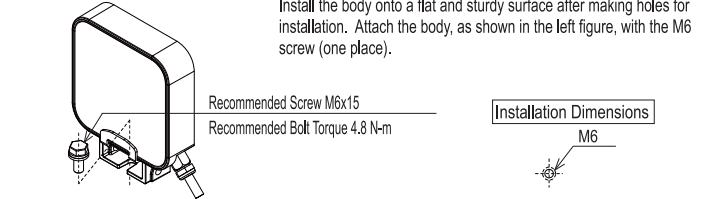
• PT Type

1. Pan-bracket Attachment

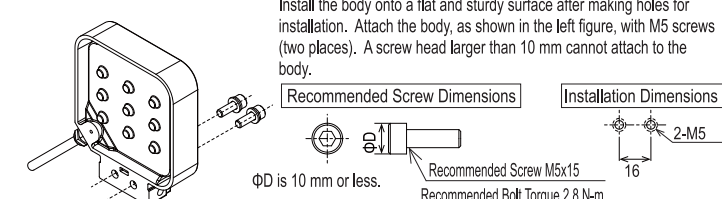


• Common Attachment (No Bracket)

1. Direct-body Attachment



2. Rear Attachment



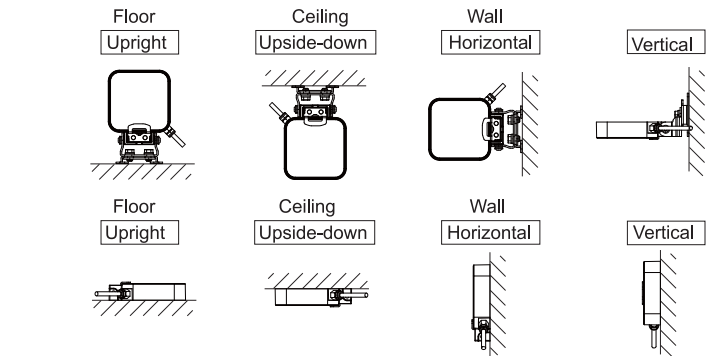
4-3. Fixing of the Adjustment Angle (T Type, PT Type)

After setting the adjustment angle, tighten fixing screws "A" and "B".

- Angle fixed screw "A"
Use a 3mm hexagonal wrench (two places) to tighten with.
Recommended Torque is 2.8 N-m.
- Angle fixed screw "B"
Tighten the two M6 hexagon-bolt (opposite side 10 mm).
Recommended Torque is 4.8 N-m.

4-4. Mounting Direction

- Tilt-bracket Attachment, Direct-body Attachment, Pan-bracket Attachment

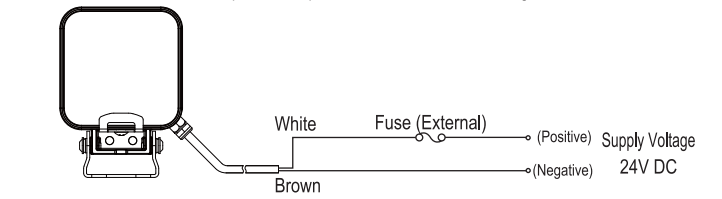


5. Wiring and Proper Use

	WARNING
	[Enforced] <ul style="list-style-type: none">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
	[Enforced] <ul style="list-style-type: none">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. <u>If the ends of the cable are in contact with water or exposed to dew or condensation</u>, refer to the indications below to <u>dress the cable ends for water and oil resistance</u>.Connect the wire ends in a location which will not expose the ends to water or oil.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 and/or oil intrusion.

5-1. Wiring

- Use a UL authenticated Class 2 power supply unit to connect power to this product. The power supply unit is constant voltage type.
- This product contains a 2A (slow-blow) fuse inside. Use an external fuse rated for the machine, which is connected to the product, to protect the machine from damage.



5-2. Operation

- Referring to section "5-1. Wiring" above, by applying 24V DC, the LED will turn on.
※ LED's will start to light-up when 0.1mA or more is applied.

6. Maintenance and Inspection

- For preventative measures, it is recommended to periodically tighten the mounting screws and angle fixing screws "A" and "B" when performing maintenance.
- 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.
		• Verify the proper voltage is supplied (24V DC). • Check whether the external fuse has been blown-out.

7. Specifications

Model	CLN-24-□-T	CLN-24-□-PT
Color Code	CD	CD
Luminous Color	Daylight	Daylight
Color Temperature (typ.)	6500 K	6500 K
Illuminance (typ.)	1.0m 820 lx	820 lx
(Center, at DC24V)	2.0m 200 lx	200 lx
Total Luminous Flux (typ.)	550 lm	550 lm
Rated Voltage	24V DC (Polarized)	
Operating Voltage Range	24V DC ±10%	
Rated Current Consumption	174mA ±10%	
Rated Power Consumption	4.2W	
Operating Ambient Temperature	-40 °C ~ +60 °C	
Operation Ambient Humidity	90% RH or less, no condensation	
Main Unit Material	Body : Aluminum , Lens : Tempered Glass	
Mounting Location	Indoor	
Mounting Direction	All Directions	
Protection Rating	IP66G/67G (JIS C0920)/ 69K (DIN 40050 part 9) (Cable Connector not included)	
Insulation Resistance	500V DC 5MΩ or more	
Withstand Voltage	500V AC for 1 minute (between terminals and chassis)	
Vibration Resistance	30Hz Total amplituded 0.3 mmp-p Back and Forth, Up and Down, Left and Right for 2 hrs. each Total amplituded 0.3mmp-p(10 to 57Hz) Acceleration 19.6m/s² (57 to 150Hz) (JIS C60068-2-6)	
Mass ±10%	370 g	440 g

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.

Note

It has passed the oil resistant test from the following common cutting oils.
The following oil was diluted by 20 times and the adhesive used for the product was immersed at 55 °C for 240 hours (10 days).

Company Name (Manufacturer)	Oil Name
Hangsterfer's Laboratories Inc.	Hangsterfer's S-500
Yushiro Chemical Industry Co., Ltd.	Yushiroken Synthetic #663
Castrol	Syntilo 9954
Blaser Swisslube Inc.	Blasocut BC35LFSW

Confirmation in result of swelling, contraction, dissolution, exfoliation, separation, cracks, and discoloration by the accelerated impregnation examination with the above-mentioned oil type for diluted oil at 55°C for 240 hours (ten days) was made.
Due to the additive agents in oil, the application of oils other than the ones mentioned above may influence physical properties, therefore, please investigate before purchasing.
* The mentioned company names, product names, trademarks, etc. are the registered trademarks or trademarks in Japan for each company, and/or other countries.

CAUTION

- PATLITE Corporation disclaims all liability for any malfunction or damage occurring as a result of handling contrary to the instructions, cautions and warnings mentioned in this manual.
- Specifications may change without notice due to continual product improvement.
- 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.