

LNSP-UV3-FN / LNSP-VL3-FN Series
Instruction Guide



Thank you for purchasing a CCS product. To ensure proper use of the product, please read this instruction guide before use and keep it for your future reference.

1 Important Information for Equipment Safety - Read Before Use -

Always use the specified Control Unit for this product. Operation will not be possible if you connect to any other power supply or Control Unit.

These products have been designed with full consideration of safety. However, incorrect usage of the products may result in fire, electric shock, or other serious damages. Please ensure to follow the conditions below.

The following symbols are used in this instruction guide to indicate and classify the relative importance of warnings and cautions.

	Warning	Indicates that incorrect usage may result in serious injury or death.		Caution	Indicates that incorrect usage may result in injury or property damage.
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The following symbols in the instruction guide indicate and classify the precautions.

	PROHIBITED		DISASSEMBLY PROHIBITED		DO NOT TOUCH WITH WET HANDS		DO NOT SUBJECT TO MOISTURE		MANDATORY ACTIONS
These symbols indicate prohibited actions.				This symbol indicates required actions.					

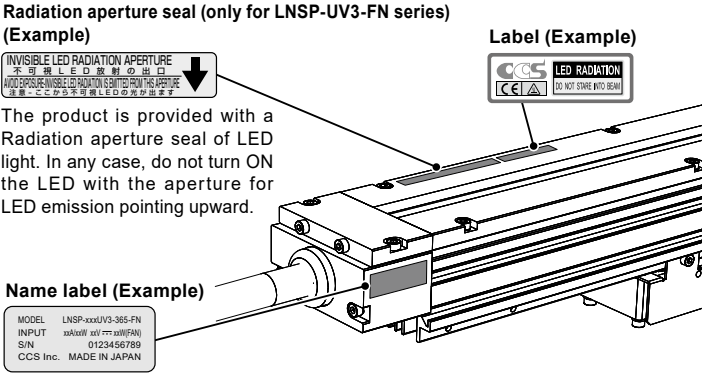
Warning	
Do not disassemble or modify the Light Unit. Doing so may result in fire or electric shock.	
Do not touch the Light Unit with wet hands. Doing so may result in electric shock.	
Make sure that the Light Unit is free of moisture or any liquid. Exposure to water may result in fire, electric shock, or Light Unit failure.	
If abnormal condition occurs such as fuming, heat, smell, noise, or so on, stop using the Light Unit immediately, turn the power off, and unplug the power cord. A fire or electric shock may result if the Light Unit is kept used.	
Turn off the Control Unit for the LED light when installing, unmounting or cleaning the Light Unit. Failure to do so may cause a pain in your eye, impaired eyesight or electric shock.	
Do not look at the radiating surface of the light directly while it is turned on. Also, do not turn it towards others. Doing so may cause a pain in the eye or impaired eyesight.	
Keep the naked skin away from the radiating surface of the light while it is turned on. Failure to do so may cause a inflammation of the skin.	
This Light Unit generates high temperatures. Do not touch the Light Unit while it is turned on or immediately after it is turned off, or burning may result. Provide cooling with a fan or other ventilation if the Light Unit is to be used in a closed space.	
Connect or disconnect the cable only after turning off the Control Unit for the LED light. Failure to do so may result in circuit damage, fire caused by a minute spark, or electric shock.	
Make known to all personnel concerned the risk of ultraviolet radiation. Failure to do so may cause incorrect handling.	

Caution	
Do not drop the Light Unit or subject it to impact. Doing so may cause the Light Unit to malfunction.	
Be careful of static electricity. Damage to the LED light may occur, if a person charged with static electricity touches it. Keep the product away from all items charged with static electricity.	
Due to the structure of the Light Unit, leak current may be produced as the result of AC amplitude noise. This may cause the LEDs to radiate incorrectly. Separate the Light Unit from sources of noise.	
Do not use any cable other than the dedicated cable. Doing so may cause malfunctioning.	
Always ground the FG line. If you do not ground the FG line, the Light Unit may be damaged by static electricity.	

- Do not use the Light Unit in the following situations.
- Under conditions or in an environment not described in this Instruction Guide.
 - In nuclear energy control systems, railroad systems, aviation systems, vehicles, combustion equipment, medical equipment, amusement machines, or safety equipment.
 - In applications involving serious risk to life or property, particularly applications demanding a high level of safety.
- Please install the Light Unit to locations with following conditions.
- Incorrect installation location may cause Light Unit failure.
- In a flat and stable location with minimal vibration.
 - Well-ventilated places with minimal dust.
 - Places that are not subject to sudden temperature changes.
 - Places away from water faucets, boilers, humidifiers, air conditioners, heaters, or stoves.
 - Places free from any water, oil, liquid, chemical, or steam.
 - Places with sufficient airflow to cool the product.
 - Places free from corrosive or combustible gas.

2 Confirming Product Information

The following label is attached to the LED Light. The color of the label indicates the luminescence color of the Light. The name label specifies the model name, power consumption, and serial number. Be sure to check the contents before using the product and handle the label with care. If the label is missing or damaged and the contents cannot be checked, please contact CCS Inc.



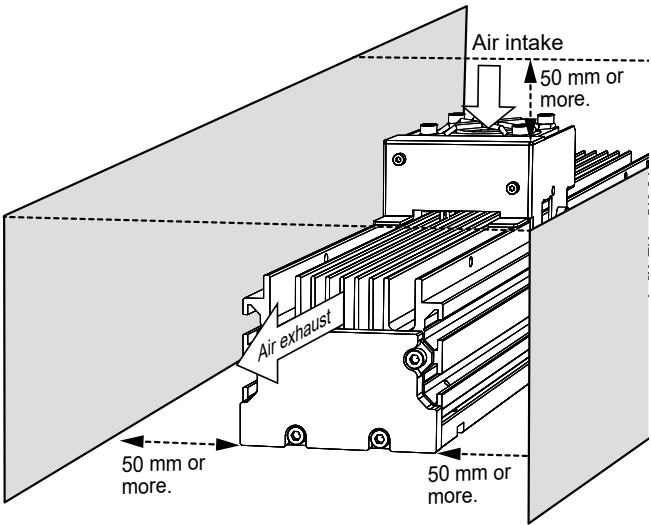
3 Installation Precautions

The Light Unit may heat during irradiation. Higher temperatures will cause the LEDs to deteriorate and reduce the output intensity. It will also shorten the service life of the Light Unit and may cause Light Unit failure. When you install the Light Unit, observe the following precautions to keep the Light Unit in good condition for a longer time.

Operating Environment

- Provide proper airflow to ensure that the temperature around the Light Unit does not exceed the operating temperature range during irradiation.
- Provide sufficient space around the Light Unit so that the vent holes and fan are not blocked.
- Make sure that the airflow does not cause the exhausted warm air to be drawn into the Light Unit again.

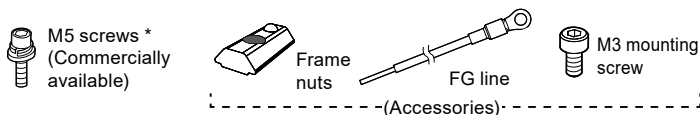
Installation Example



- Note:
- Provide at least 50 mm of space around the Light Unit. In some cases, however, more space will be required depending on the environmental conditions of the Light Unit.
 - Do not install anything that would block the airflow in the exhaust direction.

4 Installation

Required Parts



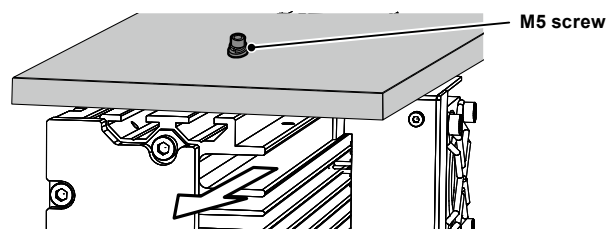
* Use M5 screws that are 5 mm longer than the thickness of the mounting surface.

1 Insert the frame nut into the nut slot.

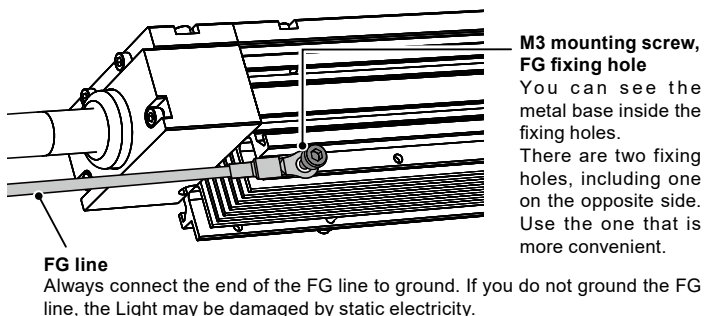
Side View



2 Fix the Light Unit with M5 screw.



3 Install the FG line with M3 mounting screw.



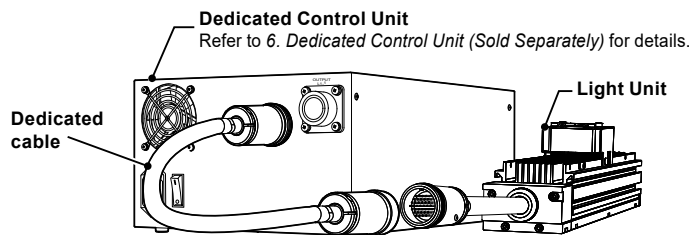
5 Operating Instructions



Caution

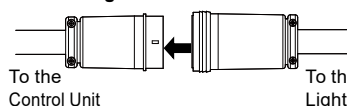
To avoid exposure to ultraviolet radiation, all workers around the product must use protective equipment. Also, make known to all personnel concerned the risk of ultraviolet radiation.

1 Connect the Light Unit and the dedicated Control Unit with one of the dedicated cables.



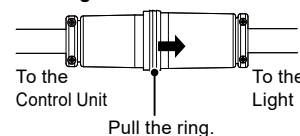
2 Connect the cables.

Connecting



Adjust the position of the notch, and then insert the connector straightforwardly until it clicks.

Removing



Warning

Make sure that the dedicated Control Unit is turned OFF.



Caution

- Do not twist the cable or apply excessive force to the cable where it connects to the Light Unit. It may cause Light Unit failure.
- Pay attention to the plug and socket combination to connect the cable. Improper connection may damage the connector pins.

3 Turn ON the dedicated Control Unit and the Light Unit.

For details, refer to the Instruction Guide of the dedicated Control Unit.

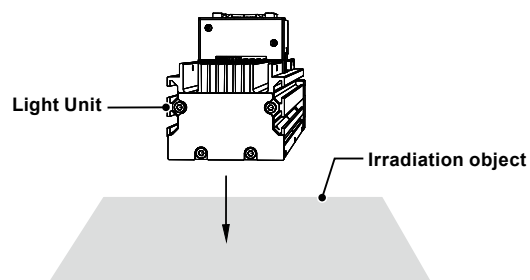


Caution

The Light Unit emits ultraviolet radiation even when the light intensity on the dedicated control unit is set to 0. Prevent exposure to ultraviolet radiation.

4 Adjust radiant quantity and others for the irradiated object. Adjust the radiant quantity at the dedicated Control Unit.

Read the Instruction Guide of the dedicated Control Unit before use.



Efficient Use of LED Lights

LED lights generate heat that decreases radiant quantity and speeds degeneration. Follow the instructions below in order to suppress the heat of LED lights and prevent decreases radiant quantity and speeds degeneration.

- Use the light with the light level as low as possible.
- Turn ON the light unit only when needed.
- Install a fan or provide air flow for heat dissipation at the place of Light Unit installation.
- Mount the product on a bracket or surface which readily dissipates heat.

6 Dedicated Control Unit (Sold Separately)

Use a PSCC-series dedicated Control Unit.

For details of the dedicated cable, refer to the instruction guide of the Control Unit.

Common Specifications

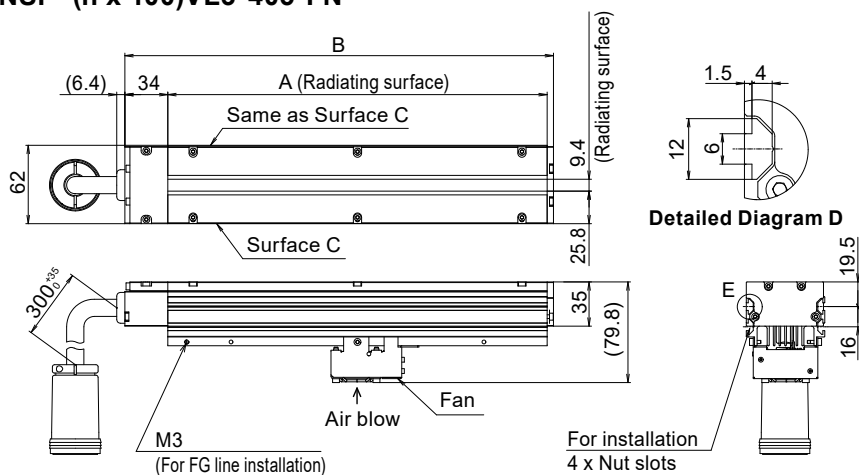
Connector	Metal connector PRC04-12A26S-37M18 (Tajimi Electronics co., Ltd.)
Cooling method	Forced air-cooling
Operating environment (indoors only)	Temperature: 0 to 40°C, Humidity: 20 to 85%RH (with no condensation)
Storage environment	Temperature: -20 to 60°C, Humidity: 20 to 85%RH (with no condensation)
CE marking	Safety standard: Conforms to EN 62471 EMC standard: Conforms to EN61000-6-2, EN61000-6-4
Case material	Aluminum alloy, steel sheets
Accessories	Instruction Guide x1, radiation aperture seal* x1, UV DANGER seal* x1, frame nuts x4, FG line(2 m) x1, M3 mounting screw x1

* These seals are included only with LNSP-UV3-FN series. If you set the Light Unit into other machinery, put the seals on them for warning notice.

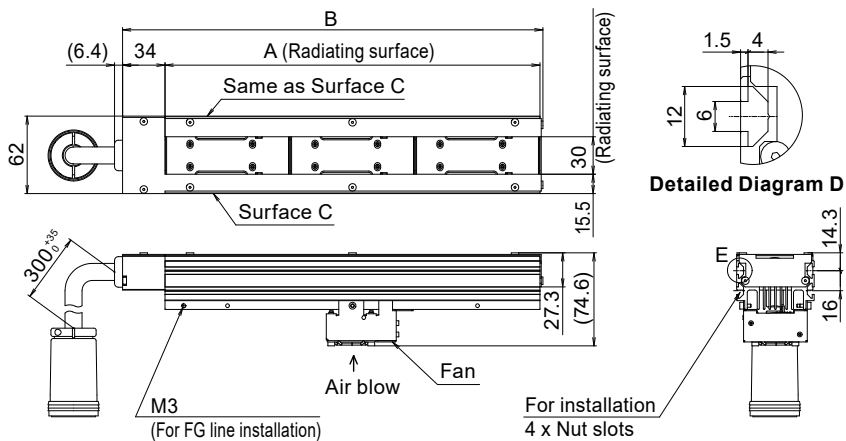
Specifications by Model

Model name	Irradiation lens	Peak wavelength (typ.)	Light power consumption (max.)	Fan power consumption	Weight	Dimensional diagrams	
						A: Radiating surface	B: Total length (not including the cable)
LNSP-100UV3-365-FN	Embedded	365 nm	34 W	1.7 W	Approx. 0.9 kg	100 mm	139 mm
LNSP-200UV3-365-FN			68 W	1.7 W	Approx. 1.3 kg	200 mm	239 mm
LNSP-300UV3-365-FN			101 W	1.7 W	Approx. 1.7 kg	300 mm	339 mm
LNSP-100UV3-365-FNNR	None		34 W	1.7 W	Approx. 0.7 kg	100 mm	136.3 mm
LNSP-200UV3-365-FNNR			68 W	1.7 W	Approx. 1.0 kg	200 mm	236.3 mm
LNSP-300UV3-365-FNNR			101 W	1.7 W	Approx. 1.3 kg	300 mm	336.3 mm
LNSP-100VL3-385-FN	Embedded	385 nm	34 W	1.7 W	Approx. 0.9 kg	100 mm	139 mm
LNSP-200VL3-385-FN			68 W	1.7 W	Approx. 1.3 kg	200 mm	239 mm
LNSP-300VL3-385-FN			102 W	1.7 W	Approx. 1.7 kg	300 mm	339 mm
LNSP-100VL3-385-FNNR	None		34 W	1.7 W	Approx. 0.7 kg	100 mm	136.3 mm
LNSP-200VL3-385-FNNR			68 W	1.7 W	Approx. 1.0 kg	200 mm	236.3 mm
LNSP-300VL3-385-FNNR			102 W	1.7 W	Approx. 1.3 kg	300 mm	336.3 mm
LNSP-100VL3-395-FN	Embedded	395 nm	34 W	1.7 W	Approx. 0.9 kg	100 mm	139 mm
LNSP-200VL3-395-FN			68 W	1.7 W	Approx. 1.3 kg	200 mm	239 mm
LNSP-300VL3-395-FN			102 W	1.7 W	Approx. 1.7 kg	300 mm	339 mm
LNSP-100VL3-395-FNNR	None		34 W	1.7 W	Approx. 0.7 kg	100 mm	136.3 mm
LNSP-200VL3-395-FNNR			68 W	1.7 W	Approx. 1.0 kg	200 mm	236.3 mm
LNSP-300VL3-395-FNNR			102 W	1.7 W	Approx. 1.3 kg	300 mm	336.3 mm
LNSP-100VL3-405-FN	Embedded	405 nm	34 W	1.7 W	Approx. 0.9 kg	100 mm	139 mm
LNSP-200VL3-405-FN			68 W	1.7 W	Approx. 1.3 kg	200 mm	239 mm
LNSP-300VL3-405-FN			102 W	1.7 W	Approx. 1.7 kg	300 mm	339 mm
LNSP-100VL3-405-FNNR	None		34 W	1.7 W	Approx. 0.7 kg	100 mm	136.3 mm
LNSP-200VL3-405-FNNR			68 W	1.7 W	Approx. 1.0 kg	200 mm	236.3 mm
LNSP-300VL3-405-FNNR			102 W	1.7 W	Approx. 1.3 kg	300 mm	336.3 mm

LNSP- (n x 100)UV3-365-FN (n= 1,2,3) Narrow type
LNSP- (n x 100)VL3-385-FN
LNSP- (n x 100)VL3-395-FN
LNSP- (n x 100)VL3-405-FN



LNSP- (n x 100)UV3-365-FNNR (n= 1,2,3) Wide type
LNSP- (n x 100)VL3-385-FNNR
LNSP- (n x 100)VL3-395-FNNR
LNSP- (n x 100)VL3-405-FNNR



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