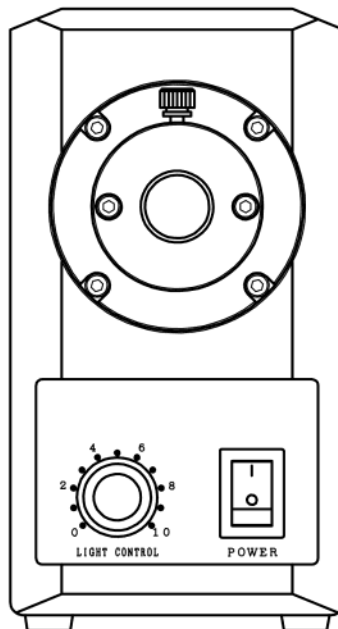


LED Light Source

Instruction Manual

Thank you for purchasing our product.
Prior to using it, please read the instruction manual thoroughly for safe and correct operation.
Be sure to keep the instruction manual carefully at hand.

This LED light source is used for the illumination of image processing, microscope, science observation.
This LED light source cannot be installed in any system, and used with environment and installation which exceed the specification of product.



⚠ CAUTION

Caution labels and statements provided in this manual are the description of potentially hazardous situation which if not avoided could result in moderate or minor injury. It could also advise safety precautions against unsafe practices.

Precautions for Use

- Do not move while it is being illuminated. Do not drop, or give a shock to the lighting apparatus. (A trouble may result)
- Do not disassemble or modify the lighting apparatus. (A trouble may result.)
- Do not use in the place exposed to dust, oil, or iron powder, where a liquid or powder is splashed, because it may go out of order.
- Do not install the LED light source near a strong electromagnetic field.
- Do not stare into beam.

⚠ CAUTION

If the LED light source is used by the method which the manufacturer does not specify, the protection performance which apparatus has is spoiled.
Please be sure to read the introduction manual and must follow the operation method and notes for this manual. In case the LED light source has trouble, unplug the power supply cord immediately to disconnect the power. Please be sure to contact the manufacturer for repair.

Item included in the package and Options

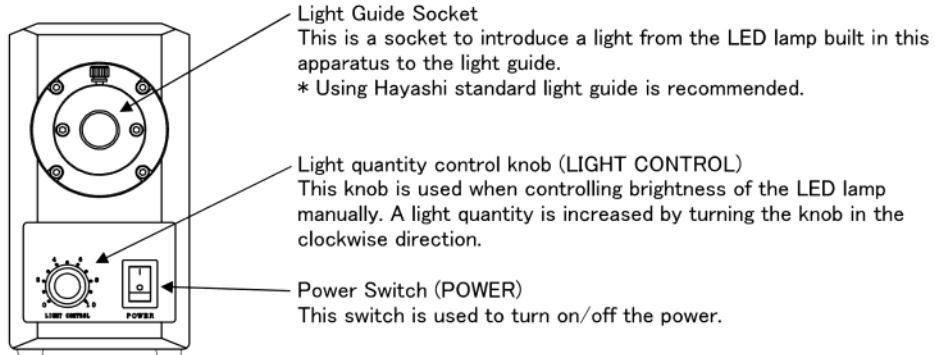
Item included in the package	Instruction Manual ...1copy, Power supply cord (for 100Vac)...1
Options	Power supply cord: US type (AC120V), UK type (AC240V), European type (AC230V)

⚠ CAUTION

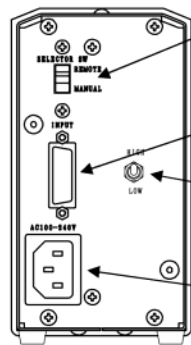
Please be sure to use the designated power cord which is prepared with the accessory or option.
When you use a light guide, be sure to use the items specified by the manufacturer. For further information, please inquire to the manufacturer.

Part Names

Front Panel



Rear Panel



MANUAL/REMOTE Selector Switch (SELECTOR SW)

- MANUAL Use: Control knob.
- REMOTE Use: External control.

Remote control receptacle (INPUT)

Connect here when you want to use an external control function.

HIGH/LOW Selector Switch (*Option)

- HIGH: full (brightness)
- LOW: dim (brightness)

AC Inlet

For power supply cord.

* When supply voltage is except 100VAC, use the option cord to support the voltage.

How to use

- 1) Insert the light guide in to the light guide socket of the apparatus.
- 2) Connect the AC inlet of the apparatus by power supply cord.
- 3) According to the operation mode you want to choose, MANUAL or REMOTE mode.
 - MANUAL: Manual light quantity control (Use control knob)
 - REMOTE: Remote light quantity control (Use External control)
- 4) According to brightness you want choose, HIGH or LOW. (*Option)
 - HIGH: full (brightness)
 - LOW: dim (brightness)
- 5) Insert the plug of the specified power supply cord in the outlet which has the earth.
- 6) Turn on the power switch(POWER).
- 7) Control the light quantity to your desired level to operate the lighting apparatus.
- 8) To finish, turn off the power switch(POWER).

Photobiological safety of lamp and lamp systems.

IEC62471:2006 RISK GROUP 2

 **CAUTION**

Possibly hazardous optical radiation emitted from this product.

Do not stare at operating lamp. May be harmful to the eyes.

This product is a LED light source which is classified as Risk Group 2 for blue light hazard and retinal thermal hazard.

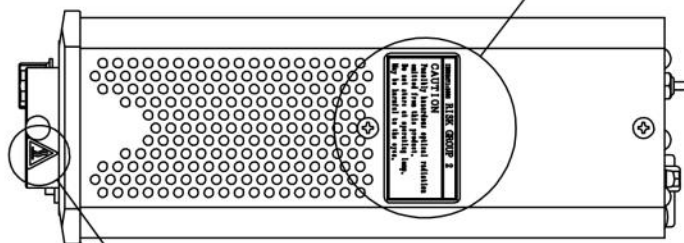
CAUTION: Possibly hazardous optical radiation emitted from this product.

Do not stare into the beam from the radiant aperture of light source and light guide.

WARNING: An injury may occur in the eye.

IEC62471 explanatory label

IEC62471:2006 **RISK GROUP 2**
CAUTION
Possibly hazardous optical radiation emitted from this product.
Do not stare at operating lamp.
May be harmful to the eyes.



Caution : hot surface label

 **CAUTION**

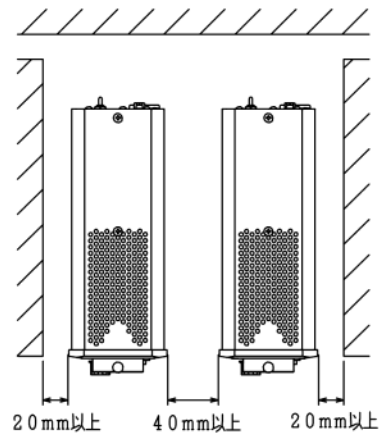
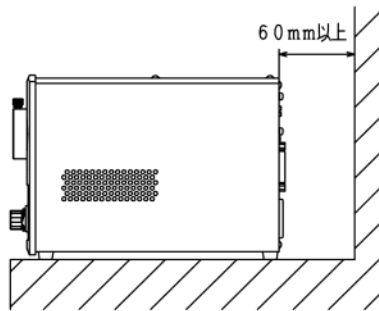
Because the screw knob is hot, please be careful when you touch.

Installation

CAUTION

Do not use the product in an enclosed area, where may result in malfunction. Make room for ventilation so that the product's vent hole is not blocked off.
Do not use the product placed upside down or sideways down.

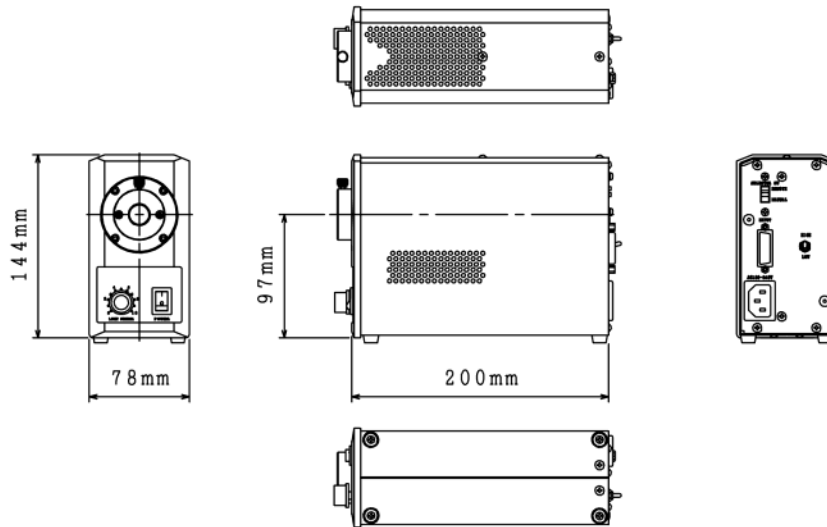
* Make sure an open upper space.



CAUTION

Please do not position the equipment in the way that a power cord cannot remove.
Please do not install the LED light source in any system.

Outer dimensions drawing



Specifications

(Subject to change without prior notice due to product improvement)

Input rated Voltage	AC100V-AC240V ±10%
Input rated frequency	50/60Hz
Power Consumption	20W
LED Color	White
Illuminance *1	400,000Lx
Color Temperature(typ.)	5,600K (typ.) *2
LED Lifetime	30,000H *3
Light quantity control	MANUAL : Consecutive dimming by adjusting the light quantity control knob. REMOTE : Analogue input voltage ranging between voltage 0V to +5V DC.
Functions	1) Lighting apparatus on/off function. 2) 0 to 5V DC analog light quantity control function. 3) High/Low selector.(option) *4
Cooling System	Fan.
Environmental Conditions	Ambient Temperature 0°C- +40°C Ambient Humidity 20%- 80%RH (No dew condensation) Indoor Use, Altitude up to 2,000m Overvoltage Category Level II Temporary Overvoltage: 1440V, ≤ 5sec / 490V, >5sec Pollution Level 2
Safety / EMC	EN61010-1:2010(3rd Edition) , IEC62471:2006(First Edition) Risk Group 2 EMC:EN61326-1:2006 ClassB.
Dimension	78mm(W) × 144mm(H) × 200mm(D) (except protrusions)
Weight	2kg

*1. Illuminance : L=500mm, reference value measured at 50mm distance from the 8Φ optical fiber end.

*2. Color temperature. (reference value)

*3. LED Lifetime: the lifetime may differ as you use the product under specific environment and temperature.
This is not a guaranteed performance.

*4. Low: light quantity half.

Trouble shooting

Check again before asking for repair.

Malfunctions	Check	handling
The LED cannot be illuminated even if the power is turned on.	A power supply cord may be unplugged.	Plug in.
	A light quantity control knob may be set on zero level.	Turn the control knob (LIGHT CONTROL) to adjust the light volume.
The light quantity cannot be controlled by turning the light quantity control knob.	Whether or not the selector switch has been set to REMOTE.	Set the selector switch to MANUAL.

In case the LED light source has trouble, unplug the power supply cord immediately to disconnect the power. Please be sure to contact the manufacturer for repair.

There is no consumable parts in this light source. If LED breaks down, please be sure to request the manufacturer for repair.