




# Luci SHIN FLEX $\alpha$

## instruction Manual

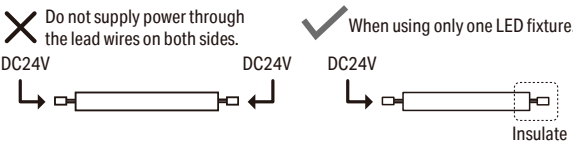
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### ⚠ To ensure safe usage


The following are the safety cautions to prevent any harm or damage to others.  
If the product is used inappropriately, it may cause damage, electric shock, smoke or fire.





**Only supply power through the lead wire on one side using the dedicated connection cable for this product.**  
Supplying power through the lead wires on both sides may cause failure and fire.  
If using only onelight fixture, insulate the unused connector with self-adhesive tape or electrical tape.




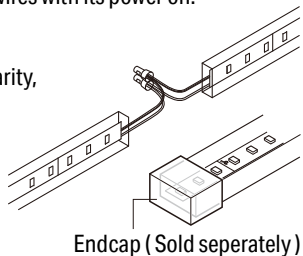
Do not supply power through the lead wires on both sides.  
When using only one LED fixture, insulate the unused connector.


 **Electrical work certificate is needed to install and inspect this product.**  
Please ask electrician for the installation.


 Please use DC24V power supply.  
Do not use other power supplies such as AC220 ~ 240V.

 Please turn off all the powers when installation and inspection.  
Do not connect or disconnect the lead wires with its power on.

 If the cable are connected in wrong polarity, electric resistances will become hot and lighting will be destroyed.  
Please connect the lead wires with same color and insulate with sleeve- : sleeve insulation tapes or shrinkage tubes.





 Do not place or cover the light fixture with a heatable object such as cloth, paper or insulating material. It may fail to light up or cause fire.  
Do not allow an open-ended fixture to have contact with any metal.  
Do not place or install light fixture in close contact with other electric equipment in or out of ceiling area to prevent fall, electric shock or fire caused by vibration from electric equipment.  
Do not operate the device with wet hands. It may result in an electric shock.


 **Important notice for storage**  
Please ensure the fixture is stored within -10°C to 55°C  
Please do not store the carton or the packages of our light fittings in the following conditions:  
- wet location  
- places of high humidity  
- Dusty or dirty places  
- place that sunlight is directly exposed.  
- places where a solvent such as a paint liquid is stored


During storage ensure the cartons upright.  
Please do not open individual package until just before installing light fixture to avoid any damage to the light fittings.

Please do not place heavy object on the carton.  
Please do not use our light fixture as the working light during construction period.

 When this product is cut, please use endcaps to ensure proper protection from the dust and moisture.

 This light fixture is for indoor use only.  
Do not use in the following environments :  
Outdoors  
- Location at high temperature ( +35°C or higher )  
(Operating temprature is 0°C to 35°C.  
- Location where water may splash onto the product.  
- Location with high humidity.  
- A dusty location.  
- Location with corrosive or inflammable gases.  
- Airtight location.  
- Location with direct exposure to salt water or organic solvents  
- Location in direct sunlight.  
- Location subject to the effects of electric or magnetic fields.  
- Location subject to intense vibration or shock, or a location subject to continuous vibration.

 Please do not do the followings to the product.  
- Cut where there is no cut-mark  
- Decompose or modify  
- Pull or twist strongly  
- Push strongly  
- Bend more than the max angle

 When there is abnormal situations, please cut off the power immediately, consult with electricians, and do not touch the lighting with hands.

### Please read before the usage

- For safety, do not directly look at the LED light source.
- The minimum allowable bend range is R300 mm.  
Use the light fixture under reasonable conditions.
- When the air temperature is low, the lamp fitting may become stiff.  
Forcibly bending the light fixture may cause damage. In this situation, it is recommended that you connect the light fixture to the power supply, turn on the light, wait until it warms up, and then bend.
- When handling the light fixture, be careful not to bend or twist it.  
This may cause malfunctioning. When mounting on a ceiling, under a shelf, or on a wall, mount tightly with no looseness or sagging.
- Use a mounting rail ( accessories parts ) to mount the light fixture in the mounting position.
- To mount the mounting rail in the mounting position, use mounting clips ( accessories parts ) and screws ( commercially available ).
- If you are using an instant glue, wipe off all foreign matter, moisture, and oil from the mounting rail and mounting surface.  
Dirt on the surfaces to be glued may cause the mounting rails to detach.
- The light fixture has been manufactured with the utmost care; however, please understand that slight deviations in LED color are unavoidable due to the characteristics of the product.

### Maintenance and Inspection

- Light fixture has a life span.
- Degradation of inner materials occurs after 8-10 years of installation even when the light fixture looks fine from the outside.  
Components of the light fixture degrade due to the generation of heat when the light is on for a long time.  
This causes not only safety issues, but also reduces power efficiency and it is recommended to have regular maintenance and inspection.
- Cleaning and inspection should be carried out at least once every 6 months.
- At least once every 3 years, an inspection should be carried out by a specialist such as a product contractor.
- If the light fixture is used for a long time without having an inspection, there is a small possibility that it could lead to fuming, igniting, electric shock and the like.

#### Inspection Methods

- Is LED operating normally?
- Is there any unusual smell, sound or heat?
- Are there cracks, slits, or detached parts on any part or joint?

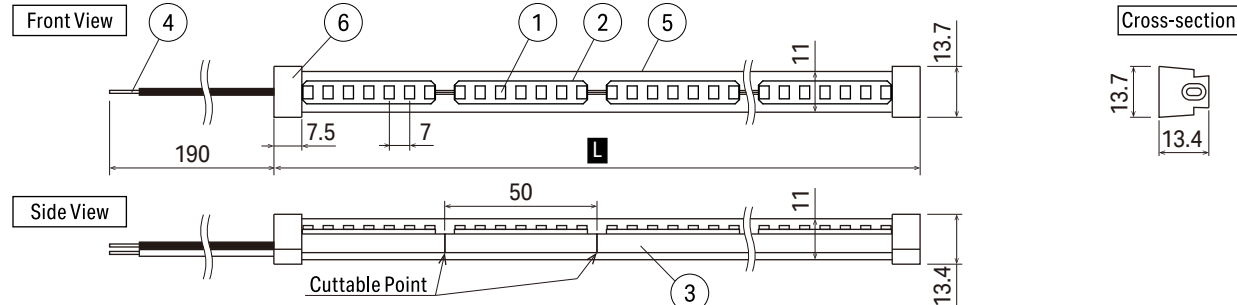
#### Cleaning Method

- Lightly wipe the light fixture with a soft cloth.
- To best clean the light fixture, wipe dirt with a soft cloth which has been soaked in a neutral detergent diluted with water and squeeze firmly. To finish off, wipe it with a damp cloth and dry it.

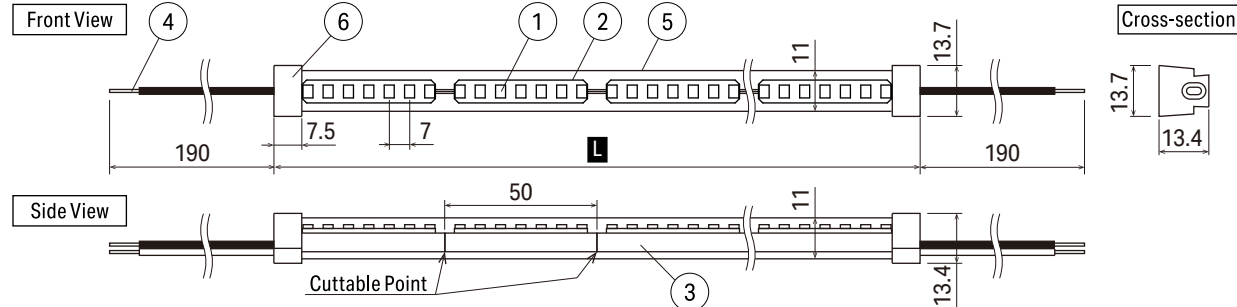
## Product specification

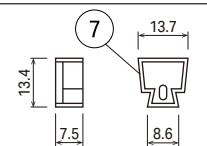
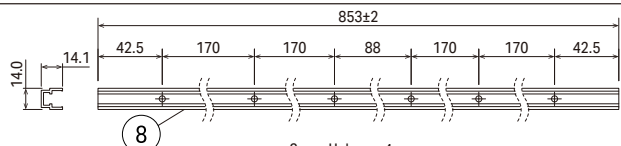
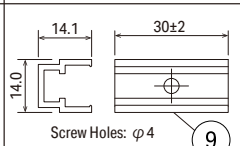
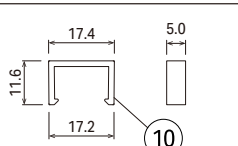
※unit of measurement=mm

【LFAY-T \* S \* -CL-I- \*】  
(One end lead)



【LFAY-T \* W \* -CL-I- \*】  
(Both ends lead)



<p>Attachement, Accessories : End cap (LFPA-EC) (2pcs / 1bag) (2pcs attached upon request)</p> 	<p>Accessories : Mounting rail 900 (LFPA-RL0900)</p> 	<p>Accessories : Mounting parts (LFPA-RL0030) (5pcs / 1bag)</p> 	<p>Mounting rail • parts attachment : Mounting clip (LFPA-PT) (5pcs / 1bag)</p> 
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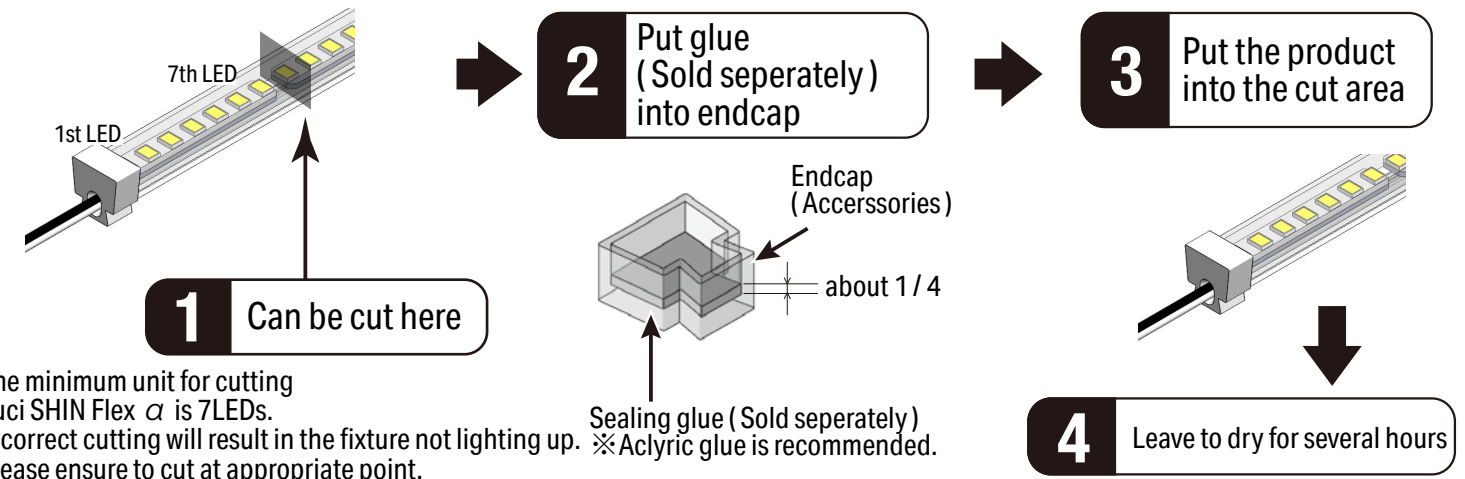
Input voltage  
DC24V

No	Item	Name of material
①	LED	SMD type
②	LED Substrate	FR-4, White
③	Flexible Substrate	FPC, White
④	Lead wire	UL1007 AWG22, black +, white-
⑤	Body	Soft acrylic, Clear
⑥	Top cap	Polycarbonate, Clear
⑦	End cap	Polycarbonate, Clear
⑧	Mounting rail 900	AES, White
⑨	Mounting parts	AES, White
⑩	Mounting clip	Polycarbonate, Clear

Item / Product Name	Luci SHIN FLEX $\alpha$				
Model No.	LFAY-T * * -CL-I-2	LFAY-T * * -CL-I-4	LFAY-T * * -CL-I-6	LFAY-T * * -CL-I-10	LFAY-T * * -CL-I-15
Power consumption	2.1 W / m	4.2 W / m	6.4 W / m	10.8 W / m	15.9 W / m
Input Voltage	24 V				
Number of LEDs	140 LED / m				
Weight	60 g / m				
Environment	Indoors ( No Condensation )				
Operating temperature	0°C ~ +35°C ( No Condensation )				
Max. length per circuit	5m				
Material (Body)	Soft acrylic				
Attachment	End cap×2pcs ( ※upon request )				
Accessories	Mounting rail, Mounting parts, Mounting clip				
Light source color (※)	Day light(D), Natural white(N), White(W), Warm white 3500K(WW), Warm white 3000K(L30), Warm white 2700K(L27), Warm white 2500K(L25), Warm white 2200K(L22), Warm white L2000K(L20), Warm white 1800K(L18)				
Dimmable	Yes (0-10V/1-10V, DMX, DALI, PWM, Casambi)				

## Cutting of light fixture

The light fixture can be shortened by cutting in unit of 7 LEDs.



The minimum unit for cutting Luci SHIN Flex  $\alpha$  is 7LEDs. Incorrect cutting will result in the fixture not lighting up. Please ensure to cut at appropriate point.

## Installing the product

### Curved installation

#### Fixing with screw

Screw the mounting parts and install the light fixture on to the parts and clip on the mounting clips

• Mounting parts for Power FLEX a ( Model No : LFPA-RL0030 )

• Mounting clip for Power FLEX a ( Model No : LFPA-PT )

• screws  
( commercially available )  
( Screw hole 4mm dia. )

Mounting clip attached with a rail

⚠ When mounting the light fixture upside down, be sure to use the clips. There is a risk of dropping.

### Straight installation

#### Fixing with screw

Screw the mounting rail 900 and install the light fixture on to the rail and clip on the mounting clips

• Mounting rail 900 for Power FLEX a ( Model No : LFPA-RL0900 )

• Mounting clip for Power FLEX a ( Model No : LFPA-PT )

• screws  
( commercially available )  
( Screw hole 4mm dia. )

Mounting clip attached with a rail

⚠ When mounting the light fixture upside down, be sure to use the clips. There is a risk of dropping.

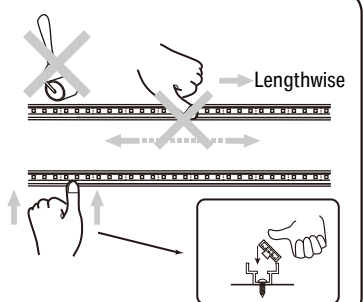
**Caution** When inserting the light fixture into the rail, do not press with forces using fingers or a tool, it may cause damage to the LEDs, electric components boards, and other parts. There will be a high risk of unlighted LEDs, wire breakage and other failure occurring due to above improper mishandling.

## Important points for rail mounting

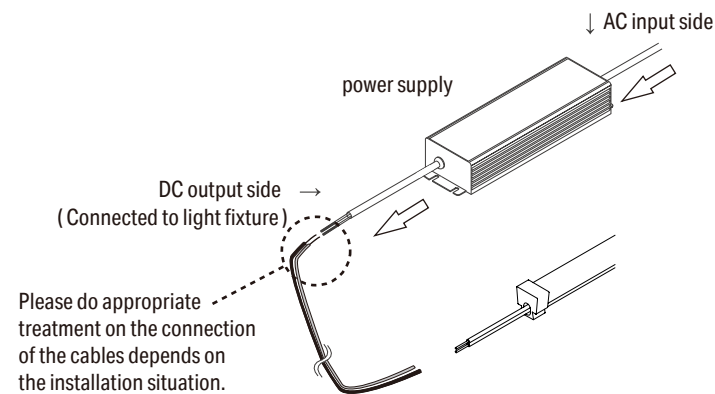
⊘ Do not push lengthwise into the rail

Caution! If pressure is applied to the light fixture from a particular direction for a long time, the circuit, LEDs or other components may be damaged.

- When inserting the tube (fixture) into the rail, fix it from one side to the other side and do not push it from the top of the fixture. ( Note1 )
- Do not use a roller or other tool to insert by pressing and extending the tube lengthwise along the rail.
- When inserting the tube, press down from the side to the rail with your thumb.
- The tube is a soft material. Do not press on the top surface where the LEDs are attached.
- To remove the fixture, insert your finger between the rail and tube and gently detach the light fixture.



## Connecting to the power supply



■ Cables used for connecting light fixtures and Power supply must be a suitable type and gauge.

■ Cables should be joined with suitable terminal block or methods that is appropriate to the installation and operating environment.

Caution: When using thin dimension cable in long extended length, the resistance of cable will increase. Voltage drop and heat dissipating may occur and result in a drop in brightness.

Caution: When separating one cable to multiple circuits in the same gauge, the current loading focuses on the junction of the branch circuit and high temperature will accumulate from there. Please consider the loading of the power supply (quantity of light fixture) and review the wiring system to avoid the above problem.

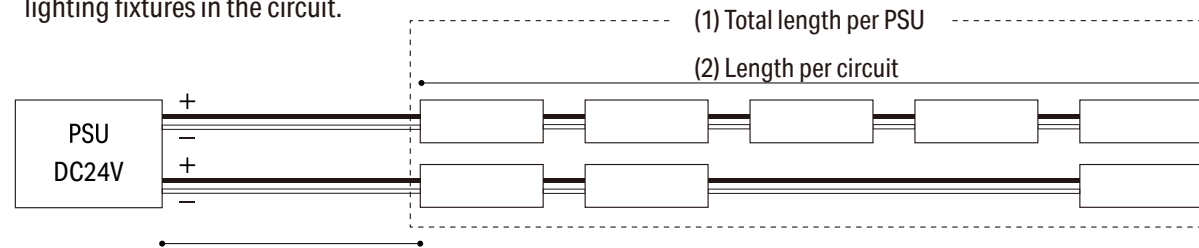
■ When connecting the dimmer driver with power supply, unpredicted noise might occur. It is a characteristic of electronic devices, not a malfunction of the light fixture. Please choose an appropriate power supply and consider to have enough space to install. Reducing the loading factor of light fixture might improve the noise from the power supply while the noise for the light fixtures might be improved by splitting the circuit of light fixture into multiple.

■ When you adjust the length of the power supply cable, please be careful not to damage the core wire.

■ When the cable is bundled, heat dissipation becomes poor and the temperature becomes extremely high. When bundling 5 cables or more, connect less number of light fixtures for one cable.

## System configuration diagram

1. Total product length per power supply depends on capacity of the power supply. Recommended loading factor is 70% ( without dimming ) or 60% ( with dimming ).
2. Product length per circuit shall not exceed maximum product length per circuit. If the product length per circuit exceeds the maximum, split into multiple circuits.
3. To minimize voltage drop, select appropriate wire gauge / diameter and consider the cable length between PSU and the beginning of luminaire referring to the following table. If longer cable distances are required, use thicker wires or reduce the loading of the lighting fixtures in the circuit.



(3) Cable length between PSU and the beginning of luminaire (m)

Model No.	Wattage	Cross section Wire gauze	0.3 sq	0.5 sq	0.75 sq
			AWG 22	AWG 20	AWG 18
LFAY-T * - * -CL-I-2	2.1 W / m	(2) Max. length per circuit	(3) Max. cable length between PSU and the beginning of luminaire at (2) Max. length per circuit		
LFAY-T * - * -CL-I-4	4.2 W / m	5 m	10.4 m	16.6 m	26.0 m
LFAY-T * - * -CL-I-6	6.4 W / m	5 m	5.2 m	8.3 m	13.0 m
LFAY-T * - * -CL-I-10	10.8 W / m	5 m	3.4 m	5.5 m	8.7 m
LFAY-T * - * -CL-I-15	15.9 W / m	5 m	2.6 m	4.2 m	6.5 m
		5 m	2.0 m	3.3 m	5.2 m

※ The length of cable that can be connected varies depending on the voltage drop.