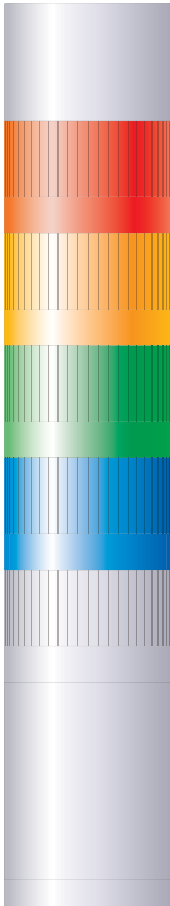


PATLITE®



Thank you very much for purchasing our PATLITE product.

Notice to Customer

- Request the installation and wiring be performed by a professional contractor if construction work is involved.
- Prior to installation, read this manual thoroughly before using this product to ensure correct use.
- After reviewing this manual, if there are any questions regarding this product, please contact the nearest PATLITE office listed on the back cover of this manual.

Notice to Contractor

- Read this manual carefully prior to installation.
- Be sure to return this manual to the customer.

Signal Tower

TYPE LR4 / LR5 /
LR6 / LR7

Complete Operation Manual

Installation Operation Maintenance

	Page
1 Safety Precautions	2
2 Model Number Configuration	3
3 Part Names and Outer Appearance	4
4 How to Install	13
5 Wiring	15
6 Buzzer Pattern Set-up	20
7 How to use the Folding Bracket	21
8 Unit Detachment Method	22
9 Troubleshooting	37
10 Specifications	38
11 Replacement Parts	41
12 Optional Parts	43

NOTES TO BE OBSERVED FOR SAFE OPERATION

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

- The indications for warning are divided into the following classes according to the degree of danger or damage incurred when the warning is not taken into consideration and the product is not correctly used.

**Warning**

Indicates an imminently dangerous condition: failure to follow the instructions may lead to death or serious injury.

**Caution**

Indicates a potentially dangerous condition: failure to follow the instructions may lead to slight injury or property damage.

Warning

- To prevent from **short-circuits, electric shock or damage**, observe the following:
 - Be sure **the power is disconnected** before replacement or repair, including the replacement of the fuse.
 - Use this product in a **properly maintained condition**. (Replace or repair if the body, LED unit, etc. are damaged.)
- Request the installation and wiring be performed by a **professional contractor** if construction work is involved. Failure to comply may result in **fire, electric shock or falling from high places possible cause of failure may occur**.

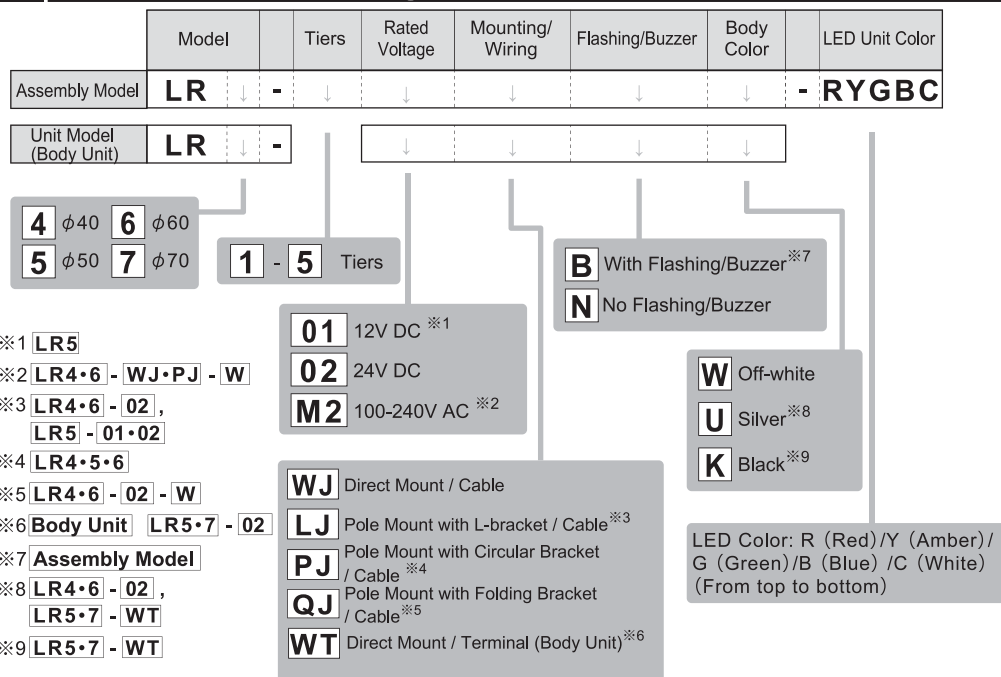
Caution

- **Avoid long exposure to the Buzzer sound from a close distance.** Failure to observe this may lead from irritation to permanent damage to the ears. (**B** Flashing/Buzzer)
- In order to maintain protection of this product against dust and waterproofing performance, **be sure to use the head cover, LED unit and buzzer unit in the condition that it was originally attached.**
- **Do not operate this product without** the O-ring or the waterproof packing material. Failure to comply will result in lower waterproofing performance. Possible cause of failure may occur.
- **Do not apply voltage to any signal lines, or Flashing Common (**01**, **02**) other than the source line (**M2**).** Product failure will occur.
- When removing covers or packing from the equipment, which is attached to this product, be careful **not to snag** the product. Failure to comply may result in damage to the product.

Notice

- To ensure proper safety while using the signal tower, observe the following:
 - Perform **periodic pre-maintenance**.
 - As a precaution against problems occurring, **use this product together with other equipment**.
- **Be sure to discharge any static electricity** from the body before handling static sensitive parts of this product. (To prevent damage from static electricity, touch hands or other body parts to metals or an earth ground to discharge the body from static charge.)
- Use a soft cloth moistened with water when the LED Unit or body must be cleaned up. (Do not use thinner, benzene, gasoline or oil.)
- To ensure safety when this product is installed onto equipment, observe the following:
 - **Do not remove parts** beyond those designed to be removed from this product.
 - **Do not modify or disassemble** this product.
 - Use only **the specified replacement parts** listed in this manual.

2 Model Number Configuration



Model Number Example

LR4-502PJBU-RYGBC

- Φ40 • LED 5 Tiers • 24V DC • Pole Mount with Circular Bracket / Cable
- With Flashing/Buzzer • Silver • (From top) Red/Amber/Green/Blue/White

LR5-301WJNW-RYG

- Φ50 • LED 3 Tiers • 12V DC • Direct Mount / Cable
- No Flashing/Buzzer • Off-white • (From top) Red/Amber/Green

LR6-M2LJNW

- Φ60 • 100 - 240V AC • Pole Mount with L-bracket / Cable
- No Flashing/Buzzer • Off-white

LR7-02WTNK

- Φ70 • 24V DC • Direct Mount / Terminal
- No Flashing/Buzzer • Black

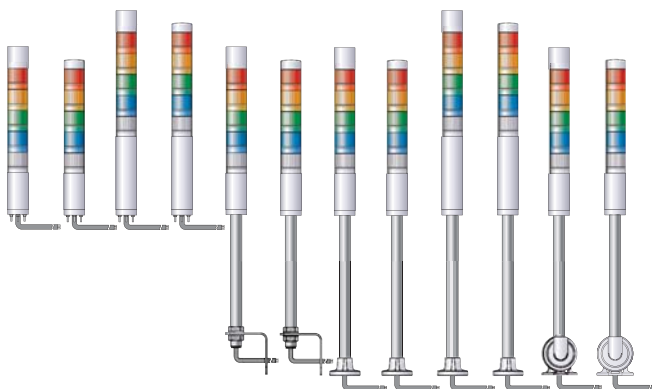
3 Part Names and Outer Appearance

Outer Appearance List

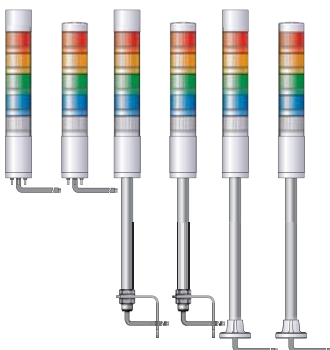
The full product appearance is indicated according to its model number. Refer to the model numbers as a reference to its appearance.
(Body Color: Off-White)

Assembly Model

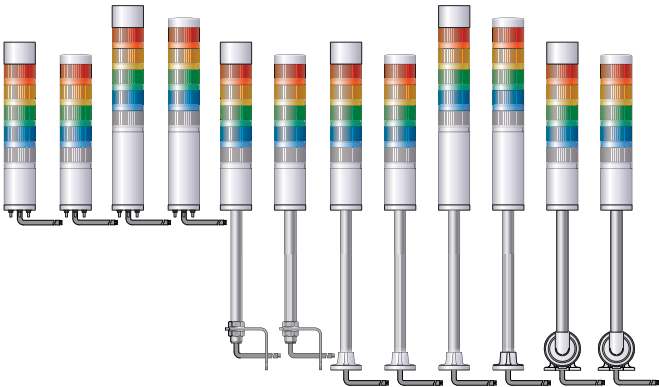
Model	LR4											
LED Tiers	1 Tier - 5 Tiers (Drawing is 5 Tiers.)											
Rated Voltage	02		M2		02				M2		02	
Mounting/Wiring	WJ				LJ		PJ				QJ	
Flashing/Buzzer	B	N	B	N	B	N	B	N	B	N	B	N



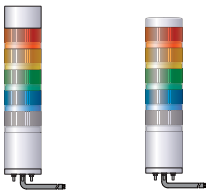
Model	LR5					
LED Tiers	1 Tier - 5 Tiers (Drawing is 5 Tiers.)					
Rated Voltage	01 / 02					
Mounting/Wiring	WJ		LJ		PJ	
Flashing/Buzzer	B	N	B	N	B	N



Model	LR6											
LED Tiers	1 Tier - 5 Tiers (Drawing is 5 Tiers.)											
Rated Voltage	02	M2		02		M2		02				
Mounting/Wiring	WJ			LJ			PJ			QJ		
Flashing/Buzzer	B	N	B	N	B	N	B	N	B	N	B	N

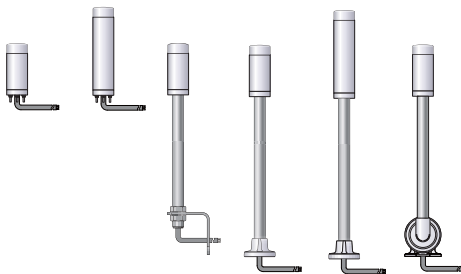


Model	LR7											
LED Tiers	1 Tier - 5 Tiers (Drawing is 5 Tiers.)											
Rated Voltage	02											
Mounting/Wiring	WJ											
Flashing/Buzzer	B		N									

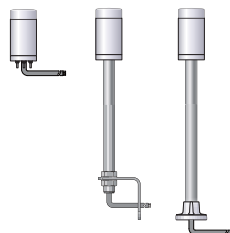


Unit Model (Body Unit)

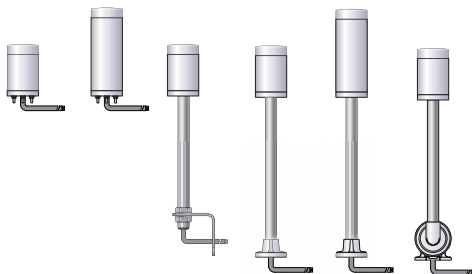
Model	LR4				
Rated Voltage	02	M2	02	M2	02
Mounting/Wiring	WJ	LJ	PJ	QJ	
Flashing/Buzzer	N				



Model	LR5	
Rated Voltage	01 / 02	
Mounting/Wiring	WJ	PJ
Flashing/Buzzer	N	



Model	LR6				
Rated Voltage	02	M2	02	M2	02
Mounting/Wiring	WJ	LJ	PJ	QJ	
Flashing/Buzzer	N				



Model	LR7
Rated Voltage	02
Mounting/Wiring	WJ
Flashing/Buzzer	N



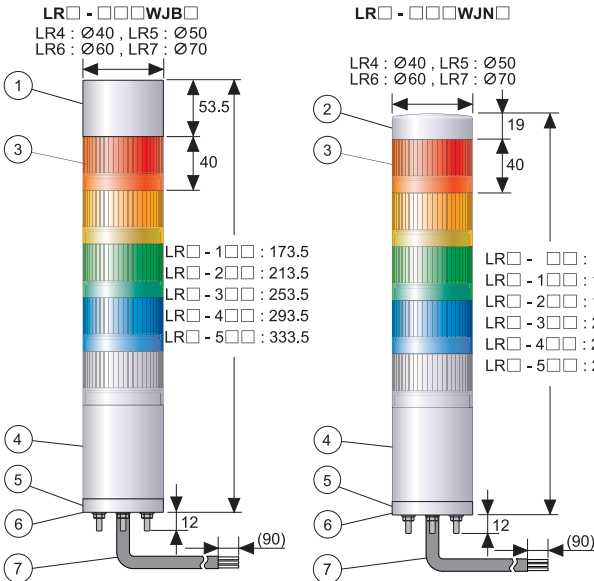
Model	LR5	LR7
Rated Voltage	02	
Mounting/Wiring	WT	
Flashing/Buzzer	N	



Part Name and Dimensions

■ **WJ** Direct Mount with Cable Type (**01** , **02**)

(Unit: mm)

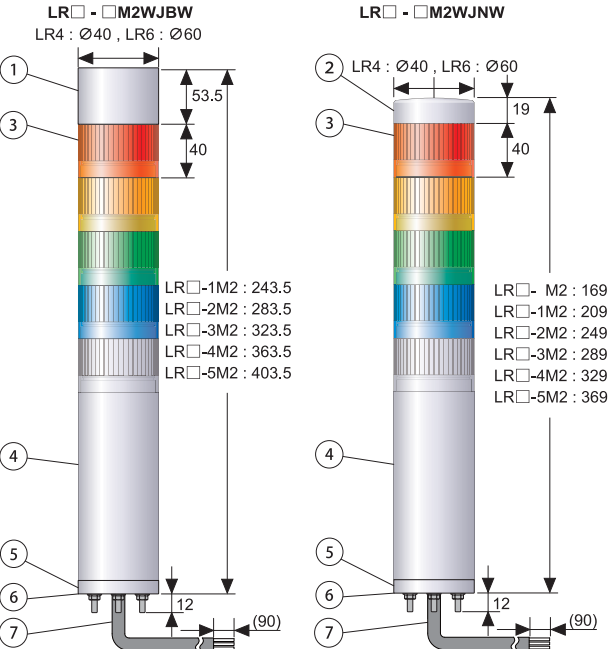


- Maximum Board Thickness : 7
- Cable : UL2464 (Ø7.5)
- Signal Wire & Power Supply Wire : AWG24
- Cable Length: Off-white (1300)
- Silver (3300)

No.	Name	Material
1	Buzzer Unit	PC
2	Head Cover	PC
3	LED Unit	Globe: PC
4	Body	PC
5	Direct Mount Bracket	PC
6	Waterproof Packing	Silicone Rubber
7	Cable	PVC

Accessory	
<div><div>LR4-5-WJ</div><div>Hexagon Nut with Flange (M3)</div><div></div><div>3 pcs.</div></div>	<div><div>LR6-7-WJ</div><div>Hexagon Nut with Flange (M4)</div><div></div><div>3 pcs.</div></div>

■ **WJ** Direct Mount with Cable Type (**M2**)

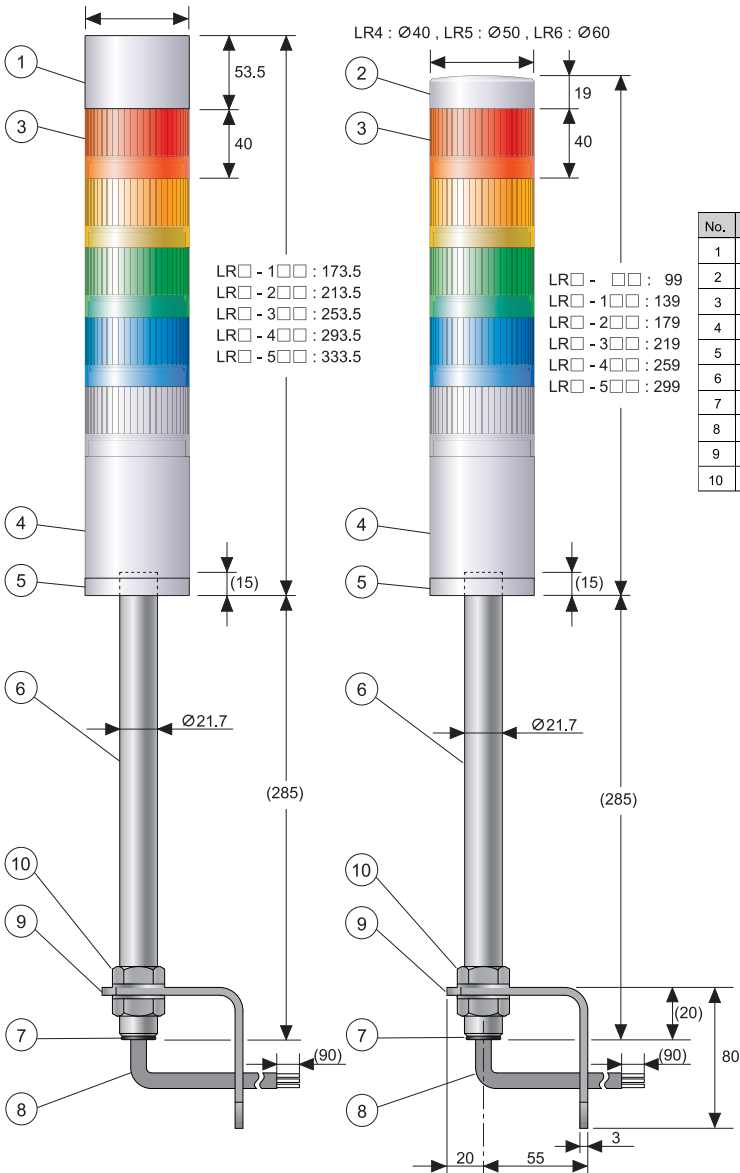


- Maximum Board Thickness : 7
- Cable : UL2464 (Ø7.5)
- Signal Wire : AWG24
- Power Supply Wire : AWG18
- Cable Length: (1300)

(Unit: mm)

LR - LJN

LR4 : Ø40 , LR5 : Ø50 , LR6 : Ø60



No.	Name	Material
1	Buzzer Unit	PC
2	Head Cover	PC
3	LED Unit	Globe: PC
4	Body	PC
5	Pole Bracket	PC
6	Pole	AL
7	Rubber Bushing	EPR
8	Cable	PVC
9	L-bracket	Steel
10	Hexagon Nut M22	SUM

- Cable : UL2464 (Ø7.5)
Signal Wire & Power Supply Wire : AWG24
Cable Length: Off-white (1000)
Silver (3000) ※ LR4, LR6

■ **[PJ]** Circular Bracket and Pole Mount with Cable Type (**[01]** , **[02]**)

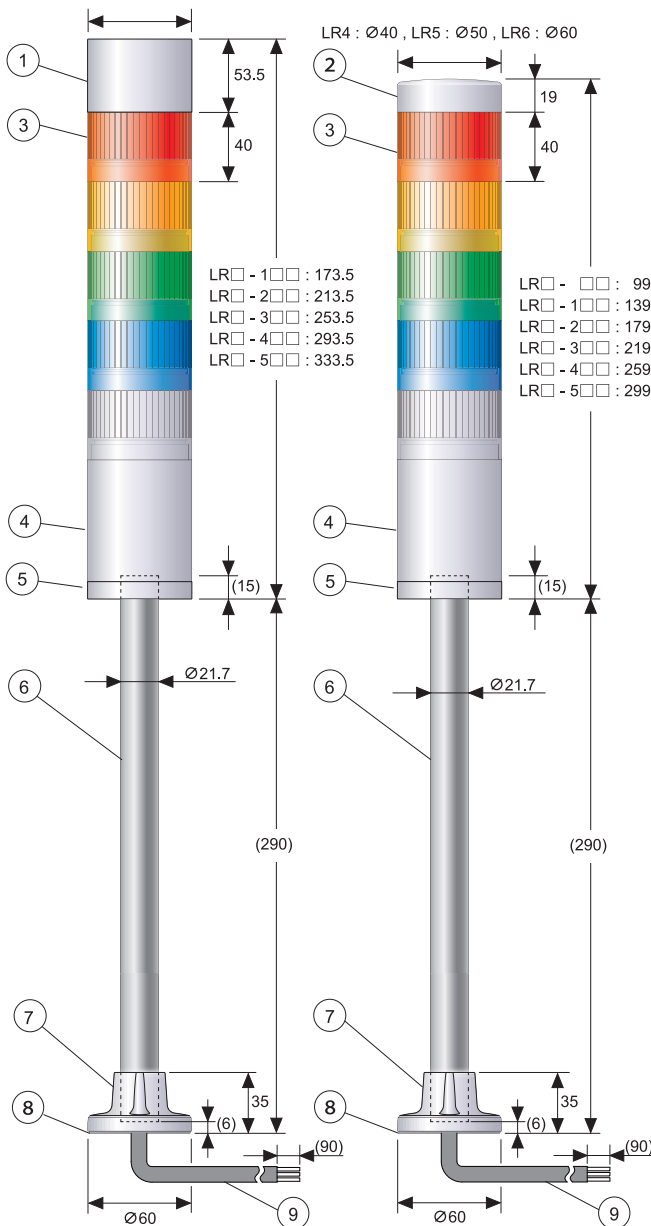
(Unit: mm)

LR□ - □□□PJB□

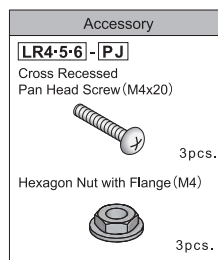
LR□ - □□□PJN□

LR4 : Ø40 , LR5 : Ø50 , LR6 : Ø60

LR4 : Ø40 , LR5 : Ø50 , LR6 : Ø60



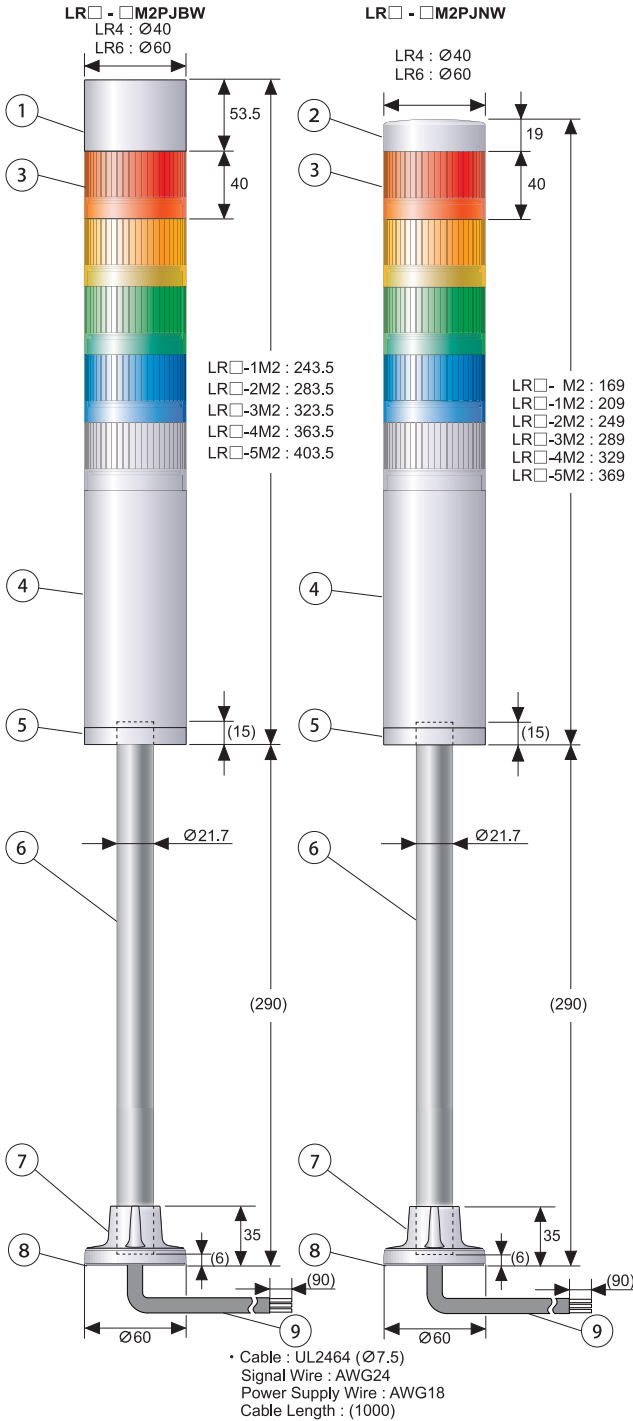
No.	Name	Material
1	Buzzer Unit	PC
2	Head Cover	PC
3	LED Unit	Globe: PC
4	Body	PC
5	Pole Bracket	PC
6	Pole	AL
7	Circular Bracket	PC
8	Waterproof Packing	Silicone Rubber
9	Cable	PVC



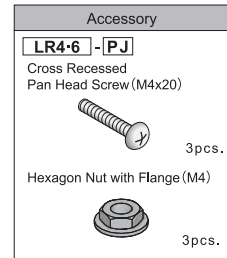
• Cable : UL2464 (Ø7.5)
Signal Wire & Power Supply Wire : AWG24
Cable Length: Off-white (1000)
Silver (3000) ※ LR4, LR6

■ **[PJ]** Circular Bracket and Pole Mount with Cable Type (**[M2]**)

(Unit: mm)

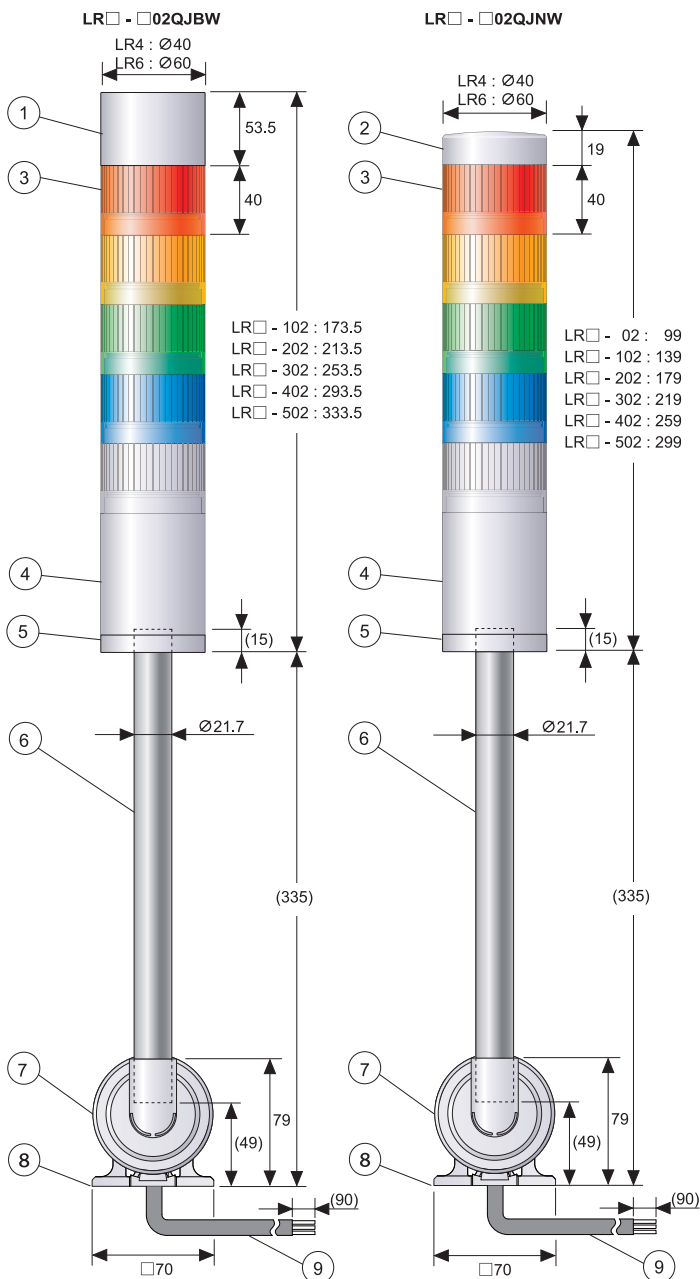


No.	Name	Material
1	Buzzer Unit	PC
2	Head Cover	PC
3	LED Unit	Globe: PC
4	Body	PC
5	Pole Bracket	PC
6	Pole	AL
7	Circular Bracket	PC
8	Waterproof Packing	Silicone Rubber
9	Cable	PVC

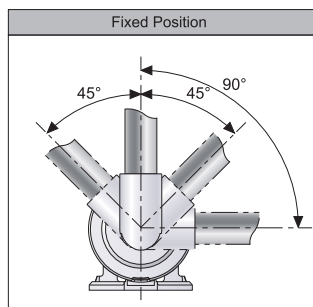
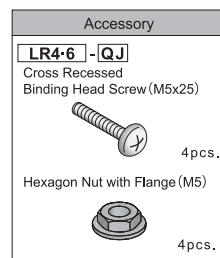


■ **QJ** Folding Bracket and Pole Mount with Cable Type (**02**)

(Unit: mm)



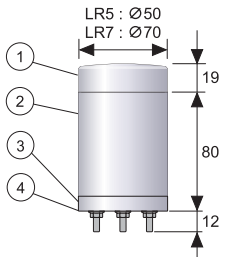
No.	Name	Material
1	Buzzer Unit	PC
2	Head Cover	PC
3	LED Unit	Globe: PC
4	Body	PC
5	Pole Bracket	PC
6	Pole	AL
7	Folding Bracket	PC
8	Waterproof Packing	CR
9	Cable	PVC



• Cable : UL2464 (Ø7.5)
Signal Wire & Power Supply Wire : AWG24
Cable Length: (950)



■ **WT** Direct Mount with Terminal Block Type (Body Unit)

(Unit: mm)



Maximum Board Thickness: 7

No.	Name	Material
1	Head Cover	PC
2	Body	PC
3	Direct Mount Bracket	PC
4	Waterproof Packing	Silicone Rubber

Accessory	
LR5 - WT Hexagon Nut with Flange (M3)  3 pcs.	LR7 - WT Hexagon Nut with Flange (M4)  3 pcs.

4 How to Install

Notice

- The following requirements are necessary for proper installation:
 - Install the signal tower where **excessive vibration** is not present.
 - Install the signal tower on a **sturdy surface**.
 - Install the signal tower on a **level surface**.
- Only install the signal tower in an **upright position**.
- When the installation location is unavoidably irregular and waterproof performance is required, use a sealant between the product and the installation surface.
- If the pole type requires an IP65 rating, apply sealant to the screws, nuts and wire distribution hole when installing the compatible bracket onto the installation surface.(**PJ** • **QJ**)
- Although the LR4-**WJ** mounting bolt moves prior to assembly, it is not a quality issue. Be sure to mount the product in the manner indicated below.

Basic Mounting Instructions

- 1 Make holes for the mounting and wire-distribution for the product.**
(Check the Model and refer to the suitable attachment or mounting dimension figure.)
- 2 Run the wiring through the distribution hole.**
- 3 Secure the product with the bolts, nuts and screws.**
(**LJ** required nuts and screws are not included.)

■ **LJ** Installation Figure (Unit: mm)

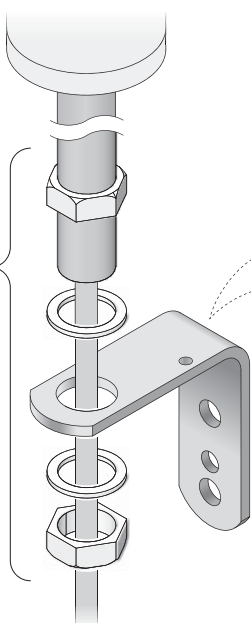
- 2**
 - 3**
- Feed the wiring through the hole and set the pole in place to install.**

Recommended Torque
30 N·m

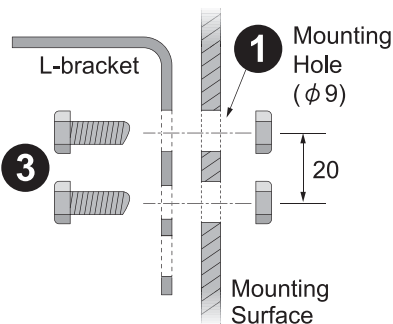
Point

When not using an attachment L-bracket, make a fitting hole of $\phi 22$ -23mm.

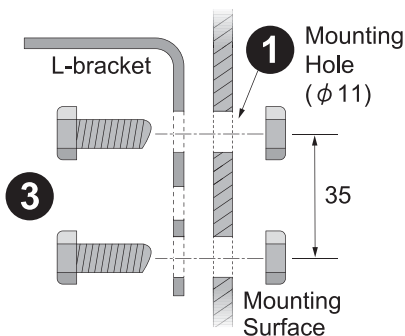
Recommended screw Torque
12.2 N·m



For M8 screw and nut size



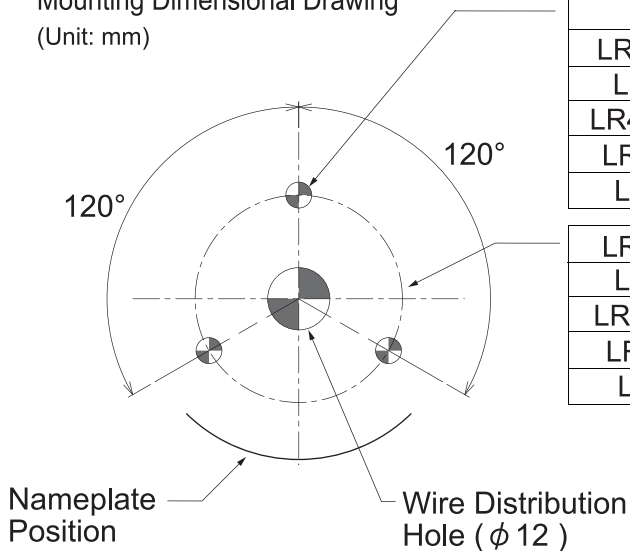
For M10 screw and nut size



■ **WJ** · **PJ** · **WT**

Mounting Dimensional Drawing

(Unit: mm)



Mounting Hole (3 places)		Screw/ Nut
LR4·5-WJ	$\phi 4$	M3
LR5-WT		
LR4·5·6-PJ	$\phi 5$	M4
LR6·7-WJ		
LR7-WT		

LR4·5-WJ	$\phi 30$
LR5-WT	
LR4·5·6-PJ	$\phi 40$
LR6·7-WJ	
LR7-WT	

Recommended Torque
0.6 N·m

■ **QJ** Mounting Dimensional Drawing

(Unit: mm)

Mounting Hole
($\phi 6 \times 4$ places)

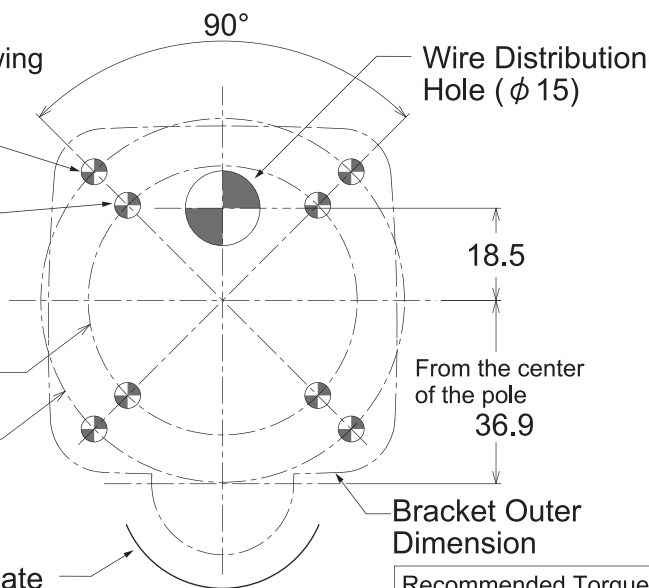
Mounting Hole
($\phi 6 \times 4$ places)

Screw/Nut
M 5 \times 4 pcs

$\phi 54 - \phi 56$

$\phi 73$

Nameplate
Position



Recommended Torque
1.4 N·m

Warning

- Be sure **the power is disconnected** before wiring and changing fuses. Possible cause of short-circuiting may occur.
- Ensure **the proper working voltage** is used and that **direct current or alternating current** is properly applied. Possible cause of damage may occur.

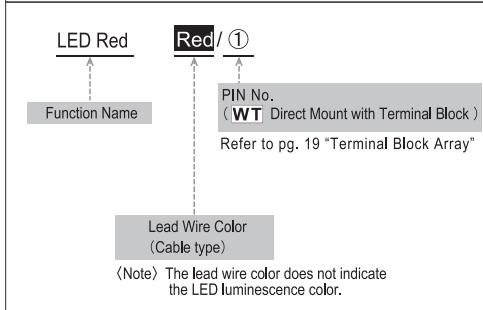
Caution

- **Do not apply voltage to the Flashing Common line (01 , 02).**
Do not apply voltage to any signal lines, other than the source line (M2). Product failure will occur.
- Do not control the flashing display by switching the power source ON and OFF for **M2** . Product failure will occur.
- It is not necessary to connect to an external lead for tiers not used. When an extra lead is not connected, it should be **individually insulated** with electrical tape or something similar. Failure to comply will result in damage due to short circuiting.
- **Do not pull** the lead wire or **push it inside** the body. Product failure will occur.

Notice

- When using multiple LED units of the same color, **make the contact capacity equal to the number of same color LED units multiplied** by the contact capacity for 1 tier.
(This is because LED units of the same color light up for one signal line.)
- To protect the power supply and other internal circuitry, be sure to install an external **fuse**.
- If wiring is extended beyond its factory length, **a relevance in the length of the wire and wire gauge** will cause a voltage drop.

Wiring Example Index



Wiring Example

The following is a basic wiring example. If there are any special applications that require asking questions concerning this product, feel free to contact your PATLITE Sales Representative. Accidental wiring will result in product failure.

<Note> When lighting and flashing are used together, it is necessary to prepare an external contact for each lighting or flashing.

Lighting / Flashing / Buzzer

Product Specifications

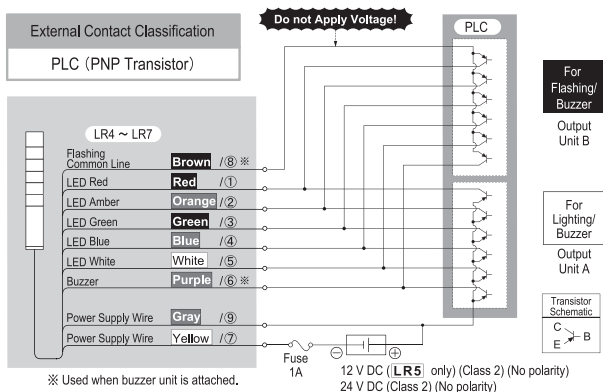
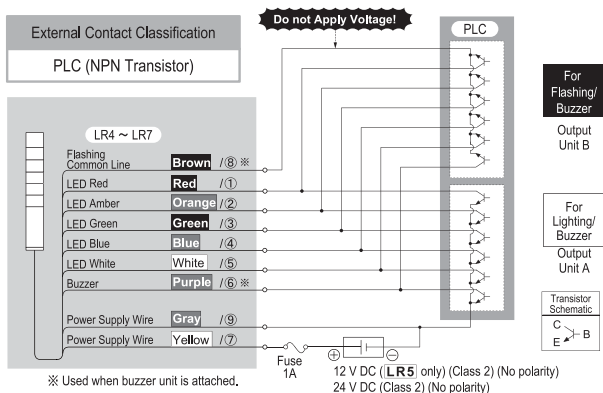
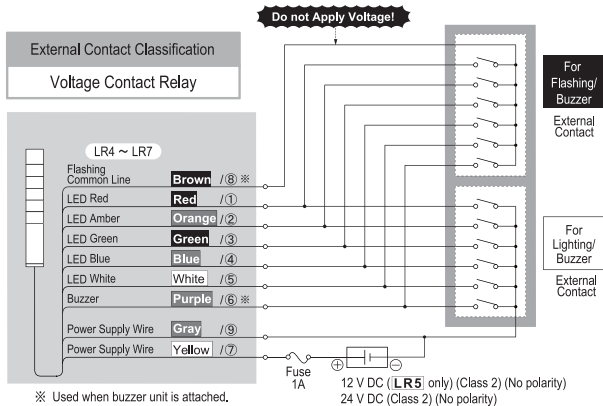
01 12V DC

02 24V DC

■ Wire Type & Wire Gauge

M2 Power Supply Wire(**Gray** , **Black**)...UL2464 / AWG18

Excluding **M2** Power Supply Wire(**Gray** , **Black**)
...UL2464 / AWG24

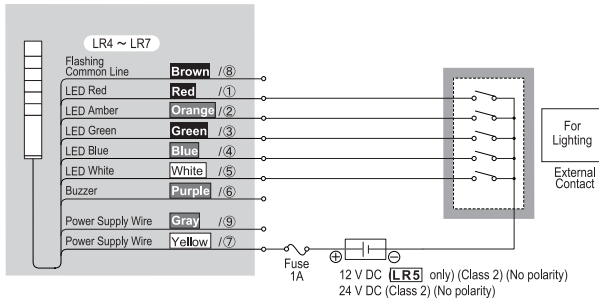


Lighting only

Product Specifications **01** 12V DC **02** 24V DC

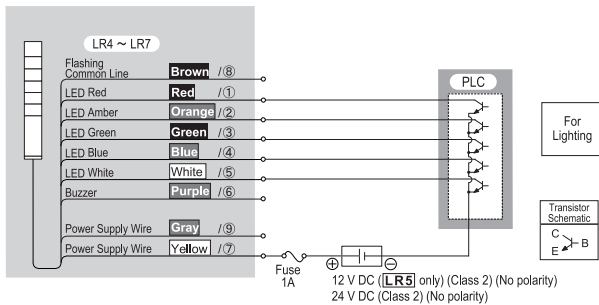
External Contact Classification

Voltage Contact Relay



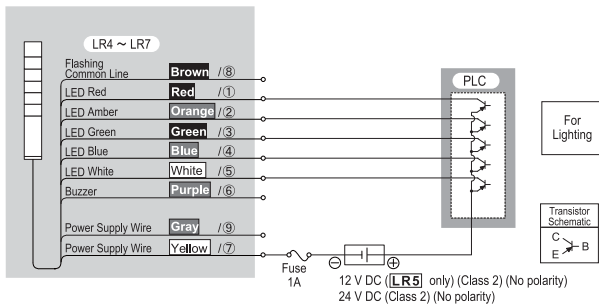
External Contact Classification

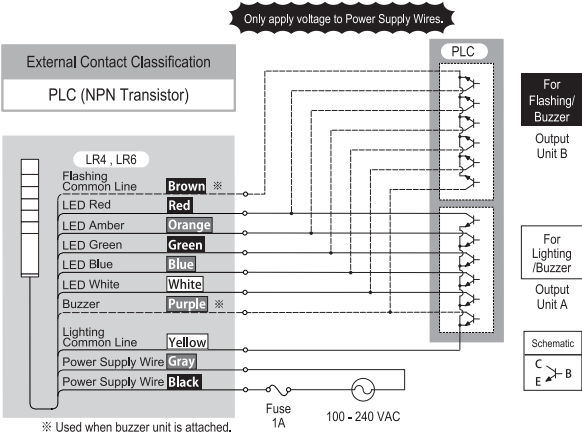
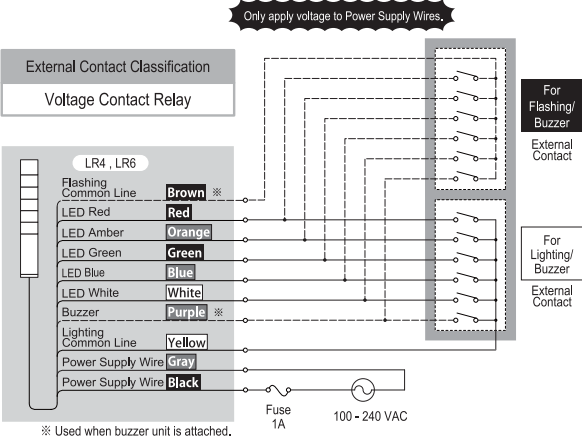
PLC (NPN Transistor)



External Contact Classification

PLC (PNP Transistor)

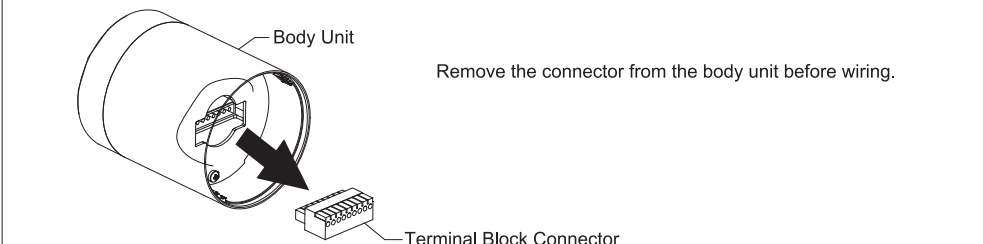




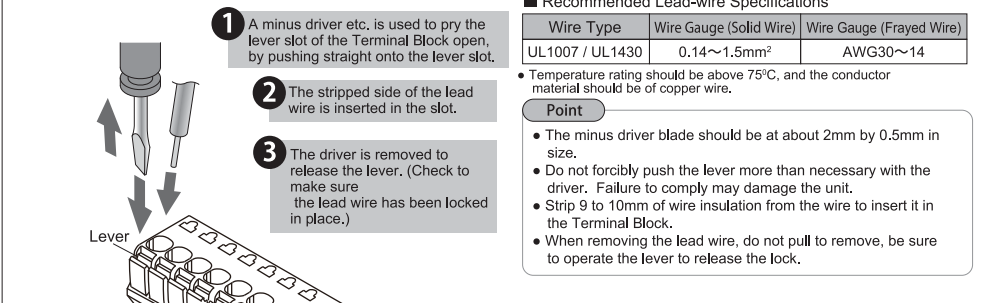
WT	Terminal Block Array
----	----------------------

6	Black (Signal-Line Side)	Power Supply Wire
8	Gray	Flashing Common
7	Yellow	Power Supply Wire (Common)
6	Gray	Buzzer
5	White	LED-C
4	Blue	LED-B
3	Green	LED-G
2	Orange	LED-Y
1	Red	LED-R

WT Terminal Block Wiring Method



Remove the connector from the body unit before wiring.




■ Recommended Lead-wire Specifications

1	A minus driver etc. is used to pry the lever slot of the Terminal Block open, by pushing straight onto the lever slot	<table border="1"> <thead> <tr> <th>Wire Type</th> <th>Wire Gauge (Solid Wire)</th> <th>Wire Gauge (Frayed Wire)</th> </tr> </thead> <tbody> <tr> <td>UL1007 / UL1430</td> <td>0.14~1.5mm²</td> <td>AWG30~14</td> </tr> </tbody> </table>	Wire Type	Wire Gauge (Solid Wire)	Wire Gauge (Frayed Wire)	UL1007 / UL1430	0.14~1.5mm ²	AWG30~14
Wire Type	Wire Gauge (Solid Wire)	Wire Gauge (Frayed Wire)						
UL1007 / UL1430	0.14~1.5mm ²	AWG30~14						

- 2 The stripped side of the lead

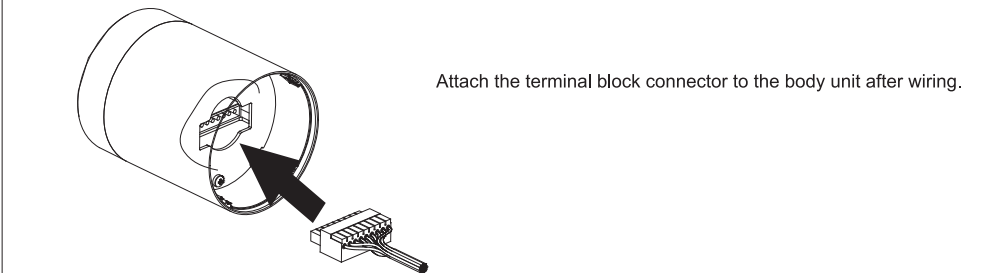
2 The stripped side of the lead wire is inserted in the slot.

Point _____

- 

3 The driver is removed to release the lever. (Check to make sure the lead wire has been locked in place.)

 - The minus driver blade should be at about 2mm by 0.5mm in size.
 - Do not forcibly push the lever more than necessary with the driver. Failure to comply may damage the unit.
 - Strip 9 to 10mm of wire insulation from the wire to insert it in the Terminal Block.
 - When removing the lead wire, do not pull to remove, be sure to operate the lever to release the lock.



Attach the terminal block connector to the body unit after wiring.

※ The terminal block connector is attached to the body unit at all times after factory shipment. Refer to pg.36 for "Unit Detachment Method" for removal, wiring and attachment.

External Contact Capacity

Is : Current Capacity Vs : Withstand Voltage IL : Leakage Current Ta : Ambient Temperature

Rated Load Voltage		01 12 V DC	02 24 V DC	M2 100 - 240V AC
LED Unit (1 Tier)	Signal Wire Current	90 mA	40 mA	40 mA
	Contact Capacity	Is \geq 100 mA Vs \geq 35 V DC	Is \geq 100 mA Vs \geq 35 V DC	Is \geq 100 mA Vs \geq 35 V DC
Buzzer	Signal Wire Current	90 mA	40 mA	40 mA
	Contact Capacity	Is \geq 300 mA Vs \geq 35 V DC (※1)	Is \geq 300 mA Vs \geq 35 V DC (※1)	Is \geq 300 mA Vs \geq 35 V DC
Power Supply	Current Consumption	500 mA	250 mA	150mA
	Contact Capacity	Is \geq 700 mA Vs \geq 35 V DC	Is \geq 700 mA Vs \geq 35 V DC	Contact rating above inrush current
Inrush Current	Signal Wire	None (※1)	None (※1)	None
	Power Supply Wire	0.7A / Less than 15ms	0.7A / Less than 0.5ms	Ta=25°C : 25A / Less than 2ms (Cold-start) Ta=50°C : 50A / Less than 2ms (Cold-start)
	Leakage Current	IL \leq 0.1 mA		

※1 ... When the (**Gray** / **⑨** Black) power supply wire is not connected, inrush current of 0.7A will flow through the signal wire (**Purple** / **⑥** Gray). Be sure to select the appropriate ratings for an external contact.

Recommended Fuse

Fuse Rated Current
250V / 1A 5x20mm Fast-Acting Glass Body Cartridge Fuse

- 〈Note〉
- When a regulated power supply is not being used, select a fuse that meets class CC or more (**M2**).
 - Use a fuse holder with UL standard certification (**M2**).
 - Be sure **the power is disconnected** before changing fuses.

6 Buzzer Pattern Set-up

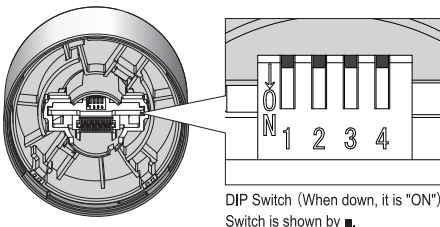
The **B** Flashing/Buzzer type includes a set up for four different patterns and sound reduction.

Set up the preferred pattern, using the DIP Switch after removing the buzzer unit.

Caution

- Do not use excessive force to set up the switches. Possible damage or malfunction may occur.
- Do not adjust switches with a sharp object. Possible damage to switches may cause it to be impossible to operate or cause partial movement of the contacts.

Buzzer Unit Underside View



DIP Switch (When down, it is "ON")
Switch is shown by ■.

Pattern Setup Table

Buzzer Sound	DIP Switch		Sound Pattern
	1	2	
No.1	OFF	OFF	Rapid Intermittent Beep
No.2	ON	OFF	Continuous Beep Sound
No.3	OFF	ON	Rapid Hi-Lo
No.4	ON	ON	Sweep Sound

DIP Switch	Volume
3 OFF	Normal
3 ON	Sound Reduction

〈Note〉 Do not use DIP Switch 4.
It is set to "OFF" at all times after factory shipments.

7 How to use the Folding Bracket

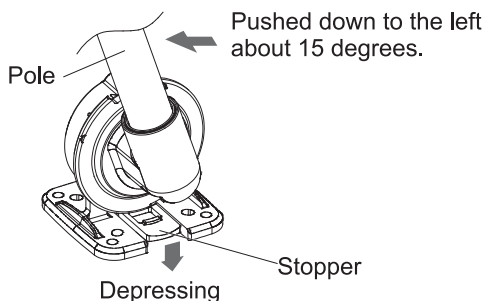
The **[Q]** Folding bracket is a retractable type, which can be pushed down while a product is still attached when transporting equipment.

(Fixed Position: 90 degrees to the right and 45 degrees to the right and left from an upright direction)

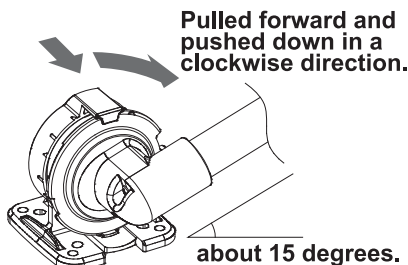
When moving 90 degrees to the right from an upright position.

When moving 45 degrees to the right from an upright position.

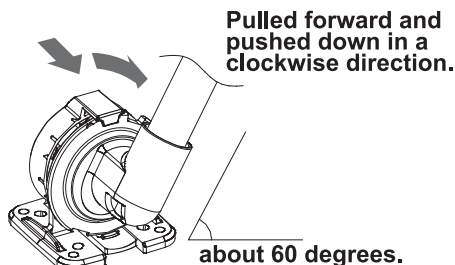
- 1** Depressing the locking lever on the left side of the Pole releases the bracket to be lowered. (Depressing the lock allows the Pole to swivel freely)



- 2** The Pole can then be pulled forward and pushed down in a clockwise direction. (From a level plane up to about a 15 degree angle)

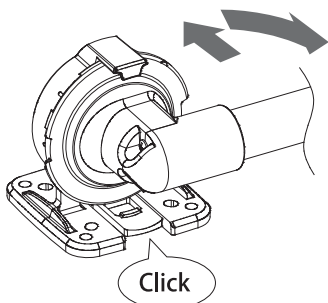


- 2** The Pole can then be pulled forward and pushed down in a clockwise direction. (From a level plane up to about a 60 degree angle)

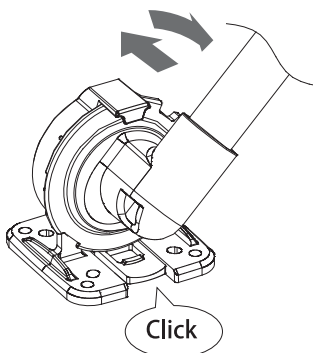


- 3** The Pole is pushed down to the right (clockwise). (The Pole is turned until it is latched in place by the locking lever)

Pushed down in a clockwise direction



Pushed down in a clockwise direction



8 Unit Detachment Method

Refer to the following diagrams when detaching the buzzer unit, recombining the LED Unit, etc.
Also, scan the QR Code to see the "How To" video.



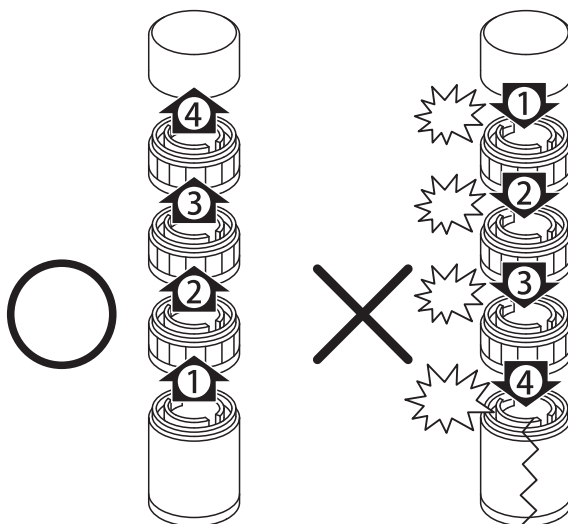
Video Site

⚠ Warning

- Be sure the power is **disconnected** before working on this product.

⚠ Caution

- **Do not apply excessive strength** with each unit or body. Failure to comply may damage the unit.
 - **Do not touch the connector area or the inside of the body and LED unit.** Failure to comply may damage the unit.
 - **Be sure to lock** each unit securely when attaching. Failure to comply may damage the unit.
 - Detach the unit in the following manner. Any other method may result in damaging the product.
- Attachment : Attach one unit at a time to the body.
Removal : Firmly hold the bottom section while removing the upper section.

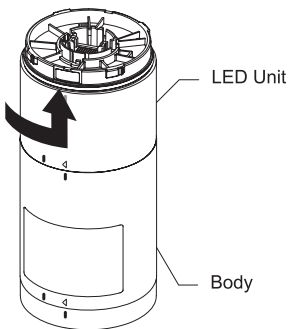


Notice

- The maximum number of attachment units per product are five LED units, plus one buzzer unit.

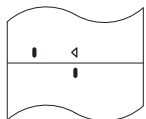
< LED Unit to Body >

■ Removal

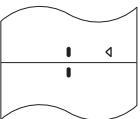


While holding the body, turn the LED unit counterclockwise, until it unlocks, then pull it upwards to remove.

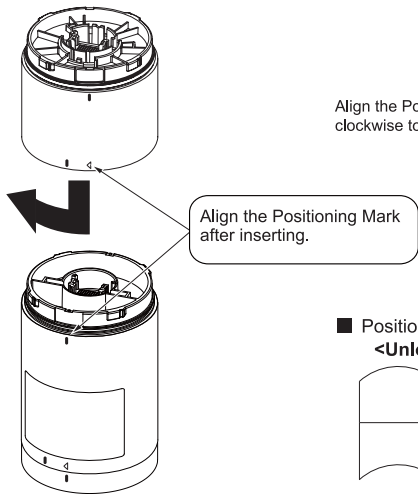
■ Positioning Mark
<Locked>



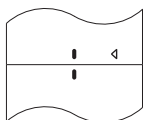
<Unlocked>



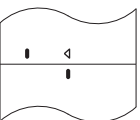
■ Attachment



■ Positioning Mark
<Unlocked>

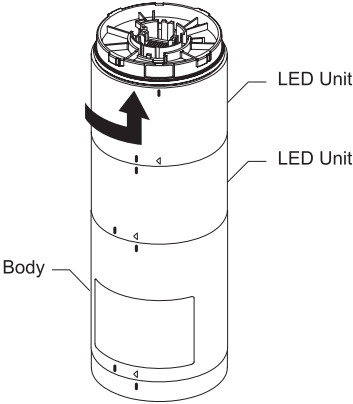


<Locked>



< LED Unit to LED Unit >

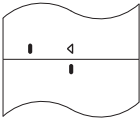
■ Removal



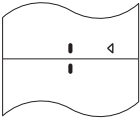
While holding LED unit, turn the LED unit counterclockwise, until it unlocks, then pull it upwards to remove.

■ Positioning Mark

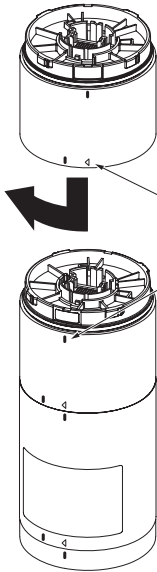
<Locked>



<Unlocked>



■ Attachment

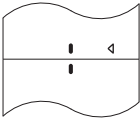


Align the Positioning Mark after insertion, then turn the unit clockwise to lock it.

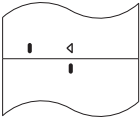
Align the Positioning Mark after inserting.

■ Positioning Mark

<Unlocked>

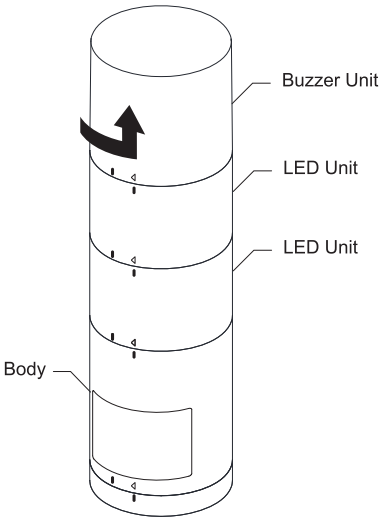


<Locked>



< Buzzer Unit to LED Unit >

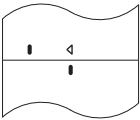
■ Removal



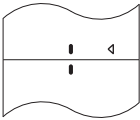
While holding LED unit, turn the buzzer unit counterclockwise, until it unlocks, then pull it upwards to remove it.

■ Positioning Mark

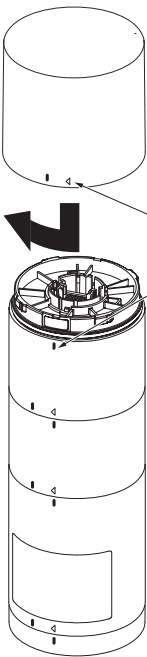
<Locked>



<Unlocked>



■ Attachment

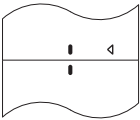


Align the Positioning Mark after insertion, then turn the unit clockwise to lock it.

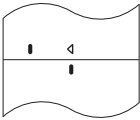
Align the Positioning Mark after inserting.

■ Positioning Mark

<Unlocked>

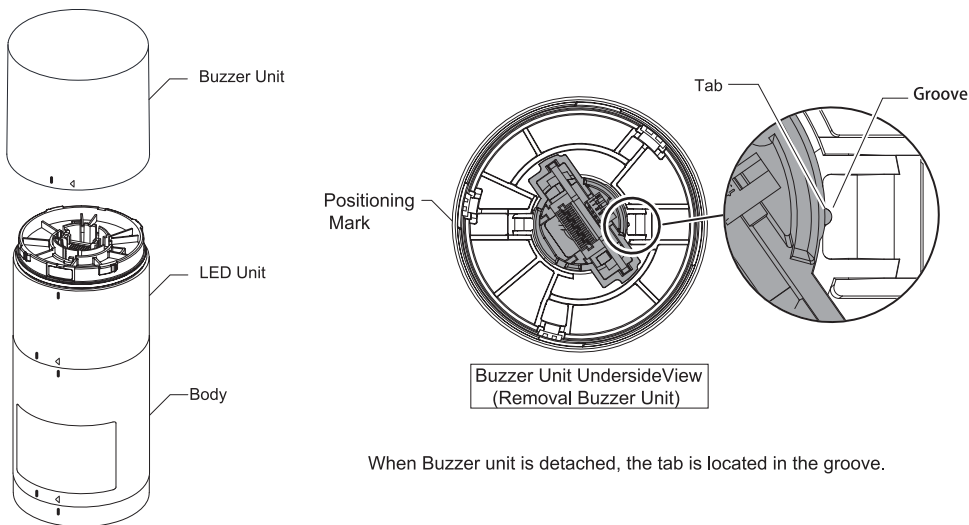


<Locked>



< The case that Buzzer Unit can't be attached well >

When Buzzer unit is detached, its state usually is such as below the figure.



When Buzzer unit is detached, the tab is located in the groove.

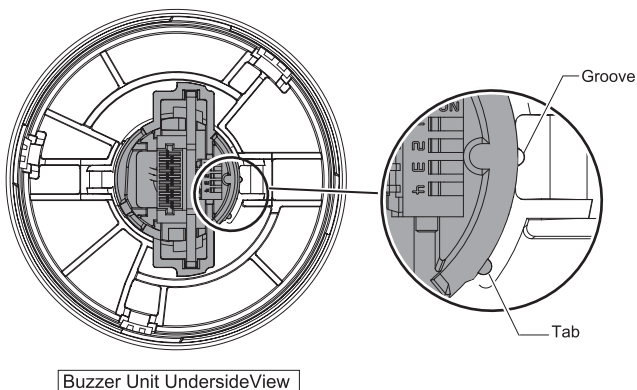
⚠ Caution

If Buzzer Unit can't be attached well, check whether the tab is located in the groove.

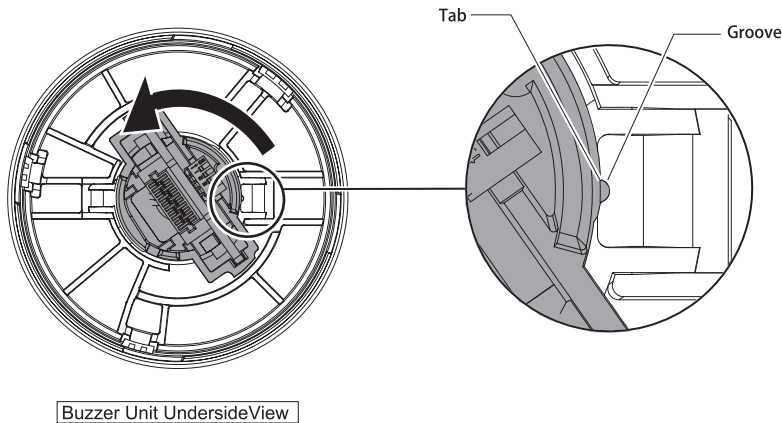
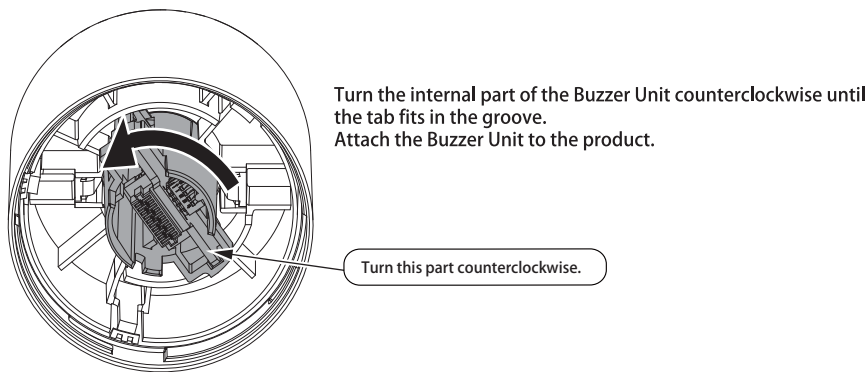
If found in the tab is located out of the groove as below figure, refer to next page.

When Buzzer Unit is detached, there is a possibility that the tab is located out of the groove as below figure.

If Buzzer Unit such as shown in the figure is attached to the product again, the unit may be damaged.

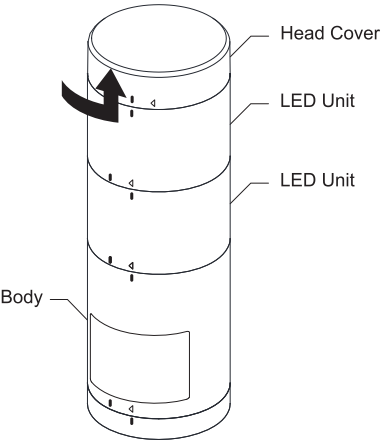


If Buzzer Unit can't be attached well, try this procedure.



< Head Cover to LED Unit >

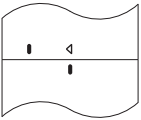
■ Removal



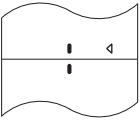
While holding the LED unit, turn the head cover counterclockwise until it unlocks, then pull it upwards to remove.

■ Positioning Mark

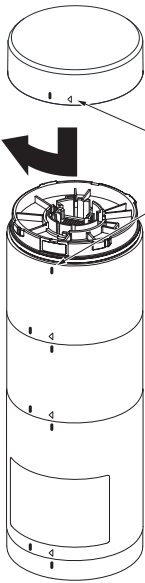
<Locked>



<Unlocked>



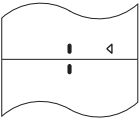
■ Attachment



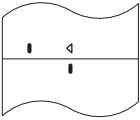
Align the Positioning Mark after insertion, then turn the unit clockwise to lock it.

■ Positioning Mark

<Unlocked>

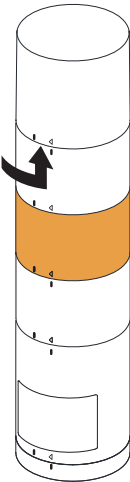


<Locked>

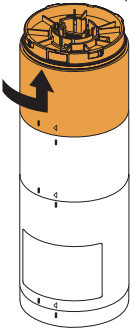


<Unit Replacement Procedure>

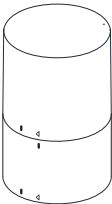
■ Decreasing the LED Units



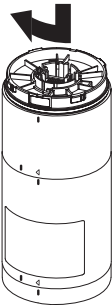
1 Remove the LED unit located above the unit which is intended to be removed.



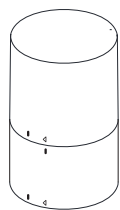
2 While holding the LED unit, turn the LED unit counterclockwise, until it unlocks, then pull it upwards to remove.



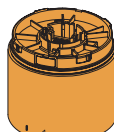
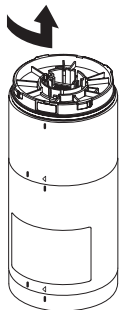
3 Align the Positioning Mark after insertion, then turn the unit which is removed (1) clockwise to lock it.



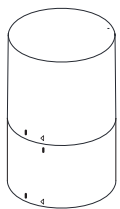
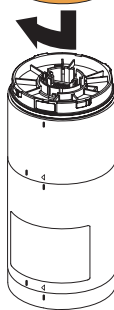
■ Increasing the LED Units



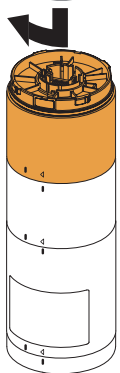
- 1 Remove the LED unit located above the unit which is intended to be attached.



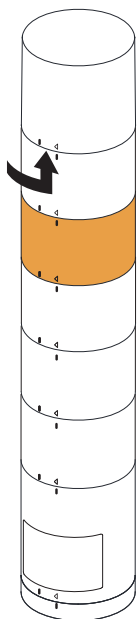
- 2 Align the Positioning Mark after insertion, then turn the unit clockwise to lock it.



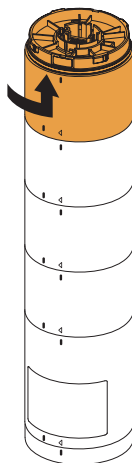
- 3 Align the Positioning Mark after insertion, then turn the unit which is removed (1) clockwise to lock it.



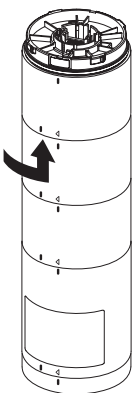
■ Recombining the LED Units



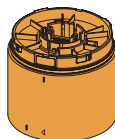
- 1 Remove the LED unit located above the unit which is intended to be relocated.



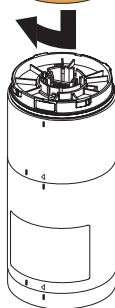
- 2 While holding the LED unit, turn the LED unit counterclockwise until it unlocks, then pull it upwards to remove.

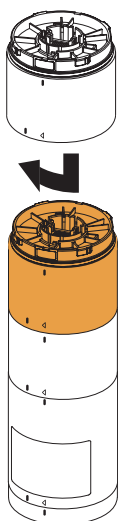


- 3 Remove the LED unit located above the unit which is intended to be relocated.

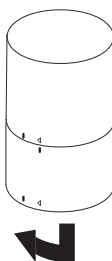


- 4 Align the Positioning Mark after insertion, then turn the unit which is removed (2) clockwise to lock it.

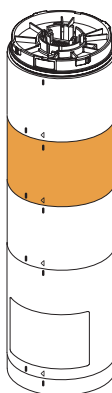




- 5 Align the Positioning Mark after insertion, then turn the unit which is removed (2) clockwise to lock it.

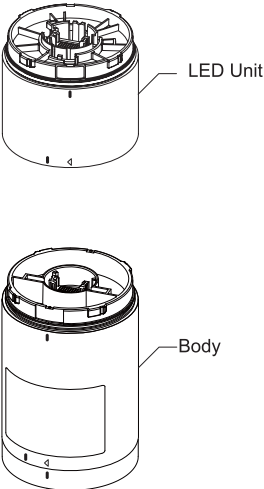
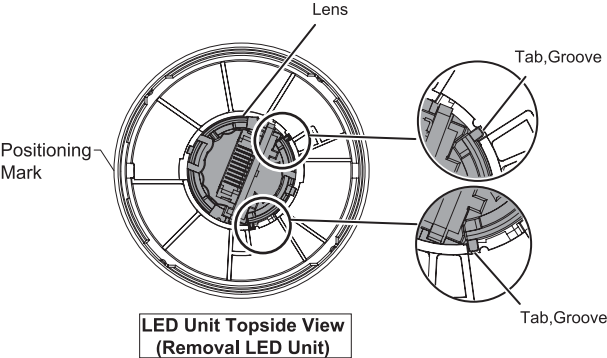
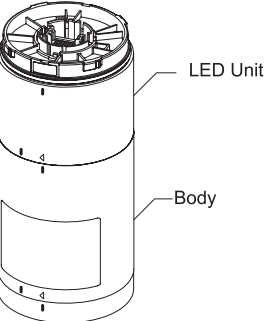
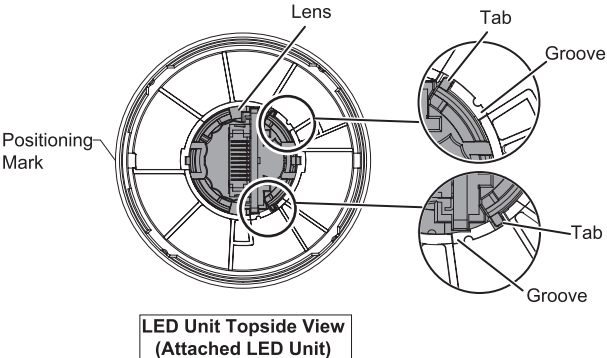


- 6 Align the Positioning Mark after insertion, then turn the unit which is removed (1) clockwise to lock it.



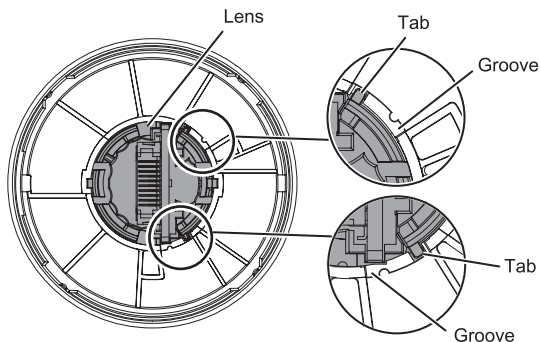
< The case that LED Unit can't be attached well >

The structure of LED Unit is shown in the below figure.

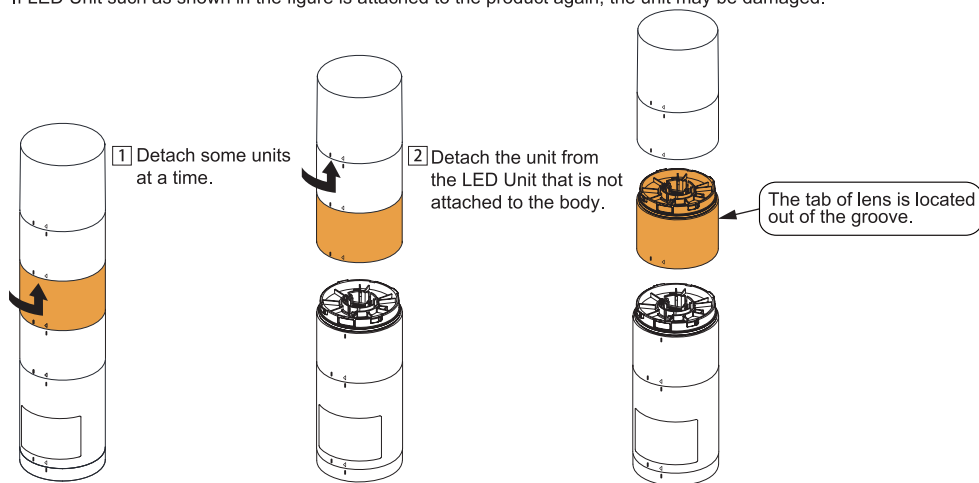
Situation	Structure
 <p>LED Unit</p> <p>Body</p>	 <p>Lens</p> <p>Tab, Groove</p> <p>Positioning Mark</p> <p>Tab, Groove</p> <p>LED Unit Topside View (Removal LED Unit)</p> <p>When LED Unit is detached, the tab of lens is usually located in the groove.</p>
 <p>LED Unit</p> <p>Body</p>	 <p>Lens</p> <p>Tab</p> <p>Groove</p> <p>Positioning Mark</p> <p>Tab</p> <p>Groove</p> <p>LED Unit Topside View (Attached LED Unit)</p> <p>When LED Unit is attached, the tab of lens is usually located out of the groove.</p>

⚠ Caution

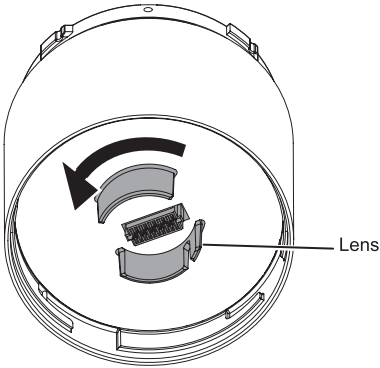
If LED Unit can't be attached well, check whether the tab of lens is located in the groove.
If found in the tab is located out of the groove as below figure, refer to next page.
When LED Unit is detached, there is possibility that the tab is located out of the groove as below figure.
If LED Unit such as shown in the figure is attached to the product again, the unit may be damaged.



Don't detached LED Unit according to the procedure shown in the below figure.
If LED Unit is detached according to this procedure, the tab of lens is located out of the groove.
If LED Unit such as shown in the figure is attached to the product again, the unit may be damaged.

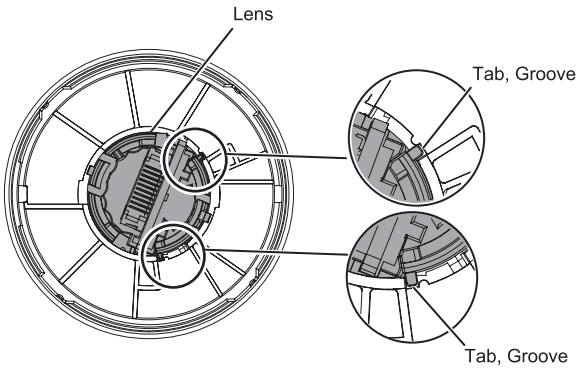


If LED Unit can't be attached well, try this procedure.



Turn the internal lens of the LED Unit counterlockwise until the tab fits in the groove.
Attach the LED Unit to the product.

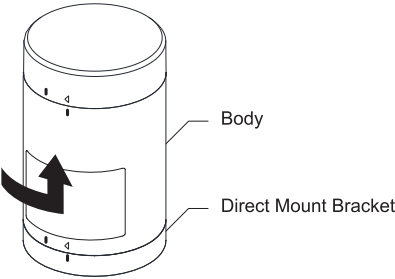
LED Unit Underside View



**LED Unit Topside View
(Attachable)**

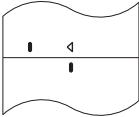
<Body Unit> (LR5-02WTN□, LR7-02WTN□)

■ Removal

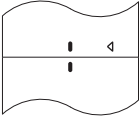


While holding the direct mount bracket, turn the body counterclockwise until it unlocks, then pull it upwards to remove.

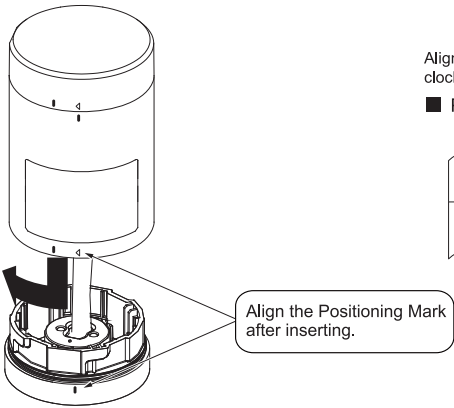
■ Positioning Mark
<Locked>



<Unlocked>

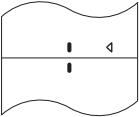


■ Attachment

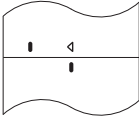


Align the Positioning Mark after insertion, then turn the unit clockwise to lock it.

■ Positioning Mark
<Unlocked>



<Locked>



9 Troubleshooting

Prior to contacting your nearest PATLITE Sales Representative, refer to the following tips, and try to solve them in the following table.

No.	Problem	Where to Check	What to do
1	The LED does not light up.	Is the electric wiring connected correctly?	Refer to " 5 Wiring" (pg.15~19) for proper wiring.
		Is the power properly supplying the correct voltage?	Check the rated supply voltage.
		Is the fuse blown out?	If the fuse is blown out, replace it.
2	A different LED from what I thought lights up when it turns on.	Is the electric wiring connected correctly?	Refer to " 5 Wiring" (pg.15~19) for proper wiring.
3	The Buzzer does not sound.	Is the electric wiring connected correctly?	Refer to " 5 Wiring" (pg.15~19) for proper wiring.
		Is the power properly supplying the correct voltage?	Check the rated supply voltage.
		Is the fuse blown out?	If the fuse is blown out, replace it.
		Is it the proper product model?	The buzzer function is only included with products with a "[B]" in the model number.
4	The Buzzer volume is small.	Is the Buzzer volume set to minimum?	Refer to " 6 Buzzer Pattern Set-up" (pg.20) on how to adjust the volume.
5	The LED does not flash.	Is the electric wiring connected correctly?	Refer to " 5 Wiring" (pg.15~19) for proper wiring.
		Are the external contacts for lighting turning on?	Priority is given to the lighting input over the flashing input when simultaneous signals are applied.
		Is it the proper product model?	The flash function is only included with products with a "[B]" in the model number.

If the problem is not resolved after doing the procedure as above, refer to the end of this document for the contact information and contact the nearest PATLITE Sales Representative.

Product Details			
Product Name	Signal Tower	Purchase Date	/ /
Model Number	(→ 2 Model Number Configuration (pg.3))	Situation of Failure	with as much detail as possible

10 Specifications

General Specifications (02)

Model		LR□-002□□□□				
Rated Voltage		24V DC				
Operating Voltage Range		Rated Voltage ±10%				
Signal Wire Current (Per Unit)	Typ.	LED Unit : 40mA				
		Buzzer Unit : 40mA (※1)				
	Max.	LED Unit : 45mA				
		Buzzer Unit : 300mA (※1)				
Inrush Current	Power Supply Wire		Signal Wire		0.7A / Less than 0.5ms none	
Rated Power Consumption (Per Unit)	Typ.	LED Unit : 1W				
		Buzzer Unit : 1W (※1)				
	Max.	LED Unit : 1.3W				
		Buzzer Unit : 1.3W (※1)				
Standby Power Consumption		LED Unit : none				
		Buzzer Unit : 0.1W				
		Body Unit : none				
Operating Ambient Temperature		-20℃ ~ +50℃				
Operating Ambient Humidity		Less than 90% RH (No Condensation)				
Storage Ambient Temperature		-30℃ ~ +60℃				
Storage Ambient Humidity		Less than 90% RH (No Condensation)				
Mounting Location		Indoor Only				
Mounting Direction		Upright				
Protection Rating		IP65(IEC 60529) (※2) / NEMA TYPE 4X,13				
Environmental Condition		Upright				
Insulation Resistance		More than 1MΩ at 500VDC between live part and non-current carrying metallic part				
Withstand Voltage		500VAC applied for 1min between live part and non-current carrying metallic part without breaking insulation				
Flashing Rate		60±2 Flashes Per Minute				
Buzzer Sound/ Typical Frequency	No.1	Rapid Intermittent Beep / 3378Hz		No.3	Rapid Hi-Lo / 2016Hz&3012Hz	
	No.2	Continuous Beep Sound / 3378Hz		No.4	Sweep Sound / 1000Hz-4032Hz	
	Setting	Depending on DIP Switch settings. Refer to Section 6 "Buzzer Pattern Set-up".				
Outer Dimensions		Refer to Section 3 "Part Names and Outer Appearance"				
Mass (Tolerance ±10%)	LR4	WJ	Off-white	0.17kg + (0.035kg)×Tiers + [0.035kg]	Silver	0.32kg + (0.035kg)×Tiers + [0.035kg]
		LJ	Off-white	0.46kg + (0.035kg)×Tiers + [0.035kg]	Silver	0.61kg + (0.035kg)×Tiers + [0.035kg]
		PJ	Off-white	0.36kg + (0.035kg)×Tiers + [0.035kg]	Silver	0.51kg + (0.035kg)×Tiers + [0.035kg]
		QJ	Off-white	0.17kg + (0.035kg)×Tiers + [0.035kg]		
	LR5	WJ	Off-white	0.20kg + (0.040kg)×Tiers + [0.050kg]		
		LJ	Off-white	0.49kg + (0.040kg)×Tiers + [0.050kg]		
		PJ	Off-white	0.38kg + (0.040kg)×Tiers + [0.050kg]		
		WT	Off-white/Silver/Black	0.10kg		
	LR6	WJ	Off-white	0.22kg + (0.060kg)×Tiers + [0.060kg]	Silver	0.35kg + (0.060kg)×Tiers + [0.060kg]
		LJ	Off-white	0.50kg + (0.060kg)×Tiers + [0.060kg]	Silver	0.64kg + (0.060kg)×Tiers + [0.060kg]
		PJ	Off-white	0.40kg + (0.060kg)×Tiers + [0.060kg]	Silver	0.53kg + (0.060kg)×Tiers + [0.060kg]
		QJ	Off-white	0.46kg + (0.060kg)×Tiers + [0.060kg]		
	LR7	WJ	Off-white	0.24kg + (0.065kg)×Tiers + [0.070kg]		
		WT	Off-white/Silver/Black	0.15kg		
	Sound Pressure Level	LR4	Typical 85dB			Sound Reduction approximately -10dB, depending on DIP Switch settings. Refer to Section 6 "Buzzer Pattern Set-up"
		LR5	Typical 85dB			
		LR6	Typical 88dB			
		LR7	Typical 90dB			
	Environmental Condition	Buzzer sound No.4 was measured from the total circumference of the Buzzer Unit at 1m				
	Conformity Standards	UL 508, CSA-C22.2 No. 14, EMC Directive (EN 61000-6-4, EN 61000-6-2) RoHS Directive (EN 50581), FCC Part 15 Subpart B Class A KC (KN 61000-6-4, KN 61000-6-2)				
Remarks	(※1) Environmental Condition: Buzzer Sound No.2 (Continuous Beep Sound) (※2) LJ Type: IP54 Due to the characteristics of the LED elements, a variation in difference of the color tone and brightness of every product may occur.					

- This product is designed for use on a flat surface for a **Type 1 Enclosure**.
(Conformity requirements for UL Standard)
- Use a "**class 2**" power supply specified in the guidelines under **UL1310**. (Conformity requirements for UL Standard)
- This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These restrictions are limited to cases where this equipment is operated in a business district, and it is designed to take the relevant protective measures against electromagnetic noise hindrance.
- This product must not be used in residential areas. (Conformity requirements for the CE Marking)

General Specifications ([01])

Model		LR5-01□□□W			
Rated Voltage		12V DC			
Operating Voltage Range		Rated Voltage ±10%			
Signal Wire Current (Per Unit)	Typ.	LED Unit : 90mA			
		Buzzer Unit : 90mA (※1)			
	Max.	LED Unit : 100mA			
Inrush Current	Power Supply Wire	Buzzer Unit : 300mA (※1)			
	Signal Wire	0.7A / Less than 15ms			
Rated Power Consumption (Per Unit)	Typ.	none			
		LED Unit : 1W			
		Buzzer Unit : 1.1W (※1)			
	Max.	LED Unit : 1.1W			
		Buzzer Unit : 1.2W (※1)			
Standby Power Consumption		LED Unit : none			
		Buzzer Unit : 0.3W			
		Body Unit : 0.1W			
Operating Ambient Temperature		-20℃ ~ +50℃			
Operating Ambient Humidity		Less than 90% RH (No Condensation)			
Storage Ambient Temperature		-30℃ ~ +60℃			
Storage Ambient Humidity		Less than 90% RH (No Condensation)			
Mounting Location		Indoor Only			
Mounting Direction		Upright			
Protection Rating		IP65(IEC 60529) (※2) / NEMA TYPE 4X,13			
Environmental Condition		Upright			
Insulation Resistance		More than 1MΩ at 500VDC between live part and non-current carrying metallic part			
Withstand Voltage		500VAC applied for 1min Between live part and non-current carrying metallic part without breaking insulation			
Flashing Rate		60±2 Flashes Per Minute			
Buzzer Sound/ Typical Frequency	No.1	Rapid Intermittent Beep / 3378Hz		No.3	Rapid Hi-Lo / 2016Hz&3012Hz
	No.2	Continuous Beep Sound / 3378Hz		No.4	Sweep Sound / 1000Hz-4032Hz
	Setting	Depending on DIP Switch settings. Refer to Section 6 "Buzzer Pattern Set-up".			
Outer Dimensions		Refer to Section 3 "Part Names and Outer Appearance"			
Mass (Tolerance ±10%)	(LED Unit) + [Buzzer Unit]				
	WJ	0.2kg + (0.04kg)×Tiers + [0.05kg]			
	LJ	0.49kg + (0.04kg)×Tiers + [0.05kg]			
	PJ	0.38kg + (0.04kg)×Tiers + [0.05kg]			
Sound Pressure Level		Typ.80dB		Sound Reduction approximately -10dB, depending on DIP Switch settings. Refer to Section 6 "Buzzer Pattern Set-up"	
Environmental Condition		Buzzer sound No.4 was measured from the total circumference of the Buzzer Unit at 1m			
Conformity Standards		UL 508, CSA-C22.2 No. 14, EMC Directive (EN 61000-6-4, EN 61000-6-2) RoHS Directive (EN 50581), FCC Part 15 Subpart B Class A KC (KN 61000-6-4, KN 61000-6-2)			
Remarks		(※1) Environmental Condition: Buzzer sound No.2 (Continuous Beep Sound) (※2) LJ Type: IP54 Due to the characteristics of the LED elements, a variation in difference of the color tone and brightness of every product may occur.			

- This product is designed for use on a flat surface for a **Type 1 Enclosure**.
(Conformity requirements for UL Standard)
- Use a "**class 2**" power supply specified in the guidelines under **UL1310**. (Conformity requirements for UL Standard)
- This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These restrictions are limited to cases where this equipment is operated in a business district, and it is designed to take the relevant protective measures against electromagnetic noise hindrance.
- This product must not be used in residential areas. (Conformity requirements for the CE Marking)



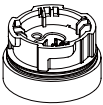
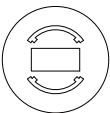
General Specifications ([M2])


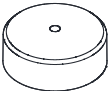
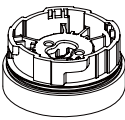
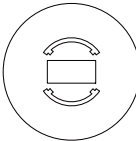
Model		LR□-□M2□□□W				
Rated Voltage		100-240V AC (50/60Hz)				
Operating Voltage Range		90-250V AC (50/60Hz)				
Signal Wire Current (Per Unit)	Typ.	LED Unit : 40mA				
		Buzzer Unit : 40mA (※1)				
	Max.	LED Unit : 45mA				
		Buzzer Unit : 300mA (※1)				
Inrush Current	Power Supply Wire	at 25℃ : 25A/ Less than 2ms (Cold-start)				
	Signal Wire	at 50℃ : 50A/ Less than 2ms (Cold-start)				
Rated Power Consumption (Per Unit)		Typ.	LED Unit : 1.5W			
			Buzzer Unit : 1.5W (※1)			
		Max.	LED Unit : 1.8W			
			Buzzer Unit : 1.8W (※1)			
Standby Power Consumption		LED Unit : none				
		Buzzer Unit : 0.2W				
		Body Unit : 0.2W				
Operating Ambient Temperature		-20℃ ~ +50℃				
Operating Ambient Humidity		Less than 90% RH (No Condensation)				
Storage Ambient Temperature		-30℃ ~ +60℃				
Storage Ambient Humidity		Less than 90% RH (No Condensation)				
Mounting Location		Indoor Only				
Mounting Direction		Upright				
Protection Rating		IP65(IEC 60529) / NEMA TYPE 4X,13				
Environmental Condition		Upright				
Insulation Resistance		More than 1MΩ at 500VDC between live part and non-current carrying metallic part				
Withstand Voltage		1500VAC applied for 1min Between live part and non-current carrying metallic part without breaking insulation				
Flashing Rate		60±2 Flashes Per Minute				
Buzzer Sound/ Typical Frequency	No.1	Rapid Intermittent Beep / 3378Hz		No.3	Rapid Hi-Lo / 2016Hz&3012Hz	
	No.2	Continuous Beep Sound / 3378Hz		No.4	Sweep Sound / 1000Hz-4032Hz	
	Setting	Depending on DIP Switch Settings. Refer to Section 6 "Buzzer Pattern Set-up".				
Outer Dimensions		Refer to Section 3 "Part Names and Outer Appearance"				
Mass (Tolerance ±10%)		LR4	WJ	0.25kg + (0.035kg)×Tiers + [0.035kg]		
			PJ	0.44kg + (0.035kg)×Tiers + [0.035kg]		
		LR6	WJ	0.32kg + (0.06kg)×Tiers + [0.060kg]		
			PJ	0.50kg + (0.06kg)×Tiers + [0.060kg]		
		Sound Pressure Level	LR4	Typ.85dB		Sound Reduction approximately -10dB, depending on DIP Switch settings. Refer to Section 6 "Buzzer Pattern Set-up"
			LR6	Typ.88dB		
Environmental Condition		Buzzer sound No.4 was measured from the total circumference of the Buzzer Unit at 1m				
		UL 508, CSA-C22.2 No. 14, EMC Directive (EN 61000-6-4, EN 61000-6-2) RoHS Directive (EN 50581), FCC Part 15 Subpart B Class A KC (KN 61000-6-4, KN 61000-6-2)				
		(※1) Environmental Condition: Buzzer sound No.2 (Continuous Beep Sound) Due to the characteristics of the LED elements, a variation in difference of the color tone and brightness of every product may occur.				


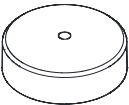
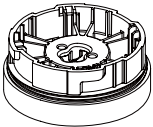
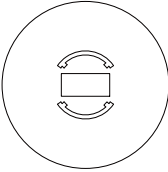
- When a regulated power supply is not being used, select a fuse that meets class CC or more.
- Use a **fuse holder** with UL standard certification. (Conformity requirements for UL Standard)
- This product is designed for use on a flat surface for a **Type 1 Enclosure**. (Conformity requirements for UL Standard)
- This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These restrictions are limited to cases where this equipment is operated in a business district, and it is designed to take the relevant protective measures against electromagnetic noise hindrance.
- This product must not be used in residential areas. (Conformity requirements for the CE Marking)


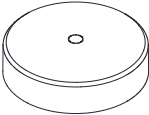
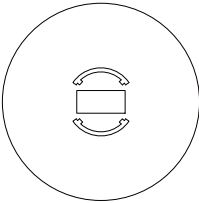
11

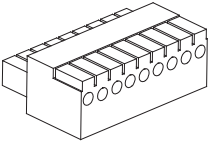

The following replacement parts for this product are available for the customer to change or replace.

Replacement Parts for LR4			
O-ring 40	Head Cover 40 [W/U]	Pole Bracket 40 [W/U]	Filter Sheet 40
 <p>5 pcs.</p>			 <p>5 pcs.</p>

Replacement Parts for LR5			
O-ring 50	Head Cover 50 [W/U/K]	Pole Bracket 50 [W/U/K]	Filter Sheet 50
 <p>5 pcs.</p>			 <p>5 pcs.</p>

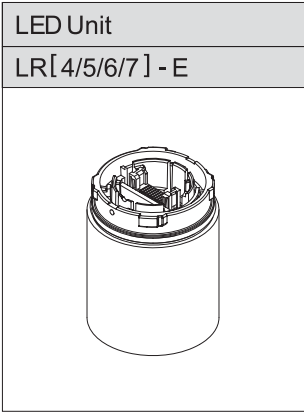
Replacement Parts for LR6			
O-ring 60	Head Cover 60 [W/U]	Pole Bracket 60 [W/U]	Filter Sheet 60
 <p>5 pcs.</p>			 <p>5 pcs.</p>

Replacement Parts for LR7		
O-ring 70	Head Cover 70 [W/U/K]	Filter Sheet 70
 <p>5 pcs.</p>		 <p>5 pcs.</p>

Replacement Parts for WT	Replacement Parts for LR4/LR5/LR6
Terminal Block	Pole Waterproof Ring
	

12Optional Parts

The following optional parts are available for this product. (Upper : Product Name , Lower : Model)



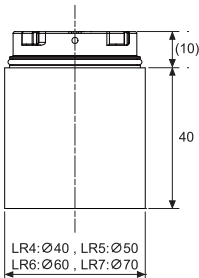
Model Number Configuration

	Model				LED Unit Color
LED Unit	LR	↓	-	E	-

4	Φ 40	6	Φ 60
5	Φ 50	7	Φ 70

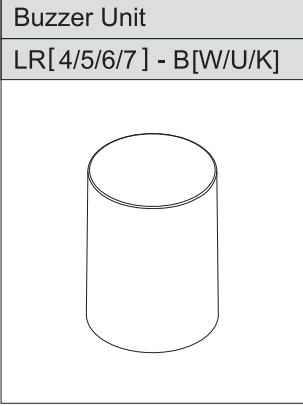
R	: Red	Y	: Amber
G	: Green	B	: Blue
C	: White		

Outer Dimensions

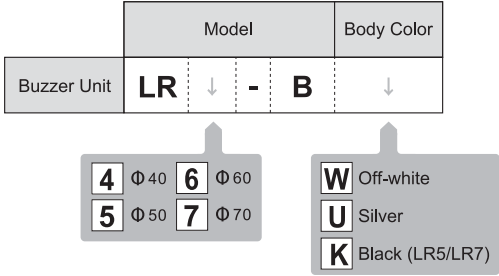


General Specifications

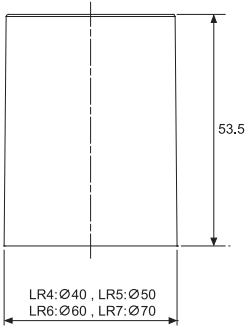
Model		LR□-E-□
Operating Ambient Temperature		-20℃ ~ +50℃
Operating Ambient Humidity		Less than 90% RH (No Condensation)
Mass (Tolerance ±10%)	LR4	0.035kg
	LR5	0.040kg
	LR6	0.060kg
	LR7	0.065kg
Conformity Standards		UL508, CSA-C22.2 No. 14 EMC Directive (EN 61000-6-4, EN 61000-6-2) RoHS Directive (EN 50581)
Remarks		Due to the characteristics of the LED elements, a variation in difference of the color tone and brightness of every product may occur.



Model Number Configuration



Outer Dimensions

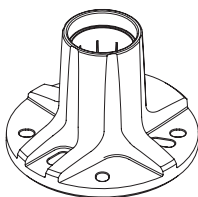


General Specifications

Model		LR□-B□	
Operating Ambient Temperature		-20℃ ~ +50℃	
Operating Ambient Humidity		Less than 90% RH (No Condensation)	
Mass (Tolerance ±10%)	LR4	0.035kg	
	LR5	0.050kg	
	LR6	0.060kg	
	LR7	0.070kg	
Buzzer Sound/ Typical Frequency	No.1	Rapid Intermittent Beep/ 3378Hz	
	No.2	Continuous Beep Sound/ 3378Hz	
	No.3	Rapid Hi-Lo/ 2016Hz&3012Hz	
	No.4	Sweep Sound/ 1000Hz-4032Hz	
Sound Pressure Level	LR4	Typ.85dB	Sound Reduction approx. -10dB, depending on DIP Switch settings. Refer to Section 6 "Buzzer Pattern Set-up"
	LR5	Typ.85dB (※Typ.80dB)	
	LR6	Typ.88dB	
	LR7	Typ.90dB	
	Environmental Condition	Buzzer sound No.4 was measured from the total circumference of the buzzer Unit at 1m	
Conformity Standards		UL508, CSA-C22.2 N EMC Directive (EN 61000-6-4, EN 61000-6-2) RoHS Directive (EN 50581) FCC Part 15 Subpart B Class A	
Remarks		※ When LR5-01 (12V DC type) is attached.	

Circular Bracket

SZP-001W



Accessories:

Waterproof Packing
Pole Waterproof Ring
Binding Head Tapping Screw (2 pcs.)

Compatible Models

LR4- PJ QJ , LR5- PJ , LR6- PJ QJ

Compatible Pole

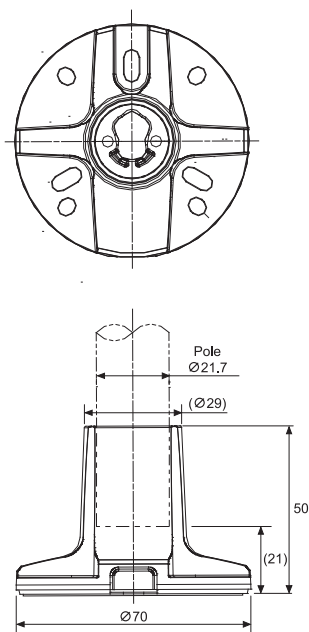
POLE22-0100AN, POLE22-0300AN

Specifications

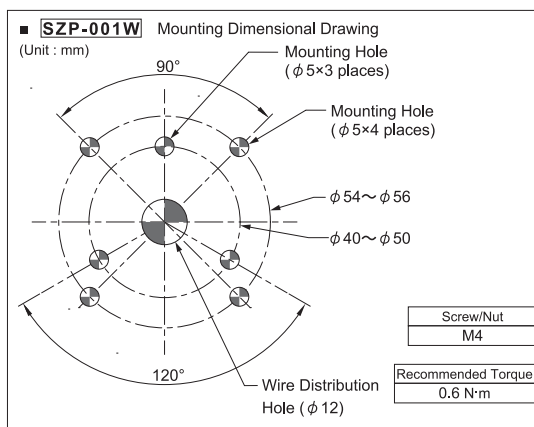
Model	SZP-001W
Mounting Location	Indoor Only
Protection Rating	IP65 (with product attached)
Material	PC
Mass (Tolerance $\pm 10\%$) ※ No Accessories	0.04kg
Remarks	There are no contents of controlled substances exceeding the threshold for the RoHS Directive.

〈Note〉 ● It's possible to run a cable out from the side.

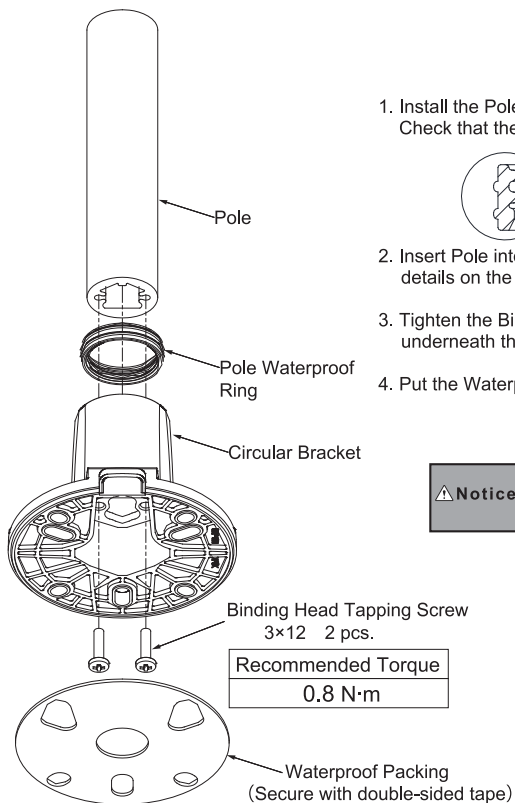
Outer Dimensions



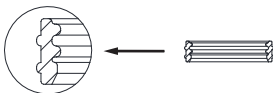
Mounting Dimensional Drawing



Pole Installation



1. Install the Pole Waterproof Ring in the Circular Bracket. Check that the 2 ribs are on the outside.



2. Insert Pole into the Circular Bracket. See the figure on the left for details on the direction of insertion.
3. Tighten the Binding Head Tapping Screws (2 pcs.) from underneath the Circular Bracket.
4. Put the Waterproof Packing on the bottom of Circular Bracket.

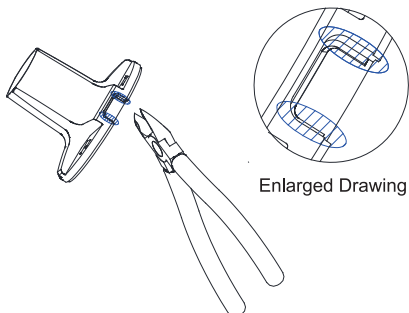
Notice

Installation using materials other than the specified accessories is not covered under warranty.

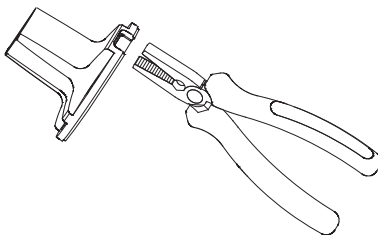
Cutting a side-hole for cable (Procedure)

This part has perforations to make it possible to run a cable out from the side.

1. Refer to the enlarged drawing and cut the outlined part of the bracket. Cut in two places with nippers.

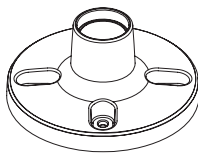


2. Break off the outlined part with pliers. If there are burrs, carefully remove with pliers or a file.



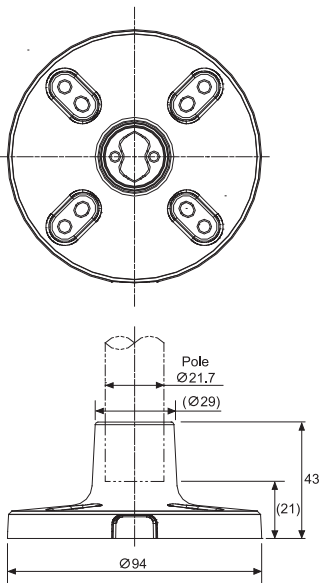
Circular Bracket

SZP-002U



Accessories:
Pole Waterproof Ring
Binding Head Tapping Screw (2 pcs.)

Outer Dimensions



Compatible Models

LR4- PJ QJ ,LR5- PJ ,LR6- PJ QJ

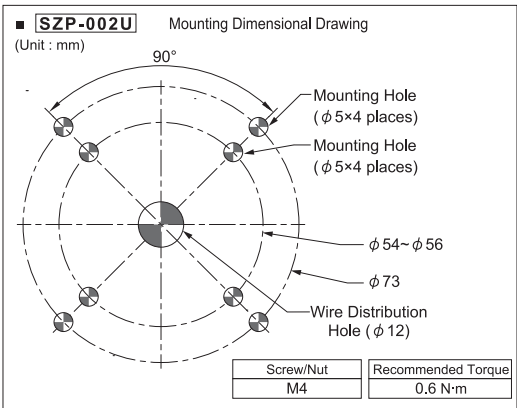
Compatible Pole POLE22-0100AN
POLE22-0300AN,POLE22-0800AN

Specifications

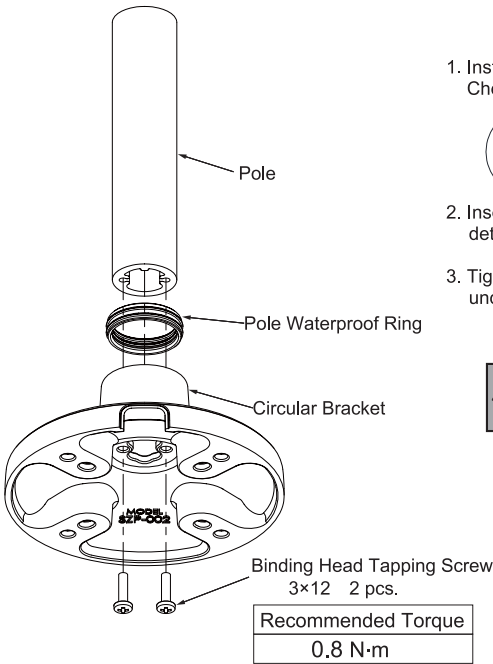
Model	SZP-002U
Mounting Location	Indoor Only
Protection Rating	IP20 (with product attached)
Material	ADC12
Mass (Tolerance $\pm 10\%$) ※ No Accessories	0.11kg
Remarks	There are no contents of controlled substances exceeding the threshold for the RoHS Directive.

〈Note〉 ● It's possible to run a cable out from the side.

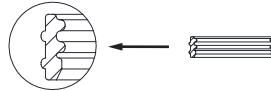
Mounting Dimensional Drawing



Pole Installation



1. Install the Pole Waterproof Ring in the Circular Bracket. Check that the 2 ribs are on the outside.



2. Insert Pole into the Circular Bracket. See the figure on the left for details on the direction of insertion.
3. Tighten the Binding Head Tapping Screws (2 pcs.) from underneath the Circular Bracket.

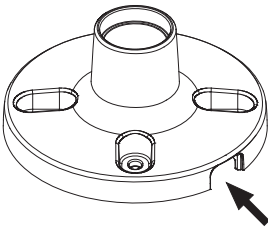


Notice

Installation using materials other than the specified accessories is not covered under warranty.

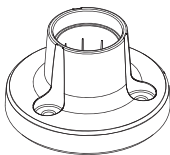
Running a cable out from the side-hole

This part has perforations to make it possible to run a cable out from the side. Refer to the diagram below and run the cable where the arrow indicates the outlet.



Circular Bracket

SZP-003W



Accessories:

Waterproof Packing

Pole Waterproof Ring

Binding Head Tapping Screw (2 pcs.)

Compatible Models

LR4- PJ QJ , LR5- PJ , LR6- PJ QJ

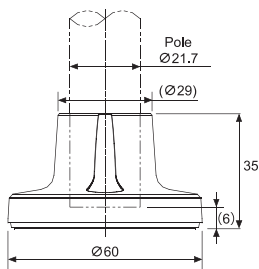
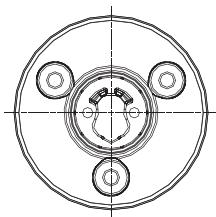
Compatible Pole

POLE22-0100AN, POLE22-0300AN

Specifications

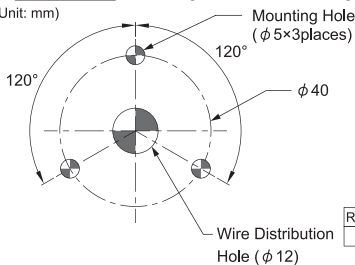
Model	SZP-003W
Mounting Location	Indoor Only
Protection Rating	IP65 (with product attached)
Material	PC
Mass (Tolerance $\pm 10\%$) ※ No Accessories	0.03kg
Remarks	There are no contents of controlled substances exceeding the threshold for the RoHS Directive.

Outer Dimensions



Mounting Dimensional Drawing

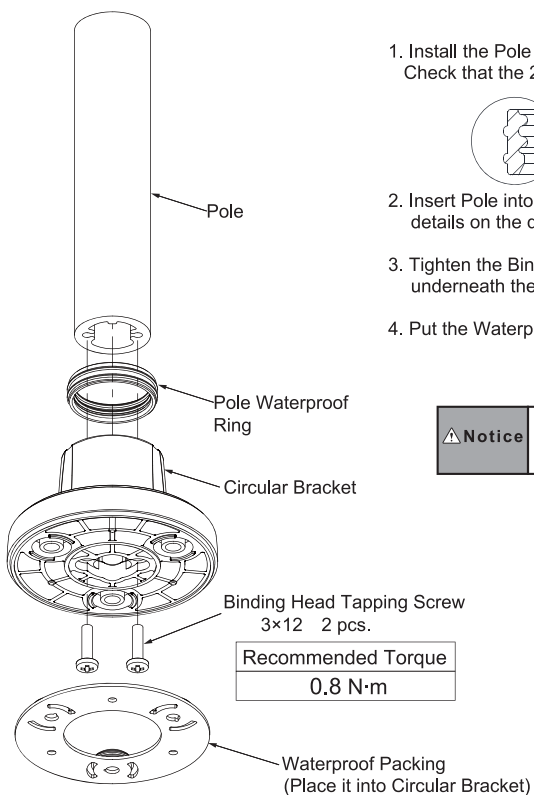
■ SZP-003W Mounting Dimensional Drawing (Unit: mm)



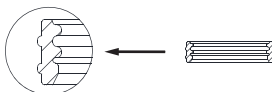
Screw/Nut
M4

Recommended Torque
0.6 N·m

Pole Installation



1. Install the Pole Waterproof Ring in the Circular Bracket. Check that the 2 ribs are on the outside.

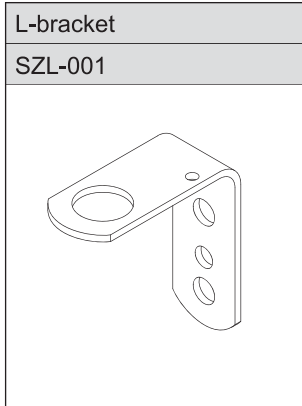


2. Insert Pole into the Circular Bracket. See the figure on the left for details on the direction of insertion.
3. Tighten the Binding Head Tapping Screws (2 pcs.) from underneath the Circular Bracket.
4. Put the Waterproof Packing on the bottom of Circular Bracket.

Notice

Installation using materials other than the specified accessories is not covered under warranty.

Recommended Torque
0.8 N·m



Compatible Models

LR4- LJ ,LR5- LJ ,LR6- LJ

Compatible Pole

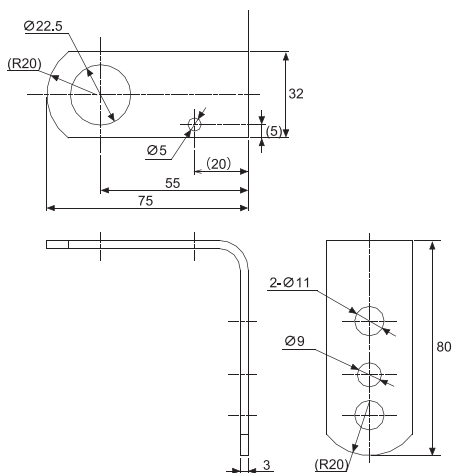
POLE22-0300AT

POLE22-0500AT,POLE22-1000AT

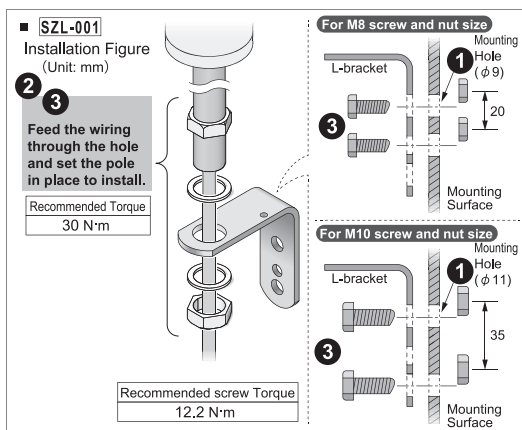
Specifications

Model	SZL-001
Mounting Location	Indoor Only
Material	SPHC-P
Mass (Tolerance $\pm 10\%$)	0.09kg
Remarks	There are no contents of controlled substances exceeding the threshold for the RoHS Directive.

Outer Dimensions

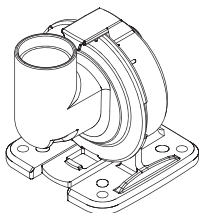


Installation Figure



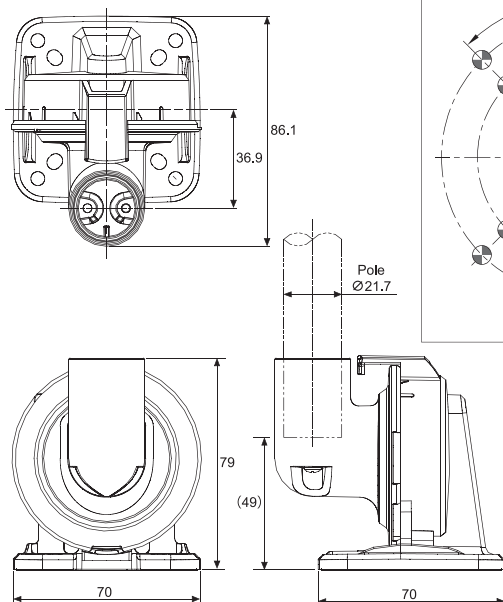
Folding Bracket

SZQ-001W



Accessories:
Pole Waterproof Ring
Binding Head Tapping Screw (2 pcs.)

Outer Dimensions



Compatible Models

LR4- PJ QJ , LR5- PJ , LR6- PJ QJ

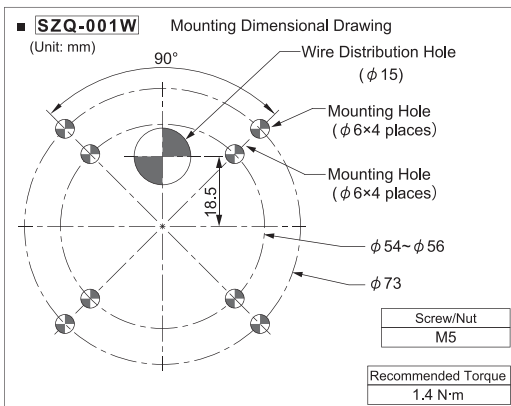
Compatible Pole

POLE22-0100AN, POLE22-0300AN

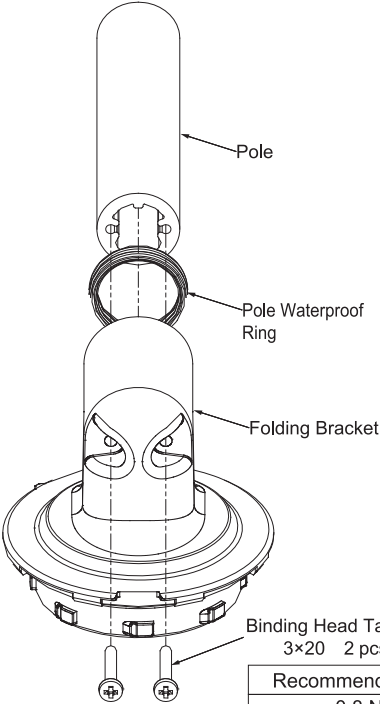
Specifications

Model	SZQ-001W
Mounting Location	Indoor Only
Protection Rating	IP65 (with product attached)
Material	PC
Mass (Tolerance $\pm 10\%$) ※ No Accessories	0.09kg
Remarks	There are no contents of controlled substances exceeding the threshold for the RoHS Directive.

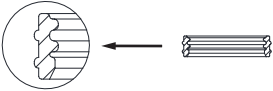
Mounting Dimensional Drawing



Pole Installation



1. Install the Pole Waterproof Ring in the Folding Bracket. Check that the 2 ribs are on the outside.



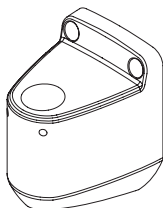
2. Insert Pole into the Folding Bracket. See the figure on the left for details on the direction of insertion.
3. Tighten the Binding Head Tapping Screws (2 pcs.) from underneath the Folding Bracket.

Notice Installation using materials other than the specified accessories is not covered under warranty.

Binding Head Tapping Screw 3×20 2 pcs.
Recommended Torque
0.8 N·m

Wallmount Bracket

SZK-001U



Accessories:
Hexagon Socket Set Screw
(2 pcs.)

Compatible Models

LR4- PJ QJ , LR5- PJ
LR6- PJ QJ

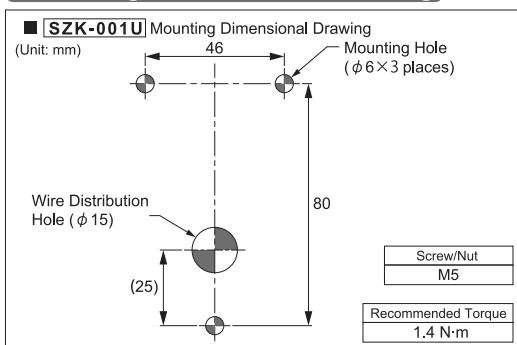
Compatible Pole

POLE22-0100AN
POLE22-0300AN
POLE22-0800AN

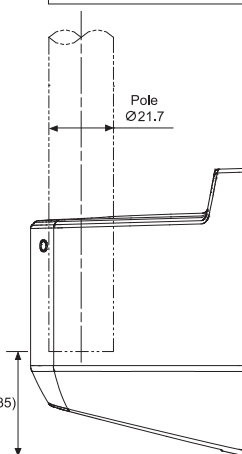
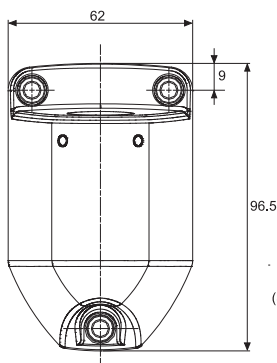
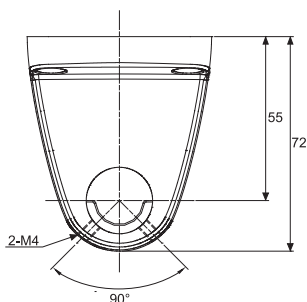
Specifications

Model	SZK-001U
Mounting Location	Indoor Only
Protection Rating	IP20 (with product attached)
Material	ADC12
Mass (Tolerance $\pm 10\%$) ※ No Accessories	0.19kg
Remarks	There are no contents of controlled substances exceeding the threshold for the RoHS Directive.

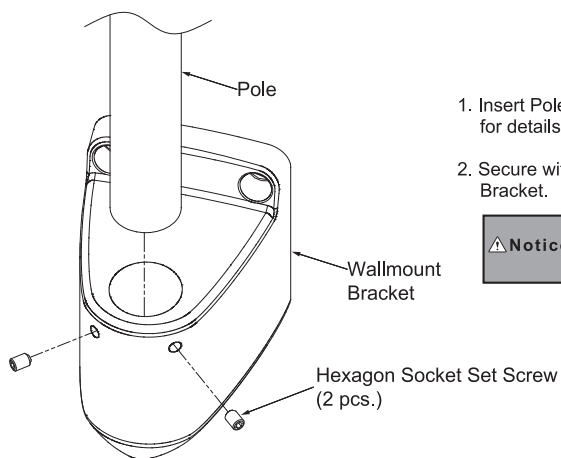
Mounting Dimensional Drawing



Outer Dimensions



Pole Installation



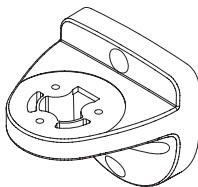
1. Insert Pole into the Wallmount Bracket. See the figure on the left for details on the direction of insertion.
2. Secure with the Hexagon Socket Set Screws (2 pcs.) on the Pole Bracket.

Notice

Installation using materials other than the specified accessories is not covered under warranty.

Wallmount Bracket

SZK-002 [W/U]



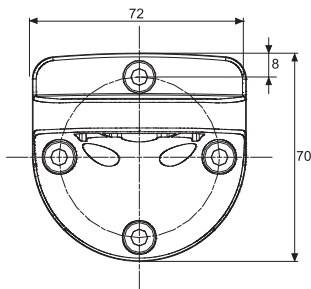
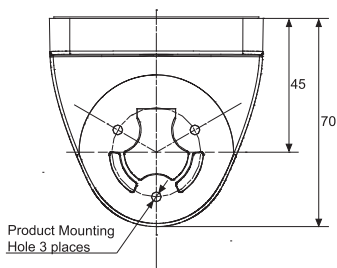
Compatible Models

LR4 - WJ , LR5 - WJ WT

Specifications

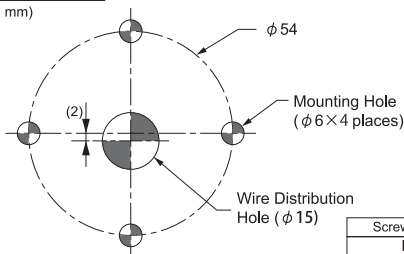
Model	SZK-002 [W/U]
Mounting Location	Indoor Only
Protection Rating	IP65 (with product attached)
Material	PC
Mass (Tolerance $\pm 10\%$)	0.06kg
Remarks	There are no contents of controlled substances exceeding the threshold for the RoHS Directive.

Outer Dimensions



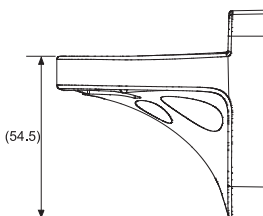
Mounting Dimensional Drawing

■ SZK-002 [W/U] Mounting Dimensional Drawing
(Unit: mm)



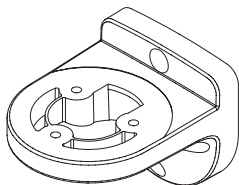
Screw/Nut
M5

Recommended Torque
1.4 N·m



Wallmount Bracket

SZK-003 [W/U]

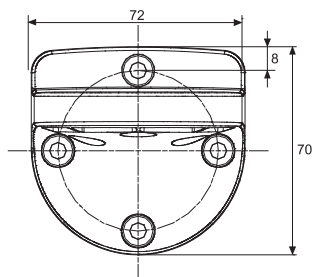
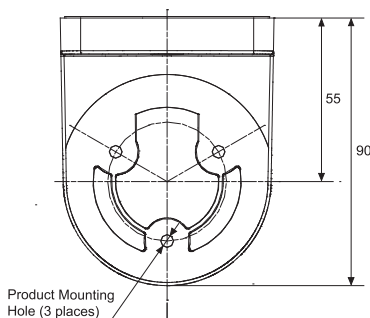


Compatible Models LR6- WJ , LR7- WJ WT

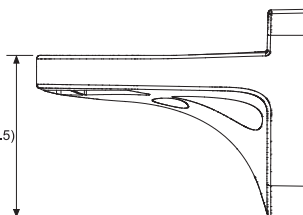
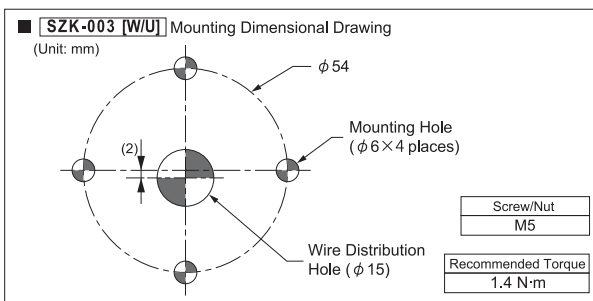
Specifications

Model	SZK-003 [W/U]
Mounting Location	Indoor Only
Protection Rating	IP65 (with product attached)
Material	PC
Mass (Tolerance $\pm 10\%$)	0.07kg
Remarks	There are no contents of controlled substances exceeding the threshold for the RoHS Directive.

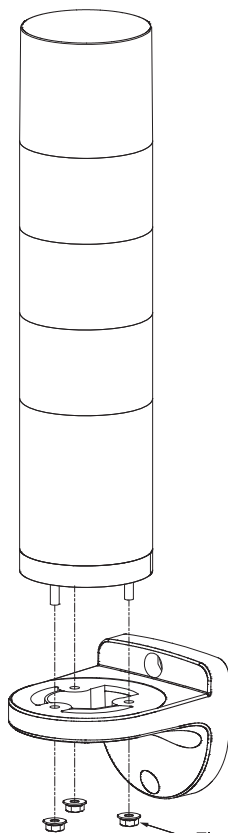
Outer Dimensions



Mounting Dimensional Drawing



Product Attachment



1. Insert the mounting screws of the product into the Wallmount Bracket. See the figure on the left for details on the direction of insertion.
2. Secure the product with the flanged nuts (3 pcs.) from underneath the Bracket.

Recommended Torque

0.6 N·m



Notice

Installation using materials other than the specified accessories is not covered under warranty.

Circular Bracket

SZW-001W



Compatible Models

LR4 - WJ

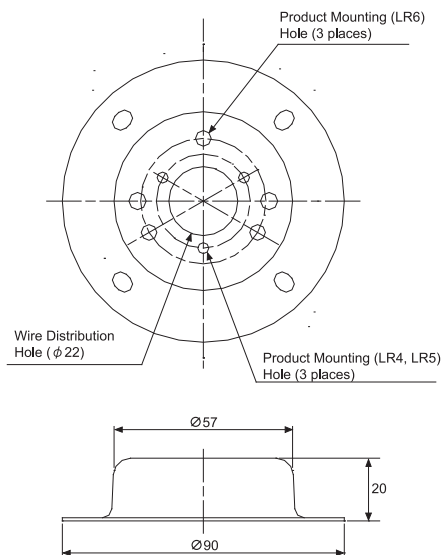
LR5 - WJ WT

LR6 - WJ

Specifications

Model	SZW-001W
Mounting Location	Indoor Only
Material	SPCE
Mass (Tolerance $\pm 10\%$)	0.06kg
Remarks	There are no contents of controlled substances exceeding the threshold for the RoHS Directive.

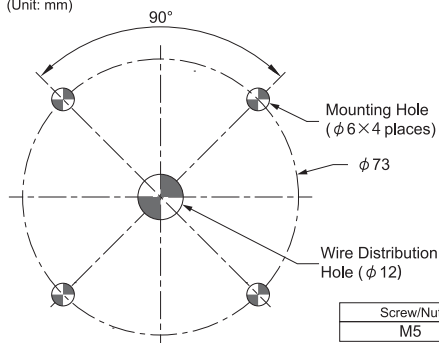
Outer Dimensions



Mounting Dimensional Drawing

■ SZW-001W Mounting Dimensional Drawing

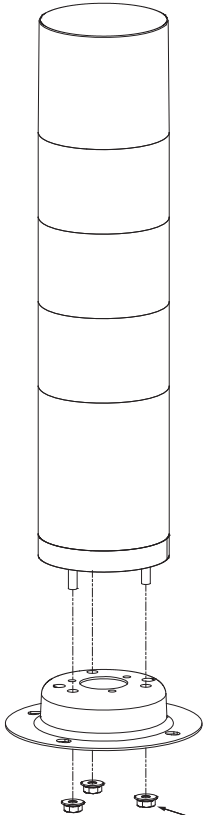
(Unit: mm)



Screw/Nut
M5

Recommended Torque
1.4 N·m

Product Attachment



1. Insert the mounting screws of the product into the Circular Bracket. See the figure on the left for details on the direction of insertion.
2. Secure the product with the flanged nuts (3 pcs.) from underneath the Bracket.

Recommended Torque

0.6 N·m




Notice

Installation using materials other than the specified accessories is not covered under warranty.

Flanged nut (3 pcs.)

Pole N

POLE22- [0100/0300/0800] AN



Accessory : Binding Head Tapping Screw (2pcs.)

Compatible Models

LR4-

PJ

LJ

QJ

LR5-

PJ

LJ

LR6-

PJ

LJ


QJ

Compatible Optional Parts

	SZP-001W	SZP-002U	SZP-003W	SZQ-001W	SZK-001U
POLE22-0100AN	○	○	○	○	○
POLE22-0300AN	○	○	○	○	○
POLE22-0800AN	×	○	×	×	○

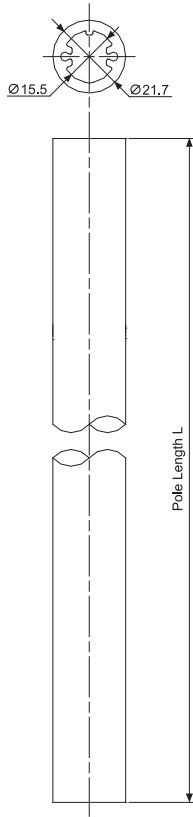
Specifications

Model	POLE22-0100AN	POLE22-0300AN	POLE22-0800AN
Mounting Location	Indoor Only		
Pole length L (mm)	100	300	800
Material	AL		
Mass (Tolerance ±10%) ※ No Accessories	0.05kg	0.16kg	0.42kg
Remarks	There are no contents of controlled substances exceeding the threshold for the RoHS Directive.		

 Notice


- Use a pole which is 300mm or less in length when using a resin bracket.
- Use an AL Bracket when using a pole which is 500mm or more in length.

Outer Dimensions



Pole T

POLE22- [0300/0500/1000] AT



Accessory : Hexagon Nut (2pcs.)
Plain Washer (2pcs.)
Binding Head Tapping Screw (2pcs.)

Compatible Models

LR4- PJ LJ QJ

LR5- PJ LJ, LR6- PJ LJ QJ

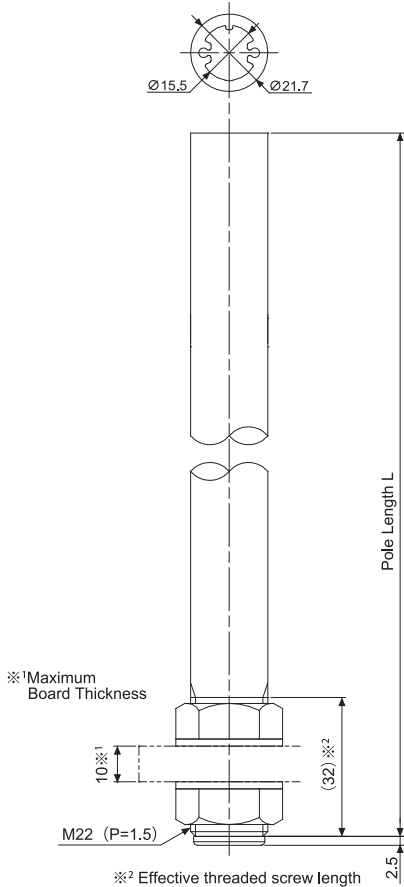
Compatible Optional Parts

SZL-001

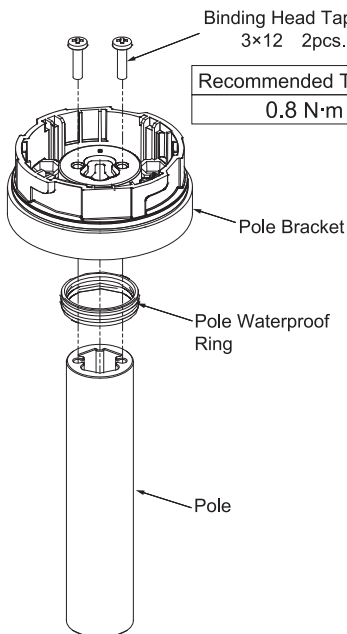
Specifications

Model	POLE22-0300AT	POLE22-0500AT	POLE22-1000AT
Mounting Location	Indoor Only		
Pole Length L (mm)	300	500	1000
Material	AL		
Mass (Tolerance ±10%) ※ No Accessories	0.15kg	0.26kg	0.52kg
Remarks	There are no contents of controlled substances exceeding the threshold for the RoHS Directive.		

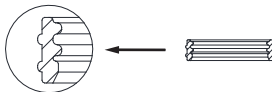
Outer Dimensions



Pole Bracket Installation



1. Install the Pole Waterproof Ring in the Pole Bracket. Check that the 2 ribs are on the outside.



2. Insert Pole into the Pole Bracket. See the figure on the left for details on the direction of insertion.
3. Tighten the Binding Head Tapping Screws (2 pcs.) from the topside of the Pole Bracket.

※ Detachment method of Pole Bracket from Body is the same method of Direct Mount Bracket. Refer to pg.36 for "Unit Detachment Method".



Notice

Installation using materials other than the specified accessories is not covered under warranty.

PATLITE Corporation

G2G

PATLITE Corporation ※Head office ■<http://www.patlite.com/>
4-1-3, Kyutaromachi, Chuo-ku, Osaka 541-0056 Japan

PATLITE (U.S.A.) Corporation ■<http://www.patlite.com/>

PATLITE Europe GmbH ※Germany ■<http://www.patlite.eu/>

PATLITE (SINGAPORE) PTE LTD ■<http://www.patlite.com/>

PATLITE (CHINA) Corporation ■<http://www.patlite.cn/>

PATLITE KOREA CO., LTD. ■<http://www.patlite.co.kr/>

PATLITE TAIWAN CO., LTD. ■<http://www.patlite.tw/>

PATLITE (THAILAND) CO., LTD. ■<http://www.patlite.co.th/>

- (Note) ・ Dimensions and specifications may change without notice due to continual product improvement.
・ PATLITE and the PATLITE logo is a trademark, or registered trademark of the PATLITE Corporation of Japan and each country.

B95100502	B
'16.12.WEB	