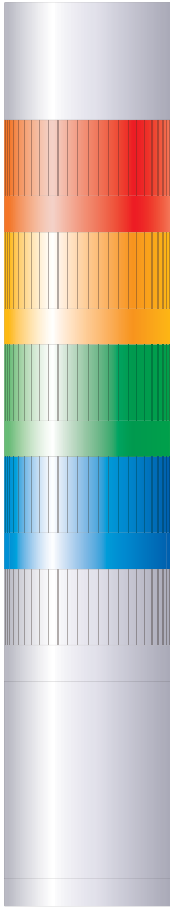


PATLITE®



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	19
7 How to use the Tilt Bracket	20
8 Unit Detachment Method	21
9 Troubleshooting	33
10 Specifications	34
11 Replacement Parts	37
12 Optional Parts	39

1 Read this First

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. ( With 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 a voltage to any signal lines, other than Flashing Common ( , ) and source line () .** 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, benzine, 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 comprehensive manual.

2 Model Number Configuration

	Series name	Size	Tiers	Rated Voltage	Mount Type Wiring Type	With or Without Flashing/Buzzer	Body Color	LED Unit Color
Assembly Model	LR	↓	-	↓	↓	↓	↓	-RYGBC

Unit Model(Body Unit)	LR	↓	-	↓	↓	↓	↓
-----------------------	-----------	---	---	---	---	---	---

4 φ 40	6 φ 60
5 φ 50	7 φ 70

1 - 5 Tiers

B With Flashing/Buzzer^{※7}
N Without Flashing/Buzzer

01 12V DCV ^{※1}
02 24V DC
M2 100-240 V AC ^{※2}

W Off-White
U Silver^{※8}
K Black^{※9}

WJ Direct Mounting with Cable
LJ Mounting Angle and Pole with Cable^{※3}
PJ Pole Bracket and pole with Cable^{※4}
QJ Tilt Bracket and pole with Cable^{※5}
WT Direct Mount with Terminal Block (Body Unit)^{※6}

LED Color: R (Red)/Y (Amber) / G (Green)/B (Blue) /C (White) (From top to bottom)

※1 **LR5**

※2 **LR4•6 - WJ•PJ - W**

※3 **LR4•6 - 02**, **LR5 - 01•02**

※4 **LR4•5•6**

※5 **LR4•6 - 02 - W**

※6 **Body Unit LR5•7 - 02**

※7 **Assembly Unit**

※8 **LR4•6 - 02**, **LR5•7 - WT**

※9 **LR5•7 - WT**

Model Number Example

LR4-502PJBU-RYGBC

- Φ40 ●LED 5 Tiers ●24 V DC ●Pole Bracket and polewith Cable
- With Flashing/Alarm ●Silver ●(From top) Red • Amber • Green • Blue • White

LR5-301WJNW-RYG

- Φ50 ●LED 3 Tiers ●12 V DC ●Direct Mounting with Cable connection
- Without Flashing/Alarm ●Off-white ●(From top) Red • Amber • Green

LR6-M2LJNW

- Φ60 ●100 ~ 240V AC ●Mounting Angle and Pole with Cable
- Without Flashing/Alarm ●Off-white

LR7-02TWNK

- Φ70 ●24 V DC ●Direct Mount with Terminal Block connection
- Without Flashing/Alarm ●Black

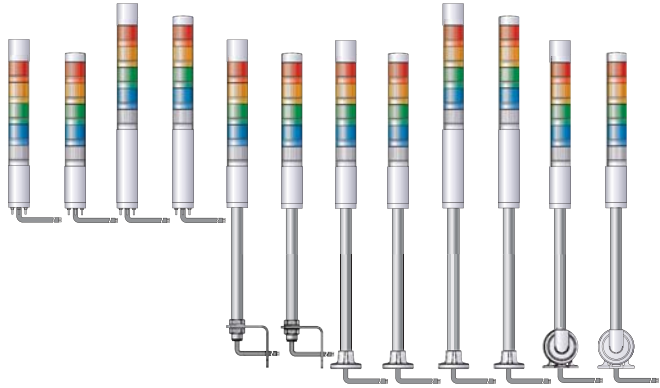
3 Part Names and Outer Appearance

Outer Appearance List

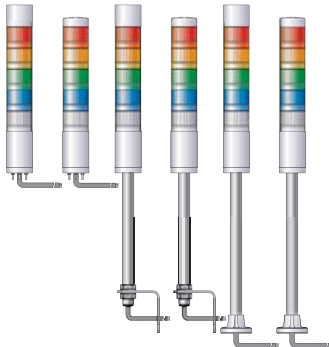
The full product appearance is indicated according to its model number. Refer to the model numbers as a reference to its appearance.
(Body Color : Off-White)

Assembly Model

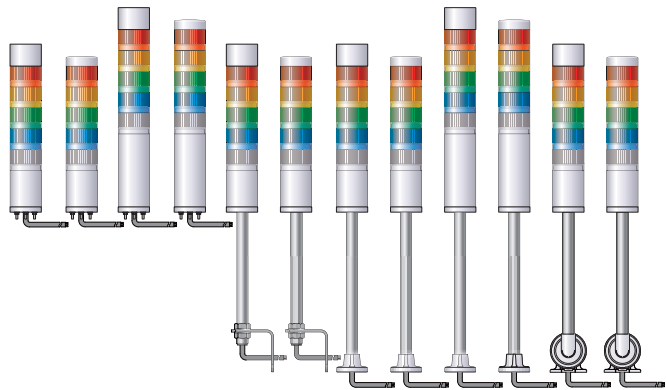
Model	LR4											
LED Tiers	1 Tier - 5 Tiers (Drawing is 5 Tiers.)											
Rated Voltage	02	M2	02	M2	02	M2	02	M2	02	M2	02	M2
Mount / Wiring Type	WJ			LJ			PJ			QJ		
Flashing / Buzzer	B	N	B	N	B	N	B	N	B	N	B	N



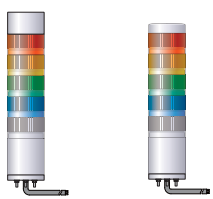
Model	LR5					
LED Tiers	1 Tier - 5 Tiers (Drawing is 5 Tiers.)					
Rated Voltage	01 / 02					
Mount / Wiring Type	WJ		LJ		PJ	
Flashing / Buzzer	B	N	B	N	B	N



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

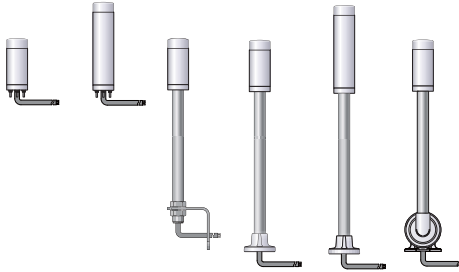


Model	LR7	
LED Tiers	1 Tier - 5 Tiers (Drawing is 5 Tiers.)	
Rated Voltage	02	
Mount / Wireing Type	WJ	
Flashing / Buzzer	B	N

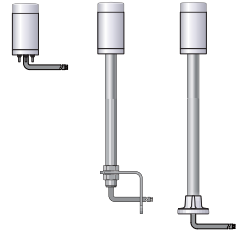


Unit Model (Body Unit)

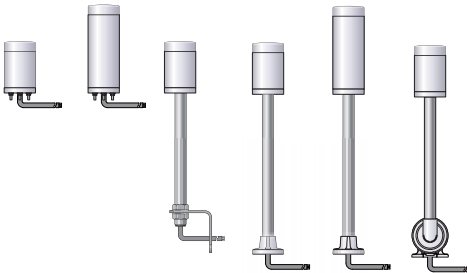
Model	LR4				
Rated Voltage	02	M2	02	M2	02
Mount / Wiring Type	WJ	LJ	PJ	QJ	
Flashing / Buzzer	N				



Model	LR5		
Rated Voltage	01 / 02		
Mount / Wiring Type	WJ	LJ	PJ
Flashing / Buzzer	N		



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



Model	LR7
Rated Voltage	02
Mount / Wiring Type	WJ
Flashing / Buzzer	N



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



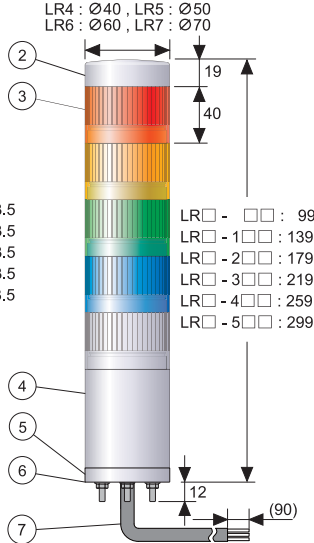
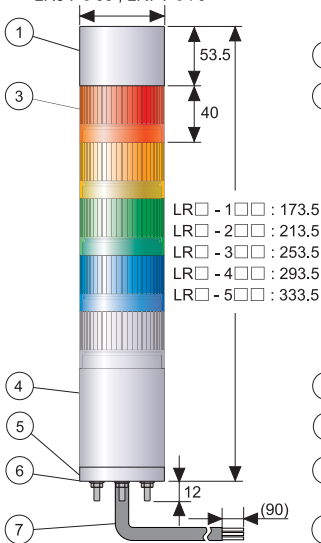
Part Names and Dimensions

■ [WJ] Direct Mounting with Cable ([01] , [02])

(Unit : mm)

LR□ - □□□WJB□
LR4 : Ø40 , LR5 : Ø50
LR6 : Ø60 , LR7 : Ø70

LR□ - □□□WJN□



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

Maximum Product Installation
Board Thickness : 7
Cable Length : Off-White (1300)
Silver (3300)

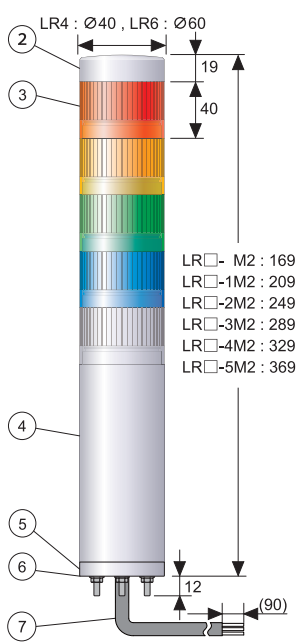
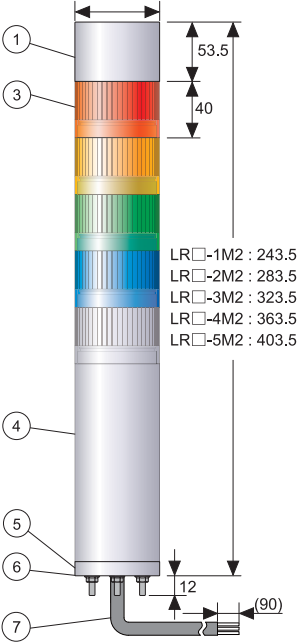
Maximum Product Installation
Board Thickness : 7
Cable Length : Off-White (1300)
Silver (3300)

■ [WJ] Direct Mounting with Cable ([M2])

LR□ - □M2WJBW
LR4 : Ø40 , LR6 : Ø60

LR□ - □M2WJNW

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



Maximum Product Installation
Board Thickness : 7
Cable Length : (1300)

Maximum Product Installation
Board Thickness : 7
Cable Length : (1300)

■ **PJ** Pole Bracket and pole with Cable (**01** , **02**)

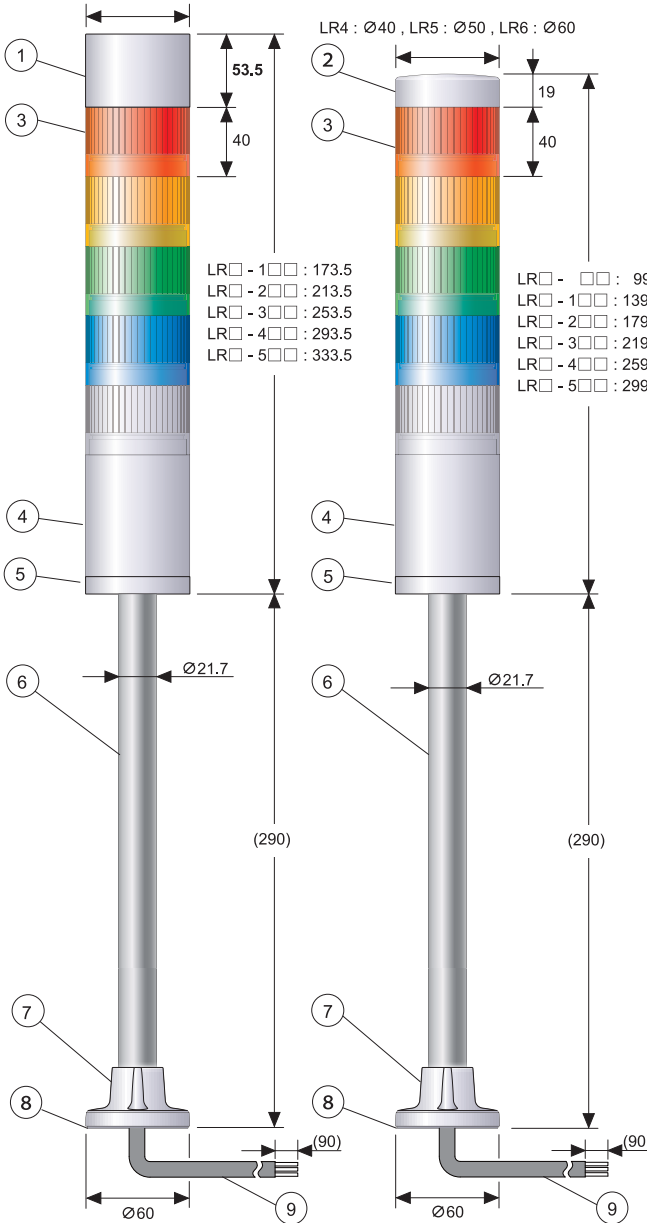
(Unit : mm)

LR□ - □□□PJ□

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	Pole Bracket	PC
8	Waterproof Packing	Silicone Rubber
9	Cabletyre Cable	PVC

Accessory


LR4-5-6 - PJ

Cross Recessed
Pan Head Screw (M4x20)



3 pcs.

Hexagon Nut with Flange (M4)



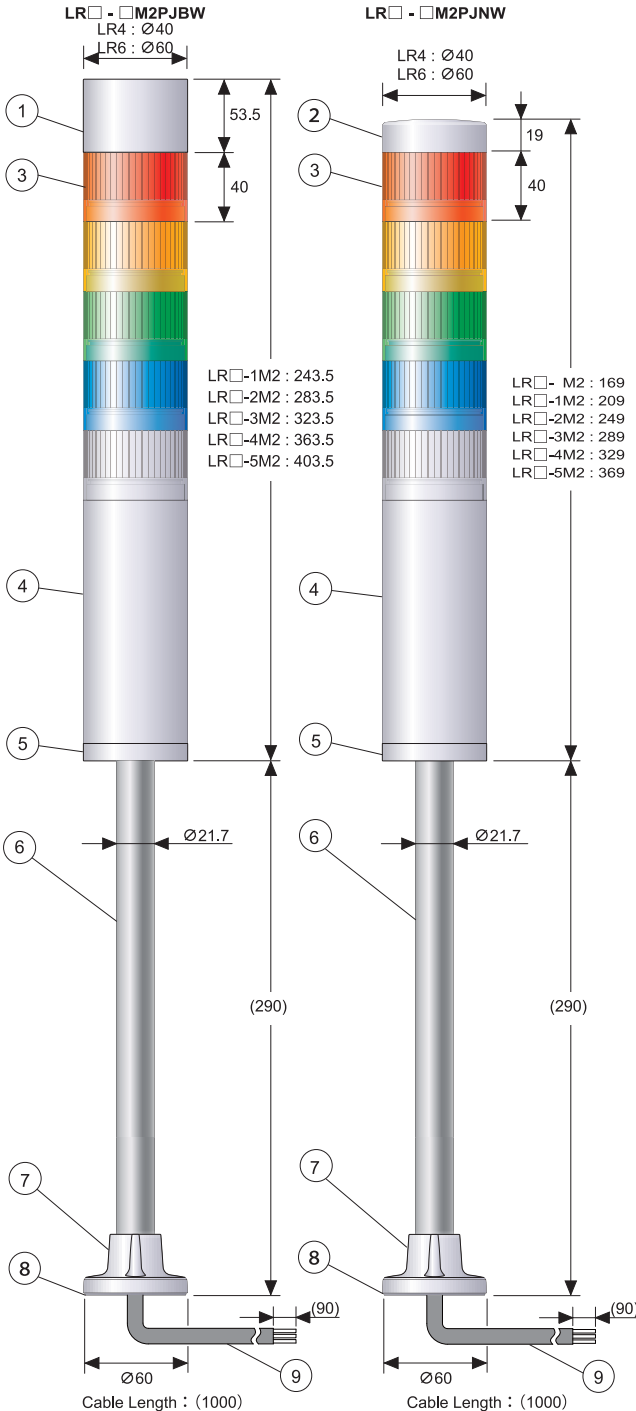
3 pcs.

Cable Length : Off-White (1000)
Silver (3000)※LR4,LR6

Cable Length : Off-White (1000)
Silver (3000)※LR4,LR6

■ **PJ** Pole Bracket and pole with Cable (**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	Pole Bracket	PC
8	Waterproof Packing	Silicone Rubber
9	Cable Cable	PVC

Accessory


LR4-6 - PJ

Cross Recessed
Pan Head Screw (M4x20)



3pcs.

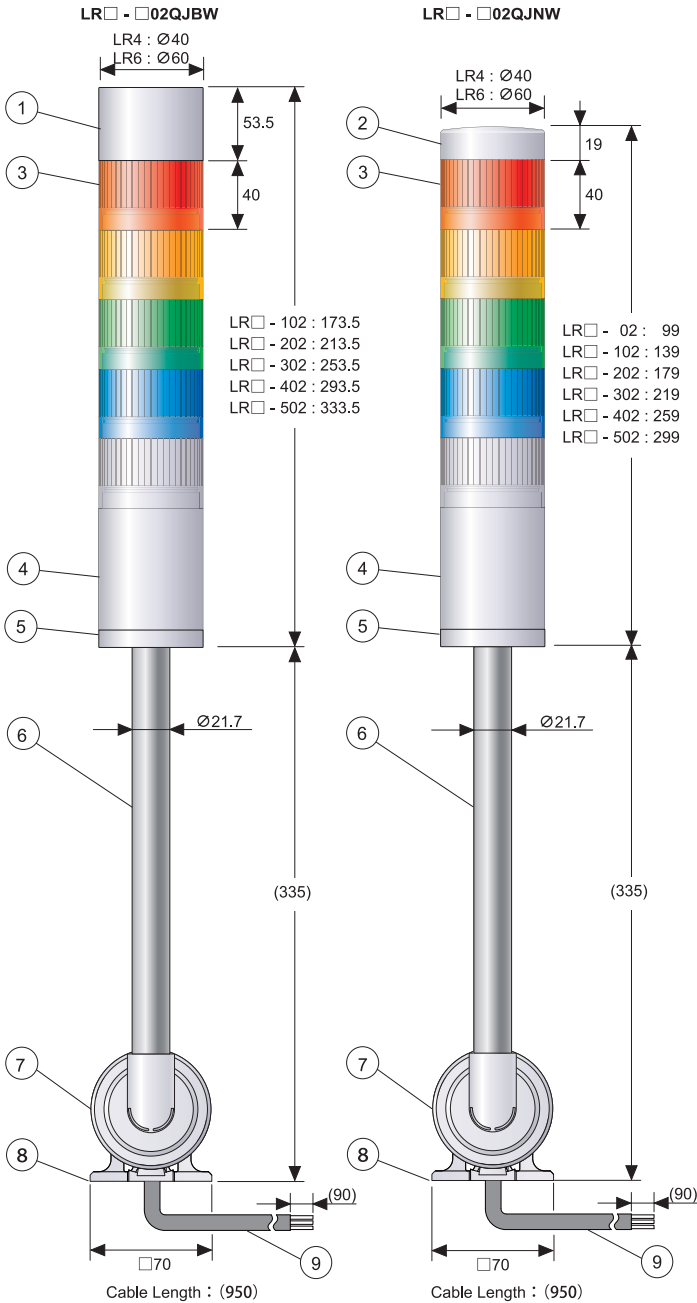
Hexagon Nut with Flange (M4)



3pcs.

■ **QJ** Tilt Bracket and pole with Cable (**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	Tilt Bracket	PC
8	Waterproof Packing	CR
9	Cable	PVC

Accessory

LR4·6 - QJ
Cross Recessed
Binding Head Screw (M5x25)

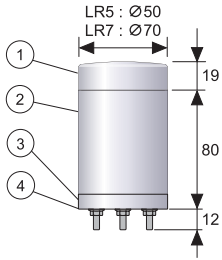
4 pcs.

Hexagon Nut with Flange (M5)

4 pcs.



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

(Unit : mm)



Maximum Product Installation
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 bolts are not included.)

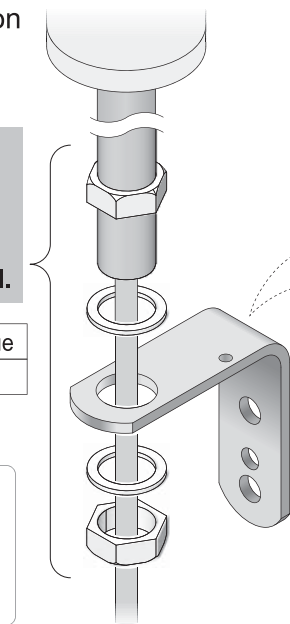
■ **LJ** Installation Figure (Unit : mm)

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

Recommended Torque
30 N·m

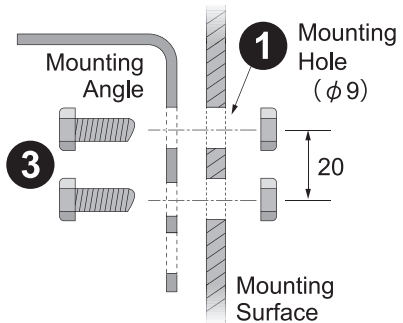
Point

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

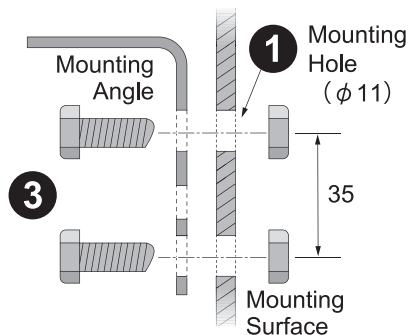


Recommended Bolt Torque
12.2 N·m

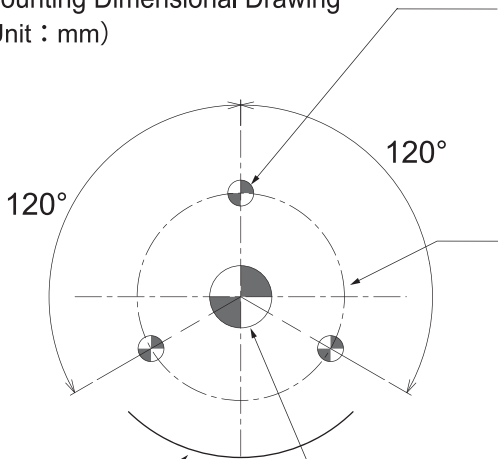
For M8 bolt and nut size



For M10 bolt and nut size



■ **WJ** · **PJ** **WT**
 Mounting Dimensional Drawing
 (Unit : mm)



Mounting Hole (3 places)		Screw Nut
LR4·5-WJ	φ 4	M3
LR5-WT		
LR4·5·6-PJ	φ 5	M4
LR7-WT		

LR4·5-WJ	φ 30
LR5-WT	
LR4·5·6-PJ	φ 40
LR7-WT	

Nameplate
Position

Wire Distribution
Hole (φ 12)

Recommended Torque
0.6 N·m

■ **QJ** Mounting
 Dimensional Drawing
 (Unit : mm)

Mounting Hole
(φ 6×4places)

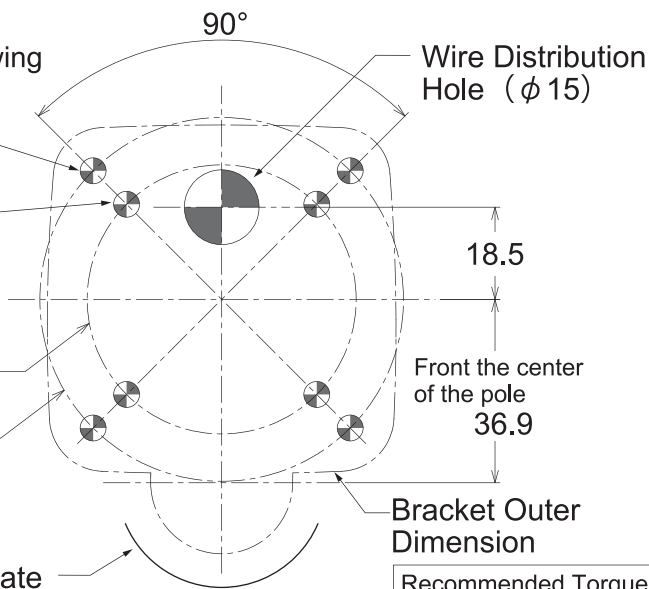
Mounting Hole
(φ 6×4places)

Screw · Nut
M 5 × 4 pcs

φ 54 ~ φ 56

φ 73

Nameplate
Position



18.5

Front the center
of the pole
36.9

Bracket Outer
Dimension

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 combustion may occur.

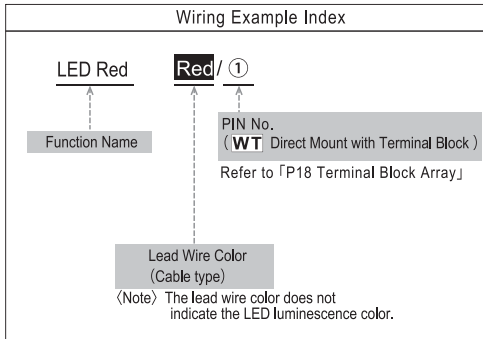
Caution

- **Do not apply a voltage to any signal lines, other than Flashing Common (01, 02) and the power 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



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.

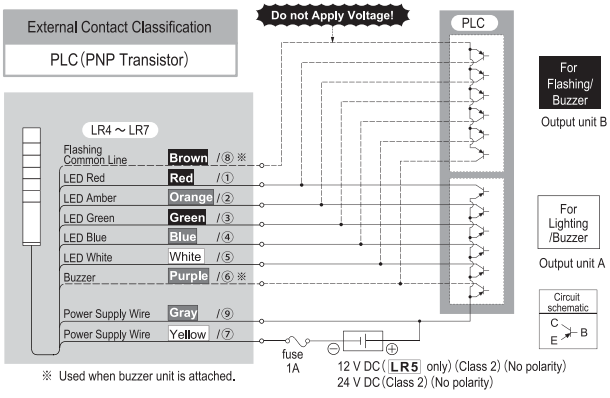
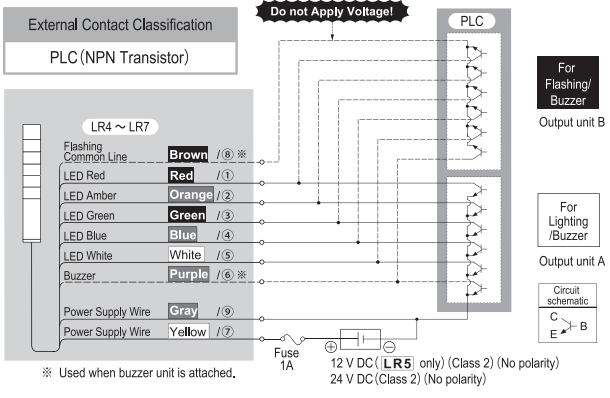
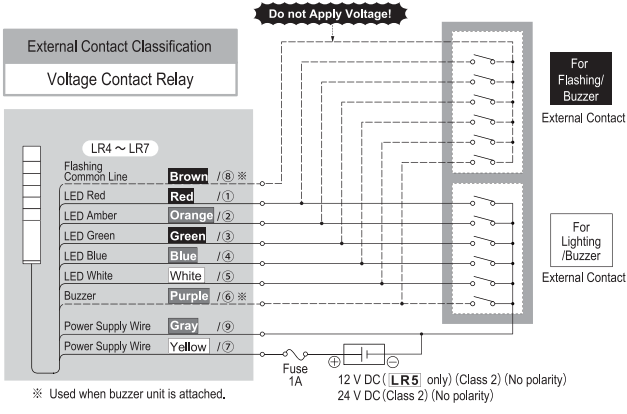
■ Wire Type & Wire Gauge

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

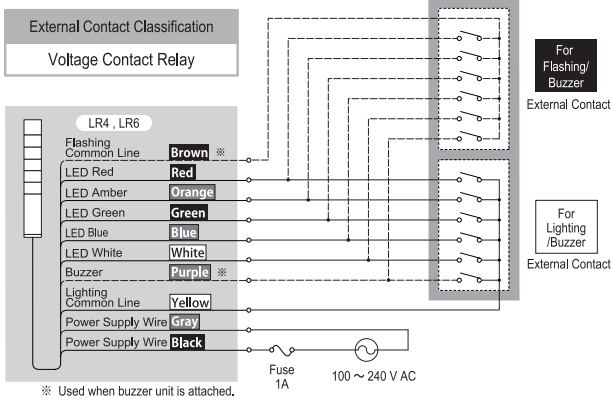
Excluding **M2** Power Supply Wire (Gray, Black) ···UL2464 / AWG24

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

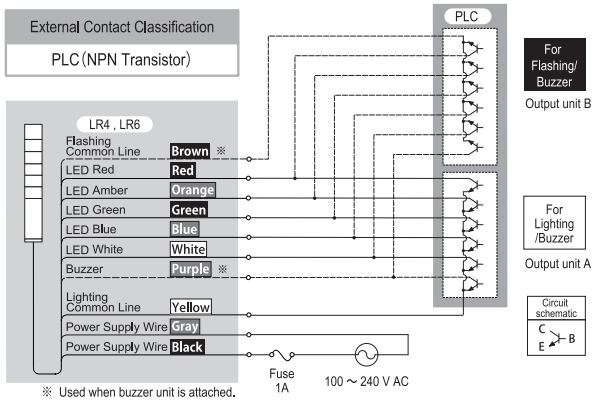
Product Specifications **01** 12 V DC **02** 24 V DC



Only apply voltage to Power Supply Lines.



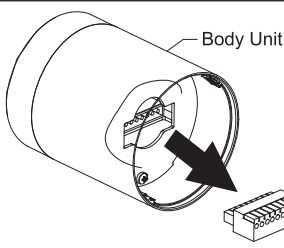
Only apply voltage to Power Supply Lines.



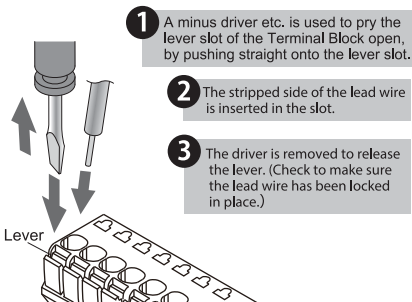
WT Terminal Block Array

1	2	3	4	5	6	7	8	9
Red	Orange	Green	Blue	White	Gray	Yellow	Gray	Black
						Power Supply Wire (Common)	Flashing Common	Power Supply Wire (Signal Line Side)
	LED-R	LED-Y	LED-G	LED-B	LED-C	Buzzer		

WT Terminal Block wiring method



Remove the connector from the body unit before wiring.



- 1** A minus driver etc. is used to pry the lever slot of the Terminal Block open, by pushing straight onto the lever slot.
- 2** The stripped side of the lead wire is inserted in the slot.
- 3** The driver is removed to release the lever. (Check to make sure the lead wire has been locked in place.)

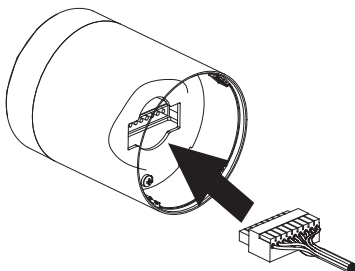
Recommended lead wire specifications

Wire Type	Wire Gauge (Solid Wire)	Wire Gauge (Frayed Wire)
UL1007 / UL1430	0.14~1.5mm ²	AWG30~14

• Temperature rating should be above 75°C, and the conductor material should be of copper wire.

Point

- The minus driver blade should be at about 2mm by 0.4mm in size.
- Do not forcibly push the lever more than necessary with the driver. Failure to comply may damage the unit.
- Strip 9~10mm 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 Unit Detachment Method about removal, wiring and attachment.(P.32)

External Contact Capacity

Is : Current Capacity Vs : Withstand Voltage IL : Leak 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 ≥ 100 mA Vs ≥ 35 V DC	Is ≥ 100 mA Vs ≥ 35 V DC	Is ≥ 100 mA Vs ≥ 35 V DC
Buzzer	Signal Wire Current	90 mA	40 mA	40 mA
	Contact Capacity	Is ≥ 300 mA Vs ≥ 35 V DC (※1)	Is ≥ 300 mA Vs ≥ 35 V DC (※1)	Is ≥ 300 mA Vs ≥ 35 V DC
Power Supply	Current Consumption	500 mA	250 mA	150mA
	Contact Capacity	Is ≥ 700 mA Vs ≥ 35 V DC	Is ≥ 700 mA Vs ≥ 35 V DC	Inrush current or more contacts
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 ≤ 0.1 mA		

※1 ... When (Gray / ⑨ Black) power supply wire is not connected, inrush current (0.7A) will flow through the signal line.

Be sure to select the appropriate ratings for an external contact.

Recommended Fuse

Fuse Rated Current
250 V / 1 A
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

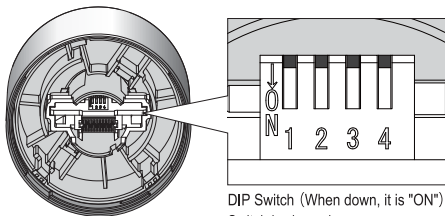
[B] With Flashing/Buzzer type includes a set up for four different patterns and sound muting.

Operate a 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



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

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
ON	Sound Reduction

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

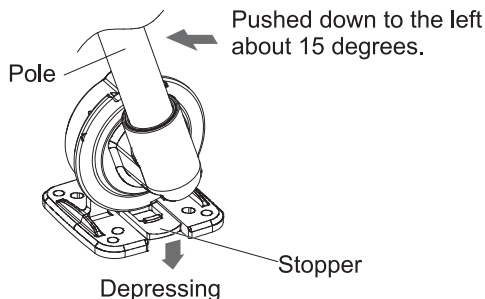
7 How to use the Tilt Bracket

The [Q] tilt bracket is a retractable type, which can be pushed down while a product is still attached when transporting equipment.
(Adjustable Angle: 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.

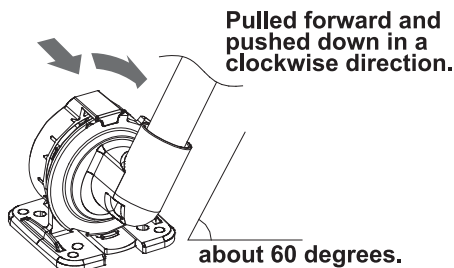
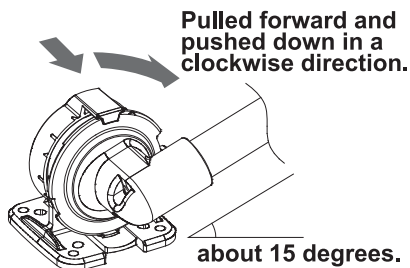
When moving 45 degrees to the right from an upright position.

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

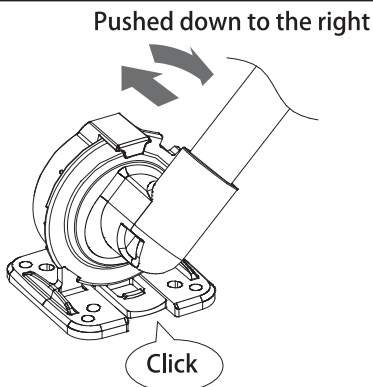
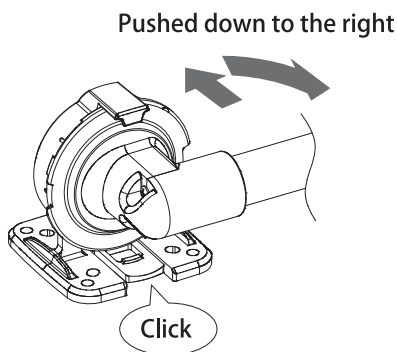


- 2 The Pole can then be pulled forward and pushed down in a clockwise direction. (From a level plane up to about a 15 degree angle)

- 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)



8 Unit Detachment Method

Detach the unit in the following manner when detaching the buzzer unit, changing the array of LED unit and etc.



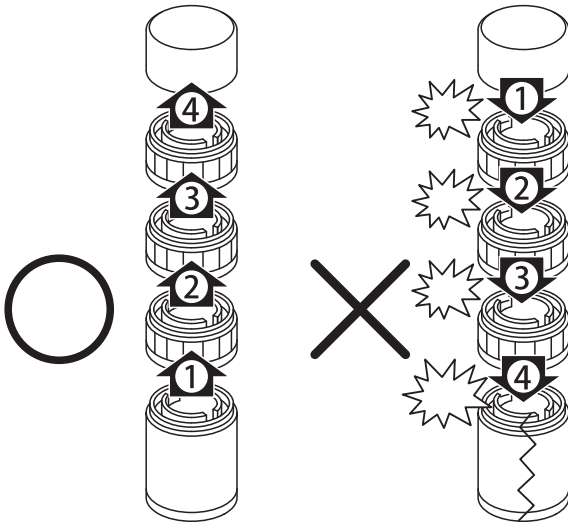
Video site

⚠ Warning

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

⚠ 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.

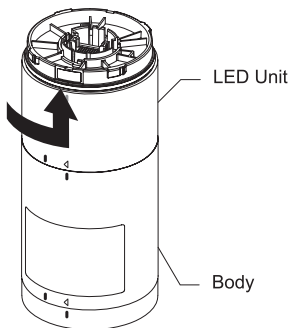


Notice

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

< For the Body - LED Unit >

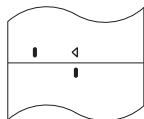
■ Removal



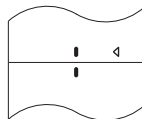
While holding the body, turn the LED unit counterclockwise, until it unlocks, then pull it upwards to remove.

■ Positioning Mark

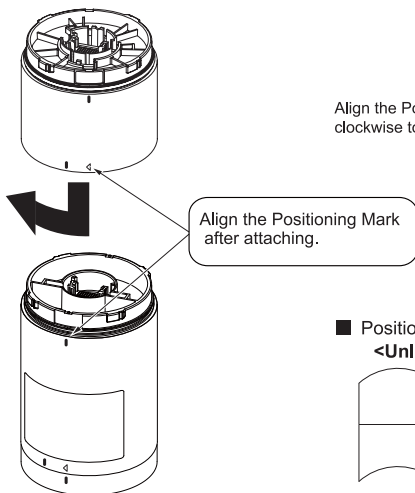
<Locked>



<Unlocked>



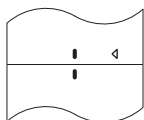
■ Attachment



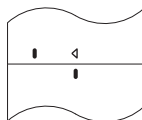
Align the Positioning Mark after insertion, then turn the unit clockwise to lock it.

■ Positioning Mark

<Unlocked>

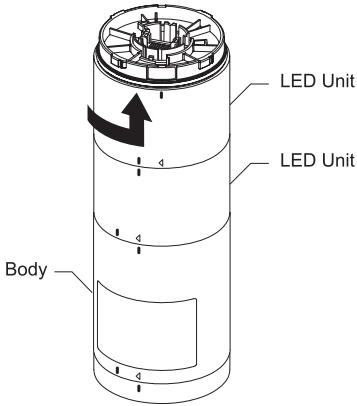


<Locked>



<For the LED Unit - LED Unit>

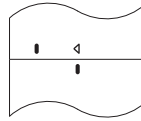
■ Removal



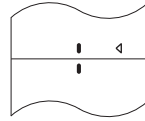
While holding LED unit, turn the LED unit counterclockwise, until it unlocks, then pull it upwards to remove.

■ Positioning Mark

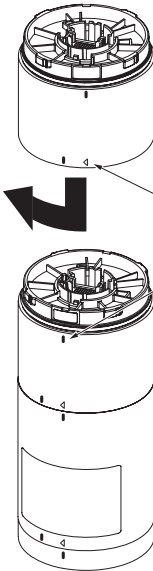
<Locked>



<Unlocked>



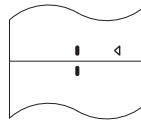
■ Attachment



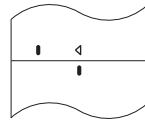
Align the Positioning Mark after insertion, then turn the unit clockwise to lock it.

■ Positioning Mark

<Unlocked>

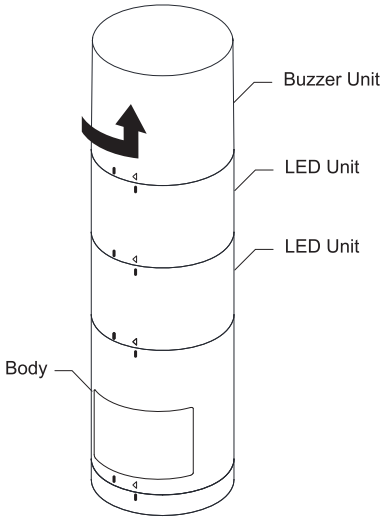


<Locked>



<For the LED Unit - Buzzer Unit>

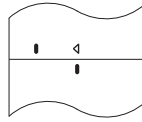
■ Removal



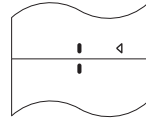
While holding LED unit, turn the buzzer unit counterclockwise, until it unlocks, then pull it upwards to remove.

■ Positioning Mark

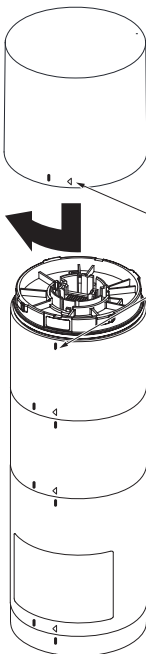
<Locked>



<Unlocked>



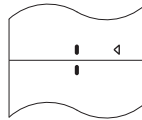
■ Attachment



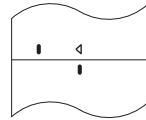
Align the Positioning Mark after insertion, then turn the unit clockwise to lock it.

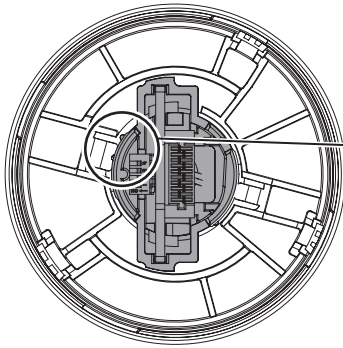
■ Positioning Mark

<Unlocked>

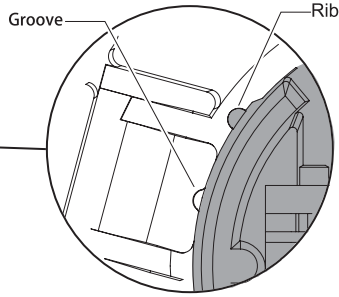


<Locked>



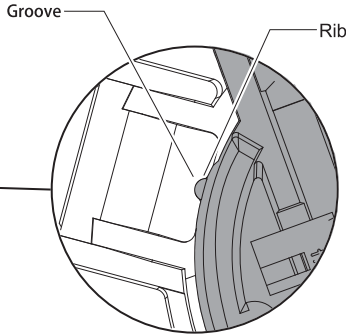
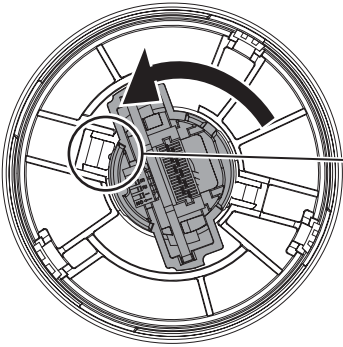


Buzzer Unit Underside



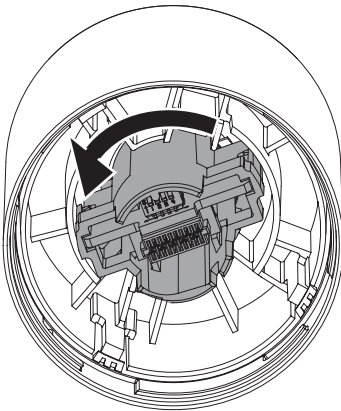
<Unlocked>

If unlocked condition, which means the rib is located out of the groove as the figure, is found when the Buzzer Unit is removed, lock the unit in the following manner then attach the unit on another unit.
Failure to comply may damage the unit.



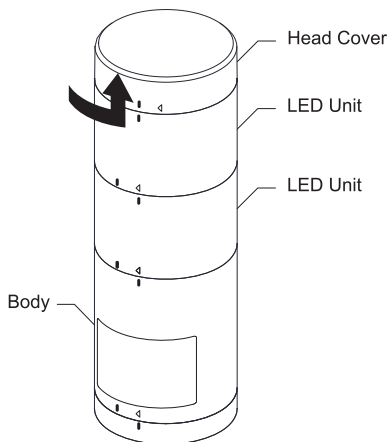
<Locked>

Turn the internal part of the Buzzer Unit counterclockwise until the rib is stuck in the groove, and lock it.



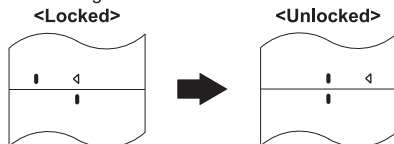
< For the LED Unit - Head Cover >

■ Removal

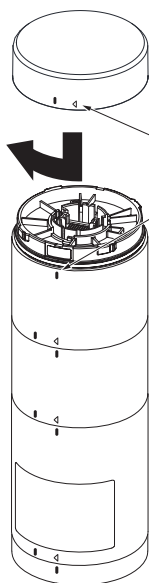


While holding the LED unit, turn the head cover counterclockwise, until it unlocks, then pull it upwards to remove.

■ Positioning Mark

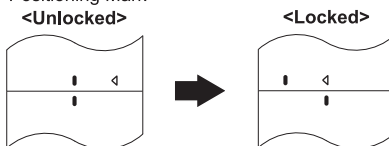


■ Attachment



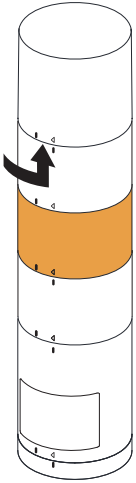
Align the Positioning Mark after insertion, then turn the unit clockwise to lock it.

■ Positioning Mark

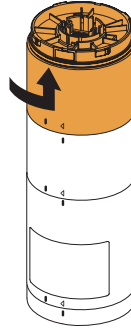


<Unit Replacement Procedure>

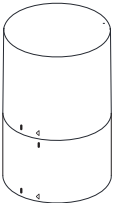
■ For the LED Unit decrement



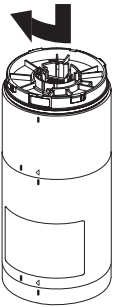
1 Remove the LED unit located above the unit which is intended to be removed.



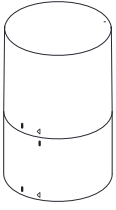
2 While holding the LED unit, turn the LED unit counterclockwise, until it unlocks, then pull it upwards to remove.



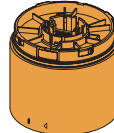
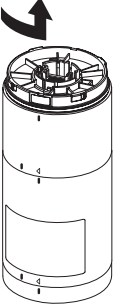
3 Align the Positioning Mark after insertion, then turn the unit which is removed(1) clockwise to lock it.



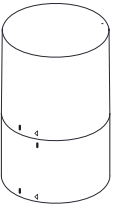
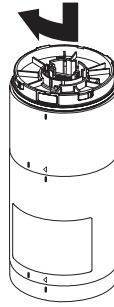
■ For the LED Unit increment



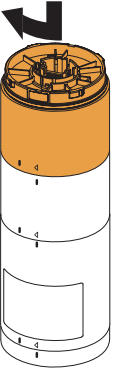
1 Remove the LED unit located above the unit which is intended to be attached.



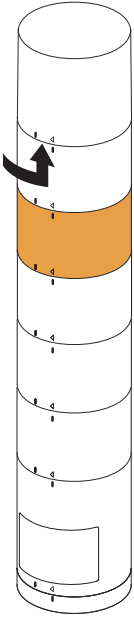
2 Align the Positioning Mark after insertion, then turn the unit clockwise to lock it.



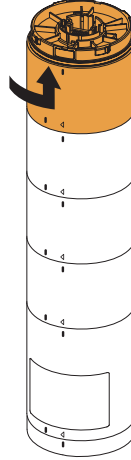
3 Align the Positioning Mark after insertion, then turn the unit which is removed(1) clockwise to lock it.



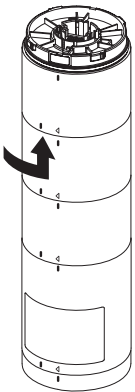
■ For the LED Unit relocation



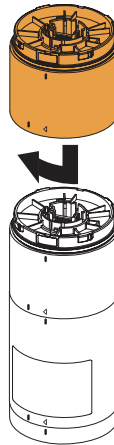
1 Remove the LED unit located above the unit which is intended to be relocated.



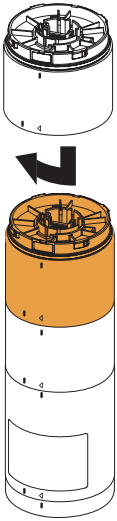
2 While holding the LED unit, turn the LED unit counterclockwise, until it unlocks, then pull it upwards to remove.



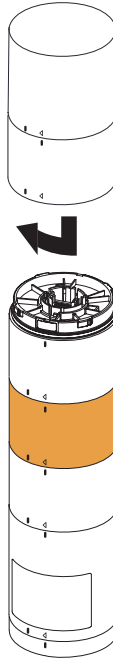
3 Remove the LED unit located above the unit which is intended to be relocated.



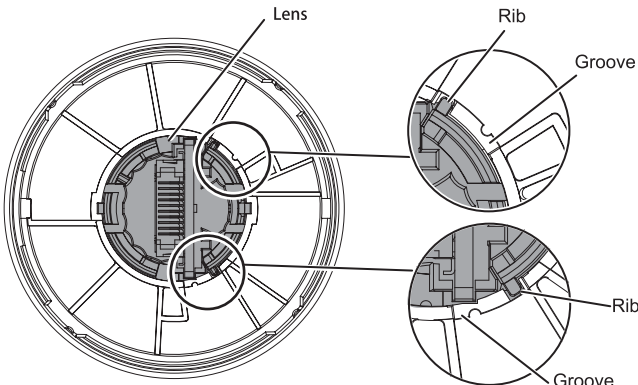
4 Align the Positioning Mark after insertion, then turn the unit which is removed(2) clockwise to lock it.



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



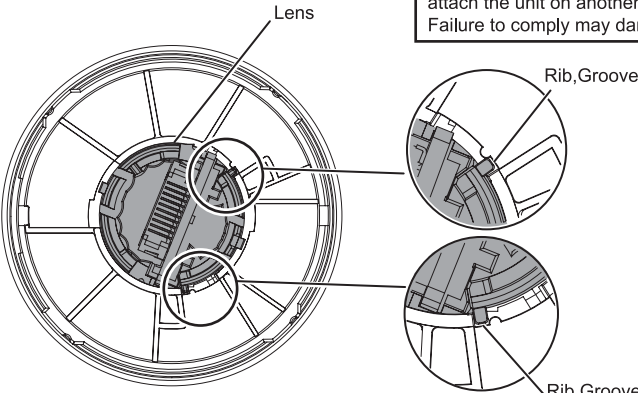
- 6 Align the Positioning Mark after insertion, then turn the unit which is removed(1) clockwise to lock it.



LED Unit Topside

<Unlocked>

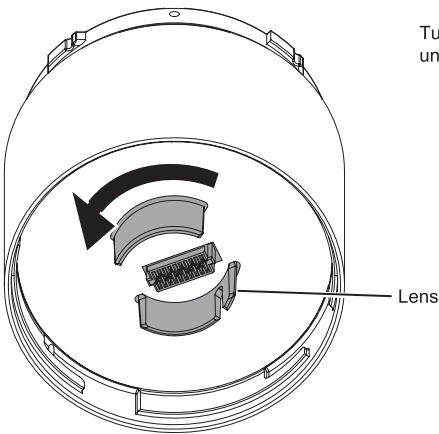
If unlocked condition, which means the rib is located out of the groove as the figure, is found when the LED Unit is removed, lock the unit in the following manner then attach the unit on another unit. Failure to comply may damage the unit.



LED Unit Topside

<Locked>

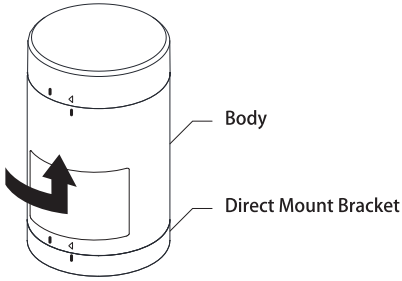
Turn the internal lens of the LED Unit counterclockwise until the rib is stuck in the groove, and lock it.



LED Unit Underside

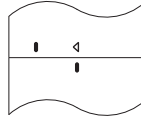
<Body Unit> (LR5-02WTNW,LR7-02WTNW)

■ Removal

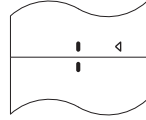


While holding the direct mount bracket, turn the body counterclockwise, until it unlocks, then pull it upwards to remove.

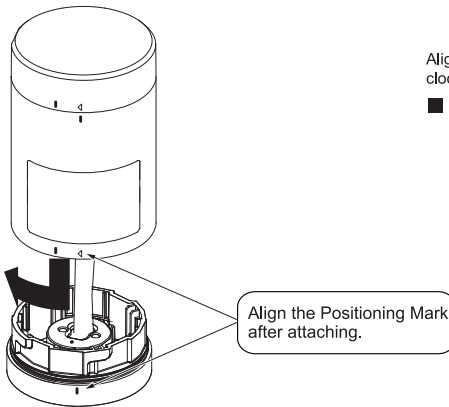
■ Positioning Mark <Locked>



<Unlocked>

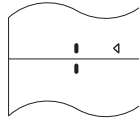


■ Attachment

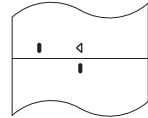


Align the Positioning Mark after insertion, then turn the unit clockwise to lock it.

■ Positioning Mark <Unlocked>



<Locked>



9 Troubleshooting

If the problem is occurred, handle 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" (P.15~18) 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 I make it turn on.	Is the electric wiring connected correctly?	Refer to " 5 Wiring" (P.15~18) for proper wiring.
3	The Buzzer does not sound.	Is the electric wiring connected correctly?	Refer to " 5 Wiring" (P.15~18) 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.
		Check that the product type.	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" (P.19) on how to adjust the volume.
5	The LED does not flash.	Is the electric wiring connected correctly?	Refer to " 5 Wiring" (P.15~18) 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.
		Check that the product type.	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 ,please check the contact details and contact the nearest PATLITE office

Contact details				
Product Name	Signal Tower	Date of purchase	Year	Month Date
Model Number	(→ 2 Model Number Configuration(P.3))	Situation of failure	As specifically as possible	

10 Specifications

General Specifications (02)

Model		LR□-□02□□□□				
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	0.7A / Less than 0.5ms				
	Signal Wire	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°C ~ +50°C				
Operating Ambient Humidity		Less than 90% RH (No Condensation)				
Storage Ambient Temperature		-30°C ~ +60°C				
Storage Ambient Humidity		Less than 90% RH (No Condensation)				
Mounting Location		Indoor Only				
Mounting Direction		Upright				
		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 the 6.Buzzer Pattern Set-up				
Outer Dimensions		Refer to the 3.Part Names and Outer Appearance (LED Unit) + [Buzzer Unit]				
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	Typ.85dB			Sound Reduction Approx. -10dB Depending on DIP Switch Settings Refer to the 6.Buzzer Pattern Set-up	
	LR5	Typ.85dB				
	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		UL 508, CSA-C22.2 No. 14, EMC Directive (EN 61000-6-4, EN 61000-6-2) RoHS Directive (EN 50581), FCC Part15 SubpartB 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 of 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 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 Buzzer Unit : 300mA (※1)		
Inrush Current	Power Supply Wire	0.7A / Less than 15ms		
	Signal Wire	none		
Rated Power Consumption (Per Unit)	Typ.	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°C ~ +50°C		
Operating Ambient Humidity		Less than 90% RH (No Condensation)		
Storage Ambient Temperature		-30°C ~ +60°C		
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 the 6.Buzzer Pattern Set-up		
Outer Dimensions		Refer to the 3.Part Names and Outer Appearance (LED Unit) + [Buzzer Unit]		
Mass (Tolerance±10%)	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 Approx. -10dB Depending on DIP Switch Settings Refer to the 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 Part15 SubpartB 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 of 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 CE Marking)



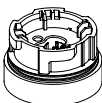

General Specifications (M2)


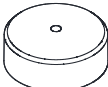
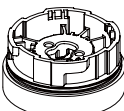
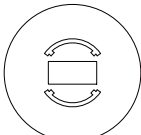
Model		LR□-□M2□□□W	
Rated Voltage		100-240V AC (50/60Hz)	
Operating Voltage Range		90-250V AC (50/60Hz)	
Signal Wire Current (Per Unit)	Typ.	LED Unit : 40mA Buzzer Unit : 40mA (※1)	
	Max.	LED Unit : 45mA Buzzer Unit : 300mA (※1)	
Inrush Current	Power Supply Wire	at 25°C : 25A/ Less than 2ms (Cold-start) at 50°C : 50A/ Less than 2ms (Cold-start)	
	Signal Wire	none	
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°C ~ +50°C	
Operating Ambient Humidity		Less than 90% RH (No Condensation)	
Storage Ambient Temperature		-30°C ~ +60°C	
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 the 6.Buzzer Pattern Set-up	
Outer Dimensions		Refer to the 3.Part Names and Outer Appearance (LED Unit) + [Buzzer Unit]	
Mass (Tolerance±10%)	LR4	WJ	0.25kg + (0.035kg) × Tires + [0.035kg]
		PJ	0.44kg + (0.035kg) × Tires + [0.035kg]
	LR6	WJ	0.32kg + (0.06kg) × Tires + [0.060kg]
		PJ	0.50kg + (0.06kg) × Tires + [0.060kg]
Sound Pressure Level	LR4	Typ.85dB	Sound Reduction Approx. -10dB Depending on DIP Switch Settings Refer to the 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 Part15 SubpartB 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	


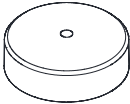
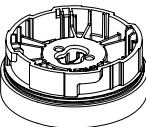
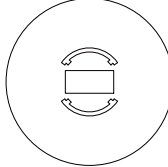
- When a regulated power supply is not being used, select a fuse that meets class CC or more.
- Use a **fuse holder** with UL standard certification. (Conformity requirements for UL Standard)
- This product is designed for use on a flat surface of a **Type 1 Enclosure**.
(Conformity requirements for 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 CE Marking)

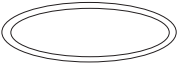
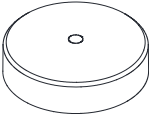
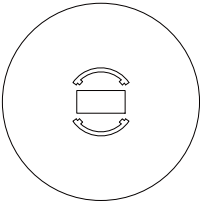
11 Replacement Parts

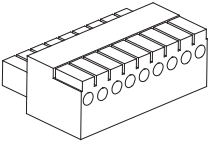
The following replacement parts for this product are available for the customer to change or replace.

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

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

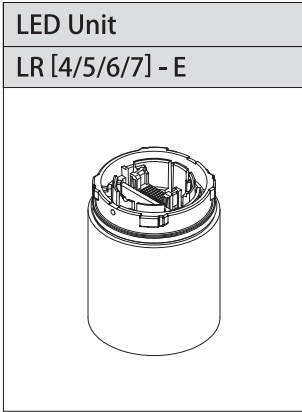
Replacement Parts for LR6			
O-ring 60	Head Cover 60 [W/U]	Pole Bracket 60 [W/U]	Filter Sheet 60
			
5pcs.			5pcs.

Replacement Parts for LR7		
O-ring 50	Head Cover 70[W/U/K]	Filter Sheet 70
		
5pcs.		5pcs.

Replacement Parts for WT
Terminal Block


12 Optional Parts

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



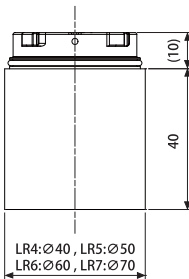
Model Number Configuration

	Series Name				LED Unit Color	
LED Unit	LR	↓	-	E	-	↓

4	Φ 40	6	Φ 60
5	Φ 50	7	Φ 70

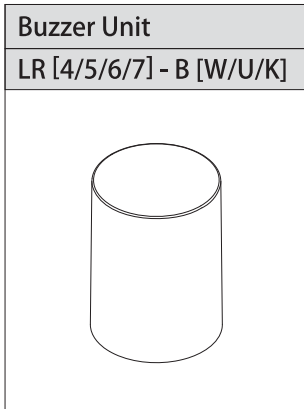
R	: Red	Y	: Amber
G	: Green	B	: Blue
C	: White		

Outer Dimensions



General Specifications

Model	LR□-E-□	
Operating Ambient Temperature	-20°C ~ +50°C	
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.	



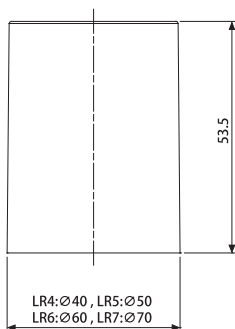
Model Number Configuration

	Series Name			Body Color
Buzzer Unit	LR	↓	- B	W

4	Φ 40	6	Φ 60
5	Φ 50	7	Φ 70

W	Off-White
U	Silver
K	Black (LR5/LR7)

Outer Dimensions

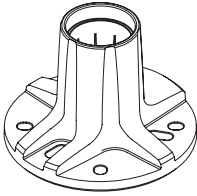


General Specifications

Model		LR□-BW
Operating Ambient Temperature		-20°C ~ +50°C
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
	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 No. 14 EMC Directive (EN 61000-6-4, EN 61000-6-2) RoHS Directive (EN 50581) FCC Part15 SubpartB Class A	
Remarks	※When LR5-01(12V DC type) is attached.	

Pole Bracket

SZP-001W



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

Applicable Models

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

Applicable Pole

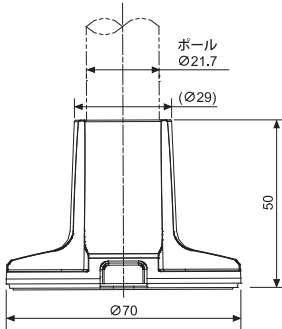
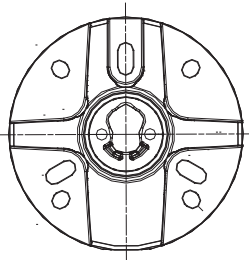
POLE22-0100AN, POLE22-0300AN

Specifications

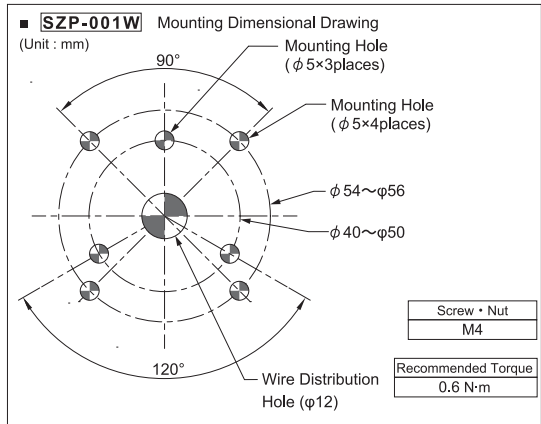
Model	SZP-001W
Mounting Location	Indoor Only
Protection Rating	IP65(Product Attachment)
Material	PC
Mass (Tolerance $\pm 10\%$) ※Accessory Remove	0.04kg
Remarks	There are no contents of controlled substances exceeding the threshold for the RoHS Directive.

<Note> • It's possible to take a cable out from a side.

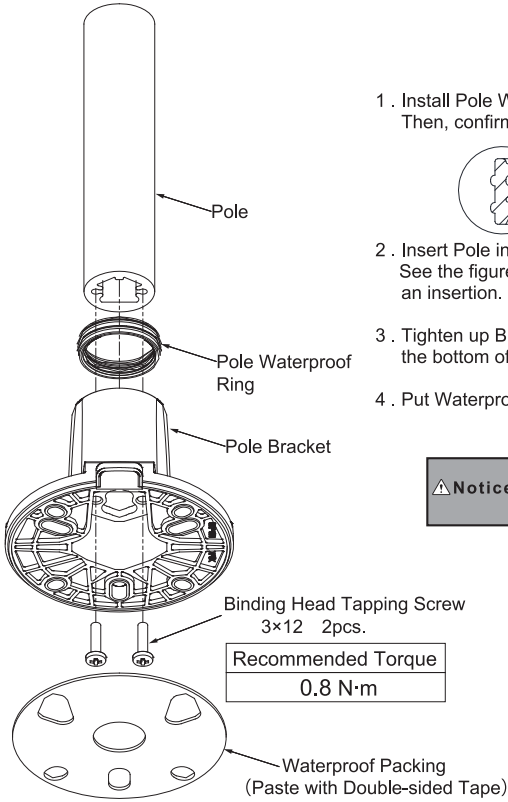
Outer Dimensions



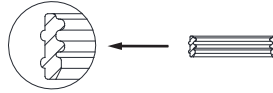
Mounting Dimensional Drawing



How to Install to Pole



1. Install Pole Waterproof Ring in Pole Bracket.
Then, confirm that 2 ribs become outside.



2. Insert Pole in Pole Bracket.
See the figure on the left for the detail of a direction of an insertion.
3. Tighten up Binding Head Tapping Screws from (2pcs.) the bottom of Pole Bracket.
4. Put Waterproof Packing on the bottom of Pole Bracket.

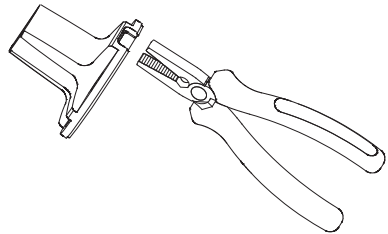
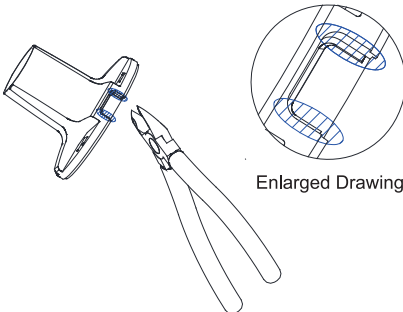
⚠ Notice

Installing with materials other than specific Accessory is not covered under warranty.

Take a cable cut from a side (Processing Method)

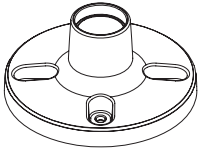
This parts are possible to take a cable out from a side.

1. Cut Slanted line part of the Enlarged Drawing 2 places with nippers.
2. Break it with pliers. When there is Bali, please handle it appropriately.



Pole Bracket

SZP-002U



Accessory : Waterproof Packing
Binding Head Tapping Screw (2pcs.)

Applicable Models

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

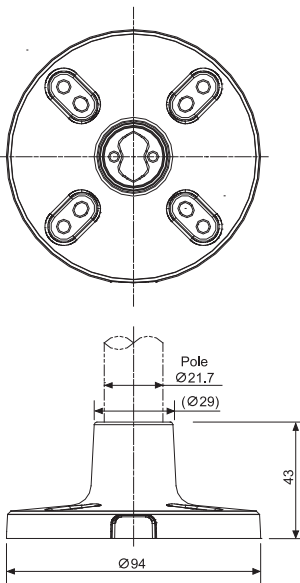
Applicable Pole POLE22-0100AN
POLE22-0300AN, POLE22-0800AN

Specifications

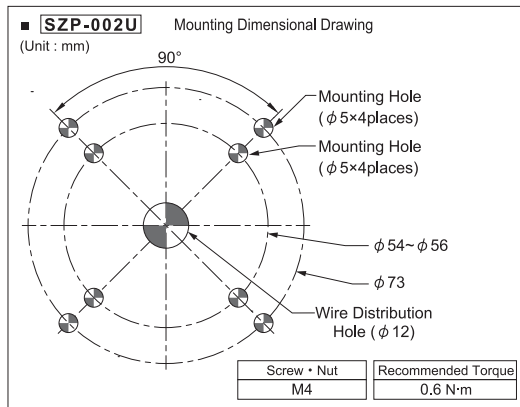
Model	SZP-002U
Mounting Location	Indoor Only
Protection Rating	IP20(Product Attachment)
Material	ADC12
Mass (Tolerance $\pm 10\%$) ※Accessory Remove	0.11kg
Remarks	There are no contents of controlled substances exceeding the threshold for the RoHS Directive.

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

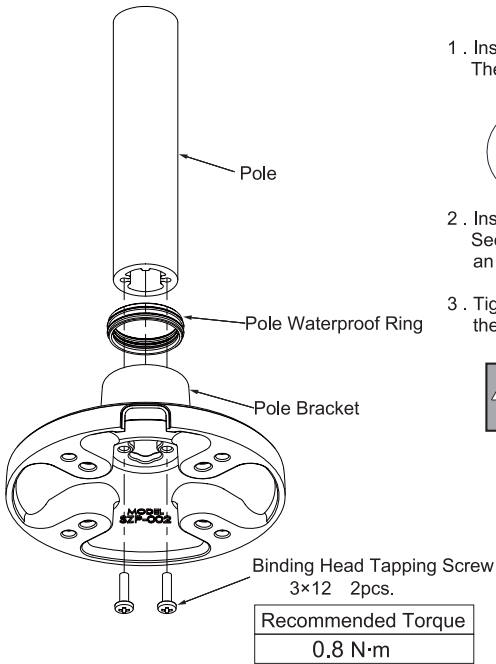
Outer Dimensions



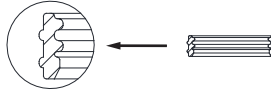
Mounting Dimensional Drawing



How to Install to pole



1. Install Pole Waterproof Ring in Pole Bracket.
Then, confirm that 2 ribs become outside



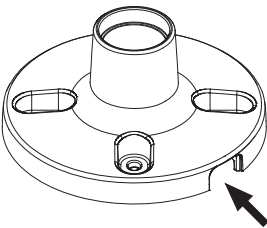
2. Insert Pole in Pole Bracket.
See the figure on the left for the detail of a direction of an insertion.
3. Tighten up Binding Head Tapping Screws (2pcs.) from the bottom of Pole Bracket.

⚠ Notice

Installing with materials other than specific Accessory is not covered under warranty.

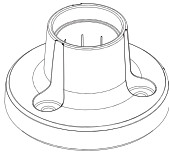
Take a cable cut from a side

This parts are possible to take a cable out from a side.
Because it has been processed, Take a cable out of an arrow part.



Pole Bracket

SZP-003W



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

Applicable Models

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

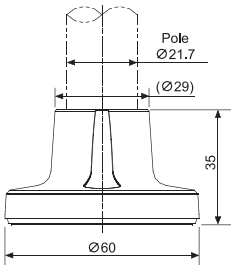
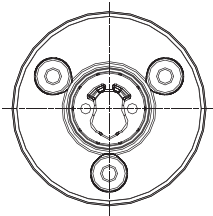
Applicable Pole

POLE22-0100AN, POLE22-0300AN

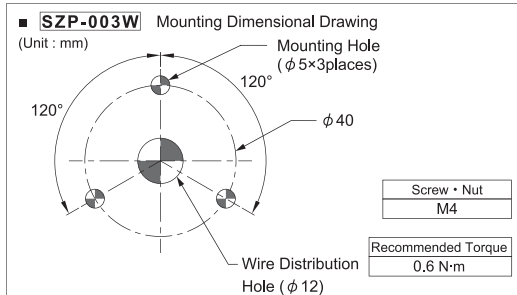
Specifications

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

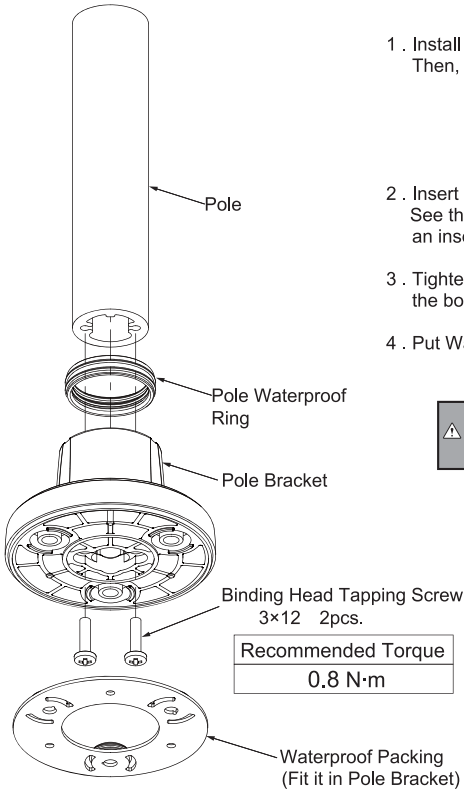
Outer Dimensions



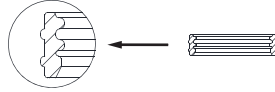
Mounting Dimensional Drawing



How to Install to pole



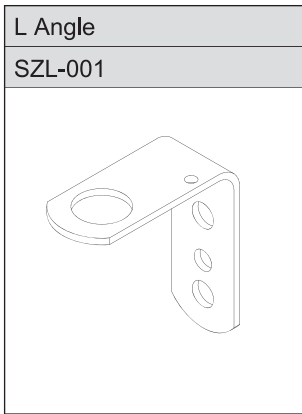
1. Install Pole Waterproof Ring in Pole Bracket.
Then, confirm that 2 ribs become outside.



2. Insert Pole in Pole Bracket.
See the figure on the left for the detail of a direction of an insertion.
3. Tighten up Binding Head Tapping Screws (2pcs.) from the bottom of Pole Bracket.
4. Put Waterproof Packing on the bottom of Pole Bracket.

⚠ Notice	Installing with materials other than specific Accessory is not covered under warranty.
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Recommended Torque 0.8 N·m



Applicable Models

LR4-LJ, LR5-LJ, LR6-LJ

Applicable Pole

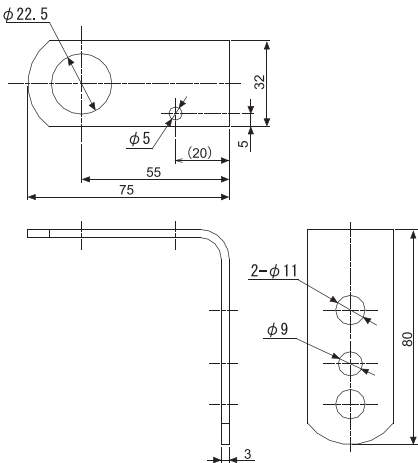
POLE22-0300AT

POLE22-0500AT, POLE22-1000AT

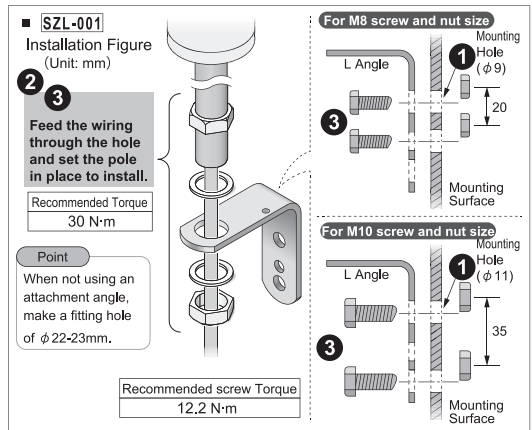
Specifications

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





Applicable Models

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

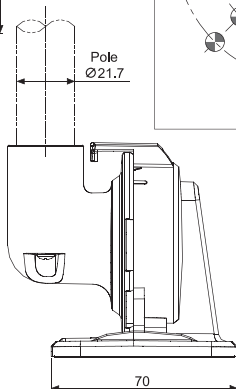
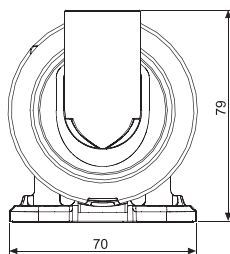
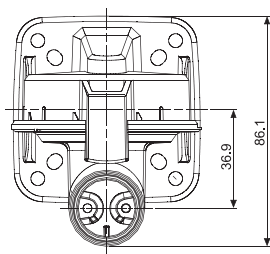
Applicable Pole

POLE22-0100AN, POLE22-0300AN

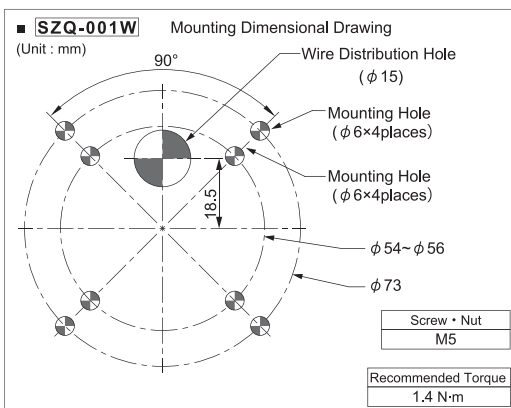
Specifications

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

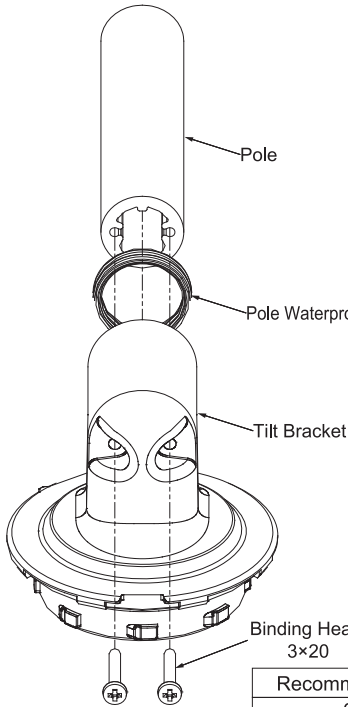
Outer Dimensions



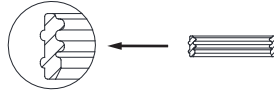
Mounting Dimensional Drawing



How to Install to Pole



- 1 . Install Pole Waterproof Ring in Tilt Bracket.
Then, confirm that 2 ribs become outside.



- 2 . Insert Pole in Tilt Bracket.
See the figure on the left for the detail of a direction of an insertion.
- 3 . Tighten up Binding Head Tapping Screws from the bottom of Tilt Bracket.
- 4 . Put Waterproof Packing on the bottom of Tilt Bracket.

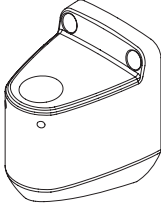
⚠ Notice

Installing with materials other than specific Accessory is not covered under warranty.

Recommended Torque
0.8 N·m

Wallmount Bracket

SZK-001U



Accessory : Hexagon Socket Set Screw
(2 pcs.)

Applicable Models

LR4- PJ QJ , LR5- PJ

LR6- PJ QJ

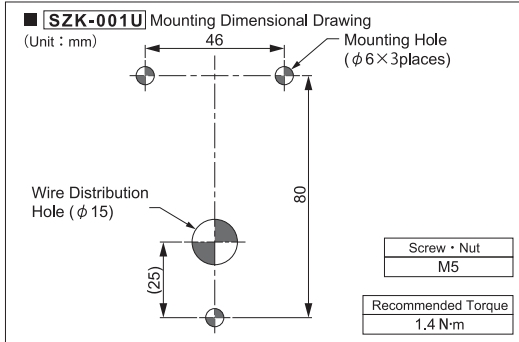
Applicable Pole

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

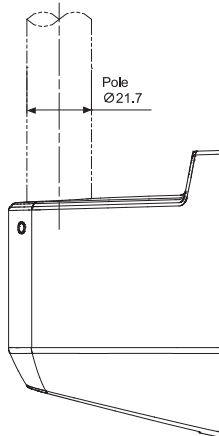
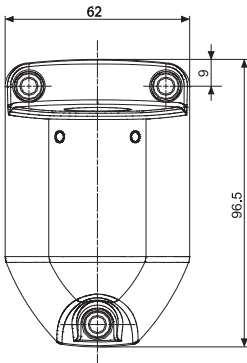
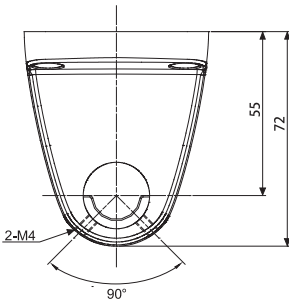
Specifications

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

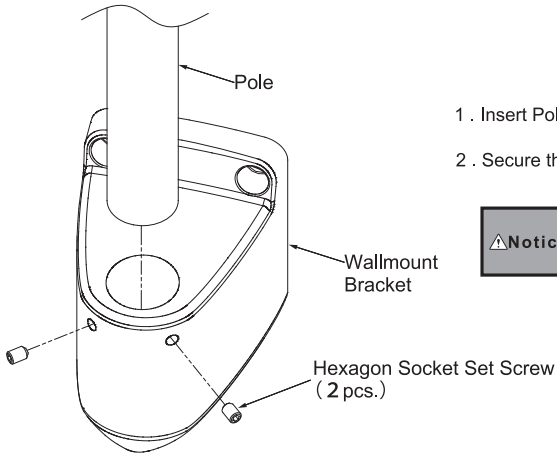
Mounting Dimensional Drawing



Outer Dimensions



How to Install to Pole



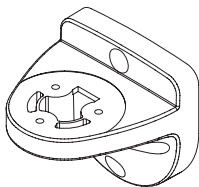
- 1 . Insert Pole in tilt bracket.
- 2 . Secure the Pole with the Hexagon Socket Set Screws. (2pcs.)

⚠ Notice

Installing with materials other than specific Accessory is not covered under warranty.

Wallmount Bracket

SZK-002 [W/U]

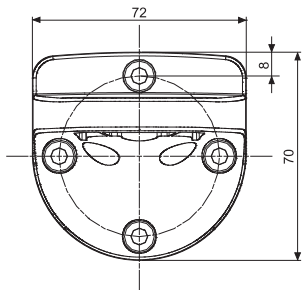
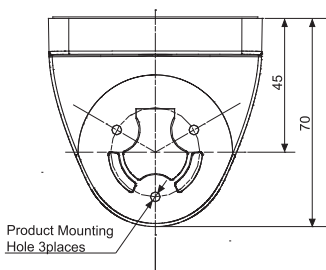


Applicable Models **LR4 - WJ** , **LR5 - WJ** **WT**

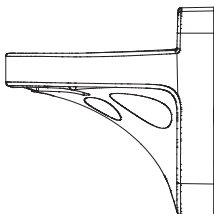
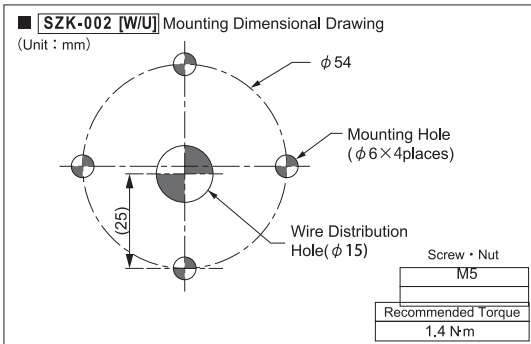
Specifications

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

Outer Dimensions

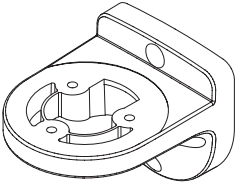


Mounting Dimensional Drawing



Wallmount Bracket

SZK-003 [W/U]



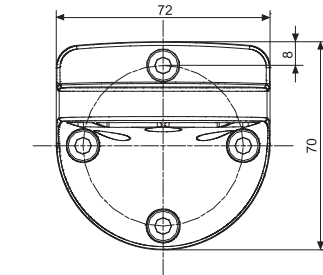
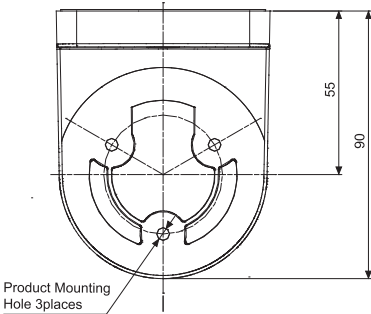
Applicable Models

LR6-WJ, LR7-WJ, WT

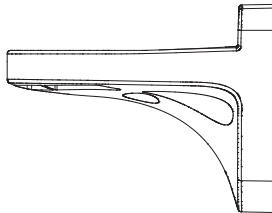
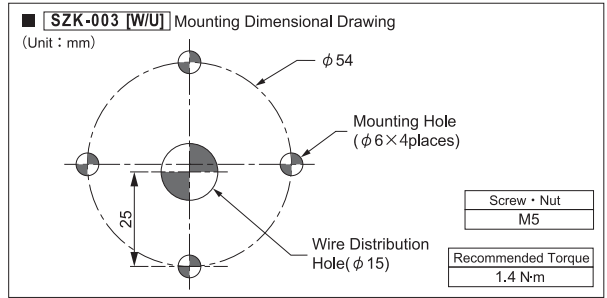
Specifications

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

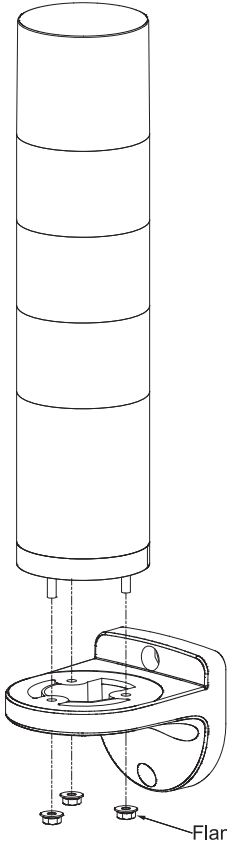
Outer Dimensions



Mounting Dimensional Drawing



How to Product Attachment



- 1 . Product is attach in the Wallmount Bracket with the left figure.
- 2 . Secure the Product with the Flanged nut . (3pcs.)

Recommended Torque
0.6 N·m

△Notice Installing with materials other than specific Accessory is not covered under warranty.

Direct Mount Bracket

SZW-001W



Applicable Models

LR4 - WJ

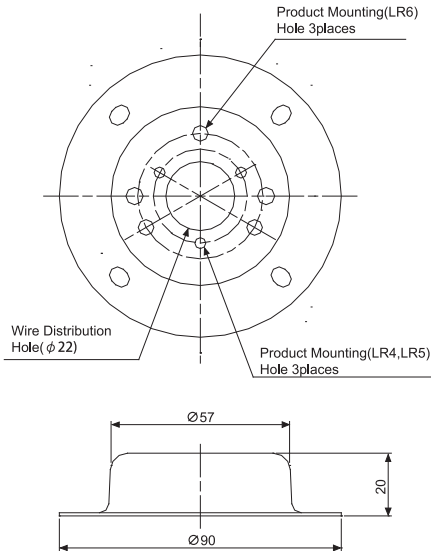
LR5 - WJ WT

LR6 - WJ

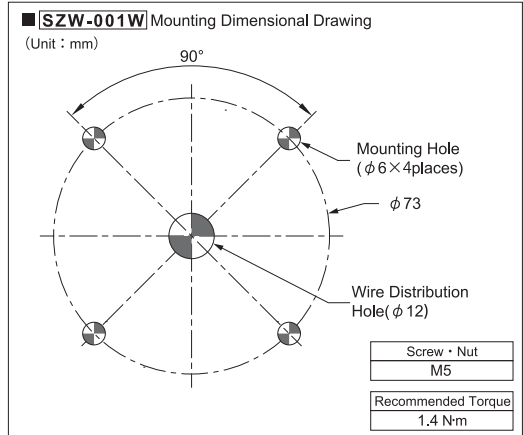
Specifications

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

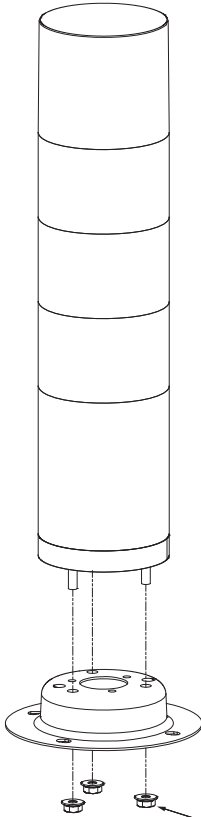
Outer Dimensions



Mounting Dimensional Drawing



How to Product Attachment




- 1 . Product is attach in the Direct Mount Bracket with the left figure.
- 2 . Secure the Product with the Flanged nut . (3pcs.)

Recommended Torque
0,6 N·m

⚠ Notice Installing with materials other than specific Accessory is not covered under warranty.

Flanged nut (3pcs.)

Pole N
POLE22- [0100/0300/0800] AN

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

Applicable Models

LR4- PJ LJ QJ

LR5- PJ LJ ,LR6- PJ LJ QJ

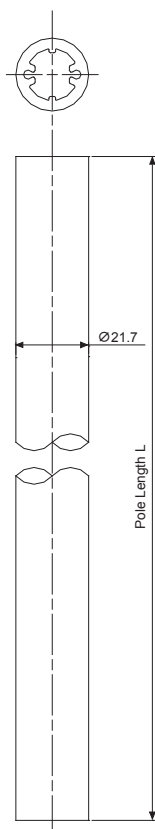
Applicable Optional Parts

	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%) ※Accessory Remove	0.05kg	0.16kg	0.42g
Remarks	There are no contents of controlled substances exceeding the threshold for the RoHS Directive.		

Outer Dimensions




Notice

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

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

Pole T

POLE22- [0300/0500/1000] AT



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

Applicable Models

LR4- PJ LJ QJ

LR5- PJ LJ, LR6- PJ LJ QJ

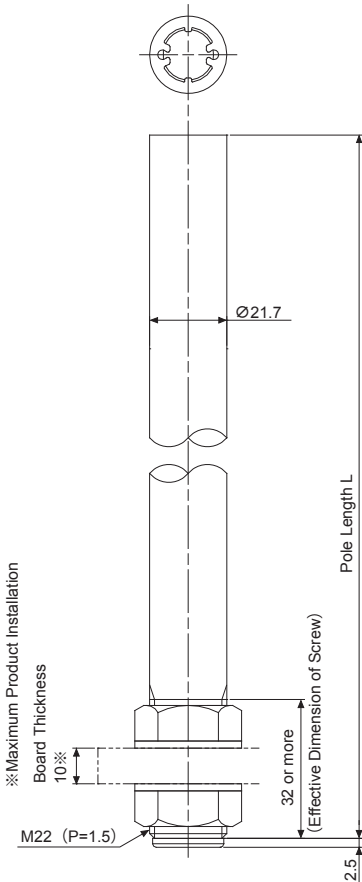
Applicable Models

SZL-001

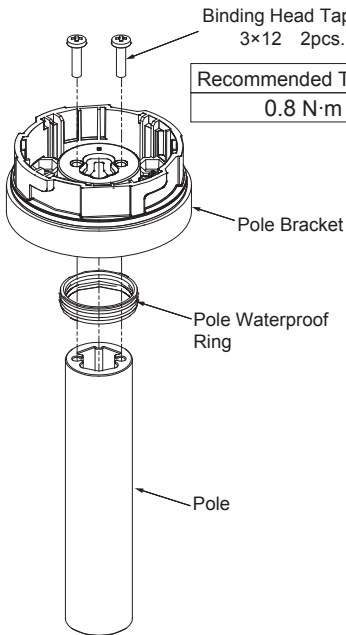
Specifications

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

Outer Dimensions



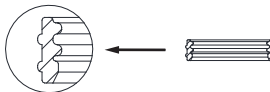
How to Install to Pole Bracket



Binding Head Tapping Screw
3×12 2pcs.

Recommended Torque
0.8 N·m

1. Install Pole Waterproof in Pole installed in the signal tower to Pole.
Then, confirm that 2 ribs become outside.



2. Insert Pole in Bracket.
See the figure on the left for the detail of a direction of an insertion.
3. Tighten up Binding Head Tapping Screws from (2pcs.) the upper of Pole Bracket.

⚠ Notice Installing with materials other than specific Accessory is not covered under warranty.

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G2G

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