

Drawing No.	Rev.	Page
LR-5M2-W18	E	1 / 10

# SPECIFICATIONS

Product Name: Signal Tower

Model: LR□-□M2□□□W

**PATLITE Corporation**

# SPECIFICATIONS

## 1.General Specifications

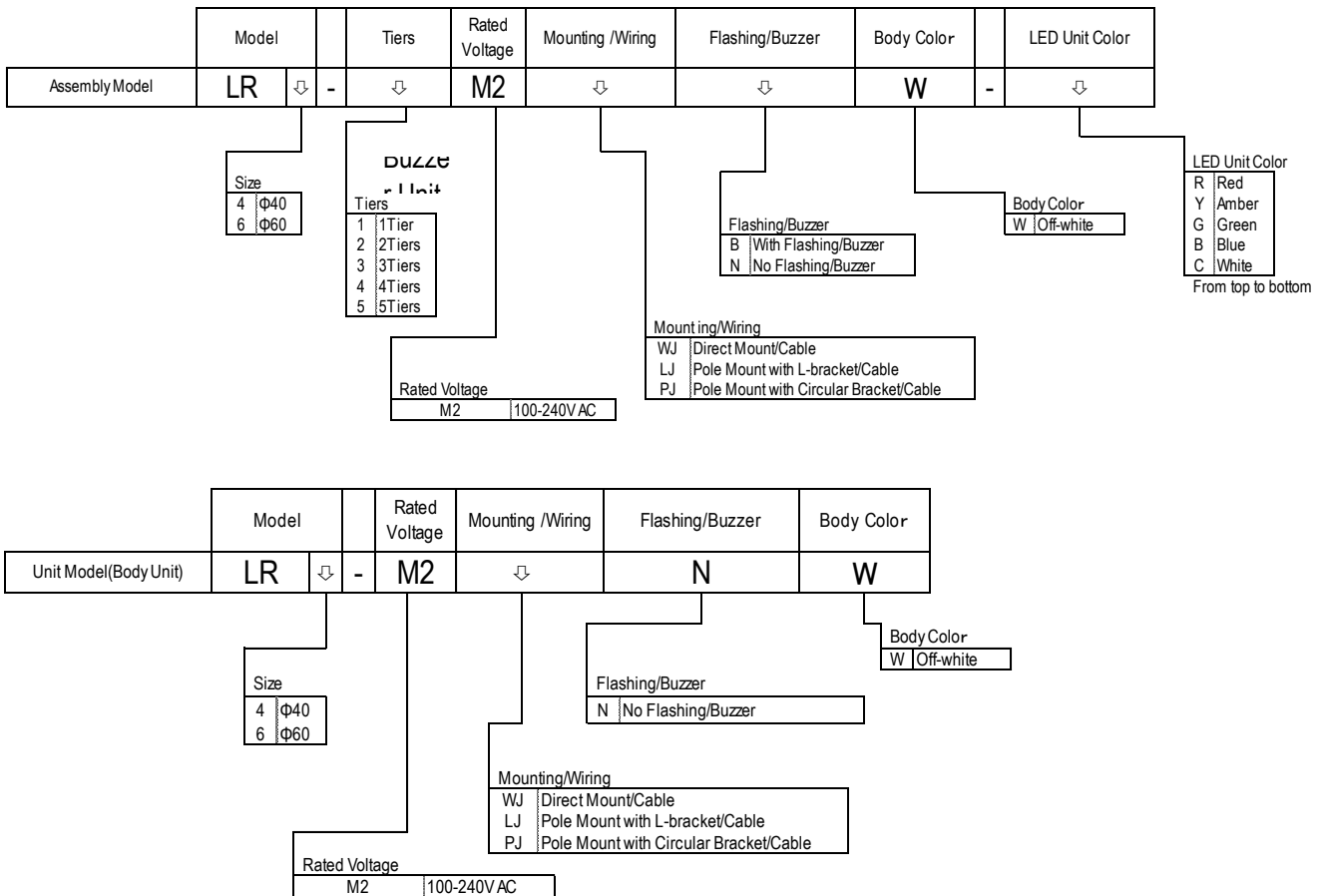
Model		LR□-□M2□□□W		
Rated Voltage		100-240V AC (50/60Hz)		
Operating Voltage Range		90-250V AC (50/60Hz)		
Signal Wire Current (Per Unit)	Typ.	LED Unit : 40mA Buzzer Unit : 40mA (※1)		
	Max.	LED Unit : 45mA Buzzer Unit : 250mA (※1)		
Inrush Current	Power Supply Wire	at 25°C : 25A/ Less than 2ms (Cold-start) 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)(※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		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.2	Continuous beep sound / 3378Hz
	No.3	Rapid Hi-Lo / 2016Hz&3012Hz	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.Outer Dimensions		
Conformity Standards		UL 508, CSA-C22.2 No. 14 EMC Directive (EN 61000-6-4, EN 61000-6-2) RoHS Directive (EN IEC 63000) FCC Part 15 Subpart B Class A KC (KN 61000-6-4, KN 61000-6-2)(※3) Low Voltage Directive(IEC/EN60947-5-1,EN62471)(※3)		
Remarks		(※1)Environmental Condition : Buzzer sound No.2 Continuous beep sound		
		(※2)LJ Type IP54		
		(※3)Except LJ Type		
		Due to the characteristics of the LED elements, a variation in difference of the color tone and brightness of every product may occur		
		UL Recognized Component (File No.E215660)		

LR-5M2-W18E-2\_10

Mass (Tolerance ±10%)	LR4	WJ	(LED Unit) + [Buzzer Unit]	
		LJ	0.25kg + (0.035kg)×Tires + [0.035kg]	
		PJ	0.54kg + (0.035kg)×Tires + [0.035kg]	
	LR6	WJ	0.44kg + (0.035kg)×Tires + [0.035kg]	
		LJ	0.32kg + (0.06kg)×Tires + [0.06kg]	
		PJ	0.6kg + (0.06kg)×Tires + [0.06kg]	
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		
LR-5M2-W18E-3_10				

## 2. Model

### 2.1.1 Model Number Configuration



### 2.1.2 Model Number Example

Assembly Model	LR4-5M2PJBW-RYGB ● φ 40 ● LED Unit 5Tiers ● 100-240V AC ● Pole Mount with Circular Bracket/Cable ● With Flashing/Buzzer ● Off-white ● (From top to bottom) Red · Amber · Green · Blue · White
Unit Model (Body Unit)	LR6-M2WJNW ● φ 60 ● 100-240V AC ● Direct Mount/Cable ● No Flashing/Buzzer ● Off-white

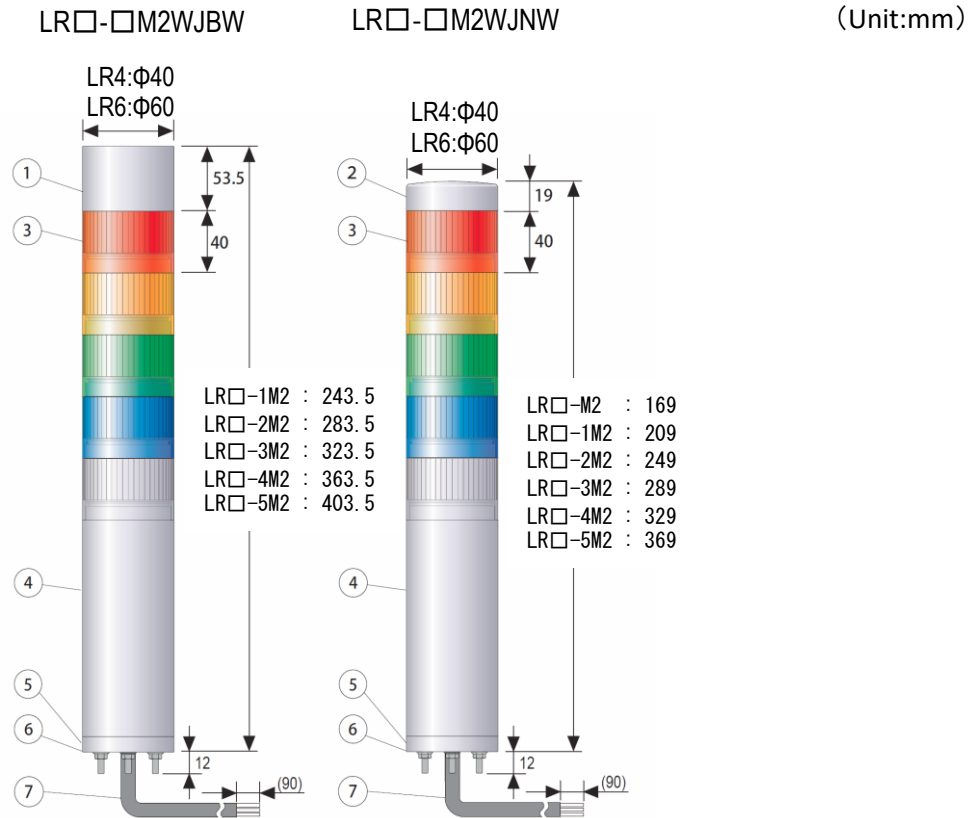
## 2.2. UL Registered Model

LR4	LR4-_M2WJBW , LR4-_M2WJNW , LR4-M2WJNW , LR4-_M2LJBW , LR4-_M2LJNW , LR4-M2LJNW , LR4-_M2PJBW , LR4-_M2PJNW , LR4-M2PJNW
LR6	LR6-_M2WJBW , LR6-_M2WJNW , LR6-M2WJNW , LR6-_M2LJBW , LR6-_M2LJNW , LR6-M2LJNW , LR6-_M2PJBW , LR6-_M2PJNW , LR6-M2PJNW

## 3.Outer Dimensions

## 3.1 LR□-□M2WJ□W

■ **WJ** Direct Mount with Cable



- Maximum Board Thickness : 7
- Cable : UL2464 (Φ7.5)
- Signal Wire : AWG24
- Power Supply Wire : AWG18
- Cable Length : (1300)

Number	Name	Material	UL Flammability
1	Buzzer Case	PC	V-2
2	Head Cover	PC	V-2
3	Globe	PC	V-2
4	Body	PC	V-1
5	Direct Mount Bracket	PC	V-1
6	Waterproof Packing	Silicone Rubber	-
7	Cable	PVC	WW-1

## Accessory

**LR4** - **WJ**

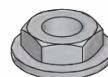
Hexagon Nut with Flange (M3)



3pcs.

**LR6** - **WJ**

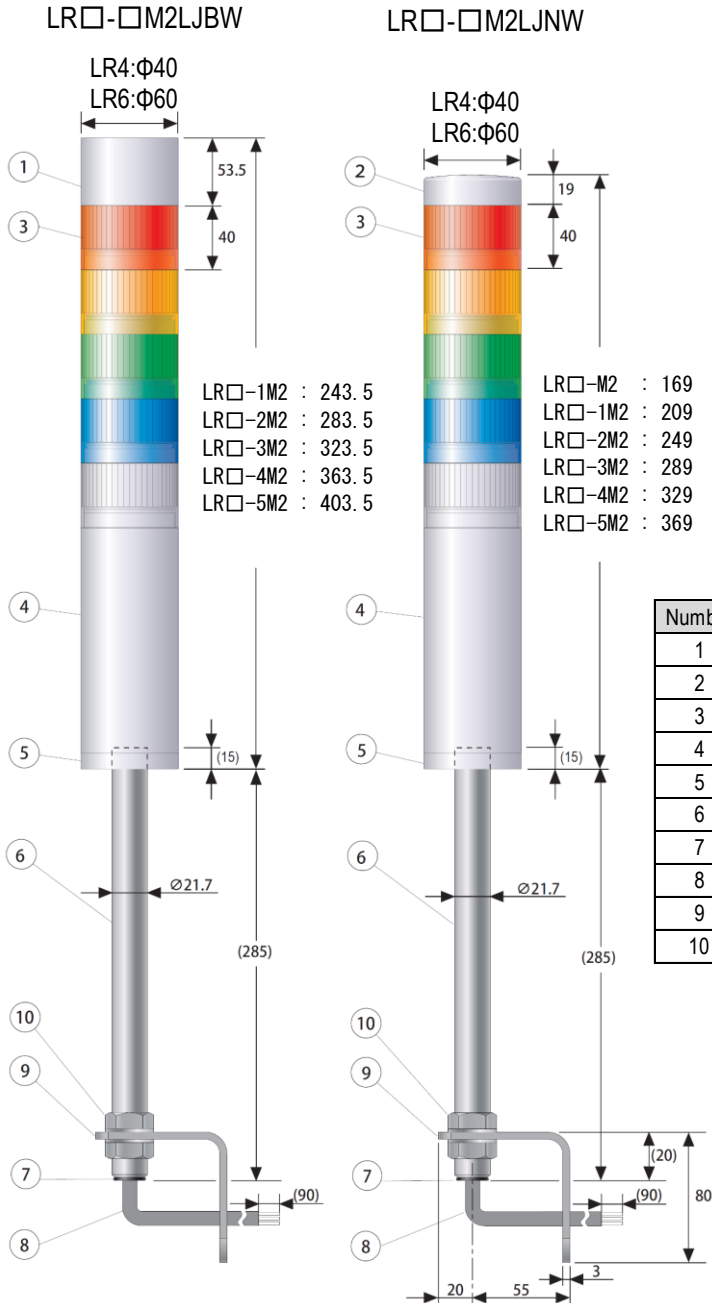
Hexagon Nut with Flange (M4)



3pcs.

3.2 LR□-□M2LJ□W

■ **LJ** L-bracket and Pole Mount with Cable



• Cable : UL2464 (Φ7.5)  
Signal Wire : AWG24  
Power Supply Wire : AWG18  
Cable Length : (1000)

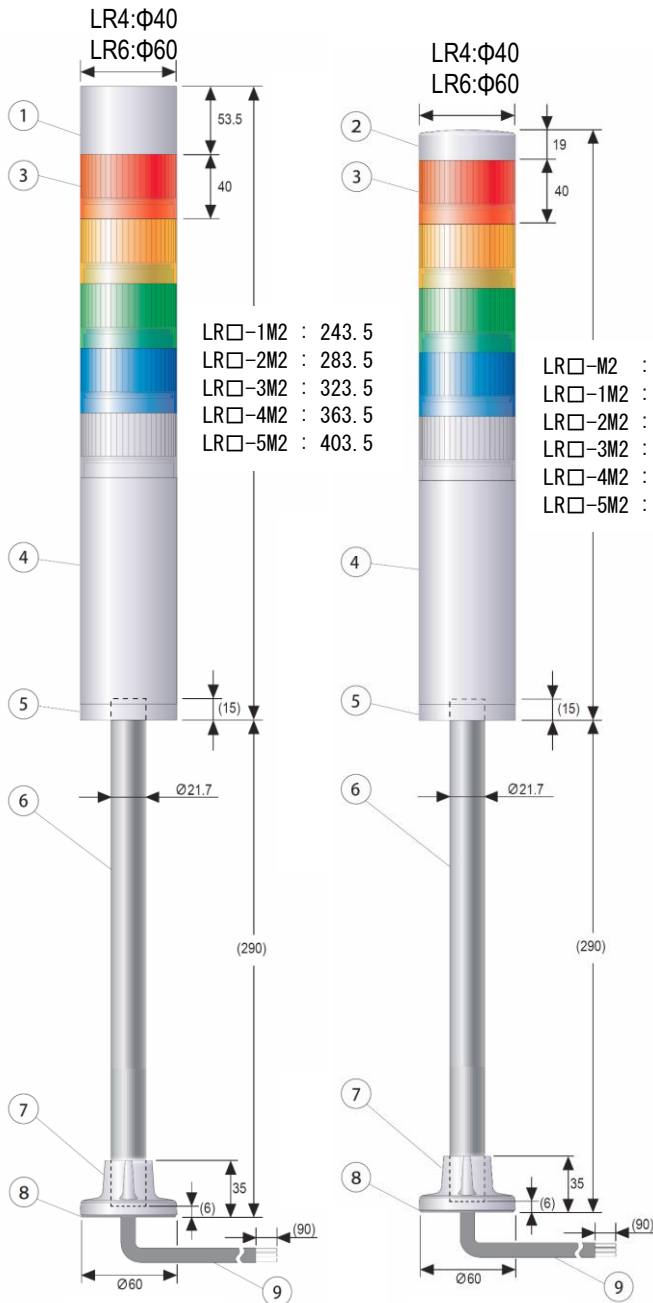
### 3.2 LR□-□M2PJ□W

■ **PJ** Circular Bracket and Pole Mount with Cable

LR□-□M2PJBW

LR□-□M2PJNW

(Unit:mm)



LR□-1M2 : 243.5  
 LR□-2M2 : 283.5  
 LR□-3M2 : 323.5  
 LR□-4M2 : 363.5  
 LR□-5M2 : 403.5

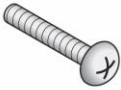
LR□-M2 : 169  
 LR□-1M2 : 209  
 LR□-2M2 : 249  
 LR□-3M2 : 289  
 LR□-4M2 : 329  
 LR□-5M2 : 369

Number	Name	Material	UL Flammability
1	Buzzer Case	PC	V-2
2	Head Cover	PC	V-2
3	Globe	PC	V-2
4	Body	PC	V-1
5	Pole Bracket	PC	V-1
6	Pole	AL	-
7	Circular Bracket	PC	5VA
8	Waterproof Packing	Silicone Rubber	-
9	Cable	PVC	WW-1

Accessory


**LR4-6 - PJ**

Cross Recessed Pan Head Screw (M4x20)



3pcs.

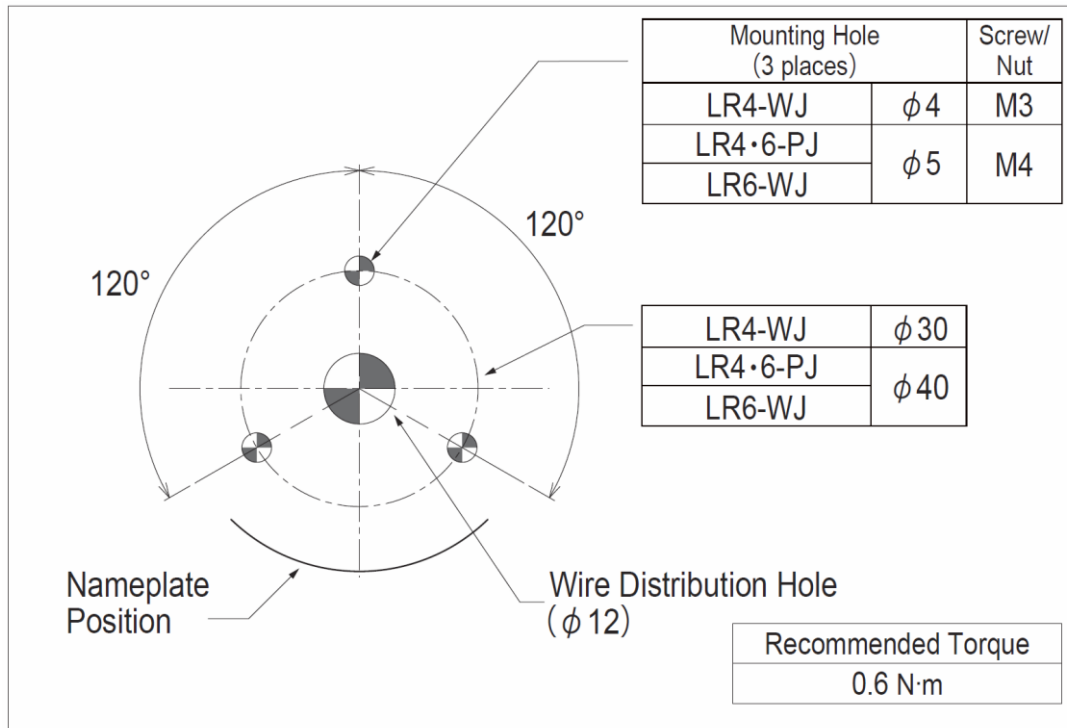
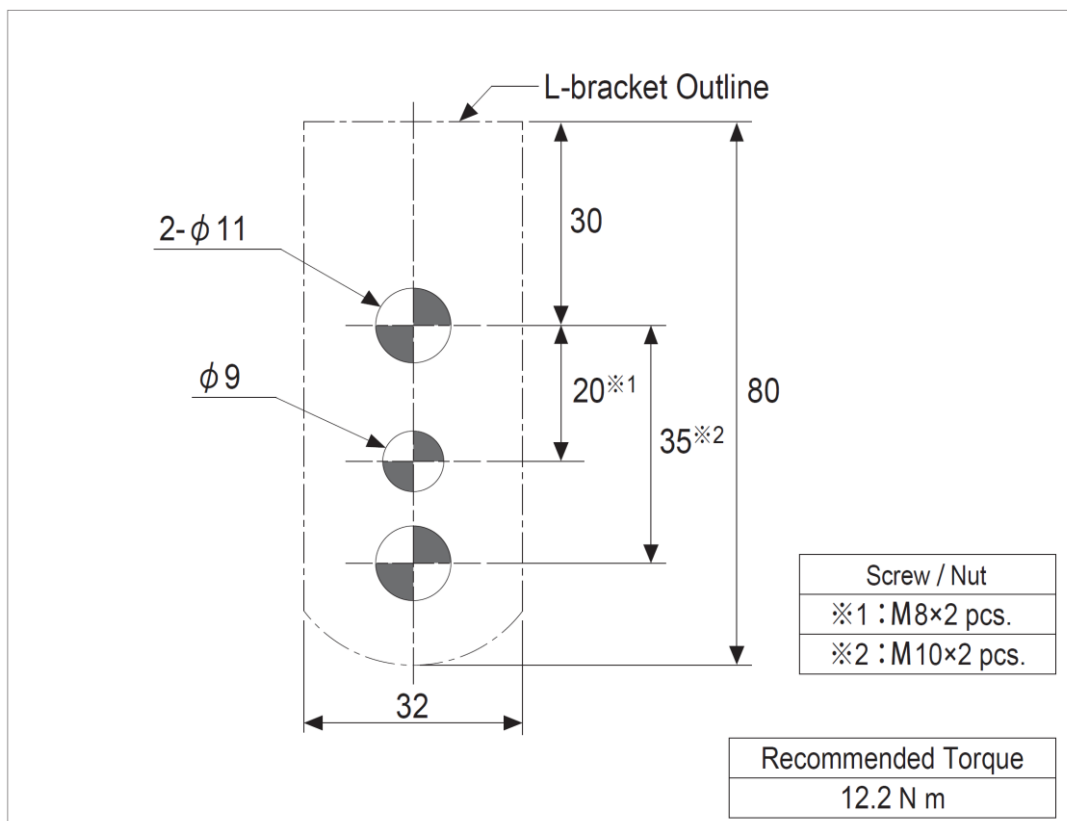
Hexagon Nut with Flange (M4)



3pcs.

• Cable : UL2464 (Φ7.5)  
 Signal Wire : AWG24  
 Power Supply Wire : AWG18  
 Cable Length : (1000)

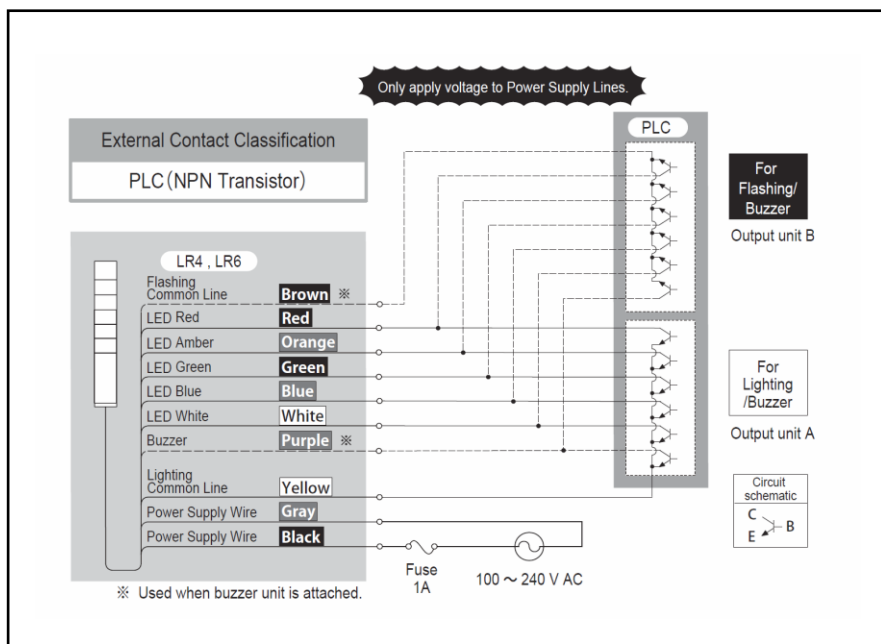
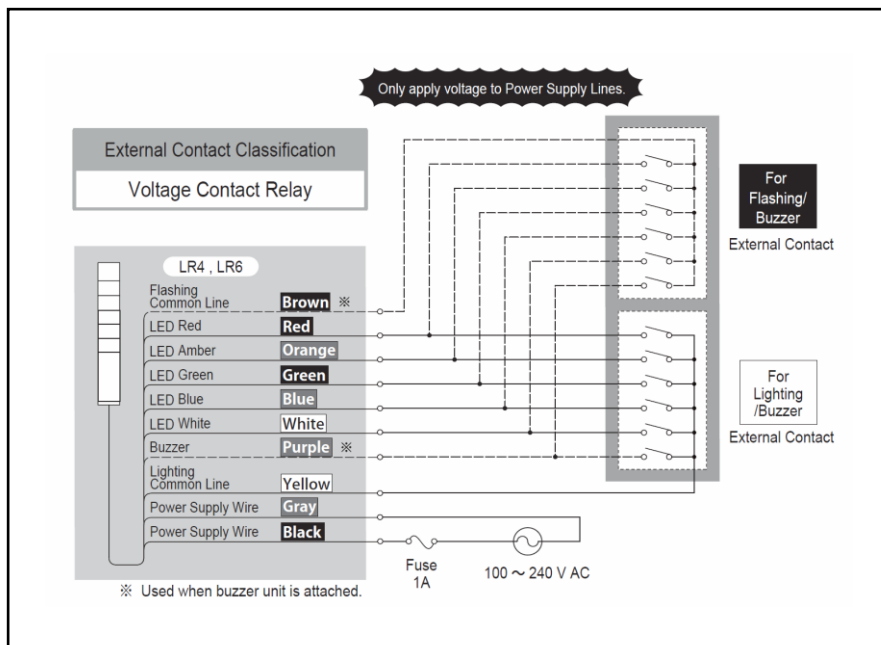
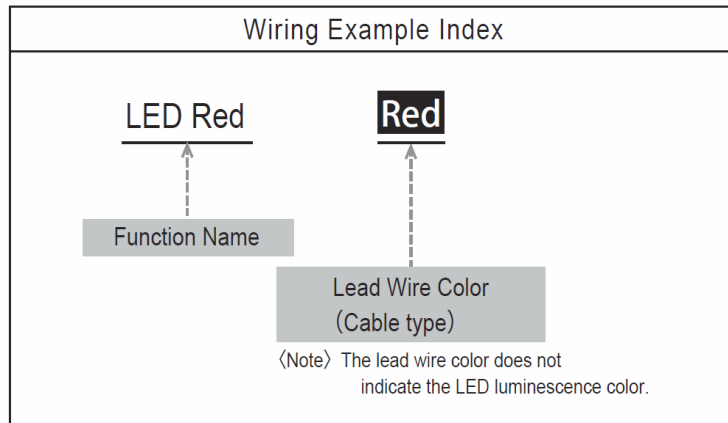
## 4. Mounting Dimensional Drawing

4.1 WJ · PJ Mounting Dimensional Drawing (Unit : mm)4.2 LJ Mounting Dimensional Drawing (Unit : mm)



5.Wiring Diagram

5.1 Wiring Example



## 5.2 External Contact Capacity

Is : Current Capacity Vs : Withstand Voltage IL : Leakage Current

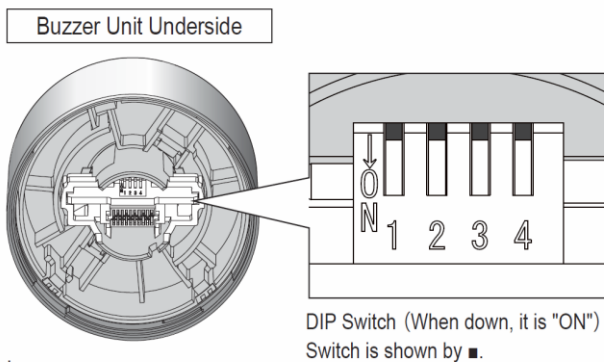
	Recommended contact capacity
LED Unit (1 Tier)	$I_s \geq 100\text{mA}$ $V_s \geq 35\text{V DC}$
Buzzer	$I_s \geq 300\text{mA}$ $V_s \geq 35\text{V DC}$
Power Supply	Inrush current or more contacts
Leakage Current	$I_L \leq 0.1\text{mA}$

### ■ Recommended Fuse

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

## 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.



### ■ 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.