

PATLITE LED Wallmount Signal Tower WME-D INSTRUCTION MANUAL

B95100552_04

Installation Operation Maintenance

[Maintenance Version]

Notice to Customer Thank you very much for purchasing our PATLITE product.
• 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.
• If there are any questions concerning this product, refer to the contact information at the end of this document and contact your nearest PATLITE Sales Representative.

Notice to Contractor • Read this manual carefully prior to installation. • Be sure to return this manual to the customer.

1 Read this First (Safety Precautions)

Warning Failure to observe the following may result in death or serious injury.

- 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 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.

Caution Failure to comply with the following points may result in injury, physical loss or damage.

- 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. (FB With Flashing/Buzzer)
- In order to maintain protection of this product against dust and waterproofing performance, be sure to use the head cover and LED unit in the condition that it was originally attached.
- When waterproofing is necessary, do not use it in a state where sealing the mounting bracket is done insufficiently. Water may penetrate and cause a breakdown.
- Do not apply voltage to the Flashing Common line (FB). Apply voltage to the power source line (M2) only. 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.

2 Model Number Configuration

Model	Tiers	Rated Voltage	Flashing/Buzzer	LED Unit Color
WME	-		D	- RYGB

1 - 5 Tiers

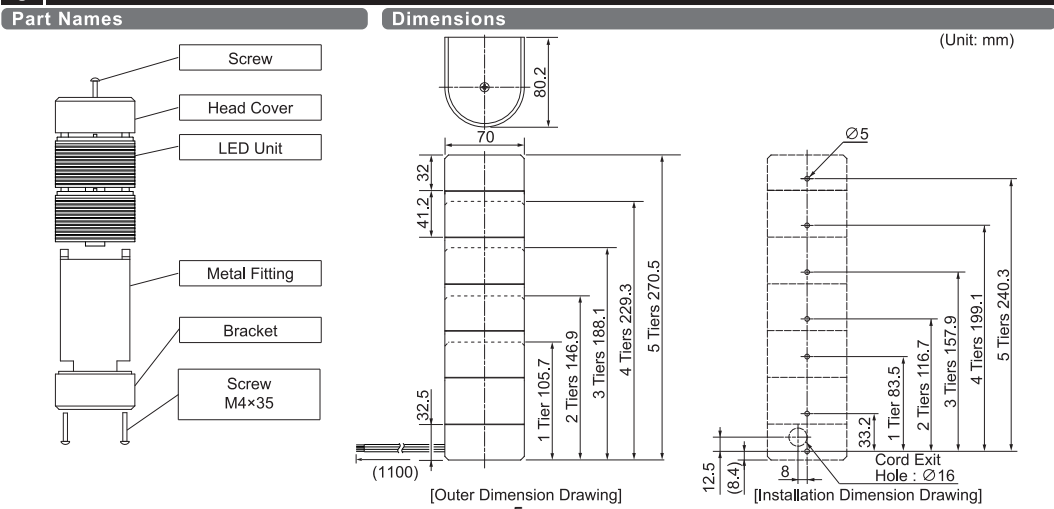
FB With Flashing/Buzzer

(Blank) No Flashing/Buzzer

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

(Example: WME-5M2D, WME-5M2DFB, WME-502DFB)

3 Part Names and Dimensions



Wiring Example

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

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

Regardless of the number of tiers, the signal lines from the main body are red, orange, green, blue and white.

Buzzer (FB Type)

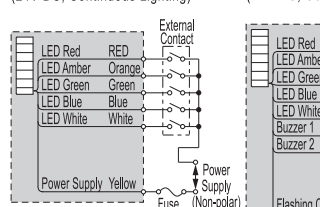
Buzzer	Wire color
Buzzer 1 : Rapid intermittent beep 1	Purple
Buzzer 2 : Rapid intermittent beep 2	Sky blue

※ Buzzer 1 is priority when connected simultaneously to common with buzzer 2.

[Voltage contact relay]

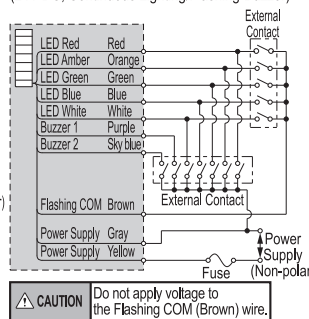
Model WME-□02D

(24V DC, Continuous Lighting)



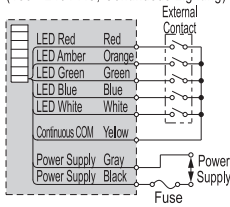
Model WME-□02DFB

(24V DC, Continuous Lighting/Flashing-Buzzer)



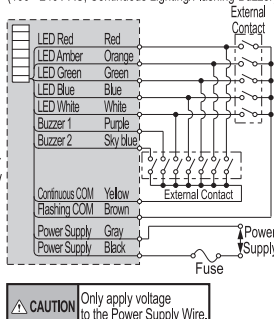
Model WME-□M2D

(100 - 240V AC, Continuous Lighting)



Model WME-□M2DFB

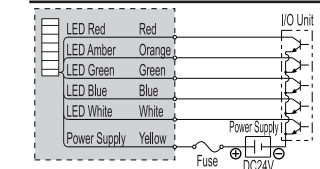
(100 - 240V AC, Continuous Lighting/Flashing-Buzzer)



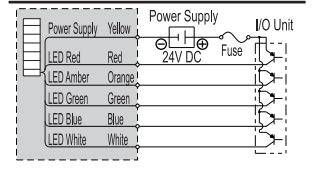
[NPN / PNP transistor]

Model WME-□□□D (Continuous Lighting)

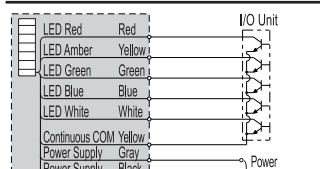
NPN Transistor (24V DC Type)



PNP Transistor (24V DC Type)



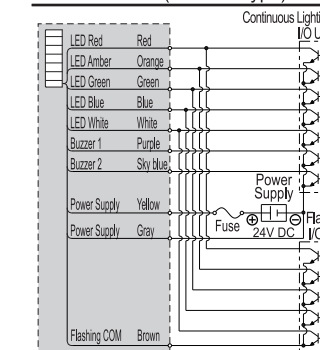
NPN Transistor (100V - 240V AC Type)



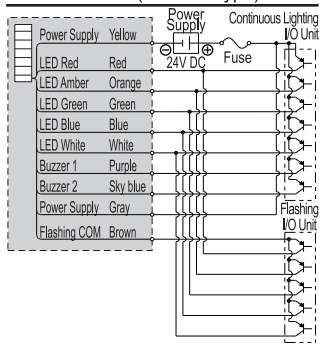
Model WME-□□□DFB (Continuous Lighting/Flashing-Buzzer)

*When using the FB type, use a separate I/O unit for flashing.

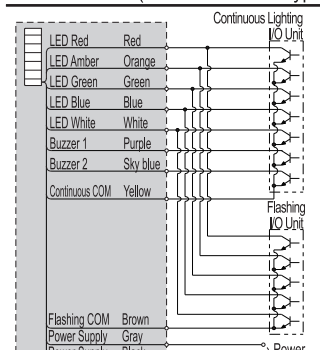
NPN Transistor (24V DC Type)



PNP Transistor (24V DC Type)



NPN Transistor (100V - 240V AC Type)



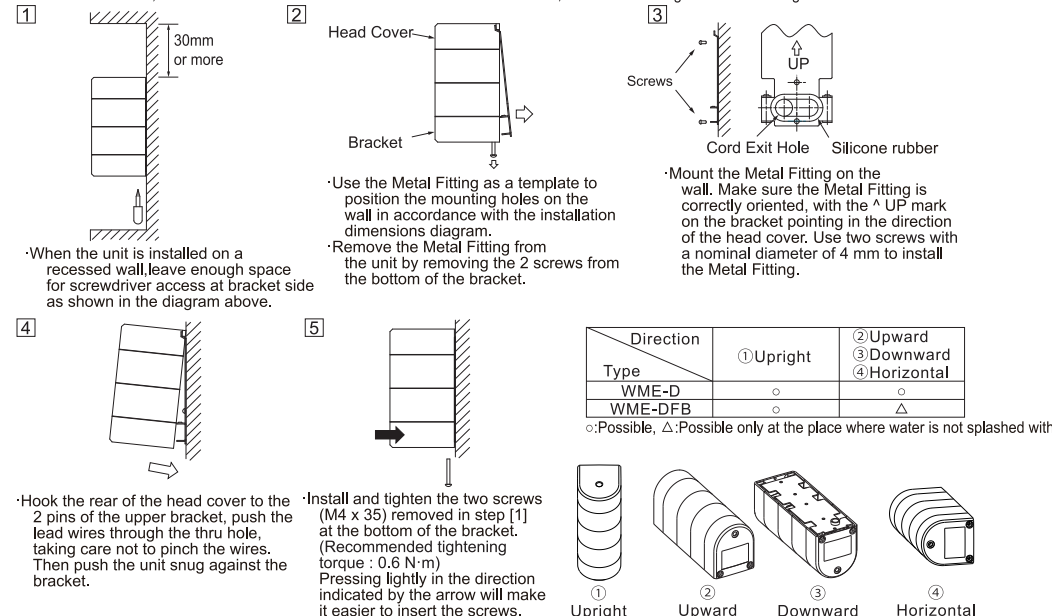
4 Installation

Caution • Do not install in any manner, other than the method specified.

- 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.
 - This product can only be used indoors. (Do not use it outdoors.)
 - When the unit must be watertight, apply silicone rubber or an equivalent sealant between the wall and Metal Fitting at the wire exit hole.
 - When the installation location is unavoidably irregular and waterproof performance is required, use a sealant between the product and the installation surface.

How to Install

- Drill mounting holes in the wall for L-bracket installation, or in the panel for direct mount installation.
- Secure the Metal Fitting with hex bolts and hex nuts (not supplied).
- With buzzer models, the alarm can be heard best from the front direction. Therefore, make sure the Signal Tower is facing the correct direction before installation.



5 Wiring

- 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 voltage to the Flashing Common line (02). Apply voltage to the power source line (M2) only. Product failure will occur.
- Do not control the flashing display by switching the power source ON and OFF (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 may 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.
 - Use external contacts as independent contacts when using with the flashing type.

External Contact Capacity

LED Unit (1 Tier)	Voltage Specification		Is : Current Capacity.		Vs : Withstand Voltage.		IL : Leakage Current	
	Signal Wire Current (Max.) / Voltage	Typ.	29 mA	Max.	29 mA	Max.	29 mA	Max.
Buzzer	Recommended Contact Capacity	Is ≥ 100 mA	Vs ≥ 35 V DC	35 mA	Is ≥ 100 mA	Vs ≥ 35 V DC	35 mA	35 mA
	Signal Wire Current (Max.) / Voltage	Typ.	40 mA	Max.	50 mA	Max.	5 mA	Max.
Power Supply	Recommended Contact Capacity	Is ≥ 300 mA	Vs ≥ 35 V DC	300 mA	Is ≥ 10 mA	Vs ≥ 35 V DC	10 mA	Max.
	Current Consumption (Max.) (※1)	Typ.	200 mA	Max.	280 mA	Max.	110 mA	Max.
Inrush Current	Recommended Contact Capacity	Is ≥ 500 mA	Vs ≥ 35 V DC	500 mA	Inrush Current or more contacts	Inrush Current or more contacts	100 V AC : 11A, 240V AC: 25A	2ms or less
	Signal Wire	LED None Buzzer 100mA 3ms or less (※2)	None	None	100 V AC : 11A, 240V AC: 25A	2ms or less	IL ≤ 0.1 mA	IL ≤ 0.1 mA

- It is the value at rated voltage. ※1...LED Unit current flow when 5 tiers are connected.
- The signal wire voltage is 24 V DC. ※2...When Gray power supply wire is connected, there is no inrush current.

Recommended Fuse

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

6 Changing LED Unit positions

Warning • Make sure the power is off before wiring, repairing, or replacing parts to avoid a short-circuit, electric shock, or burn.

- Caution**
- Do not remove the LED unit forcibly as it may damage the unit.
 - When the center screw is loosened or removed, the LED units become unstable and may separate. Therefore, handle carefully to avoid damage.
 - Do not touch the connector area or the inside of the body and LED unit. Failure to comply may damage the unit.
 - Screwing the head cover too tight may damage it. The recommended torque is about 0.6N·m.

Changing LED Unit positions

- Remove the product.
- Turn off the power before changing LED Units.
- Unscrew the head cover and remove the LED units.
- The LED units are connected to each other by connectors. Therefore, be sure to connect the LED Unit connectors from top to bottom.

7 Specifications

Tiers	Model	UL Registration Model	Rated Voltage	Power Consumption	Mass	Flash Cycle (fpm) and Sound Level
1 Tier	WME-102D	WME-_02D	24V DC	0.9W	0.28kg	[FB] Type 60 Flashes per minute & Sound level 93dB (Buzzer opening direction at 1m)
	WME-102DFB	WME-_02DFB	24V DC	2.1W	0.28kg	
	WME-1M2D	WME-_M2D	100 - 240V AC (50/60Hz)	1.6W	0.35kg	
	WME-1M2DFB	WME-_M2DFB	100 - 240V AC (50/60Hz)	2.8W	0.35kg	
2 Tiers	WME-202D	WME-_02D	24V DC	1.8W	0.37kg	
	WME-202DFB	WME-_02DFB	24V DC	3.0W	0.37kg	
	WME-2M2D	WME-_M2D	100 - 240V AC (50/60Hz)	2.9W	0.44kg	
	WME-2M2DFB	WME-_M2DFB	100 - 240V AC (50/60Hz)	4.1W	0.44kg	
3 Tiers	WME-302D	WME-_02D	24V DC	2.7W	0.46kg	
	WME-302DFB	WME-_02DFB	24V DC	3.9W	0.46kg	
	WME-3M2D	WME-_M2D	100 - 240V AC (50/60Hz)	4.2W	0.53kg	
	WME-3M2DFB	WME-_M2DFB	100 - 240V AC (50/60Hz)	5.4W	0.53kg	
4 Tiers	WME-402D	WME-_02D	24V DC	3.6W	0.55kg	
	WME-402DFB	WME-_02DFB	24V DC	4.8W	0.55kg	
	WME-4M2D	WME-_M2D	100 - 240V AC (50/60Hz)	5.5W	0.62kg	
	WME-4M2DFB	WME-_M2DFB	100 - 240V AC (50/60Hz)	6.7W	0.62kg	
5 Tiers	WME-502D	WME-_02D	24V DC	4.5W	0.64kg	
	WME-502DFB	WME-_02DFB	24V DC	5.7W	0.64kg	
	WME-5M2D	WME-_M2D	100 - 240V AC (50/60Hz)	6.8W	0.71kg	
	WME-5M2DFB	WME-_M2DFB	100 - 240V AC (50/60Hz)	8.0W	0.71kg	

- (Conformity Standards)
- UL 508, CSA-C22.2 No. 14
 - RoHS Directive (EN 50581)
 - KC (KN 61000-6-4, KN 61000-6-2)
 - EMC Directive (EN 61000-6-4, EN 61000-6-2)
 - FCC Part 15 Subpart B Class A
 - Low Voltage Directive (IEC/EN60947-5-1, EN62471)

- Conformity requirements for the UL Standard:
 - Use a fuse holder with UL standard certification. (M2)
 - This product is designed for use on a flat surface for a Type 1 Enclosure.
 - "Use class 2 circuit for the power supply source", located on either the unit, its carton, or accompanying instruction sheet.
 - Models with rated 24 V only.
 - For use in Pollution Degree 2 Environment.
 - Maximum surrounding air temperature rating of 55 °C (M2) (M2) 50 °C)
- Conformity requirements for the CE Marking:
 - 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.

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

PATLITE Corporation G2C

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