

Signal Tower

INSTALLATION MANUAL

[Model : WME-A]

Thank you for specifying the PATLITE Signal Tower for your application. Please read these instructions carefully before you perform installation, maintenance and repair. Store this manual carefully for easy reference. If you have any questions about this product, please contact PATLITE Corporation.

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.

1. To operate this product safely, please observe the following

Warning

- Make sure the power is off before wiring, repairing, or replacing parts to avoid a short-circuit, electric shock, or burn.
- Do not use this product with the lens damaged or removed, or without the head cover in order to avoid an electric shock.
- If installing this product requires construction work, please ask a specialist in order to avoid electric shock, fire, or personal injury.
- When this product is used for security purposes, it should be inspected daily. In case a malfunction should occur, it is recommended that you use this product together with other security products.
- Do not use this product to support your weight while climbing onto a machine. Mount the product so that it is clear of any moving parts - such as a machine cover.

Caution

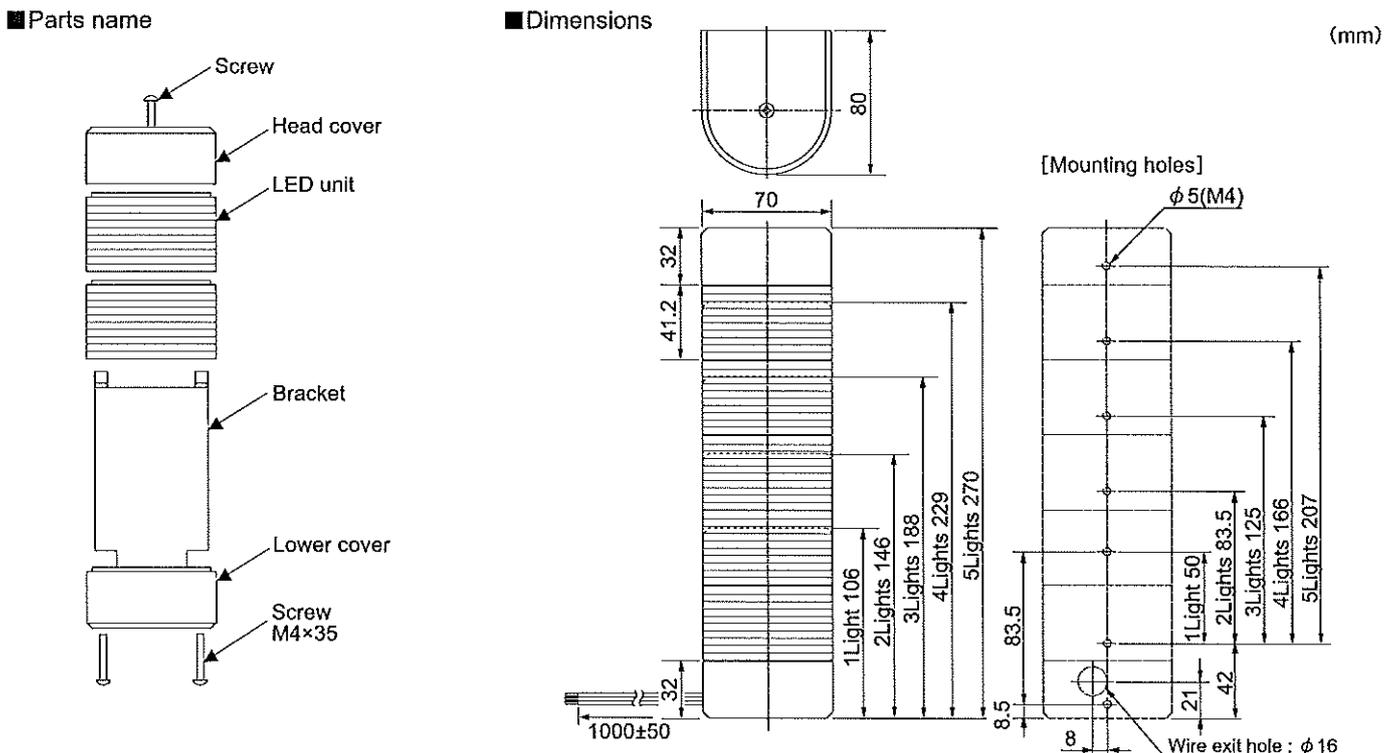
- Concerning replacement parts, such as LED unit, bulb or fuse, be sure to use those specified in this manual.
- For safety, make sure to connect an external fuse to the power source as shown in the wiring example.
- Do not substitute parts of units from other products as this may cause a breakdown.

2. Model No. Configuration

WME - □ □ □ AFB

- Light style
1~5 Light style
- Rated voltage
02: 24V AC/DC
M2: 90~250V AC
- Light method
FB: Continuous light or flashing with Buzzer
Blank: Continuous light

2. Model No. Configuration

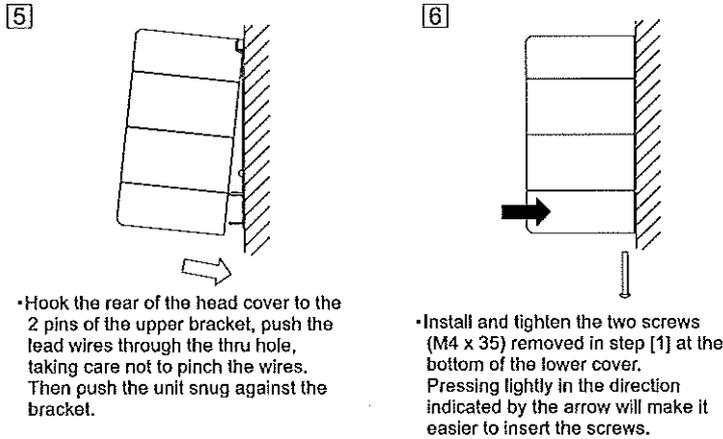
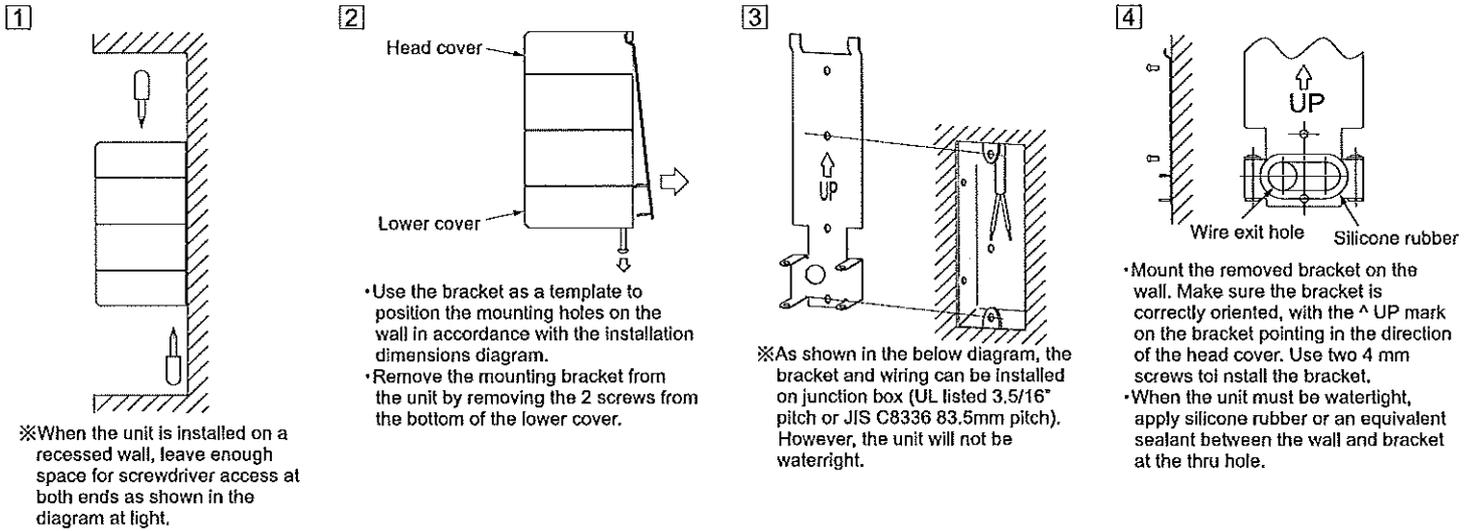


4. Installation

● Mounting

- Install the Signal Tower vertically at a location that has sufficient strength and minimal vibration.
- Use an appropriate grommet in the wall thru hole to protect the lead wire from scratching by the bushing, etc.
- The mounting holes must be appropriate for the type of screw and the wall thickness.
- 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 install it.

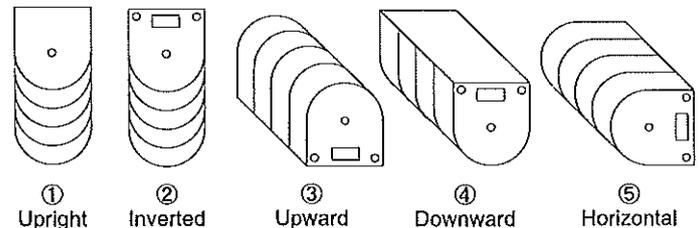


Direction / Type	① Upright	② Inverted	③ Upward ④ Downward ⑤ Horizontal
WME-A	○	×	○
WME-AFB	○	×	△

○:Possible, △:Possible only at the place where water is not splashed with, ×:Impossible

Caution

- This product can be used only indoors. (Do not use it outdoors.)
- Do not install the Signal Tower inverted.
- Do not leave the product or use it without LED unit installed.
- Use the soft cloth with moisture when the LED unit or bodies must be cleaned up. (Do not use thinner, benzine, gasoline or oil.)
- When you set up, do not twist with the powerful torque, or connector may be damaged.



5. Wiring procedure

5.1 Wiring procedure

- Please make wiring connection according to wiring example.
- For wiring of 5 layers or less, please make wiring connection by increasing or decreasing external contacts in each layer according to wiring example.
- When using 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 light. (This is because LED units of the same color light up for one signal line.)
- Fuse for protection of external contact should be installed within 305mm from the connected point of the power source wire.
- When wiring is completed, insulate the end of each unused lead wire by using insulation tape.
- Use "Class 2 Circuit" for the power supply source.(For 24V type)
- Concerning fuse and fuse-holder, be sure to use the products authorized by UL Inc.
- Use the fuse conforming to the rated current of the machine which you install product. (Example : Class J type fuse)
- For the 90~250V AC type, connect the green / yellow lead wire to the ground.

[Wire color table]

LED unit color	Wire color	Buzzer	Wire color
Red	Red wire	Nothing	—
Amber	Orange wire	Buzzer1	Purple wire
Green	Green wire	Pi·Pi·Pi···	
Blue	Blue wire	Buzzer2	Skyblue wire
White	White wire	Pee·Pee·Pee···	

[External contact capacity]

Voltage spec.		24V AC/DC	90~250V AC
LED unit (per 1 light)	Current consumption	Red: 25mA, Amber: 30mA Green: 20mA, Blue, White: 40mA	
	Contact capacity	Is ≥ 100mA, Vs ≥ 35V AC	
Buzzer	Current consumption	40mA	
	Inrush Current	250mA	
	Contact capacity	Is ≥ 300mA, Vs ≥ 35V AC	
Power supply	Current consumption	200mA	160mA
	Inrush Current	—	100V: 10A, 250V: 25A
	Contact capacity	Is ≥ 500mA Vs ≥ 35V AC	Is ≥ 200mA Vs ≥ 250V AC

※Is:Current capacity, Vs:Withstand Voltage

[External contact fuse]

Voltage	Ampere rating of fuse
All type	250V 1A

Caution

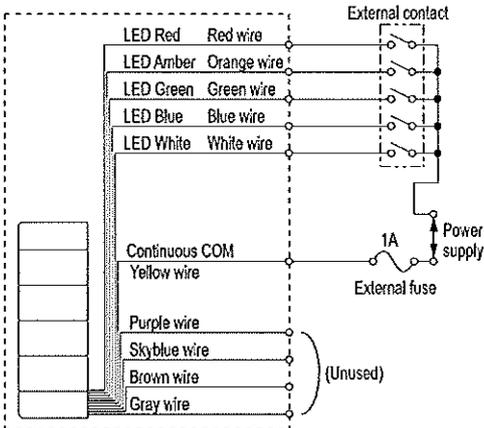
- Make sure the power is OFF before wiring. A short circuit may damage internal circuits or cause an electric shock.
- Do not apply voltage directly to signal wires and common wires. It may damage the circuit. (100V, 120V, 220V, 230~240V AC)
- Do not pull out the lead wire or push it into the pole or the body.
- Enough attention shall be paid for wiring because if there is any mistakes in wiring a circuit may brake down.
- Install the external contact fuse on the power supply side as shown in the wiring example in order to prevent burn in case of a wiring error.
- Do not apply voltage directly to the brown lead wire. It may cause a breakdown.(FB type)
- Do not connect the yellow lead wire and the brown lead wire. It may damage the internal circuit.
- Simultaneously turning on the external contact for both constant lighting and flashing for the same light (color), may cause another light (color) to light up. To avoid this, provide separate switches for flashing or continuous lighting.
- When turning on the same function, such as flashing or alarms, for more than one product simultaneously, be sure to use separate external contacts for each product and function.
- When using both alarm sounds on one product, use separate contacts for the alarms and the lights.

5.2 Wiring example

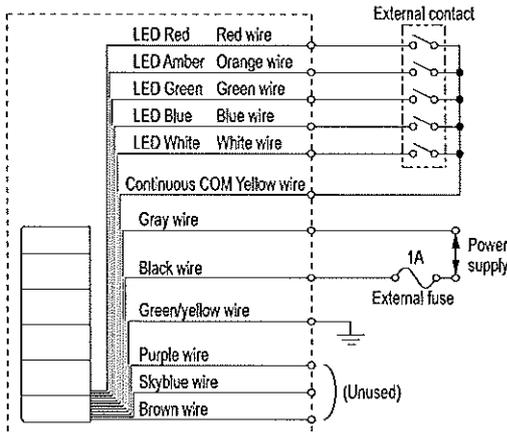
1. Control using contact ON/OFF

WME-A type [Continuous light type]

■24V AC/DC type

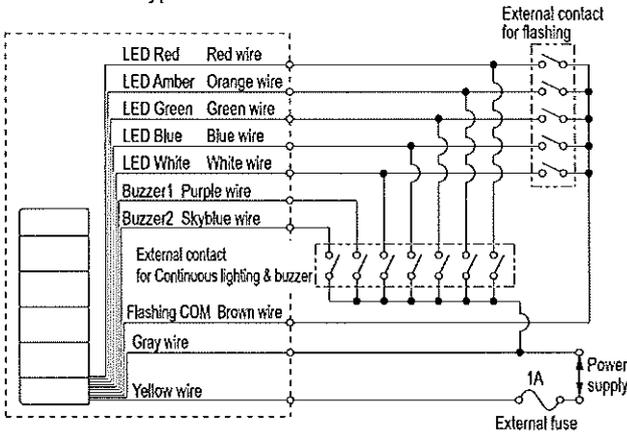


■90~250V AC type

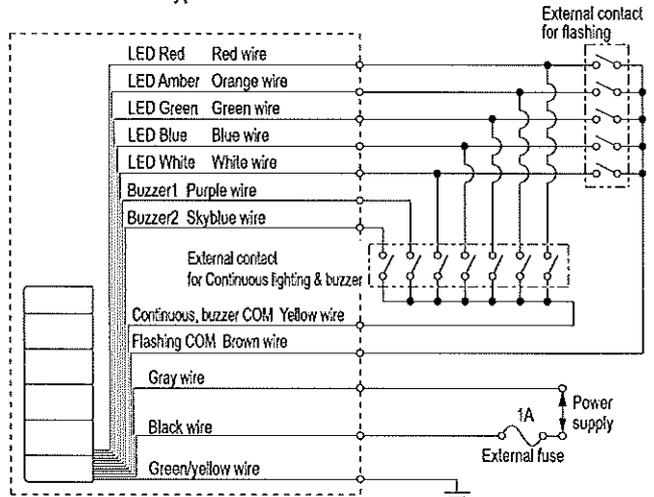


WME-AFB type [Continuous light or flashing, with Buzzer type]

■24V AC/DC type



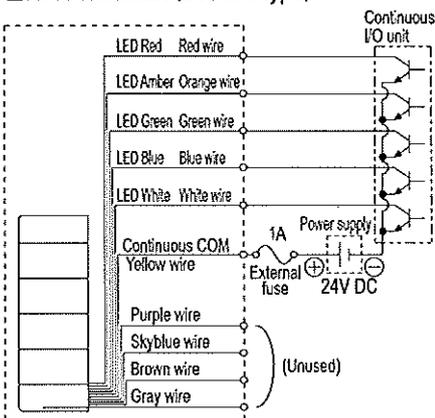
■90~250V AC type



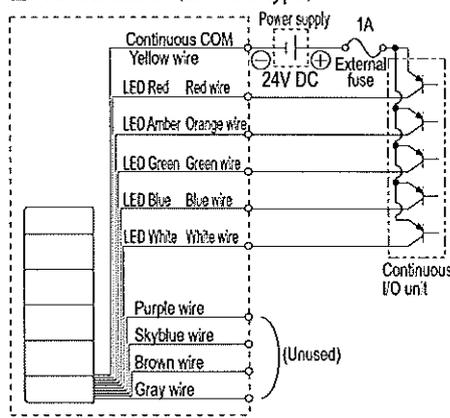
2. NPN(PNP)Transistor drive example

WME-A type [Continuous light type]

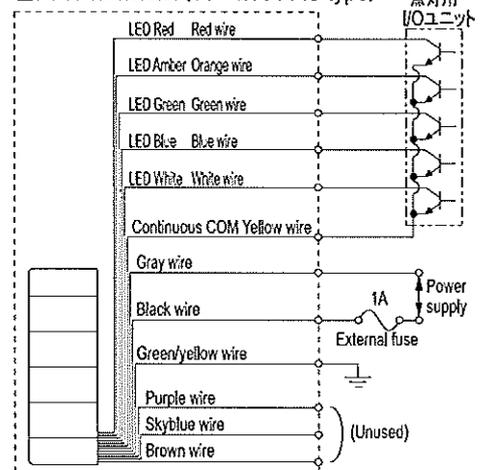
■NPN Transistor(24V DC type)



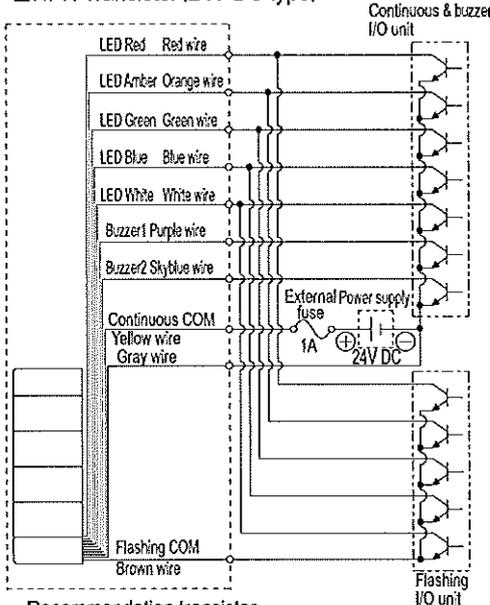
■PNP Transistor(24V DC type)



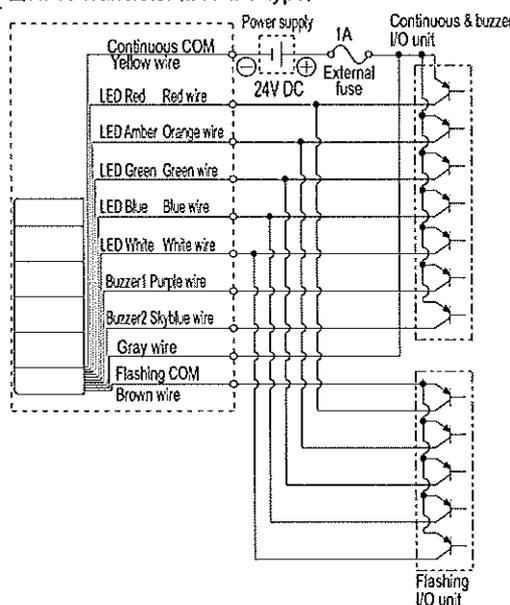
■NPN Transistor(90~250V AC type)



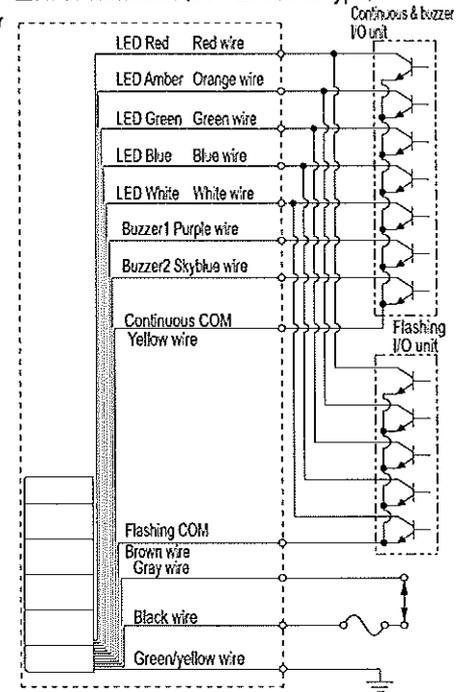
■ NPN Transistor (24V DC type)



■ NPN Transistor (24V DC type)



■ NPN Transistor (90~250V AC type)



Recommendation transistor

Current capacity	Ic ≥ 100mA (LED unit) Ic ≥ 300mA (Buzzer)
Withstand voltage	Vc ≥ 35V
Leak current	IL ≤ 0.1mA

6. Maintenance

6.1 Exchange method parts

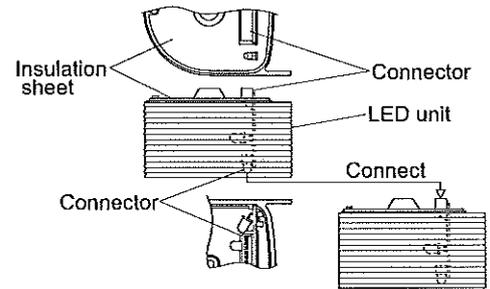
- LED unit, Head cover, Screw, Bracket

6.2 Color Reformation

- Make sure the power is turned OFF before you start color reformation.
- Loosen the screws at the center of the head cover, then remove the head cover.
- The LED units are connected to each other by connectors.
- When you perform color reformation, securely reconnect the connectors to the LED units.
- Make sure the LED units are installed with their top and bottom facing the correct direction. (The insulation sheet should be installed on the top end.)
- Do not use excessive force when disconnecting connectors. It can damage the connector.
- Do not warp or damage the LED units by pressure from your hands.

6.3 Cleaning

- Use the soft cloth with moisture when the LED unit, head cover or lower cover must be cleaned up. (Do not use thinner, benzine, gasoline or oil.)



7. Specifications

Light style	Model	Rated voltage	Power consumption	Mass	Flashing cycle and Peak sound level Wire type /Dia
1 Light	WME-102A(FB)	24V AC/DC (50/60Hz)	2.5W	0.31kg	
	WME-1M2A(FB)	90~250V AC (50/60Hz) 24V	4.4W	0.38kg	
2 Lights	WME-202A(FB)	AC/DC (50/60Hz)	3.0W	0.39kg	
	WME-2M2A(FB)	90~250V AC (50/60Hz)	6.4W	0.46kg	
3 Lights	WME-302A(FB)	24V AC/DC (50/60Hz)	4.0W	0.47kg	
	WME-3M2A(FB)	90~250V AC (50/60Hz)	8.4W	0.54kg	
4 Lights	WME-402A(FB)	24V AC/DC (50/60Hz)	5.0W	0.55kg	
	WME-4M2A(FB)	90~250V AC (50/60Hz)	10.4W	0.62kg	
5 Lights	WME-502A(FB)	24V AC/DC (50/60Hz)	6.0W	0.63kg	
	WME-5M2A(FB)	90~250V AC (50/60Hz)	12.4W	0.70kg	

Caution

- PATLITE Corporation disclaims all liability for any malfunction or damage occurring as a result of handling contrary to the instructions, cautions and warnings mentioned in this manual.
- Specifications may change without notice due to continual product improvement.