1. Dimensions

Type KJS, KJSB, KES, KESB Type KJ,KJB _ □116 □82 173 4-M4

Style	Model	Rated voltage	Rated current	Flashing cycle	Bulb	1	
	KJS(B)-101	12V DC	0.54		12V 5W		
	KJS(B)-102	24V DC	0.5A		24V 10W	C	
1 light	KJS(B)-110	100V AC	0.06A	160 fashes			
riigin	KJS(B)-112	110~120V AC	0.00A	par minute	12V 5W		
	KJS(B)-120	220V AC	0.03A		120 200	C	
	KJS(B)-124	240V AC	0.03A				
	KJS(B)-201	12V DC	1.04	1.0A		12V 5W	C
	KJS(B)-202	24V DC	1.0A	160 fashes par minute	24V 10W	, c	
0 liabta	KJS(B)-210	100V AC	0.1A				
2 lights	KJS(B)-212	110~120V AC	0.1A		12V 5W	-	
	KJS(B)-220	220V AC	- 0.05A		120 500	1.2K	
	KJS(B)-224	240V AC					
	KJS(B)-301	12V DC	1.5A		12V 5W	-	
	KJS(B)-302	24V DC	1.5A		24V 10W	1	
3 lights	KJS(B)-310	100V AC	0.04	160 fashes			
	KJS(B)-312	110~120V AC	0.2A	par minute			
	KJS(B)-320	220V AC	· · ·		12V 5W	1	
	KJS(B)-324	240V AC	0.1A				

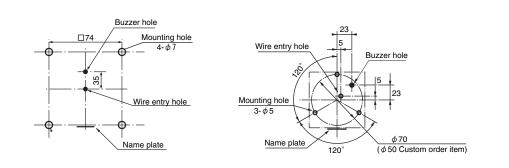
※ Bulb type Glass G18 Base BA15S (Spare bulb : 1) ※ Type KJSB : Buzzer

	Wire type 🖌 Dia	Lead wire	
Power supply wire	UL1007 AWG 20	Aprrox. 280mm	
Lead wire	UL1007 AWG 22		

 Mounting	Dimensions

(Unit : mm)

(Unit : mm)



Type KJS,KJSB,KES,KESB

3.Specifications

Type KJ,KJB

Type KJ,KJB

Style	Model	Rated voltage	Rated current	Flash per minute	Bulb	Mass
	KJ(B)-102	24V DC	0.5A		24V 10W	1.0Kg
	KJ(B)-110	100V AC	0.14	100 flashaa		
1 light	KJ(B)-112	110~120V AC	0.1A	130 flashes	12V 5W	1.01/~
-	KJ(B)-120	220V AC	0.05 4	par minute	120 200	1.2Kg
	KJ(B)-124	240V AC	0.05A			
	KJ(B)-202	24V DC	1.0A		24V 10W	1.5Kg
	KJ(B)-210	100V AC	0.13A	130 flashes par minute	12V 5W	
2 lights	KJ(B)-212	110~120V AC				2.0Kg
	KJ(B)-220	220V AC	0.07A			
	KJ(B)-224	240V AC				
	KJ(B)-302	24V DC	1.5A		24V 10W	2.0Kg
	KJ(B)-310	100V AC	0.18A	130 flashes par minute		
3 lights	KJ(B)-312	110~120V AC	0.164		12V 5W	2.5Kg
	KJ(B)-320	220V AC	0.09A			
	KJ(B)-324	240V AC	0.09A			
	KJ(B)-402	24V DC	2.0A		24V 10W	2.5Kg
	KJ(B)-410	100V AC	0.26A	100 flashas		
4 lights	KJ(B)-412	110~120V AC	0.20A	130 flashes	12V 5W	3.0Kg
	KJ(B)-420	220V AC	0.13A	par minute		5.0Kg
	KJ(B)-424	240V AC	0.13A			

* Bulb type Glass G18 Base BA15S (Spare bulb : 1)

* Type KJB : Buzzer (Sound volume may be adjusted via the control on the bottom of the body.

	Wire type 🖌 Dia	Lead wire
Power supply wire (100V~240V AC only)	VCT 🗡 0.75mm ²	Aprrox. 280mm
Lead wire	VW-HT / 0.5mm ²	Aprrox. 300mm

Type KES.KESB

Type KJS,KJSB

$ \begin{array}{c c c c c c c c c c c c c } Style & Model & Rated voltage & Power consumption & Flashing cycle & Mass \\ \hline \\ Style & Model & Rated voltage & Power consumption & Flashing cycle & Mass \\ \hline \\ KES(B)-102 & 24V DC & & & & & & & & & & & & & & & & & & $						
KES(B)-102 24V DC 0.4Kg 1 light KES(B)-110 100V AC 6W MAX 110 flashes par minute 0.4Kg 1 light KES(B)-112 110~120V AC 6W MAX 110 flashes par minute 0.8Kg 2 lights KES(B)-124 240V AC 6W MAX 110 flashes par minute 0.8Kg 2 lights KES(B)-202 24V DC 100V AC 110 flashes par minute 1.0Kg 2 lights KES(B)-212 110~120V AC 12W MAX 110 flashes par minute 1.4Kg 2 lights KES(B)-220 220V AC 12W MAX 110 flashes par minute 1.4Kg 3 lights KES(B)-312 110~120V AC 18W MAX 110 flashes par minute 1.4Kg		i	i			
KES(B)-110 100V AC 1 light KES(B)-112 110~120V AC KES(B)-120 220V AC KES(B)-124 240V AC KES(B)-202 24V DC KES(B)-212 110~120V AC KES(B)-220 220V AC KES(B)-320 24V DC KES(B)-310 100V AC KES(B)-312 110~120V AC KES(B)-312 110~120V AC KES(B)-320 220V AC	Style	Model	Rated voltage	Power consumption	Flashing cycle	Mass
1 light KES(B)-112 110~120V AC 6W MAX 110 flashes par minute 0.8Kg 2 lights KES(B)-124 240V AC 6W MAX 110 flashes 0.8Kg 2 lights KES(B)-124 240V AC 100V AC 110 flashes 0.8Kg 2 lights KES(B)-202 24V DC 100V AC 110 flashes 1.0Kg KES(B)-212 110~120V AC 12W MAX 110 flashes 1.4Kg KES(B)-220 220V AC 100V AC 14Kg 1.4Kg KES(B)-302 24V DC 110 flashes 1.4Kg KES(B)-310 100V AC 18W MAX 110 flashes KES(B)-312 110~120V AC 18W MAX 110 flashes KES(B)-312 100~120V AC 18W MAX 110 flashes KES(B)-320 220V AC 18W MAX 110 flashes		KES(B)-102	24V DC		110 flash as	0.4Kg
1 light KES(B)-112 110~120V AC 6W MAX par minute 0.8Kg KES(B)-120 220V AC 6W MAX par minute 0.8Kg KES(B)-120 220V AC 100V AC 100V AC 100V AC KES(B)-202 24V DC KES(B)-212 110~120V AC 110 flashes KES(B)-220 220V AC 12W MAX 110 flashes 1.4Kg KES(B)-224 240V AC 100V AC 1.4Kg 1.4Kg KES(B)-302 24V DC KES(B)-310 100V AC 1.4Kg KES(B)-312 110~120V AC 18W MAX 110 flashes 1.4Kg 3 lights KES(B)-312 110~120V AC 18W MAX 110 flashes 1.8Kg		KES(B)-110	100V AC]		
KES(B)-120 220V AC Image: Constraint of the second	1 light	KES(B)-112	110~120V AC	6W MAX		0.9%
KES(B)-202 24V DC 1.0Kg 2 lights KES(B)-210 100V AC 110 flashes 1.0Kg 2 lights KES(B)-212 110~120V AC 12W MAX 110 flashes 1.4Kg KES(B)-220 220V AC KES(B)-224 240V AC 1.4Kg 1.4Kg KES(B)-302 24V DC KES(B)-310 100V AC 110 flashes 1.4Kg 3 lights KES(B)-312 110~120V AC 18W MAX 110 flashes 1.4Kg		KES(B)-120	220V AC]	par minute	U.OKY
KES(B)-210 100V AC 110 flashes 0 2 lights KES(B)-212 110~120V AC 12W MAX 110 flashes 1.4Kg KES(B)-220 220V AC 240 V AC 12W MAX 110 flashes 1.4Kg KES(B)-224 240V AC 110 V AC 110 flashes 1.4Kg KES(B)-302 24V DC KES(B)-310 100V AC 110 flashes KES(B)-312 110~120V AC 18W MAX 110 flashes 1.4Kg KES(B)-320 220V AC 18W MAX 110 flashes 1.4Kg		KES(B)-124	240V AC			_
2 lights KES(B)-212 110~120V AC KES(B)-220 12W MAX 110 flashes par minute 1.4Kg X ES(B)-224 240V AC 12W MAX 110 flashes 1.4Kg X ES(B)-224 240V AC 110 flashes 1.4Kg X ES(B)-302 24V DC 110 flashes 1.4Kg X ES(B)-310 100V AC 110 flashes 1.4Kg KES(B)-312 110~120V AC 18W MAX 110 flashes KES(B)-320 220V AC 18W MAX 110 flashes		KES(B)-202	24V DC			1.0Kg
2 lights KES(B)-212 KES(B)-220 110~120V AC 220V AC 12W MAX par minute 1.4Kg KES(B)-224 240V AC 12W MAX 14Kg 1.4Kg KES(B)-302 24V DC 100V AC 1.4Kg KES(B)-310 100V AC 110 flashes par minute 1.4Kg S lights KES(B)-312 110~120V AC 18W MAX 110 flashes par minute 1.8Kg		KES(B)-210	100V AC]		
KES(B)-220 220V AC 1 0 KES(B)-224 240V AC 1 <t< td=""><td>2 lights</td><td>KES(B)-212</td><td>110~120V AC</td><td>12W MAX</td><td>1.46</td></t<>	2 lights	KES(B)-212	110~120V AC	12W MAX		1.46
KES(B)-302 24V DC 1.4Kg 3 lights KES(B)-310 100V AC 110 flashes par minute 1.8Kg KES(B)-320 220V AC 18W MAX 110 flashes par minute 1.8Kg		KES(B)-220	220V AC]		1.4Kg
KES(B)-310 100V AC 110 flashes 3 lights KES(B)-312 110~120V AC 18W MAX 110 flashes KES(B)-320 220V AC 18W MAX 110 flashes 1.8Kg		KES(B)-224	240V AC			
3 lights KES(B)-312 110~120V AC 18W MAX 110 tiashes par minute 1.8Kg		KES(B)-302	24V DC			1.4Kg
3 lights KES(B)-312 110~120V AC 18W MAX par minute 1.8Kg KES(B)-320 220V AC	3 lights	KES(B)-310	100V AC			
KES(B)-320 220V AC		KES(B)-312	110~120V AC	18W MAX		1.91/ 9
		KES(B)-320	220V AC]		i.org
KES(B)-324 240V AC		KES(B)-324	240V AC			

* Power consumption will vary slightly according to color (red, amber and green). * Type KESB : Buzzer

	Wire type 🖌 Dia	Lead wire	
Power supply wire	UL1007 AWG 20	Aprrox. 280mm	
Lead wire	UL1007 AWG 22		
		,	

*Specifications are subject to change without notice.

Caution

• We are not in a position to be responsible for damage and trouble caused by handling against caution and warning described in this instruction manual.

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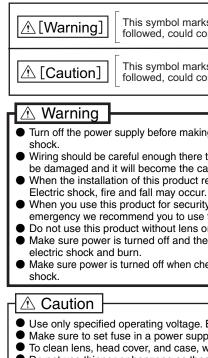
http://www.patlite.co.jp/int/

PATLITE

Thank you for specifying the **PATLITE Cube Tower** of for your application. Please read this manual before installing this system, and keep it carefully. In the case of maintenance, inspection and repair, please read this manual carefully. If you have question of this product, please feel free to contact us.

TO OPERATE THIS PRODUCT SAFELY, PLEASE OBSERVE THE FOLLOWINGS

Note to be followed to prevent any damage to the user and other personnel or to assets are as follows:



- precautions:
- - vibration

1. PARTS NAME

	Reflector	
	Bulb	ť
	XLED type light	
	source for KES(B)series.	ľ
	Motor	7
	Body	1
	Name plate	
	*Lot number indicated.	
	Lead wire	T
ſ		1
	1	ŧ
		l
	LED unit	t
		L

2056-K

'09.4.AUTO

-5-

Cube Tower INSTRUCTION MANUAL



[TYPE:KJ(B),KJS(B),KES(B)]

[NOTES TO BE OBSERVED FOR SAFE OPERATION]

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.

> This symbol marks important instructions that, if ignored or incorrectly followed, could conceivably lead to death or serious injury.

> This symbol marks important instructions that, if ignored or incorrectly followed, could conceivably lead to injury or property damage.

• Turn off the power supply before making wiring connections. Neglecting to so may cause an electric

• Wiring should be careful enough there to be for no mistake. If wiring is mistaken, an internal circuit will be damaged and it will become the cause of a fire.

• When the installation of this product requires the construction, please ask to specialist.

 When you use this product for security purpose, routine inspection must be done. Just in case of emergency we recommend you to use this product together with other security product.

• Do not use this product without lens or with cracked lens. It may cause electric shock.

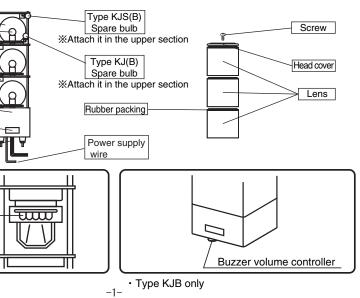
• Make sure power is turned off and the temperature of electric bulb falls down for repair to avoid

• Make sure power is turned off when checking or changing a fuse or bulb to prevent danger of electric

Use only specified operating voltage. Excess voltage hastens degradation. • Make sure to set fuse in a power supply side, please connect a fuse. • To clean lens, head cover, and case, wipe with water or glass cleaner soaked soft cloth. • Do not use thinner or benzene as these cause color change or deform the surface. In an installation where there is violent vibration, the bulb life will be reduced. Observe the following

Avoid mounting directly on equipment that vibrates or is subject to shock. • Avoid mounting on a pillar or wall in such a way that the unit would be subject to vibration. Use a mounting angle (stay) that is strong enough to support the rotating light against wind and

• Do not use the hands to rotate the reflector. • Do not oil the motor and rotor. (Neither will it rotate if oil enters the motor.)



2. REPLACEMENT PARTS

- The replacement parts are prepared. Please ask your local distributor for availability.
- · Reflector (per type) • Lens (per type, per color)
 - Rubber packing (per type)
- Head cover (per type)
- · LED unit (per color, per voltage : Type KES(B) only)

※ If you have question please feel to contact us about other parts.

3. TYPE NO. CONFIGURATION



$\mathsf{K} \mathsf{E} \mathsf{S} \underline{\mathsf{B}} - \underline{\Box} \underline{\Box} \underline{\Box} - \underline{\mathsf{R}} \mathsf{Y} \underline{\mathsf{G}}$

B : Buzzer type Light style 1 : 1 light style 2 : 2 lights style 3 : 3 lights style	02 : 10 : 12 : 20 :	d voltage 24V DC 100V AC 110~120V AC 220V AC 240V AC	Lens color R : Red Y : Amber G : Green
---	------------------------------	---	---

4. HOW TO MOUNTING

▲ Caution

- Cube tower must be installed in a vertical position where it has enough strength and less vibration. Do not install it horizontally or reversely.
- If the unit is to be installed in a high location, be sure to select a spot that affords easy service by maintenance personnel.
- Drill the required mounting holes in the wall. (Refer to "8.SPECIFICATIONS" for the proper hole size.)
- Use the accessory nuts to secure the unit.
- % For KJS(B) and KES(B) types: If the power and signal wires must be taken out to the side, snip the bottom of the body, as shown in the figure at right, and pull the lead wires through the new access. X For KJS(B) and KES(B) types: Refer to the

mounting template provided for correct location of the holes.

5. HOW TO MAKE WIRING CONNECTION

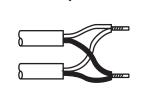
• Turn off the power supply before making wiring connections. Neglecting to so may cause an electric shock.

Snip off

- When you have questions for the method of special operation or plural units operation. we recommend you to ask our customer service before wiring.
- Do not pull lead wire and push it in body when wiring.
- Wiring should be careful enough there to be for no mistake. If wiring is misstaken, an internal circuit will be damaged and it will become the cause of a fire.
- During connection, refer to the wiring example. Be sure to use crimp type terminal connectors.
- Make sure to set fuse in a power supply side, please connect a fuse.
- Make sure of the specified operating voltage and current before use.
- Use only specified operating voltage. Excess voltage hastens degradation.
- Make sure not to use any other bulbs except ones described in specifications.

(Type KJ(B) Type KES(B) Type KJS(B)	100V,120V,22 All model All model	0V,240V AC)
 Two or more units(100-2 parallel oparation,make and black power supply 	sure to connect	white		

parallel oparation. and black power s



1.	Туре	KJ	(B)

· Bulb (per type, per voltage)

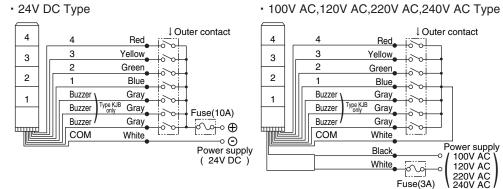
Motor (per type, per voltage)

Type KJ(B) KJS(B) only

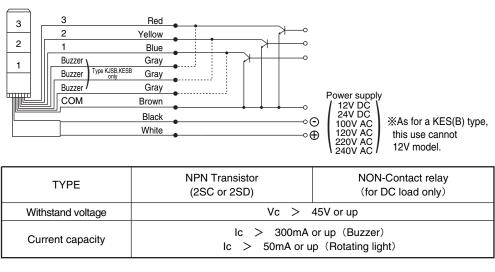
Body

Nippers or

a similar tool



3. Type KJS(B),KES(B)



* This wiring diagram is for the four-light unit. The number of signal wires will vary for other number of lights (Refer to Table 1.)

Fuse(3A)

The type with a buzzer (KJB, as shown) is wired to sound the buzzers in conjunction with their respective rotating lights. If the buzzer must sound independently (not in conjunction with the rotating lights), independently wire a switch to the buzzer's signal wire (any one of the gray wires).

- Be sure that the ends of all unused wires are insulated. X The lamps are numbered 1,2,3,etc., starting with the bottom unit.
- X Be sure to install a fuse on the power supply end.

* Refer to Table 2 for the selection of a contact capacity sufficient to handle the initial current, or use a relay as required.

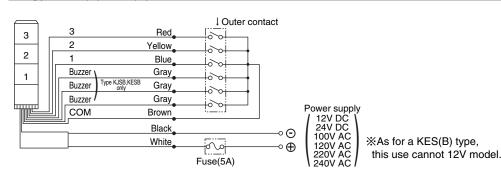
[Table 1]			Lead wire color (Type KJ, KJB)			
	4					Red
	3				Red	Yellow
	2			Red	Yellow	Green
	1		Red	Yellow	Green	Blue
			1 Light(12V, 24V type only)	2 Lights	3 Lights	4 Lights
			•			

[Table 2]

[Table 1]

	Normal current	Initial current	Contact capacity
For rotating light signal wire	450mA	4.5A	50V,5A
For Buzzer signal wire	30mA	0.3A	50V,1A

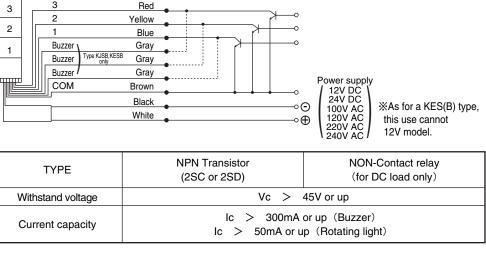
2. Type KJS(B),KES(B)



- X This wiring diagram is for the three-light unit. The number of signal wires will vary for other number of lights (Refer to Table 1)
- The type with a buzzer (KJSB, KESB, as shown) is wired to sound the buzzers in conjunction with their respective rotating lights. If the buzzer must sound independently (not in conjunction with the rotating lights), independently wire a switch to the buzzer's signal wire (any one of the gray wires). Be sure that the ends of all unused wires are insulated.
- X The lamps are numbered 1,2,3,etc., starting with the bottom unit.
- % The power wires for the AC 100,120,220,240-volt version are not polarized \oplus or \odot .
- X Be sure to install a fuse on the power supply end.
- X Use a switch contact capacity of at least 50 mA for the lamp and not less than 300 mA for the buzzers.

Lead wire color (Type KJS, KJSB, KES, KESB)

3			Red
2		Yellow	Yellow
1	Blue	Blue	Blue
	1 Light	2 Lights	3 Lights



TYPE	
Withstand voltage	
Current capacity	

※Use a small-current, no-voltage contact (twin contacts recommended) or an open-collector transistor. X Absolutely do not connect direct power in a signal wire, damage the internal circuit.

5. MAINTENANCE

1. Change Lens

- ① Make sure power is turned off when changing lens
- 2 Loosen head cover screw, then put the lens off.
- * Be sure to reinstall the rubber paking to the body globe and head cover (one size for all applications), or the unit will no longer be splash proof.

2. Change Bulb [Type KJ(B),KJS(B)]

- 2 Remove lens.(Refer to the "Change Lens" instruction
- mentioned above.) ③ The bulb can be easily removed by pressing it downward to turn to left.
- 4 The new bulb can be easily installed by pressing it
- downword to turn to right.
- 5 Put in the lens, then installing head cover.
- X Make sure not to use any other bulbs except ones
- described in specifications
 - free to contact us.

7. BEFORE REQUESTING SERVICE

not work, please contact us for repairs.

Problems

The reflector would not rotate and the lamp stays turned off.

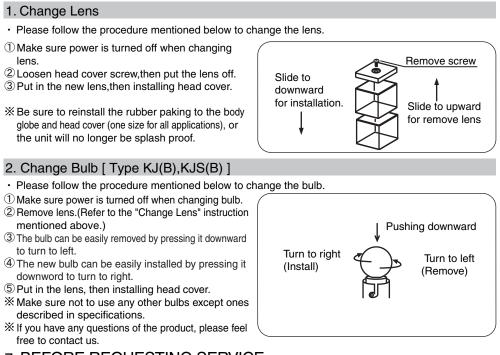
The reflector rotates but the lamp is off

The lamp is turned on but the reflector stavs stopped.

The buzzer dose not work

covered under the warranty

Wiring should be made as follows in case of using transisitor as other contact.



- Please check the list shown below before requesting repairs. If the product still
- Please feel free to contact our sales office with any questions concerning the product.

	Where to check	What to do
	Is the power on?	Check the power wiring, plug connection and fuse. If a switch is installed, check to see that it is turned on.
	Is the light bulb burned out?	If it is, replace it with a new one.
	Is the motor stopped? Is the motor Iubricated?	The motor is broken or has reached the end of its life. Request a repair.
۲.	Is the power polarity opposite on the DC 12 or 24 volt version?	Check and correct the polarity.

st Please note that any malfunction or damage resulting from modification by the customer will not be 2056-K