OPERATING MANUAL



SHD / SHD2

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Heavy Duty Bulb Revolving Light with Phone

Thank you for purchasing Q.Light product.

Please read this manual carefully before installing this system for safe and long use of the product.

1 Product Feature

- Aluminum housing product with high durability.
- Signal sound built-in product of self-standing type with warning light and phone integrated. This structure can transmit both visual signal and auditory signal at same time.
- Material: Lens-PC, Body-DIECAST AL, Horn Housing-SUS316L, Reflector-Heat Resisting ABS, Protection Cage(Option)-SUS316L
- RPM : 120–140/Min.(Controllable) Protection Class : IP56
- Volume: SHD 113-118dB(1m), SHD2 113-118dB x 2(1m)

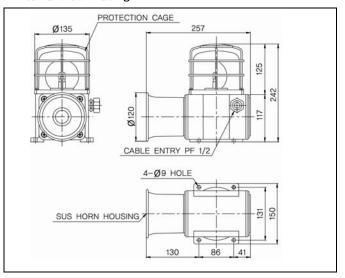
2 Specification & External View Drawing

1) SHD

Product Specification

Model	Rated Voltage	Current		Bulb		Weight	Color
SHD	DC12V	2.240A	12V15W	G23 15S	17	9.1077	Red-R Amber-A Green-G Blue-B
	DC24V	1.440A	24V15W	G23 15S	18		
	AC110V	0.321A	12V15W	G23 15S	17	3.89Kg	
	AC220V	0.156A	12V15W	G23 15S	17		

External View Drawing

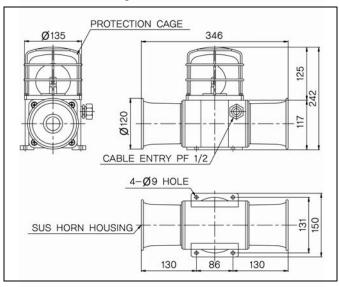


2) SHD2

Product Specification

Model	Rated Voltage	Current		Bulb		Weight	Color
SHD2	DC12V	3.270A	12V15W	G23 15S	17	4.23Kg	Red-R
	DC24V	2.130A	24V15W	G23 15S	18	1.20118	Amber-A
	AC110V	0.514A	12V15W	G23 15S	17	4.95Kg	Green-G
	AC220V	0.273A	12V15W	G23 15S	17		Blue-B

External View Drawing



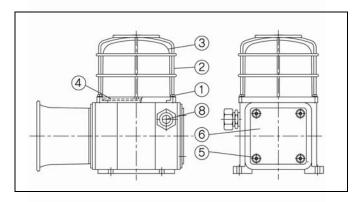
3 Sound Tone Specification

Туре	Main Built-in Sound	СН	Sound Tone	Volume
WS	5 Warning Sounds	ch3 ch4	Fire A-ANG(Wail) Emergency WA-U(Yelp) Ambulance PI-PO(High-Low) Machinery Fault(PI-PI-PI-) Foam Release Alarm (PI~Continuous)	118dB (SHD) 118dB x 2 (SHD2)
WP	5 Special Warning Sounds	ch2 ch3 ch4	Fire A-ANG(Wail) Abandon Alarm Machinery Fault(PI-PI-PI-) Foam Release Alarm (PI~Continuous) General Alarm (Long PI~+ 7 Short PI.)	118dB (SHD) 118dB x 2 (SHD2)
WM	5 Melodies	ch2 ch3 ch4	Sweet Home For Elise Cuckoo's Waltz Piano Sonata Turkish March	118dB (SHD) 118dB x 2 (SHD2)
WA	5 Alarms	ch2 ch3 ch4	Beep(Intermittent) Door Chime Phone Ring Machinery Fault(PI PI PI PI,) Tripping Bead Sound	116dB (SHD) 116dB x 2 (SHD2)
WV	3 Voice Signals	ch1 ch2 ch3	Reproduction of Voice Recording 3 Channels	113dB(SHD) 113dB x 2 (SHD2)

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4 Structure Drawing



5 Revolving Speed Control, Bulb Change

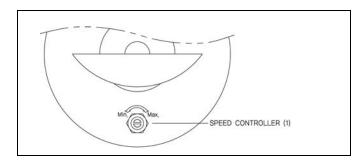
This product has a volume(1) for controlling revolving speed and voltage selection switch(2) on assembling board. Refer to above structure drawing together with below drawing and explanation for right operating.

1) Lens(Protection Cage) Removal

Remove Protection Cage② and Lens③ from the product by loosening bolt(M4-4EA)① and make sure assembling board④.

2) Revolving Speed Control

- The volume(1) for revolving speed control is built-in this product. Turn it closckwise for increasing revolving speed and turn it counterclockwise for decreasing revolving speed.
- If give excess power to the volume, it can be broken.
 Be careful!

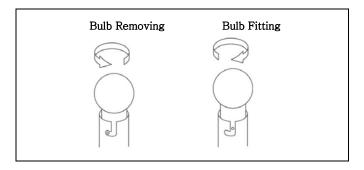


3) Bulb Change

※ Warning!! Turn off Power

Must turn off power supply and change the bulb after at least $1\ \mathrm{minute}.$

- Make sure the rated voltage and wattage of new bulb. If the
 voltage of new bulb is higher than that of original bulb, the
 self-life of product can be reduced and can cause damage on
 lens and reflector. Therefore, please use same bulb as original
 one which has same rated voltage and wattage or lower one.
- Bulb Removal: Press slightly the bulb downward and turn it counterclockwise for removing.
- Bulb Fitting: Fit new bulb into the socket by pressing it clockwise.

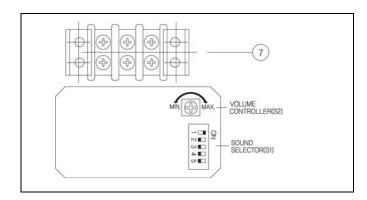


4) Lens(Protection Cage) Assembling

Assemble the lens(or Lens and Protection Cage) in reverse order of separating.

6 Sound Tone Selection, Volume Control, Wiring

Refer to structure drawing together with below drawing and explanation for right operating.



1) Body Cover Removal

• Remove body cover[®] by loosening body cover bolt(M5 4EA)[®] and make sure related parts on phone control board.

2) Sound Tone Selection

- 5 Warning sound tones are built-in this product. In case of standard product, select preferable sound tone by using internal sound tone selection switch(S1).
- In case of LC Type(Custom-Made) product,refer to below explanation and drawing.

3) Volume(dB) Control

 Volume controller(S2) is built-in this product. Turn it clockwise for increasing volume or turn it counterclockwise for decreasing volume

4) Wiring Power Line

- Make sure terminal plate inside the body of the product.
- Treat the end of power cable by using "O" or "U" type terminal for safe wiring
- Connect power cable to terminal plate.
- In case of product using AC voltage, connect the line without polarity(wire color).
- In case of product using DC voltage, black line is negative(-).

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5) Treating Power Entry

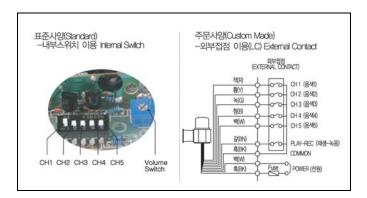
- Keep the tightness of power entry® by using water-proof connector(flexible connector #16 is supplied as a standard specification) or cable grand.
- Product can be damaged by water or dust if the cable entry is exposed outdoor without airtightening.

6) Body Cover Assembling

Assemble the body cover in reverse order of separating.

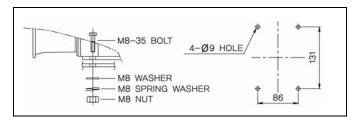
■ Wiring for LC(External Contact) Type - Custome Made

- In case of LC type which selets sound tone by external contact, power line and signal line come out. Connect each line as below.
- Power Line: UL1015-NO.16(1.25sq) x 2C 400mm
- Signal Line: UL1007-NO.22(0.3sq) 400mm
- In case of product using AC voltage, do not allow power supply either to common line or to signal line..



7 Mounting

- This product is water-proof and anti-corrosion type for outdoor use. But, install with vertical direction at a place or machine where exists no big vibration and no strong impact as long as possible.
- Refer to below information and drill necessary mounting holes on profitable part of the product.
 (Make sure PCD from external view drawing.)
- Fix the product by using mounting bolt(M8-4EA).



8 Caution

 This product is explosion-proof, water-proof and anti-corrosion type. When separate and assemble the product for wiring, repair or check, keep the airtightnees of the product by tightening each bolt and nut.

- If using voltage is seriously higher or lower than rated voltage, it can reduce the self-life of the product or can cause a problem on product operating. Make sure the using voltage does not exceed +/- 5% of the rated voltage.
- If lens or body of the product is contaminated by chemicals such as thinner, benzene, the product can be damaged, discolored or deformed. Please be careful.
- Keep airtightness of cable entry by using water-proof cable grand or water-proof connector. Product can be damaged by water or dust if the cable entry is exposed outdoor without airtightening
- Do not give strong impact to the product. It can be a reason of part(s) damage or short circuit.
- Do not strongly pull the wire out from the product. It can cause a disorder.

9 Troubleshooting

Situation	Main Cause	Solution	
NI TILL	Wire Disconnection	Wire Re-connection or	
Non Lighting	with Bulb	Bulb Change	
	Supplying Voltage Lower	Making Sure Using	
	Than Rated Voltage	Voltage	
Feeble Lighting	Wrong Selecting Voltage	Selecting Voltage	
Low Revolving Speed	Selection Switch to 220V	Selection Switch to	
Sound Tone Deter orat on	(In Case of AC Type)	110V	
	Wrong Operating Revolving	Turn the Volume	
	Speed Control Volume	Clockwise	
Short Self-Life of Bulb	Supplying Voltage Higher	Making Sure Using	
Short Self Life of Duib	than Rated Voltage	Voltage	
Lens Deformation Caused by Bulb Overheating	The Voltage of Bulb	Changing Bulb with Rated Voltage	
Damage on Transformer (AC Type)	is Higher than Rated Voltage		
Non Revolving	Problem with Motor	Contact Q.Light or Their Agent	
Higher dB than Standard	Supplying Voltage Higher than Rated Voltage	Making Sure Using Voltage	
Double Sound Tone	Short Circuit of Sound Tone Signal Line	Making Sure Wiring	
Double Sound Tone	Problem with Sound Tone	Contact Q.Light or	
	Selection Switch	Their Agent	
	Wrong Wiring	Making Sure Wiring	
No Sound	No Power Supply	Making Sure Wiring	
IVO Sound	Problem with Horn	Contact Q.Light or Their Agent	

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