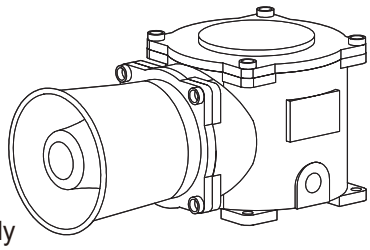
Explosion Proof Electric Horn

SPNA



Thank you for purchasing Qlight's products. Please read this user manual carefully prior to installation and operation to ensure safe and correct use.

⚠ Safety Precautions for Explosion Proof Products

Please follow the instruction below to ensure safe and correct use of explosion proof products.

1. Explosion proof products should be managed according to explosion proof regulations. Do not disassemble, assemble, alter or repair the product arbitrarily.
2. The temperature rating of the product is the temperature the product will experience at the applied rated voltage and ambient temperature indicated.
3. Use cable glands that satisfy the product's explosion proof grade and temperature grade.
4. Unused cable entries must be filled with material that meets the explosion proof grade and temperature rating.
5. Before installing the product, please make sure all cautions indicated on the labels, packaging, and operation manual of the product are fully understood.
6. Installation, maintenance and repair of the product must be performed by experts in the explosion proof field, or persons who have received relevant training.
7. For safety, the product should be installed and operated in environments that avoid high temperature and high pressure.
8. Please follow general safety precautions and avoid installing the product in locations that may generate excessive heat.
9. When installing the product in places where chemicals are located, please make sure that the environment does not have two or more incompatible chemicals mixed. For safety, please read the instruction manual carefully and be mindful of the chemical compositions where the product is used.
10. This product requires grounding.
11. Please note that special conditions shall be applied if the sign "X" is placed after the certificate number.
    1) For safe use, regular overpressure test must be carried out in accordance with EN 60079-1, clause 15.2.3.
    2) For safe use, tempered glass must be protected from strong impact

⚠ Precaution for Safety

Failure to follow the instructions below may cause a loss of life or serious physical injury.

1. During wiring or maintenance, please completely turn off the power of the product. (Failure to follow this may lead to an electric shock.)
2. Do not install the product in locations that subjects it to excessive dust or water other than the conditions designated by the IP protection ratings indicated for each product. (Failure to follow these instructions may cause a fire to the product, electric shock, physical injury, malfunction or damage to the product.)
3. Do not alter or repair this product. If maintenance or repair service is required, please contact your local Qlight contact point. (Failure to follow these instructions may lead to fire, electric shock, or product damage.)
4. Please apply the correct voltage to the product. (Failure to follow these instructions may lead to fire, electric shock, or product damage.)
5. When the product is applied to a condition that may impact lives or property, please make sure to have a double safety device. (Failure to follow this may cause damage to property, fire, electric shock and loss of life.)

⚠ Precautions for Correct Use

Failure to follow the proper instructions may cause damage to property, the product, or malfunction of the product that would void the warranty.

1. Please remove any objects that can interrupt ventilation around the product.
2. Please turn off the power of the product immediately if it fails to operate properly.
3. Carefully wire the product according to each product's specification.
4. Please be careful in preventing chemicals such as thinner, benzene, etc. in contact with the surface of the product.
5. Do not apply excessive force/impact to the product.
6. Failure to follow any of the instructions above may cause malfunction or damage to the product, fire, and electric shock.

Ordering Specifications

SPNA	-	WM	-	220	-	LC
[Model number]		[Sound]		[Voltage]		[Sound selection]
• SPNA		• WS-Warning sounds • WP-Special warning sounds • WM-Melodies • WA-Alarms • WV-Customizable sounds		• 12-DC12V • 24-DC24V • 110-AC110V • 220-AC220V		• (blank) -Built-in switch • LC -External contact

Please scan the QR code for more detailed product information.

www.qlight.com

Product Specifications

■ Explosion Proof Specifications

Model number	SPNA
Range of operating voltage	DC 12V or 24V
	AC 120V or 230V
Ex mark	IECEX - Ex db IIC T6 Gb ATEX - Ⓔx II2G Ex db IIC T6 Gb KCs - Ex d IIC T6 IP66 Ex d IIB+H2 IP66 T6 NEPSI - Ex d IIC T6 Gb Ex tD A21 IP66 T80°C CCC - Ex d IIC T6 Gb
Ambient operating temperature	-40°C ≤ Ta ≤ 55°C(KCs) -40°C ≤ Ta ≤ 60°C
Explosion proof Zone	Zone1, Zone2, Zone21, Zone22
Protection rating	IP66

Zone definitions(Gas)	Zone 1	High risk gas/vapour(Gas)
	Zone 2	Medium risk gas/vapour(Gas)
Group definitions(Gas)	GROUP II A	Acetone, Petrol, Methanol, Propane, Toluene
	GROUP II B	Ethylene, City gas
	GROUP II C	Hydrogen, Acetylene, Carbon sulphide
Maximum surface temperature of electrical Equipment	T1	450°C
	T2	300°C
	T3	200°C
	T4	135°C
	T5	100°C
	T6	85°C
Group definitions(Dust)	Zone 21	High risk powder/dust(Dust)
	Zone 22	Medium risk powder/dust(Dust)
Group definitions(Dust)	GROUP II A	Ignitible fibers/flyings(more than 0.5mm)
	GROUP II B	Non-conductive dusts
	GROUP II C	Conductive dusts

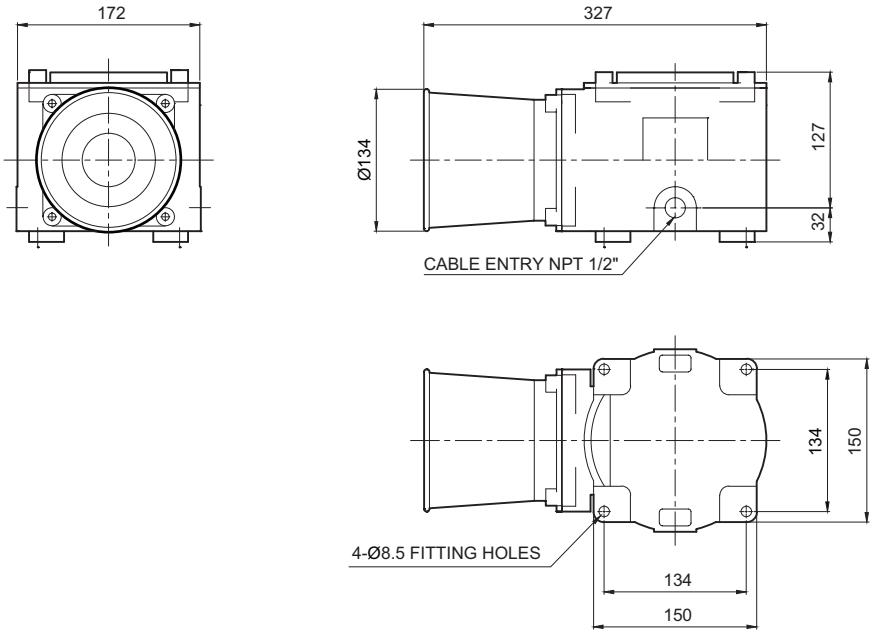
■ General Specifications

Model number	Voltage	Current	Sound pattern and volume	Certificates	Weight
SPNA	DC12V	2.211A	• WS-5 Warning sounds : Max.118dB • WP-5 Special warning sounds : Max.118dB • WM-5 Melodies: Max.118dB • WA-5 Alarms : Max.115dB • WV-5 Customizable sounds : Max.113dB	IECEx ATEX Ex NEPSI CCC KCs CCS	6.09kg
	DC24V	1.022A			
	AC110V	0.226A			6.44kg
	AC220V	0.113A			

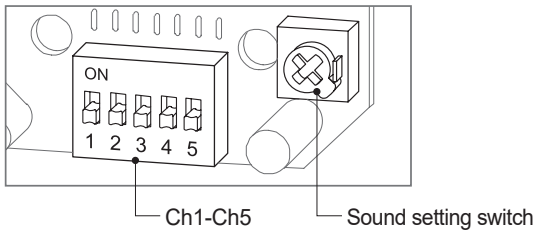
Dimensions

(Units : mm)

SPNA



Sound Setting - Select using the switch inside of the unit



• Standard unit has 5 built-in sound tones.
Select different built-in sounds using the sound setting switch.

■ **Sound Type by Group**

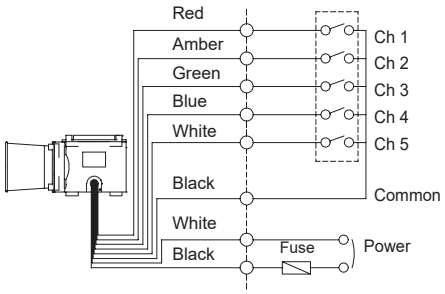
Category	Sound pattern	Channel	Sound tone	Volume (Max.)
WS	5 Warning sounds	Ch1	Fire.A-ANG	118dB
		Ch2	Emergency WA-U	
		Ch3	Ambulance PI-PO	
		Ch4	Machinery Fault	
		Ch5	High Expansion	
WP	5 Special Warning sounds	Ch1	Fire.A-ANG	118dB
		Ch2	Abandon Alarm	
		Ch3	Machinery Fault	
		Ch4	High Expansion	
		Ch5	7 Short PI. / 1 Long	
WM	5 Melodies	Ch1	Sweet Home	118dB
		Ch2	For Elise	
		Ch3	Cuckoo's Waltz	
		Ch4	Piano Sonata	
		Ch5	Turkish March	
WA	5 Alarms	Ch1	Beep Intermittent	115dB
		Ch2	Door Chime	
		Ch3	Phone Ring	
		Ch4	PI.PI.PI Short	
		Ch5	Tripping Beat	
WV	5 Customizable sounds	Ch1	Available upon request (customized voice type)	113dB
		Ch2		
		Ch3		
		Ch4		
		Ch5		

Wiring Instruction for LC Type

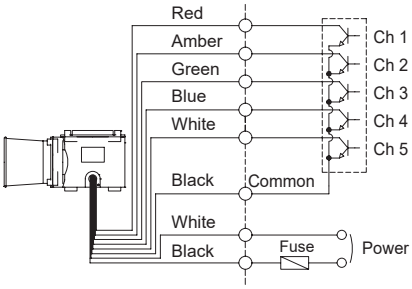
• LC type product with exposed sound selection signal line is available upon request. Please refer to the diagram below for wiring.

SPNA-DC/AC

(EXTERNAL CONTACT)

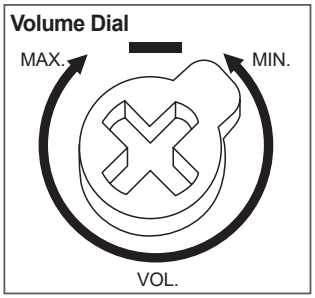


(EXTERNAL TRASISTOR-NPN)



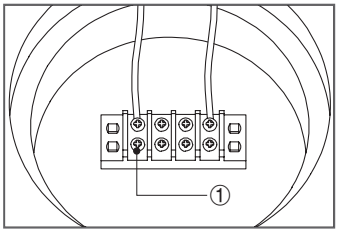
• External power line - UL1015 AWG18(0.75sq) x 2C 400mm
External signal line - UL1007 AWG22(0.3sq) 400mm
• This product can be wired regardless of polarity.

Volume Adjustment



• The volume output of this product is adjustable.
• Turn the volume dial clockwise to increase the volume, and turn counter clockwise to decrease the volume.
• There will be no sound when the dial is put at MIN.

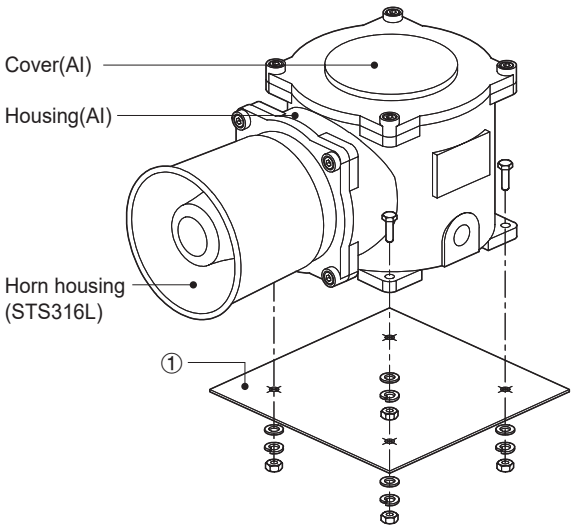
Terminal Box Wiring Instructions



• Terminal block is located inside of the product. Unscrew the 4 bolts located in the upper body to get rid of the upper lighting element of the unit.
• Please apply fork (U-type) or ring (O-type) locking spade terminal at naked tip of the wire for secure connection.
• Please wire the power line to terminal ①
• For AC type products, wire regardless of polarity.
• For DC type products, wire terminal of black line to (-) polarity.

Parts Definition/ Installation

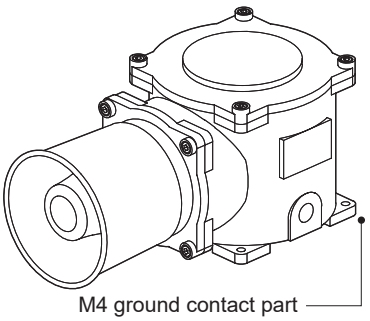
■ **Parts Definition**



■ **Installation**

- First, machine holes on the mounting surface①
- The mounting hole of this product is 8.5mm in diameter.
- When machining taps, fasten the bolt through the mounting hole of the bracket.
- When machining holes, insert the bolt through the hole of the product, and tighten the nut from the opposite side of the mounting surface.

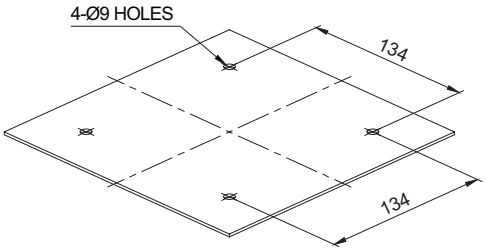
Grounding Instructions



- Please use an M4 bolt at the location marked in the diagram above to ground the product.
- When connecting the grounding cable, please use a ring terminal.
- Please use a grounding cable with a diameter greater than 4mm.

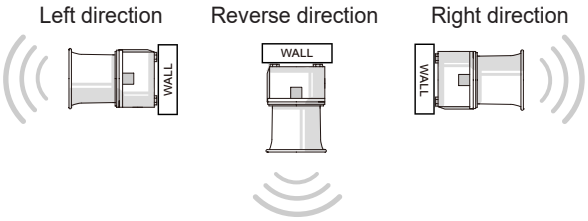
Mounting Hole Specifications

- Machine holes on the mounting surface referring to the diagram below.



Precautions for installation

- In case of outdoor applications, install the product in the upright position. Do not install the product horizontal or upside-down positions where water can potentially penetrate into the product and impact it's operation.



[Installation]

Installation Environment and Protection Rating

- This product is designed to be explosion proof.
- Please make sure to use the product in an environment that meets the specified explosion proof rating and regulations.
- For further information, please visit our website (www.qlight.com).

Technical Certification

• Qlight products are designed to meet strict quality and technical standards. Thus, the Qlight brand is widely recognized for its high quality and technical innovations from leading institutions around the world.

ISO International Organization for Standardization

Qlight quality assurance systems have been certified by ISO by applying the ISO 9001:2008, KS Q ISO 9001:2009 regulation.

IECEx International Explosion Proof Certification (IECEx)

Certified that Qlight's products are being manufactured and manage according to international standards.

ATEX The European Regulatory Framework or Manufacture, Installation and Use of Equipment in Explosive Atmospheres

Qlight's explosion proof products comply with ATEX Directives 94/9/EC.

NEPSI National Supervision and Inspection Center for Explosion Protection and Safety of Instrumentation

Qlight's design and manufacturing system meets the People's Republic of China National explosion proof Standard.
(Chinese Standard-GB3836/GB12476)

KCs Explosion Proof Device Safety Certification System

The safety performance of machines and equipment subject to safety certification and Technical capability and production system have been certified safety certification standards.

TIIS Japan Explosion-proof Certification

TIIS is a Japanes explosion proof test and certification system accordance with the Ministry of Health, Labour and Welfare Notice and the explosion proof guidelines for factory electrical equipment. Qlight's explosion proof products hasve been tested and certified by TIIS.

CCS China Classification Society

Qlight's design and quality assurance system has been certified by the China Classification Society.

RMRS Russian Maritime Register of Shipping

Qlight's design and quality assurance system has been certified from Russian Maritime Register of Shipping.

LR Lloyd's Register

Qlight's design and quality assurance system has been certified from Lloyd's Register.

KR Korean Register of Shipping

Qlight's design and quality assurance system has been certified by the Korean Register of Shipping.

KC Korea Safety Certification

Qlight's products are certified by KC for preventing accident caused by fire.

E-mark Commission Directive Regarding Vehicle Industry

Qlight has obtained EU mark for approved vehicles and vehicle components sold into the EU(EEA : European Economic Area)

ICAO International Civil Aviation Organization

Qlight guarantees our products satisfy the criteria regulated by the International Civil Aviation Organization(ICAO, FAA).

KCC Conformity Assessment of Broadcasting Communication Equipment

Qlight has been certified to protect the electromagnetic environment that causes unwanted electromagnetic waves from the device, communication failure due to other devices or external radio waves, and malfunction of the device.

UL Underwriters Laboratories

Qlight's design and quality assurance system has been certified from UL to ensure the stability of consumption goods and to protect consumers.

CCCF China Certification Center for Security & Protection

Qlight has passed the rigorous examination process of "Passing Fire Protection Products Centering" In order to sell fire-fighting products such as fire alarm equipment to Chinese market.

CCC China Compulsory Certificate

Qlight's has obtained CCC which guarantees safety, protection against fraud, environment, etc.

CE European Commission

Qlight has been certified by the European Commission.

RoHS2 Restriction of Hazardous Substances Directive

Qlight c omplies with the Restriction of Hazardous Substances Directive by limiting its use of hazardous materials.

MEMO

MEMO

⚠ For your safety

Specification and dimensions listed in this catalogue subject to change without notice for product quality improvement.
The newest product information is available on our website.(www.qlight.com)
Please read the instruction manual attached to the product carefully before installation and use.

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