

Durable Lighting Made for Industrial Safety



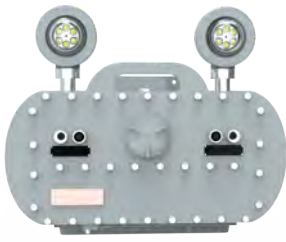
Explosion Proof Emergency Light/ Exit Sign ES03 Series

Specsheet-2024-01 EN



BPO LIGHTING

Hazardous Location LED Imports



ES03A1
Emergency Light



ES03C1
Emergency Light



ES03A2
Emergency Light + Exit Sign



ES03A3
Exit Sign



Product Description

The ES03 series explosion proof emergency light/ exit sign is designed for use in locations deemed hazardous due to the presence of flammable vapors, gases or combustible dusts, while providing distinct, highly visible exit marking.

Features

- Two high-lumen spot lights can be adjusted in horizontal and vertical directions.
- Provided with 3/4" NPT conduit hubs.
- Impact-resistant sign panel.
- Various exit sign labels for choice, and the labels can be customized.
- Independent battery backup system for exit sign and spot lights.
- ES03C1 is constructed with screws to tighten the cover plate, while ES03A1, ES03A2, ES03A3 use hinge and screws.

Compliance

Class I, Division 1, Groups C, D
Class I, Division 2, Groups A, B, C, D
Class II, Division 1, Groups E, F, G
Class II, Division 2, Groups F, G
Class III
Class I, Zone 1 Group IIB
UL 844 Hazardous Locations
UL 924 Emergency Lighting
ETL
NEMA 4X
IP66 / Wet Locations
Impact level: IK10 (enclosure); IK08 (glass, with metal guard)



Application

- Power Plants
- Heavy Industrials Storage Facility
- Paper mills
- Wastewater Treatment Plants
- Chemical Processing Facility
- Petrochemical Processing Facility
- Metallurgical Industry
- Food and Alcohol industry



Warranty

- 5-year limited warranty.
- Except for the following circumstances:
 - Improper installation or operation.
 - Misuse.
 - Abuse
 - Unauthorized or improper repair alteration.
 - Accident or negligence in use, storage, transportation.
 - Any natural acts.



Technical Parameter

• Electrical

| Specification | EX-*W ES03A1***-1-* | EX-*W ES03C1***-1-* | EX-*W ES03A2***-1-* | EX-*W ES03A3***-1-* |
|---|---|---------------------|-----------------------------|---------------------|
| Product Type | Emergency Light | Emergency Light | Emergency Light + Exit Sign | Exit Sign |
| Power of Two Spot Lights @120V, 50-60Hz | 7W @Fully charged; 10W @During charging | | | / |
| Power of Two Spot Lights @277V, 50-60Hz | 9W @Fully charged; 12W @During charging | | | / |
| Power of Exit Sign | / | / | 3W to 5W | 3W to 5W |
| Input Voltage | 120-277VAC | 120-277VAC | 120-277VAC | 100-277VAC/12-48VDC |
| Input Frequency | 50-60Hz | 50-60Hz | 50-60Hz | 50-60Hz |
| Emergency Time | 3 hours | 3 hours | 3 hours | / |

• Optical

| Specification | EX-*W ES03A1***-1-* | EX-*W ES03C1***-1-* | EX-*W ES03A2***-1-* | EX-*W ES03A3***-1-* |
|--------------------|--------------------------------------|---------------------|---------------------|---------------------|
| CCT | 3000K-6500K | 3000K-6500K | 3000K-6500K | / |
| Beam Angle | 90° / 120° | 90° / 120° | 90° / 120° | / |
| LED | Red, yellow, green, or other options | | | / |
| Color of Exit Sign | / | / | Red / Green | Red / Green |

• Environmental

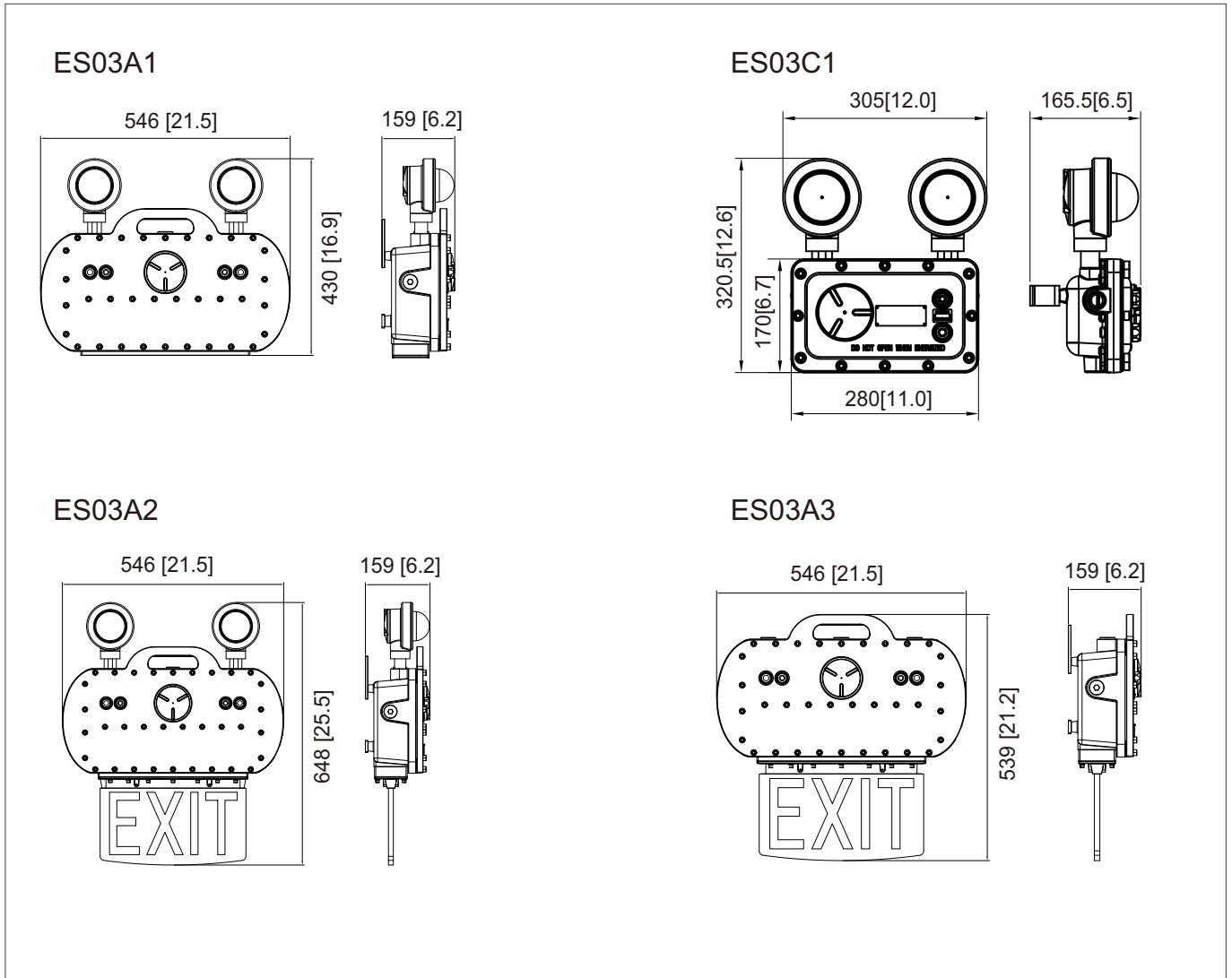
| Specification | EX-*W ES03A1***-1-* | EX-*W ES03C1***-1-* | EX-*W ES03A2***-1-* | EX-*W ES03A3***-1-* |
|---------------------|---|---------------------|---------------------|---------------------|
| Ambient Temperature | Charging: 0°C to +45°C (32°F to +113°F); Discharging: -20°C to +60°C (-4°F to +140°F) | | | |

• Mechanical

| Specification | EX-*W ES03A1***-1-* | EX-*W ES03C1***-1-* | EX-*W ES03A2***-1-* | EX-*W ES03A3***-1-* |
|-----------------------|---|---------------------|---------------------|-------------------------|
| Housing Material | Die-cast aluminum | Die-cast aluminum | Die-cast aluminum | Die-cast aluminum |
| Diffuser | Tempered glass | Tempered glass | Tempered glass | / |
| Sign Panel Material | / | / | Tempered glass | Tempered glass |
| Hardware Material | Stainless steel | Stainless steel | Stainless steel | Stainless steel |
| Spot Light | Can be adjusted in horizontal and vertical directions | | | / |
| Lamp Adjustable Angle | 0° to 180° | 0° to 180° | 0° to 180° | / |
| Mounting | Wall Mounting | Wall Mounting | Wall Mounting | Wall Mounting |
| Protection | IP66 / IK10 (enclosure) / IK08 (tempered glass diffuser with metal guard) | | | IP66 / IK10 (enclosure) |
| Provided Hardware | 3/4" NPT | 3/4" NPT | 3/4" NPT | 3/4" NPT |
| Lifespan | 50,000 hours | 50,000 hours | 50,000 hours | 50,000 hours |
| Warranty | 5 years | 5 years | 5 years | 5 years |

Product Dimensions

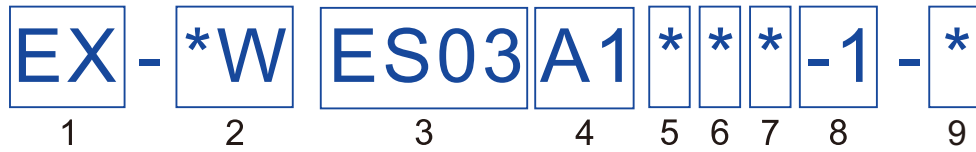
Unit: mm [inch]













● Packing Information

| Model | Net Weight | Gross Weight | Quantity/Carton | Package Dimensions (LxWxH) |
|--------|----------------|----------------|-----------------|-------------------------------------|
| ES03A1 | 20.0kg/44.09lb | 22.0kg/48.50lb | 1 pc | 566x525x290mm/22.28x20.67x11.45inch |
| ES03C1 | 8.0kg/17.64lb | 9.8kg/21.61lb | 1 pc | 440x450x310mm/17.32x17.72x12.20inch |
| ES03A2 | 25.0kg/55.12lb | 30.0kg/66.14lb | 1 pc | 760x650x360mm/29.92x25.59x14.17inch |
| ES03A3 | 25.0kg/55.12lb | 27.0kg/59.52lb | 1 pc | 740x566x290mm/29.13x22.28x11.45inch |

Ordering Guide



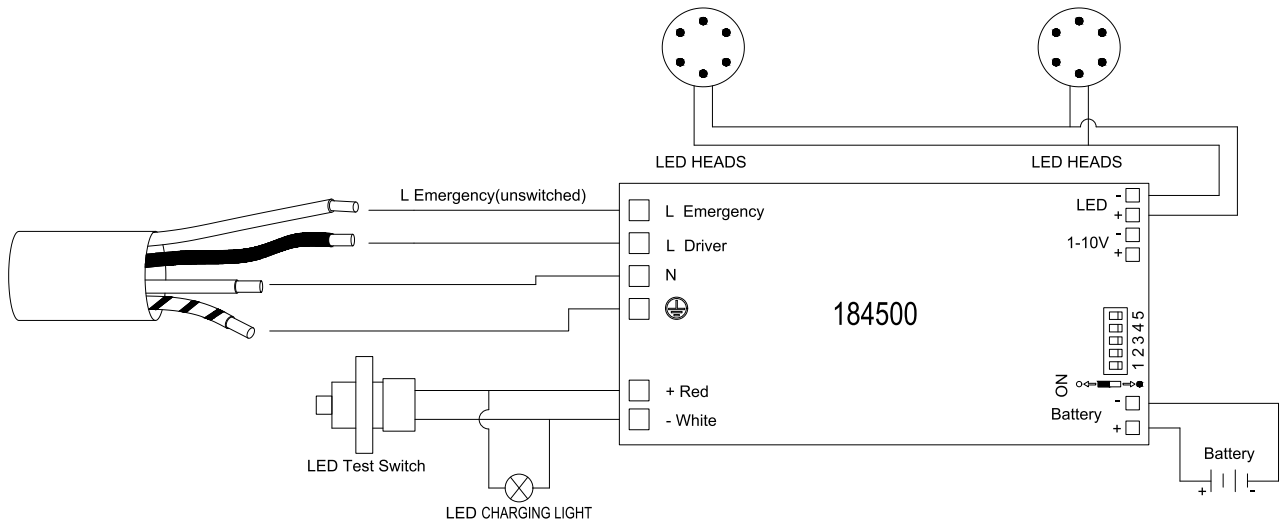
| 1. Product Categories | 2. Wattage | 3. Product Series | 4. Product Type |
|-------------------------|------------|-------------------|--|
| Explosion proof product | | ES03 | A1: Emergency Light C1: Emergency Light A2: Emergency Light + Exit Sign A3: Exit Sign |

| 5. Dimming Options | 6. Color Temperature | 7. Sign Type |
|--------------------------------|--|---|
| D: Dimmable N: Non-dimmable | R: Red, G: Green 30: 3000K, 40: 4000K 50: 5000K, 65: 6500K | A: EXIT B: ←  C:  D:  → E:  ↓ F: ↘  G: ↙  H:  ↗ I:  ↘ J: ←  EXIT K: EXIT  → |

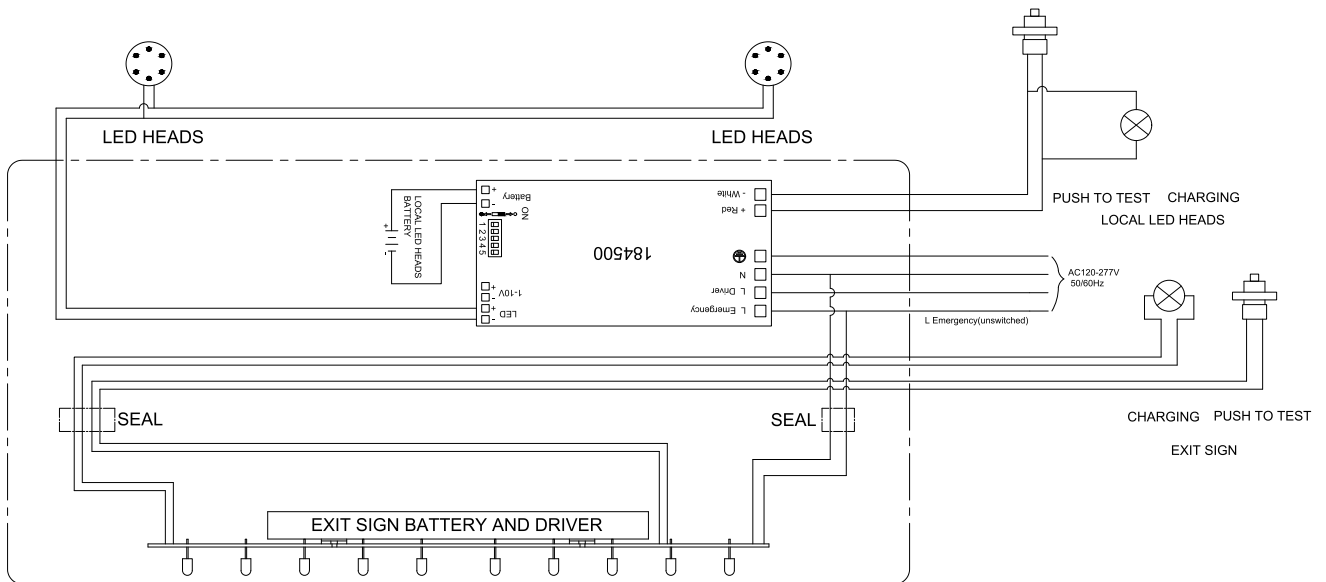
| 8. Place of Original | 9. Optional |
|---|--|
| -1: Made in USA Blank: Made in China | F: Food industry (equipped spot lights with spherical guard made of tempered glass) Blank: Other fields |

Wiring Diagram

ES03A1 / ES03C1 (Emergency Light)



ES03A2 (Emergency Light + Exit Sign)



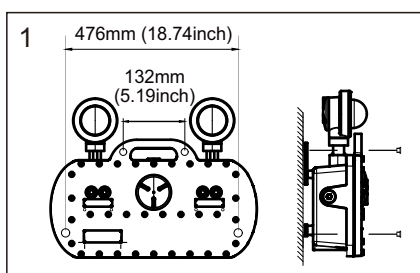
Installation Instruction



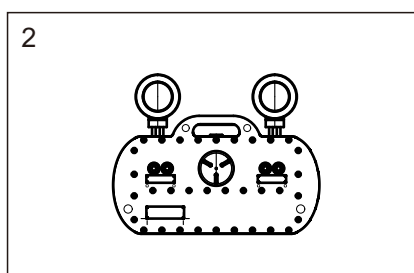
CAUTION: Before installation, make sure the AC power is off.

- Any installation and maintenance need to be operated by a licensed electrician.
- Please check and confirm all the data and usage surrounding before installaion.
- It's OK to install the product in damp or wet location.
- Please charge the battery consistently for more than 24 hours for the first time usage so as to activate the whole battery cells of discharging/charging duration.
- Please do not dismount, change or replace any inside parts. Any difficulties in the process of installation, contact our local distributors or us directly.
- Explosion proof cable introduction devise or explosion proof metal conduit should be used in the process of installation and maintenance, its IP rating and explosive-proof grading should not be lower than the standard indicated on this product label.
- Do not install this product on an incomplete or easy-to-damage surface.
- Overload is strictly prohibited in use.
- For installation or maintenance, please cut off power supply and don't open the enclosure in the explosive atmosphere. Before turn it on, confirm the light source and electrical installation are correctly connected.
- No matter what circumstances, LED Luminaires can't be covered by thermal insulation material, or similar materials.
- In the event of an accident, please turn off the power and contact your local distributor timely.

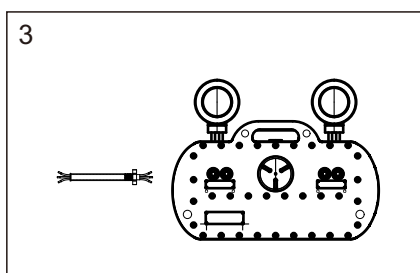
• ES03A1: Wall Mounting



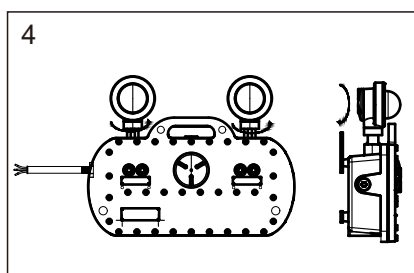
1. Drill four holes as fig. 1, the distance as per 476mm (18.74inch) and 132mm (5.19inch).



2. Fix with four 5/16" expansion screws.



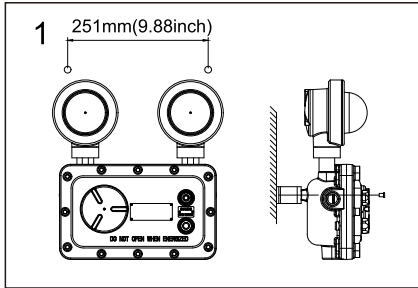
3. Install pipe to 3/4" NPT entry and fix 16mm (0.63inch) Chico A. Then connect the AC cable: black joins to L, white joins to N, green joins to grounding.



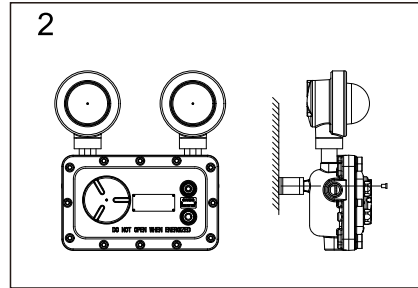
4. After installation, adjust the direction of the headlights as needed.

Installation Instruction

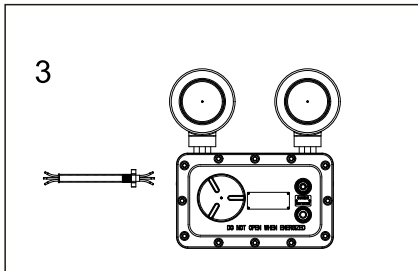
• ES03C1: Wall Mounting



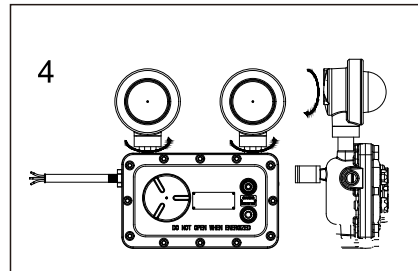
1. Drill two holes as fig. 1, the distance as per 251mm (9.88inch). Then install the lamp to the wall using 7/16" bolts (bolts are not provided).



2. Select any one of the three 3/4 "NPT plugs as the interface for the cable input line.

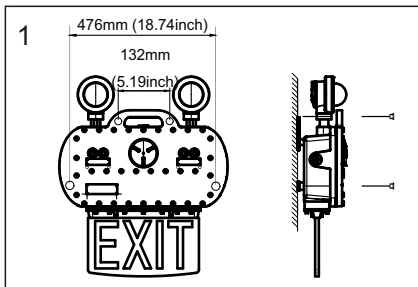


3. Remove the junction box cover (spiral cover) and insert the power cable into the junction box. Then connect the AC cable: black joins to L, white joins to N, green joins to grounding. Further, fill 16mm of chemical filler into the conduit and fix the conduit to the lamp body (it must be confirmed whether there are suitable gaskets before installation).

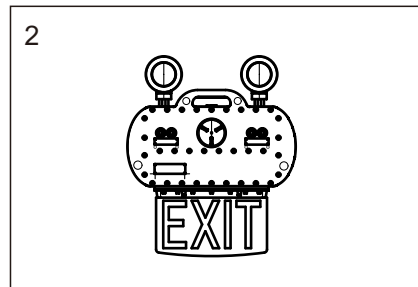


4. After installation, adjust the direction of the headlights as needed.

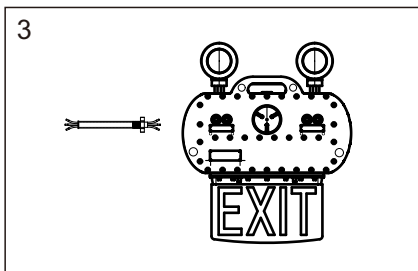
• ES03A2: Wall Mounting



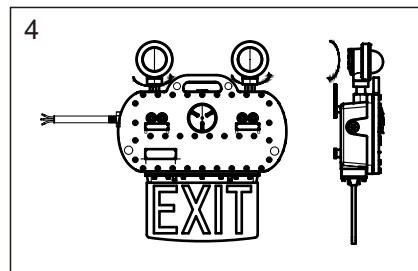
1. Drill four holes as fig. 1, the distance as per 476mm (18.74inch) and 132mm (5.19inch).



2. Fix with four 5/16" expansion screws.



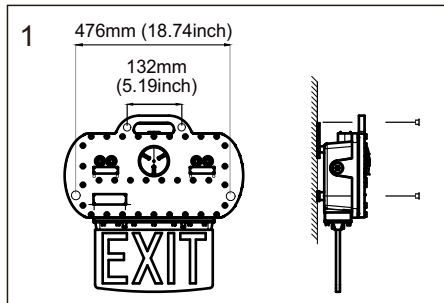
3. Install pipe to 3/4" NPT entry and fix 16mm (0.63inch) Chico A. Then connect the AC cable: black joins to L, white joins to N, green joins to grounding.



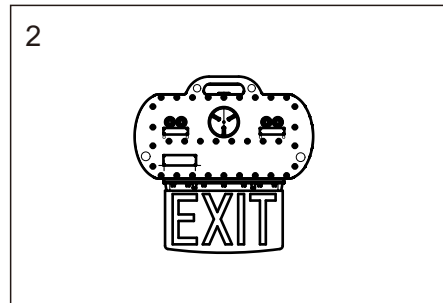
4. After installation, adjust the direction of the headlights as needed.

Installation Instruction

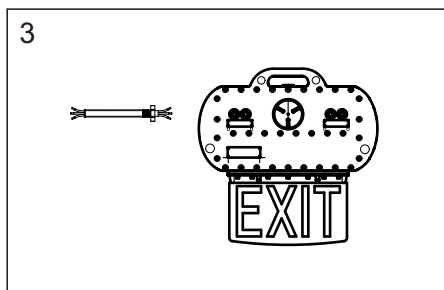
• ES03A3: Wall Mounting



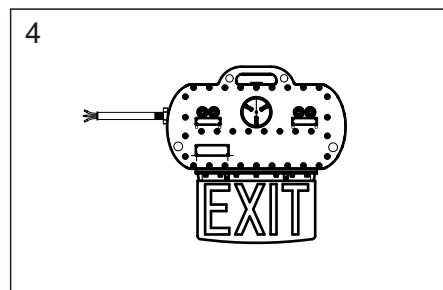
1. Drill four holes as fig. 1, the distance as per 476mm (18.74inch) and 132mm (5.19inch).



2. Fix with four 5/16" expansion screws.



3. Install pipe to 3/4" NPT entry and fix 16mm (0.63inch) Chico A.



4. Connect the AC cable: black joins to L, white joins to N, green joins to grounding.

Maintenance

- Please check the emergency function with the push test button.
- Battery capacity is more than 60% when factory deliver goods, so it could be consistently stocked for maximum 12 months.
- The LED circuit board and driver are not replaceable on site.
- Users are not suggested replacing the batteries by themselves. If needed, please use the nominated batteries pack by the manufacturer and contact with us for the instructions of maintenance.