

Luminaire For Hazardous Locations

Installation and Maintenance Manual

Model THTE1320C

THT-EX

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Subject to alterations
Revision Level: 03



1. General Information

Model THTE1320C LED Emergency Luminaire are suitable for use in the following hazardous (classified) areas as defined by the National Electrical Code (NEC) and Canadian Electrical Code (CEC):

- Class I, Division 1, Groups B, C, D
- Class II, Division 1, Groups E, F, G
- Class III, Division 1
- Wet Locations

Refer to the luminaire nameplate for specific classification information, maximum ambient temperature suitability and corresponding operating temperature (T-Code).

Model THTE1320C LED Emergency Luminaire is designed for using in indoors and outdoors environment.

WARNING

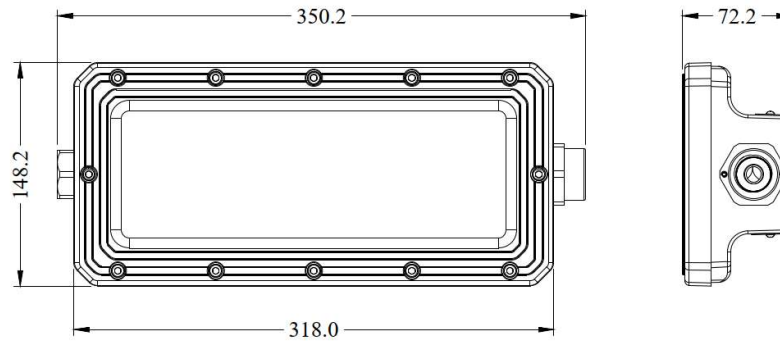
- ▶ To avoid the risk of fire, explosion or electric shock, this product should be installed, inspected and maintained by a qualified electrician only, in accordance with all applicable codes and regulations.
- ▶ To avoid electric shock:
 - ✓ Be certain electrical power is OFF before and during installation and maintenance.
 - ✓ Luminaire must be supplied by a wiring system with an equipment grounding conductor suitable for the specific hazardous locations in accordance with the NEC and CEC.
- ▶ To avoid explosion:
 - ✓ Make sure that the supply voltage is the same as the luminaire voltage.
 - ✓ Do not install where the marked operating temperatures exceed the ignition temperature of the hazardous atmosphere.
 - ✓ Do not operate in ambient temperatures above those indicated on the luminaire nameplate.
 - ✓ All O-rings and gasket seals must be clean and undamaged.
 - ✓ Before installation and dismantling, electrical power to the luminaire must be turned off. Keep tightly closed when in operation.
- ▶ To avoid burning hands, ensure the luminaire is cool when performing maintenance.
- ▶ Customers should install and charge within one month after receiving the lighting fixtures.
- ▶ This equipment has two sources of supply, the area must be verified to be non-hazardous (unclassified) before disconnecting the battery supply during servicing.
- ▶ The lighting fixture needs to be charged for 48 hours and it can provide 90 minutes illumination after fully charged.
- ▶ Continuously charge the Product for 48 hours before first time installation.
- ▶ It may result damage and/or inactive to the battery in case the Product continuously discharges over 30 days. Continuously charge the Product for 48 hours when the Product has continuously discharged for 30 days.
- ▶ **IMPORTANT SAFEGUARDS**
When using electrical equipment, basic safety precautions should always be followed including the following:
 - ✓ Read and follow all safety instructions.
 - ✓ Do not let power supply cords touch hot surfaces.
 - ✓ Do not mount near gas or electric heaters.
 - ✓ Equipment should be mounted in locations and at heights where it will not be subjected to tampering by unauthorized personnel.
 - ✓ The use of accessory equipment not recommended by the manufacturer may cause an unsafe condition.

2. Model Code

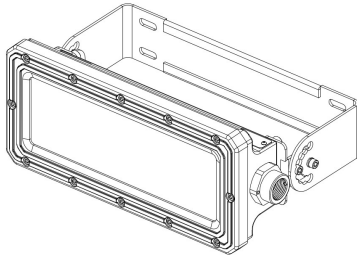
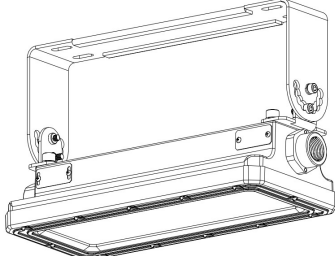
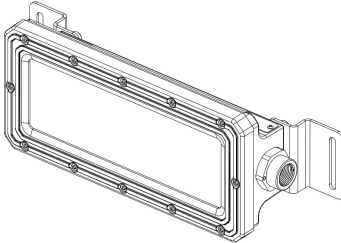
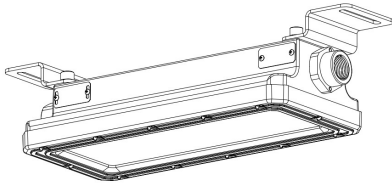
THTE1320CNH①AB0

① : W= Warm white /C= Cool white

3. Dimensions (All Dimensions in mm)



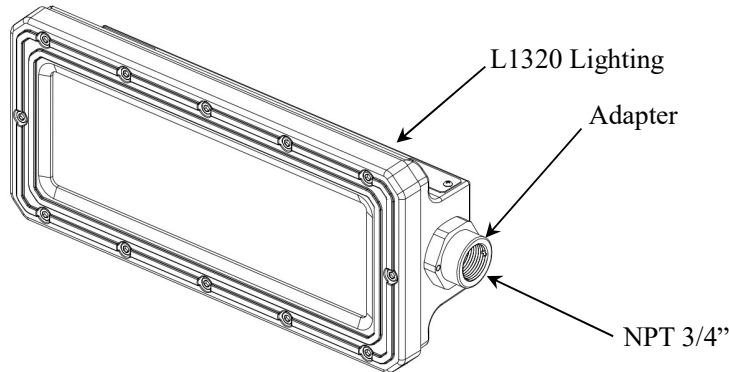
4. Technical Data

Item	Description	
Rated Voltage	100 Vac~277 Vac ($\pm 10\%$), 50 & 60 Hz (Note information on type label)	
Total System Power Consumption	30W(Max.)	
Output LED Wattage	20W	
Battery Pack	Ni-MH Battery Pack	
Recharge Time	48 hr.	
Emergency Run Time	90 minute	
Color of LED light	3000K $\pm 10\%$ (Warm White) / 5000K $\pm 10\%$ (Cool White)	
Power Factor	$\cos \phi \geq 0.9$	
Ambient Temperate Range	0°C ~ +40°C	
Material		
Enclosure	Aluminum alloy	
Glass	Heat and impact resistant tempered glass	
LED Service Life	60,000 hrs	
Mounting Type / Weight	Two-position (wall/ceiling) adjustable trunnion, each position with two aiming angles (25° and 90° adjustable)	
		
	6.1 kg	6.1 kg
	Wall Mounting	Ceiling Mounting
		
	5.2 kg	5.2 kg
Max. mounting height	THTE1320CNHCAB0: 23.76 ft (7.24 m) THTE1320CNHWAB0: 23.48 ft (7.15 m)	

5. Assembly and Installation

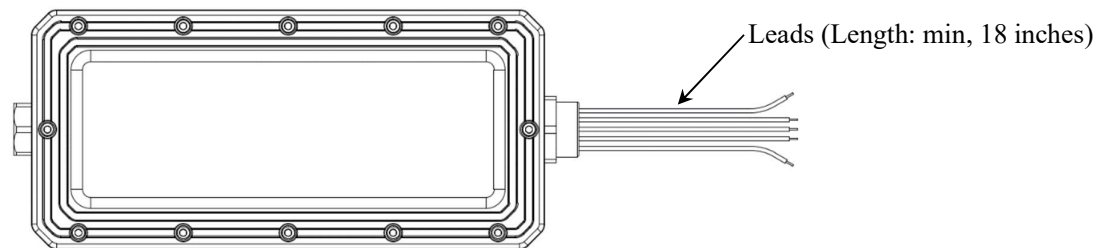
5.1 Electrical Connection

Overview

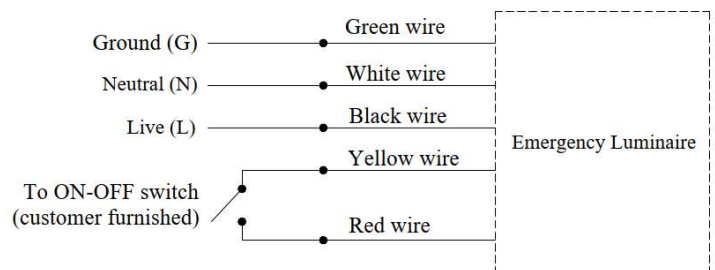


The Pressure Nut is equipped with the adapter (1) with 3/4 in. NPT internal threads for supply connections.

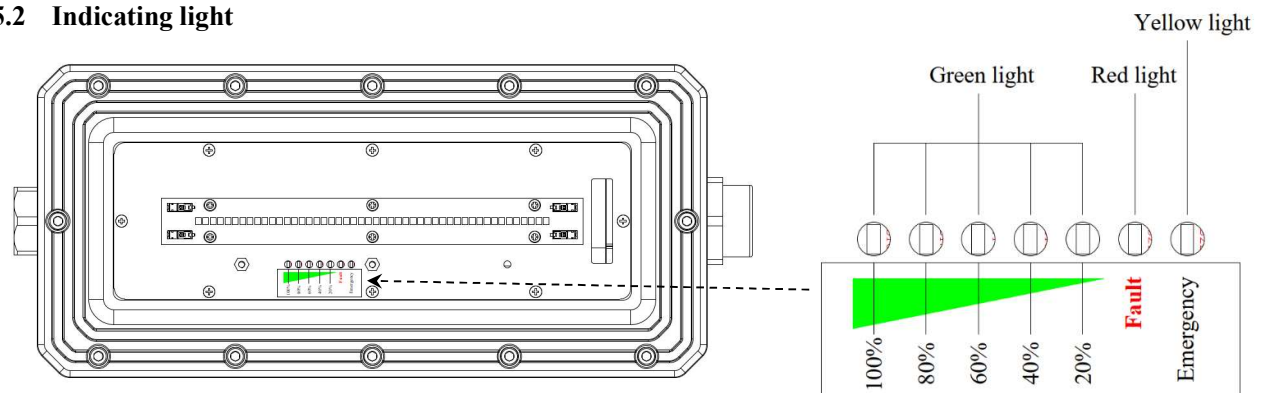
Overview of Electrical Connection



1. Insert the field wiring leads (2) through the conduit (not shown, provided in the field).
2. Connect conduit to 3/4 in, NPT external threads of adapter with at least five full threads engaging.
3. Connect branch conduit wires to luminaire wiring necessary raceway component, boxes and fitting required per NEC and CEC.
White-wire connects to Neutral;
Black-wire connects to Live;
Green-wire connects to Ground;
Red-wire and Yellow-wire connect to ON-OFF switch.
4. The luminaire could be controlled to turn ON or OFF when the Red-wire and Yellow-wire connecting to the external switch, the battery will also keep charging for the emergency purpose.
5. Warning: If interchange the wire connection may cause the damage to the luminaire.



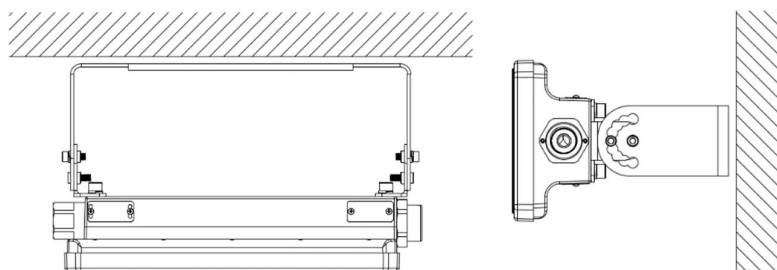
5.2 Indicating light



Status indication	Status description
Green light	The five Green LEDs provide continuous indication of the charge state and the current battery capacity. The charged capacity is indicated in 20% stages. When 5 green lights remain on, it means the battery is fully charged.
Red light	Red LED flashing: When the battery capacity is insufficient or the battery cannot be charged, it is signalized by the flashing Red LED. After the cause of the fault has been eliminated, e.g. by charging or replacing the battery, the fault indication is reset during the next emergency lighting operation (manual or automatic). Red LED is always on: LED Lighting source failure.
Yellow light	Yellow LED indicates the emergency lighting operation mode

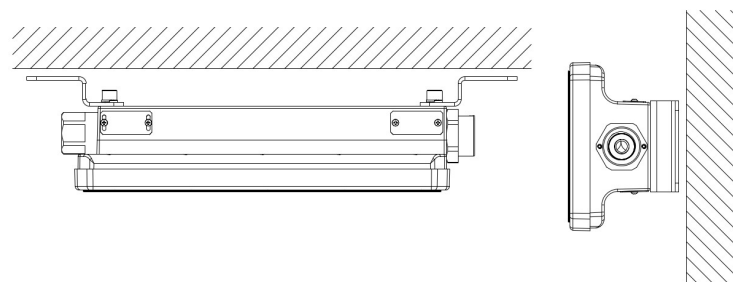
5.3 Mounting Bracket Installation

5.3.1 Two Position (wall/ceiling) Adjustable Trunnion Mounting Bracket



- ☞ The mounting bracket is for the use of wall and ceiling mounting.
- ☞ Position the bracket holders and secured to mounting surface by means of the provided M8 screws with torque value 61.0 kgf-cm.
- ☞ Secure the wall mounting bracket to the structure by using four fasteners (not provided).
- ☞ The angle of lighting fixture can be adjusted.

5.3.2 Wall /Ceiling Mounting Bracket



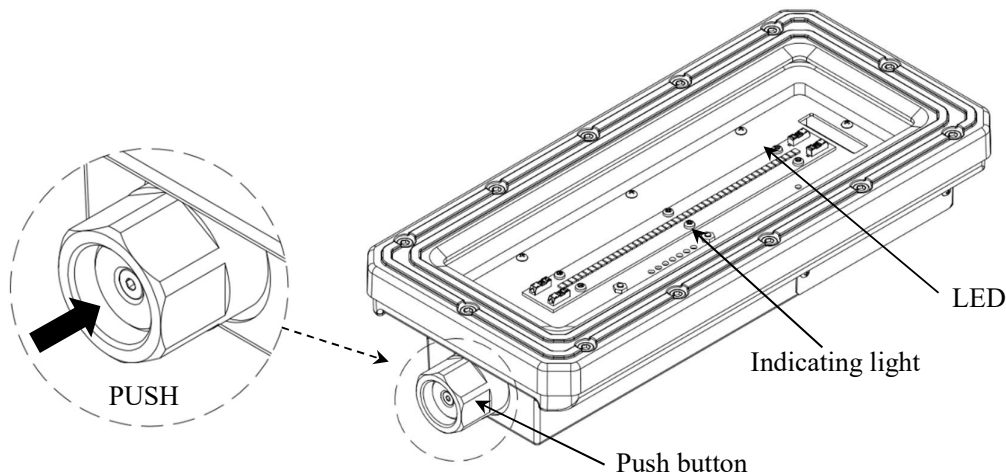
- ☞ The mount bracket is for the use of both Wall mount and Ceiling mount.
- ☞ Position the bracket holders and fix it by means of the provided M8 screws, 61.0 kgf-cm.
- ☞ Secure the Wall/Ceiling mounting bracket to the structure by using four fasteners (not provided)

5.4 Putting into Service

Before putting into operating, it's necessary to ensure that:

- ☞ the lighting is correctly installed.
- ☞ the connection has been correctly made.
- ☞ the field wiring has been made per NEC and CEC requirement.
- ☞ The lighting fixture needs to be charged for 48 hours and it can provide 90 minutes illumination after fully charged.
- ☞ Continuously charge the Product for 48 hours before first time installation.
- ☞ It may result damage and/or inactive to the battery in case the Product continuously discharges over 30 days. Continuously charge the Product for 48 hours when the Product has continuously discharged for 30 days.

5.5 Test Emergency Lights



Test emergency lighting system for proper operation

- ☞ Momentarily press the push button and observe - emergency lights should be operating (Indicating light of yellow light should be operating).
- ☞ If emergency lights do not operate initially, allow battery to charge for at least 3 hours or more, then repeat the test procedure.
- ☞ When press the push button, if the light source cannot be illuminated, please contact the factory to replace the LED or Battery or electronic component.

6. Maintenance

- ☞ To avoid personal injury, disconnect power to the light and allow the unit to cool down before performing maintenance.
- ☞ Perform visual, electrical, and mechanical inspections on a regular basis. The environment and frequency of use should determine this. However, it is recommended that checks be made at least once a year. Frequency of use and environment should determine this. It is recommended to follow an Electrical Preventive Maintenance Program as described in the National Fire Protection Association Bulletin NFPA No. 70B: Recommended Practice for Electrical Equipment Maintenance.
- ☞ The lens should be cleaned periodically to ensure continued lighting performance. Clean the lens with a clean, damp, non-abrasive, lint-free cloth. If this is not sufficient, use a mild soap or a liquid cleaner. Do not use an abrasive, strong alkaline or acid cleaner as damage may occur.
- ☞ Inspect the cooling fins on the luminaire to ensure that they are free of any contamination (i.e. excessive dust build-up). Clean with a non-abrasive cloth if needed.
- ☞ Electrically check to make sure that all connections are clean and tight.
- ☞ Mechanically check that all parts are properly assembled.
- ☞ Do not attempt to service the battery. The unit uses a sealed, Ni-MH battery which requires no maintenance. For replacement, contact the factory.

7. Transport, Storage and Disposal

- ☞ Transport and storage is only allowed in the original packaging, on the way pointed out on the carton box.
- ☞ Transport – Shock-free in its original carton, do not drop, and handle carefully.
- ☞ Store – Store in a dry place in its original packaging.
- ☞ Disposal – Ensure environmentally friendly disposal of all components according to the legal regulations.