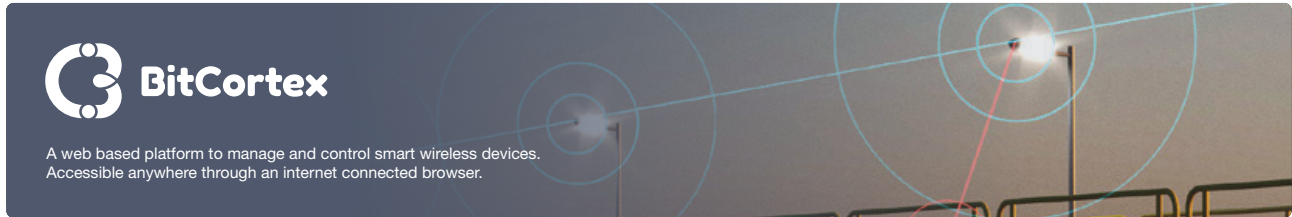


NOTE: Cable glands not supplied. The unit is supplied with plugs.

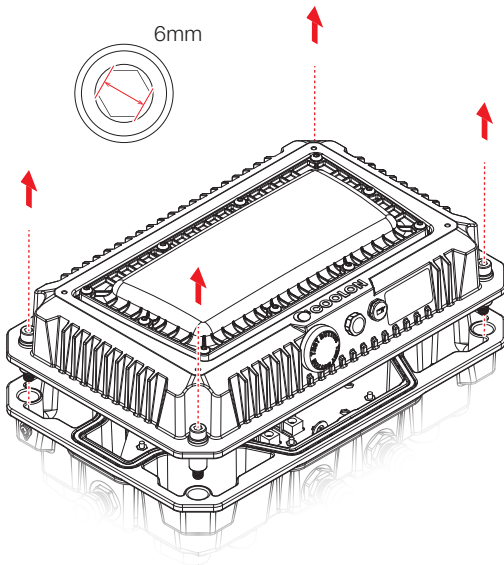


INSTALLATION INSTRUCTIONS

ATTENTION Isolate unit externally before opening.

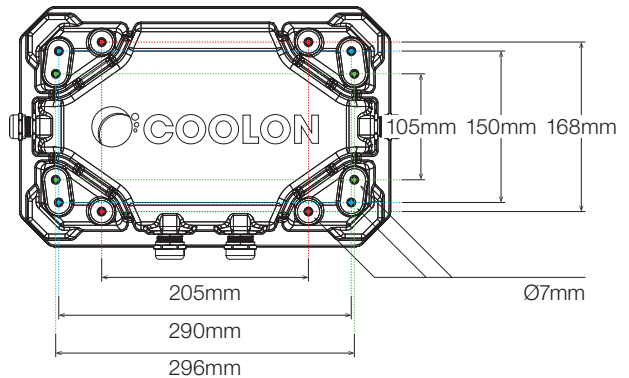
Step 1

Remove the light engine from the base by unscrewing the 4x 6mm hex head captive screws.



Step 2

Identify the ideal mounting holes for your application. The mounting holes are designed to fit most common industrial bulkhead footprints making replacement easy. If the holes don't match or if this is a new installation pick the set of holes which are most convenient.



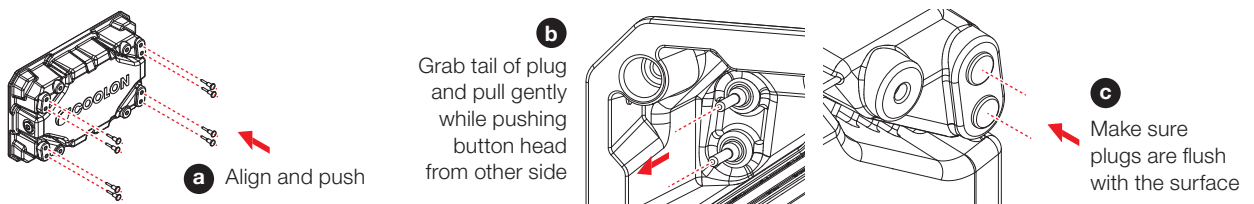
The Coolon Bulkhead unique mounting footprint is compatible with the footprint of the following products:

- THORN Lighting - DB Bulkhead
- EYE Lighting - Passlight
- Pierlite - NXS Bulkhead
- We-Ef Lighting - BUC134
- Pierlite - NEXUS LED Bulkhead

An adaptor plate is available to match the footprint of the Versalux EBH. See the mounting accessories section for further details.

Step 3

Insert silicone plugs into unused mounting holes in the EM Bulkhead base and secure the base to the mounting surface or bracket. To facilitate insertion, grab the tail of the silicone plug from the other side while pushing its head.

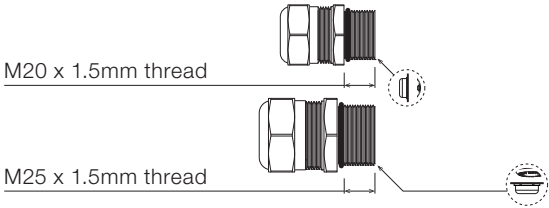


i Position of plugs shown are illustrative and may change due to mounting holes used during installation.

INSTALLATION INSTRUCTIONS (CONTINUED)

Step 4

Mount cable glands (not supplied). The base allows for in and out mains connection. The horizontal entry points allow for M20x1.5 cable gland mounting. The vertical entry points allow for M25x1.5 cable glad mounting.



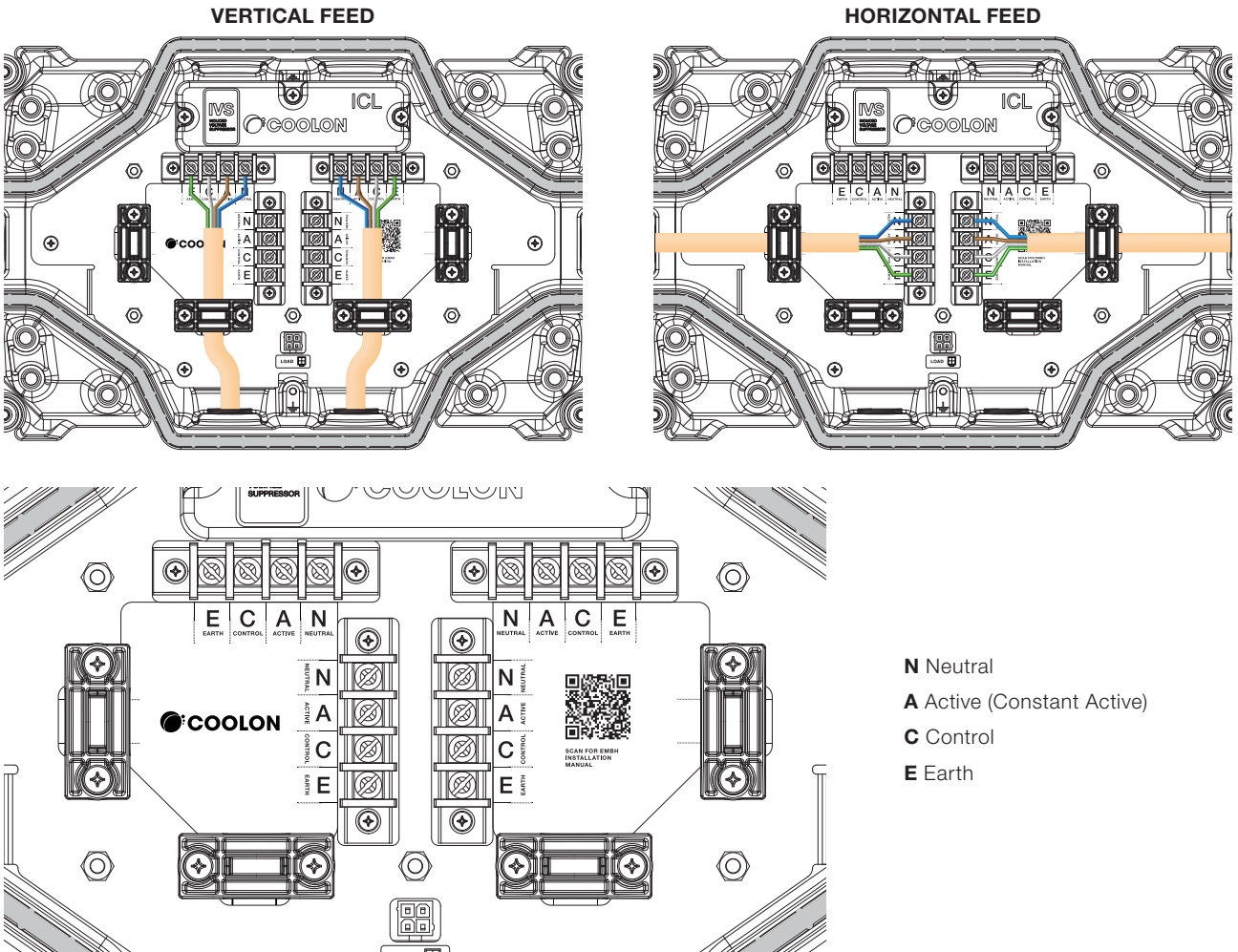
Depending on the diameter of the power cable select the most appropriate cable gland / entry:

- M20 cable gland for 10 – 13mm cable
- M25 cable gland for 13 – 15.5mm cable

i Application of Loctite® 243 is recommend when installing the unit in high vibration areas.

Step 5

Feed mains connection (not supplied). Once suitable connections are made the incoming cable and optional outgoing cable are to be clamped. See the Operating Modes section to identify the appropriate wiring for your application.



Active, Neutral, Earth and Control (optional) wires are to be wired and secured in their respective terminals.

The Control terminal allows for a switched active line to be connected to the unit in order provide switching operation under normal working conditions. The EMBH3 only checks the Control terminal for the presence of a mains voltage level in order to determine if the LEDs should be on or off, which identifies respectively Maintained and Non-Maintained mode of operation. EMBH3 is powered only via the Active (A) terminal.

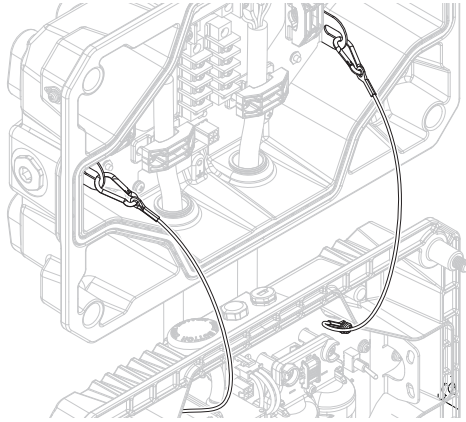
Control Terminal voltage should be below 10VAC for EMBH3 is to operate in a Non-Maintained mode.

In the absence of switched active wire Maintained Mode is set by using a link between the "A" and "C" terminals (not included).

INSTALLATION INSTRUCTIONS (CONTINUED)

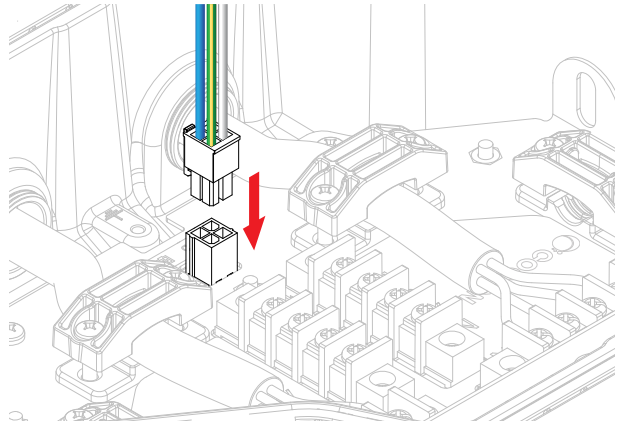
Step 6

Attach the lanyards from the light engine to the tabs located on base plate using the carabiner.



Step 7

Connect the light engine to the base by connecting the power connection plug to the base power connection socket.

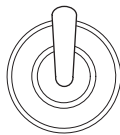
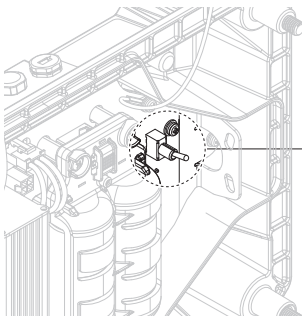


Step 8

Put the Battery Isolation Switch in the 'ON' position if the unit is expected to be commissioned or put In-Service within the next **24-hours**. This 24-hour window may be extended up to 14 days if a Battery Charge Cycle (see respective section) was completed within three months prior to the installation.

Switching the Battery Isolation Switch to the 'ON' position will initiate the EMB3 "TEST" mode, where the unit performs a self-check and enables the Battery Module to supply power to LEDs for a duration of 2 minutes. This indicates that the battery is functional and in working order. The LED's will turn off after 2 minutes.

The Battery Isolation Switch must be left in the 'OFF' position if the above conditions cannot not be met. Failing to do so may lead to battery depletion below a recoverable level. This type of failure is not covered under warranty.



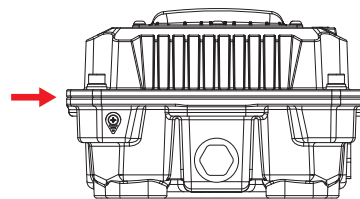
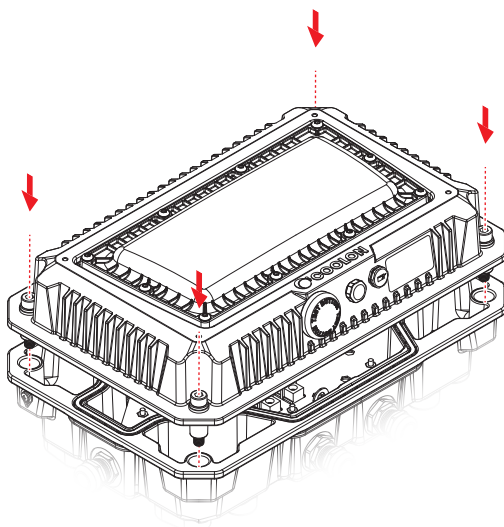
Battery isolation switch
Must be in 'ON' position
for In-Service operation



i Switching the Battery Isolation switch to the ON position without having mains connected will result in the unit operating in EM mode for 2 minutes.

Step 9

Secure the lid to the base using 4 captive screws. Ensure the base gasket is intact and free of any debris.



Flush / In Contact



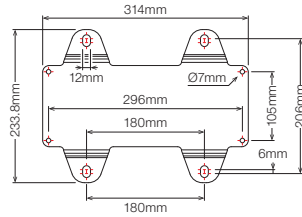
6mm

Recommended torque: 8 – 10Nm

MOUNTING ACCESSORIES

ACC-AP-VEBH-BH-SS

Adapter Plate, to match Versalux EBH and Coolon Bulkhead, 3mm Stainless Steel 304 #4.



Bulkhead Handrail Mount

See coolon.com.au/dl/ind-acc-hmb-bh



Bulkhead Pole Mounting Bracket

See coolon.com.au/dl/ind-acc-pmb-bh



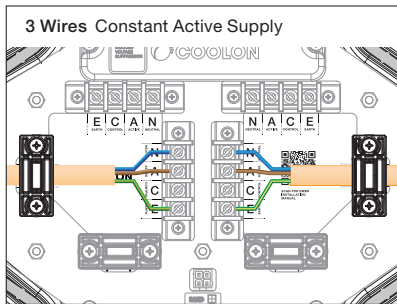
Bulkhead Adjustable Bracket

See coolon.com.au/dl/ind-acc-bhab

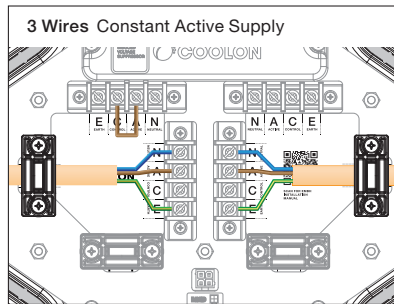


OPERATION

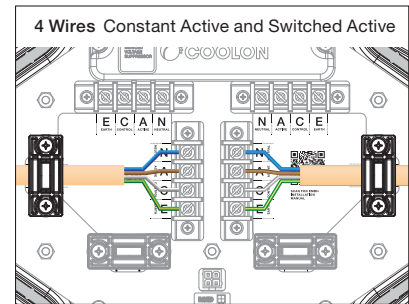
Operating Modes



NON-MAINTAINED
Emergency use only



MAINTAINED
Always ON*



SWITCHED
Conventional luminaire use with emergency backup

OPERATION STATE	ACTIVE	CONTROL	LUMINAIRE STATE	DESCRIPTION
Non-Maintained	ON	N/A	OFF	Main LED is OFF. Green Mains Power Indicator will be ON indicating mains presence.
Non-Maintained	OFF	N/A	ON-EM	Main LEDs is OFF. EM LEDs is ON (power supplied from battery). Green Mains Power Indicator will be OFF.
Maintained	ON	ON (Link)	ON	Main LED is ON. Green Mains Power Indicator will be ON indicating mains presence.
Maintained	OFF	OFF (Link)	ON-EM	Main LEDs is OFF. EM LEDs is ON (power supplied from battery). Green Mains Power Indicator will be OFF.
Switched	ON	ON	ON	Main LED is ON. Green Mains Power Indicator will be ON indicating mains presence.
Switched	ON	OFF	OFF	Main LED is OFF. Green Mains Power Indicator will be ON indicating mains presence. Any induced voltage on the Control wire should be no greater than 10V when the Control is OFF.
Switched	OFF	ON or OFF	ON-EM	Main LEDs is OFF. EM LEDs is ON (power supplied from battery). Green Mains Power Indicator will be OFF.
Switched**	ON	Digital ON, Amber or White selection	ON	Main LED is ON. Green Mains Power Indicator will be ON indicating main presence.
Switched**	ON	Digital OFF	OFF (Dimmed to 15%)	Main LED is OFF (Dimmed to 15%). Green Mains Power Indicator will be ON indicating mains presence.
Switched**	OFF	Digital ON or OFF, Amber or White selection will be applied upon exiting EM mode	ON-EM	Main LED is OFF. EM LED is ON in EM mode (power supplied from battery). Green Mains Power Indicator will be OFF.

*Unless switched digitally.

**Via BitCortex application, gateway required. The Control terminal must be linked to the Active terminal via bridge link.

OPERATION (CONTINUED)

Commissioning / Put In-Service

The commissioning of the EMBH3 involves the following:

1. Verify that the EMBH3 is installed and wired appropriately as per the Installation Instructions.
2. Ensure the Battery Isolation Switch is in the 'ON' position in accordance with **Step 8** of the Installation Instructions. With mains presence a flashing Green light indicator indicates the battery isolation switch is in OFF position. If this is the case, please check and make sure again that the battery isolation switch is in the 'ON' position.
3. Supply mains power continuously for at least 16 hours.
5. Conduct the Commissioning EM Operation test by disconnecting the mains power. The unit is deemed to have passed the test if light is produced for a minimum of 120 minutes.

The unit is considered to be **In-Service** once it is provided a minimum of 16 hours of uninterrupted mains supply following the Commissioning EM Operation test.

Testing (In-Service)

There are 2 ways to test the EMBH3 for EM Operation as outlined below.

NOTE: The unit needs to complete the Commissioning EM Operation test prior to undergoing In-Service EM testing.

1. Test Button
 - a. Press the Test Button to interrupt mains supply to the EMBH3 (simulating power outage).
 - b. The EMBH3 is deemed to have passed the test if the Green Mains Power Indicator stops illuminating and Emergency Light is produced (if the battery isolation switch is in the "ON" position)
 - c. Release the Test Button to allow mains supply to energize the EMBH3 and revert its operating state appropriate for the wiring configuration
2. In-Service EM Test

NOTE: The EMBH3 should have a minimum of 16 hours of uninterrupted mains supply prior to the In-Service EM Test.

- a. Disconnect power to the EMBH3, the Green Mains Power Indicator will stop illuminating and the unit will provide Emergency Light.
- b. The EMBH3 is deemed to have passed the test if it produces light for 90 minutes.
- c. Reconnect power to the EMBH3. It will revert to its operating state appropriate for the wiring configuration and colour selection via BitCortex (when applicable).

Power Interruption

The EMBH3 is designed to provide reliable Emergency Light in the event of a power outage. Users can expect a minimum of 90 minutes of Emergency Light during In-Service operation when power is supplied for a minimum of 16 hours prior to the event.

If an area needs to be accessed prior to the EMBH3 completing the 16-hour charge period, the Coolon App can be used to identify the EMBH3 unit in the area and determine its calculated Emergency Light runtime – see "Predicted Duration" in the app. This allows the operator to determine if the emergency light output duration will be sufficient for their task in the event of a power interruption/outage.

If the EMBH3 is expected to be deenergised for more than 7 days, the Battery Isolation Switch must be set to the 'OFF' position. This will prevent the EMBH3 battery from depleting below the recoverable level due to the prolonged power interruption. Failing to do so may result in irreparable damage to the battery, which is not covered under warranty.

Storage / Removal from In-Service

The Battery Isolation Switch must be set to the 'OFF' position if the EMBH3 is to be removed from In-Service operation for storage, transportation or any other reason. Please ensure the EMBH3 has had a minimum of 16 hours uninterrupted mains power supplied prior to this. Take note of the date the EMBH3 is taken out of service and observe the requirements set in the Storage Shelf Life section.

Storage Shelf Life

The EMBH3 has a storage shelf life of up to 12 months when stored at a temperature of 20±5°C after dispatch from the factory.

Storage temperatures outside of 20±5°C but within the specified unit operating temperature limit will decrease the product shelf life to 6 months. The EMBH3 should be put through a Battery Charge Cycle if it cannot be commissioned within the prescribed shelf life. Following the Battery Charge Cycle, the EMBH3 can be stored for a further period appropriate to the storage temperature.

Failure to comply with the above requirements may result in irreparable damage to the battery since such a state would permanently alter the battery chemistry. This type of failure is excluded from the warranty.

OPERATION (CONTINUED)

Battery Charge Cycle

1. Connect A (Active), N (Neutral) and E (Earth) terminals of the unit to mains voltage. Control line remains unconnected.
2. Turn the battery isolation switch to the ON (connected) position.
3. Energize the unit and allow to charge for 16 hours. A Green Mains Power Indicator should be observed to stay ON.
4. De-energize the unit and disconnect mains supply.
5. Turn the battery isolation switch to the OFF (disconnected) position.
6. Record the date of the Battery Charge Cycle.
7. Pack the unit for storage or proceed to the next operation / installation step.

Battery Replacement Procedure

The EMBH3 emergency LED luminaire is designed to operate providing specified emergency operating time using the in-built battery for the life of the product. However if a replacement battery module is required please contact Coolon.

Troubleshooting

The Green Mains Power Indicator is flashing

Flashing Green Mains Power Indicator means battery disconnected (Battery Isolation Switch is in the OFF position).


The unit does not turn off when the Switched Active / Control line is de-energized

This may be one of two common reasons, either

- a. The induced voltage at the Control terminal is sufficiently high to signal the unit that the switch is still on. Check the voltage at the Control terminal or the Switched Active line to ensure it is below 10V.
- b. The Constant Active and Switched Active lines are wired into wrong terminals. Having a Switched Active line connected to the Active terminal will give the impression that the EMBH3 is operating correctly, however, when the Switched Active line is deenergized, the unit will interpret that action as a power loss and will start to provide Emergency Light. An inspection of the wiring would be able to identify if this is the case, alternatively, if the unit does switch off up to 2 hours after the line is deenergized, this would be a clear indicator of incorrect wiring. Under normal working "Switched" conditions, when the Switched Active line is deenergized, the EMBH3 will stop producing light and the Green Mains Power Indicator will be visible indicating the presence of mains at its Active terminal.

OPTIONAL ACCESSORIES

Optional accessories available separately. Refer to industrial accessories page: coolon.com.au/industrial-led-lighting/accessories or follow the QR Code.



IMPORTANT

Primary use: commercial and industrial applications.

- Read through this manual before installation
- Handle the product with care
- Class 1 products must be grounded
- The product must be installed by a suitably qualified person
- Do not stare at operating lamp, may be harmful to the eyes
- Turn OFF the power before installation and maintenance
- Make sure the product is securely installed
- The housing might become hot after operation
- Keep optical face clean

