

INSTALLATION INSTRUCTIONS

Guardian Ligature Resistant Bulkhead

Product Codes: **GLR18/MSCF-CCT, GLR18E/MSCF-CCT**
GLR18E-CCT-V2, GLR18-CCT-V2

Safety Warning



- The installation should be carried out by a qualified electrician in compliance with the current edition of the IEE Wiring Regulations.
- Prior to installation, carry out the necessary risk assessment considering the people who could be at risk, the level of risk and the precautions required to control the risk.
- Ensure that the circuit supply is isolated either by the circuit supply fuse being removed or the applicable circuit breaker being turned off before installation or any maintenance.
- Check the total load on the circuit ensuring the luminaire does not exceed the rating of the circuit cable, fuse or circuit breaker.
- Long-term use and voltage fluctuations can reduce the life span of the fitting.
- If the fitting incorporates control gear, ensure careful sizing to avoid instances of nuisance tripping of the protective device used in the installation.
- Follow the provided installation instructions, using the fixings supplied or recommended.
- Keep out of reach of children.

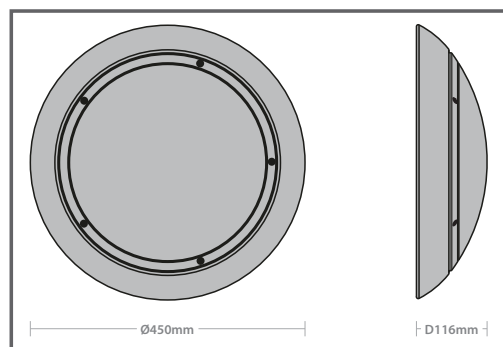


Specification

Box Contents -

1 x Guardian Bulkhead, 1 x Bag of Fixings, 1 x Security Allen Key

Dimensions:	Ø: 450 x D: 116mm
Material:	Steel body & Polycarbonate diffuser
Working Temperature:	Standard: -10°C - 40°C Emergency: 0°C - 40°C
Included:	Bag of fixings & Security Allen Key

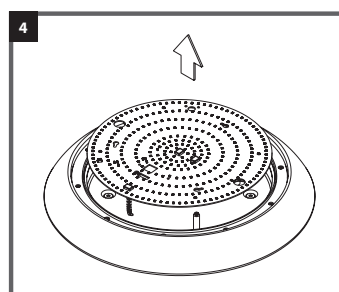
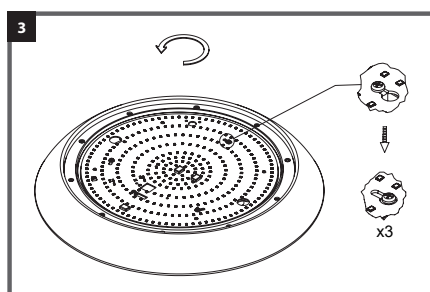
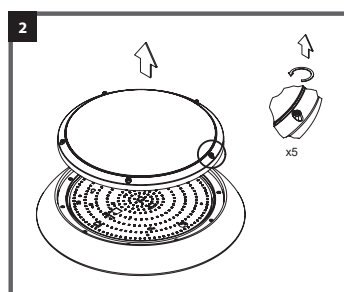


MAXIMUM FITTINGS PER CIRCUIT

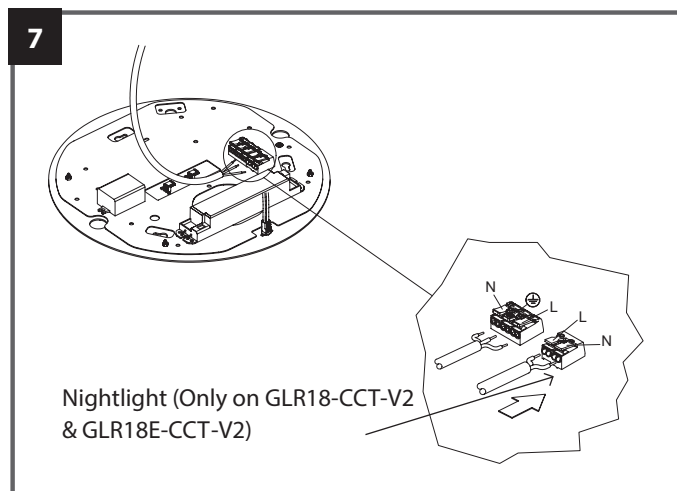
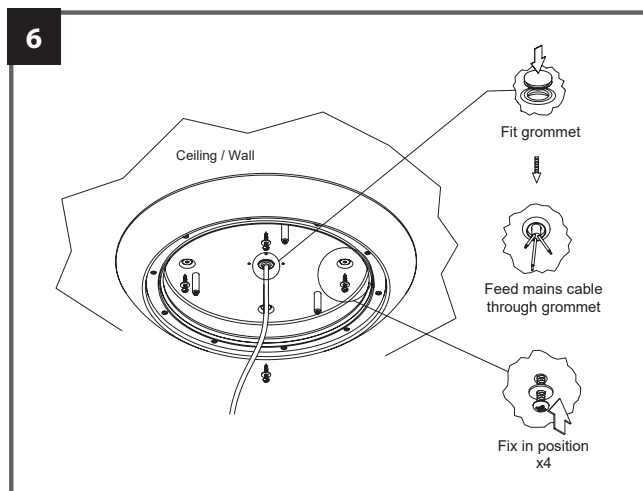
Automatic Circuit Breaker Type:	B6	B10	B13	B16	B20	C10	C13	C16	C20
Rated Current:	6A	10A	13A	16A	20A	10A	13A	16A	20A
Cable (mm):	1.5	1.5	1.5	2.5	2.5	1.5	1.5	2.5	2.5
GLR18-CCT-V2	20	33	42	52	66	50	65	80	100
GLR18E-CCT-V2	16	26	35	42	52	40	52	64	80
GLR18/MSCF-CCT	20	33	42	52	66	50	65	80	100
GLR18E/MSCF-CCT	16	26	35	42	52	40	52	64	90

Installation Instructions

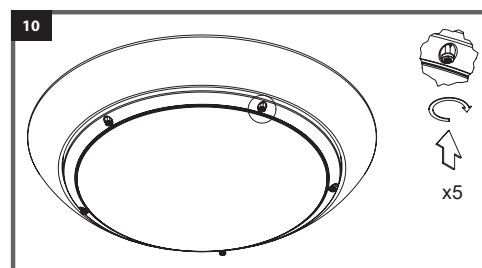
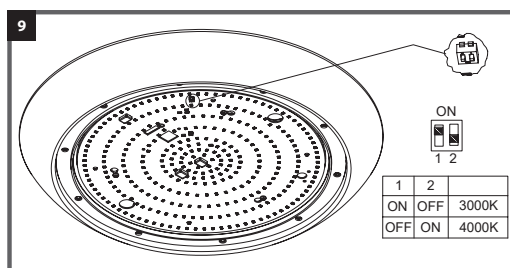
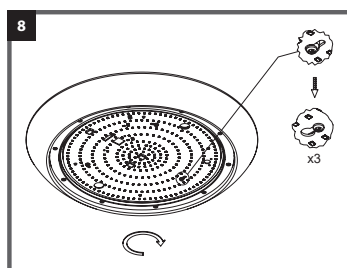
- Isolate the mains supply before commencing with the installation.
- Remove the diffuser by using the provided security allen key, loosen all front fixing screws and pull the diffuser away from the base.
- Loosen, but do not remove, the 3 x gear tray retaining screws, rotate the gear tray to align the screw heads with the large aperture of the keyhole slots.
- Remove the gear tray away from the base, taking care to disconnect the earth link from the base as you remove the geartray.



5. Fix the base of the bulkhead to the mounting surface using suitable fixings for the substrate. A cable entry point is provided via a blind grommet, which should be pierced to pass a cable through.
6.
 - A. Feed the mains cable through the grommet fitted in previous steps.
 - B. Hold the fitting up to the ceiling / wall in the desired position and mark hole fixing centres.
 - C. Drill fixing holes.
 - D. Insert rawl plugs.
 - E. Fix in position using suitable fixings for the substrate.
7. Ensure the luminaire has a switched live supply to "L" (switched live). Route the mains supply cable's to the terminal block on the gear tray and terminate. If the nightlight function is being used terminate the nightlight switched live supply to the corresponding 2 pole terminal block. Ensuring correct polarity is observed and all conductors are fully sleeved and insulated.

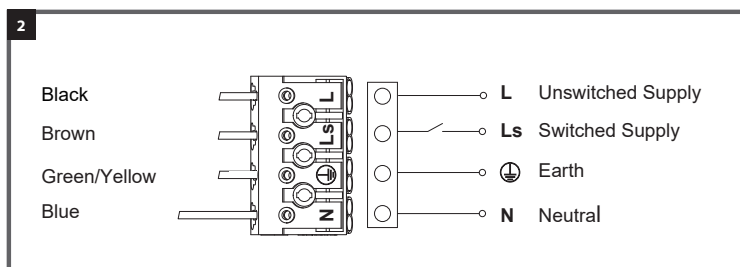


8. Refit the gear tray and secure by retightening the screws.
9. Select the desired colour temperature on the LED Board using the dip switches.
10. Refit the diffuser by aligning the screw ports with the screws on the diffuser and evenly tighten the screws until the gasket seal is compressed. Restore the mains power supply, switch on and test for satisfactory operation, making sure both normal and nightlight modes are tested.
11. If anti pick mastic is required apply this around the base and smooth forming a seal between the steel base and mounting surface.



Emergency Version Instructions

1. Follow instructions 1-6 on the previous page.
2. The luminaire requires a secondary unswitched live supply as well as a switched supply. Connect the unswitched supply to the terminal marked L. Connect the switched supply to the terminal marked Ls. The "unswitched" supply must be taken from the same phase as the "switched" supply and must be wired to the same MCB so that upon test, it is isolated at the same time as the switched supply.



3. Route the cable to the terminal block and terminate, ensuring correct location is observed.
4. When the power supply is reconnected, check the green LED illuminates. This indicates the batteries are charging.
5. The batteries should be charged for at least 24 hours before carrying out a full discharge test, to check batteries are charging correctly and 3 hour emergency duration is achieved.

Note: For non-maintained operation, only an unswitched supply to terminal L is required.
For switched maintained, follow the instructions in no.2 above.
For unswitched maintained operation, connect cables as in 2 above but also link L & Ls.

Self Test Version Instructions

GLR18E-CCT-V2 / GLR18E/MSCF-CCT feature stand alone automatic self test operation.

After the power supply has been connected and the batteries have charged for 24 hours, the fitting will perform the following tests automatically, which meet and exceed legal requirements. The status during and after the tests is provided by a bi-colour LED Indicator.

Initial Duration Test

This is carried out 24 hours after the fitting has been connected to the power supply, provided the supply is uninterrupted and the batteries have been charging for this period. This test lasts for the rated duration of the luminaire, 3 hours.

Function Test

This test is carried out every month for 3 minutes, checking the functionality of the emergency module, batteries and LED module.

Duration Test

This is carried out every year (every 300 to 365 days). The test lasts for the rated duration of the luminaire, 3 hours.

NOTES:

If a mains supply failure occurs during a scheduled test or in the preceding 24 hours, the test will be postponed for 3 days.
The timing function is accurate to within ± 75s per week. Timing is retained during periods of mains failure or interruption for up to 7 days.
Tests will not be performed when the mains supply is disconnected.

System Status Indication

The system status, including testing and any faults is provided by a bi-colour LED indicator on the fitting. Status is provided as follows:

LED Colour	Status		Flash Rate On Time	Flash Rate Off Time	Details
Green		Permanent On	-	-	Normal operation - Battery is charging
		Slow Flash	1s	1s	3 hr duration test in progress
		Fast Flash	0.2s	0.2s	3 min function test in progress
		Flash 3 Times only	0.5s	0.5s	Self test timer reset
Red		Permanent On	-	-	Battery charge failure
		Slow Flash	1s	1s	LED module failure
		Fast Flash	0.2s	0.2s	Battery duration failure
Off		Off	-	-	System in emergency mode. Mains disconnected from battery, or mains failure

Test Button

The fitting has a test button, which can be used to perform the following functions:
Press for < 2s – Simulate emergency mode
Press for 3-5s – Manually start a duration test. Abort test by pressing the button for 1-2s
Press for 5-8s – Manually start a 60s function test. Abort test by pressing the button for 1-2s
Press for > 10s – Timer reset

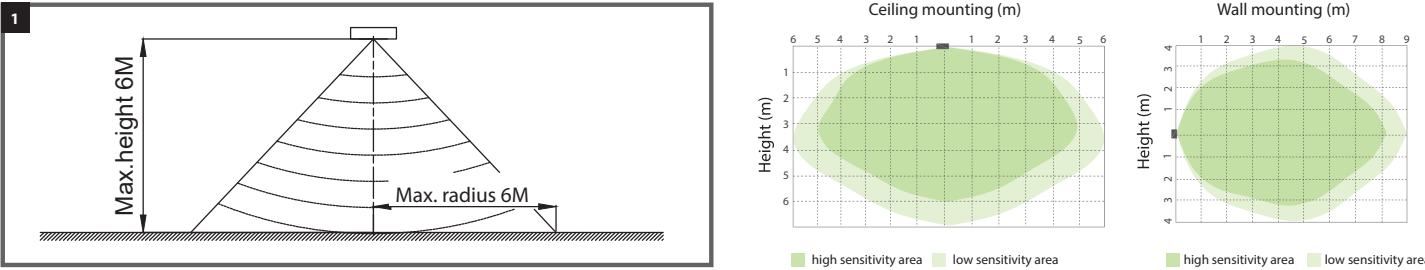
Battery Replacement

1. Isolate the mains supply and remove the front cover.
2. Unplug the battery lead from the circuit board.
3. Write the current date on the new battery pack.
4. Fit the new battery pack.
5. Plug the battery back into the circuit board.
6. Replace the front cover, restore the power and allow to charge for 24 hours. Then carry out a full duration test.
7. Self Test Version Only – After restoring the power press the test button for >10s to reset the timer and allow to charge for 24 hours.
8. Self Test Version Only – The fitting will carry out an automatic duration test after 24 hours. Check the indicator status after the test for normal operation.

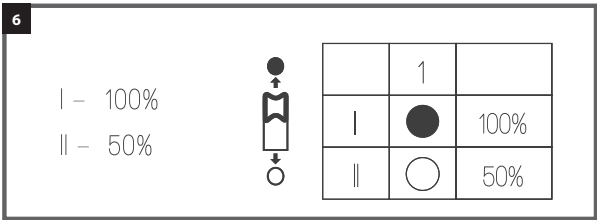
Instructions for Microwave Sensor Corridor Function Set Up

The Microwave Sensor allows the Bulkhead to detect when an occupant enters or leaves an area, turning the luminaire on or off accordingly. The corridor function allows the bulkhead to dim down to a pre-set level for a period of time (pre-set) after occupants have left the area, before turning off completely.

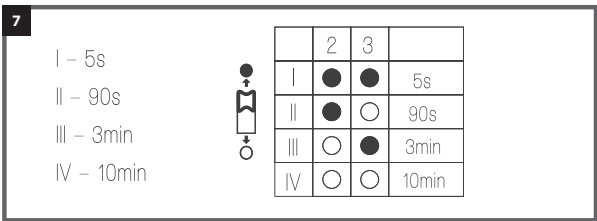
1. The sensor should be positioned so that the occupants of the area fall inside the detection patterns shown in the diagram below.



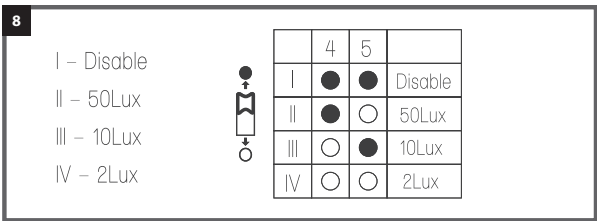
2. The diagram is based on a maximum ceiling mounting height of 6m. Note that the lower the sensor is installed, the smaller the detection range will be upto a mounting height of 3m. The detection diameter at 3m is approximately 12m, Higher mounting heights will result in a smaller detection diameter.
3. The distances quoted are approximate and may vary depending on the surroundings.
4. Do not site within 1m of forced air heating or ventilation.
5. Do not fix to a vibrating surface.
6. **Sensitivity** can be adjusted by selecting the required combination on dip switch 1 for different applications.



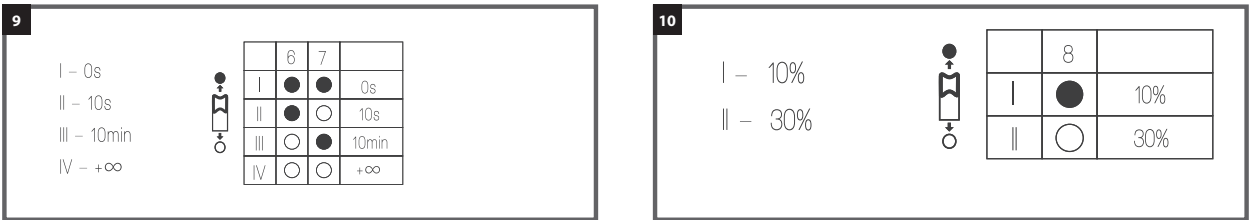
7. **Hold time** refers to the time period that the light remains on if no more movement is detected. Set using dip switches 2 & 3.



8. Different **daylight thresholds** can be pre-set using dip switches 4 & 5. Light will always turn on upon movement if daylight sensor is disabled.



9. **Stand by time** refers to the time period that the light remains at a low level before it is completely turned off if the area continues not to be occupied. This can be set using dip switches 6 & 7.
10. **Stand by dimming level** allows the light to be dimmed to different levels after hold time. This can be set using dip switch 8.



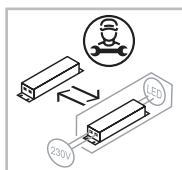
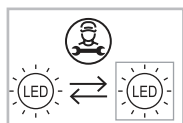
When this fitting comes to the end of its life or you choose to replace it, please do not dispose of it with your normal waste. Please recycle

Warranty

This product is warranty for a period of 5 years from the date of purchase. The guarantee is invalid in the case of improper use, tampering, removal of the Q.C. date label, installation in an improper working environment or installation not according to the current edition of the I.E.E. Wiring Regulations (BS7671). The warranty is also invalidated if the luminaire has been insulation tested. Should this product fail during the warranty period it will be replaced free of charge, subject to correct installation and return of the faulty unit. We do not accept responsibility for any installation costs associated with the replacement of this product. Your statutory rights are not affected. We reserve the right to alter specifications without prior notice.

Maintenance

- This fitting will require routine cleaning if used in adverse (sue, paint, welding, oil etc) environments. Do not use solvents, aggressive detergent or abrasives.
- The light source & driver in this luminaire can be quickly and easily replaced at end of life. This should be carried out by a competent person. Contact Red Arrow for details of replacements.



- When this fitting comes to the end of its life or choose to replace, please do not dispose of it with your normal waste. Please recycle where the facilities exist, check with your local authority for suitable options.

LK0006/GLR18E-CCT-V2/V3



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INSTALLATION INSTRUCTIONS

Emergency Testing Sheet

Testing (Emergency Versions)

The emergency lighting must be tested and inspected regularly in accordance with local codes of practice.
 NOTE: For safety reasons tests should be carried out preceeding time of low risk, to allow for battery recharge.
 The minimum recommended test schedule is as follows:
 Commissioning - After installation, allow 24 hours to ensure full battery charge, and then interrupt the supply; check after 3 hours that the light is still illuminated.
 1. Daily - Check that the charge indicator LED is working.
 2. Monthly - Interrupt the power supply for a period sufficient to ensure each light is illuminated. At the end of the test, restore the supply and check the indicator is illuminated.
 3. Annually - Interrupt the supply as in 2, but for the full rated duration. Ensure the light is illuminated at the end of the rated duration. Restore the supply and check the indicator is illuminated.
 4. Record the date and result of each test, attending to any maintenance required in the event of a test failure.

Luminaire Location **Date Installed**

Date Commisioned

Month	Test	Year 1			Year 2			Year 3		
		Signed	Result / Action	Date	Signed	Result / Action	Date	Signed	Result / Action	Date
1	Functional									
2	Functional									
3	Functional									
4	Functional									
5	Functional									
6	Functional									
7	Functional									
8	Functional									
9	Functional									
10	Functional									
11	Functional									
12	Full Duration									