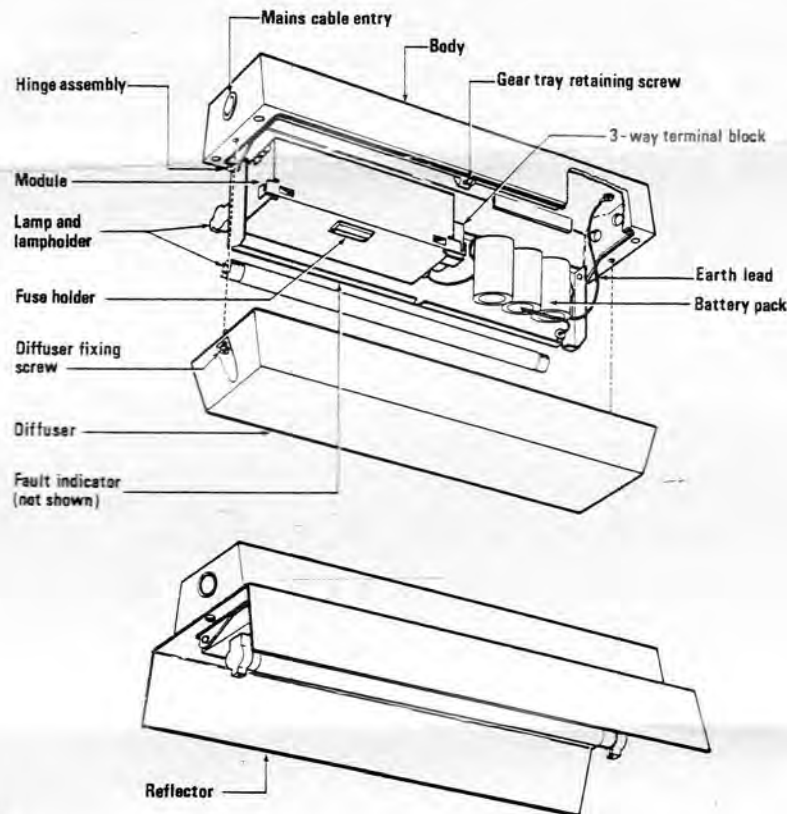


Installation and Wiring Instructions for EMERGENCY-ESCAPE LIGHTING EFV BULKHEAD RANGE

THORN



IMPORTANT NOTES

1. Before and During Use

- 1.1 When the mains supply is isolated, the output terminals can still be live if the battery is connected. Before handling, BOTH MAINS AND BATTERY MUST BE ISOLATED.
- 1.2 Although operating from a low-voltage battery supply in many applications, transistor units may generate voltages up to 550V at frequencies of 100KHz or more at the output terminals. These could cause injury due to electric shock or high frequency burning and should not be handled whilst connected to the mains or battery supply.
- 1.3 Relatively high input currents can constitute a potential short circuit hazard. Suitable protection circuits are essential.
- 1.4 Rechargeable nickel cadmium batteries in self-contained emergency lighting luminaires contain an electrolyte which can be harmful to the eyes and poisonous or harmful to open wounds. Care must be taken in handling batteries to avoid puncturing the case and allowing electrolyte to escape.
- 1.5 When handling take care not to 'short out' battery terminals with metal on the hands (e.g. ring, watch, bracelet, etc.). This could cause passage of heavy current with consequent injury by burning.

2. Disposal

- 2.1 Emergency Lighting batteries must not be incinerated.
- 2.2 Whilst disposing of small quantities of batteries is possible with little or no damage, large numbers require expert handling. Guidance to suitable contractors is available from Local Authority Health and Safety Officers.

3. Normal Check and Safety Procedures

- 3.1 Should this luminaire fail to operate when failure of the normal mains supply is simulated it is essential before returning it to your nearest Thorn Lighting Branch for examination to ensure that the batteries have been on continuous charge for at least 24 hours prior to the test.
- 3.2 The normal mains supply to the luminaire should be derived from a circuit which is continuously energised. Steps should be taken to ensure that the supply is not inadvertently interrupted at any time. All switches associated with emergency lighting should be situated in such a position that they are inaccessible to any unauthorised person and of the tamper-proof or retractive type. All such switches should be suitably identified.
- 3.3 Should it be necessary to replace any of the components this should not be undertaken without first switching off normal mains supply, disengaging the plug and disconnecting the mains supply wires from the terminal block. On no account should any attempt be made to open the control units or inverters.
- 3.4 REMEMBER - ISOLATE FROM ALL MAINS AND BATTERY SUPPLIES BEFORE SERVICING, CLEANING AND RELAMPING.

DESCRIPTION

A range of self-contained non-maintained vandal resistant, weatherproof (to IP23) bulkhead luminaires. Wall or ceiling mounting is possible.

MOUNTING

4 x 5.0mm holes on 254mm x 38mm fixing centres. Luminaires may be recessed - an entry hole 378mm x 111mm must be provided. To semi-recess use bezel trim Cat. No. OBB. Fit this into recess and then insert luminaire into trim.

INSTALLATION

1. Remove diffuser by slackening securing screws.
2. Disengage plug then remove lamp.
3. Reflector lamp tray assembly can be hinged away from the housing by releasing the one centrally placed fixing screw on leading edge of tray.
4. Connect normal mains supply to the 3 way terminal block provided (live-neutral-earth) in the non-maintained versions.
5. Insert lamp and re-engage plug.
6. Replace diffuser and secure with tamper-proof fixing screws supplied.
7. Switch on normal mains supply and observe fault indicator (charger failure alarm) is operating (red glow).
8. Do not simulate mains failure until batteries have been on charge for at least 24 hours.
9. On completion of the installation the Record Card supplied with the fitting should be completed by the installer and retained on the premises, preferably adjacent to the equipment, for examination by any duly authorised person.

MAINTENANCE

All tests should be conducted during a period of least risk minimising the risk of emergency operation occurring within a short period of time of the completion of the test programme.

The test programme must comply with the recommendations of BS.4533 Section 12. These are minimum standards. Thorn recommend that all self-contained units are tested each month for a period of 3 minutes by simulated failure of the mains supply. Twice a year a 1 hour duration test is conducted and 3 hours duration models are energised for that full period once every 3 years. Central System luminaires do not by regulation normally require monthly checks but it is deemed advisable to carry these out.

Batteries must be renewed every 4 years. It is recommended that lamps are replaced at the same time.

WARNING

Application of Megger tests to installation wiring on luminaires containing transistorised inverters will generally damage the inverter in self-contained luminaires unless applied between mains live and/or neutral and earth.

SPARES

Fuse	1 Amp GT1302
Integral Module	EGH 3606.4
Battery Pack	EGH 3493.3.6
Diffuser	EFBD
Reflector	
(optional extra replaces diffuser)	EFBR
Recess Bezel	OBB

Test Record Card

In case of any difficulty contact the installation engineers Messrs.

Installation engineers test (full charge & discharge cycle)

15/6017/7-C

Telephone _____ Full re-charge time _____ Duration _____ Ref. No. _____

Luminaire Location

Test (Monthly)

	Year 1		Year 2		Year 3		Year 4		Year 5	
	Signed	Date	Signed	Date	Signed	Date	Signed	Date	Signed	Date
Functional										
Functional										
Functional										
Functional										
Functional										
1 Hour Duration										
Functional										
Functional										
Functional										
Functional										
Functional										
1 Hour Duration										
Full Duration										

To be completed at time of installation

Recommendations for use of emergency lighting

1. Sealed nickel cadmium batteries are sensitive to charge acceptance due to operating temperature. A reduction in duration can be expected if the batteries have a continuous cell case temperature above 45°C.

2. We strongly recommend, for your own security and to give the batteries improved operating conditions, that this emergency lighting circuit is operated for at least three minutes per month in order to check that the circuit is functioning and that every six months a fully timed one hour duration test is carried out, if this duration is not achieved then the advice of the local Fire Officer should be sought. The contractor or luminaire supplier can obtain a suitable replacement battery, if necessary, through his normal source.

Every three years a full duration check should be carried out (for models with greater than one hour duration) based on BS5266 Part 1.

3. Installation duration test

If on the initial duration test, the full duration period is not achieved, the 24 hour charge and 1 or 3 hours discharge should be repeated as the batteries may have been held in stock for some time, in a discharged condition and therefore require "conditioning" so as to commence normal operation.

Summary

Check L.E.D. is working - daily.
Functional test once per month (less than 25% duration).
1 hour test once every six months.
Full duration test every three years.

Note

To achieve the required performance only approved replacement batteries and lamps should be used.

Special notes