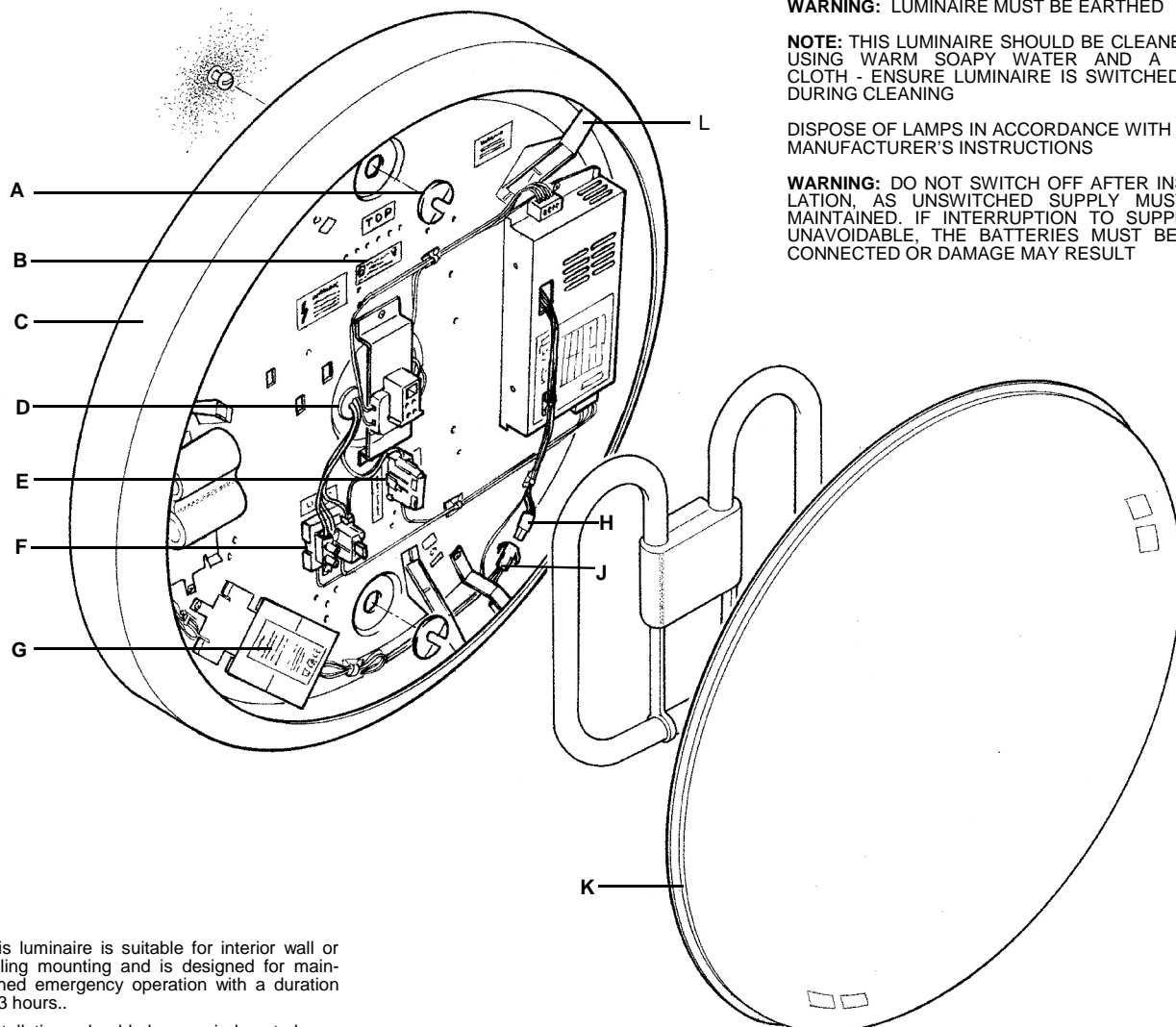


INSTALLATION INSTRUCTIONS

 FCS440



WARNING: LUMINAIRE MUST BE EARTHED

NOTE: THIS LUMINAIRE SHOULD BE CLEANED BY USING WARM SOAPY WATER AND A SOFT CLOTH - ENSURE LUMINAIRE IS SWITCHED OFF DURING CLEANING

DISPOSE OF LAMPS IN ACCORDANCE WITH LAMP MANUFACTURER'S INSTRUCTIONS

WARNING: DO NOT SWITCH OFF AFTER INSTALLATION, AS UNSWITCHED SUPPLY MUST BE MAINTAINED. IF INTERRUPTION TO SUPPLY IS UNAVOIDABLE, THE BATTERIES MUST BE DISCONNECTED OR DAMAGE MAY RESULT

This luminaire is suitable for interior wall or ceiling mounting and is designed for maintained emergency operation with a duration of 3 hours..

Installation should be carried out by a suitably qualified person in accordance with good electrical practice and the appropriate national wiring regulations.

Switch off mains electrical supply before commencing installation.

INSTALLATION PROCEDURE

Carefully remove diffuser (K) as shown.

Check rating marked on label (B) conforms with mains electrical supply.

Prepare suitable fixings in mounting surface at 310mm centres and partially screw in suitable round headed screws.

NOTE: For wall mounted applications, gallery (C) is marked TOP.

Fit supplied grommets (D) in gallery (C).

Enter connection date on battery label (G).

Pass mains supply leads and unswitched live supply lead through grommets.

Locate gallery (C) over fixing screws, insert slip washers (A) under screw heads and tighten screws.

Cover live, neutral and unswitched leads with supplied silicone sleeving.

Connect leads in respectively marked terminals in fused terminal blocks (E) and (F).

Fit appropriate lamp as indicated on label (B) by pushing it firmly in lampholder.

Connect socket (J) and plug (H).

Fit diffuser (K) in gallery rim as shown ensuring it is held concentrically by retaining clips (L).

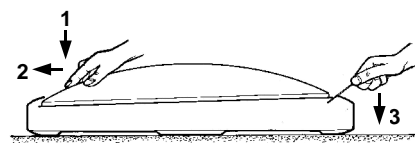
NOTE: Fused terminal block (F) = 3A and terminal block (E) = 1A

TESTING

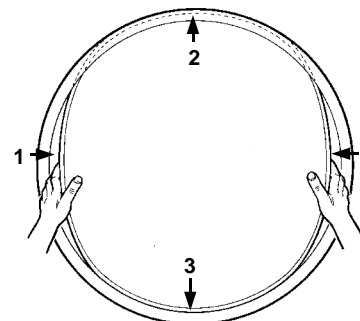
Switch on mains supply and check that charge indicator lamp is on.

Leave luminaire on continuous charge for 24 hours.

Simulate mains failure, and check that lamp operates for 3 hours. If full duration of 3 hours is not achieved, repeat charge/discharge cycle as battery packs may have discharged in stock and will require conditioning.



REMOVING DIFFUSER
1. PRESS DOWN 2. PUSH TO SIDE 3. LEVER OUT



FITTING DIFFUSER
1. FLEX IN 2. INSERT UNDER RIM 3. CENTRALISE



CE This product is manufactured to comply with the following EEC Directives as applicable
EMC Directive 89 / 336 / EEC
LV Directive 73 / 23 / EEC

Products offered for sale may differ from those described or illustrated in this leaflet due to later production changes in specifications, components or place of manufacture. The contents of this leaflet are therefore not to be treated as representations as to the current availability of products as described, or as to products actually offered for sale.

Instructions for Installation and use of 3 hour duration switch-maintained Emergency Lighting Luminaires And Service Record Card

CAUTION: ENSURE ELECTRICAL SUPPLY IS DISCONNECTED AT MAINS DURING INSTALLATION AND SERVICING. IF IN DOUBT CONSULT A QUALIFIED PERSON.

THESE INSTALLATION DETAILS RELATE TO EMERGENCY LIGHTING VERSIONS AND SHOULD BE READ IN CONJUNCTION WITH THE INSTALLATION INSTRUCTION LEAFLET SUPPLIED WITH THE LUMINAIRE.

ENSURE THIS INSTRUCTION LEAFLET IS PASSED ON TO THE END USER

CAUTION:

DO NOT MEGGA AFTER INSTALLATION.

IN ACCORDANCE WITH IEE REGULATION AND ECA/LIF RECOMMENDATIONS DISCONNECT LIVE AND NEUTRAL WIRES FROM UNIT BEFORE INSULATION RESISTANCE CHECK.

HIGH VOLTAGES CAN BE PRESENT EVEN WHEN THE LAMP IS NOT ILLUMINATED.

A - LUMINAIRES WITH INTEGRAL EMERGENCY LIGHTING GEAR

WIRING - IN ADDITION TO THE STANDARD WIRING AN UNSWITCHED 240 VOLT SUPPLY MUST BE CONNECTED TO THE TERMINAL BLOCK MARKED '**UN-SWITCHED**'.

B - LUMINAIRES WITH REMOTE EMERGENCY LIGHTING GEAR

THESE ARE SUPPLIED PRE-WIRED WITH FLEXIBLE CONDUIT BETWEEN THE LUMINAIRE AND REMOTE BOX.

WIRING - CONNECT AN UNSWITCHED 240 VOLT SUPPLY TO THE TERMINAL BLOCK INSIDE THE EMERGENCY CIRCUIT BOX MARKED '**UN-SWITCHED**'.

C - LUMINAIRES WITH EXTERNAL BATTERY BOXES

THESE ARE SUPPLIED WITH A SEPARATE BATTERY PACK.

SITE THE BOX IN A SAFE, CONVENIENT POSITION AND SECURE.

WIRING - FEED THE CABLE FROM THE BATTERY BOX COMPLETE WITH THE SMALL NON-REVERSIBLE WHITE PLUG INTO THE LUMINAIRE AND CONNECT IT TO THE SOCKET ADJACENT TO THE EMERGENCY MODULE. **NOTE: DO NOT REMOVE PLUG OR SHORTEN CABLE FOR ANY REASON.**

WIRE THE LUMINAIRE AS IN 'A' ABOVE.

A REPLACEABLE FUSE IS HOUSED WITHIN THE BATTERY BOX.

NOTES:

1. IF FEEDING WIRES THROUGH TRUNKING, PAST HOT BALLASTS OR SHARP EDGES; MAKE PROVISION FOR PROTECTION.
2. IP65 BATTERY BOXES:- PLEASE ENSURE IP SEALS ARE REPLACED IF REMOVED FOR FUSE CHANGE.



ELECTRICAL TESTING

ALL UNITS ARE TESTED PRIOR TO RELEASE FROM THE FACTORY. ON-SITE TESTS SHOULD BE LIMITED TO REGULAR FUNCTIONAL TESTS.

COMMISSIONING

FILL IN THE DATE ON THE SPACE PROVIDED ON THE BOTTOM LABEL. THIS SHOULD BE DONE BY THE INSTALLER OR THE COMMISSIONING OFFICER.

CONNECT THE UNSWITCHED SUPPLY AND CHECK THAT THE RED LED INDICATOR IS ON. SWITCH ON NORMAL SWITCHED SUPPLY AND ENSURE THAT THE LAMPS OPERATES NORMALLY.

LEAVE CONNECTED TO THE UNSWITCHED SUPPLY FOR AT LEAST 24 HOURS. INTERRUPT THE SWITCHED AND UNSWITCHED SUPPLIES AS PER A NORMAL MAINS FAILURE. CHECK THE EMERGENCY LAMP ILLUMINATES (THIS WILL BE AT A REDUCED LEVEL). RESTORE THE SUPPLIES AND CHECK THAT LAMPS ILLUMINATE NORMALLY.

ROUTINE TESTING - See BS5266 Part1 1988

IT IS RECOMMENDED THAT EMERGENCY LIGHTING INSTALLATIONS ARE TESTED ON A ROUTINE BASIS AS FOLLOW.

1. REGULARLY CHECK THAT THE LED'S ARE ON.
2. ONCE A MONTH, INTERRUPT BOTH SWITCHED AND UNSWITCHED SUPPLIES.
CHECK THAT THE EMERGENCY LAMP ILLUMINATES FROM THE BATTERIES.

NOTE: TESTING BY INTERRUPTION OF **UNSWITCHED** SUPPLY ONLY (HIGH FREQUENCY CONTROL GEAR ONLY)

IT IS NECESSARY TO INTERRUPT THE UNSWITCHED SUPPLY FOR MORE THAN 5 SECONDS TO PREVENT ANY DAMAGE TO THE BALLAST. ONLY TEST IN THIS WAY IF TOTAL POWER FAILURE TEST IS UNSUITABLE DUE TO OCCUPATION OF PREMISES.

3. TWICE A YEAR INTERRUPT BOTH SUPPLIES AND OPERATE LAMP FOR 1 HOUR.
4. AT THE THIRD YEAR INTERRUPT BOTH SUPPLIES AND CHECK THAT FULL DURATION IS ACHIEVED i.e. 3 HOURS.

NOTE: TESTS 3 AND 4 SHOULD BE CARRIED OUT WHEN THE AREA IS UNOCCUPIED AND THE EMERGENCY LIGHTING CAN BE OUT OF ACTION FOR A FEW HOURS.

THE BATTERIES SHOULD BE REPLACED WHEN THE DURATION CANNOT BE ACHIEVED.

WARNING

1. HIGH VOLTAGES CAN BE PRESENT EVEN WHEN A LAMP IS NOT ILLUMINATED.
2. THE EMERGENCY LIGHTING EQUIPMENT HOUSES ELECTRONIC COMPONENTS WHICH MAY BE DAMAGED BY MISUSE OR UNSUITABLE TESTS.
3. THE NICKEL CADMIUM BATTERIES ARE HIGH ENERGY DEVICES AND SHOULD NOT BE SHORT-CIRCUITED.
4. DISPOSAL OF LARGE QUANTITIES OF OLD BATTERIES MAY REQUIRE ADVICE FROM PROFESSIONAL WASTE DISPOSAL EXPERTS.
5. DO NOT DISPOSE OF NICKEL CADMIUM BATTERIES BY THROWING ON FIRE.
6. DO NOT PIERCE NICKEL CADMIUM BATTERIES.

FAULT FINDING GUIDE	
SYMPTOMS	COMMON FAULTS
A) LAMP WILL NOT LIGHT AT ALL	1. INCORRECT WIRING 2. UNSWITCHED LIVE NOT PRESENT AT LUMINAIRES 3. FAULTY LAMP
B) LAMP LIGHTS ON EMERGENCY BUT NOT ON MAINS	1. INCORRECT WIRING 2. SWITCHED LIVE NOT CONNECTED 3. FAULTY STARTER 4. FAULTY LAMP 5. FAULTY BALLAST
C) LAMP LIGHTS ON MAINS NOT ON EMERGENCY	1. BATTERY FLAT 2. LUMINAIRE NOT PROPERLY EARTHED OR WIRING NEEDS RE-ARRANGING 3. MODULE FAULTY
D) LED DOES NOT LIGHT	1. LED FAULTY 2. UNSWITCHED LIVE NOT SWITCHED ON 3. BATTERY NOT CONNECTED 4. FUSE NOT INSERTED
E) INTERMITTENT STRIKING	1. INTERMITTENT CONNECTION WITHIN WIRING 2. LUMINAIRE BADLY EARTHED 3. WIRING NOT CORRECT
F) LAMP IS AT VERY LOW OUTPUT ON EMERGENCY	1. ONE END OF LAMP OPEN CIRCUIT 2. AS 'E' ABOVE

PLEASE NOTE

SHOULD THIS EMERGENCY PRODUCT MALFUNCTION
PLEASE CONTACT:-
THE AFTER SALES DEPARTMENT - PHILIPS LIGHTING - Telephone 020 8665 6655

JOB No.	LOCATION	INSTALLER
FULL RECHARGE TIME	DURATION	DATE
		INSTALLATION ENGINEERS TEST (Full Charge and Discharge Cycle)

TEST (MONTHLY)	FIRST YEAR		SECOND YEAR		THIRD YEAR		FOURTH YEAR		FIFTH YEAR	
	SIGNED	DATE	SIGNED	DATE	SIGNED	DATE	SIGNED	DATE	SIGNED	DATE
FUNCTIONAL										
FUNCTIONAL										
FUNCTIONAL										
FUNCTIONAL										
FUNCTIONAL										
1 HOUR DURATION										
FUNCTIONAL										
FUNCTIONAL										
FUNCTIONAL										
FUNCTIONAL										
FUNCTIONAL										
FUNCTIONAL										
FUNCTIONAL										
FUNCTIONAL										

NOTE: KEEP THIS ROUTINE TEST RECORD IN A SAFE PLACE