SHINZ®

Innovating Future

LED Batten

SB SERIES

SB120E / SB140E
SB220E / SB240E

INSTALLATION WIRING GUIDE &
OPERATION MANUALS

BEFORE YOU BEGIN
Read this instructions completely and carefully.

WARNING / COMMERCIAL EMERGENCY LUMINAIRE INSTALLATION GUIDE

- Equipment should be mounted in locations and at heights where it will not be subject to tampering by unauthorized personnel.
- Do not use outdoors.
- Do not mount near gas or electric heaters.
- Read all product labels and instructions before installing fixture.
- The use of accessory equipment that is not recommended by the manufacturer may cause an unsafe condition.
- Servicing of this equipment should be performed by qualified personnel and do not use this equipment for other than its intended use.
- To prevent wiring damage or abrasion , do not expose wiring to edges of sheet metal or other sharp objects.
- Do not make or alter any open holes in an enclosure of wiring or electrical components during kit installation.
- INSTALLATION SHOULD ONLY BE PERFORMED AFTER POWER TO THE FIXTURE HAS BEEN DISCONNECTED.

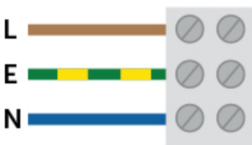
A **Surtained or Combined** emergency luminaires need to have a permanent main supply connection. The supply should be unswitched and on the same final circuit as the local main lighting, so that if the fuse to that circuit ruptures, then the emergency lighting will operate immeadiately .

Non- maintained luminaires activate only on failure of the local mains supply and require connection to permanent live , earth and neutral.

Lamp is OFF and battery is on automatic charging mode (with Red Led "ON" indication) when A.C. power is supply.

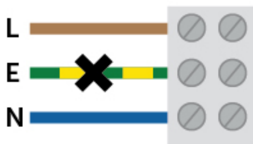
Lamp is ON automatically when the A.C. power supply is interrupted.

Non-maintained self-contained wiring



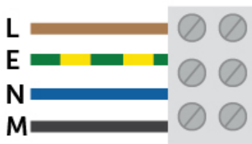
3 wires: Permanent live (L), Earth (E), Neutral (N)

Non-maintained self-contained wiring



Earth is not required for Class II Type

Maintained self-contained wiring



Maintained, 4 wires: Permanent live (L), Earth (E), Neutral (N), Switched live (M)

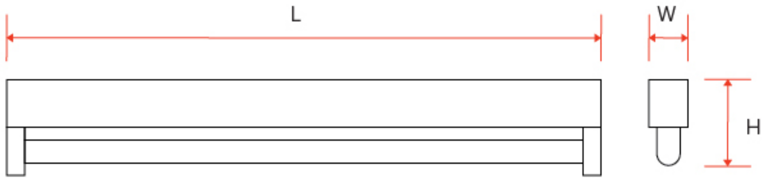
Product Details

MODEL	DESCRIPTION	LED WATTAGE	INSULATION CLASS	AMBIENT TEMPERATURE	FREQUENCY	IP	EMERGENCY POWERPACK
SB120E	LED BARE CHANNEL (610MM)	1 x 10W	CLASS I	ta 35°C	50Hz	20	SEPM0320F
SB140E*	LED BARE CHANNEL (1220MM)	1 X 20W	CLASS I	ta 35°C	50Hz	20	SEPM0320F
SB220E	LED BARE CHANNEL (610MM)	2 x 10W	CLASS I	ta 35°C	50Hz	20	SEPM0320F
SB240E	LED BARE CHANNEL (1220MM)	2 X 20W	CLASS I	ta 35°C	50Hz	20	SEPM0320F

** Sirim Tested and Approved*

DIMENSIONS

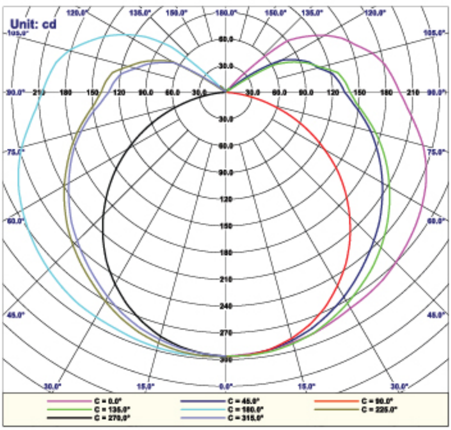
Model	L (mm)	W (mm)	H (mm)
SB120E	610	54 - 58	80 - 90
SB140E*	1220	54 - 58	80 - 90
SB220E	610	105 - 110	80 - 90
SB240E	1220	105 - 110	80 - 90



For continue improvement in all specifications and designs shown in the catalogue or opetaion manuals are subject to change without prior notive.

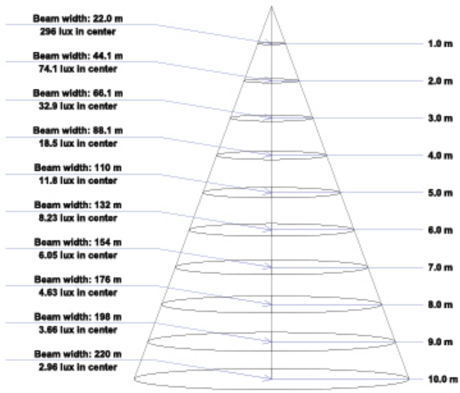
PHOTOMETRIC

Polar Luminous Intensity Distribution



Luminous intensity values are shown radially from centre.
Elevation angle values are shown around the outside of the graph.

Cone Lux Levels



Average Beam Half-Angle = 85°

MOUNTING GUIDE

1.) Choose the location of your new fitting giving consideration to all ofthe conditions isted above and the position of the entry points for the mains supply cable.

2.) If fixing direct to a mounting surface,clear through the mounting holes on the back of the fitting, visible from the outside, using a 5mm drill.

3.) Using the back of the fitting as a template, mark the location of the fixing holes on your mounting surface.

4.) If fixing directly to a solid surface, drill holes and insert the plastic plugs supplied.

5.) Secure your fitting in position using the screws and washers supplied. Putthe washer onto the screw before fixing. If the fixings supplied are not appropriate to your installation please select suitable alternatives. Take care notto overtighten fixing screws to prevent damaging the case.

6.) Hanging clips are supplied to allow you to suspend the fitting from chains(not supplied).

7.) Ensure that the chain is strong enough to support the weight of the fitting and that the tops of the chains are fixed securely to the mounting surface

8.) Restore the power supply and switch on.

INSTALLATION WIRING GUIDE

Figure A

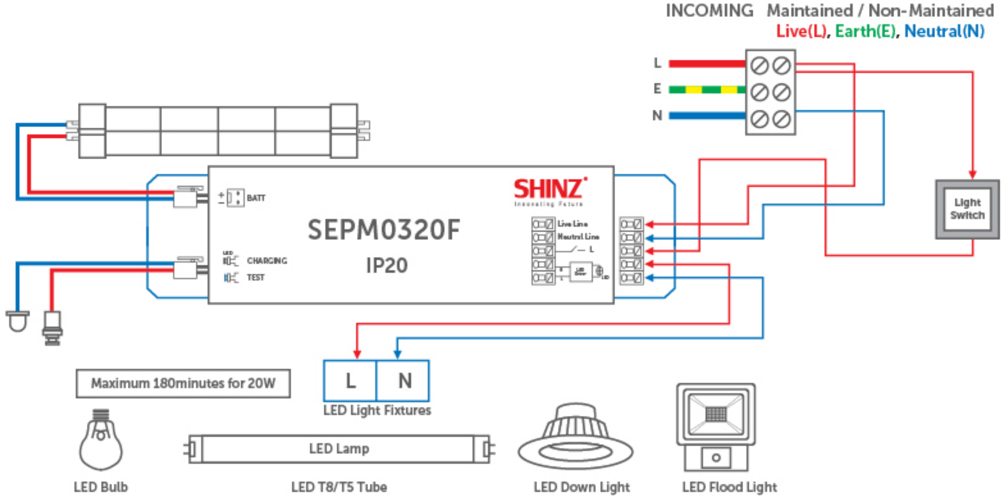
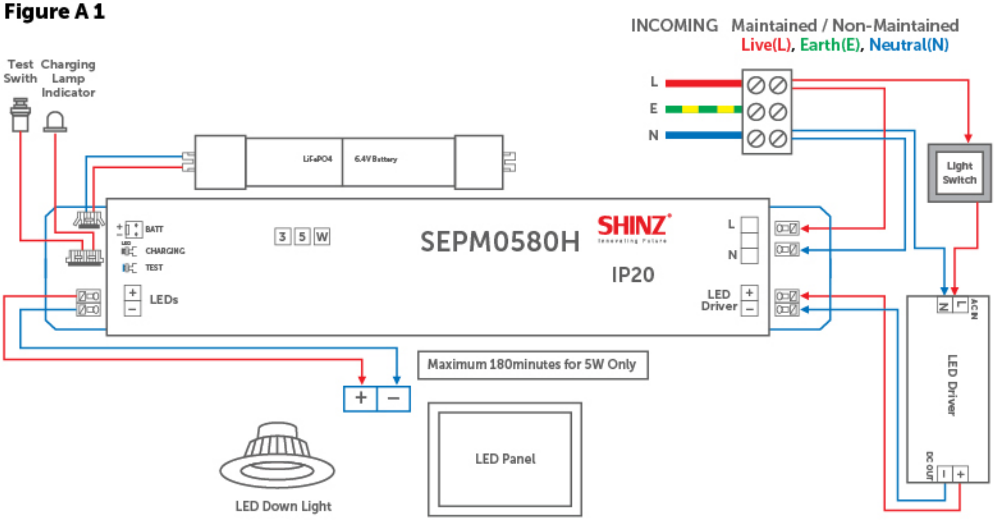


Figure A 1



Important

- It is recommended that the module is installed by a competent person ensuring the installation complies with the necessary standards. Shinz accept no responsibility for injury, damage or loss, which may arise as a result of incorrect installation, operation or maintenance.
- The conversion requires an unswitched supply for charging the battery and a switched supply if the unit is being used for maintained operation.

OPERATION

1.) Connect 240VAC ~ 50Hz supply , lamp is OFF and battery is on automatic charging mode (with Red LED "ON" indication) , Lamp is ON automatically when A.C. supply interrupted or charging circuit failure.

2.) Press " TEST BUTTON" , the red indication light goes off and the LED Emergency Lights will ON . The Test Button Switch is designed to avoid unauthorised switching and be arranged to ensure the supply is never unintentionally left disconnected.

Important:
Batteries are stored and not connected to any load and not being charged.
1) Please charge the battery for 24 hours before 1st discharge.
2) Please charge the battery for 48 hours continuosly in order to initiate Automatic Testing.

3.) When carrying out a test by simulating a mains failure , safe procedures must be followed:

a.) Do not switch off other essential services or equipment.
b.) Do not fully discharge a system if the building has to be re-occupied before re-charge is completed (typically 24 hours).
c.) Do not test by removing fuses. This practice is not acceptably safe. Purpose designed test switches or systems should be utilised.

FAILURE ANALYSIS AND TROUBLE SHOOTING

Problems	Causes and Analysis	Solutions	Remarks
Switch on power supply, Red indicator light not emitting	No supply AC 240V to emergency light	Check power supply	**If the unit does not light up (LED indicator does not come on)...** Check to see if the supply wires are properly connected. Mis-wiring (connecting 240V input to a 120V wire or vice versa) can either cause the unit to burn or not turn on. In some cases there might be a gap between the input clip and the board. Check to make sure the clip sits correctly on the board.
	AC supply fuse burnout	Replace fuse	**Unit does not come on in emergency...** The battery in the unit needs to be connected right after AC power is supplied to the unit, so make sure that gets done. Also the battery needs to charge for a couple of hours before doing any tests. 24-hr recharge is required for a full 90-minute emergency operation.
Lack of time after normal power supply cut-off	Power pack failure	Replace power pack	**If battery connected; Unit still doesn't come ON in emergency...** Battery should have been in a charging mode for at least a couple of hours. Further lamp connections could be checked. The battery also needs to be charged for a few hours in order to be able to light up the lamps. If all these conditions are met and the lamps still don't come on, then the battery might need to be replaced.
	Lack of charging time	Extend charging time	

Note - It's the common new trend for installing EL-T emergency light with automatic testing. Shinz EL-T also provide Fault indications when failure. Kindly refer to Shinz S-T for further informations.

MAINTENANCE AND RECOMMENDED ROUTINE TEST PROCEDURES

All emergency lighting systems are required to regular testing and inspection to ensure correct operation when required to operate in an emergency.

All too often emergency lighting has been seen as a 'fit and forget' product. A consultant or specifier may have carefully designed an emergency lighting installation, the equipment may have been correctly installed and certified as complying with the appropriate standards and then it is totally neglected. It should not, then, be a surprise when it fails to operate when required. The implications of failure of the emergency lighting may of course be catastrophic, with the lives of building occupants being put at risk.

Daily
- Visually check and inspection of RED LED indicate battery charging.

Monthly
- Check all emergency lighting equipment are in a good condition, all lamps and light controllers are clean, undamaged and not blackened.
- Briefly test all emergency lighting equipment by simulating a failure of the normal lighting supply. The test should not exceed a quarter of the equipment rated duration. Check that all equipment functions correctly.
- Check that, upon restoring the mains supply, all supply healthy indicators are again illuminated.

Twice a year
- Carry out the inspection and testing as described in the monthly test schedule, but conduct a test of the equipment for one third of its rated duration.

Annually
- A full system test should be conducted by a competent service engineer including a full rated duration test of the system.

BATTERY

- The sealed Lithium Iron Phosphate ($LiFePO_4$) battery , designed to provide three(3) hours standby time whenever the mains AC power supply is interrupted.
- $LiFePO_4$ is becoming the preferred choice for emergency lighting, not only because the batteries are physically smaller, but because they draw far less power when they are charging. LiFe04 can also last double the life of traditional emergency lighting batteries such as nickel cadmium or nickel metal hydride.
- It is required to recharge for 24 hours after storage period is over three(3) months in order to perform as required standard.
- In the event the battery is not able to provide sufficient capacity for the rated duration of operations, it is required to change or replace the batteries as follow:

1. Disconnect the unit from mains supply , open up the cover, unplug battery wire, take out battery and replace with a new one.
2. Connect red wire to positive terminal, black wire to negative terminal.
   Used battery will pollute the environment and needed to be recycled by special authority.
3. The old/used batteries shall be disposed according to the local rules and regulations in order to prevent/minimize pollution to the environment.

PRODUCT WARRANTY

- The Emergency Warranty applies only when (1) **SHINZ** Emergency Fixtures products containing Batteries have been continuously connected to an AC input power source, OR (2) Batteries sold separately have been placed in fixtures continuously connected to an AC input power source, in each case within 2 years of the date of purchase.
- The Product warranty is subject to **SHINZ** Terms and Condition of Product Warranty .
- As a service to our customers / channel partners , in situations on faulty goods where we are unable to be definite in our analysis , despite the fact that the faulty may not be attributable to **Shinz Global Sdn Bhd**, we may at our discretion to issue you the necessary credit as a gesture of goodwill, however site costs are not recoverable.

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