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ILB-CP

TBTS
“L” OPEN BOARD DESIGN
EMERGENCY
LIGHTING EQUIPMENT
FOR LED

INSTRUCTION MANUAL

IMPORTANT SAFEGUARDS

When using electrical equipment, basic safety precautions should always be followed, including the following:

READ AND FOLLOW ALL SAFETY INSTRUCTIONS

1. **CAUTION** – Connect the battery to the unit before applying A.C. power.
2. **CAUTION** – To prevent electrical shock, do not mate unit connector until installation is complete and A.C. power is supplied to the unit.
3. **CAUTION** – This fixture provides more than one power supply output source. To reduce the risk of electrical shock, disconnect both normal and emergency sources by turning off the A.C. branch circuit and by disconnecting the unit connector. In addition, the circuit board should be mounted so that no live parts are accessible during routine maintenance.
4. **CAUTION** – The integral, high temperature Ni-Cad battery or components of this unit are not replaceable. Replace the entire unit when necessary and recycle or dispose of properly.
5. **CAUTION** – Installation and servicing should be performed by **qualified personnel only**. De-energize before servicing.
6. **DO NOT USE OUTDOORS.** The **ILB-CP** is for use with grounded, UL Listed, indoor fixtures. Not for use in heated air outlets or hazardous locations. The acceptability of the combination must be determined by Underwriters Laboratories. Refer to the Engineering Considerations section for proper installation.
7. The **ILB-CP** requires an unswitched A.C. power source of 120 to 277 volts AC, 50/60Hz.
8. The **ILB-CP** and A.C. driver **must** be on the same branch circuit.
9. Do not mount near gas or electric heaters.
10. The **ILB-CP** should be mounted in locations and at heights where it will not readily be subjected to tampering by unauthorized personnel.
11. The **ILB-CP** will supply 10-60VDC output at the individual rated specification for 90 minutes. See individual units for output specifications.
12. The use of accessory equipment not recommended by the manufacturer may cause an unsafe condition, void warranty, and result in non-compliance with UL specifications.
13. Do not use this equipment for other than intended use.
14. Install in accordance with the National Electrical Code and local regulations.
15. Lighting fixture manufacturers, electricians, and end-users need to ensure product system compatibility before final installation.

SAVE THESE INSTRUCTIONS



ENGINEERING CONSIDERATIONS

Use – For use only in complete equipment or final applications where the acceptability of the combination is determined by Underwriters Laboratories, Inc.

These components have been judged on the basis of the required spacings in the Standard for Emergency Lighting and Power Equipment UL 924, Sec. 29, which covers the end use product for which the component was designed.

CONDITIONS OF ACCEPTABILITY

1. Installed in a suitable ultimate enclosure.
2. Used with marked electrical ratings.
3. Provide with proper spacing between live parts and enclosure and/or adjacent devices.
4. Factory wired only (terminations not suitable for field wiring).
5. Temperature tests may have to be repeated where battery temperature exceeds 55° C.
6. Mounted within the end-use product such that the battery is secured and the test switch operates properly when the end product is fully assembled.
7. End-use products employing one or more of these devices are to be marked in accordance with the Standard for Emergency Lighting and Power Equipment, UL 924.

INSTALLATION INSTRUCTIONS

CAUTION: Before installing, make certain the A.C. power is off and the ILB-CP unit connector is disconnected.

1. FIXTURE

The **ILB-CP** can be used with most LED loads that operate at 10-60 VDC. See the **ILB Model Specification Chart** for output specifications of the unit being installed.

ILB MODEL SPECIFICATION CHART

MODEL #	OUTPUT POWER (CONSTANT)
ILB-CP05	5 WATTS
ILB-CP07	7 WATTS
ILB-CP10	10 WATTS
ILB-CP12	12 WATTS

2. MOUNTING THE ILB

Mount the **ILB-CP** in the driver/lamp compartment or enclosed wireway so the wire leads are not exposed, at least 1/2" away from the driver. Mount the **ILB-CP** using the mounting holes provided. The insulating barrier should be mounted against the fixture wall. Then the main circuit board can be mounted leaving a space between the board and the mounting barrier. The circuit board should be placed so that no live parts are accessible during routine maintenance or relamping.

The battery should be at least 1/2" from the A.C. ballast and other heat sources. Since heat rises, try to mount the battery as low as possible. **CAUTION – Connect the battery to the unit before applying A.C. power.**

3. WIRING

Refer to the wiring diagram on the back page for the appropriate wiring of the LED load and driver. Install in accordance with the National Electrical Code and local regulations. For additional wiring diagrams consult Customer Service.

4. INSTALLING THE THREADED BODY TEST SWITCH (TBTS)

Select a convenient location on the side of the fixture so that the **TBTS** can be seen after installation. Allow for proper clearance and drill or punch a 1/2" hole. Remove the nut from the **TBTS**. Push the **TBTS** housing into the 1/2" hole and secure with the nut. Connect the LED wires from the unit to the **TBTS** (Red/Black or Red w/tag to Red, and White/Red to White). For proper operation, use only the accessory components provided with the unit. *See Page 1 of the Instruction Manual.*

INSURE WIRING IS IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND LOCAL REGULATIONS.

5. LABELS

Attach the appropriate labels adjacent to the **TBTS**. Annotate Replacement Label with identical manufacturer part number(s). The Caution and the Replacement labels must be on the fixture in a readily visible location to anyone attempting to service the fixture.

6. WIRING THE A.C. INPUT

- A. The **ILB** and A.C. driver **MUST** be on the same branch circuit.
- B. The **ILB** requires an **unswitched** A.C. power source of 120 to 277 VAC, 50/60Hz; therefore when used with switched fixtures, the ILB-CP input must be wired ahead of the switch.
- C. Refer to the wiring diagrams on the back page for the proper wiring. For wiring diagrams not shown, consult our customer service.

7. COMPLETING INSTALLATION

When the installation is complete, switch the A.C. power on and join the **ILB-CP** unit connector.

OPERATION

Normal Mode – A.C. power is present. The A.C. driver operates the LED load as intended. The **ILB-CP** is in the standby charging mode. The **TBTS** will be lit providing a visual indication that the battery is being charged.

Emergency Mode – The A.C. power fails. The **ILB** senses the A.C. power failure and automatically switches to the *Emergency Mode*. One or multiple LEDs are illuminated, for a minimum of 90 minutes. When the A.C. power is restored, the **ILB-CP** switches the system back to the *Normal Mode* and resumes battery charging. See page 1 of the Instruction Manual.

TESTING & MAINTENANCE

Pressing the **TBTS** turns off the light on the **TBTS** and forces the unit into emergency mode, interrupting power to the designated A.C. driver. The LED load is now being lit by the **ILB-CP** unit. After releasing the **TBTS**, the fixture returns to normal operation after a momentary delay. To simulate a “BLACK OUT” use the circuit breaker to turn off A.C. power.

Initial Testing – Allow the unit to charge approximately 1 hour, then conduct a short discharge test. Allow a 24 hour charge before conducting a one hour test.

The **ILB-CP** is a maintenance free unit, however, periodic inspection and testing is required. NFPA 101, Life Safety Code, outlines the following schedule:

Monthly – Insure that the **TBTS** light is illuminated. Conduct a 30 second discharge test by depressing the **TBTS**. At least one LED should operate at reduced output.

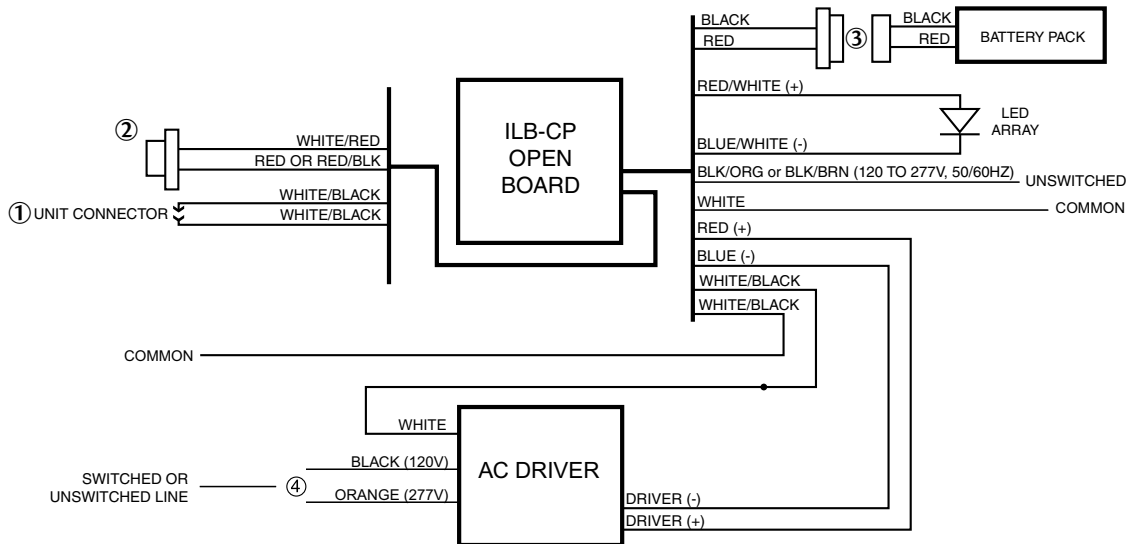
Annually – Insure that the **Charge Indicator** is illuminated. Conduct a full 90 minute discharge test. The unit should operate as intended for the duration of the test.

“Written records of testing shall be kept by the owner for inspection by the authority having jurisdiction.”

SERVICING SHOULD BE PERFORMED BY QUALIFIED PERSONNEL.
Consult Customer Service or visit www.iotaengineering.com for current warranty information.

TYPICAL WIRING DIAGRAM

For other diagrams, consult our Customer Service.



- ① DO NOT MATE CONNECTOR UNTIL INSTALLATION IS COMPLETE AND AC POWER IS SUPPLIED.
- ② TEST ACCESSORY LEADS-OBSERVE PROPER POLARITY WIRING.
- ③ CONNECT BATTERY BEFORE SUPPLYING AC POWER.
- ④ SELECT PROPER VOLTAGE LEAD. CAP UNUSED LEAD.