

# BAC40EM10

# bodine

## Installation Instructions

CLASS 2 OUTPUT

COMBINATION AC/EMERGENCY LED DRIVER

40 Watts output power (AC)/10 Watts output power (Emergency)



**! IMPORTANT SAFEGUARDS !**

**WHEN USING ELECTRICAL EQUIPMENT, BASIC SAFETY PRECAUTIONS SHOULD ALWAYS BE FOLLOWED, INCLUDING THE FOLLOWING:**

## READ AND FOLLOW ALL SAFETY INSTRUCTIONS

1. Do not join converter connector until installation is complete. If AC voltage is supplied to the unit with the converter connector open the 2W - ITS will blink 3 times every 5 seconds. This is to indicate either, battery is disconnected or the converter connector is open.
2. This product delivers 40W in AC mode and 10W in emergency mode. In emergency mode it supplies up to 10.0 W of power with a maximum rated current of 450 mA with a maximum voltage of 54 VDC for a minimum of 90 minutes.
3. Make sure all connections are in accordance with the National Electrical Code or Canadian Electrical Code and any local regulations. Use 18 AWG solid copper wire with insulation rated at least 300V and strip wire 3/8".
4. To reduce the risk of electric shock, disconnect power supply and converter connector of the AC/EM driver before servicing.
5. This AC/EM driver is suitable for factory installation only.
6. This product is suitable for use in damp locations where the ambient temperature is 0°C minimum, +50°C maximum. Product is not suitable for heated air outlets and wet or hazardous locations. Maximum allowable case temp is 85°C. See for measurement location. Maximum battery ambient temperature is 60°C.
7. An unswitched AC power source is required (120-277 VAC, 50/60 Hz).
8. Do not install near gas or electric heaters.
9. The battery is field replaceable. Contact manufacturer for information on replacement. Use caution when replacing battery. Dispose of the battery properly. Do not incinerate.
10. The use of accessory equipment not recommended by the manufacturer may cause an unsafe condition.
11. Do not use this product for other than intended use.
12. Servicing should be performed by qualified service personnel.
13. Equipment should be mounted in locations and at heights where it will not be subjected to tampering by unauthorized personnel.
14. For Canadian application the output terminals should be in compliance with the accessibility requirement of the Canadian Electric Code.
15. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference that may cause undesired operation.
16. This product must be grounded. See the wiring diagrams for details.

**SAVE THESE INSTRUCTIONS**



Ni - Cd

**THIS PRODUCT CONTAINS A RECHARGEABLE NICKEL-CADMIUM BATTERY.  
THE BATTERY MUST BE RECYCLED OR DISPOSED OF PROPERLY.**

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# APPLICATION

## Dimming

This product is compatible with standard 0 - 10 V dimming systems to deliver reliably smooth dimming performance down to minimum of 1% in AC mode.

### Approved Dimmer List

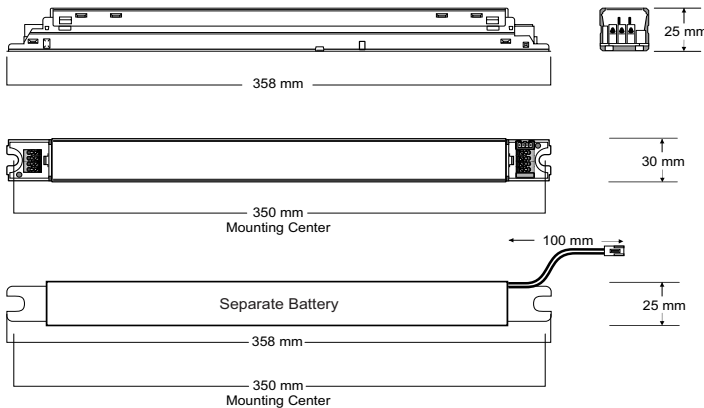
Manufacturer	Manufacturer Part Number
Lutron	Diva DVSTV Nova NTSTV-DV Visit <a href="http://www.lutron.com/advance">www.lutron.com/advance</a> for a list of dimmers( mark VII) that will work with this driver
Leviton	IP710-LF

## SimpleSet Technology

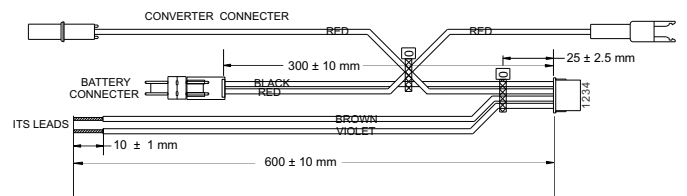
This product is enabled with SimpleSet technology, this driver offers the needed flexibility and performance for the application with precise tuning of drive currents, selectable dimming curves and adjustable minimum dimming levels in AC mode. This product is programmable for output currents from 0.1 to 1.1 Amps. Please refer to the Philips SimpleSet programming guide (<http://www.usa.lighting.philips.com/products/oem-components/Led-drivers-with-simpleSet>).

## Dimensions

Case - 358 mm x 30 mm x 25 mm (mounting center -350 mm)  
Battery - 25 mm Diameter x 376.2 mm L (mounting center - 368 mm)



### 2W-ITS AND BATTERY HARNESS



Installation of this AC/EM LED driver will vary based on the luminaire type, however, generally follow these steps.

# INSTALLATION

- > Follow the wiring diagram on these instructions to properly connect the driver, battery and LED load.
- > Make sure all connections are in accordance with the National Electrical Code and any local regulations.
- > After installation is complete, supply AC power to the AC/EM driver and join the converter connector.
- > At this point the Charging Indicator Light should illuminate indicating the battery is charging.
- > A short-term discharge test may be conducted after the AC/EM driver has been charged for one hour. Charge for 24 hours before conducting a long-term discharge test. Refer to OPERATION.
- > In a readily visible location, attach the label "**CAUTION - This Unit Has More Than One Power Connection Point. To Reduce The Risk Of Electric Shock, Disconnect Both The Branch Circuit-Breakers Or Fuses And Emergency Power Supplies Before Servicing.**"

## OPERATION

During normal operation AC power is applied, the 2W - ITS is illuminated, indicating that the battery is being charged. When power fails, the LED driver automatically switches to emergency power operating the LED load for a minimum of 90 minutes. When AC power is restored, the driver returns to the charging mode.

## MAINTENANCE

### Testing:

Although no routine maintenance is required to keep the AC/EM driver functional, it should be checked periodically to ensure that it is working. The following schedule is recommended:

1. Visually inspect the charging indicator light monthly. It should be illuminated.
2. Test the emergency operation of the fixture at 30-day intervals for a minimum of 30 seconds. The LED load should operate at reduced illumination.
3. Conduct a 90-minute discharge test once a year. The LED load should operate at reduced illumination for at least 90 minutes.

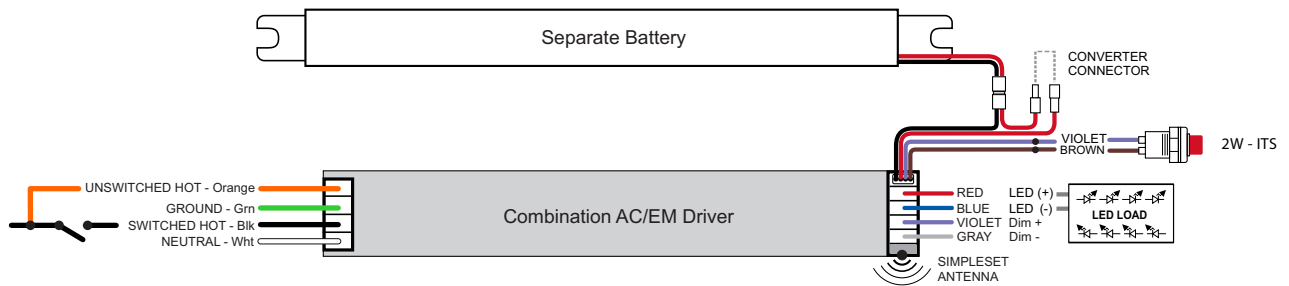
**! REFER ANY SERVICING INDICATED BY THESE CHECKS TO QUALIFIED PERSONNEL !**

### Battery Replacement Procedure

**WARNING:** Always use the same quality and type of battery as replacements

Substituting batteries not supplied by Philips Emergency Lighting will void the UL approbation of the system and may cause equipment failure. To ensure the superior performance of your system and to maintain proper charger operation, replace spent batteries only with Philips Emergency Lighting batteries having the same part number, as the original batteries. Install new batteries per the wiring diagrams.

## WIRING DIAGRAM



**NOTE:** For short-term testing of the emergency function, the battery must be charged for at least one hour. The AC/EM driver must be charged for at least 24 hours before conducting a long-term test.