

# FLUORESCENT EMERGENCY BALLAST

## 750 LUMENS

### 4-PIN COMPACT FLUORESCENT LAMPS

## INSTALLATION INSTRUCTIONS

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When using this lighting device  
safety precautions should be followed at all times  
**PLEASE READ CAREFULLY AND FOLLOW ALL  
INSTRUCTIONS FOR YOUR OWN SAFETY**

1. Prior to installation, battery connector must be open to prevent high voltage from being present on out put leads (red & yellow). It must be connected only after installation is complete and A.C. Power is supplied to the unit.
2. This unit can operate commonly used linear and compact fluorescent lamps. Please refer to the “lamps list” label on the ballast for specific lamp information.
3. Please ensure the electricity connections conform to the National Electrical Code and local regulations if applicable.
4. To avoid electric shock, please disconnect normal and emergency power supplies, and battery connector of the emergency ballast before servicing.
5. This device is designed for factory or field installation in either the ballast channel, or on top of the fixture, except air handling heated air outlets, sealed and gasketed fixtures, wet or hazardous location fixtures. Do not install this device near gas or electric heaters.
6. AC power source of 120 VAC or 277 VAC is required.
7. The battery is sealed, no-maintenance, and is not replaceable in the field. Please contact manufacturer for information on service. Do not attempt to service the battery.
8. Do not use accessory equipment that is not recommended by manufacturer. Failure to do so may cause unsafe conditions. Servicing should only be performed by qualified service personnel.
9. Do not use the product for other than it's intended purpose.

**CAUTION:** Verify that all replacement lamp types marked on the installed luminaire are also identified as suitable for use with this inverter/charger pack.

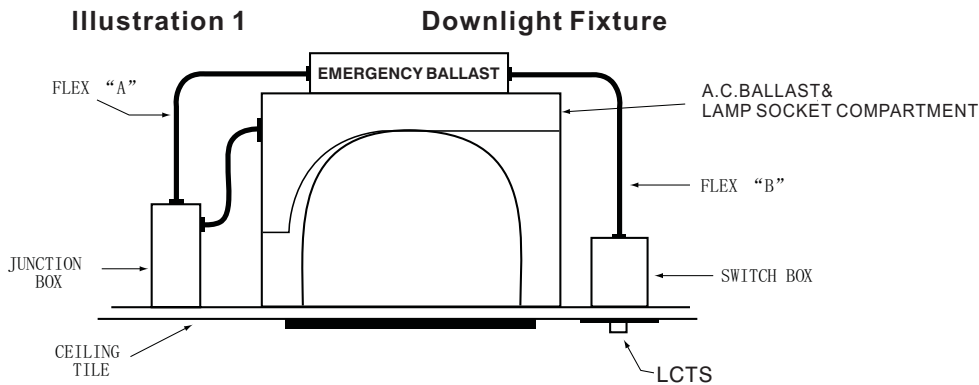
**PLEASE SAVE THESE INSTRUCTIONS**

# INSTALLATION INSTRUCTIONS

**CAUTION:** Before installing, make certain the A.C. power is off and the **EMERGENCY BALLAST'S** unit connector is disconnected.

## 1. MOUNTING THE EMERGENCY BALLAST (BATTERY PACK)

When used with ceiling mounted downlight fixtures, the **EMERGENCY BALLAST** should be mounted on the fixture above the ceiling. The flex conduit marked "A" should be wired into the ballast/lamp compartment or to an electrical junction box on the fixture which allows access to the ballast/lamp connection. Refer to *Illustration 1* for typical mounting.



When battery packs are remote mounted, the remote distance cannot exceed  $\frac{1}{2}$  of the distance from ballast to lamp(s) specified by the A.C. ballast manufacturer. Under no circumstances should the battery pack exceed a distance 10' from the lamp.

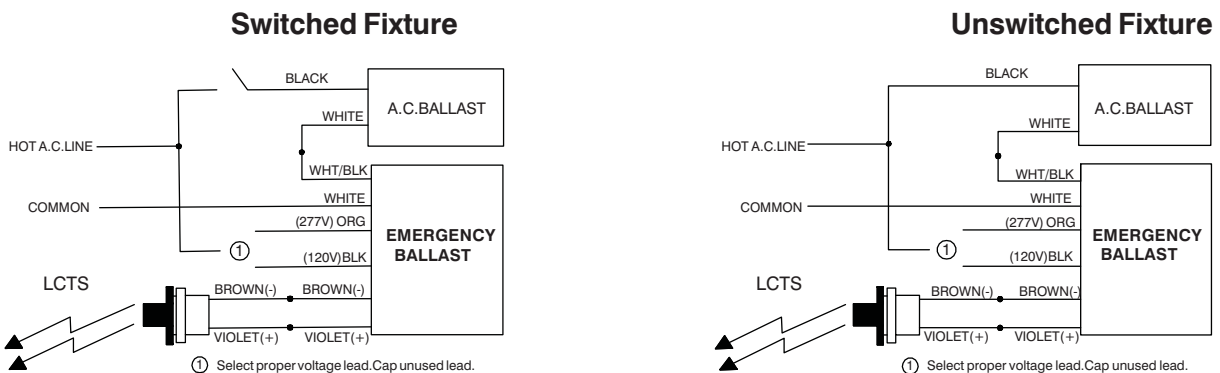
## 2. INSTALLING THE LED COMBO TEST SWITCH (LCTS)

Cut the single gang switch box into the ceiling tile adjacent to the fixture within reach of the **EMERGENCY BALLAST** flex marked "B". After mounting the switch box, connect flex "B" to the box and route all leads inside the box. Refer to *Illustration 1* for typical mounting.

## 3. WIRING

- The **EMERGENCY BALLAST** and A.C. Ballast **must** be on the same branch circuit.
- This **EMERGENCY BALLAST** requires an **unswitched** A.C. Power source of either 120 or 277 volts; therefore, when used with switched fixtures, input to the **EMERGENCY BALLAST** must be wired ahead of the switch. Refer to *Illustration 2* for switched and unswitched fixture wiring diagrams.
- Refer to the wiring diagrams on the back page for proper wiring. For wiring diagrams of ballasts not shown, consult our customer service.

### Illustration 2



## 4. LABELS

Attach the appropriate labels adjacent to the **LCTS**. Annotate Re-lamping label for lamp type and wattage. The 'Caution' and the 'Re-lamping' labels must be on the fixture in a readily visible location to anyone attempting to service the fixture.

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

## 5. COMPLETING INSTALLATION

When the installation is complete, switch the A.C. power ON and join the **EMERGENCY BALLAST'S** unit connector.

# OPERATION

**General**-This unit is primarily designed to be used with compact fluorescent lamp downlight fixtures. It will wire in conjunction with the existing A.C. Ballast(s) and lamp(s) to provide the emergency function. It can also be wired for emergency only operation.

**Normal Mode** - A.C. power is present. The A.C. ballast operates the fluorescent lamp(s) as intended. The **LCTS** will be lit providing a visual indication that the **EMERGENCY BALLAST** is in the standby charging mode.

**Emergency Mode** - The A.C. power fails. The **EMERGENCY BALLAST** senses the A.C. power failure and automatically switches to the *Emergency Mode*. One or two lamps illuminate, at reduced output, for a minimum of 90 minutes. When the A.C. Power is restored, the **EMERGENCY BALLAST** switches the system back to the *Normal Mode* and resumes battery charging.

## TESTING & MAINTENANCE

Pressing the red lens on the **LCTS** turns off the light on the **LCTS** and forces the unit into emergency mode. This interrupts power to the emergency lamps only. The emergency lamp is now being lit by the **EMERGENCY BALLAST** unit and will be less bright than the other lamps in the system. To simulate a "BLACK OUT" use the circuit breaker to turn off A.C. Power.

**Initial Testing** - Allow the unit to charge for approximately 1 hour, then press the **LCTS** to conduct a short discharge test. Allow a 24 hour charge before conducting a 1 1/2 hour test.

This **EMERGENCY BALLAST** 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 **LCTS** is illuminated. Conduct a 30 second discharge test by depressing the **LCTS**. One or two lamps should operate at reduced output.

**Annually** - Insure that the **LCTS** is illuminated. Conduct a full 1 1/2 hour discharge test. The unit should operate as intended for the duration of the test.

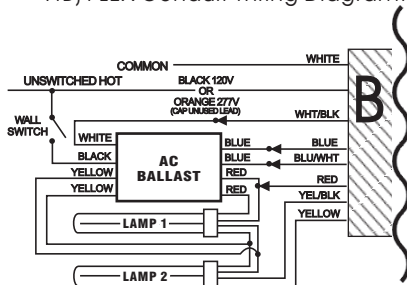
## WIRING DIAGRAMS FOR 2 - LAMP EMERGENCY OPERATION EMERGENCY BALLAST AND AC BALLAST MUST BE FED FROM THE SAME BRANCH CIRCUIT

TYPICAL SCHEMATICS ONLY. MAY BE USED WITH OTHER BALLASTS. CONSULT THE FACTORY FOR OTHER WIRING DIAGRAMS.

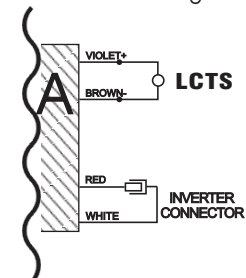
### Two lamp emergency operation

#### A. TWO (2) FOUR PIN COMPACT LAMP RAPID START BALLAST

1.B) FLEX Conduit Wiring Diagram:



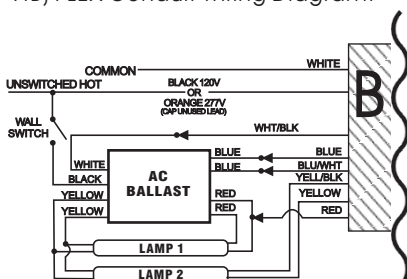
2.A) FLEX Conduit Wiring Diagram:



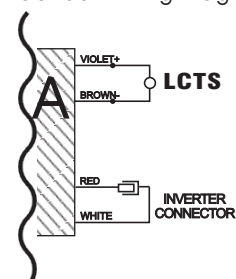
TYPICAL SCHEMATICS ONLY. MAY BE USED WITH OTHER BALLASTS. CONSULT THE FACTORY FOR OTHER WIRING DIAGRAMS.

#### B. TWO (2) LAMP RAPID START BALLAST

1.B) FLEX Conduit Wiring Diagram:



2.A) FLEX Conduit Wiring Diagram:



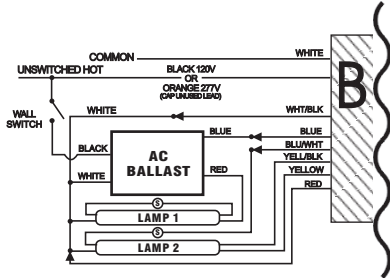
# WIRE DIAGRAMS FOR 1-LAMP EMERGENCY OPERATION

## EMERGENCY BALLAST AND AC BALLAST MUST BE FED FROM THE SAME BRANCH CIRCUIT

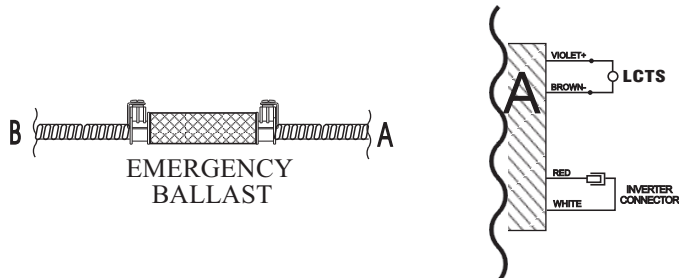
TYPICAL SCHEMATICS ONLY. MAY BE USED WITH OTHER BALLASTS. CONSULT THE FACTORY FOR OTHER WIRING DIAGRAMS.

### C. TWO (2) LAMP PREHEAT BALLAST (Lamp 2 operates in emergency mode)

1.B) FLEX Conduit Wiring Diagram:

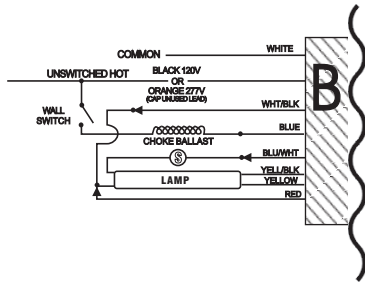


2.A) FLEX Conduit Wiring Diagram:

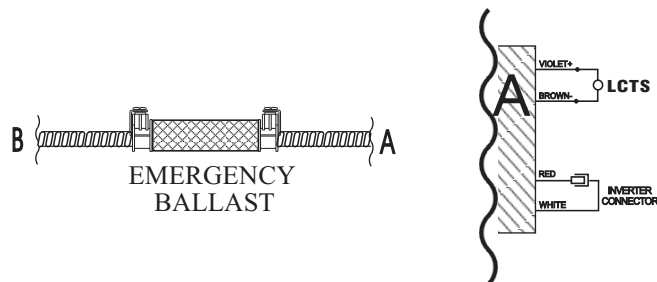


### D. ONE (1) LAMP CHOKE BALLAST

1.B) FLEX Conduit Wiring Diagram:

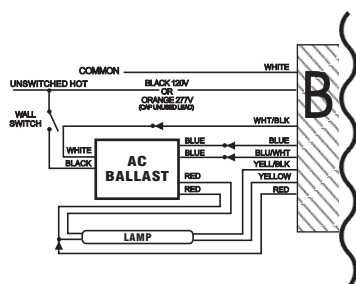


2.A) FLEX Conduit Wiring Diagram:

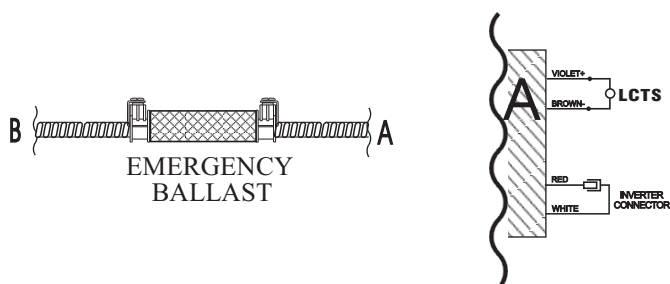


### E. ONE (1) LAMP RAPID START BALLAST

1.B) FLEX Conduit Wiring Diagram:

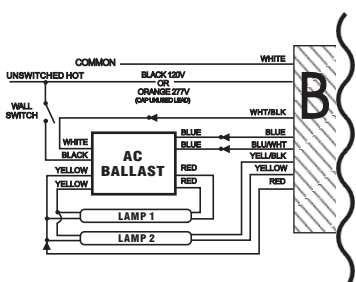


2.A) FLEX Conduit Wiring Diagram:

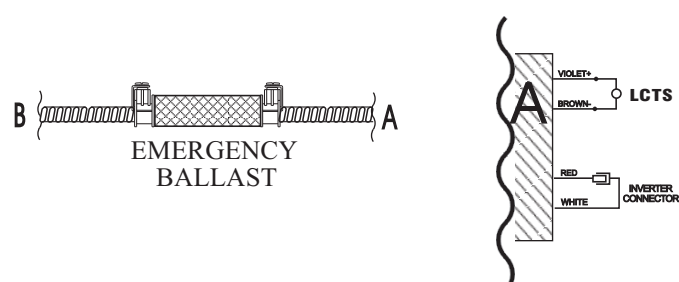


### F. TWO (2) LAMP RAPID START BALLAST (Lamp 2 operates in emergency mode)

1.B) FLEX Conduit Wiring Diagram:



2.A) FLEX Conduit Wiring Diagram:



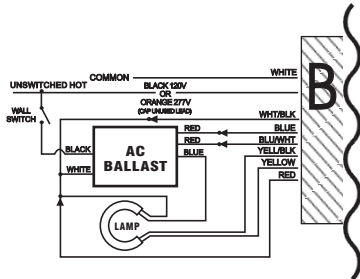
# WIRE DIAGRAMS FOR 1-LAMP EMERGENCY OPERATION

## EMERGENCY BALLAST AND AC BALLAST MUST BE FED FROM THE SAME BRANCH CIRCUIT

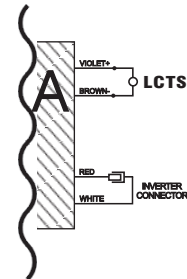
TYPICAL SCHEMATICS ONLY. MAY BE USED WITH OTHER BALLASTS. CONSULT THE FACTORY FOR OTHER WIRING DIAGRAMS.

### G. ONE (1) LAMP CIRCLINE RAPID START BALLAST

1.B) FLEX Conduit Wiring Diagram:

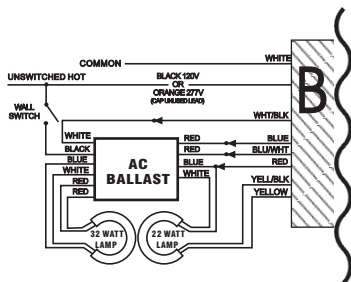


2.A) FLEX Conduit Wiring Diagram:

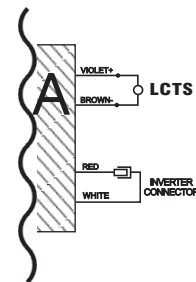


### H. TWO (2) LAMP CIRCLINE RAPID START BALLAST (22 watt lamp operates in emergency mode)

1.B) FLEX Conduit Wiring Diagram:

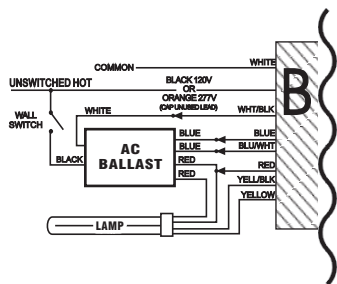


2.A) FLEX Conduit Wiring Diagram:

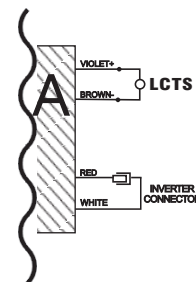


### I. ONE (1) FOUR PIN COMPACT LAMP RAPID START BALLAST

1.B) FLEX Conduit Wiring Diagram:

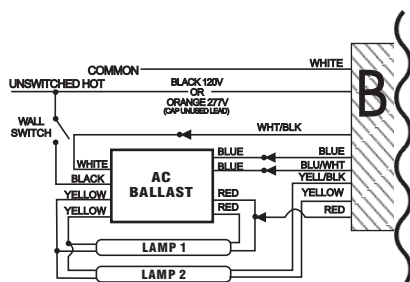


2.A) FLEX Conduit Wiring Diagram:

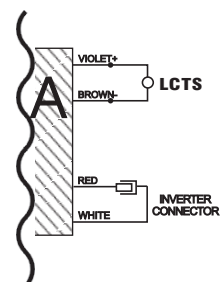


### J. TWO (2) LAMP RAPID START BALLAST

1.B) FLEX Conduit Wiring Diagram:



2.A) FLEX Conduit Wiring Diagram:



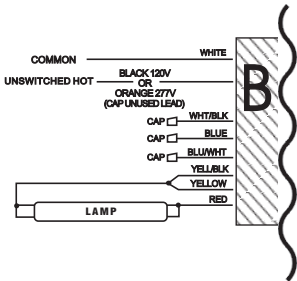
# WIRE DIAGRAMS FOR 1-LAMP EMERGENCY OPERATION

## EMERGENCY BALLAST AND AC BALLAST MUST BE FED FROM THE SAME BRANCH CIRCUIT

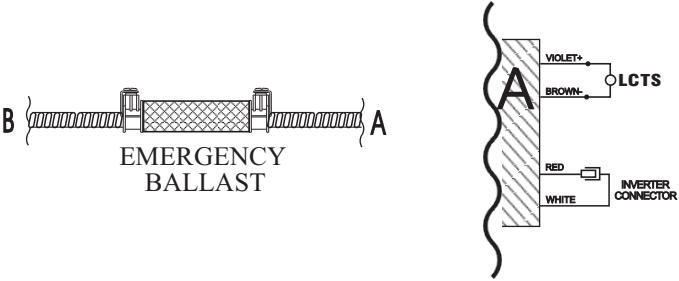
TYPICAL SCHEMATICS ONLY. MAY BE USED WITH OTHER BALLASTS. CONSULT THE FACTORY FOR OTHER WIRING DIAGRAMS.

### K. ONE (1) LAMP WITHOUT AC BALLAST

1.B) FLEX Conduit Wiring Diagram:

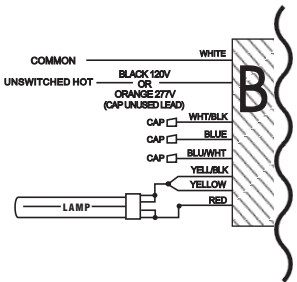


2.A) FLEX Conduit Wiring Diagram:



### L. ONE (1) FOUR PIN COMPACT LAMP WITHOUT AC BALLAST

1.B) FLEX Conduit Wiring Diagram:



2.A) FLEX Conduit Wiring Diagram:

