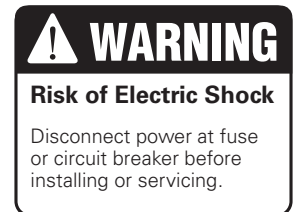


## Installation Instructions for EBP450X and EBP450F

### IMPORTANT SAFEGUARDS

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

- 1. READ AND FOLLOW ALL SAFETY INSTRUCTIONS**
2. Do not use outdoors.
3. Do not mount near gas or electric heaters.
4. Equipment should be mounted in locations and at heights where it will not readily be subject to tampering by unauthorized personnel.
5. The use of accessory equipment not recommended by Sure-Lites may cause an unsafe condition.
6. Do not use this equipment for other than its intended purpose.
- 7. SAVE THESE INSTRUCTIONS**



- Note 1.** To prevent high voltage from being present on the output terminals (red/white, red, and yellow), do not connect the test button indicator light to the EBP until Step 7 of the installation instructions.
- Note 2.** This product is for use with most 2' through 8' (13W-215W single and bipin fluorescent lamps including energy saving, circline, U-shaped and biax. For specific lamp compatibility, please see the table later in the instructions.
- Note 3.** Make sure all of the connections are in accordance with the National Electrical Code and any local regulations.
- Note 4.** To reduce the risk of electrical shock, disconnect both normal and emergency power supplies and the test button indicator light (which disconnects the battery) before servicing.
- Note 5.** This emergency ballast is for factory or field installation in the ballast channel.
- Note 6.** This product is for use in indoor fixtures. This product is not intended for use near air handling heated air outlets or in wet or hazardous locations.
- Note 7.** An unswitched AC power source is required (120, 240, or 277 volts).
- Note 8.** Do not attempt to service the battery. A sealed, no-maintenance battery is used that is not field replaceable. Contact the manufacturer for information on service.
- Note 9.** Servicing should be performed by qualified service personnel.

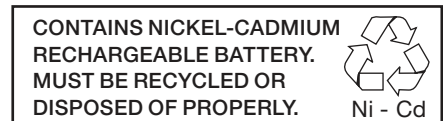
**For use in temperature rating  
20°C to 55°C**



EBP450X



EBP450F



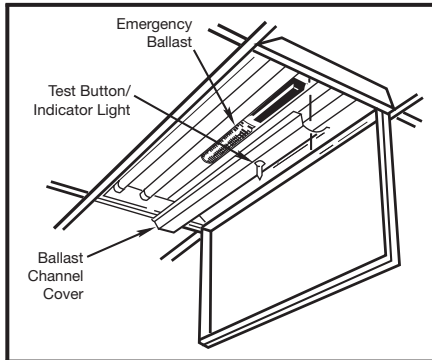
## INSTALLATION

**WARNING:** TO PREVENT HIGH VOLTAGE ON RED / WHITE, RED, AND YELLOW OUTPUT TERMINALS PRIOR TO INSTALLATION, THE TEST BUTTON / INDICATOR LIGHT MUST BE DISCONNECTED. CONNECT THE TEST BUTTON / INDICATOR LIGHT AFTER INSTALLATION.

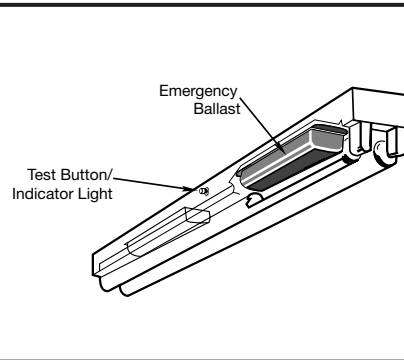
**Note:** Make sure that the necessary branch circuit wiring is available. An unswitched source of power is required.

**Step 1.** Disconnect AC power from the fixture. Remove the ballast channel cover and install the emergency ballast either in the ballast channel (see illustrations 1 & 2) or on top of the fixture (see illustration 3 / EBP450X only).

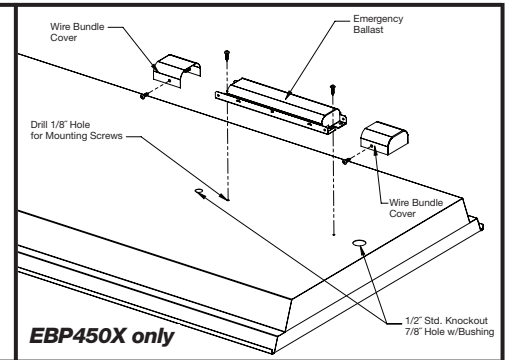
### ILLUSTRATION 1



### ILLUSTRATION 2

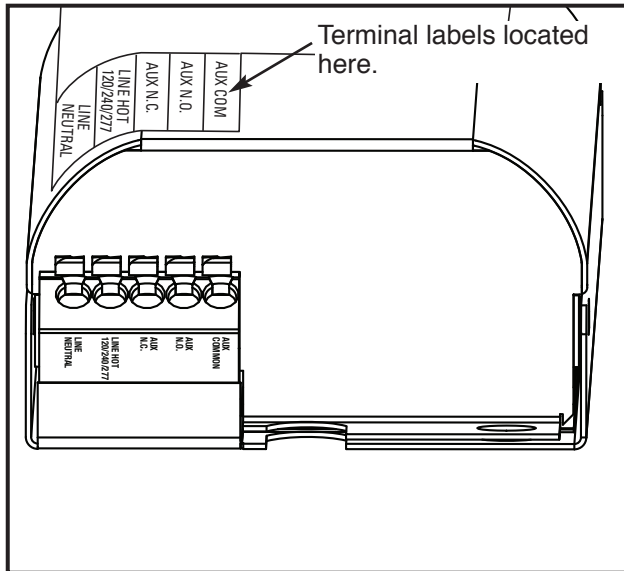


### ILLUSTRATION 3

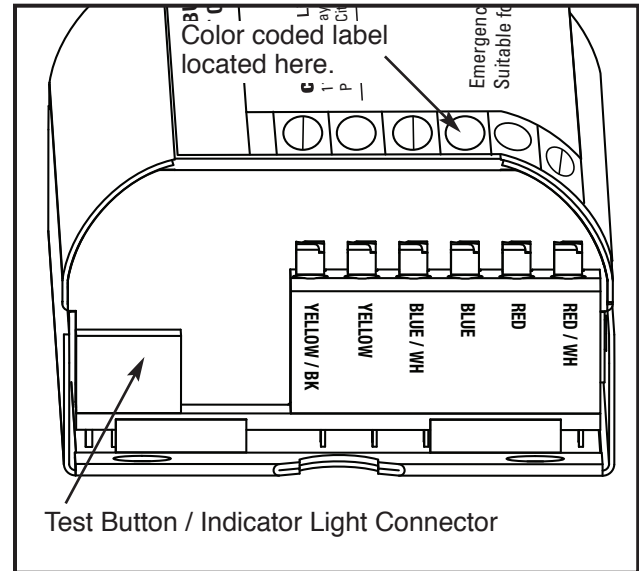


**Step 2.** Select the appropriate wiring diagram to connect the emergency ballast to the AC ballast and lamp. Make sure all connections are in accordance with the National Electrical Code and any local regulations. (See Illustrations 4 and 5 for terminals).

### ILLUSTRATION 4



### ILLUSTRATION 5



**Step 3.** Refer to proper lamp compatibility table for the HIGH (Red) or Low (Red / White) connection per the lamp being illuminated by the emergency ballast.

## Lamp Compatibility Tables

| Lamp Type  | Number of Lamps | Lamps Connected to Low/High (Red) Output | Wattage |
|------------|-----------------|--|---------|
| T5         | 1               | HIGH (RED)                               | 13-21   |
| T5         | 1               | LOW (RED / WHITE)                        | 28-35   |
| T5HO       | 1               | LOW (RED / WHITE)                        | 24-54   |
| T5,T9 CIRC | 1               | LOW (RED / WHITE)                        | 20-55   |
| T8         | 1               | HIGH (RED)                               | 25-32   |
| T8         | 1               | LOW (RED / WHITE)                        | 36-59   |
| T8HO       | 1               | LOW (RED / WHITE)                        | 48-86   |
| T8U        | 1               | HIGH (RED)                               | 32      |
| T12        | 1               | HIGH (RED)                               | 34-40   |
| T12        | 1               | LOW (RED / WHITE)                        | 56-75   |
| T12HO      | 1               | LOW (RED / WHITE)                        | 95-110  |
| T12VHO     | 1               | LOW (RED / WHITE)                        | 95-215  |
| BIAX       | 1               | HIGH (RED)                               | 40      |
| BIAX       | 1               | LOW (RED / WHITE)                        | 55      |

**Step 4.** Install the test button / indicator light through the ballast channel cover of a troffer (Illustration 1 & 6) or through the side of a strip fixture (Illustration 2 & 7). Drill or punch a 7/8" hole to install the test button / indicator light as shown in illustration 6. Drill or punch a 1/2" hole to install the test button / indicator light as shown in illustration 7. Install the test button / indicator light as shown in the selected illustration. Apply the two included labels ("Charging Indicator Light" and "Emergency Light Push to Test") adjacent to the test button indicator light.

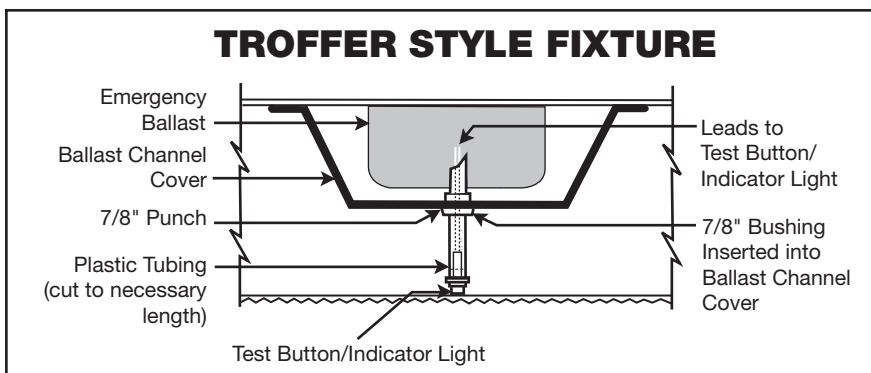
**Step 5.** In a readily visible location, attach the included label "CAUTION – This unit Has More Than One Power Connection Point. To Reduce The Risk Of Electric Shock, Disconnect Both The Branch Circuit-Breakers Or Fuses and the Test Button / Indicator Light Before Servicing".

**Step 6.** In an area readily visible during relamping, attach the included relamping label. Write in the lamp type and wattage.

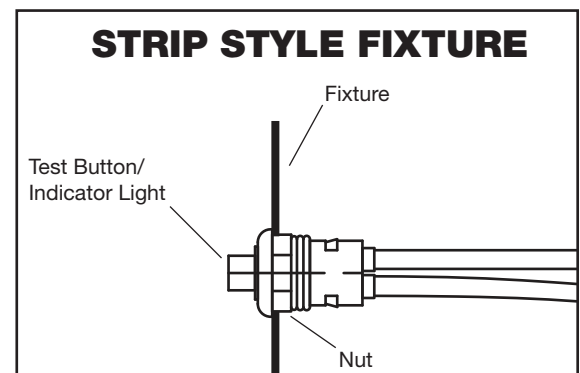
**Step 7.** After installation is complete, connect the test button / indicator light, supply AC power to the emergency ballast, and replace covers while being careful not to pinch wires.

**Step 8.** A short term discharge test may be conducted after the emergency ballast has been charging for one hour. Charge for 24 hours before conducting a long – term discharge test. Refer to OPERATION.

**ILLUSTRATION 6**



**ILLUSTRATION 7**



## OPERATION:

When AC power is applied, the charging indicator light is illuminated, indicating the battery is being charged. When power fails, the emergency ballast automatically switches to emergency power, operating one lamp at reduced illumination for at least 90 minutes.

## MAINTENANCE:

Although no routine maintenance is required to keep the emergency ballast functional, it should be checked periodically to comply with local codes. The following schedule is recommended:

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

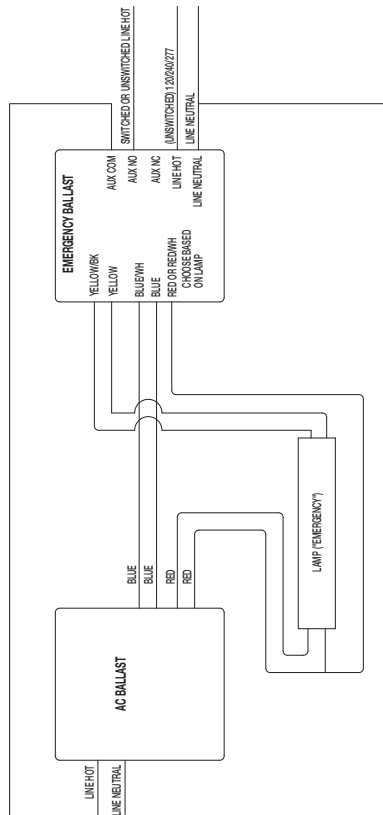
**Refer any service requirements indicated by these checks to qualified personnel.**

**Note:** After installing the test button / indicator light, mark it with the appropriate label.

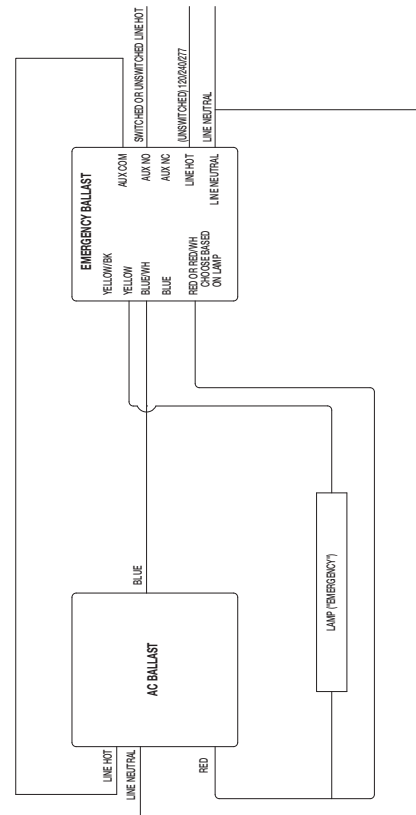
## WIRING DIAGRAMS FOR 1-LAMP EMERGENCY OPERATION

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

### 1 LAMP RAPID START



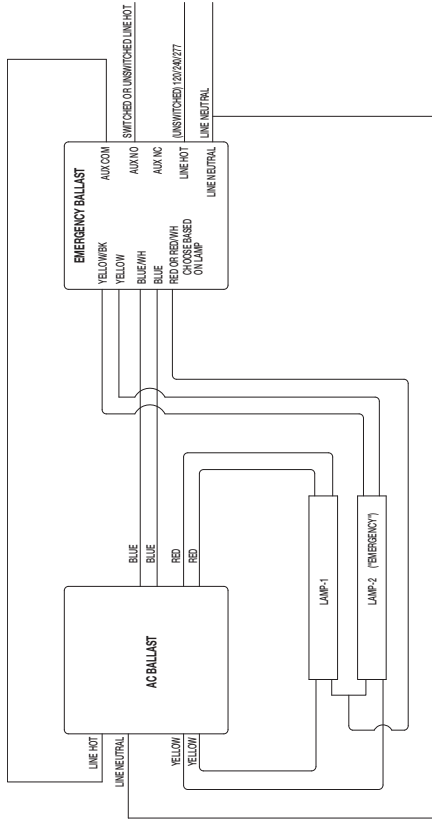
### 1 LAMP INSTANT START



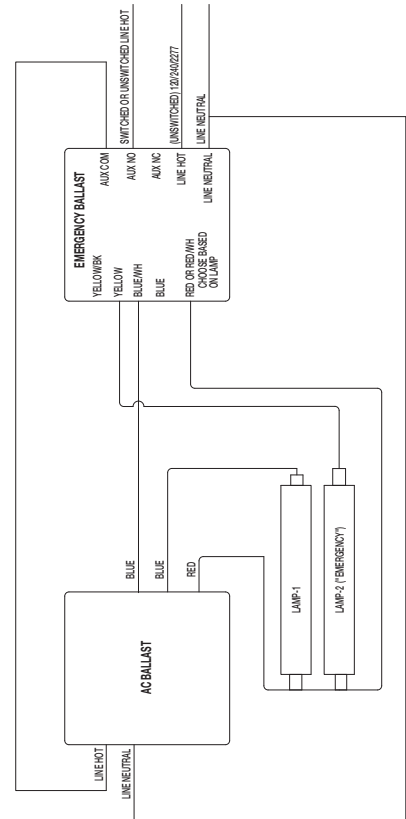
## WIRING DIAGRAMS FOR 1-LAMP EMERGENCY OPERATION

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

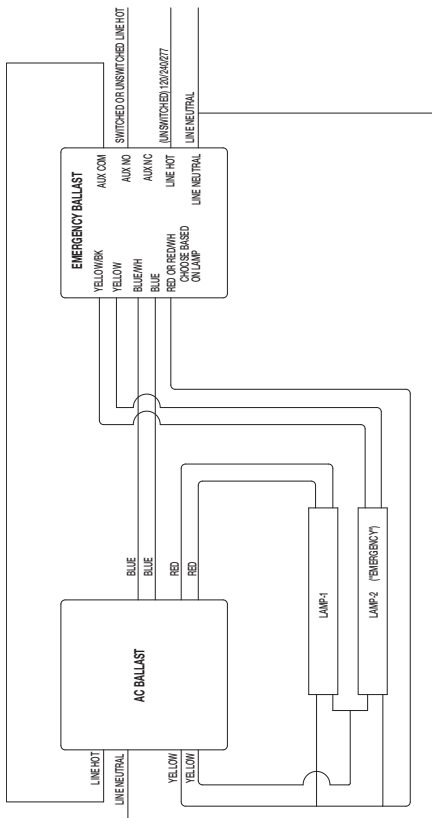
**2 LAMP RAPID START SERIES LAMP  
SERIES YELLOW FILAMENT**



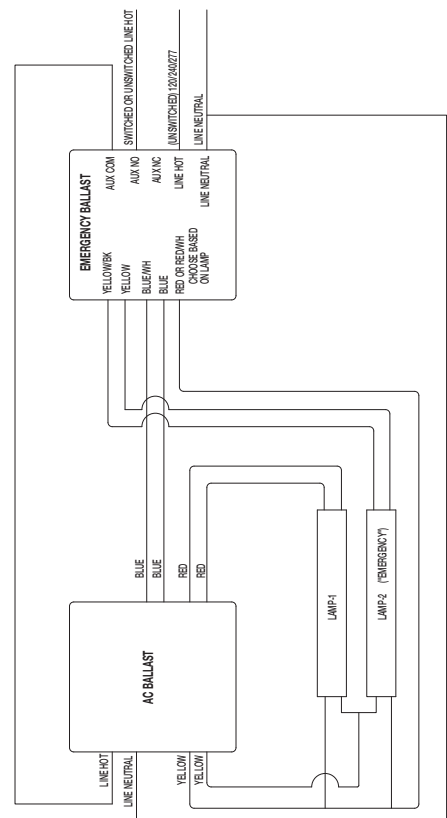
**2 LAMP INSTANT START**



**2 LAMP RAPID START SERIES / PARALLEL LAMP  
PARALLEL YELLOW FILAMENT**



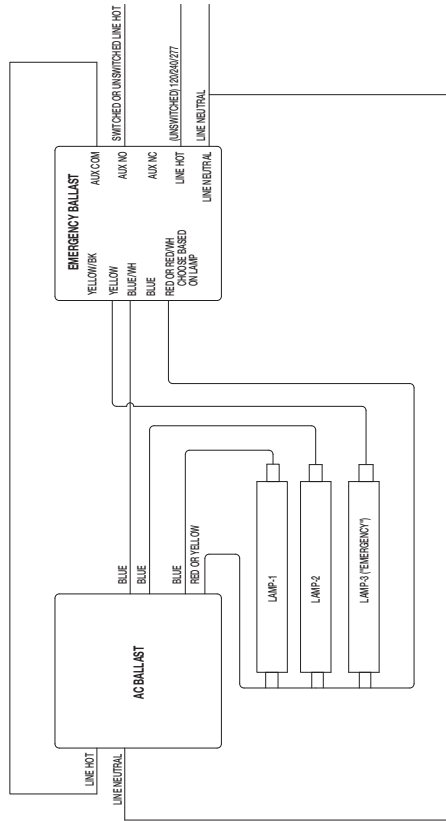
**2 LAMP RAPID START OSRAM SYLVANIA SERIES  
LAMP PARALLEL YELLOW FILAMENT**



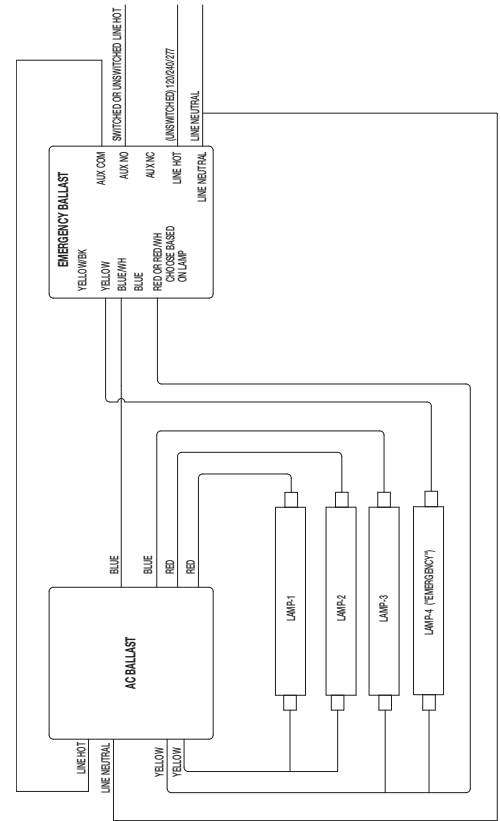
## WIRING DIAGRAMS FOR 1-LAMP EMERGENCY OPERATION

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

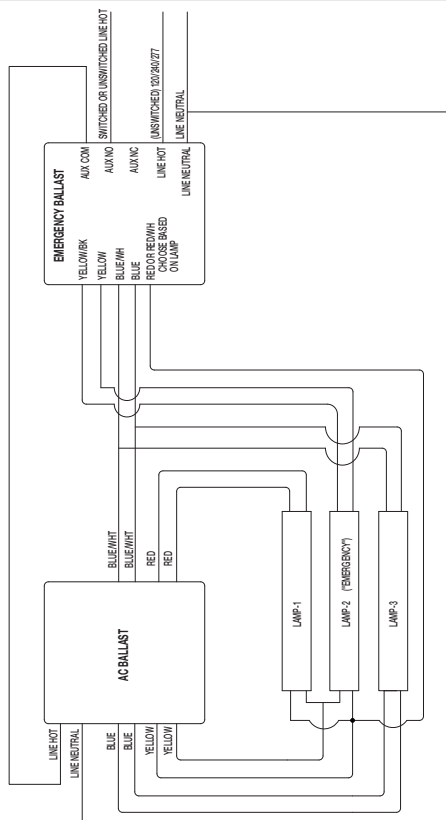
### 3 LAMP INSTANT START



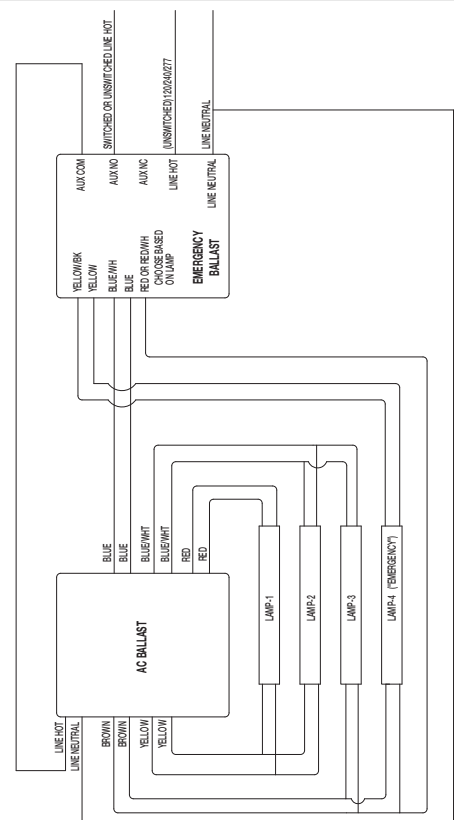
### 4 LAMP INSTANT START



### 3 LAMP RAPID START SERIES LAMP PARALLEL YELLOW FILAMENT



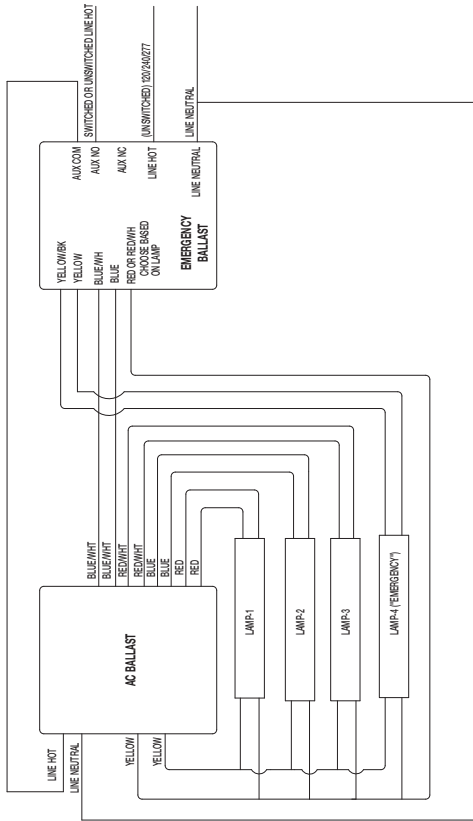
### 4 LAMP RAPID START SERIES LAMP PARALLEL YELLOW FILAMENT



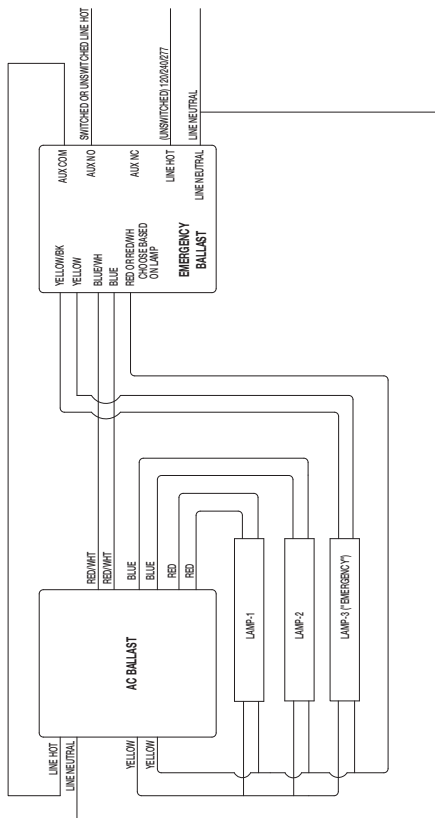
## WIRING DIAGRAMS FOR 1-LAMP EMERGENCY OPERATION

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

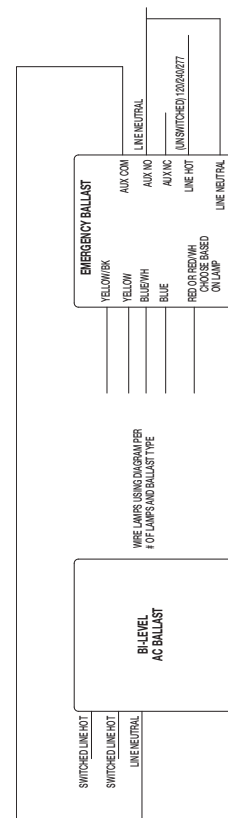
### 4 LAMP RAPID START PARALLEL LAMP PARALLEL YELLOW FILAMENT



### 3 LAMP RAPID START PARALLEL LAMP PARALLEL YELLOW FILAMENT



### BI LEVEL BALLAST



When using the auxiliary relay to switch the neutral line, the Emergency and A.C. ballasts must be on the same branch circuit.