

SURE-LITES

Installation Instructions For FBP-2-40D

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 subjected 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

Step 1. To prevent high voltage from being present on the output leads (red and yellow), do not join the battery connector until installation is complete and AC power is supplied to the emergency ballast.

Step 2. This product is for use with one 18W/26W quad tube fluorescent lamp, two pin base including integral starter.

Step 3. Make sure all connections are in accordance with the National Electrical Code and any local regulations.

Step 4. To reduce the risk of electrical shock, disconnect both normal and emergency power supplies and battery connector of the emergency ballast before servicing.

Step 5. This emergency ballast is for factory or field installation in either the ballast channel or on top of the fixture..

Step 6. This product is for use in indoor fixtures except air handling heated air outlets, and wet, damp or hazardous location fixtures.

Step 7. An unswitched AC power source is required. (120 or 277 volts).

Step 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.

Step 9. Servicing should be performed by qualified service personnel.



**CONTAINS NICKEL-CADMIUM
RECHARGEABLE BATTERY.
MUST BE RECYCLED OR
DISPOSED OF PROPERLY.**



INSTALLATION INSTRUCTIONS

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

1. MOUNTING THE 2-40D

When used with ceiling mounted Down-light fixtures, the 2-40D 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 connections. Refer to *illustration 1* for typical mounting.

2. MOUNTING THE TEST SWITCH AND CHARGE INDICATOR LIGHT

Cut the single gang switch box into the ceiling tile adjacent to the fixture within reach of the 2-40D 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. Connect the leads to the components as follows:

Violet lead ————— Charge Light Violet lead
Brown lead ————— Charge Light Brown lead

Blk/Org lead ————— Test Switch

*Blu/Wht lead ————— Unit Connector

Black lead 120V

or

Orange lead 277V

Test Switch

*Blu/Wht lead ————— Unit Connector

*To prevent electrical shock and unintentional battery discharge, do not join the unit connector until the installation is complete, *immediately* prior to permanently turning on the A.C. power.

3. WIRING

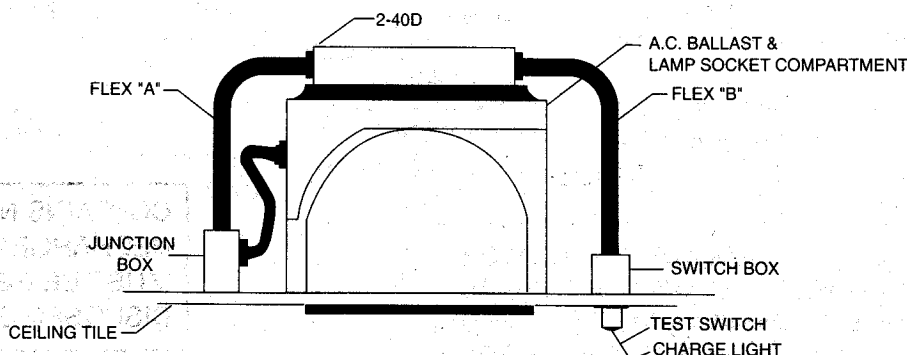
A. The 2-40D and A.C. ballast *must* be on the same branch circuit.

B. The 2-40D requires an *unswitched* A.C. power source of either 120 or 277 volts; therefore, when used with switched fixtures, the 2-40D input must be wired ahead of the wall switch.

C. Refer to the wiring diagrams on the back page for proper wiring.

ILLUSTRATION 1

Down-light Fixture



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

4. LABELS

In a readily visible location, attach the label "CAUTION: This Unit Has More Than One Power Supply Connection Point. To Reduce The Risk Of Electric Shock, Disconnect Both The Branch Circuit-Breakers Or Fuses And Emergency Power Supplies Before Servicing".

5. COMPLETING INSTALLATION

- A. When the installation is complete, switch the A.C. power on and join the 2-40D unit connector.
- B. Refer to the "OPERATION" section for proper operation.

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. The test Switch and Charge Indicator Light are offered in a standard single gang switch box for installation adjacent to the fixture.

Normal Mode- A.C. power is present. The A.C. ballast operates the fluorescent lamp(s) as intended. The 2-40D is in the standby charging mode. The Charge Indicator light provides a visual indication that the battery is being charged.

Emergency Mode- The A.C. power fails. The 2-40D senses the A.C. power failure and automatically switches to the *Emergency Mode*. One lamp is illuminated at reduced output for a minimum of 90 minutes. When the A.C. power is restored, the 2-40D switches the system back to the *Normal Mode* and resumes battery charging.

TESTING & MAINTENANCE

Initial Testing- Allow the 2-40D to charge approximately one hour, then conduct a short discharge test by depressing the test switch. The Charge Indicator Light will go out and the fluorescent tube will be illuminated. When the 2-40D is used in fixtures with more than one A.C. ballast, the second A.C. ballast is not de-energized with the test switch. It may, therefore, be advisable to switch the A.C. fixture power off prior to depressing the test switch. Allow a 24 hour charge before conducting a longer test. Be sure that the Charge Indicator Light is illuminated. Conduct a 30 second discharge test by depressing the Test Switch. The lamp should operate at reduced output.

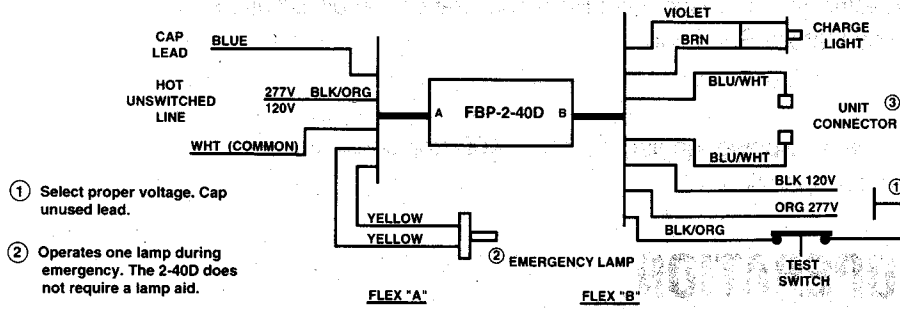
The 2-40D is a maintenance free unit, however, periodic inspection and testing is required. NFPA 101, Life Safety Code, outlines the following schedule:

Monthly- Insure that the Charge Indicator Light is illuminated. Conduct a 30 second discharge test by depressing the Test Switch. The lamp should operate at reduced output.

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

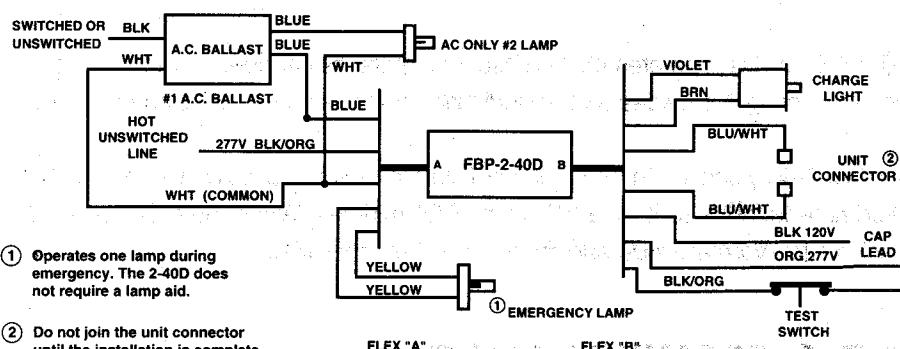
Servicing should be performed by qualified service personnel.

TYPICAL WIRING DIAGRAMS



Emergency Only Operation

- ① Select proper voltage. Cap unused lead.
- ② Operates one lamp during emergency. The 2-40D does not require a lamp aid.
- ③ Do not join the unit connector until the installation is complete, and A.C. power is supplied to the unit.

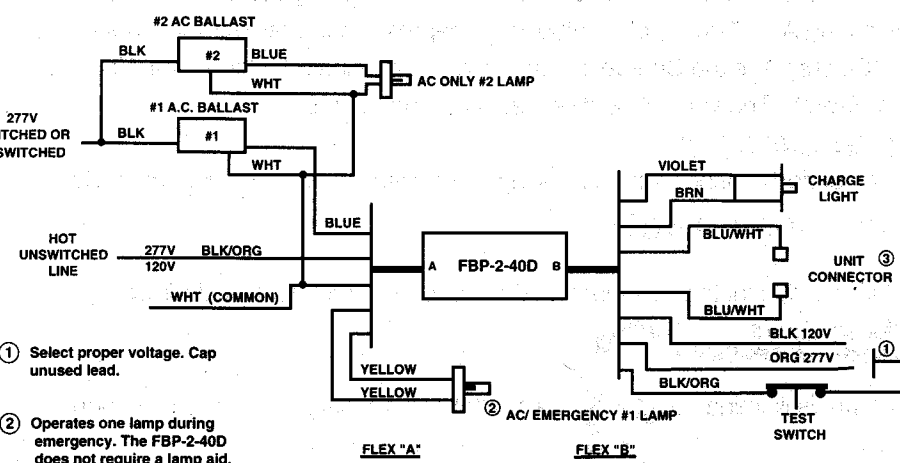


One Lamp and Two Lamp Fixture 277V Normal Power Factor Ballast

1. Remove the two leads from the selected A.C./ Emergency lamp socket #1
2. Connect the two yellow 2-40D lamp leads to the A.C./ Emergency lamp socket #1
3. Connect the blue 2-40D lead to the #1 A.C. ballast lead removed in step #1 above.

- ① Operates one lamp during emergency. The 2-40D does not require a lamp aid.
- ② Do not join the unit connector until the installation is complete, and A.C. power is supplied to the unit.

120V NFP, 120V HFP, 277V HFP



One Lamp and Two Lamp Fixture Normal Power Factor or High Power Factor Ballast

1. Remove the two leads from the selected A.C./ Emergency lamp socket #1
2. Connect the two yellow 2-40D lamp leads to the A.C./ Emergency lamp socket #1
3. Connect the blue 2-40D lead to the #1 A.C. ballast lead removed in step #1 above.

- ① Select proper voltage. Cap unused lead.
- ② Operates one lamp during emergency. The FBP-2-40D does not require a lamp aid.
- ③ Do not join the unit connector until the installation is complete, and A.C. power is supplied to the unit.

NOTE: THIS EMERGENCY BALLAST MUST BE USED WITH SINGLE LAMP BALLAST ONLY. TWO LAMP SERIES TYPE BALLAST ARE NOT COMPATIBLE. FOR INFORMATION ON BALLASTS NOT SHOWN CONTACT CUSTOMER SERVICE.