

# INSTALLATION INSTRUCTIONS

## 942EM LINE CONCRETE CONSTRUCTION

### IMPORTANT SAFEGUARDS

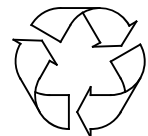
WHEN USING ELECTRICAL EQUIPMENT, BASIC SAFETY PRECAUTIONS SHOULD ALWAYS BE FOLLOWED, INCLUDING THE FOLLOWING:

#### READ AND FOLLOW ALL SAFETY INSTRUCTIONS

- 1.THE 942EM EMERGENCY STEP LIGHT USES ONE OR TWO 13W. TWIN TUBE COMPACT FLUORESCENT LAMPS. IN EMERGENCY MODE, ONLY ONE LAMP IS ILLUMINATED. (SEE WIRING OPTION SECTION)
- 2.THE 942EM EMERGENCY STEP LIGHT MUST BE CONNECTED TO AN UNSWITCHED AC POWER SOURCE, 120 OR 277 V. AS INDICATED BY THE FIXTURE LABEL.
- 3.WHEN INSTALLING THE 942EM EMERGENCY STEP LIGHT, MAKE SURE ALL CONNECTIONS ARE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND ANY LOCAL REGULATIONS.
- 4.TO REDUCE THE RISK OF ELECTRICAL SHOCK, DISCONNECT THE AC INPUT AND THE INVERTER CONNECTOR BEFORE SERVICING.
- 5.DO NOT ATTEMPT TO SERVICE THE BATTERY. THE EMERGENCY BALLAST USES A SEALED, NO MAINTENANCE BATTERY. CONTACT THE MANUFACTURER FOR INFORMATION ON REPLACEMENTS.
- 6.THE USE OF ACCESSORY EQUIPMENT NOT RECOMMENDED BY THE MANUFACTURER MAY CAUSE AN UNSAFE CONDITION.
- 7.DO NOT INSTALL NEAR GAS OR ELECTRIC HEATERS.
- 8.SERVICING SHOULD BE PERFORMED BY QUALIFIED SERVICE PERSONNEL.
- 9.DO NOT USE THIS EQUIPMENT FOR OTHER THAN INTENDED USE.

SAVE THESE INSTRUCTIONS

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



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### IMPORTANT

BE SURE ALL POWER IS OFF PRIOR TO INSTALLING FIXTURES. READ ALL INSTRUCTIONS BEFORE PERFORMING ANY WORK.

### HOUSING INSTALLATION

1. REMOVE HOUSING ASSEMBLY AND MOUNTING KIT CONTAINING CHIPBOARD TEMPLATE, 3" LOCATING STUDS, AND WINGNUTS FROM SHIPPING CARTON.
2. ATTACH THE 3" LOCATING STUDS TO HOUSING PER FIG. 1. BACK OUT SCREWS ON THE OUTSIDE SO THAT NO MORE THAN 1/16" OF EACH SCREW SHOWS ON THE INSIDE.
3. REPOSITIONING THE J-BOX PER FIG. 1 IS SUGGESTED PRIOR TO INSTALLATION, BUT NOT MANDATORY.
4. USE THE DIMENSIONS PROVIDED BY SITE CONTRACTOR TO MARK HOUSING CENTERLINE LOCATIONS ON OUTSIDE OF CONCRETE FORMS.
5. POSITION AND LEVEL TEMPLATE OVER HOUSING CENTERLINE FROM STEP 4 FIG. 2. MARK HOLE LOCATIONS FOR 3" LOCATING STUDS USING TEMPLATE AS A GUIDE.
6. DRILL HOLES THROUGH FORMS USING A 1/4" DRILL BIT.
7. INSTALL HOUSING ASSEMBLY ON CONCRETE SIDE OF FORMS. INSERT 3" LOCATOR STUDS THROUGH THE HOLES CREATED IN STEP 6 PER FIG. 1. TAKE CARE TO ORIENT THE HOUSING PER FIG. 1 AND ARROWS ON HOUSING. SECURE WITH WINGNUTS FROM MOUNTING KIT PROVIDED.

\*NOTE: THE FRONT OF THE HOUSING WILL BE FLUSH WITH SURFACE OF THE CONCRETE BY FOLLOWING THE PREVIOUS PROCEDURE. IF A SURFACE FINISH SUCH AS TILING IS PLANNED, IT IS SUGGESTED THAT ALLOWANCES BE MADE IN MOUNTING THE HOUSING PRIOR TO POURING CONCRETE TO INSURE FLUSHNESS.

8. INSTALL CONDUIT, IF USED, TO J-BOX 3/4 NPT THREADED CONDUIT HUBS. ONLY REMOVE THE PLUGS NECESSARY TO DO THE INSTALLATION.
9. SUPPLY CIRCUIT WIRING TO BE INSTALLED PER NEC OR APPLICABLE LOCAL CODES.
10. REMOVE WINGNUTS AND STUDS ONCE CONCRETE HAS CURED. THIS MUST BE DONE PRIOR TO REMOVING CONCRETE FORMS.

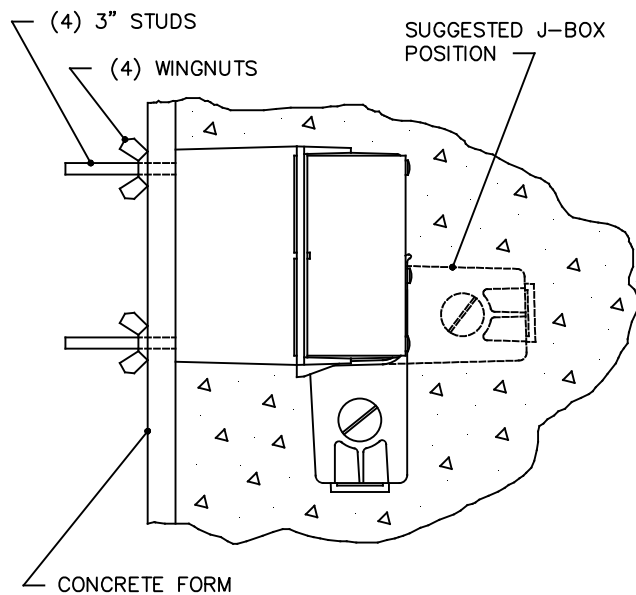


FIG. 1

NOTE: J-BOX COVER PLATE NOT SHOWN

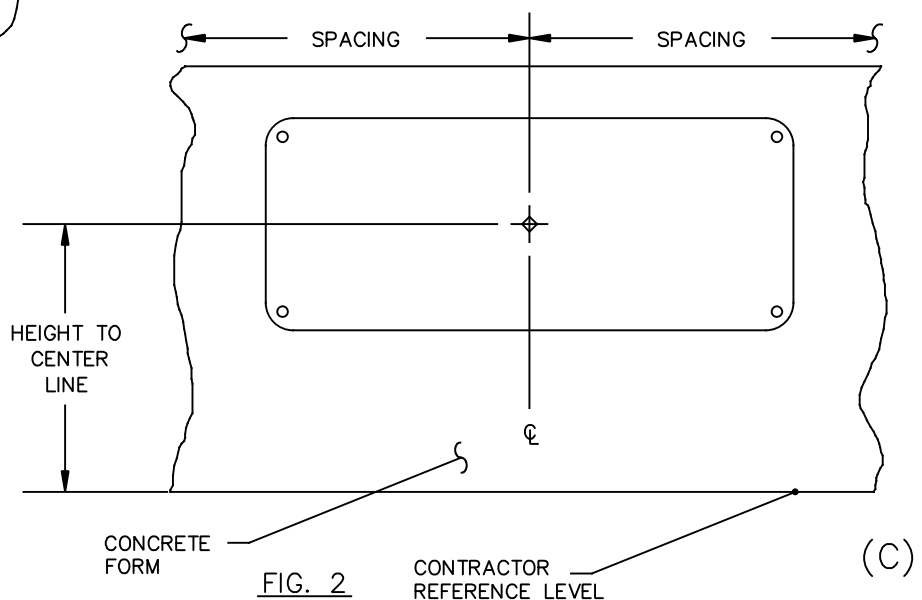


FIG. 2

CONTRACTOR  
REFERENCE LEVEL

**IMPORTANT!**  
AT ALL TIMES WIRING  
TO BE DONE PER THE  
NEC OR APPLICABLE  
LOCAL CODES.

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### WIRING OPTIONS AND BALLAST ASSEMBLY INSTALLATION

A. WIRING FOR SWITCHED OPERATION. (BOTH LAMPS MAY BE TURNED ON OR OFF USING A WALL SWITCH WHICH CONTROLS THE SWITCHED LINE SUPPLYING THE FIXTURE. AN UNSWITCHED LINE MUST ALSO SUPPLY THE FIXTURE.)

DURING EMERGENCY OPERATION, THE TOP LAMP WILL BE ILLUMINATED IRREGARDLESS OF WALL SWITCH POSITION.)

- 1.REMOVE BALLAST ASSEMBLY AND FACE PLATE ASSEMBLY FROM SHIPPING CARTON.
- 2.REMOVE FROM INSIDE THE HOUSING THE FOUR UNUSED, PRE-INSTALLED SELF TAPPING SCREWS. RETAIN TWO OF THEM FOR LATER USE.
- 3.REMOVE THE J-BOX COVER PLATE FROM INSIDE OF HOUSING ASSEMBLY.
- 4.MAKE ELECTRICAL CONNECTIONS. FIXTURE SWITCHED LINE TO SUPPLY SWITCHED LINE. FIXTURE UNSWITCHED LINE TO SUPPLY UNSWITCHED LINE, COMMON TO COMMON AND BALLAST ASSEMBLY AND HOUSING ASSEMBLY GROUNDS TO SUPPLY GROUND. JOIN THE INVERTER CONNECTOR.
- 5.CAREFULLY PLACE EXCESS WIRE AND SPLICES INTO J-BOX. REINSTALL J-BOX COVER.
- 6.SECURE BALLAST ASSEMBLY TO HOUSING ASSEMBLY WITH THE TWO PREVIOUSLY REMOVED AND RETAINED SCREWS AND THE TWO LONGER SCREWS FOUND WITH THE BALLAST ASSEMBLY.
- 7.INSTALL LAMPS AND ENERGIZE SUPPLY UNSWITCHED LINE.

B. WIRING FOR UNSWITCHED OPERATION. (BOTH LAMPS OPERATE CONTINUOUSLY. AN UNSWITCHED LINE ONLY IS REQUIRED TO SUPPLY THE FIXTURE.)

DURING EMERGENCY OPERATION, THE TOP LAMP WILL REMAIN ILLUMINATED.)

1,2 & 3.SAME AS ABOVE.

- 4.MAKE ELECTRICAL CONNECTIONS. BOTH FIXTURE SWITCHED AND UNSWITCHED LINE TO SUPPLY UNSWITCHED LINE, COMMON TO COMMON AND BALLAST ASSEMBLY AND HOUSING ASSEMBLY GROUNDS TO SUPPLY GROUND. JOIN THE INVERTER CONNECTOR.

5,6 & 7.SAME AS ABOVE.

C. WIRING FOR EMERGENCY OPERATION ONLY. (TOP LAMP ONLY INSTALLED AND IS ILLUMINATED DURING EMERGENCY OPERATION ONLY. AN UNSWITCHED LINE ONLY IS REQUIRED TO SUPPLY THE FIXTURE.)

1,2 & 3.SAME AS ABOVE.

- 4.MAKE ELECTRICAL CONNECTIONS. CAP FIXTURE SWITCHED LINE. CONNECT FIXTURE UNSWITCHED LINE TO SUPPLY UNSWITCHED LINE, COMMON TO COMMON AND BALLAST ASSEMBLY AND HOUSING ASSEMBLY GROUNDS TO SUPPLY GROUNDS.

JOIN THE INVERTER CONNECTOR.

5&6.SAME AS ABOVE.

- 7.INSTALL TOP LAMP ONLY AND ENERGIZE SUPPLY UNSWITCHED LINE.

### FACE PLATE INSTALLATION

- 1.INSTALL FACE PLATE WITH MOUNTING SCREWS PER FIG. 3. BE SURE MOUNTING SCREWS ARE SNUG, BUT DO NOT OVER TIGHTEN.

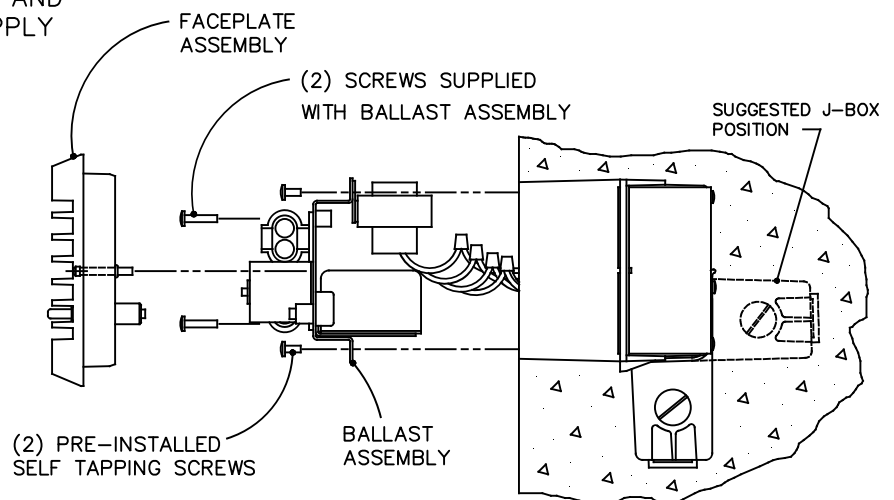


FIG. 3

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# INSTALLATION INSTRUCTIONS

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### OPERATION AND TESTING

1. WHEN AC POWER IS APPLIED, THE CHARGING INDICATOR LIGHT IS ILLUMINATED, INDICATING THAT THE BATTERY IS BEING CHARGED. WHEN POWER FAILS, THE EMERGENCY BALLAST AUTOMATICALLY PROVIDES AT LEAST 90 MINUTES OF EMERGENCY LIGHTING.
2. FOR SHORT TERM TESTING OF THE EMERGENCY FUNCTION, THE BATTERY MUST BE CHARGED FOR AT LEAST 30 MINUTES. THE EMERGENCY BALLAST MUST BE CHARGED FOR AT LEAST 24 HOURS BEFORE CONDUCTING A LONG TERM TEST.

### MAINTENANCE

ALTHOUGH NO ROUTINE MAINTENANCE IS REQUIRED TO KEEP THE EMERGENCY BALLAST FUNCTIONAL, IT SHOULD BE CHECKED PERIODICALLY TO INSURE THAT IT IS WORKING. THE FOLLOWING SCHEDULE IS RECOMMENDED:

1. VISUALLY CHECK THE CHARGING INDICATOR LIGHT MONTHLY. IT SHOULD BE ILLUMINATED.
2. TEST OPERATION OF THE CIRCUIT AT 30 DAY INTERVALS FOR A MINIMUM OF 30 SECONDS. THE LAMP SHOULD OPERATE.
3. CONDUCT A 90 MINUTE DISCHARGE TEST ONCE A YEAR. THE LAMP SHOULD OPERATE FOR AT LEAST 90 MINUTES.

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