When using electrical equipment, basic safety precautions should always be followed, including the following:

**READ AND FOLLOW ALL SAFETY INSTRUCTIONS**

1. **CAUTION** – To prevent electrical shock, do not mate unit connector until installation is complete and A.C. power is supplied to the unit.

2. **CAUTION** – This fixture provides more than one power supply output source. To reduce the risk of electrical shock, disconnect both normal and emergency sources by turning off the A.C. branch circuit and by disconnecting the unit connector.

3. **CAUTION** – This is a sealed unit. The integral, high temperature Ni-Cad battery is not replaceable. Replace the entire unit when necessary. The EPA certified RBRC® Battery Recycling Seal indicates voluntary participation in an industry program to collect and recycle these batteries at the end of their useful life, when taken out of service in the United States or Canada. The RBRC program provides a convenient alternative to placing used Ni-Cad batteries into the trash or the municipal waste stream, which may be illegal in your area. Please call 1-800-822-8837 for information on Ni-Cad battery recycling and disposal bans/restrictions in your area. Involvement in this program is part of our commitment to preserving our environment and conserving our natural resources.

4. **DO NOT USE OUTDOORS.** The AM540 and AM570 are for use with grounded, UL Listed, indoor fixtures except in heated air outlets or hazardous locations.

5. The AM540 requires an unswitched A.C. power source of either 120 or 277 volts. Properly cap the unused A.C. lead.

6. Do not mount near gas or electric heaters.

7. The AM540 should be mounted in locations and at heights where it will not readily be subjected to tampering by unauthorized personnel.

8. The AM540 will cold strike and operate for 90 minutes on one 2’ to 4’ T5 or T8 linear lamp, including HO and 4 pin long compact fluorescent lamps, from 40 through 55 watts.

9. The AM540 is compatible with all A.C. magnetic and electronic ballasts including multiple lamp ballasts with one lamp operating in the emergency mode.

10. The use of accessory equipment not recommended by the manufacturer may cause an unsafe condition.

11. Do not use this equipment for other than intended use.

12. Install in accordance with the National Electrical Code and local regulations.

13. Installation and servicing should be performed by qualified personnel.

14. Lighting fixture manufacturers, electricians and end-users need to ensure product system compatibility before final installation.

**SAVE THESE INSTRUCTIONS**
INSTALLATION INSTRUCTIONS

CAUTION: Before installing, make certain the A.C. power is off and the AM540 unit connector is disconnected.

1. MOUNTING THE AM540
   Remove the ballast channel cover. Mount the AM540 in the ballast channel at least 1/2” away from the A.C. ballast(s).
   When battery packs are remote mounted, the remote distance can not exceed 1/2 of the distance from ballast to lamp specified by the A.C. ballast manufacturer. For example, if the A.C. ballast manufacturer recommends no more than 25’ remote distance, then the battery pack should not exceed 12 1/2’. Under no circumstances should the battery pack exceed a distance of 50’ from the lamp.

2. WIRING
   Refer to the wiring diagrams on the back page for the appropriate wiring of lamp(s) and ballast. Install in accordance with the National Electrical Code and local regulations. For additional wiring diagrams consult Customer Service.

3. INSTALLING THE THREADED BODY TEST SWITCH (TBTS)
   **Recessed Troffer Fixture** – Select a convenient location with proper clearance in the ballast cover and drill or punch a 7/8” hole (1/2” knockout). Insert the 7/8” bushing into the hole. Push the plastic tube through the bushing. Route the leads of the TBTS through the plastic tube. Connect the LED wires from the unit to the TBTS (Red to Red, White to White/Red). Push the entire assembly back into the tube until the lens collar rests against the plastic tube. The plastic tube should be adjusted so that the TBTS is within 1/4” of the fixture lens. The TBTS must be visible after installation. Refer to Illustration 1.

   **Linear Fixture** – Select a convenient location on the fixture so the TBTS can be seen after installation. Allow for proper clearance inside the fixture and drill or punch a 1/2” hole. Remove the nut from the TBTS. Push the TBTS housing into the 1/2” hole and secure with the nut. Connect the LED wires from the unit to the TBTS (Red to Red, White to White/Red). Refer to Illustration 2.

Illustration 1
Recessed Troffer Fixture

Illustration 2
Linear Fixture

4. WIRING THE A.C. INPUT
   A. The AM540 and A.C. ballast must be on the same branch circuit.
   B. The AM540 requires an unswitched A.C. power source of either 120 or 277 volts. Select the proper voltage lead and cap the unused lead.
   C. When the AM540 is used with a switched fixture, the A.C. input to the AM540 must be connected ahead of the fixture switch. Refer to Illustration 3 for switched and unswitched fixture wiring diagrams.
5. BALLAST WIRING BLOCK DIAGRAM

Illustration 3

Switched Fixture

Unswitched Fixture

6. LABELS

Attach the appropriate labels adjacent to the TBTS. 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.

7. COMPLETING INSTALLATION

When the installation is complete, switch the A.C. power on and join the AM540 unit connector.

OPERATION

Normal Mode – A.C. power is present. The A.C. ballast operates the fluorescent lamp(s) as intended. The AM540 is in the standby charging mode. The TBTS will be lit providing a visual indication that the battery is being charged.

Emergency Mode – The A.C. power fails. The AM540 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 AM540 switches the system back to the Normal Mode and resumes battery charging. See page 1 of the Instruction Manual.

TESTING & MAINTENANCE

Pressing the red lens on the TBTS turns off the light on the TBTS and forces the unit into emergency mode. This interrupts power to the emergency lamp only. The emergency lamp is now being lit by the AM540 unit and will be less bright than the other lamps in the system. To simulate a “BLACK OUT” use the wall switch or circuit breaker to turn off A.C. power.

Initial Testing – Allow the unit to charge approximately 1 hour, then press the TBTS to conduct a short discharge test. Allow a 24 hour charge before conducting a one hour test.

The AM540 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 TBTS is illuminated. Conduct a 30 second discharge test by depressing the TBTS. One lamp should operate at reduced output.

Annually – Insure that the TBTS is illuminated. Conduct a full 1½ hour discharge test. The unit should operate as intended for the duration of the test.

“Written records of testing shall be kept by the owner for inspection by the authority having jurisdiction.”

SERVICING SHOULD BE PERFORMED BY QUALIFIED PERSONNEL.

Consult Customer Service for current warranty information.
TYPICAL WIRING DIAGRAMS

For wiring diagrams of ballasts not shown, consult our Customer Service.

1. ONE LAMP RAPID START BALLAST

2. TWO LAMP RAPID START BALLAST

3. TWO LAMP RAPID START BALLAST

4. THREE LAMP RAPID START BALLAST

5. ONE LAMP INSTANT START BALLAST

6. TWO LAMP INSTANT START BALLAST

7. TWO LAMP INSTANT START BALLAST

8. THREE LAMP INSTANT START BALLAST

9. FOUR LAMP INSTANT START BALLAST