



FARM iNNOVATORS, INC.

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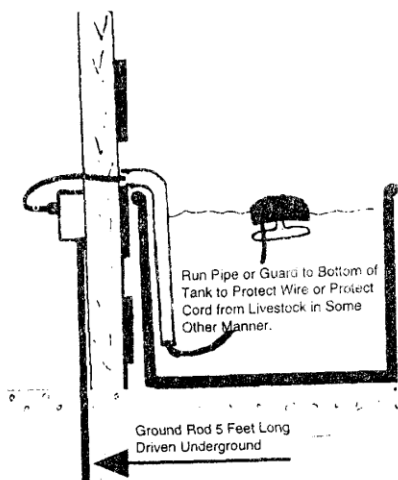


Farm Innovators, Incorporated has carefully inspected, tested, and packaged this unit to insure safe operation. When you receive your de-icer, examine it carefully to determine that there has been no damage that may have occurred in shipment. If damage has occurred, make notation and notify the firm from which you purchased the de-icer. They will assist you in replacing the unit.

Please read instructions carefully before attempting to install and operate the unit. Know the units application, limitations and potential hazards. Protect yourself and others by observing all safety information.

IMPORTANT CONSUMER INFORMATION (Read Carefully and Entirely)

1. The Models H-4810 and H-4815 are not safe in Plastic or Structural Foam Stock Tanks. Do not use them.
2. The Models DPH-15, UPH-15, H-418, H-418C, H-419, H-49, H-4615, P-418, P-500, H-429, H-439, H-493, C-50, C-250, C-500, and W-449 are **all** safe to use in Plastic, Structural Foam and Metal tank applications and all pond designs - liners, and pre-formed plastic.
3. De-icers will "only" operate when temperature reaches freezing.
4. Caution: Electricity and water are a dangerous combination—follow installations carefully and precisely.
5. All the units (except the Model W-449) are De-icers (designed to keep water de-iced only). Each unit is thermostatically controlled (except the Model B-9) to turn on when the "water temperature approaches freezing" and will "turn off according to the internal thermostat shut-off temperature".
6. The Model W-449 is a Water Heater. It is designed to "heat" a five gallon bucket to 100°F within twenty minutes. Once the water temperature of approximately 100°F has been reached—the unit will only re-activate when the water temperature cools down to approximately 80°F.
7. Low Voltage is a possible cause for failure or poor performance. Measure voltage at receptacle with unit energized. Voltage drop means wattage reduction. **Extension cords are what cause voltage drop and are unsafe to use.**



INSTALLING YOUR UNIT

Caution: To provide continued protection against electrical shock:

1. Have a qualified electrician install a properly grounded receptacle outlet, acceptable for outdoor use and protected from the rain and snow immediately adjacent to the location where the unit will be used.
2. Route supply cord through 1½" or 2" piping or conduit for safety while locating the unit so as to be protected from damage and/or chewing by livestock.
3. **DO NOT USE EXTENSION CORDS!**
4. Inspect the cord before using.
5. Do not plug unit in until the tank is filled with water and the unit is positioned in the tank. Do not operate the unit out of water. This will void the warranty.
6. Metal Tanks—Drive ground rod near tank. Securely clamp the uninsulated Copper wire to ground rod and securely clamp the other end of copper wire to the tank.
7. Plastic Tanks—Drive ground rod near tank. Securely clamp uninsulated Copper wire to ground rod and drape the other end of uninsulated Copper wire into the water inside the plastic tank. Drive rod a minimum of five (5) feet in the ground.
8. Unplug the unit at the receptacle when not in use or before removal from tank.
9. Store unit indoors after winter use following a thorough cleaning of unit.

Safety is primary when installing our units. Electricity and water are a dangerous combination—follow our instructions precisely when installing a unit.

MAINTENANCE

- If the unit freezes in due to power loss, allow the unit adequate time to melt itself free. Do not chip or cut at the unit while plugged into the receptacle.
- Do not allow lime deposits or other impurities to build up on the heating element. This can cause "hot spots" which is the primary reason for failure and voids the warranty. Remove the impurities by using vinegar or LimeAway on the Heating Element (Tubular or Cast Aluminum Element).
- When taking the unit out of service, disconnect the power supply cord, remove the unit from the water, clean the element (see above) and store indoors.

DO NOT ATTEMPT TO DISASSEMBLE THE UNIT AS THE UNIT HAS NO SERVICEABLE PARTS. THIS WILL VOID THE WARRANTY.

CHECK FOR PROPER OPERATION (Air Test)

1. Set unit in freezer for one hour or outside if the temperature is below 35°F for one hour out of water. Note: This is an air test—do not test the unit in water.
2. After an hour, plug the unit into a known good receptacle. Hold the unit by the supply cord. Within seconds, the element should begin to heat. Listen for the thermostat to "click off". Unplug and cool down the unit. The unit is working properly.

MAXIMUM EFFICIENCY IN HARSH ENVIRONMENTS

1. Protect the de-icer from high winds.
2. Install a partial cover and place the Submergible units up on a concrete block.
3. In larger tanks: Select one side to maintain open water. Wedge a loose partition about 8" high separating the ice free area.
4. Wind Breaks: 1" Styrofoam insulation, partial covering and banking up on the tank sides make heating easier in severe weather.

DE-ICER WATTAGE/GALLON REQUIREMENTS						
	5 GAL	25 GAL	50 GAL	100 GAL	200 GAL	300 GAL
30°	250W	250W	500W	1000W*	1000W*	1000W*
20°	250W	250W	500W	1000W*	1000W*	1500W*
10°	250W	250W	500W	1000W*	1500W*	1500W*
0°	250W	500W	1000W	1500W*	1500W*	1500W*
-10°	250W	500W	1000W	1500W*	1500W*	1500W*
-20°	N/A	1000W	1500W	1500W*	N/A	N/A

* Denotes 1250 Watts Cast Aluminum Floater can be used.

THE FOREGOING WARRANTY DOES NOT APPLY IF:

1. The power cord or unit shows evidence of livestock damage or consumer negligence.
2. The ground terminal on the electrical plug has been removed or another plug has been used in place of the original plug.
3. Allowing lime or other water impurities to build up on the heating element causing possible "hot spots" which is a primary reason for the heating element to fail. Periodically, you should clean the heating element with vinegar or LimeAway.
4. The unit has been allowed to operate out of water except when performing Air Test.

LIMITED WARRANTY

The Models H-4810, H-4815, H-439, H-429, H-4615, DPH-15, UPH-15, H-493, BD & GBD-Series C-250, C-500, P-500 and W-449 are guaranteed for one year and the Models H-418, H-418C, H-409, H-419, H-49, P-418, C-50 are guaranteed for three years after the original date of consumer purchase or date stamped on the unit against defects due to materials and the company's workmanship only. The sole obligation shall be to replace the defective unit with a replacement unit. Units should be "Checked for proper operation" prior to returning as defective. Units must be returned prepaid. No liability for loss or damage of any nature or kind, whether arising out of or from the use of the product, whether or not defective, is assumed by Farm Innovators, Incorporated.

Return Address: Farm Innovators, Inc. 2255 Walter Glaub Drive, Plymouth, IN 46563.

ABOUT OUR UNITS . . .

Model B-9 Economical Bird Bath De-icer—44 Watts/120VAC/.367A. Designed to keep bird baths from freezing during the winter. Safe in all Bird Baths.

Model C-50 Premium Bird Bath De-icer—150 Watts/120VAC/.42A. Designed to keep bird baths from freezing during the winter. Constructed of durable Cast Aluminum. Safe in Plastic.

- * Model C-250—250 Watts/120 VAC/2.0A. For use in tanks up to 25 Gallons. Safe in Plastic.
- * Model C-500—500 Watts/120VAC/4.2A. For use in tanks up to 50 Gallons. Constructed of durable Cast Aluminum. Common usages: Buckets, Small Animal Drinkers, Hog Waterers.
- * Model DPH-15 Drain Plug De-icer—1500 Watts/120VAC/12.5A. Designed to fit all Rubbermaid Stock Tanks drain plug fittings. Installs in minutes.
- * Model FB-120 All Seasons Heated Flat-Back Bucket—120 Watts/120 VAC/1.0A.
- * Model FB-15R Rubber Heated Flat-Back Bucket—150 Watts/120VAC/1.25A.
- * Model H-418, H-418C Floating Plastic Tank De-icer—1250 Watts/120VAC/10.4A. Constructed of durable Cast Aluminum. Safe to use in all tanks without the use of a guard. Three Year Warranty.
- * Model H-409 Submergible Plastic Tank De-icer—1000 Watts/120VAC/8.3A. Constructed of Cast Aluminum. Safe to use in all tanks without the use of a guard. Three Year Warranty.
- * Model H-419 Submergible Plastic Tank De-icer—1500 Watts/120VAC/12.5A. Constructed of Cast Aluminum. Safe to use in all tanks without the use of a guard. Three Year Warranty.
- * Model H-49 Premium Bucket De-icer—250 Watts/120VAC/2.0A. Designed to be used in a five gallon bucket or as a surface heater for Poultry Fountains. Constructed on durable Cast Aluminum. Three Year Warranty.
- * Model H-4810 Economical Floating De-icer—1000 Watts/120VAC/8.3A.
- * Model H-4815 Economical Floating De-icer—1500 Watts/120 VAC/12.5A. Tubular Heating Element. Designed to be in *Metal Stock Tanks only*. Units are not safe in Plastic Stock Tanks.
- * Model H-439 Economical Submergible De-icer—1000 Watts/120VAC/8.3A.
- * Model H-429 Economical Submergible De-icer—1500 Watts/120VAC/12.5A. Tubular Heating Element. Designed to sit on the bottom of any tank out of the way of animals. Safe to use in all tanks.
- * Model H-4615 Convert-Able De-icer—1500 Watts/120VAC/12.5A. Tubular Heating Element. Converts easily from a Floater with a guard to a Submergible with a guard in minutes. Simply tap the 2" round label on the blue float while supporting the edges of the float. Safe in all tanks.
- Model H-493 Hog Waterer De-icer—1000 Watts/120VAC/8.3A. Designed to use in the reservoir tanks in Hog Waterers. Safe to use in plastic tanks.
- * Model P-418 Floating Plastic Pond De-icer—1250 Watts/120VAC/10.4A. Constructed of durable Cast Aluminum for longevity. Designed to use in ponds up to 600 Gallons. Fish & Plant friendly. Safe to use in all ponds—plastic, liner or concrete. Three Year Warranty.
- * Model P-500 Patio Pond De-icer—500 Watts/120VAC/4.2A. Constructed of durable Cast Aluminum for longevity. Designed to use in ponds up to 50 Gallons. Fish & Plant friendly. Safe to use in all Patio Ponds. Three Year Warranty.
- * Model TC-1 & TC-2 & TC-3 Thermostatically Controlled Outlets. 120VAC/15.0A. Designed to turn power on and off according to the pre-set temperature. Great to use with Pond De-icers and Model B-9. Dual Receptacle. UL Listed. One Year Warranty.
- * Model UPH-15 Universal Drain Plug De-icer—1500 Watts/120VAC/12.5A. Designed to "Fit All Tanks" on the market. Installs in minutes through the drain hole in the tank.

Model W-449 Water Heater—1000 Watts/120VAC/8.3A. Designed to heat up a five (5) Gallon bucket to 100°F within 20 minutes. Will only re-activate when the water temperature falls below approximately 80°F. Safe to use in all buckets.

NOTE: Above model numbers with "" denotes that particular unit is UL \ cUL Listed.
