



ALLIED PRECISION INDUSTRIES, INC.
705 E. North Street
Elburn, IL 60119

Instructions for the 3 in 1 De-icer™ Models DT15 and PDT15 Setup and Operation

SPECIFICATIONS

1500 Watts, 120VAC, 60 Hz

INSTALLATION

Warning:

1. Have a qualified electrician install a properly grounded receptacle outlet, acceptable for outdoor use and protected from snow and rain, immediately adjacent to the location where the heater will be used.
2. Route the supply cord and locate the heater so as to be protected from damage.
3. Do not use extension cords.
4. Inspect the cord before using.
5. Unplug the heater at receptacle outlet when not in use or before removing from tank or pond.
6. Store heater indoors after winter season.
7. Connect to properly grounded outlets only.
8. **Connect only to a circuit that is protected by a Ground Fault Circuit Interrupter (GFCI).** This is a sensitive device that cuts off the electricity if there is any leakage of current. This device may be obtained from any electrician or hardware store.

This deicer is safe to operate in plastic or Rubbermaid® tanks.

To Operate As A Floater: Simply place the unit with the float attached into the water. Connect the cord to a properly grounded, GCFI-protected receptacle while observing the cautions above.

To Operate As A Sinker: Remove the cover and float from the unit by slipping a screwdriver into the groove between the cover and the base and popping the four cover tabs off the base. (Save the cover and float in case you wish to convert back to a floater later.) Turn the unit upside down and lower it into the water so that it rests on its feet at the bottom of the tank or pond. Connect the cord to a properly grounded, GCFI-protected receptacle while observing the cautions above.



To Route The Cord Through The Drain Plug (DT15 only):

1. Prepare the Drain Plug Adapter (DPA) by spreading the plumbers' putty included with the unit inside each half of the adapter. Put in enough putty to seal around the cord when it is seated within the adapter.



2. Open a gap between the anti-chew spring and the gray, anti-rub guard by either compressing the spring or sliding the guard down approximately 4 inches along the cord. To move the guard, you may wish to move the black, spiral wrap at the plug end of the gray guard.



3. Sandwich the cord between the two halves of the DPA by holding the cord in the channel of one half and inserting the tabs of the other half into their mates to form a hinge. Make sure that the threaded end of the DPA points toward the plug (see figure below).



4. Fold the halves together to capture the cord in between. Remove any excess putty that is squeezed out. If the halves will not come together, open them and remove some of the putty.



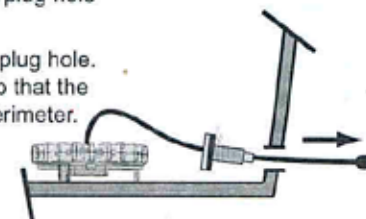
5. Position the C-clip in the channel at the nose of the DPA and push it down to hold the halves together.



6. Slide the rubber gasket over the plug and down onto the DPA. It should be pushed all the way back against the flange at the rear of the DPA.

7. Check the inside surface around the drain plug hole to make sure it is clean.

8. Route the plug and cord through the drain plug hole. Insert the DPA through the hole and center it so that the gasket makes good contact against the hole perimeter.



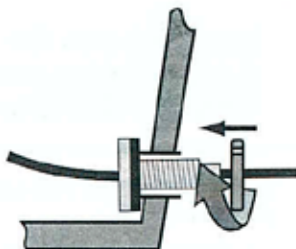
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9. Screw the nut onto the threads extending out the drain hole of the tank. Hand tighten.

10. Add water to the tank until the DPA and gasket inside the tank are completely immersed. Check for leaks around the nut on the outside of the tank. Use channel lock pliers to tighten the nut slightly if necessary. **Do not overtighten the nut or it can crack.**

11. If leaking persists, repeat the steps above making sure that there is enough putty inside the DPA to seal around the cord, and that the DPA is positioned in the center of the drain hole.



Maintenance

Do not allow lime or other impurities in the water to build up on the heating element. The frequency of cleaning depends directly upon the composition of your water supply. Lime removing cleaners can be obtained at any farm or hardware store.

Troubleshooting

The de-icer has been fully tested and is guaranteed to perform to specifications; there are no user adjustments or modifications on the unit. However, you can perform certain checks for the following conditions:

- The tank or pond freezes over:

Check that you have power to the de-icer by unplugging the unit and plugging in an electrical device such as a lamp or power tool. If no power is present, ensure that a breaker has not been tripped or a fuse blown. If the breaker or fuse checks out ok, check the wiring to the outlet, otherwise remove the unit from the tank *before* resetting the breaker or replacing the fuse and follow the instructions for testing the unit with a Ground Fault Interrupter circuit as described in the next section below.

If the outlet where the de-icer is plugged in is located far from the electrical breaker box, there could be a significant voltage drop in the wiring to the outlet, which, in turn, could reduce the power output of the de-icer. You should consult a qualified electrician if you suspect this is a problem. Also, whenever the unit is used in the sinker configuration, check to make sure that it is sitting level on the bottom of the tank.

If there is power present and the air temperature has sharply dropped, a thin layer of ice may form before enough heat can be added to the water to counteract the drop in temperature. If, however, the ice has not begun melting within 60 minutes, you should return the unit to the place of purchase.

- The livestock are being shocked:

If you suspect that the animals are being shocked when they contact the water, **DO NOT TOUCH THE WATER.** Instead, unplug the unit and remove it from the tank. If the de-icer has been plugged into a GFI (see instruction #1 under "Installation") outlet and did not trip the GFI, the unit is operating properly and is not leaking electricity to the tank (see below). If it was not plugged into a GFI outlet, you should locate a GFI to test the unit. (Most newer homes will have a GFI in the bathroom.)

To test the de-icer, place the unit into water (eg. sink or bathtub), and--*without touching the unit or the water*--plug the de-icer into the GFI for 15 seconds. If the GFI trips, return the unit to the place of purchase.

If the GFI does not trip, the unit is operating properly and the source of shocking is most commonly due to a leakage of voltage to the ground circuit in the electrical supply. Many times, this leakage has nothing to do with the wiring in the barn or building that provides the electricity, but, instead, is coming from the electric utility company. For help with this problem, contact Allied Precision at (800) 627-6179.

Warranty

This de-icer is warranted for a period of 3 years from the date of purchase. If you believe your de-icer is defective and still within the warranty period, return it to the factory or place of purchase for inspection and possible replacement. The warranty is voided if (1) the ground terminal on the plug has been removed, (2) excessive deposits have been allowed to accumulate on the heating element, or (3) there is evidence of general abuse such as animals chewing on the cord. This warranty does not cover incidental or consequential damage resulting from either a defect in parts, materials, or operation failure. Some states do not allow the exclusion or limitation of the above damages so the above limitation may not apply to you. No agent, employee, or representative of Allied Precision has any authority to bind Allied Precision to any affirmation, representation or warranty directed towards any products bearing the Allied Precision name, except as stated herein. This warranty gives you specific legal rights--you may also have other rights which vary from state to state.