



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

Instructions for Sinking De-icers Model 15N and Model 10N Setup and Operation

Specifications

Model 15N: 1500 watts, 120 VAC, 60 Hz
Model 10N: 1000 watts, 120 VAC, 60 Hz

IMPORTANT

The use of the Model 88R guard is mandatory to prevent the heating element from coming into contact with combustible materials such as the side or bottom of a non-metallic tank. See the back of this sheet for instructions on attaching the guard.

Read and follow all instructions in this sheet.

CAUTION

1. To insure continued protection against electric shock, connect to properly grounded outlets only.
2. Unplug the heater at receptacle outlet when not in use or before removing from tank or pond

WARNING

1. Read all instructions.
2. Inspect the cord before using.
3. Do not use extension cords.
4. Do not immerse the plug.
5. Store indoors after winter season.
6. **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.

IMPORTANT

*This product is approved for use **only** with the **LOCKNDRY™** Listed Detachable Power Supply Cord. The plug on this product is specially designed to mate with the LOCKNDRY detachable power supply cord to form a water resistant seal. Mating receptacles can be identified by the red locking nut on each cord. The back of this sheet shows how the plug mates with the LOCKNDRY cord.*

Installation

1. If the unit is to be used in a non-metallic tank, a Model 88R guard must be attached in order to prevent the heating element from coming in contact with the walls of the tank. See back of this sheet for instructions on attaching the guard.
2. The unit should be placed in a tank with water and then plugged into a Ground Fault Circuit Interrupter (GFCI) protected circuit.
3. Some animals--particularly horses--may try to remove the de-icer from the tank. To prevent this from happening, you may wish to run the cord through PVC or galvanized tubing extending over the tank or use the Model 23ST De-icer Safety Tether from API. Be sure to allow slack in the cord to compensate for varying water level.
4. This de-icer is UL approved for use only with the LOCKNDRY detachable power supply cord--see back of this sheet for details. Do not use extension cords.
5. The unit is thermostatically controlled so that it will not turn on until the temperature drops to around 40°F. If it is removed from the tank, it will turn on and then shut itself off in about 60 seconds. It will then cycle on and off in this manner.

Maintenance

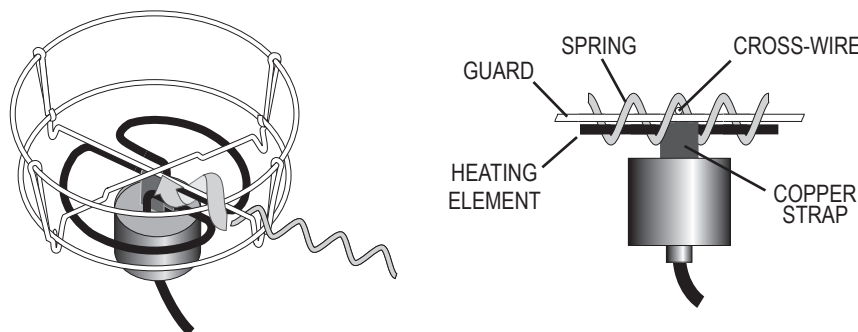
Do not allow lime or other impurities in the water to build up on the heating element. The frequency of cleaning depends directly upon the composition of your water supply. To remove buildup, soak the heating element in vinegar or a lime removing cleaners obtained at any farm or hardware store. Then use a non-metallic brush to remove any remaining build-up. Inspect the element for any cracks before reinstalling.

Warranty

This de-icer is warranted for a period of 12 months 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 cord has been modified in any way, (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.

Attaching the Guard to the De-icer

Turn the unit upside down and place the guard as shown. Rotate the short spring to thread it onto the guard and the straight section of the heating element. The spring should capture the cross-wire on the guard and be centered around the copper strap as shown.



Troubleshooting

The de-icer has been fully tested; 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:

Unplug the unit and plug in an electrical device such as a lamp or power tool. If no power is present, check that a breaker has not been tripped or a fuse blown. If the breaker or fuse is ok, check the wiring to the outlet, otherwise remove the unit from the tank *before* resetting the breaker or replacing the fuse and test the unit with a Ground Fault Circuit Interrupter (GFCI) as described in the next section below.

If the de-icer 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.

If the air temperature has dropped quickly, some ice may form before the unit senses the drop in temperature. If, however, the ice has not begun melting within 2 hours, you should return the unit to the place of purchase.

- The livestock are being shocked:

If you suspect that the animals are being shocked, **DO NOT TOUCH THE WATER.** Instead, unplug the unit and remove it from the tank. If the GFCI has tripped, return the unit to the place of purchase. If it was not plugged into a GFCI outlet, you should locate a GFCI to test the unit. (Most newer homes will have a GFCI in the bathroom.)

To test the de-icer, place the unit into a freezer for 30 minutes to make sure the thermostat is on. Next, place the unit into water (eg. sink or bathtub), and--*without touching the unit or the water*--plug the de-icer into the GFCI for 15 seconds. If the GFCI trips, return the unit to the place of purchase.

If the GFCI 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 is coming directly from the electric utility company. For help with this problem, contact Allied Precision at (800) 627-6179.

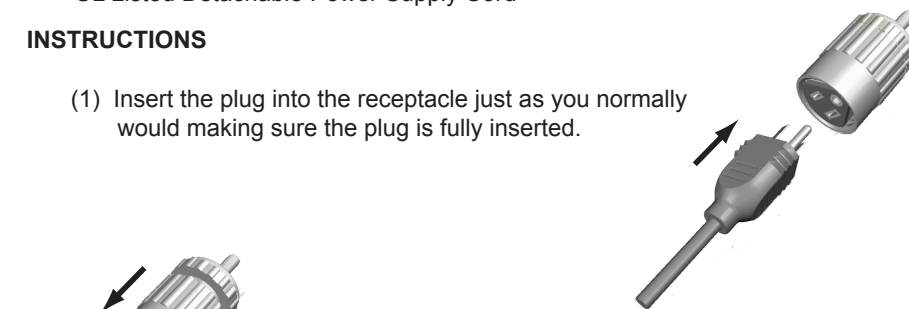
Instructions for attaching the **LOCKNDRY™ Detachable Power Supply Cord**

FEATURES

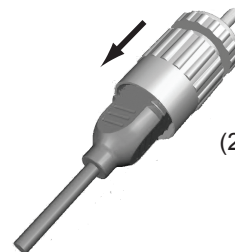
- Plugs into any normal 3-prong outlet
- Mates with LOCKNDRY plugs to form a water-resistant seal
- Keeps connection from separating during use
- Second, locking nut for secure connections
- UL Listed Detachable Power Supply Cord

INSTRUCTIONS

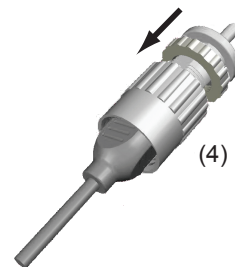
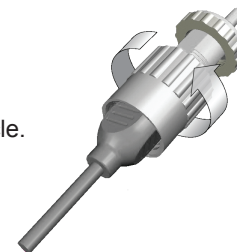
- (1) Insert the plug into the receptacle just as you normally would making sure the plug is fully inserted.



- (2) Slide the large nut forward to engage the threads on the plug



- (3) Rotate the nut to tighten the plug against the receptacle. **HAND TIGHTEN ONLY.**



- (4) Slide the second, thinner, red nut forward to engage the threads.

- (5) Rotate the red nut snugly against the larger nut. **HAND TIGHTEN ONLY.**

