

# INSTRUCTIONS

## REPAIR PARTS LIST AND WARRANTY INFORMATION

# BOX STALL DRINKERS

### READ ALL DIRECTIONS CAREFULLY BEFORE BEGINNING INSTALLATION

Models WPO1E and MPO1E come equipped with a heater. Models WPO1N and MPO1N do not come with a heater. If you have ordered WPO1N or MPO1N and want to add a heater, order Model OP284-P Utility De-Icer.

**REPAIR PARTS LIST** - See Exhibits A, B, C and H on pages 2, 3, and 6 for location of parts

Ref. No.	Part No.	Description	Qty
1	WPO110	Drinker Base, Blue	1
1	MPO110	Drinker Base, Red	1
1	GPO110	Drinker Base, Green	1
2	WPO112	Bottom Cover, Stainless Steel	1
3	WPO111	Top Cover, Stainless Steel	1
4	OF514	1/4-20 x 1/2 Slotted Indented Washer Head Machine Screw	4
	WPO114	Hardware Bag Assembly (Includes Ref. Nos. 5 through 16)	
5	OP301	Inner Drain Plug	1
6	OP302	Outer Drain Plug	1
7	OP303	Drain Line, 3/4" x 18"	1
8	WPO113	Water Supply Line, 3/8" x 24"	1
9	OP125	Clamp, 1/4" - 5/8", SS	1
		Fasteners for Outer Drain Plug (Ref. Nos. 10, 11, and 12)	
10	OF512	5/16-18 Wing Nut, SS	
11	OF351	5/16-3/4 SMLF Washer, SS	2
12	OF412	5/16-18 x 1 Hex Head Screw	1
13	OP304	3/8 Barb x 3/8 Barb Nylon Elbow	1
14	VR250	Submersible Fill Valve	1
15	OP284P	C250 Utility De-Icer	1
16	ISHBSD	Instruction Sheet	1

#### MODEL NUMBER

The MODEL NUMBERS are: WPO1BE, WPO1BN, WPO1RE, WPO1RN, WPO1GE, WPO1GN, MPO1BE, MPO1BN, MPO1RE, MPO1RN, MPO1GE and MPO1GN

**NOTE:** The letters B, R, and G denote colors with B=Blue, R=Red and G=Green.

#### WHEN ORDERING PARTS

- (1) Show MODEL NUMBER and NAME: Example - WPO1RE Poly Drinker
- (2) Show PART NUMBER and FULL DESCRIPTION of part: Example - OF512 5/16-18 Wing Nut, SS

#### HOW TO ORDER PARTS

Repair parts may be ordered from your dealer.



PO BOX 2000 • HOUGHTON, IOWA 52631 • USA  
 PHONE 319-469-4141 FAX 319-469-4402  
 www.hawkeysteel.com E-mail: prideiowa@aol.com

## INSTALLATION INSTRUCTIONS

1. Remove both top and bottom covers (Ref. Nos. 3 and 4).
2. Compare hardware bag contents with the parts list on page 1 to identify all parts.
3. Assemble outer drain plug as shown in Exhibit A (Ref. Nos. 6, 10, 11 and 12). Install drain plug.
4. Install valve (Ref. No. 2). See Exhibit C.  
**PLEASE NOTE THREE IMPORTANT THINGS**
  1. The mount nut marked B must be moderately hand snugged only. Do not overtighten because there is a breather hole in the nut that may be closed or damaged.
  2. Do not use any pipe sealants on the valve as they may cause the valve to malfunction.
  3. Note the proper orientation of the rubber cone washer marked c. The widest part of the cone goes down.

Install valve shank through hole in base. Snug mount nut B. Place cone C inside coupling nut D. Push nylon elbow barb (Ref. No. 13) through rubber cone C. Attach coupling nut D to the valve stem and hand tighten.

Note other information about valve flow rates and maintenance on page 5.

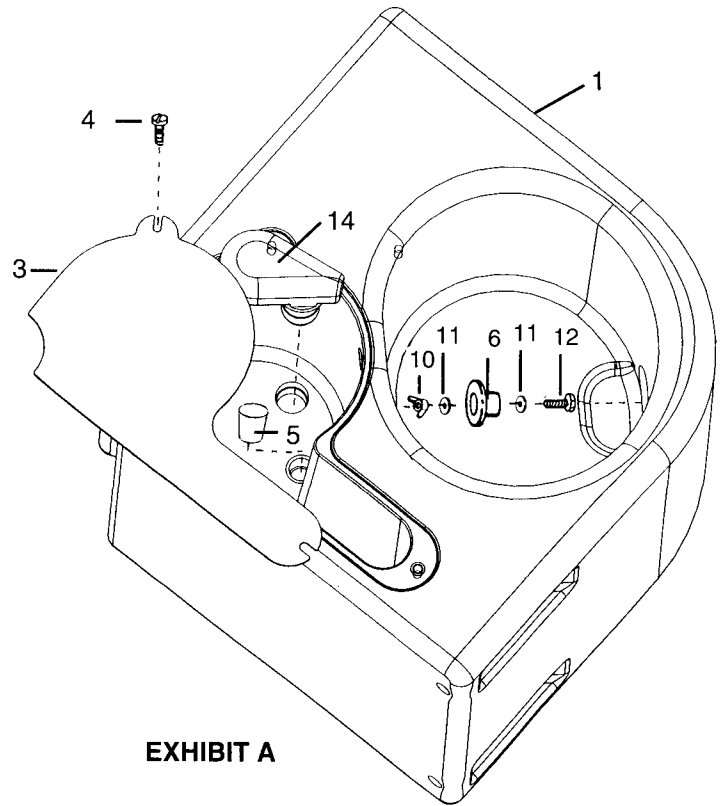
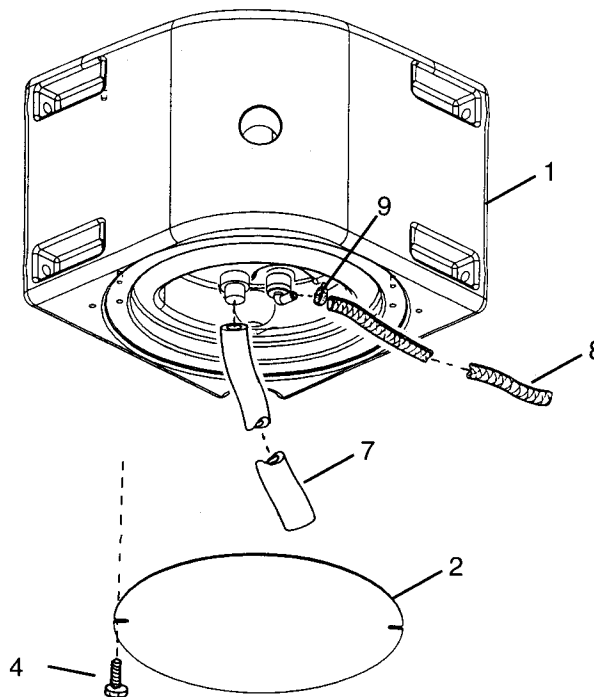


EXHIBIT A

EXHIBIT B



Adjustment knob to raise and lower water level.  
 RAISE LEVEL - Clockwise  
 LOWER LEVEL - Counter Clockwise

Part No. OP305 Cap (Closes off circulation port hole on top of VR250 Valve. Cap comes already attached to the valve.)

A - VR250 Valve

**WARNING**  
 Breather Vents.  
 Do not overtighten.  
 Do not use any sealants.

Insert valve shank through hole

B - Mount nut.  
 Do not overtighten.  
 Slots around perimeter of the mount nut go down.

Rubber Cone Washer - C

Nylon Washer - D

E - Coupling Nut

13 → 3/8 Barb x 3/8 Barb Elbow.  
 Insert barb through rubber cone washer. Snug coupling nut onto valve shank.

**EXHIBIT C**

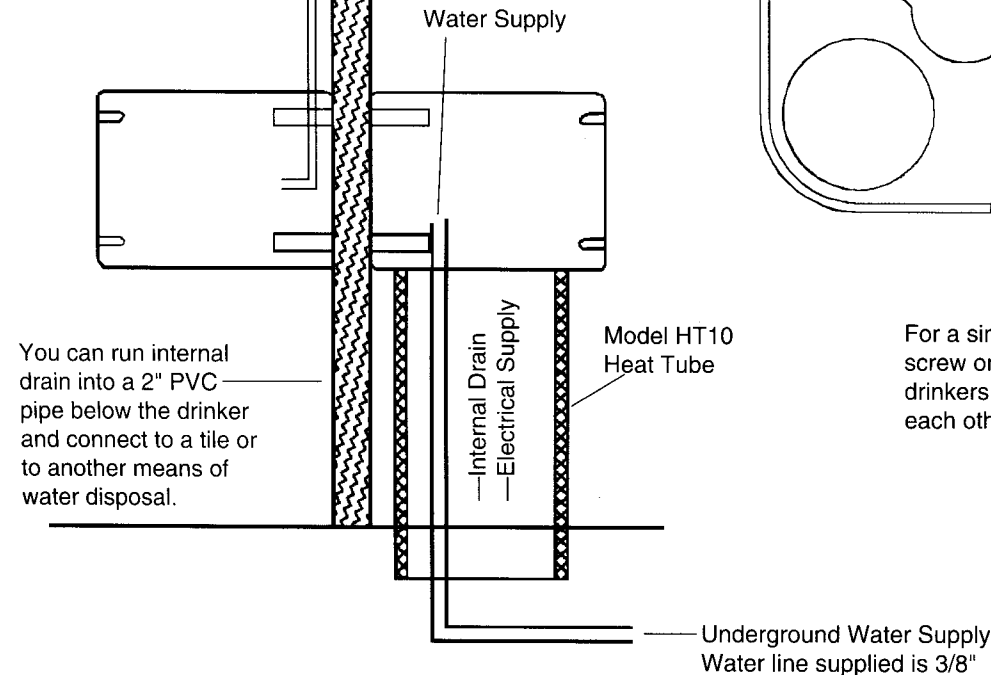
**EXHIBIT D**

**WARM CLIMATES**

Water Line can come from over head or up from the ground. Protect water line by placing it inside a 2" PVC pipe.

**COLD CLIMATES**

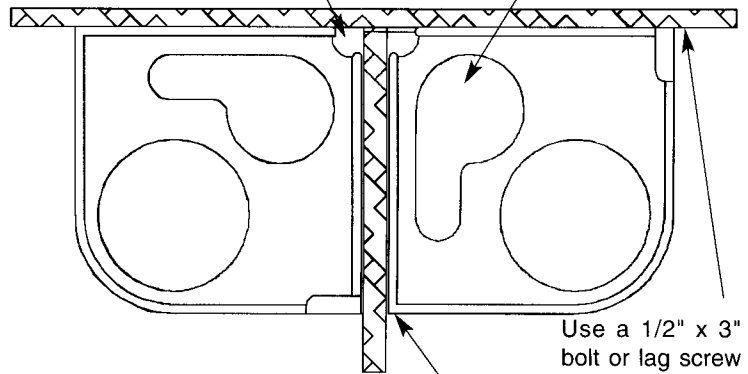
Electrical line can come from above or below.



**EXHIBIT E**

If not using heat tube, run 2" PVC pipe about 1" or so into this concave area. This will give you a secure installation whether you are coming from above or from below.

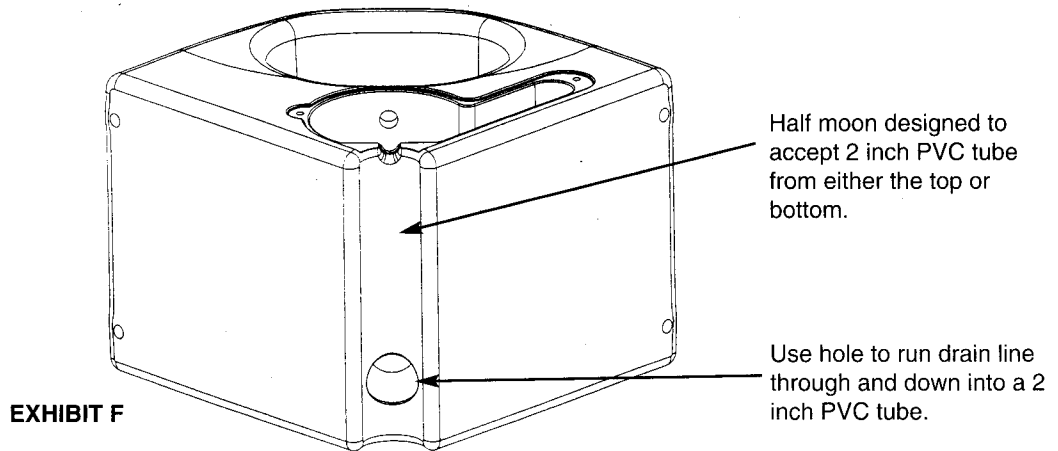
Valve/Electrical/Internal Drain



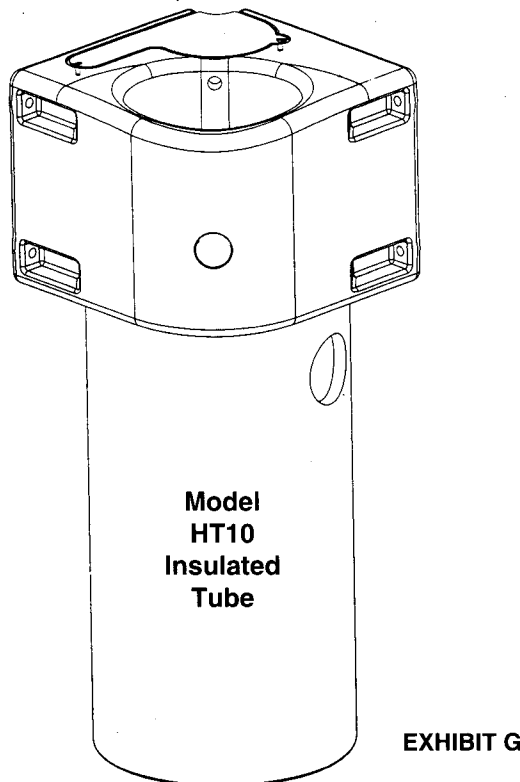
For a single drinker use a 1/2" x 3" lag screw or 1/2" x 3" bolt. For double drinkers (mounted across the wall from each other), use a 1/2" x 4 1/2" bolt.

5. Install inner drain plug (Ref. No. 5).
6. Install drinker. Review Exhibits D and E. Use 1/2" x 3" lags or bolts (not supplied). If using bolts, put nuts on the inside. Distance from the floor is at the users' discretion.
7. For warm climate installations, the water line can come from above or below. It should be protected inside of a 2" PVC tube or by some other means of protection. Please note that the half moon area at the rear corner of the drinker base is designed to accept a 2" diameter PVC tube. See Exhibit F.

For warm climate installations, when you clean the drinker, you can use the outer drain and drain into a bucket. Also, the 3/4" drain line (Ref. No. 7) is flexible enough to be run through the rear corner lower hole and drain into a tile under the stall if so desired. See Exhibit F.



8. For cold climate installations, our Model HT10 insulated tube is an option. The heat tube is designed to mate with the cavity under the drinker base. You should use silicon caulk to assure an airtight fit. Both the water line and the electrical supply can enter from below. See Exhibit G.





Before hooking up water line, flush your water supply to discharge any foreign material. See page 3 concerning heater use and maintenance.

## FILL VALVE FLOW RATE AND MAINTENANCE

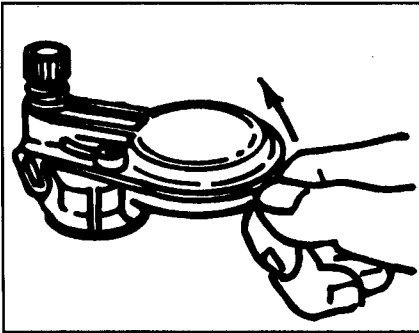
Your fill valve automatically maintains the water level by sensing weight. It is approved non-siphoning, is corrosion proof and has been proven over many years of use with animals. It can function in an operating range of 10 PSI to 100 PSI. NOTE: You do need a pressurized water source. It will operate in a water depth range from 4 to 20 inches. This valve is only to be used with water. The proper water level is at the user's discretion. However, please note water level recommendation (shown on page 6) under severe cold conditions.

Note the following fill rates at various PSI's.

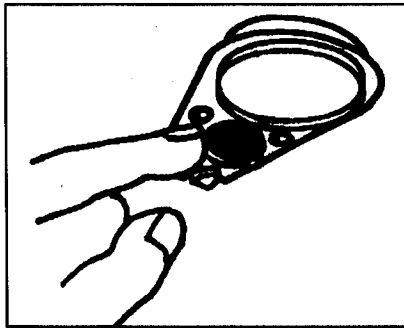
PSI	GALLONS/PER MIN./PER HR. CHART		
	Gallons/Min.	Avg./1Min.	Gallon/Hr
60 PSI	2 3/4 gal – 1 Min	2.83	170
	5 1/2 gal – 2 Min		
	8 1/2 gal – 3 Min		
50 PSI	2 1/2 gal – 1 Min	2.50	150
	5 gal – 2 Min		
	7 1/2 gal – 3 Min		
40 PSI	2 1/4 gal – 1 Min	2.25	135
	4 1/2 gal – 2 Min		
	6 3/4 gal – 3 Min		
30 PSI	1 7/8 gal – 1 Min	1.91	114.9
	3 3/4 gal – 2 Min		
	5 3/4 gal – 3 Min		
20 PSI	1 1/2 gal – 1 Min	1.58	94.9
	3 1/8 gal – 2 Min		
	4 3/4 gal – 3 Min		

To adjust water level, turn the adjusting knob clockwise (  ) to raise the level. Turn counter-clockwise (  ) to lower it. One full turn of the knob will change the water level 2 inches.

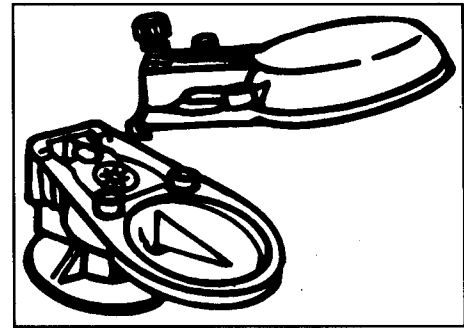
If your valve does not shut off completely it probably needs to be cleaned due to water impurities. If so, follow these procedures.



Turn off water supply. Remove 2 top screws. Remove top cover of valve using fingernail.



Lift off cover and carefully remove black rubber disc. Be careful not to nick or otherwise damage the disc or any of the parts. Wash disc and re-insert with the smooth side showing. A replacement disc can be ordered from a retailer that carries a similar valve or order Part No. VR250-1 from Hawkeye Steel Products, Inc.



Carefully re-assemble cover with tabs on the cover interlocking with the slots on the valve body. Close cover and install screws. Do not overtighten screws. Turn on water supply.

## HEATER OPERATION AND MAINTENANCE

Your heater sets vertically in the cavity in the valve compartment. Run the cord through the slot at the top of rear corner. You can run the cord set through the hole at the bottom of the rear corner and into the heat tube for connection. See Exhibit H.

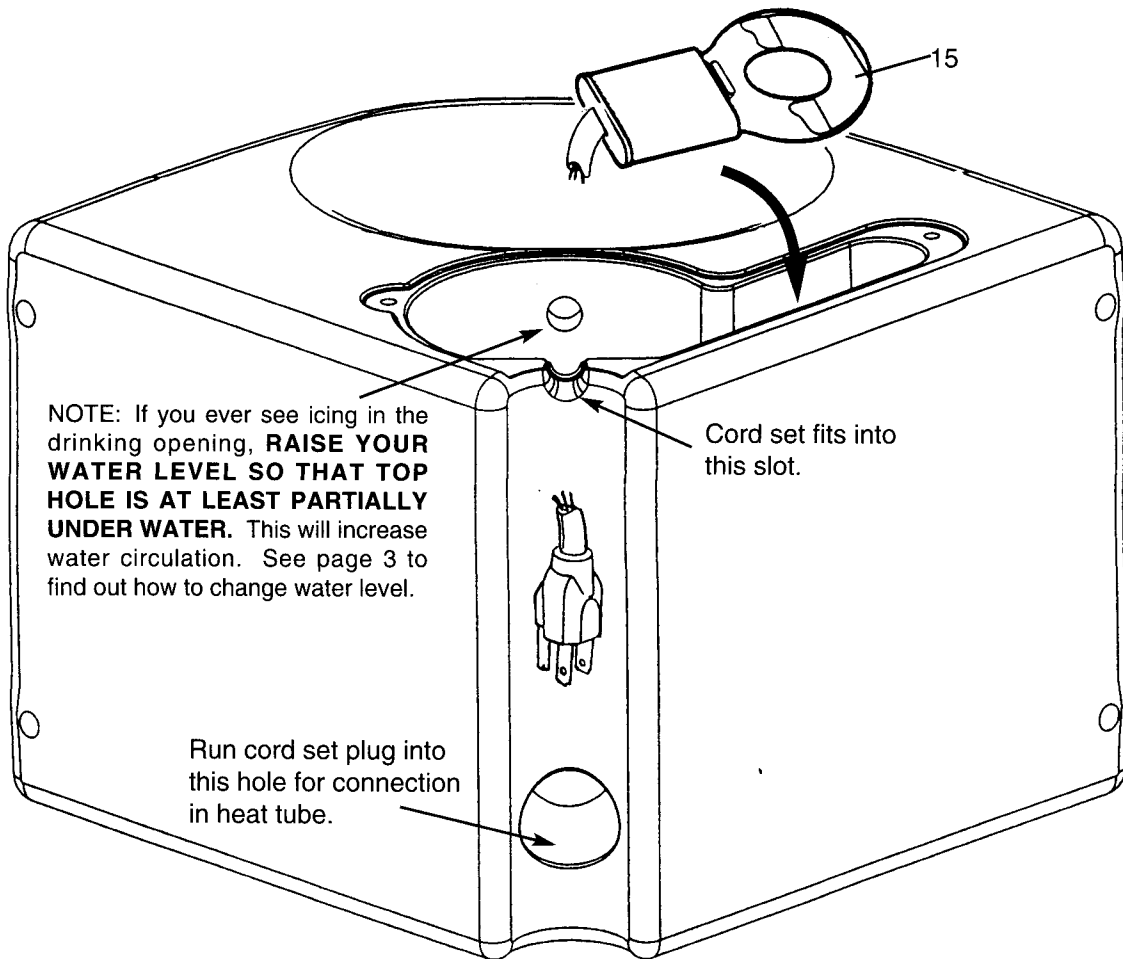


EXHIBIT H

Farm Innovators Model C250 Utility De-Icer standard specifications are 250 Watts / 120 VAC / 2.0 AMPS. The heat range is about 34° F to 45° F. The de-icer only works when the temperature approaches freezing. It is thermostatically controlled to turn on at freezing and to turn off when the temperature is above freezing.

If water freezes in the drinker due to the loss of power, allow unit adequate time to melt itself free. Do not chop or cut at unit while plugged in.

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 cause voltage drop and are unsafe.

**IMPORTANT! DO NOT ALLOW DEPOSITS TO BUILD UP ON THE HEATING ELEMENT.** This can cause "hot spots" which is a primary reason of failure and voids the warranty. White vinegar or "Lime Away" can be used to clean the tubular element.

When taking unit out of service, disconnect power supply cord, remove unit from tank, clean element (see above), store indoors.

## HEATER OPERATION:



### **⚠ WARNING ⚠**

**DO NOT DEFEAT ELECTRICAL GROUND  
AFFORDED BY 3-PRONG POWER CORD ASSEMBLY.**

**DO NOT ATTEMPT TO REPAIR HEATER.**

## OUTDOOR USE

This drinker can be used outside (heated or non-heated). In cold weather climates, we recommend that you mount on our Model HT10 Insulated Tube. Use of silicon caulking will give you an airtight connection. The tube can be set in concrete. You can cut it to a different length if you desire. Note that one end mates with the drinker so do not cut off that end. Use 2 locking tabs which mount to the bottom of the drinker base. The tabs interlock with the tube. The tube can be installed in the ground with the height at the users' discretion. Order Model WPO115 Locking Tabs, a set of 2 with required fasteners. Fasteners are the same as Ref. No. 4, OF514, 1/4-20 x 1/2 Slotted Hex Head Screws, SS. You may also need Model WPO116, a 2 inch PVC pipe protective assembly, needed to cover the power cord. Both the locking tabs and the PVC pipe protective assembly can be ordered as Model WPO117, WPO1E Outdoor Kit. See Exhibit I.

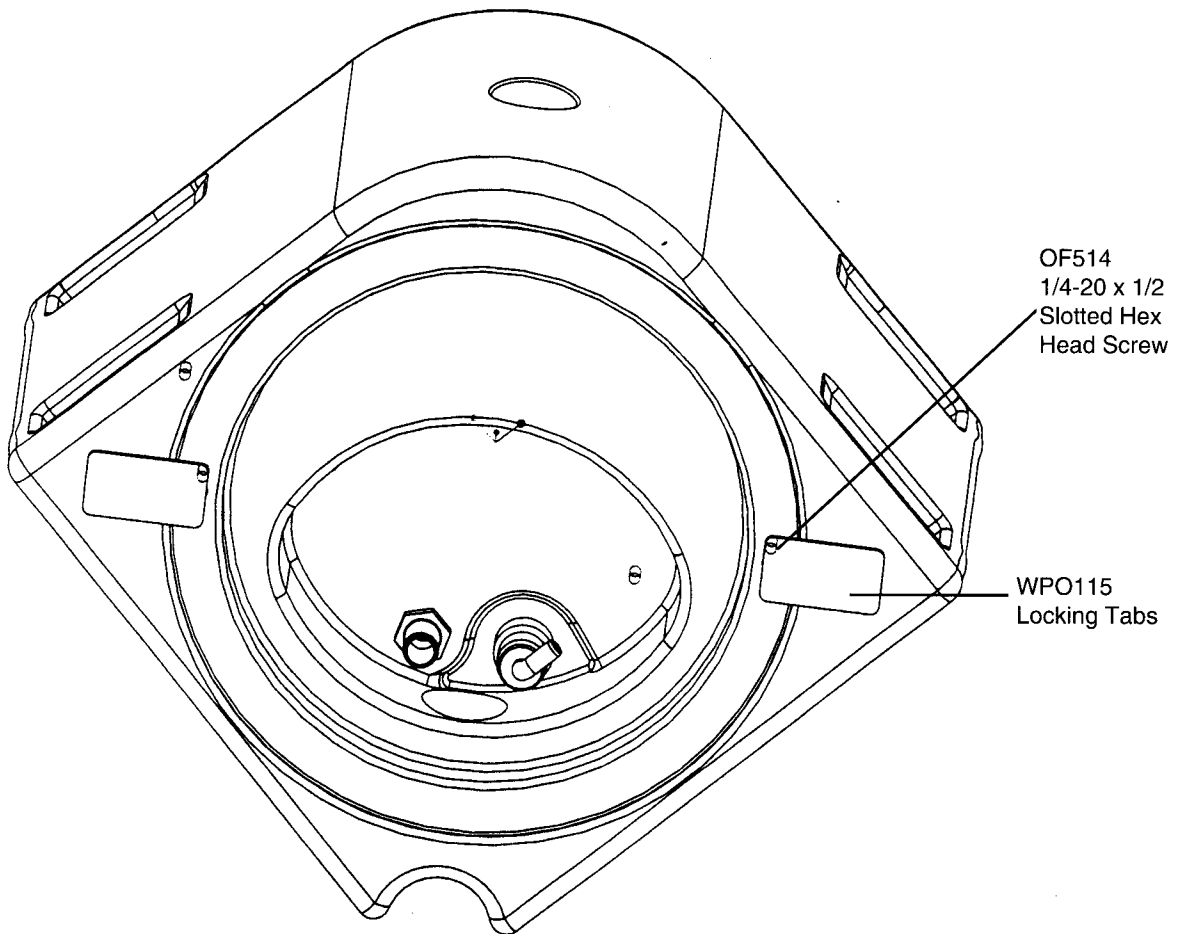


EXHIBIT I



## **LIMITED WARRANTY**

Our part no. OP284-P C250 Utility Deicer (heater) and our VR250 Submersible Valve carry an 18 month limited warranty. All other components of Hawkeye Steel Products, Inc. Performance One E-Drinks are covered by a five year limited warranty. Both warranty periods are from the date of purchase. Each drinker must be registered with Hawkeye Steel Products, Inc. on the card which accompanies each drinker. Warranted components should be returned to your dealer for shipment to our factory -- Highway 16 West, P.O. Box 2000, Houghton, IA 52631 USA, Fax 319-469-4402; 800-553-1791. Warranty is limited to the repair or replacement of components. The warranty does not cover removal or reinstallation; cost to transport and retrieve components for repair; damage or loss occurring during transport; damage due to foundation design; damage caused by natural or environmental conditions (acts of God); costs associated with loss of time and/or inconvenience or any other consequential damages; injury; lack of animal performance; loss of profit; life of property; malfunction resulting from misuse; improper installation, lack of maintenance (such as periodically removing deposits on the deicer), unauthorized alteration, or negligence. All provisions stated on the back of Hawkeye Steel Products, Inc.'s invoice apply and Hawkeye Steel Products, Inc. assumes no consequential damages.