

Winter Preparation Guide for Ritchie Automatic Livestock Waterers

Step 1: Clean Valve Chamber and Drinking Areas

Part of the maintenance schedule is to clean all models before the winter season so that your Ritchie is operating at peak performance.

All Ritchie Models

Remove covers and use a brush or sponge to remove any debris that may have collected in trough areas and valve chambers.

Insulated poly Ritchie waterers or fountains with optional heating components - Thrifty King CT1, CT2, CT4, and CT6 | WaterMatic 100, 150, 150S, 300, and 1000 | WaterMaster 54, 54D, 90, 96, 600, 800, and 1200 | Classic Equine by Ritchie AutoFount single and double drink

Pay special attention to the area under the float in the valve chamber where the immersion heater is housed. Deposits can build up on the heater if it is continuously stored in the waterer. Clean both the area and the heater of all debris and deposits so the heater lays flat on the bottom of the valve chamber.

Step 2: Check the Water Seals for All Ritchie Thrifty King CT Units

Energy Free Thrifty King CT1, CT2, CT4, and CT6 | Thrifty King CT1, CT2, CT4, and CT6

There are 2 different water seals that need attention in every CT unit. The first water seal is along the top of the red valve chamber and the second water seal is in-between the red cover and the yellow base. In newer models (post year 2000) that cover just drops into place.

Both water seals utilize tracks intended to hold water during cold weather which will freeze the covers down onto the unit during the winter. This will create a firm seal against the cold and the wind. If the tracks are full of debris or other materials, they won't seal properly, and cold air may leak in and freeze your valve system.

If you do not want the covers to freeze down onto the units during winter, you can add vegetable oil instead of water in the tracks. This will achieve the same seal as water but will not freeze solid. The vegetable oil will disappear over time, so you need to monitor and re-apply as necessary.

PRO TIP: For easy lid removal, spray the underside of the cover with a non-stick cooking spray.

Step 3: Check the All-Weather Sealant

Check the all-weather sealant around the base of the unit and the concrete pad to ensure no gaps have formed that would allow air to penetrate the underside of the unit. Replace the all-weather sealant if needed. **Sometimes rodents and insects will damage these seals over time.**

Step 4: Check the Water Levels for All Ritchie Energy Free Thrifty King CT Units

Energy Free Thrifty King CT1, CT2, CT4, and CT6

Drop the water level at least 1" in the trough. Adjust the float and valve lower in the casing so that the elliptical closures are not touching the bottom of the red top. This keeps those closures from collecting moisture and freezing up. Moisture from weather or your animals will wick right past the closure and into the base.

During wintertime, it is critical that warm, fresh water passes through the valve on a regular basis to prevent freezing in the winter. Please note that if the CT unit is not going to be used as frequently due to herd size fluctuations or if there are other sources of water your herd drinks from during the winter, your Ritchie Thrifty King CT may freeze up.

PRO TIP: Frost can travel from one object to the next. Centering your waterline in the riser (thermal) tube will prevent frost from potentially freezing your line.

Step 5: Install Optional Heaters

Insulated poly Ritchie waterers or fountains with optional heating components - Thrifty King CT1, CT2, CT4, and CT6 | WaterMatic 100, 150, 150S, 300, and 1000 | WaterMaster 54, 54D, 90, 96, 600, 800, and 1200 | Classic Equine by Ritchie AutoFount single and double drink

Option #1 Immersion Heater (120v/250w) SKU#16311

Place the immersion or drop in heater flat on the bottom of the valve chamber, right underneath the float and valve. Run the cord for the heat up through the designated slot in the casing and connect it to your power source. This power source should comply with your state and county electrical code for safety.

Option #2 Self-Regulating Heat Cable SKU #16276

This heat cable wraps around the valve and goes down the supply line. It plugs into a standard power outlet and has a built-in thermostat. The heat cable added to the immersion heater protects the unit from harsh winter conditions in most territories in North America.

Step 6: Power Up and Test

Insulated poly Ritchie waterers or fountains with optional heating components - Thrifty King CT1, CT2, CT4, and CT6 | WaterMatic 100, 150, 150S, 300, and 1000 | WaterMaster 54, 54D, 90, 96, 600, 800, and 1200 | Classic Equine by Ritchie AutoFount single and double drink

Plug in and turn on breaker to the immersion heater after it is installed and under water. Chill the water with ice (if needed) to activate the built-in thermostat. The heater should become warm to the touch after 15 seconds.

PRO TIP: Place your immersion heater in a freezer for 10-15 minutes and then plug it in for an easier way to test your heater before placing it in the waterer. The heater should be warm to the touch within 15 seconds if it is working properly.

Stainless steel (SS) heated Ritchie waterers or fountains - ECO 1 and ECO 2 | Omni 1, 2, 2 special, 3, 5, and 10 | CattleMaster (CM) 480, 840, 10T, and 1440 | OmniMaster

8 | Classic Equine by Ritchie UltraFount single and double drink | Classic Equine by Ritchie StallFount (SF 2) | StallFount | Pork King (PK) 1, 2, 2-1, and 4

These Ritchie units all have built in thermostatically controlled heaters. To test, simply turn power on to the unit and fill the drinking areas with ice to activate the thermostats. If the ice melts away, your unit is operating properly.

Step 7: Troubleshoot Heating Elements

Immersion Heater (120v/250w) SKU#16311

If your immersion heater is not becoming noticeably warm to the touch, a new heater will need to be purchased.

Heater 120v/250w SKU #11419 and 125w SKU #14150

If the ice you poured in the drinking area does not melt away there are two main causes.

If the ice melts on just one side of the unit, the heater of the opposite side may be malfunctioning, and needs replaced.

If none of the ice melts, then your thermostat may need to be replaced or power to the unit is faulty. If you suspect an electrical issue, consult with an electrician before working on the wiring of your Ritchie or your power source.

48w/120v Cable Heater SKU #13830

The cable heater is very low wattage and does not feel noticeably warm to the touch. You may need to test this with a voltage meter or ask assistance from an electrician. If this element goes out during the winter, you will notice that the drinking areas are free of ice, but you are not getting water from the valve.

Step 8: Contact Ritchie Industries or Your Local Ritchie Dealer for Assistance

As you complete your winter preparation, if you run into any issues and need a little assistance or just need to order replacement parts, please feel free to contact Ritchie directly or through your local dealer.

Call Ritchie direct at (800) 747-0222 and ask for customer service.

You can also view product support videos, read specification sheets and order parts direct online at www.RitchieFount.com