

Installation Instructions For



P L A Y T O W I N TM

ULTRAFOUNT

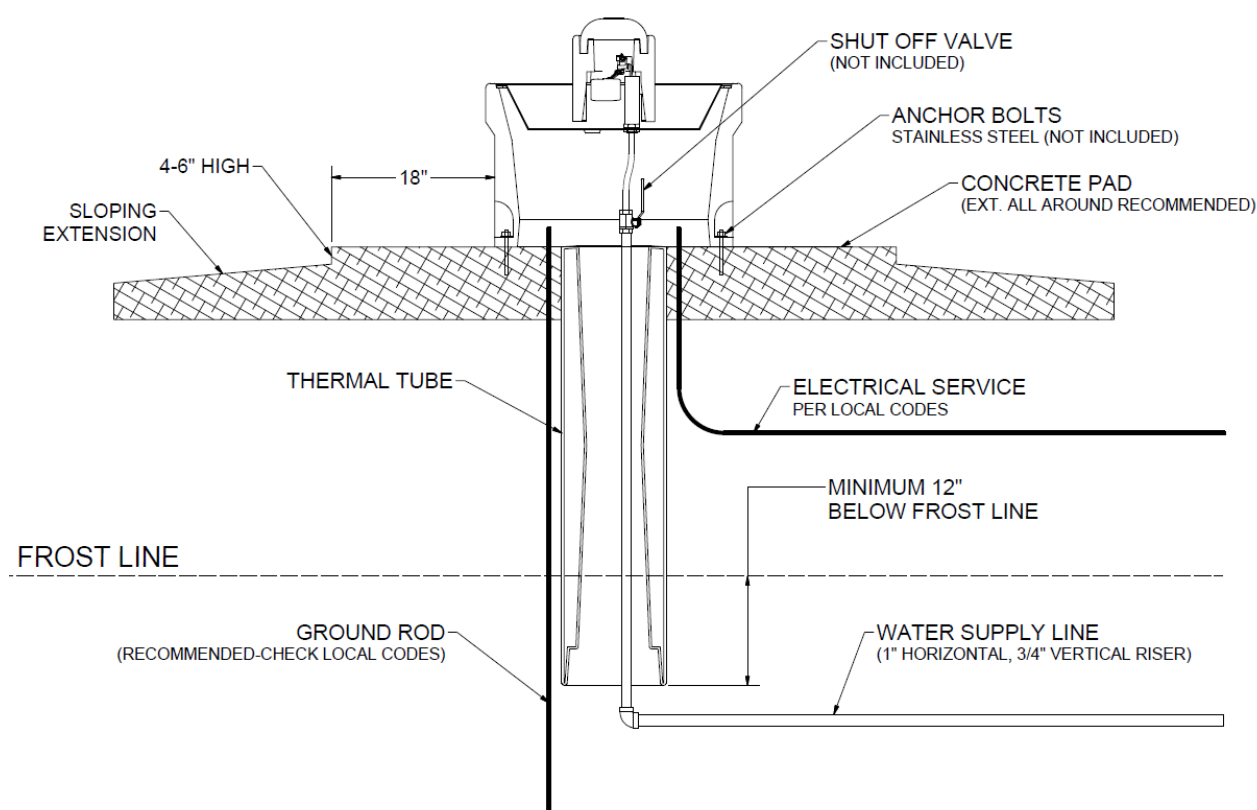
MODEL:ES1&ES2

Congratulations, you have just purchased the finest watering fountain on the market. This unit is built to give you excellent service when properly installed and maintained. Please follow instructions carefully. Read and understand all instructions before installing.



Part # 24076
August 13, 2022

Fountain Installation Instructions



A. Location - Installing the fountain in a location that offers protection from the wind will enhance the performance. Livestock will tend to gather in this protected area, enticing them to drink more. Access panel should be opposite of prevailing winter wind to give additional protection to the supply line.

B. Water Supply Line - Horizontal underground water line should be sized to account for pressure drop, relating to distance, and placed one foot below frost line. A one-inch vertical supply pipe is recommended. A shut-off valve should be installed under fountain to allow for easier servicing. For optimum serviceability, a stop and waste valve can be installed below frost level to drain water when unit is not in use. Vertical supply line must be centered in riser tube to provide an air space between the line and frozen ground outside of tube. Flush water supply line thoroughly before connection to fountain. Water supplies with foreign material such as sand, rust, etc. may require a filter to keep fountain valve working properly.

C. Electric Supply – It is generally most cost effective to run your electrical supply line at the same time you are trenching for your water supply.

Item No.	Description	Watts	Amps
18780	Ultrafount ES1 120V	173W	1.4A@120V
18730	Ultrafount ES2 120V	298W	2.5A@120V

D. Riser Tube - Install a riser tube and extend it at least one foot below frost line or down to horizontal underground water line. For optimum water line protection, use the 12" diameter insulated *Ritchie Thermal Tube*, part numbers and sizes are shown to the right. Tube opening must be kept clear.

Ritchie Thermal Tube	
Part #	Description
18158	1' Top Section
16417	2' Top Section
16612	4' Top Section
16416	2' Extension

NOTE: *The supply line touching the riser tube is the most common cause of the supply line freezing. Do not surround the supply line with insulation, wood, or other foreign material. Any foreign material in the tube may cause frost to migrate to the supply line causing it to freeze.*

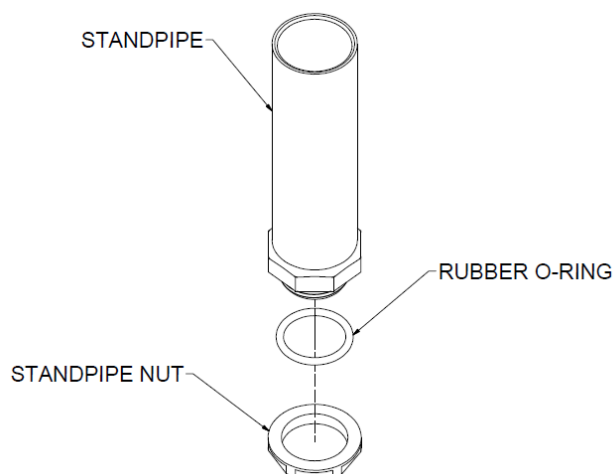
E. Mounting Platform - A concrete platform (see diagram) must be provided for all fountains. Use a minimum of 4" thick, (6" recommended thickness), large enough to accommodate fountain, and additional 4-6" step (on top of the platform) extending 18" out from each side of the unit. This will protect the unit from manure handling equipment, as well as discouraging animals from defecating in the fountain. Extending the platform provides animals a place to stand while drinking, consider the size of your animals when determining the dimensions of your platform. The concrete step and platform should slope away from the fountain for drainage. A rough broom finish to concrete surface provides better footing for livestock.

F. Hose Connection - Connect hose fitting to shut-off valve at top of concrete. Slip on barb fitting with furnished clamps. Hose should not touch insulation or outside surface of fountain. Place the hose under the fountain as you move the unit in place over the riser tube.

G. Preparing the Bottom - Apply the provided foam weather stripping to the bottom of the fountain, following along the outside edge of the fountain.

H. Anchoring Fountain - Your fountain has four built-in hold-down locations to anchor your unit securely to the concrete pad. The use of 3/8" x 5" stainless steel expansion anchor bolts (not included) is recommended for concrete installations. Anchor bolts are available from Ritchie in a two pack, part # 16555. Fender washers are supplied for use with anchors.

I. Assemble Standpipe - Install standpipe into hole in trough. Rubber O-ring is to be on inside of trough. Tighten nut securely to prevent leaks. Do not overtighten or O-ring may become dislodged.



J. Cable Heater – (Complete after attaching valve on Ultrafount ES2) Uncoil cable heater and loop around the valve. Attach the remaining part of the cable heater to the water supply, as far down the riser tube as possible with the cable twist ties provided. This heater is water tight, but should not be immersed in water.

CAUTION: Installation must not cause any strain on heater wiring connections. Do not cross the cable over itself along the water line. Avoid heater damage caused by hot spots due to its leads lying close to each other. Also, do not wrap additional insulation around heater.

K. Electrical Connection - The electrical installation should be made and maintained by a qualified electrician conforming to national and local codes. A means for disconnection must be incorporated in the fixed wiring in accordance with the wiring rules. For wiring connections, see wiring diagram. Make connections according to the wiring diagram below.

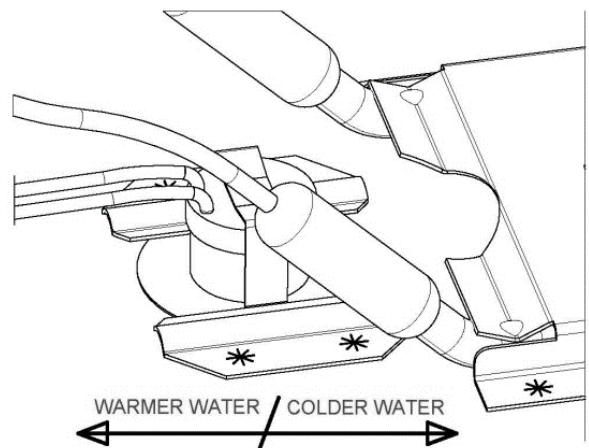
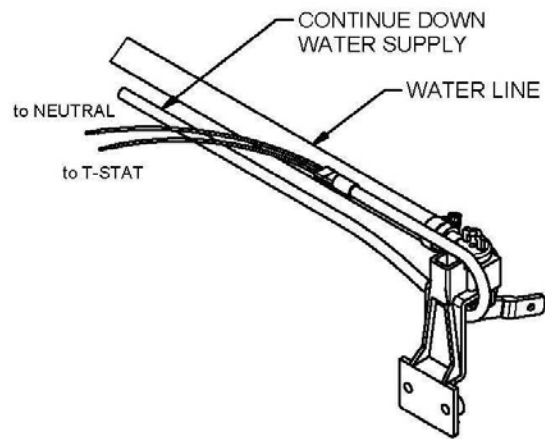
WARNING: ANY ELECTRICAL SERVICE MUST BE INSTALLED AND MAINTAINED BY A QUALIFIED ELECTRICIAN.

WARNING: DISCONNECT POWER IF THE WATER SUPPLY IS TO BE SHUT OFF FOR AN EXTENDED AMOUNT OF TIME. FAILURE TO TURN OFF POWER CAN RESULT IN DAMAGE TO THE WATERING FOUNTAIN.

WARNING: THIS INSTALLATION MUST BE MADE AND MAINTAINED IN STRICT CONFORMITY WITH NATIONAL/LOCAL PLUMBING CODES AND NATIONAL/LOCAL ELECTRICAL CODES (CSA IN CANADA). THE APPLICABLE PROVISIONS OF THESE CODES TAKE PRECEDENT. FAILURE TO MAKE AND MAINTAIN ALL INSTALLATIONS PROPERLY MAY RESULT IN LOSS OF LIVESTOCK, PERSONAL INJURY, OR DEATH.

NOTE: National/Local electrical codes may require livestock waterers installed in feedlots in open feeding area to be grounded by a separate stranded copper grounding conductor or at least no.6 AWG terminating at a point where the branch circuit receives its supply. Check with local authorities.

L. Disc Thermostat – The disc thermostat is mounted in a bracket under the trough, which allows it to be moved relative to the heater. To ease movement of thermostat, turn ¼ turn. To lock in position after adjustment, turn ¼ turn back. **As the thermostat is moved toward the heater, the water temperature in the trough is lowered.** The best location is determined by checking the trough temperature several times during the heating season.



M. Valve Cover –Before installing the valve cover the weather seal must be installed. The seal is installed by removing the paper backing from the adhesive side and then, starting at the midpoint of one of the legs, attach the seal to the frame. Work your way around the frame with the seal as close to the inside edge as possible and then up the other leg to the halfway point. At this time cut any extra foam seal as needed. Repeat for other side on ES2.

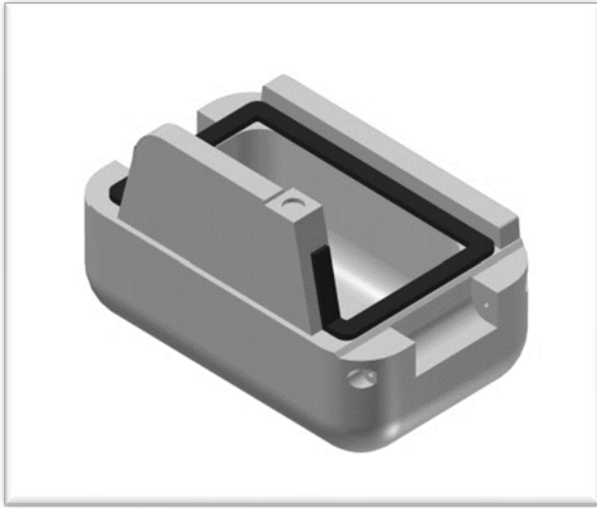


Figure 2. Ultrafount ES1

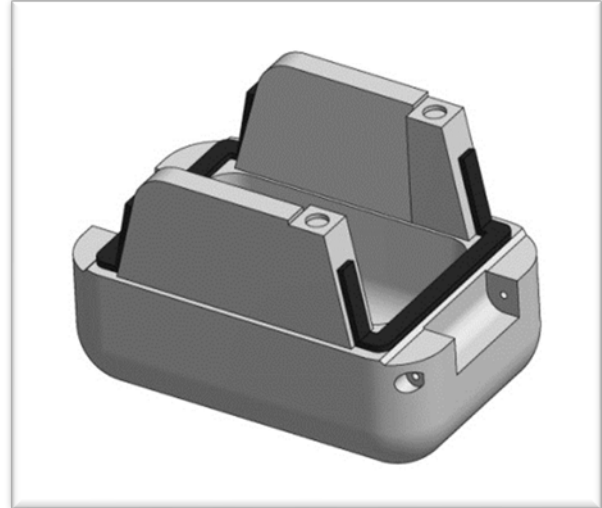
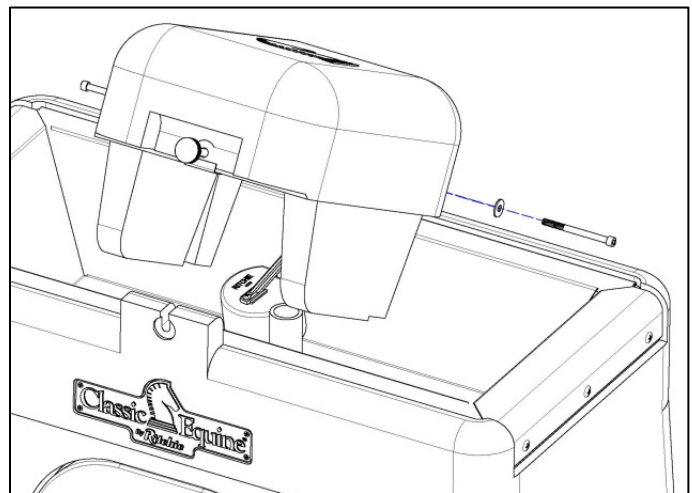
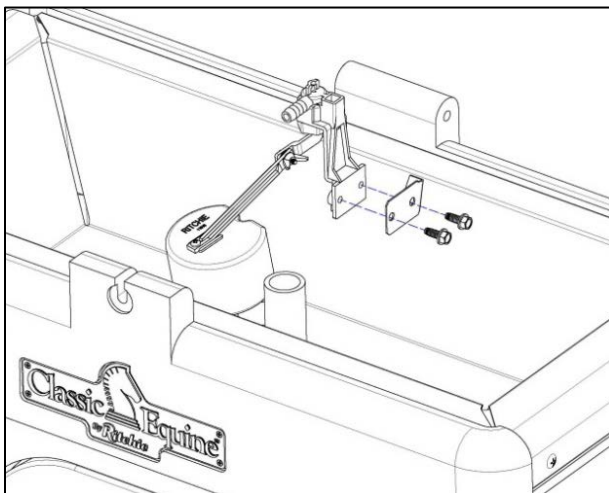


Figure 1. Ultrafount ES2

N. Attaching Valve – (*Ultrafount ES2 only*) Installing the valve assembly before attaching the cover is preferred. (See Diagram) To attach the valve, you will need a 3/8" socket with driver. Align holes of white valve bracket with the holes on the trough tab, as shown at right. Securely tighten the screw being careful to not over tighten and strip out plastic valve bracket.

O. Attaching the Cover – (*Ultrafount ES2 only*) Install the cover assembly as shown in picture on right. Align holes of the cover with holes in casing behind the valve. Using the supplied 3/16" hex wrench tighten the screws until there is a 1/8" gap between the cover and the base on both sides of the cover. Some adjustment may be required if the thumb screw does not align with the locking groove on the front of the fountain.



P. Final Water Connection – Connect the top of the supplied hose to the valve, cut hose to proper length and slip onto the barb fitting of the valve assembly. Clamps and fittings are furnished to secure the connection.

Q. Seal the Base - After the unit is completely installed, apply a bead of caulking around the base of the fountain to ensure no wind enters through the base of the unit.

NOTE: *Sealing the bottom of the unit from cold air is an important aspect of the unit's thermal performance.*

R. Drain Plug – Insert the drain plug firmly into the drain hole in the center of the trough.

S. Float Adjustment – Open water-supply shut-off valve, check for and fix any leaks. Adjust float for a water depth of 1-2 inches below top of trough or overflow pipe by adjusting the wing-nut. With the valve functioning properly and the water level set at the proper level, you may install the valve cover.

T. Install Side Access Panel – Once all water line connections have been checked for leaks and electrical hook-up is complete, the side access door may be installed.

U. Children should be supervised to ensure that they do not play with the appliance – This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instructions concerning use of the appliance by a person responsible for their safety.

V. Cleaning Your Fountain – To clean your watering fountain you will need a good stiff bristled brush. Open the cover then brush the tank to remove any build-up. Remove the plug that is located in the valve chamber area under the float to drain out the water and debris. You can shut off the water with the shut-off valve located under the unit or by holding the float in the up position. After the water and debris has drained reinstall the plug and let the tank refill. Now is a good time to readjust the float if needed. Close cover and you are done.

Ritchie Valves

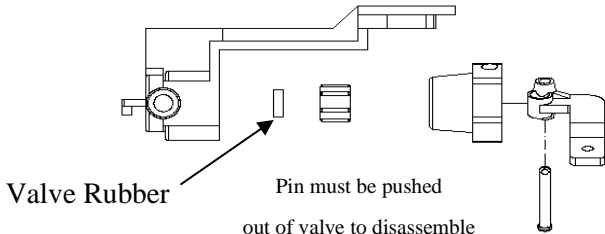
Ritchie valves come in various sizes and pressure ratings as shown below - green for high supply line pressure, red for moderate supply pressure, and white for low-pressure applications. Differences in the size of trough also impacts valve choice. Your individual situations may require a change from the standard valve supplied with your fountain, see your Ritchie Dealer if this is needed.

NOTE: *The red ½" valve is standard on the Ultrafount ES1 and ES2*

1/2"	Part #	GPM	Pressure Range
White	12574	4.8	Low, 5-40 psi. (34-275 kPa)
Red	12575	3.4	Moderate, 40-60 psi. (275-414 kPa)
Green	13597	1.45	High, 60-80 psi. (414-552 kPa)

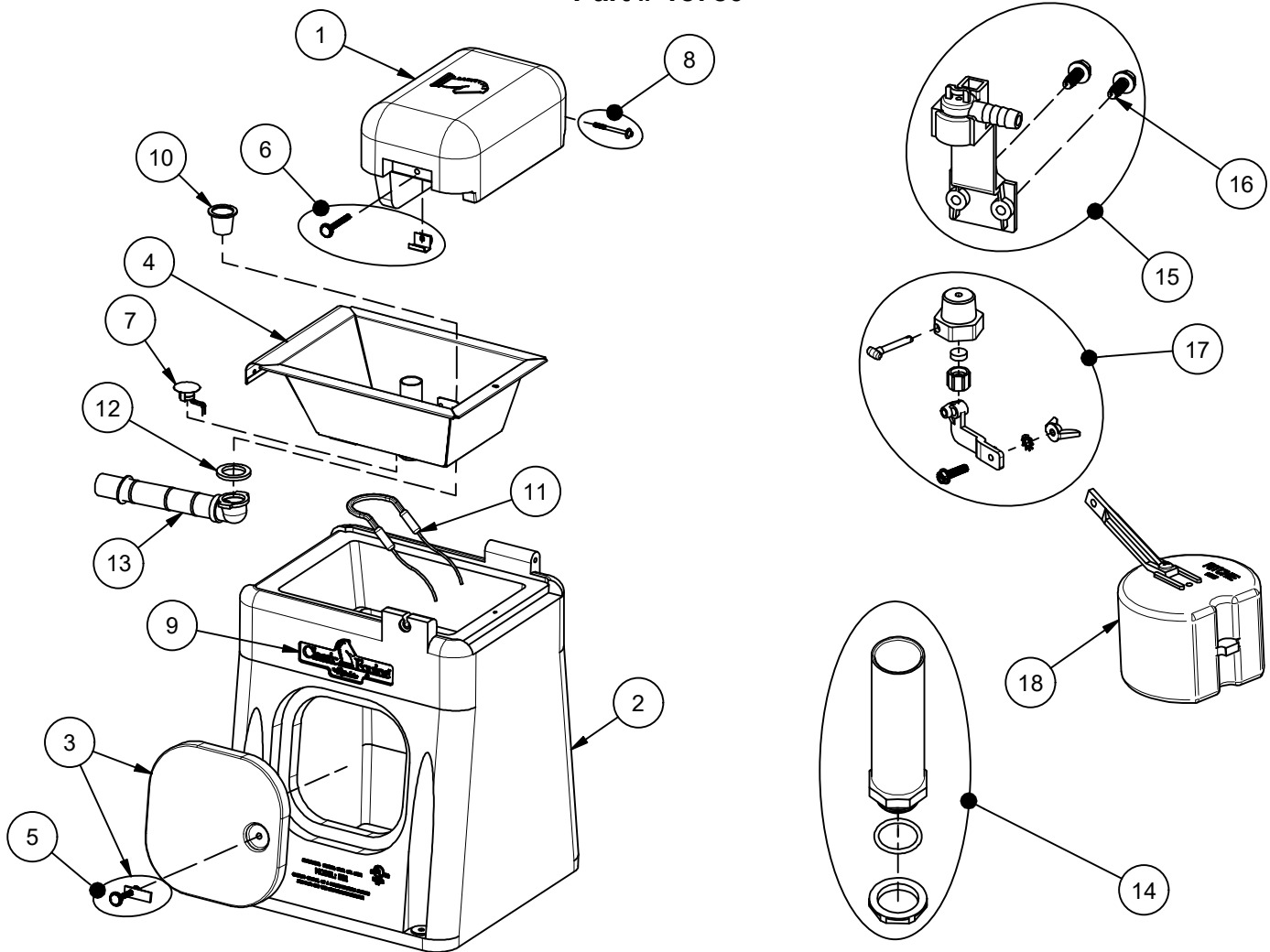
NOTE: *Maximum inlet water pressure for each valve is shown above. If water pressure is extremely high, and if the valve does not shut off, a pressure-reducing valve may be needed.*

Trouble Shooting

Problem	Solution
Ice in Trough	Check fuses or circuit breakers.
	Check all heating elements to make sure they are heating.
	Adjust thermostat to higher temperature.
	Check for voltage to fountain.
Valve Freezing	Check that cable heater is installed properly and fastened around valve.
	Check for air gaps where a cold wind can reach the valve.
Supply line Freezing	Check that the cable heater is uncoiled and fastened around valve and supply line.
	Check that supply piping is centered in riser tube and not touching the sides.
	Check that riser tube is free of water and mud that may cause freezing.
	Check that flexible hose does not touch side of casing or frame.
	Check for air gaps between casing and concrete floor.
Valve won't stop dripping	Check the float adjustment. Check that float is not water logged or rubbing sides.
	Check for excessive water supply pressure.
	Disassemble valve and check for sand or mineral build-up on valve rubber. Check valve orifice outlet for wear and damage. A screen or filter may be required with sandy or scaly water.
	Turn valve rubber over and re-assemble.
1/2" Valve: <div style="text-align: center;">  <p>Valve Rubber</p> <p>Pin must be pushed out of valve to disassemble</p> </div>	
Low water flow	Check that valve inlet is not plugged or supply hose is not kinked.
	Check system pressure and water flow from supply line.
	Check that shutoff valves are fully open.

Classic Equine ULTRAFOUNT

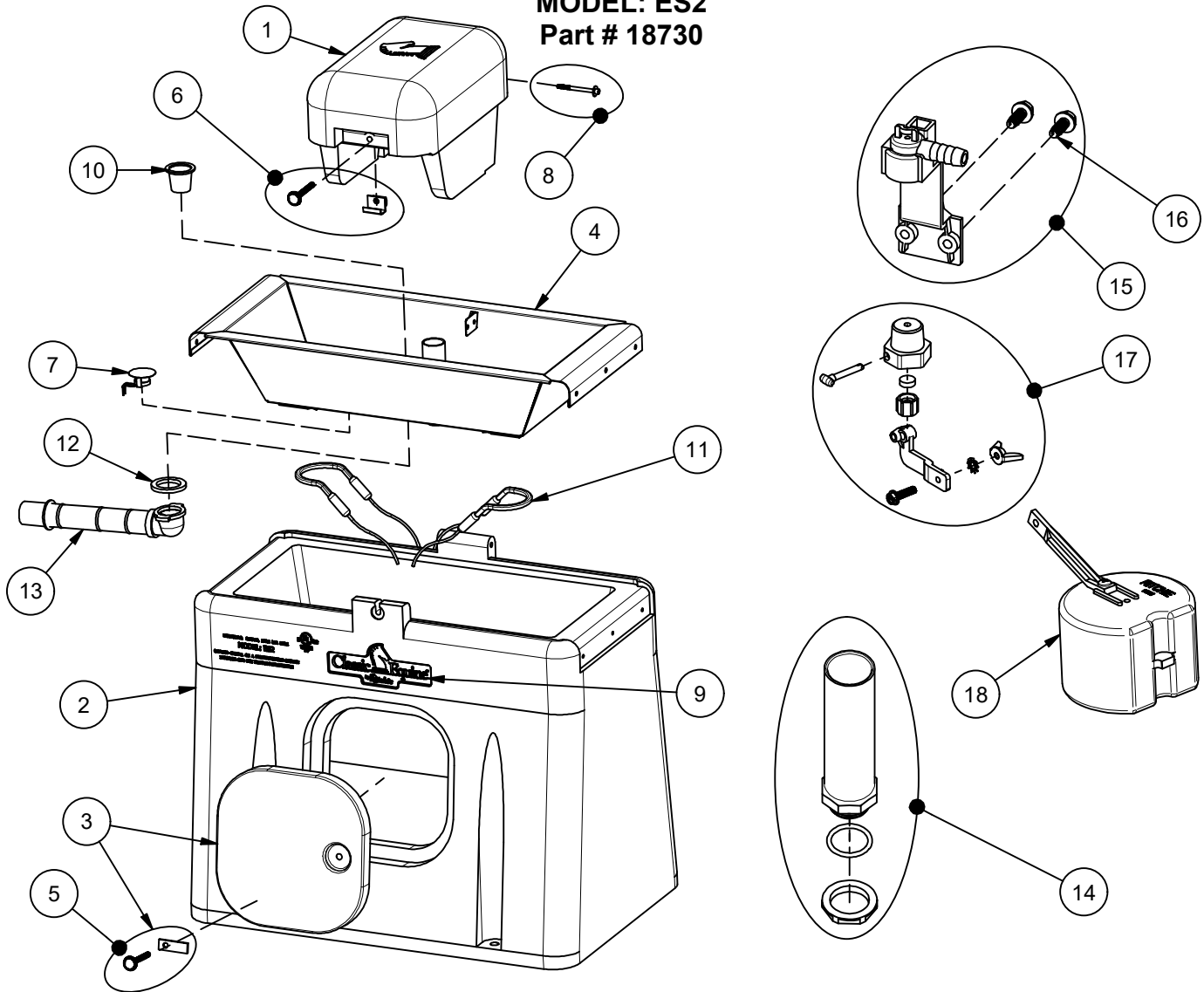
MODEL: ES1
Part # 18780



Item	Part #	Description	Qty	Item	Part #	Description	Qty
1	18778	ULTRAFOUNT ES1 Cover	1	14	16866	Standpipe pkg	1 pkg
2	18776	ULTRAFOUNT ES1 Casing	1	15	11515	Valve Bracket w/screws pkg	1 pkg
3	18726	Access Panel w/Hardware	1	16	15154	Screws Valve Bracket (10/pkg)	1 pkg
4	18775	ULTRAFOUNT ES1 Trough	1	17	12575	Red Valve 1/2" pkg	1 pkg
5	18753	Access Panel Hardware Pkg	1 pkg	18	13613	Float with Short Arm pkg	1 pkg
6	18718	Cover Latch Hardware Pkg	1 pkg	NS	13830	Cable Htr 120V 48W (1/pkg)	1 pkg
7	11885	Disc Thermostat pkg	1 pkg	NS	18751	ULTRAFOUNT Accessory pkg	1 pkg
8	18716	Classic Equine Hinge Bolt (2/pkg)	1 pkg	NS	16523	Seal Foam 1/4"x3/4"x25' Roll	1
9	18719	Classic Equine Logo Pkg (2/pkg)	1 pkg	NS	14866	Seal Foam 1/2"x3/4"x10' Roll	1
10	18628	Drain Plug (2/pkg)	1 pkg				
11	14150	Heater 120V 125W (1/pkg)	1 pkg				
12	18075	Drain Washer (6/pkg)					
13	11472	Drain Pipe with Elbow	1 pkg				

Classic Equine ULTRAFOUNT

MODEL: ES2
Part # 18730



Item	Part #	Description	Qty	Item	Part #	Description	Qty
1	18734	ULTRAFOUNT Cover	1	14	16866	Standpipe pkg	1 pkg
2	18732	ULTRAFOUNT Casing	1	15	11515	Valve Bracket 1/2" w/ Scrws pkg	1 pkg
3	18726	Access Panel w/Hardware	1	16	15154	Screws Valve Bracket (10/ pkg)	1 pkg
4	18737	ULTRAFOUNT Trough	1	17	12575	Red Valve 1/2" pkg	1 pkg
5	18753	Access Panel Hardware Pkg	1 pkg	18	13613	Float with Short Arm pkg	1 pkg
6	18718	Cover Latch Hardware Pkg	1 pkg	NS	13830	Cable Htr 120V 48W (1/pkg)	1 pkg
7	11885	Disc Thermostat pkg	1 pkg	NS	18751	ULTRAFOUNT Accessory pkg	1 pkg
8	18716	Classic Equine Hinge Bolt (2/pkg)	1 pkg	NS	16523	Seal Foam 1/4"x3/4"x25' Roll	1
9	18719	Classic Equine Logo Pkg (2/pkg)	1 pkg	NS	14866	Seal Foam 1/2"x3/4"x10' Roll	1
10	18628	Drain Plug (2/pkg)	1 pkg				
11	14150	Heater 120V 125W (1/pkg)	2 pkgs				
12	18075	Drain Washer (6/pkg)					
13	11472	Drain Pipe with Elbow	1 pkg				



RITCHIE INDUSTRIES, INC. LIMITED WARRANTY

Ritchie Industries, Inc., hereinafter referred to as Ritchie Industries, gives a **LIMITED WARRANTY** for the period of time(s) stated herein, subject to certain limitations, on your new watering system against defects in material or workmanship when properly installed, set up, operated, and maintained in accordance with the instructions and recommendations set forth by Ritchie Industries, including in the Installation Instructions. **The warranty excludes labor and shipping charges.**

The warranty is transferable to the next purchaser of the watering system prior to expiration of the warranty period, but any such transfer will not extend the original warranty term. Proof of purchase must be submitted with any warranty claim, and all warranty claims shall be processed through an Authorized Ritchie Dealer or Distributor.

Ritchie Industries' liability for any defects in material or workmanship with respect to accepted goods shall be limited to repairing the goods or replacing them as Ritchie Industries shall elect. Parts used in warranty repairs will be warranted for the balance of the water system's warranty period, with all parts replaced under warranty becoming the property of Ritchie Industries.

The limited warranty periods begin upon delivery of the watering system to the original purchaser. Upon delivery of the goods, purchaser assumes all liability, including but not limited to all personal injury and property damage, resulting from the handling, possession, or use of the goods.

WARRANTY COVERAGE AND LIMITATIONS

Limitations of Warranties and Remedies

Ritchie Industries' watering systems are designed and manufactured to provide years of reliable use when installed and operated consistent with Ritchie Industries' instructions and recommendations. However, the potential for improper installation, modifications and misuse of the goods exists. Therefore, the limited warranty provided shall be as follows:

This limited warranty shall not apply to any appearance items and shall not apply to any product which has been subject to misuse, abuse, abnormal service or handling, negligence, or accident, nor to any product that is installed and/or used contrary to Ritchie Industries' installation instructions and instructions for use. The limited warranty shall also not apply to any product whose exterior has been damaged or otherwise defaced, that has been repaired, altered, or modified by anyone, other than Ritchie Industries, in a way so as in Ritchie Industries' judgment it adversely affects the product's operation, performance, durability, or intended use, nor to any product where removal of parts, modification(s) or use of parts or accessories not manufactured or approved by Ritchie Industries has caused damage.

Coverage and Warranty Periods

Unit Type	Coverage and Warranty Period
Poly Units	Base, top, and ball closures. Ten-year limited warranty: 100% for first five years, then declining 20% per year for remainder of the 10-year period.
Stainless Steel Units	Stainless trough and stainless valve chamber frame. Ten-year limited warranty, plus ten years of corrosion coverage, at 100% for entire 10-year period.
Component Parts	One-year limited warranty on all component parts, such as floats, valves, and heating elements.

Exclusions of Liability

EXCEPT AS OTHERWISE EXPRESSLY STATED HEREIN, RITCHIE INDUSTRIES MAKES NO OTHER WARRANTY OR REPRESENTATION OF ANY KIND, EXPRESSED OR IMPLIED. **THE IMPLIED WARRANTY OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE EXCLUDED FROM THIS LIMITED WARRANTY.** TO THE EXTENT THEY CANNOT BE DISCLAIMED, THE IMPLIED WARRANTIES ARE LIMITED IN DURATION TO THE LIFE OF THE EXPRESS WARRANTY. **THIS LIMITED WARRANTY EXCLUDES INCIDENTAL, CONSEQUENTIAL, AND SPECIAL DAMAGES. THIS EXCLUSION OF CONSEQUENTIAL, INCIDENTAL, AND SPECIAL DAMAGES IS INDEPENDENT FROM AND SHALL SURVIVE ANY FINDING THAT THE EXCLUSIVE REMEDY FAILED OF ITS ESSENTIAL PURPOSE.** THE REMEDIES SET FORTH IN THIS LIMITED WARRANTY ARE THE ONLY REMEDIES AVAILABLE TO ANY PERSON UNDER THIS WARRANTY. SOME STATES/PROVINCES DO NOT ALLOW FOR THE DISCLAIMERS, LIMITATIONS, AND EXCLUSIONS IDENTIFIED ABOVE AND, AS A RESULT, THEY MAY NOT APPLY TO YOU.

No agent, employee or representative of Ritchie Industries, and no Ritchie Industries Dealer/Distributor, is authorized to bind Ritchie Industries to any representation or warranty regarding the goods except as specifically included in this limited warranty.



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August 13, 2022