



WARNING: Any electrical service must be installed and maintained by a qualified electrician. Must conform to all national and local codes. Use a properly sized wire for the distance and current draw for your specific unit. Circuit protection may be required and should be sized according to the unit ratings.



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



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.



CAUTION: This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children being supervised not to play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.



CAUTION: 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.



CAUTION: Assure that there is water in the trough before turning on power to the heating system and immersion heater as applicable. Running this unit or immersion heater without water in the trough could cause damage to some components.



CAUTION: When using the immersion heater for supplemental heat, assure that heater will be completely below the water surface.



CAUTION: Maximum water supply pressure should not exceed hose rating of 200 psi (13.8 Bar). Use of a pressure reducer may be required for extreme pressures.



NOTE: A means for disconnection must be incorporated in the fixed wiring in accordance with the wiring rules.



Installation instructions for all centered and offset float/valve Legacy Fountains

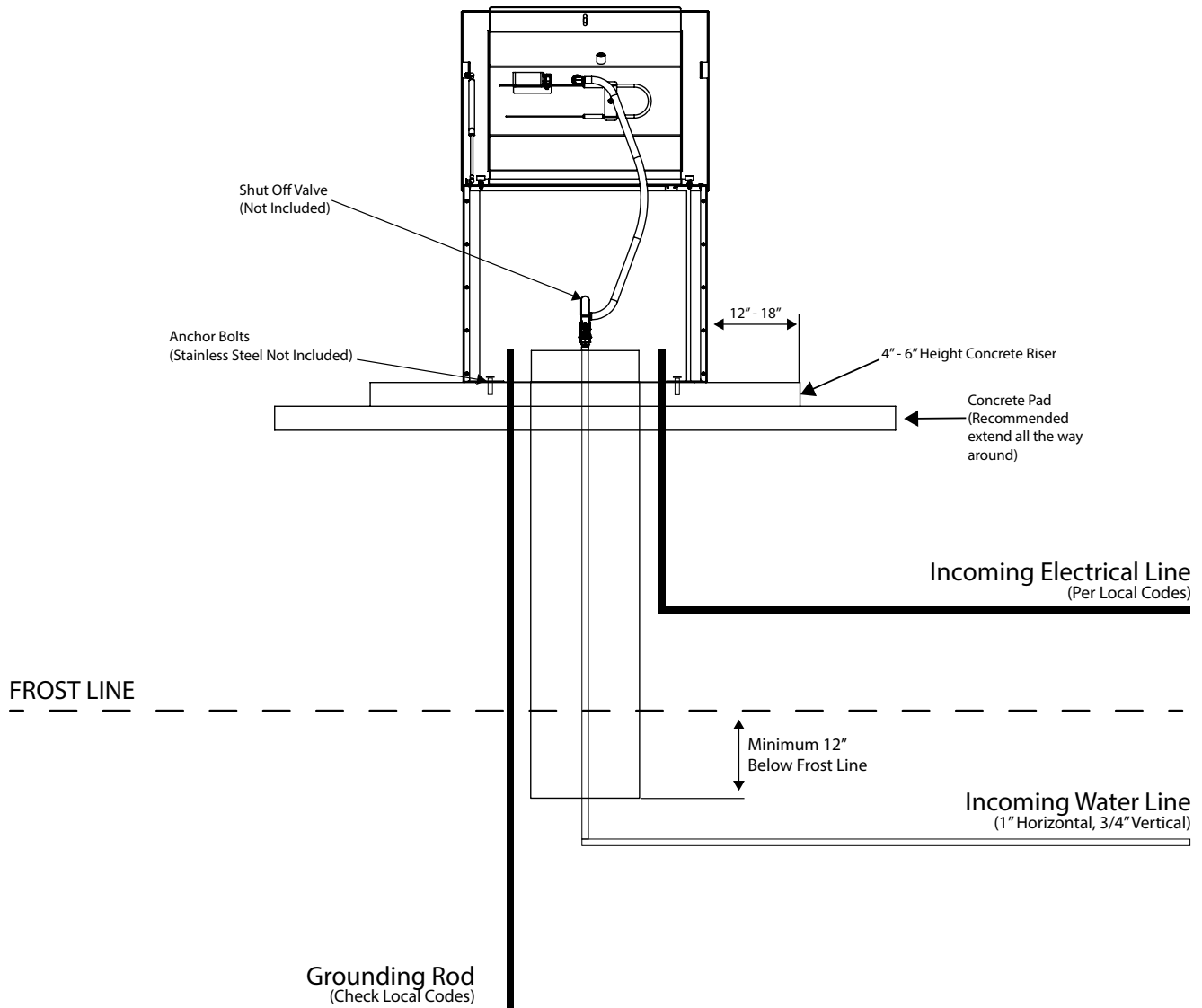
Thank you for purchasing your Legacy Fountain from Badlands Ranch & Rodeo Equipment. For the best installation experience please review the instructions and understand them prior to starting the installation.

Suggested Tools: 3/4" Wrench, 1/2" Wrench, 7/16" Wrench, 1/2" Masonry Drill Bit, Hammer Drill, Hose Cutter, Flat Head Screw-Driver, Hammer, Crescent Wrench, Construction Knife

****Notice:**

The instructions in this document are intended for use with all supplied components at time of purchase. While our fountains are designed to be compatible with other components supplied in the industry it is important to consult any and all instructions supplied with those parts in accordance to how they relate to their supplied instructions.

LEGACY FOUNTAIN INSTALLATION INSTRUCTIONS (Centered & Offset Float/Valve Legacy Fountains)



A. Location

1. Choose a site that offers wind protection to enhance fountain performance.
2. Ensure livestock can comfortably gather in the area to encourage drinking.

B. Water Supply Line

1. Install a horizontal underground water line:
 - Size it to account for pressure drop based on distance. **Minimum 3/4" recommended.**
 - Place it at least 1 foot below the frost line.
 - Use a 1-inch vertical supply pipe.
2. Include a shut-off valve under the fountain for maintenance.
3. Consider adding a stop and waste valve below frost level to drain water when not in use.
4. Center the vertical supply line within the riser tube to maintain an air gap.
5. Flush the water supply line before connecting to the fountain.
6. If water contains debris (sand, rust), use a filter to ensure fountain valve functionality.

C. Electric Supply

1. It is best practice to run electrical supply line during water supply trenching for cost efficiency.
2. **Ensure all electrical service is installed and maintained by a qualified electrician.**

Item:	Description:	Watts:	Amps:
LF-1830	Legacy Fountain 18" x 30" - 10gal.	250W	2.1 A @ 120V
LF-2630	Legacy Fountain 26" x 30" - 10gal.	250W	2.1A @ 120V
LF-2636	Legacy Fountain 26" x 36" - 16gal.	250W	2.1 A @ 120V
LF-2648	Legacy Fountain 26" x 48" - 28gal.	500W	4.2 A @ 120V

Item:	Description:	Watts:	Amps:
LF-1830	Legacy Fountain 18" x 30" - 10gal.	250W	1 A @ 240V
LF-2630	Legacy Fountain 26" x 30" - 10gal.	250W	1 A @ 240V
LF-2636	Legacy Fountain 26" x 36" - 16gal.	250W	1 A @ 240V
LF-2648	Legacy Fountain 26" x 48" - 28gal.	500W	2.1 A @ 240V

D. Riser Tube

1. Install a riser tube extending at least 1 foot below the frost line or to the horizontal water line.
2. The larger the riser tube the better for allowing ground heat to aid with keeping the fountain and supply line from freezing. With the Legacy Fountain there is plenty of room for service and maintenance with a large riser tube.
3. Keep tube openings clear; avoid insulation or foreign materials around the supply line to prevent freezing. You also want to keep the supply line from touching the riser tube.

E. Mounting Platform

1. Construct a concrete platform:
 - Minimum thickness: 4" (6" recommended).
 - Size should accommodate the fountain plus an additional 2-4" step extending 12" out from each side.
2. Design the platform to protect the fountain from manure handling equipment and discourage animal defecation.
3. Ensure the platform slopes away from the fountain for proper drainage.
4. Use a rough broom finish for better footing for livestock.

F. Hose Connection To Supply Line

1. Connect hose fitting to the shut-off valve on top of the concrete.
2. Use slip-on barb fittings and the provided clamps.
3. Ensure the hose does not touch insulation or the outside of the fountain.
4. Position the hose underneath the fountain while moving the unit over the riser tube.

G. Preparing the Bottom

1. Apply the provided foam weather stripping to the bottom of the unit along the outer edge of the fountain.
2. It is also recommended to apply a bead of silicone or spray foam around the inside bottom of the fountain to assist with sealing the gap between the fountain and the concrete.

H. Anchoring Fountain

1. Use 3/8" x 5" stainless steel expansion anchor bolts (not included) to secure the fountain through the supplied anchor holes located on this inside of the fountain.

I. Final Water Connection

2. It is recommended to loop excess hose to account for the lid of the fountain being opened.
3. Use the provided clamps and brass fittings to connect your ball valve from the supply line to the bung for the valve on the bottom of the tank.

J. Electrical

1. All electrical components should be wired into the supplied and mounted waterproof junction box. For 120V wiring follow the below instructions. If you're wiring to 240V, view the wiring diagrams on the following pages.

- Open the junction box to find a wire nut with a single thermostat wire, connect the incoming BLACK (Hot)
- Connect the incoming WHITE (Neutral) to the wire nut with White + Red Heating Element Wire(s)
- Use the included eyelet to connect the incoming GREEN (Ground) to the grounding bolt located next to the junction box.

b. Securely fasten the wire nuts and place all wires back in the junction box. Secure the Junction Box lid.

K. Cable Heater - Uncoil heat Tape and coil around the supply line.

Secure the remaining part of the cable heater to the water supply, as far down the riser tube as possible with the tape provided. This heater is water tight, but should not be immersed in water. The heat tape may cross over itself, but should not be tightened at those crossings.

CAUTION: Installation must not cause any strain on wire connections. Avoid damage caused by hot spots due to leads lying too close to each other. Also do not wrap additional insulation around heat tape.

Safety Precautions and Electrical Wiring Instructions

Caution:

To ensure safe and effective operation, it is essential that the installation does not place any strain on the heater wiring connections. Please refrain from allowing the cable to cross over itself along the water line, as this can create hot spots and potentially damage the heater if the leads come into close contact. Additionally, do not apply extra insulation around the heater, as this may also contribute to overheating.

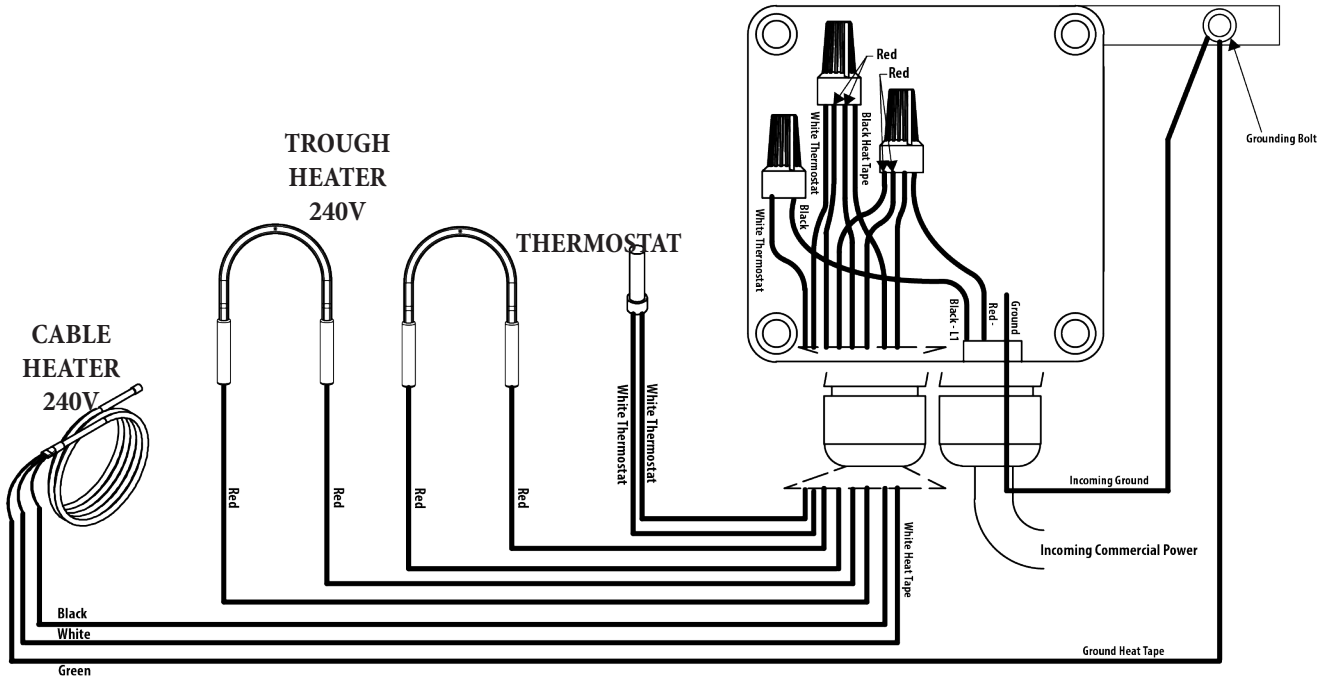
Electrical Connection:

The electrical installation must be carried out and maintained by a qualified electrician, adhering to both national and local electrical codes. A means for disconnection should be integrated into the fixed wiring in accordance with established wiring regulations.

Warning:

Disconnect the power supply if the water supply is to be turned off for an extended period. Failure to disconnect the power may result in damage to the watering fountain and components.

240V UNITS - SINGLE PHASE



**WARNING - ALL UNITS ARE WIRED FOR 120V FROM THE FACTORY.
TO CONNECT TO 230-240VAC CHECK THE WIRING DIAGRAM ABOVE.
DIAGRAM SHOWN WITH 2 HEATERS - QUANTITY MAY VARY**

K. Thermostat

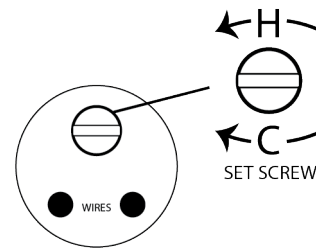
The adjustable range is from -100° to 600° F (-73° to 315° C). Thermostat is pre-set at the factory to 45 degrees F (7 degrees C). Fill the trough to proper water level. Check the water temperature with a thermometer. The next morning, check the water temperature again. If the water is warmer than desired, turn the thermostat down. If there is ice forming on the surface of the water, turn the thermostat up. **Only slight adjustments should be made to the thermostat at any time - less than 1/4 rotations.**

TEMPERATURE SETTING INSTRUCTIONS

The temperature setting of the thermostat should be made in the following manner **using small increment adjustments:**

- Counterclockwise rotations of the adjusting screw **INCREASES** temperature set point.
- Clockwise rotations of the adjusting screw **DECREASES** temperature set point.
- Do not turn adjusting screw more than 7 revolutions in either direction.
- Removal of adjusting screw may also render the thermostat inoperative.

THERMOSTAT ADJUSTMENT



L. Final Water Connection

Secure the water supply line to the brass fitting installed in the bottom of the water trough using the supplied hose clamp.

M. Float Adjustment

1. Open the water supply shut-off valve and inspect for any leaks; address any issues found.
2. Adjust the float to achieve a water depth of 2 inches below the top of the trough or overflow pipe by using the thumbscrew or wing-nut.
3. Once the valve operates correctly and the water level is appropriately set, proceed with the installation of the valve cover.

N. Supervision of Children

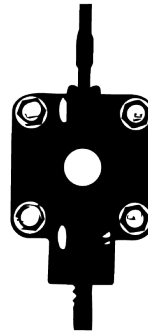
Children should be supervised to ensure they do not engage with the appliance. This appliance is not designed for use by individuals, including children, with diminished physical, sensory, or mental abilities, or those lacking experience and knowledge, unless they are provided supervision or instruction regarding its use by a responsible adult.

O. Cleaning Your Fountain

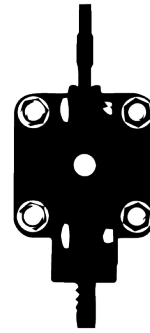
1. For cleaning, remove the bolt securing the float/valve cover and the fountain trough.
2. Carefully take off the float/valve cover and flip the trough over to allow water drainage from the trough.
3. If desired, leave the water supply on to facilitate cleaning by spraying water into the trough.
4. Utilize a stiff bristle brush to scrub any debris within the trough.
5. Once the cleaning is complete, turn the water supply back on, if it was previously turned off, and close the lid.
6. This is also a good opportunity to readjust the float if necessary. Reinstall the float/valve cover.

P. Monticello Float Valves

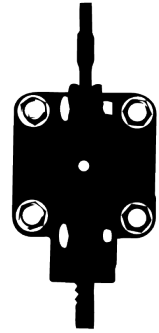
Monticello Float Valves are available with orifices of varying sizes, allowing for adjustments to the flow rate as needed. Each fountain model may require specific orifice sizes to ensure the desired fill rate and proper functionality. All valves from Badlands are supplied with a 1/4" orifice. For alternative sizes, please refer to the graphic and reach out to your local dealer.



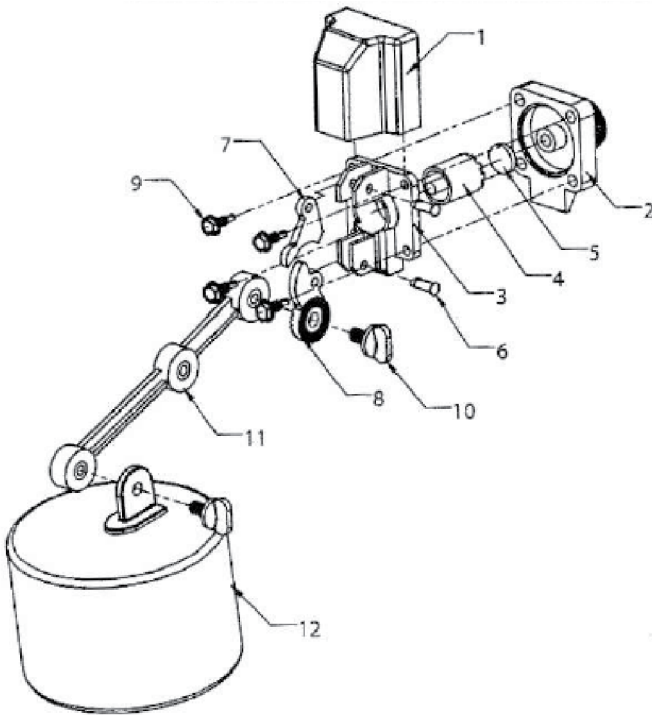
VM100
.45 ORIFICE
0-40 PSI



VM200
.25 ORIFICE
0-80 PSI



VM300
.125 ORIFICE
75-80 PSI



Ref. #	Item ID	Description
1	VM101	CAP BL101
2	VM102	Bottom Base, 3/4" Thread, .45 Orifice - BL102
2	VM104	Bottom Base, 3/4" Thread, .25 Orifice - BL102
2	VM118	Bottom Base, 3/4" Thread, .125 Orifice - BL10
4	VM103	Plunger BL108
3	VM105	Top Base Bl 105
6	VM106	Lock Pin BL106
5	VM107	Plunger Seat BL107
4&5	VM108	Plunger with Seat Inserted
9	OF210	Base Screw, 10 x 5/8 HWS BL109
7	VM110	Upper Arm BL110
8	VM111	Lower Arm BL111
11	VM112	Float Arm BL112
10	VP115	Thumb Screw BL144
12	VM117	Float Poly BL117P

Trouble Shooting

Issue:	Solution
Water in Trough Too Warm	<ul style="list-style-type: none">- Adjust thermostat to lower temperature- Check for damaged contacts
Ice in trough	<ul style="list-style-type: none">- Check fuses or circuit breakers- Adjust thermostat to higher temperature- Check for voltage from thermostat output- Check voltage to fountain with and without electrical load- Check that heaters are wired properly
Supply line freezing	<ul style="list-style-type: none">- Check that cable heater is installed properly and fastened to supply line with supplied fiberglass tape. Check that it is working when heaters are hot- Check that supply piping is centered in riser tube- Check that riser tube is free of mud and water that may freeze- Check for casing air leaks- Check for air gaps between casing and concrete
Low water flow	<ul style="list-style-type: none">- Check that valve inlet is not plugged or supply hose is not kinked- Check system pressure from supply by installing a tee and a pressure gauge directly in front of the valve to check pressure drop when valve is open. A severe pressure drop indicated a restriction on undersized supply system- Check that shutoff valves are fully open

Badlands Ranch & Rodeo Equipment, LLC Limited Warranty

Badlands Ranch & Rodeo Equipment, LLC, hereinafter referred to as Badlands, 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 Badlands, 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 Badlands Dealer or Distributor.

Badlands' liability for any defects in material or workmanship with respect to accepted goods shall be limited to repairing the goods or replacing them as Badlands 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 Badlands. 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

Badlands' watering systems are designed and manufactured to provide years of reliable use when installed and operated consistent with Badlands' 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 Badlands' 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 Badlands, in a way so as in Badlands' 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 Badlands has caused damage.

Coverage and Warranty Periods

- Stainless trough, base, and float/valve cover. 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, thermostats and heating elements.

Exclusions of Liability

EXCEPT AS OTHERWISE EXPRESSLY STATED HEREIN, BADLANDS 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 Badlands, and no Badlands Dealer/Distributor, is authorized to bind Badlands to any representation or warranty regarding the goods except as specifically included in this limited warranty.



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