

TECH-NOTE



For more information contact...

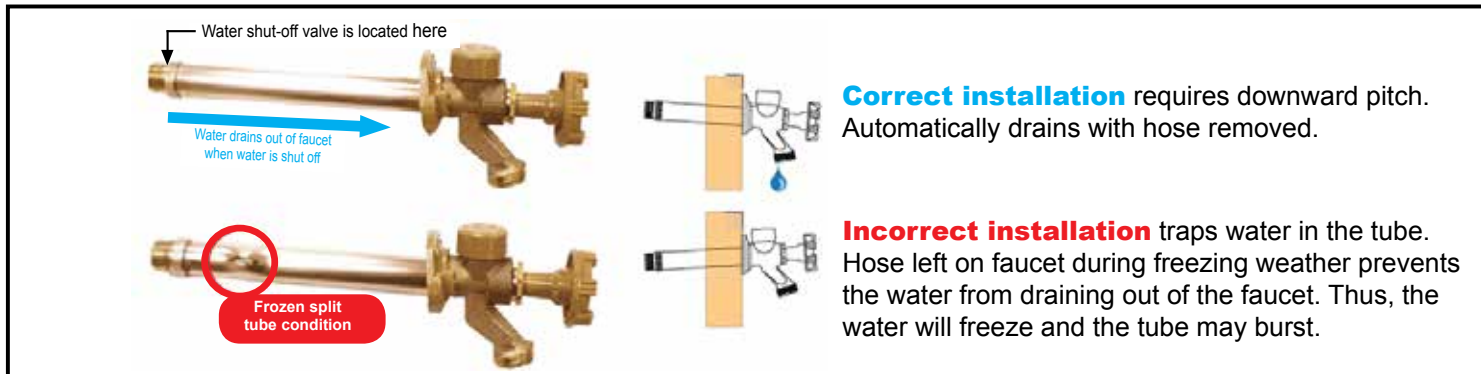
WOODFORD MANUFACTURING COMPANY, LLC.

2121 Waynoka Road, Colorado Springs, Colorado 80915 • Phone: (800) 621-6032 • Fax: (800) 765-4115

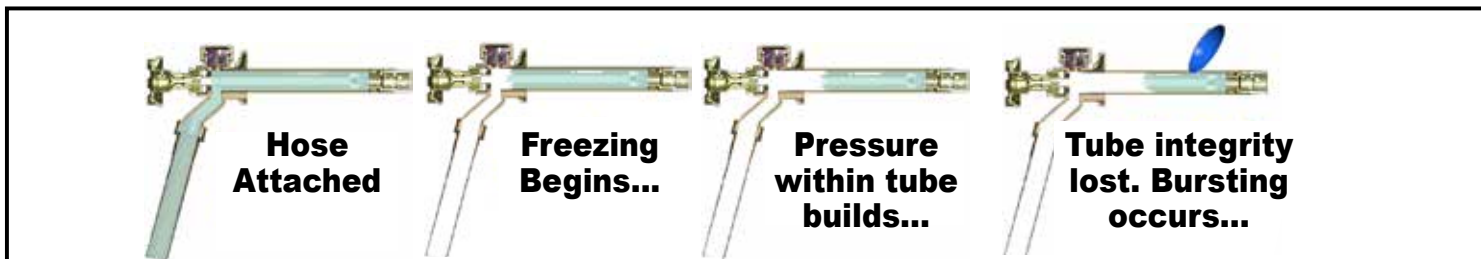
To view our complete product line visit: www.woodfordmfg.com or email: sales@woodfordmfg.com

How a Standard Frost-Proof Faucet Works

The product is designed to be frost-proof when installed properly (with a slight downward pitch) and there is no restriction on the hose nozzle to prevent the faucet from draining. If a hose is attached during freezing weather, water is trapped inside the faucet which may cause the faucet to freeze and burst.



The faucet above is shown with the valve in the closed position. The water is shut off several inches into the home. The water line does not freeze because of the heat in the home. The product cannot freeze because there is no water in the faucet. When the valve is turned off, all of the water in front of the valve drains from the faucet leaving the tube empty. Also shown is correct and incorrect installation and a frozen split tube condition when hose is left on during freezing weather.

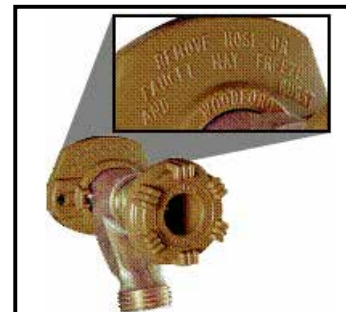


When a hose or other restriction is left attached, the water cannot drain from the faucet properly. As the temperature drops below freezing, the water in the faucet begins to freeze. The freezing conditions are applied from the outside of the house back toward the interior as the water continues to freeze. Once the water has frozen into the faucet itself, if the faucet has been shut off, there is no relief from this expanding pressure. Eventually the copper tubing will burst to relieve the pressure. No noticeable damage is visible in the home at this time. Only a few drops of water will leak through this bulge at the time of the bursting. Once the weather warms, the ice in the faucet will melt. Since the burst in the tubing is after the shut off valve, water will not leak out of the burst tubing until the water is turned on. Thus, there can be a considerable amount of time between the actual rupture of the tubing and the discovery of the problem.

THE ONLY POSSIBLE CAUSE OF THE BURSTING OF THE TUBE IS AN OBSTRUCTION SUCH AS A HOSE BEING LEFT ON IN FREEZING CONDITIONS OR THE IMPROPER INSTALLATION OF THE PRODUCT THAT PREVENTS THE WATER FROM DRAINING AFTER THE VALVE IS SHUT-OFF.

WARNING - Faucet must be installed with downward pitch toward nozzle and hose must be removed in freezing weather or faucet may freeze and burst. Not intended for continuous use applications.

- The warning (left), that the product needs to be installed with a downward pitch, facilitates the draining of the water once the unit is turned off. Also indicated is the warning that the hose must be removed in freezing weather or the faucet may freeze and burst.
- Adjustable wall flange (right) displays "REMOVE HOSE OR FAUCET MAY FREEZE AND BURST"



TROUBLESHOOTING & MAINTENANCE



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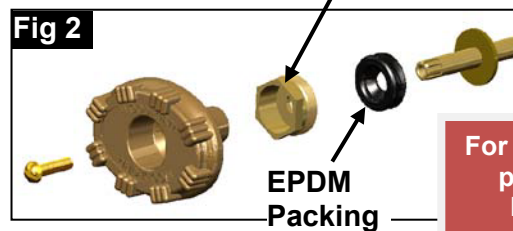
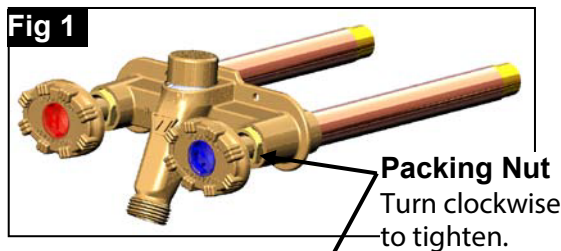
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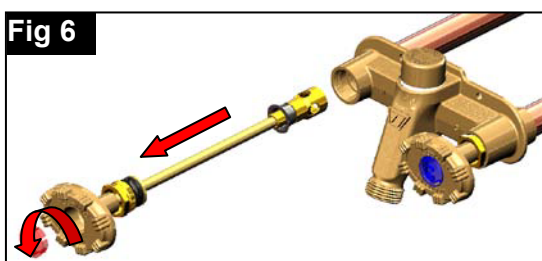
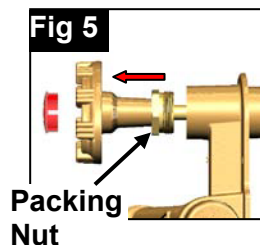
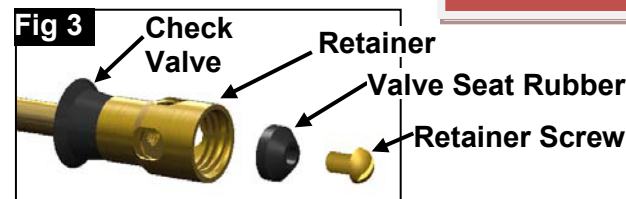
Model 22 & V22 HOT & COLD Freezeless Wall Faucet

Rev 05/11 Form No. TM22.101

How A Frost-Proof Faucet Works



For replacement
parts order
Repair Kit
RK -22PRV



- **Packing leak: Faucet leaks from around the operating stem when it is on**
The hex **Packing Nut** (30059) will occasionally need to be tightened to stop a packing leak. **(Fig 1)** Without removing any parts, tighten the packing nut behind the handle until snug and the leak stops. Persistent leaks will require a new **EPDM Packing** (30560) **(Fig 2)**.
- **Faucet will not shut off: Water runs or drips out nozzle when the faucet is off**
The **Valve Seat Rubber** (30008) is worn or damaged and needs to be replaced or the **Retainer Screw** (30804) is loose. **(Fig 3)** Follow the instructions below on how to remove the **Operating Rod**. **(Fig 5 & 6)** If this does not fix the leak, the faucet may have a damaged seat and the faucet will need to be replaced.
- **Faucet leaks from the vacuum breaker, on top of the faucet, when the faucet is on.**
Vacuum breaker is fouled or damaged. **(Fig 4)** Pry off plastic cap and use pliers to remove the vacuum breaker body. Check for fouling or replace with vacuum breaker float kit (RK -22VB).
- **Valve Stem Assembly - Operating Rod Removal**
To remove the operating rod from the faucet, shut off the water supply, loosen the handle and back out the **Packing Nut** **(Fig 5)**. Use the handle to turn the rod counterclockwise until the rod becomes disengaged from the valve seat. Use a small screwdriver to pry the packing loose. Pull the rod assembly out of the faucet. **(Fig 6)** The rod may have a check valve that will add resistance to removal. Use a swift pull to disengage it.

This unit offers anti-siphon protection and pressure relief valves.

The Freezeless Model 22 hot and cold faucet is designed and intended for year-round hot and cold irrigation and cleaning purposes regardless of outside temperature. Separate hot and cold inlet tubes allow for manually operated temperature control with cross contamination protection. This faucet contains patented pressure relief valves that prevents the faucet from bursting in freezing weather should a hose be accidentally left on. The Model 22 contains an integral backflow protection device and does not require an add-on vacuum breaker. This ASSE 1019 device is intended for irrigation use and outdoor watering and shall not be subjected to more than (12) hours of continuous water pressure.

Available in two models:

- Model 22 *Horizontal Mount* - Rough Brass
- Model V22 *Vertical Mount* - Rough Brass for end wall installation

SPECIFICATIONS:

- Manufactured under one or more of the following patents: <https://www.woodfordmfg.com/patents>
- ASSE 1019 Listed
- CSA, UPC, cUPC Approved



FEATURES:

- *Patented resetting pressure relief valve prevents the faucet tube from bursting in freezing conditions even if a hose is unintentionally left on.*



- *Built-In Vent Float style Vacuum Breaker*
- *Faucet drains automatically when hose is removed*
- EPDM packing to prevent leaking
- Oval, powder-coated, die cast aluminum handle
- Stainless steel seat - eliminates wire draw
- Standard "O" size seat washer
- Tee Key configuration - (extra charge)
- No-lead solder
- 3/4" male hose thread

MAX PRESSURE - 125 p.s.i.

MAX TEMPERATURE - 120° F

INSTALLATION REQUIREMENTS:

- The faucet length used is to be comparable to what would be used with standard freezeless faucets.
- The inlet connection must be located in a heated area.
- The gap between the house and faucet must be sealed to prevent air leaks.
- The faucet must be installed with a slight downward pitch toward the nozzle.
- Adequate insulation is required around the faucet, wall board and sill plate.

For Installation / Troubleshooting Instructions go to www.woodfordmfg.com or call 1-800-621-6032

Freezeless Hot & Cold Wall Faucet Model 22 & V22

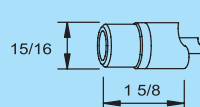


Model 22

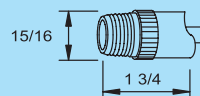


Model V22

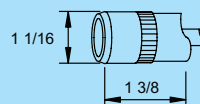
INLET OPTIONS



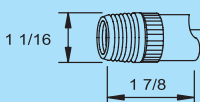
**C INLET
COMBINATION**
Copper Sweat Fitting
1/2" K,L or M Inside
3/4" M Only Outside



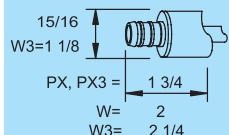
**CP INLET
COMBINATION**
1/2" Male Pipe Thread
1/2" Female Sweat



C3 INLET
3/4" Female Sweat Fitting



**P INLET
COMBINATION**
1/2" Female Pipe Thread
3/4" Male Pipe Thread

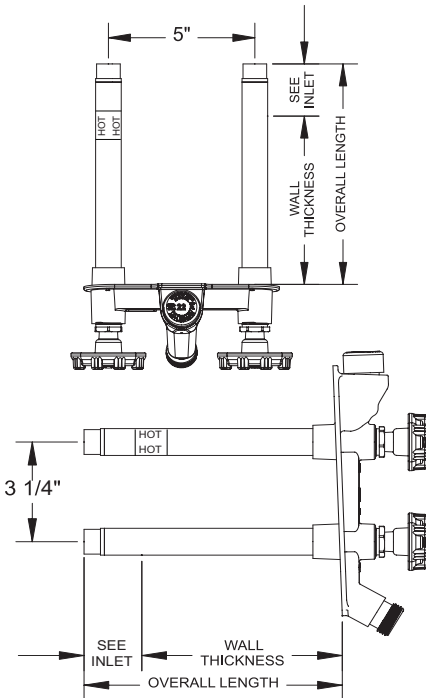


PX INLET
1/2" PEX Tube Fitting
PX3 INLET
3/4" PEX Tube Fitting
W INLET
1/2" Wirsbo PEX Tube Fitting
W3 INLET
3/4" Wirsbo PEX Tube Fitting

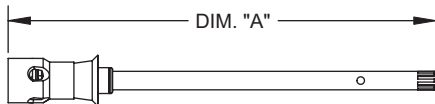
When ordering, specify model, inlet and wall thickness



Model 22 & V22 Rough-In Dimensions



Overall Length Dimension: Add wall thickness and inlet option length shown in chart on reverse side.



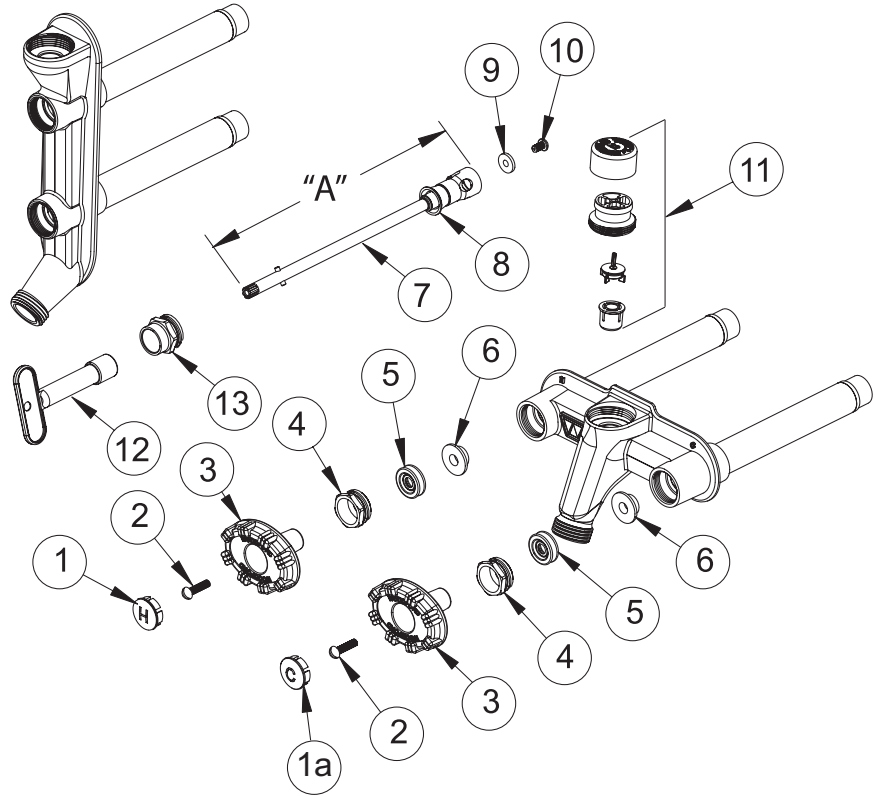
RK-PRV and Replacement Rod

Wall Thickness	RK-PRV-*	Rod Only Part #**	Overall Length Dim "A"
4	RK-PRV-4	35092	5 7/8"
6	RK-PRV-6	35093	7 7/8"
8	RK-PRV-8	35094	9 7/8"
10	RK-PRV-10	35095	11 7/8"
12	RK-PRV-12	35096	13 7/8"
14	RK-PRV-14	35097	15 7/8"
16	RK-PRV-16	35098	17 7/8"
18	RK-PRV-18	35099	19 7/8"
20	RK-PRV-20	35100	21 7/8"
22	RK-PRV-22	35101	23 7/8"
24	RK-PRV-24	35102	25 7/8"

Single Rod

*RK-PRV Includes Items 2 - 5, 7 - 10

**Rod Includes Items 7 - 10



MODEL 22 & V22 PARTS LIST

ITEM	PART#	DESCRIPTION
1	30566	Plug Button-H-Red
1a	30565	Plug Button-C-Blue
2	30002	Handle Screw (2)
3	30559	Oval, Die Cast Alum. Handle (2)
4	30059	Packing Nut (2)
5	30560	EPDM Packing (2)
6	30421	Packing Support Washer (2)
7	RK-PRV-**	Valve Stem Assembly
<i>Note: Valve stems are interchangeable with Model 22 and V22 Head assemblies.</i>		
8	30459	Check Valve (2)
9	30008	Valve Seat Rubber (2)
10	30804	Retainer Screw (2)
11	RK-22VB	Vacuum Breaker Float Kit (Model 22)
12	50012	Tee Key
13	30512	Deep Packing Nut
	RK-22PRV	Repair Kit (<i>metal handles</i>) Includes 1 ea: Items 1, 1a, 11 2 ea: Items 2 - 6, 8 - 10

Model 22 & V22 Shipping Weight

Wall Thickness (inches)

4	6	8	10	12	14	16	18	20	22	24
2.8	3.0	3.2	3.4	3.6	3.8	4.0	4.2	4.4	4.6	4.8

Shipping Wt. Ea. (lbs)



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