

Installation Instructions and Owner's Manual

PUN1 Series

Non-Backwashing Upflow Neutralizer System



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Pre-installation Instructions

Description of the water filter system

PUN1: This series is designed to elevate pH from as low as 6.0 to above 7.0. If pH is 5.2 – 5.9, use of a downflow backwashing neutralizer is recommended. If pH is less than 5.2 soda ash injection is recommended.

NOTE: Neutralizer media will increase hardness; a softener may be required.

No electricity or drain required to operate the PUN1 system.

Water Quality

The water should be tested to determine the concentration, or levels of the items listed below:

Hardness - Hardness in drinking water is defined as those minerals that dissolve in water having a positive electrical charge (cat ions). The primary components of hardness are calcium (Ca⁺⁺) and magnesium (Mg⁺⁺) ions. But dissolved iron (Fe⁺⁺) and manganese (Mn⁺⁺) also contribute to total “adjusted” hardness. Hardness produces scale, soap scum and white mineral deposits which shorten the life of water using appliances, plumbing and fixtures. Water that has less than 1 grain of hardness is considered to be “soft” water. If soft water is desired, install a softener following the PUN1.

pH - A measurement of the acidity of the water. pH is reported on a scale from 0 to 14. Neutral water has a pH of 7.0, lower values indicate acidic water. If your pH is below 6.8 you may consider installing an acid neutralizer before the water softener to elevate the pH.

Iron - A naturally occurring metallic element. Iron levels in excess of 0.3 milligrams/liter (mg/l) combine with oxygen causing orange or red (rust) stains on plumbing fixtures. Iron exists in some water sources in clear water (ferrous) state, red water (ferric) state or bacterial form. If bacterial or ferric (red water) iron is present or iron level exceeds 4.0 mg/l, an iron filter should be installed instead of the PUN1 system.

Manganese - A naturally occurring metallic element. Manganese levels as low as 0.05 milligrams/liter (mg/l) can combine with oxygen to cause dark brown or black staining on fixtures. Additionally, manganese can cause an odor in the water similar to a “rotten egg” smell. A water softener may reduce manganese as well as iron; however, an iron filter may be required in some cases.

Tannin - A naturally occurring humic acid. Tannin is caused by water passing through decaying vegetation. Coffee and Tea are prime examples of tannin in water. Tannin levels as low as 0.5 milligrams per liter can cause a yellow discoloration in water. Consult your dealer for a system designed to reduce tannin.

Hydrogen Sulfide - A naturally occurring gas. Hydrogen sulfide, more commonly referred to as sulfur, causes a distinct odor similar to “rotten eggs.” Due to its gaseous nature, hydrogen sulfide must be tested at the well site within 1 minute of drawing the sample. If sulfur is present additional equipment will be required.

Pre-installation Instructions (cont.)

Location Considerations

The proper location to install the neutralizer system will ensure optimum performance and satisfactory water quality. The following factors should be considered in selecting the location of the equipment.

1. The water filter should be installed after the pressure tank (private well system only) or water meter.
2. All water conditioning equipment should be installed prior to the water heater. Water temperatures exceeding 100°F can damage the internal components of the control valve and filter tank. Install with at least 10' of pipe before the water heater to prevent thermal damage to the equipment. An expansion tank may need to be installed in the line to the water heater in order to allow for thermal expansion and comply with local plumbing codes.
3. The water filter should not be subject to freezing temperatures.
4. Install any cartridge or in-line type filter installed before the water filter to prevent foreign material from fouling the filter media or causing pressure loss in the filter.
5. Appliances requiring extended periods of continuous or high flow water use (i.e. geothermal heat pumps, swimming pools, lawn irrigation, outside hose bibs, etc.) should bypass the water filter. (see installation diagram Fig. 1).

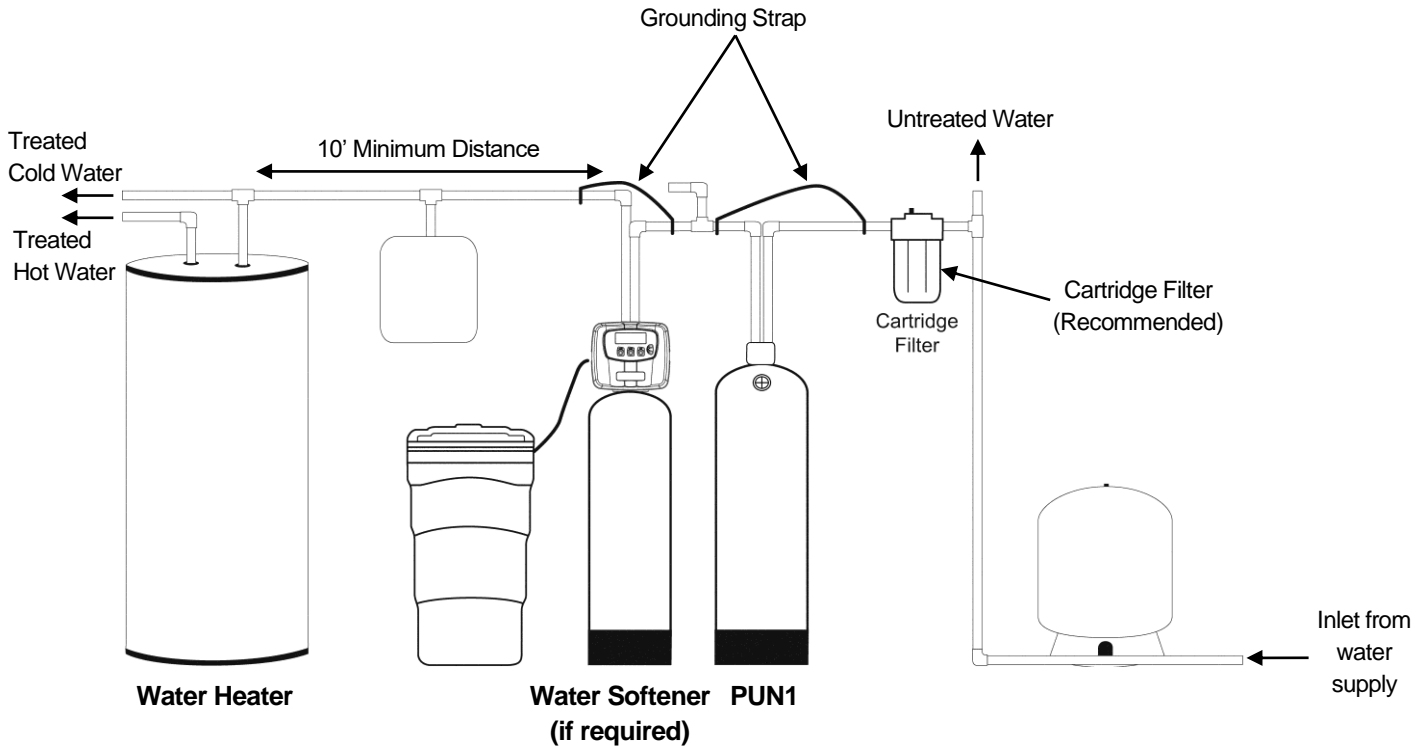


FIGURE 1: Typical Installation

Installation Instructions

- STEP 1:** Unpack the neutralizer unit, making sure to remove entire contents of the shipping container prior to disposal.
- STEP 2:** The unit should be installed after the pressure tank or water meter and before the water heater.
- STEP 3:** If neutralizer media is already in the media tank, proceed to step 4. If media is shipped separately, remove the fill port cap. Add media through the fill port using a funnel. Do not overfill the tank. At least 14" of freeboard (empty space) is required at the top of the media tank. More media may have been provided than required for initial fill. Save any extra media for future replenishment. Clean any media out of fill port threads. Do not replace the fill port cap yet.
- STEP 4:** Shut off water at main supply. Relieve pressure by opening nearest faucet. On private well systems, turn off power to pump and drain pressure tank. **SHUT OFF FUEL SUPPLY TO WATER HEATER!**
- STEP 5:** Attach bypass valve to the in/out head. Place the bypass in the BYPASS position by turning the handles so they point at each other. Please see Figure 2 below.
- STEP 6:** Cut main supply line as required to install any cartridge housing and sediment cartridge filter (recommended) followed by fitting plumbing to inlet and outlet of PUN1filter. Use the port marked UPFLOW INLET for the incoming water line. Use the port marked DOWNFLOW INLET for the outgoing water line. DO NOT apply heat to any fitting attached to bypass or control valve.
- STEP 7:** Fill the media tank with water through the fill port using a garden hose or bucket. Replace the fill port cap securely.
- STEP 8:** Turn on water at main supply.
- STEP 9:** Turn the bypass valve to the SERVICE position. See Figure 2 below. Check carefully for leaks.
- STEP 10:** Run cold water **slowly** in bathtub until it is no longer cloudy.

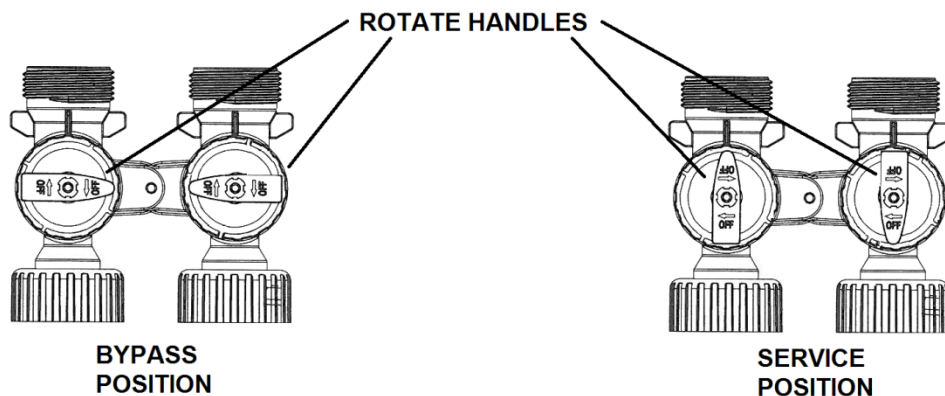
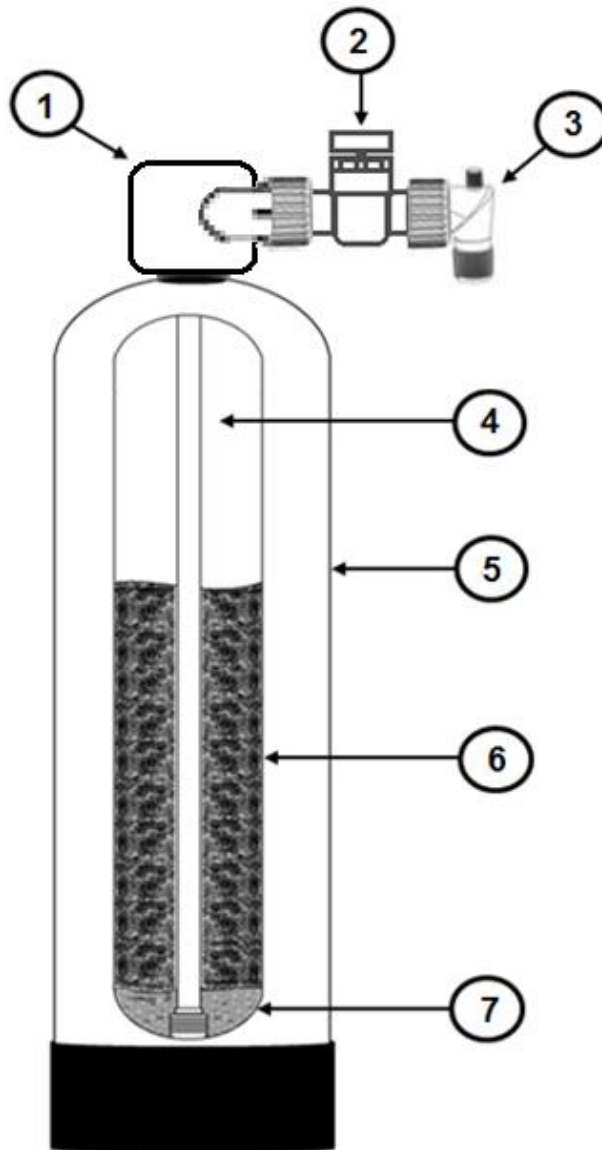


Figure 2: Bypass Valve Operation

PUN1 Component Parts List



PART		UNIT MODEL NUMBER				
Ref #	Description	PUN1-1044-DH	PUN1-1054-DH	PUN1-1248-DH	PUN1-1354-DH	PUN1-1465-DH
1	In/Out Head	CD1400				
2	Bypass valve	CV3006				
3	1" Elbows (set of 2)	CV3007				
4	Distributor	D100S-48	D100S-54	D100S-48	D100S-54	D100S-65
5	Media tank w/ Dome Hole	MTP1044DOME	MTP1054DOME	MTP1248DOME	MTP1354DOME	T14X65T4DH
6	Neutralizer Media	QTY 2 - N05	QTY 3 - N05	QTY 4 - N05	QTY 5 - N05	QTY 6 - N05
7	1/4" x 1/8" gravel	QC20			QTY 1-1/2 - QC20	QC50
Not Shown	3/4" Compression Fittings (set of 2)	QFNCR4-2				
SERVICE FLOW RATES (GPM)						
	Continuous	2	3	4	5	6
	Service	6	8	10	12	14
	Peak	8	12	14	18	20

TEN YEAR LIMITED WARRANTY

WARRANTY – Franklin Water Treatment, LLC, warrants this water conditioner against any defects that are due to faulty material or workmanship during the warranty period. This warranty does not include damage to the product resulting from accident, neglect, misuse, misapplication, alteration, installation, or operation contrary to printed instructions, or damage caused by freezing, fire, flood, or Acts of God. From the original date of consumer purchase, we will repair or replace, at our discretion, any part found to be defective within the warranty period described below. Purchaser is responsible for any shipping cost to our facility and any local labor charges.

- One year on the entire water conditioner
- Ten years on the mineral tank

GENERAL CONDITIONS – Should a defect or malfunction occur, contact the dealer that you purchased the product from. If you are unable to contact the dealer, contact Franklin Water Treatment, LLC at (260)693-1972. We will require a full description of the problem, model number, date of purchase, and selling dealer’s business name and address.

We assume no warranty liability in connection with this water conditioner other than specified herein. This warranty is in lieu of all other warranties, expressed or implied, including warranties of fitness for a particular purpose. We do not authorize any person or representative to assume for us any other obligations on the sale of this water conditioner.

FILL IN AND KEEP FOR YOUR RECORDS

Original Purchaser	Date of Purchase	Model #	
Address of Original Installation		City	State
Dealer Purchased From	Dealer Address	City	State

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