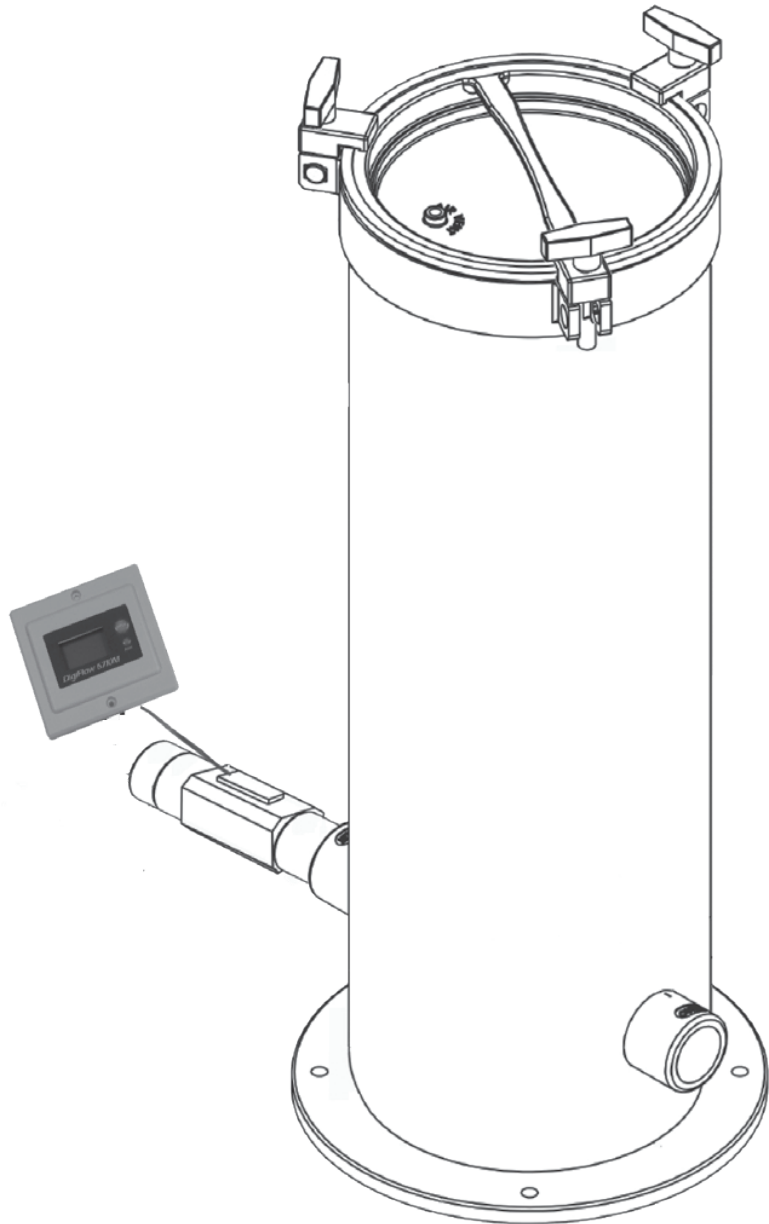


PERFORMANCE SERIES™

TITANIUM FILTER

MODELS: PPPWHS9000, PPPWHS9000B



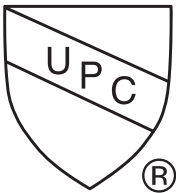
Professional Installation **MANUAL**

Version V3.7

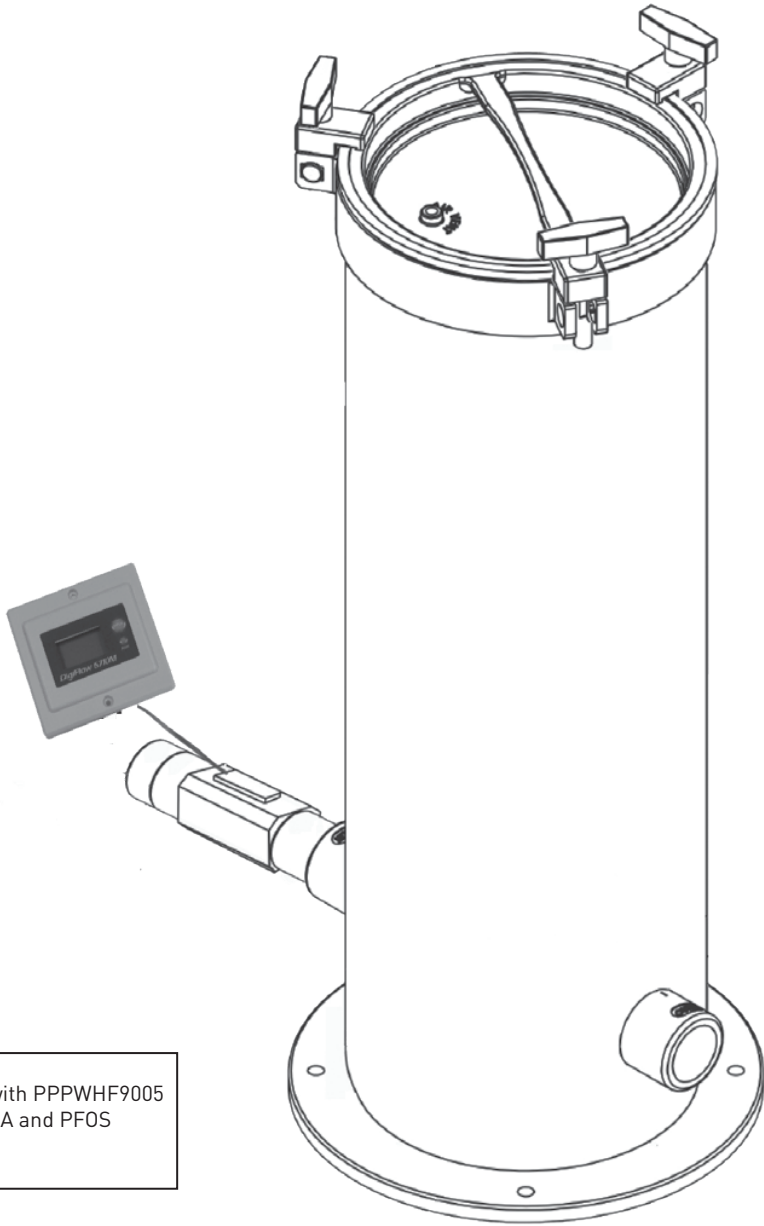


PROTECT PLUS PRO™

WATER FILTRATION



The PPPWHS9000 and PPPWHS9000B Systems with PPPWHF9005 is certified by IAPMO R&T to NSF/ANSI 53 for PFOA and PFOS reduction.



Model # PPPWHS9000



828.449.2536
420 3rd Avenue NW
Hickory, NC 28601

START HERE CONTENT

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READ THIS PAGE FIRST



BEFORE STARTING INSTALLATION

- ▶ You must read and understand the contents of this manual before installing or operating your water filter. Personal injury or property damage could result if you fail to follow instructions in this manual.
- ▶ This filter and its installation must comply with state and local regulations. Check with your local public works department for plumbing and sanitation codes. Local codes should be followed in the event the codes conflict with any content in this manual.
- ▶ For installations in Massachusetts, Massachusetts Plumbing Code 248 CMR shall be adhered to. Consult your licensed plumber for installation of this system.
- ▶ This filter must be operated on pressures between 30 psi to 125 psi. If the water pressure is higher than 125 PSI, use a pressure reducing valve in the water supply line to the unit.
- ▶ This unit must be operated at temperatures between 40°F and 110°F (4°C - 43°C).
- ▶ Do not use this filter on hot water supplies.
- ▶ Do not install this unit where it may be exposed to wet weather, direct sunlight, or temperatures outside of the range specified above.
- ▶ Apply provided certified lubricant to all o-rings during installation. Do not use pinched or damaged o-rings during installation.
- ▶ Do not use water that is microbiologically unsafe without adequate disinfection before or after this system.
- ▶ This publication is based on information available when approved for printing. Continuing design refinement could cause changes that may not be included in this publication.

See page 6 for unpack and inspect system

PROTECT PLUS PRO reserves the right to change the specifications referred to in this literature at any time, without prior notice.

INSTALL NOTES & SAFETY MESSAGES

Watch for the following messages in this manual:

EXAMPLE:

NOTE

Check and comply with your state and local codes. You must follow these guidelines.

EXAMPLE:

CAUTION

Disassembly while under pressure can result in flooding.

EXAMPLE:



WARNING

ELECTRICAL SHOCK HAZARD! Unplug the unit before removing the cover or accessing any internal control parts

EXAMPLE:

WARNING

Crush hazard contents under pressure.

Release pressure prior to opening. Press and hold Air Vent button until pressure is relieved.

COMPONENTS & SPECIFICATIONS

TITANIUM REPLACEMENT FILTER SPECIFICATIONS

Titanium - PFAS System	
Chlorine	•
Chlorine bi-products (VOCs)	•
Pesticides	•
Herbicides	•
Phosphate	•
PFOS	•
PFAS	•
PFOA	•
PFNA	•
Pharmaceuticals	•
Microplastics	•
Chloramines	Reduction
Nitrate	Reduction
Microbial Cyst Antimicrobial Technology	•

Usage and quality of water in your cold water line affect the life of filter cartridges. Cartridges should be replaced sooner if water pressure at the faucet begins to drop noticeably or if the filter fails to perform satisfactorily.

Titanium - PFAS System														
IAPMO Certification Claims		Certification Description	Class Level	Service Flow Rate GPM	Water Pressure		Pressure Drop	Temperature		Filter Capacity/Replacement Interval Gallons	Weight LBS	Dimensions (In.)		
					Min	Max		Min	Max			Height	Width	Depth
PFAS	NSF P473, NSF 53	PFAS/PFOS		8	40	125	9	39	100	140,000	1.5	32	10.5	

* Replacement filter requirements depend on quality of incoming water. Typically every 12 months.

SAFETY GUIDE

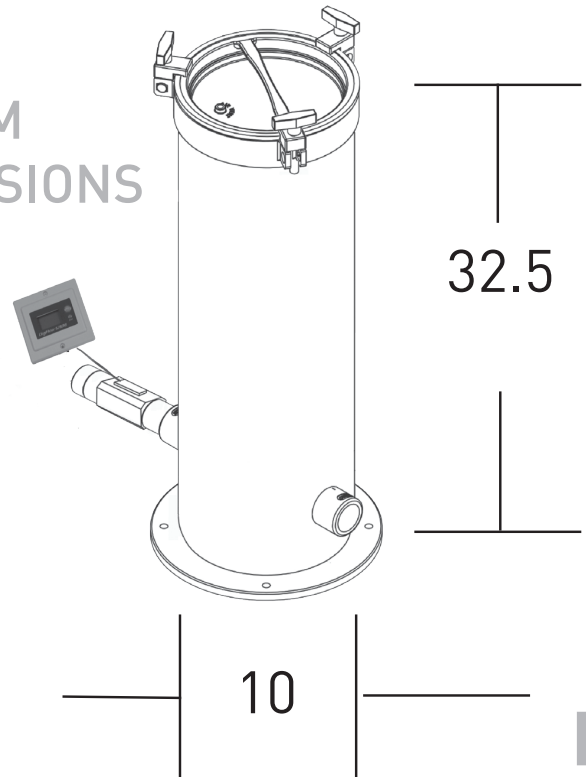
For your safety, the information in this manual must be followed to minimize the risk of electric shock, property damage or personal injury.

- ▶ Check and comply with your provincial / state and local codes. You must follow these guidelines.

⚠ CAUTION

This system is not intended for treating water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after this system.

SYSTEM DIMENSIONS



INSTALLATION



UNPACK & INSPECT TITANIUM FILTER

TITANIUM CONTENTS:

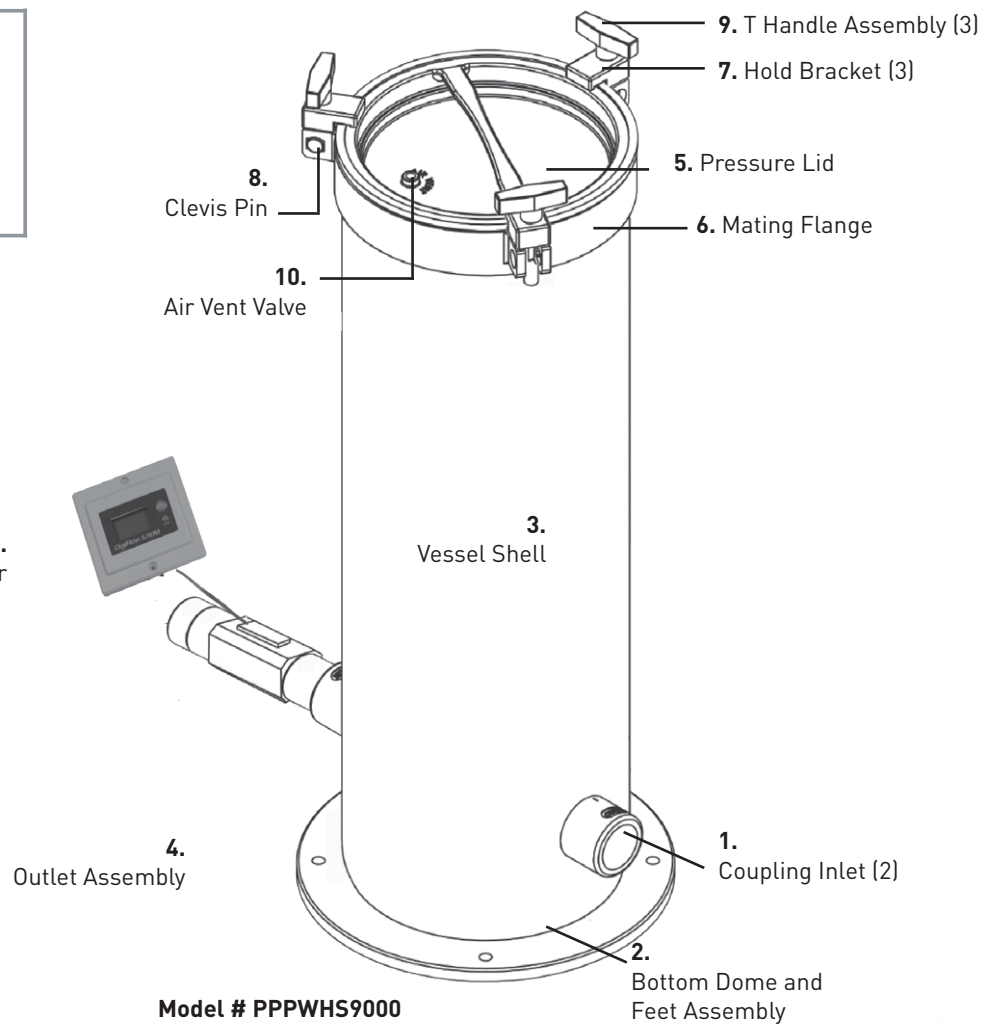
1. Titanium 1.5 Coupling Inlet (2)
2. Titanium Bottom Dome & Feet Assembly
3. Titanium Vessel Shell
4. Titanium Outlet Assembly
5. Titanium Pressure Lid
6. Titanium Mating Flange
7. Titanium Hold Bracket (Qty 3)
8. Titanium Clevis Pin (Qty 3)
9. Release Handle Assembly (Qty 3)
10. Titanium Air Vent Valve
11. Flow Meter

- Check the entire unit for any shipping damage.
- Note any damage to the shipping cartons.
- Contact the transportation company for all damage and loss claims.
- The manufacturer is not responsible for damages in transit.
- Handle the unit with care.
- Do not drop the unit or set on sharp uneven projections on the floor.
- Do not turn the unit upside down.

NOTE

Multiple inlets and outlets for convenient connections to inbound and outbound water lines.

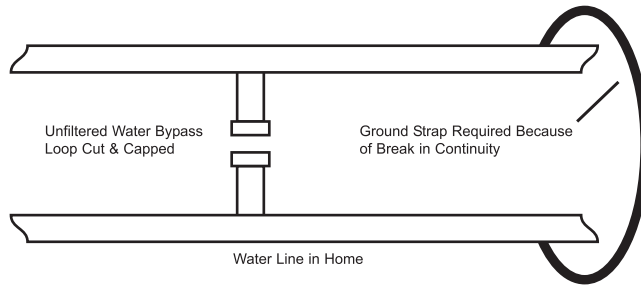
11.
Flow Meter



PRE-INSTALLATION INSTRUCTIONS

ELECTRICAL GROUNDING

An approved grounding strap must be used in all cases where metal pipe was originally used and is later interrupted by poly pipe, the Noryl bypass valve or by physical separation. The grounding clamp used for continuity, must be no less than #6 copper conductor to maintain proper metallic pipe bonding.



NOTE

Check your local electrical code for the correct strap.

NOTE

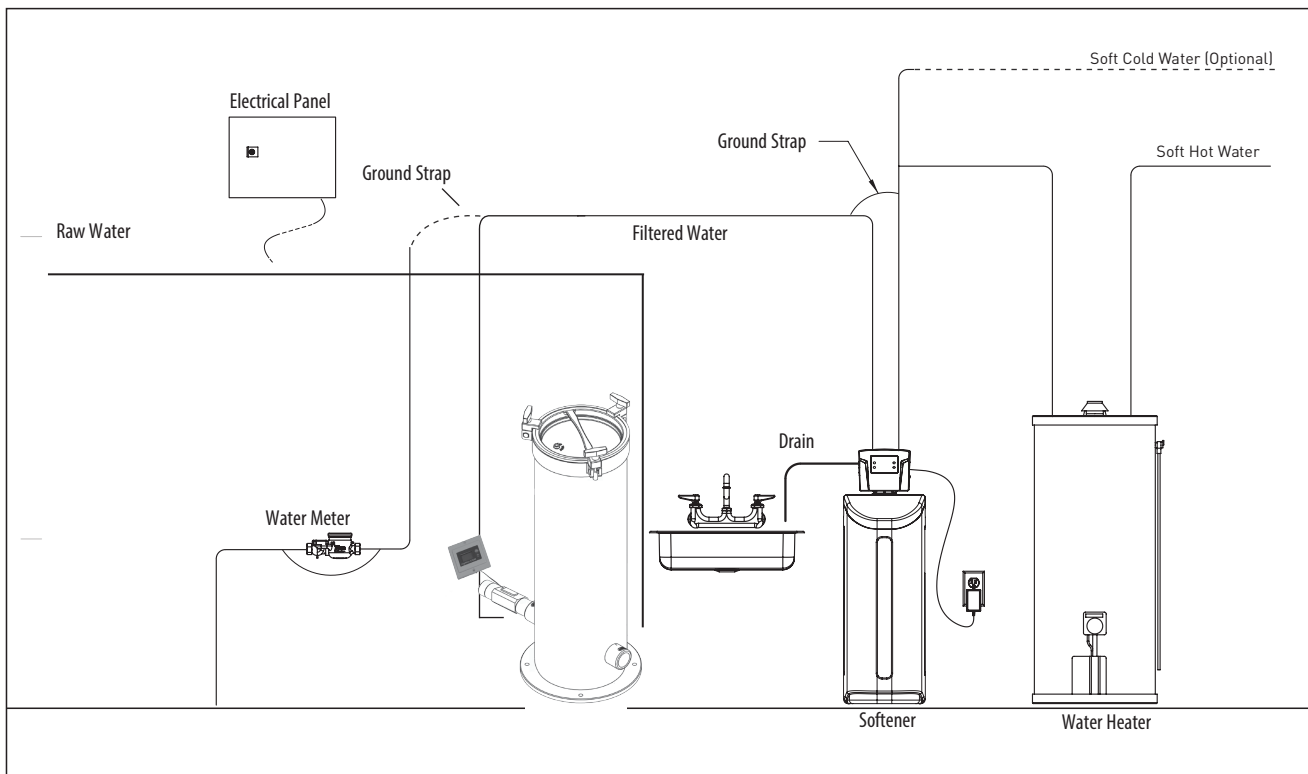
You must follow all government codes and regulations governing the installation of these devices.

CAUTION

The ground from the electrical panel or breaker box to the water meter or underground copper pipe is tied to the copper water lines. If these lines are cut during installation of the Noryl bypass valve and/or poly pipe, an approved grounding strap must be used between the two lines that have been cut. This will maintain continuity. The length of the grounding strap will depend upon the number of units being installed and/or the amount of copper pipe being replaced with plastic pipe. See drawing below.

CAUTION

Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.



TOOLS REQUIRED FOR INSTALLATION:

- ▶ Adjustable wrenches (2)
- ▶ Pipe Cutter or Hacksaw
- ▶ Pipe Wrench
- ▶ Tape Measure
- ▶ Safety Glasses
- ▶ File

NOTE

If the plumbing system is used as the ground leg of the electric supply, continuity should be maintained by installing ground straps around any nonconductive plastic piping used in installation.

DETERMINE THE CORRECT LOCATION FOR THE TITANIUM FILTER

Determine the best location for your water filter, bearing in mind the location of your water supply lines, drain line and 120 volt AC electrical outlet. Subjecting the filter to freezing or temperatures above 43°C (110°F) will void the warranty. Review the various conditions below to determine a proper location:

1. Locate as close as possible to the water supply source.
2. Do not install a filter in a location where freezing temperatures occur. Freezing may cause permanent damage to this type of equipment and will void the factory warranty.
3. Allow sufficient space around the unit for easy servicing & Filter Replacement.
4. Keep the filter out of direct sunlight. Heat build up from direct sunlight may soften and distort plastic parts.
5. Measure the diameter of the existing pipe to determine what size fittings and/or valves (not included) will be required.

The system is to be supplied only with cold water. The system and installation shall comply with applicable state and local regulations.

INSTALLATION: CONFIGURE THE UNIT

The following chart may assist you in selecting appropriate fittings or adapters to be used depending upon plumbing in the installed location.

TYPE OF PLUMBING		3/4" COPPER PIPE	1" COPPER PIPE	3/4" PVC PIPE	1" PVC PIPE	3/4" PEX	1" PEX
Quantity	Fitting Method	Solder according to local plumbing codes.	No individual fitting (will require more than 1). Solder according to local plumbing codes.	Use PVC Primer & PVC Pipe Cement per your local plumbing codes.	Use PVC Primer & PVC Pipe Cement per your local plumbing codes.	You may need to consult your local plumber - requires special tools.	You may need to consult your local plumber - requires special tools.
2	Standard Male Adapter	3/4" Male Adapters	1" x 3/4" reducing coupling & 3/4" male adapter & 3/4" x 2" copper nipple.	3/4" MPT x 3/4" tube male adapter PVC Slip Type	3/4" MPT 1" tube male adapter PVC Slip Type.	3/4" MPT x 3/4" CTS QC Adapter (Watts Water PEX).	3/4" MPT x 1" CTS QC Adapter (Watts Water PEX).
2	Compression	3/4" OD tube x 3/4" MIP Compressions Male Adapter.	Compression not readily available for 1" copper pipe.	n/a	n/a		
2	Union	3/4" Copper Union & 3/4" Male Adapter & 3/4 x 2" copper nipple	1" Copper Union & 1" x 3/4" reducing coupling & 3/4" male adapter & (2) 3/4" x 2" copper nipple.	3/4" PVC Union & 3/4" MPT x 3/4" tube male adapter PVC slip Type & 3/4" x 2" PVC nipple.	1" PVC Union & 3/4" MPT x 1" tube male adapter PVC slip Type & 1" x 2" PVC nipple.		

NOTE

Local hardware or plumbing supply will stock these fittings.

- Measure the diameter of the existing pipe.
- Review the Configuration Chart.
- Determine how you will configure your filter.
- Dry assemble the complete unit including all fittings and valves.

FITTINGS TO PURCHASE

A grounding kit (not included) MUST be installed on water pipes if the pipes are used to ground electrical systems, appliances or phones. Typically these are homes with metal water pipes.

INSTALLATION: MARK AND CUT PLUMBING PIPE

- Turn off household water supply line.
- Turn on all faucets and drain lines completely.
- Measure overall length of the unit.
- Reduce this measurement enough to allow for the amount of engagement to determine how much pipe to remove from the line.
- Mark section of plumbing pipe that will need to be removed.
- Cut marked section from plumbing pipe.
- Remove any burrs or debris from cut pipe edges with a file.

INSTALLATION: FILTER HOUSING

- Attach unit to pipes
- Make all connections and tighten fittings, keeping in upright position
- Remove Cover Assembly
- Drop in filter cartridge in bottom of unit
- Replace Cover Assembly to top of unit, Do not overtighten.

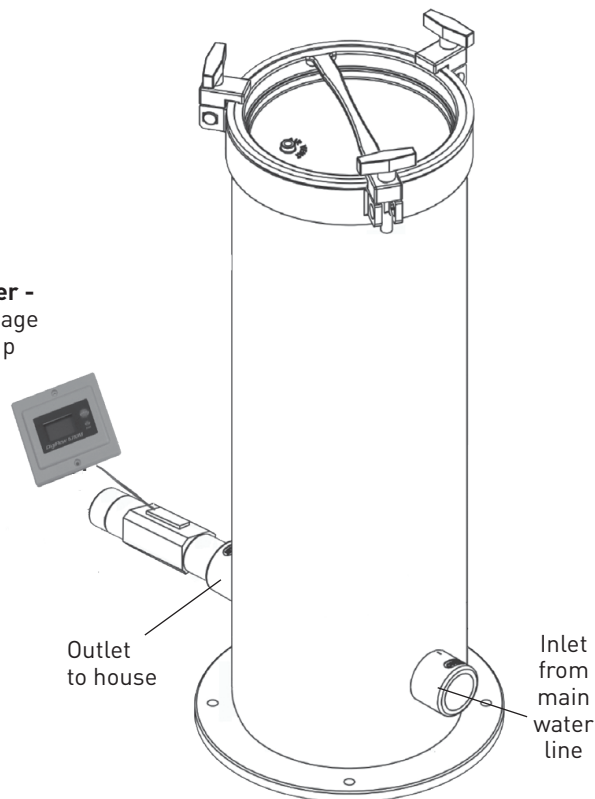
NOTE

Measure twice, cut once!
Use a pan or bucket to catch any remaining water in the pipes.

CAUTION

A grounding kit (not included) MUST be installed on water pipes if the pipes are used to ground electrical systems, appliances, or phones. Typically these are homes with metal water pipes.

Flow Meter -
See next page
for set up

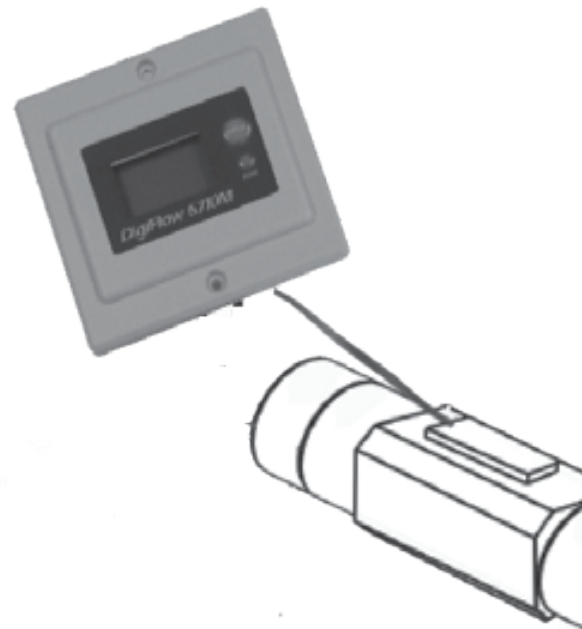


INSTRUCTIONS TO SET UP METER

EVERY TIME A TITANIUM SYSTEM IS INSTALLED IN A HOME:

1. Plug the meter into the Titanium Filtration System Outlet Assembly
2. Connect to a power source
3. Place Meter in a convenient location where it is visible.
4. Reset the Meter to 0
5. Reset Meter to 0 each time you change the Filter

PPPWHF9005: THE FILTER MUST BE REPLACED WHEN THE COUNTER REACHES 41.666 GALLONS.



REPLACEMENT

See Page 13 for Filter Replacement Intervals

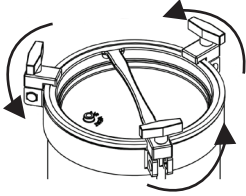
BEFORE YOU BEGIN

- Turn off household water supply to the home
- Turn on all faucets in home to drain water lines.
- press the air vent valve on top of the pressure lid to release trapped air.



REMOVE COVER ASSEMBLY

- unscrew the 3 Release handle assemblies and remove lid
- Caution: Unit will contain water



CLEAN UNIT

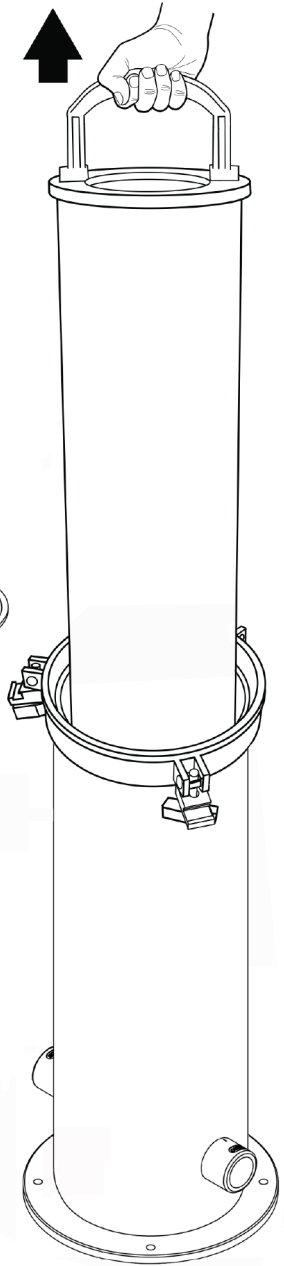
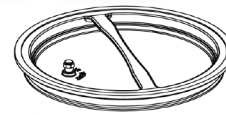
- Rinse and fill unit 1/3 with water and 2 tbsp. of Clorox® bleach
- Wipe Cover Assembly and rinse thoroughly to remove bleach

INSERT NEW FILTER

- Drop in replacement filter in bottom of unit
- Firmly press down filter to seat, seal, and secure in bottom of vessel.

REPLACE COVER ASSEMBLY

- Firmly press down cover assembly using a quarter turn on the handle for a tight seal.
- Securely tighten the Release handle assemblies to ensure a tight seal with the vessel.



WARNING

**Crush hazard
contents under pressure.**

Release pressure prior to opening.
Press and hold Air Vent button until
pressure is relieved.

NOTE

To prevent leaks and/or housing ruptures,
please properly seat filter cartridge at top and
bottom within pressure vessel.

THE ELECTRICAL WARNING BELOW
APPLIES ONLY TO UNITS WITH FLOW METERS



WARNING

ELECTRICAL SHOCK HAZARD! Unplug the unit before removing
the cover or accessing any internal control parts

FILTER REPLACEMENT: TEST THE FILTER

- Slowly turn on the water supply.
- Check for any leaks between the titanium lid and housing of the unit, and on the inlet and outlet connections. If there are any leaks, see the troubleshooting guide.
- Soak filter for 2 hours and flush for 40 minutes by keeping the nearest faucet turned on.

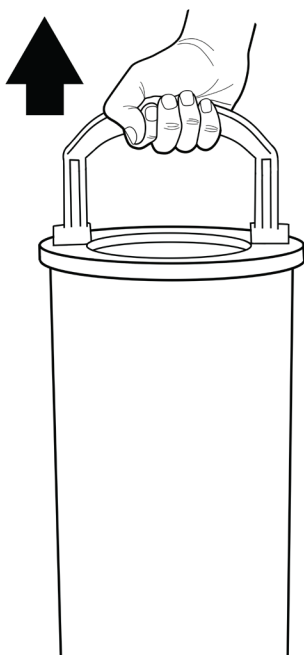
Usage and quality of water in your cold water line affect the life of filter cartridges. Cartridges should be replaced sooner if water pressure at the faucet begins to drop noticeably or if the filter fails to perform satisfactorily.

After prolonged periods of non-use, it is recommended that the filter be flushed thoroughly. Let water run for 10 minutes before using.

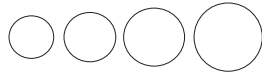
The filter used with this filter housing has a limited service life. Changes in taste, odor and/or flow of the water being filtered indicate that the filter should be replaced.

REPLACEMENT FILTER MODEL NUMBERS

Product SKU	Filter Cartridge Description	Contaminant Reductions	Capacity	Flow Rate	Replacement Interval
PPPWHF9005	Titanium PFOA/PFOS Replacement Filter	PFOA, PFOS	41,666 gal	8gpm	6 Months

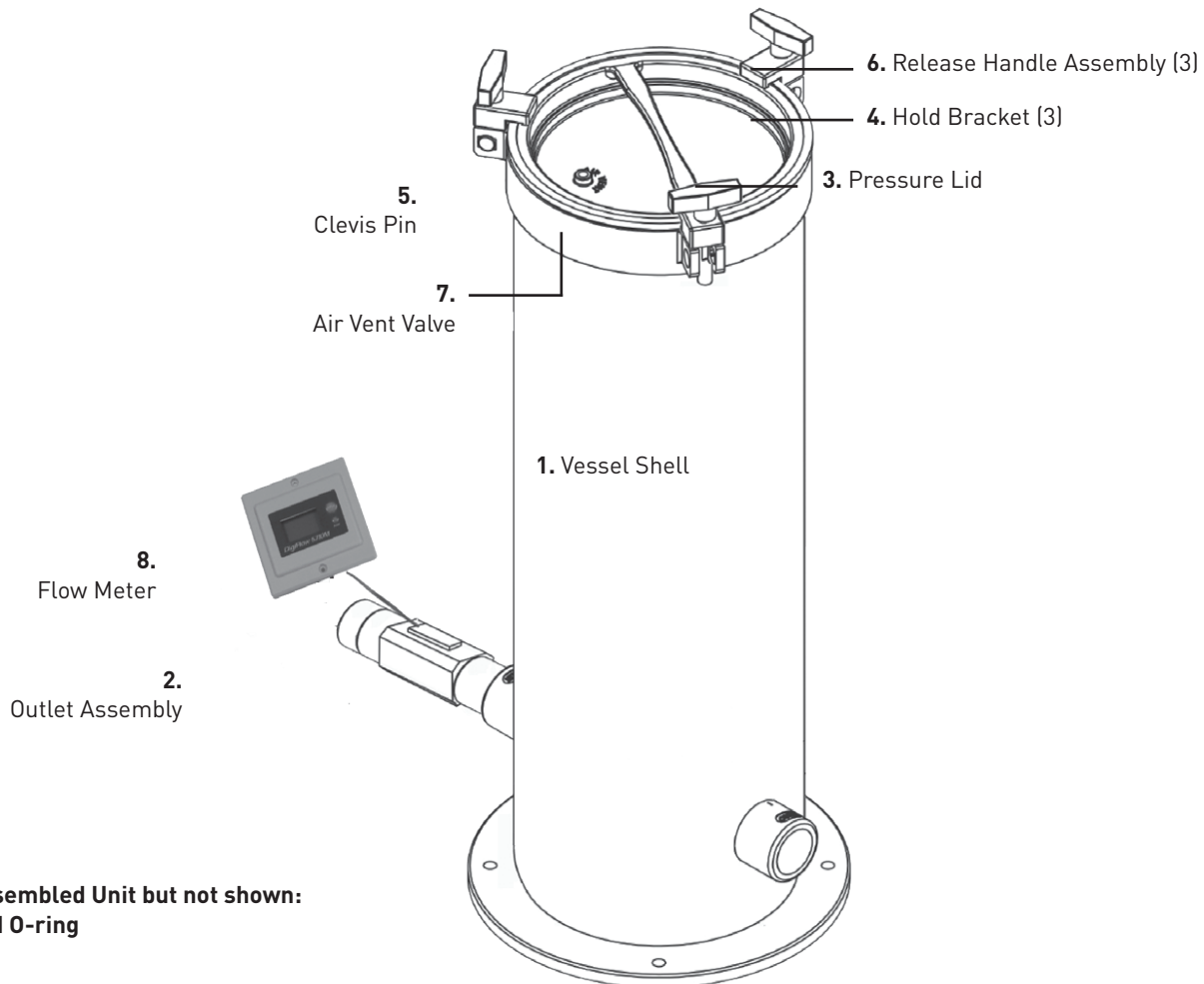


REPLACEMENT PARTS



TITANIUM PARTS:

- PPPWHP9010 -1.** Titanium Vessel Shell
- PPPWHP9011 -2.** Titanium Outlet Assembly
- PPPWHP9012 -3.** Titanium Pressure Lid
- PPPWHP9013 -4.** Titanium Hold Bracket (Qty 3)
- PPPWHP9014 -5.** Titanium Clevis Pin (Qty 3)
- PPPWHP9015 -6.** Titanium Release Handle Assembly (Qty 3)
- PPPWHP9016 -7.** Titanium Air Vent Valve
- PPPWHP9017 -8.** Flow Meter
- PPPWHP9018 -9.** Titanium Pressure Lid O-ring



TROUBLE SHOOTING GUIDE ○○○○

PROBLEM

SOLUTIONS

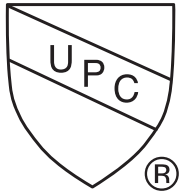
A. LEAKS BETWEEN COVER ASSEMBLY & HOUSING	• Turn off household water supply
	• Purge all water from the water lines by turning on all faucets in the home and drain completely.
	• Unscrew and remove the cover assembly from the cartridge housing. Use a bucket to catch any water in the housing.
	• Clean the groove in the cover assembly where the o-ring sits.
	• Screw the cover assembly back on to the housing and hand tighten.
	• NOTE: Do not over-tighten.
	• Turn on the household water supply and inspect for leaks.
B. LEAKS AROUND FITTINGS	• Turn off household water supply
	• Purge all water from the water lines by turning on all faucets in the home and drain completely.
	• Tighten all fittings.
	• Turn on the household water supply and inspect for leaks.
	• If leaks continue, disassemble the configured unit, reapply plumber's tape or sealant, and reinstall the cartridge.

FOR CUSTOMER SERVICE CALL: 828-449-2536

PERFORMANCE DATA SHEET

PROTECT PLUS PRO™ TITANIUM FILTER MODELS PPPWHS9000 AND PPPWHS9000B WITH PPPWHF9005

This filtration system has been tested and certified according to NSF/ANSI Standard 53 by IAPMO R&T for the reduction of the substances listed below, as verified and substantiated by test data. The concentration of the indicated substances in the water entering the system was reduced to a concentration less than or equal to the permissible limit for the water leaving the system, as specified in NSF/ANSI Standard 53.



Please see warranty for manufacturer's limited warranty.
Please see installation instructions for internal operation and maintenance requirements

NSF/ANSI STANDARD 53 HEALTH EFFECTS

SUBSTANCE	INFLUENT CHALLENGE CONCENTRATION	MAX PERMISSIBLE PRODUCT WATER CONCENTRATION	ACTUAL MINIMUM PERCENTAGE REDUCTION	ACTUAL AVERAGE PERCENTAGE REDUCTION
Perfluorooctanoic acid (PFOA) Perfluorooctane sulfonate (PFOS)	0.0015 mg/L ± 10%	0.00007 mg/L	95.63%	97.18%

Operating requirements: Filter system capacity 41,666 gallons/157,723 liters or approximately 12 months.
Operating temperature: Min 39°F / 3.9°C - Max 100°F / 37.8°C Operating Pressure: Max.100 psi / 689.476 kpa - Min.60 psi / 413.605 kpa. Flow Rate: 8gpm / 30 lpm, 4 psi pressure drop at rated service flow.

Laboratory test conditions: pH 6.5 - 8.5 water temperature: 72°F / 23°C - 75°F / 24°C
Actual performance may vary with local water conditions.

Do not use with water that is microbiologically unsafe or of unknown water quality without adequate disinfection before or after the system.

This limited warranty is solely provided to approved dealers of Protect Plus Pro Products sold by Protect Plus Pro, LLC and is not applicable to consumers and homeowners. Consumers and homeowners should contact the dealer they purchased their product for warranty information.

Please find below a summary of warranty information for Protect Plus Pro Products.

PRODUCT WARRANTY:

Protect Plus Pro, LLC warrants only to its dealers that each product is free from defects in materials and workmanship. The length and terms of the product warranties vary as specifically set forth below. This warranty applies to the housing or system and not to the disposable filter cartridge where life expectancy of the filter can vary with the water being filtered.

LIMITED LIFETIME WARRANTY FOR PRESSURE VESSEL:

Protect Plus Pro, LLC will provide a replacement pressure vessel to any approved dealer that purchased the new pressure vessel assembled unit from Protect Plus Pro, LLC and whose client is in possession of a pressure vessel that fails provided that the pressure vessel is at all times operated in accordance with specifications, contained within the owner's manual, and not subject to freezing or negative pressure vacuum.

LIMITATIONS TO LIMITED WARRANTY:

Damage to any part of this pressure vessel as a result of misuse, misapplication, neglect, alteration, accident, installation or operation contrary to our printed instructions contained within the owner's manual, or damage caused by any force of nature is not covered in this warranty. **DAMAGE TO THE PRESSURE VESSEL IS NOT COVERED UNDER THIS WARRANTY IF THE UNIT IS EXPOSED TO HARSH ENVIRONMENTAL CONDITIONS, SUCH AS HIGH LEVELS OF IRON, MANGANESE, SULPHUR, AND SEDIMENT.** We will repair or replace defective parts if our warranty department determines it to be defective under the terms of this warranty. Protect Plus Pro, LLC assumes no responsibility for consequential damage, labor or expense incurred as a result of a defect or failure. For a copy of this warranty please contact Protect Plus LLC.

LIMITED WARRANTY ON COMPONENT PARTS NOT PURCHASED AS PART OF A NEW PRESSURE VESSEL ASSEMBLED UNIT:

For Component parts not sold as part of a new assembled unit system are warranted to do the work for which they are intended where properly installed and operated. The new pressure vessel assembled unit consists of a housing and meter sold as an assembled unit. For component parts not sold as a new assembled unit, Protect Plus Pro, LLC provides the following limited warranty on the component parts.

ELECTRONIC METER:

Protect Plus Pro, LLC will replace the electronic control of any new pressure vessel assembled unit which fails within 12 months from date of purchase by the dealer or installation by the dealer.

Protect Plus Pro, LLC only provides a limited warranty for this product to its approved dealers. Protect Plus Pro, LLC does not provide any warranty to any consumer purchaser or household purchaser of this product. The consumer purchaser or household purchaser should consult the dealer they purchased this product from to determine the warranty, if any, provided by the dealer.