

Pentair PSE1800-P Whole House Water Filter & Softener Combo (Pelican PSE1800)

The Pentair PSE1800-P (formerly Pelican PSE1800) combines a whole house water filter with a salt-free water softener a.k.a. conditioner.

The goal: Providing clean and great-tasting water that also has most of the benefits of properly softened water such as not leaving scale deposits in your plumbing and household appliances.



Pentair PSE1800-P Whole House Water Filter & Softener Combo

Price: \$\$

Treatment Process: Sediment (5 Microns), Catalytic Carbon + KDF, TAC Water Conditioning

Hardness Limit:	75 gpg
Filter Life:	650,000 Gallons or 5 Years
Flow Rate:	8 Gallons Per Minute

Overall Rating: 4.5/5.0 ⓘ

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Pentair PSE1800-P Whole House Water Filter & Softener Combo – All Specs

- Model: PSE1800-P
- Annual Maintenance Cost: ~\$30-40
- Treatment Process: Sediment Pre-Filter (5 Microns), Catalytic Carbon + KDF, TAC
- Treatment Stages: 3
- Flow Rate: 8 gpm
- Filtering Capacity: 650,000 gal or 5 Years
- Max Hardness: 75 gpg
- Tank Width: 9"
- Tank Depth: 9"
- Water Temperature: 36-120 °F
- Water Pressure: 25-80 psi
- Water pH: 7-11
- Fitting: 1" NPT
- NSF Certifications: Standard 42 (Chlorine Reduction, Structural Integrity), Standard 61, Standard 372
- Warranty: 1-5 Years

Pentair PSE1800-P – Key Features

The Pentair PSE1800-P Water Filter & Water Softener Alternative Combo System is exactly that, a combination of whole house water filter and salt-free water softener. So not only does the system filter your water removing unwanted

pollutants, it also greatly reduces the scaling effects of hard water – you get the best of both worlds.

The setup consists of 2 separate systems sold together: The Pentair PC600-P whole house water filter and the Pentair NS3-P water conditioner. Let's start with the whole house filter unit:

It features a 5-micron sediment pre-filter for the removal of larger particles, followed by catalytic granular activated carbon media and copper-zinc oxidation media (KDF-55).

- The sediment filter protects the rest of the system from clogging due to dirt and debris. And, of course, it also protects your pipes and appliances.
- The carbon (coconut shell-based) is used to reduce chlorine content (NSF-certified up to 96-97% reduction) thus improving water aesthetics, and it removes a lot of the harmful organic chemicals that are found in our water supplies these days such as pesticides, pharmaceuticals, and disinfection byproducts.
- The KDF media mainly helps to control microbial growth, but it also further reduces chlorine content and targets some water-soluble heavy metals.

Rated filtration capacity: Around 650,000 gallons or 5 years.

The salt-free water conditioner is up to 99.6% effective in scale prevention and even dissolves existing hard water deposits from your entire plumbing system. It does this without actually removing any hardness minerals from the water. The technology is called template assisted crystallization (short: TAC) and it alters the form of calcium in the water so that it remains suspended and doesn't stick to surfaces.

Bottom line: Not only will your water-using appliances, pipes, and fixtures last longer, hard water staining and spotting around your home will also become less prominent and easier to clean. The maximum hardness level that can be handled is 75 grains per gallon which is extremely high.

According to Pentair, the PSE1800-P delivers enough water for up to 3 bathrooms. The service flow rate is 8 gallons per minute.

Pelican Whole House Filter & Water Softener Alternative Pros

One benefit of using a whole house filter-softener combo is that you get cleaner water for consumption, but it also increases the longevity of the softening stage due to sediments and other dirt being removed beforehand.

As for the water softener/conditioner, it has unlimited capacity, meaning the TAC media does not need to regenerate and it lasts for years.

Using a salt-free conditioner also has the advantage that the “softening” works without adding additional salt to your water, leaving it in its natural state so to speak – great if you are on a low-sodium diet. Also, all beneficial minerals are left in the water and add to your daily required intake. Plus, there are no salt refills and other maintenance tasks required and no waste water being generated.

Speaking of maintenance, all there is to do is replace the sediment filter cartridge every 6 to 9 months which totals to about \$30-40 a year.

And finally, we like the durable stainless steel design of the Pentair PSE1800-P water system and welcome the 1-year manufacturer warranty on the tanks and 5 years on the valves.

What Contaminants Are Being Removed?

- The 5-micron sediment pre-filter removes sand, silt, and other debris from your water, allowing you to enjoy longer-lasting appliances and protecting the PSE1800-P from damage.
- Granular catalytic carbon reduces chlorine in your water, improving its taste. It also filters out chloramines, pesticides, herbicides, industrial solvents, and disinfection byproducts among other organics.
- The KDF further reduces chlorine content in water. It also eliminates some heavy metals and prevents microbes from growing in the filter system.
- The salt-free conditioner doesn't remove impurities but alters the form of hardness-causing elements like calcium.
- Overall, the PSE1800-P can reduce chlorine in water by 96-97% which is a great way to combat dry and itchy skin.



The Pentair PSE1800-P – learn more on [Amazon.com](https://www.amazon.com)

Installation

In our opinion, if you are handy with tools or even have some prior plumbing experience, hooking up the Pentair PSE1800-P whole house water filtration and softening system should not be a problem.

If you are not a DIY guy, however, it might be better to hire a professional, especially because this system comes with 3 different stages.

Good news is: 2 bypass valves are included and everything is shipped pre-assembled and pre-loaded so no need to worry about that.

As for the general installation process, here is what you need to do:

Please consider these instructions as a general guideline. Always make sure to check and follow your user manual before getting started.

Sediment Filter Installation

The sediment filter is usually installed as a pre-filter with well water. However, city water users can place the sediment filter as a post-filter after the water conditioner.

Usually, if a professional plumber is installing, the position of the sediment filter will depend on their discretion.

1. Take off the cover of the blue filter housing.
2. Remove the plastic covering on the sediment filter cartridge.
3. Fix the sediment filter on the standpipe in the blue filter housing and set it aside.
4. Turn off the water supply.
5. Fix the filter cover onto the mounting bracket with the bolt head screws and washers provided. Ensure the labels IN and OUT match your flow pattern.
6. Fix the mounting bracket on the wall using the Phillips head screws.
7. Fix the blue filter housing back on its cover and hand-tighten it. Then use a filter wrench (counterclockwise) to ensure it's snug. Be careful not to overtighten.
8. Note the size of your inlet water line.

Note: The sediment filter housing has a 1/2" threaded female inlet/outlet. When installing, it may need additional fittings to be compatible with your plumbing. The manufacturer recommends installing a shut-off and bypass valve around the system before installing the sediment filter.

Carbon Filter Installation

1. Level the water tank.
2. Inspect the size and type of material of the supply line coming from the sediment filter to see if it can fit the 1" male NPT assembly.
3. Install the filters fitting onto the inlet and outlet sides of the bypass valve. The manual has a diagram you could look at.

4. Connect the water supply line from the sediment filter to the inlet side of the bypass valve.
5. Connect the supply line on the outset side to the bypass valve.

Water Softener Alternative Installation

1. Ensure the softener is in a level position.
2. Check the material and size of the water line from the water filter to see if they are compatible with the fittings on the softener. Then connect them to the bypass valve. Don't over-tighten any of the fittings during installation.
3. Using the diagram in the manual, connect the fitting to the inlet and outlet sides of your bypass valve.
4. Join the supply line from the carbon filter to the inlet portion of the bypass valve.
5. Join the outgoing supply line to the outlet portion of the bypass valve.

Maintenance

Maintaining the Pentair PSE1800-P whole house filter and conditioner is easy. Hard water being treated without salt makes this component virtually maintenance-free. All that's needed are sediment pre-filter replacements according to schedule (every 6 to 9 months). Costs are minimal: ~\$30-40. (Granted, about every 5 years or 650,000 gallons – whichever comes first – the carbon filter media has to be renewed.)

Here are the steps for replacing the sediment filter cartridge:

1. Shut off the water supply to the sediment filter from the main shut-off valve. Bypass all other tanks.
2. Open a faucet in the house to relieve pressure in the system.
3. Using a filter wrench, unscrew the blue filter housing (clockwise).
4. Take out the sediment filter in the housing and discard.

5. Remove the O-ring and clean the upper groove. Lubricate the O-ring with clean silicone grease before placing it back. Ensure you secure the O-ring in place – press it down into the groove with two fingers.
6. The O-ring has to be in place to prevent leaks and provide a good filter seal. If it is damaged or stretched, replace it.
7. Place a new sediment filter on the standpipe in the filter housing.
8. Put the filter housing back in position by fastening it onto the filter cover and hand-tightening it. Twist it into place till it's snug with the filter wrench provided, but avoid over-tightening it.
9. Slowly turn on the water supply and fill the sediment filter with water, allowing air to escape the lines. Take the other tanks out of bypass mode.
10. Check thoroughly for leaks.