

Aqua Science SS Series (5-20 GPM) Submersible Well Pump and Motor

Assembly Instructions



Congratulations on purchasing your new Aqua Science Submersible Well Pump!

Before installing the pump in your water supply, you need to assemble the pump and motor end. This manual will guide you through assembly the pump end and motor. It is extremely important that you follow this guide while assembling your new pump, as a proper assembly will ensure an efficient and long lasting system.

In this guide, we are using a 5SS05 pump with a .5 HP, 2 wire motor, but these instructions remain the same for all combinations of Aqua Science Submersible Well Pumps 5-20GPM, and Pentek XE motors .5-1.5 HP, 2 or 3 wire.

If you have any questions throughout the process, please call Aqua Science at 800-767-8731 to speak to one of our trained technicians who will help you solve whatever issue you may come across.



Parts List



Aqua Science Submersible Well Pump



Pentair Pentek Submersible Motor (2 or 3 wire)



Miscellaneous Parts Bag
(4) Lock Washers
(4) 1/2" Nuts
(1) Wire Protection Sleeve



Motor Gasket



Sand Boot



Sand Slinger

Tools Needed



Phillips Head Screwdriver



Pump and Motor Preparation



Start with preparing the pump to attach to the motor. Remove the wire protection plate on the side of the pump. There are four screws in each corner (pictured circled in red). Once all screws are removed, the wire guard will come right off with ease.



Remove the debris screen from the bottom of the pump end. There is a single screw that attaches the two sides of the screen together. Unscrew this and they will come apart.

Note: Screen may spring apart when unscrewed. Make sure to have a firm grip on either side of the screen when unscrewing.





The Pentek motor comes with three different rubber gaskets. The Sand Boot will likely already be installed on the motor, but for Aqua Science Submersible Well Pumps, you need to use the Sand Slinger. Make sure the metal washer is in place before attaching the Sand Slinger. The wider end goes down to the base of the splined shaft. Next, install the motor gasket. The side with the two white lines face towards the pump (up), and the side with the extra rim faces the motor (down).

The Pentek Gasket Installation Instructions, included with your motor, shows how to do this in detail as well.

Attaching the Pump and Motor



Attaching the pump end to the motor is best done with both pieces upright. Align the bolts on the motor to the holes on the pump. It is important that the wire side of the motor aligns to the open side of the pump (where you previously removed the wire guard), so that the wire will properly run up the side of the motor. The splined shaft of the motor should align with the pump, but may need to be slightly turned to fit properly.

If the pump won't slide down on the motor all of the way, you may need to remove it and ensure both the Sand Slinger and motor gasket are installed properly.



Place a lock washer on all four of the bolts.



Screw on a nut to each of the bolts. Use a wrench to tighten each one.

Securing the Wire



Make sure the wire aligns with the cut out sections of the pump to ensure proper protection. Slide the attached wire protection sleeve all the way down to the base of the wire.



Slide the second provided wire protection sleeve down all of the wires until it reaches the corner between the main pump body and the pump head, as pictured.



Reattach the wire protection plate to the pump. There is a tab on the bottom of the guide which covers the wire where it leaves the motor, as shown on the left. Tighten all four screws.

Ensure the wire is taught alongside the pump before putting the plate on. Using the rubber band that came in the packaging will help hold the wire in place, as seen in the image above.

Securing the Wire (continued)



Wrap the debris screen end over end around the pump. Make sure the opening in the screen aligns with the tab on the wire protection plate. On the screen, the holes should align for the screw to go between the two ends. Tighten snuggly.

Note that the location of the wire cut-out and the screw may differ from the images in this manual.

Congratulations! Your Aqua Science SS Submersible Well Pump is assembled and almost ready to connect the pipe and wires.

Please ensure that you have followed all the steps properly and that all components are properly installed and secured.

If you have any questions or concerns, please call Aqua Science at 800-767-8731, and we will be happy to assist.

