



Valve P/N 261186

**(Replacing Valves Models
WC112-147, WC112-148)**



Installation Guide

IMPORTANT SAFETY INSTRUCTIONS
READ AND FOLLOW ALL INSTRUCTIONS
SAVE THESE INSTRUCTIONS

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WARNINGS AND IMPORTANT SAFETY PRECAUTIONS



IMPORTANT NOTICE - Attention Installer: This Installation and User's Guide contains important information about the installation, operation and safe use of this product. This Guide should be given to the owner and/or operator of this equipment.

⚠ WARNING

Before installing this product, read and follow all warning notices and instructions in this Guide. Failure to follow warnings and instructions can result in severe injury, death, or property damage. Call (800) 831-7133 for additional copies of these instructions.

⚠ WARNING

INSTALLERS, POOL OPERATORS AND POOL OWNERS MUST READ THESE WARNINGS AND ALL INSTRUCTIONS BEFORE USING THIS PRODUCT.

⚠ WARNING

This valve is intended for use in swimming pool applications.

⚠ WARNING

Most states and local codes regulate the construction, installation, and operation of public pools and spas, and the construction of residential pools and spas. It is important to comply with these codes, many of which directly regulate the installation and use of this product. Consult your local building and health codes for more information.



Water temperature in excess of 100° F (37.7° C) may be hazardous to your health. Prolonged immersion in hot water may induce hyperthermia. Hyperthermia occurs when the internal temperature of the body reaches a level several degrees above normal body temperature of 98.6° F. (37° C.). Effects of hyperthermia include: (1) Unawareness of impending danger. (2) Failure to perceive heat. (3) Failure to recognize the need to leave the spa. (4) Physical inability to exit the spa. (5) Fetal damage in pregnant women. (6) Unconsciousness resulting in danger of drowning. The use of alcohol, drugs, or medication can greatly increase the risk of fatal hyperthermia in hot tubs and spas.

⚠ WARNING

For filters intended for use in other than single-family dwellings, a clearly labeled emergency switch shall be provided as part of the installation. The switch shall be readily accessible to the occupants and shall be installed at least 5 feet (1.52 m) away, adjacent to, and within sight of the filter.

⚠ WARNING



High pressure from the filter can cause severe injury or major property damage due to tank separation. Release all pressure and read instructions before working on the filter. If the filter clamp is adjusted under pressure, the tank can separate, causing serious injury or major property damage.

BEFORE WORKING ON THE FILTER!

- (1) Stop pump.
- (2) Open air release valve.
- (3) Release all pressure from system.

⚠ WARNING

To reduce the risk of injury, do not permit children to use or operate this equipment.

WARNINGS AND IMPORTANT SAFETY PRECAUTIONS



RISK OF ELECTRICAL SHOCK OR ELECTROCUTION.

PUMPS REQUIRE HIGH VOLTAGE WHICH CAN SHOCK, BURN, OR CAUSE DEATH.

BEFORE WORKING ON PUMP! Always disconnect power to the pool pump at the circuit breaker from the pump before servicing the pump. Failure to do so could result in death or serious injury to service person, pool users or others due to electric shock.



A pool or spa pump must be installed by a qualified pool and spa service professional in accordance with the National Electrical Code and all applicable local codes and ordinances. Improper installation may create an electrical hazard which could result in death or serious injury to pool users, installers, or others due to electrical shock, and may also cause damage to property.



When setting up pool water turnovers or flow rates, the operator must consider local codes governing turnover as well as disinfectant feed ratios.



DONOT increase pump size; this will increase the flow rate through the system and may exceed the maximum flow rate stated on the drain cover.



Pumps are not a substitute for properly installed and secured pool drain covers. An ANSI/ASME A112.19.8 approved anti-entrapment drain cover must be used for each drain. Pools and spas should utilize a minimum of two drains per pump. If a drain cover becomes loose, broken or is missing, close the pool or spa immediately and shut off the pump until an approved anti-entrapment drain cover is properly installed with the manufacturer's supplied screws.

For information about the Virginia Graeme Baker Pool and Spa Safety Act, contact the Consumer Product Safety Commission at (301) 504-7908 or visit www.cpsc.gov.

Important Note: Always turn off all power to the pool pump before installing the cover or working on any suction outlet.

Valve Overview

The following instructions describe how to replace the Kokido valve (P/N WC112-147 and WC112-148) made from production date 2008 and before, which are now obsolete, and must be replaced with a Pentair Water Pool and Spa, Inc. valve (P/N 261186).

Valve P/N 261186 Installation

The replacement requires cutting the stand pipe as described below and re-plumbing the valve connections. The replacement valve can then be installed.

1. **Read and understand all instructions before attempting to install, operate or maintain the replacement valve and filter system.**



High Pressure:

Improper tank valve assembly could cause the valve to separate and cause serious injury and/or major property damage.

2. **CUT STAND PIPE:** Using a Brass Craft PVC cutting tool, Model T109, (Pentair P/N 274429), place a mark on the shaft 1-1/2 inches from the cutting blade, (see Figure 1). Chuck the tool into a drill. **WARNING! USE EXTREME CAUTION:** Insert the cutting blade into the stand pipe located in the filter, with the mark on the shaft even with the top of the tank, (see Figure 2).
3. **WARNING! Hold the drill firmly with both hands and the shaft straight:** Start the drill pulling towards the outside of the stand pipe cutting through the stand pipe. See Figure 3 on page 2. Provide space and lighting for routine maintenance access.

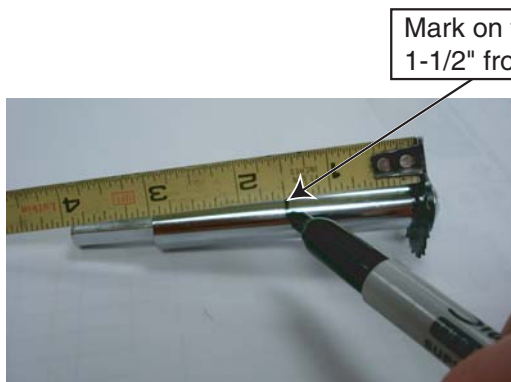


Figure 1.

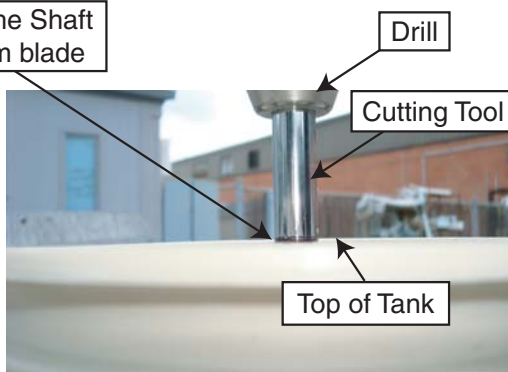


Figure 2.

4. Continue **holding the drill firmly with both hands**, with **shaft straight** and against the stand pipe, slowly move the cutter around the inside perimeter of the stand pipe, (see Figure 3), maintaining a straight cut is very important. Cut the pipe end completely off the pipe. Discard cut piece. De-burr cutter shavings from the stand pipe, (see Figure 4). Continue standard valve replacement, attaching the valve to the tank with the clamp.



Figure 3.

De-burr cutter
shavings



Figure 4.

De-burr cutter
shavings

5. **RE-PLUMB:** Plumbing must be reworked to fit the new valve. See Figure 5 to identify ports and re-plumb as necessary.
6. **Rinse cutter shavings out of filter. IMPORTANT:** Turn handle to **RINSE**, (see page 5), to remove cutting shavings through the waste port. Then perform standard backwash procedure, (see page 6).
7. To convert the P/N 261186 valve with 1½ inch NPT internal threads to unions with 1½ inch slip glue fittings for PVC pipe, requires three (3) adaptors: P/N 354588, and one (1) Union Kit; P/N 150119 – (P/N 150119 Union Kit includes: three (3) P/N 352256 Union Nuts; three (3) P/N 352257 Union 1½ inch slip fittings; and three (3) P/N 354571 O-rings). The individual components of the Union Kit may be purchased separately to convert individual ports if necessary.

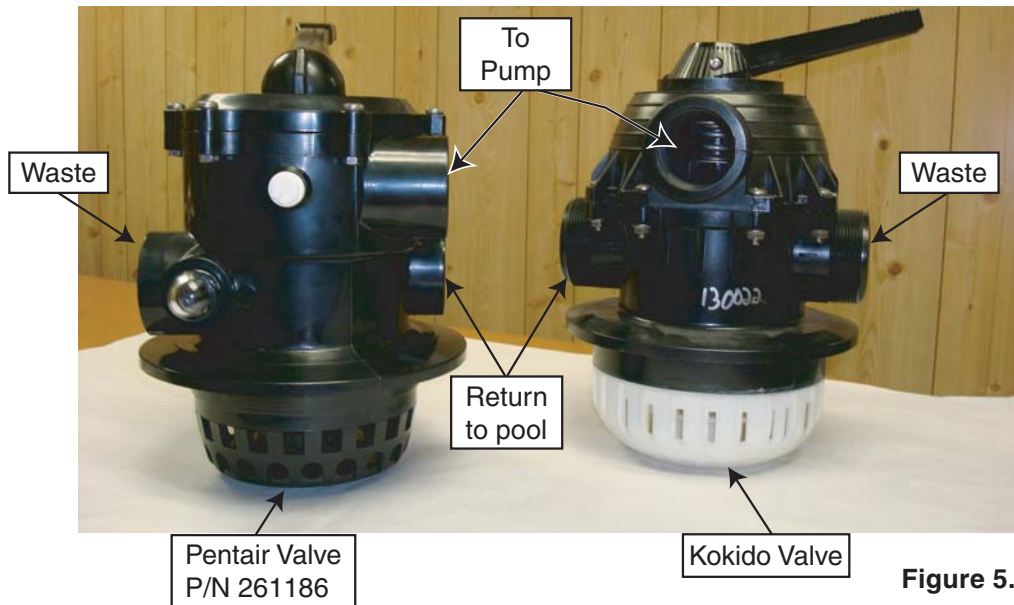


Figure 5.

8. To install unions, see Figure 6.

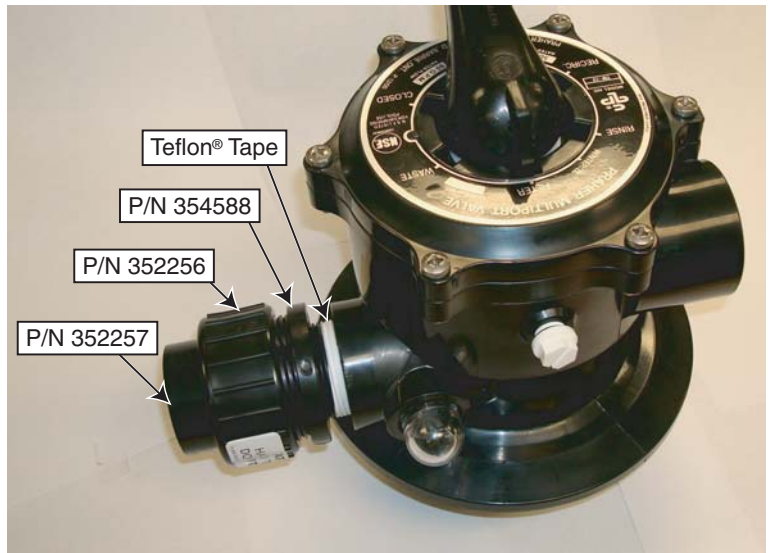


Figure 6.

Rinse Procedure

1. Be sure the correct amount of silica filter sand, {on a sand filter}, is in the tank and that all connections have been made and are secure.
2. Verify that the backwash is open so that water is free to flow from the pool and out the backwash line. Set the control valve to “**BACKWASH**” position.
3. Check the valve clamp on the filter for proper installation.



This filter operates under pressure. With the valve clamped properly and operated without air in the system, this filter will operate in a safe manner. Air entering the filter and the valve not clamped correctly can cause the valve to separate, which could cause serious personal injury and/or property damage.



Always turn pump off before changing valve positions. Changing valve positions while the pump is running can damage the control valve, which may cause serious injury or property damage.

4. Open the manual air bleeder. **STAND CLEAR OF THE FILTER.** Prime and start the pump according to the pump instructions allowing the filter tank to fill with water. Close the air bleeder on the filter when a steady stream of water emerges.
5. Once the water flow is steady out of the waste line, run the pump for at least two minutes. This initial backwashing of the filter is recommended to remove any impurities.
6. Turn the pump off and set valve to "**RINSE**" position. Ensure that all pool suction and return lines are open so that the water is free to flow from the pool to waste. **STAND CLEAR OF FILTER** and start the pump.
7. Run the pump for at least two minutes.
8. Turn the pump off and set valve to "**FILTER**" position. Be sure that all pool suction and return lines are open so that water is free to flow from and to the pool.
9. Open the manual air bleeder on the filter. **STAND CLEAR OF FILTER** and start the pump.
10. Close the air bleeder on the filter when a steady stream of water emerges.
11. The filter has now started its filtering cycle. Verify that water is returning to the pool and take note of the operating pressure. The original starting pressure is _____psi with the filter clean.
12. Check the system for water leaks. If a leak is found, shut the pump off before correcting the leak.
13. As the filter removes dirt and impurities from the pool water, the accumulation will cause the filter pressure to rise and flow to diminish. When the pressure gauge reading is 10 psi higher than the clean filter reading noted above, it is time to backwash the filter.

Filter Backwash Procedure



Failure to operate your filter system or inadequate filtration can cause poor water clarity obstructing visibility in your pool. Poor water clarity may obscure objects in the water which while swimming and diving could cause serious injury or death. Never swim in a pool with poor water clarity.



To prevent equipment damage and possible injury, always turn pump off before changing valve positions.

1. Stop the pump.
2. Ensure that the suction and backwash lines are open so that water is free to come from the pool and flow out the backwash line. Set control valve to "**BACKWASH**" position.
3. **STAND CLEAR OF FILTER** and start the pump.
4. Backwash filter for approximately three (3) minutes or until backwash water is clean.
5. Stop pump and set valve to "**RINSE**" position.
6. **STAND CLEAR OF FILTER** and start the pump.
7. Rinse filter for approximately 30 seconds.
8. Stop pump and set valve to "**FILTER**" position.
9. Ensure the pool return line is open so that water may flow freely from the filter back to the pool.
10. Open manual air bleeder on filter. **STAND CLEAR OF FILTER** and start pump.
11. Close manual air bleeder on filter when a steady stream of water emerges from the bleeder.
12. The filter has now started its filtering cycle. Verify the water is returning to the pool and take note of the filter pressure.
13. The filter pressure in Step 12 above should not exceed the pressure originally observed on the filter when it was initially started. If after backwashing, the pressure is 4 to 6 psi above the start condition, it will be necessary to chemically clean the sand bed {on a sand filter}.

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