

AUTOMATIC IN-FLOOR CIRCULATION SYSTEM







U.S. Patent No.: 4,188,673, 4,212,088, 4,391,005, 4,592,379 5,265,631, 6,301,723, 6,311,728, 6,314,999, 6,360,767 6,367,098, 6,393,629, 6,601,244, 6,810,537, 7,089,607, 7,178,179, 8,308,081, 8,056,155, 7,979,924, 7,819,338, 6,899,285 Other Patents Pending.

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ECHOPOOL RIBBED BODY SYSTEM



Item Number: 006-527-6315-XX Includes:

- (1) Two-Port Four-Gear Valve
- (3) Smooth Bodies with Cap
- (3) Nozzles
- (3) Riser Pipes
- (1) Nozzle Tool



ECHOPOOL SMOOTH BODY SYSTEM



Item Number: 006-527-6316-XX Includes:

- (1) Two-Port Four-Gear Valve
- (3) Smooth Bodies with Cap
- (3) Nozzles
- (3) Riser Pipes
- (1) Nozzle Tool



ECHOPOOL SMOOTH BODY SYSTEM WITH SWINGJETS



Item Number: 006-527-6318-XX

Includes:

- (1) Two-Port Four-Gear Valve
- (3) Ribbed Bodieswith Cap
- (3) Nozzles
- (3) SwingJets
- (1) Nozzle Tool
- (1) SwingJet Tool



ECHOPOOL SMOOTH BODY SYSTEM WITH SWINGJETS



Item Number: 006-527-6319-XX Includes:

- (1) Two-Port Four-Gear Valve
- (3) Smooth Bodies with Cap
- (3) Nozzles
- (3) Riser Pipes
- (3) SwingJets
- (1) Nozzle Tool
- (1) SwingJet Tool



Please indicate your color choice by placing the appropriate color code in place of the "XX" at the end of the part number. White-01 Gray-02 Black-03 Taupe-04 Blue-05 Light Blue-06 Beige-07 Light Gray-08

ECOPOOL EQUIPMENT AND PLUMBING SCHEMATIC

VALVE PLUMBING SCHEMATIC 2 PORT WATER VALVE

 Floor #1
 Wall #2
 Note: If EcoPool includes
 SwingJets #2 wall fittings must be 1½" female threaded fittings with no inside restrictions.



VALVE PLUMBING SCHEMATIC 2 PORT WATER VALVE

Min. Pump Curve

50 GPM @ 70 TDH

Min. Filter Size

36 SQ. FT. DE = 72 GPM 3.1 SQ. FT SAND = 60 GPM 100 SQ. FT. CARTRIDGE = 75 GPM

Additional features added to pool equipment such as in-line feaders, water falls, etc., may change the flow requirements. Changes in flow requirements may require a higher GPM pump and larger filtration







ECOPOOL EQUIPMENT AND PLUMBING WITH SWINGJETS

The SwingJet is a multi-position wall return. It is adjustable to clean a 90 degree arc so it can be aimed to clean a desired area much larger then the standard stationary down jet. The SwingJet changes position by extending and retracting so it needs to be put on a zone of the water valve or the pump and will need to be cycled off and on to advance its position. The SwingJet has similar hydraulic characteristics as a 3/8" floor nozzle and will need 15 to 20 gpm per nozzle at 60 to 70 ft/hd to function properly. The SwingJet may not function properly on the low speed or many multi-speed pumps and if operated at pressures not capable of fully stroking the nozzle it may become damaged. The SwingJet should be plumbed on a line with a valve so that they may be isolated to run on high speed only. The SwingJet should not run on the low speed of the pump.

SwingJets require a minimum 19psi at the water valve to operate poperly.



VALVE PLUMBING SCHEMATIC 2 PORT WATER VALVE

- 1. Ecopool Floor Heads #1
- 2. Wall SwingJets #2





VALVE PLUMBING SCHEMATIC 2 PORT WATER VALVE

Min. Pump Curve 60 GPM @ 60 TDH Min. Filter Size 36 SQ. FT. DE = 72 GPM 3.1 SQ. FT SAND = 60 GPM 200 SQ. FT. CARTRIDGE = 75 GPM



WATER VALVE INSTALLATION

NOTICE: All pipe fittings MUST be staggered.

PARTS NEEDED FOR ASSEMBLY

OPTION ONE

- (2) 2"X15" PVC PIPE (port 1,2)
- (1) 2"X18" PVC PIPE (port inlet)
- (3) 2" SLIP 90° ELBOWS
- Set in trench 15 " deep X 12" wide

GLUING INSTRUCTIONS

- 1. Remove
- 2. Lift off dome (save O-ring)
- Remove pressure gauge and knob from inside valve housing assembly
- 4. Pipes and valve base should be treated with primer
- Make sure pipes are glued all the way into the stop. Be careful not to allow glue to run into module area.*
- 6. The center port is the inlet to the valve and should be approximately 3" longer than the perimeter pipes.
- 7. Allow 24 hour before pressure testing

8. Reposition o-ring in groove in the valve base.

STAGGER 3" MINIMUM

- 9. Replace dome and V-Clamp and tighten until snug
- Thread the pressure gauge to the top of the dome. Do Not Use Teflon Tape.
- 11. Pressurize with pool plumbing (do not exceed 35 psi)
- 12. Store the module assembly in a sage place and install after the pool has been started up.
- * Pipes should be a minimum of 12" in length and should insure that valve be at least 6" above water level.

PLUMBING & CONCRETE DETAIL



PLUMBING FOR FLOOR NOZZLES

NOTE: All risers must be 90 degrees (perpendicular) to the finished floor



GUNITE OR SHOTCRETE PROCESS CONCRETE:

- 1. Make a cutout or opening approximately 1" deep and 1" bigger than the pipe.
- 2. This cutout will be filled with plaster and create a water stop.

Verify the angle of the risers as it is imperative that the riser angle be 90 degrees from the finished floor angle. Check that the system did not lose pressure prior to shooting the pool and upon completion.

PRE-PLASTER DETAIL | SMOOTH BODY INSTALLATION



NOTICE: You can use regular PVC glue on smooth body

Make a cutout or opening approximately 1" deep and 1" bigger than the pipe.

This cutout will be filled with plaster or other finish coat to create a water stop.



Cut off riser pipes flush with concrete surface.



Remove cap. Prime the inside of the pipe. **DO NOT PRIME THE BODY.**

4

Glue the body into the pipe with a regular PVC glue.

The glue must cover the full length of the body barrel and 3" deep inside the riser pipe. Push the body into the pipe until the shoulder hits the top edge of the pipe.

Let fumes vent for 30 minutes then replace all body caps.



PLASTERING THE POOL

Leave all plaster caps in place for removal at start up.

NOTE: Optional, the plaster crew may remove the plaster caps as they finish.

NOTE: The body does not come with the nozzle installed.











PRE-PLASTER DETAIL | RIBBED BODY INSTALLATION



NOTICE: HEAVY BODY GLUE IS REQUIRED

Make a cutout or opening approximately 1" deep and 1" bigger than the pipe.

This cutout will be filled with plaster or other finish coat to create a water stop.













Cut off riser pipes flush with concrete surface.

3

Remove cap. Prime the inside of the pipe. **DO NOT PRIME THE BODY. DO NOT ROTATE THE BODY IN THE PIPE.**

Glue the body into the pipe with a **HEAVY BODY PVC SOLVENT CEMENT**.

The glue must cover the full length of the body barrel and 3" deep inside the riser pipe. Push the body into the pipe until the shoulder hits the top edge of the pipe.

Let fumes vent for 30 minutes then replace all body caps.



PLASTERING THE POOL

Leave all plaster caps in place for removal at start up.

NOTE: Optional, the plaster crew may remove the plaster caps as they finish.

NOTE: The body does not come with the nozzle installed.

PLUMBING FOR SWING JETS

The Paramount SwingJet is designed to be used in standard 11/2" threaded return fittings. There must be a threaded return on the end of the return pipe as there is no slip style SwingJet to put them into the ID of pipe. Returns are set at different heights in different regions of the country. The norm 15 to 18 inches below bond beam height or 12 to 15 inches below water level on raised bond beams. As with any side wall product it can only clean in a line of site. If the area to clean is below a love seat, bench or other obstruction, it must be placed below the obstructions which might require a lower depth. There are a few 11/2" threaded fittings that SwingJet will not fit in without modification like the Jacuzzi vinyl return, Waterway and A&A flush mount concrete returns. The flange on the inside at the bottom of the threads will need to be cut away with a 15/8" hole saw before installing the SwingJet. Be careful no to damage the threads when using the hole saw.

Concrete crew to cut out sufficient area around the 1½" pipes for 1½" threading to be installed. SwingJet return pipes must be 6 inches from any radius on right angle in the pool wall or floor. SwingJet should be at least 12' below water level to prevent the jet from whirlpooling and grawing air into the pool water.

NOTE: All SwingJet 1¹/₂" lines must be 90 (perpendicular) to the finished wall



SWINGJET INSTALLATION

- The SwingJet comes packed with the cover off.
- Push the nozzle up and look and feel for the raised area on the side of the colored nozzle that is in the center of the cream colored Cam. (Fig 1). The nozzle jet opening is 180 degrees opposite that raised area. Push the nozzle shaft up and down until the nozzle jet is either all the way right or all the way left so when you are doing the next two steps you are aware of which direction it is going to travel when rotating.
- There are three notches in the cream colored cam above the raised area (Fig 1). These
 cam notches are in a straight line with the cam notches on the opposite side of the raised
 area. The jet opening of the nozzle goes back and forth covering the 90 degree arc formed
 by the three ratchet positions as the nozzle extends and retracts when cycled.
- Put one wrap minimum of Teflon tape on the threads to make the nozzle threads not seize up over time, and thread the swing jet in the return fitting tight, using the swing jet installation and removal tool. It should be tight enough so it can not be turned by hand. Hand tighten only, NEVER USE A WRENCH DIRECTLY ON THE SWINGJET. ALWAYS REMOVE THE COVER AND USE THE TOOL (Fig 2 & 3) (AVAILABLE FROM PARAMOUNT 005-721-4541-00) TO COVER THE SWINGJET RETAINER BEFORE USING A WRENCH TO REMOVE THE SWINGJET.
- Grasp the cream colored cam and turn it either way to aim the nozzle jet to clean the desired area. Remember the nozzle is going to ratchet right or left depending on which of the two side notches you placed the pins in. (Fig 1)
- After turning and adjusting the cam be sure that the ratchets in the cam are seated by gently rocking the cam right and left to make sure the ratchets are in the groove.
- Once in position find the clip on the outside ring of the nozzle retainer (Fig 4) and place the hole in the cover so it is just to the counter clock wise side of the retainer clip (Fig 4). Line up the notches on the cover with the locking cams on the nozzle retainer. Push the cover on to the retainer and rotate clockwise until the clip snaps in the hole (Fig 4). Do not force the cover on when not in position. It will be difficult to remove.

ADJUSTING A SWINGJET WHEN IT IS THREADED IN PLACE

- Turn the pump on so the SwingJet is on. If the SwingJet is on a water valve circuit, wait for the SwingJet to come on, and pause the water valve.
- Place the swing jet tool (Fig 2) provided with the unit (part # 005-721-4541-00) over the cover with the spring loaded key over the hole on the side of the cover of the SwingJet (Fig 5). Leaving the key in place, while pushing down on the button key rotate the cover counter clockwise until it stops. Do not remove the key. The extended nozzle should now be able to be rotated to the desired position. If the nozzle won't easily rotate remove the key and very slightly move the cover counter clock wise until the nozzle will rotate. Once the nozzle is set to the correct position, remove the key and rotate the cover clock wise to re-lock the cover in place.

Cycle the SwingJet by turning the pump off and on to make sure you have set it in the desired position.

Note: SwingJets on a water valve must show 19 to 20 PSI on the water valve gauge. On a clean filter pump with no water valve, the filter pressure must be 25 PSI. SwingJet cannot be used with multi speed pumps. Low pressure from lower speeds can damage the SwingJet nozzle.











PARAMOUNT MODULE ALIGNMENT GUIDE

TO FUNCTION PROPERLY IT IS IMPERATIVE THAT THE MODULE BE PLACED IN CORRECT ORIENTATION TO THE BASE. TO ENSURE THIS IS DONE, PLEASE FOLLOW THESE INSTRUCTIONS.

- 1. Look at the top of the Module Figure 1
- 2. Locate the Multiport Tube Assembly Figure 1A
- 3. Look at the Base Figure 2
- One open port is centered between two plugged ports Figure 2
- When installed, the ports centered under the Multiport Tube Assembly (Figure 1A) on the Module must be centered over the open ports in the Base - Figure 2A



If the Module is placed incorrectly, the returns and nozzles in the pool will fire at the same time.

START-UP CLEANING NOZZLE INSTALLATION

System Start Up

- 1. Before installing nozzles flush all lines by:
 - a. Start pump, run for 10 minutes before installing the water valve module.
 - b. Install the water valve module and let valve cycle to flush out any debris remaining in each line.
- 2. Place nozzle cap on nozzle. Figure 1
- Place nozzle on a hard surface. Push firmly on cap or strike with palm of hand to snap firmly into place
 Figure 2
- 4. Be sure o-ring is pushed all the way up to top flange.
- 5. Start with nozzle closest to the valve, make sure the red plaster caps have been blown out before installing the nozzles.
- 6. Snap the nozzle onto the nozzle tool by twisting. Figure 3
- Install nozzle in body by turning clockwise one-quarter turn.
 Figure 4











Figure 3

Figure 4



Paramount Pool & Spa Systems (PP&SS) 295 E. Corporate Place, Suite 100 Chandler, AZ 85225 1.800.621.5886 www.1Paramountcom

Paramount Pool Life. Simplified.

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U.S. Patents: 3,521,304 • 3,675,252 • 4,188,673 • 4,212,088 • 4,391,005 • 4,592,379 • 4,939,797 • 5,135,579 • 5,251,343 • 5,265,631 • 6,301,723 • 6,311,728 • 6,314,999 • 6,360,767 • 6,367,098 • 6,393,629 • other U.S. and international patents pending

In compliance with the Magnuson-Moss Warranty-Federal Trade Commission Act (Public Law 930637, Paramount Pool & Spa Systems (PP&SS) provides the following limited warranties. CONDITIONS

This limited warranty shall be subject to the original owner complying with the following

conditions: 1. The swimming pool shall be kept full of water at all times except for purposes for repair or

- maintenance not to exceed five (5) days. 2. The PP&SS system shall be operated by the original owner with reasonable care and
- necessary maintenance. 3. Registration card must be mailed to PP&SS within thirty (30) days of pool completion. **PP&SS NOZZLE AND BODY (EXCLUDING POOL VALET RETRO) ASSEMBLIES LIMITED LIFETIME MANUFACTURERS WARRANTY**

PP&SS warrants to the original owner, materials and equipment to be free of defects for as long as original owner owns pool, determined under this warranty to be for the "Lifetime" ownership by original owner from date swimming pool is plastered or optional interior surface finish applied. The materials and equipment covered under the "Lifetime" warranty are the PP&SS Nozzle and Body Assembly. (PVC plumbing installed, labor, material and all other work performed by contractors is not covered under PP&SS Warranty.)

PP&SS POOL VALET RETRO ASSEMBLIES LIMITED MANUFACTURERS 1-YEAR WARRANTY

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PP&SS warrants to original owner, materials, and equipment to be free of defects for a period of one (1) year from date of purchase. The materials, parts and/or related component parts supplied or distributed by PP&SS are covered under this one (1) year limited warranty. (PVC plumbing installed, labor, material and all other work performed by contractors is not covered

under PP&SS Warrany.) PP&SS MDX DEBRIS REMOVAL SYSTEM LIMITED MANUFACTURERS 1-YEAR WARRANTY

PP&SS warrants to original owner, materials, and equipment to be free of defects for a period of one (1) year from date of swimming pool start-up. The materials, parts and/or related component parts supplied or distributed by PP&SS are covered under this one (1) year limited warranty. (PVC plumbing installed, labot, material and all other work performed by contractors is not covered under PP&SS Warranty.)

PP&SS DISTRIBUTOR **WATER VALVE** LIMITED MANUFACTURERS 3-YEAR WARRANTY

Paramount water valve module and housing are warranted-for a period of 3 years to be free of manufacturing defects including wear and tear on product from date of pool start-up. This warranty applies to the original pool owner only. Replacement parts thereafter are warranted for a period of 1 year.

PP&SS DEBRIS CONTAINMENT CANISTER LIMITED MANUFACTURERS 3-YEAR WARRANTY

PP&SS warrants to the original owner, materials and equipment to be free of defects for a period of three (3) years from date of swimming pool equipment start-up. The materials and equipment covered under this three (3) year warranty is the PP&SS Debris Containment

Canister Housing. (PVC plumbing installed, labor, material, and all other work performed by contractors is not covered under PP&SS Warranty.) The PP&SS Canister Debris Containment Basket, Internal Canister Lid, and Top Deck Lid are covered for a period of one (1) year under this warranty.

OTHER RELATED SYSTEM PARTS AND REPLACEMENT PARTS LIMITED MANUFACTURERS 1-YEAR WARRANTY

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PP&SS warrants to original owner, materials, and equipment to be free of defects for a period of one (1) year from date of swimming pool start-up. The materials, parts and/or related component parts supplied or distributed by PP&SS are covered under this one (1) year limited warranty. (PVC plumbing installed, labor, material and all other work performed by contractors is not covered under PP&SS Warranty.) Replacement parts are warranted for a period of one (1) year from date of purchase.

PP&SS warrants to original owner a one (1) year limited warranty that the PP&SS related component parts to be free of defects from the time of installation.

REPLACEMENT CONDITIONS

This warranty is the responsibility of the owner to remove the PP&SS Nozzle or Body Assembly, Distributor Water Valve Top/Bottom Housing, Debris Containment Canister or other related system components described with this warranty, contact PP&SS for an RMA number, and return it to PP&SS. Ship part in question freight pre-paid, and upon confirmation of defect, PP&SS will repair or replace the PP&SS warranted item at no charge to the original owner. The repaired or replaced PP&SS item will be returned to the original owner. C.O.D. Labor to re-install the repaired or replaced item is the sole responsibility of the owner.

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LIMITATIONS

No warranty extends to any part of the PP&SS parts or components which is caused by any of the following conditions or events:

- Defects or failures caused by abuse, lack of responsible care, lack of necessary maintenance, improper operation, vandalism, acts of God.
- Damages or failures caused by abuse, lack of responsible care, lack of necessary maintenance, improper operation, vandalism, acts of God.
- 3. PP&SS expressly denies any responsibility or liability for incidental or consequential damages arising out of, or as a result of, use or ownership of your PP&SS parts or as a result of use or ownership of your PP&SS parts or components, or other related products covered under this limited warranty.
 - 4. Any defects caused by acts of God, such as storms, earthquakes, ground movement, or freezing, etc., that are beyond the normal conditions.
- 5. Installation of the PP&SS System by a non-authorized installer may render this warranty null and void.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you. Implied warranties are limited in duration to the duration of the written limited warranty

herewithin. Some states do not allow limitations on how long an implied warranty lasts, so the above limitations may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights that may vary from state to state.

The section sections will be an account of

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