



OWNER'S MANUAL MAINTENANCE & INSTALLATION GUIDE

NOTICE

When installing and using this equipment, basic safety precautions shall always be followed, including the following:

**IMPORTANT SAFETY INSTRUCTIONS.
TO INSTALLERS: READ, UNDERSTAND,
AND FOLLOW ALL INSTRUCTIONS AND
WARNINGS.**

Give these instructions to the facility owner to keep for future reference. Follow all codes and regulations that apply to the design, installation and use of suction outlet fittings.

SAVE THESE INSTRUCTIONS



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Signal Words and Symbols Used In This Manual

This Owner's Manual and Installation Guide contains specific precautions and symbols to identify safety-related information. You will find DANGER, CAUTION, WARNING and NOTICE symbols which require special attention. Please read them carefully and follow these precautions as indicated! They will explain how to avoid hazards that may endanger you or persons using or maintaining your pool or spa.



DANGER

DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury.



WARNING

WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.



CAUTION

CAUTION indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

NOTICE

NOTICE is used to address practices not related to physical injury.

PLEASE REVIEW THE OWNER'S MANUAL AND INSTALLATION GUIDE IN ITS ENTIRETY AND HEED ALL SAFETY INFORMATION. Failure to follow these instructions and warnings can result in DEATH OR SERIOUS INJURY.

SUCTION ENTRAPMENT HAZARD:



DANGER

• **DEATH or SERIOUS INJURY will result if a drain cover or grate is not installed and used correctly.**

- Pool and spa pumps produce high levels of suction and move high volumes of water, which can cause death or serious injury if a person comes in close proximity to pool or spa drains.
- SOFA shall not be located on seats or the back rests for seats
- Any modification that increases the flow rate of the circulation system shall require reevaluation of the cover/grate and sump to ensure that the flow rating of the Suction Outlet Fitting Assembly (SOFA) is not exceeded.
- Keep clear of pool and spa drains to avoid death or serious injury from suction.



DANGER

DEATH or SERIOUS INJURY will result from hair entanglement or limb entrapment.



- Keep clear of pool and spa drains.
- Hair sucked into pool or spa drains will tangle and knot trapping the swimmer underwater. Avoid placing your hair near a pool or spa drain.
- Avoid sitting on pool or spa drains because the suction can cause severe intestinal damage, evisceration, and/or disembowelment.



DANGER

DEATH or SERIOUS INJURY will result from pool or spa drain covers or grates that are improperly installed, missing, clogged, or broken.

- Inspect pool and spa before each use to ensure that drain covers and grates are properly in place and secured.
- Ensure that drain covers are not damaged, cracked, broken, loose, clogged, not properly secured, or missing because these conditions increase the chance of death or serious injury from entrapment.
- If a drain cover is discovered damaged, cracked, broken, loose, clogged, not properly secured, or missing, you shall:
 - Close the pool or spa immediately; and,
 - Post a closure notice and keep the pool or spa closed until an appropriate ANSI/APSP/ICC-16 2017 certified drain cover is properly installed.
- Missing, broken, or cracked SOFA component shall be replaced before bathers are allowed to use the pool.
- Loose cover/grates shall be reattached before bathers are allowed to use the pool.

DANGER



- **DEATH or SERIOUS INJURY** will result from contact with a damaged, loose, or missing drain cover.
- Do not allow limbs to contact or be inserted into a drain pipe with a damaged, loose, or missing drain cover. This could result in swelling of the limb and/or trapping a swimmer underwater.
- Avoid mechanical entrapment of jewelry, swimsuit, hair decorations, finger, toe, or knuckle in a drain pipe with damaged, loose, or missing drain cover. This may result in trapping a swimmer underwater.
- Do not allow body to come into contact with a drain pipe that has a damaged, loose, or missing drain cover. This may result in trapping a swimmer underwater.

MAINTENANCE INSTRUCTIONS & WARNINGS:

WARNING

DEATH or SERIOUS INJURY can result from pool or spa drain covers or grates that are clogged by debris.

- Any field modification made to a SOFA not authorized by the manufacturer's instructions shall void the SOFA certification.
- No modification shall be made to the SOFA structure or flow path unless the new configuration has been certified as a new SOFA.
- All pool and spa drain covers may become obstructed by debris and should be cleaned periodically due to clogging from debris, such as pieces of plastic, hair, fabric, twigs, leaves, seeds, etc.
- The frequency of periodic cleaning will vary depending on the amount and type of debris introduced into the pool or spa
- Clogging of the drain cover will increase the suction effect and increase the likelihood of death or serious injury from those hazards listed above.
- A clogged drain can negatively affect the safety of the drain.
- It is advisable to have a qualified pool or spa professional perform this inspection and debris removal from the pool and spa drain covers.
- When servicing the drain cover, the pump connected to the suction must be turned off.
- Do not perform any service of the drain cover in water level above your waist.
- Use drain covers only with a pumping system rated for the corresponding flow or less. Failure to do so can result in hair or body entrapment which can cause death or serious injury. If in doubt about the rating of your system, consult a qualified pool or spa professional.
- Use only the supplied stainless-steel screws with the drain cover. Screws put into the frame anywhere except in the original screw holes will not hold and will allow the drain cover to come off the main drain, causing an entrapment hazard. If a screw hole(s) is stripped, inserts missing, loose, or damaged, consult your owner's manual and installation guide for proper steps to replace, correct, or reattach the compromised drain or drain component.
- The use of adhesives or other attachment methods that prevent access to suction piping or SOFA components requiring periodic service is prohibited.

WARNING

Suction can pose a serious hazard to swimmers just as electricity can be a hazard. Both are important for proper water filtration and both must be treated with respect. Suction safety begins with a professional design that includes a

quality suction system installed by a certified contractor.

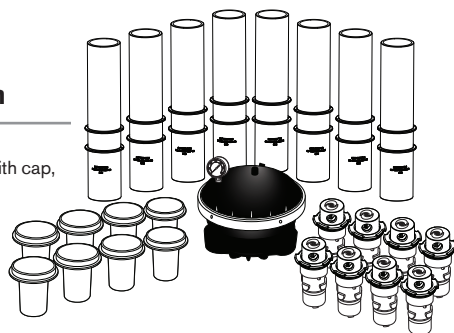
Certified builders will address the following issues when designing and installing a proper filtration system:

- Properly bond-grounded pumps, time clocks, switches and any other metal in or near water. This is required to address Electrical Shock Hazards.
- Design the suction piping so there are no single-point suction hazards; single-point suction (one drain) is a leading cause of Body Suction Entrapment Hazards. Note: your certified builder has many effective options for addressing this hazard; they may include dual-drain systems, like MDX-R3, skimmers, gutters, negative edge features and many more products and piping designs known to professionals.
- Install ANSI/APSP/ICC-16 2017 listed drains, suction covers and debris removal systems. This is the **ONLY** approved option for preventing Hair Entrapment Hazards, the leading cause of suction related injuries.
- Design and install an effective circulation system (including optional cleaning systems), to direct filtered water to all areas and interior surfaces. **NOTE:** Suction fittings can NOT clean or direct filtered water for proper sanitation; that can only be done on the pressure (return) side of the filtration system.

PARTS INCLUDED IN SYSTEM

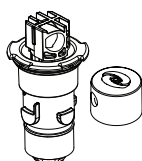
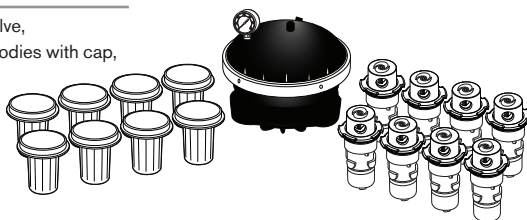
OptiCirc Circulation System Smooth Body

Item Number	Product Description
White 006-617-3000-01	Includes: (1) 2 port valve, (8) smooth bodies with cap, (8) risers, (8) nozzles
Gray 006-617-3000-02	
Black 006-617-3000-03	
Lt. Blue 006-617-3000-06	
Beige 006-617-3000-07	
Lt. Gray 006-617-3000-08	



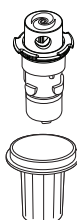
OptiCirc Circulation System Ribbed Body

Item Number	Product Description
White 006-617-4000-01	Includes: (1) 2 port valve, (8) ribbed bodies with cap, (8) nozzles
Gray 006-617-4000-02	
Black 006-617-4000-03	
Lt. Blue 006-617-4000-06	
Beige 006-617-4000-07	
Lt. Gray 006-617-4000-08	



Opticirc Nozzle with twist lock cap

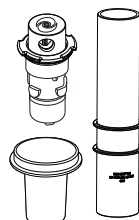
White	004-527-5100-01
Gray	004-527-5100-02
Black	004-527-5100-03
Lt. Blue	004-527-5100-06
Beige	004-527-5100-07
Lt. Gray	004-527-5100-08



Opticirc Single Head Kit
Ribbed Body

White	004-617-8000-01
Gray	004-617-8000-02
Black	004-617-8000-03
Lt. Blue	004-617-8000-06
Beige	004-617-8000-07
Lt. Gray	004-617-8000-08

Includes:
Nozzle and body



Opticirc Single Head Kit
Smooth Body

White	004-617-7000-01
Gray	004-617-7000-02
Black	004-617-7000-03
Lt. Blue	004-617-7000-06
Beige	004-617-7000-07
Lt. Gray	004-617-7000-08

Includes:
Nozzle, body and riser

SYSTEM LAYOUT

The OptiCirc system is a two zone in-floor circulation system. Nozzle placement is at the discretion of the pool builder based on the shape and design of the pool. In a deep end pool place one zone in the shallow and one in the deep end. In a center deep place a zone at each end of the pool. Nozzles should be placed a minimum of 2' from the wall and far enough away from the wall to be out of the floor wall cove and will function best when in the floor that is flat to mildly sloped.

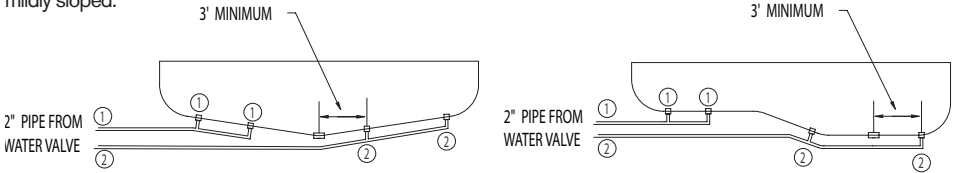


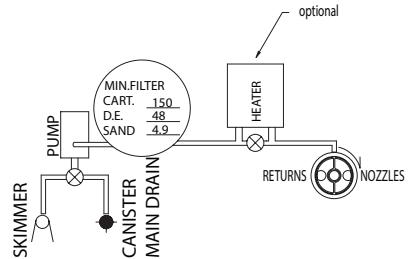
Diagram is for illustrative purpose to show 2 zones. There may be 3-4 nozzles per zone.

EQUIPMENT AND PLUMBING SCHEMATIC

VALVE PLUMBING SCHEMATIC 2 PORT WATER VALVE

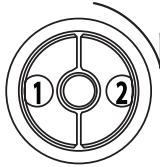
Min. Pump Curve 50 GPM @ 70 TDH
 Min. Filter Size 36 SQ. FT. DE = 72 GPM
 3.1 SQ. FT. SAND = 60 GPM
 100 SQ. FT. CARTRIDGE = 75 GPM

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



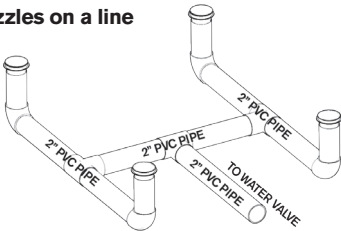
VALVE PLUMBING SCHEMATIC 2 PORT WATER VALVE

1. Floor #1 2. Floor #2



Install the SYSTEM with required feed lines from the water valve to banks containing four nozzles each. The feed lines are 2" Schedule 40 PVC pipe. Paramount recommends that the lines enter at the center of length of pool. Excavate a niche to the bottom of the pool depth at that location. This niche allows ample room for the feed lines. Generally, this will provide for the least amount of pipe. There are occasions when it may be advantageous to feed part of the lines in places other than the center.

4 Nozzles on a line



NOTICE

DO NOT PLUMB NOZZLES IN LINE, ALL NOZZLES MUST BE ON A BRANCH.



At each nozzle location, install a 2" elbow with a 2" Paramount Riser stubbed up above the finished pool floor. All pipes should have a minimum of 2" of cover. Trenches should be backfilled and raked smooth. Paramount recommends soaking and tamping the ground after backfilling the trenches. It is imperative that the stub-up angle is 90 degrees to the finished floor angle. This must be verified and adjusted prior to placing concrete shell. Paramount recommends use of the primer and glue on all joints underground.

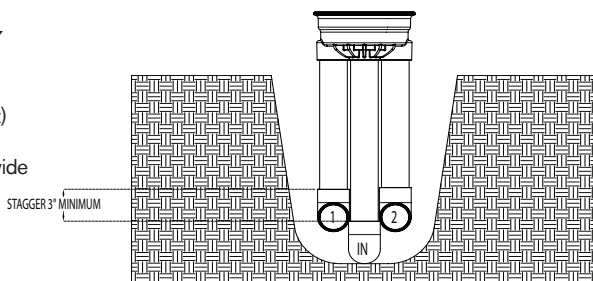
Cap all lines and pressure test to a minimum of 35 psi. Install the pressure-test stack at the equipment header or on one of the stub-up pipes in the pool floor. Pressure should remain on system throughout construction.

WATER VALVE INSTALLATION

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



NOTICE: All pipe fittings MUST be staggered.

GLUING INSTRUCTIONS

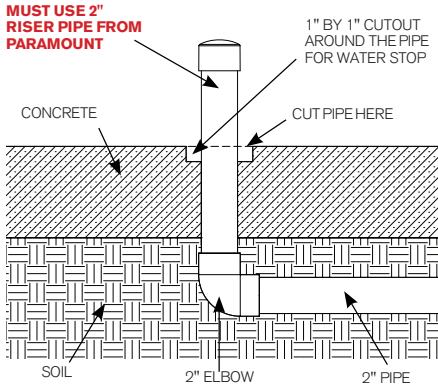
1. Remove valve body from box
 2. Lift off dome (save O-ring)
 3. Remove pressure gauge and knob from inside valve housing assembly
 4. Pipes and valve base should be treated with primer - valve base should be primed twice
 5. Make sure pipes are glued all the way into the stop. Be careful not to allow 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.
 9. Replace dome and V-Clamp and tighten until snug
 10. 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 safe 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.



SMOOTH BODY INSTALLATION GUIDE

NOTICE

All risers must be 90 degrees (perpendicular) to the finished floor. You can use regular PVC glue on smooth body



1



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.

2



Cut off riser pipes flush with concrete surface.

3



Remove cap. Prime the inside of the pipe.

NOTICE **DO NOT PRIME THE BODY.**

SMOOTH BODY INSTALLATION GUIDE

4



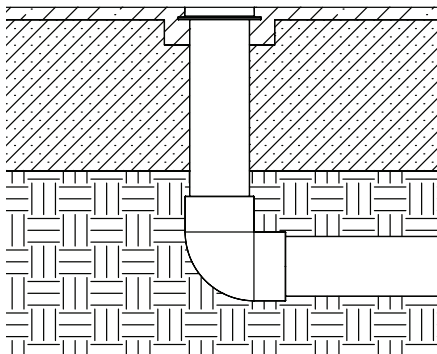
Glue the body into the pipe with a regular PVC glue.

NOTICE

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.

5



PLASTERING THE POOL

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

NOTICE

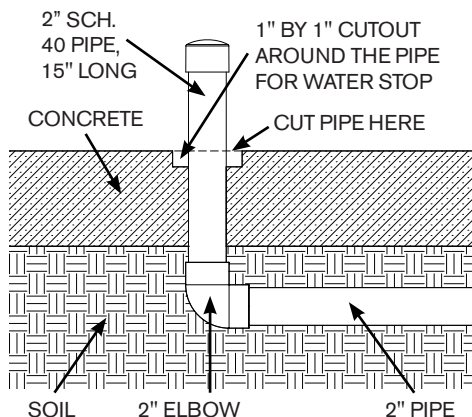
Optional, the plaster crew may remove the plaster caps as they finish. The body does not come with the nozzle installed.



RIBBED BODY INSTALLATION GUIDE

NOTICE

All risers must be 90 degrees (perpendicular) to the finished floor. Heavy body glue is required.



1



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

2



Cut off riser pipes flush with concrete surface.

3



Remove cap. Prime the inside of the pipe.

NOTICE

DO NOT PRIME THE BODY. DO NOT ROTATE THE BODY IN THE PIPE.

RIBBED BODY INSTALLATION GUIDE

4



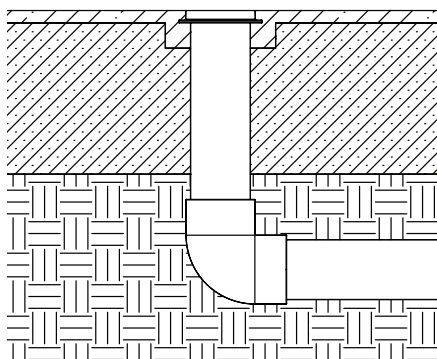
Glue the body into the pipe with a **HEAVY BODY PVC SOLVENT CEMENT**.

NOTICE

(IPS WELD-ON 711 or equivalent) 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.

5



PLASTERING THE POOL

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

NOTICE

Optional, the plaster crew may remove the plaster caps as they finish. The body does not come with the nozzle installed.

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.

Figure 1 Module Top View
Multi Port Tube Assembly



Figure 2 Base
Ports



Locate the multi port tube assembly - **Figure 1**

Center the ports under the multi port tube assembly (**Figure 1**) on the module over the open ports in the base - **Figure 2**

One open port is centered between two plugged ports - **Figure 2**

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

Before installing nozzles flush all lines by:

- Start pump, run for 10 minutes before installing the water valve module.
- Install the water valve module and let valve cycle to flush out any debris remaining in each line.



1. Select nozzle size from pool plan and using the nozzle tool to twist on caps.



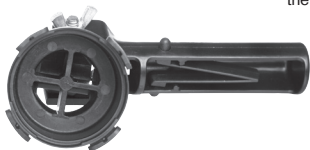
2. Place the nozzle inside the nozzle tool to hold it from spinning as you twist on the cap.



3. Place the cap on the nozzle. It will go on and twist one way.



4. Turn cap clockwise until it snaps into place.



This package includes two nozzle caps. One with a larger 7/16" hole the other with a smaller 1/4" hole. When using this nozzle with an OptiCirc Circulation System discard the small nozzle cap and only use the large nozzle cap on the floor of the pool.

Small Nozzle Tool Part #004-552-5452-00

For technical assistance call 1.800.621.5886 or contact your regional representative

