AUTOMATIC IN-FLOOR CLEANING & CIRCULATING SYSTEM

INSTALLATION MANUAL

MADE IN USA BY PARAMOUNT

U.S. Patent No.: 4,188,673, 4,212,088, 4,391,005, 4,592,379 5,265,631 6,311,728 6,314,999 6,360,767 6,810,537 7,089,607 D,531,888 D,532,684 7,178,179

Notice to Installers:
Read and follow these instructions. Give these instructions to the facility owner. Follow all codes and regulations that apply to the design, installation and use of suction outlet fittings.

PVA0687 004-027-8700-00 061809

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FORWARD

The Paramount In-Floor Systems and the Paramount Automatic Active Main Drain/Debris Removal System are protected patented products and the "methods and installation" of said products are patented. An installer of these products must be trained and licensed by Paramount. Only authorized installers may construct the designed systems. Non-authorized installers are infringing upon the protected patents owned by Paramount and subject themselves to legal litigation.

Paramount's Active Main Drain/Debris Removal System "method and concept" is protected from usage of other similar products and others may not construct the system without the direct written authorization and licensing from Paramount.

This Paramount In-Floor Cleaning Systems is the culmination of years of extensive testing and engineering which provides your customers with the most advanced and trouble-free system available. The information contained in this manual is intended to answer some of the most common questions associated with the installation of the System. We urge you to take time to review it thoroughly.

If you have any questions call Toll Free 1.800.621.5886 or visit www.1Paramount.com

IMPORTANT NOTICE

The Paramount In-Floor Systems, the MDX^2 Anti-Entrapment Debris Drain, and other optional Paramount products are protected patented products and the “methods and installation” of said products are patented. An installer of these products must be trained and licensed by Paramount. This manual and documents contained within have been copyrighted and any reproductions are illegal without the written permission of Paramount Pool and Spa Systems.

Paramount

Pool Life. Simplified.

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DESIGN & LAYOUT

Principle of Operation

The IN-FLOOR SYSTEM cleans by injecting pressurized water through a series of nozzles located throughout the pool. The pressurized water flow keeps dirt in suspension for removal by the pool filtration system, an active main drain, and an optional in-deck debris canister.

Various cleaning nozzles direct water flow in a sequential manner by a water actuated distributor valve. The flow is constant and lasts for approximately 60 seconds. When the flow stops, the nozzle will retract and rotate slightly to a new position so that when it is energized again it will clean a different portion of the pool.

Benefits Of The System

- **Reduction in chemical costs**
- **Reduction of heating costs**
- **Elimination of unsightly devices and/or hoses which impair swimmers**
- **Lifetime warranty and replacement under warranty conditions of cleaning nozzles**
- **Elimination of large leaves and debris with patented ADR active main drain system**

If the SYSTEM is installed properly, it will clean approximately 99% of the pool. BRUSHING IS NOT COMPLETELY ELIMINATED. Although the system GREATLY reduces the time and cost of maintaining a pool, it DOES NOT ELIMINATE the need to:

- **Maintain a proper chemical balance**
- **Brush the pool periodically**
- **Clean baskets and filters on a regular basis**

In conclusion, the IN-FLOOR SYSTEM is not a 100% cleaner and should never be presented as such.

DESIGN & LAYOUT

Surface Returns

Surface returns used in conjunction with the IN-FLOOR SYSTEM are a builders option. If all six ports of the water valve are not required, the use of surface returns (particularly in areas with excessive surface debris) is highly recommended.

If all six ports of the water valve are utilized for the floor, steps and/or spa, and automatic surface returns are desired, Paramount recommends a separate pump and filter. Another option is to over-size the pump and plumb a manual return. The flow through the manual return would have to be regulated in order to insure adequate flow through the floor system.

Surface returns are also advisable in shallow "game" pools. They would enable people to use the pool and have the filtration system operating without the possibility of stepping on the cleaning nozzles.

DESIGN & LAYOUT

Proper Nozzle Placement

Proper nozzle placement is the single most important item in making the SYSTEM clean properly. As a rule, one head is required for each 50 square feet of surface area (in pebble - 40 sq. ft.). Pools with breaks will generally require two (2) additional nozzles. This formula does not include nozzles required for steps and benches. The exact total cannot be determined until a scaled drawing has been made and nozzles have been properly placed.

NOZZLE PLACEMENT CRITERIA

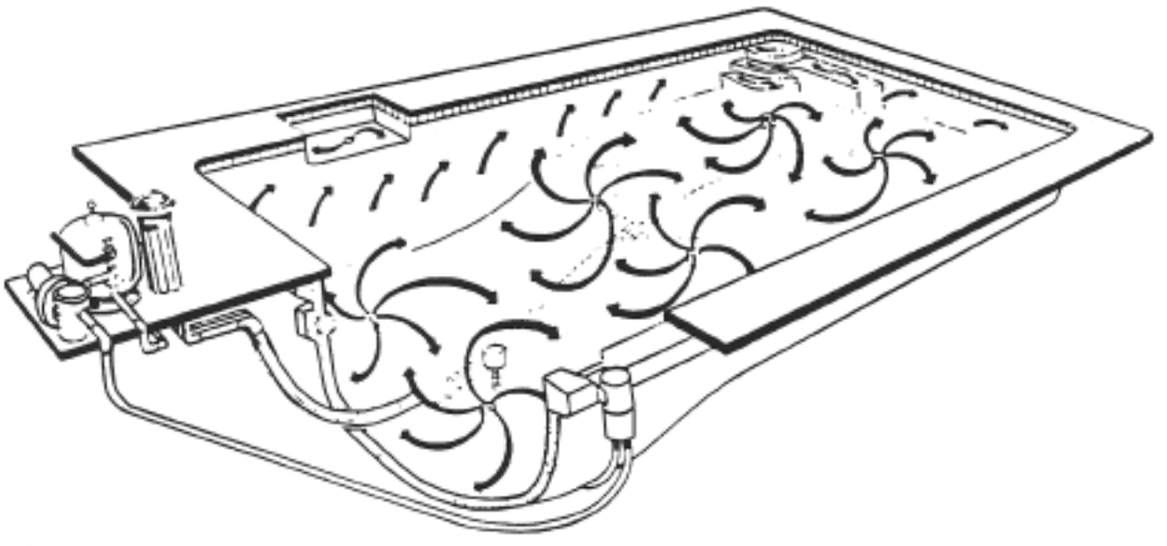
1. 5'6" RADIUS CLEANING PLASTER POOLS

2. DISTANCE FROM VERTICAL SURFACES (WALL OR STEP) MINIMUM 2' - MAXIMUM 3 1/2'.

3. MAXIMUM DISTANCE FROM CORNER (5 FEET).

4. ALL AREAS MUST INTERSECT OR OVERLAP.

NOTE: Calculations based on a 1' radius dig in the shallow end and a 5' radius in the deep end (assuming maximum depth of 4' shallow and 9' deep).



DESIGN & LAYOUT

Nozzle Placement

STEP 1 - DRAW POOL SHAPE (FIG. 1.1 - FIG. 1.4)

A scaled drawing of the pool must be made including the following details:

- **A.** Outline of pool shape
- **B.** All steps, benches, offsets, etc.
- **C.** Normal main drain location
- **D.** Break or transition point between shallow and deep end (if applicable)
- **E.** Any other items that may affect the water flow from the nozzles - i.e. in-pool umbrella or tables

Use either 1/8 in. = 1 ft. scale
or 1/4 in. = 1 ft. scale

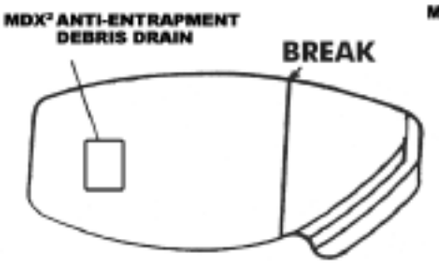


FIG. 1.1

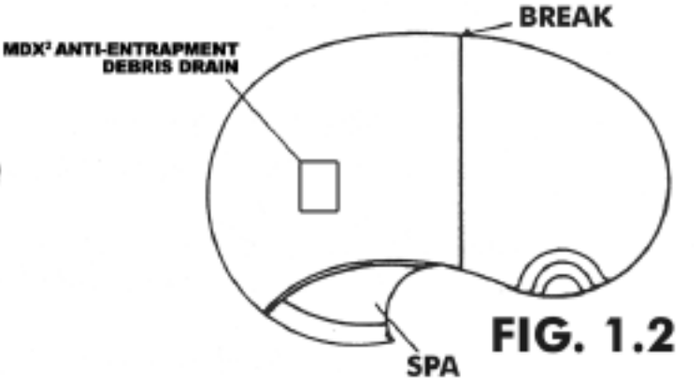


FIG. 1.2

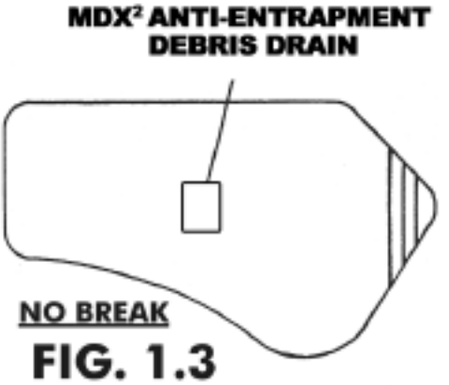


FIG. 1.3

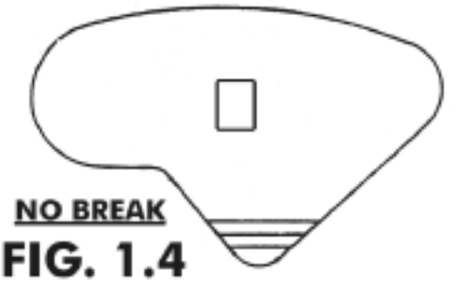


FIG. 1.4

DESIGN & LAYOUT

Step 2-Plot Basic Head Location Line

A. On the shallow side of the break point, draw a broken line across the pool that is parallel to and 3 ft. from the break. (FIG. 2.1-2.2)

The **BROKEN LINE** referred to in this text is always drawn within the outline of the pool shape.

Steps, benches or any other vertical surface that interrupts the pool floor is considered the **FINISHED POOL WALL**.

B. On the deep side of the break point, draw a broken line across the pool that is parallel to and **3 ft. from the break**. (FIG. 2.1 - 2.2)

C. Along all sides of the pool, draw a broken line that is parallel to and 3 1/2 ft. from the **FINISHED POOL WALL**. (FIG. 2.1 -2.4)

D. These are the beginning points at which nozzles will be located. Major corners are located at the intersection of the broken lines that were drawn. If the pool has a break, treat the deep end and the shallow end as if they were two separate pools. (FIG. 2.1 -2.2)

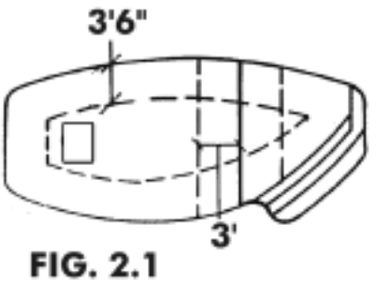


FIG. 2.1

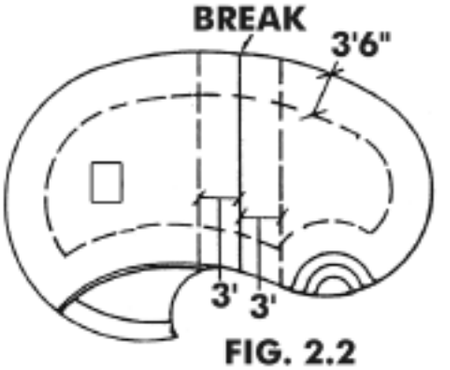


FIG. 2.2

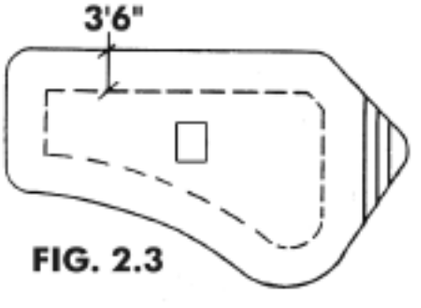


FIG. 2.3

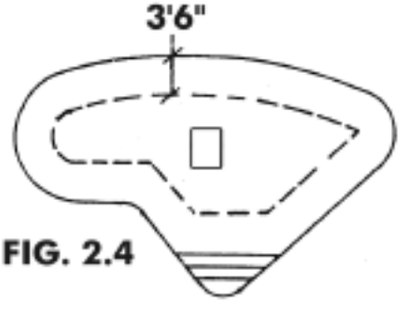


FIG. 2.4

DESIGN & LAYOUT

Step 3-Locate Nozzles

A. As stated in step 2, major corners are located at the intersection of the broken lines. (FIG. 2.1 - 2.2)

B. If the pool has a break (Fig. 3.1 & 3.2), there is a minimum of four major corner locations; two on each side of the break. The nozzles on the shallow side of the break will have no cleaning effect on the deep end side and vice-versa.

C. Start by placing nozzles on the broken line 3' from every corner. (Offset thenozzles 12" in every 90-degree corner by moving the nozzles towards the wall. This will allow the nozzle to sweep debris out of the corner).

D. Using a 5'6" radius draw area to be covered. (FIG. 3.1 -3.5)

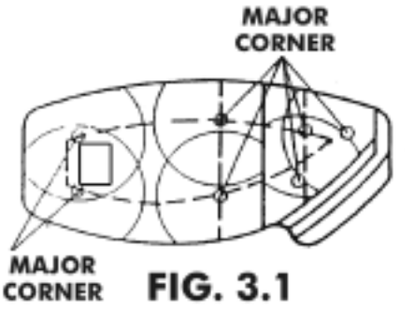


FIG. 3.1

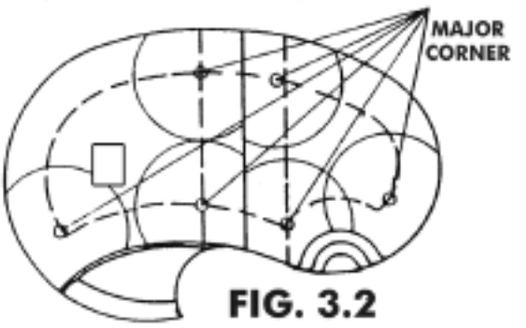


FIG. 3.2

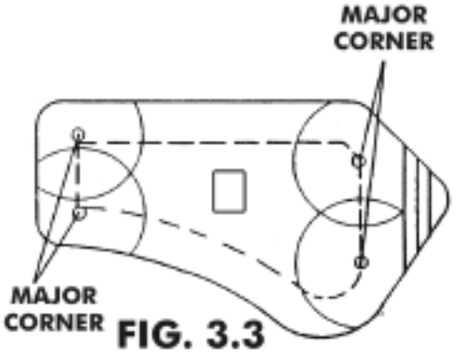


FIG. 3.3

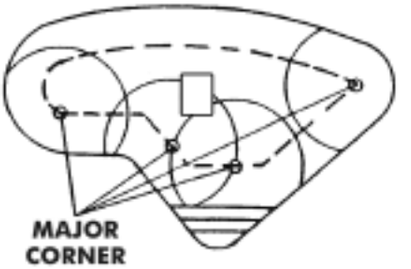


FIG. 3.4

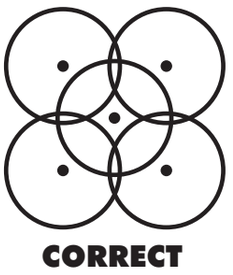
DESIGN & LAYOUT

Step 4-Nozzle Locations

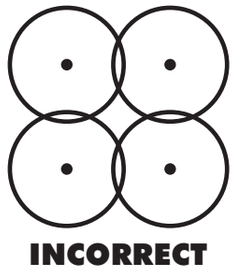
A. Locate the balance of nozzles shown in Fig. 4.1 - 4.4 by placing nozzles on the broken line to cover any areas not covered.

B. Place nozzles in the center to clean areas not covered by perimeter nozzles. (Be certain all areas are covered.)

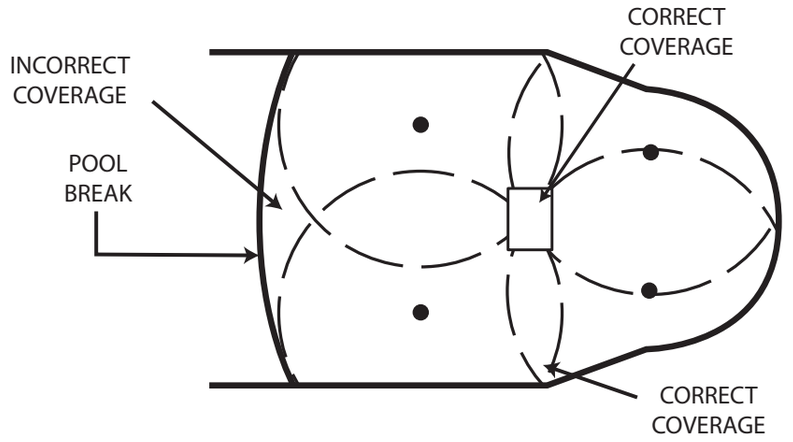
- Nozzles located in the floor will not clean steps/benches.
- Nozzles should be at least 4' from main drain.



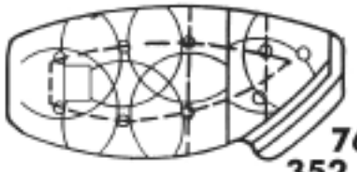
CORRECT



INCORRECT



8 FLOOR NOZZLES



76' P
352 SQ FT

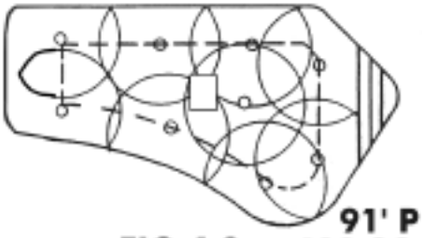
FIG 4.1

13 FLOOR NOZZLES

100' P
663 SQ FT

FIG 4.2

9 FLOOR NOZZLES



91' P
493 SQ FT

FIG 4.3

8 FLOOR NOZZLES

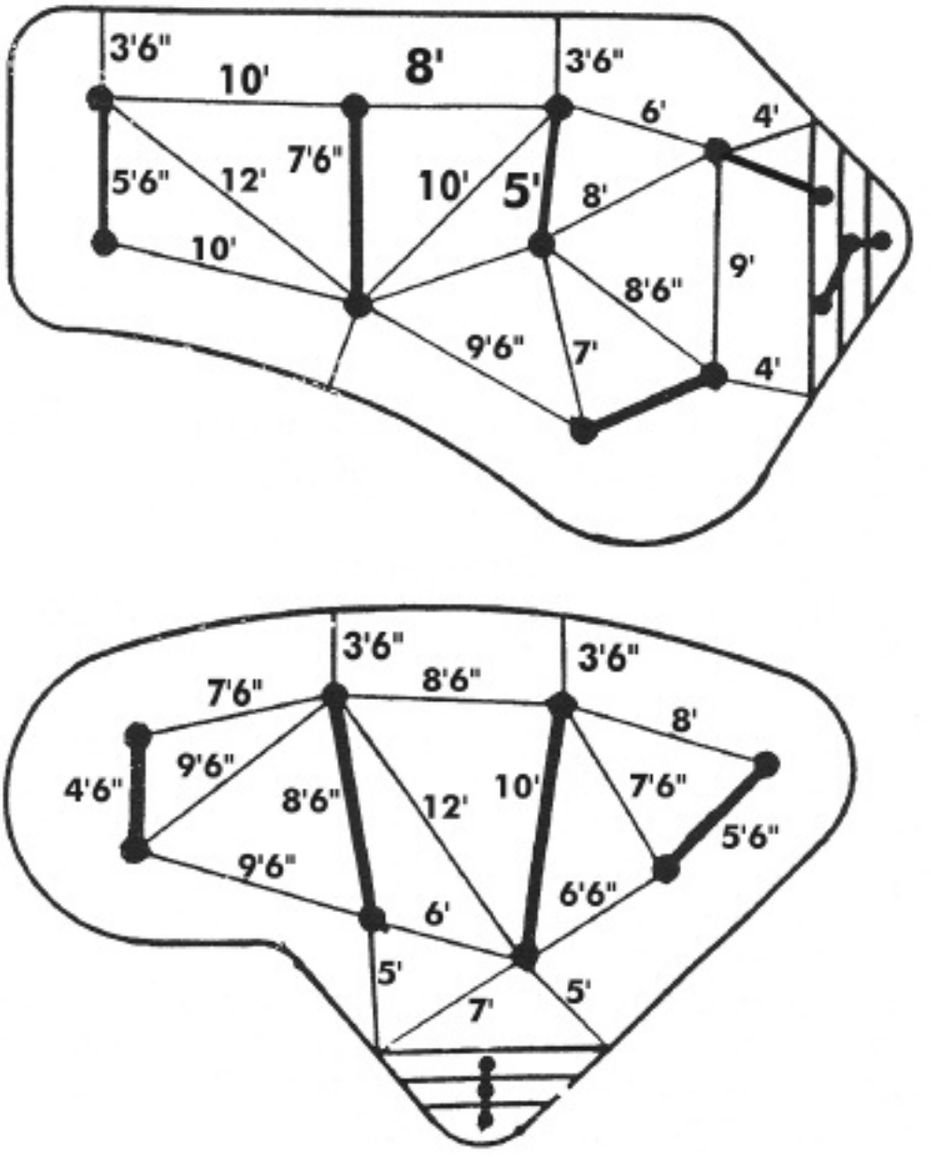
84' P
416 SQ FT

FIG 4.4

Dimensioned Nozzle Placement Drawing

After the nozzle placement has been determined, a scaled drawing should also be made with dimensions clearly indicated. The dimensioned drawing should be the plumber's guide and part of the superintendent's check sheet to insure proper placement.

As stated earlier, proper nozzle location is critical. Should the pool's configuration change (i.e. step location, break location, overall dimension) the nozzle placement must also change. A revised plan must also be drawn. Choose one nozzle to use as a starting point and indicate dimensions to outer walls. This will enable the plumbers to find the location of first nozzle and then use triangulation to locate the remaining ones.



DESIGN & LAYOUT

Sequencing

To determine the plumbing sequence you must:

1. DETERMINE NUMBER OF FLOOR NOZZLES

2. DETERMINE NUMBER OF STEP NOZZLES

3. DETERMINE NUMBER OF SPA NOZZLES

4. DETERMINE IF SURFACE RETURNS ARE REQUIRED

Consider also these preferred design parameters:

5. DESIGN SYSTEM BASED ON TWO OR THREE NOZZLES PER CIRCUIT ON THE FLOOR.

6. DESIGN SYSTEM BASED ON THREE TO FIVE NOZZLES PER CIRCUIT ON STEPS/BENCHES/SPAS.

7. NOZZLES IN A SPA SHOULD BE ON ONE OR MORE SEPARATE CIRCUITS.

8. NOZZLES ON STEPS AND BENCHES SHOULD BE ON ONE OR MORE SEPARATE CIRCUITS.

9. MINIMUM NOZZLES PER CIRCUIT IS TWO.

10. ALLOW ONE EXTRA CIRCUIT FOR SURFACE RETURNS IF DESIRED.

The following chart will aid you in determining the number of nozzles necessary per each circuit and also indicates the:

NOZZLES PER CIRCUIT
MINIMUM G.P.M. REQUIRED AND
TOTAL DYNAMIC HEAD FOR PUMP SELECTION
FILTER SIZE REQUIRED

The water valve utilizes six outlet ports. The number of nozzles per port should be constant whenever possible. Using the dimensioned nozzle placement drawings highlight each set of nozzles. If there is a combination of two and three nozzles per port throughout the floor, place the port(s) with two to a port in the deep end.

The sequencing order, from a cleaning aspect, is immaterial. The cleaning nozzles operating on a random principle eliminates the need for sequencing.

However, Paramount recommends sequencing from shallow to deep for ease of plumbing, installation and trouble shooting.

FILTER REQUIREMENTS
Selecting Proper Filter Size

When selecting filter sizes, if the filter requirements fall in between available sizes, select the next larger filter. Refer to Equipment Spec Chart for required rate.

Diatomaceous Earth (D.E.)

D.E. filters are rated at 2 GPM per square foot of filter area.

Sand

Sand filters are rated at 20 GPM per square foot.

1-1/2" MULTI-PORT VALVES ARE NOT RECOMMENDED BECAUSE HEAD LOSS IS GREATLY INCREASED. PARAMOUNT RECOMMENDS THE USE OF 2" PUSH/PULL OR 2" MULTI-PORT VALVES ON SINGLE PUMP SYSTEMS.

NOTE: Filter rates in excess of 20 GPM per sq. ft. can cause channeling of the filter bed.

Cartridge

Cartridge filters are rated at .50 GPM per square foot of filter area.

NOTE: Excess flow rates can cause the fibers of a cartridge to become impacted.

1-1/2" MULTI-PORT VALVES ARE NOT RECOMMENDED BECAUSE HEAD LOSS IS GREATLY INCREASED. PARAMOUNT RECOMMENDS THE USE OF 2" PUSH/PULL OR 2" MULTI-PORT VALVES ON SINGLE PUMP SYSTEMS.

Important Technical Notice
Regarding Multiple Skimmers

The usage of **more** than **one skimmer** with the Paramount In-Floor systems may create conditions where the main drain and skimmers are **not effective**. This is particularly true with Paramount's ADR System with the **active main drain**.

When the pool incorporates a **single pump** design with up to a 2 hp (2-1/2 hp updated) pump and an In-Floor system, the **maximum flow of water** through the hydraulic system is only **60-75 GPM.**

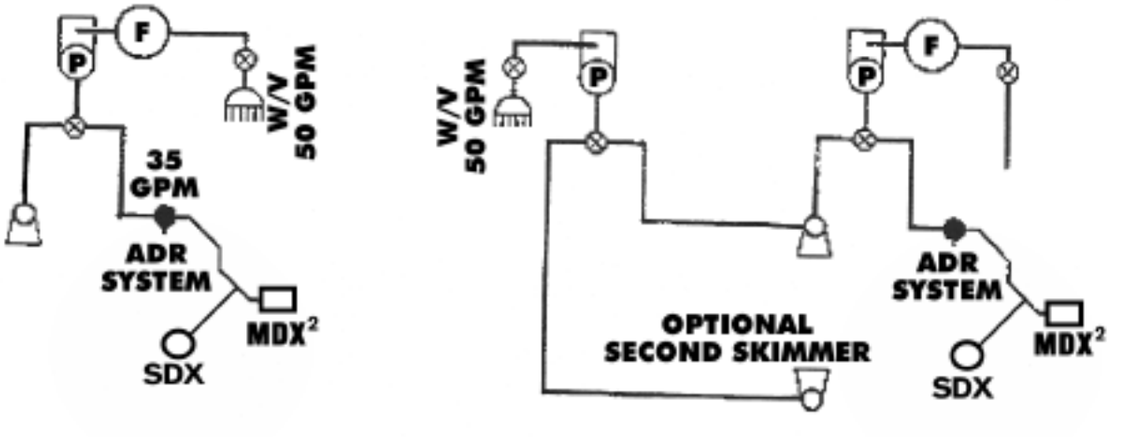
The Paramount Active Main Drain System requires only 35 GPM to operate properly. The remaining suction flow is through the skimmer.

When a second **skimmer is added**, the flow then becomes **reduced**. Having only **17-20 GPM** over a skimmer weir is **not effective**. Traditionally, **consumers adjust the skimmers** to effectively pull water and surface debris and thus reduce the suction upon the **main drain.**

We have found that with an In-Floor system the best rule of thumb is **"One skimmer and one main drain with a one pump system".**

On pools over 450 sq ft., we recommend the design include a two-pump system. Because of the energy savings, faster clean up and less stringent equipment requirements, multiple skimmers may be incorporated.

The second pump may be plumbed to a single skimmer along with the filter pump which, effectively, super-charges the skimmers. Plumb the second pump to a second skimmer. This design allows both skimmers to separately draw a minimum 35 GPM and the main drain to effectively operate as designed.



DESIGN & LAYOUT

Paramount
Pool Life. Simplified.

DRAWING COVER SHEET

Please Allow 2 Business Days For Layout

poolValet

1.800.621.5886 1.480.893.7607 CAD FAX : 1.480.893.7621 www.1Paramount.com

If You Would Like Information On E-mailing Drawings Please E-mail Us At : cad@1Paramount.com

Pool Builder Information

*Company			
*City		*State	
Contact Name			
*Sales Person			
Telephone			
Fax			
E-mail			

Pool Owner Information

*Job Name			
Address			
City		State/Zip	

Revison

Previous Drawing # :

What is Revised?

Length-Width Measurements, Breakline & MDX2 Location Must Be Shown On A Scaled Pool Drawing

Pool Dimensions: X

Square Feet:

Pool Depth: X

Distances In Feet:

Surface Texture: Plaster ☐ Pebble ☐ Other

***Check Boxes and Fill in Blanks Appropriate For your Cleaning System ***

Number Of Skimmers On Pool
(More than one skimmer will require an additional pump)

Seperate Pump for Cleaner…… ☐

MDX2 Debris Removal System… .. Pool: ☐
(Spa w/ MDX2 requires 2 nozzles in Spa: ☐
Basin: ☐

Debris Canister…… ☐
Basin: ☐

Nozzles On Steps ☐
Nozzles On ☐
Nozzles In Spa ☐
Nozzles In Basin (Requires seperate equipment) ☐

Filter Pump Information

Brand HP

Cleaner Pump Information

Brand HP

Solar Heated (Requires booster pump) ☐
The Pool And Spa Are Connected ☐

Type Of Entryway Into Pool:
☐ Deck w/ Tile Line
☐ Rolled Beam
☐ Zero Entry (You Must Draw Waterline In Pool)

Airport ☐
Clear O3 ☐

Paralevel Quantity		
Jetpack Quantities	Oscillator	
	Clusterspray	
	Spinal'ssage	
Parascope Fountain Quantity		
SDX 2-Pack Quantity		
Niagara Waterfalls Quantity		

How Shall Customer Service Handle Your Drawing Request?
☐ Pre-Gunite Order ☐ Complete Order

Color Selections

Nozzles/MDX2/Fountains:	☐ Wht - 01	☐ Tpe - 04	☐ Bge - 07
	☐ Gry - 02	☐ Blu - 05	☐ Lt Gry - 08
	☐ Blk - 03	☐ Lt Blu - 06	
Canister/Paralevel Lids:	☐ Wht - 01	☐ Gry - 02	☐ Bge - 07
JetPack:	☐ Pearl - 51	☐ Mirage - 52	☐ Onyx - 53
	☐ Cobalt - 55	☐ Graphite - 56	☐ Tanzanite - 57
Shipping Priority:	☐ Ground	☐ 2-Day	☐ 3-Day
	☐ Next Day AM	☐ Next Day PM	☐ Will Call

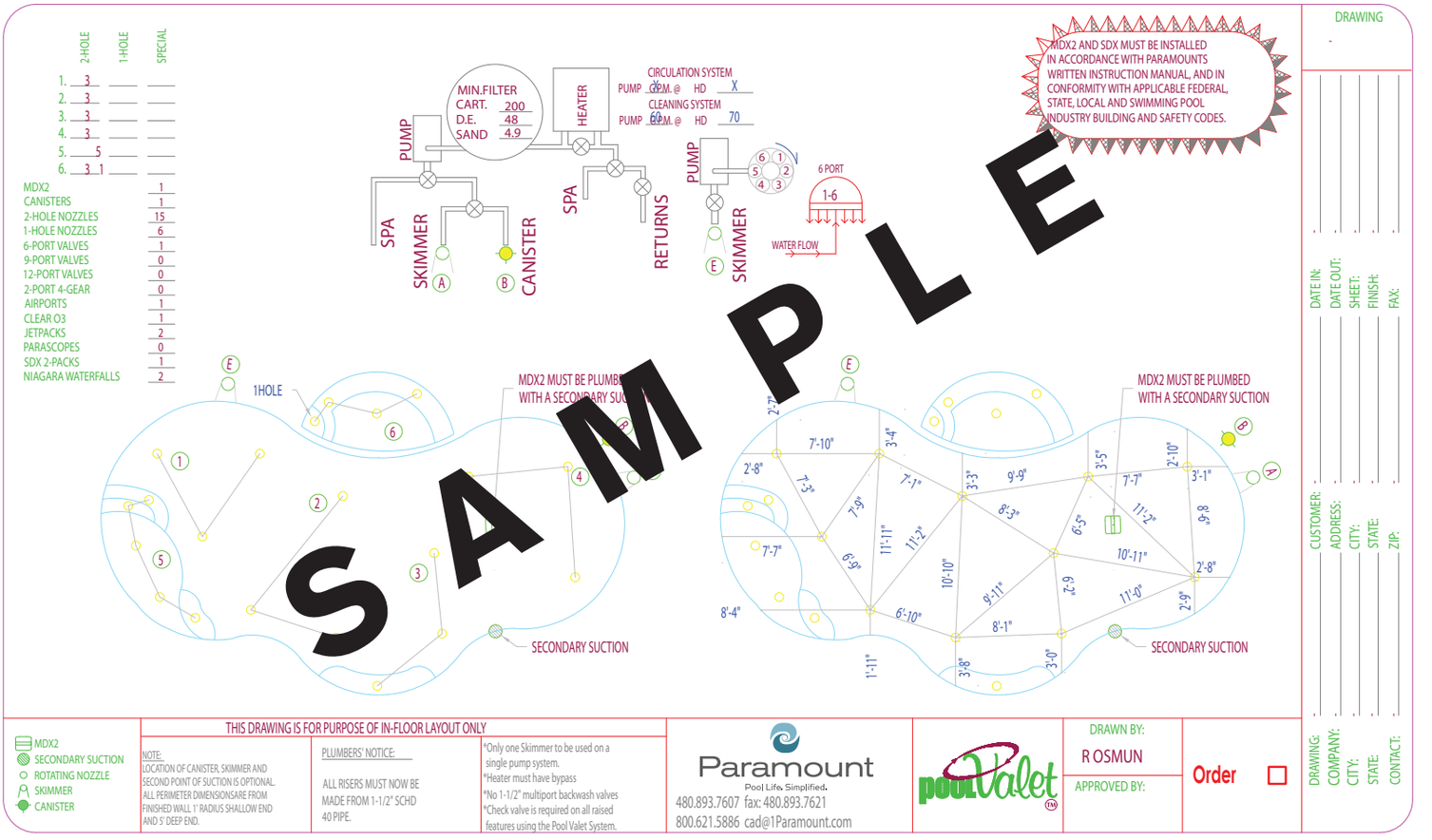
Notes From Pool Builder:

* Must Be Filled Out COMPLETELY And LEGIBLY To Receive Points For Incentive Trip*

PAR0864 004-027-7940-00 04/09

SAMPLE

DESIGN & LAYOUT



PLUMBING DETAIL

PLUMBING (FLOOR)

Using the dimensioned layout plan, drive a stake into the exact location of each nozzle. Please note that dimensions indicate from finish, not excavation. Allow for thickness of wall. All piping under the floor of the pool is to be Schedule 40 PVC or equivalent. Use 45 degree fittings instead of 90 degree whenever possible or when practical. Paramount recommends the use of a "hot box" which enables you to shape and form the pipe to almost any configuration you need. In areas such as down the slope of a break or in the diving bowl, the "hot box" can eliminate fittings and save a lot of time.

The SYSTEM feed lines are 2". Paramount recommends that the lines enter at the center of length of pool. By doing this a niche can be excavated to the bottom of pool depth at that location. This large niche allows ample room for the six feed lines. There are occasions when it may be advantageous to feed part of the lines in places other than the center. However, as a rule, this will provide for the least amount of pipe. The lines will then feed the banks of nozzles. At each nozzle location, install a 2" X 1½" elbow (or 2" 90 elbow with reducers) and stub up a 1½" Schedule 40 PVC 12" above the finished pool floor (except for steps and benches). Step and bench nozzles should be on a separate port. The number of nozzles per zone in the floor should be constant whenever possible. Dig out around each stub-up to provide area for body cutouts (see page 16).All pipes should have a minimum of 2" of cover. Trenches should be backfilled and raked smooth. We also recommend soaking and tamping the ground.

PLUMBING DETAIL

PLUMBING (FLOOR)

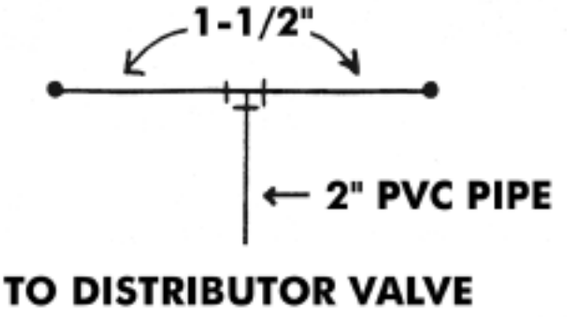
It is imperative that the stub-up angle be 90 degrees from the finished floor angle. Verify this and readjust prior to placing gunite or concrete shell. The stub-up pipes should NEVER be in a location in which the slope of the floor exceeds 45 degrees, as the cleaning nozzles will not retract. Use primer on all joints underground.

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

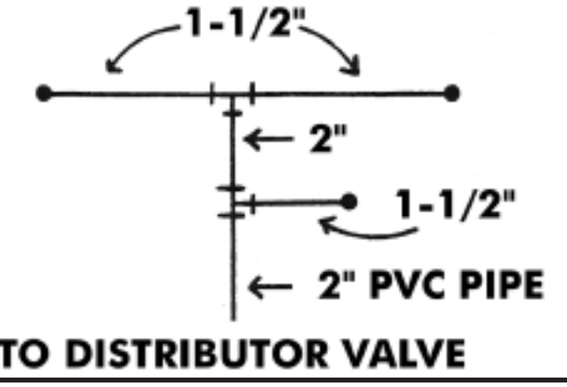
NOTE: Install blockout cones prior to capping the 1½" stub-ups.

PLUMBING DETAIL

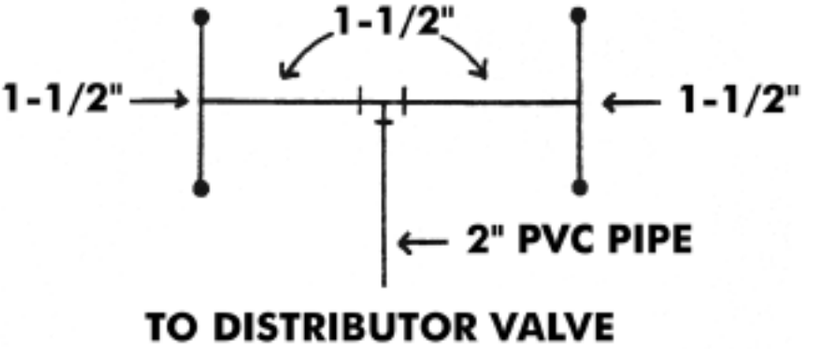
2 HEAD CIRCUIT



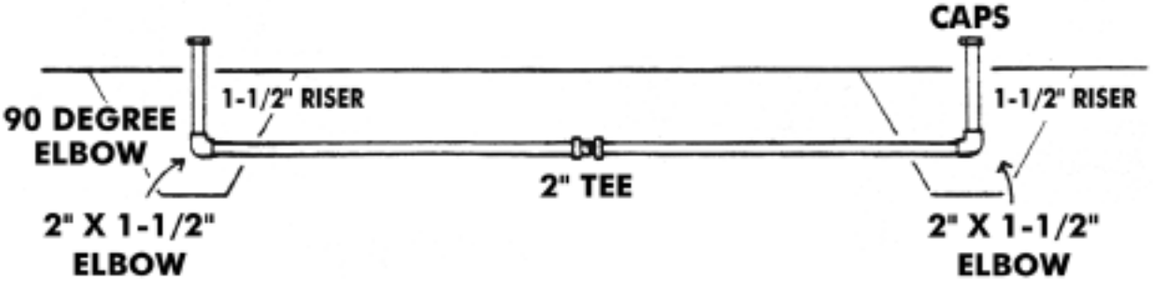
3 HEAD CIRCUIT



4 HEAD CIRCUIT FOR STEPS

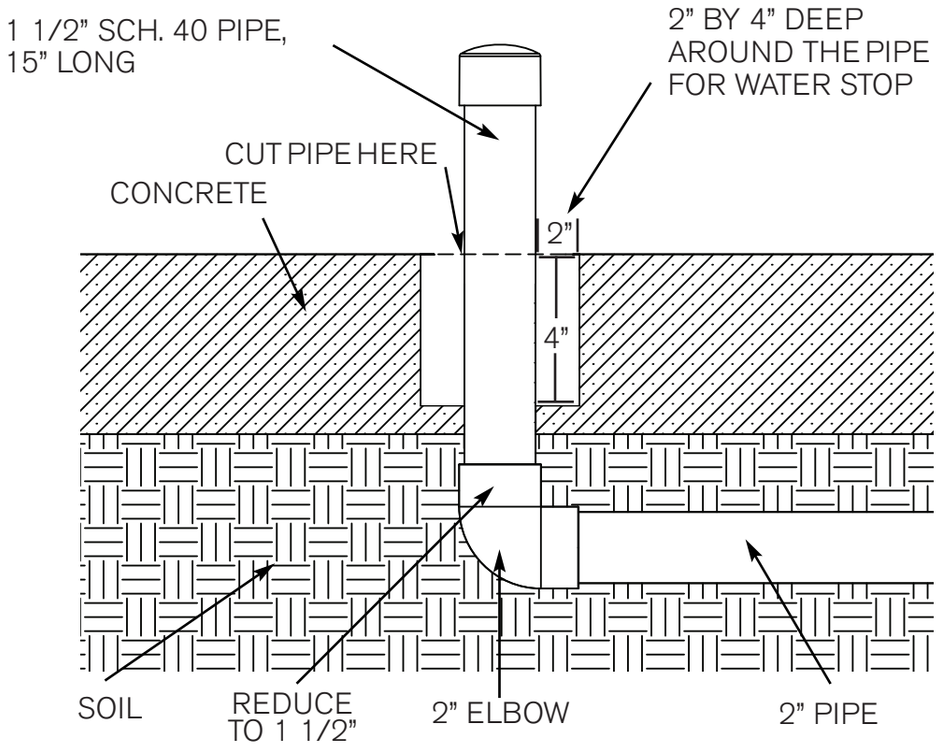


RISER INSTALLATION



PLUMBING DETAIL

PLUMBING FOR FLOOR NOZZLES

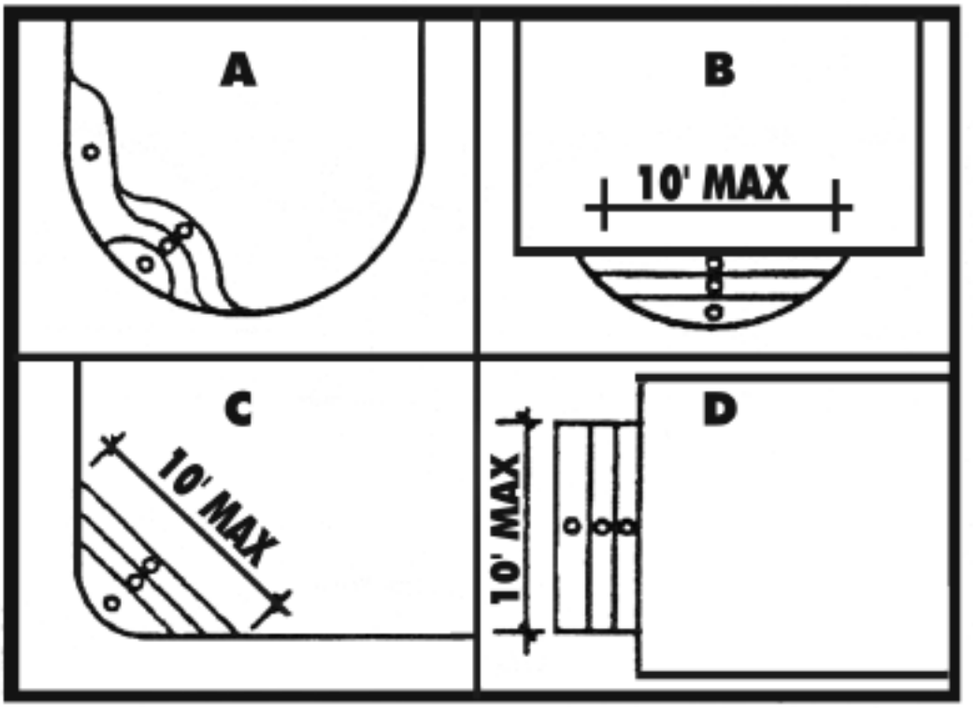


NOTE: All risers must be 90 degrees (perpendicular) to the finished floor

PLUMBING DETAIL

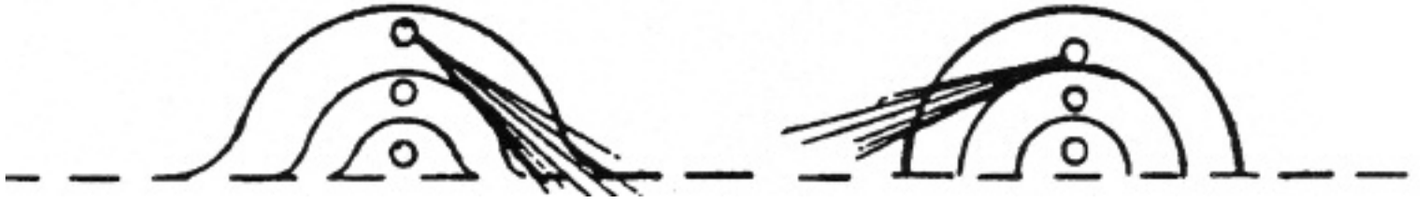
NOZZLE PLACEMENT (STEPS / BENCHES / SWIM-OUTS)

1. Using a 5' radius, indicate location of step-cleaning nozzle.



NOTE: Each nozzle will not clean more than 5' radius on steps or benches.

2. Nozzles should be pulled out as far as possible in order to reach corners.

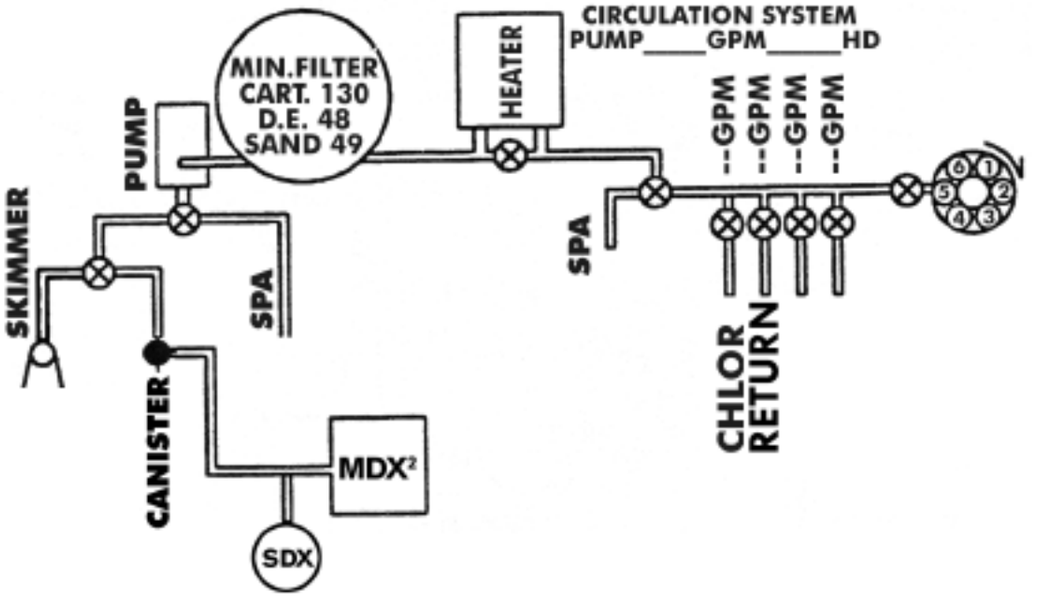


3. Reversed radius* of step corners will help to eliminate dirty steps.

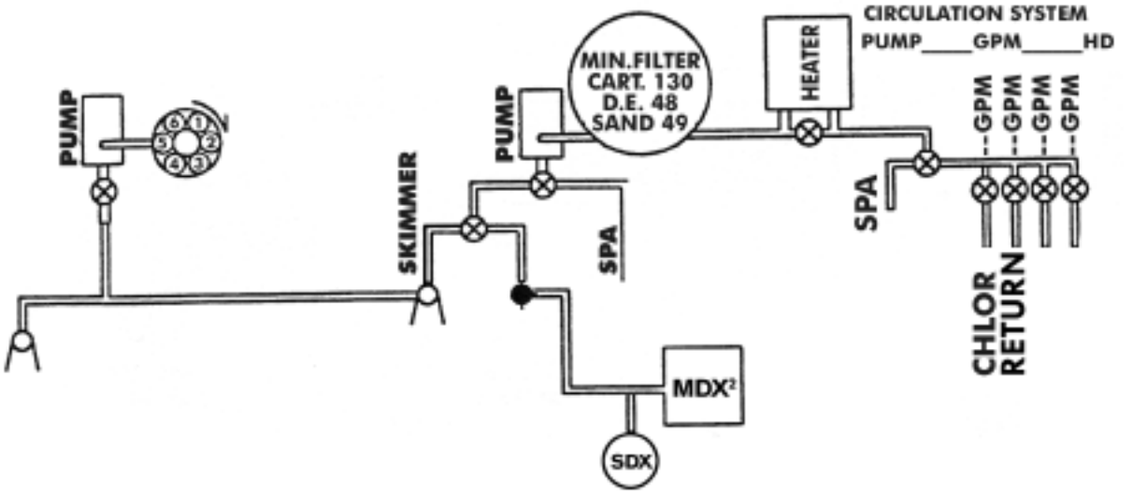
***** This will also help with the floor cleaning where the bottom step meets the pool wall.

PLUMBING DETAIL

EQUIPMENT LAYOUT



Dual Pump



PLUMBING DETAIL

PLUMBING (WATER VALVE)

2" VALVE BASE PLUMBING GUIDE

NOTICE: All pipe fittings MUST be staggered. (See pictures next page)

All plumbing should be 2".

The water valve is normally set 6" above water level in a convenient location poolside. This results in dramatic reduction in plumbing runs and increased cost savings.

The center port of the bottom housing is the inlet to the valve. Cut all pipes square, this allows maximum gluing surface to the bottom housing. USE PVC PRIMER AND PVC GLUE ON BOTTOM HOUSING AND ON PVC PIPES. (IPS WELDON P68 PRIMER and 711 GLUE or 705 GLUE or EQUIVALENT)

Glue pipe all the way into the stop and allow at least 24 hours drying time before pressure test. To prevent glue damage to internal ribs, always glue with the valve right side up.

If not all six (6) ports are required, use one of the ports twice to feed one return line. The common ports should not be plumbed next to each other, always skip a port when double firing. The pipes from the water valve should be connected together underground.

GLUING INSTRUCTIONS

1. Remove Clamp
2. Lift off dome (save 0-ring)
3. Remove pressure gauge and knob from inside valve housing assembly.
4. Primer valve base two times
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 the valve be at least 6" above water level.

PLUMBING DETAIL

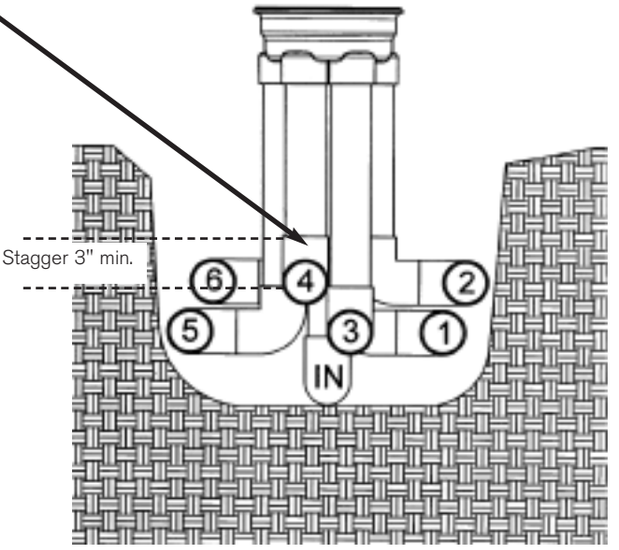
PLUMBING (WATER VALVE)
2" VALVE BASE PLUMBING GUIDE

NOTICE: All pipe fittings MUST be staggered.

PARTS NEEDED FOR ASSEMBLY
OPTION ONE

- (3) 2"X12" PVC PIPE (port 2,4,6)
- (3) 2"X15" PVC PIPE (port 1,3,5)
- (1) 2"X18" PVC PIPE (port inlet)
- (4) 2"X2 1/4" PVC PIPE (port 1,2,5,6)
- (11) 2" SLIP 90° ELBOWS
- Optional: replace (4) 90° elbows and (4) 2"x2 ¼" pipes with (4) spigot 90° elbows
- Set in trench 15"deep X 19" wide

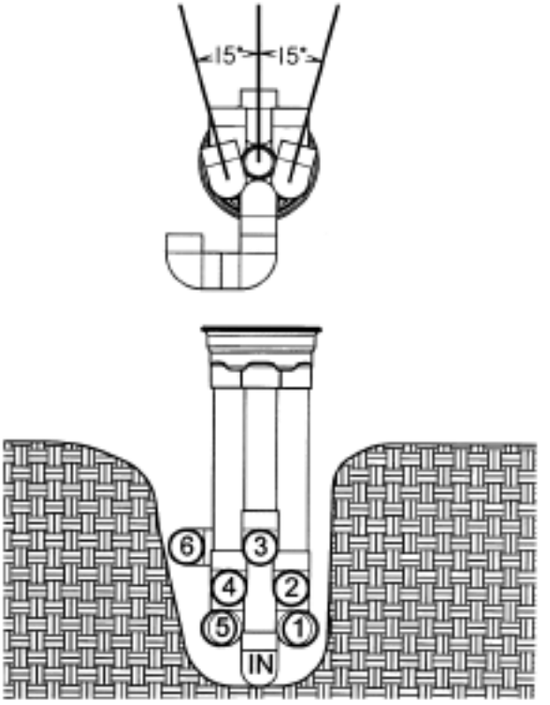
NOTE: Height of riser pipes may be adjusted as long as the 3" height differential between fittings is maintained.



OPTION TWO

- (2) 2"X12" PVC PIPE (port 3,6)
- (2) 2"X15" PVC PIPE (port 2,4)
- (2) 2"X18" PVC PIPE (port 1,5)
- (1) 2"X21" PVC PIPE (port inlet)
- (2) 2"X2 1/4" PVC PIPE (port 6)
- (8) 2" SLIP 90° elbows
- Optional: replace (2) 90° elbows and (2) 2"x2 ¼" pipes with (2) spigot 90° elbows (port 6)
- Set in trench 19" deep X 12" wide

IMPORTANT:
PORT 1 AND 5 MUST BE SET AT 15° OFF CENTER-LINE IN ORDER TO CLEAR

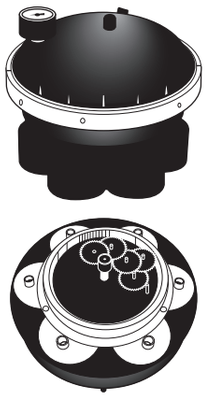


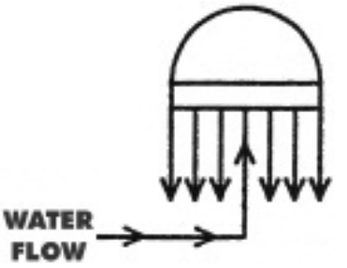
PLUMBING DETAIL

VALVE CIRCUIT LAYOUT

6 CIRCUIT

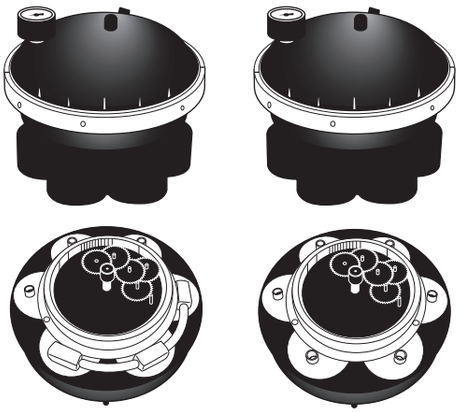
004-302-4184-03

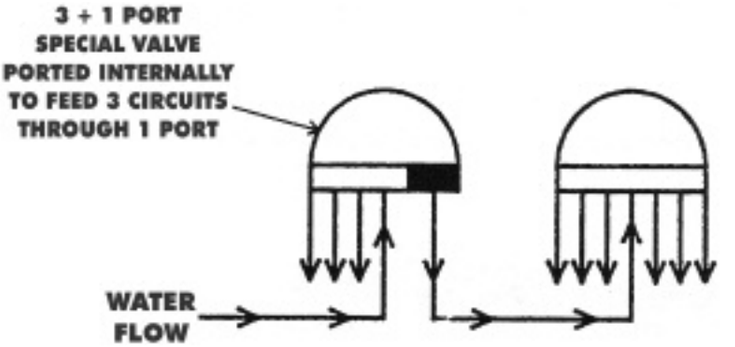




9 CIRCUIT

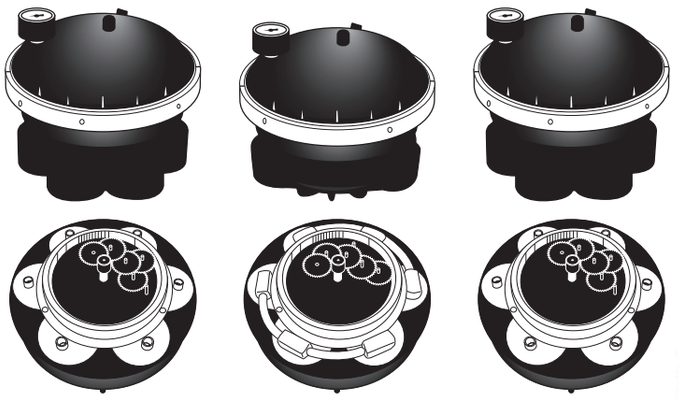
004-302-4190-03

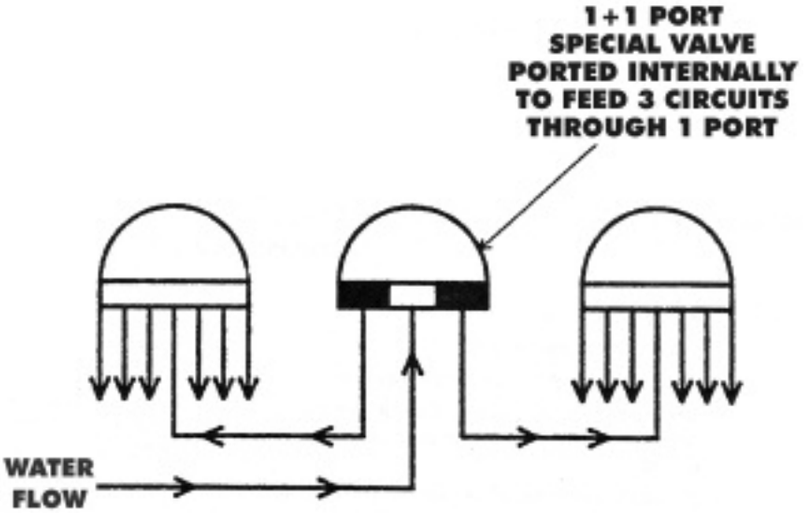




12 CIRCUIT

004-302-4194-03





PLUMBING DETAIL

System Design:

NOTICE:

WARNING: MDX² and SDX must be installed in accordance with Paramount's written instruction manual, and in conformity with applicable Federal, State, Local and Swimming pool industry building and safety codes.

These MDX² instructions provide two methods to choose from, with additional methods for specific jurisdictions, (California and Florida specifically but not limited to those states). Your local codes may require additional safety measures. Paramount Pool & Spa Systems and its representatives cannot recommend or endorse installation methods other than those provided in these MDX² instructions.

NOTICE – Maximum Pump Size:

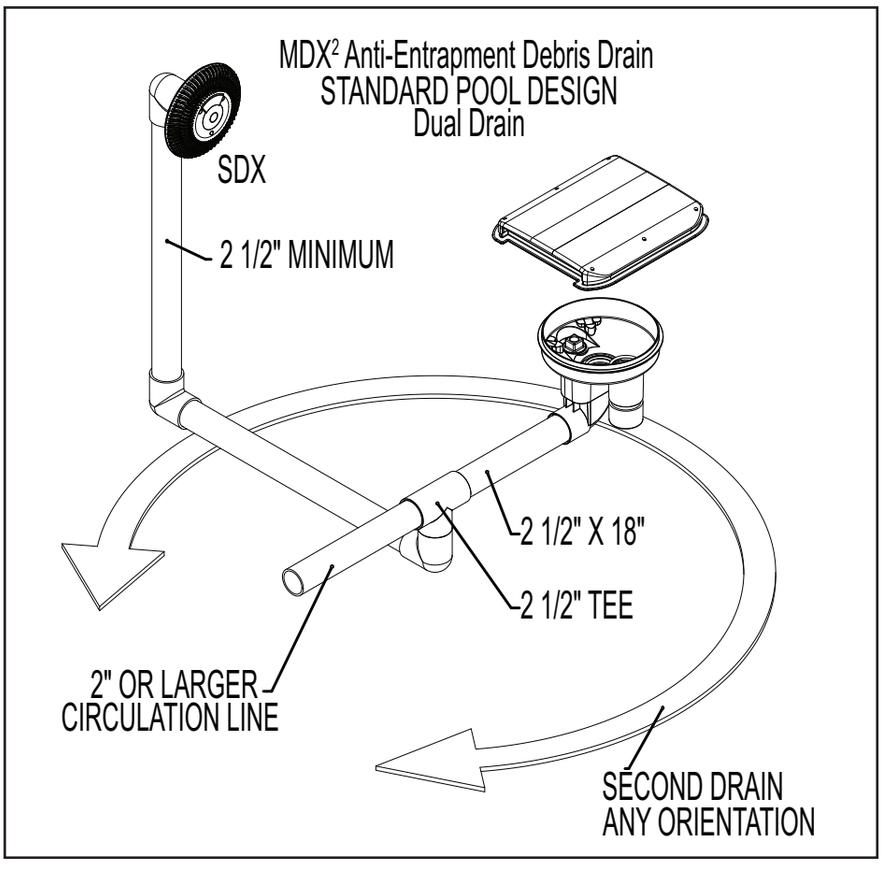
MDX² is rated for a maximum of 90 GPM (340 LPM). While system flow rate will vary with pump size and the Total Head Loss for a given system, virtually any modern pump is capable of exceeding this limit, therefore it is the responsibility of the system designer to make sure it is not possible to exceed 90 GPM (340 LPM). In the event of one suction outlet being completely blocked, the remaining suction outlets serving that system shall have a flow rating capable of the full flow of the pump(s) for the specific suction system.

MDX² INSTALLATION MANUAL

NOTICE:

18 inches of 2½" pipe is required to be connected to the center outlet of the MDX² . After the 18 inches of 2½" pipe you may reduce to a smaller pipe size, although it is not recommended. **Use of 2½" pipe throughout the suction side of the system is strongly encouraged for optimum performance.** For your convenience, Paramount Pool & Spa Systems includes the 18 inches of 2½" pipe plus tee with the MDX². To order separately, please see page 52 for the part number.

MDX² 1-PIECE SUMP



Design Flow Rate = 90 GPM

Maximum GPM = 90

Velocity at 90 GPM = 1.368 FPS

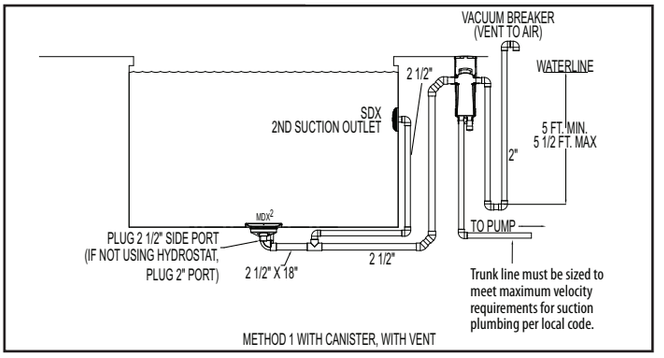
For technical assistance call 1-800-621-5886 or contact your regional representative.

PLUMBING DETAIL

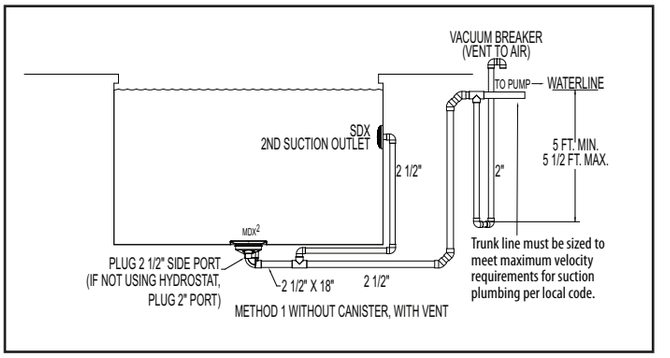
WITH CANISTER

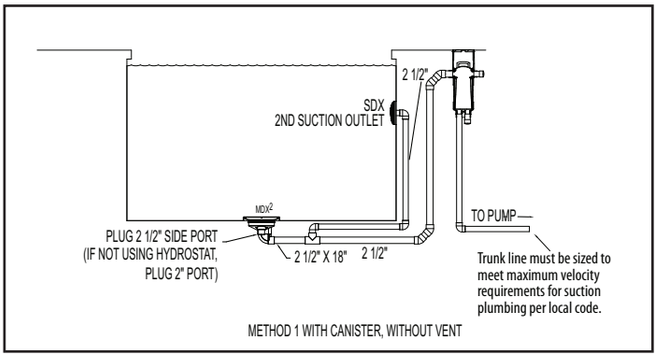
WITHOUT CANISTER

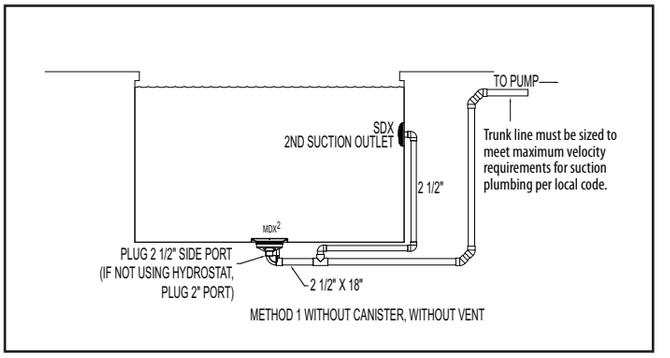
Installation Method 1: For technical assistance call 1-800-621-5886 or contact your regional representative.



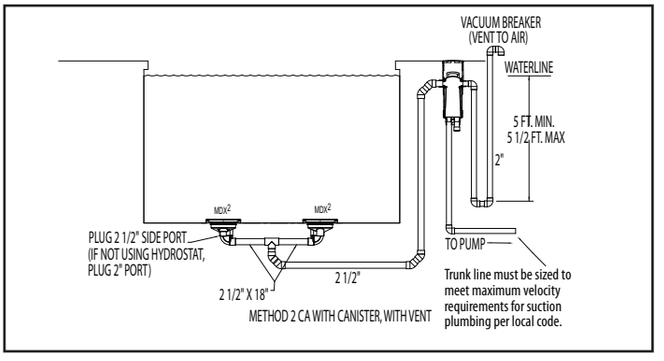
*Note: Canister requires 1½" equalizer line through pool wall. (Not Shown)



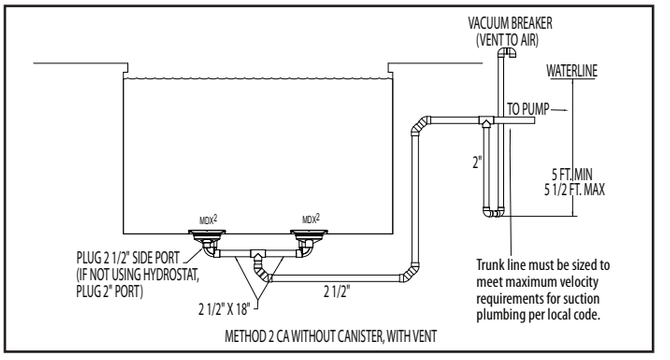


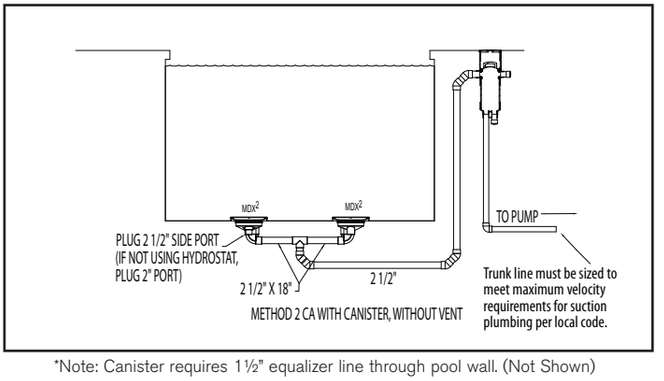


Installation Method 2: For technical assistance call 1-800-621-5886 or contact your regional representative.

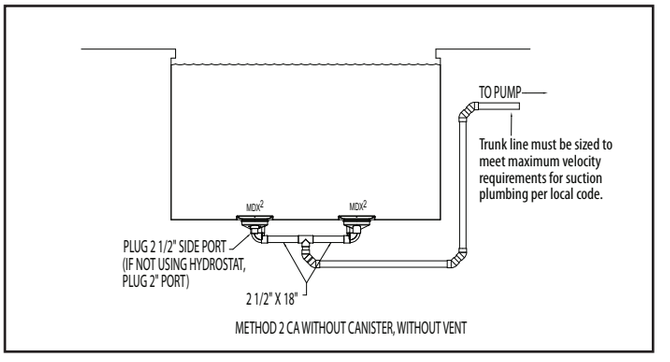


*Note: Canister requires 1½" equalizer line through pool wall. (Not Shown)





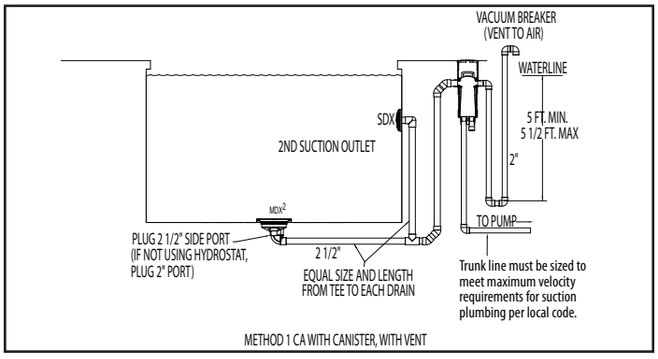
*Note: Canister requires 1½" equalizer line through pool wall. (Not Shown)



PLUMBING DETAIL

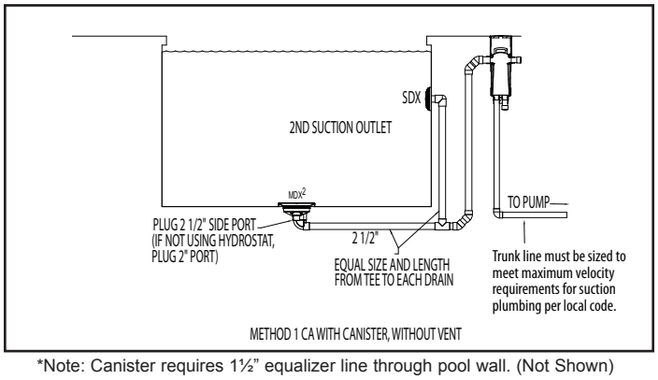
WITH CANISTER

Installation Method 1 (California):



METHOD 1 CA WITH CANISTER, WITH VENT

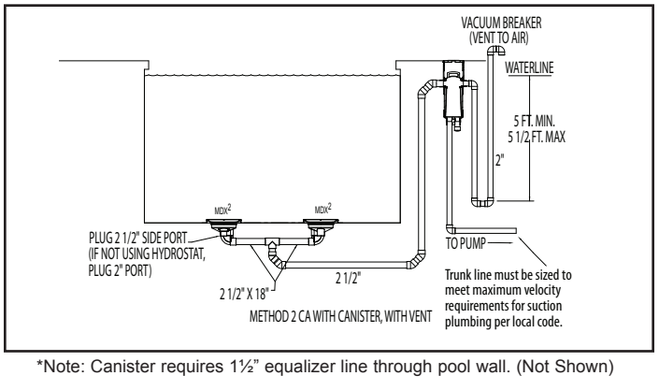
*Note: Canister requires 1½" equalizer line through pool wall. (Not Shown)



METHOD 1 CA WITH CANISTER, WITHOUT VENT

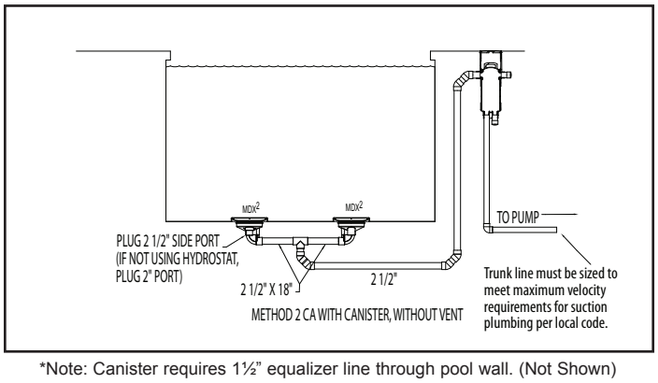
*Note: Canister requires 1½" equalizer line through pool wall. (Not Shown)

Installation Method 2 (California):



METHOD 2 CA WITH CANISTER, WITH VENT

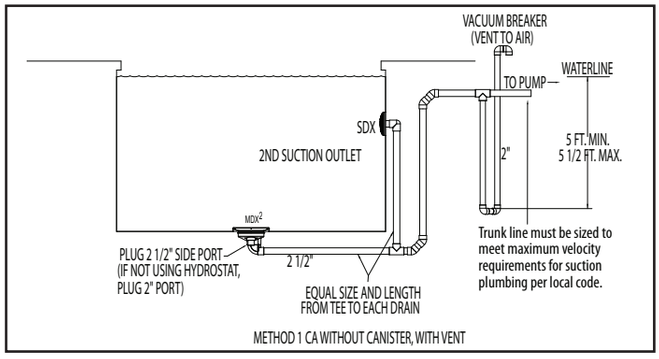
*Note: Canister requires 1½" equalizer line through pool wall. (Not Shown)



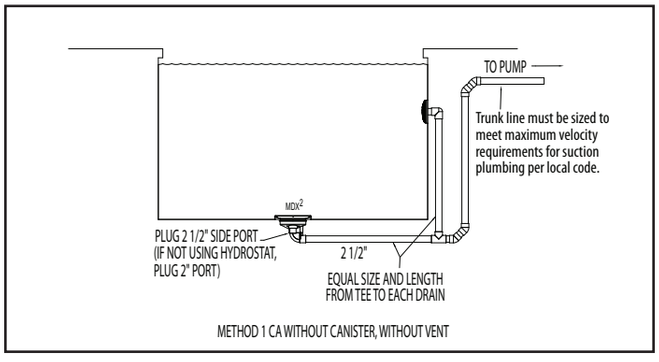
METHOD 2 CA WITH CANISTER, WITHOUT VENT

*Note: Canister requires 1½" equalizer line through pool wall. (Not Shown)

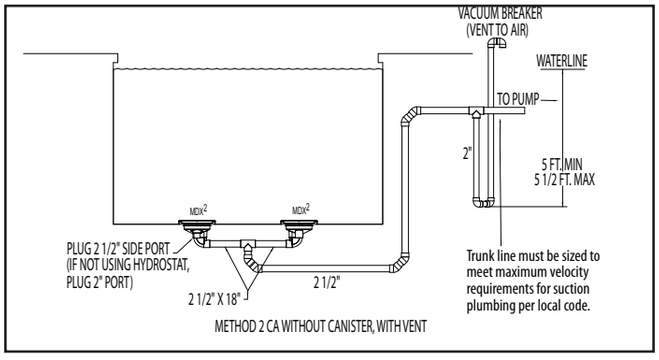
WITHOUT CANISTER



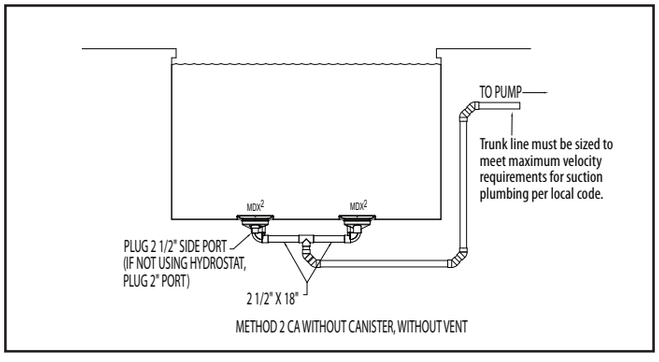
METHOD 1 CA WITHOUT CANISTER, WITH VENT



METHOD 1 CA WITHOUT CANISTER, WITHOUT VENT



METHOD 2 CA WITHOUT CANISTER, WITH VENT



METHOD 2 CA WITHOUT CANISTER, WITHOUT VENT

*Note: Canister requires 1½" equalizer line through pool wall. (Not Shown)

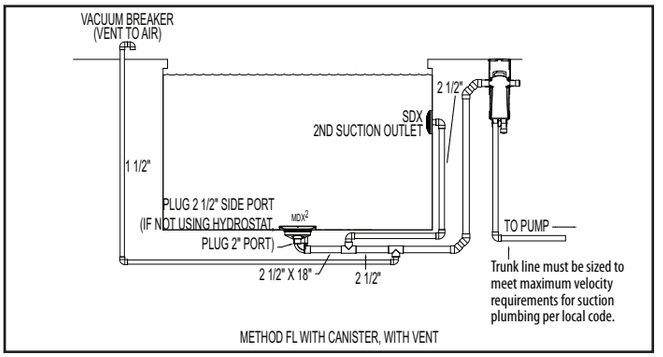
For technical assistance call 1-800-621-5886 or contact your regional representative.

CALIFORNIA

PLUMBING DETAIL

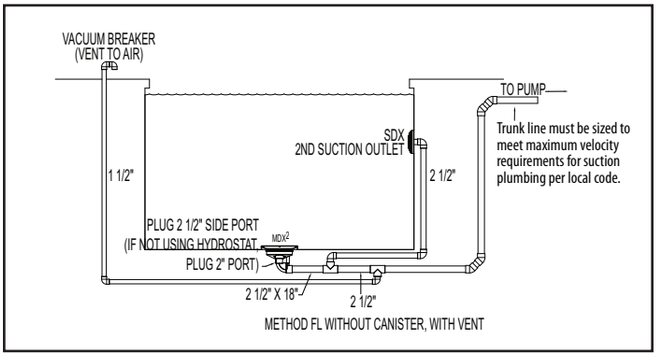
WITH CANISTER

Installation Method 1 (Florida):



*Note: Canister requires 1½" equalizer line through pool wall. (Not Shown)

WITHOUT CANISTER



NOTE: As of March1, 2009 builders in Florida may use Installation Methods 1 and 2 on Page 23.

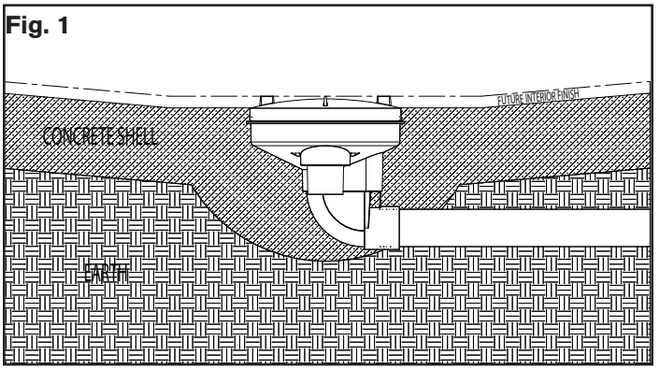
FLORIDA

PLUMBING DETAIL

Plumbing:

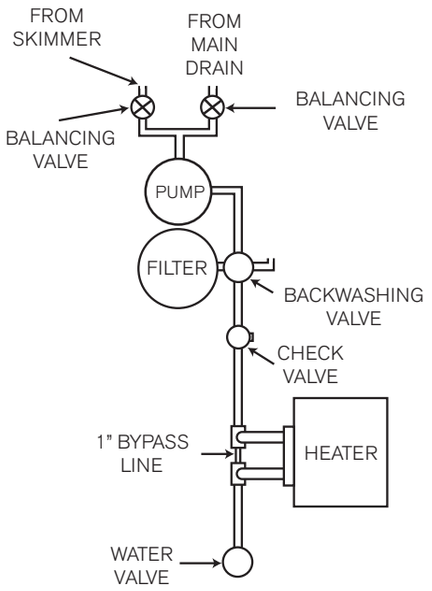
1. Position the MDX^2 Sump 1" below the finished depth of the pool, spa or basin. **(Fig. 1)**
2. Position the REQUIRED SDX High Flow Safety Drain® on a sidewall of the pool, spa or basin. The 2nd Suction Outlet may be positioned on the floor a MINIMUM of three (3) feet away from any other Suction Outlet.

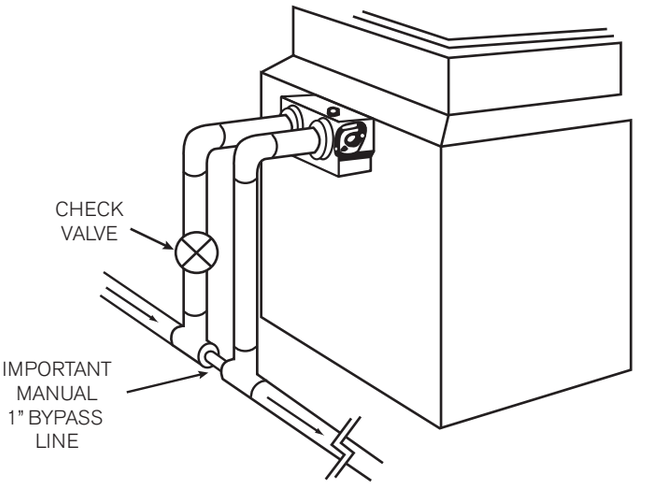
Fig. 1



HYDROSTATIC FITTING: The hydrostatic port inside the MDX^2 Sump is equivalent to a 2" Threaded Female Adapter and a 2" Slip Fitting Outside the MDX^2 Sump. For non-hydrostatic installations, install the 2" plug provided. This port is for the purpose of a hydrostat only. If a hydrostat is not used, plug this port. Do not install any suction equipment (pump) to this port!

PLUMBING DETAIL



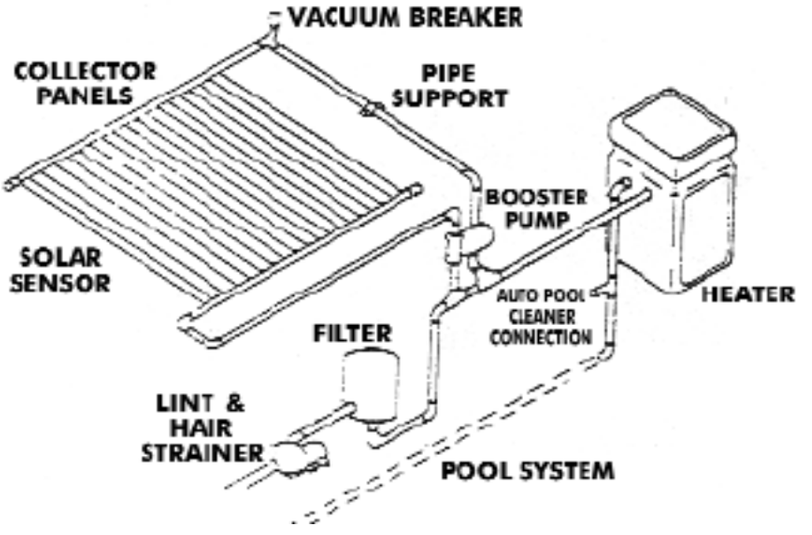


HEATERS

When installing a heater on the pool, a 1" BY-PASS TO PARTIALLY DIRECT WATER AROUND THE HEATER IS NECESSARY. This allows part of the water through the heater for heating but limits the head loss created when all the water is directed through the heater. THE IN-FLOOR SYSTEM WILL NOT FUNCTION PROPERLY WITHOUT THIS BY-PASS.

SOLAR SYSTEMS

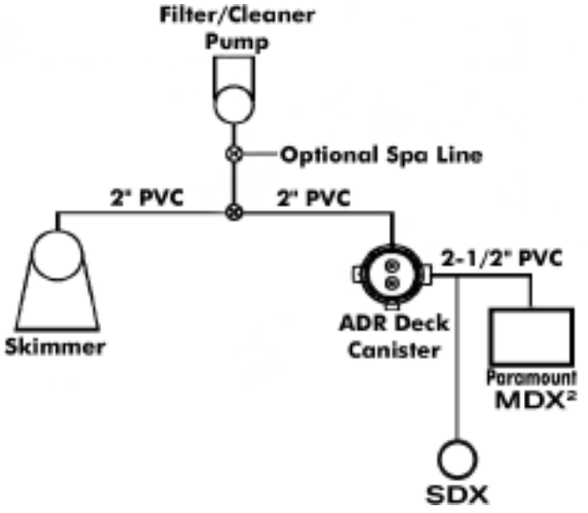
Paramount recommends solar systems be operated independently with a booster pump, separate suction, and returns, or as shown below with a secondary booster pump, and the in-floor system valve installed after the solar and heater pack.



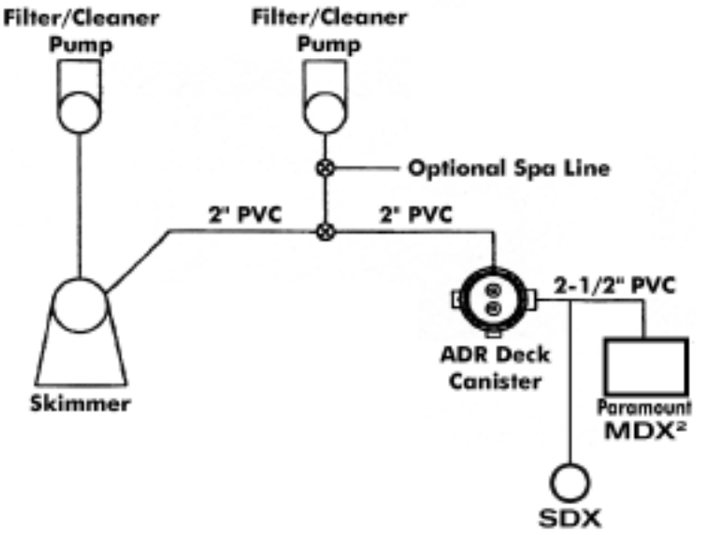
PLUMBING DETAIL

IN-DECK CANISTER REQUIREMENTS

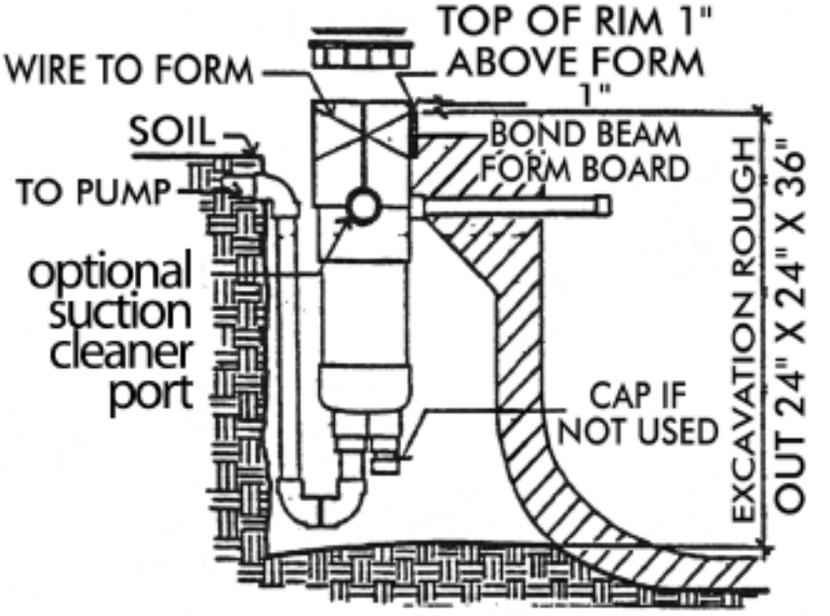
Single Pump System



Dual Pump System



In-Deck Debris Trap



PLUMBING DETAIL

RAISED SPAS

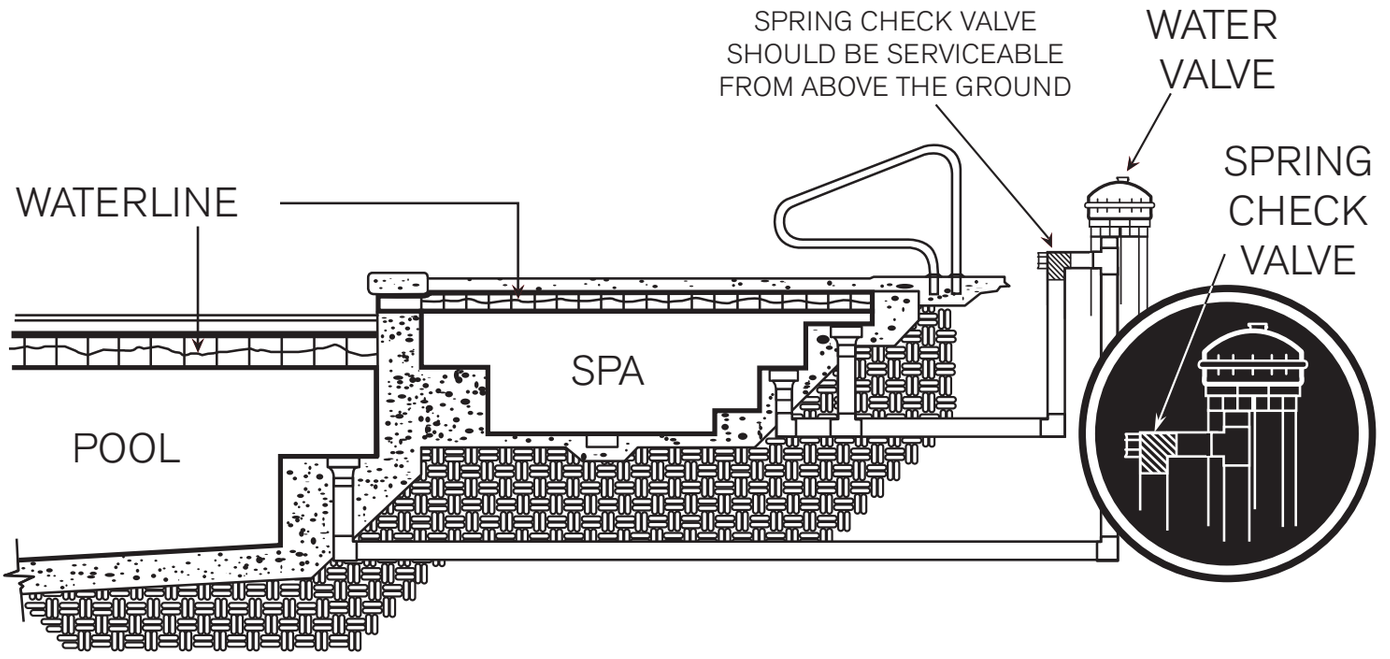
AN IN-LINE CHECK VALVE IS REQUIRED IN ALL RAISED SPAS. PLUMB THE CHECK VALVE ABOVE GROUND FOR EASE OF FUTURE MAINTENANCE.

NOZZLE PLACEMENT - SPAS

Keep in mind that if cleaning nozzles in the spa are part of the cleaning cycle of the swimming pool, consideration must be given to the additional water being injected into the spa. This water must be removed via dam wall overflow, equalizer line, etc.

When plumbing a spa, it is recommended the nozzles be on a separate port of their own.

NOTE: Separate line with check valve required on raised water features or spas.



PLUMBING DETAIL

NOZZLE PLACEMENT - SPAS

Cleaning nozzles in the spa should be located in accordance with the previously mentioned criteria.

Keep in mind that if cleaning nozzles in the spa are part of the cleaning cycle of the swimming pool, consideration must be given to the additional water being injected into the spa.

This water must be removed via dam wall overflow, equalizer line, etc.

When plumbing a spa, it is recommended the nozzles be on a separate port of their own. If they are not then bodies in spa must have check valve below installed.

Check valves are available, which go inside the cleaning nozzle body, should you also have a raised spa. (See Right)

Paramount Part No. 005-502-1204-00

1. Remove nozzle from body.

2. Make sure body is dry (drain pool if necessary).

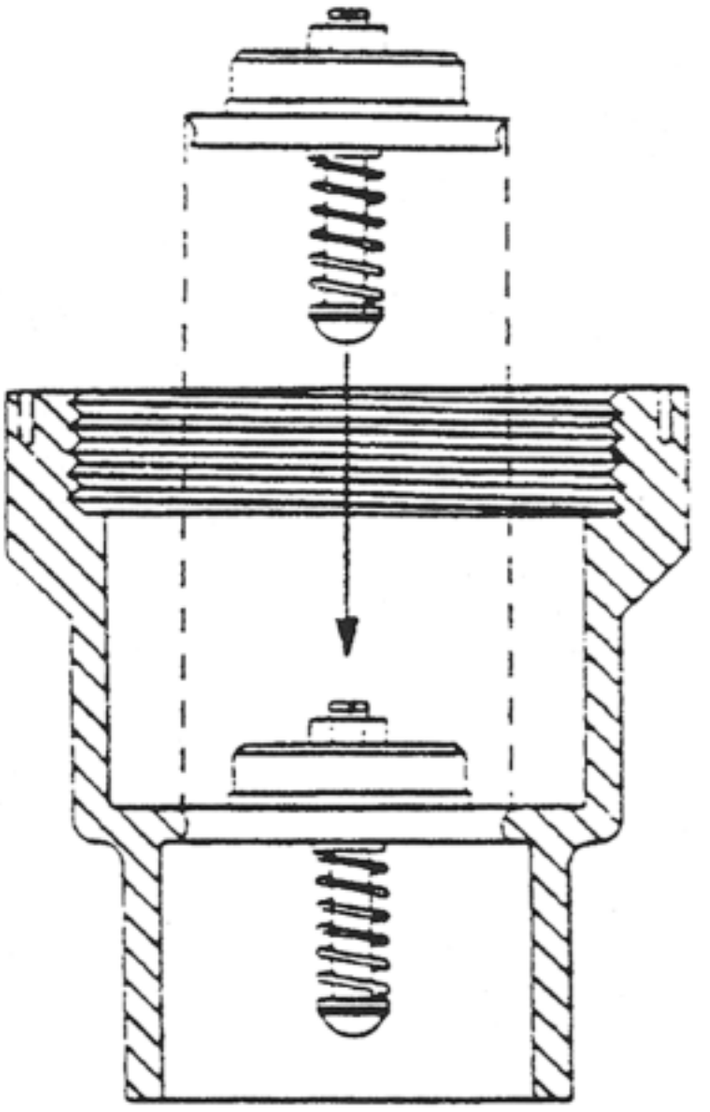
3. Coat threads of check valve with silicone rubberized glue. (GES051202)

4. Place check valve into hole in body from top down (springs should be located in bottom 1/2 of body).

5. With your thumbs, push outer ring of check valve into stopper ring in body until it clicks level with ring.

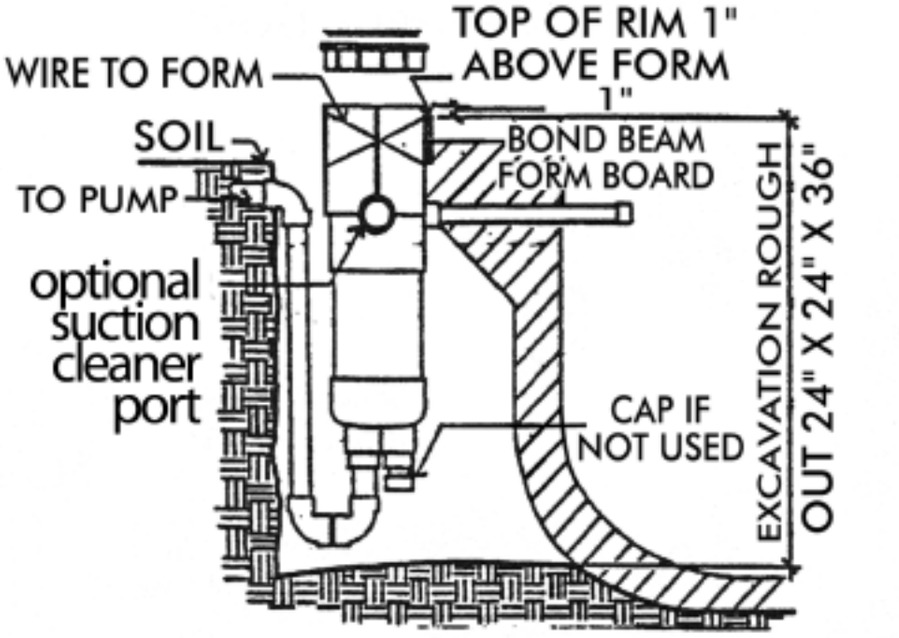
6. Clean off excess silicone.

7. Install nozzle body.



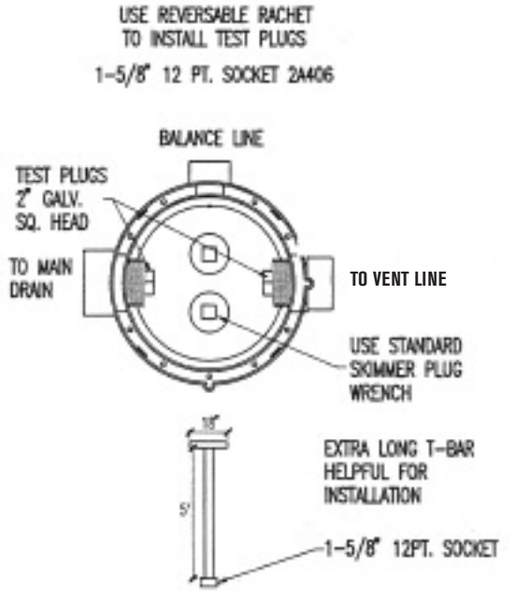
PLUMBING DETAIL

IN-DECK DEBRIS TRAP

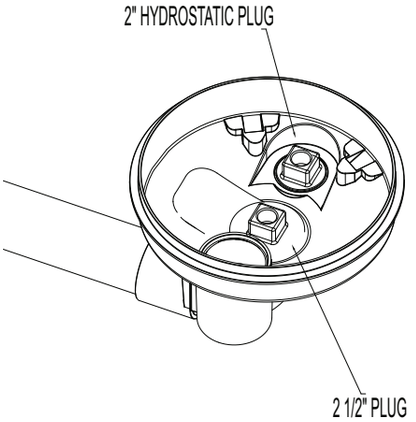


PLUMBING DETAIL

PRESSURE TEST DETAIL



With Pressure Plugs



MDX^2 PRESSURE TEST

New Style Test Plug

The new style 2 1/2" pressure test plugs (005-252-1611-00) use an O-Ring to make the seal.

1. Wrap once with Teflon tape to prevent plastic threads from binding. Insert plug into threaded socket. Set plug wrench on lug and tighten by hand until snug. Over tightening may cause parts to break.

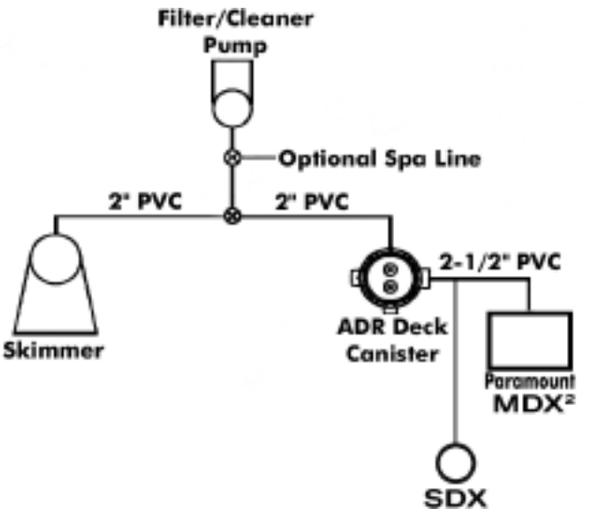
• Pressure should remain on the system through construction until interior cleanup.

Notice:

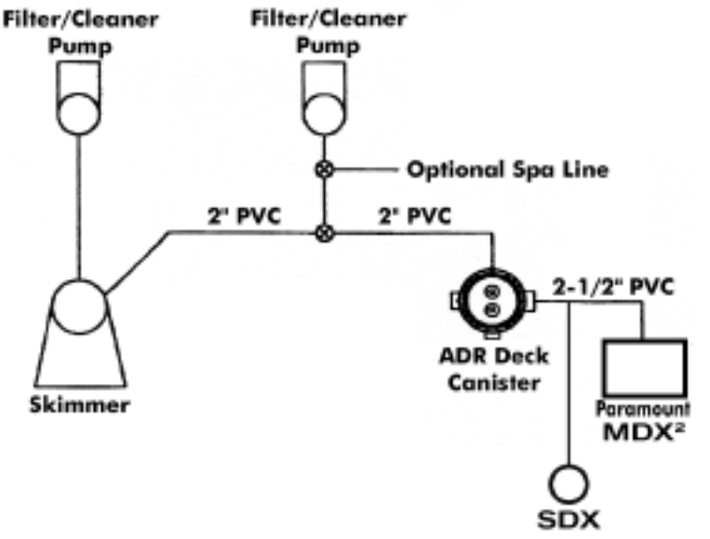
Release pressure on the system before removing plugs

PLUMBING DETAIL

SINGLE PUMP SYSTEM



DUAL PUMP SYSTEM



STEEL DETAIL

REBAR MUST BE KEPT AWAY FROM 1 1/2" PVC RISER AND MDX^2 SUMP. REBAR SHOULD BE BENT AROUND RISER SO THAT STEEL IS MINIMUM OF 2" AWAY FROM THE PIPE AND 3" FROM MDX^2 SUMP..

MDX² STEEL DETAIL

Keep rebar 3" away from MDX² sump.

1. To allow the sump to be fully encased in concrete, clear dirt to completely expose the sweep elbow. **(Fig. 5)**
2. Pack concrete around and under sump **(Fig. 5)** to ensure seal and strength of shell
3. Angle shell down to MDX² sump. **(Fig. 5) (Flatten area around Sump 24X24)**.
4. Make cut-out around MDX² sump. 24" round by 1¼" deep. **(Fig. 6 & 8)**

Plaster Ring Installation:

Set the plaster ring at final finish.

1. Align the Plaster Ring Keyway with the Sump Alignment Key. **(Fig. 7)**

   Note: Sump alignment key can be removed if desired allowing 360° of paster ring alignment.
2. Adjust the elevation and the angle of the Plaster Ring to align it with the finished interior surface of the pool, spa, or basin.
3. Press into finish material and trowel surface flush with to edge of plaster ring.

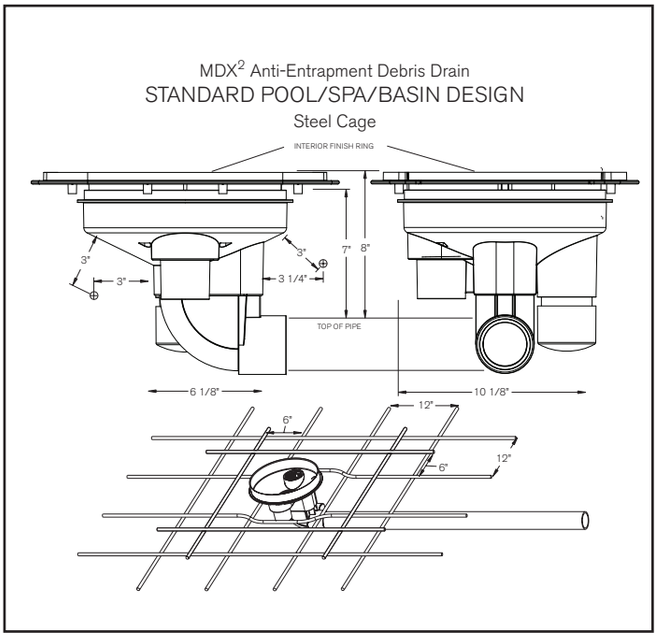


Fig. 5

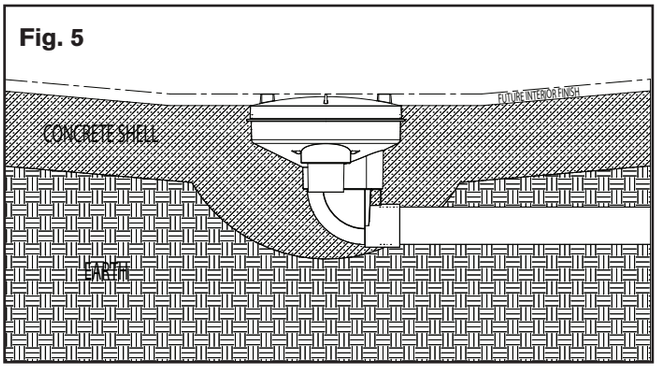


Fig. 7

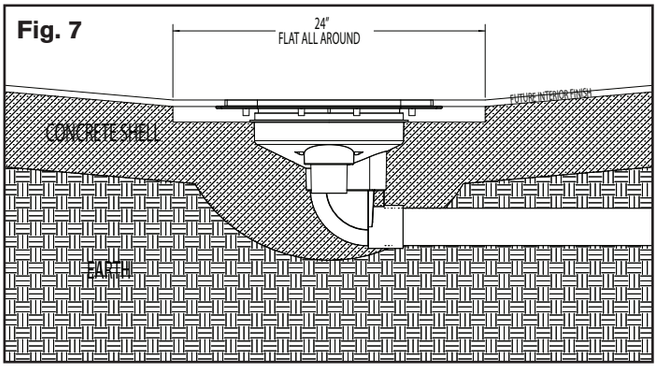


Fig. 6

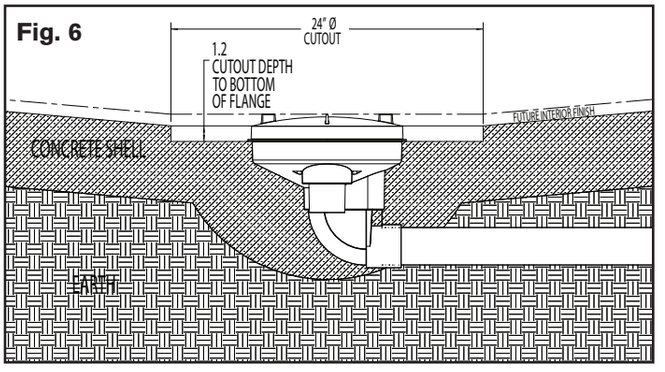
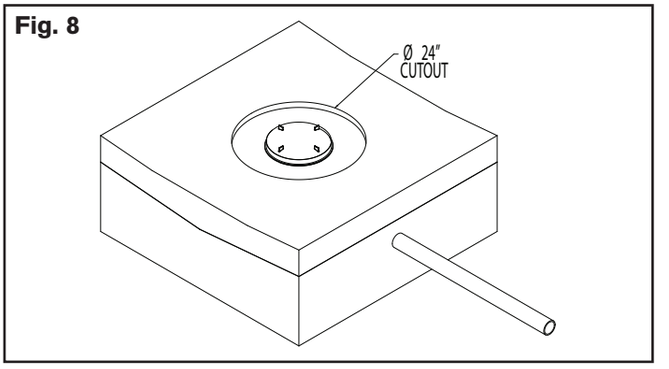
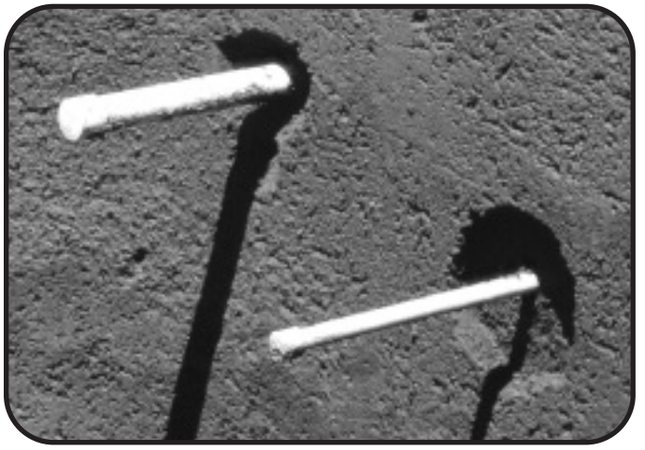


Fig. 8

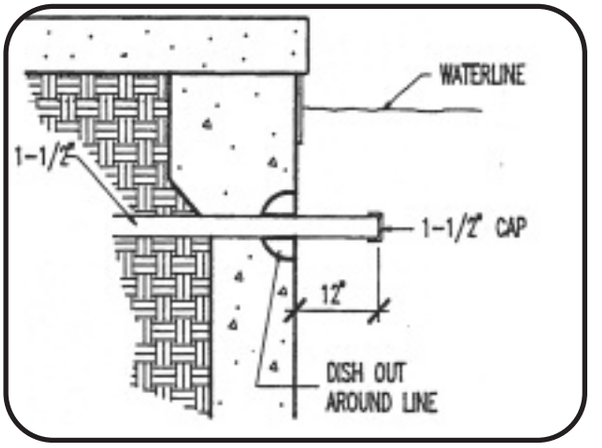


CONCRETE DETAIL

Gunite Or Shotcrete Process



Down Jets and step or bench sidejets.



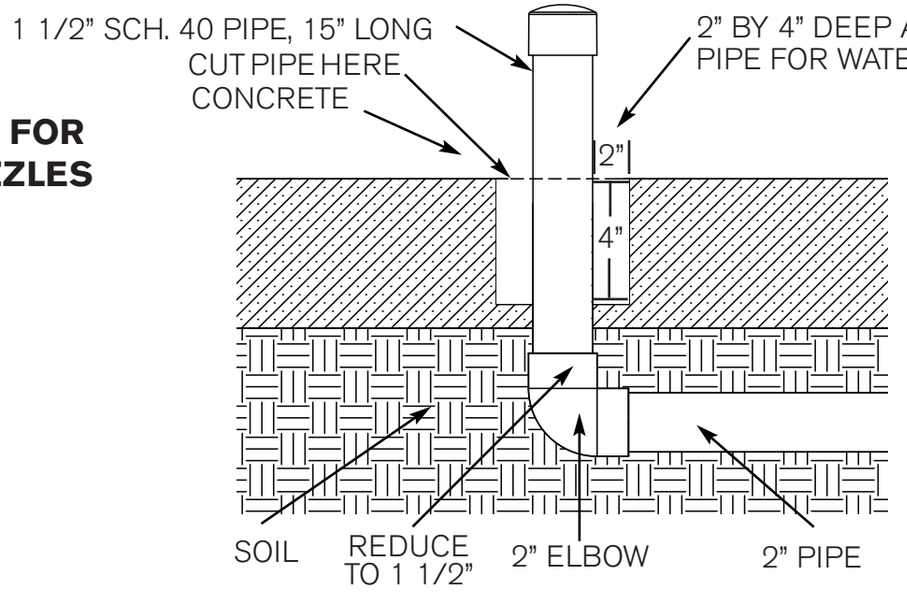
Concrete crew to cut out sufficient area around the floor risers, main drain and down jet lines.
Cut out around riser must be 2" x 4" deep around pipe

Verify the angle of the stub-up as it is imperative that the stub-up angle be 90 degrees from the finished floor angle. Check to make sure the pressure has not dropped prior to shooting the pool and also upon completion.

Make sure that the concrete crew cuts out sufficient area around the stub-up so the body can be installed. Verify the angle of the stub-up, as it is imperative that the stub-up angle be 90 degrees from the finished floor angle. *

Check the system to make sure the pressure has not dropped prior to shooting the pool and upon completion.

PLUMBING FOR FLOOR NOZZLES



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

***The stub-up pipes should NEVER be in a location in which the slope of the floor exceeds 45 degrees, the cleaning heads are weighted and will not retract.**

SDX CONCRETE DETAIL

The SDX High Flow Safety Drain™ installed in a concrete shell utilizes a small cutout in the concrete to form the sump which is sometimes made of plastic or fiberglass. This concrete sump provides superior shell strength by eliminating the large hole associated with plastic sumps. The water seal is formed against the suction pipe in the same way a water tight seal is formed with return pipes. The concrete cutout is typically eleven (11) inches wide, by two (2) inches deep, with a finger size cutout around the pipe to allow room for a watertight seal. **(Fig. 11)**

Rebar Steel (Fig. 11)
Concrete reinforcing steel should be kept 3" away from all pipe and fittings.

Concrete Shell Sump (Fig. 11)
Form a concrete sump around each suction pipe.

Concrete Shell Preparation (Fig. 12)
Prior to installing the interior finish, cut each SDX riser pipe approximately 1" behind the concrete shell's surface.
Note: Suction Safety Standards require that main drain grates used to cover concrete sumps, must have the suction pipe cut at least 1 ½ times the pipe diameter behind the drain cover. This is to allow room for even water flow through all drain cover holes. This is not necessary with the SDX drain because the Patent Pending design provides uniform suction regardless of pipe location. However, if the pipe is too close to the surface, it may restrict water flow to the pump, reducing hydraulic efficiency, but this does not pose a suction safety hazard.

Fig. 11

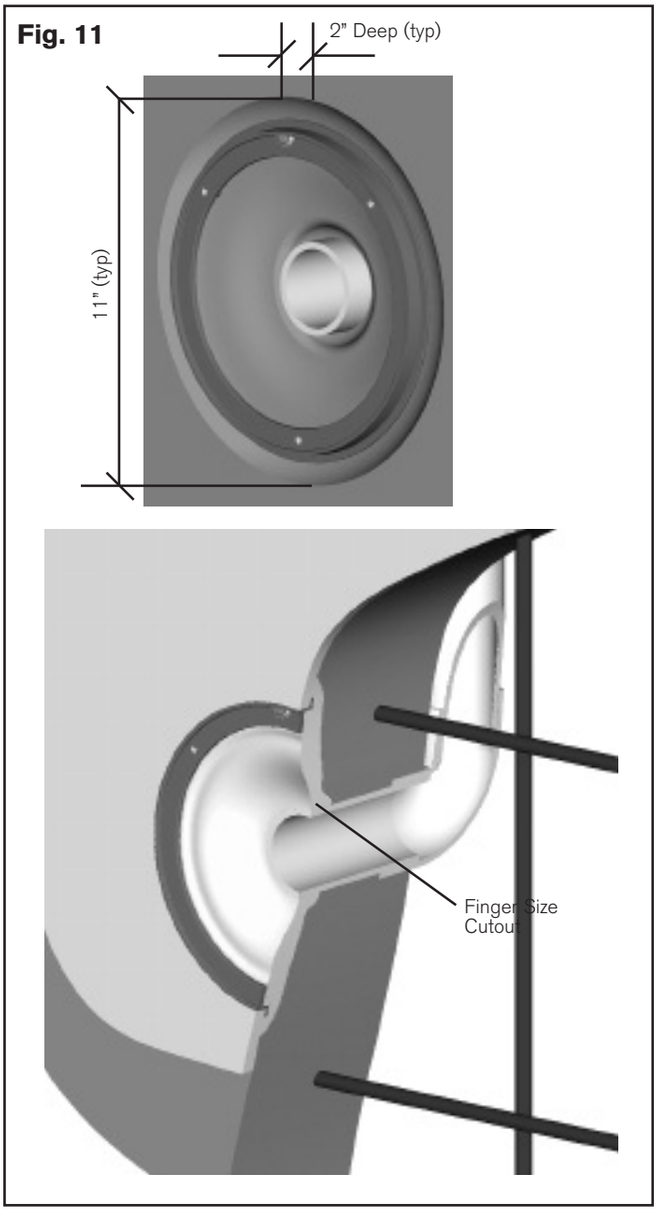
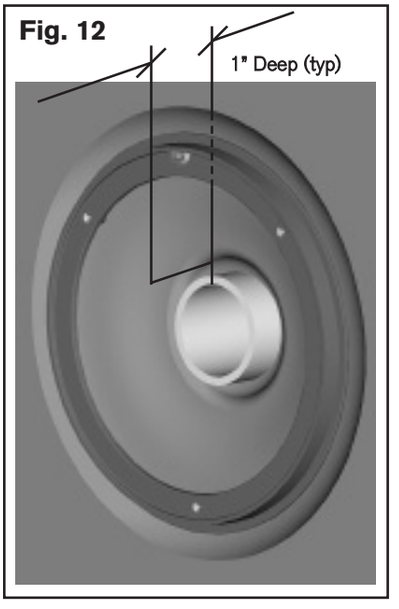


Fig. 12



CLEANING NOZZLE BODY INSTALLATION

BLOCK-OUT CONES

Install the cleaning nozzle bodies just prior to plaster. Cut off stub-up pipes and remove the block-out cones for reuse.

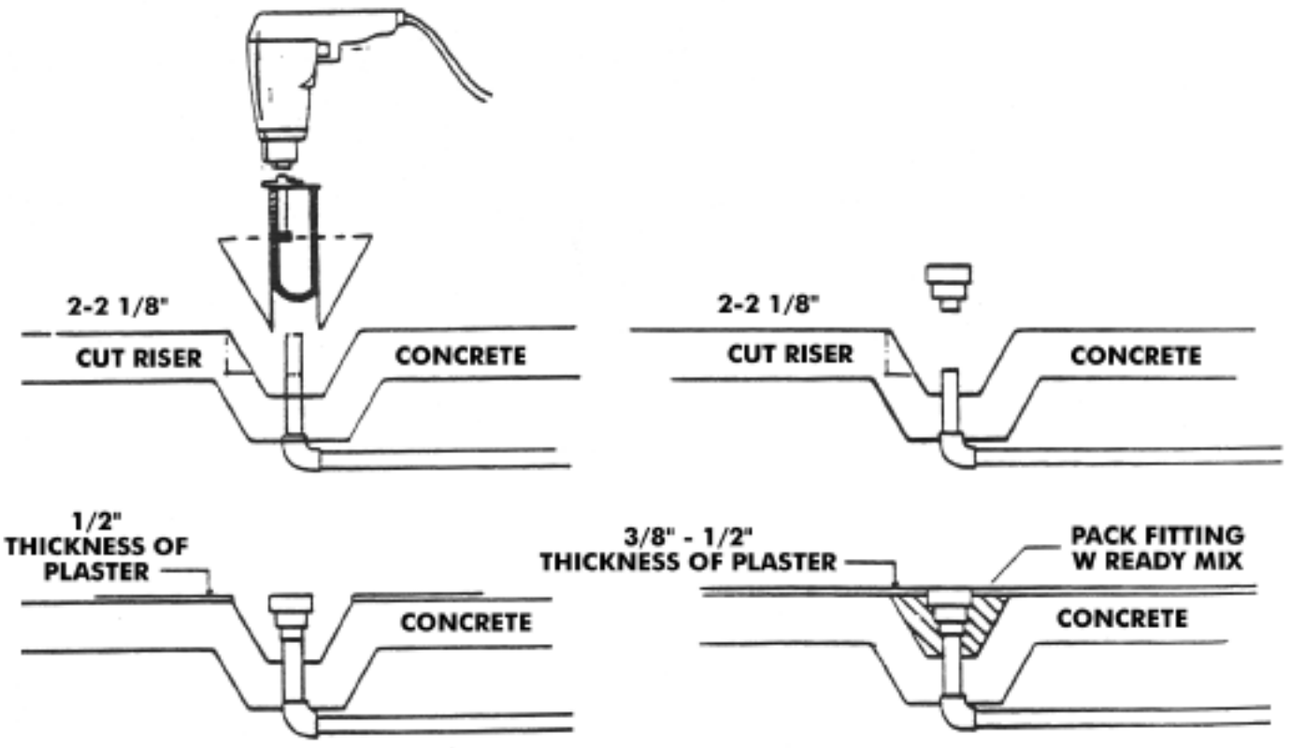
Using a jewelers blade, cut the stub-up 2" - 2 1/8" below the floor level. This will allow for a plaster thickness of approximately 3/8". Cut through the entire pipe do not break it off.

Scrape off excess concrete and clean the pipe with primer just prior to gluing. Use PVC solvent cement to glue the body to the stub-up. (Do not use primer on the body).

The body comes assembled with a plaster cap, remove during the gluing process. Replace the caps after cement has set. The caps should remain in place until after installation of the pools interior surface. The body does not come with the rotary nozzle installed.

If adjustments to the angle of the stub-up are necessary, heat the pipe before gluing the body. Exercise caution when heating pipes not to burn them. The physical characteristics of the pipe are not impaired if the PVC is not scorched in the heating process (visibly evident as a tan or brown discoloration),

After installing the bodies fill in around the body with READY MIX CEMENT and score the top of the cement so the plaster will adhere. DO NOT FILL THIS AREA IN WITH PLASTER.



SDX PLASTER DETAIL

Concrete Ring Installation (Fig. 14)

1. Apply interior finishing material.
2. Position the SDX Concrete Ring with the semi-circle tab located at the top and then press the ring into finishing material.
3. Trowel the finishing material around outside and inside of the SDX Concrete Ring.
4. Form a watertight seal around the suction pipe.
5. Wipe clean any finishing material that remains on the SDX Concrete Ring's top edge and mounting surface.

Concrete Cover Assembly (Fig. 15)

1. Align the SDX Concrete Support with the alignment tab located on the SDX Concrete Ring.
2. Install three(3) machine screws through the SDX Concrete Support. Secure the screws without over tightening.
3. Align the SDX Cover with the SDX Support holes.
4. Install three(3) security screws through the SDX cover. Secure the screws without over tightening.

Fig. 14

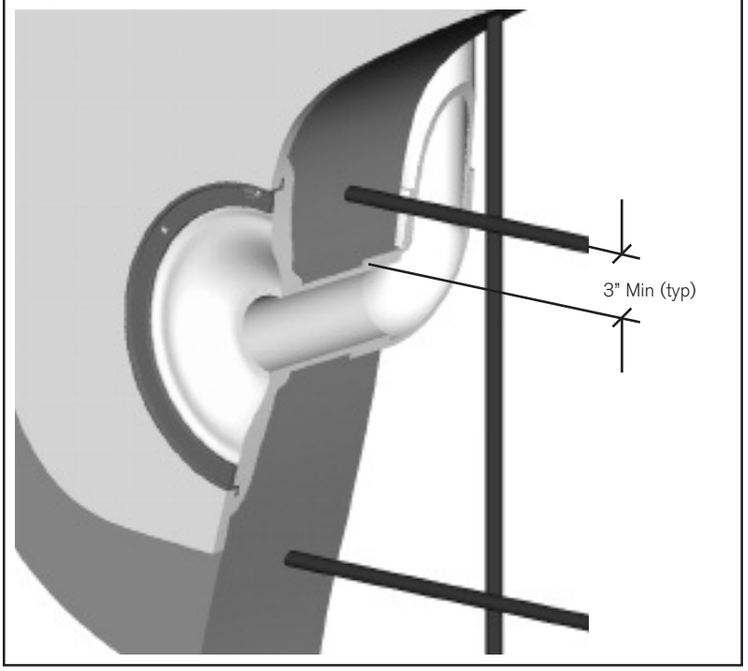
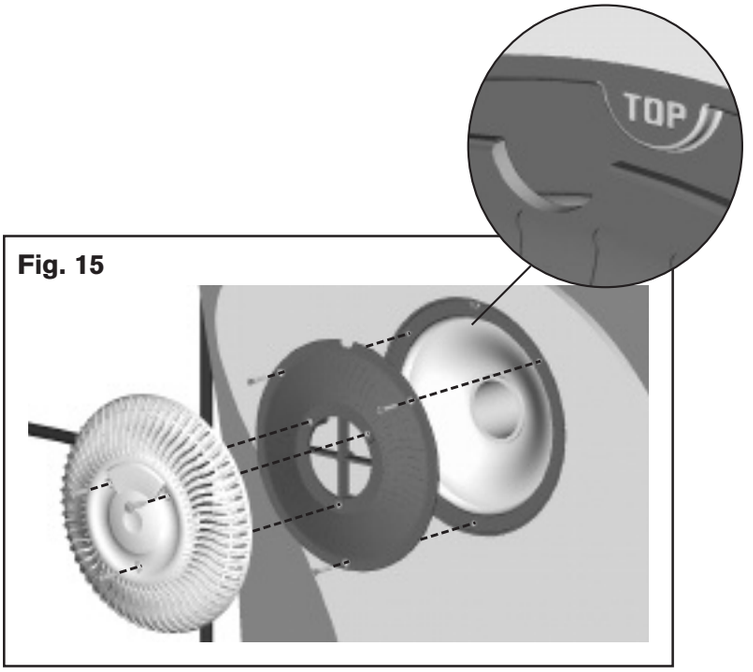


Fig. 15

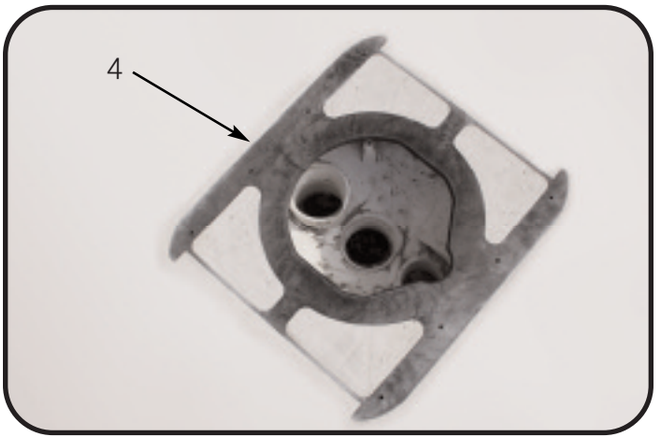


PLASTER DETAIL

Assemble the drain PRIOR TO ADDING WATER (see illustration on page 52 for reference):

1. Install upper support (#5) onto plaster ring (#4) and secure with 8 (eight) security screws (#6) with screw driver security T25 (#20).
2. Install the cover (#7) onto the upper support (#5) and secure with 6 (six) phillips screws (#8) and 2 (two) phillips screws (#9).

1.



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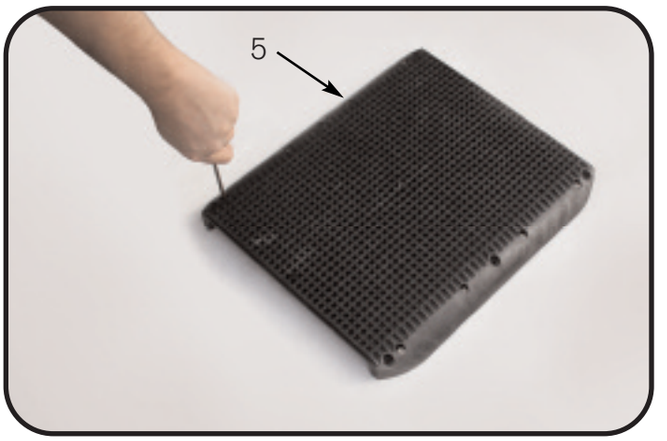
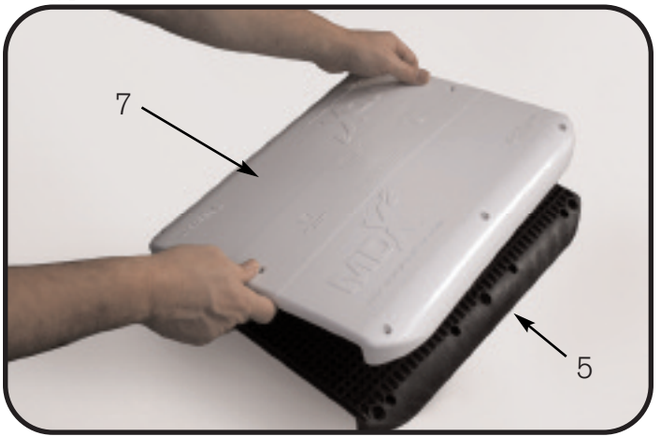
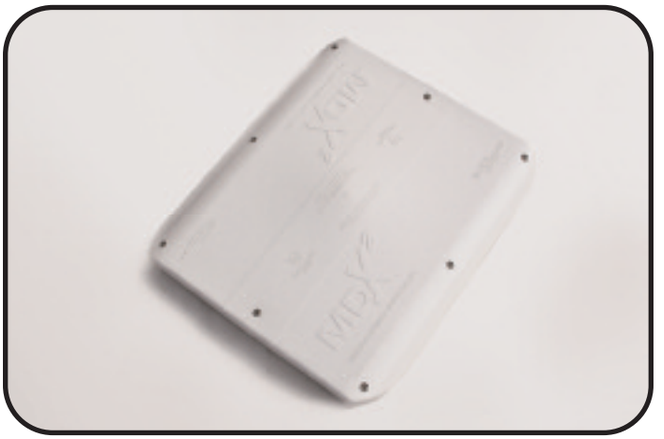


3.



4.

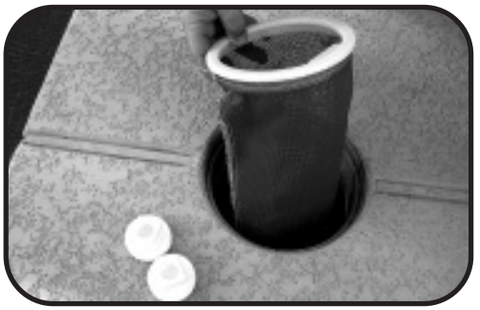
5.



START-UP

1. Remove all pressure test plugs.

2. Install all baskets and lids.



START-UP

Valve Installation

Before installing the valve, startup the pump and run without the module in place to clear any debris from the feed lines. The equipment needs to run for a minimum of ten minutes before installing the valve module.

Install the valve module assembly next. Turn off the pump. Remove the V-clamp. Install the module assembly in the housing. There are guide pins on the module that will line up with the holes in the bottom housing. (Reuse the internal o-ring.) Place the Run/Pause knob selector in the run position. Replace dome and V-clamp and tighten until snug. Lightly tap on V-clamp while tightening. Turn the pump on.

1

2

3

4

5

6

7

8

9

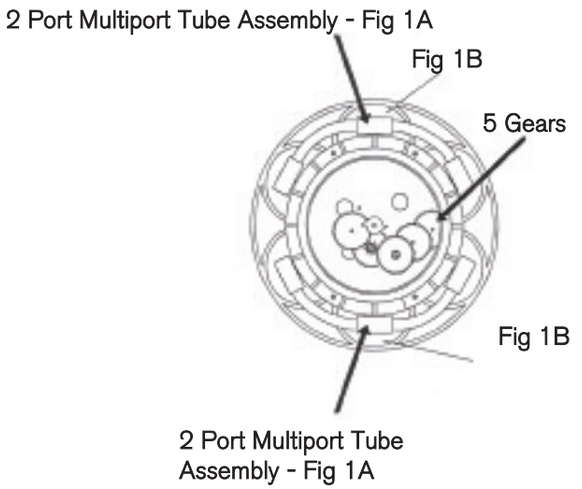
PARAMOUNT MODULE ALLIGNMENT GUIDE

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

1 Look at the top of the Module - Figures 1 and 3
2 Locate the Multiport Tube Assembly - Figures 1A and 3A
3 Look at the Base - Figures 2 and 4
4 For 1 + 1: Notice how four ribs in the base have been cut out to allow water to flow between two sets of three ports - Figure 2A
For 3 + 1: Notice how the two ribs in the base have been cut out to allow water to flow between three ports - Figure 4A
5 One open port is centered between two plugged ports - Figures 2B and 4B
6 When installed, the port centered under the Multiport Tube Assembly (Figures 1B and 3B) on the Module must be centered over the open port in the Base - Figures 2B and 4B

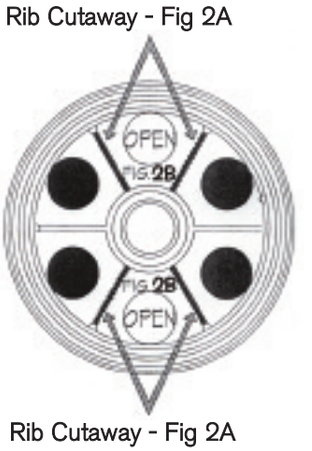
If the Module is placed incorrectly, multiple zones of nozzles in the pool will fire at the same time.

2 Port Module - Fig 1

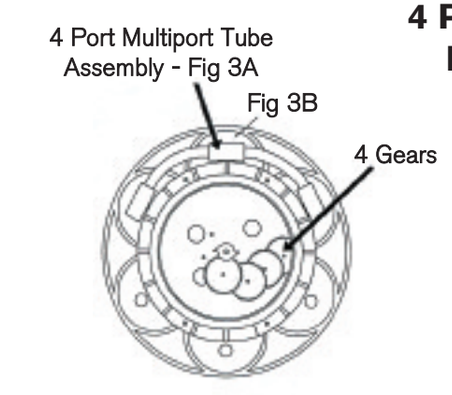


2 PORT MODULE PLACEMENT

Base - Fig 2

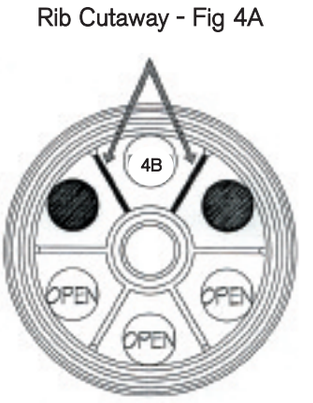


4 Port Module - Fig 3



4 PORT MODULE PLACEMENT

Base - Fig 4



START-UP

CLEANING NOZZLE INSTALLATION

After filling the pool with water, the filtration system should run for several days. Instruct the customer to brush the pool daily (several times) and backwash daily. This should clarify the water and enable you to install the cleaning nozzles.

Install the cleaning nozzles with an installation tool from outside the pool, or use a diver to install the nozzles.

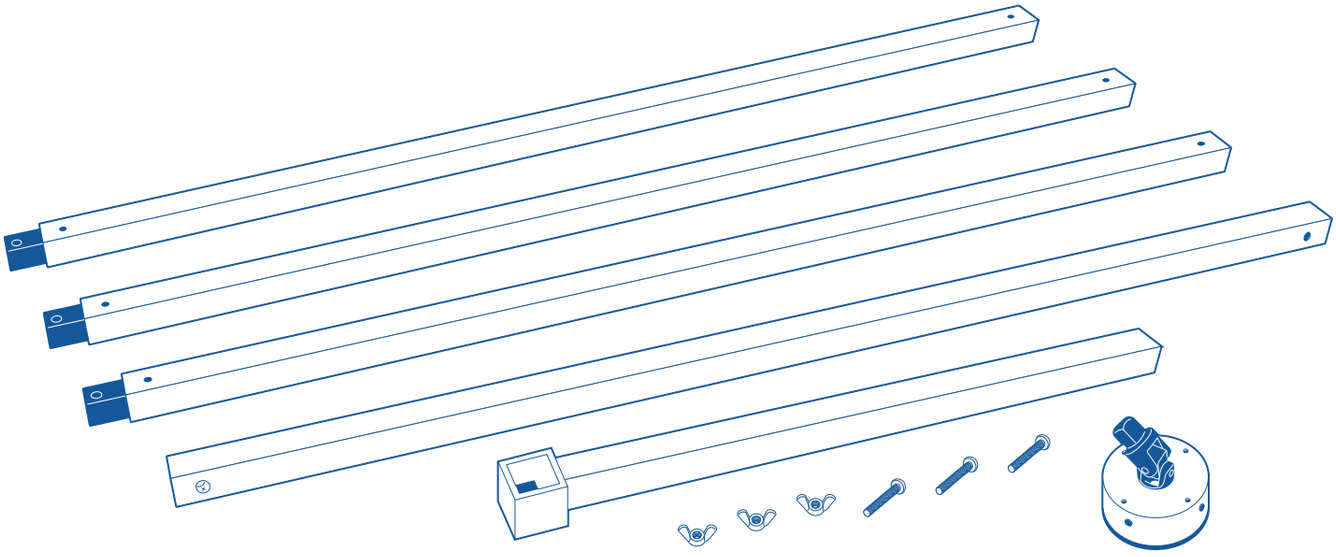
Drop the nozzle and ring assembly in the body. Turn clockwise until snug. Do not over tighten and be careful not to cross thread. The nozzle and ring should finish flush with the top of the body. If they will not go down flush, check the threads for plaster and/or excessive glue in the bottom of the body.

NOTE: If the plaster caps come off during the plaster process, check the internal threads for residue.

POOL VALET PROFESSIONAL NOZZLE TOOL

Part # 004-502-5421-00

4 Piece Pole With Handle



WINTERIZING INSTRUCTIONS

Winterizing a Paramount Pool & Spa Systems in-floor pool is the same as any pool with a main drain; it just has a few more lines to winterize. These procedures are to be used in addition to standard winterization methods normally used in your area.

To Do List:

- ☐ Store the Paramount valve module, canister inner lid and basket in a safe, dry place.
- ☐ Remove and store any "down-jets" located above the freeze line.
- ☐ Blowout and airlock all pool lines.
- ☐ Remove all water from the canister and replace with swimming pool anti-freeze and an empty jug, the same way you winterize skimmers.

The following steps are procedures recommended for proper winterization of all Paramount In-Floor Cleaning Systems. These procedures do not replace normal winterization procedures but are instead in addition to them.

MDX² WINTERIZATION

WITH CANISTER

If vacuum relief suction outlets are located below freeze line skip steps 1 and 2.

1. Remove grate from wall drain and install a 13-¾ blow through plug and blow line to achieve airlock.
2. If 3rd suction line is installed remove grate, install a 13-¾ blow-through plug and blow line to achieve airlock.
3. Go to canister instructions step 1 - 4 below.
4. If vent tube is installed, install blow through plug and blow line to achieve airlock. Repeat vacuum out canister. Then complete canister step 5.

WITHOUT CANISTER

If vacuum relief suction outlets are located below freeze line skip steps 1 and 2.

1. Remove grate from wall drain and install a 13-¾ blow through plug and blow line to achieve airlock.
2. If 3rd suction line is installed remove grate, install a 13-¾ blow-through plug and blow line to achieve airlock.
3. If vent line is installed in main suction line, plug vent line and install blow through plug in pump inlet and blow line to achieve airlock.
4. Lastly, blow vent line to achieve airlock.

PARAMOUNT CANISTER WINTERIZATION

1. Remove outer lid, inner lid and basket, clean and dry off, and store in same area as modules
2. Install and secure regular winterization plug in equalizer line of canister to pool at poolside.
3. Install and secure Schrader plug or blow out plug from canister to main drain. Blow out and obtain air lock as previously described, if skimmer is tied into canister, repeat procedure to skimmer.
4. Bottom port of canister to pump may require an extended pipe for ease of blowing out. Install and blow out line from canister to pump. Install and secure plug in pump. Using a wet/dry shop vac, remove all water from within canister components.
5. Extension pipe can be removed and replaced with plug or Gizmo type container if Gizmo not used. Be sure to install device to absorb ice expansion in canister area. Failure to do this may result in potential ice freeze damage to canister.

Winterization anti-freeze is to be used as necessary or when required.

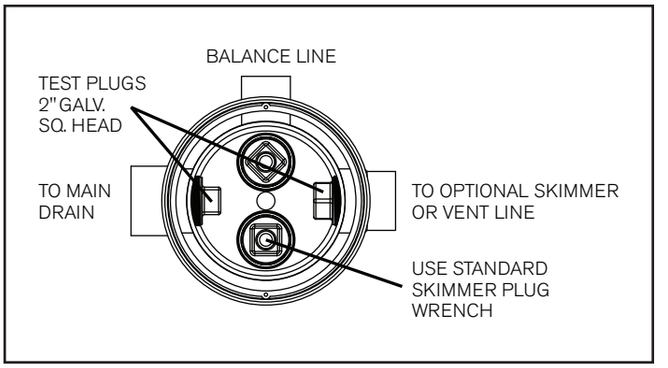


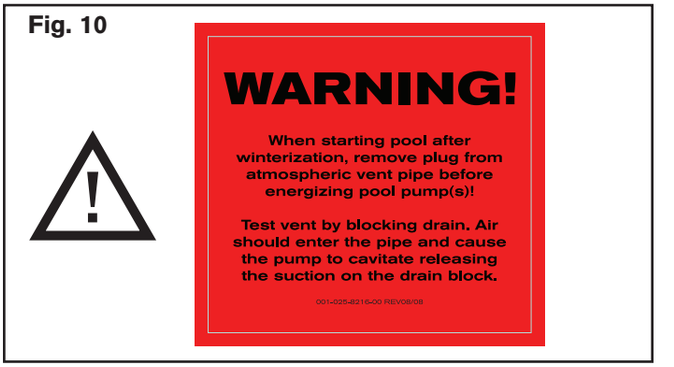
Fig. 9

VENT TUBE WARNING LABELS

Included in each MDX² are two warning labels that need to be placed on the pool equipment if the pool is to be winterized and has a vent tube on any of the drains plumbed on the pool. Attach the smaller label to the vent pipe where it terminates to atmosphere. **(See Fig. 9)**

Attach the larger label to the control panel next to the controller for the pump with the vent tube plumbed to it. **(See Fig. 10)**

Fig. 10



WATER VALVE

1. Turn off and drain out all pool equipment.
2. Remove valve lid or lids from valve(s). (See Fig. 1)
3. Remove module(s) from valve housing(s). Store module in dry clean area out of the winter elements for winter until reinstallation in spring. (See Fig. 2)
4. Remove any down jet returns in pool (threaded or slip) including down jet body for a secure fit of winterizing plug. Store with module(s). (See Fig. 3)
5. From valves to pool, place a Schrader plug or blow out plug as recommended
6. Install and secure Schrader or blow out plugs in all parts of valve(s) (except center feed port of second and multiple valves when multiple valves are being used). (See Fig. 4)
7. Proceed to blow out lines through Schrader or blow out plugs to pool.
8. While blowing out the in-floor nozzles, once a good amount of air has come through the nozzle, you have accomplished an air lock. (This procedure is similar to obtaining an air lock when blowing out the bottom drain in the pool.)
9. Blow out center port of first valve back to filter equipment and plug. (See Fig. 4)
10. While blowing out the down jets and while air is escaping through the in-wall hole, install and secure a regular winterizing plug.
11. Repeat until all ports are blown out. (See Fig. 4)
12. In cases where multiple valves are in use, blow out the feeder port of the first valve into the center port of the second or multiple valve(s), install, and secure plug.
13. When necessary, pool winter anti-freeze solution should be poured into each line.
14. Valve housing(s) should be wiped clean and dry of water, reinstall top lid and secure. (See Fig. 1)

Fig. 1

Fig. 2

Fig. 3

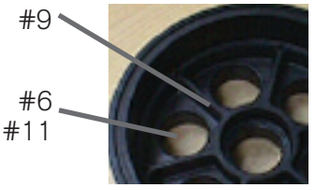


Fig. 4

2" Base

TROUBLE-SHOOTING

SYSTEM TROUBLE-SHOOTING

DIRTY SPOTS APPEAR THROUGHOUT POOL

- Clean Filter

- Clean pump basket, skimmer basket(s)

- Make sure auxiliary valves are in the proper position

SET OF CLEANING NOZZLES REMAIN UP (WITH PUMP ON)

- Valve module should be serviced or replaced.

- Particle of debris lodged between nozzle and body. Lightly depress nozzle, with pressure on that nozzle, to discharge any particles between nozzle and body.

PRESSURE INCREASES ON FILTER

- Clean Filter.

- Make sure auxiliary valves are in the proper position.

WATER LOSS IN RAISED SPA (WITH CLEANING NOZZLES)

- Check to make sure in-line check valves are installed properly and that they are free of debris.

ONE OR MORE CLEANING NOZZLES REMAIN UP WHILE FLOW CONTINUES TO OTHER CIRCUITS

- Lightly depress nozzle, with pressure on that nozzle, to discharge any particles between the nozzle and body.

- Remove, if necessary, and clean nozzle and inner body (check for plaster or debris).

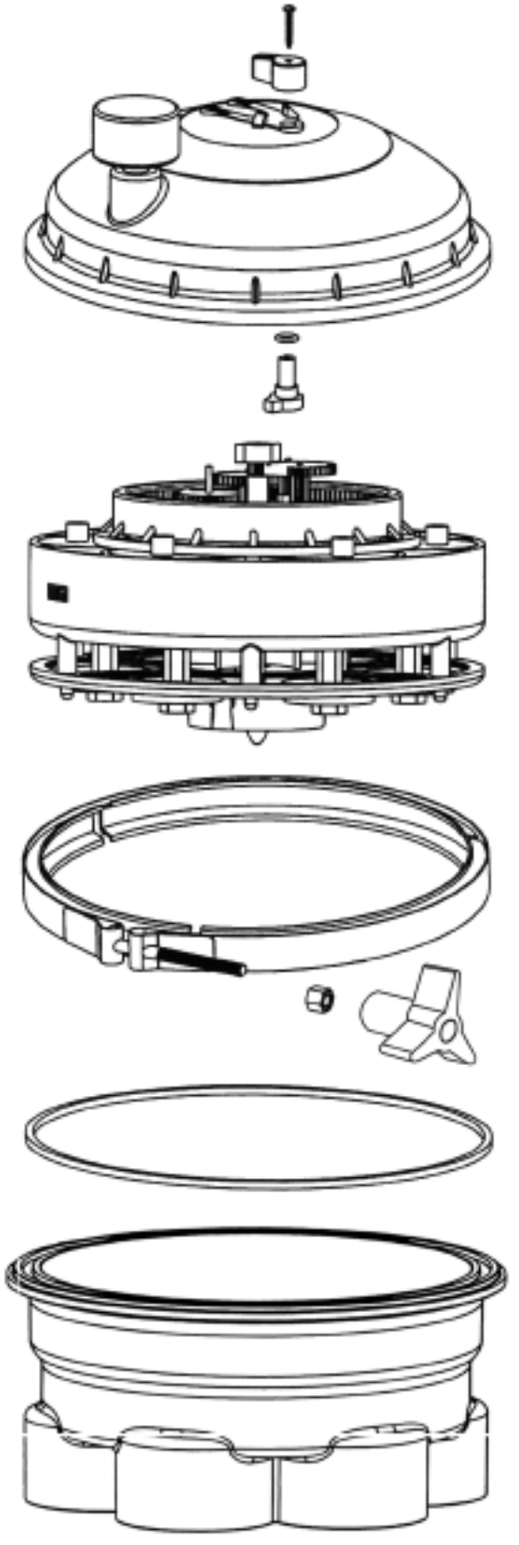
- Damaged piston assembly in water valve. Replace the Module.

CLEANING NOZZLE POPS UP BUT DOES NOT CLEAN

- Debris is lodged in nozzle. Remove and clean, allowing the valve to cycle through at least two (2) times before re-inserting the nozzle assembly.

TROUBLE-SHOOTING

Part Number Diagrams



Top Dome Complete: 005-302-4300-03
(Includes: Top, Gauge & Pause Assembly)

Pause Assembly: 005-302-3502-00
(Includes: Screw, Knob, O-Ring & Pawl)

6 Port
Module Complete: 004-302-4408-00

Band Clamp Complete: 005-302-3570-00
(Includes: Clamp, Nut, & Knob)

Band Clamp Nut Only: 005-302-0640-00
Band Clamp Knob Only: 005-302-3600-00

Valve O-Ring Only: 005-302-0100-00

6 Port Base 2”: 005-302-4032-03
6 Port Base 1½”: 005-302-4030-03

TROUBLE-SHOOTING

VALVE TROUBLE-SHOOTING

VALVE DOES NOT CYCLE
- Control knob on dome pause phase.
- Check turbine shaft for restricted movement.
- Valve gears not meshing.

VALVE CYCLES - BUT MORE THAN ONE CIRCUIT OF NOZZLES REMAINS UP
- Check for glue or debris on top surface of ribs (portion of lower base that meets bottom of valve module), clean off glue or debris.
- Check for debris lodged between shut-off plate seat and valve poppet.
- Check for debris lodged in between floor nozzles and body, depressing nozzle with pole to dislodge debris.
- Displaced or ruptured piston assembly.

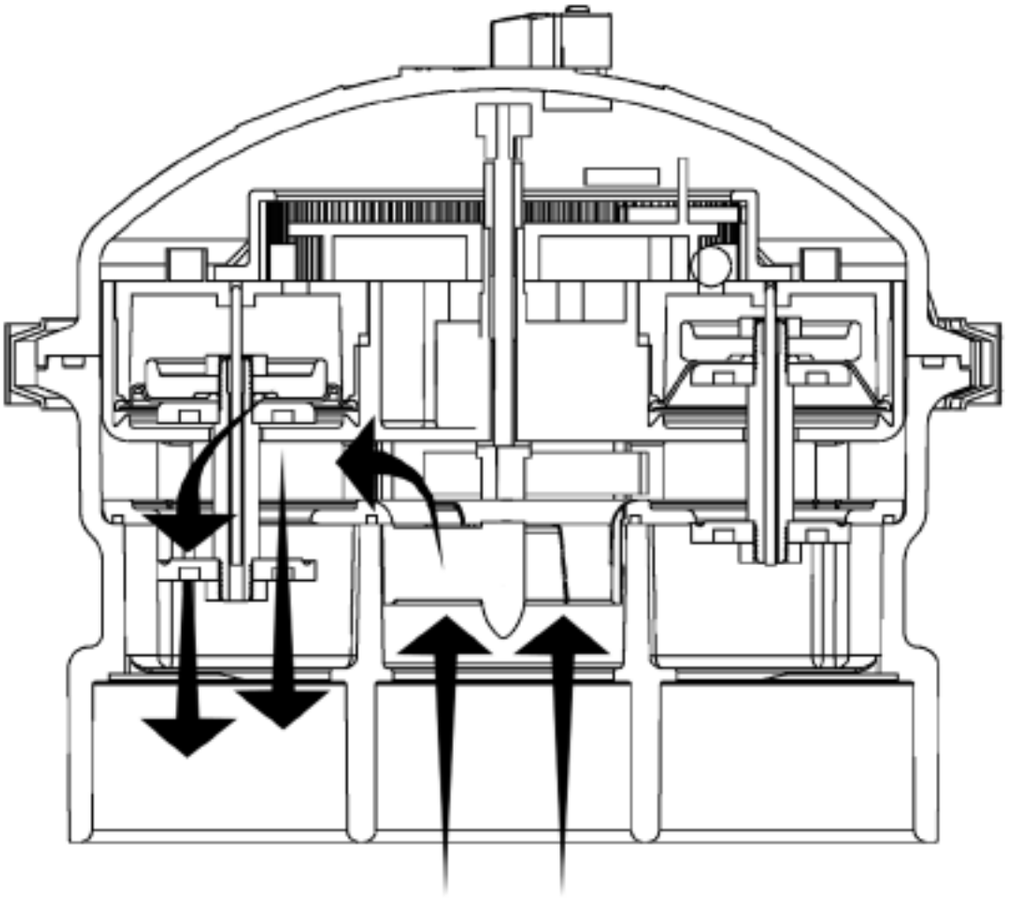
PARAMOUNT POOL AND SPA PRODUCTS REQUEST THAT ANY CURRENT PROBLEMS WITH THE VALVE MODULE BE DIRECTED TO THE HOME OFFICE, OR SEND THE VALVE MODULE DIRECTLY TO PARAMOUNT FOR INSPECTION AND/OR REPAIR.

CLEANING NOZZLE WILL NOT POP UP
- Check for clogged line.
- Water valve module not rotating.

CLEANING NOZZLE POPS UP BUT WILL NOT ROTATE
- Lightly depress nozzle, with pressure on that nozzle, to dislodge any particles between body and nozzle.
- If necessary, remove nozzle assembly and clean inner body and outer nozzle surface.

CLEANING NOZZLES FLOATING
- Service the valve module.

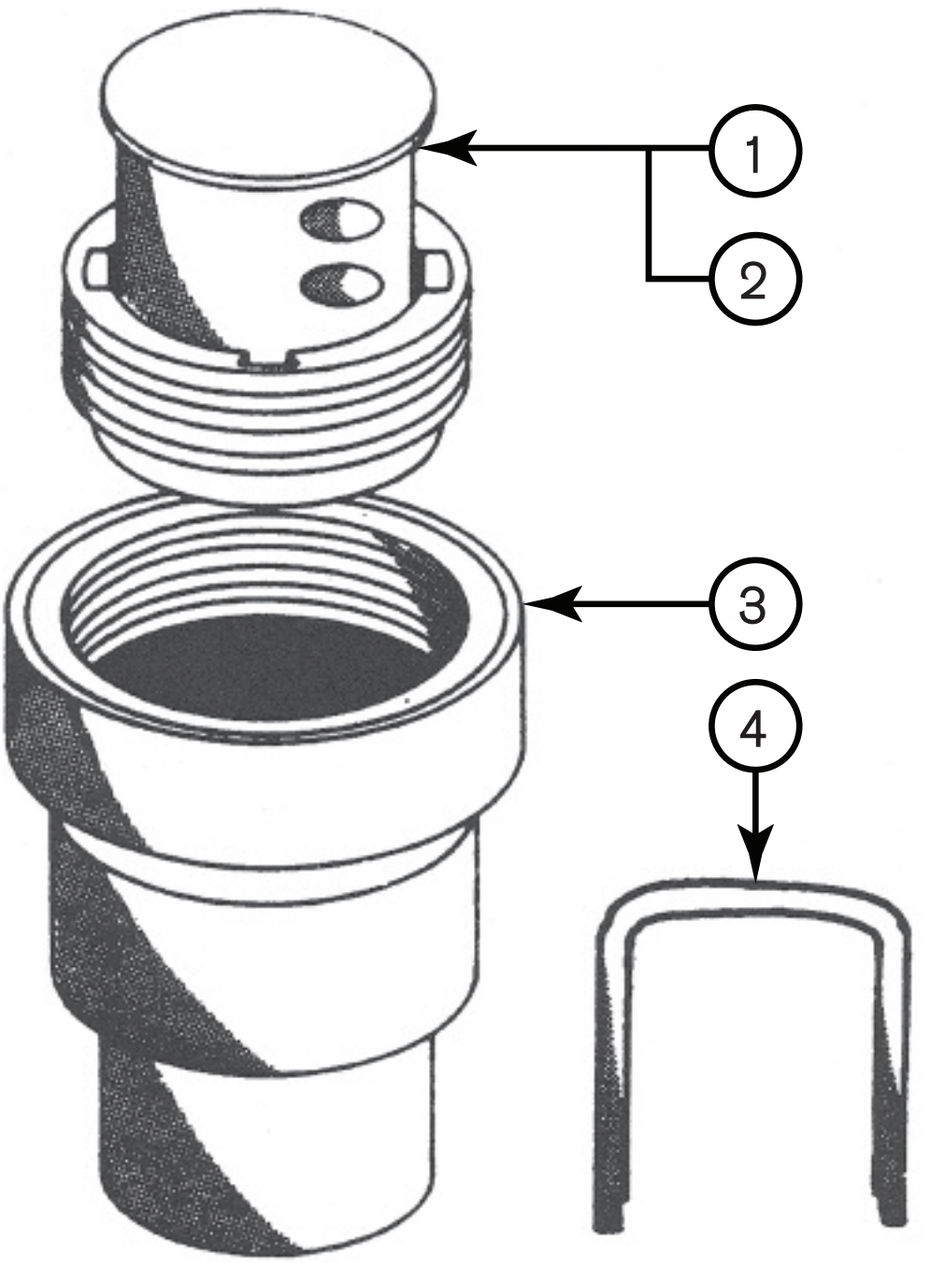
VALVE TROUBLE-SHOOTING



BILL OF MATERIALS

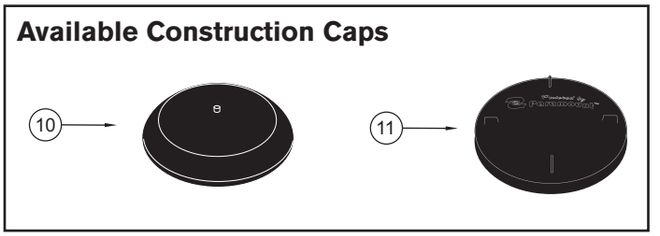
POOL VALET ASSEMBLY

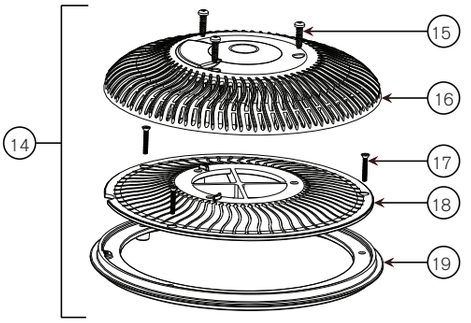
1. 2 Hole Nozzle Assembly	004-502-5004-XX	(XX=Color Code)
2. 1 Hole Nozzle Assembly	004-502-5002-XX	(XX=Color Code)
3. Body with Cap	004-502-4710-XX	(XX=Color Code)
4. Tool PV Nozz Hand	004-502-5420-00	

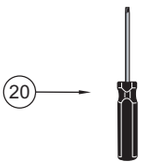


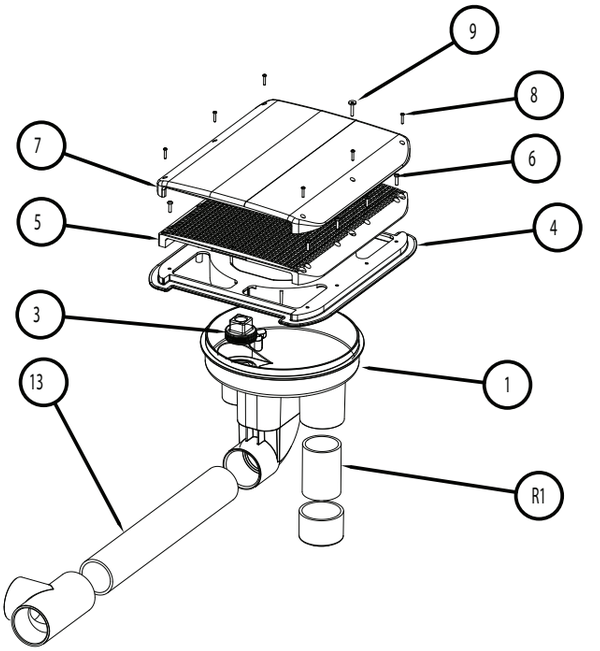
004-202-2210-XX MDX^2 CONCRETE W/O CONSTRUCTION CAP

Replace within 05 installed years









Item	Part Number	Description
*R1	N/A	Cap not used.
1	005-202-2013-00	Sump MDX^2 Concrete - 2½"
2	005-252-1611-00	Plug Pressure Test 2½" w/ O-Ring (4 pk)
3	005-252-1605-00	Plug 2" (6 pk)
4	005-252-2063-00	Plaster Ring
5	005-202-2206-00	Upper Support
6		Screw: No. 10X3/4" Security Head
7	005-202-2204-XX	Cover
8		Screw: No. 8X3/4" Security Head
9		Screw: No. 8X3/8" Security Head
	005-202-2210-00	Screw Pack MDX2 Concrete (includes item #s 6,8,9)
*10	005-202-1155-00	Plaster Cap
*11	005-202-1148-00	Sump Construction Cap
13	006-202-6180-00	Sump Adaptor Kit Required to Reduce Pipe Size
14	004-162-2212-XX	SDX High Flow Safety Drain (2pk) (XX = Color Code)
15		Screw: 10X7/8 TORX W/PIN SS B
16	005-252-2084-XX	SDX Cover w/ Screws
17		Screw: 10-32 x 1/2 PHIL FLT HD machine 316SS
	005-252-0810-00	Screw Pack SDX Concrete Set (includes item #s 15,17)
18	005-252-2066-00	SDX Support Concrete
19	005-252-2050-00	SDX Ring Concrete)
20*	005-252-0895-00	T25 Security Screwdriver
*	004-252-5476-00	Plug Wrench

* Not part of MDX²

WARNING: MDX² and SDX must be installed in accordance with Paramount's written instruction manual, and in conformity with applicable Federal, State, Local and Swimming pool industry building and safety codes.


Paramount
Pool Life. Simplified.