Installation Guide

U.S. Patent No.: 6,810,537
Model: Xport Series 004-XXX-XXXX-YY 2½” / 004-XXX-XXXX-YY 75mm
Listed by IAPMO Research & Testing, Inc. File No. SP-4370

IMPORTANT SAFETY INSTRUCTIONS
READ AND FOLLOW ALL INSTRUCTIONS
SAVE THESE INSTRUCTIONS
**IMPORTANT SAFETY PRECAUTIONS**

**Important Notice:**

Attention Installer: This manual contains important information about the installation, operation and safe use of this product. This information should be given to the owner and/or operator of this equipment.

⚠️ **WARNING - RISK OF ENTRAPMENT IF INSTRUCTIONS ARE NOT FOLLOWED.** Before installing this product, read and follow all warning notices and instructions which are included. Failure to follow safety warnings and instructions can result in severe injury, death, or property damage. Call (800) 831-7133 for additional free copies of these instructions.

⚠️ **WARNING - POOL PUMP SUCTION IS HAZARDOUS. IMPROPER INSTALLATION OR USE OF THIS PRODUCT MAY PRESENT A RISK OF HAIR OR BODY ENTRAPMENT AND DROWNING.** Install this suction outlet in accordance with the instructions provided. Use only with the components and mounting hardware provided. FAILURE TO FOLLOW THESE INSTRUCTIONS AND/OR USE WITH COMPONENTS NOT PROVIDED BY PENTAIR WATER POOL AND SPA AND INTENDED TO BE USED WITH THIS PRODUCT MAY RESULT IN IMPROPER POSITIONING OR FUNCTIONING OF DRAIN COVER AND MAY CAUSE SEVERE PERSONAL INJURY OR DEATH.

⚠️ **WARNING - DO NOT EXCEED MAXIMUM FLOW RATE.** Do not use these suction outlets with a pumping system rated for more than 90 GPM. USE OF THESE SUCTION OUTLETS IN POOL OR SPA SYSTEMS WITH FLOW RATES GREATER THAN 90 GPM CAN RESULT IN HAIR OR BODY ENTRAPMENT, WHICH CAN CAUSE SEVERE PERSONAL INJURY OR DEATH. If in doubt about the maximum flow rating of your system, consult a qualified pool or spa professional or call Pentair Water Pool and Spa at (800) 831-7133.

⚠️ **WARNING - INSTALL AT LEAST TWO SUCTION OUTLETS.** The suction outlet connected to a swimming pool or spa pump can pull a high vacuum if it is blocked. Therefore, if only one suction outlet is used, anyone blocking the suction outlet with their body can be trapped and held against the suction outlet. Disembowelment or drowning can result. To prevent this entrapment, install at least the suction outlets provided with Xport for each pump in the plumbing system. Separate these suction outlets as described and shown in the installation instructions in this manual. Use of these multiple suction outlets is required for proper Xport operation and to reduce risk of entrapment.
**IMPORTANT SAFETY PRECAUTIONS (continued)**

⚠️ **WARNING - USE ONLY APPROVED COVERS TO PREVENT HAIR ENTRAPMENT.**

The covers used on suction outlets should be approved to the currently published version of ANSI/ASME A1121.19.8 Standard covering Suction Fittings for use in Swimming Pools, Wading Pools, Spas and Hot Tubs. These covers should be inspected regularly and replaced if cracked, broken or older than the design lifetime indicated on them by the manufacturer. The design flow rate of the pool and spa should be less than or equal to the maximum flow rate indicated on the cover by the manufacturer. **THE USE OF UNAPPROVED COVERS OR ALLOWING USE OF THE POOL OR SPA WHEN COVERS ARE CRACKED OR BROKEN CAN RESULT IN HAIR ENTANGLEMENT WHICH CAN RESULT IN DEATH.**

Xport Drain System Installation Steps Summary

The recommended installation steps for the Xport Drain System is as follows:

1. **Review the Xport Drain System Design (page 1):** Review this important information before installing the Xport Drain System.

2. **Review Hydrostatic Fitting Requirements (page 5):** Before installing the Xport sump, review the hydrostatic fitting requirements. Also review the winterization information.

3. **Review the Xport Drain System Installation Methods (page 5):** Choose the type of installation method: Steel and concrete, fiberglass, or vinyl.

4. **Pressure test the Xport Drain System (page 6):** Review the pressure test instructions. This test should be performed before installing the Xport Drain System.

5. **Install the Xport Drain System:** Install the Xport sump in steel and concrete (page 9), fiberglass (page 19), or vinyl (page 27).

Technical Support

Contact Technical Support at:

**Sanford, North Carolina** (8 A.M. to 5 P.M.)

Phone: (800) 831-7133

Fax: (919) 566-8920

**Moorpark, California** (8 A.M. to 5 P.M.)

Phone: (800) 831-7133 (Ext. 6502)

Fax: (805) 530-0194

Web site

visit www.pentairpool.com
**Xport Drain System Design**

**Before installing the Xport Drain System please read the following important information**

**SECOND SUCTION OUTLET:** The Xport Drain System requires the proper installation of all anti-entrapment features including a second suction outlet with a listed suction outlet fitting and one of the following three vacuum breaker installation methods:

- **Vacuum Breaker for Steel and Concrete** - Refer to one of the four installation methods illustrated on pages 9, 10, and 11.
- **Vacuum Breaker for Fiberglass** - Refer to one of the three installation methods illustrated on page 19.
- **Vacuum Breaker for Vinyl** - Refer to one of the three installation methods illustrated on page 27.

These Xport instructions provide four design methods to choose from. Your local codes may require additional safety measures. Pentair Water Pool and Spa and its representatives cannot recommend or endorse installation methods other than those provided in these Xport instructions.

**SUCTION PLUMBING** - Install a 2½" pipe between the Xport suction outlet and the debris collection point, which could be the optional debris canister, a self-priming pump or in-line strainer basket.

⚠️ **WARNING** - **Maximum Pump Size:** Xport is rated for a maximum of 90 GPM. 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.

**IMPORTANT NOTE:** 18" of 2½" pipe is required for connection to the center outlet of the Xport Drain System. The Pentair Water Pool and Spa Xport Drain System kit includes an 18" x 2½" length of pipe and a coupler. It is recommended the 2½" pipe be used throughout the suction side of the system for optimum performance.
Xport Drain System for Concrete (Required installation method for the state of FLORIDA)

Xport Drain System for Fiberglass (Required installation method for the state of FLORIDA)
Xport Drain System for Vinyl (Required installation method for the state of FLORIDA)

IMPORTANT INSTALLATION INSTRUCTIONS FOR THE STATE OF FLORIDA: The Xport Drain System requires the proper installation of all anti-entrapment features including the second Suction Outlet and 1½" Vent Line or approved Safety Vacuum Relief System (SVRS).* Install 2½" pipe between Xport sump and the debris collection point which may be the optional debris canister, or a self-priming pump basket.

Note: (*) The Xport Drain System instructions provide two design options to choose from; Vent Line or approved SVRS. Follow all regulations requiring specific plumbing solutions and you may use officially approved vacuum-breaker products and vacuum breaker methods.

Note: The Xport Drain System is rated for a maximum of 90 GPM. 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.
Xport Drain System Installation Guide

**Xport Drain System for Concrete and Fiberglass**

![Diagram of Xport Drain System for Concrete and Fiberglass]

**Design Flow Rate** = 90 GPM  
**Maximum GPM** = 90  
**Velocity through cover opening** at 90 GPM = 1.386 FPS

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**Xport Drain System for Vinyl**

![Diagram of Xport Drain System for Vinyl]

**Note:** The Xport Drain System is rated for a maximum of 90 GPM. 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.
Hydrostatic Fitting Requirements

The hydrostatic fitting requirements for concrete, fiberglass, and vinyl are as follows:

- The hydrostatic port inside the Xport Sump is a 2" female adapter and a 2" slip fitting outside the Xport Sump. For non-hydrostatic installations, install the 2” plug that is provided.

  **Note:** For concrete installation, the sump elevation should be 1" below the interior finish.

Winterization Procedure

**Optional positioning of second suction outlet**

Outlet may be placed low on the pool wall below the frost depth to avoid having to winterize or high on the pool wall for easy access to the blow line.

To winterize the Xport Drain System:

1. Blow out and air lock the vacuum breaker line and second suction outlet.
2. Blow out and air lock the main 2½” line to the pump.

Xport Drain System Installation Methods

This manual describes recommended Xport installation methods. Other methods may be available depending on your local codes. Follow all National Standards and local regulations requiring specific plumbing solutions and use approved vacuum-breaker products and vacuum breaker methods. Any of these methods may be used as long as it is NOT possible for a swimmer to be exposed to single-point-suction when drains are fully disassembled.


**Note:** Pentair Water Pool and Spa and its representatives can not recommend nor endorse installation methods beyond those provided in this manual.

Steel and Concrete Installation Methods

- Vacuum Breaker in Steel and Concrete (four methods) - see page 9, 10, and 11.

Fiberglass Installation Methods

- Vacuum Breaker for Fiberglass (three methods) - see page 19.

Vinyl Installation Methods

- Vacuum Breaker for Vinyl (three methods) - see page 27.
**Xport Pressure Test**

The pressure test should be performed before installing the Xport Drain System. Use the two pressure plugs included with the kit to perform this test.

To pressure test the Xport sump:

1. Install a plug into both 2½” ports of the Xport Sump.
2. Install a pressure stack to both lines at a location away from the Xport Sump.
3. Pressure should remain on the system throughout the construction until the liner is installed and interior cleanup.
4. Release the pressure on the system, then remove the plugs from both sump ports.

⚠️ **WARNING - Release pressure on the system before removing plugs.**
Xport Drain System Installation and Replacement Parts List (Concrete Pools)
Steel and Concrete Xport Drain Installation Methods

There are four methods that can be used to install the Xport drain system in steel and concrete. The following illustrations show the different methods.

Vacuum Breaker in Steel and Concrete (Method 1)

Method one is recommended for best debris removal performance.
Vacuum Breaker in Steel and Concrete (Method 2)

With Canister

**POOL**

2½”

2⅜” x 18”

2½”

**SPA**

2⅜”

2⅜” x 18”

2½”

**BASIN**

12” MINIMUM DEPTH

(TO AVOID AIR VORTEX)

2⅛”

2⅜” x 18”

2½”

Without Canister

**POOL**

2½”

2⅜” x 18”

2½”

**SPA**

2⅜”

2⅜” x 18”

2½”

**BASIN**

12” MINIMUM DEPTH

(TO AVOID AIR VORTEX)

2⅛”

2⅜” x 18”

2½”
Vacuum Breaker in Steel and Concrete (Method 3)

With Canister

Without Canister

Vacuum Breaker Installation in Steel and Concrete (Method 4)

Suction vacuum release device, mechanical, or electromechanical, venting or non-venting, may be used provided it is tested and listed by a nationally recognized testing laboratory in accordance with ANSI/ASME A112.19.17 – Manufactured SVRS for Residential and Commercial Swimming Pool.
Steel and Concrete Installation

Use the following instructions to install the Xport sump into steel and concrete.

**Plumbing Requirements**

The Xport Drain System plumbing requirements are:

1. Position the Xport Sump 1" below the finished depth of the pool, spa or basin.

2. Position the **required** second Suction Outlet on a sidewall of the pool, spa or basin. If necessary, the second Suction Outlet may be positioned on the floor a **minimum** of three (3) feet away from the Xport Sump.

**Note:** KEEP REBAR 3" AWAY FROM XPORT SUMP.
Pressure Test

- Perform the pressure test using the provided pressure plugs. For instructions, see “Xport Pressure Test,” on page 6.

Sump Installation

1. Clear the dirt to completely expose the sweep elbow. This allows the sump to be fully encased in concrete.

2. Pack concrete around and under the sump to ensure a strong seal and strengthen the shell.

3. Angle the shell downward to the sump.

4. Make a cutout around the sump.

5. Proceed with “Concrete Ring Installation” on page 14.
Concrete Ring Installation

The concrete ring **must** be attached to the Xport Drain sump before finishing the interior surface of the pool, spa, or basin.

To install the concrete ring:

1. Align the concrete ring key way with the sump alignment key.
2. Align the elevation and the angle of the concrete ring with the finished interior surface of the pool, spa, or basin.
3. Use a sealing compound compatible with the interior surface to lock the concrete ring in place. Make sure the seal is water tight.
   - Recommended sealing compounds: Topping mix cement, hydraulic cement, and ThoroAcryl® 60 by ChemRex® or equivalent.
4. Continue with the **Funnel installation** instructions below.

Funnel Installation

**Note:** Assemble the drain before adding water.

To install the funnel assembly: (For Xport replacement parts identification (i.e. No. 3), refer to illustration on page 16).

1. Install the funnel assembly (No. 3) into the concrete ring (No. 2) by pressing the flexible funnel adapter inside the center 2½" female threaded fitting. Press down and hold the funnel assembly and install the screws.
2. Use a T25 screwdriver to install the two large screws (No. 5) in the support (No. 8).
3. Use a T25 screwdriver to install the two medium screws (No.6) in the funnel assembly (No. 3). Tighten the screws until the funnel assembly (No. 3) contacts the interior finish of the pool, spa, or basin.
4. Place the Xport cover (No. 4) on the funnel assembly (No. 3). Use a Phillips screwdriver to secure the cover in place with the three small screws (No. 7).
5. The Xport drain system installation is complete.
## Xport Drain System Replacement Parts List (Concrete)

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
<th>Material</th>
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<tbody>
<tr>
<td>540120</td>
<td>Xport Kit, Concrete, White</td>
<td></td>
</tr>
<tr>
<td>540121</td>
<td>Xport Kit, Concrete, Grey</td>
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<td>540122</td>
<td>Xport Kit, Concrete, Black</td>
<td></td>
</tr>
<tr>
<td>540123</td>
<td>Xport Kit, Concrete, Light Blue</td>
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<td>540124</td>
<td>Xport Kit, Concrete, White</td>
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<td>540125</td>
<td>Xport Kit, Concrete, Grey</td>
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<td>540126</td>
<td>Xport Kit, Concrete, Black</td>
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<td>540127</td>
<td>Xport Kit, Concrete, Light Blue</td>
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</tr>
<tr>
<td>540128</td>
<td>Xport Kit, Concrete, 75 MM, White</td>
<td></td>
</tr>
<tr>
<td>540129</td>
<td>Xport Kit, Concrete, 75 MM, Grey</td>
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</tr>
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<td>Xport Kit, Concrete, 75 MM, Black</td>
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<td>540131</td>
<td>Xport Kit, Concrete, 75 MM, Light Blue</td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Item</th>
<th>Part Number</th>
<th>Description</th>
<th>Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>*</td>
<td>Sump Assembly with Cap, 2½&quot; (3 pieces)</td>
<td>PVC - 1</td>
</tr>
<tr>
<td></td>
<td>*</td>
<td>Sump Assembly without Cap, 2½&quot; (3 pieces)</td>
<td>PVC - 1</td>
</tr>
<tr>
<td>2</td>
<td>540168</td>
<td>Concrete Leveling Ring</td>
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<tr>
<td>3</td>
<td>540148</td>
<td>Funnel Assembly, White</td>
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<td></td>
<td>540149</td>
<td>Funnel Assembly, Grey</td>
<td></td>
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<td>540150</td>
<td>Funnel Assembly, Black</td>
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<tr>
<td></td>
<td>540151</td>
<td>Funnel Assembly, Blue</td>
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</tr>
<tr>
<td>4</td>
<td>540156</td>
<td>XPort Cover with Screws, White</td>
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<tr>
<td></td>
<td>540157</td>
<td>XPort Cover with Screws, Grey</td>
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<tr>
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<td>540158</td>
<td>XPort Cover with Screws, Black</td>
<td></td>
</tr>
<tr>
<td></td>
<td>540159</td>
<td>XPort Cover with Screws, Light Blue</td>
<td></td>
</tr>
<tr>
<td></td>
<td>540163</td>
<td>Screw Kit, Concrete (includes items 5, 6, 7)</td>
<td>316-SS</td>
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<tr>
<td>5</td>
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<td>Screw: No.12, 2 5/8&quot; Countersink, Security Head (12 pieces)</td>
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<tr>
<td>7</td>
<td>*</td>
<td>Screw: No.10, 7/8&quot; Phillips Head, (12 pieces)</td>
<td>316-SS</td>
</tr>
<tr>
<td>8</td>
<td>N/A</td>
<td>Support</td>
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<tr>
<td>9</td>
<td>*</td>
<td>Cap Xport Plaster</td>
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<td>*</td>
<td>Cap Xport Plaster (12 pieces)</td>
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<tr>
<td>10</td>
<td>*</td>
<td>Cap Xport Sump Construction</td>
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</tr>
<tr>
<td></td>
<td>*</td>
<td>Cap Xport Sump Construction (6 pieces)</td>
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<td>11</td>
<td>*</td>
<td>Plug Pressure Test, NPT 2½&quot; (4 pieces)</td>
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<tr>
<td>12</td>
<td>*</td>
<td>Plug 2&quot; NPT (6 PK)</td>
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<tr>
<td>13</td>
<td>540132</td>
<td>Drain Second, Black</td>
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<td></td>
<td>540133</td>
<td>Drain Second, Light Blue</td>
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<tr>
<td></td>
<td>540152</td>
<td>Drain Second, White</td>
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<tr>
<td></td>
<td>540153</td>
<td>Drain Second, Grey</td>
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<tr>
<td>14</td>
<td>*</td>
<td>Sump Adaptor Kit Required to Reduce Pipe Size</td>
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<tr>
<td>**R1</td>
<td>N/A</td>
<td>REQUIRED CONNECTION TO A 2nd Suction Outlet 2½&quot; pipe</td>
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<td>N/A</td>
<td>540166</td>
<td>Screwdriver Security, T-25</td>
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</tbody>
</table>

(*) Part of main assembly  
(**) Not part of kit
Xport Drain System for Concrete
(Required installation method for the State of FLORIDA)

Xport Drain System (Concrete)
Xport Drain Installation and Replacement Parts List (Fiberglass Pools)
Fiberglass Xport Drain Installation Methods

There are three methods that can be used to install the Xport drain system in fiberglass. The following illustrations show the different methods.

Vacuum Breaker Installation Methods for Fiberglass

Use one of the following methods to install the XPort Drain System into a fiberglass base.

With Canister

Without Canister

Method 1

This method is recommended for best debris removal performance.

Vacuum Breaker Installation in Fiberglass (Method 3)

Suction vacuum release device, mechanical, or electromechanical, venting or non-venting, may be used provided it is tested and listed by a nationally recognized testing laboratory in accordance with ANSI/ASME A112.19.17 – Manufactured SVRS for Residential and Commercial Swimming Pool.
Fiberglass Installation

Use the following instructions to install the Xport Drain System into a fiberglass shell.

Sump Installation to Fiberglass Pool Shell

Shell Preparation

1. Determine the location of the sump in the shell and mark the center point.
2. Draw an 11¼” circle and cut it out using a jigsaw.
3. Insert the seal ring into the hole and point keyway to the back wall. **Note:** The Keyway aligns with the sweep ninety that needs to point to the back wall.
4. Mark the location of the six holes in the flange and drill with a ¼” bit.
5. Make sure that the bottom surface around the hole is flat.
6. Continue with Sump Installation to Shell below.

Pressure Test

- Perform the pressure test using the provided pressure plugs. For instructions, see “Xport Pressure Test,” on page 6.

Sump Installation to Shell

To install the sump with high flange into the pool shell:

1. Apply sealing compound to the top surface of the Xport sump flange.
2. From the outside of the pool shell, align the sump with screw holes in the mounting ring and sweep ninety pointing to the back wall of pool shell. Refer to “Sump Installation to Shell” on page 23 for illustration.
3. Apply a small bead of sealing compound to the bottom surface of the seal ring flange.
4. From the inside of pool shell, align the seal ring keyway with the tab in the sump, and press into place.
5. Secure the seal ring and sump together with the six 12” x 1½” flathead screws.
6. Secure the second Suction Outlet fitting through the sidewall in the desired locations.
7. Make the plumbing connection between the second Suction Outlet and the 2½” outlet on the bottom of the Xport sump. The pipe must be equal to circulation line.
8. Proceed with the Funnel installation instructions on the following page.
Funnel Installation

**Note:** Assemble the drain before adding water.

To install the funnel assembly: (For Xport replacement parts identification (i.e. No. 6), refer to illustration on page 23).

1. Install the funnel assembly (No. 6) into the sump (No. 11) by pressing the flexible funnel adapter inside the center 2½" female threaded fitting. Press down and hold the funnel assembly to install screws.

2. Use a T25 screwdriver to install the two large screws (No. 5) in the support (No. 7).

3. Use a T25 screwdriver to install the two medium screws (No. 4) in the funnel assembly (No. 6). Tighten the screws until the funnel assembly (No. 6) contacts the interior finish of the pool, spa, or basin.

4. Place the Xport cover (No. 2) on the funnel assembly (No. 6). Use a Phillips screwdriver to secure the cover in place with the three small screws (No. 1).

5. The Xport drain system installation is complete.
### Xport Drain System Replacement Parts List (Fiberglass)

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<th>Description</th>
<th>Material</th>
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<tr>
<td>540141</td>
<td>Xport Kit, Fiberglass, Bolt On, White</td>
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<td>540142</td>
<td>Xport Kit, Fiberglass, Bolt On, Light Blue</td>
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<tr>
<td>540145</td>
<td>Xport Kit, Fiberglass, 75 MM, Bolt On, White</td>
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<td>540146</td>
<td>Xport Kit Fiberglass, 75 MM, Bolt On, Light Blue</td>
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<th>Item</th>
<th>Part Number</th>
<th>Description</th>
<th>Material</th>
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<td>1</td>
<td>*</td>
<td>Screw, No. 10-7/8&quot; Phillips Head, (12 pieces)</td>
<td>316-SS</td>
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<tr>
<td>2</td>
<td>540156</td>
<td>XPort Cover with Screws, White</td>
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<tr>
<td></td>
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<td>540159</td>
<td>XPort Cover with Screws, Light Blue</td>
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<td>3</td>
<td>*</td>
<td>Plug 2&quot; NPT (6 pieces)</td>
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<tr>
<td>4</td>
<td>*</td>
<td>Screw, No. 10-1 7/8&quot; Security Head, (12 pieces),</td>
<td>316-SS</td>
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<tr>
<td>5</td>
<td>*</td>
<td>Screw, 12 x 2-5/8&quot; Security Head (12 pieces)</td>
<td>316-SS</td>
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<td>6</td>
<td>540154</td>
<td>Funnel Assembly, Bolt On, White</td>
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<td></td>
<td>540155</td>
<td>Funnel Assembly, Bolt On, Light Blue</td>
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</tr>
<tr>
<td>7</td>
<td>N/A</td>
<td>Support</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>*</td>
<td>Screw, 12-14 x 1½&quot; (12 pieces)</td>
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<tr>
<td>9</td>
<td>540176</td>
<td>Seal Ring</td>
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<td>*</td>
<td>Sump Assembly - 2½&quot; (12 pieces)</td>
<td>PVC - 1</td>
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<tr>
<td>11</td>
<td>*</td>
<td>Sump Adaptor Kit Required to Reduce Pipe Size</td>
<td>PVC, SCH. 40</td>
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<tr>
<td>12</td>
<td>*</td>
<td>Plug Pressure Test 2½&quot; NPT (4 pieces)</td>
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<tr>
<td>13</td>
<td>540140</td>
<td>Drain Second, White</td>
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<tr>
<td></td>
<td>540143</td>
<td>Drain Second, Light Blue</td>
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<tr>
<td>14</td>
<td>N/A</td>
<td>REQUIRED CONNECTION TO A 2nd Suction Outlet 2½&quot; pipe</td>
<td>PVC, SCH. 40</td>
</tr>
</tbody>
</table>

(*) Part of main assembly  
(**) Not part of kit
Xport Drain System for Fiberglass
(Required installation method for the
State of FLORIDA)
Xport Drain Installation and Replacement Parts List (Vinyl Pools)
Vinyl Xport Drain Installation Methods

There are three methods that can be used to install the Xport drain system in vinyl. The following illustrations show the different methods.

Vacuum Breaker Installation Method for Vinyl

Use one of the following methods to install the XPort Drain System into a vinyl shell.

**With Canister**

This method is recommended for best debris removal performance.

**Without Canister**

**Method 1**

Suction vacuum release device, mechanical, or electromechanical, venting or non-venting, may be used provided it is tested and listed by a nationally recognized testing laboratory in accordance with ANSI/ASME A112.19.17 – *Manufactured SVRS for Residential and Commercial Swimming Pool.*
Vinyl Installation

Use the following instructions to install the XPort Drain System into a vinyl shell.

Plumbing Requirements

The Xport Drain System plumbing requirements for vinyl pools are:

1. Position the Xport Sump flush with the finished depth of the pool, spa, or basin (see illustration below for details).
2. Whichever pool base is used, the drain sump must be encased in concrete as shown to anchor it in place.
3. Position the required second Suction Outlet on a sidewall of the pool, spa or basin. If necessary, the second Suction Outlet may be positioned on the floor a minimum of three (3) feet away from the Xport Sump.

Pressure Test

- Perform the pressure test using the provided pressure plugs. For instructions, see “Xport Pressure Test,” on page 6.

Xport Sump Installation to Pool Base

- Finish pool base flush with upper edge of Xport sump as shown below.

Liner Installation

1. Make sure the bottom gasket is in place before installing the liner.
2. Set the liner in the pool and draw tight with the vacuum.
3. Install the top gasket, seal ring, and 12 screws.
4. Cut out the liner inside the sump.
5. Proceed with the Funnel Installation instructions on the following page.
Funnel Installation

**Note:** Assemble the drain before adding water.

To install the funnel assembly: (For Xport replacement parts identification (i.e. No. 6), refer to illustration on page 31)

1. Install the funnel assembly (No. 6) into the sump (No. 12) by pressing the flexible funnel adapter inside the center 2½" female threaded fitting. Press down and hold the funnel assembly to install screws.
2. Use a T25 screwdriver to install the two large screws (No. 5) in the support (No. 7).
3. Use a T25 screwdriver to install the two medium screws (No.4) in the funnel assembly (No. 6). Tighten the screws until the funnel assembly (No. 6) contacts the interior finish of the pool, spa, or basin.
4. Place the Xport cover (No. 2) on the funnel assembly (No. 6). Use a Phillips screwdriver to secure the cover in place with the three small screws (No. 1).
5. The Xport drain system installation is complete.
## Xport Drain System Replacement Parts List (Vinyl)

<table>
<thead>
<tr>
<th><strong>Part Number</strong></th>
<th><strong>Description</strong></th>
<th><strong>Material</strong></th>
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</thead>
<tbody>
<tr>
<td>540134</td>
<td>Xport Kit, Vinyl, White</td>
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<td>Xport Kit, Vinyl, Grey</td>
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<td>Xport Kit, Vinyl, Light Blue</td>
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<table>
<thead>
<tr>
<th><strong>Item</strong></th>
<th><strong>Part Number</strong></th>
<th><strong>Description</strong></th>
<th><strong>Material</strong></th>
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<tbody>
<tr>
<td>1</td>
<td>*</td>
<td>Screw, No. 10-7/8&quot; Phillips Head, (12 pieces)</td>
<td>316-SS</td>
</tr>
<tr>
<td>2</td>
<td>540156</td>
<td>XPort Cover with Screws, White</td>
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<tr>
<td></td>
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<td>XPort Cover with Screws, Grey</td>
<td></td>
</tr>
<tr>
<td></td>
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<td>XPort Cover with Screws, Black</td>
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</tr>
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<td></td>
<td>540159</td>
<td>XPort Cover with Screws, Light Blue</td>
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</tr>
<tr>
<td>3</td>
<td>*</td>
<td>Plug 2&quot; NPT (6 pieces)</td>
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</tr>
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<td>316-SS</td>
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<tr>
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<td>540153</td>
<td>Funnel Assembly, Light Blue</td>
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<tr>
<td>7</td>
<td>*</td>
<td>Support</td>
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<td>8</td>
<td>*</td>
<td>Screw, 12-14 x 1½&quot; Vinyl Sump (12 pieces)</td>
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<tr>
<td>9</td>
<td>540175</td>
<td>Seal Ring</td>
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<td>540173</td>
<td>Vinyl Gaskets (2 pieces)</td>
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<td>11</td>
<td>*</td>
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<td>12</td>
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<td>13</td>
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<td>Sump Adaptor Kit Required to Reduce</td>
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<td>Pipe Size</td>
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<td>14</td>
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<td>Suction Outlet 2½&quot; pipe</td>
<td>PVC, SCH. 40</td>
</tr>
</tbody>
</table>

(*) Part of main assembly  (**) Not part of kit

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Xport Drain System Installation Guide
Xport Drain System for Vinyl (Required installation method for the State of FLORIDA)
Notes