

# 5" ULTRA FLO SUCTION FOR SELF-CONTAINED SPAS INSTALLATION INSTRUCTIONS

For Model Number: 640-393x VP • 640-394x VP

**VGB  
2008**

## WARNING



Read and follow all instructions in this owner's manual and on the equipment. Failure to follow instructions can cause severe injury and/or death.

## IMPORTANT SAFETY INSTRUCTIONS



### WARNING - SUCTION ENTRAPMENT HAZARD

Suction in suction outlets and/or suction outlet covers which are damaged, broken, cracked, missing, or unsecured can cause severe injury and/or death due to the following entrapment hazards:

**Hair Entrapment:** Hair can become entangled in suction outlet cover.

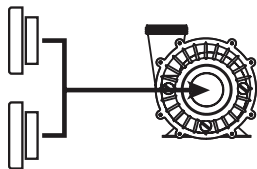
**Limb Entrapment:** A limb inserted into an opening of a suction outlet sump or suction outlet cover that is damaged, broken, cracked, missing, or not securely attached can result in a mechanical bind or swelling of the limb.

**Body Suction Entrapment:** A negative pressure applied to a large portion of the body or limbs can result in an entrapment.

**Evisceration / Disembowelment Entrapment:** A negative pressure applied directly to the intestines through an unprotected suction outlet sump or suction outlet cover which is damaged, broken, cracked, missing, or unsecured can result in evisceration / disembowelment entrapment.

**Mechanical Entrapment:** There is potential for jewelry, swimsuit, hair decorations, finger, toe, or knuckle to be caught in an opening of a suction outlet cover resulting in mechanical entrapment.

## TO REDUCE THE RISK OF ENTRAPMENT HAZARDS:



• A minimum of two functioning suction outlets per pump must be installed. Suction outlets in the same plane (i.e. floor or wall) must be installed a minimum of three feet (3') / 1 meter apart, as measured from

suction pipe center to suction pipe center.

- Dual suction fittings shall be placed in such locations and distances to avoid "dual blockage" by a user.
- Dual suction fittings shall not be located on seating areas or on the backrest for such seating areas.
- The maximum system flow rate shall not exceed the flow rating of any listed (per ASME A112.19.8-2007) suction outlet cover installed. In the event of one suction outlet being completely blocked, the

remaining suction outlets serving the system shall have a flow rating capable of the full flow of the pump(s).

- Never use a pool or spa if any suction outlet component is damaged, broken, cracked, missing, or not securely attached.
- Replace damaged, broken, cracked, missing, or not securely attached suction outlet components immediately.
- Two or more suction outlets per pump should be installed in accordance with latest APSP Standards and CPSC guidelines, and follow all National, State, and Local codes applicable.
- Replace the suction within 7 years from the installation date.
- Installation of a vacuum release system, which relieves entrapping suction, is recommended.

## USE ONLY GENUINE WATERWAY REPLACEMENT PARTS.



# Waterway™

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## WARNING



Failure to remove pressure test plugs and/or plugs used in winterization of the pool/spa from the suction outlets can result in an increased potential for suction entrapment as described on the previous page.



Failure to keep suction outlet components clear of debris, such as leaves, dirt, hair, paper and other material, can result in an increased potential for suction entrapment as described on the previous page.



Suction outlet components have a finite life. The cover/grate should be inspected frequently and replaced at least every seven years, or if found to be damaged, broken, cracked, missing, or not securely attached.



The 640-393x VP and 640-394x VP fittings are rated at 264 GPM. If the fitting is missing or broken, replace with a fitting of equivalent rating or higher. Use of a lower rated suction fitting could result in entrapment of the body which could result in serious injury including drowning.



Do not use or operate spa/hot tub if this suction fitting is missing, broken or not secured per instructions. The suction fitting is intended to prevent entrapment of the body. Use of the spa hot tub with a missing, broken or improperly secured suction grate may result in serious personal injury including drowning.



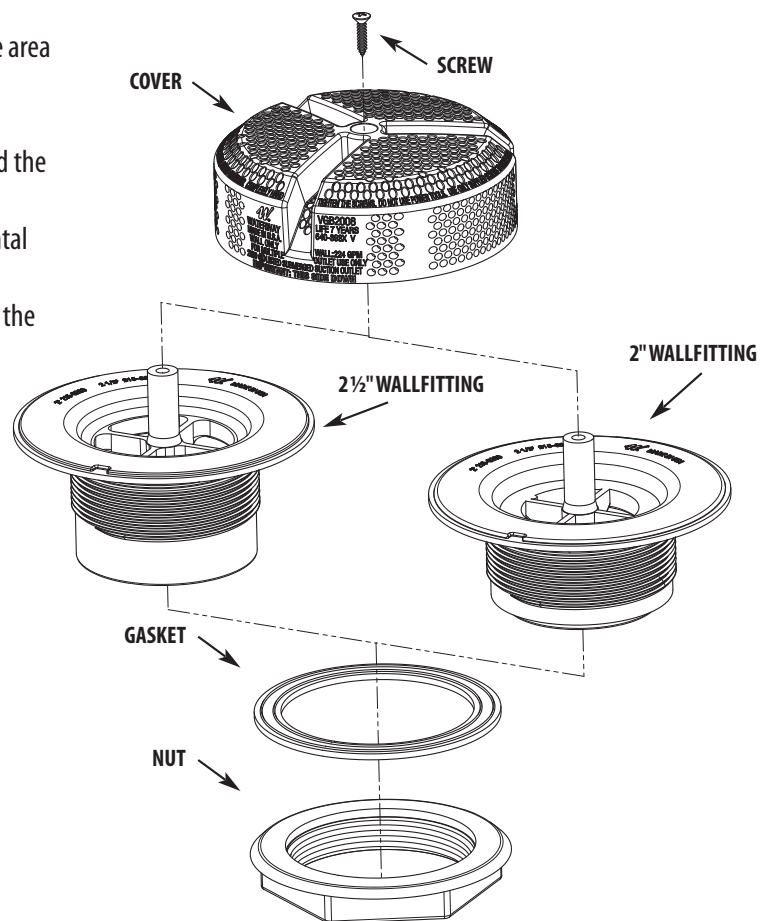
When the spa or hot tub is in operation, suction is created at this fitting. Users of the spa or hot tub must be instructed not to come in contact with this fitting in such a way as to block its orifice. If a user of the spa or hot tub blocks this fitting with his/her body, serious personal injury or drowning may occur.



Self-contained spa fittings should be used in Self-Contained Factory Manufactured Spas only and at least two suction fittings should be used for each pump.

## INSTALLATION INSTRUCTIONS

1. Locate and cut a 3 1/4" hole in a vertical wall of the spa. Be sure the area located is flat and spa laminate thickness is uniform.
2. Insert wallfitting with gasket through hole.
3. Apply a bead of silicon against the back wall of the spa and around the threads of the wall fitting. Avoid getting sealant on gasket.
4. Install nut and tighten. Be sure wallfitting screw studs are horizontal to bottom of spa.
5. Glue elbow supplied with fitting into wallfitting. Be sure to orient the elbow in the required direction while gluing.



**WARNING: This is a PVC to PVC connection. Improper gluing or improper cement selection can cause leaks at glued connection which can result in property damage.**

### 5" Ultra Flo Suction - Head Loss Curve

