

OWNER'S MANUAL


INSTALLATION, OPERATION, & PARTS


DUAL SUBMERGED SUCTION OUTLET SET


[Commonly called main drains]



Basic safety precautions should always be followed, including the following: Failure to follow instructions can cause severe injury and/or death.


 This is the safety-alert symbol. When you see this symbol on your equipment or in this manual, look for one of the following signal words and be alert to the potential for personal injury.

 **WARNING** warns about hazards that **could** cause serious personal injury, death or major property damage and if ignored presents a potential hazard.

 **CAUTION** warns about hazards that **will** or **can** cause minor or moderate personal injury and/or property damage and if ignored presents a potential hazard. It can also make consumers aware of actions that are unpredictable and unsafe.

The **NOTICE** label indicates special instructions that are important but not related to hazards.



 - **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

USE ONLY HAYWARD GENUINE REPLACEMENT PARTS

⚠ 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 or death due to the following entrapment hazards:



Hair Entrapment- Hair becomes knotted or snagged in an outlet cover.



Limb Entrapment- A limb sucked or inserted into an opening of a circulation outlet with a broken or missing cover in the pool resulting in a mechanical bind or swelling

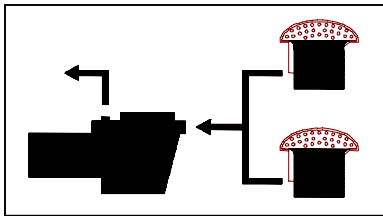


Body Suction Entrapment- Suction applied to a large portion of the body or limbs resulting in an entrapment.



Evisceration/ Disembowelment Entrapment- Suction applied directly to the intestines through an unprotected sump or suction outlet with a missing or broken cover.

Mechanical Entrapment- Potential for jewelry, swimsuit, hair decorations, finger, toe or knuckle to be caught in an opening of an outlet or cover.



To Reduce the risk of Entrapment Hazards:

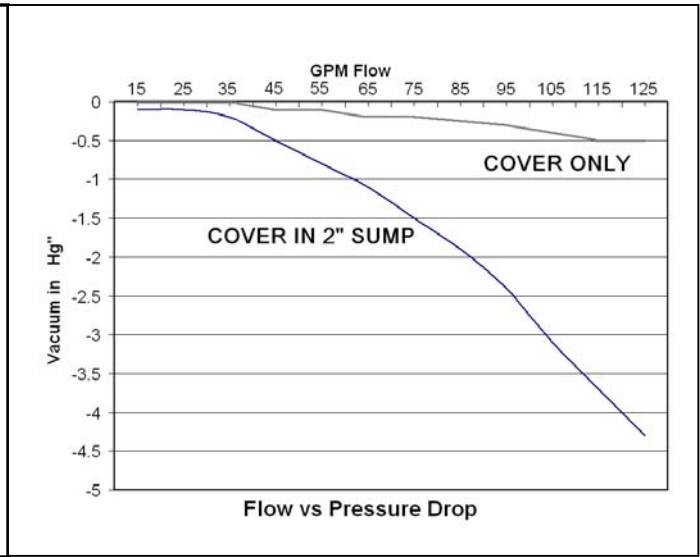
- A minimum of two functioning suction outlets per pump must be installed. Suction outlets in the same plane (i.e. floor or wall), must be installed a minimum of three feet (3') [.91 meter] apart, as measured from suction pipe center to suction pipe center. (See Diagram 1. If suction outlets are to be located closer than three feet (3') [.91 meter] apart, they shall be located in different planes (i.e., one on the bottom, and one on the vertical wall, or one on each of two separate vertical walls.) (See Diagram 2)
- 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/ANSI A112.19.8M-1987, ASME A112.19.8-2007, APSP-7) suction outlet cover installed.
- Keep suction-outlet components clear of debris, such as leaves, dirt, hair, paper and other material.
- Never use a Pool or Spa if any suction outlet component is damaged, broken, cracked, missing, or not securely attached.
- Prior to each use of the swimming pool and/or spa, observe and replace damaged, broken, cracked, missing, or not securely attached suction outlet components immediately.
- Remove pressure test plugs and/or plugs used in winterization of the pool/spa from the suction outlets.
- Two or more suction outlets per pump should be installed in accordance with latest APSP Standards and CPSC guidelines. Follow all National, State, and Local codes applicable.
- Multiple layers of protection are available including installation of a vent pipe system, a gravity flow system, or a vacuum release system.
- 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.
- Do not exceed maximum flow rate stated on suction fitting.
- Only replace a pump with one with a similar flow curve, avoid a pump with a higher horsepower rating.

• **RECOMMENDED SYSTEM SPECIFICATIONS:**

ACCEPTABLE PIPE SIZE FOR MAXIMUM RECOMMENDED SYSTEM FLOW RATE PER APSP-7 (6 FT/SEC IN THE BRANCH LINE)

Pipe Size [mm]	Flow rate GPM [Liter/Min]	Pipe Size [mm]	Flow rate GPM [Liter/Min]
1 1/2"	40	2 1/2"	90
[50]	[150]	[75]	[340]
2"	63	3"	138
[63]	[240]	[90]	[522]

Chart 1



WG1048E Suction Outlet Covers are rated for Floor Only at 125 GPM

FIG 1

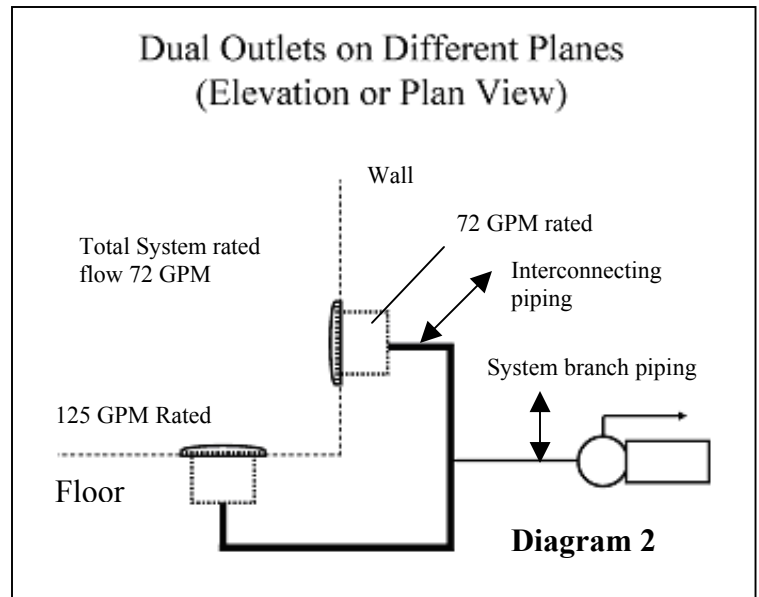
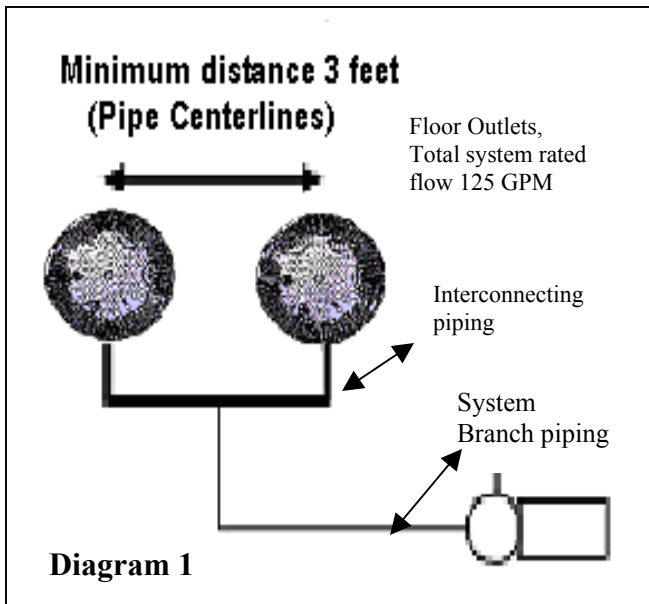
Note: 1" Hg = 1.13 Ft of Head

WG1048EW Suction Outlet Covers are rated for Wall or Floor at 72 GPM

In the event of one suction outlet being 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.

Example: In the System shown in **Diagram 1**, two (2) "Floor Only" suction outlet covers are selected and mounted. These covers are individually rated for 125 GPM. For a desired flow rate through the pump of 100 GPM, a minimum pipe size from the **Chart 1** is selected at 3". At the desired flow of 100 GPM one cover could be partially blocked and the other suction outlet flow would be below the rated 125 GPM of the "Floor" mounted suction outlet cover. Since there are two outlets flowing in normal operation, and the allowable velocity in the interconnecting piping is only 3ft/sec, the same pipe size is required in the interconnecting piping.

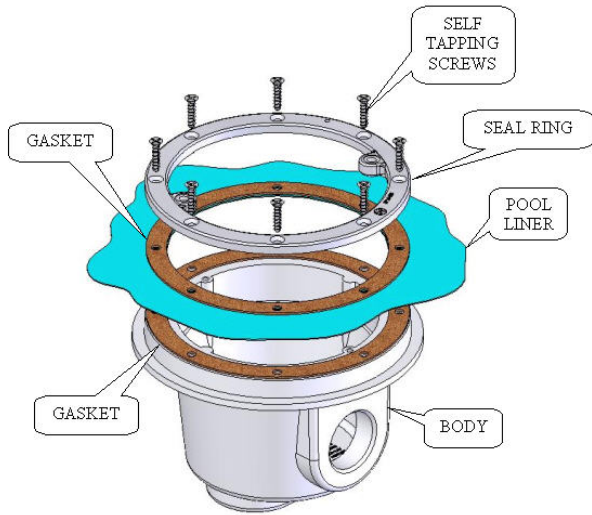
Example: In the System shown in **Diagram 2**, one (1) "Floor Only" suction outlet cover, rated at 125 GPM, and one (1) "Wall or Floor" suction outlet cover, rated at 72 GPM are selected and mounted. For a desired flow rate through the pump of 50 GPM, a minimum pipe size from the **Chart 1** is selected at 2". At the desired flow of 50 GPM either cover could be totally blocked and the other suction outlet flow would be below the rated 72 GPM of the wall mounted suction outlet cover. Note: Flow may be limited by entrapping force in dual suction systems.



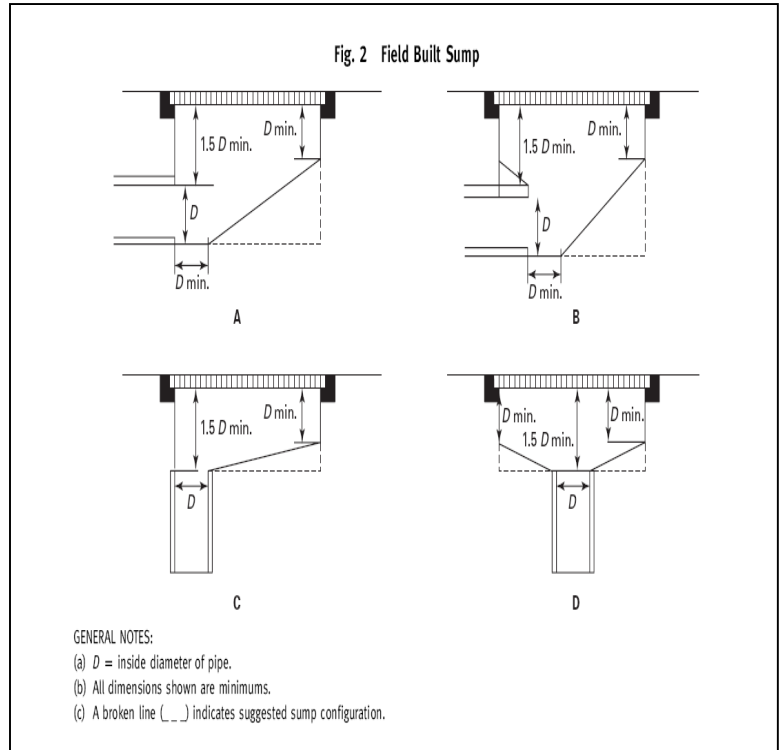
INSTALLATION INSTRUCTIONS: - Use a #2 Philips head Screwdriver.

NOTICE: When installing WG1030AVPAK2 refer to ASME A112.19.8-2007 for the proper instructions on how to construct the field-fabricated sump. Figure 2 is an illustration of some of the requirements.

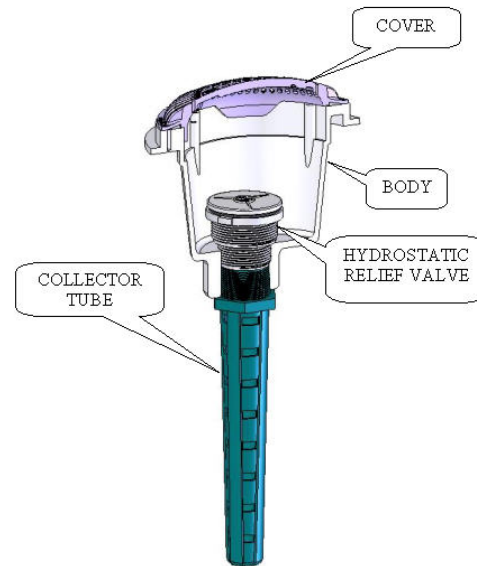
Suction outlets for a pool with a vinyl liner and for fiberglass pools are provided with a WG1048B mounting ring and two (2) gaskets. The gaskets should be placed such that they sandwich the liner or fiberglass, that is, one gasket on each side. The ring (WG1048B) is attached to the suction outlet by eight (8) screws that pass through both gaskets and the liner. See diagram below.



Suction outlets for a concrete or gunite pools are designed to be plastered with the top surface flush to the pool surface. An Adjustable Collar WG1051X may be used to aid in obtaining the desired configuration.

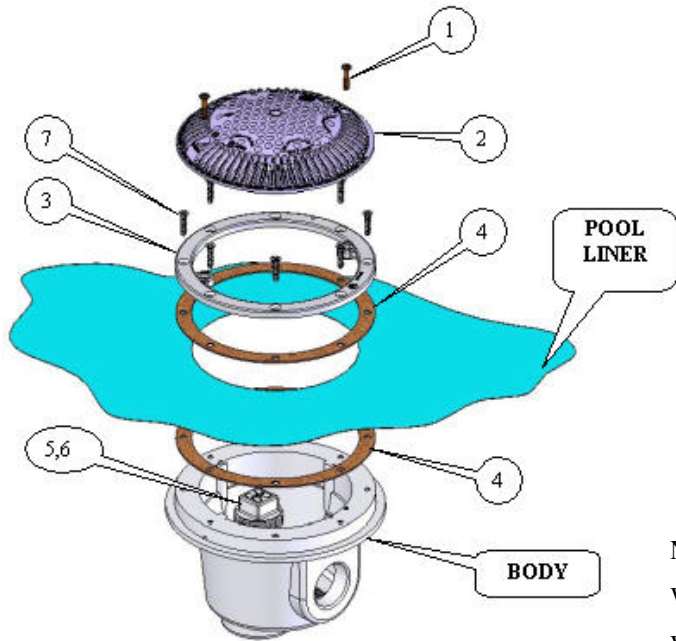


Two screws **MUST** be used to secure the cover to the suction outlet. **USE ONLY HAYWARD GENUINE REPLACEMENT PARTS INCLUDING THE SCREWS.**



For installations utilizing a hydrostatic relief valve (SP1056), using a collector tube (SP1055) will maintain a clear path to the hydrostatic valve. At least one hydrostatic relief valve in a set of suction outlets will allow hydrostatic uplift pressure caused by ground water to be relieved into the pool or spa.

• **SPARE PARTS LISTS**



WG1048AVPAK2/ WG1049AVPAK2

ITEM	SPARE PART	DESCRIPTION	QTY
1	*WGX1030Z2A	SCREW SET	1.0
2	**WGX1048E	COVER, SUCTION OUTLET	1.0
2	**WG1048EW	COVER, SUCTION OUTLET	1.0
3	WGX1048B	RING, SUCTION OUTLET	1.0
4	SPX1048D	GASKET	2.0
5	SPX1051Z1	1 1/2 IN PLASTIC PIPE PLUG	1.0
6	SPX1053Z1	2 IN PLASTIC PIPE PLUG	1.0
7	SPX1039Z18	SCREW SET	1.0

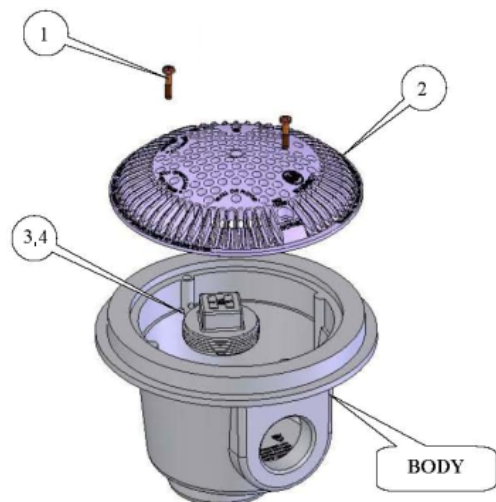
NOTES:

WG1048AVPAK2 / WG1049AVPAK2 1 1/2" NPT Bottom Plug

WG1049AVPAK2 2" NPT Side Plug

*-SPARE SCREW SET INCLUDES SCREWS FOR SUMPS WITHOUT METAL INSERTS. IF SUMP HAS METAL INSERTS INSTALLED ADD (M) TO END OF PART NUMBER.

**-SPARE COVER INCLUDES SCREWS FOR ALL VARIATIONS OF SUMPS, WITH OR WITHOUT METAL INSERTS.



WG1051AVPAK2/ WG1052AVPAK2/
WG1053AVPAK2/ WG1054AVPAK2

ITEM	SPARE PART	DESCRIPTION	QTY
1	*WGX1030Z1A	SCREW SET	1.0
2	**WGX1048E	COVER, SUCTION OUTLET	1.0
2	**WG1048EW	COVER, SUCTION OUTLET	1.0
3	SPX1051Z1	1 1/2 IN PLASTIC PIPE PLUG	1.0
4	SPX1053Z1	2 IN PLASTIC PIPE PLUG	1.0

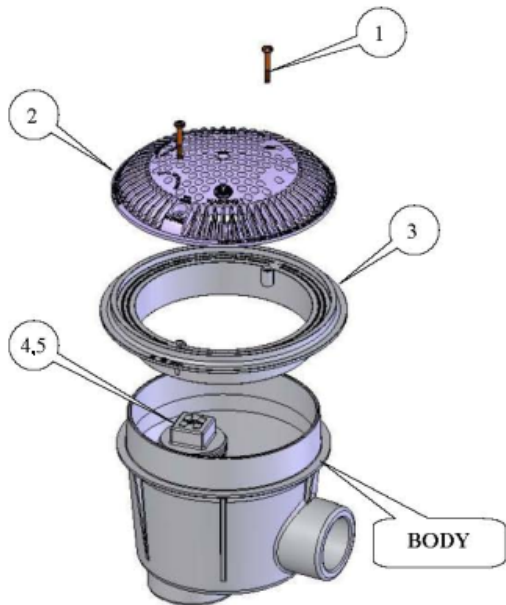
NOTES:

WG1051AVPAK2 / WG1052AVPAK2 1 1/2" NPT Bottom Plug

WG1053AVPAK2 / WG1054AVPAK2 2" NPT Bottom Plug

*-SPARE SCREW SET INCLUDES SCREWS FOR SUMPS WITHOUT METAL INSERTS. IF SUMP HAS METAL INSERTS INSTALLED ADD (M) TO END OF PART NUMBER.

**-SPARE COVER INCLUDES SCREWS FOR ALL VARIATIONS OF SUMPS, WITH OR WITHOUT METAL INSERTS.



WG1153AVPAK2/ WG1154AVPAK2

ITEM	SPARE PART	DESCRIPTION	QTY
1	*WGX1030Z1A	SCREW SET	1.0
2	**WGX1048E	COVER, SUCTION OUTLET	1.0
2	**WG1048EW	COVER, SUCTION OUTLET	1.0
3	WGX1153B	EXTENSION COLLAR	1.0
4	SPX1051Z1	1 1/2 IN PLASTIC PIPE PLUG	1.0
5	SPX1053Z1	2 IN PLASTIC PIPE PLUG	1.0

NOTE:

SP1153AVPAK2 / SP1154AVPAK2 2” NPT Bottom Plug

*-SPARE SCREW SET INCLUDES SCREWS FOR SUMPS WITHOUT METAL INSERTS. IF SUMP HAS METAL INSERTS INSTALLED ADD (M) TO END OF PART NUMBER.

**-SPARE COVER INCLUDES SCREWS FOR ALL VARIATIONS OF SUMPS, WITH OR WITHOUT METAL INSERTS.



WG1030AVPAK2

ITEM	SPARE PART	DESCRIPTION	QTY
1	*WGX1030Z1A	SCREW SET (8" ROUND)	1.0
2	**WGX1048E	COVER, SUCTION OUTLET	1.0
2	**WG1048EW	COVER, SUCTION OUTLET	1.0
3	WGX1058C	ROUND FRAME	1.0

*-SPARE SCREW SET INCLUDES SCREWS FOR SUMPS WITHOUT METAL INSERTS. IF SUMP HAS METAL INSERTS INSTALLED ADD (M) TO END OF PART NUMBER.

**-SPARE COVER INCLUDES SCREWS FOR FRAME, WITH OR WITHOUT METAL INSERTS.

SEE NOTICE ON PAGE 3 FOR FIELD FABRICATED OUTLETS

SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE.

HAYWARD® LIMITED WARRANTY

This equipment was inspected before shipment from our plant. To original purchasers of this equipment, Hayward Pool Products, 620 Division Street, Elizabeth, New Jersey, warrants its products free from defects in materials and workmanship for a period of **ONE (1)** year from the date of purchase.

Parts which fail or become defective during the warranty period, except as a result of freezing, negligence, improper installation, use, or care, shall be repaired or replaced, at our option, without charge, within 90 days of the receipt of defective product, barring unforeseen delays.

To obtain warranty replacements or repair, defective components or parts should be returned, transportation paid, to the place of purchase, or to the nearest authorized Hayward service center. For further Hayward dealer or service center information, contact Hayward customer service department. No returns may be made directly to the factory without the express written authorization of Hayward Pool Products

To original purchasers of this equipment, Hayward Pool Products warrants its vacuum release systems to be free from defects in materials and workmanship for a period of **ONE (1)** year from the date of purchase.

Vacuum Release Systems which become defective during the warranty period, except as a result of freezing, negligence, improper installation, use or care, shall be repaired or replaced, at our option, without charge.

All other conditions and terms of the standard warranty apply.

Hayward shall not be responsible for cartage; removal and/or reinstallation labor or any other such costs incurred in obtaining warranty replacements.

The Hayward Pool Products warranty does not apply to components manufactured by others. For such products, the warranty established by the respective manufacturer will apply.

Some states do not allow a limitation on how long an implied warranty lasts, or the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

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

<p>PRODUCT REGISTRATION (Retain For Your Records)</p>
<p>DATE OF INSTALLATION _____</p>

▲ Retain this Warranty Certificate (upper portion) in a safe and convenient location for your records.

DETACH HERE: Fill out bottom portion completely and mail within 10 days of purchase/installation, OR REGISTER YOUR WARRANTY ONLINE AT WWW.HAYWARDNET.COM



Dual Suction Outlet Set

Warranty Card Registration

Register your warranty on-line at www.haywardnet.com

Please print clearly.

First Name _____ Last Name _____

Street Address _____

City _____ State _____ Zip _____

Phone Number _____ Purchase Date _____

E-mail address _____

Serial Number (10-17 Digit Number)

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Model Number _____

Pool Capacity _____ (U.S. Gallons)

Please include me on all e-mail communications regarding Hayward equipment or promotions.

Years pool has been in service
 1 year or less 2-3 4-5 6-10 11-15 >16

Purchased from _____
 Builder Retailer Pool Maintenance Internet/Catalog

Company name _____
Address _____
City _____ State _____ Zip _____
Phone _____

Type of Pool:
 Concrete/Gunite Vinyl Fiberglass Other _____

New Installation Replacement

Installation for:
 Inground Aboveground Spa

Mail to: Hayward Industries, Inc. 620 Division Street, Elizabeth, NJ 07207, Attn: Warranty Dept. or Register your warranty on-line at www.haywardnet.com

HAYWARD Pool Products
One source. Every pool.



USE ONLY HAYWARD GENUINE REPLACEMENT PARTS

Pomona, CA
Clemmons, NC

Nashville, TN
West Palm Beach, FL

North Kingstown, RI
Oakville, ON, Canada

St. Vulbas, France
Wuxi, China

www.haywardpool.com