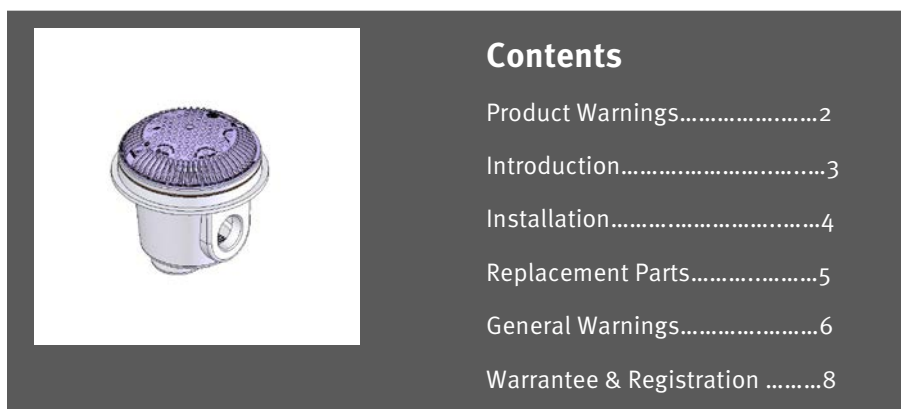




DUAL SUBMERGED SUCTION OUTLET SET

[Commonly called main drains]

Owner's Manual



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For Models: WG1030, WG1048, WG1049, WG1051, WG1052, WG 1053, WG1054, WG1153, WG1154
Covers: WG1048E, WG1048EDGR, WG1048EGR, WG1048EBLK

IMPORTANT SAFETY INSTRUCTIONS

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.

Hayward Pool Products
 620 Division Street, Elizabeth, NJ 07207
 Phone: (908) 351.5400
www.hayward.com



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

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.



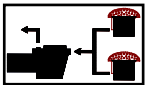
Body Suction Entrapment- A negative pressure applied to a large portion of the body or limbs can result in an entrapment.

Evisceration/ Disembowelment - 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.

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.

WARNING - To Reduce the risk of Entrapment Hazards:

- o When outlets are small enough to be blocked by a person, 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 near point to near point.
- o Dual suction fittings shall be placed in such locations and distances to avoid “dual blockage” by a user.
- o Dual suction fittings shall not be located on seating areas or on the backrest for such seating areas.
- o The maximum system flow rate shall not exceed the flow rating of as listed on Table 1.
- o Never use Pool or Spa if any suction outlet component is damaged, broken, cracked, missing, or not securely attached.
- o Replace damaged, broken, cracked, missing, or not securely attached suction outlet components immediately.
- o In addition two or more suction outlets per pump installed in accordance with latest ASME, APSP Standards and CPSC guidelines, follow all National, State, and Local codes applicable.
- o Installation of a vacuum release or vent system, which relieves entrapping suction, is recommended.



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 increase potential for suction entrapment as described above.

WARNING – Failure to keep suction outlet components clear of debris, such as leaves, dirt, hair, paper and other material can result in an increase potential for suction entrapment as described above.

WARNING – 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.

CAUTION – Components such as the filtration system, pumps and heater must be positioned so as to prevent their being used as means of access to the pool by young children. To reduce risk of injury, do not permit children to use or climb on this product. Closely supervise children at all times. Components such as the filtration system, pumps, and heaters must be positioned to prevent children from using them as a means of access to the pool.



WARNING – Hazardous Pressure. Pool and spa water circulation systems operate under hazardous pressure during start up, normal operation, and after pump shut off. Stand clear of circulation system equipment during pump start up. Failure to follow safety and operation instructions could result in violent separation of the pump housing and cover, and/or filter housing and clamp due to pressure in the system, which could cause property damage, severe personal injury, or death. Before servicing pool and spa water circulation system, all system and pump controls must be in off position and filter manual air relief valve must be in open position. Before starting system pump, all system valves must be set in a position to allow system water to return back to the pool. Do not change filter control valve position while system pump is running. Before starting system pump, fully open filter manual air relief valve. Do not close filter manual air relief valve until a steady stream of water (not air or air and water) is discharged.



WARNING – Separation Hazard. Failure to follow safety and operation instructions could result in violent separation of pump and/or filter components. Strainer cover must be properly secured to pump housing with strainer cover lock ring. Before servicing pool and spa circulation system, filters manual air relief valve must be in open position. Do not operate pool and spa circulation system if a system component is not assembled properly, damaged, or missing. Do not operate pool and spa circulation system unless filter manual air relief valve body is in locked position in filter upper body. **Never operate or test the circulation system at more than 50 PSI. Do not purge the system with compressed air.** Purging the system with compressed air can cause components to explode, with risk of severe injury or death to anyone nearby. Use only a low pressure (below 5 PSI), high volume blower when air purging the pump, filter, or piping.



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⚠ WARNING – Risk of Electric Shock. All electrical wiring **MUST** be in conformance with applicable local codes, regulations, and the National Electric Code (NEC). Hazardous voltage can shock, burn, and cause death or serious property damage. To reduce the risk of electric shock, do **NOT** use an extension cord to connect unit to electric supply. Provide a properly located electrical receptacle. Before working on any electrical equipment, turn off power supply to the equipment. To reduce the risk of electric shock replace damaged wiring immediately. Locate conduit to prevent abuse from lawn mowers, hedge trimmers and other equipment. Do **NOT** ground to a gas supply line.

⚠ WARNING – Risk of Electric Shock Failure to ground all electrical equipment can cause serious or fatal electrical shock hazard. Electrical ground all electrical equipment before connecting to electrical power supply.

⚠ WARNING – Risk of Electric Shock Failure to bond all electrical equipment to pool structure will increase risk for electrocution and could result in injury or death. To reduce the risk of electric shock, see installation instructions and consult a professional electrician on how to bond all electrical equipment. Also, contact a licensed electrician for information on local electrical codes for bonding requirements.

Notes to electrician: Use a solid copper conductor, size 8 or larger. Run a continuous wire from external bonding lug to reinforcing rod or mesh. Connect a No. 8 AWG (8.4 mm²) [No. 6 AWG (13.3 mm²) for Canada] solid copper bonding wire to the pressure wire connector provided on the electrical equipment and to all metal parts of swimming pool, spa, or hot tub, and metal piping (except gas piping), and conduit within 5 ft. (1.5 m) of inside walls of swimming pool, spa, or hot tub.

IMPORTANT - Reference NEC codes for all wiring standards including, but not limited to, grounding, bonding and other general wiring procedures.

⚠ WARNING – Risk of Electric Shock . The electrical equipment must be connected only to a supply circuit that is protected by a ground-fault circuit-interrupter (GFCI). Such a GFCI should be provided by the installer and should be tested on a routine basis. To test the GFCI, push the test button. The GFCI should interrupt power. Push reset button. Power should be restored. If the GFCI fails to operate in this manner, the GFCI is defective. If the GFCI interrupts power to the electrical equipment without the test button being pushed, a ground current is flowing, indicating the possibility of an electrical shock. Do not use this electrical equipment. Disconnect the electrical equipment and have the problem corrected by a qualified service representative before using.

⚠ CAUTION – HAYWARD® pumps are intended for use with permanently-installed pools and may be used with hot tubs and spas if so marked. Do not use with storable pools. A permanently-installed pool is constructed in or on the ground or in a building such that it cannot be readily disassembled for storage. A storable pool is constructed so that it is capable of being readily disassembled for storage and reassembled to its original integrity.

⚠ WARNING – Risk of Hyperthermia. To avoid hyperthermia the following “Safety Rules for Hot Tubs” are recommended by the U.S. Consumer Product Safety Commission.

1. Spa or hot tub water temperatures should never exceed 104°F [40°C]. A temperature of 100°F [38°C] is considered safe for a healthy adult. Special caution is suggested for young children. Prolonged immersion in hot water can induce hyperthermia.
2. Drinking of alcoholic beverages before or during spa or hot tub use can cause drowsiness, which could lead to unconsciousness and subsequently result in drowning.
3. Pregnant women beware! Soaking in water above 100°F [38°C] can cause fetal damage during the first three months of pregnancy (resulting in the birth of a brain-damaged or deformed child). Pregnant women should adhere to the 100°F [38°C] maximum rule.
4. Before entering the spa or hot tub, users should check the water temperature with an accurate thermometer; spa or hot tub thermostats may err in regulating water temperatures by as much as 4°F (2.2°C).
5. Persons taking medications, which induce drowsiness, such as tranquilizers, antihistamines or anti-coagulants, should not use spas or hot tubs.
6. If the pool/spa is used for therapy, it should be done with the advice of a physician. Always stir pool/ spa water before entering the pool/spa to mix in any hot surface layer of water that might exceed healthful temperature limits and cause injury. Do not tamper with controls, because scalding can result if safety controls are not in proper working order.
7. Persons with a medical history of heart disease, circulatory problems, diabetes or blood pressure problems should obtain a physicians advice before using spas or hot tubs.
8. Hyperthermia occurs when the internal temperature of the body reaches a level several degrees above normal body temperature of 98.6°F [37°C]. The symptoms of Hyperthermia include: drowsiness, lethargy, dizziness, fainting, and an increase in the internal temperature of the body.

The effects of Hyperthermia include:

1. Unawareness of impending danger.
2. Failure to perceive heat.
3. Failure to recognize the need to leave the spa.
4. Physical inability to exit the spa.
5. Fetal damage in pregnant women.
6. Unconsciousness resulting in danger of drowning.

SAVE THESE INSTRUCTIONS

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" [50]	40 [150]	2 1/2" [75]	90 [340]
2" [63]	63 [240]	3" [90]	138 [522]

CHART 1

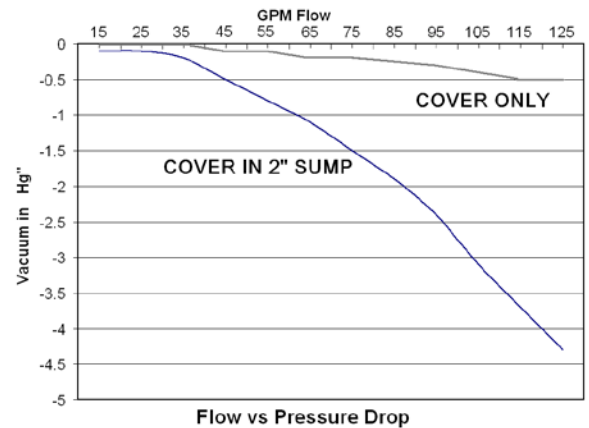


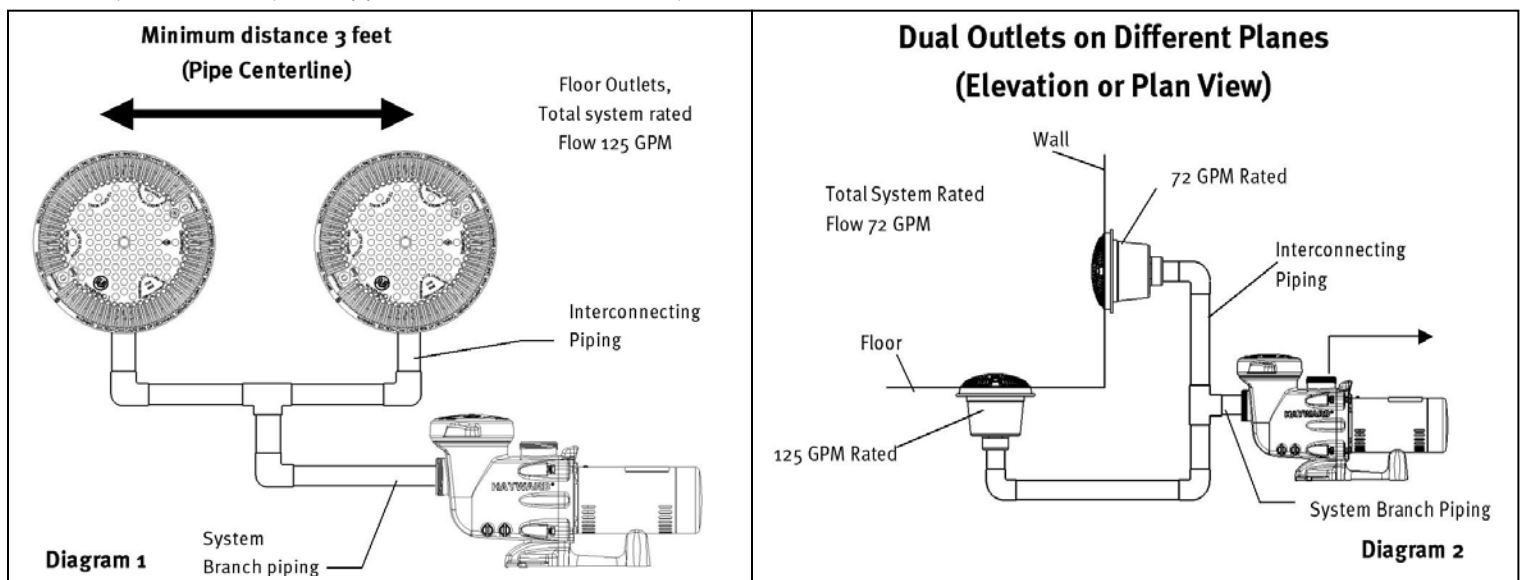
FIG 1

Note: 1" Hg = 1.13 Ft of Head

WG1048E, WG1048EGR, WG1048EDGR and WG1048EBLK Suction Outlet Covers are rated for the Floor at 125 GPM and the Wall 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) suction outlet covers are selected and mounted on the floor. 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) suction outlet cover mounted in the floor, rated at 125 GPM, and one (1) suction outlet cover mounted on the wall, rated at 72 GPM. 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.

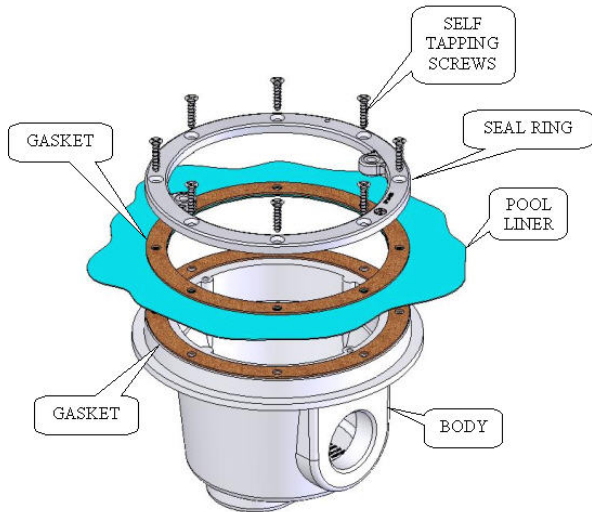




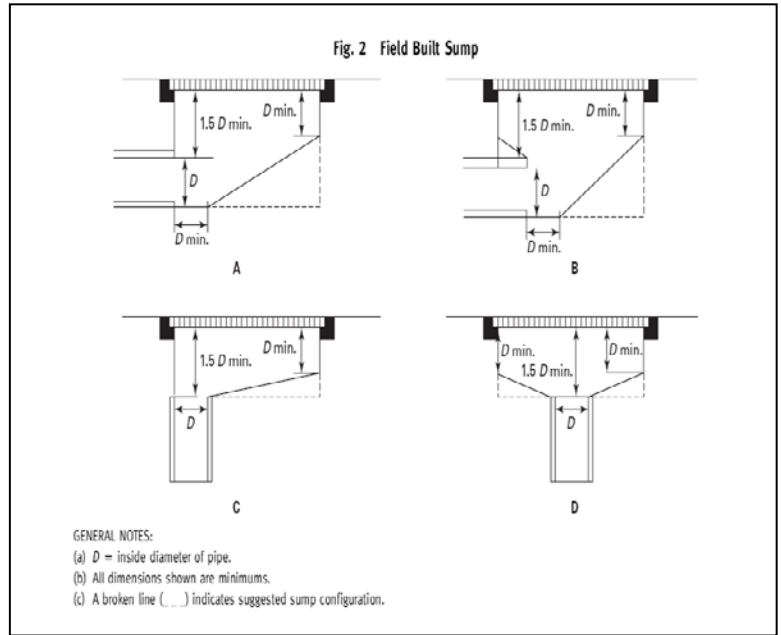
INSTALLATION INSTRUCTIONS: - Use a #2 Philips head Screwdriver.

NOTICE: When installing WG1030AVPAK2 refer to the latest version of APSP16 for the proper instructions on how to construct the field-fabricated sump. Figure 2 is an illustration of some of the requirements.

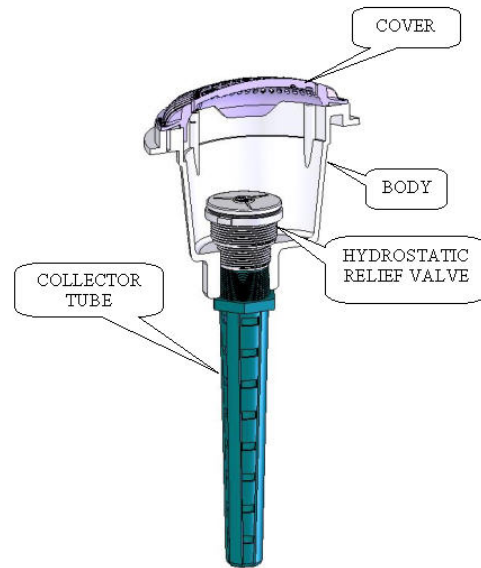
Suction outlets for a pool with a vinyl liner and for fiberglass pools are provided with a WG1048B mounting ring and two (2) gaskets. The gaskets should be placed such that they sandwich the liner or fiberglass, that is, one gasket on each side. The ring (WG1048B) is attached to the suction outlet by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



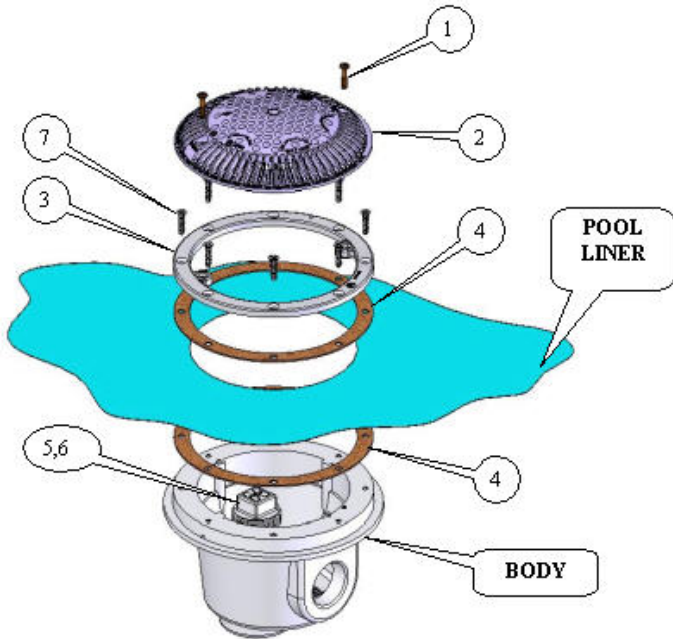
Two screws **MUST** be used to secure the cover to the suction outlet. **USE ONLY HAYWARD GENUINE REPLACEMENT PARTS INCLUDING THE SCREWS.**



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.



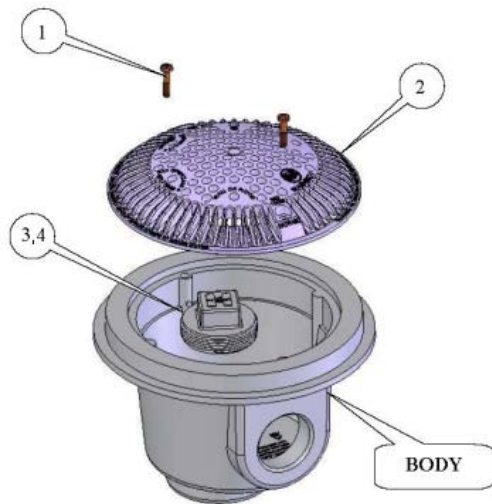
SPARE PARTS LISTS



WG1048AVPAK2 / WG1049AVPAK2
 WG1048AVDGRPAK2 / WG1049AVDGRPAK2
 WG1048AVGRPAK2 / WG1049AVGRPAK2
 WG1048AVBLKPAK2 / WG1049AVBLKPAK2

ITEM	SPARE PART	DESCRIPTION	QTY
1	WGX1030Z2A	PLASTIC TAP SCREW SET	1.0
1	WGX1030Z2AM	METAL INSERT SCREW SET	1.0
2	*WGX1048E *WGX1048EDGR *WGX1048EGR *WGX1048EBLK	WHITE COVER DARK GRAY COVER GRAY COVER BLACK COVER	1.0
3	WGX1048B WGX1048BDGR WGX1048BGR WGX1048BBLK	WHITE RING DARK GRAY RING GRAY RING BLACK RING	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

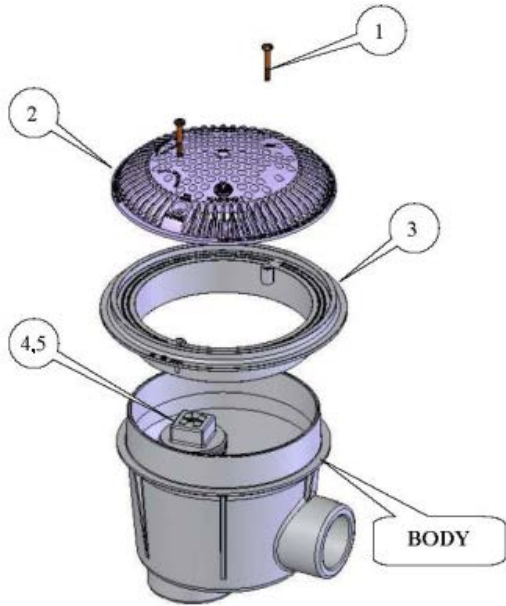
NOTES:
 All color variations of WG1048AVPAK2 / WG1049AVPAK2 have 1 1/2" NPT Plug for the bottom port.
 *-SPARE COVER INCLUDES SCREWS FOR ALL VARIATIONS OF SUMPS, WITH OR WITHOUT METAL INSERTS.



WG1051AVPAK2 / WG1052AVPAK2
 WG1053AVPAK2 / WG1054AVPAK2

ITEM	SPARE PART	DESCRIPTION	QTY
1	WGX1030Z2A	PLASTIC TAP SCREW SET	1.0
1	WGX1030Z2AM	METAL INSERT SCREW SET	1.0
2	*WGX1048E *WGX1048EDGR *WGX1048EGR *WGX1048EBLK	WHITE COVER DARK GRAY COVER GRAY COVER BLACK COVER	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 have 1 1/2" NPT Plug
 WG1053AVPAK2 / WG1054AVPAK2 have 2" NPT Plug
 *-SPARE COVER INCLUDES SCREWS FOR ALL VARIATIONS OF SUMPS, WITH OR WITHOUT METAL INSERTS.



WG1153AVPAK2 / WG1154AVPAK2
 WG1154SPAK2 / WG1154SBLKPAK2
 WG1154SDGRPAK2 / WG1154SGRPAK2

ITEM	SPARE PART	DESCRIPTION	QTY
1	WGX1030Z2A	PLASTIC TAP SCREW SET	1.0
1	WGX1030Z2AM	METAL INSERT SCREW SET	1.0
2	*WGX1048E *WGX1048EDGR *WGX1048EGR *WGX1048EBLK	WHITE COVER DARK GRAY COVER GRAY COVER BLACK COVER	1.0
3	WGX1153B WGX1153BDGR WGX1153BGR WGX1153BBLK	WHITE COLLAR DARK GRAY COLLAR GRAY COLLAR BLACK COLLAR	1.0
4	SPX1051Z1	1 1/2 IN PLASTIC PIPE PLUG	1.0
5	SPX1053Z1	2 IN PLASTIC PIPE PLUG	1.0

NOTES:
 WG1153AVPAK2 / WG1154AVPAK2 have 2" NPT Plug
 WG1154SxxPAK2 has 2" NPT Plug
 *-SPARE COVER INCLUDES SCREWS FOR ALL VARIATIONS OF SUMPS, WITH OR WITHOUT METAL INSERTS.

SEE NOTICE ON PAGE 5 FOR FIELD FABRICATED OUTLETS



WG1030AVPAK2 / WG1030AVDGRPAK2
 WG1030AVGRPAK2 / WG1030AVBLKPAK2

ITEM	SPARE PART	DESCRIPTION	QTY
1	WGX1030Z2A	PLASTIC TAP SCREW SET	1.0
1	WGX1030Z2AM	METAL INSERT SCREW SET	1.0
2	*WGX1048E *WGX1048EDGR *WGX1048EGR *WGX1048EBLK	WHITE COVER DARK GRAY COVER GRAY COVER BLACK COVER	1.0
3	WGX1058C WGX1058CDGR WGX1058CGR WGX1058CBLK	WHITE ROUND FRAME DARK GRAY FRAME GRAY FRAME BLACK FRAME	1.0

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

SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE.



HAYWARD® LIMITED WARRANTY

To Buyer, as original purchaser 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 products to be free from defects in materials and workmanship for a period of **ONE (1)** year from the date of purchase.

Filters 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.

Hayward Pool Products
620 Division Street
Elizabeth, NJ 07207

***Supersedes all previous publications.**

PRODUCT REGISTRATION

DATE OF INSTALLATION _____

(Retain For Your Records)

▲ 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 online.



DUAL SUCTION OUTLET SET

Register online at www.hayward.com

Please Print Clearly:

First Name _____ Last Name _____

Street Address _____

City _____ State _____ Zip _____

Phone Number _____ Purchase Date _____

E-Mail Address _____

Model Number _____

Pool Capacity _____ (U.S. Gallons)

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

Mail to: Hayward Pool Products, 620 Division Street, Elizabeth, NJ 07207

Attn: Warranty Dept

Or REGISTER YOUR WARRANTY ON-LINE AT WWW.HAYWARD.COM

Warranty Card Registration

Years Pool has been in service

< 1 year 1-3 4-5 6-10 11-15 >15

Purchased from _____

Builder Retailer Pool Service Internet/Catalog

Company Name _____

Address _____

City _____ State _____ Zip _____

Phone _____

Type of Pool:

Concrete/Gunite Vinyl Fiberglass

Other _____

New Installation Replacement

Installation for:

In Ground Above Ground Spa



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