

OWNER'S MANUAL



 **Polaris140/145**

IMPORTANT INFORMATION

SERIAL NUMBER

Important Information

- Always disconnect the Polaris from the pool wall when cleaning or backwashing the pool filter.
- After cleaning or backwashing, let the filtration system run for at least five minutes before re-connecting the Polaris.
- New plumbing lines should be flushed out before installing the Polaris.
- The Polaris should not be used to remove plaster dust in new pools.
- Never handle the Polaris while it is operating.
- When not in operation, always use the handle to pick up the cleaner.
- Always remove the Polaris **before swimmers enter the pool**.
- Always remove the Polaris from the pool before chemical shock treatments.
- When not in the pool, keep surface disk and steering skirt flat to avoid warping.

For customer service or support:

- Please mail Warranty Card immediately.
- For on-line support: www.polarispool.com
- To contact Polaris:

US and Canada

Customer Service
2620 Commerce Way
Vista, CA 92081-8438
1-800-822-7933

Australia

Unit 4, 19-21 Gibbes Street,
Chatswood, NSW 2067
1-300-POLARIS
ACN 080 168 092

Europe

C/Osana s/n.
(Pol.End.El Ramassar),
98520 Les Franqueses del Vallés
Barcelona, Spain
+34 93 840 25 85

Polaris 140/145 Limited Warranty

This one year limited warranty is extended to the original consumer purchaser of this Polaris 140/145 Automatic Pool Cleaner manufactured by Polaris Pool Systems, Inc., from date of manufacture of the unit as established by the serial number, or one year from date of purchase with proof of purchase, whichever is later. Polaris warrants this product, including all parts and components thereof, to be free of defects in material and workmanship. Normal replacement items such as surface disk or shoe which have been worn out by use or improper installation are not covered by this warranty.

This limited warranty does not apply if the failure is caused or contributed to by any of the following: improper handling, improper usage, improper storage, winter freezing, abuse, improper installation, unsuitable application of the unit, improper maintenance, lack of reasonable and necessary maintenance, damage in transit or during installation, or damage from repairs/alterations made or attempted by anyone other than Polaris or one of its Authorized Service Centers. In no event shall Polaris be liable for incidental or consequential damages of any nature or for damages to persons or property, including damage to vinyl liners, plaster, tile, aggregate-based and other pool surfaces, or damages resulting from the use of this product with a substandard pool circulation system or chemical imbalance.

Authorization to return a unit or part to the plant of manufacture must be obtained from the Polaris Customer Service Department. Check with your dealer for the local procedure before exercising this warranty. If further directions or instructions should be required, contact the Customer Service Department at 1-800-VAC-SWEEP (USA and Canada only) or (760) 599-9600. Be sure to insure the shipment against loss or damage in transit.

This limited warranty is valid only in the United States of America, Canada and Australia, and does not apply to Polaris 140/145 Automatic Swimming Pool Cleaners sold or installed in any other country. Polaris 140/145 Automatic Pool Cleaners sold in the United Kingdom are warranted for a period of two years from date of invoicing to the first user.

WARNING: USE OF POLARIS 140/145 IN A VINYL LINER POOL OR FIBERGLASS POOL

VINYL LINER POOL: Certain vinyl liner patterns are particularly susceptible to rapid surface wear or pattern removal caused by objects coming into contact with the vinyl surface, including pool brushes, pool toys, floats, fountains, chlorine dispensers, and automatic pool cleaners. Some vinyl liner patterns can be seriously scratched or abraded simply by rubbing the surface with a pool brush. Ink from the pattern can also rub off during the installation process or when it comes into contact with objects in the pool. To enhance the performance of the Polaris 140/145 and reduce the possibility of pattern removal, abrasion or markings, Polaris requires that the consumer use the white shoe included with the cleaner, not the gray shoe. Use of the gray shoe in conjunction with a vinyl liner pool will void Polaris' warranty. Polaris is not responsible for, and the Limited Warranty does not cover, pattern removal, abrasion or markings on vinyl liners.

FIBERGLASS POOL: The deflector ring is not for use in fiberglass pools. Polaris is not responsible for, and the Limited Warranty does not cover, damages caused by the use of the deflector ring in a fiberglass pool.

U.S. Patents: 6,112,354; D436,700; 6,473,928; 5,265,297; 5,634,229; 634,983.

Foreign Patents:2000/2708; A2000/0683; 142859; 92,777; 004019; 2,093,623; 0,148,876; 761390 and other patents pending.

Introduction

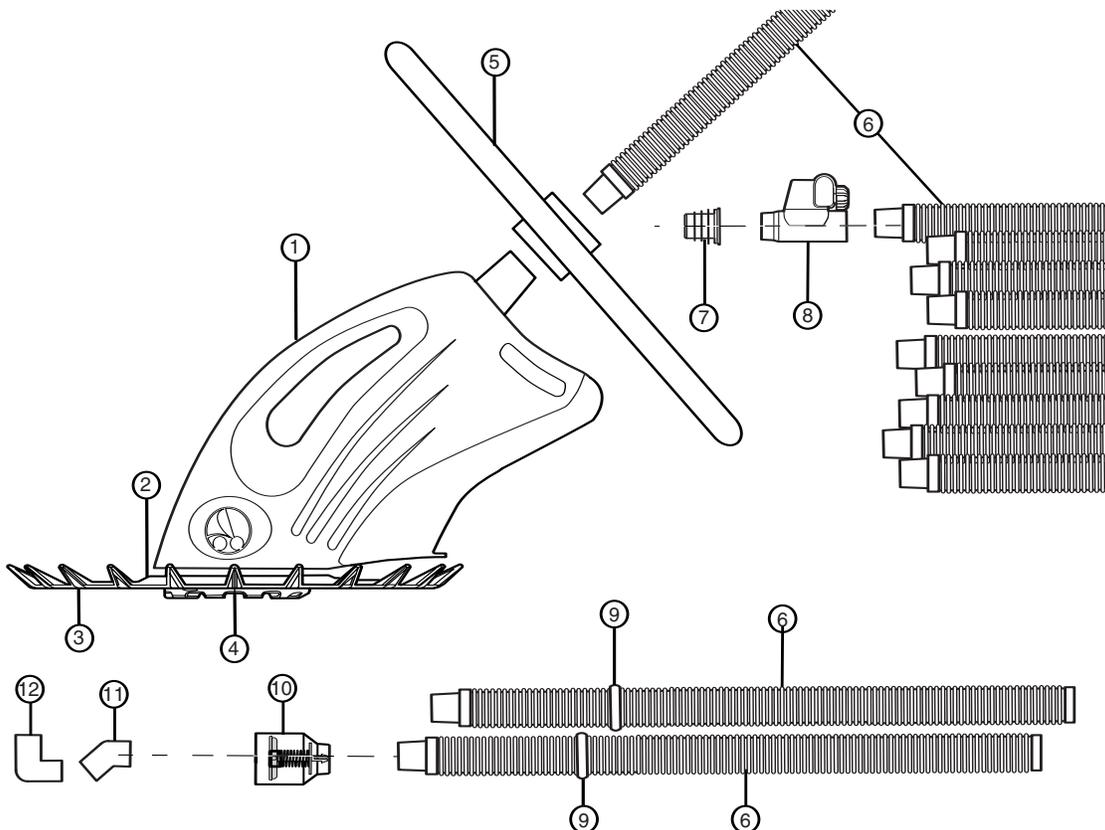
Congratulations on the purchase of your new automatic pool cleaner, and thank you for choosing Polaris. The Polaris 140/145 is designed to give you years of dependable and efficient service.

Like most mechanical devices, the Polaris requires periodic adjustments, routine maintenance, and the replacement of certain hardworking parts. Be sure to have the Polaris checked occasionally by your local Polaris dealer or authorized service center.

Always insist on genuine Polaris replacement parts. Non-Polaris parts are not made to our specifications. They may have an adverse effect on the operation of your Polaris or may even damage it.

Polaris 140/145 Complete Cleaner

- | | |
|-----------------------|----------------------|
| 1. Cleaner Body | 7. Universal Adapter |
| 2. Steering Skirt | 8. Flow Regulator |
| 3. Surface Disk | 9. Hose Weights (2) |
| 4. Shoe | 10. Flow Indicator |
| 5. Deflector Ring | 11. 45-degree Elbow |
| 6. Hose Sections (12) | 12. 90-degree Elbow |



Quick Installation Instructions

Four quick steps to install and get maximum performance from the Polaris 140/145:

- Identify type of pool connection and connect hose
- Adjust suction hose to fit pool length
- Test and adjust water flow
- Assemble the cleaner

1

Identify Type of Pool Connection and Connect Hose

The Polaris 140/145 is equipped to connect to a dedicated suction line or a pool skimmer.

A dedicated suction line is a 1-1/2" to 2" suction line, usually located 6 to 12 inches below the water's surface in the center of the longest pool wall.

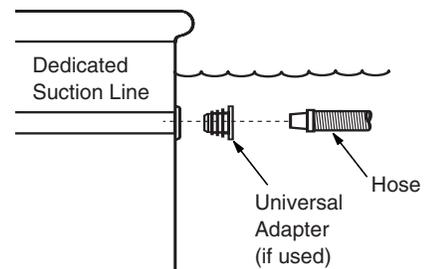
Skimmers can vary greatly depending on the design of the pool. Some of the most common skimmer setups are discussed here. For further information, contact Customer Service.

Before installation:

1. Make sure pool filter and pump basket are clean.
 - Note the pool filter pressure (pounds per square inch or psi) when filter is clean. Whenever the pressure is 5-10 psi above the noted psi, clean the filter.
2. Determine if a dedicated suction line is available for installation.
3. If no dedicated suction line is present, a skimmer installation will be used.
 - Identify location of all skimmers.
 - Use skimmer nearest the center of the longest pool wall to connect Polaris. If there are two, use the one closest to the pool equipment.
 - Block flow to main drain and all skimmers that will not be used by the Polaris. If the pool does not have a valve to regulate flow to each skimmer, block the flow at the suction line.
 - Remove skimmer cover, basket and any other valves, floats or covers.
 - If skimmer has a diverter valve to control water flow between the skimmer and main drain, adjust valve to full skimming.
 - If skimmer has two openings (suction line and main drain line), the suction line is usually farthest from the edge of the pool. Verify by checking for flow.
4. Turn off pool pump.

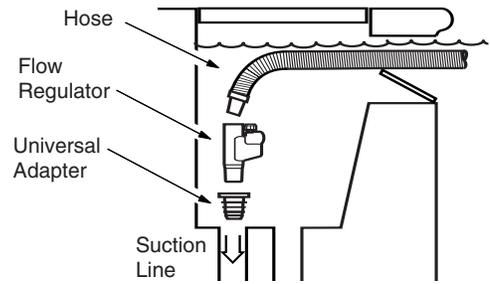
Dedicated Suction Line Connection

1. If suction line does not have a safety vacuum fitting, install the universal adapter. If a safety fitting is present, the universal adapter is not necessary.
2. Attach any hose section without weights to the dedicated suction line.
3. Skip to Connecting the Hose.

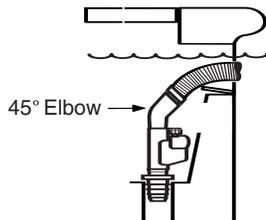


Skimmer Connection

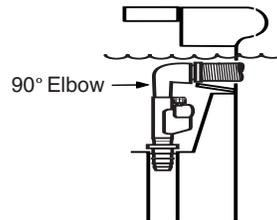
1. Push universal adapter into the suction line in the bottom of the skimmer.
2. Insert flow regulator into the universal adapter.
3. Feed any hose section without weights through the skimmer opening and attach it to the flow regulator.



Deep Skimmer



Shallow Skimmer

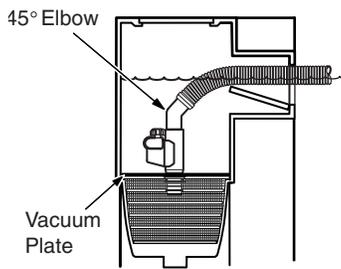


→ On some skimmers it may be necessary to install an elbow connector to keep the hose from kinking. For deep skimmers, install the 45-degree elbow between the flow regulator and the hose. For shallow skimmers, use the 90-degree elbow.

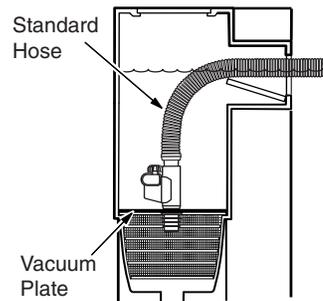
For Australian Skimmer Connections Only

Vacuum plate is not included. Contact an authorized Polaris dealer for more information.

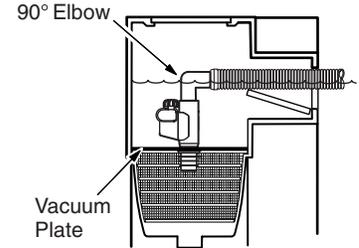
Standard Skimmer



Deep Skimmer



Shallow Skimmer



Connecting the Hose

1. Set aside the two hose sections with hose weights.
2. Assemble the remaining hose sections, pushing hose cuffs securely together.
3. Attach the two hose sections with weights.
4. Connect assembled hose to the hose section already attached to the pool.

2

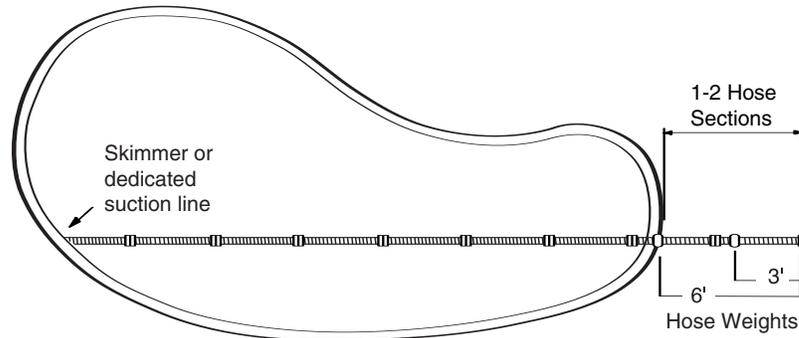
Adjust Suction Hose to Fit Pool Length

With hose connected to the pool, pull free end to the farthest point of the pool. The hose end should extend 1 to 2 hose sections past the farthest point.

Hose too long? Remove excess hose sections from the middle of the hose.

Hose too short? Buy an additional standard hose section.

After adjusting the hose length, position the hose weights as shown.



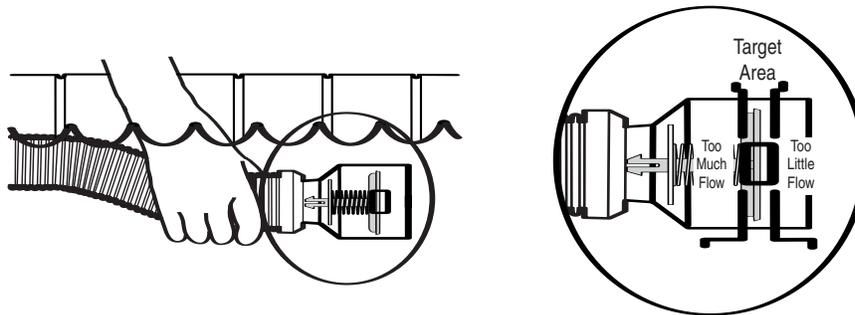
Note: For pools less than 5 feet deep, remove one hose weight and position a single weight 4 feet from the Polaris.

3

Test and Adjust Water Flow

For proper operation, the Polaris 140/145 must receive the correct amount of water flow. Check the pool's available water flow with the flow indicator.

1. Detach hose and flow regulator, if used. Fill hose completely with water. Reattach flow regulator and hose.
2. Connect flow indicator to the hose.
3. Holding flow indicator underwater, turn on the pump.
4. The target area on the flow indicator represents the correct water flow range.



If too little flow:

- Verify that pool filter and pump basket are clean.
- Verify that all suction lines are closed except the one utilized by the flow indicator.
- Check hose cuffs and connections for leaks that cause loss of flow.

- For dedicated suction line installations, adjust valve in equipment area that controls water flow to suction line until indicator is within the target area. Mark valves for reference.
- For skimmer installations, turn knob on flow regulator clockwise until indicator is within the target area. If the indicator does not move into the target area, remove the flow regulator and connect hose directly.

If too much flow:

- For dedicated suction line installations, adjust valve in equipment area that controls water flow to suction line until the indicator is within the target area.
 - For skimmer installations, turn knob on flow regulator counterclockwise until indicator is within target area. If knob is turned all the way, open the main drain (or a second skimmer) until indicator is within target area.
5. Turn off pump. Hold hose underwater and remove flow indicator.

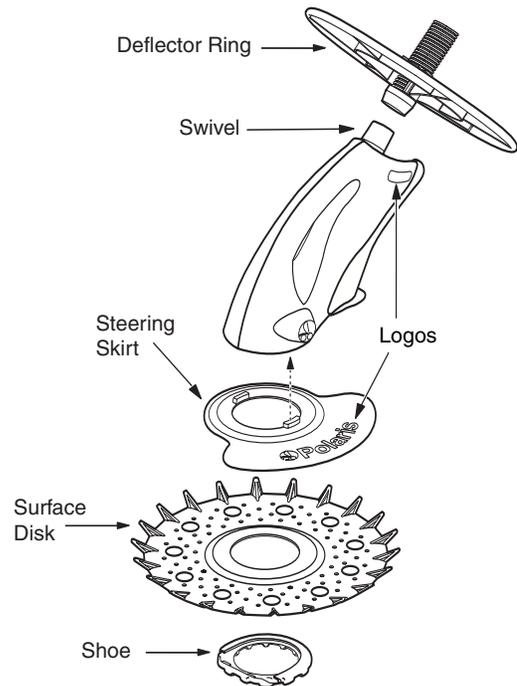
4

Assemble the Cleaner

1. Install steering skirt onto bottom of cleaner, lining up tab on skirt with notch on cleaner. Logos on steering skirt and cleaner should be on the same side.
2. Pull the surface disk onto the cleaner.
3. **Select the white shoe for vinyl liner, fiberglass and tile pools and the gray shoe for all other installations.** Install shoe by sliding it onto cleaner bottom and pulling lip onto cleaner to lock.
4. Slide deflector ring onto hose and secure cuff. To reposition deflector ring, remove it from the hose; do not slide it.

Do not use the deflector ring in a fiberglass pool.

5. Fill hose completely with water.
6. Submerge Polaris and remove any air in the cleaner by rotating it in all directions.
7. With the hose and pool cleaner underwater, connect hose to swivel.
8. Turn on pool pump.



Operation and Routine Maintenance

The Polaris 140/145 cycles on/off with the pool filtration pump vacuuming and cleaning all surfaces randomly throughout the pool. The climbing ability of the Polaris is dependent on the pool's shape and available water flow. It will climb better in pools without sharp angles or curves in the transition from the pool floor to the pool wall.

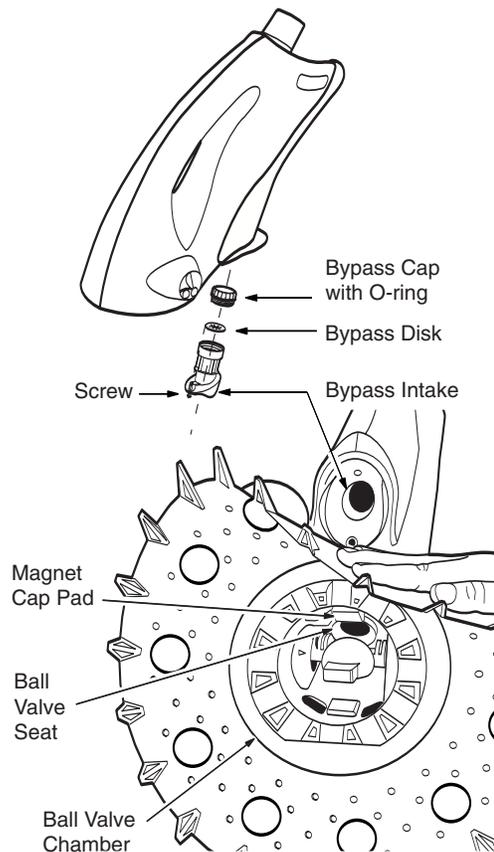
The **shoe** provides traction and protects the Polaris and pool surface. Replace it before nubs on the bottom are worn flat.

The **surface disk** enables the cleaner to climb and remove small debris. Replace when outer edge is thin or worn.

The **bypass intake** regulates the water flow and allows collection of larger debris. Keep intake clear of debris. Replace bypass disk and o-ring when worn. To access, pull back surface disk, loosen screw on bypass intake and pull out bypass intake assembly. Unscrew bypass cap.

Replace **ball valve seat** if torn, cracked or heavily worn

To avoid magnet damage from debris build-up, routinely wipe **magnet cap pad** clean and replace when worn.



Flow Regulator

For the Polaris to operate at optimum efficiency, routinely check the inlet in the flow regulator and clear away debris.

Emptying Pump Basket

Empty the pump basket regularly. The more debris in the pool, the more often the pump basket should be cleared.

Backwashing the Pool Filter

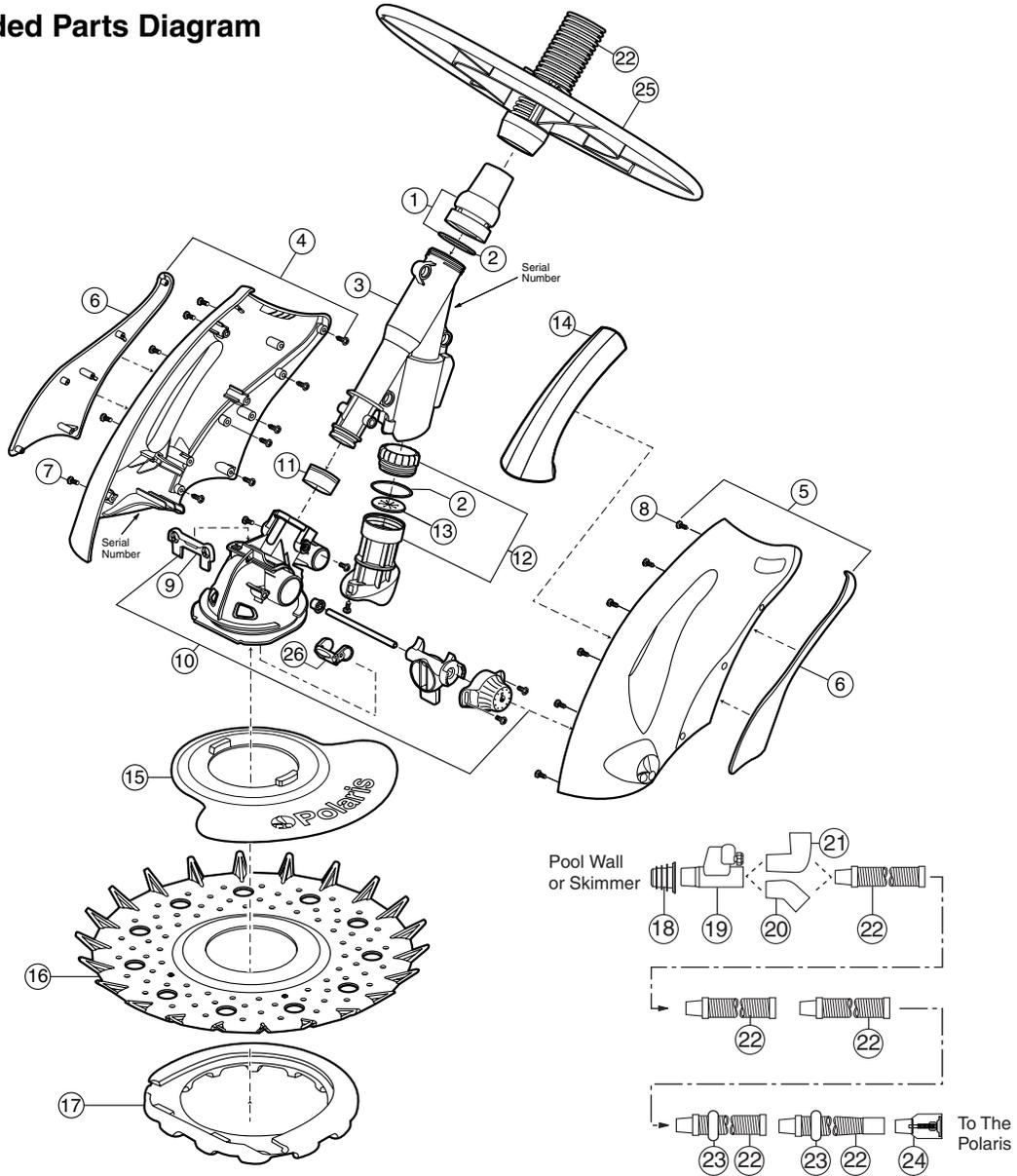
Always disconnect the Polaris from the pool wall before cleaning or backwashing the pool filter. After cleaning or backwashing, let the filtration system run for at least five minutes to flush out the suction lines before re-connecting the Polaris.

Storage and Winterizing

Never store the Polaris in direct sunlight. When storing for the winter, drain out all the water (freeze damage is not covered by the warranty). Remove all connectors and adapters from the dedicated suction line or skimmer. Store surface disk and steering skirt flat, and hose sections disconnected, drained and straight.

Polaris140/145

Exploded Parts Diagram



No.	Part	Description	Qty	No.	Part	Description	Qty
1	8-300	Swivel Assembly	1	16	8-6010	Surface Disk*	1
2	8-4610	O-ring, Bypass Intake and Swivel	2	17	8-6005	Shoe for gunite pools, gray*	1
3	8-5005	Frame	1	17	8-6007	Shoe for vinyl pools, white*	1
4	8-2025	140 Housing Assembly, Left Side	1	18	5-7100	Universal Adapter	1
4	8-2045	145 Housing Assembly, Left Side	1	19	5-7000	Flow Regulator	1
5	8-2020	140 Housing Assembly, Right Side	1	20	5-7250	Elbow, 45-degree	1
5	8-2040	145 Housing Assembly, Right Side	1	21	5-7200	Elbow, 90-degree	1
6	8-2058	Housing Guards, Left/Right Side	1	22	5-5570	Single, Standard Hose	12
7	9-100-5117	Screw, 8-32 x 3/8" SS Pan Head	10	23	5-7300	Hose Weight	2
8	8-2061	Screw, #6 x 3/8" SS Pan Head, Self Tap	12	24	8-7050	Flow Indicator	1
9	8-4030	Ball Valve Stop Pad	1	25	8-6050	Deflector Ring	1
10	8-4005	Ball Valve Chamber Assembly	1	26	8-4075	Magnet Cap Pad	1
11	8-5010	Ball Valve Seat	1				
12	8-4500	Bypass Intake Assembly	1				
13	8-4605	Bypass Disk	1				
14	8-2030	Flotation	1				
15	8-6020	Steering Skirt	1				

* Wear items not covered by warranty.

Troubleshooting

If the Polaris cleaner displays the following actions, adjustments may be necessary to restore performance. Refer to the exploded parts diagram for part numbers indicated in parentheses.

Action: Polaris 140/145 gets stuck on steps or other pool obstacles.

- Solution:
1. Using flow indicator (#24), verify proper water flow to cleaner. Adjust to high end of target range.
 2. Reposition eyeball fittings on return lines so flow moves hose and cleaner away from obstacles.
 3. Reposition deflector ring or add another deflector ring (part #8-6052) if multiple obstacles exist.
 4. Rotate the steering skirt (#15) to opposite side of cleaner.
 5. Verify that hose is adjusted to the proper length and hose weights (#23) are positioned correctly.
 6. Remove unnecessary pool hardware, or install a Ladder Guard (part #G21).

Action: Polaris 140/145 is sluggish, running with less power than normal.

- Solution:
1. Using the flow indicator (#24), verify proper flow to cleaner.
 2. Clean pool filter and pump basket.
 3. Turn cleaner upside down, clear debris from ball valve chamber and bypass intake.
 4. Check shoe (#17) and ball valve seat (#11) for signs of wear. Replace if necessary.
 5. Remove bypass intake to check bypass disk (#13) and

o-ring (#2) for damage or excessive wear. Replace if necessary.

Action: Polaris 140/145 has stopped operating.

- Solution:
1. Using flow indicator (#24), verify proper water flow to cleaner.
 2. Turn cleaner upside down, clear debris from ball valve chamber and bypass intake.
 3. Check shoe (#17) and ball valve seat (#11) for signs of wear. Replace if necessary.
 4. Remove bypass intake to check bypass disk (#13) and o-ring (#2) for damage or excessive wear. Replace if necessary.

Action: Polaris 140/145 appears to get stuck repeatedly at the water line.

- Solution:
1. Using flow indicator (#24), verify proper water flow to cleaner. Adjust flow to the lower end of target range.
 2. Verify the flow regulator (#19) is clear of debris.
 3. Position hose weight (#23) farther away from cleaner or add additional hose weight.

Action: Polaris 140/145 does not travel to all areas of the pool.

- Solution:**
1. Using the flow indicator (#24), verify proper flow to cleaner.
 2. Verify that hose is adjusted to proper length and weights (#23) are positioned correctly
 3. Rotate steering skirt (#15) to opposite side of the cleaner.
 4. Verify that swivel (#1) turns freely.
 5. Reposition eyeball fittings installed on return lines so flow moves hose and cleaner to all areas of the pool.

Action: Hose becomes tangled.

- Solution:**
1. Using flow indicator (#24), verify proper flow to cleaner.
 2. Verify that swivel (#1) turns freely.
 3. If dedicated suction line installation, attach 45° elbow (#20), angle it upward and attach hose.

Action: Air bubbles come out of the return line during operation.

- Solution:**
1. Using flow indicator (#24), verify proper flow to cleaner.
 2. Verify that hose connections are secure. Check hoses for leaks.
 3. Verify that skimmer connections and adapters are secure.

Troubleshooting Worksheet

If these solutions do not result in improved performance, contact the Polaris dealer who sold you the cleaner or call Customer Service.

In order to provide faster and more convenient service, please have the following information available at the time of your call or when taking the Polaris in for service.

1. **Serial #:** _____

2. **Is the feed hose the proper length?**

Yes No

How many hose sections are used? _____
How many hose sections extend past the end of the pool? _____

3. **Is the swivel rotating freely?**

Yes No

4. **What is the pool filter pressure?**

Now? _____psi
Just after cleaning? _____psi

When was the pool filter last cleaned?

- 1-2 months ago
 3-5 months ago
 Over 6 months ago

5. **Is the cleaner receiving proper water flow?**

Yes No

3. **Are the bypass intake and ball valve chamber clear of debris?**

Yes No