

OWNER'S MANUAL



 **Polaris340**

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.
- Always remove the Polaris **before swimmers enter the pool**.
- Except when checking the wheel RPM, do not handle the Polaris while it is operating
- Never pick up the Polaris by the hose.
- Always remove the Polaris from the pool before chemical shock treatments.

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 340 Limited Warranty

This one year limited warranty is extended to the original consumer purchaser of this Polaris 340 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 tires, bottom plate, belts or bearings which have been worn out by use or improper installation are not covered by this warranty. The Polaris 340 frame is warranted for a period of five years.

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 it does not apply to Polaris 340 Automatic Swimming Pool Cleaners sold or installed in any other country. Polaris 340 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 340 IN A 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. Polaris is not responsible for, and the Limited Warranty does not cover, pattern removal, abrasion or markings on vinyl liners.

U.S. Patents: 6,094,764; D418,640; 6,220,636; 6,314,983.

Foreign Patents: 2,082,492; 992184; 138,576; 89,333; 79260; A99/0370; F99/0372; 0,145,287; 756881; 2000/0498; and other patents pending.

Introduction

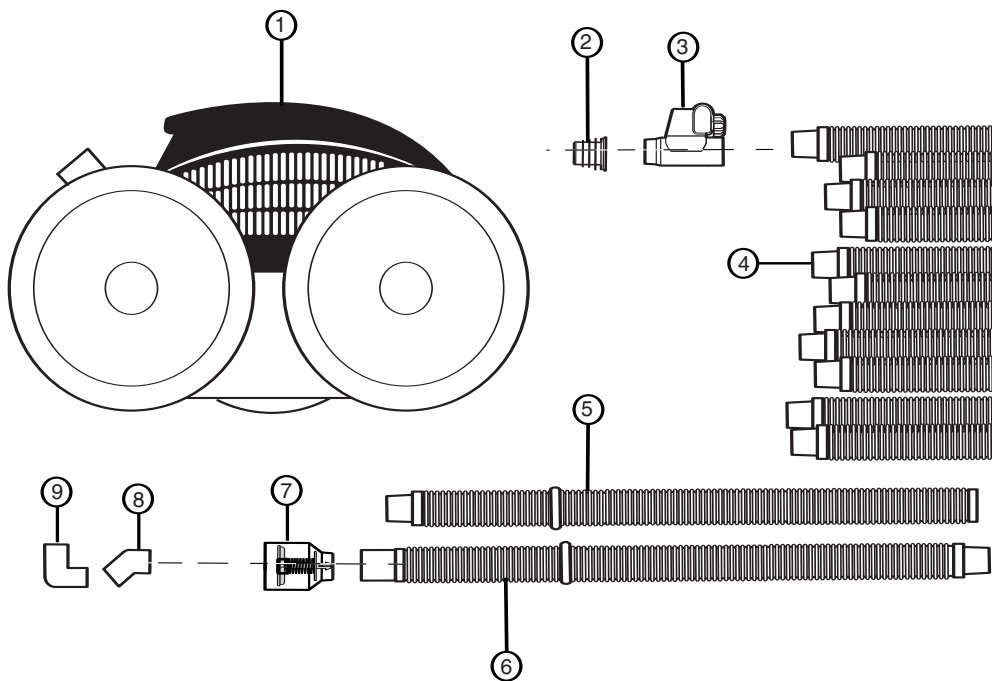
Congratulations on the purchase of your new automatic pool cleaner, and thank you for choosing Polaris. The Polaris 340 is designed to give you years of dependable and efficient service.

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 340 Complete Cleaner

- | | |
|-----------------------------------|--------------------|
| 1. Cleaner Body | 7. Flow Indicator |
| 2. Universal Adapter | 8. 45-degree Elbow |
| 3. Flow Regulator | 9. 90-degree Elbow |
| 4. Standard Hose Sections (11) | |
| 5. Standard Hose with Hose Weight | |
| 6. Leader Hose with Hose Weight | |



Quick Installation Instructions

Four quick steps to install and get maximum performance from the Polaris 340:

- Identify type of pool connection and connect hose
- Adjust suction hose to fit pool length
- Test and adjust water flow
- Check for proper wheel RPM (revolutions per minute)

1

Identify Type of Pool Connection and Connect Hose

The Polaris 340 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.

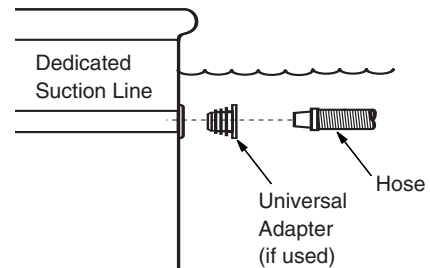
Skimmers can vary greatly depending on the design of the pool. Some of the most common skimmer setups are discussed here. For further information, contact Customer Service.

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.

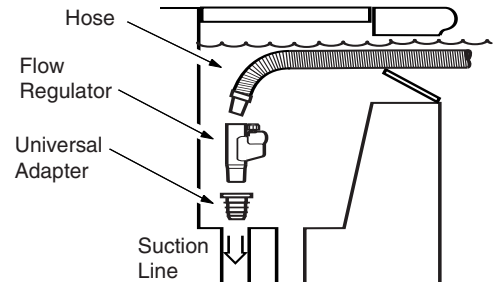
Dedicated Suction Line Connection

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**.

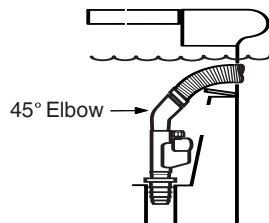


Skimmer Connection

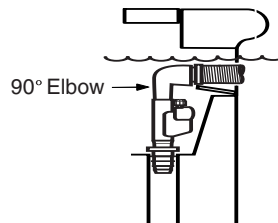
1. Push universal adapter into the suction line in the bottom of the skimmer.
2. Insert flow regulator into the universal adapter.
3. Feed any hose section without weights through the skimmer opening and attach it to the flow regulator.



Deep Skimmer



Shallow Skimmer

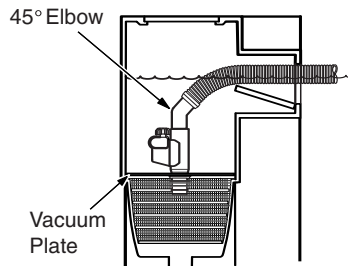


On some skimmers it may be necessary to install an elbow connector to keep the hose from kinking. For deep skimmers, install the 45-degree elbow between the flow regulator and the hose. For shallow skimmers, use the 90-degree elbow.

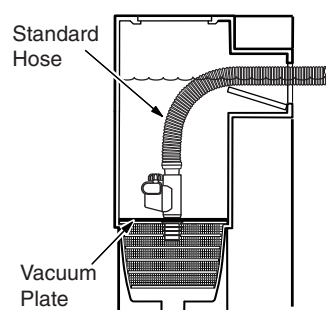
For Australian Skimmer Connections Only

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

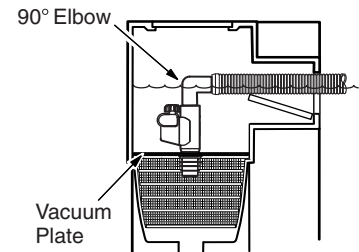
Standard Skimmer



Deep Skimmer



Shallow Skimmer



Connecting the Hose

1. Set aside the leader hose with hose weight and standard hose with hose weight.
2. Connect remaining hose sections pushing cuffs securely together.
3. Attach standard hose with hose weight to end of hose.
4. Attach leader hose to same end. The leader hose connects to the Polaris.
5. Connect assembled hose to the hose section already attached to the pool.

2

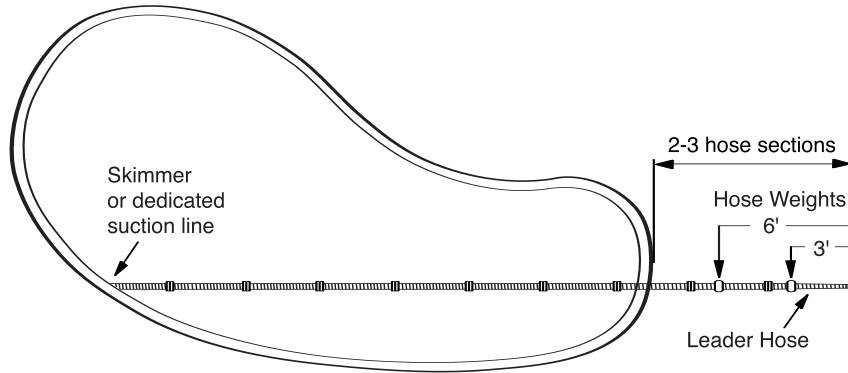
Adjust Suction Hose to Fit Pool Length

With the hose attached to the pool, extend the hose to the farthest point of the pool. The hose end should reach 2 to 3 hose sections past the farthest point.

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

Hose too short? Buy additional standard hose sections.

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



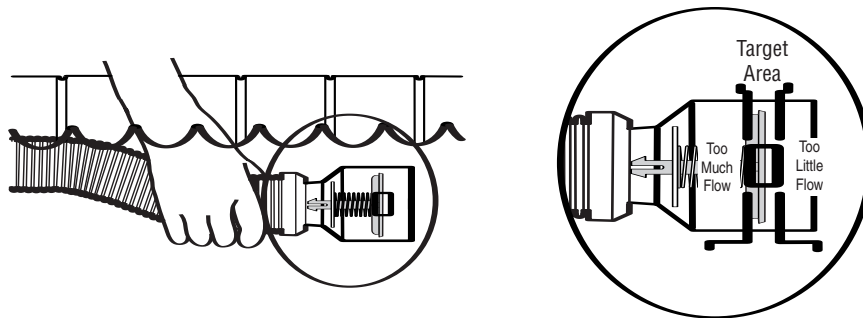
Note: For pools less than 5 feet deep, remove weight from leader hose and position weight on standard hose four feet from Polaris.

3

Test and Adjust Water Flow

For proper operation, the Polaris 340 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 leader 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 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.

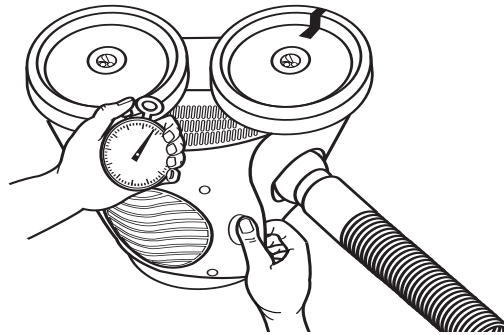
5. Turn off pump. Hold hose underwater and remove flow indicator.

4

Check for Proper Wheel RPM

Before operating the Polaris, check for proper wheel revolutions per minute (RPM). For maximum efficiency, the RPM should be between 30 to 34.

1. Mark the outer edge of a tire.
2. Submerge Polaris and remove any air in the cleaner. Connect the cleaner to the hose keeping it completely submerged.
3. Holding cleaner under water, turn pump on and count wheel revolutions for one minute.
4. Optimum speed should be between 30 and 34 RPM.



If count is less than 30 RPM:

- Verify that all suction lines are closed except for the one utilized by the Polaris.
- Verify that pool filter and pump basket are clean.
- Check hose cuffs and connections for leaks that cause loss of flow.
- For dedicated suction line installations, adjust valve in equipment area until proper wheel RPM is reached. Mark valve settings for reference.
- For skimmer installations, turn knob on flow regulator clockwise until proper wheel RPM is reached.

If count is more than 34 RPM:

- For dedicated suction line installations, adjust valve in the equipment area until the correct wheel RPM is reached.
- For skimmer installations, turn knob on the flow regulator counterclockwise until the proper wheel RPM is reached. If knob is turned all the way and the RPM is still above 34, open main drain (or a second skimmer) until correct wheel RPM is reached.

Operation and Routine Maintenance

The Polaris 340 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.

Approximately every 4-1/2 minutes the Polaris 340 completes one cleaning cycle. During a cycle, the Polaris travels both forward and backwards, and pivots to the right and left. The bypass door releases the cleaner from obstacles and the fan creates down force to increase cleaner stability.

Bottom Plate

The bottom plate helps the Polaris travel over sharp corners or high spots. Periodically check the bottom plate for wear and replace as necessary.

Propeller

Keep propeller free of debris. To access the propeller area, remove the top housing assembly.

Flow Regulator

Periodically check the inlet in the flow regulator and clear away debris.

Emptying the Pump Basket

For the Polaris to operate at optimum efficiency, empty the pump basket regularly. The more debris in the pool, the more often the pump basket should be cleared.

Backwashing the Pool Filter

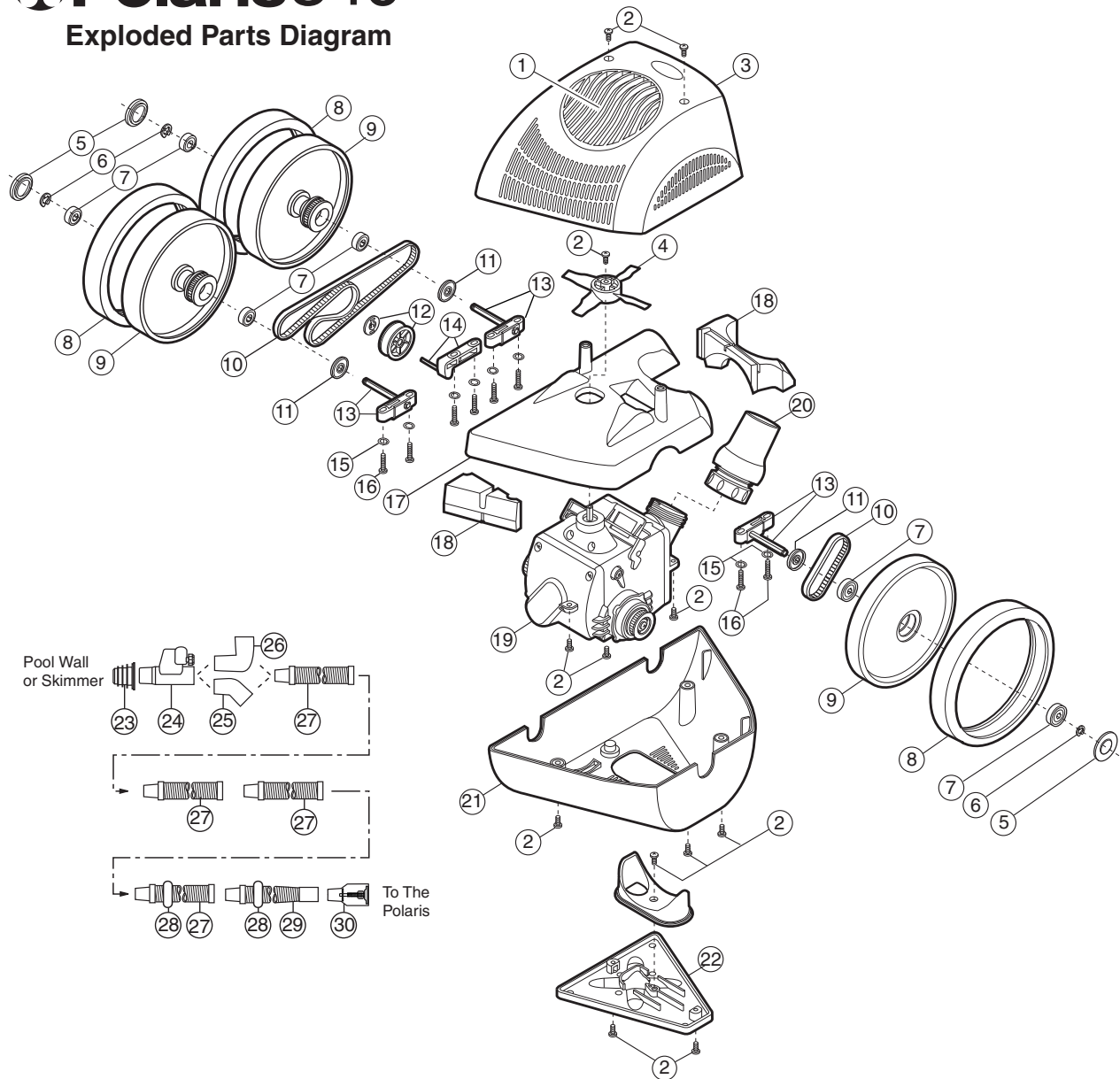
Always disconnect the Polaris from the pool wall before cleaning or backwashing the pool filter. After cleaning or backwashing, let the filtration system run for at least five minutes to flush out the suction lines before re-connecting the Polaris.

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.

Polaris340

Exploded Parts Diagram



No.	Part#	Description	Qty	No.	Part#	Description	Qty
1	5-2005	Propeller Grid	1	18	5-2010	Flotation, Top, Front and Rear	1
2	9-100-5117	Screw, 8-32 x 3/8" SS Pan Head	12	19	5-5000	Power Module Assembly	1
3	5-2000	Top Housing Assembly	1	20	5-5060	Swivel Assembly	1
4	5-6000	Propeller	1	21	5-2050	Bottom Housing	1
5	9-100-1114	Hub Cap	3	22	5-3000	Bottom Plate*	1
6	9-100-5107	E-clip, Stainless Steel	7	23	5-7100	Universal Adapter	1
7	9-100-1108	Ball Bearing*	6	24	5-7000	Flow Regulator	1
8	5-4005	Tire, MaxTrax®*	3	25	5-7250	Elbow, 45-degree	1
9	5-4000	Wheel Assembly	3	26	5-7200	Elbow, 90-degree	1
10	5-5200	Belt Kit, Small and Large*	1	27	5-5570	Single, Standard Hose	12
11	9-100-7011	Shield, Bearing*	3	28	5-7300	Hose Weight	2
12	5-1020	Pulley/Retainer Clip	1	29	5-5580	Leader Hose	1
13	5-4500	Axle Block Assembly	3	30	5-7050	Flow Indicator	1
14	5-1010	Belt Tensioner Block	1				
15	9-100-5130	Lock Washer, Axle Block	8				
16	9-100-5115	Screw, 8-32 x 3/4" SS Pan Head	8				
17	5-1000	Frame	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 references.

Action: Polaris hangs up on steps or other obstacles longer than 5 minutes.

- Solution:
1. Check the wheel RPM.
 2. Verify that the cleaner is cycling. The wheels should turn backwards approximately every 1-1/2 minutes.
 3. Remove unnecessary pool hardware or install a Ladder Guard Kit (order part #G21 from a Polaris dealer).

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

- Solution:
1. Check the wheel RPM.
 2. Clean the pool filter and pump basket.
 3. Remove the top housing and make sure propeller is free of debris.
 4. Remove bottom plate and verify that the intake area is free of debris.

Action: The Polaris repeatedly gets stuck at the water line.

- Solution:
1. Check the wheel RPM.
 2. Verify that the flow regulator is free of debris.
 3. Reposition the hose weights to 6 feet and 12 feet from the cleaner.

Action: Polaris "wheelies" or turns severely to one side.

- Solution:
1. Check the wheel RPM.
 2. Make sure the swivel turns freely.
 3. Remove top housing and make sure propeller is free of debris.
 4. Check hose weights for correct positioning.

Action: Hose becomes tangled.

- Solution:
1. Check the wheel RPM.
 2. Verify that the hose is adjusted to the proper length and the weights are positioned correctly.
 3. Verify that the cleaner is cycling. The wheels should turn backwards approximately every 1-1/2 minutes.
 4. If installed on a dedicated suction line, attach the 45-degree elbow, angle it upward and attach the hose.

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

- Solution:
1. Check the wheel RPM.
 2. Verify that hose connections are secure.
 3. Verify that all skimmer connections and adapters are secure.

Action: Polaris is not moving.

- Solution:
1. Remove bottom plate and verify that the intake area is free of debris.
 2. Remove top housing and make sure propeller is free of debris.
 3. Check for proper water flow.
If low:
 - a. Clean the pool filter and pump basket.
 - b. Verify that the skimmer or dedicated suction line connection is secure.
 - c. Adjust the flow regulator or the suction line valve in the equipment area. Recheck the wheel RPM once you have obtained proper flow.
 4. Remove lower housing to ensure that belts are on and properly tensioned.

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. **Wheel RPM:** _____

3. **Is the Polaris cycling properly?**

(The wheels should turn backwards approximately every 1-1/2 minutes.)

Yes No

4. **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? _____

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

Yes No

6. **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



EC DECLARATION OF CONFORMITY

Manufacturer The Products are manufactured and marked with **CE** by: _____

Polaris Pool Systems, Inc. ("Polaris")
2620 Commerce Way
Vista, CA 92081-8438 USA
Telephone: 760-599-9600
Facsimile: 760-597-1239
E-mail: polaris@polarispool.com

Products The Products Declared herein are: _____
Polaris 340

Directives The Products are in conformity with the following Directives: _____
Machinery Safety Directive 98/37/EC

Specifications The Products also comply with the following international and harmonized
domestic standards: _____
None. There are no known standards for swimming pool cleaning equipment.

Declaration _____

I hereby declare that the equipment named above has been designed to comply with the relevant sections of the above referenced specifications. The unit complies with all essential requirements of the directives. I declare under sole responsibility that the foregoing information is true and correct.

David Peterson

David Peterson, Vice President Engineering

12-Sep-02

Date



USA: 2620 Commerce Way, Vista, CA 92081-8438 • 760-599-9600 • 1-800-VAC-SWEEP (USA and Canada only)

Australia: Unit 4, 19-21 Gibbes Street, Chatswood, NSW 2067 • 02-9882-1111 • ACN 080 168 092

Europe: C/Osona s/n. (Pol. Ind. El Ramassar), 08520 Les Franqueses del Vallés, Barcelona, Spain • +34 93 840 25 85

www.polarispool.com