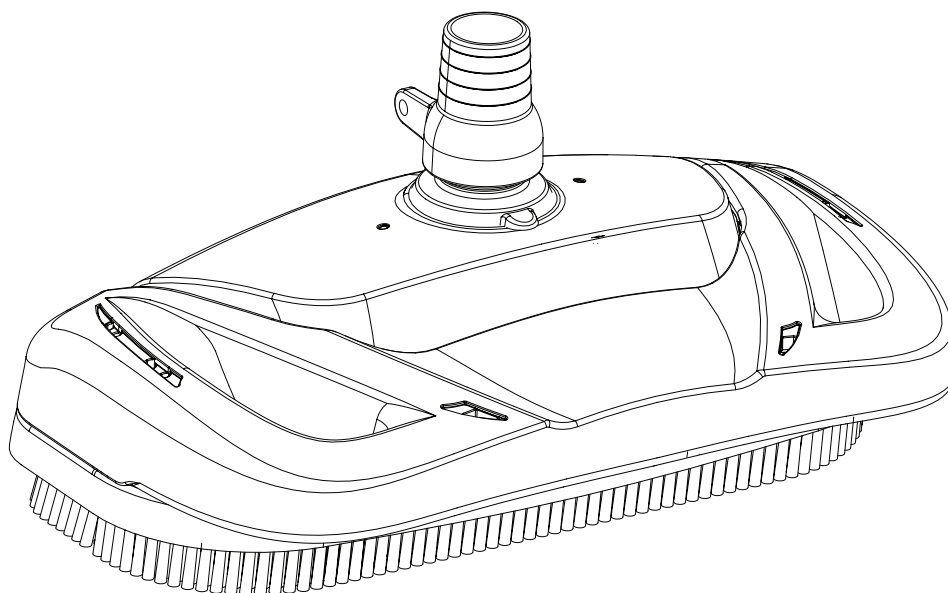




DORADO™ AUTOMATIC POOL CLEANER



INSTALLATION AND USER'S GUIDE

IMPORTANT SAFETY INSTRUCTIONS
READ AND FOLLOW ALL INSTRUCTIONS
SAVE THESE INSTRUCTIONS

CUSTOMER SERVICE / TECHNICAL SUPPORT

If you have questions about ordering Pentair Aquatic Systems replacement parts, and pool products, please use the following contact information:

Customer Service (8 A.M. to 4:30 P.M. — Eastern and Pacific Times)

Phone: (800) 831-7133

Fax: (800) 284-4151

Web site

visit www.pentairpool.com or www.staritepool.com to find more information about Pentair products.

Technical Support

Sanford, North Carolina (8 A.M. to 4:30 P.M. ET)

Phone: (919) 566-8000

Fax: (919) 566-8920

Moorpark, California (8 A.M. to 4:30 P.M. PT)

Phone: (805) 553-5000 (Ext. 5591)

Fax: (805) 553-5515

TABLE OF CONTENTS

Important Warning and Safety Instructions	ii	Skimmer Vac Plates	9
Pool Preparation	1	Skimmer Vac Plate Vacuum Control Adjusters	9
Preparation the Pool	1	Maintenance	10
Cleaner Components	1	Hose Storage	10
Hose Assembly	1	Disassembly	11
Assembling the Cleaner	2	Reassembly	12
Attaching Swivel Assembly to Cleaner Head	2	Illustrated Parts List	13
Assembling the Hose	2	Troubleshooting	14
Installation	3		
Standard Installation	3		
Optional Installation	5		
Operation	7		
Cleaner Operation and Movement	7		
Clicking sound	7		
Movement around the pool	7		
Picks Up “Big Stuff”	7		
Fine-tuning Valves and Connections	8		
Valves and Vacuum Adjustments	8		
Too Much Vacuum?	8		
Not Enough Vacuum?	8		
In-line Leaf Canisters	9		
Skimmer Connection	9		

IMPORTANT WARNING AND SAFETY INSTRUCTIONS



Important Notice:

Attention Installer: This guide contains important information about the installation, operation and safe use of this product. This information should be given to the owner and/or operator of this equipment after installation of the pool cleaner.


Attention User: This manual contains important information that will help you in operating and maintaining this pool cleaner. Please retain it for future reference. Consult Pentair with any questions regarding this equipment.

WARNING

Before installing this product, read and follow all warning notices and instructions which are included.

Failure to follow safety warnings and instructions can result in severe injury, death, or property damage. Call (800) 831-7133 for additional free copies of these instructions.

Consumer Information and Safety

This pool cleaner is designed and manufactured to provide many years of safe and reliable service when installed, operated and maintained according to the information in this manual. Throughout the manual, safety warnings and cautions are identified by the “” symbol. Be sure to read and comply with all of the warnings and cautions.

WARNING

HAZARDOUS SUCTION.

Do not play with cleaner or hose or apply to body. Can trap and tear hair or body parts. Hose can trip or entangle swimmers which could result in drowning.



WARNING

SUCTION ENTRAPMENT, INJURY, AND DROWNING HAZARD. If your pool has a dedicated suction port (“vac port”) for vacuuming or for an automatic pool cleaner, it must be covered when not in use. A spring loaded safety cover (a “vac port fitting”) is included with your cleaner. Install it on the suction port to prevent entrapment and injury. If the cover provided does not fit, purchase one that does from your local pool store and install it instead. The cover should conform to IAPMO SPS4-99A.



WARNING

Stop pump before attempting to clean unit. Do not allow swimmers in pool while pool cleaner is operating.

WARNING

To reduce the risk of injury, do not let children use or play with pool cleaner.

WARNING

Do not allow swimmers in the pool while pool cleaner is operating. Hose can trip or entangle swimmers which could result in drowning.

CAUTION

Moving parts may injure hands or fingers. Stop pump before attempting to clean out pool cleaner head.



General Installation Information

Pre-Installation Check List

Before installing your cleaner, review and understand all warnings and safety information in this guide. Failure to follow these instructions or improper installation of the cleaner can result in damage to the pool finish or the vinyl liner. Most cleaners are not designed to traverse from floor to wall when the pool cove is 90°. There may be other structures installed in the pool that the cleaner cannot navigate, BE AWARE and supervise the cleaner during unique conditions. Pentair Water Pool and Spa, Inc. disclaims any liability for repairs or replacement to any of these structures or components of the customer’s pool.

Before installing the cleaner in a vinyl liner pool:

Check liner closely for signs of deterioration or damage from age, chemicals, pool wall damage, etc. If any damage is found, have a qualified pool professional make all the necessary repairs. Also, if there are stones, roots, etc., under the liner, remove them before installing the cleaner.

Before installing the cleaner in a gunite pool or a pool that is partially or completely tiled:

Make sure pool finish is in proper condition as staining, etching, cracking or delaminating may worsen.

Repair loose tiles and tighten any loose light rings.

Before installing the cleaner, clean your filter system:

Make sure you have cleaned the filter, including backwashing, rinsing, and emptying all baskets. A clean system is necessary for proper cleaner operation and coverage.

Before installing the cleaner, understand cleaner coverage:

The cleaner is designed to rid your pool of debris in approximately 4-6 hours. Less time could be needed, depending on the pool size. The cleaner was not designed to automatically clean steps or swimouts, or to work under a solar cover. The cleaner may get stuck in these areas which can result in damage to the pool finish or vinyl liner. Pentair Water Pool and Spa, Inc. disclaims any liability for repairs or replacement to any of these structures or components of the consumer’s pool. It was also not designed to do initial cleanup for a new pool or when opening your pool for the season.

AFTER installing the cleaner, make sure the cleaner is operating correctly:

The cleaner may need some minor adjustments to make sure it is operating properly so there is no damage to the pool finish. Certain vinyl liner patterns are particularly susceptible to surface wear, pattern removal, ink rubbing off of, or serious scratches to the pattern caused by objects coming into contact with the vinyl surface, including automatic pool cleaners. Pentair Water Pool and Spa, Inc. is not responsible for any pattern removal, abrasions or markings on vinyl liners. Periodically inspect the cleaner components and the cleaner performance to ensure it is operating as designed. Replace and/or repair any worn or damaged components. Failure to follow instructions or improper installation of the cleaner may result in damage to the cleaner, pool finish or the vinyl liner.

Warnings and safety instructions for Pentair Water Pool and Spa pumps and other related products are available at:
<http://www.pentairpool.com/pool-owner/safety-warnings/> or call (800) 831-7133 for additional free copies of these instructions.

Please refer to <http://www.pentairpool.com/pool-owner/safetywarnings/> for warning and safety instructions related to this product.

IMPORTANT WARNING AND SAFETY INSTRUCTIONS

Disclaimer of Liability About your Pool and Cleaner

There are a multitude of factors that contribute to the life of your pool. The pool cleaner is a very passive product that will have no impact on pool life.

Please be aware that over time, deterioration, discoloration and brittleness of any pool finish can be caused separately by, or in combination with, age, an imbalance in pool water chemistry, improper installation and other factors. Pressure side pool cleaners will not remove or cause wear on “good” pool plaster. In fact, the opposite is true—pool plaster will eventually cause wear on the cleaner.

The same situation holds true for vinyl-lined in-ground swimming pools, because vinyl liners are also affected by the environment and factors such as pool water chemistry, sunlight and the pool’s surroundings. Therefore over time, vinyl can become brittle and weak. In addition, vinyl-lined pools are affected by the workmanship, composition and installation of the liner and the workmanship and quality of construction of the supporting walls and pool base. These are all factors which can contribute to liner failure. The existence of any of these type of conditions in your pool is not caused by the use or operation of the pool cleaner. The manufacturer disclaims any liability for repairs or replacement to any of these structures or components of the customer’s pool.

The pool owner must assume all responsibility for the condition and maintenance of the pool’s surface, water and deck.

Before the cleaner is installed, please take a moment to record the serial number. This number is located on your warranty card and on the back of the cleaner near the rear jets. You will be asked for this number when you contact our Technical Support Department.

SERIAL # _____

SAVE THESE INSTRUCTIONS

POOL PREPARATION

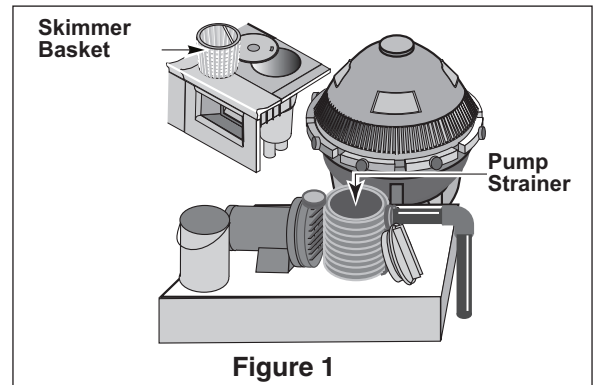
Congratulations on your purchase of the Dorado™ Automatic Pool Cleaner! Nothing quite compares to the Dorado's ability to make dirt disappear. With its 15" cleaning path and unique bristle drive, your Dorado automatic pool cleaner will deliver fast, complete coverage of your pool. First, however you'll have to install the cleaner and perhaps make some minor adjustments.

This manual covers the steps needed to install, adjust and maintain your new cleaner.

Preparing Your Pool

Before you assemble and install your cleaner, you should make sure that your pool is clean and free of algae. If necessary, make the following preparations before proceeding.

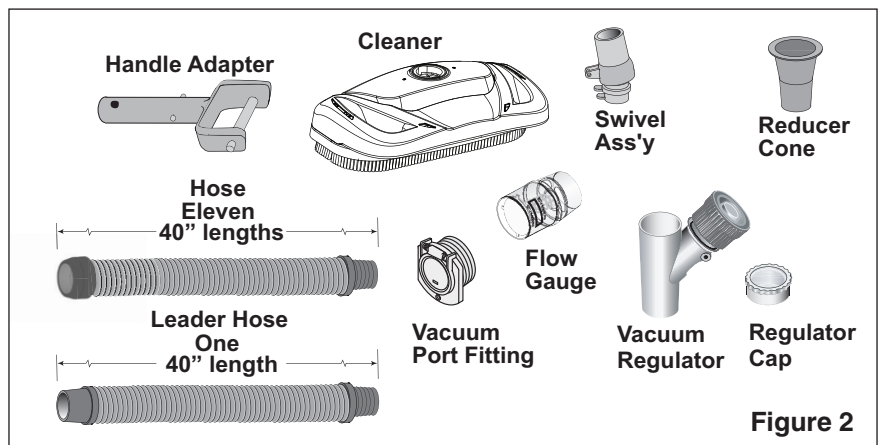
- Chemically balance the pool water
- Brush the pool and let the debris settle
- Hand vacuum the pool thoroughly
- Clean the filter and pump strainer basket (**Figure 1**)



Cleaner Components

Remove the cleaner and all of its parts from the box and check to make sure that all components were included (**Figure 2**).

- Cleaner
- Swivel Assembly
- Handle Adapter
- Reducer Cone
- Leader Hose: One 40" (1.02 m) length
- Hose: Eleven 40" (1.02 m) lengths
- Vacuum Regulator
- Regulator Cap
- Vacuum Port Fitting
- Flow Gauge

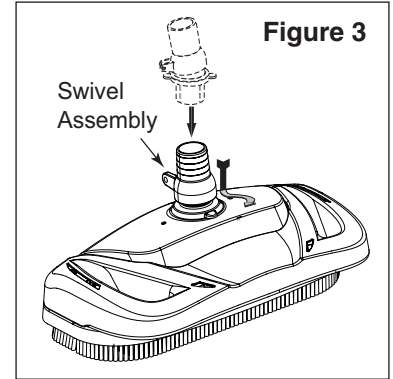


ASSEMBLING THE CLEANER

Attaching Swivel Assembly to Cleaner Head

Installing the swivel assembly is a snap. Just insert it into the Dorado™ Automatic Pool Cleaner body and give it a quarter turn (**Figure 3**).

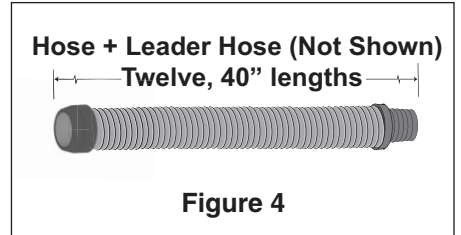
If you attach a unidapt handle to the swivel for manual vacuuming, be sure it is the special, floating unidapt handle provided with the cleaner (Replacement Part No. GW9019). Use of a different unidapt handle will hinder the cleaner's performance.



Assembling the Hose

The cleaner includes twelve sections of hose, each 40 in. (1.02 m) in length (**Figure 4**). **Do not cut the hose lengths.** You will need to connect these 40" sections of hose to create a combined hose length that is at least 4 ft. (1.22 m) longer than the distance from your suction source (whether skimmer or dedicated suction line) to the farthest point in the pool (**Figure 5**).

Connect the hoses by twisting and pushing the female ends onto the male ends after wetting the ends in the pool (**Figure 6**).



A special "leader" hose section is designed to connect to the cleaner's swivel assembly and therefore has a larger hose cuff than the other hose lengths (Figures 7 and 8). Failure to use this leader hose section to attach the hose to the cleaner's swivel assembly will hinder your cleaner's performance. If additional hose is needed, use only hoses from your Pentair Water Pool and Spa dealer (order replacement part No. 41200-0131). Use of another manufacturer's hose will hinder cleaner coverage.

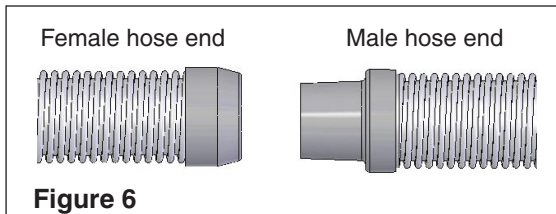
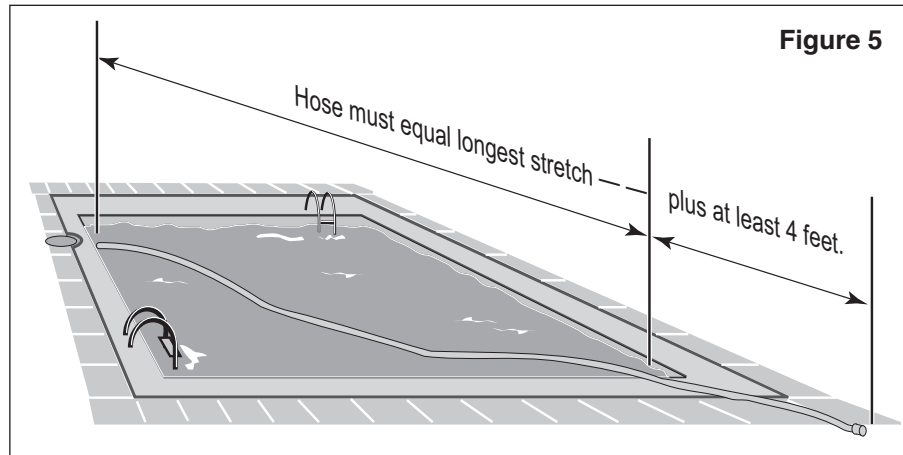


Figure 6

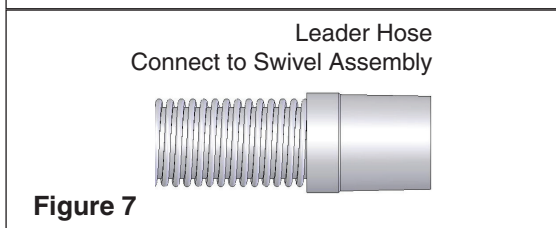


Figure 7

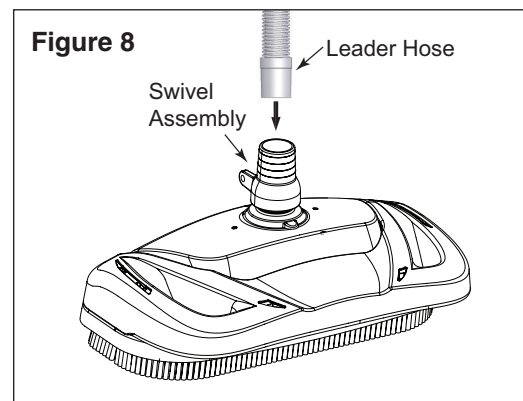


Figure 8

INSTALLATION

This section describes how to install the Dorado™ Automatic Pool Cleaner. The cleaner is designed to work in a wide variety of swimming pools. Both the standard in-skimmer installation and optional vac port installation are covered below. If your pool configuration is unlike any of the examples, contact your Pentair Water Pool and Spa dealer for assistance, or call Pentair at 1-800-831-7133.

Standard Installation

For pools with one skimmer, using the vacuum regulator

The manufacturer recommends the **Standard Installation** through the pool's skimmer (**Figure 8**). The advantage of this installation is its use of the vacuum regulator to balance the water flow between the skimmer and the pool cleaner. The vacuum regulator can be adjusted to changes in the amount of water flow to provide the cleaner with the power necessary to ensure proper cleaning performance, and the manufacturer strongly recommends its use for maximum safety and performance.

1. Turn the pool pump off

2. Adjust valves for vacuuming

Adjust the pump valves (if your system has valves) to direct all suction to the skimmer. Close the main drain and all suction lines, except the line from the skimmer to which the cleaner will be connected.

3. Remove the skimmer basket from the skimmer

4. Install vacuum regulator

⚠ WARNING Hazardous suction. Can cause entrapment with severe personal injury or drowning.

Use the vacuum regulator in conjunction with your pool cleaner system at all times. The vacuum regulator has an adjustment knob. If suction is too high, the knob is turned counterclockwise to decrease the suction. If the suction is too low, the knob is turned clockwise to increase the suction.

The vacuum regulator must be installed in conjunction with the reducer cone (**Figure 9**). The reducer cone is required to make most skimmer connections. It will keep the hose and vacuum regulator in place once the filter system is stopped.

To install the vacuum regulator, insert the vacuum regulator and reducer cone in the skimmer. Attach the end of the hose to the regulator (**Figure 10**).

Make sure the vacuum regulator is submerged at all times. If not, the pump will suck air through the vacuum regulator and lose prime. This could damage the pump.

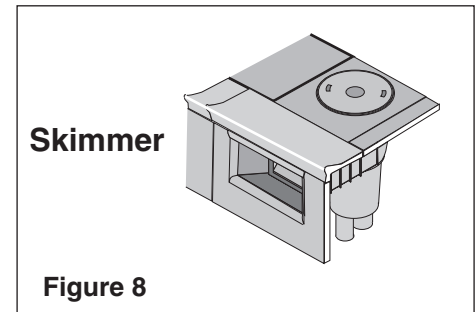


Figure 8

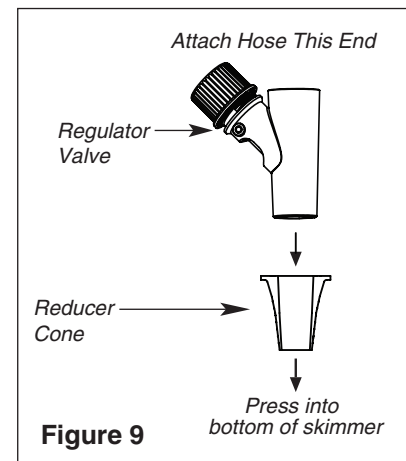


Figure 9

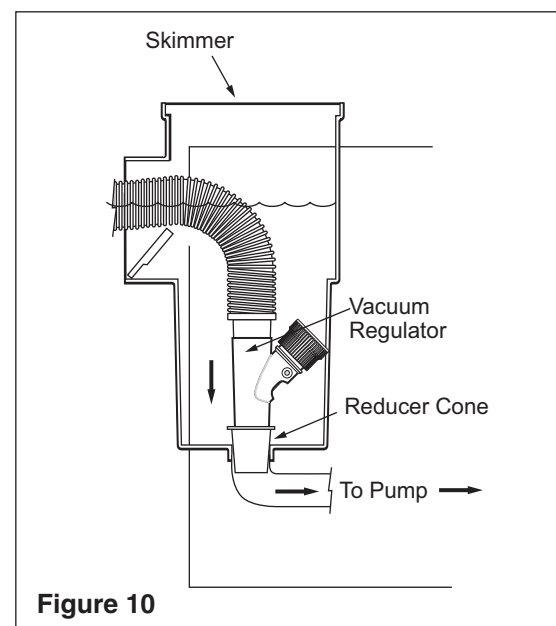


Figure 10

Standard Installation (Continued)

5. Check Flow

With the main drain closed, and one end of the hose attached to the regulator installed in the skimmer, insert the flow gauge into the other end of the hose. Keep the hose and flow gauge underwater. Turn on the pump. With the pump running, adjust the vacuum regulator (in your skimmer) until the indicator on the flow gauge is between minimum and maximum flow (**Figure 11**). Remove the flow gauge and proceed to step 6.

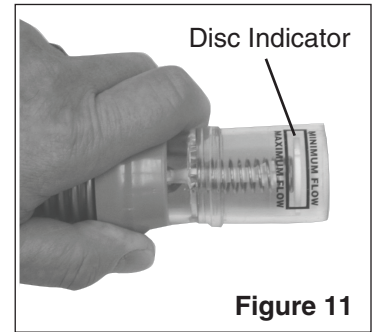


Figure 11

6. Connect Hose to the Cleaner's Swivel Assembly

Connect the large hose cuff (Figure 12) of the leader hose to the swivel assembly on the Dorado™ Automatic Pool Cleaner head (Figure 12). Push the cleaner into the pool and let it sink to the bottom (Figure 13).

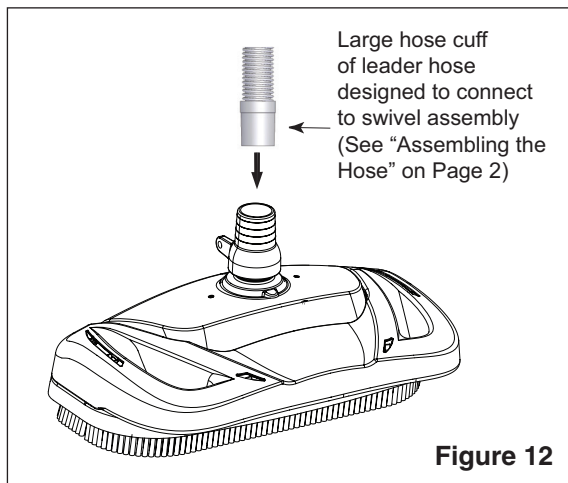


Figure 12

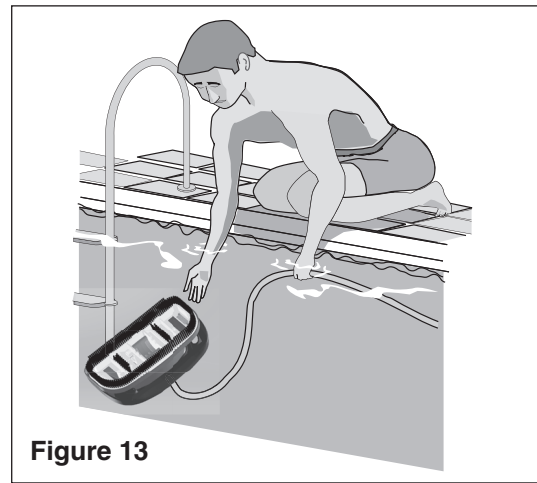


Figure 13

7. Turn the pool pump on

After completing the installation, turn the pool pump on and allow it to run for a couple of minutes to ensure that all air cycles out of the system.

Optional Installation

Vac Port Installation with Vacuum Regulator in Skimmer

If your pool has a vac port (**Figure 14**), you can install Dorado™ Automatic Pool Cleaner using the Optional Installation.

1. Turn the pool pump off

2. Adjust valves for vacuuming

Adjust the pump valves (if your system has valves) to direct all suction to the dedicated vacuum line and the skimmer. Close the main drain and all suction lines, except the line from the dedicated vacuum line to which the cleaner will be connected, and the skimmer where the vacuum regulator will be installed.

3. Install vac port door fitting

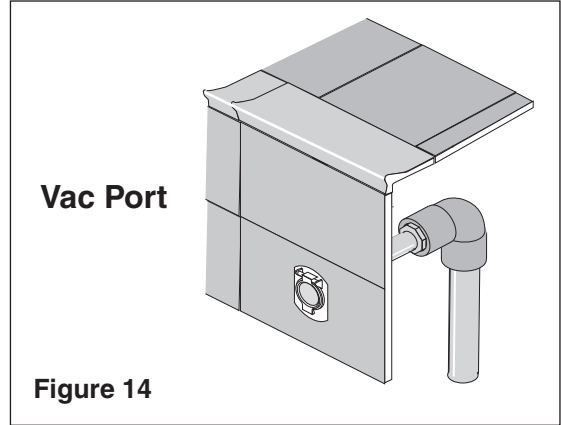


Figure 14



WARNING Suction entrapment, injury, and drowning hazard. If your pool has a dedicated suction port (“vac port”) for vacuuming or for an automatic pool cleaner, it must be covered when not in use.

A spring loaded safety cover (the “vac port fitting”) is included with this pool cleaner (**Figure 15**). Install it on the dedicated vacuum line to prevent entrapment and injury. For details please refer to the Vac Port Instruction sheet included with your vac port fitting. To install the included vac port fitting:

1. Screw the vac port fitting into the dedicated vacuum line opening.
2. Orient the vac port fitting so the arrow on the door points up.
3. Secure the cover by tightening the allen-screw below the door, into the dedicated vacuum line fitting.

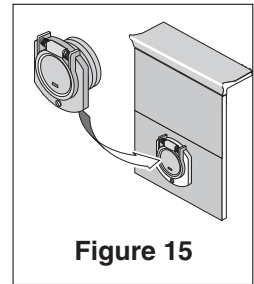


Figure 15

4. Remove the skimmer basket from the skimmer

5. Install vacuum regulator



WARNING Hazardous suction. Can cause entrapment with severe personal injury or drowning.

To install the vacuum regulator, insert the vacuum regulator and reducer cone in the skimmer (**Figure 16**).

To prevent water from flowing through the top of the vacuum regulator, attach the regulator cap to the vacuum regulator (**Figure 17**). Attach the end of the hose to the vac port fitting installed in the dedicated vacuum line (**Figure 16**).

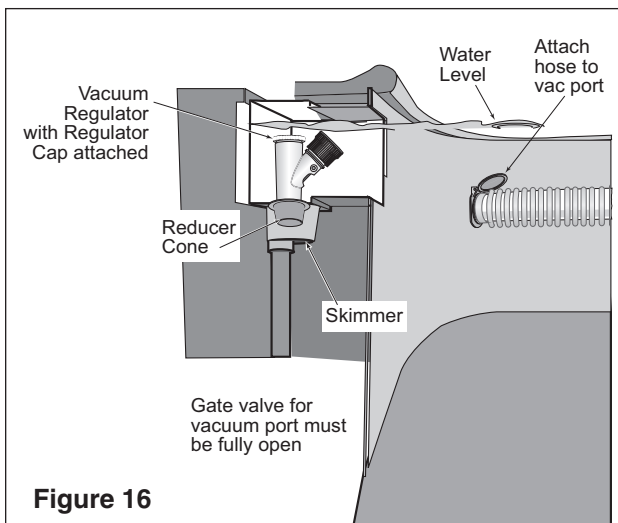


Figure 16

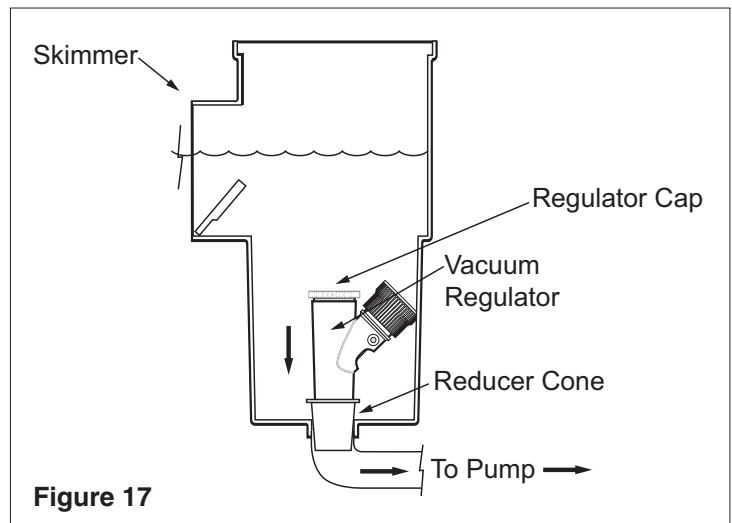
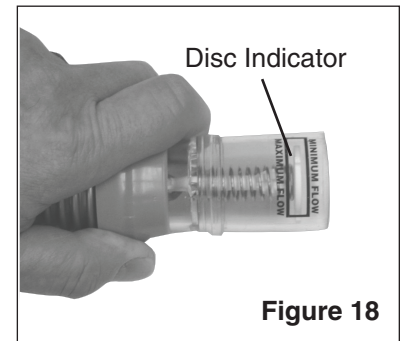


Figure 17

Optional Installation (Continued)

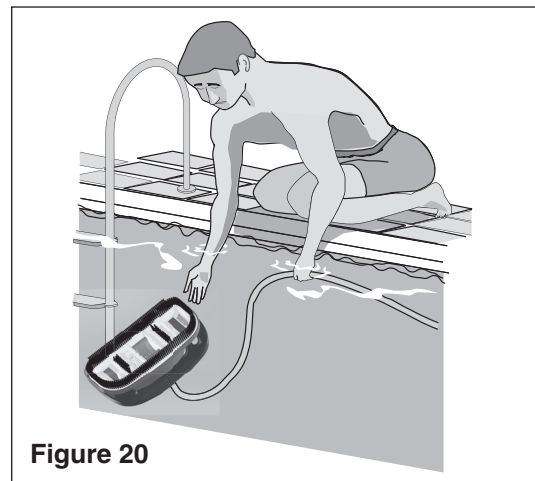
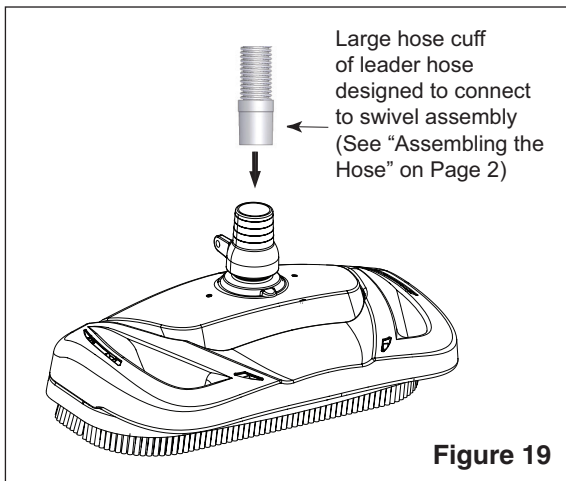
6. Check Flow

With the main drain closed, and one end of the hose attached to the vac port fitting installed in the dedicated vacuum line, insert the flow gauge into the other end of the hose. Keep the hose and flow gauge underwater. Turn on the pump. With the pump running, adjust the vacuum regulator (in your skimmer) until the indicator on the flow gauge is between minimum and maximum flow (**Figure 18**). Remove the flow gauge and proceed to step 7.



7. Connect Hose to the Cleaner's Swivel Assembly

Connect the large hose cuff (**Figure 19**) of the leader hose to the swivel assembly on the Dorado™ Automatic Pool Cleaner head. Push the cleaner into the pool and let it sink to the bottom (**Figure 20**).



8. Turn the pool pump on

After completing the installation, turn the pool pump on and allow it to run for a couple of minutes to ensure that all air cycles out of the system.

This section contains information describing the movement and operation of your Dorado™ Automatic Pool Cleaner, as well as tips for “fine-tuning” your pool’s valves and connections to optimize the cleaner’s cleaning ability.

Cleaner Operation and Movement

Clicking sound

This is the sound of the oscillator moving back and forth in the oscillator chamber. The best speed for it is about 500 oscillations per minute. The vibration created by the oscillator moves the bristles and the cleaner. If the oscillator is running too fast, the cleaner will have a tendency to climb up the pool wall past the waterline, or “walk out of the pool” and suck air. Reduce the speed by adjusting the vacuum regulator in the skimmer.

Movement around the pool

Random motion – The cleaner will visit most spots in the pool within a six (6) hour period. It is not specifically programmed, and cannot see the dirt you are seeing. It is a random motion pattern.

The cleaner was designed to spend most of its time in the deep end, where most of the floor and wall area exists. During a six (6) hour period, the cleaner will visit the shallow end a few times.

Rotating motion – The cleaner will rise up on one side and pivot a few times per minute. This is normal and provides the following:

1. Allows leaves that are being pushed or dragged along to be sucked up into the vacuum chamber.
2. Allows the cleaner to:
 - Change direction
 - Get out of corners
 - Get away from ladders
 - Submerge below pool water level
 - Get off of domed main drain covers

Picks up “big stuff”

The cleaner will pick up some debris so large that it may jam. Simply stop the pump and remove the debris from the oscillator, or the swivel assembly.

Fine-tuning Valves and Connections



WARNING Pool pump suction is hazardous and can cause entrapment with severe personal injury or drowning. Use vacuum regulator (see instructions below) in pool cleaner system at all times.

NOTICE: Each pool's hydraulic system and vacuum connections are different. Be sure you have installed the vacuum regulator before you "fine-tune" the system. This not only regulates vacuum, but also acts as a safety device.



WARNING Suction entrapment, injury, and drowning hazard. If your pool has a dedicated suction port ("vac port") for vacuuming or for an automatic pool cleaner, it must be covered when not in use. A spring loaded safety cover (the "Vac Port Fitting") is included with this pool cleaner. Install it on the vac port to prevent entrapment and injury. For details please refer to the Vac Port Fitting instruction sheet included with your cleaner.

For the novice pool owner for whom pool vacuuming is a new experience, please read all of the following points, installation instructions, and trouble shooting guide carefully.

Please note the following:

- "Vacuum" and "suction" are two words meaning the same thing.
- "Dedicated suction line", "vac port", and "vac fitting" are different terms for a hole in the side wall of pool; this hole is connected to the pump suction and is dedicated to vacuuming.
- Some pools do not have a vac port. If your pool does have one, please read the "Suction Entrapment" warning above.

For the seasoned pool owner: The Dorado™ Automatic Pool Cleaner connection and vacuum adjustments can be similar to using your manual pool vacuum. Please read on.

Valves (Pump, Skimmer, and Main Drain) and Vacuum Adjustments

You may need to spend some time adjusting the skimmer and main drain valves in order to obtain the best vacuum setting for good cleaner operation. Once you have found the correct valve settings for best operation, we suggest you mark the valves to ensure repeated success.

At first, set valves to give maximum vacuum to the skimmer or vac fitting you have elected to use.

Too Much Vacuum?

You have too much vacuum if the cleaner climbs up the pool wall past the water line to the point that the cleaner sucks air and the pump loses prime. Frequent loss of prime will damage the pump. To correct this, adjust the regulator by turning the adjustment knob counterclockwise. This will decrease the suction. If the cleaner still climbs out and sucks air, open the main drain valve slightly.

Not Enough Vacuum?

You don't have enough vacuum if the cleaner moves sluggishly or not at all. Be sure the filter system is clean and the regulator and all valves are adjusted to give you maximum vacuum. If the cleaner is still not moving, your pump may not be strong enough to operate the cleaner. Please refer to "Troubleshooting" on Page 17.

In-Line Leaf Canisters

If your pool is exposed to large quantities of leaves, we suggest purchasing and installing an in-line leaf canister (part no. R211084K). A leaf canister will provide more debris-loading capacity and also provides a water by-pass when the canister is full. It is very important that the pump not starve for water!

Skimmer Connection

For pools that have large quantities of “big stuff” to pick up, we suggest using the bottom of the skimmer connection in conjunction with an in-line leaf canister (part no. R211084K). A leaf canister will provide more debris-loading capacity and also provides a water by-pass when the canister is full. It is very important that the pump not starve for water!

Skimmer Vac Plates

Some pool owners connect the hose to a skimmer vac plate, which allows the skimmer basket to remain in the skimmer. If this method is used, empty the basket frequently. Also make sure that the vacuum regulator provided is completely submerged so that it will not suck air and damage the pump.

Skimmer Vac Plate Vacuum Control Adjusters

Some pool owners use one of a variety of manufacturer's skimmer vac plates. Some have a vacuum control adjuster, and some do not. The adjuster could be a screw-type, a spring loaded apparatus, or a dial design. For those vac plates with adjusters, it is important to adjust them when fine tuning the vacuum for the Dorado™ Automatic Pool Cleaner.

MAINTENANCE

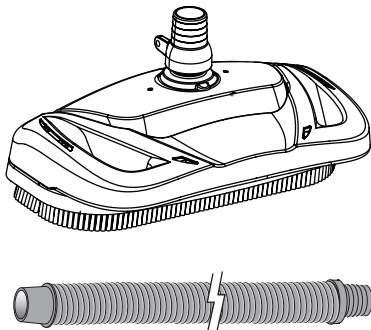
This section describes the service and maintenance of the Dorado™ Automatic Pool Cleaner.



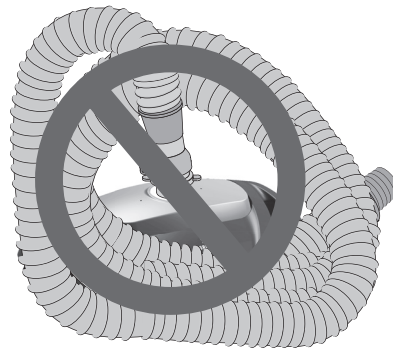
WARNING Hazardous suction. Stop pump before attempting to clean pool cleaner.

- Keep skimmer basket and pump strainer basket clean and free of debris.
- If cleaner jams with large debris (leaves, sticks, etc.), try cleaning debris first from bottom of unit. If this doesn't clear unit, remove top swivel assembly (turn 1/4 turn) and clear the debris from the top.
- Remove the pool cleaner from the pool before super chlorinating (shocking) or chemical balancing. Wait at least four hours after the chemical procedure before reinstalling the cleaner.
- Make sure that the cleaner's brush bristles don't become deformed during storage. Store the unit so that it doesn't sit on the bristles and so that nothing compresses them.
- **Do not coil the hose.** Remove the hose from the cleaner when removing the cleaner from the pool. Store the hose flat and straight.
- Periodically examine bristles and vacuum skirt for wear or distortion. Replace if necessary. See "Reassembly", Page 17.
- Don't store the cleaner with the hose connected to the cleaner body or with the hose coiled. To do so will cause the hose to take a set or kink over a period of time. When reinstalled in the pool, the hose will tend to stay coiled and will cause the cleaner to malfunction.
- If the hose has taken a set, uncoil it as far as possible without damaging it and lay it out in the sun for several hours to straighten itself. Once it has relaxed and straightened out, store it laid out flat and straight (no coiling).
- Make sure the lift brush is retracted during storage. If the lift brush is down during storage and the cleaner rests on it, the brush bristles will collapse over time and the cleaner will no longer turn during operation as it was designed to do.

Hose Storage



Correct: Hose stored correctly – laid out straight, not connected to cleaner.



Wrong: Storing cleaner with hose connected will damage hose and void the hose warranty.

Disassembly

1. Remove swivel assembly (**Figure 22**) from the top of the Dorado™ Automatic Pool Cleaner by turning it 1/4-turn counterclockwise and pulling straight up on it.
2. Turn cleaner upside down. Remove 6 screws and remove lower body assembly from shroud.
3. Turn lower body assembly right side up. Unsnap the 2 clips on the oscillator chamber cap (**Figure 23a**); lift it off.
4. Pull the long gear shaft straight up (**Figure 23a**) by the blocks on the ends of the shaft. Hold the seals in the oscillator and the blocks on the shaft. The cam may interfere with the shaft mounting post; if so, turn it slightly on the shaft until it clears the post. The shaft assembly can now be disassembled (**Figure 23b**).
5. Slide the long gear shaft out of the oscillator (with gears, complete); make sure that you don't lose the seals out of the oscillator which may fall out at this point (**Figure 23b**).
- 5A. Oscillator seals are replaceable.
- 5B. Ratchet gear set and long shaft are replaceable as a unit.
6. Remove the set screw, short gear shaft, and gears (**Figure 24**); be sure to keep the gears on.
7. With a small screwdriver (such as a jeweler's screwdriver), a pencil, or a pen point, depress and remove the coil spring from the lift brush mounting post (**Figure 25**). Replace the brush and the spring if necessary.
8. The metal ratchet tab slides out of its slot sideways; replace it by removing the center brushes and sliding in a new ratchet tab until it is flush with the edge of plastic holder (**Figures 26 and 27**). Replace the center brushes.
9. The brush ring pops out of the cleaner body for easy replacement.
10. If you need to replace the bumper, turn the shroud and bumper assembly upside down and remove the two screws holding the bumper to the shroud.

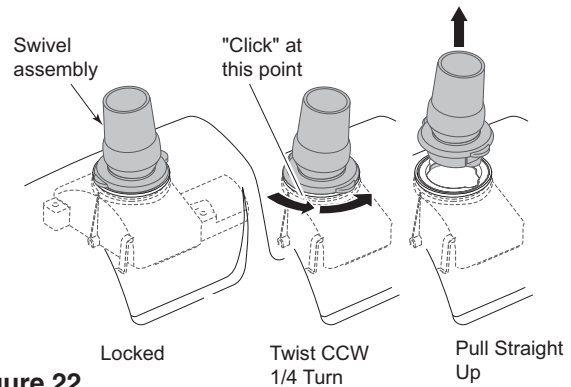


Figure 22

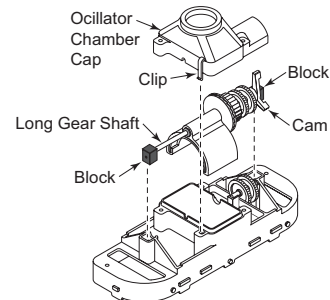


Figure 23a

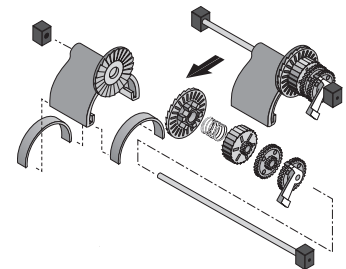


Figure 23b

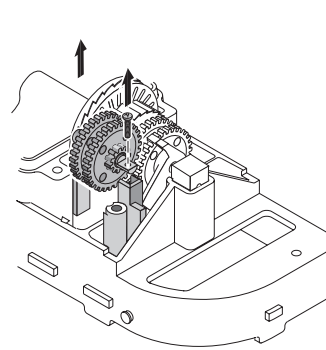


Figure 24

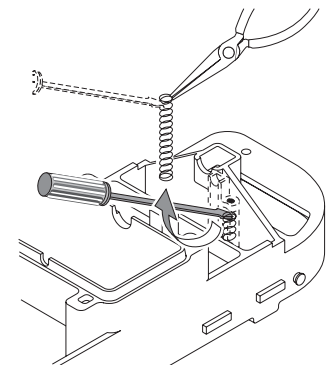


Figure 25

1. Slide metal ratchet tab toward end of cleaner body

2. Slide metal ratchet tab down through cleaner body

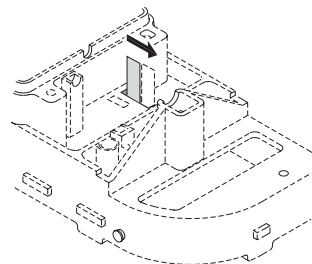


Figure 26

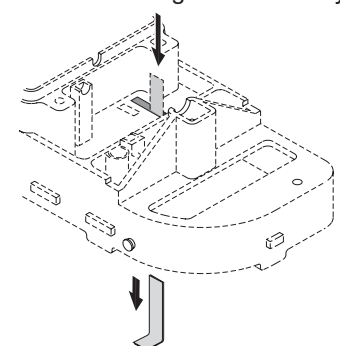


Figure 27

Reassembly

1. Put both white seals in the oscillator; hold them in place.
2. Install the oscillator on the long gear shaft. Install the ratchet gear on the shaft so that the teeth engage the ratchet on the oscillator. Install the spring, ratchet drum, pinion gear (large gear first), and cam (gear end first) on the shaft (**see Figure 28**). Hold the gears on the shaft while installing them, and compress the clutch spring to allow assembly to slip into place between the posts (**see Figure 28**).
3. Install the long gear shaft and end blocks in the cleaning head with the large arm of the cam down (**see Figure 29**).
4. Reinstall the short gear shaft, set screw and two gears (**see Figure 30**); the small pinion gears and the shaft set screw go on the side toward the end of the cleaner – away from the oscillator box. Make sure that the gears engage the gears on the long gear shaft.
5. Install the oscillator chamber cap and clip it in place.
6. Install the rubber vacuum skirt on the cleaner with the word 'OUTSIDE' showing. Start at the large pin on the back of the cleaner head (**see Figure 31**) and work around the cleaner. Make sure the skirt is flush against the stop strips on the cleaner head (**see Figure 32**).
7. Turn the cleaner over. If you removed the bumper and brush ring, replace them now.
8. Install the lower body assembly in the shroud. Fasten the cleaning head in place with 6 screws (2 long, 2 short – **see Figure 33**).

NOTE: Make sure that you do not dislodge the rubber vacuum skirt while inserting the lower body assembly past the brush ring.

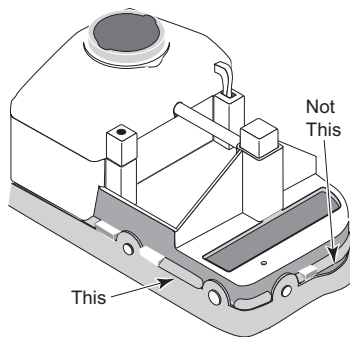


Figure 32

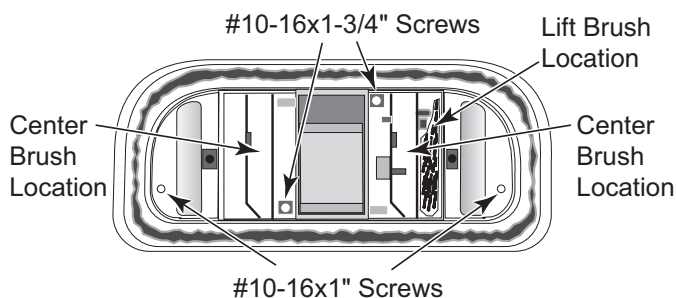


Figure 33 Bottom View of Cleaner

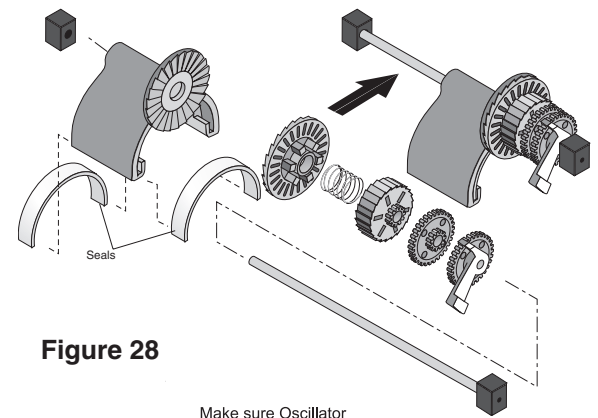


Figure 28

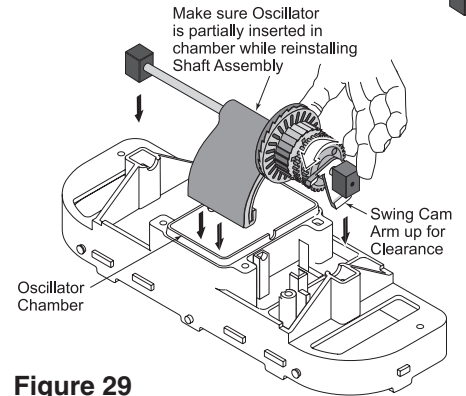


Figure 29

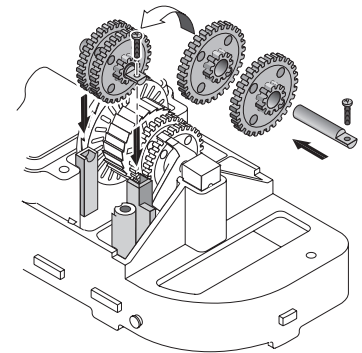


Figure 30

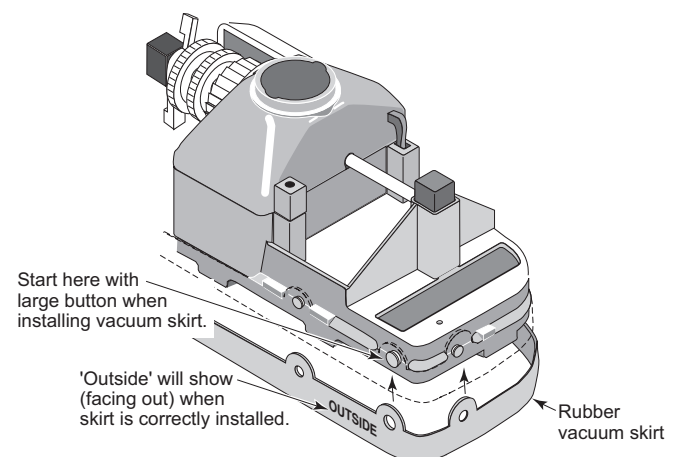
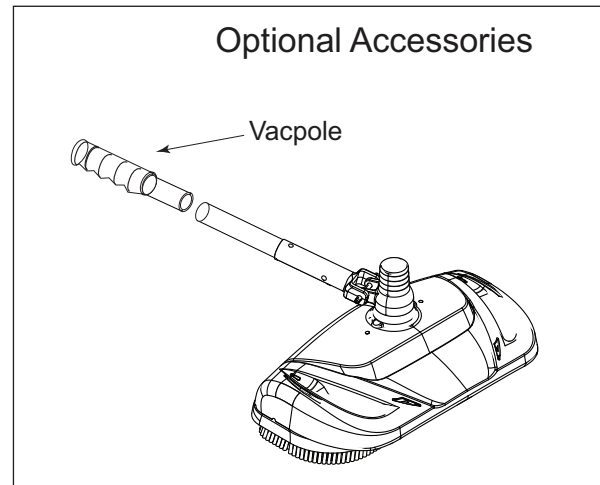
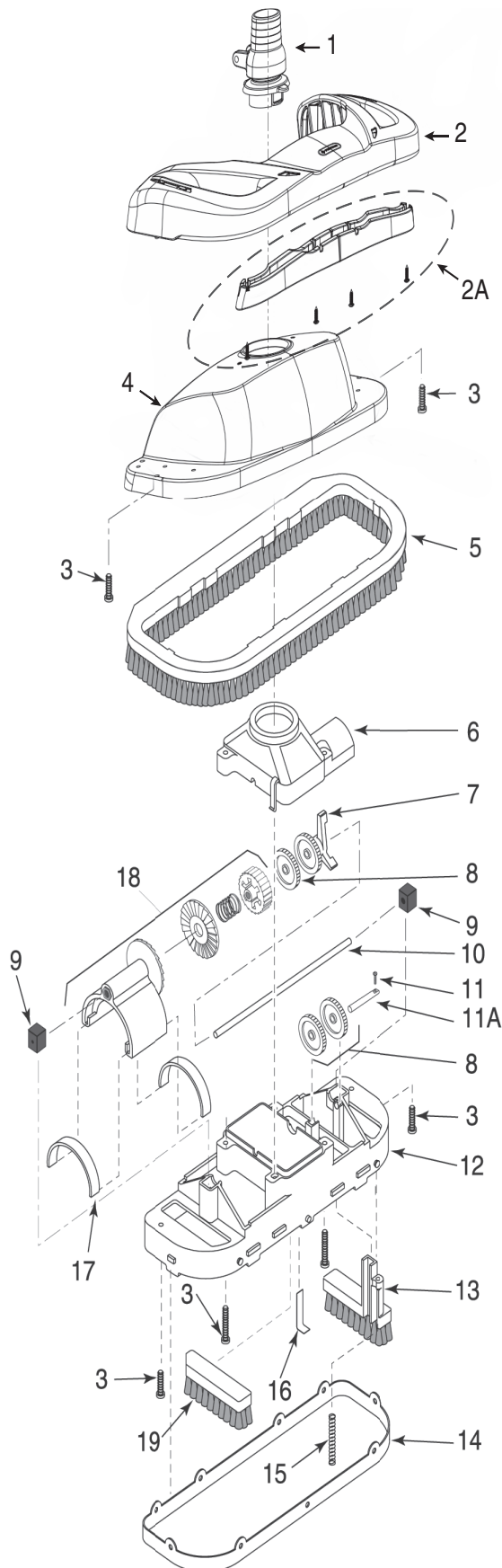


Figure 31

Illustrated Parts List



Item No.	Description	Part No.
1	Swivel Assembly	GW9012
2	Bumper	360152
2A	Bumper Insert Kit (Incl. 2 Bumper Inserts and 4 Bumper Insert Screws)	360154
3	Screw Kit (6 short, 2 long)	GW9504
4	Shroud	360153
5	Brush Ring	GW9505
6	Oscillator Chamber Cap	GW9506
7	Cam Kit (2 & 3 Leg Cams)	GW9507
8	Idler Gear Kit (Incl. 3 Gears)	GW9509
9	Block Kit (Incl. 2 Blocks)	GW9512
10	Long Gear Shaft (Stainless Steel)	GW9513
11	Set Screw #4 Self Tapping##	
11A	Shaft Kit, Stainless Steel (Incl. Set Screw)	GW9536
12	Lower Body*	GW9535
13	Lift Brush	GW9517
14	Vacuum Skirt	GW9508
15	Lift Brush Spring	GW9522
16	Ratchet Tab (Stainless Steel)	GW9523
17	Oscillator Seal Kit (Incl. 2 Seals)	GW9004
18	Oscillator Assembly Kit (Incl. Key #17) (Ratchet Assembly not sold separately)	GW9503
19	Center Brush Kit (Set of 2)	GW9013
	• Hose Kit, 12 sections, each 4 ft in length	41200-0131
	• Vacuum Regulator	41200-0200
	• Vacuum Regulator Cap	41200-0211
	• Reducer Cone	GW9015
	• Unidapt Handle	GW9019
	• Vac Port Fitting	GW9530
	• Flow gauge	41200-0210

(●) - Note Shown

(*) - Includes Item Nos. 6, 11A, 13, 15, 16, two idler gears and 2-arm cam

(##) - Not available separately

TROUBLESHOOTING

SITUATION	SOLUTIONS:
Cleaner does not move Oscillator is very slow	<ol style="list-style-type: none"> 1. Backwash and/or clean filter. Empty all baskets. This should help your cleaner attain the desired oscillation. Correct oscillator speed can be determined by using the flow gauge provided with the cleaner (see page 4). 2. Clear all debris from oscillator chamber, hose, or vac plate by-pass (if you have one). 3. Repair all sources of vacuum leaks (cracked vac plate, vac plate or reducer cone not seated properly, cracked hose, vac regulator adjusted too loosely). 4. Adjust valves to give maximum vacuum to the vacuum port or skimmer to which you are attaching the cleaner hose. Reduce or shut off other skimmers and main (floor) drain. NOTE: Each pool's hydraulic system is different. It may require some adjustments to skimmer and main valves before you achieve the vacuum setting required for the best cleaner operation. Once determined, mark the valves at that position to ensure repeated success. 5. Filtration system (pump) does not develop enough vacuum. Consult your pool service professional. 6. In hot water, the hose may kink. The hose, when old, may have developed leaks (cracks or holes) or may get brittle. Purchase a new hose. NOTE: It must be a Dorado hose for proper operation.
Cleaner climbs past water line of pool causing pump to lose prime (suck air)	<ol style="list-style-type: none"> 1. Oscillator is running too fast. Make sure vacuum regulator is installed and adjusted. 2. If step 1 does not solve the problem, slightly open the main drain valve until the cleaner no longer climbs out of the pool.
Cleaner coverage not as expected	<ol style="list-style-type: none"> 1. A clean filter system will help the cleaner to move much faster. Also, be sure to clean all baskets. 2. Vinyl liner pools with a deep end hopper will require 6-8 hours to clean. In this time the cleaner should make at least 4 trips to the shallow end. If not, call Customer Service at 1-800-831-7133. 3. Examine the lift brush mechanism as the cleaner is operating. To do this, you will have to turn the cleaner over while it is running and submerged. If the lift brush does not move to the "down" position within 2 minutes, call Customer Service at 1-800-831-7133. 4. The cleaner was not designed to work under solar covers. If you have a solar cover, only minimal coverage can be expected. 5. Any cleaner might miss a spot. Your cleaner has been designed to accommodate the attachment of a vac-pole (telepole) by use of the handle in the accessory bag. Attach pole for spot cleanups, steps, and swimouts.
Cleaner "stuck" in one spot (more than 15 mins)	<ol style="list-style-type: none"> 1. Examine the lift brush mechanism as the cleaner is operating. To do this, you will have to turn the cleaner over while it is running and submerged. If the lift brush does not move to the "down" position within 2 minutes or less, call Customer Service at 1-800-831-7133.
Steps and "swim-outs" are not clean	<ol style="list-style-type: none"> 1. This cleaner was not designed to clean these areas. Use the handy telepole attachment, connect the pole, and clean missed areas.
Cleaner flips on its back when pump stops	<ol style="list-style-type: none"> 1. This is normal with some filter systems that develop a surge of back pressure when the system shuts off. The cleaner will right itself when the system is restarted.
Hose comes loose when pump stops	<ol style="list-style-type: none"> 1. Use reducer cone when connecting to the skimmer or vac port.
Cleaner hovers in one area with hose fully extended	<ol style="list-style-type: none"> 1. Hose might be too short. Desired length can be measured from the point where the hose is connected, to the furthest point of the pool, plus a minimum of an additional 4'. If needed, purchase an extension hose from your local dealer. Do not cut extension hose – use it full length even if it is a little long.
Hose keeps coiling up	<ol style="list-style-type: none"> 1. For best results, when hose is not in use, store it uncoiled, flat, and straight. 2. Lay hose out flat and straight in the sunlight for a few hours prior to use.
Cleaner avoids shallow end of pool	<ol style="list-style-type: none"> 1. This could be caused by a buoyancy issue. Add a hose weight (P/N 41201-0238; sold separately) to the cleaner hose.



1620 HAWKINS AVE., SANFORD, NC 27330 • (919) 566-8000
10951 WEST LOS ANGELES AVE., MOORPARK, CA 93021 • (805) 553-5000
WWW.PENTAIRPOOL.COM

All Pentair trademarks and logos are owned by Pentair or one of its global affiliates. Pentair Aquatic Systems® and Dorado™ are trademarks and/or registered trademarks of Pentair Water Pool and Spa, Inc. and/or its affiliated companies in the United States and/or other countries. Unless expressly noted, names and brands of third parties that may be used in this document are not used to indicate an affiliation or endorsement between the owners of these names and brands and Pentair Water Pool and Spa, Inc. Those names and brands may be the trademarks or registered trademarks of those third parties. Because we are continuously improving our products and services, Pentair reserves the right to change specifications without prior notice. Pentair is an equal opportunity employer.

© 2016 Pentair Water Pool and Spa, Inc. All rights reserved. This document is subject to change without notice.



P/N 371782 REV. A 4/15/16