



Hayward® AquaNaut® Troubleshooting Guide



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Safety Precautions

- Never use your hand to verify the amount of vacuum at the skimmer or dedicated suction line.
- Keep hands and fingers away from the access cover and any moving part while the cleaner is operating.
- Never operate the cleaner with people or pets in the pool.
- Never operate the cleaner unless cleaner is submerged under the water.
- A dedicated suction line should have a Vac Lock installed for safety.

Two Wheeled Version (200) vs. Four Wheeled Version (400)

An easy way to determine which model is recommended for a given pool is to imagine a 40' long pool. If the suction port or skimmer is half way from one end, then the 2 Wheel model will be the right one.

If the suction port is all the way at one end or you have a very deep end (diving pools) the 4 Wheel model would be better suited for the pool.

The 2 Wheel unit comes with 33' of hose (9 vacuum and one leader hose). You can safely add two lengths of hose if needed. The 4 Wheel unit comes with 40' of hose (11 vacuum and one leader hose). You can add quite a few lengths to it, but at some point there will be two problems. 1) the hoses will outweigh the cleaner and 2) the more hoses you add, the more suction is lost to the head.

The 2 Wheel has a steering cam that makes it turn 5 times in a cycle. So it turns more often to cover an average sized pool. The 4 Wheel has a cam that makes only 3 turns, so that the unit goes straight longer in order to cover a larger pool.

A 2 Wheel unit that needs more straight run can replace the 2 Wheel Cam (PVXH036009) with a 4 Wheel Cam (PVXH010009).

RPMs

The most common problem is that the cleaner is not getting enough suction, or is getting too much suction, which causes improper wheel speed.

Common symptoms of **HIGH** RPMs would be:

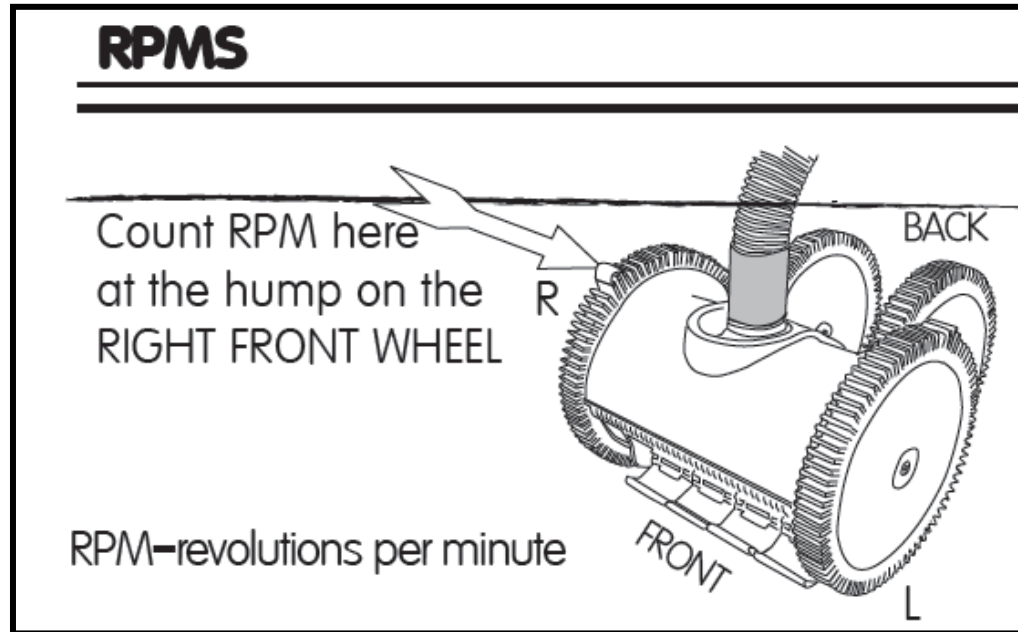
- Cleaner is falling on its side (this can also be floats on leader hose missing).
- Cleaner is doing wheelies and tipping backward.
- Cleaner is slipping a little because it can't pull the hose fast enough.
- Cleaner climbs out and sucks air constantly (this can also be worn tires).
- Cleaner is not covering pool.

Common symptoms of **LOW** RPMS would be:

- Cleaner is not covering pool.
- Cleaner gets stuck in corners or hangs up on objects in the pool.
- Cleaner is falling on its side (this can also be floats on leader hose missing).
- Cleaner starts and stops. The rpms are so low that the friction from the floor stops the cleaner.
- Hoses coil (this can also be the swivel on the head is dirty).

RPMs

Step 1: Looking from the rear of the cleaner with the cleaner under water, count how many times the right front wheel hump turns around in one minute. Wheel RPM should be between 11 and 14.



Step 2: If the wheel RPM is not between 11 and 14, the suction to the cleaner must be adjusted to allow for proper operation.

Checking For Obstruction in Cleaner

Step 1: Rotate the Right front wheel forward. If it doesn't move, there's an obstruction. Do not attempt to turn Left wheel.



Step 2: Remove the two screws that hold the Handle.



Step 3: Remove the Handle.

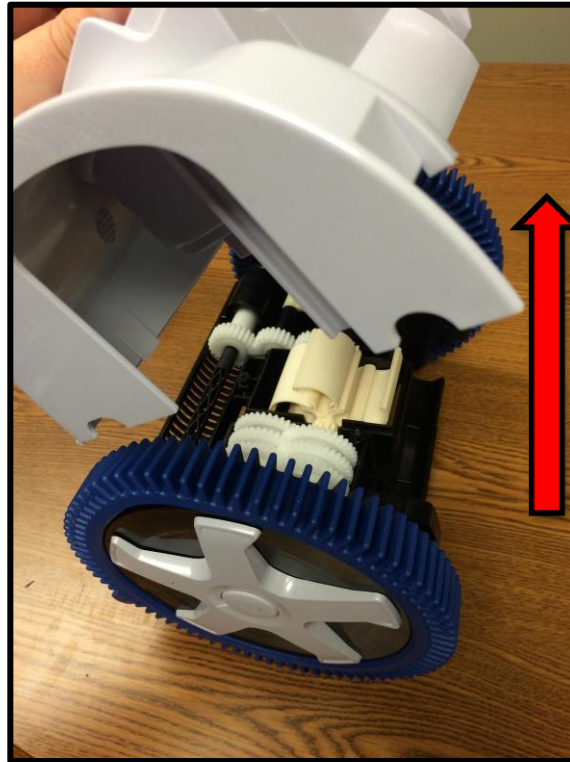


Checking For Obstruction in Cleaner

Step 4: Remove the screw that holds the Shroud.



Step 5: Remove the Shroud.



Step 5: Visually inspect the cleaner and remove any debris found in the Turbine, Reduction Gears, Wheel Hubs, etc.



Checking For Obstruction in Cleaner

If the cleaner has something stuck in it, the right front wheel will not turn.

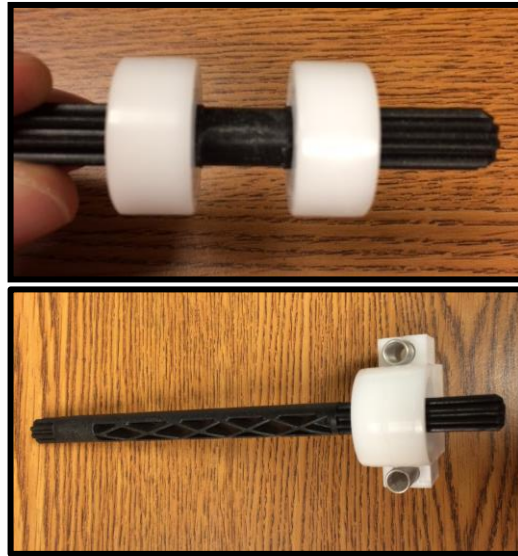
If the wheel turns but ratchets, something is worn or broken.

Parts that need to be inspected include:

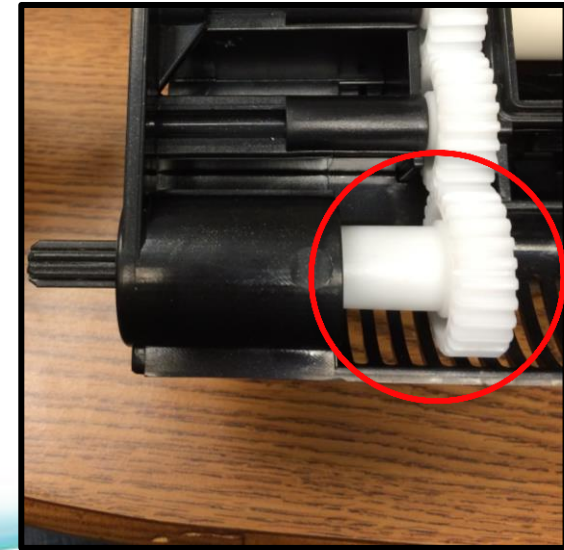
Wheel Hub
(PVX051-236)



Front Drive Assembly (right
drive PVXH019SA and
steering slide Steering
Assembly PVXH011SA)



Large Drive Gear
(PVXH007)

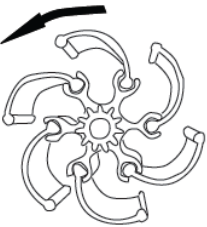


Cleaner Does Not Move

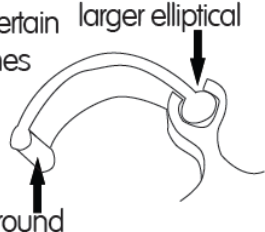
- The pump may be turned off or on low speed. Make sure the pump is ON.
- The three way valve may be in the wrong position. If you have a designated suction port, divert suction away from your skimmers or main-drains to the suction port. If you are using the skimmer, divert suction away from the main-drain to the skimmer.
- The system may be dirty. The filter may be dirty, and or the skimmer baskets may be full. Clean and backwash the filter, clean the pump strainer basket.
- The pump may not be primed. Make sure the pump is primed.
- You may have a suction leak. Check for leaks in the system. (Bubbles in the returning water). Fix the leak. Usually O-ring on pump lid, water level too low, or plumbing leak.
- Make sure the vacuum hose is free from debris and leaks.
- Check if pump impeller is blocked
- Obstruction in the cleaner itself.
- Turbine vanes in the cleaner are in the wrong direction. Make sure the turbine vanes are in the right direction.

TURBINE VANES/BLADES

F
R
O
N
T



B The turbine vanes have to be placed in the turbine hub a certain
A direction. We use the following mnemonic " The turbine vanes
C are like a wave breaking on the grill". In the front of the unit
K the vanes are convex (like a mountain) in the back they
are concave (like a valley). NOTE: The large elliptical end of
the vanes is placed into the turbine.



larger elliptical

round

Cleaner Moves Too Slow (low RPMs)

- If using a multi-speed pump, make sure the speed setting is correct.
- Clean and backwash the filter, also clean the pump strainer basket.
- Make sure the vacuum hose is free from debris and leaks.
- Check if pump impeller is blocked.
- Low wheel RPM (insufficient flow) After adjusting, if it is still below 11 RPM, your pump may not be strong enough.
- Obstruction in the Cleaner itself. Clear the obstruction.

Right Wheel Does Not Turn By Hand

- There could be a problem or obstruction in the cleaner, either in the turbine vanes or the gearing. Clear the obstruction.
- Turbine vanes could be worn. Replace turbine vanes.

Right Wheel Skips When Turned By Hand

- Wheel Hub (PVX051-236) and/or Shaft Bearing Assembly (PVXH019SA) may be worn or damaged.

Cleaner Hose Coiling

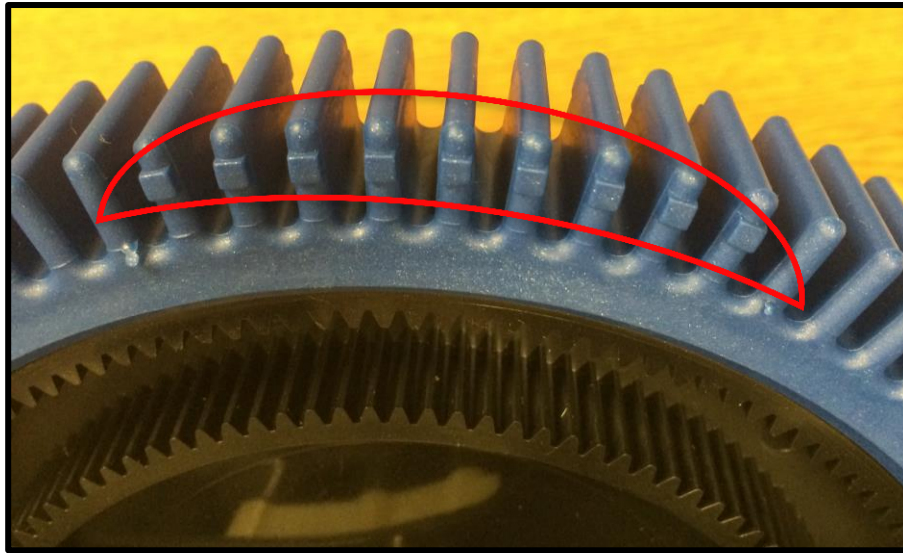
- The hoses may have been stored in a coiled position. Lay them straight in the sunlight. If that doesn't work, replace that section of hose.
- Dirt in the swivel cone. (Swivel on the head of the cleaner). Although the swivel is self-cleaning there may be excessive debris. Remove any debris. It is helpful to place the swivel under a running tap while twisting to clean.
- Leaf Canister in wrong place. If using a leaf canister, make sure it's located between the 1st and 2nd hose sections from the pool wall.
- Leader hose is kinked. If the cleaner was put on the deck with the hoses attached to it, then the leader hose may have a kink in it.
- Wheel hub (PVX051-236) and/or Large Drive Gear (PVXH007) and/or Steering Bracket Roller Assembly (PVXH011SA) and/or Shaft Bearing Assembly (PVXH019SA) worn or damaged

Cleaner Not Cleaning Entire Pool

- The vacuum hose is too short. The hoses must be one to two lengths longer than the farthest point from attachment. (See manual)
- The float(s) may be in the wrong position. The Float(s) should be 20"-25" from the gray cuff (head of the cleaner) (See manual).
- The hose cone swivel may be blocked. Although the swivel is self-cleaning there may be excessive debris. Remove any debris. It is helpful to place the swivel under a running tap while twisting to clean.
- Pool return fittings may be pushing the cleaner. Make sure return fittings are pointed DOWN. (See manual)

Cleaner Climbing Too High

- Too much suction (flow). Decrease the suction to the cleaner to lower the RPMS.
- The tire treads may be worn and/or the skirts maybe worn, hence increasing the suction under the machine. See below for how to check tire wear.
- Need to regulate flow. May need a bypass valve or need to adjust auto skim plate.



Note: The tires must be replaced when they are worn down to or past the tread wear indicators.

Cleaner Floats Or Comes Out Of Suction Outlet When Pump Turns Off

- Air in system. When the pump shuts off the air goes towards the path of least resistance and pops out the hose from the suction outlet. Fix the air leak. Usually O-ring on pump lid or fitting on inlet to pump.

Turbine Vanes/Blades Pop Out Of Turbine

- Vanes may be installed in the wrong direction.
- Wrong side of vane in the turbine hub. Large elliptical side should be in turbine.
- Turbine Hub worn. Replace turbine.

Cleaner Wheel(s) Are Wobbly

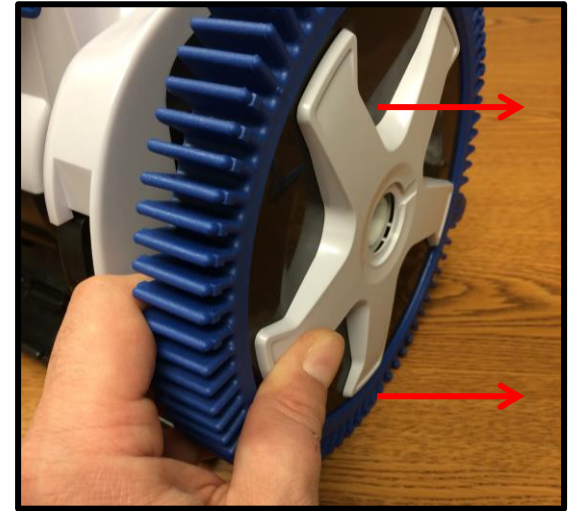
- Wheel Hub Bearings may be worn and need replacement.

Cleaner Falls On Its Side And Takes Too Long To Recover

- The vacuum hose is too short. The hoses must be one to two lengths longer than the farthest point from attachment. (See manual)
- The float may be in the wrong position. Adjust float to be 20"-25" from the gray cuff.
- Return fittings pushing cleaner. Point them down.
- Unit doesn't have enough suction. Check Wheel RPM and adjust accordingly

Changing The Turbine Hub

Step 1: Remove the two front wheels by removing the insert clips that hold the wheels to the axle, then slide the wheels away from the body.



Changing The Turbine Hub

Step 2: Remove Handle screws and handle. Then remove Shroud screw.



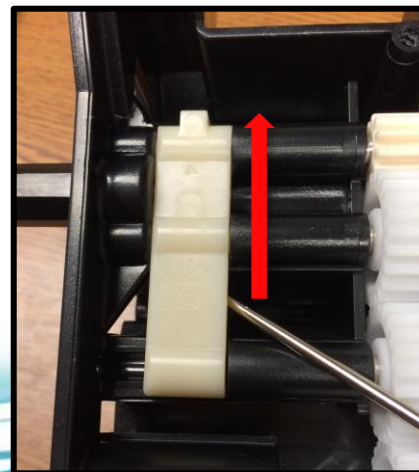
Step 3: Remove Shroud assembly.



Step 4: Remove steering slide assembly (left) with shaft and 2 springs.



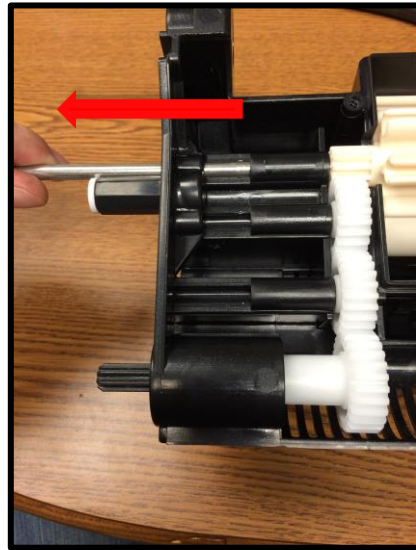
Step 5: Remove Shaft Retainer by lifting up with flathead screwdriver.



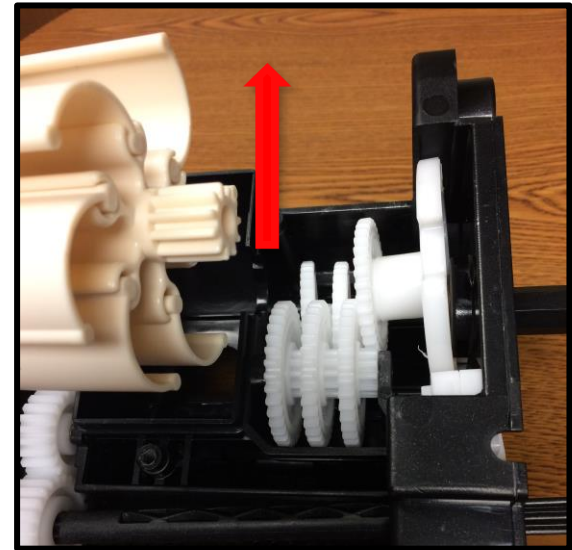
Changing The Turbine Hub

Step 6: Remove stainless steel shaft from left to right by tapping a screwdriver on the shaft with a rubber mallet until the shaft comes through on the right side.

Left Side



Step 7: Remove turbine hub and replace with new turbine hub.



Changing The Turbine Hub

Step 8: Re-Install shaft from right to left.

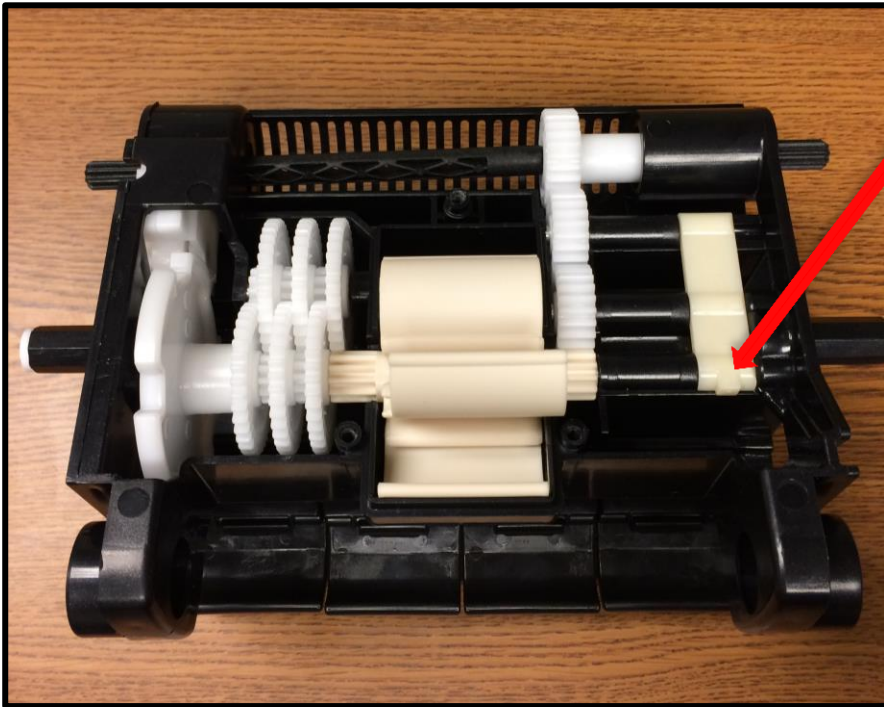


Step 9: Insert steering slide assembly through the turbine hub, then through the three gears and cam.



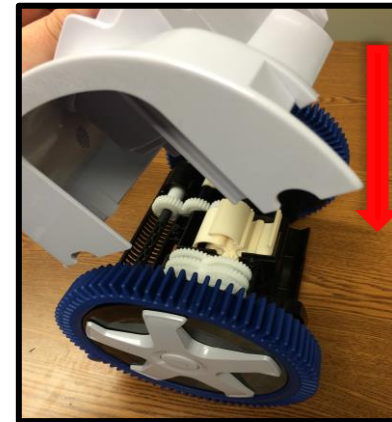
Changing The Turbine Hub

Step 10: Ensure the gears, vanes and drive gear assembly move freely by rotating the front drive gear shaft forward.



Step 11: Tap Shaft back into position. Install the Shaft Retainer with the square tab facing towards the rear of the cleaner.

Step 12: Reinstall the Shroud assembly.



Changing The Turbine Hub

Step 12: Install Front Shroud Screw, then Handle and two screws.



Step 13: Replace the wheel assemblies.

