

HOW DOES MY JET-VAC WORK?

High pressure water is pushed from the Jet-Vac Booster Pump through the supply line, through the wall fitting and strainer, through the feed hose to the Jet-Vac. Some of the water is directed to the sweep hose before entering the Jet-Vac head.

Water enters the Jet-Vac head and half is directed to the upward-facing venturi jet, shooting water up into the bag and drawing in dirt and leaves. The other half is directed into either the Forwarding Pusher Jet to propel the cleaner forward or the Reversing Jets to make the cleaner reverse.

WHAT MAKES MY JET-VAC GO FORWARD OR REVERSE?

There are ports and channels inside the white bottom plate.

Forward: When the forwarding port is open, the water is directed to the main pusher jet nozzle, providing the propulsion to push the Jet-Vac forward.

Reverse: The reversing port is divided into two segments. At the start of the reversing cycle, water is directed to the left side reversing jet, making the Jet-Vac reverse and rotate anti-clockwise. When the reversing port is fully open, equal amounts of water will be directed to the left and right reversing ports, allowing the Jet-Vac to reverse in a straight line. At the end of the reversing cycle, water is directed to the right side reversing jet, making the Jet-Vac reverse and rotate clockwise.

The continual reversing and rotating of the Jet-Vac ensures the cleaner will not get caught or snagged in any spot.

CHECK THE CORRECT OPERATION OF THE GEARBOX by holding the Jet-Vac out of water whilst operating. Watch the correct cycling of the water flow as described above.

Hint: Hold the cleaner upside down at water level to gain the best view. Hold the sweep hose from spraying everywhere.

WHAT OPENS AND CLOSSES THE PORTS?

The bottom gear is the active gear in closing and opening the different ports. The series of holes in the gears ensures that the forwarding port and the reversing ports cannot open at the same time or be closed at the same time. High pressure water enters the Jet-Vac head and spins the top propellor. The propellor engages the gears so that the bottom (active) gear moves the slowest. When the hole in the active gear lines up with a port, then water is directed through that port.

HOW LONG DOES MY JET-VAC GO FORWARD OR REVERSE?

Jet-Vac moves forward for approximately 3 minutes, then moves into its reversing mode.

The reversing and rotating cycle lasts for approximately 45 seconds.

SUMMARY

The venturi port always remains open, so that the Jet Vac is always picking up debris regardless of whether it is in forward or reverse mode. No other pressure cleaner has this feature. When the Jet-Vac is in forward mode, no water should be exiting from the reversing jets. Likewise, when the Jet-Vac is in reverse mode, no water should be exiting the forward pusher jet.

SIMPLE!

Jet-Vac is propelled by water. Jet-Vac picks up debris by using a venturi jet of water.



Additional information on your JetVac Automatic Pool Cleaning System

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JetVac Automatic Pool Cleaners

IMPORTANT INFORMATION FOR INSTALLER AND JET VAC OWNER

Not only does Jet Vac pick up leaves, debris and silt, it also spreads your chlorine all over the pool and ensures sparkling clean water all the time. There are a few hints, which will help you prolong the life of your Jet Vac, and reduce operating costs at the same time.

Jet Vac is not designed to clean up after new pool construction. Large amounts of pebbles, grit and sand can damage the wheel bearings. Please manually vacuum the pool thoroughly before installing the Jet Vac.

If your new Jet Vac tends to fly around the pool, remove the Jet Vac and lay the feed hoses and sweep hose out in the sun for 1-2 days. This will remove the hoses "memory" of being coiled up.

Jet Vac is a very efficient pool cleaner and normally only requires 2-3hrs usage per day. The Jet Vac pump can only run while the pool pump is operating. To achieve this, we strongly recommend that a separate time clock or Jet Vac Timer Control Centre is installed. This will minimize the risk of your Jet Vac pump running dry and will significantly reduce ongoing repair costs. The Jet Vac Timer Control Centre is simple to install and is available from your nearest authorised Jet Vac Sales and Service Centre.

The inner surface of a concrete pool is abrasive and the Jet Vac will have certain components wearing down over time. The wheels have got special wear indicator grooves moulded in so that you can easily tell when they need to be replaced.

Empty the leaf bag regularly. Failure to do this results in twigs ripping the bag or the bag dragging along the surface of the pool and will result in premature failure.

When removing Jet Vac from the pool for an extended time, always lay the hose straight. Do not store the Jet Vac hose coiled up.

If the Jet Vac starts to move more slowly than normal, check the filter screen inside the white wall fitting. To clean the filter screen: Push in and turn the bayonet style wall fitting to release it from the wall adaptor. Remove mesh filter screen for cleaning. O-ring on wall fitting should be lubricated regularly to enable easy removal. Clean this filter screen every two weeks to ensure efficient operation at all times.

Pool Filter Backwashing:

Before backwashing the filter, turn Jet Vac pump off at power point. Disconnect bayonet wall fitting from wall adaptor. Backwash filter according to manufacturer's instructions.

After backwashing is complete, turn on pool pump to run on filter cycle and then switch Jet Vac pump on for 10-15 seconds. This will dislodge any debris caught in the Jet Vac supply line. The Jet Vac pump will run noisy whilst running without the wall fitting attached for this short period of time.

Turn off the Jet Vac pump and pool pump, reconnect Jet Vac bayonet wall fitting onto wall adaptor. Place Jet Vac cleaner into pool.

After turning on the pool pump and Jet Vac pump you may find air accumulating in the leaf bag. If so, release it by gently touching the top of the leaf bag with telepole or similar device.

JetVac / Legend & Booster Pump

PLUMBING PROVISION - INSTALLATION GUIDE

If you wish to make provision for the Jet Vac / Legend to be installed, please hand your pool builder a copy of this specification, **BEFORE YOUR POOL IS CONCRETED**.

1. Please install either a 40mm or 50mm Class 9 PVC Pipe in the middle of the longest, straightest side of the pool. This pipe should be approx 200mm below water level.

2. If 40mm pipe is used:- Glue a Flush Fit Wall Adaptor (YMP010) or a 40mm female faucet socket onto the pipe so that the start of the female thread will be flush with the intended interior surface of the pool. The 40mm pipe should be plumbed to run back to the filter area for connection to the Jet Vac / Legend Booster Pump and filtration system. If no fittings are glued onto the 40mm pipe and the pipe extends through the concrete and interior pool surface, then a special retro-fit fitting is available. See YMP004 below.

3. If 50mm pipe is used: Pipe should extend through the anticipated level of the concrete and internal surface. After the concrete and internal surface has been applied, cut the 50mm pipe flush

with surface and the Flush Fit Wall Adaptor will glue inside the 50mm pipe. This is the easiest and neatest method. The 50mm pipe can be reduced to 40mm for the run back to the filtration area.

4. The suction line of the Jet Vac / Legend booster pump is connected to the return to pool line by means of a 40mm tee section. This tee should ideally be installed before any valves, which may redirect the flow of filtered water to different parts of the pool. (e.g. waterfalls, beach jets) This will save the Jet Vac / Legend booster pump running dry if valve positions are changed. See the different plumbing scenarios on the following page.

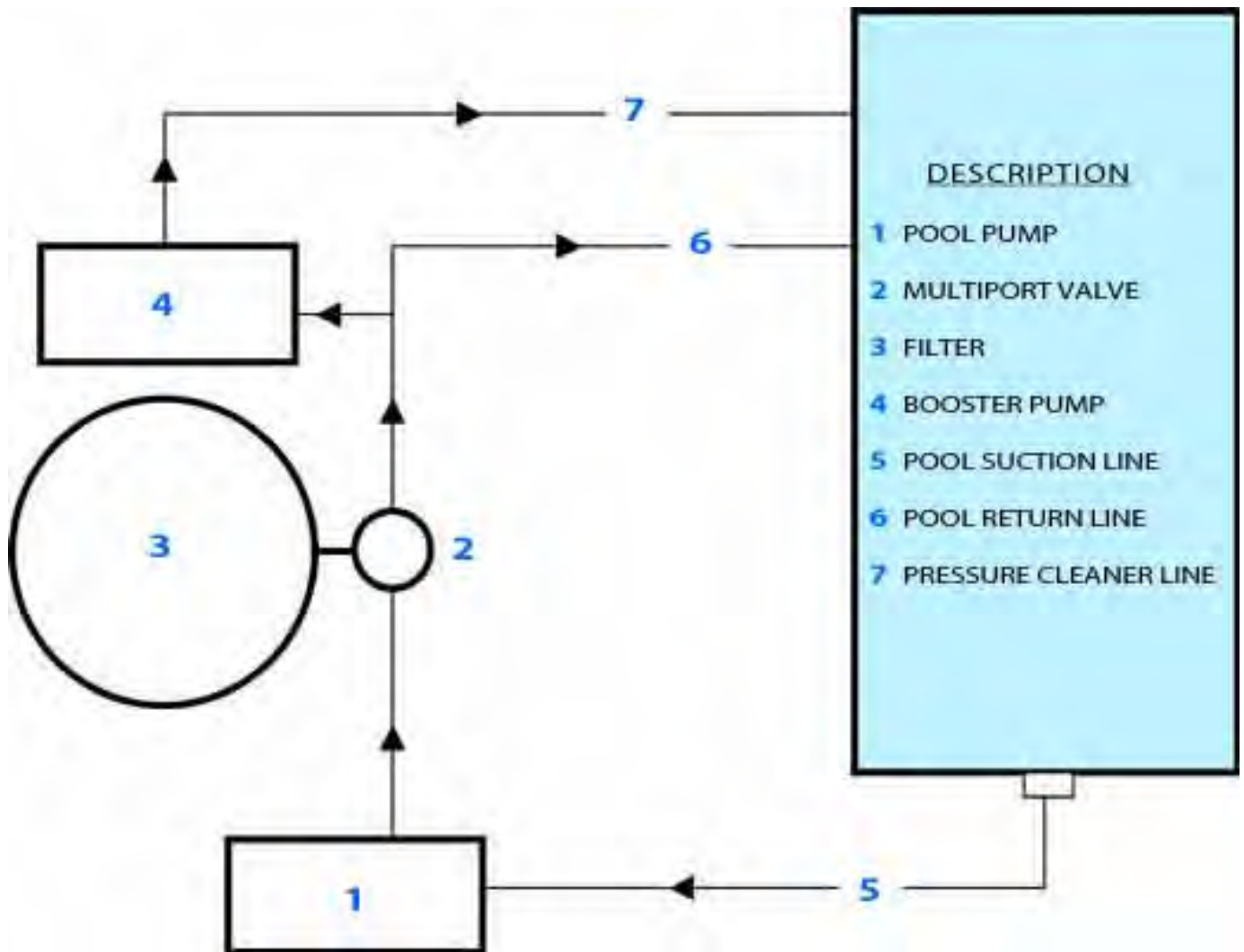
The discharge side of the Jet Vac / Legend Booster Pump is then connected to the dedicated pipe plumbed to the pool for the Jet Vac / Legend.

5. Should your particular installation not be as straight-forward as indicated above then please consult your pool builder or phone Aqua-Quip.

WALL ADAPTOR OPTIONS - REQUIRED TO ACCEPT THE JETVAC WALL FITTING

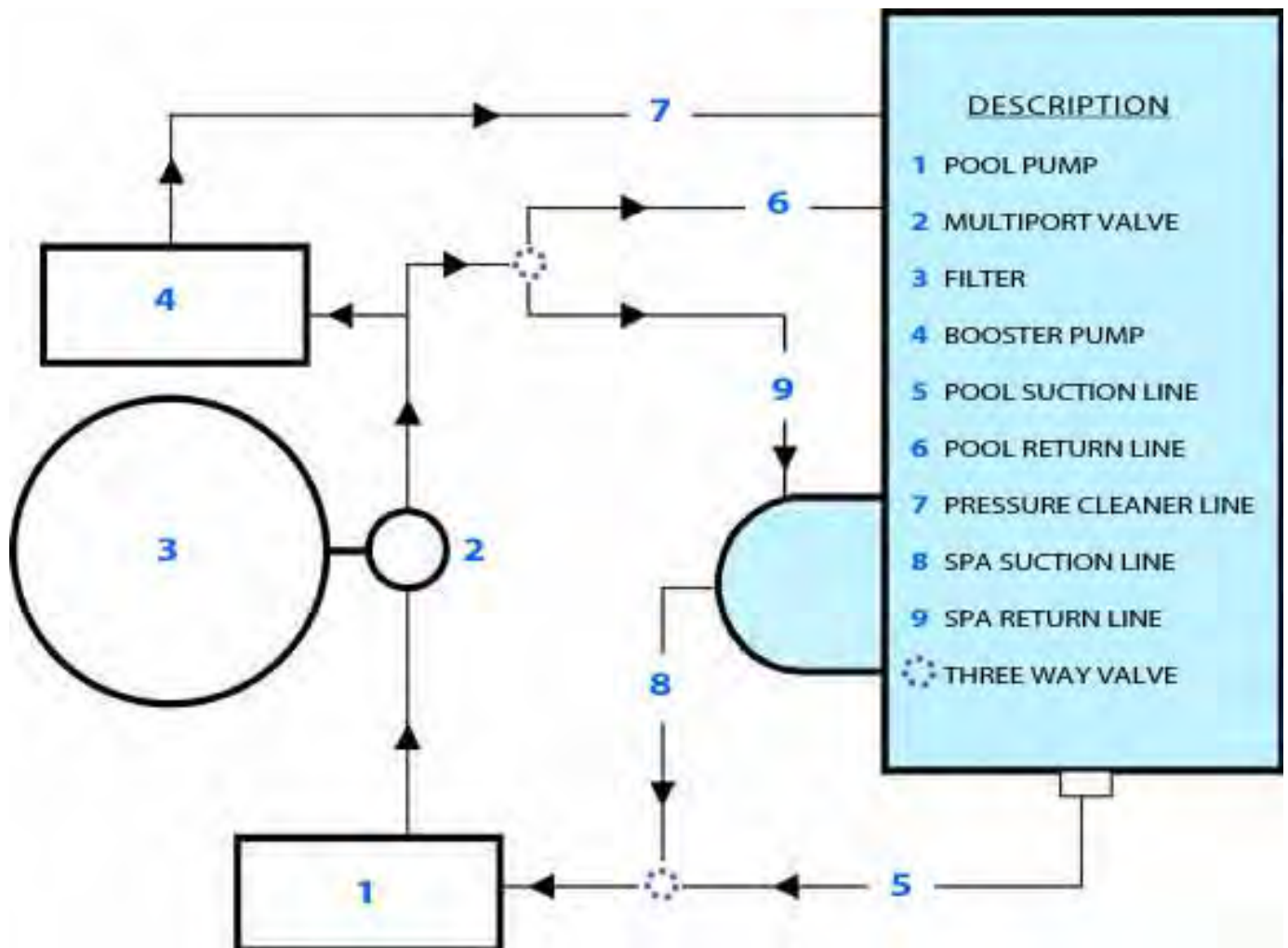
CODE	DESCRIPTION	APPLICATION
YMP 010	Flush Fit Wall Adaptor	For connection to either 40mm or 50mm Class 9 Pipe
YMP 004	40mm Slip Fit Adaptor	Glues inside 40mm Class 9 Pipe
YMP 002	19mm Male Screwed Adaptor	Screws inside female 19mm thread (3/4")
YMP 015	Fibreglass / Vinyl Wall Adaptor	Connects to 40mm Pipe. Supplied with gaskets & lock nut
WPF 015	40mm female faucet socket	Connects to 40mm Pipe

Plumbing diagram for pool



Tee the booster pump suction point after the filter and before any sanitizing devices, liquid chlorine feeders, acid injection points or salt water chlorinators.

Plumbing diagram for pool & spa



Note: This configuration would allow the spa to drain when pool pump is sucking from the spa and returning to the spa. Solve this problem by either:

A) Installing a 2-way valve on the booster pump line. CAUTION, the booster pump must only operate when the valve is opened.

Or.....

B) Tee the booster pump suction line into the pool return line after the 3-way valve. CAUTION, the booster pump must only operate when the 3-way valve directs water through the return to pool line.

Advantages over suction cleaners

- Jet Vac cleans the pool quicker than suction type cleaners.
- Jet Vac has its own debris bag so that leaves will not clog the skimmer.
- The Jet Vac supply hose is much smaller in diameter than the vacuum hose for a suction cleaner. Therefore it is not so obvious or untidy in the pool.
- Jet Vac is absolutely silent as it cleans the pool.
- Jet Vac has a 3.5 litre capacity debris bag, so it has far more storage volume than conventional suction cleaner skimmer baskets.
- Jet Vac has a huge intake throat, so it will easily pick up leaves, gum nuts, sand, twigs, snails, worms, kid's goggles and small toys. We have received feedback from amazed customers who have found the following items in the Jet Vac bag when cleaning it: golf balls, oranges and lemons, frogs and even snakes! True story.
- Jet Vac does not plug into your skimmer box. Jet Vac leaves the skimmer box free to do the job it was designed for: to skim leaves from the service.
- Convoluted suction cleaner hose has approximately 2.5 times the friction loss of standard 40mm pipe. If you use a suction cleaner with a 9m hose then you are increasing your suction line by approx 22 metres! This clearly makes it harder for your pump and filter to work at their optimum level. With this loss of efficiency, there is more chance of air leaks, general suction line problems and an increased risk of pump seal failure.
- Jet Vac only needs to run for 2-3 hours per day to keep your pool clean. The operation of the Jet Vac can be controlled by a timer so that it operates for a desired period every day, whereas a suction cleaner runs all the time that the pool pump is running.
- The size of Jet Vac's intake throat is so large (11.3 cm) that nothing will get clogged at the throat of the unit. Suction cleaners have a much smaller orifice which is much more likely to become clogged with leaves and render the machine temporarily inoperable.
- Jet Vac cannot get snagged in the same place for hours. Unlike most other pool cleaners, the Jet Vac has its own built-in reversing system which allows the unit to move forward for 3 minutes and then rotate and reverse for 1 minute.

JetVac regular maintenance

- Check and clean the wall fitting strainer regularly.
- Ensure that the booster pump timeclock is synchronised with the pool pump timeclock.
- Empty the debris bag regularly.
- Regularly check and lubricate the o-ring on the bayonet wall fitting.
- Remove funnel adaptor gasket and clean away all fine debris and sand before re-connecting the Jet Vac bag.
- Check that the bearings/wheels are free spinning.
- When backwashing, make sure that the Jet Vac wall fitting is completely disconnected.
- After backwashing, ensure that the supply line is completely flushed before re-connecting the Jet Vac.
- Stainless steel wheel should be $\frac{3}{4}$ " off the ground.
- Check hose swivels and disconnect swivel for leaks and ease of rotation.
- Ensure that there are no holes in wall fitting strainer.
- Roller rings on sweep hose should be free spinning and not worn.
- The sweep hose should be flexible and swishing.
- Check for correct gearbox operation. See "How does my Jet Vac work?"
- Make sure that any worn parts on the Jet Vac shell are promptly replaced.
- When the Jet Vac is not in use, ensure that it is not stored in a coiled-up position.

How does my JetVac work?

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What makes my Jet Vac go forward or reverse?

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The continual reversing and rotating of the Jet Vac ensures the cleaner will not get caught or snagged in any spot.

Check the correct operation of the gearbox by holding the Jet Vac out of water whilst operating. Watch the correct cycling of the water flow as described above.

Hint: Hold the cleaner upside down at water level to gain the best view. Hold the sweep hose from spraying everywhere.

What opens and closes the ports?

The bottom gear is the active gear in closing and opening the different ports. The series of holes in the gears ensures that the forwarding port and the reversing ports cannot open at the same time or be closed at the same time. High pressure water enters the Jet Vac head and spins the top propellor. The propellor engages the gears so that the bottom (active) gear moves the slowest. When the hole in the active gear lines up with a port, then water is directed through that port.

How long does my Jet Vac go forward or reverse?

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Simple! Jet Vac is propelled by water. Jet Vac picks up debris by using a venturi jet of water.

JV204 Internal Tune Up Kit Installation Guide

STEP 1

Remove feed hose, funnel adaptor and bag from unit. Turn Jet Vac upside down and place on flat surface.

STEP 2

Remove 7 stainless steel self tapping screws (Phillips head) from the white bottom plate. The screws are marked X in the picture. Keep upside down and do not yet remove the bottom plate from the blue body.

STEP 3

Holding the bottom plate in place, turn Jet Vac the right way up and then gently remove bottom plate from blue body, keeping upright.

STEP 4

Familiarise yourself with the way that the 4 x gears, 1 x propeller and 1 x brass spacer fit over the stainless steel shafts.

STEP 5

Remove the gears, propeller and brass spacer. Use pliers to pull out the stainless steel shafts.

STEP 6

Install the 3 new stainless steel shafts by pushing them in and then gently tapping them in with head of pliers. Do not use force to install the shafts, damage to the bottom plate may occur if excessive force is used. Ensure the height of the shafts are even.



CONTINUED ON NEXT PAGE >

JET-VAC[®]
AUTOMATIC POOL CLEANERS

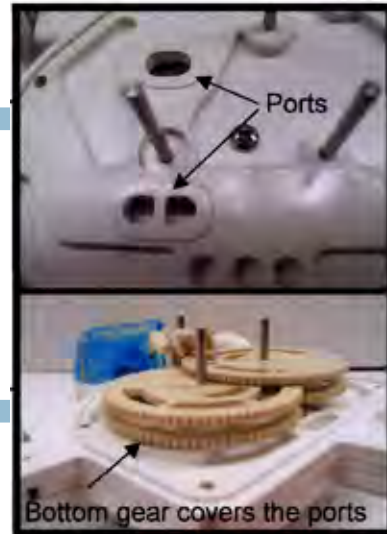
JV204 Internal Tune Up Kit Installation Guide

STEP 7

Use a dry cloth to thoroughly clean the surface of the bottom plate. Use thumbnail to remove any grit that has built up on the surface of the ports, do not use sandpaper.

STEP 8

Install gears over the two forward stainless steel shafts. The first gear covers the ports, then sequentially locate the remaining three gears. Brass spacer must be fitted on the rear shaft and propeller locates above the spacer, meshing with the top gear. Ensure propeller and gears spin freely. Keeping the bottom plate upright, lower the blue body into position, hold together and turn upside down and gently tighten the seven screws.



For your nearest **JetVac Sales and Service Centre** contact:

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