

LITTLE WONDER®

HPV™

High PERFORMANCE VAC™

SELF PROPELLED

Models 5621 and 5631



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Important Information

A. Introduction

On behalf of everyone at **Little Wonder**, we would like to thank you for your purchase of a **Little Wonder** High Performance Vac. This professional debris handling machine was designed to the highest standards to ensure you many hours of uninterrupted service.

This manual provides the information necessary for safe and efficient operation and service. For your safety, it is critically important that you read and understand this entire manual before operating your High Performance Vac.

Specifications:

Model	Dry Weight	Max Rpm
5621	258 lbs.	3400
5631	260 lbs.	3400

B. Service Information

High Performance Vac Unit

Contact your local **Little Wonder** dealer.

Engine

Contact an authorized Briggs & Stratton dealer. Dealers are listed in the Yellow Pages under "Lawn and Garden Equipment Supplies", "Lawn Maintenance" or "Lawn Mowers". Your dealer will need to know the model and serial number of your engine. For their location, please consult the operator's manual provided with your engine.

C. Special Safety Information

▲ WARNING ▲ DANGER ▲
**ATTENTION: THIS SYMBOL POINTS OUT
IMPORTANT SAFETY INSTRUCTIONS**
▲ WHEN YOU SEE THIS SYMBOL ▲
HEED ITS WARNING! STAY ALERT!

▲ WARNING ▲ DANGER ▲
**TO REDUCE THE POTENTIAL FOR ACCIDENTS,
COMPLY WITH THE SAFETY INSTRUCTIONS IN
THIS MANUAL. FAILURE TO COMPLY MAY RESULT
IN SERIOUS PERSONAL INJURY AND OR
EQUIPMENT AND PROPERTY DAMAGE.**

▲ WARNING ▲ DANGER ▲
**THE ENGINE EXHAUST FROM THIS PRODUCT
CONTAINS CHEMICALS KNOWN TO THE STATE OF
CALIFORNIA TO CAUSE CANCER, BIRTH DEFECTS
OR OTHER REPRODUCTIVE HARM.**

Unpacking

1. Remove Collector assembly, Nozzle assembly, and Debris bag from the top section of the package.
2. Remove cardboard insert.
3. Cut away short side of box and fold down.
4. Pull and latch "transaxle engagement lever." See page 9.
5. Roll HPV base unit out of box.

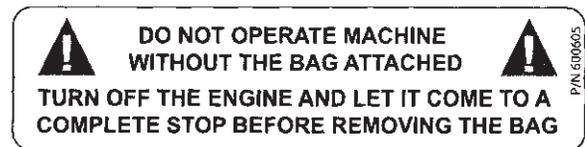
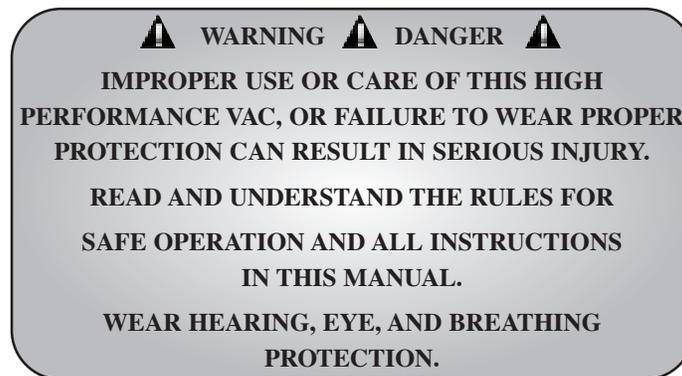
Safety and Warnings

A. Safety Decals

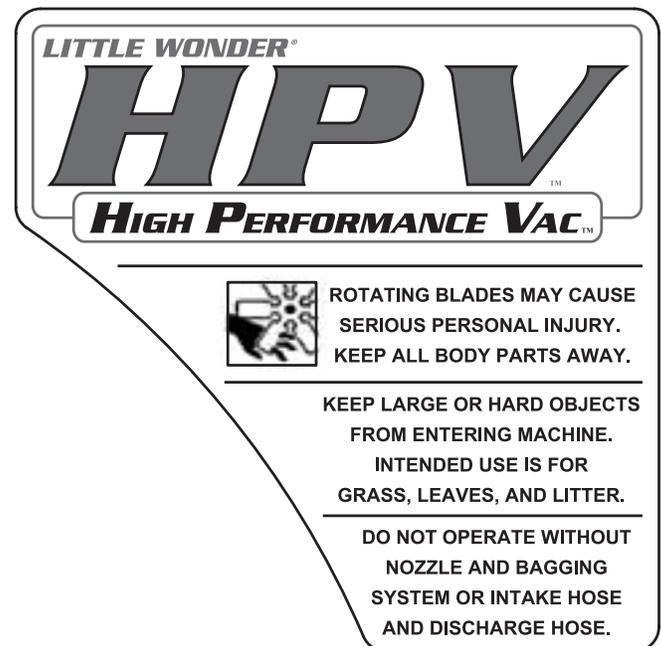
An important part of the safety system incorporated in this High Performance Vac are the warnings and informational decals (labels) found on various parts of the unit.

These decals (labels) must be replaced if they become illegible due to abrasion, etc.

It is your responsibility to replace the decals (labels) when they become hard to read. The location of these decals and their part numbers for ordering are shown on page 3.



P/N 600605
Warning Label



P/N 600604



P/N 600602
Warning Label

Keep hands and feet away from air discharge areas. Rotating fan will cause serious injury.

Before performing any service or maintenance, disconnect spark plug wire. Make sure throttle is in STOP position.

Read and understand the Owners Manual. Store your Owners Manual in a safe place.

Caution:
Thrown objects.

Keep bystanders away.

Always wear eye, ear and breathing protection.

Safety and Warnings

! DO NOT OPERATE MACHINE WITHOUT THE BAG ATTACHED **!**
 TURN OFF THE ENGINE AND LET IT COME TO A COMPLETE STOP BEFORE REMOVING THE BAG

P/N 600605

P/N 600605
Warning Label

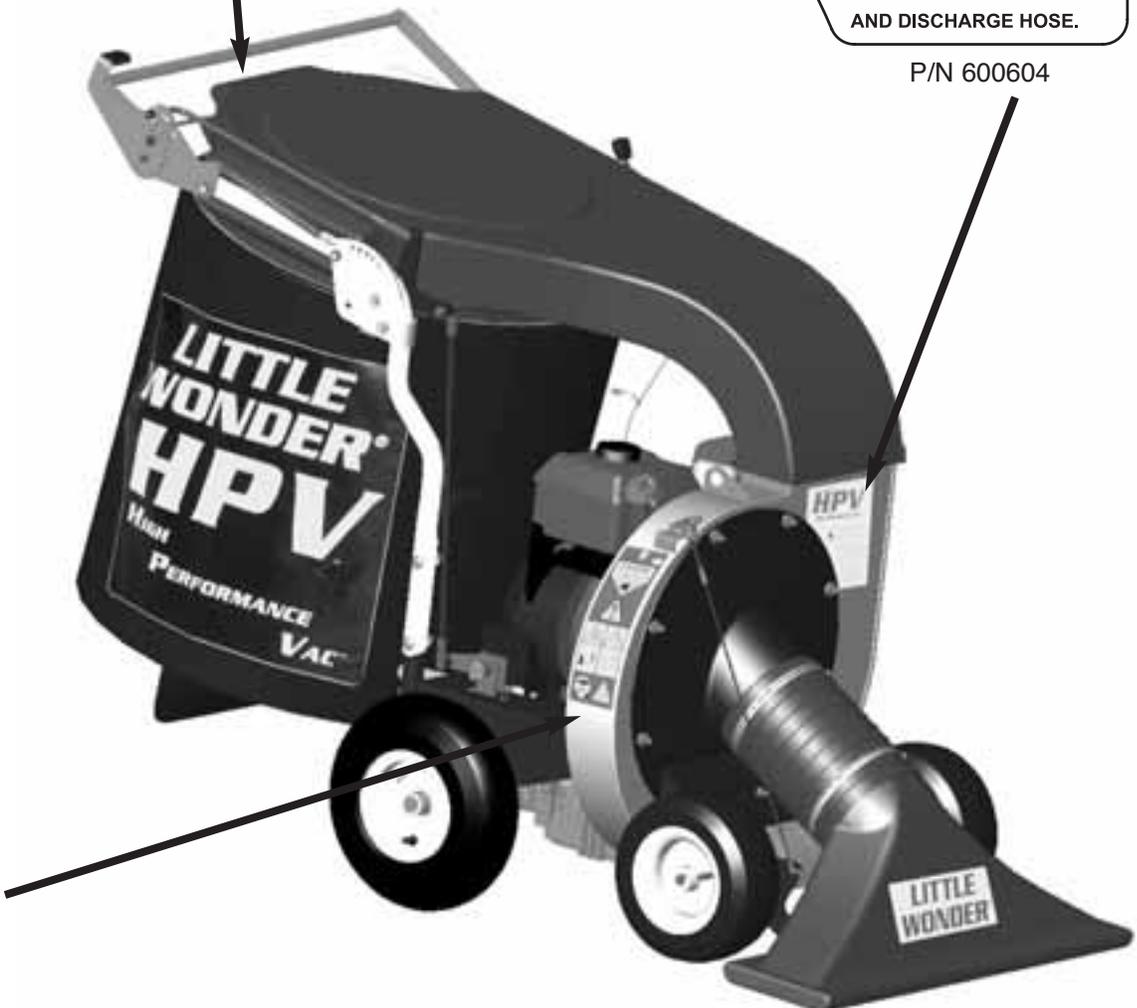
LITTLE WONDER®
HPV
High Performance Vac™

 ROTATING BLADES MAY CAUSE SERIOUS PERSONAL INJURY. KEEP ALL BODY PARTS AWAY.

KEEP LARGE OR HARD OBJECTS FROM ENTERING MACHINE. INTENDED USE IS FOR GRASS, LEAVES, AND LITTER.

DO NOT OPERATE WITHOUT NOZZLE AND BAGGING SYSTEM OR INTAKE HOSE AND DISCHARGE HOSE.

P/N 600604

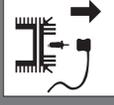


DANGER
 KEEP HANDS and FEET AWAY





P/N 600602
Warning Label

General Safety Rules

1. Read and understand manual.
2. Wear eye, hearing, and breathing protection, proper clothing and footwear.
3. While operating the machine always be sure of a safe and secure operating position, maintain a firm footing and good balance at all times.
4. Keep area clear of children, pets, and bystanders.
5. Never attempt to use an incomplete machine or one fitted with an unauthorized modification.
6. Avoid contact with and inhalation of harmful fluids, gases, mists, fumes, and dust.
7. Do not allow children to operate machine.
8. Do not override or remove any safety devices.

▲ WARNING ▲ DANGER ▲

9. FAN COASTS AFTER THE ENGINE IS TURNED OFF.

▲ WARNING ▲ DANGER ▲

10. ROTATING FAN. DON'T ATTEMPT TO REMOVE MATERIALS FROM INTAKE OR DISCHARGE WHEN UNIT IS RUNNING, OR FAN IS ROTATING.

▲ WARNING ▲ DANGER ▲

11. DO NOT OPERATE UNIT IF EXCESSIVE VIBRATION OCCURS; SHUT ENGINE OFF IMMEDIATELY! REMOVE SPARK PLUG WIRES AND CHECK FOR DAMAGED IMPELLER, LOOSE IMPELLER BOLT, LOOSE IMPELLER KEY, OR LODGED FOREIGN OBJECTS.

12. Keep hands away from hose inlet and discharge chute.
13. Disconnect spark plug wire before doing any cleaning or maintenance.
14. Wear gloves to protect your hands.
15. Beware that the machine is loud and, during normal operation; may interfere with speech communication.

A. ▲ Warnings - "Don'ts"

Don't attempt to remove materials from intake or discharge when High Performance Vac is running, or fan is rotating.

Don't install or remove components while High Performance Vac is running. Turn off engine to make changeover. Be sure throttle is in the stop position, and the High Performance Vac has come to a complete stop. Remove the spark plug wire from the spark plug before removing material.

Don't attempt to repair High Performance Vac. Have repairs made by qualified Little Wonder dealer or repairman. See that only Little Wonder and recommended engine manufacturers replacement parts are used.

▲ WARNING ▲ DANGER ▲

DO NOT SMOKE WHEN FILLING FUEL TANK

Don't leave the engine running while the High Performance Vac is unattended.

Don't store, spill, or use gasoline near flames or spark

B. ▲ Warnings - "Do's"

Always dress properly. Do not wear loose clothing or jewelry. They can be caught in moving parts. Use of sturdy gloves, non-skid footwear and safety glasses are recommended. Always wear ear protectors where possible. Use face filter to avoid breathing dust.

Always stay alert. Watch what you are doing and use common sense. Do not operate High Performance Vac when fatigued.

Always keep hands away from air intake and air outlet chute. Keep both hands on handles when power is on.

Always maintain and examine High Performance Vac with care. Follow maintenance instructions given in manual.

▲ WARNING ▲ DANGER ▲

DO NOT USE THE HIGH PERFORMANCE VAC IF THE MUFFLER IS DEFECTIVE OR MISSING.

B. Warnings - "Do's" Continued

Always store High Performance Vac indoors. When not in use, store High Performance Vac indoors in a sheltered area (a dry place) where it's not accessible to children. The High Performance Vac, as well as fuel, should not be stored in a house. Keep throttle in the stop position.

Always be sure High Performance Vac is fully assembled. Never operate High Performance Vac without all guards and deflectors in place. Ensure that all nuts, bolts, screws are installed and properly tightened.

Always keep the throttle in the "stop" position when not in use.

Always keep a safe distance between two or more operators when working together simultaneously.

Don't run engine when electrical system causes spark outside the cylinder. During periodic checks of the spark plug, keep plug a safe distance from cylinder to avoid burning of evaporated fuel from cylinder.

Don't check for spark with spark plug or plug wire removed and grounded. Use an approved tester. Sparks can ignite fumes.

Don't run engine when the odor of gasoline is present or other explosive conditions exist.

Don't operate the unit if gasoline is spilled. Clean up spill completely before starting engine.

Don't refuel indoors or in an improperly ventilated area.

Don't operate your High Performance Vac if there is an accumulation of debris around the muffler or cooling fins.

Don't touch hot mufflers, cylinders or cooling fins as contact may cause serious burns.

 **WARNING**  **DANGER** 

IF THE HIGH PERFORMANCE VAC IS USED IMPROPERLY OR SAFETY PRECAUTIONS ARE NOT FOLLOWED, THE USER RISKS SERIOUS INJURY TO THEMSELVES AND OTHERS.

READ AND UNDERSTAND THE FOLLOWING BEFORE ATTEMPTING TO OPERATE THIS HIGH PERFORMANCE VAC.

 **WARNING**  **DANGER** 

HANDLE FUEL WITH CARE. IT IS HIGHLY FLAMMABLE. FUELING A HOT ENGINE OR NEAR AN IGNITION SOURCE CAN CAUSE A FIRE AND RESULT IN SERIOUS PERSONAL INJURY AND/ OR PROPERTY DAMAGE.

C. Engine/ Fuel Warnings - "Don'ts"

Don't fuel, refuel or check fuel while smoking or near an open flame or other ignition source. Stop engine and be sure it is cool before refueling.

Don't leave the engine running while the High Performance Vac is unattended. Stop engine before transporting High Performance Vac from one place to another.

Don't start or run this High Performance Vac indoors, or in an improperly ventilated area as poisonous carbon monoxide and other gasses are emitted.

D. Engine/ Fuel Warnings - "Do's"

Always use fresh gasoline. Stale gasoline can cause difficult starting, poor performance and leakage.

Always pull starter cord slowly until resistance is felt. Then pull cord rapidly to avoid kickback and prevent arm or hand injury.

The use of spark arrestor mufflers is required by law in the state of California (Section 4442 of the California Public Resources Code), as well as in other states or municipalities. Federal laws apply on federal lands.

Always handle fuel with care; it is highly flammable. Never add fuel to a machine with a running or hot engine. Do not inhale fuel fumes as they are toxic.

The spark ignition system meets all requirements of the Canadian Interference Causing Equipment Regulations.

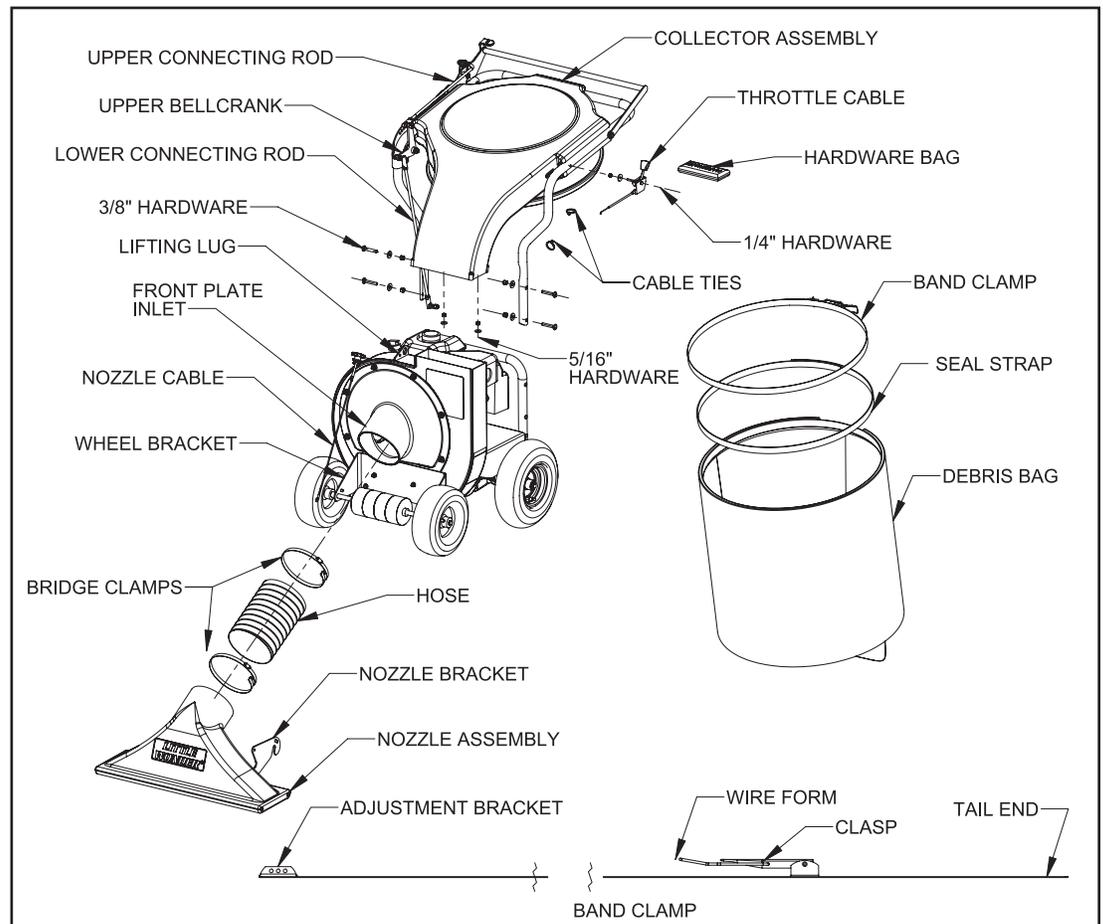
Assembly Instructions

A. Assembly

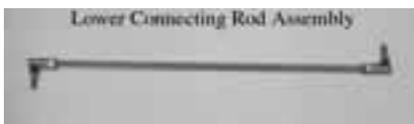
1. Attach the **collector assembly** to the base unit:
 - Bolt the collector assembly to the frame with 4 sets of bolts, washer, and nuts
 - Slide the rectangular end of the collector over the housing and mount the flange with 2 sets of washers and nuts
2. Attach the **throttle control cable** to the handle on the collector assembly:
 - Bolt throttle control lever to handle with washer and nut
 - Secure throttle cable to handle with **cable ties** in 2 places
3. Install the **band clamp** into the **debris bag** (wear gloves when handling band clamp):
 - Slide the bracket end of the band clamp through the left side opening of the sleeve on the debris bag until it emerges from the right side
 - Feed the tail end of the band (on the clasp side) behind the bracket in the sleeve
 - Pinch the wire form on the clasp together and connect it through 2 holes in the adjustment bracket such that it will close tightly over the collector
4. Connect the **debris bag** by placing it over the bottom lip of the **collector** and closing the clasp to secure the bag. Adjust the clasp wire form to the appropriate hole position on the bracket to insure a tight fit. If the bag will not fit tight within the range of the 3 adjustment holes, insert the bag **seal strap**:
 - Unhook the wire form from the bracket
 - Pull the tail end of the band back out from behind the bracket
 - Feed one end of the **seal strap** behind the metal band and through the channel to the other side
 - Tuck the other end of the **seal strap** behind the bracket (overlapping the lead end of the **seal strap**)
 - Feed the tail end of the **band clamp** behind the bracket (overlap the **seal strap**)
 - Connect the wire form to the appropriate holes in the bracket and secure the debris bag to the collector
5. Attach **nozzle assembly** to base unit:
 - Attach one end of the **hose** to the nozzle assembly with the **bridge clamp**

- Slide the other end of the **hose** over the edge of the inlet on the **front plate**
 - Hook one side of the **nozzle bracket** over the front axle
 - Bend the other end of the nozzle bracket inward to hook it over the axle and engage the pins on the **wheel bracket** with the slots on the **nozzle bracket**
 - Secure the hose to **front plate** inlet with the **bridge clamp**
 - Attach the **nozzle cable** end fitting through the hole in the **nozzle bracket**
6. To remove **nozzle assembly** (for purposes of storage, or clearing blockages):
 - Turn engine off and disconnect spark plug
 - Loosen **hose clamp** on the **front plate** with flathead screwdriver or 5/16 wrench
 - Slide hose off of **front plate** inlet
 - Bend one side of **nozzle bracket** inward and twist the **assembly** to remove the hook from the axle
 - Twist back and lift to remove the other side of **nozzle bracket** from the axle

⚠ **WARNING** ⚠ **DANGER** ⚠
NEVER RUN OR OPERATE YOUR MACHINE UNLESS DISCHARGE BAG IS ATTACHED, AND THE INTAKE NOZZLE IS INSTALLED.

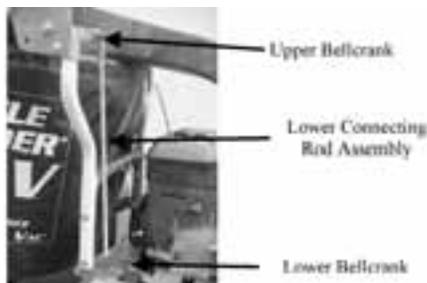


7. Speed Controller Setup



1. Attach the Lower Connecting Rod Assembly to the Lower Bellcrank.

- Attach Lower Connecting Rod Assembly to the Lower Bellcrank with a 3/8"-24 Nyloc Nut. Tighten using 9/16" and 1/2" wrenches.

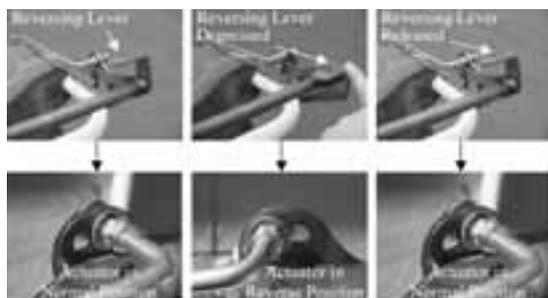


2. Setup the Speed Controller Mechanism – Critical for proper operation.

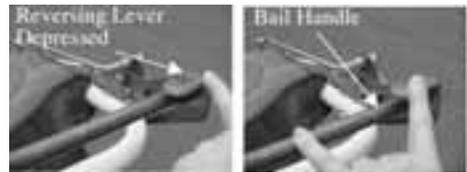
- Verify that the Self-Locking Acorn Nut is tightened sufficiently to hold the Upper Connecting Rod Assembly firmly in place. If not, slightly tighten the Self-Locking Acorn Nut.



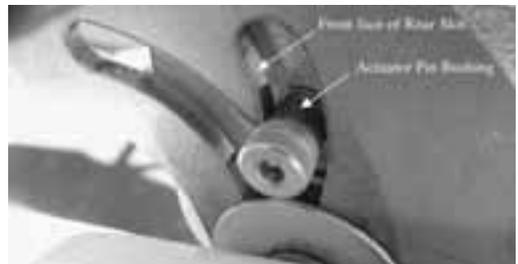
- Verify the Actuator reversing function by depressing the Reversing Lever (Red) and then releasing it. It should work smoothly and, when released, it should fully return to the "normal" position.



- If the Actuator does not work smoothly, binds up, or does not fully return to the "normal" position, loosen the Self-Locking Acorn Nut slightly and recheck the operation. Repeat as needed to achieve proper operation.
- Depress the Reversing Lever and then press lightly on the Bail Handle until the Front Face of the Rear Slot on the Bail Handle just touches the Actuator Pin (also refer to picture in step 'e' below).



- The Front Face of the Rear Slot and the Actuator Pin Bushing should be in contact with each other and appear as shown below:



- If the Actuator Pin does not enter into the Rear Slot as show below, the Upper Connecting Rod Assembly is too short and must be lengthened.



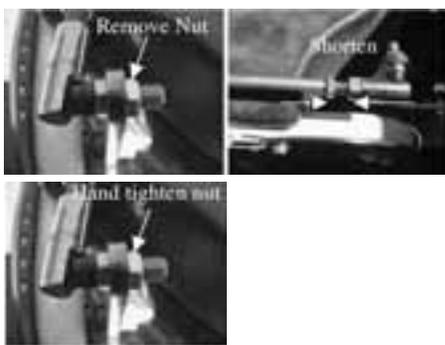
- Remove the nut that holds the Rod End to the Upper Bellcrank.
- Disconnect the Rod End from the Upper Bellcrank.
- Adjust the Rod End outwards by unscrewing it counterclockwise.
- Reattach the Rod End to the Upper Bellcrank and secure it with the nut (hand tightened).
- Repeat this adjustment as needed to position the Rear Slot and Actuator Pin as shown in step 'e' above.



- g. If the Actuator Pin enters into the Rear Slot as show below, the Upper Connecting Rod Assembly is too long and must be shortened.



- i. Remove the nut that holds the Rod End to the Upper Bellcrank.
- ii. Disconnect the Rod End from the Upper Bellcrank.
- iii. Adjust the Rod End inwards by screwing it clockwise.
- iv. Reattach the Rod End to the Upper Bellcrank and secure it with the nut (hand tightened).
- v. Repeat this adjustment as needed to position the Rear Slot and Actuator Pin as shown in step 'e' above.



- h. While holding the Reversing Lever down, gradually press down on the Bail Handle. The Actuator Pin should engage the Rear Slot smoothly with minimal or no “snapping” action when the Bail Handle is depressed. It may be necessary to readjust the Rod End as described above to fine-tune this action.



Full reverse position of Actuator Pin and Rear Slot

- i. Release the Bail Handle. It should return to its full upright position and the Actuator Assembly should also return to its “normal” position as shown below:



- j. Depress the Bail Handle and verify that the Actuator Pin smoothly engages the Front Slot on the Bail Handle.



- k. Verify the forward and reverse operations several times to assure that the set up is correct.
- l. Lock the Rod End of the Upper Connecting Rod Assembly by holding the Rod End in position with a 1/2” wrench and then tightening the nut with a 9/16” wrench as shown below:



- m. Verify that Rod End is straight and not cocked as depicted below:



- n. Remove the standard 3/8”-24 Nut from the Rod End of the Upper Connecting Rod Assembly and replace it with the 3/8”-24 Nyloc Nut. Tighten using both a 9/16” & 1/2” wrench.



Setup of **Speed Controller** complete.

B. Put Oil and Gasoline in Engine Before Starting

▲ **WARNING** ▲ **DANGER** ▲

HANDLE FUEL WITH CARE. IT IS HIGHLY FLAMMABLE. FUELING A HOT ENGINE OR NEAR AN IGNITION SOURCE CAN CAUSE A FIRE AND RESULT IN SERIOUS PERSONAL INJURY AND/ OR PROPERTY DAMAGE.

1. Little Wonder recommends using SAE 30 Oil. The use of multi-viscosity oil will result in high oil consumption and possible engine damage.
2. Add gasoline to the fuel tank, and you are ready to start.
3. See Engine Operating & Maintenance instructions for more detail description of type and amount of oil and gasoline used.

C. Use of Lifting Lug

Little Wonder High Performance Vac is supplied with convenient Lifting Lug that can be used when you need to move or tie down the unit.

⚠ WARNING ⚠ DANGER ⚠
DO NOT USE OR SERVICE THE UNIT WHEN IT'S SUSPENDED FROM THE LIFTING LUG.

Operation

⚠ WARNING ⚠ DANGER ⚠
THE OPERATOR OF THIS HIGH PERFORMANCE VAC IS RESPONSIBLE FOR ACCIDENTS OR HAZARDS OCCURRING TO HIMSELF, OTHER PEOPLE OR THEIR PROPERTY.

A. Starting Instructions

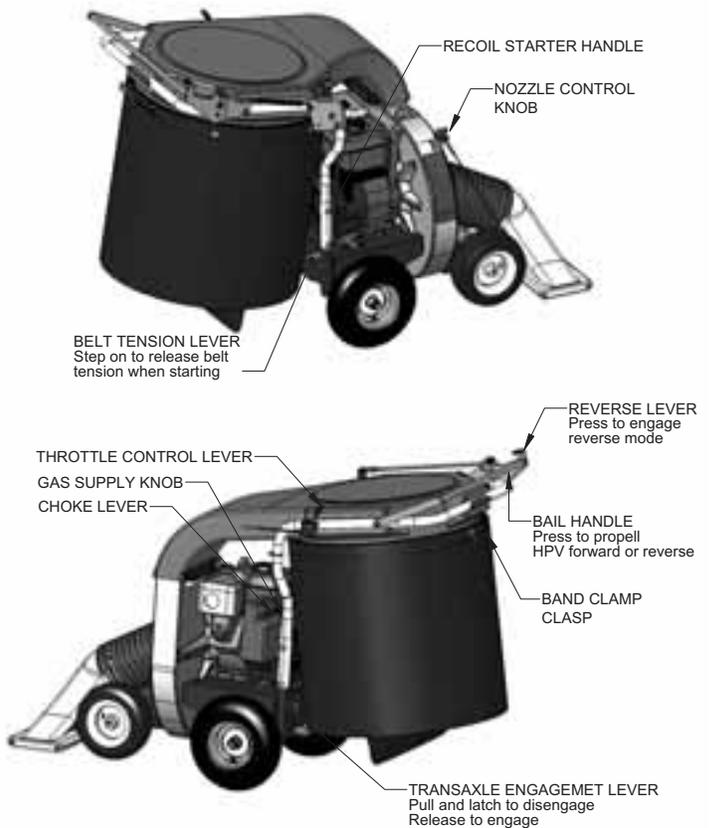
⚠ WARNING ⚠ DANGER ⚠
FUEL IS EXTREMELY FLAMMABLE. HANDLE IT WITH CARE. KEEP AWAY FROM IGNITION SOURCES. DO NOT SMOKE WHILE FUELING YOUR EQUIPMENT.

1. Perform pre-starting checks (engine oil and gas level, all safety inspections, etc. Read entire Owners' Manual for all pre-starting information.)
2. Release the **Transaxle Engagement Lever**
3. Make sure **Gas Supply Knob** (located above Recoil Starter) is turned to **On** position.
4. Move **Choke Lever** (located above and to the left of the Recoil Starter) to **Choke** position.
5. Move **Throttle Control Lever** (located on Left Handlebar) to Middle Position or Full Position (toward Rabbit symbol.)
6. Pull **Recoil Starter Handle** slowly until resistance is felt, then pull firmly to start engine.
7. When engine starts, slowly move **Choke Lever** to Open position.
8. Increase Throttle Control Lever to Full Speed if desired.
9. **NOTE: If engine is difficult to start:** Press **Belt Tension Lever** down with your left foot before pulling Recoil Starter Handle. (This disengages the belt for easier starting.) When engine starts, slowly release your foot from the Belt Tension Lever.

B. Self-Propelled Instructions

1. With engine running (and Transaxle Lever in Engage position) slowly press **Bail Handle** downward to self-propel vacuum **FORWARD**. The farther down you press the Bail Handle, the faster the speed of the vacuum. Slowly release the Bail Handle to reduce speed or to stop.
2. To self-propel in Reverse, first press downward on the **Reverse Lever**, and (with the Reverse Lever pressed down) press downward on the Bail Handle. The farther down you press the **Bail Handle**, the faster the speed of the vacuum in **REVERSE**. Slowly release the Bail Handle to reduce speed or to stop.
3. Releasing the Bail Handle at any time stops the vacuum from movement.

HPV Control Levers



⚠ WARNING ⚠ DANGER ⚠
ENGINE EMITS CARBON MONOXIDE. DO NOT OPERATE OR REFUEL IN ENCLOSED AREA.

C. Vacuuming

1. Adjust nozzle to desired height by turning the nozzle control knob, secure position with wing nut.
2. Vacuum debris from lawn or paved surfaces. Vacuum the following: leaves, small twigs and sticks, acorns, thistles, seed pods, grass clippings, straw, wood chips, dry mulch, litter, small cans & bottles, paper products, styrofoam products.
3. **Avoid the following:** excessively wet surfaces and debris, gravel surfaces, large hard objects, rocks, long fibrous materials (vines, rope, string etc). Do not force anything into vacuum.

D. Empty Debris Bag

1. Turn off engine and let it come to a complete stop before removing the debris bag.
2. Roll vacuum to the desired unloading location (compost pile, curb-side, wooded area, tarp, etc.).
3. Open clasp on band clamp to release bag to the ground. Avoid dragging bag on surface to prolong bag life.
4. Empty contents of debris bag (handle straps are provided on the under side of the bag for aid in dumping contents).
5. Reconnect bag to collector.

E. Refueling the Engine

1. Stop engine and allow it to cool for a few minutes before refueling.

▲ WARNING ▲ DANGER ▲

KEEP RECOIL STARTER SCREEN AND ENTIRE ENGINE CLEAR OF ALL DEBRIS. DO NOT OPERATE ENGINE WITH AN ACCUMULATION OF GRASS, DIRT, LEAVES OR OTHER COMBUSTIBLE MATERIAL NEAR MUFFLER.

▲ WARNING ▲ DANGER ▲

DO NOT OPERATE UNIT IF EXCESSIVE VIBRATION OCCURS; SHUT ENGINE OFF IMMEDIATELY! REMOVE SPARK PLUG WIRES AND CHECK FOR DAMAGED IMPELLER, LOOSE IMPELLER BOLT, LOOSE IMPELLER KEY, OR LODGED FOREIGN OBJECTS.

Storage and Maintenance

A. Storage

1. After each use, run HPV with the empty bag attached to help clear out any loose material in the housing.
2. When not in use store High Performance Vac in sheltered area (a dry place) not accessible to children. Keep throttle in the “Stop” position.
3. The High Performance Vac, as well as fuel, should not be stored in a house or poorly ventilated areas.
4. Do not store fuel in the engine’s gas tank longer than 30 days.

B. Maintenance

Area	Every Use	Every 5 Hrs	After First 8 Hrs of Use	Every 25 Hours	Every 50 Hours
*Engine	See Engine Manual				
Check muffler area for accumulation of debris	✓				
Check for excessive vibration	✓				
Inspect for loose or damaged parts		✓			
Inspect for clean intake nozzle	✓				
Inspect labels condition	✓				
Check oil level		✓			
**Oil change			✓		✓
Service air cleaner				✓	
Clean and inspect spark plug arrester					✓
Check tire pressure	✓				
Inspect speed control for proper operation	✓				
Check V Belt for excessive wear, cracks, etc.					✓
Check idler pulleys for smooth operation					✓

* See Engine Operating & Maintenance instructions for more detail maintenance and service schedule.

** Change oil every 25 Hrs if operating under heavy load or high ambient temperature.

C. Removing Blockage in Moving Parts

⚠ WARNING ⚠ DANGER ⚠
TURN OFF ENGINE BEFORE YOU DISCONNECT HOSE, AND MAKE SURE ALL MOVING PARTS COME TO A COMPLETE STOP.

⚠ WARNING ⚠ DANGER ⚠
BE SURE THROTTLE IS IN “STOP” POSITION, AND FAN HAS COME TO A COMPLETE STOP.

⚠ WARNING ⚠ DANGER ⚠
DISCONNECT THE SPARK PLUG WIRES BEFORE ANY CLEANING OR MAINTENANCE!

⚠ WARNING ⚠ DANGER ⚠
WEAR GLOVES, THE CLOG MAY CONTAIN SHARP MATERIALS.

1. Support the housing with 2x4 lumber such that front wheel are 1” above the ground.
2. Chock the rear wheels with blocks.
3. Remove the nozzle assembly from the front plate. (See Assembly Instruction 6.)
4. Remove the front wheel assembly.
5. Remove the front plate.
6. Wear gloves and clear out debris from around the impeller and housing.

D. Directions for removing the Fan and reinstallation

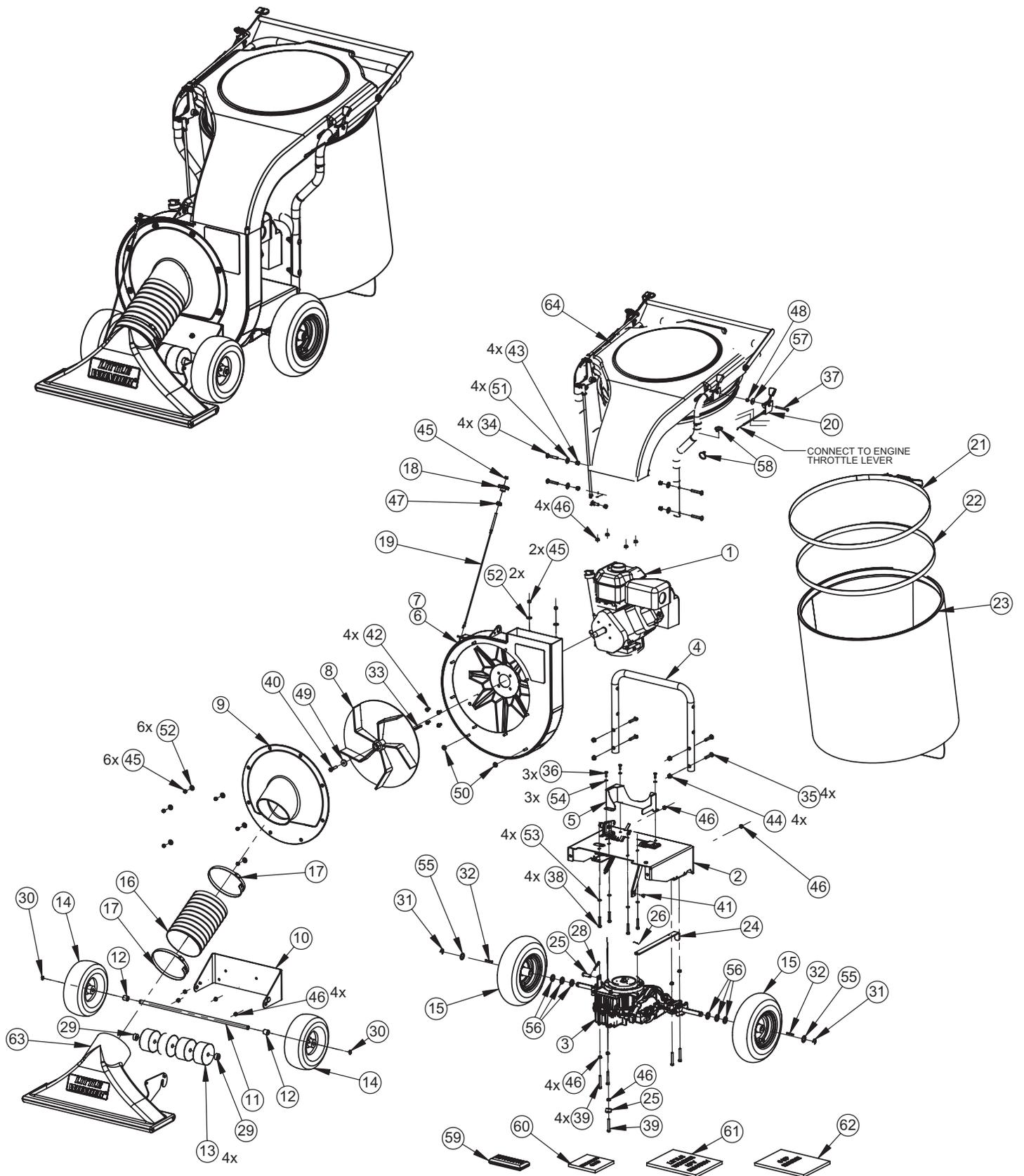
1. Remove spark plug wire from spark plug.
2. Remove nozzle assembly.
3. Remove front plate assembly.
4. Remove the bolt that secures the fan to the engine crankshaft.
5. The fan has a 3/4-16 nut welded on the fan hub. Insert a 3/4-16 x 5" long grade 5 (or better) bolt and jack or push the fan off the engine. (Little Wonder P/N 910505 pressure screw is recommended.)

6. Replace damaged or worn fan with a new one. If during fan removal the key (#915) was removed from the keyway, reinstall it by applying a few drops of the Loctite 380 instant adhesive (“Black Max” P/N 38050) on the key, and load the key in the keyway of the shaft. (Cure time is approx. 1 min.)
7. Use a new bolt (#600524) (add Loctite 242 to new bolt) and washer (#910527) and complete fan installation. Insure a secure fit upon re-assembling. Torque bolt to 39-51 Ft. lbs.

E. Changing V-Belt

1. Turn off engine. Remove Spark Plug Wire from Spark Plug. Chock or block wheels of vacuum to prevent it from rolling.
2. Remove Debris Bag from vacuum.
3. Remove 3 hex head bolts that attach Belt Guard to Deck. (Use 7/16” wrench or socket.) Set Belt Guard aside. **Note how V Belt goes around each of 4 pulleys and how it “twists.”**
4. Remove 4 hex head bolts that attach Recoil Starter Cover to Engine Standoffs. (Use 8 millimeter nut driver, socket or wrench.) Remove Recoil Starter Cover.
5. Loosen (but do not remove) 2 hex head bolts that attach Fixed Idler Bracket to Deck. (Use 7/16” wrench or socket.) This allows clearance for belt to be removed.
6. Press down on Belt Tension Lever and lift V Belt off its pulley. Release Belt Tension Lever. Remove V Belt from Engine Pulley.
7. Remove V Belt from large horizontal pulley of transaxle (under Deck.) Pushing V Belt forward with both hands, then lifting V Belt up, then pulling V Belt backwards should remove it from large pulley. Remove V Belt from under Deck.
8. Reverse above steps to replace V Belt. Install V Belt with the same “twists” that the old V Belt made around the pulleys. Make sure the “V” side of the V Belt goes into each pulley. Before replacing Belt Guard or starting engine, pull Recoil Starter Handle several times to make sure V Belt rides in the grooves of each pulley.
9. Make sure Belt Tension Lever and return spring operate smoothly. If it sticks or does not operate smoothly, lubricate the Belt Tension Lever and its mounting bracket with a few drops of Motor Oil, or other medium weight oil. Push Belt Tension Lever down and release it several times to allow lubrication to penetrate between lever and mounting bracket. Proper operation of the Belt Tension Lever and its return spring will insure that your V Belt will operate properly and last many hours of use.

HPV Parts Assembly

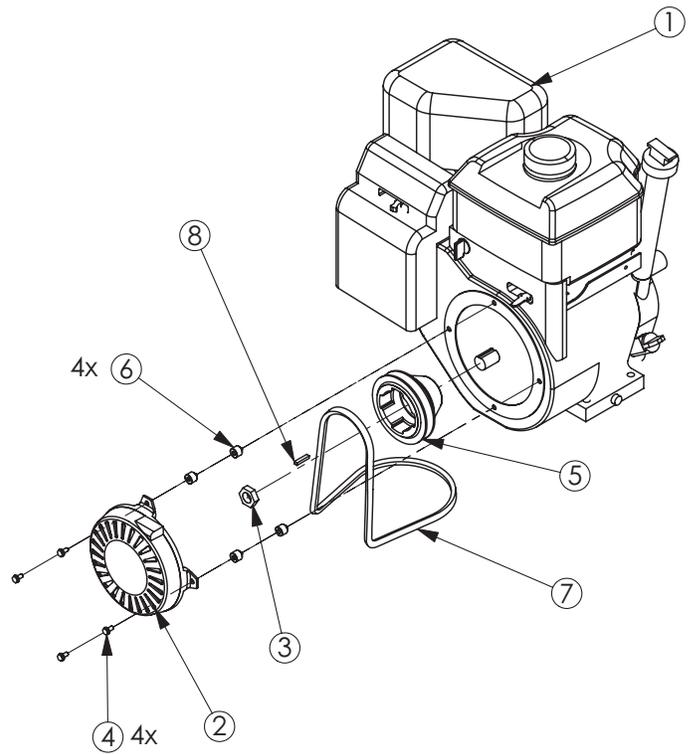


HPV Parts List

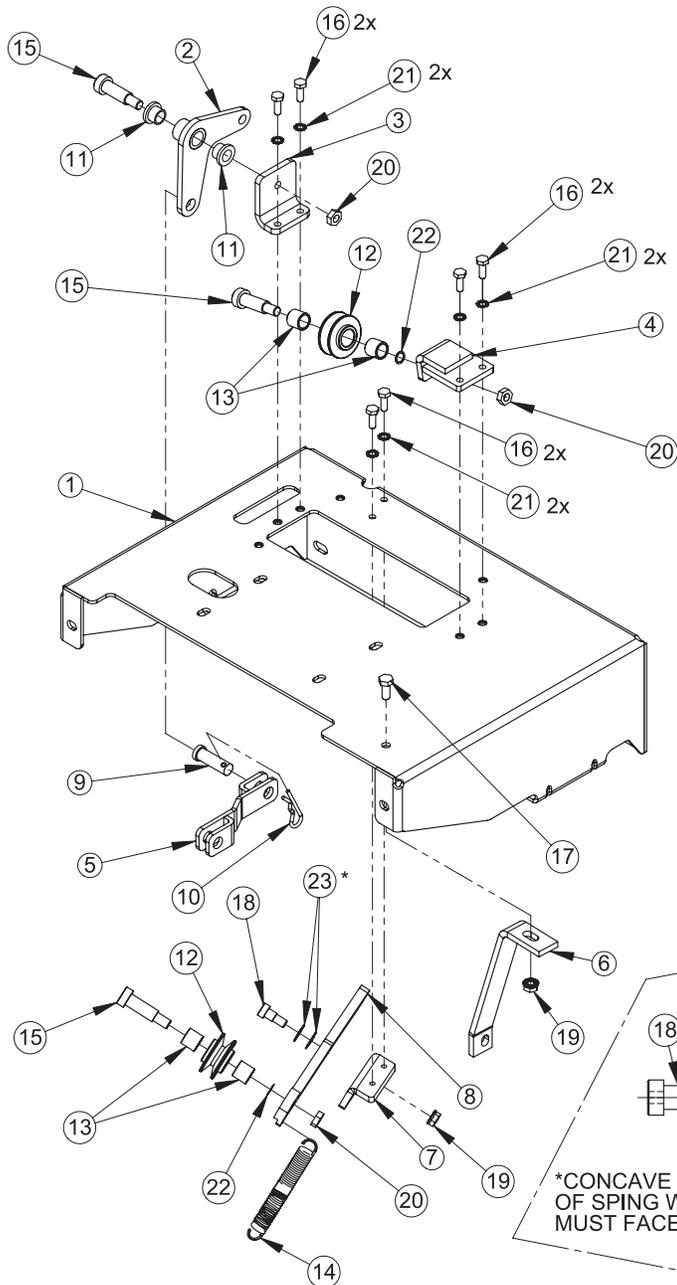
KEY No.	PART No.	DESCRIPTION	QTY.	KEY No.	PART No.	DESCRIPTION	QTY.
1	SEE DETAIL	6.5 HP ENGINE ASSEMBLY	1	34	600504	BOLT, CARRIAGE, 3/8-16 x 2-1/4, GR.5	4
2	SEE DETAIL	DECK ASSEMBLY	1	35	600525	BOLT, CARRIAGE, 3/8-16 x 2" LG	4
3	600193	TRANSAXLE	1	36	600537	BOLT, HEX, 1/4-20 x 3/4" LG	3
4	600184	HANDLE MOUNT	1	37	600545	BOLT, HEX, 1/4-20 x 2.5" LG	1
5	600251	BELT GUARD	1	38	942	BOLT, HEX, 5/16-18 x 1-3/4" LG	4
6	600186	HOUSING - WITH OUT LINER HOLES	1	39	600547	BOLT, HEX, 5/16-18 x 2-1/4" LG	5
7	600187	HOUSING - WITH LINER HOLES	1	40	600524	BOLT, 3/8-24 x 1.75" LG	1
8	600114	IMPELLER-BALANCED	1	41	600546	BOLT, SELF TAP, 5/16-8 x 3/4" LG	1
9	600118	FRONT PLATE	1	42	910503	BOLT, SERRATED FLANGE, 5/16-24 x 3/4" LG	4
10	600182	BRACKET, FRONT WHEELS	1	43	720518	NUT, NYLOCK, 3/8-16	4
11	600188	AXLE, FRONT	1	44	720594	NUT, SERRATED FLANGE, 3/8-16	4
12	600137	SPACER, WHEEL	2	45	114C	NUT, NYLOCK, 5/16-18	9
13	600257	WEIGHT DISC	4	46	114B	NUT, SERRATED FLANGE, 5/16-18	15
14	934	WHEEL, 10"	2	47	600507	NUT, WING, 5/16-18	1
15	600195	WHEEL, 13"	2	48	600506	NUT, NYLOCK, 1/4-20	1
16	600102	HOSE, NOZZLE, 7"D x 10" LG	1	49	910527	WASHER, FAN, FLANGED	1
17	720420	BRIDGE CLAMP, HOSE, 7" D	2	50	600523	WASHER, 5/16 ID x 3/16 TH	2
18	600162	KNOB, NOZZLE CONTROL, 5/16-18, FEMALE	1	51	720516	WASHER, FLAT, 3/8, USS	4
19	600104	NOZZLE CONTROL CABLE	1	52	720511	WASHER, FLAT, 5/16, USS	8
20	600239	THROTTLE CABLE CONTROL LV w/ Trans	1	53	129D	WASHER, SPLIT LOCK, 5/16	4
21	600176	BAND CLAMP	1	54	600554	WASHER, LOCK, STAR, EXT, 1/4"	3
22	600196	BAG SEAL STRAP	1	55	600269	WASHER, THRUST, OILITE 3/4" ID x 1-1/4" OD x 1/16" TH	2
23	600177	DEBRIS BAG	1	56	600268	WASHER, THRUST, OILITE 3/4" ID x 1-1/4" OD x 1/8" TH	6
24	600220	LEVER, DISCONNECT, LV TRANS	1	57	600518	WASHER, 1/4", COLLECTOR	1
25	600252	SPRING HANGER	1	58	720411	CABLE TIE, 7.5"	2
26	600548	HAIR PIN, 1/4" SHAFT	1	59	600521	HARDWARE BAG	1
27	600555	PIN, CLEVIS, 1/2" x 1-1/2" LG	1	60	16-102	WARRANTY CARD	1
28	600556	PIN, HITCH	1	61	600709	OWNERS MANUAL	1
29	600258	COLLAR, 5/8	2	62	N/A	ENGINE MANUAL	1
30	312	SNAP RING, 5/8D	2	63	SEE DETAIL	NOZZLE ASSEMBLY	1
31	600540	E CLIP	2	64	SEE DETAIL	COLLECTOR ASSEMBLY	1
32	920532	KEY 3/16 x 3/16 x 1-1/2" LG	2				
33	915	KEY, 1/4" SQ x 2" LG	1				

HPV Engine Assembly

KEY NO.	PART NO.	DESCRIPTION	QTY.
1	600901	ENGINE, 6.5 HP	1
2	600901	RECOIL, SUPPLIED W/ ENGINE (600901)	1
3	600901	NUT, SUPPLIED W/ ENGINE (600901)	1
4	600901	BOLT, SUPPLIED W/ ENGINE (600901)	4
5	600194	PULLEY, ENGINE	1
6	600249	STANDOFF, ENGINE	4
7	600200	BELT, V, LV W/ TRANS	1
8	600238	KEY, ENGINE PULLEY	1

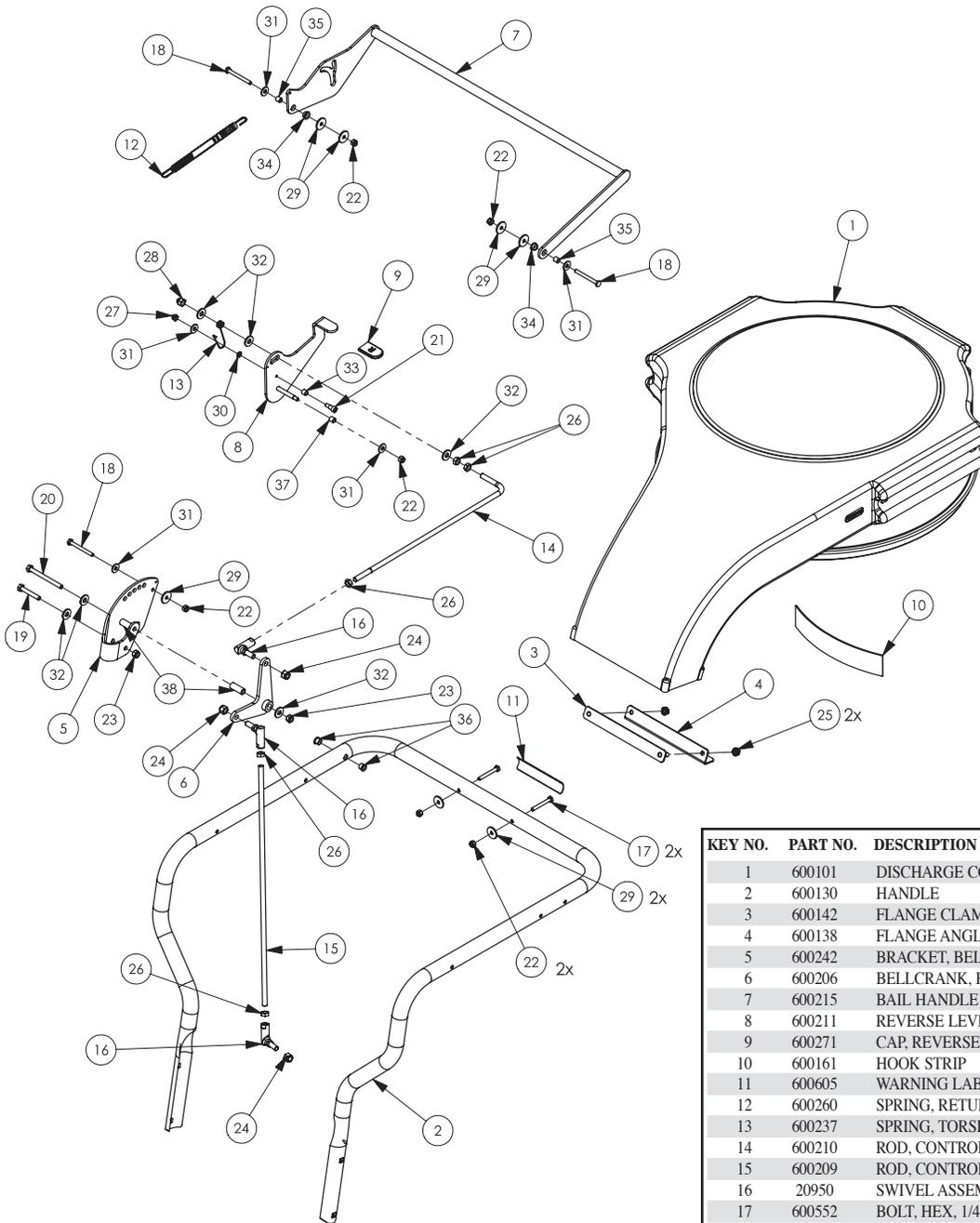


HPV Deck Assembly



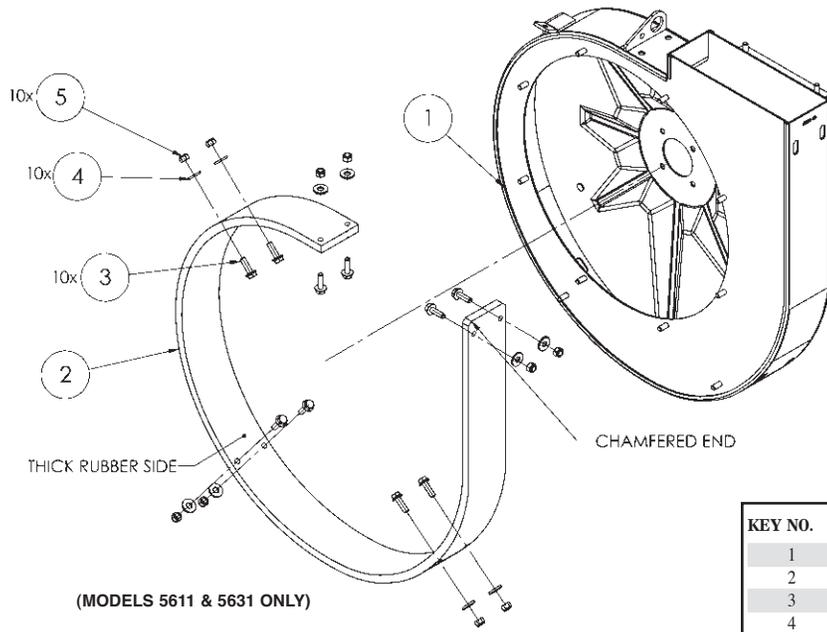
KEY NO.	PART NO.	DESCRIPTION	QTY.
1	600199	DECK, LV W/ TRANS	1
2	600231	BELLCRANK, DECK	1
3	600244	BRACKET, BELLCRANK, DECK	1
4	600264	BRACKET, IDLER, WELDMENT	1
5	600266	LINK, BELLCRANK, WELDMENT	1
6	600219	STRAP, TORQUE, LV	1
7	600204	BRACKET, MOUNT, TENSION	1
8	600203	BRACKET, TENSION	1
9	600555	PIN, CLEVIS, 1/2" X 1-1/2" LG	1
10	600556	PIN, HITCH	1
11	600270	BUSHING, FLANGED, 1/2" ID X 5/8" OD X 1/2" LG	2
12	600224	PULLEY, IDLER, LV	2
13	600201	BEARING, NEEDLE, 1/2" ID X 11/16" OD	4
14	600253	SPRING, PULLEY, IDLER	1
15	600526	BOLT, SHOULDER, 1/2" X 1-1/4" LG	3
16	600537	BOLT, HEX, 1/4-20 X 3/4" LG	6
17	129C	BOLT, HEX, 5/16-18 X 3/4" LG	1
18	600536	BOLT, SHOULDER, 3/8" X 3/8" LG	1
19	114B	NUT, SERRATED FLANGE, 5/16-18	2
20	600541	NUT, THIN JAM, 3/8-16	3
21	600554	WASHER, LOCK, STAR, EXT, 1/4"	6
22	600558	SHIM, SHOULDER BOLT, 1/2" OD X .015 TH	2
23	600557	WASHER, BELVILLE SPRING 3/8 ID X 5/8 OD	2

HPV Collector Assembly



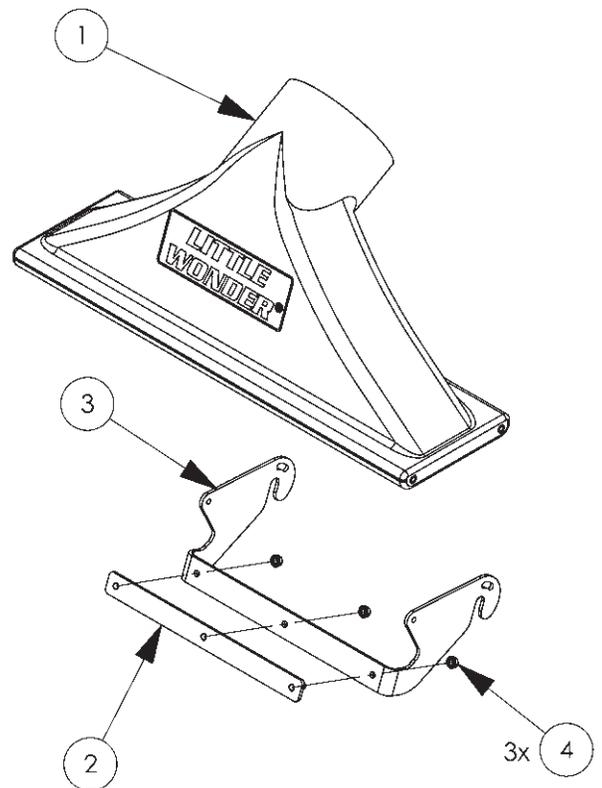
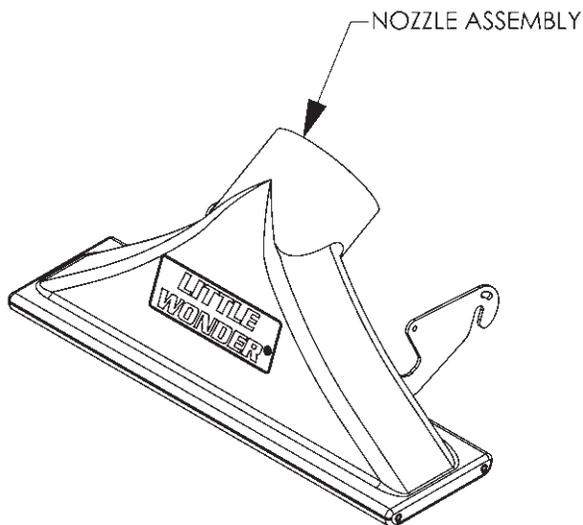
KEY NO.	PART NO.	DESCRIPTION	QTY.
1	600101	DISCHARGE COLLECTOR	1
2	600130	HANDLE	1
3	600142	FLANGE CLAMP PLATE	1
4	600138	FLANGE ANGLE-COLLECTOR	1
5	600242	BRACKET, BELLCRANK, HANDLE	1
6	600206	BELLCRANK, HANDLE	1
7	600215	BAIL HANDLE	1
8	600211	REVERSE LEVER	1
9	600271	CAP, REVERSE LEVER	1
10	600161	HOOK STRIP	1
11	600605	WARNING LABEL - DEBRIS BAG	1
12	600260	SPRING, RETURN CONTROL	1
13	600237	SPRING, TORSION, BAIL	1
14	600210	ROD, CONTROL, UPPER	1
15	600209	ROD, CONTROL, LOWER	1
16	20950	SWIVEL ASSEMBLY 3/8-24	3
17	600552	BOLT, HEX, 1/4-20 X 2" LG	2
18	600545	BOLT, HEX, 1/4-20 X 2.5" LG	3
19	600544	BOLT, HEX, 5/16-18 X 2" LG	1
20	600543	BOLT, HEX, 5/16-18 X 3.5" LG	1
21	600551	BOLT, SHOULDER, 5/16 DIA X 3/8" LG	1
22	600506	NUT, NYLOCK, 1/4-20	6
23	114C	NUT, NYLOCK, 5/16-18	2
24	600542	NUT, NYLOCK, 3/8-24, YELLOW ZINC	3
25	114B	NUT, SERRATED FLANGE, 5/16-18	2
26	600528	NUT, THIN JAM, 3/8-24	5
27	600549	NUT, ACORN, 1/4-20, SELF LOCKING	1
28	600550	NUT, ACORN, 3/8-24, SELF LOCKING	1
29	600518	WASHER, 1/4", COLLECTOR	7
30	396	WASHER, LOCK, 1/4", SPLIT	1
31	720510	WASHER, FLAT, 1/4, USS	5
32	720511	WASHER, FLAT, 5/16, USS	6
33	600259	BUSHING, ACTUATOR	1
34	600246	BUSHING, FLANGED, DRYLIN MFI-0608-04	2
35	600262	SPACER, OILLITE, 1/4" ID X 3/8" OD X 3/8" LG	2
36	600241	BUSHING, FLANGED, OILLITE, 5/16 ID X 7/16 OD X 3/8" LG	2
37	600263	SPACER, OILLITE, 5/16" ID X 3/8" OD X 3/8" LG	1
38	600256	SPACER, OILLITE, 5/16 ID X 5/8 OD X 1.25" LG	2

HPV Liner Assembly



KEY NO.	PART NO.	DESCRIPTION	QTY.
1	600187	HOUSING ASSEMBLY, WITH LINER HOLES	1
2	600175	LINER	1
3	720592	FLANGE BOLT, 5/16-18 X 1" LG	10
4	720511	WASHER, FLAT, 5/16, USS	10
5	114C	NUTS, NYLOCK, 5/16-18	10

HPV Nozzle Assembly



KEY NO.	PART NO.	DESCRIPTION	QTY.
1	600100	NOZZLE	1
2	600133	NOZZLE CLAMP PLATE ASSEMBLY	1
3	600183	NOZZLE BRACKET, VER. 2"	1
4	114B	NUT, SERRATED FLANGE, 5/16-18	3

**1 YEAR LIMITED SERVICE & WARRANTY POLICY
FOR HIGH PERFORMANCE VAC**

The **Little Wonder** High Performance Vac is guaranteed against defects in material and workmanship for a period of ONE YEAR from date of purchase, when used for RESIDENTIAL SERVICE, or COMMERCIAL SERVICE. Any **Little Wonder** High Performance Vac or part found to be defective within the warranty period is to be returned to any registered Little Wonder Dealer.

Engines for all gasoline powered products are warranted separately by the engine manufacture for a period of one year. Therefore, there are no warranties made, expressed or implied, for engines of gasoline powered products by **Little Wonder**.

Transportation charges for parts and units submitted for replacement under this warranty must be borne by the purchaser.

THIS WARRANTY shall not be effective if the product has been subject to misuse, negligence or accident, or if the product has been repaired or altered outside of our Southampton factory in any respect which affects its condition or operation.

Little Wonder shall not be liable for any special indirect or consequential damages arising from defective equipment. Any implied warranty, including merchantability of fitness for a particular purpose, shall not extend beyond the written warranty period.

THIS WARRANTY shall only be effective if the enclosed Warranty/Registration card is properly filled out and returned to **Little Wonder**, Div. of Schiller-Pfeiffer, Inc. at time of purchase.

 WARNING  DANGER 

THE ENGINE EXHAUST FROM THIS PRODUCT
CONTAINS CHEMICALS KNOWN TO THE STATE OF
CALIFORNIA TO CAUSE CANCER, BIRTH DEFECTS
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