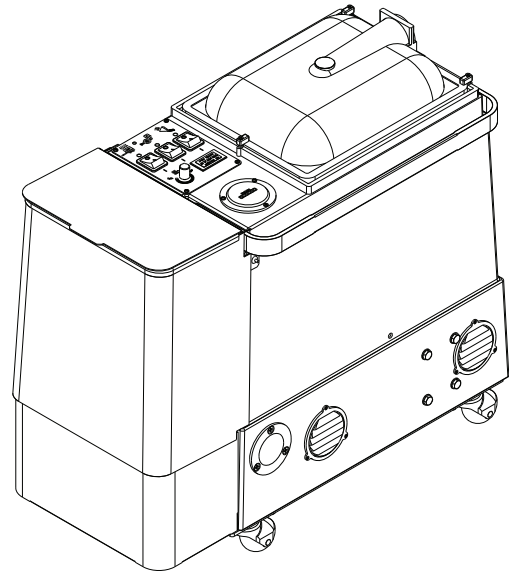


U.S. PRODUCTS

THE ULTIMATE: PB111 EXTRACTOR

INFORMATION AND OPERATING INSTRUCTIONS

MODELS: PB111-120, PB111-120-DZ, PB111-120-S,
PB111-120-B, PB111-120-SP, PB111-120-SS,
PB111-240



**CAUTION: DO NOT OPERATE MACHINE UNTIL YOU HAVE READ
ALL SECTIONS OF THIS INSTRUCTION MANUAL**



IMPROPER USE OF THE MACHINE WILL VOID THE WARRANTY

1. Never use the Booster Heat when solvent is in the machine.
2. Never attempt to heat solvent above 130 °F.
3. Always use a nonflammable solvent with a flash point of 140 °F or higher.



DO NOT SMOKE WHEN USING HYDROCARBON-BASED SOLVENTS.

Even solvents with a flash point above 140 °F can be ignited, especially as an aerosol from the wand.



4. The recovery bucket should be emptied each time the holding tank is filled.
5. Always make sure the float travels freely up and down the rod after emptying the recovery bucket.
6. Always vacuum out the stainless steel tank and solution lines when switching from a solvent to a water based detergent, and vice versa (see Operating Instructions).
7. Always use a drop cloth under the machine during operation.
8. Vacuum any unused solution out of the solution tank and empty the recovery bucket after each job.
9. Keep machine from rain and snow, extremes in temperatures, and store in a heated location.
Use the machine indoors. Do not use outdoors.
10. Do not run the pump dry.
11. Never operate a machine that is leaking or in need of a repair.
12. Always use a defoamer. The vacuum shut-off will not activate properly if foam is in the recovery bucket. Water damage to the vacuum motor or other components will void the warranty.

If you have any questions before you operate the machine, call your supplier for instruction.

INTRODUCTION

This manual will help you get the most from your equipment. Read it thoroughly before operating the machine.

This product is intended for commercial use only.

PARTS AND SERVICE

Repairs, when required, should be performed by your Authorized Service Center, who employs factory trained service personnel, and maintains an inventory of original replacement parts and accessories.

Call for repair parts or service. Please specify the Model and Serial Number when discussing your machine.

MODIFICATIONS

Modifications and additions to the cleaning machine which affect capacity and safe operation shall not be performed by the customer or user without prior written approval from the manufacturer. Unapproved modifications will void the machine warranty and make the customer liable for any resulting accidents.

NAMEPLATE

The Model and Serial Number of your machine are shown on the Nameplate. This information is needed when ordering repair parts for the machine. Use the space below to note the Model and Serial Number of your machine for future reference.

Model _____

Serial Number _____

UNPACKING THE MACHINE

When the machine is delivered, carefully inspect the shipping carton and the machine for damage. If damage is evident, save the shipping carton so that it can be inspected.

CLEANING SOLUTIONS:

The PB111 is capable of either wet or dry cleaning. Only liquid cleaners are recommended (no powders). Solvents with a flash point of 140° F or higher are required for safety. Solvents are normally used full strength. Water based cleaners are normally diluted. Follow label directions. The stainless steel holding tank can be filled with up to 3 gal. of cleaning solution.

WARNING!

The Products sold with this Manual contain or may contain chemicals that are known to certain governments (such as the State of California, as identified in its Proposition 65 Regulatory Warning Law) to cause cancer, birth defects or other reproductive harm. In certain locations (including the State of California) purchasers of these Products that place them in service at an employment job site or a publicly accessible space are required by regulation to make certain notices, warnings or disclosures regarding the chemicals that are or may be contained in the Products at or about such work sites. It is the purchaser's responsibility to know the content of, and to comply with, any laws and regulations relating to the use of these Products in such environments. The Manufacturer disclaims any responsibility to advise purchasers of any specific requirements that may be applicable to the use of the Products in such environments.

IMPORTANT SAFETY INSTRUCTIONS

This machine is only suitable for commercial use, for example in hotels, schools, hospitals, factories, shops and offices other than normal residential housekeeping purposes.

When using any electrical appliance, basic precautions should always be followed, including the following:

NOTE: Read all instructions before using this machine.

WARNING!

To reduce the risk of fire, electric shock, or injury:

- Do not leave the machine unattended when it is plugged in. Unplug the unit from the outlet when not in use and before servicing.
- To avoid electric shock, do not expose to rain or snow. Store, and use, indoors.
- Do not allow to be used as a toy. Close attention is necessary when used near children.
- Use only as described in this manual. Use only the manufacturer's recommended attachments.
- Never add water over 130° F/54° C to the solution tank.
- Do not use with damaged cord or plug. If the machine is not working as it should, has been dropped, damaged, left outdoors or dropped into water, return it to a service center.
- Do not pull by the cord, use the cord as a handle, close a door on the cord, or pull the cord around sharp edges or corners. Do not run the machine over the cord. Keep the cord away from heated surfaces. To unplug, grasp the plug, not the cord.
- Do not handle the plug, the cord or the machine with wet hands.
- Extension cords must be 12/3 and no longer than 50 feet. Replace the cord or unplug immediately if the ground prong becomes damaged.
- Do not put any object into openings. Do not use with any opening blocked; keep free of dust, lint, hair, and anything that may reduce air flow.
- Keep loose clothing, hair, fingers, and all parts of body away from openings and moving parts.
- Do not pick up anything that is burning or smoking, such as cigarettes, matches, or hot ashes, or any health endangering dusts. Do not use to pick up flammable or combustible liquids such as gasoline or use in areas where they may be present.
- Turn off all controls before unplugging.
- Use extra care when cleaning on stairs.
- Connect to a properly grounded outlet only.
- Liquid ejected at the spray nozzle could be dangerous as a result of its temperature, pressure, or chemical content.
- Use a respirator and gloves when using dry cleaning solvents. In addition, a fan or blower is helpful to blow fumes away from the operator.
- Always work in a well ventilated area.
- Always work with the exhaust hose attached to the machine when using solvents.

SAVE THESE INSTRUCTIONS

120VAC GROUNDING INSTRUCTIONS

This appliance must be grounded. If it should electrically malfunction, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This appliance is equipped with a cord having an equipment-grounding conductor and grounding plug. The plug must be plugged into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances.

⚠ DANGER!

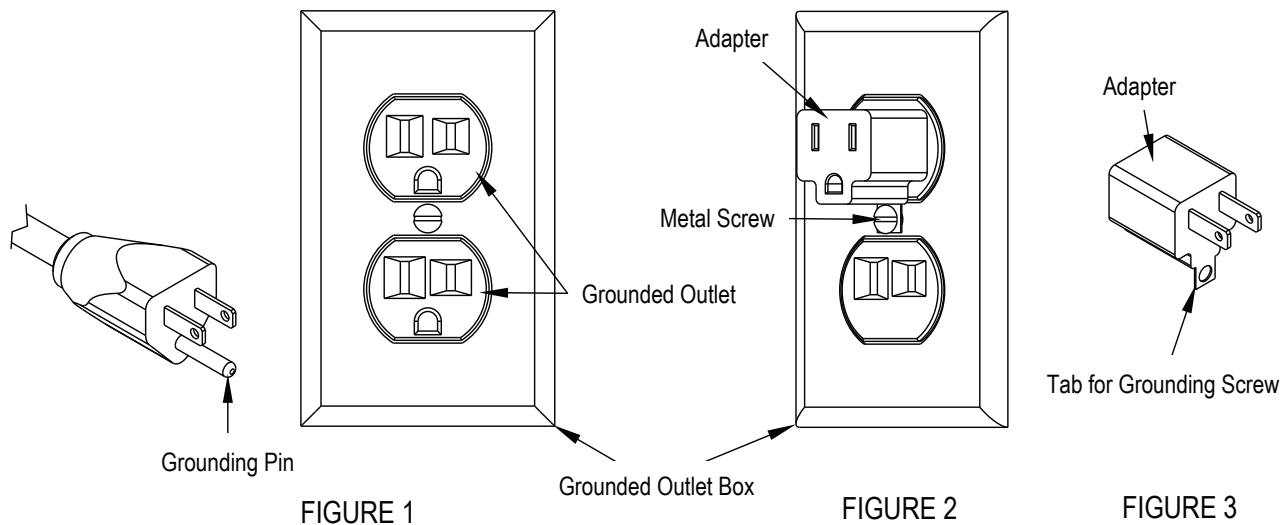
Improper connection of the equipment-grounding conductor can result in a risk of electric shock. Check with a qualified electrician or service person if you are in doubt as to whether the outlet is properly grounded. Do not modify the plug provided with the appliance. If it will not fit the outlet, have a proper outlet installed by a qualified electrician.

This appliance is for use on a nominal 120-volt circuit, and has a grounding plug that looks like the plug illustrated in Figure 1 below. A temporary adapter illustrated in Figures 2 and 3 may be used to connect this plug to a 2-pole receptacle as shown in Figure 2 if a properly grounded outlet is not available. The temporary adapter should be used only until a properly grounded outlet (Figure 1) can be installed by a qualified electrician. The green-colored rigid ear, tab, or the like extending from the adapter must be connected to a permanent ground such as a properly grounded outlet box cover. Whenever the adapter is used, it must be held in place by a metal screw. Grounding adapters are not approved for use in Canada.

Replace the plug if the grounding pin is damaged or broken.

The Green (or Green/Yellow) wire in the cord is the grounding wire. When replacing a plug, this wire must be attached to the grounding pin only. Extension cords connected to this machine should be 12 gauge, three-wire cords with three-prong plugs and outlets. DO NOT use extension cords more than 50 feet (15 m) long.

PLEASE NOTE: FOR NORTH AMERICA ONLY

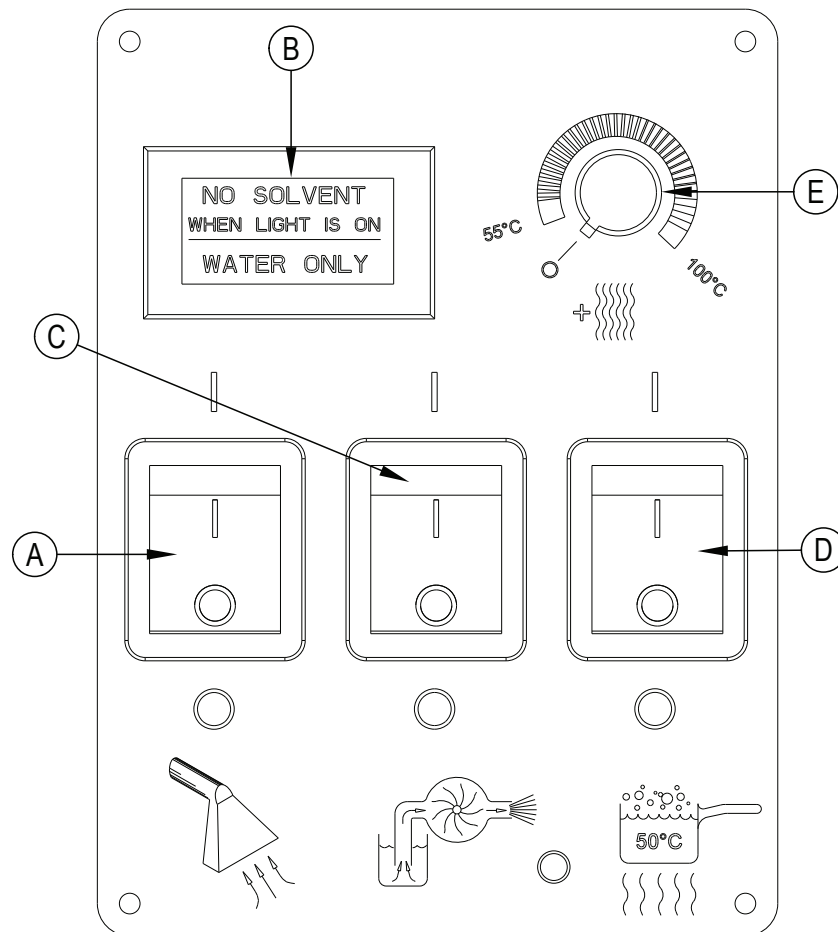


SET-UP:

- 1 Make sure the recovery bucket is in place under the dome and in the correct position. The dome must be flat or it won't seal properly.
 - 2 Fill the stainless steel holding tank with cleaning solution, to the desired level. Solution must be at least 3" above the filter in the bottom of the tank. **NOTE:** Attach the exhaust hose when dry cleaning.
 - 3 Position the cleaning tool over the holding tank, and depress the trigger. Turn the pump on (center switch). Allow the solution to spray for several seconds, to fill the lines.
 - 4 **SOLVENT HEATING:** turn on the Heater switch only. Make sure the Booster Heat switch is turned completely off. Wait two minutes for the heater to reach operating temperature. Spray over the holding tank again, for about 15 seconds, to preheat the solution line and the tool. **NOTE:** the heat will shut off completely if the Booster Heat is turned on with solvent in the tank. Go to Step 5.
WATER HEATING: turn on the Heater switch, and position the Booster switch to the desired temperature. Wait 2 minutes for the heater to reach operating temperature. Spray over the holding tank for 15 seconds to preheat the solution line and the tool. Wait 30 seconds, then spray again for 15 seconds. Go to Step 5.
 - 5 Turn on the Vacuum switch (first switch). All rocker switches should be turned on now. You are now ready to begin cleaning.
 - 6 When the recovery bucket is full, the vacuum will automatically shut off. Turn the vacuum switch off. Remove the dome and lift the bucket out. Empty the bucket, and wipe off any spillage from the outside of the bucket. Reinstall the recovery bucket and the dome.
 - 7 Make sure the float in the bucket travels freely up and down the rod each time you empty the recovery bucket.
- TO SWITCH CHEMICAL BASE**
- 8 When switching from a solvent-based product to a water-based detergent, or vice versa, use the following procedure: turn off all the switches, except the vacuum switch. Leave the vacuum hose in the dome, and disconnect the hoses from the tool. Place the open end of the vacuum hose into the solution tank, and vacuum out any remaining solution. Place the hose over the filter in the tank for 10 seconds.
 - 9 Connect the end of the solution line to the black suction plug. Take the vacuum hose out of the dome, and place the plug in its place. Let the vacuum run for 20 - 30 seconds to pull all the solution out of the lines and the heater. **NOTE: DO NOT LET THE PUMP RUN DRY.**

MAINTENANCE:

For optimum performance, flush the machine with clear water at the end of each working day. Once a month, minimum, run a flushing compound through the machine to break up any mineral or chemical build-up that may have formed. Clean the float rod each time the recovery bucket is emptied. Inspect the filters regularly and clean as needed. The vacuum filter is located under the recovery bucket. The solution filter is located at the bottom of the holding tank. The quick disconnects and castors can be lubricated with a penetrating spray lubricant. Fine steel wool will keep the brass quick disconnects shining. An auto interior spray cleaner/protectant will work well to keep the body clean and bright.



- A VACUUM
- B WARNING INDICATOR
- C PUMP
- D HEAT
- E BOOSTER HEAT

SOLVENT HEATING

Turn on the Heater Switch (D). The Booster Heat switch (E) must be all the way off (turned counterclockwise until it 'clicks' off) or the machine will not heat at all.

WATER HEATING

Turn on the Heater Switch (D). Turn on the Booster Heat Switch (E) to the desired temperature, 130° - 212°F (55° - 100°C)

NOTE: Booster Heat will not work unless the Heat switch is on.

WATER ONLY, NO SOLVENT (E)

This indicator light (B) illuminates when the Booster Heat switch (E) is turned on. It is a reminder that the Booster Heat will only work with water-based solutions.

CAUTION

USE A RAG TO DISCONNECT BRASS FITTINGS AFTER USING THE BOOSTER HEAT. THE FITTINGS CAN GET VERY HOT AND MAY CAUSE MINOR BURNS.

AUTO VAC SHUT-OFF

When the recovery bucket is full, the vacuum motor will automatically shut off. The float in the bucket may not be raised by foam. Defoamer must always be used to avoid water damage to the vacuum motor.

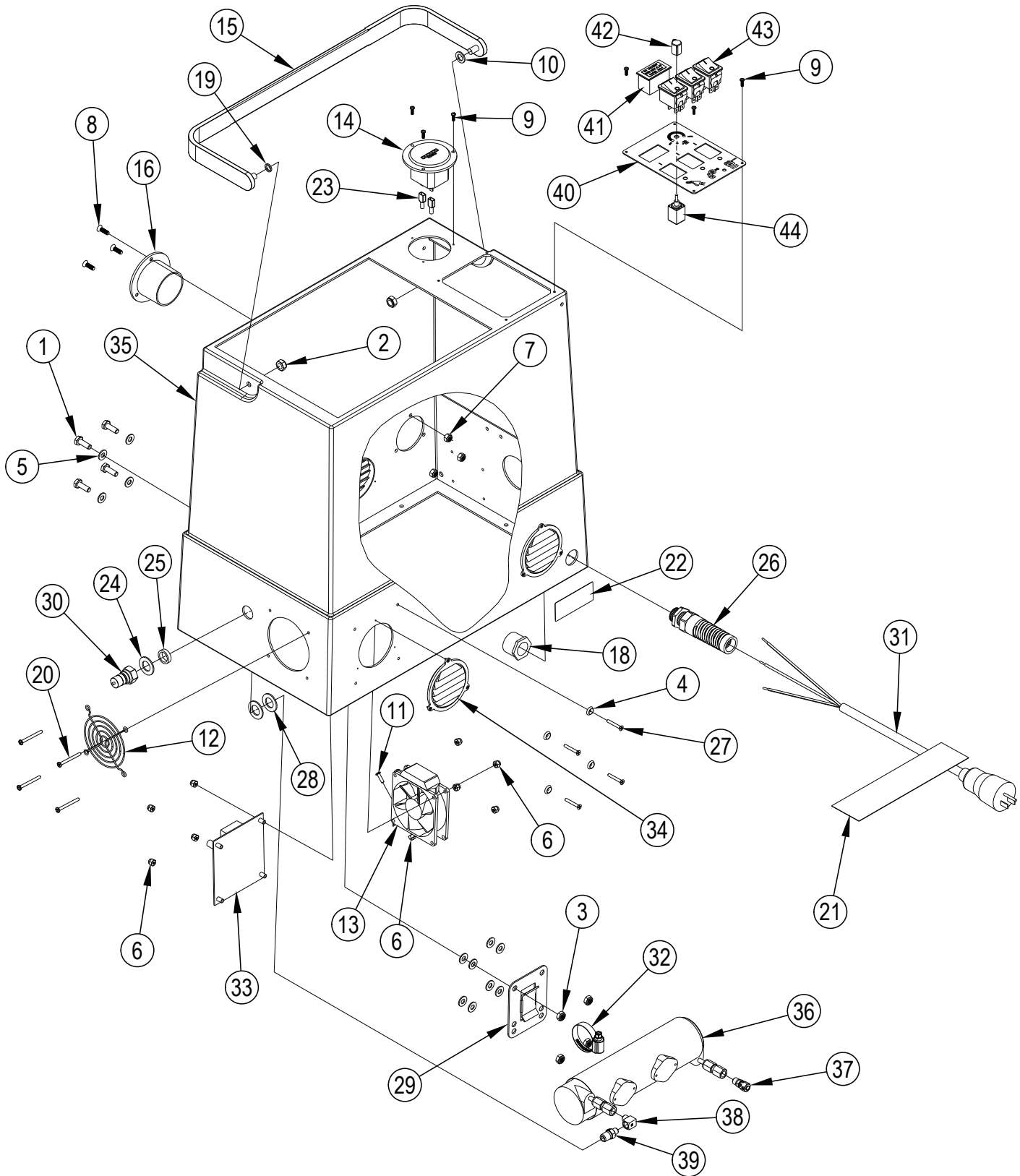
SOLVENT SENSING SYSTEM

This unique, patented system determines whether there is solvent or water-based solution in the tank. If solvent is used, the sensor will automatically prevent heating above 140 °F. To prevent accidental over-heating of solvent, the use of the Booster heat switch - with solvent in the tank - will cause the entire heat system to shut off.

SPECIFICATIONS AND FEATURES:

Construction:	Stainless steel and hexane copolymer for use with solvents and water based detergents
Vacuum:	80" water lift - 97 CFM
Heat Exchanger:	Stainless steel coil, instant heat transfer
Circuit Board:	Solid-state technology, long life monitoring system controls heating operation (sensing within 1° F)
Sensing Systems:	Solid state circuitry
Solvent Sensing Probe:	Determines whether there is solvent or water-base cleaning in holding tank. (Patented) Unique fail safe system automatically prevents solvent from heating above 140° F regardless of heat setting
Pump:	Centrifugal type 40 psi carbon and ceramic seals and brass head, slide-mount and compression fittings for quick removal and servicing
Electrical System:	25 ft. 12/3 cord available in 120 & 240V 50/60 cycle
Weight:	46 lbs. (20kg)
Dimensions:	23" L x 22" H x 10" W

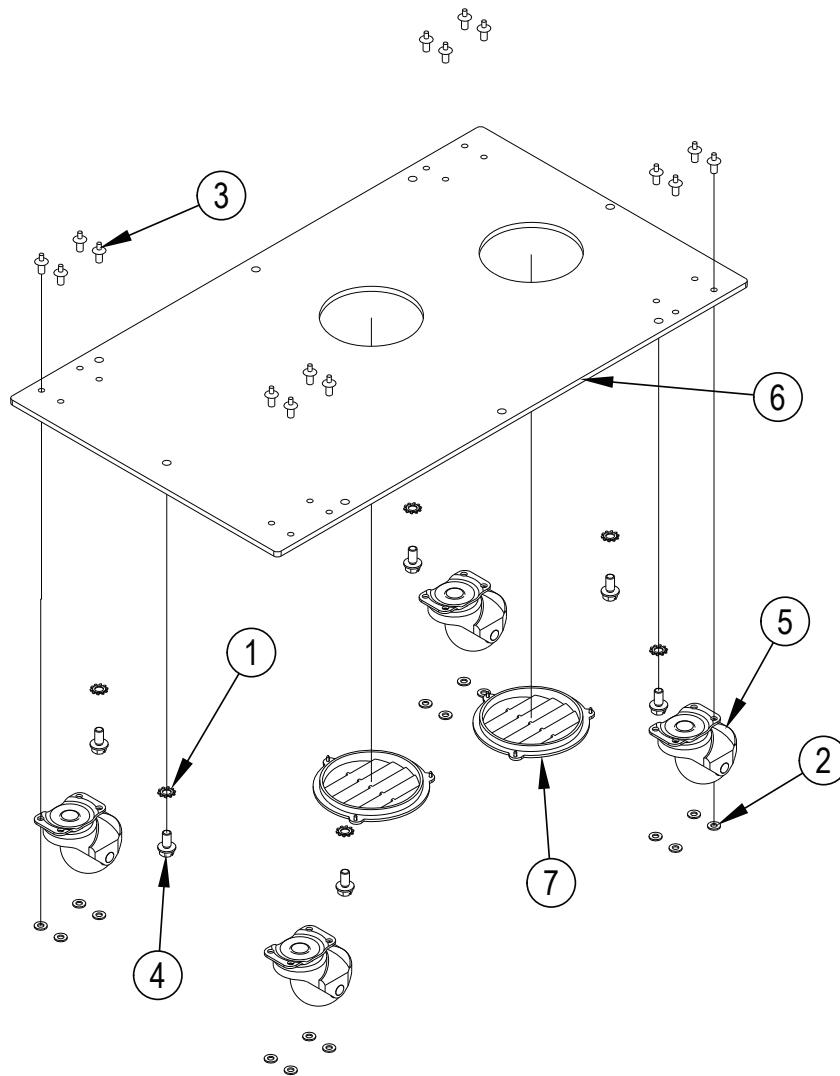
BODY ASSY



BODY ASSY

Item	Ref. No.	Qty	Description
1	5	4	Bolt Hex 1/4-20 X 3/4 Full
2	7	2	Nut Nylon Lock 5/16 Jam
3	8	4	Nut-Nylock-Zp-1-4-20
4	11	4	Washer Finish 6 S/S
5	14	12	Washer Flat 3/16 Zinc Plat
6	16	9	Nut Nylon Lock 6/32 Z.P.
7	17	3	Nut-Nylon Lock-Ss-10-32
8	22	3	Fhp-10-32 5-8
9	28	3	Screw-Php-Ss-4x3/8-Sms
10	203	1	Washer Nylon White 3/8 Id
11	1152	1	Screw 6-32 X 1/2 Panhead (all models except PB111-240)
	1116	1	Screw Hi-Low 8 X 3/8 PA (model PB111-240)
12	410	1	Guard For 3 Fan Black See
13	412	1	Fan Cooling 120 Volts 3-1/8 (all models except PB111-240)
	411	1	Fan-Cooling 3-1/8 Square 24 (model PB111-240)
14	423-120-240	1	Hour Meter 115/230 Volts With
[]	4332A	1	Label Hour Meter Black Blank (models PB111-120-S, PB111-120-SP)
15	424	1	Handle Black Aluminum Powderc
16	440	1	Flange Exhaust Black Polypr
[17]	486	1	Wire Black 18 Gauge 500ft R
18	937	1	Reducer Bushing Pvc 3/4
19	1326	1	Washer 5/16 Flat Cut Nylon
20	1496	4	Screw 6-32 X 1 1/2 Pan Head
21	4339	1	Label Caution / Extension Cord
22	56380692	1	Label Danger Electric Shock
23	56469384	2	Recepticle Tab .250
24	115USP	2	Washer 1 Od X 9/16 Id X
25	116A	1	Bushing 3/4 X 9/16
26	184USP	1	Cord Retainer With Flex Prot
27	2A	4	Screw 6/32 X 1 Philips Oval S
28	31USP	1	Washer Brass Half Hard 1 X
29	455USP	1	Mount Heat Exchanger
30	45USP	1	Quick Disconnect Plug Male
31	495A	1	Power Cord 12/3 SjtW25 Ye (all models except PB111-240)
	FP654	1	Power Cord 300 240V (model PB111-240)
32	76A	1	Hose Clamp Ss 1-13/16 X 2-3/4
33	FP247	1	Repair Kit PB111 Heat System
34	SUB459	4	Louver 2-1/2 Grey Plastic W/
35	FP440	1	Body Black Ultimate PB111 DRIL (models PB111-120, PB111-120-SS, PB111-240)
	ULT-GRN	1	Body Green (model PB111-120-SP)
	ULT-TEAL	1	Body For Pb111 Teal (model PB111-120-S)
	ULT-RED	1	Body For PB111 RED (model PB111-120-B)
36	FP138	1	Heat Exch. Comp. 120vFOR PB11 (all models except PB111-240)
	FP139	1	Heat Exch. Comp. 240v FOR PB11 (model PB111-240)
37	101	1	Coupling 1/4 T X 1/8 Pipe Br
38	103USP	1	Elbow 90 Deg 1/8 X 1/8 P Brass
39	105USP	1	Reducing Nipple 1/4 X 1/8 Pipe
40	1335	1	Switch Plate Pb3 All Both
41	118A	1	Light Indicator 125 Volts No (all models except PB111-240)
	119A	1	Light Indicator 250 Volts No (model PB111-240)
42	122	1	Knob Phenolic Black 1/8 Dia
43	FP578	3	Switch Rocker Dpst Illuminat (all models except PB111-240)
	48G	3	Switch Rocker SPST W/Light 230 (model PB111-240)
44	FP200B	1	Potentiometer W/Cable For PB11
			MISCELLANEOUS PARTS
[]	FP144	1	Syphon Plug Ultimate PB3
[]	FP156	1	Vac Exhaust Hose PB3 10ft.+ (all models except PB111-120-SS)
[]	FP665	1	Exhaust Hose 15 PB111 (model PB111-120-SS)
[]	FP247	1	Repair Kit PB111 Heat System
[]	4322	2	Label PB111 (models PB111-120, PB111-120-SS, PB111-240)
[]	4322B	2	Label PB111 (model PB111-120-S)
[]	2173	2	Label PB111 (model PB111-120-B)
[]	56380985	2	Label PB111 (model PB111-120-DZ)
[]	4342	2	Label PB111 (model PB111-120-SP)

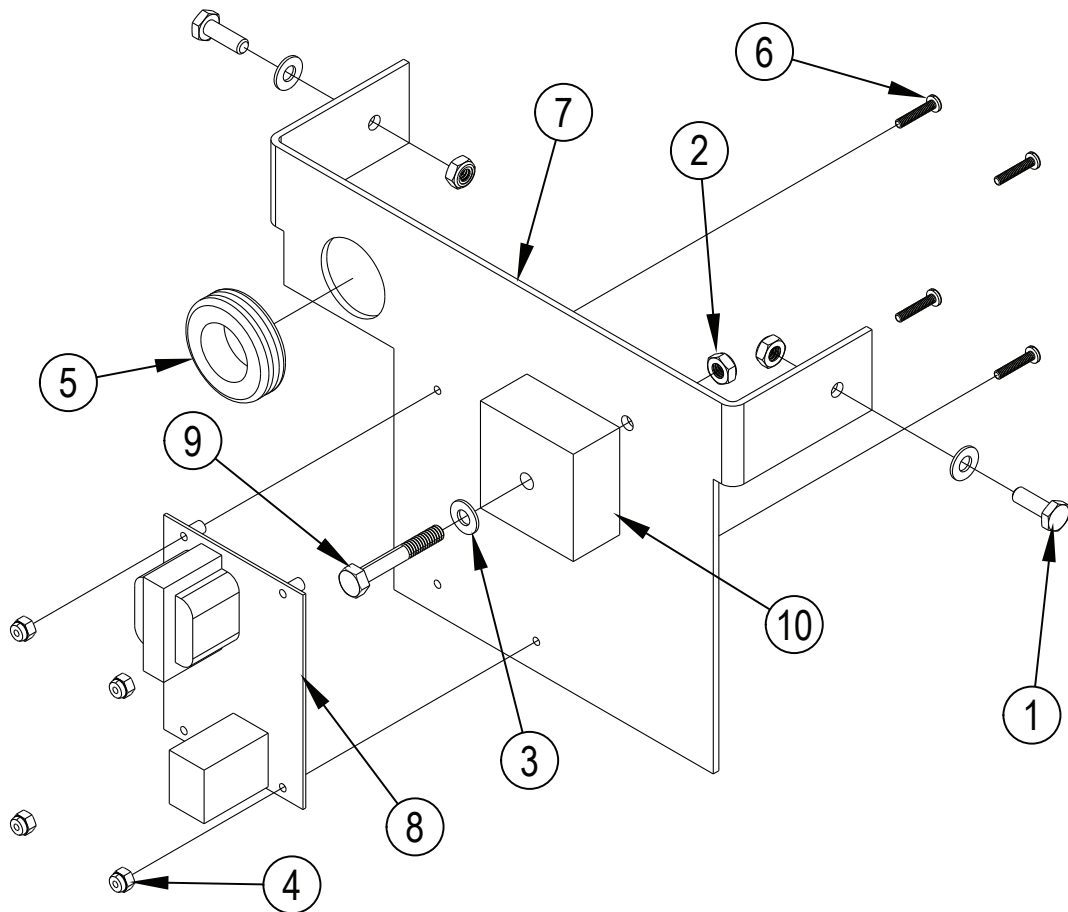
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CASTER PLATE ASSY

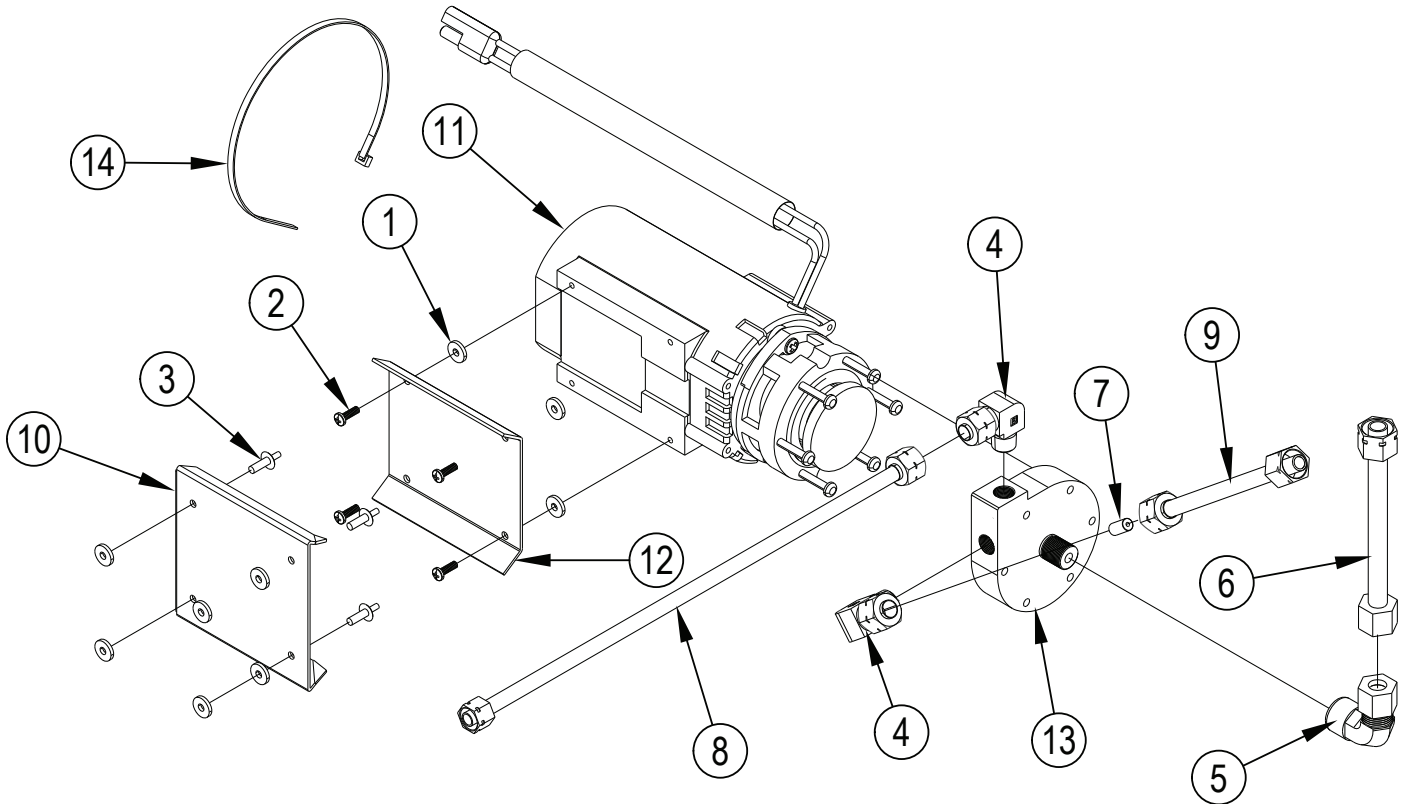
Item	Ref. No.	Qty	Description
	FP137	1	Caster Plate Complete PB3 &
1	12	6	Washer Lock External Tooth
2		16	Washer-Flat-Al-3-16 NOTE 1
3		16	Rivet, 3/16" Aluminum 1/8" X 3/8" Grip NOTE 1
4	29USP	6	Screw 1/4-20 X 1/2 Hwh SI
5		4	Caster For Ultimate Chrome NOTE 1
6		1	Caster Plate Plastic Polypropi NOTE 1
7	SUB928	2	Louver 3 Grey Plastic Include

NOTE 1: These items are not available for sale separately. Please order FP137 if you need to replace any of these items.



HEAT SINK PLATE ASSY

Item	Ref. No.	Qty	Description
1	5	2	Bolt Hex 1/4-20 X 3/4 Full
2	8	3	Nut-Nylock-Zp-1-4-20
3	14	3	Washer Flat 3/16 Zinc Plat
4	16	4	Nut Nylon Lock 6/32 Z.P.
5	86	1	Grommet 1 Id For A Hole 1
6	151	4	Screw-Php-Ss-Zp-6-32x3/4-Ms
7	429	1	Plate Heat Sink
8	447	1	Circuit Board 120 V Solvent (all models except PB111-240)
	448	1	Circuit Board Solvent Sense (model PB111-240)
9	138A	1	Bolt-Hex-Ss-1/4-20x1-3/4
10	409A	1	Relay Solid State 120volt Norm (all models except PB111-240)
	409B	1	Relay Solid State 240volt Norm (model PB111-240)

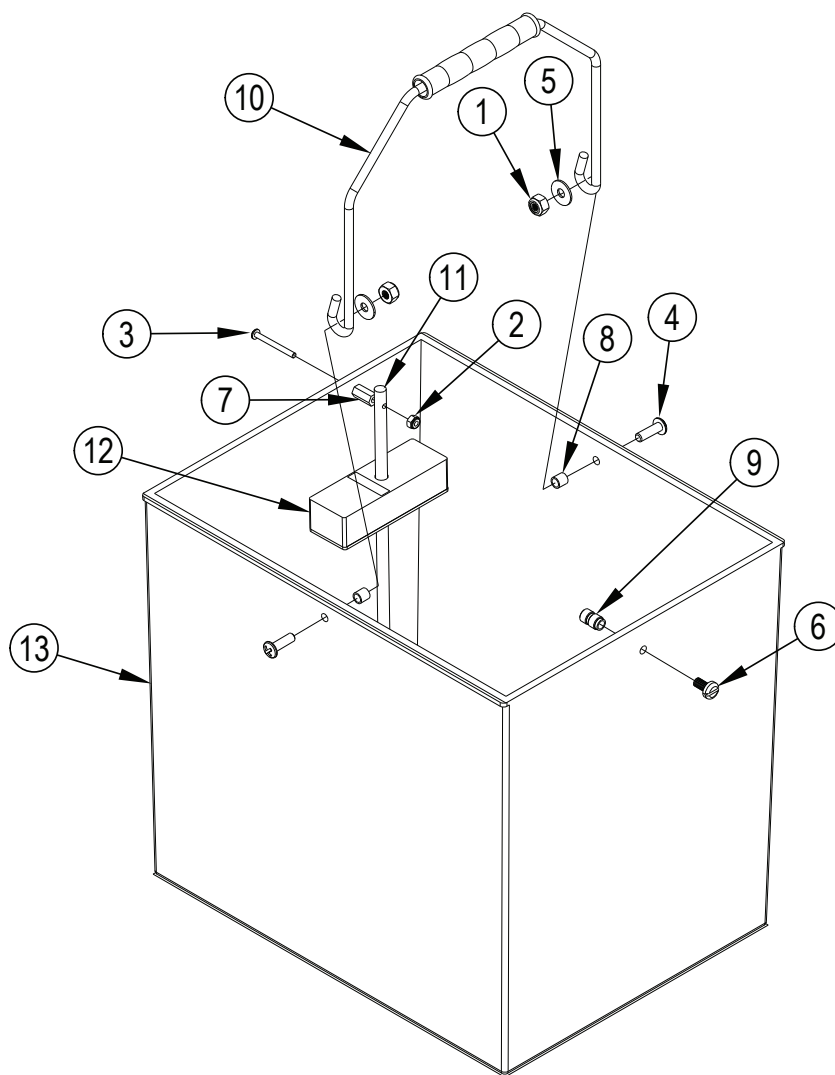


PUMP ASSY

Item	Ref. No.	Qty	Description
1	25	10	Washer-Flat-Al-As-8
2	28	4	Screw-Php-Ss-4x3/8-Sms
3	70	4	Rivet 1/8 Dia. Steel 1/4 To 3
4	100	2	Fitting-Elbw 90-Brass-1/4x1/8
5	104	1	Elbow-Brass-90 °-5-16x1-8fm
6	FP150	1	Tubing Teflon 5/16 O.D. x
7	132	1	Bushing Brass 3/16OD X .062
8	FP149	1	Tubing Teflon 1/4OD X 3/16
9	FP151	1	Tubing Teflon 1/4 OD X 3/16
10	435	1	Bracket Slide Pbiip Pump Fema
11	FP173	1	Pump & Motor PB111 120V No Pu (all models except PB111-240 / includes 1, 2, 12)
	FP186	1	Pump & Motor PB111 240V No Me (model PB111-240 / includes 1, 2, 12)
12	435B	1	Pump Slide Bracket Male
13	SUB405	1	Pump Head Brass For Pb111-120
14#	56478523	1	Tie-Cable
*	FP148	1	Pump & Motor PB111 120V With (all models except PB111-240 / includes all items shown except 3, 8 & 10)
*	FP185	1	Pump & Motor PB111 240V With (model PB111-240 / includes all items shown except 3, 8 & 10)
*	FP197A	1	Pump Head PB111 Complete Wit (includes items 4, 5, 6, 7, 9, 13)

* = Optional, Not Included

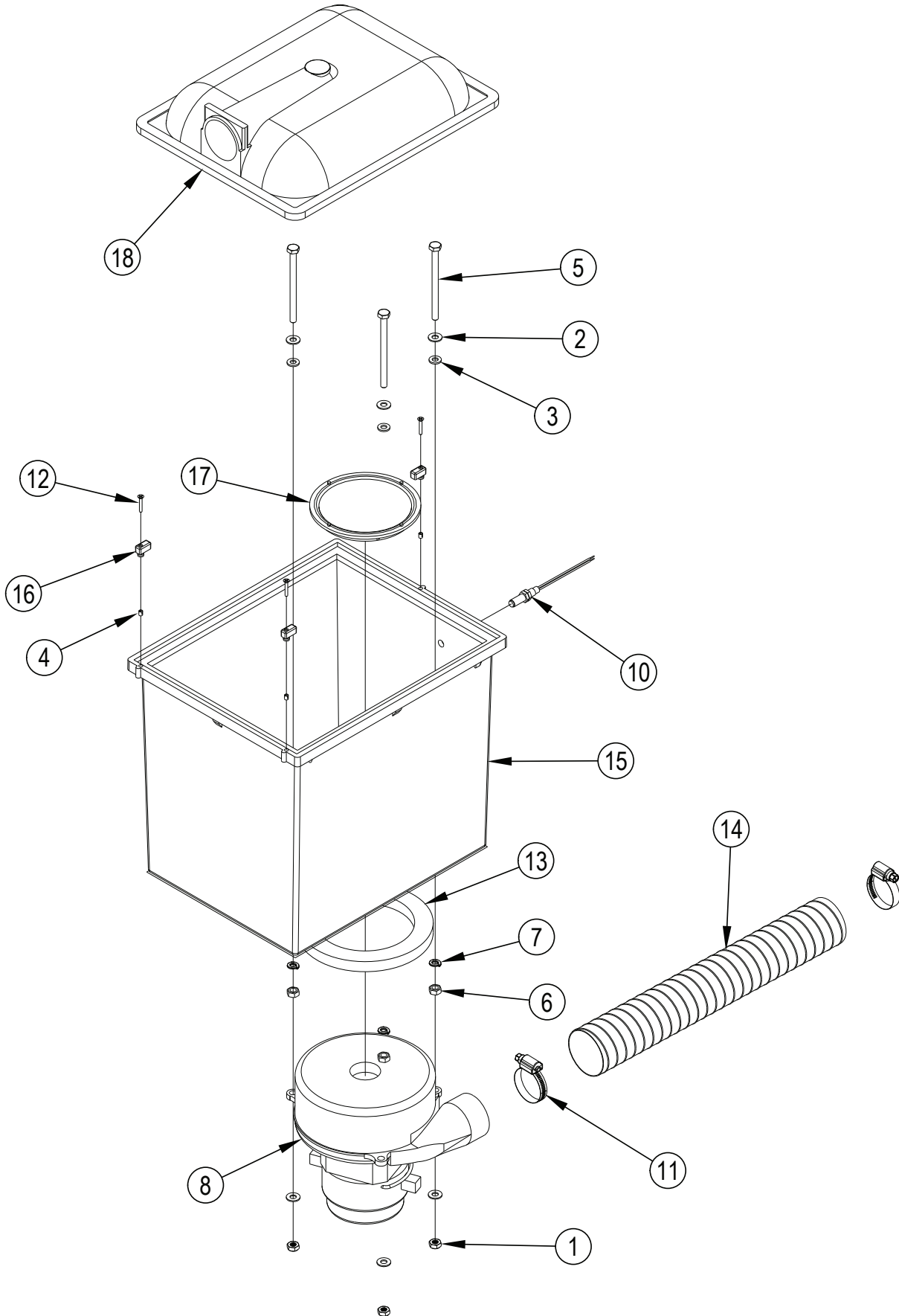
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LIFT OUT BUCKET ASSY

Item	Ref. No.	Qty	Description
	FP147	1	Bucket Lift-Out/PB111 Comple
1	17	2	Nut-Nylon Lock-Ss-10-32
2	18	1	Nut-Hex Nyl Loc Ss 4-40
3	20	1	Screw 4-40 X 1-1/8 Ms S/
4	21	2	Screw 10-32 X 5/8 Socket
5	24	2	Washer-Flat-Ss-10
6	33	1	Screw-Bhs-Brass-10-32x3/8-Ms
7	129	1	Bushing Zinc 4-40 X 1/2
8	131	2	Bushing Aluminum 10-32 X 1
9	145	1	Insert .531 X 1/4o.D. X 10/32
10	420	1	Handle-Bucket-Ss-3/16
11	421USP	1	Rod For Float Pbiil And Xlt
12	FP184	1	Float Assembly No Rod. PBIII
13	FP405	1	Recovery Bucket Only PB111

VACUUM CHAMBER ASSY

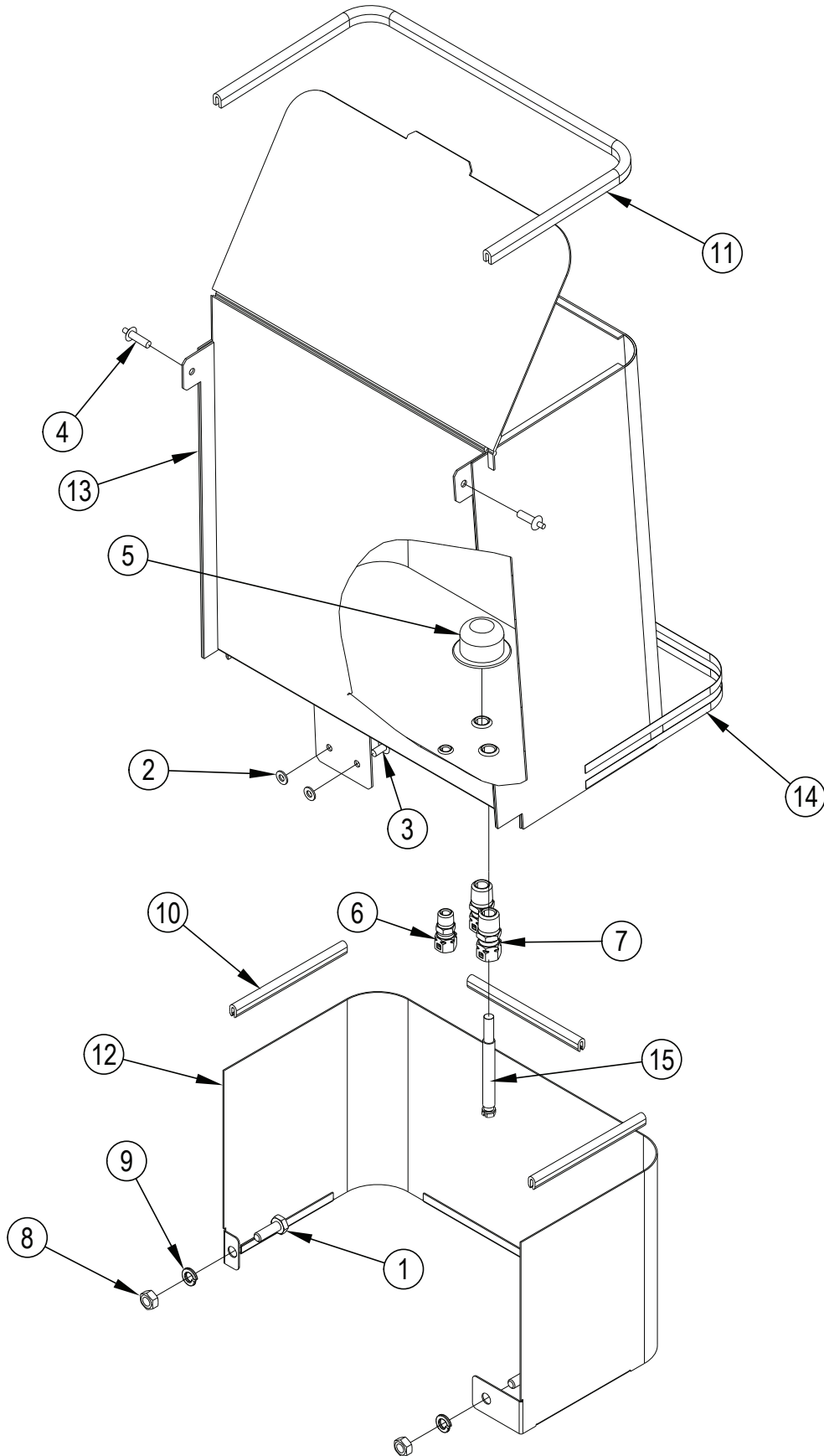


VACUUM CHAMBER ASSY

Item	Ref. No.	Qty	Description
1	8	3	Nut-Nylock-Zp-1-4-20
2	14	6	Washer Flat 3/16 Zinc Plat
3	124	3	Washer Rubber Bunan 90 S
4	130	3	Insert Brass 4-40 X 3/16
5	135	3	Bolt Hex 1/4-20 X 3-1/2
6	136	3	Nut-Ss-Zp-1/4-20
7	137	3	Washer-Slitlock-Ss-Zp-1/4
8	408	1	Vac Motor, 120v (all models except PB111-240)
	407A	1	Vacuum Motor 5.7 240 V 2- (model PB111-240)
[9]	437	26"	Tape Cloth 2 X 60 Yds Bla
10	123USP	1	Reed Switch 5/16-24 X 1-1/
11	156USP	2	Hose Clamp-Size 28-1-9/16- 2 1/2
12	19USP	3	Screw 4-40 X 3/4 Flathead
13	419USP	1	Gasket-Ccns/Psa-4 Idx1/2 Thick
14	FP163	1	Exhaust Port Hose 2l.D. Vac
15	FP404	1	Vacuum Chamber PB111
16	SUB450	3	Twist Locks Polypropylene Blac
17	FP487	1	Filter Vacuum Inlet PB111 An
18	FP162	1	Dome W/Gasket & Label. PBIII &
[]	439USP	1	Gasket Rubber Bunan Custom R

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SOLUTION TANK ASSY



SOLUTION TANK ASSY

Item	Ref. No.	Qty	Description
1	5	2	Bolt Hex 1/4-20 X 3/4 Full
2	26	2	Washer-Flat-Al-3-16
3	72	2	Rivet, 3/16" Aluminum 1/8"X 3/8" Grip
4	73	2	Rivet 3/16dia. Aluminum 3/
5	80	1	Filter 50 Mesh S/S For Filt
6	101	1	Coupling 1/4 T X 1/8 Pipe Br
7	102	2	Coupling 5/16 T X 1/4 P Brass
8	136	2	Nut-Ss-Zp-1/4-20
9	137	2	Washer-Slittlock-Ss-Zp-1/4
10	425	11.5"	Gasket 40 Shore - Santoprene
11	425	21"	Gasket 40 Shore - Santoprene
12	426	1	Cover Pump
13	FP246	1	Solution Tank S/S For PB111 Co
14	454	42"	Pin Stripe Black 1/4 Solid 15
15	FP143	1	Solvent Sense Probe PB3
[]	4321B	1	Label Caution Solvent 2X 3
[]	4324	1	Label Patent 4803466 2X 1/ (all models except PB111-120-S, PB111-120-SP)

[] = Not Shown



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