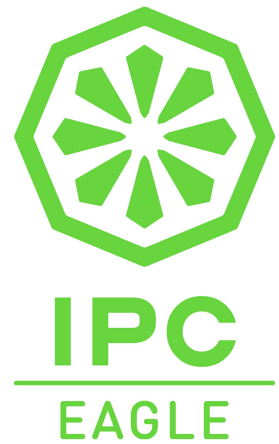


# Pump Out Vacuums

Polyethylene & Steel

Operations and Parts Manual



110 volt receptacle on single motor only



Models:  
415P-AD  
429P-AD  
415DS

## IMPORTANT SAFETY INSTRUCTIONS

When using an electrical appliance, basic precaution must always be followed, including the following:

### READ ALL INSTRUCTIONS BEFORE USING THIS MACHINE.

This machine is for commercial use.

## WARNING



**DANGER:** Failure to read and observe all DANGER statements could result in severe bodily injury or death. Read and observe all DANGER statements found in your Owner's Manual and on your machine.



**WARNING:** Failure to read and observe all WARNING statements could result in injury to you or to other personnel; property damage could occur as well. Read and observe all WARNING statements found in your Owner's Manual and on your machine.



**CAUTION:** Failure to read and observe all CAUTION statements could result in damage to the machine or to other property. Read and observe all CAUTION statements found in your Owner's Manual and your machine.

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**DANGER:** Failure to read the Owner's Manual prior to operating or attempting any service or maintenance procedure to your machine could result in injury to you or to other personnel; damage to the machine or to other property could result as well. You must have training in the operation of this machine before using it. If you or your operator(s) cannot read English, have this manual explained fully before attempting to operate this machine.



**DANGER:** Operating a machine that is not completely or fully assembled could result in injury or property damage. Do not operate this machine until it is completely assembled. Inspect the machine carefully before operation. Use only as described in this manual. Use only the manufacturer's recommended attachments.



**DANGER:** Machines can cause an explosion when operated near flammable materials and vapors. Do not use this machine with or near fuels, grain dust, solvents, thinners, or other flammable materials.



**DANGER:** Do not pick up flammable fluids, dust or vapors.



**DANGER:** Do not vacuum anything that is burning or smoking, such as cigarettes, matches, or hot ashes.



**DANGER:** This machine is not suitable for picking up health endangering dust.



**DANGER:** Using a machine with a damaged power cord could result in an electrocution. Do not use the machine if the power cord is damaged. Do not use the electrical cord to move the machine. Keep cord away from heated surfaces. Do not unplug by pulling on the cord; grasp the plug, not the cord. Turn off all controls before unplugging. Do not close a door on cord or pull around sharp edges or corners.



**DANGER:** Electrocution could occur if maintenance and repairs are performed on a unit that is not properly disconnected from the power source. Disconnect the power supply before attempting any maintenance or service.



**Warning:** Operating a machine without observing all labels, decals, etc., could result in injury or damage. Read all machine labels before attempting to operate the machine. Make sure all of the labels are attached or fastened to the machine. Get replacement labels and decals from the manufacturer's distributor.



**Warning:** Electrical components can "short-out" if exposed to water or moisture. Keep the electrical components of the machine dry. Always store the machine in a dry area.



**Warning:** Use of this machine to move other objects or to climb on could result in injury to the operator or damage to the machine. Do not use this machine as a step or furniture. Do not allow to be used as a toy. Close attention is necessary when used by or near children.



**Warning:** Moving parts of this machine can cause injury and/or damage. Keep hands, feet, loose clothing, hair, fingers, and all parts of the body away from openings and moving parts.



**Warning:** Electrocution could occur if you handle the plug or appliance with wet hands. Do not handle plug or appliance with wet hands.



**Warning:** Do not use without dust bag and or filters in place.



**Warning:** Rotating fan blades inside the cover. Before opening cover, switch off machine. Wait until the fan/brush stops completely or dust and debris may be ejected.



**Warning:** If the machine is not working properly, has been dropped, damaged, left outdoors, or dropped into water, return it to an Authorized service center.



**Warning:** Damage could occur to machine if openings are blocked. Do not put any object into openings. Do not use any opening blocked: keep free of dust, lint, hair, and anything that may reduce air flow.



**Warning:** Injury could occur to the operator or the machine if used without the dust bag and/or filters in place. Do not use the machine without the dust bag and/or filters in place.



**Warning:** Injury to the operator and/or damage to the machine could occur when cleaning on stairs, unless caution is used. Use extreme caution when cleaning on stairs.

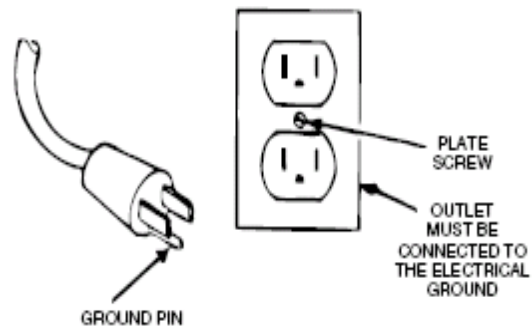


**Warning:** To reduce the risk of electrical shock, always use a 3-wire electrical system connected to the electrical ground. Whenever possible connect the machine to an outlet protected by a ground fault interrupter (GFCI). See "Grounding Instructions."

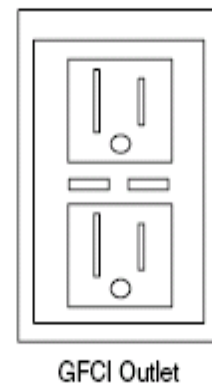
**SAVE THESE INSTRUCTIONS**

## 120 Volt Machine Instructions For Connection To The Power Supply And The Electrical Ground

This machine must be connected to the electrical ground to protect the operator from electrical shock. The machine has an approved power cord with three conductors and a plug with three terminals. Connect the plug to a receptacle that has three holes and is connected to the electrical ground. The green (or green and yellow) conductor in the cord is the ground wire. Never connect this wire to any terminal other than the ground terminal.



This machine uses a 120 volt AC 60 cycle electrical circuit. Make sure you have the correct frequency and voltage before connecting the power cord to an outlet. The machine has a plug as shown in Figure 1. If a receptacle connected to the electrical ground as shown in Figure 1 is not available, have one installed by an electrical contractor. **Do not use an adapter.**



**Warning:** To reduce the risk of electrical shock, protect the machine from rain. Keep the machine in a dry area.



**Warning:** To reduce the risk of electrical shock, always use a 3-wire electrical system connected to the electrical ground. Whenever possible connect the machine to an outlet protected by a ground fault interrupter (GFCI).



**Warning:** Do not cut, remove or break the ground pin. If the outlet does not fit the plug, consult your electrical contractor.



**Warning:** Have worn, cut or damaged cords and plugs replaced by an authorized service person.



**Warning:** If it becomes necessary to use an extension cord to reach an electrical outlet, you must use one that is at least one size larger in wire size. Such as a power cord that is marked 12/3 would need to use an extension cord that is marked 10/3. Do not use an extension cord that is undersized.

## IMPORTANT INSTRUCTIONS

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- Before use, the equipment must be correctly assembled with all of its components
- Check that the electrical outlet is correct for use with the plug on the machine
- Before connecting, check that the specified motor voltage corresponds to the main voltage available
- Never use the equipment near flammable, explosive or toxic substances: sparks from the motor could cause dangerous reactions.
- Always unplug the machine from the electrical outlet when leaving machine unattended or before attempting any repair.
- Service and repair should be done by qualified personnel only. Use only original manufacturer's replacement parts.

### Operation

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**This machine is a commercial vacuum designed for wet pick up. And must be stored in a dry location.**

- Machines with dual vacuum motors can be run together or independently as the job requires.
- This machine is equipped with a sump pump that has it's own independent switch. When the water level rises, the pump will turn itself on and pump the water out through a connected discharge hose.
- The machine is also equipped with a shut-off float. As the tank is filled to capacity, a float rises and seals the vac intake, causing a loss of vacuum. Switch off the vacuum when this happens and bring the machine to a drain.
- To empty the machine, make sure the power cord for the sump pump is plugged into the A.C. receptacle on the vacuum power head or into a separate wall outlet.

### After Use

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1. Store the cord on the hook.
2. Store the appliance indoors, away from sources of heat.
3. This appliance is provided with an automatically reset thermal limiter to avoid damage to motor. If thermal limiter operates do one or more of the following:
  - Change the bag
  - Clean or replace the cartridge filter
  - Check hose and tank inlet for any obstructions
  - Wait a few minutes for the thermal limiter to re-close the circuit

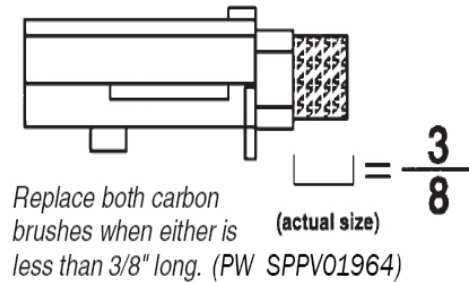
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## Periodic Maintenance

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### (Every six to twelve months)

1. Check filter for wear, replace dirt saturated filters that do not respond to normal cleaning.
2. Inspect gasket seals and replace those which have begun to leak.
3. Examine carbon motor brushes and commutator.



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## Servicing The Filter

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*Note: This machine does not come standard with filters, they can be added as necessary*

The filter is accessed by lifting the head assembly off the tank.

The Polyester filter assembly is easily removed by simply lifting the filter basket out of the tank.

The cartridge filters they are removed very easily. First remove the filter retainer by turning the black knob 90 degrees counter-clockwise. The cartridge filter will then slide off of the support assembly.

### Note:

- Be sure to frequently clean the filters.
- Allow filters to thoroughly air dry after washing them before returning them to the machine.
- Worn filters can affect vacuum performance. Replace the filters when they become worn out and normal cleaning will not restore vacuum performance.

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## Servicing The Vac Motor

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### Motor Replacement

1. Disconnect power cord from power source.
2. To access the vacuum motor, remove the screws that attach the main cover to the head assembly and set the cover to one side.
3. Disconnect the motor's 2 red lead wires from the main wiring bridge.
4. Disconnect green/yellow wire by removing the screw from the motor core.
5. Remove the four motor mounting screws.
6. Remove motor plate and set aside.
7. Take out the motor and remove the upper and lower gaskets.
8. Inspect gaskets. If they show signs of wear replace the.
9. Install gaskets onto new motor ensuring that they are properly seated.
10. Install the new motor. Make sure foam mufflers are positioned properly.
11. Attach motor plate to motor.
12. Connect green/yellow wire to motor core.
13. Connect motor's 2 red lead wires to main wiring bridge.
14. Re-assemble vacuum cover.
15. Test for proper operation.

## Servicing The Vac Motor

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### Carbon Brush Replacement

(Replacement Carbon Brushes: Part# S8053200)

1. Disconnect power cord from power source.
2. To access the vac motor, remove the screws that attach the main cover to the head assembly and set the cover to one side.
3. Remove the screws that attach the inner cover to the head assembly and set aside.
4. Remove the carbon brush assembly by removing the 2 screws that attach it to the vac motor. See Figure 1
5. Slide off the carbon brush connector from the motor terminal. See Figure 2
6. Inspect armature commutator. If it is extremely pitted, grooved or not concentric then the motor will need to be replaced or sent to a qualified service center.
7. Reverse steps 6 through 4 to install new carbon brush and housing.
8. Repeat steps 4 through 7 for the other carbon brush.
9. Reverse steps 3 and 2 for re-assembly.
10. Test for proper operation.

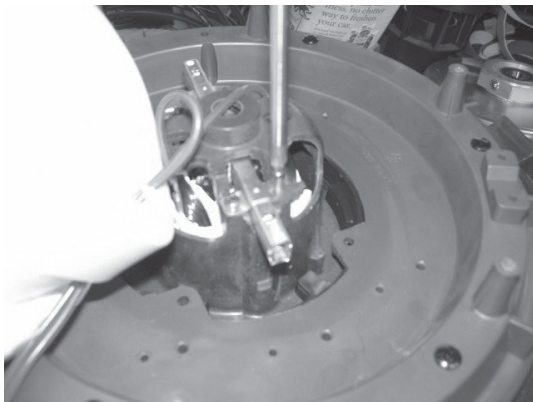


Figure 1

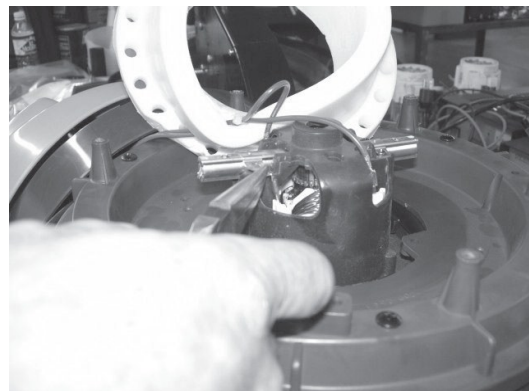
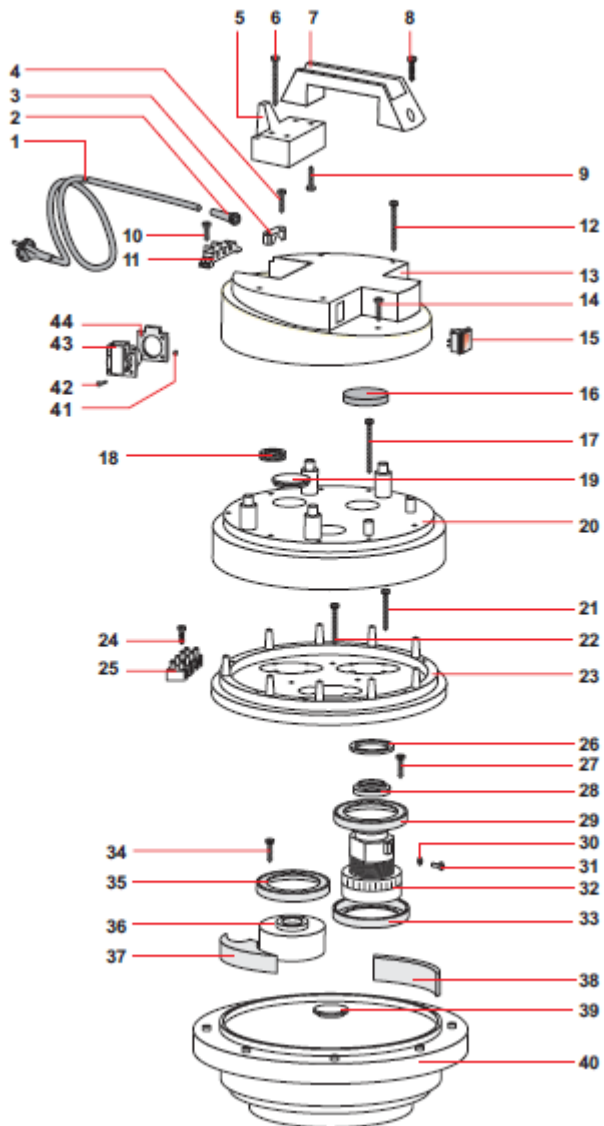


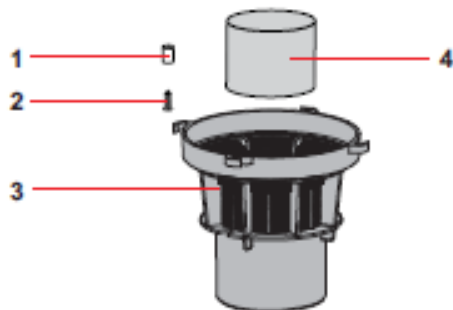
Figure 2



## 415 Vacuum Motor Assembly



No.	Part #	Description	Qty.
1	S81122	Power Cord 16x3	1
2	S80138	Strain Relief	1
3	S80139	Clamp, Cord	1
4	S81006	Screw, 5x20	2
5	S82931AUG6	Cord Hook	1
6	S81054	Screw 5x30	4
7	S82930G6	Handle	1
8	S81026	Screw 5x25	1
9	S81006	Screw 5x20	2
10	S81005	Screw 5x14	2
11	S83436	Terminal Block	1
12	S81054	Screw 5x30	4
13	S82932AUG6	Cover, Single Motor	1
14	S81006	Screw 5x20	2
15	S80484	Switch	1
16	S83937	Filter	1
17	S83273	Screw 5x35	9
18	S81502	Grommet	1
19	S83383AU	Cap	2
20	S82957AUVEI	Cover, Motor	1
21	S82627	Screw 5x25	9
22	S82627	Screw 5x25	3
23	S82937AUG6	Motor Retainer	1
24	S81004	Screw 4.5x20	1
25	S83433	Terminal Board	1
26	S83969	Gasket	1
27	S81979	Screw 5x25	4
29	S83901	Gasket	1
30	S81064	Lock Washer 4x8	1
31	S81024	Screw 4x8	1
32	S81120S	Motor 1000 watt 120V	1
33	S83901	Gasket	2
34	S81979	Screw 5x25	8
35	S83901	Gasket	2
36	S83451AU	Plug	2
37	S83454	Filter, Sound Deadening	3
38	S83456	Filter	3
39	S83519	Cap	2
40	S83108G6	Base w/Gasket	1
41	S81854	Nut, M4	4
42	S86377	Screw, 4x12	4
43	S86457	AC Receptacle 110V	1
44	S83453	Gasket, Receptacle	1

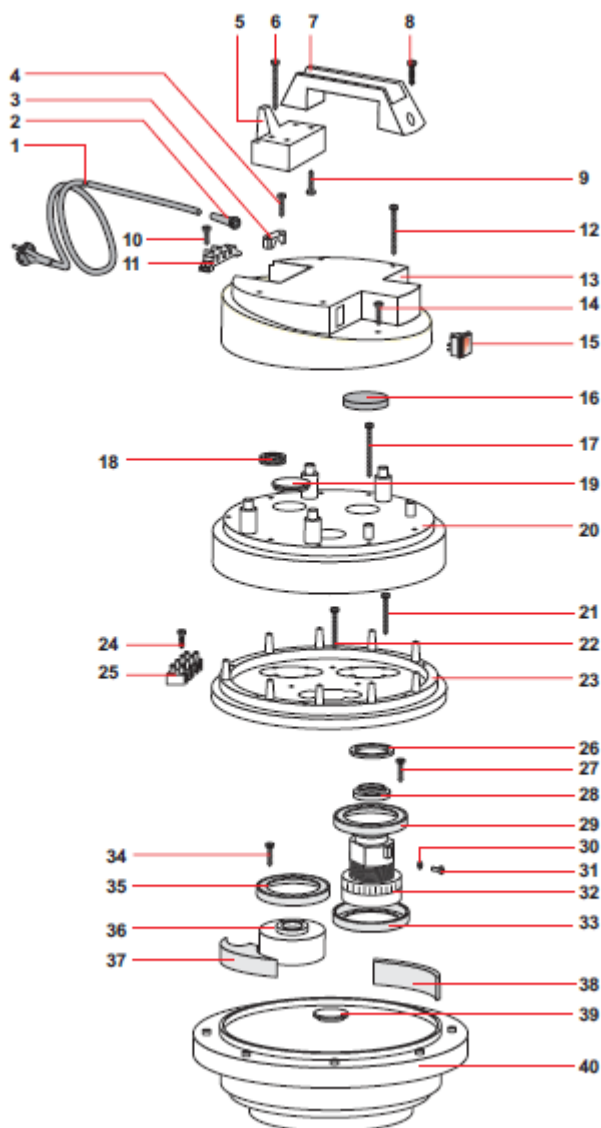


## Float Assembly 415

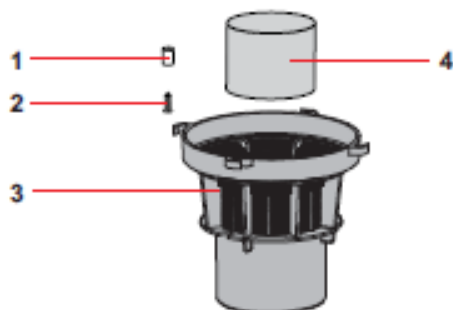
No.	Part #	Description	Qty.
1	S83706	Bushing	4
2	S83724	Screw 5x25	4
3	S821243NE	Body Filter Assembly	1
4	S82676-1G	Float w/Gasket	1



## 429 Vacuum Motor Assembly



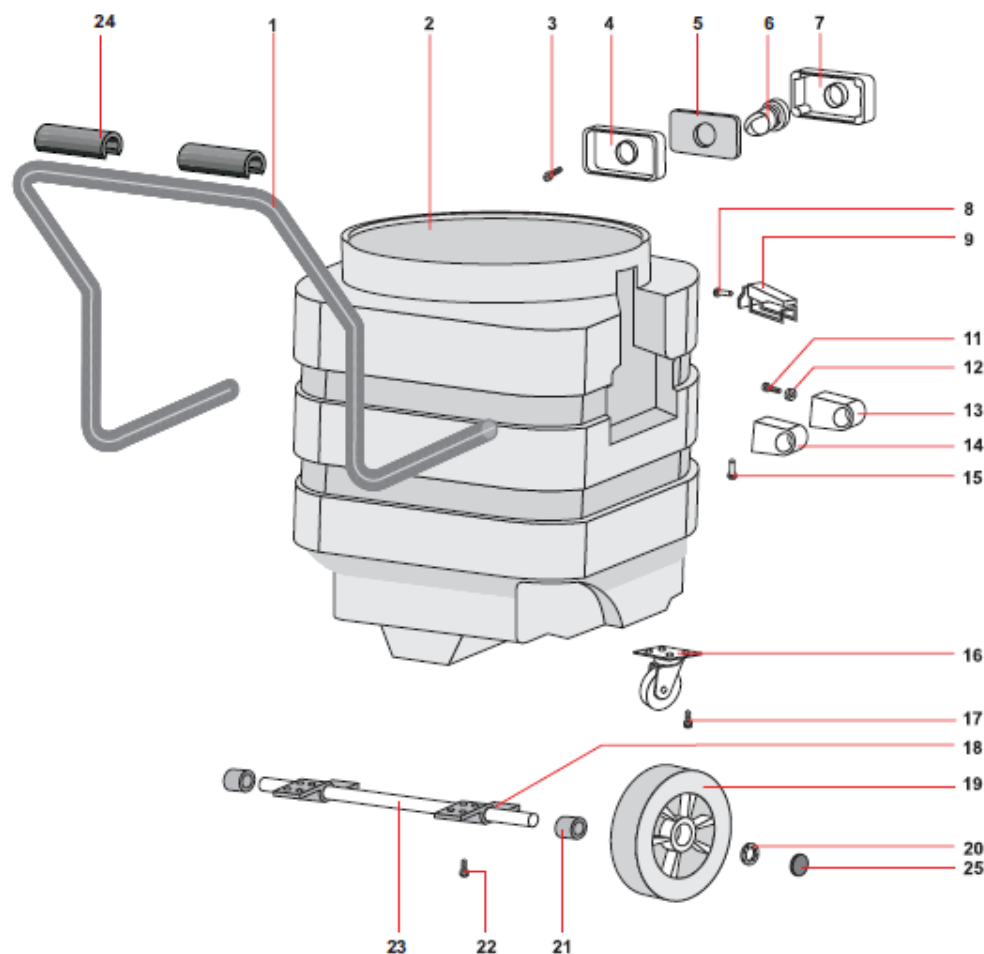
No.	Part #	Description	Qty.
1	T82102005	Power Cord 14x3	1
2	S80138	Strain Relief	1
3	S80139	Clamp, Cord	1
4	S81006	Screw, 5x20	2
5	S82931AUG6	Cord Hook	1
6	S81054	Screw 5x30	4
7	S82930G6	Handle	1
8	S81026	Screw 5x25	1
9	S81006	Screw 5x20	2
10	S81005	Screw 5x14	2
11	S83436	Terminal Block	1
12	S81054	Screw 5x30	4
13	S82963AUG6	Cover, Dual Motor	1
14	S81006	Screw 5x20	2
15	S80484	Switch	2
16	S83937	Filter	2
17	S83273	Screw 5x35	9
18	S81502	Grommet	1
19	S83383AU	Cap	1
20	S82957AUVEI	Cover, Motor	1
21	S82627	Screw 5x25	9
22	S82627	Screw 5x25	3
23	S82937AUG6	Motor Retainer	1
24	S81004	Screw 4.5x20	1
25	S83433	Terminal Board	1
26	S83969	Gasket	2
27	S81979	Screw 5x25	8
29	S83901	Gasket	2
30	S81064	Lock Washer 4x8	2
31	S81024	Screw 4x8	2
32	S81120S	Motor 1000 watt 120V	2
33	S83901	Gasket	1
34	S81979	Screw 5x25	4
35	S83901	Gasket	1
36	S83451AU	Plug	1
37	S83454	Filter, Sound Deadening	3
38	S83456	Filter	3
39	S83519	Cap	1
40	S83108G6	Base w/Gasket	1



## Float Assembly 415

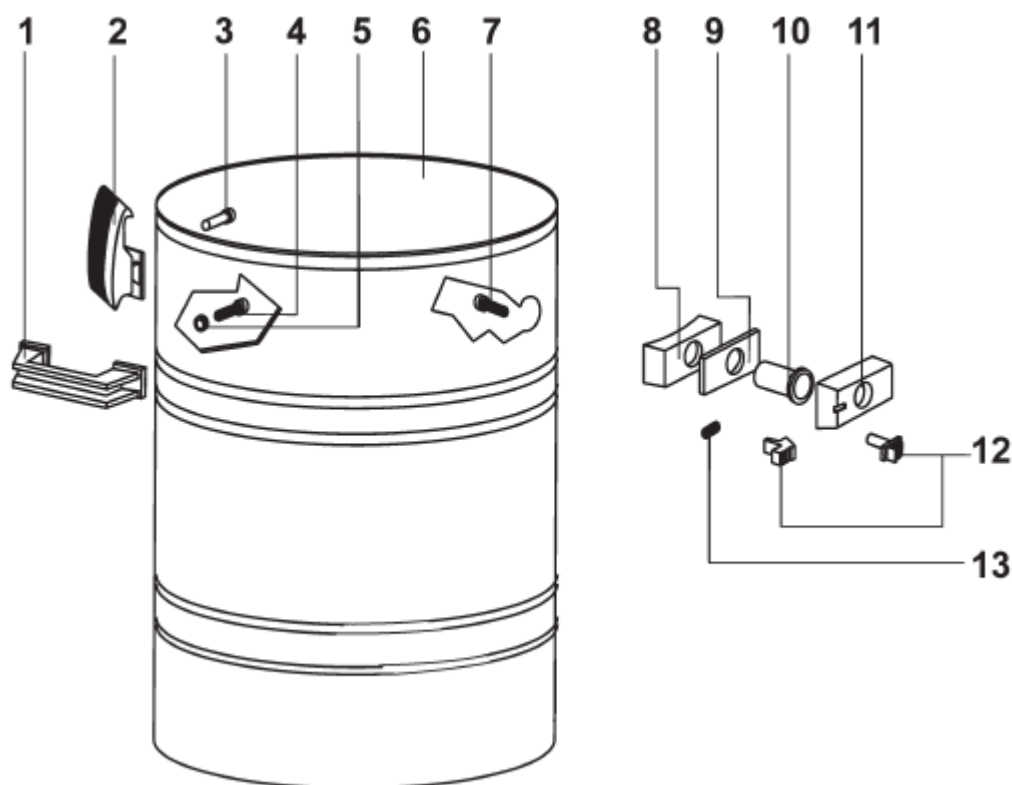
No.	Part #	Description	Qty.
1	S83706	Bushing	4
2	S83724	Screw 5x25	4
3	S821243NE	Body Filter Assembly	1
4	S82676-1G	Float w/Gasket	1

## Tank and Cart Assembly 415P-AD, 429P-AD



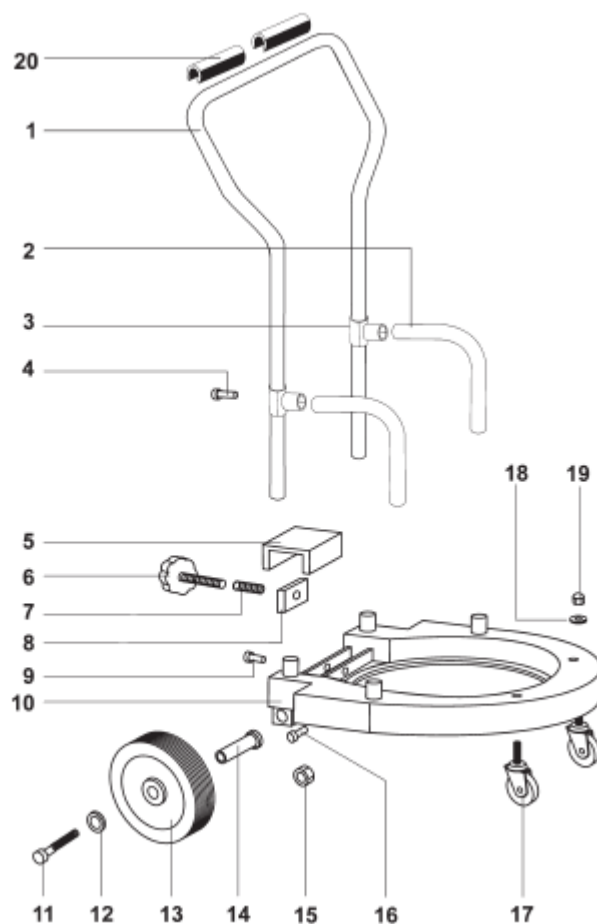
No.	Part#	Description	Qty.	No.	Part#	Description	Qty.
1	S82558-1 V	Handle	1	18	S82556	Support, Axle	2
2	S82623NE	Tank, Poly 24g Black	1	19	S80904	Wheel	2
3	S81026	Screw 5x30	4	20	S82557	Retainer, Wheel	2
4	S82584G6	Retainer, Tank	1	21	S82607	Spacer, wheel	2
5	S82846	Gasket	1	22	S81006	Screw	8
6	S82593	Deflector	1	23	S82555	Axle	1
7	S82652AG6VE	Inlet Cover w/button	1	24	S86250	Handle Grip	2
8	S81300	Rivet	4	25	S83835NE	Cap, Wheel	2
9	S87390	Latch	2				
10							
11	S81050	Screw, 5x35	8				
12	S82974	Washer, Plastic	4				
13	S81072-1NE	Support, Handle Front	2				
14	S81860-1NE	Support, Handle rear	2				
15	S81302NE	Rivet 4.8x17	2				
16	S82559	Caster, Swivel	2				
17	S82680	Screw 4x15	8				

## Tank Assembly 415DS



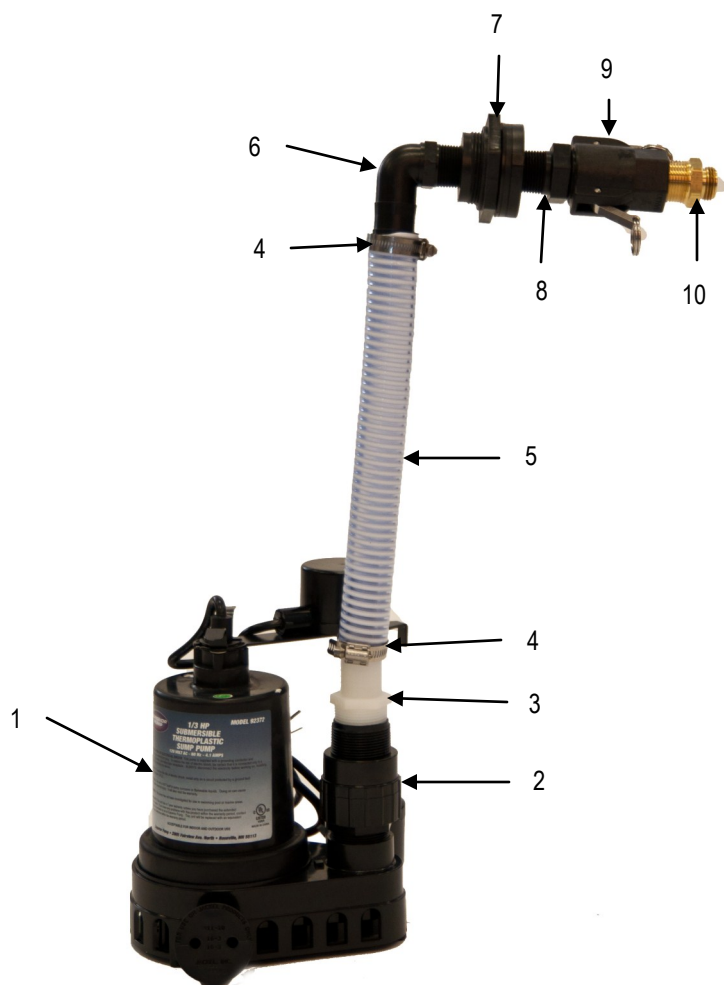
No.	Part#	Description	Qty.
1	S82993	Handle	2
2	S81847	Clamp, Tank	2
3	S81302	Rivet 5x19	4
4	S83629	Screw 5x25	4
5	S83883	Washer	4
6	S81559	Tank	1
7	S81026	Screw 5x30	4
8	S82586	Adapter, Tank	1
9	S82846	Gasket	1
10	S82593	Deflector	1
11	S82583	Inlet Cover	1
12	S82594	Button	1
13	S82608	Spring	1

## Cart Assembly 415DS



No.	Part#	Description	Qty.
1	S82993	Handle	1
2	S80917	Support, Handle	2
3	S80913	T-Tube	2
4	S81301	Rivet 5x11	2
5	S80902	Block	1
6	S80914	Hand Wheel 8x60	1
7	S81402	Spring	1
8	S81403	Plate, Threaded	1
9	S81301	Rivet 5x11	2
10	S80901	Base, Cart	1
11	S80915	Screw 12x140	2
12	S81028	Masher M12	2
13	S80904	Wheel	2
14	S81401	Bushing	2
15	S82052	Spacer	2
16	S81301	Rivet 5x11	2
17	S80479	Caster	2
18	S81012	Washer	2
19	S80478	Nut M10	2
20	S86250	Hand Grip	2

## Pump Assembly



No.	Part#	Description	Qty.
1	DP92372	Pump	1
2	DP99509	Check Valve	1
3	DP99569	Hose Barb	1
4	DP99182	Hose Clamp	2
5	DP99190	Hose	1
6	DP99566	Barb, Elbow 11/4"	1
7	DP99565	Bulkhead Fitting 1"	1
8	DP99567	Cam Lock, Male 1"	1
9	DP99568	Cam Lock, Female 1"	1
10	DP20310	1" MPT x GHT Fitting	1
11	DPGROM11-2-10	Cord Grommet (Not Pictured)	1

# Tools



Item	Part#	Description	Qty
	S72672	Complete Tool Kit	1
1	S70003	Crevice Tool	1
2	S76295	Round Brush	1
3	S70008	Hose	1
4	S76387	Wand, Straight	2
5	S76389	Wand, Curved	1
6	S76384	16" Floor Brush	1
7	S76385	16" Floor Squeegee	1
7a	S82333	Replacement Squeegee Blades	2
1	S76388	Adapter	1

## Filters

Part#	Description	Where Used
S82845	Filter Bag, Standard Polyester	415/429/430 models
S82852*	Cartridge Filter, Paper	415/429/430 models
S76061*	Cartridge Filter, Polyester	415/429/430 models
S82995*	Cartridge Filter, HEPA Equivalent	415/429/430 models
S82855	Cartridge Filter Retainer	all models
T80093	Paper Filter Bags 3/pkg.	415/429/430 models

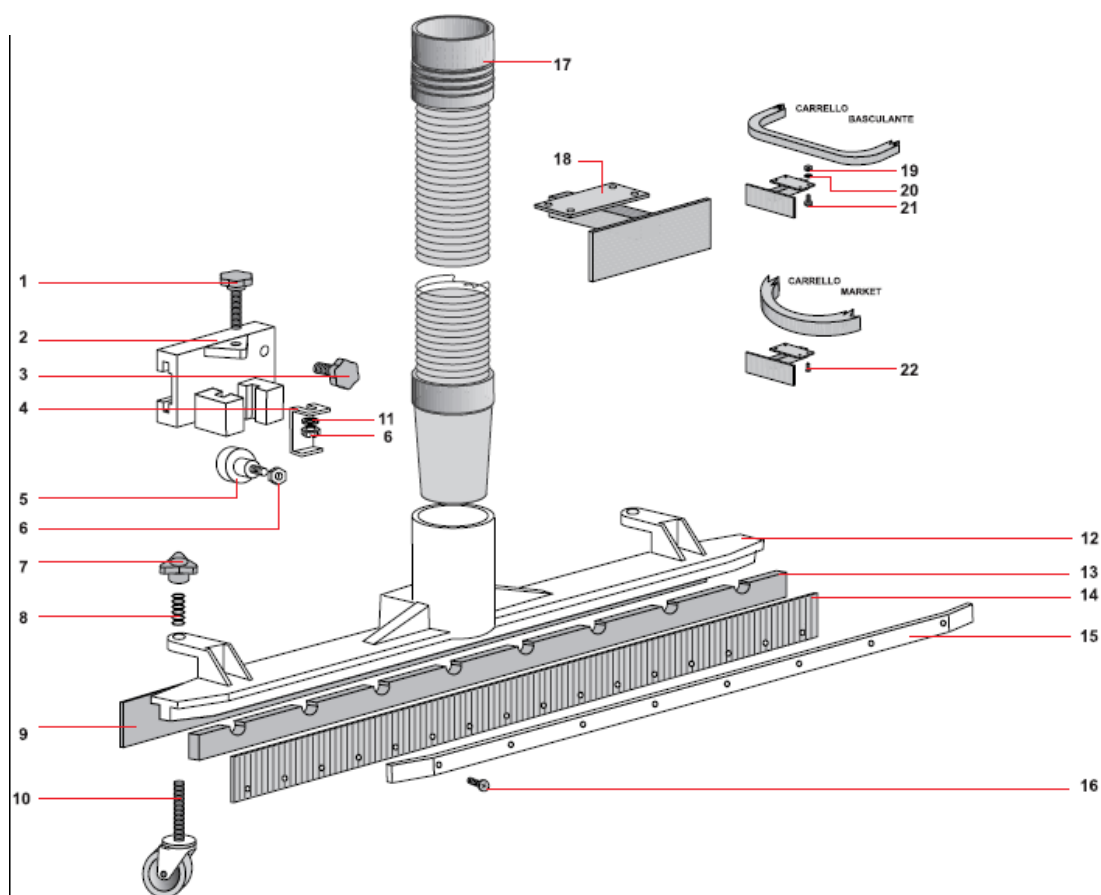
*\*also requires S82855 Retainer*

## Recommended Spare Parts

S8TOEG845	Motor Carbon Brush
S80326	Main Power Switch
S82845	Polyester Filter, 415/429/430

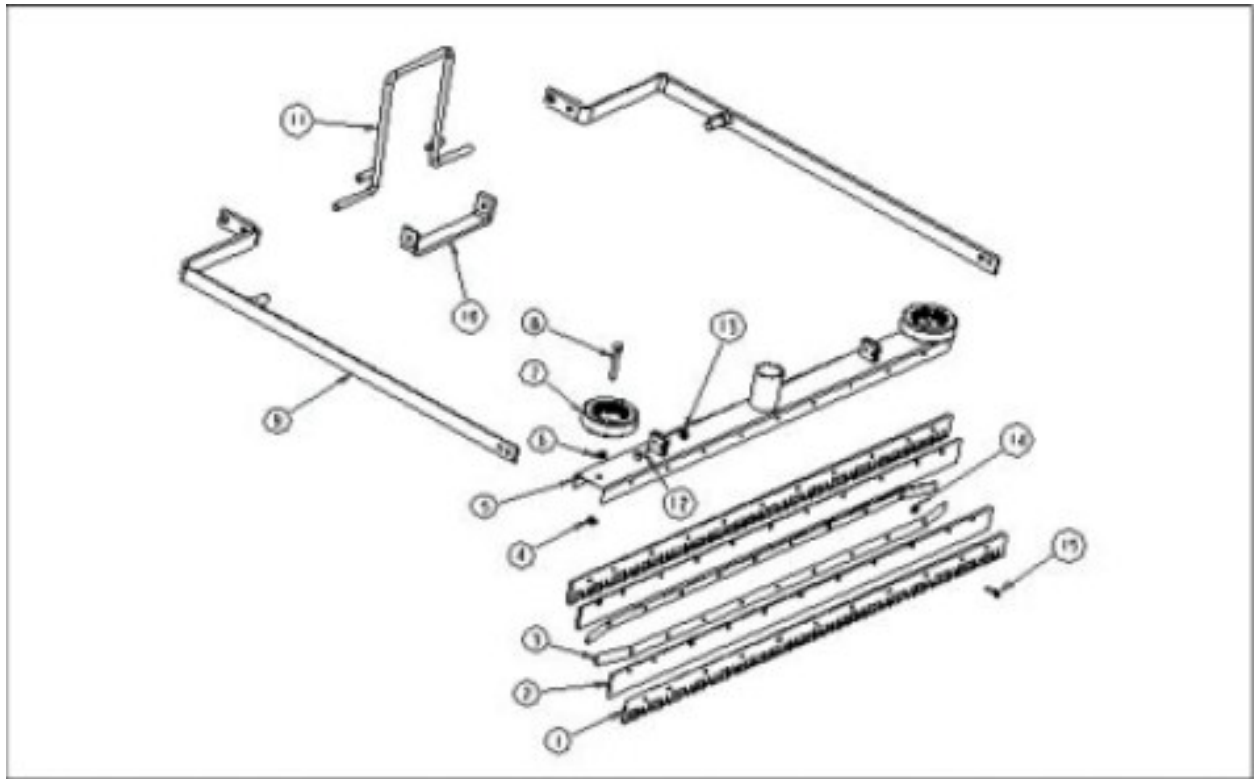


## S70042 22" Front-Mounted Squeegee fits all 415/429/430 models



No.	Part#	Description	Qty.
1	S82164	Handwheel 8x45	1
2	S82187	Small Block, Fixed	1
3	S82163	Handwheel 6x25	1
4	S83115	Plate, Adjustment	1
5	S82189	Driver Pivot	1
6	S81033	Nut M8	2
7	S81732	Adjustment Knob	2
8	S86137	Spring	2
9	S82245	Squeegee, Rear	1
10	S86138	Wheel	2
11	S81034	Washer M8	1
12	S82177	Body, Wet Fix Tool	1
13	S82198	Spacer	2
14	S82196	Squeegee, Front	1
15	S82197	Bracket, Squeegee	2
16	S81856	Screw M4x16	16
17	S80010	Hose	1
18	S82297	Mounting Bracket	1
19	S81035	Nut M5	4
20	S81036	Washer M5	4
21	S81755	Screw 5x16	4
22	S81006	Screw 5x20	4

## T80020 30" Front-Mounted Squeegee fits 415/429/430 models with Polyethylene Tanks



No.	Part#	Description	Qty.
1	BD735602	Blade, Slotted	2
2	BD735601	Blade, Solid	2
3	BD7015509	Support, Blade	2
4	BD735609	Nut, Nylock 1/4-20	2
5	BD715508	Housing Assy.	1
6	BD735609	Nut, Nylock 1/4-20	2
7	BD735607	Wheel, Guide	2
8	BD735608	Bolt, 1/4-20 x 1.75"	2
9	BD705201	Lifting Arm Assy.	2
10	BD705202	Cross Member	1
11	BD705203	Latch Assy.	1
12	BD735610	Bolt, 1/4-20 x 1"	6
13	BD735609	Nut, Nylock 1/4-20	6
14	BD735605	Nut, Nylock 10-24	22
15	BD735603	Screw 10-24	15
Not Pictured	T80021	Hose Assy.	1

## Warranty Policy

### **Limited Warranty**

IPC Eagle warrants new cleaning equipment against defects in material and workmanship under normal use and service to the original purchaser as detailed below.

#### **3 years**

Subject to the conditions stated below, IPC Eagle warrants all Polyethylene Tanks to be free from defects in materials and workmanship for a 3-year period. Parts replaced or repaired are warranted for the remainder of the original warranty period.

#### **1 year**

Subject to the conditions stated below, IPC Eagle warrants all other cleaning equipment components to be free from defects in materials and workmanship for a 1-year period. Parts replaced or repaired are warranted for the remainder of the original warranty period.

IPC Eagle will furnish and charge for replacement parts, including transportation, to the original owner through an IPC Eagle authorized service center. If the part is returned within 30 days and is found defective, the owner will be credited for the cost of the replacement part including shipping and handling.

Labor charges are covered for one year from the date of purchase if provided by an authorized IPC Eagle service center.

Wear items exempt from warranty include belts, carbon brushes, power cords, wheels, brushes, pads, handle grips, filters, screens, hoses, and squeegees.

This warranty shall not apply to failures caused by misuse or abuse, improper maintenance as stated in the operation manuals, use of unauthorized repair parts, repairs by other than an IPC Eagle authorized service center, and damage in transit.

IPC Eagle disclaims and denies any liability for any direct, indirect, special incidental or consequential damage which may be suffered as a result of sale, delivery, servicing, use, loss of any product, downtime, labor, freight, or other charges not expressly included herein.





# IPC

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# EAGLE

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