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**READ AND FOLLOW  
ALL INSTRUCTIONS,  
WARNINGS & CAUTIONS  
BEFORE USING THIS VACUUM**

**SAFETY,  
OPERATION &  
MAINTENANCE  
MANUAL**

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**P420105MP  
PUMP-OUT  
VACUUM CLEANER**

This unit is intended for commercial use.



**Address:**

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Newburgh, N Y 12550-0606

**TEL:**

(800) 835-7812 (845) 565-8850

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[info@pristal.com](mailto:info@pristal.com)

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This vacuum cleaner will afford you many years of trouble-free operating satisfaction, provided it is given proper care. All parts have passed rigid quality control standards prior to being assembled to produce the finished product. Prior to packaging, the vacuum was again inspected for assurance of flawless assembly.

Your vacuum is protectively packed to prevent damage in shipment. We recommend that upon delivery, unpack the vacuum and inspect it for any possible damage. Only a visual examination will reveal damage that may have occurred.

If damage is discovered, immediately notify the transportation company that delivered your vacuum. As a shipper, we are unable to report claims for concealed damage. You must originate any claims within 5 days.

This manual is for your protection and information. **PLEASE READ CAREFULLY** since failure to follow precautions could result in discomfort or injury.

**READ ALL  
INSTRUCTIONS  
BEFORE  
OPERATING  
THIS VACUUM**

**SAVE THESE INSTRUCTIONS**

# IMPORTANT SAFETY INSTRUCTIONS



## WARNING:

**To Reduce the Risk of Fire, Electric Shock or Injury:**

### **Wet Vacuums**

**To avoid electric shock DO NOT expose to rain.**

**Store Indoors**

When using this electric vacuum, basic precautions should always be followed, including the following:

- 1. DO NOT** leave the vacuum when plugged in. Unplug it from the outlet when not in use and before servicing.
  - This is **NOT** a toy. Close attention is necessary when used around or near children.
  - Use only as described in this safety manual. Use only the manufacturer's recommended attachments and accessories.
  - 4. DO NOT** use this vacuum with damaged cord or plug. If the vacuum is not working as it should, because it has been dropped, damaged, left outdoors or dropped into water, contact an authorized service center or factory.
  - 5. DO NOT** pull the vacuum by the cord, use cord as a handle, close a door on the cord or pull cord around sharp edges and corners. **DO NOT** run vacuum over the cord. Keep cord away from heated surfaces.
  - 6 DO NOT** unplug the vacuum by pulling on the cord. To unplug, grasp the plug, not the cord.
  - 7. DO NOT** handle the vacuum plug or vacuum with wet hands.
  - 8. DO NOT** put any objects into openings. **DO NOT** use with any openings blocked; keep free of dust, lint, hair, and anything that may reduce air flow.
  - Keep hair, loose clothing, fingers, and all parts of body away from openings and moving parts.
  - 10. DO NOT** pick up anything that is smoking or burning such as cigarettes, matches, or hot ashes.
  - 11. DO NOT** use without wet adaptor.
  - Turn **OFF** all the controls before unplugging.
  - Use extra care when cleaning on stairs.
  - 14. DO NOT** use this vacuum to pick up flammable or combustible liquids such as gasoline or use in areas where they may be present.
  - 15. DO NOT** use where anesthetics or oxygen are used.
  - Replace damaged or worn parts immediately with genuine original equipment parts to maintain safety and to protect your limited warranty.
  - 17. DO NOT** use an extension cord unless absolutely necessary. If an extension cord is used, then wire size must be #14 gauge or larger and should not exceed 50 feet in length. The extension cord must be three-wire type to insure **GROUNDING** protection.
- This vacuum must be connected to a properly grounded outlet only. See grounding instructions (Page 3).

## SAVE THESE INSTRUCTIONS



**DANGER:**

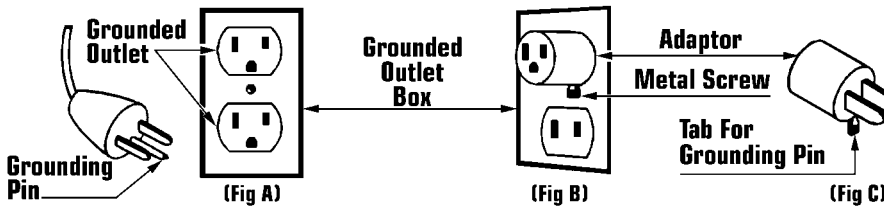
**Improper use of the grounding plug can result in a risk of electric shock.**

# GROUNDING INSTRUCTIONS

Electrical equipment must be grounded. If it should mal-function or breakdown, grounding provides a path of least resistance for electrical current to reduce the risk of electric shock. This vacuum is equipped with a cord having an equipment-grounding conductor and grounding plug. The plug must be inserted into an appropriate outlet that is properly installed and

grounded in accordance with all local codes and ordinances.

If repair or replacement of the cord or plug is necessary, **DO NOT** connect the grounded wire to either flat blade terminal. The wire with insulation having an outer surface that is green with or without yellow stripes is the grounding wire.



# GROUNDING METHODS

This electric equipment is for use on a nominal 120 volt circuit, and has a grounded plug that looks like the plug illustrated in (Fig A). A temporary adaptor that looks like the adaptor illustrated in (Fig B & C) may be used to connect this plug to a 2-pole receptacle as shown in (Fig B) if a properly grounded outlet is not available.

The temporary adaptor should be used only until a properly grounded outlet (Fig A) can be installed by a qualified electrician. The green color rigid ear, lug or the like extending from the adaptor must be connected to a permanent ground such as a properly grounded outlet box cover. Whenever the adaptor is used, it must be held in place by a metal screw (Fig C).



**WARNING:**

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 equipment. If it will not fit the outlet, have a proper outlet installed by a qualified electrician.

**Note:** In Canada, the use of a temporary adaptor is not permitted by the Canadian Electrical Code.

Treat this vacuum as you would any other high grade precision made product. Dropping, unreasonable bumping across thresholds and other misuses may result in a damaged unit which will not be covered by warranty.

Read this manual completely before operating the vacuum. It is important to follow instructions in this manual to prevent the possibility of injury or damage to the user and/or vacuum.

# CARE OF THE VACUUM

When not in use, the power cord should be wrapped around the motor head for storage.

# LIRE TOULES LES INSTRUCTIONS AVANT DE FAIRE FONCTIONNER



## AVERTISSEMENT:

Pour réduire les risques d'incendie, de choc électrique ou de blessure:

### POUR APPAREIL SEC POUR APPAREIL HUMIDE

Pour réduire les risques de choc électrique, ne pas exposer à la pluie et garder l'aspirateur à l'intérieur.

L'utilisation d'un appareil électrique demande certaines précautions:

1. Ne pas laisser l'appareil sans surveillance lorsqu'il est branché. Débrancher lorsque l'appareil n'est pas utilisé et avant l'entretien.
2. Ne pas permettre aux enfants de jouer avec l'appareil. Une attention particulière est nécessaire lorsque l'appareil est utilisé par des enfants ou à proximité de ces derniers.
3. N'utiliser que conformément à cette notice avec les accessoires recommandés par le fabricant.
4. Ne pas utiliser si le cordon ou la fiche est endommagé. Retourner l'appareil à un atelier de réparation s'il ne fonctionne pas bien, s'il est tombé ou s'il a été endommagé, oublié à l'extérieur ou immergé.
5. Ne pas débrancher en tirant sur le cordon. Tirer plutôt la fiche.
6. Ne pas toucher la fiche ou l'appareil lorsque vos mains sont humides.

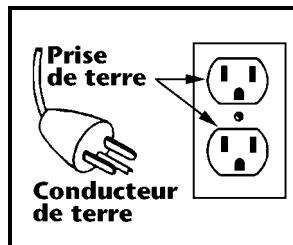
7. Ne pas tirer, soulever ou traîner l'appareil par le cordon. Ne pas utiliser le cordon comme une poignée, le coincer dans l'embrasure d'une porte ou l'appuyer contre des arêtes vives ou des coins. Ne pas faire rouler l'appareil sur le cordon. Garder le cordon à l'écart des surfaces chaudes.
8. N'insérer aucun objet dans les ouvertures. Ne pas utiliser l'appareil lorsqu'une ouverture est bloquée. S'assurer que de la poussière, de la peluche, des cheveux ou d'autres matières ne réduisent pas le débit d'air.
9. Maintenir les cheveux, les vêtements amples, les doigts et toutes les parties du corps à l'écart des ouvertures et des pièces mobiles.
10. Ne pas aspirer de matières en combustion ou qui dégagent de la fumée, comme des cigarettes, des allumettes ou des cendres chaudes.

11. Ne pas utiliser l'appareil si le sac à poussière ou le filtre n'est pas en place.
12. Mettre toutes les commandes à la position ARRET avant de débrancher l'appareil.
13. User de prudence lors du nettoyage des escaliers.
14. Ne pas aspirer des liquides inflammables ou combustibles, comme de l'essence, et ne pas faire fonctionner dans des endroits où peuvent se trouver de tels liquides.
15. Toujours mettre l'interrupteur de l'appareil à la position ARRET avant de brancher ou de débrancher la brosse à moteur.
16. Ne brancher qu'à une prise de courant avec mise à la terre. Voir les instructions visant la mise à la terre.

## INSTRUCTIONS VISANT LA MISE À LA TERRE

Cet appareil doit être mis à la terre. En cas de défaillance ou de panne éventuelles, la mise à la terre fournit au courant un chemin de moindre résistance qui réduit le risque de choc électrique. Cet appareil est pourvu d'un cor-

don muni d'un conducteur de terre et d'une fiche avec broche de terre. La fiche doit être branchée dans une prise appropriée correctement installée et mise à la terre conformément aux règlements et ordonnances municipaux.



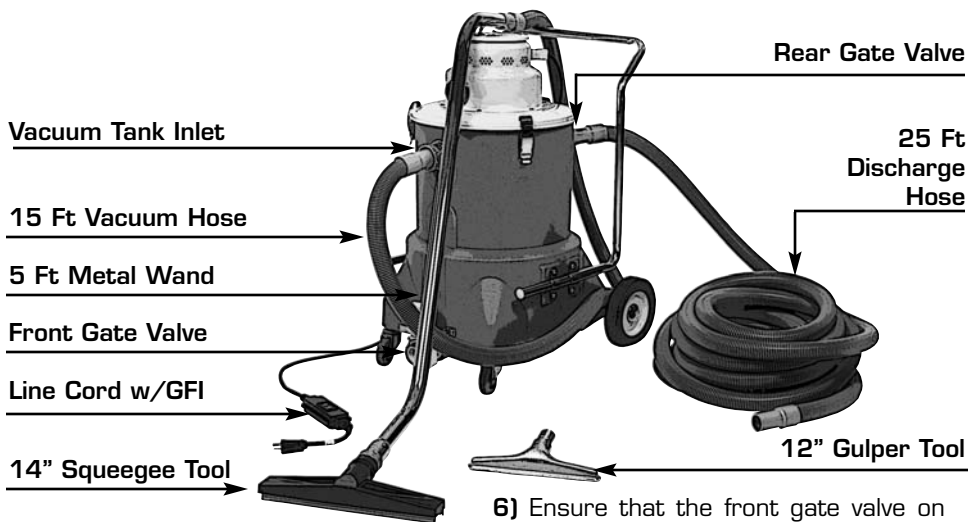
Cet appareil est destiné à un circuit de 120V et est muni d'une fiche de mise à la terre semblable à celle illustrée par le croquis A de la figure "A". S'assurer que l'appareil est branché à une prise de courant ayant la même configuration que la fiche. Aucun adaptateur ne devrait être utilisé avec cet appareil.

## AVERTISSEMENT:

Un conducteur de terre mal raccordé peut entraîner un risque de choc électrique. Consulter un électricien ou un technicien d'entretien qualifié si vous n'êtes pas certain que la prise soit cor-

rectement mise à la terre. Ne pas modifier la fiche fournie avec l'appareil-si elle ne peut être insérée dans la prise, faire installer une prise adéquate par un électricien qualifié.

## CONSERVER CES INSTRUCTIONS



# ASSEMBLY INSTRUCTIONS

## CAUTION:

Exercise caution when handling the motor head. Dropping the motor head may cause permanent damage to internal

- 1) Remove the vacuum and hoses packed inside the carton.
- 2) Unlatch the holdown clamps, lift off motor head and carefully set aside.
- 3) Remove the tools from inside the vacuum tank.
- 4) Install the strainer sack over the inlet nozzle on the inside of the vacuum tank and tighten draw string.
- 5) Replace the motor head and engage the holdown clamps.

**Note:** For picking up deep water drop free end of the vacuum hose into water. When removing water from a floor select the wand and squeegee or gulper tool. (See Page 7 for installation.)

- 6) Ensure that the front gate valve on the tank is completely closed (Plunger should be in the down position).
- 7) Ensure that the rear gate valve on the tank is open half way. This is the optimum setting and will regulate the discharge rate of the tank.
- Note:** If the discharge rate exceeds the intake rate, the pump will continuously cycle ON and OFF and shorten the life of the pump.
- 8) Connect the 15 foot vacuum hose to the front inlet of the vacuum tank.

- 9) Connect on end of the 50 foot drain hose to the rear gate valve and place the other end into a suitable drain.
- 10) Prime pump by filling the bottom of the recovery tank with minimum of 3 inches of water to cover the injection holes located at the bottom of the pump.
- 11) Replace motor head on the vacuum tank and secure with the holdown clamps.

- 1) Plug the motor head's power cord into a standard 120V outlet, and plump's power cord into the convenience outlet in the motor head.
- 2) Turn ON the main switch located on the motor head and the Pump-Out vacuum is now operational.

**Note:** When first turned **ON** only the vacuum motor will be activated. When water level in the tank reaches required height, the pump's float switch will be activated and begin pumping.

The pump will shut **OFF** when water level lowers to a point that deactivates the float switch.

## CAUTION:

The float switch is set at the factory to ensure proper operation and so that the pump will maintain it's required priming. Changing this setting could result in serious damage to the pump and void any warranty.



# OPERATION INSTRUCTIONS

- 1) Drain the vacuum tank by opening the front drain valve and tipping the vacuum forward.
- 2) Close the gate valve and rinse the inside of the tank with fresh water.
- 3) Repeat step one.

- 4) Empty the pump by removing the motor head assembly, turn ON the motor head and activate the pump by lifting the pump float up by hand.

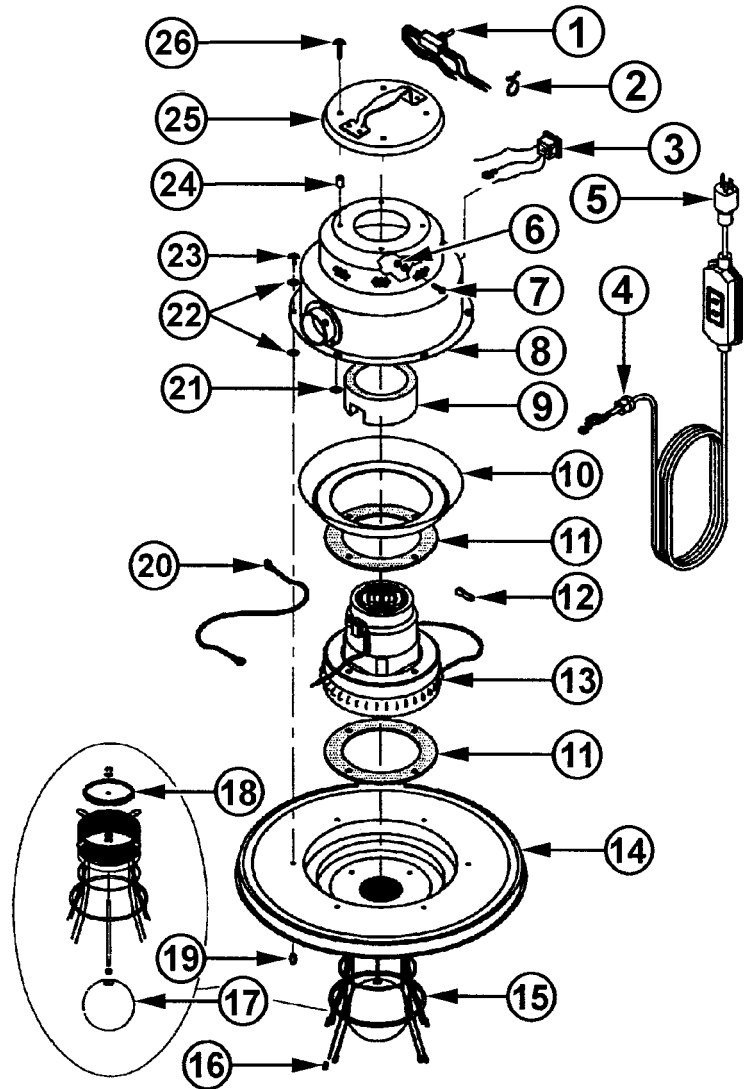
## CAUTION

**DO NOT** run in the mode for more than 20 seconds.

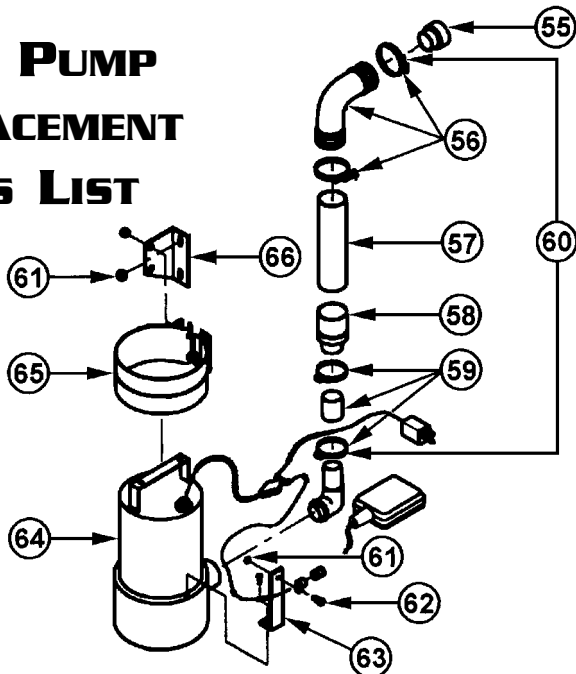
# MAINTENANCE INSTRUCTIONS

# 1 1/4 HP MOTOR HEAD REPLACEMENT PARTS LIST

Ref No	Parts Description	Qty	Part No
1	Switch	1	324140
2	Purse Lock	1	365483
3	Convenience Outlet	1	312495
4	Strain Relief	1	434299
5	50 Ft Power Cord w/GFI	1	313149
6	#10-24 Hex Nut w/Lkwahr	3	331201
7	#10-24 X 3/4" Screw	1	337315
8	Dome Assembly	1	320137
9	Flat Gasket	2	378607
10	Motor Holddown	1	396559
11	Circle Gasket	2	306975
12	Yellow Wire Connector	2	350648
13	120 Volt, 1 1/4 HP Motor	1	337757
14	Cover Assembly w/Float Assy	1	430943
15	Float Cage Assembly	1	430935
16	Black Vinyl Screw Protector	4	420271
17	Float Ball w/Hex Nut	1	378003
18	Plate Gasket	1	374644
19	Red Vinyl Screw Protector	6	341649
20	Ground Spring	1	307440
21	10-24 Hex Lockwasher	4	313815
22	#10 Int Tooth Lockwasher	3	364037
23	#12-14 X 1 1/2" Screw	6	314595
24	Nylon Spacer - .37 X .215	1	332186
25	Dome Cover w/Handle	1	363057
28	Flat Washer	4	322169



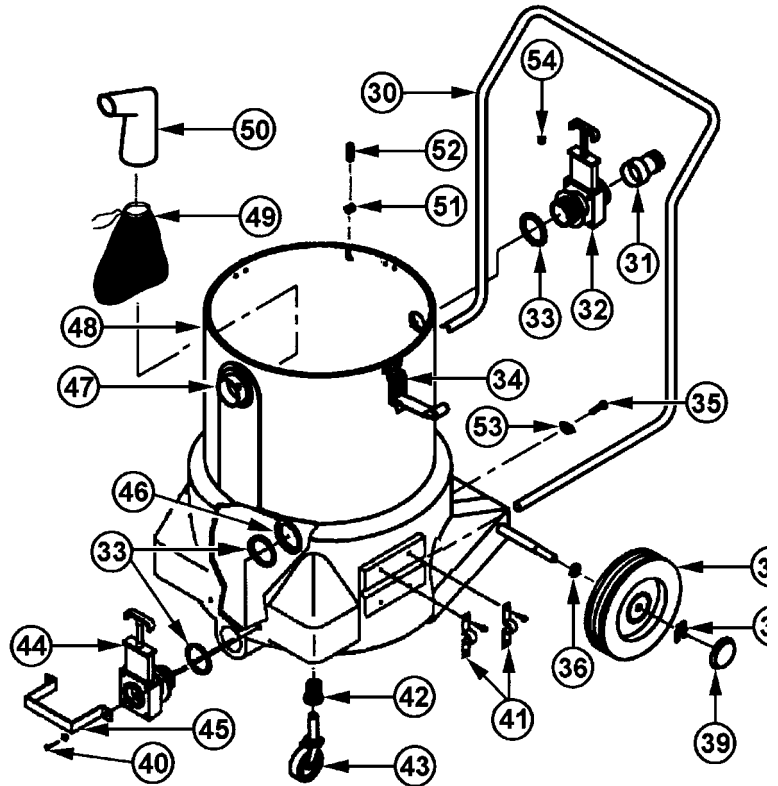
# SUMP PUMP REPLACEMENT PARTS LIST



Ref No	Part Description	Qty	Part No
55	1 1/2" PVC Coupler Fitting	1	434477
56	90° Fitting w/Clamps	1	431176
57	2" X 6 3/4" Plastic Tube	1	435015
58	1 1/4" Plastic Check Valve	1	330884
59	1 1/2" Fitting w/Couplers	1	431206
60	Discharge Tube Assembly	1	425023
61	1/4 X 20 Nylok Nut	4	431192
62	1/4- 20 1/2" Rd Screw	1	328154
63	Float Switch Bracket	1	431168
64	3/4 HP, 115 Volt Sump Pump	1	434612
65	5" Pump Clamp	1	435066
66	Pump Bracket	2	431141

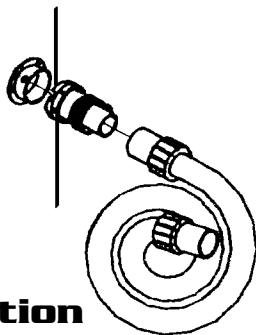
# TANK ASSEMBLY REPLACEMENT PARTS LIST

Ref No	Parts Description	Qty	Part No
30	Chrome Push Handle	1	315524
31	1 1/2" Hose Barb	1	350664
32	Rear Gate Valve	1	434469
33	Gate Valve Gasket	3	307602
34	Holdown Clamps	3	358312
35	1/4 - 20 X 3/4" Screw	2	431133
36	Spring Washer	2	374059
37	8" Wheels	2	369004
38	"X" Washer	2	368997
39	Hub Cap	2	319317
40	1/4 - 20 X 1/2" Screw	10	360848
41	Handle Brackets	4	314080
42	Plastic Caster Sockets	2	371750
43	3" Swivel Casters	2	314056
44	Front Gate Valve Assy	1	318442
45	Gate Valve Guard	1	314064
46	Large Nut	1	306789
47	Inlet Connector	1	318809
48	20 Gallon Poly Tank	1	431036
49	Strainer Sack	1	308773
50	Inlet Deflector	1	434973
51	Grommet	1	435058
52	Plug	1	435260
53	1/4" Flat Washer	2	431214
54	Aluminum Spacer	2	306762

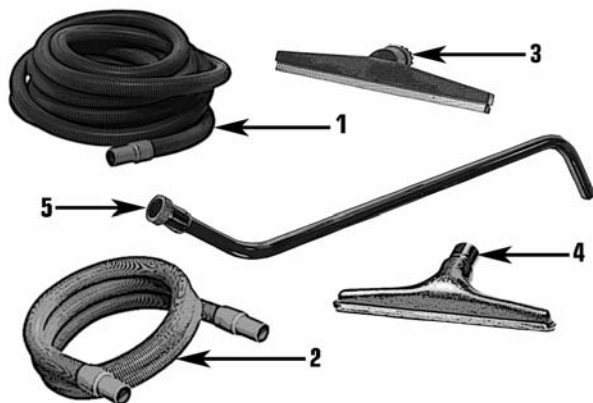


## TOOLS, HOSES AND INSTALLATION

### Tool & Hose Installation



The hose and swivel connector are pre-assembled at the factory.



- 1) Line up the slots in the swivel connector with the retaining rivets on the tank inlet.
- 2) Insert swivel connector and twist clockwise until rivets reset against slot end.
- 3) Slide free end of hose onto the grooved end of the hose.

- 4) To attach tool to wand, turn wand nut counterclockwise approximately four complete turns.
- 5) Insert the tool into wand and coupling. While holding the tool in place, turn nut clockwise until wand nut is fully locked.

### Replacement Parts List

Ref No	Parts Description	Qty	Part No
1	1 1/2" X 50 Ft Discharge Hose	1	344729
2	1 1/2" X 15 Ft Vacuum Hose	1	344699
3	16" Squeegee Tool	1	414158
4	12" Gulper Tool	1	335371
5	5 Ft Double Bend Wand	1	363480

# TROUBLE SHOOTING GUIDE



## CAUTION:

Always disconnect power cord before servicing vacuum.

### PROBLEM: Loss of Vacuum.

#### CAUSE:

1. Vacuum is running but no suction.
2. Front gate valve is open or clogged.
3. Clogged hose or wand.
4. Vacuum tank is damaged.
5. Loose or broken fan or motor not working.
6. Float cage ball is hung up.

#### SOLUTION:

1. Float assembly gasket is missing or worn out. Install or replace.
2. Close gate valve or remove debris and close gate valve.
3. Remove obstruction, try reversing hose.
4. Replace vacuum tank.
5. Contact manufacturer or authorized service center.
6. Check float cage ball, free up and clean if necessary.

### PROBLEM: Motor is not running.

#### CAUSE:

1. Defective or broken switch.
2. Defective motor or power cord.
3. Blown fuse or tripped circuit breaker.
4. Carbon brushes worn.
5. Debris in the fan housing.

#### SOLUTION:

1. Contact manufacturer or authorized service center.
2. Contact manufacturer or authorized service center.
3. Replace fuse, reset circuit breaker or check GFI breaker on power core and reset.
4. Replace carbon brushes.
5. Remove vacuum motor and clean out debris from fan.

### PROBLEM: Water blowing from vacuum when running.

#### CAUSE:

1. Float ball is filled with water or damaged.
2. Float valve gasket is worn.
3. Foamy liquid is being picked up.
4. Vacuum tank full, not discharging solution.

#### SOLUTION:

1. Empty ball or replace if damaged.
2. Replace gasket.
3. Add defoamer to tank.
4. Gate valve is closed or clogged. Open gate valve and remove debris if necessary.

### PROBLEM: Pump not discharging while running.

#### CAUSE:

1. Drain hose or discharge gate valve clogged.
2. Discharge gate valve is closed.
3. Foamy liquid is being picked up.
4. Check valve on discharge assembly.

#### SOLUTION:

1. Unclog drain hose or discharge gate valve.
2. Open discharge gate valve.
3. Add defoamer to tank.
4. Unclog or replace if damaged.

### PROBLEM: Pump will not run.

#### CAUSE:

1. No power at motor head convenience outlet.
2. Defective power cord, plug or receptacle.
3. Pump impeller clogged.
4. Float hung up mechanically.
5. Internal mechanical or electrical trouble.

#### SOLUTION:

1. Turn **ON** motor head.
2. Contact manufacturer or authorized service center.
3. Clean out debris.
4. Free up float.
5. Contact manufacturer or authorized service center.



## WARNING:

Repairs should only be performed by an authorized service center.