

OWNER'S MANUAL

12 GALLON EXTRACTOR

Innovative, powerful, clever. "Simply the most innovative extractor ever designed." Is this quote possible? Yes, it's not only possible, it's true! No extractor design has ever incorporated so many advanced features and patented innovations in a single design. We urge you to compare the 12-Gallon side-by-side to any competitor. The conclusion is self evident.

We are designed, manufactured and assembled in the **U.S.A.**



Specifications

120 PSI

220 PSI

300 PSI

500 PSI

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12-GALLON QUICK START GUIDE



Complete hose & wand kit
(25 ft. vac & solution hoses and wand)



Quick Start Machine Preparation

1 Switches



Make sure all switches are in the OFF position.

2 Hoses & Straps



Assemble your vacuum & solution hose. Small loop goes over small hose velcro over hose. Large 5 straps, one every five.

3 Vacuum & Solution hose



1. Connect your hose to vacuum
2. Solution hose
3. Push back locking sleeve, insert brass post, let locking sleeve cover spring back covering retaining balls
4. Push vacuum hose & cuff over 1.5" hose barb

4 Cleaning liquids



Pour liquid into front cavity. (For best results use 100° water) Do not use more chemical than directed. Over use of chemical clogs jets, brass and reducing heater performance.

5 Liquids detergent only



Use liquid detergents only. Powder clogs pumps + filters

6 Dump valve closed position



Stores into slot below dump valve.



Dump valve extender

1 Cord Extractor | 2 Cord Extractor

Electrical Connection

Power Single Cord Machine



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Plug into grounded outlets, No GFI outlet.

No Power Dual Cord Machine



GFI's
1st plug in one cord.
2nd Cord must be on a separate circuit. A light and sound pulse will activate when you plug into a 2nd circuit. If you do not hear a pulse tone move cord to other outlet until you obtain a 2nd pulse. Pump will not run unless 2nd circuit light is on, no GFI outlets.

CAUTION

8 HOT!

Many surfaces are hot, wear protective clothing



Wear eye protection



Wear gloves



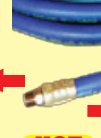
Wear long sleeves



Wear long pants



HOT



HOT



HOT

Start Sequence 1,2,3,4,5

1 Turn pump on



2 Pump test, prime machine



Pull triggers until liquid sprays from spray jets. Pump and heater is now primed. With water or cleaning solution.

3 Prime 300 & 500 PSI



For 300 & 500 PSI units a prime valve is located on the front panel. A. turn up to prime. B. Spray for 30 seconds C. Turn valve down to run position

4 Heater Pre-Heat



Now that the pump is primed with water or cleaning solution. Turn heater on for 5-minutes to Pre-Heat.



Never run heater DRY or without liquid. Throughout the machine and hose system. Failure to do so, will damage the heater.

5 Vacuum motor



Turn on both vacuums motors.

Carpet Cleaning and wand use

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After start sequence above

1. Start in the far corner and plan your exit.
2. Do a series of 4'x6' area spraying forward and extracting back. Overlap by 2" on each stroke.
3. After your 4'x6' area is done go over it again vacuuming only at a slow pace to remove any missed liquids to improve drying.

Upholstery

Reduce pressure to 100PSI



When doing upholstery it's important not to overwet, test on an unseen area and allow to dry prior to starting.

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- Disposing of dirty water
1. Unplug the extractor and back it over a toilet or bucket
 2. Slowly pull the dump-valve up and dispose of the water to the sewer system.
 3. Remember to close it when done.
 4. Never dispose of liquids on to the soil, outdoor gutter or into the environment.



Disposal of Water & You're Finished

When You're finished

1. Take the vacuum hose off the wand and put it into the front tank and vacuum out the remaining cleaning chemicals to the recovery tank, dump the water into a bucket or toilet.
2. Run clean water (warm if possible) throughout the machine to remove cleaning chemicals from coating internal hoses/jets.
3. Unplug the equipment, wipe it down with clean cloth and soap and return it to a safe storage area.

12 Gallon Extractor

Dear Customer:

Congratulations on the purchase of your new 12 Gallon Extractor.

Like any other piece of machinery or technology, extractors require the proper maintenance and care to keep the product working over extended use. Neglecting your machine, abusing it or not operating it properly can void its warranty and prevent the machine from performing to the quality and standard you'd expect.

If you have any warranty concerns or questions, please review this manual thoroughly or do not hesitate to contact your distributor. If there are questions regarding maintenance, replacement or ordering parts please contact an authorized Service Center.

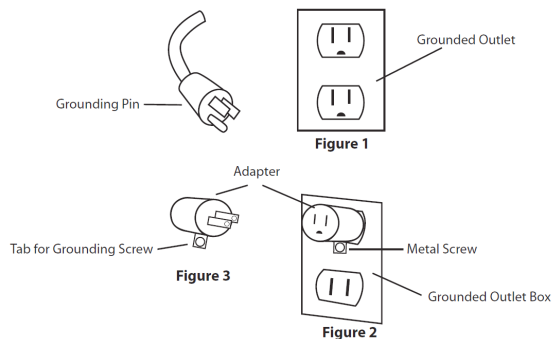
Before using your extractor, please read this manually thoroughly.

Grounding Instructions

This machine must be grounded. If it should malfunction or break-down, grounding provides a path of least resistance for electrical shock. This machine 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 in accordance with all local codes and ordinances. Do not remove ground pin; if missing, replace plug before use.

Improper installation of the equipment-grounding conductor can result in a risk of electric shock. Be sure to check with a qualified electrician or service person if you are in doubt as to whether the outlet is properly grounded. If the plug will not fit in the outlet do not modify either the plug or the machine's cord, instead have a proper outlet installed by a qualified technician.

This machine is for use on a nominal 120-volt circuit and with a grounding plug similar to the one in Figure 1 below. If a proper outlet is not available, follow the illustrations of Figure 2 & 3 to install a temporary-grounding plug. This temporary work-around should be used only until a proper outlet (Figure 1) can be installed by a qualified electrician. When and if this type of adapter is employed, screw the adapter's extended tab into place with a metal screw. However, grounding adapters are not approved for use in Canada. Again, be sure to check the grounding pin for damages and replace if necessary. The Green, or Green-Yellow, wire in the cord is the grounding wire. When replacing a plug, this wire must be attached to only the grounding pin.



Parts and Service

Please contact service personnel or authorized Service Center using original replacement parts and accessories for repairs. When calling for support please have your Model and Serial Number available for faster assistance.

Name Plate

The Model and Serial Number are located on the lower half of the back of the machine near the power plugs and will be required for ordering replacement parts. You can use the space provided on the front of this manual to record both for future reference.

Unpacking the Machine

When your new machine is delivered, please carefully inspect both the shipping carton and the machine for damages. If damage is evident, save both the shipping carton and the machine for inspection by the shipping company. Contact the carrier immediately to file a freight claim if there is damage.

Caution / Warning Symbols

Always read this information carefully and take the necessary steps to protect personnel and property.

Caution warnings are used to warn of immediate hazards that cause severe personal injury or death.

Always wear eye protection, gloves and long sleeves and pants.

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

1. Read quick start guide and manual prior to use.
2. Unplug machine before service.
3. Use only manufacturer recommended attachments and replacement parts.
4. Never upgrade or repair this equipment without authorization from the manufacturer.
5. Do not unplug the unit by pulling on the cord.
6. Do not run over the cord with any wheeled product.
7. Do not pull or carry by the cord.
8. Do not use on wet surfaces.
9. Do not use if the cord is damaged.
10. Do not use in areas with flammable or combustible material are present.
11. Do not allow to freeze.
12. Do not store on its side with liquids in the recovery or solution tanks.
13. Use only the appropriate handles to move and lift unit. Do not use any other parts of this machine for this purpose.
14. Keep hair, loose clothing, fingers, and all parts of the body away from all openings and moving parts.
15. Use extra care when using on stairs.
16. To reduce the risk of fire or electric shock, do not use this machine with a solid-state speed control device.

continued in page 5

17. The voltage and frequency indicated on the name plate must correspond to the wall receptacle supply voltage.
18. When cleaning and servicing the machine, local or national regulations may apply to the safe disposal of liquids which may contain: chemicals, grease, oil, acid, alkaline, or other dangerous liquids.

Preparation

1. Remove furniture and other items from the area you are going to clean.
2. Vacuum carpet and upholstery, and remove debris.
3. Protect cabinets, walls and painted surfaces with drop cloths or plastic.
4. Inspect power cords for damage.

Operating Instructions

1. Fill the solution tank.
2. Attach female end of a solution hose to a wand or other tool and the male end to the Extractor's Quick Disconnect (QD).
3. Plug in power cords: Extractor Model: Using two separate circuits/breakers, plug in the grounded power cables as previously instructed using the appropriate grounding techniques. The green indicator to the right of the PSI gauge will illuminate and sound a tone when plugged into separate circuits/breakers.
 - i. Activate the switches using the following steps:
 - ii. When the hoses are attached, turn Pump-Out Switch.
 - iii. (500psi only)The Prime Valve and Pressure Regulator are located on the front right side of the solution tank and should be primed prior to use. To prime the pump turn the valve to the Prime position for 30 seconds, and then turn horizontally to the Run position.
 - iiii. Pull your wand's trigger to ensure water is running through the lines to avoid damage to the Pump and Heating unit (Extractor).
5. If the heater is to be used, prime the system first. Turn on the heater switch and allow it to heat up for 5 minutes
6. To clean, make two dry passes for every one wet pass while working away from the power cords. For optimal use or heavily soiled areas, repeat wash steps in the opposite direction.
7. To prevent motor or internal damage, use a foam control solution in the recovery tank. Remember to check for build-up in both the recovery and solution tanks!
8. Empty the Recovery Tank when the internal shut off disengages the vacuum. Attach the 45° drain elbow to the drain spout located in the back and lift the dump valve to empty the tank.
9. Squeeze the wand or tool's trigger for five seconds after turning the power switches off to relieve any existing line pressure.
10. When the machine is off: unplug the power cables, remove solution and vacuum hoses, and empty the recovery tank by attaching the 45° drain elbow.
11. To empty the solution tank, twist off the solution tank drain cap located on the back of the machine after use

1. Before storing the machine, drain, rinse and dry both the tanks and vacuum hoses of any residual water or solution.
2. Store standing upright in a dry, enclosed location.
3. Leave the recovery tank lid open for better air circulation.
4. If storing in freezing temperatures, take extra precautions to make sure the machine and solution systems are completely drained and dry.

12 Gallon Extractor

Maintenance Schedule

Latches are located in the back to open the tank for internal maintenance. To keep machine in good working condition, follow the below recommended daily and weekly maintenance procedures. Relief valves should be replaced annually.

Maintenance item	Daily	Once a week
Clean and inspect tanks.	x	
Clean and inspect hoses.	x	
Check and clean internal filters by twisting off, rinsing with clean water and replacing.	x	
Check power supply cable.	x	
Clean machine with all-purpose cleaner and cloth.	x	
Check spray nozzles.	x	
Flush solution system with	x	
Remove float and shut-off screen from tank and clean. Simply pull off.		x
Inspect vacuum hoses for holes and loose cuffs.		x
Inspect spray pattern for clogging. If clogged, remove spray tips and soak them in a recommended liquid neutralizer for up to six hours. To remove spray tip, twist spray tip body counter-clockwise.		x
Lubricate wheels with water resistant oil.		x
Inspect machine for water leaks and loose hardware.		x

Filter Maintenance

All Extractor models have four filters that need to be checked and cleaned after each week of use. Regular filter maintenance is a simple way to extend the life of your machines.

Vacuum Stack Filters:

Located inside of the black vacuum tank are two vacuum stacks. Each stack has one foam filter to help prevent waste material from getting into the vacuums and cause damage. To maintain these filters:

1. Remove the recovery tank lid.
2. Reach in and pull out the two black filters located in the top of the vacuum stacks.
3. Clean the filters under a faucet of any debris and check for damage. If the filters are not damaged, place them back in the stacks. If filters are damaged and falling apart, replace them.

Pump Filters

The filter is a half-circle shaped screen located on the inside bottom of the solution tank. To maintain filter:

1. Open solution tank lid.
2. Reach into solution tank and rotate the dome-shaped filter from its brass nipple by rotating it counter clockwise.
3. Check filter for any debris or damage to screen. Rinse filter of any debris or replace if damaged.
4. Place new or cleaned filter back onto brass nipple by rotating it clockwise.

(Additional inline filter inside the machine)

Inline Pump Filter (additional instructions)

1. Remove the screw that holds the solution tank and the base together from the front of the machine.
2. Locate the inline filter on the clear solution hose, from the solution tank to the pump. Take off the clear housing of the filter by turning it counter clockwise
3. Check filter for any debris or damage to screen. Rinse filter of any debris or replace if damaged.
4. Place new or cleaned filter back into housing and install housing back into base by rotating it.

Trouble Shooting

There is no power.

1. Plug power cord(s) in proper outlet(s).
2. If using two cords, make sure each is plugged into a separate circuit.
3. Check circuit breaker and reset if tripped. There should not be any additional items in use on the same circuit as the machine and the outlet must be a 20-amp circuit.

Pump does not work properly

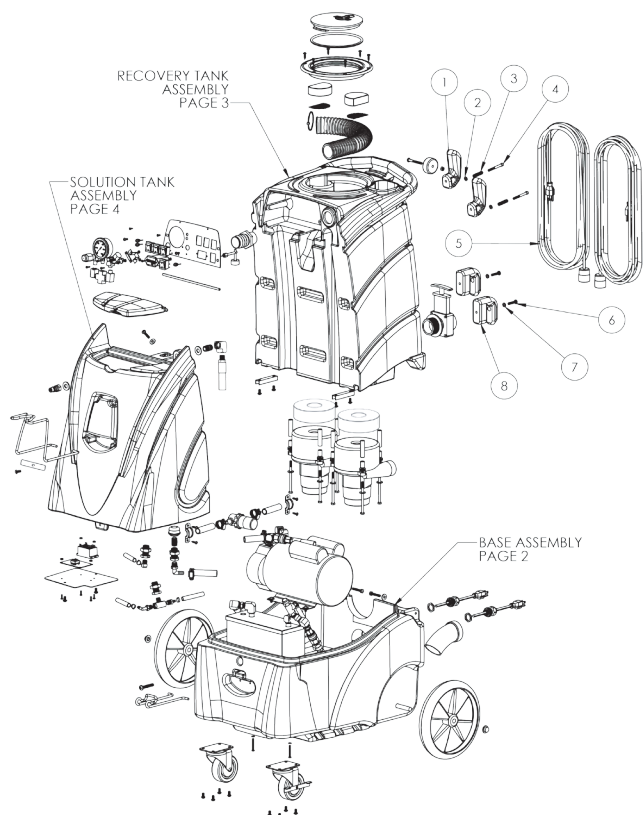
1. Snap quick disconnects firmly together.
2. Check solution tank; may be empty.
3. Jets clogged, remove jet and flush clean.
4. Filters clogged, remove filters and rinse clean with water. One filter is in the bottom of the recovery tank and the secondary filter is located in the motor area. Be sure to unplug the machine and turn all switches to the off position prior to cleaning.
5. If brass check valve is stuck, replace valve.
6. Check pump wire. May need to reconnect wire.
7. Switch plate may need to be replaced.
8. If pump motor brushes are worn, replace pump.

Extractor heater does not work properly

1. Check circuit breaker in the building electrical panel.
2. Heating element may need to be replaced.
3. Plug is in a GFI and the GFI is in the off position (popped)

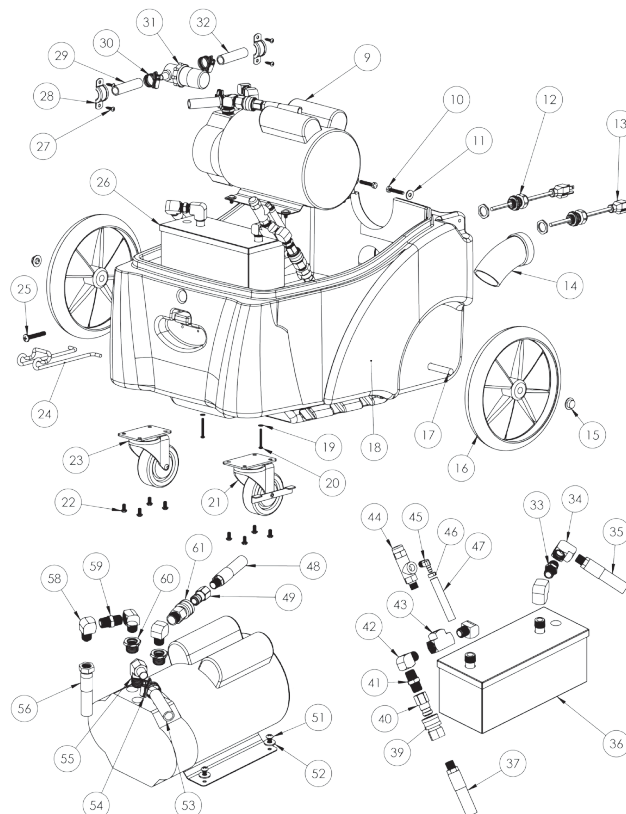
Vacuum motor does not work properly

1. Check that hose is tightly connected.
2. Close drain hose valve completely.
3. Secure the vacuum tank tightly.
4. If water is coming out of the vacuum motor, use a low foaming detergent.
5. Clean upholstery tool or floor wand jets.

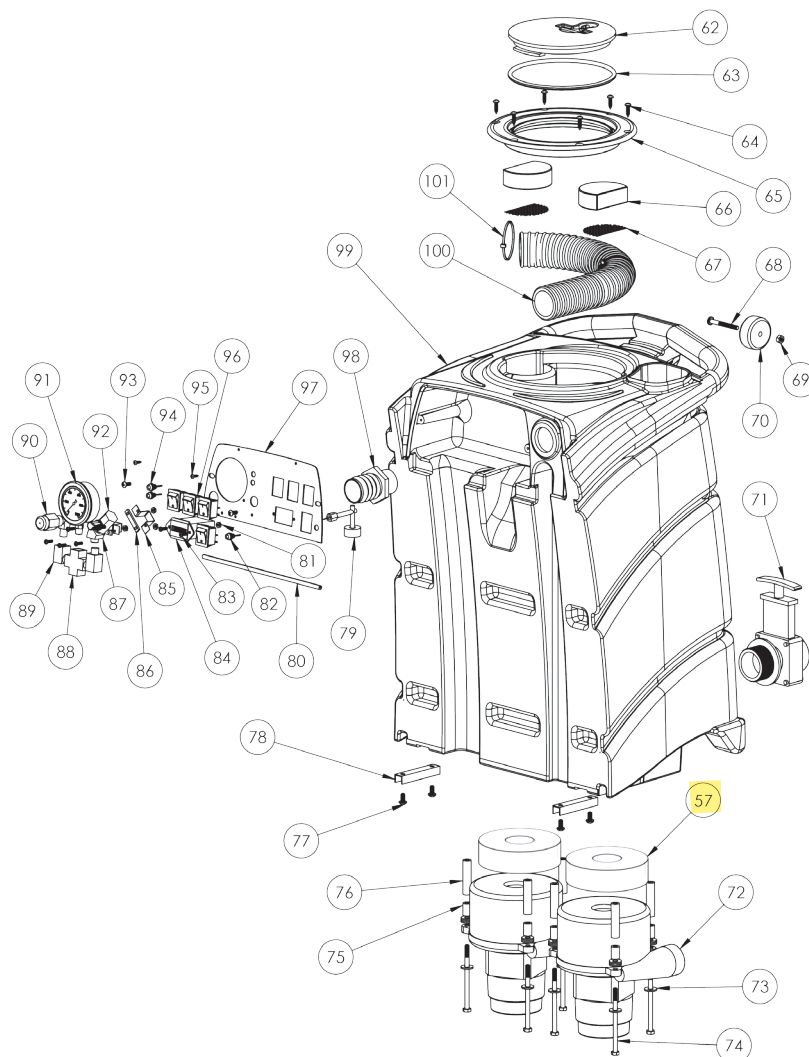


30	150-0013	3/4" Hose Clamp
31	500-0031	Inline Strainer for Extractor
32	201-0021	1/2" Inlet Hose from Strainer to 500 psi Pump - 6" long
33	300-0003	1/4" Inline Check Valve
34	300-0009	1/4" Female Brass 90° Elbow
35	200-0016	15" overall length 1/4"mpt x 1/4"ft - Pulse Hose
36	351-0002	Complete Heater Assembly For 12 Gallon Extractor
37	200-0017	51" overall length 1/4"mpt x 1/4"mpt - Pulse Hose
39	300-0026	1/4" Straight thru Female QD with 1/4" NPT female thread
40	300-0027	1/4" Straight thru Male QD with 1/4" NPT female thread
41	300-0031	1/4" x 1-1/2" Pipe Nipple
42	300-0021	1/4" Brass Street Elbow
43	300-0010	1/4" Brass Tee FNPT
44	350-0010	1/4" 700psi Side Relief Valve
45	300-0005	1/4" Hose Barb x 1/4" MNPT 90 Degree Brass
46	150-0012	Oetiker Clamp #140
47	201-0020	1/4" Red Hose from Extractor Heater to Solution Tank - 33-1/4" long
48	200-0018	46" overall length 1/4"mpt x 1/4"mpt - Pulse Hose
49	300-0027	1/4" Straight thru Male QD with 1/4" NPT female thread
51	100-0046	1/4-20 x 1/2 PHP Machine Screw Plated
52	100-0041	5/16 SAE Flat Washer Stainless Black zinc (MS15795-812)
53	201-0021	1/2" Inlet Hose from Strainer to 500 psi Pump - 6" long
54	150-0013	3/4" Hose Clamp
55	300-0042	1/2" Barb x 3/8" MPT 90° Elbow
56	200-0016	15" overall length 1/4"mpt x 1/4"ft - Pulse Hose
57	650-0011	Extractor Motor Spacer
58	300-0021	1/4" Brass Street Elbow
59	300-0032	1/4" Hex Nipple
60	300-0036	3/8"NPT M x 1/4"NPT F Reducer Bushing
61	300-0026	1/4" Straight thru Female QD with 1/4" NPT female thread

#	Part Number	Description
1	700-EXT12CSG	12 Gallon Extractor Cord Wrap Cleat Set - NSS GREEN
2	100-0054	1/4" Washer for Extractor Cord Wrap
3	100-0055	Spring for Cord Wrap
4	100-0060	Screw for Upper Cord Wrap in Extractor
5	400-0030	Extension Cord for Extractor
6	100-0049	1/4-20 x 1" Screw
7	100-0054	1/4" Washer for Extractor Cord Wrap
8	700-EXT12CSBLK	12 Gallon Extractor Cord Wrap Cleat Set - NSS GREEN
9	500-0022	500psi Pump
10	100-0042	5/16 x 1-1/2 Bolt - Extractor Hinge
11	100-0041	5/16 SAE Flat Washer Stainless Black zinc (MS15795-812)
12	400-0027	Strain Relief and Nut for Extractor
13	400-0029	Pigtail for Extractor
14	800-0021	Dump Elbow
15	100-0033	1/2" Push on Cap Nut
16	800-0022	10" Extractor Wheel
17	600-0009	Extractor Axle
18	700-EXT12BBLK	12 Gallon Extractor - BASE - Black
19	100-0054	1/4" Washer for Extractor Cord Wrap
20	100-0038	10-32 x 1-1/2 PHP Machine Screw Plated
21	800-0024	Caster with Brake for Extractor
22	100-0046	1/4-20 x 1/2 PHP Machine Screw Plated
23	800-0023	Caster For Extractor
24	600-0016	Hose Hook - Lower
25	100-0057	5/16-18 X 2" PHILLIPS PAN HD M/S PLATED
26	350-0008	Enclosure for Dual Rod Heater
27	100-0034	#12 x 1/2 PHP Sheet Metal Screw Black
28	150-0009	3/8" Cushioned Clamp
29	201-0019	1/2" Inlet Hose From Tank to Strainer - 50" long

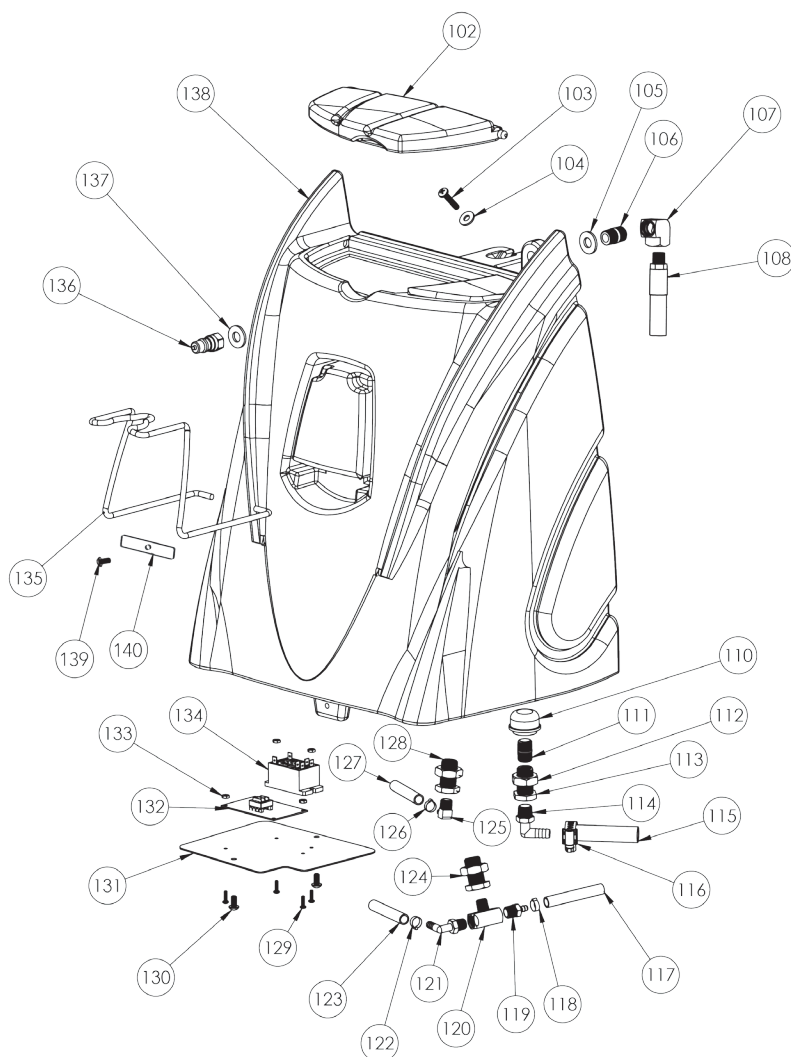


12 Gallon Extractor



62	800-0017	6" Single Handle Twist Lock Deckplate-Black
63	800-0017-O	O-Ring for Extractor Hatch Cover
64	100-0034	#12 x 1/2 PHP Sheet Metal Screw Black
65	800-0017	6" Single Handle Twist Lock Deckplate-Black
66	650-0010	Extractor Intake Foam Filter
67	600-0029	Extractor Intake Screen
68	100-0036	1/4-20 x 2-1/4 Pan Head Phil m/s Stainless Black Zinc
69	100-0052	1/4-20 Hex Nut Stainless Black Zinc
70	800-0025	2" Wheel for Extractor Handle
71	800-0020	1-1/2" Dump Valve for Extractor
72	500-0010	3-Stage Extractor Motor
73	100-0047	1/4 SAE Flat Washer Stainless Black Zinc (MS15795-810)
74	100-0035	1/4-20 x 4 Hex Head c/s GR5 Plated
75	100-0050	3/4" Nylon Spacer
76	100-0026	Spacer for spotter motor bolt
77	100-0046	1/4-20 x 1/2 PHP Machine Screw Plated
78	600-0017	Bracket for Extractor Tanks
79	400-0026	Tank Wall - Horizontally Mounted Float Switch
80	800-0033	Trim for Extractor Control Panel
81	100-0051	6-32 Hex Nut Steel Zinc Plated

82	400-0031	LED Indicator, Red, 110V
83	100-0043	6-32 x 1/2 PHP Machine Screw Plated
84	500-0025	A/C - SH-713 Generator Hour Meter
85	600-0019	Gauge Cluster Bracket
86	600-0031	Spacer for Gauge Cluster
87	300-0029	1/4" Street 45°
88	300-0025	1/4" Female Cross Brass
89	300-0021	1/4" Brass Street Elbow
90	500-0017	600PSI Regulator
91	500-0015	1000psi Gauge for Extractor
92	300-0024	1/4" M x 1/4" F Mini Ball Valve
93	100-0039	10-32 x 1/2 PHP Machine Screw Stainless Black Zinc
94	400-0032	LED Indicator, Green, 220V
95	100-0045	#6 x 1/2 PHP Sheet Metal Screw Plated
96	400-0021	Splash Proof Rocker Switch
97	600-0012	Extractor Control Panel 3 Switch with Gauge
98	800-0027	1.5" Vacuum Hose Barb
99	700-EXT12RTG	12 Gallon Extractor Recovery Tank - Black
100	201-0012	Diffusing Hose for Extractor Recovery Tank
101	400-0007	7" Zip Tie



102	700-EXT12BLK	12 Gallon Extractor - Lid - Black
103	100-0016	1/4-20x1-1/4 Phillips Pan HD Soc M/S Plated
104	100-0041	5/16 SAE Flat Washer Stainless Black zinc (MS15795-812)
105	100-0048	1/2 SAE Flat Washer Stainless Black Zinc
106	300-0031	1/4" x 1-1/2" Pipe Nipple
107	300-0009	1/4" Female Brass 90 Degree Elbow
108	200-0017	51" overall length 1/4"mpt x 1/4"mpt - Pulse Hose
110	800-0106	1/4" Acorn Strainer
111	300-0022	1/4" Close Nipple
112	300-0028	1/4" Bulkhead Fitting
113	300-0028	1/4" Bulkhead Fitting
114	300-0034	1/2" Barb x 1/4" MNPT 90°
115	201-0019	1/2" Inlet Hose From Tank to Strainer - 50" long
116	150-0013	3/4" Hose Clamp
117	201-0020	1/4" Clear Braided Hose from Bypass Regulator to Solution Tank - 32" long
118	150-0012	Oetiker Clamp #140
119	300-0018	1/4" Barb x 1/4" MNPT Straight Brass
120	300-0037	1/4" Branch Tee
121	300-0005	1/4" Hose Barb x 1/4" MNPT 90 Degree Brass

122	150-0012	Oetiker Clamp #140
123	201-0022	1/4" Clear Braided Hose from Bypass Regulator to Solution Tank - 32" long
124	300-0028	1/4" Bulkhead Fitting
125	300-0005	1/4" Hose Barb x 1/4" MNPT 90 Degree Brass
126	150-0012	Oetiker Clamp #140
127	201-0023	1/4" Clear Braided Hose from Priming Valve to Solution Tank - 31" long
128	300-0028	1/4" Bulkhead Fitting
129	100-0043	6-32 x 1/2 PHP Machine Screw Plated
130	100-0046	1/4-20 x 1/2 PHP Machine Screw Plated
131	600-0028	Extractor Electrical Compartment Cover
132	400-0033	Dual Circuit Indicator
133	100-0051	6-32 Hex Nut Steel Zinc Plated
134	400-0025	Extractor Motor Relay
135	600-0015	Hose Hook Upper
136	300-0021	1/4" Female Quick Disconnect
137	100-0048	1/2 SAE Flat Washer Stainless Black Zinc
138	700-EXT12STGNSS	12 Gallon Extractor - Solution Tank - NSS GREEN
139	100-0046	1/4-20 x 1/2 PHP Machine Screw Plated
140	600-0027	Keeper plate for Retractable Hook

ELECTRICAL WIRING DIAGRAM

