

Ninja Warrior 1200 PSI

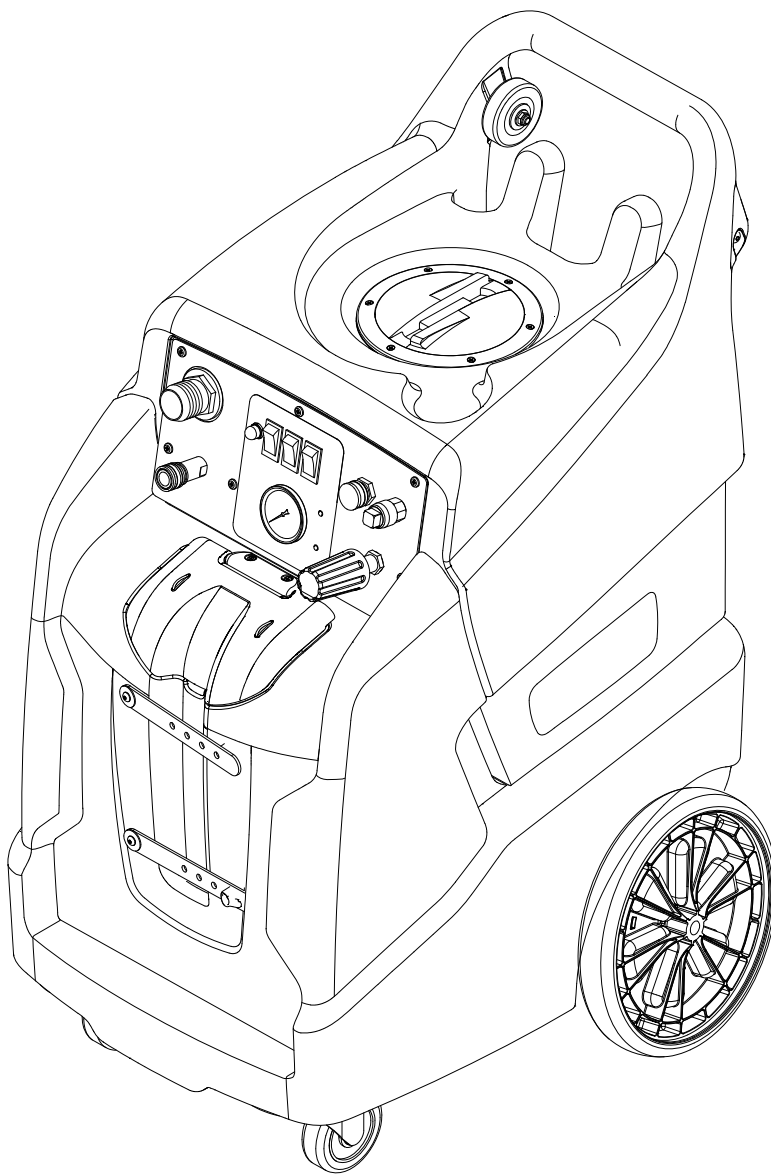
PROCHEM

Kärcher Group

Extractor

Operating Instructions (ENG)

MODEL: *NWCU1312N*
10070700



From Serial Number (Ref No. 1*)
* See Serial number page or
call Manufacturer.



86399130-A 02/03/15

Model:	_____
Date of Purchase:	_____
Serial Number:	_____
Dealer:	_____
Address:	_____
Phone Number:	_____
Sales Representative:	_____

Overview

The Ninja Warrior is an electric powered carpet extractor intended for commercial use. This appliance applies a cleaning solution to the carpet and then vacuums the soiled water back into the recovery tank

Warranty Registration

Thank you for purchasing a Prochem Kärcher Group product. Warranty registration is quick and easy. Your registration will allow us to serve you better over the lifetime of the product.

To register your product go to :

<http://www.prochem.com/WarrantyRegistration.aspx>

For customer assistance:

1-800-444-7654

PROCHEM

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How To Use This Manual

This manual contains the following sections:

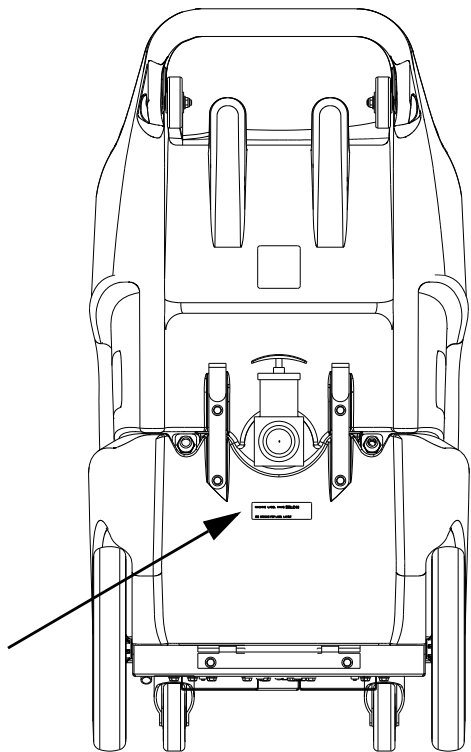
- How to Use This Manual
- Safety
- Operations
- Maintenance

The HOW TO USE THIS MANUAL section will tell you how to find important information for ordering correct repair parts.

Parts may be ordered from authorized dealers. When placing an order for parts, the machine model and machine serial number are important. Refer to the MACHINE DATA box which is filled out during the installation of your machine. The MACHINE DATA box is located on the inside of the front cover of this manual.

Model: _____
Date of Purchase: _____
Serial Number: _____
Dealer: _____
Address: _____
Phone Number: _____
Sales Representative: _____

The model and serial number of your machine is located on the back of the machine.



The SAFETY section contains important information regarding hazardous or unsafe practices of the machine. Levels of hazards are identified that could result in product damage, personal injury, or severe injury resulting in death.

The OPERATIONS section is to familiarize the operator with the operation and function of the machine.

The MAINTENANCE section contains preventive maintenance to keep the machine and its components in good working condition. They are listed in this general order:

- Maintenance
- Lubrication
- Vacuum Motor Replacement
- Solution Pump Replacement
- Troubleshooting

NOTE: If a service or option kit is installed on your machine, be sure to keep the KIT INSTRUCTIONS which came with the kit. It contains replacement parts numbers needed for ordering future parts.

NOTE: The manual part number is located on the lower left corner of the front cover.

IMPORTANT SAFETY INSTRUCTIONS

**When using this machine, basic precaution
must always be followed, including the following:**

READ ALL INSTRUCTIONS BEFORE USING THIS MACHINE.

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

Connect to a **properly grounded outlet**. See Grounding Instructions.

Do not leave the machine unattended. Unplug machine from outlet when not in use and before maintenance or service.

Use only indoors. Do not use outdoors or expose to rain.

Do not allow machine to be used as a toy. **Close attention** is necessary when used by or near children.

Use only as described in this manual. Use only manufacturer's recommended components and attachments.

Do not use damaged electrical cord or plug. Follow all instructions in this manual concerning grounding the machine. If the machine is **not working properly**, has been dropped, damaged, left outdoors, or dropped into water, return it to an authorized service center.

Do not pull or carry machine by electrical cord, use as a handle, close a door on cord, or pull cord around sharp edges or corners.

Do not run machine over cord. **Keep** cord away from heated surfaces.

Do not unplug machine by pulling on cord. To unplug, grasp the electrical plug, not the electrical cord.

Do not handle the electrical plug or machine with wet hands.

Do not operate the machine with any openings blocked. Keep openings free of debris that may reduce airflow.

This machine is intended for cleaning carpet only.

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

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

Turn off all controls before unplugging.

Machine can cause a fire when operating near flammable vapors or materials. Do not operate this machine near flammable fluids, dust or vapors.

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

Maintenance and repairs must be done by qualified personnel.

If foam or liquid comes out of machine, switch off immediately.

The following symbols are used throughout this guide as indicated in their descriptions:

HAZARD INTENSITY LEVEL

There are three levels of hazard intensity identified by signal words -**WARNING** and **CAUTION** and **FOR SAFETY**. The level of hazard intensity is determined by the following definitions:

WARNING:

WARNING - Hazards or unsafe practices which COULD result in severe personal injury or death.

CAUTION:

CAUTION - Hazards or unsafe practices which could result in minor personal injury or product or property damage.

FOR SAFETY: To Identify actions which must be followed for safe operation of equipment.

Report machine damage or faulty operation immediately. Do not use the machine if it is not in proper operating condition. Following is information that signals some potentially dangerous conditions to the operator or the equipment. Read this information carefully. Know when these conditions can exist. Locate all safety devices on the machine. Please take the necessary steps to train the machine operating personnel.

FOR SAFETY:

DO NOT OPERATE MACHINE:

Unless Trained and Authorized.

Unless Operation Guide is Read and understood.

In Flammable or Explosive areas.

In areas with possible falling objects

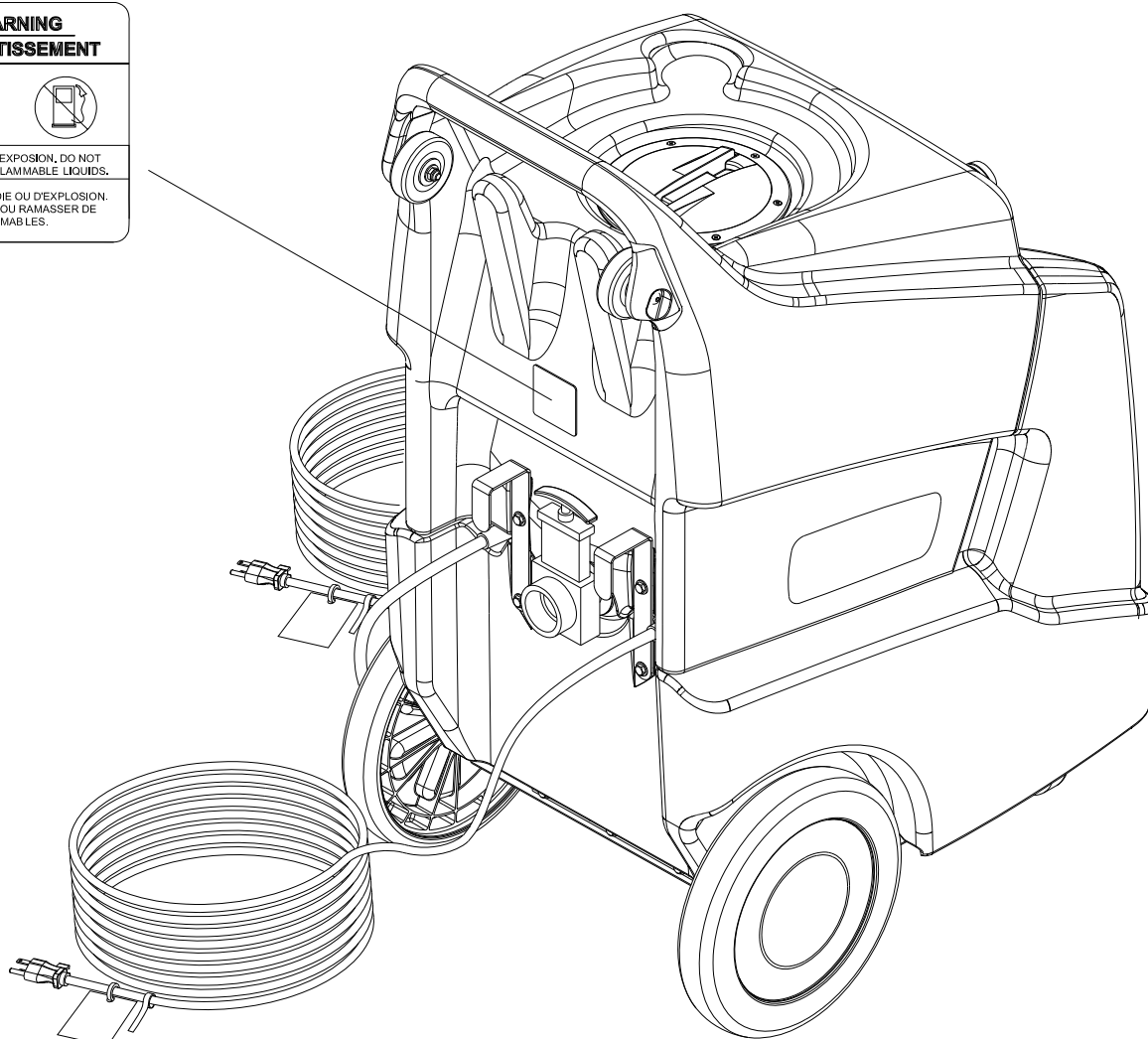
WHEN SERVICING MACHINE:

Avoid moving parts. Do not wear loose clothing; jackets, shirts, or sleeves when working on the machine. Use manufacturer approved replacement parts.

Safety Labels

NOTE: These drawings indicate the location of safety labels on the machine. If at any time the labels become illegible, promptly replace them.

Label Warning
86244300



WARNING!
FOR YOUR PROTECTION USE A
GROUND FAULT CIRCUIT INTERRUPTER

AVERTISSEMENT!
POUR VOTRE PROTECTION, UTILISEZ
UN DISJONCTEUR DE FUITE À LA TERRE.

Label Circuit Interrupter
86200570

Grounding Instructions

THIS PRODUCT IS FOR COMMERCIAL USE ONLY.

ELECTRICAL:

In the USA this machine operates on a standard 15 amp 115V, 60 hz, A.C. power circuit. The amp, hertz, and voltage are listed on the data label found on each machine. Using voltages above or below those indicated on the data label will cause serious damage to the motors.

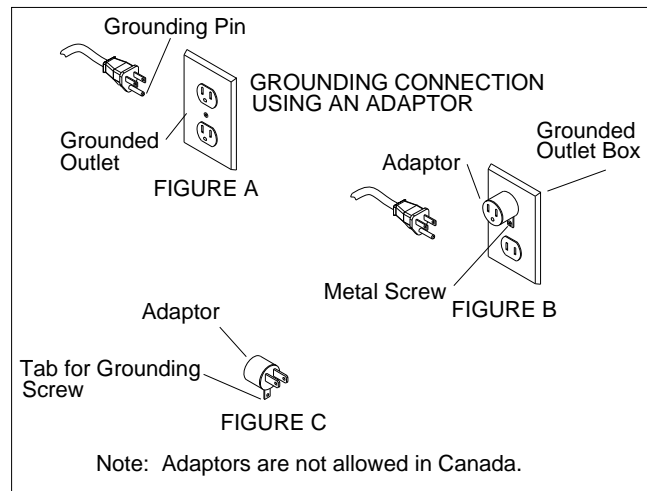
EXTENSION CORDS:

If an extension cord is used, the wire size must be at least one size larger than the power cord on the machine, and must be limited to 50 feet (15.5m) in length.

GROUNDING INSTRUCTIONS:

This appliance must be grounded. If it should malfunction or break down, 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 inserted into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances.

This appliance is for use on a nominal 120-volt circuit, and has a grounded plug that looks like the plug in "Fig. A". A temporary adapter that looks like the adapter in "Fig. 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 adapter should be used only until a properly grounded outlet (Fig. A) can be installed by a qualified electrician. The green colored rigid ear, lug, or wire 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.

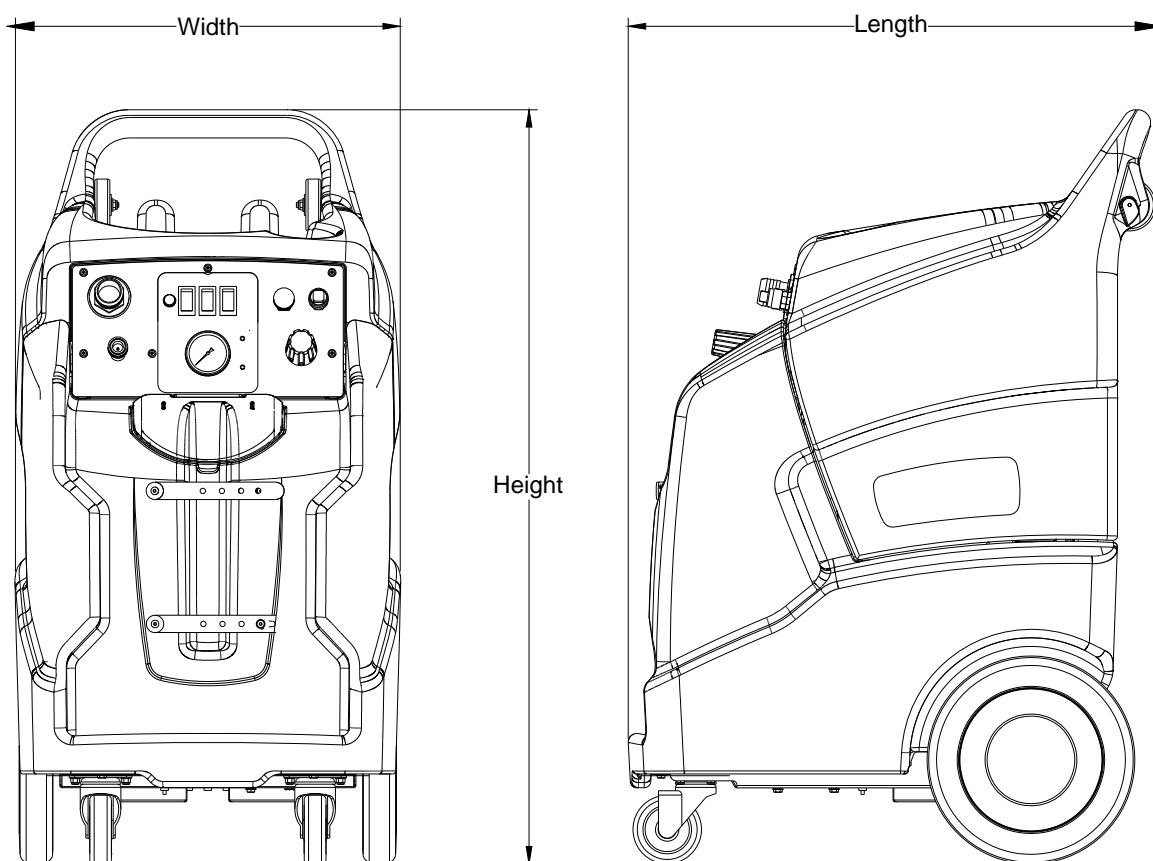


⚠ WARNING:

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 appliance - if it will not fit the outlet, have a proper outlet installed by a qualified electrician.

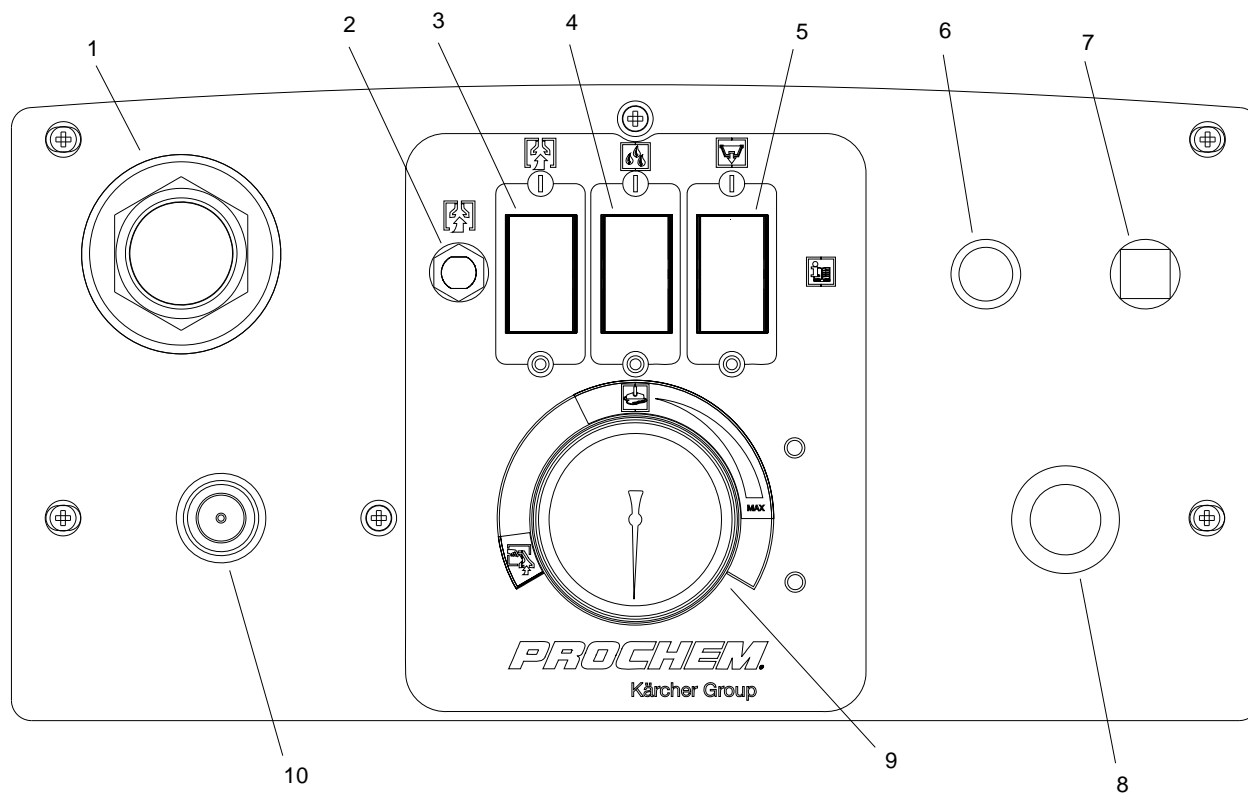
Technical Specifications

MODEL	ITEM	MEASURE
10070700	Electrical	115 Volt, 60 hz, 15A
	Solution Pump	1200 psi
	Pump-Out Pump	5.0 GPM Diaphragm
	Solution Capacity	13 Gal
	Recovery Capacity	11 Gal
	Height	43 inches
	Length	30 inches
	Width	22 inches
	Vacuum Motor	Single 3 Stage
	Weight- Empty	151 lbs
	Weight-Full Solution	275 lbs
	Power cord	2 X 25 feet



⚠ WARNING:

This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience or knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety



Controls

- | | |
|----------------------------------|-------------------------------------|
| 1. Vacuum Accessory Tool Hook-up | 6. Pump-Out Fitting |
| 2. Breaker for Vacuum | 7. Solution Auto-Fill Fitting |
| 3. Vacuum Switch | 8. Adjustable Unloader Valve |
| 4. Solution Pump Switch | 9. Pressure Gauge |
| 5. Pump-Out Switch | 10. Solution Accessory Tool Hook-up |

Machine Operation

WARNING:

Care must be exercised in the use of all chemicals. Chemicals are poisonous and can pose a health risk. Read and follow manufacturers instructions regarding dangers and correct usages.

CAUTION:

The internal parts of the pump used in the machine are suitable for use with most floor cleaning chemicals. But they are susceptible to chemical attack from some cleaning substances, such as hydrocarbon solvents and chlorinated bleaches.

Chemicals

Suitable Chemicals

- Alkalies
- Detergents
- Hydroxides
- Soaps
- Vinegar

Non-Compatible

- Aldehydes
- Aromatics Hydrocarbons
- SP Butyls
- Carbon Tetrachloride
- Clorox*
- Chlorinated Bleaches
- Chlorinated Hydrocarbons
- Lysol*
- Methyl Ethel Ketone (MEK)
- Perchlorethylene (perc)
- Phenolics
- Trichlorethylene
- D-Limonene

*Registered Trademark

Only use chemicals approved for use with this machine. Use of non-compatible chemicals may cause machine damage and will not be covered under the warranty. Carefully read ingredients on manufacturer's label before using any product in this machine.

WARNING:

Do not let machine run unattended.

Solution Pump

The solution pressure is adjustable by turning the unloader valve on the control panel.

WARNING:

Do not let pump run dry.

Auto-Fill

When a water supply is connected to the auto fill fitting the solution tank will fill to a preset level. The auto-fill float in the solution tank will maintain this water level during operation.

Auto Pump-Out

The auto pump-out system uses a run-dry diaphragm pump. The pump will run whenever the pump-out switch is turned on. The primary strainer is located in the recovery tank. A secondary strainer is attached to the pump head to protect the pump from a damaged or improperly installed primary strainer.

WARNING:

Do not turn on auto pump-out with cap attached to the pump-out fitting. Pump-out system damage may occur from excessive pressure.

Pre-Run Inspection

1. Check all fittings and connectors for proper assembly.
2. Check all hoses for leaks. Repair or replace any damaged hoses.
3. Check power cord(s) for any damage. If damaged, replace.

Equipment Set-up

1. Plug power cords from machine into properly grounded wall outlet. Power cords must be on separate circuits.
2. Connect fresh water supply hose to auto-fill fitting on control panel. Do not use water over 130°F. Turn on water to supply hose. The solution tank will fill to float level.
3. Connect pump-out hose to pump-out fitting on control panel. Place opposite end of pump-out hose in an appropriate drain area.
4. Connect vacuum hose to machine. Slide the swivel cuff over the outlet on the tank.
5. Connect the hose to your machine and wand. Pull back the knurled collar on the quick disconnect coupler and push onto the connection on the chassis. To avoid leaks, check to be that a positive connection was made.
6. Turn solution pump, vacuum, and pump-out switches to the on position.

Cleaning

1. Prior to cleaning, make certain that the floor tool is functioning properly.
2. When cleaning, keep the floor tool flat on the surface being cleaned.
3. The float shutoff inside the recovery tank will impede the vacuum flow when the vacuum tank is full. If this occurs, disconnect power from machine, drain recovery tank, and clean pump-out strainer.

When using a powder cleaner, pre-mix with hot water in a clean container before adding to the solution tank.

Periodic Maintenance

Twice a month, flush a white vinegar solution (one quart vinegar to two gallons of water) or anti-browning solution (mixed as directed) through the machine. This will prevent build-up of alkaline residue in the system.

Periodically inspect all hoses, electrical cables and connections on your machine. Frayed or cracked hoses should be repaired or replaced to eliminate vacuum or solution pressure loss. The electrical cable must be well insulated and cable connector screw kept tight. If the cable insulation is broken or frayed, repair or replace immediately. Don't take chances with electrical fire or shock.

Daily/Regular Maintenance

WARNING:

Before making any repairs or adjustments to the machine, disconnect the power cords from the electrical source.

1. Empty unused cleaning solution from the solution tank.
2. Inspect and clean filter screen in solution tank.
3. Inspect and clean pump-out strainer in recovery tank.
4. Flush pumping system with 1 to 2 gallons of clean water.
5. After each use, rinse tank with fresh water. Periodically inspect the recovery tank and decontaminate if necessary, using a Hospital Grade Virucide or a 10-1 bleach to water solution. Waste water should be disposed of properly.

Do not allow machine to freeze.

SERVICE SCHEDULE	DAILY	WEEKLY	QUARTERLY
Check machine for cord damage	*		
Check recovery dome and gasket for damage and cleanliness	*		
Check hoses for wear, blockages, or damage	*		
Check handles, switches, and knobs for damage	*		
Run one gallon of water through solution system	*		
Clean out recovery tank and check float valve to make sure it moves freely	*		
Clean pump-out strainer and run clean water through pump-out system.	*		
Clean out solution tank and remove and clean vacuum intake screen	*		
Clean outside of all tanks and check for damage	*		
Run vacuum motor for at least one minute to allow motor to dry	*		
Store with dome off tank to allow the tank to dry	*		
Check all gaskets for wear and leakage		*	
Check pump pressure; observe spray pattern and check with gauge if necessary		*	
Check and clean solution screen		*	
Check cables for fraying		*	
Check overall performance of machine		*	
Check vacuum motor carbon brushes			*

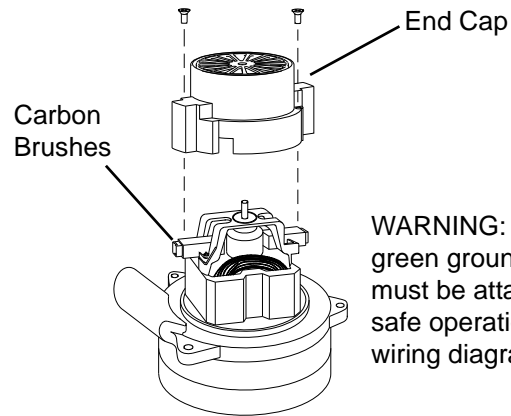
⚠ WARNING:

Only qualified maintenance personnel are to perform the following repairs.

Vacuum Motor Replacement

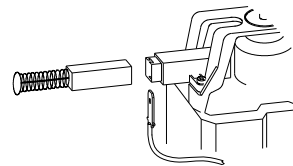
1. Turn off all switches and unplug machine.
2. Remove hardware under front of machine to access component compartment.
3. Remove vacuum motor cover and disconnect motor wires.
4. Remove the vacuum motor.
5. Reverse process to install vacuum motor.

Vacuum Motor Carbon Brushes Replacement



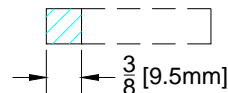
WARNING: The green ground wire must be attached for safe operation. See wiring diagram.

If armature commutator is grooved, extremely pitted or not concentric, the motor will need to be replaced or sent to a qualified service center.



Important:

These brushes wear quicker as the length shortens due to increased heat. Spring inside brush housing will damage motor if brushes are allowed to wear away completely.



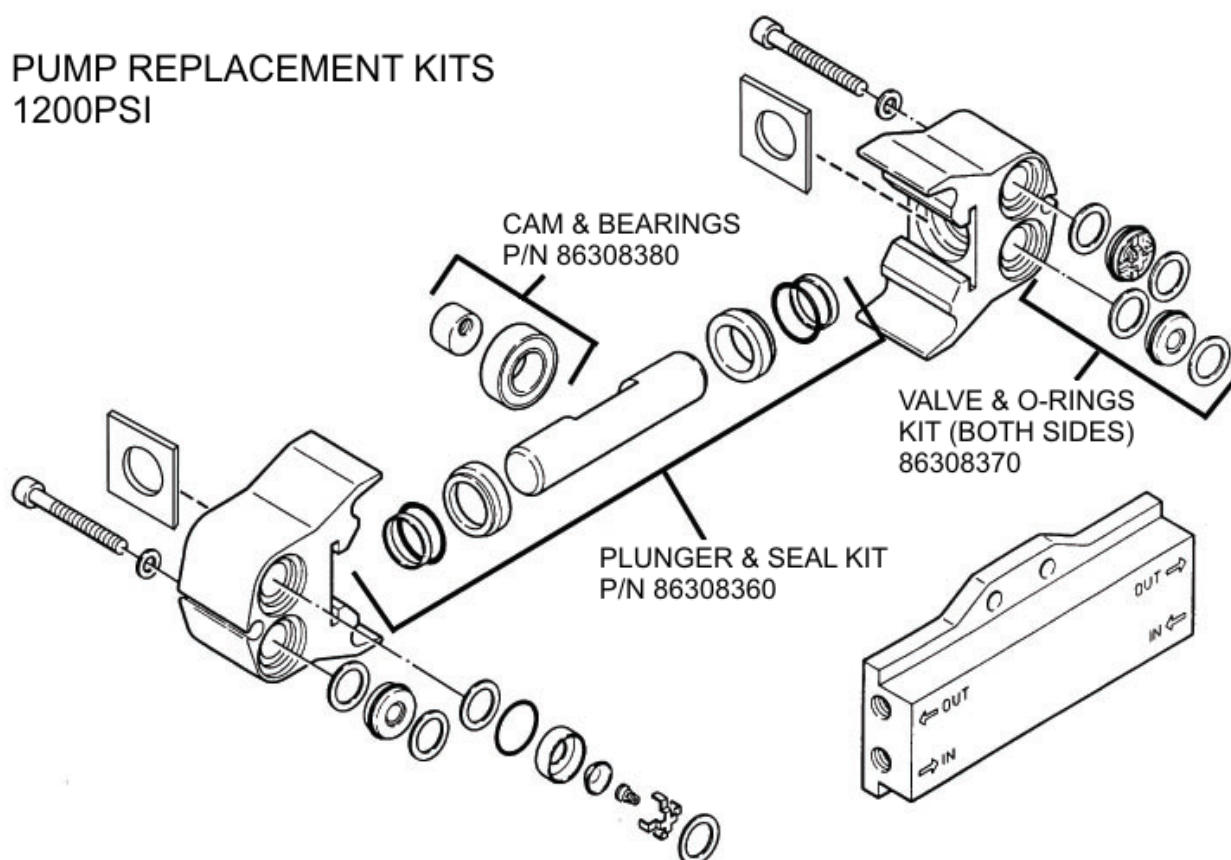
Periodically check the length of the carbon brushes. Replace both carbon brushes when either is less than $\frac{3}{8}$ " (9.5mm) long.

Solution Pump Replacement

⚠ WARNING:

Only qualified maintenance personnel are to perform the following repairs.

PUMP REPLACEMENT KITS 1200PSI

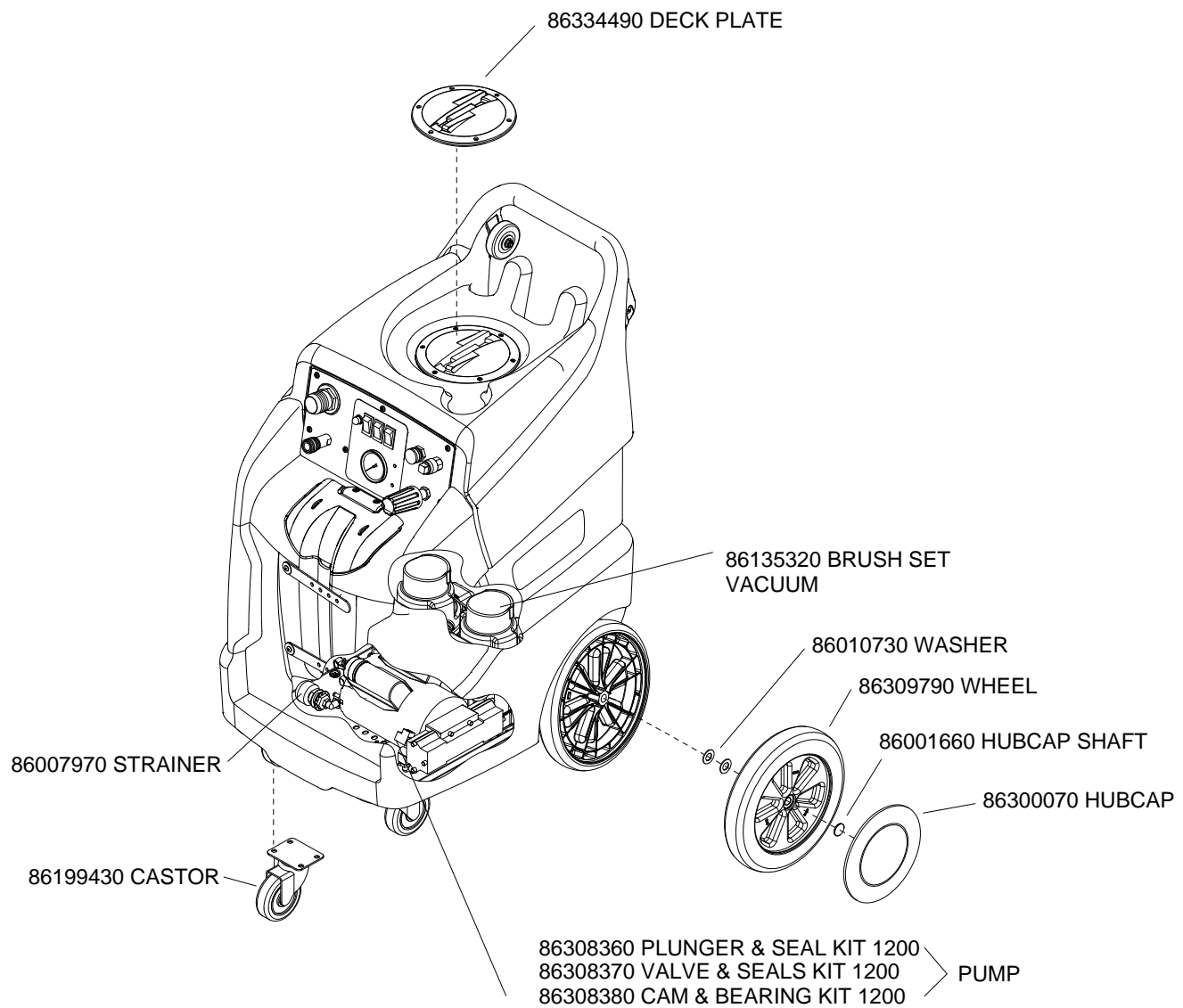


Troubleshooting

PROBLEM	CAUSE	SOLUTION
Loss of Power	Unit not plugged in	Connect unit to 3 prong grounded outlet.
	Dead electrical circuit	Check building circuit breaker or fuse box.
	Faulty power cord	Replace
Electrical shock	Receptacle not grounded	Contact an electrician to check building's wiring
	Internal wiring problem	Have a trained service technician check machine's wiring
Vacuum motor speed varies or doesn't run	Vacuum circuit breaker tripped	Reset Breaker
	Faulty vacuum motor	Replace
	Faulty switch	Replace
Loss of vacuum	Loose vacuum dome	Center and seal dome over tank
	Crack in dome of poor joint	Replace or repair using acrylic plastic cement only
	Lint or dirt clogging vacuum screen	With power off clean screen
	Loose cuffs on vacuum hose	Tighten cuffs turning counterclockwise
	Vacuum motor seals leaking	Replace
	Floor tool vacuum chamber clogged	Wash out with hose. Pick lint out with a wire
	Vacuum hose damaged	Replace
	Recovery tank full / Float ball stuck in the up position	Turn off power, drain recovery tank.
Solution Pump runs no solution	Pump inlet screen plugged	Clean inlet screen
	Pump not primed	Prime pump with priming hose
	Internal or external solution line damaged and leaking	Replace
Solution Pump runs, loss of pressure	Internal pump components wearing out	Replace, see pump kit components
	Check valves in pump head for particles or cuts in seals	Take piston from BPR and lubricate with Super-lube. If problem still exists change BPR kit
Solution Pump will not run	Faulty switch	Replace
	Loose wiring	Repair or replace

Solution hose fitting hard to connect	Corrosion on fittings.	Clean with steel wool. Soak in acetic acid (white vinegar). Lubricate lightly with silicone base lubricant.
Carpet not getting clean	Severe soil conditions	Make several passes at right angles to each other. Use a pre-spray.
Carpet too wet	Over saturation	Adjust solution pressure to lower settings. Make several passes without spray
Carpet browning	Leaving carpet too wet	Check for loss of vacuum pressure
	Too much chemical	Check label for correct solution concentration
Solution not flowing properly	Solution hose connection	Check for positive connection
	Faulty pump	Repair or replace
	Faulty floor tool valve / Nozzle	Repair or replace
	Faulty pump switch	Repair
Auto-fill does not control water level	Faulty Auto-fill float	Replace float
Pump-out system has no flow	Faulty Pump-out switch	Replace Pump-out switch
	Faulty Pump-out pump	Replace Pump-out pump
	Blown fuse	Replace fuse
Pump-out system has low flow	Clogged primary strainer	Clean primary strainer
	Clogged secondary strainer	Clean secondary strainer

Suggested Spare Parts





Kärcher Group

Spare Parts List

(1.007-070.0)

Ninja Warrior 1200 PSI

From Serial Number (Ref No. 1*)

* See Serial number page or
call Manufacturer.

How to Use this Spare Parts List

The PARTS LIST section contains assembled parts illustrations and corresponding parts list. The parts lists include a number of columns of information:

- REF - column refers to the reference number on the parts illustration.
- PART NO. - column lists the part number for the part.
- QTY - column lists the quantity of the part used in that area of the machine.
- DESCRIPTION - column is a brief description of the part.
- SERIAL NO. FROM - If this column has an (*) and a Reference number, see the SERIAL NUMBERS page in the back of your manual. If column has two asterisk (**), call manufacturer for serial number. The serial number indicates the first machine the part number is applicable to. The main illustration shows the most current design of the machine. When a boxed illustration is shown, it displays the older design.
- NOTES - column for information not noted by the other columns.

NOTE: *If a service or option kit is installed on your machine, be sure to keep the KIT INSTRUCTIONS which came with the kit. It contains replacement parts numbers needed for ordering future parts.*

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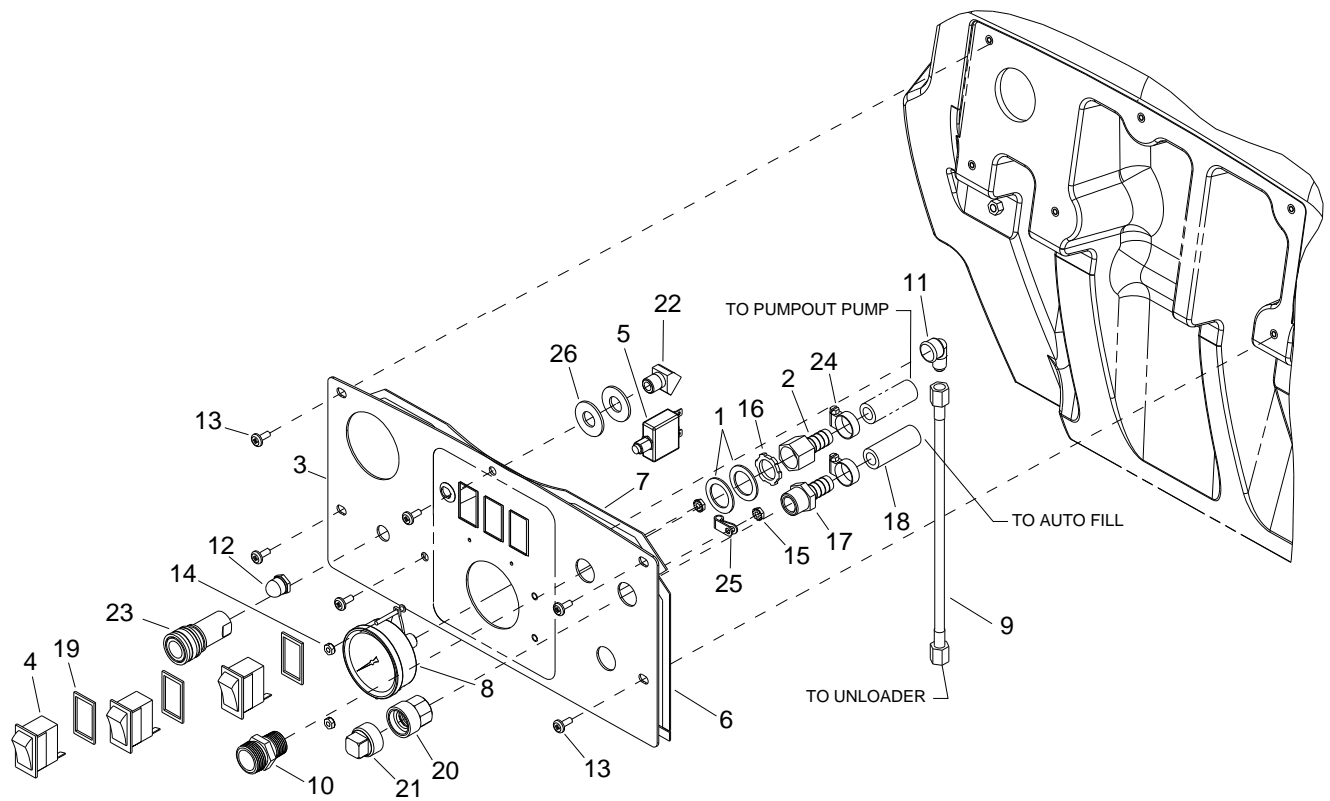
Solution 18

Vacuum 20

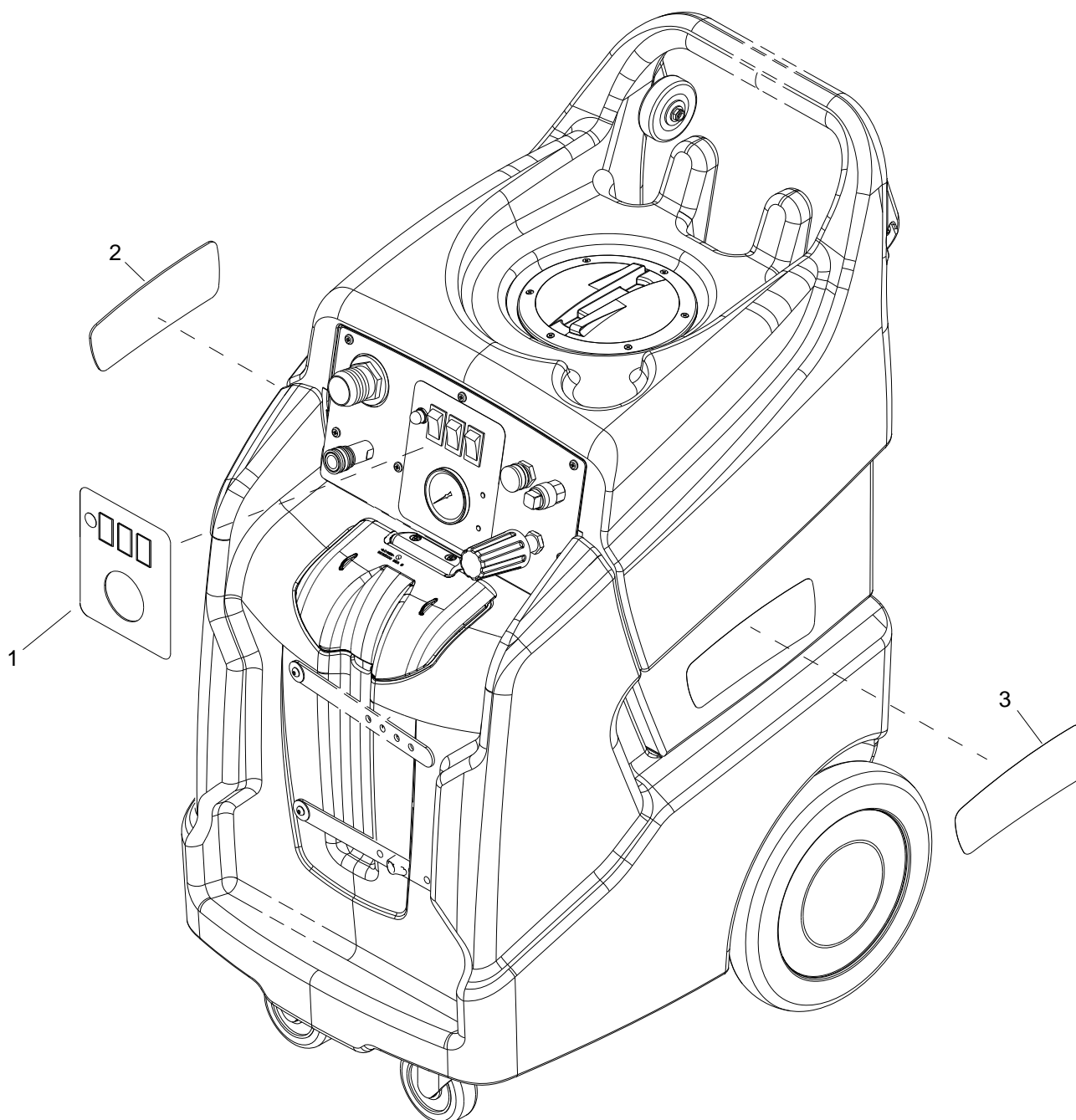
Wiring 22

Serial Number 24

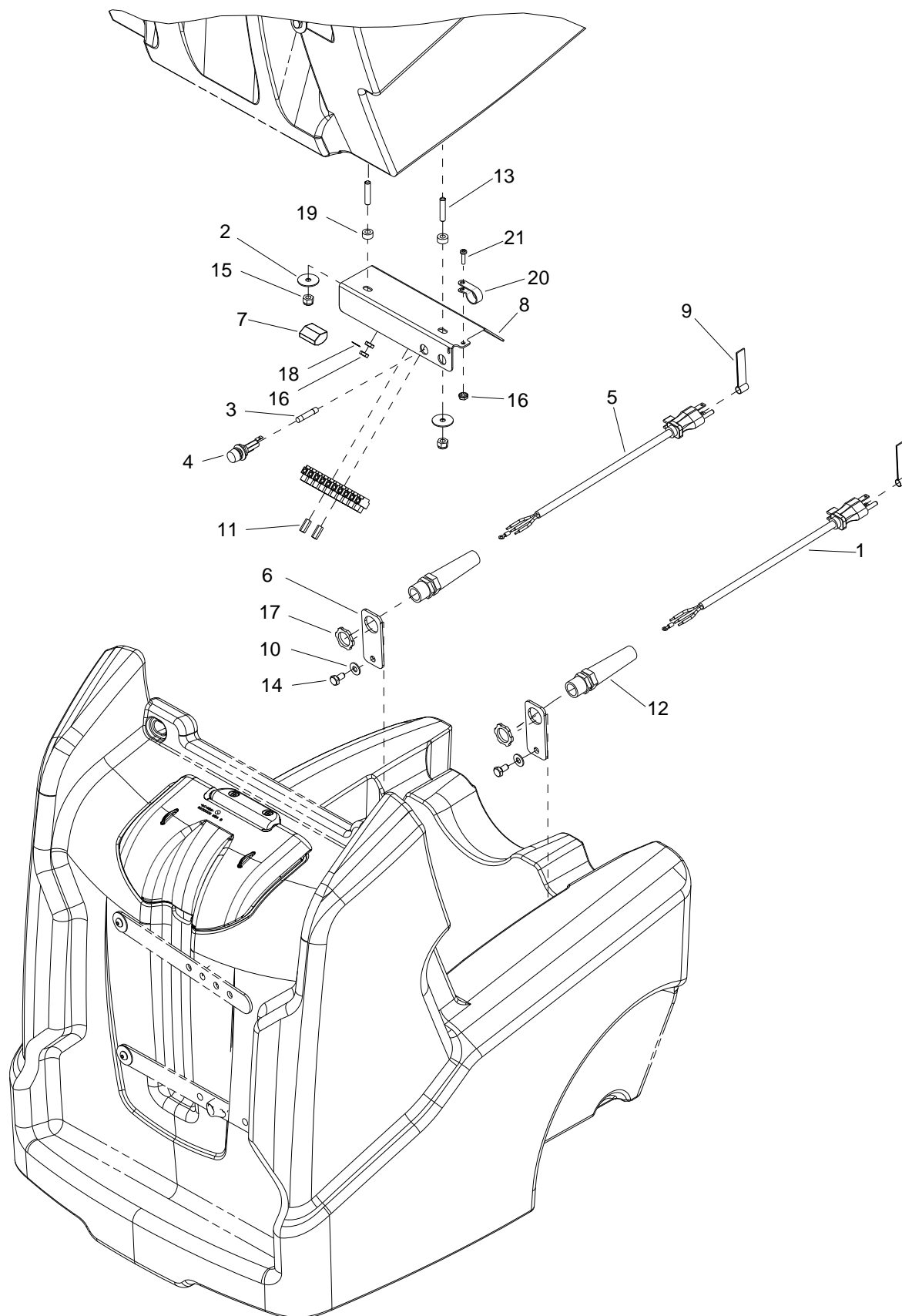
Notes 25



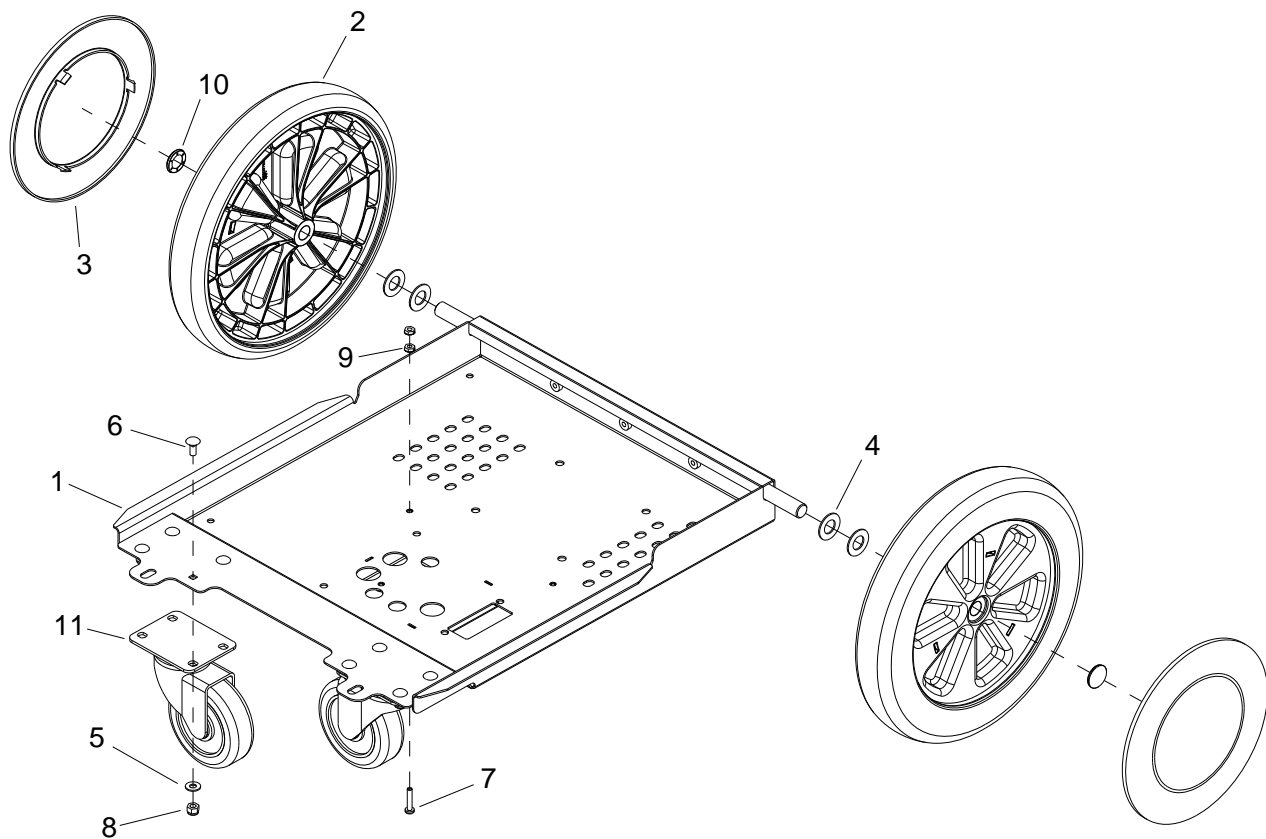
REF	PART NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES
1	86327130	2	WASHER,.88IDX1.28ODX.062THK NYL		
2	86327080	1	HOSEBARB, 1/2 FPT X 1/2 BR		
3	86326690	1	PANEL, CONTROL, 1200		
4	86326660	3	SWITCH, SPST 2-POS ROCKER 20A		
5	86318320	1	BREAKER, 13A, 250VAC, 32VDC		
6	86313030	4	GASKET, .125 T X .25 W X 7.2		
7	86313020	2	GASKET, .125 T X .25 W X 15.6		
8	86308170	1	GAUGE, 2000 PSI		
9	86184590	1	HOSE, 3/16 X 25-1/2"		
10	86173530	1	ADAPTER, HOSE 1/2M X 3/4MGT		
11	86180350	1	ELL, 1/4FP X 1/4T BR		
12	86008900	1	BOOT, SEAL PUSH BUTTON 7/16		
13	86276820	6	SCR, 10-32 X 1/2 PTHMS BLK NP		
14	86005720	2	NUT, 8-32 W/STAR WASHER PLTD		
15	86005700	2	NUT, 10-32 HEX W/STAR		
16	86005670	1	NUT, 1/2 NPT CONDUIT		
17	86197910	1	HOSEBARB, 1/2MPT X 1/2 POLY DL		
18	86281950	1	HOSE, 1/2ID WIRE BOUND X 32"		
19	86238030	3	GASKET, SWITCH CARLING		
20	86197490	1	FITTING, GARDEN HOSE FX1/2FPT		
21	86197480	1	FITTING, MALE PLUG GARDEN HOSE		
22	86197390	1	ELBOW, 1/4NPT 45D STREET		
23	86002450	1	COUPLER, 1/4 QD		
24	86233150	2	CLAMP, 3/8 WORM GEAR		
25	86002370	1	CLAMP, 7/16 NYLON		
26	86202230	2	WASHER 9/16 S/S USS THICK		



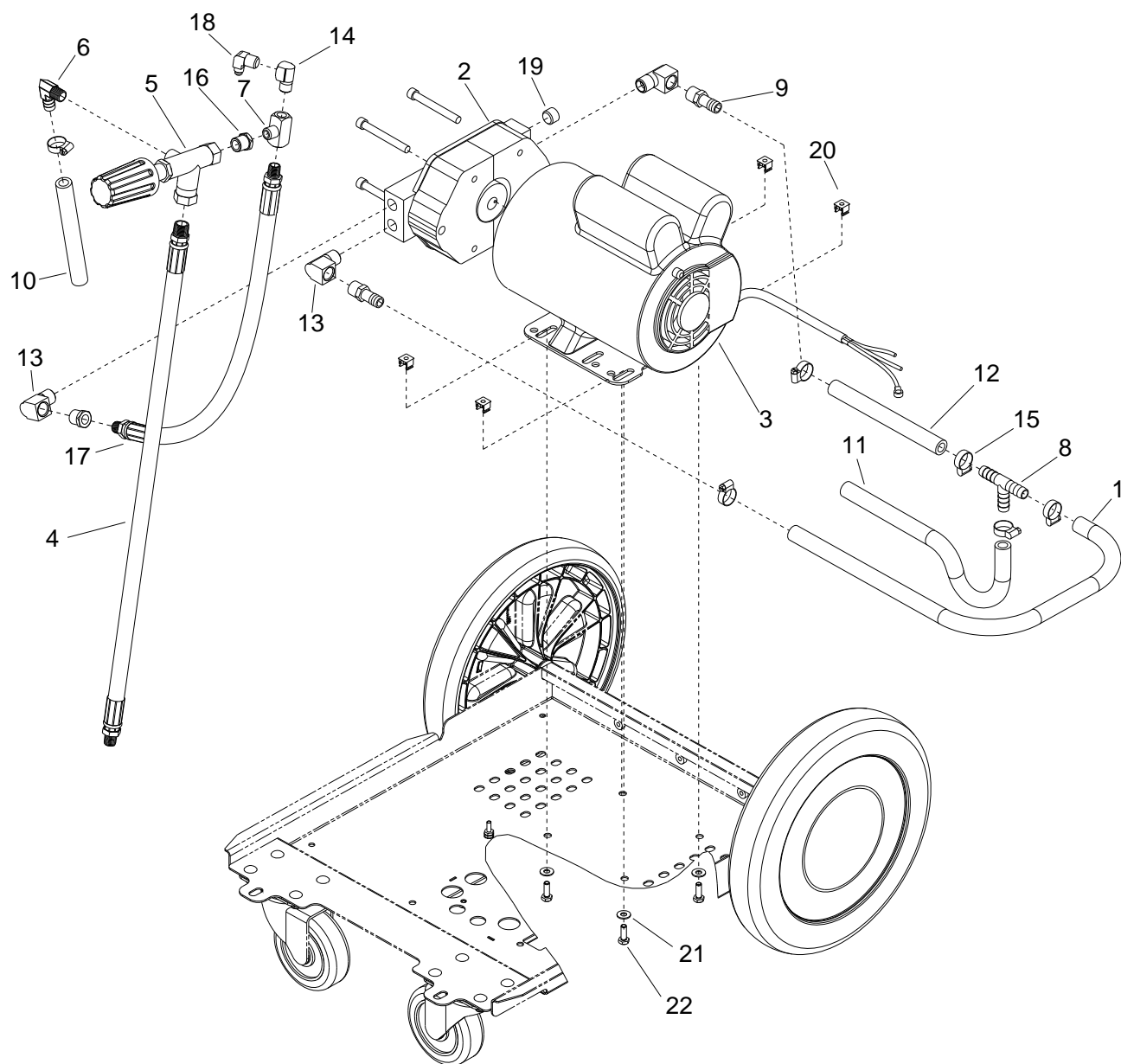
REF	PART NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES
1	86399310	1	LABEL, NINJA WARRIOR, 1200		
2	86399240	1	LABEL, NINJA, WARRIOR, RH		
3	86399230	1	LABEL, NINJA, WARRIOR, LH		



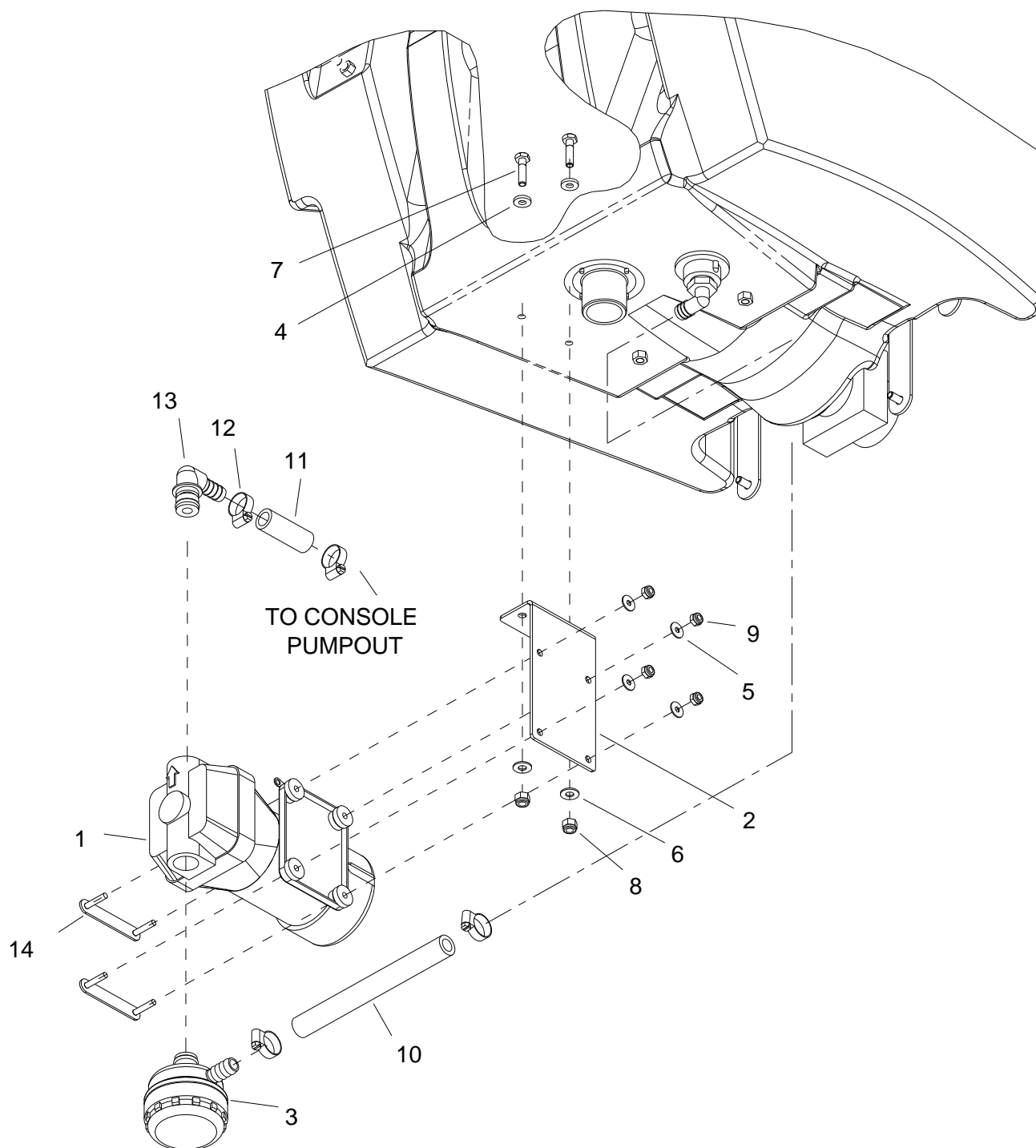
REF	PART NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES
1	86199530	1	CORD ASM, 12/ SJT X 25' BLK		
2	86323330	2	WASHER, 1/4 ID X 1.0 OD FLAT, BLK		
3	86319110	1	FUSE, 1/4" X 1 1/4", 4A		
4	86319090	1	FUSE HOLDER, PANEL MNT		
5	86318620	1	CORD ASM, 14/3 SJT X 25' BLK		
6	86316700	2	BRKT, CORD STRAIN RELIEF		
7	86316540	1	CONNECTOR, 5 POS, PUSH WIRE		
8	86316460	1	BRKT, ELECTRICAL		
9	86200570	2	LABEL CIRCUIT INTERRUPTER		
10	86010630	2	WASHER, 1/4 X 5/8 FLAT SS		
11	86255900	2	STANDOFF, 6-32 X 5/8 HEX NYL		
12	86256200	2	STRAIN RELEIF, 1/2 NPT FLEX		
13	86006850	2	SCR, 1/4-20 X 1.25 SSSCU		
14	86273830	2	SCR, 1/4-20 X 1/2 HHCS SS		
15	86005810	2	NUT, 1/4-20 HEX NYLOCK SS		
16	86005700	3	NUT, 10-32 HEX W/STAR		
17	86005670	2	NUT, 1/2 NPT CONDUIT		
18	86245040	1	LABEL, GROUND SYMBOL		
19	86201510	2	SPACER NYLON 1/4ID X 1/2 OD		
20	86198460	1	CLAMP, 5/8 NYLON UL/CSA		
21	86006590	1	SCREW, 10-32 X 1/2 PPHMS SS NP		



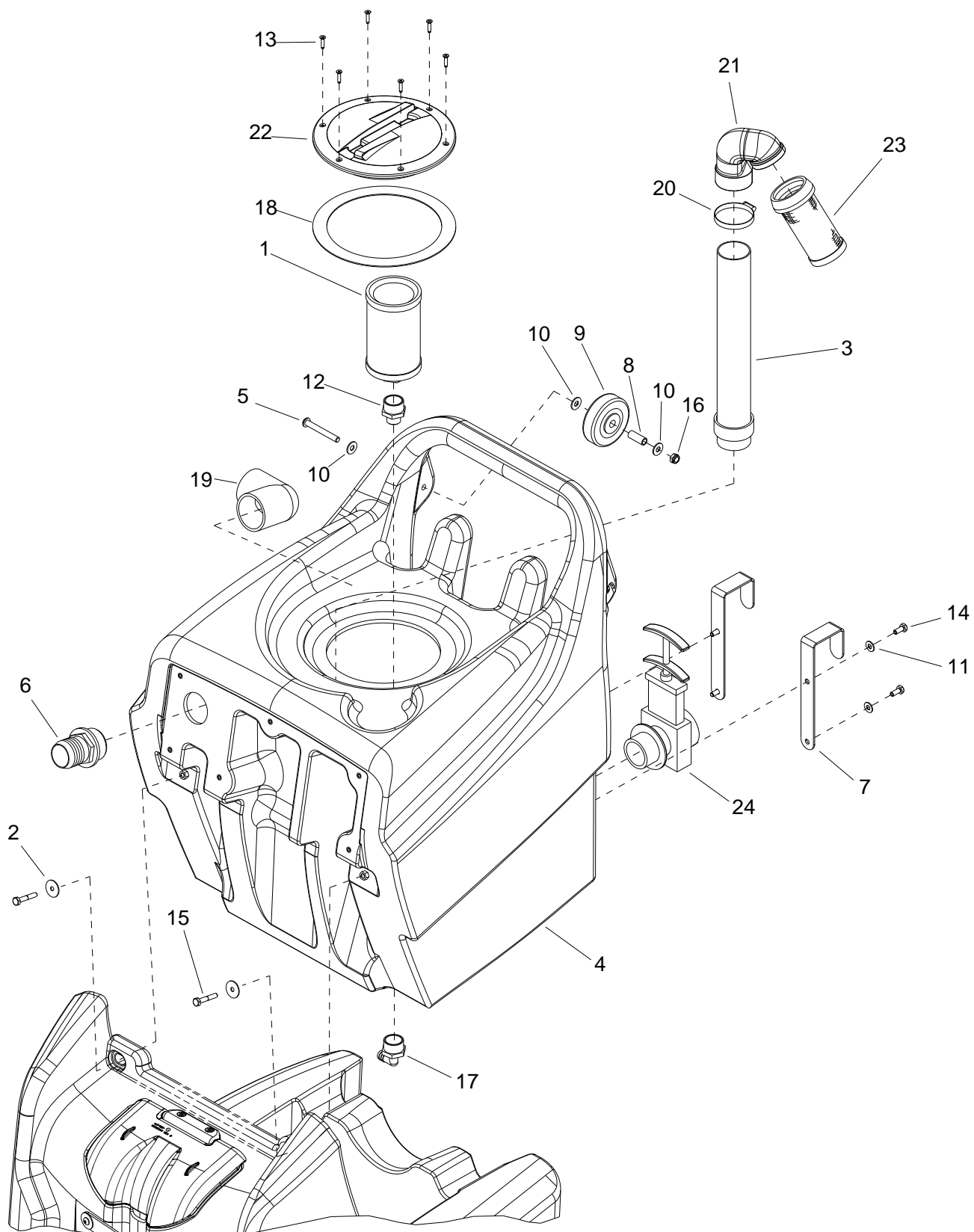
REF	PART NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES
1	86319830	1	FRAME, 5/8" AXLE, SINGLE VAC		
2	86309790	2	WHEEL, 12" X 2.25"		
3	86300070	2	HUBCAP, 9.75" WHEEL		
4	86010730	4	WASHER, 5/8 X 1-3/16 FLAT SS		
5	86010630	8	WASHER, 1/4 X 5/8 FLAT SS		
6	86277500	8	SCR, 1/4-20 X 5/8 CARRIAGE SS		
7	86276080	1	SCR, 10-32 X 1" PPHMS GRN		
8	86005810	8	NUT, 1/4-20 HEX NYLOCK SS		
9	86005700	2	NUT, 10-32 HEX W/STAR		
10	86001660	2	HUBCAP, 5/8 SHAFT		
11	86199430	2	CASTER, SWIVEL 4" 250# CPCTY		



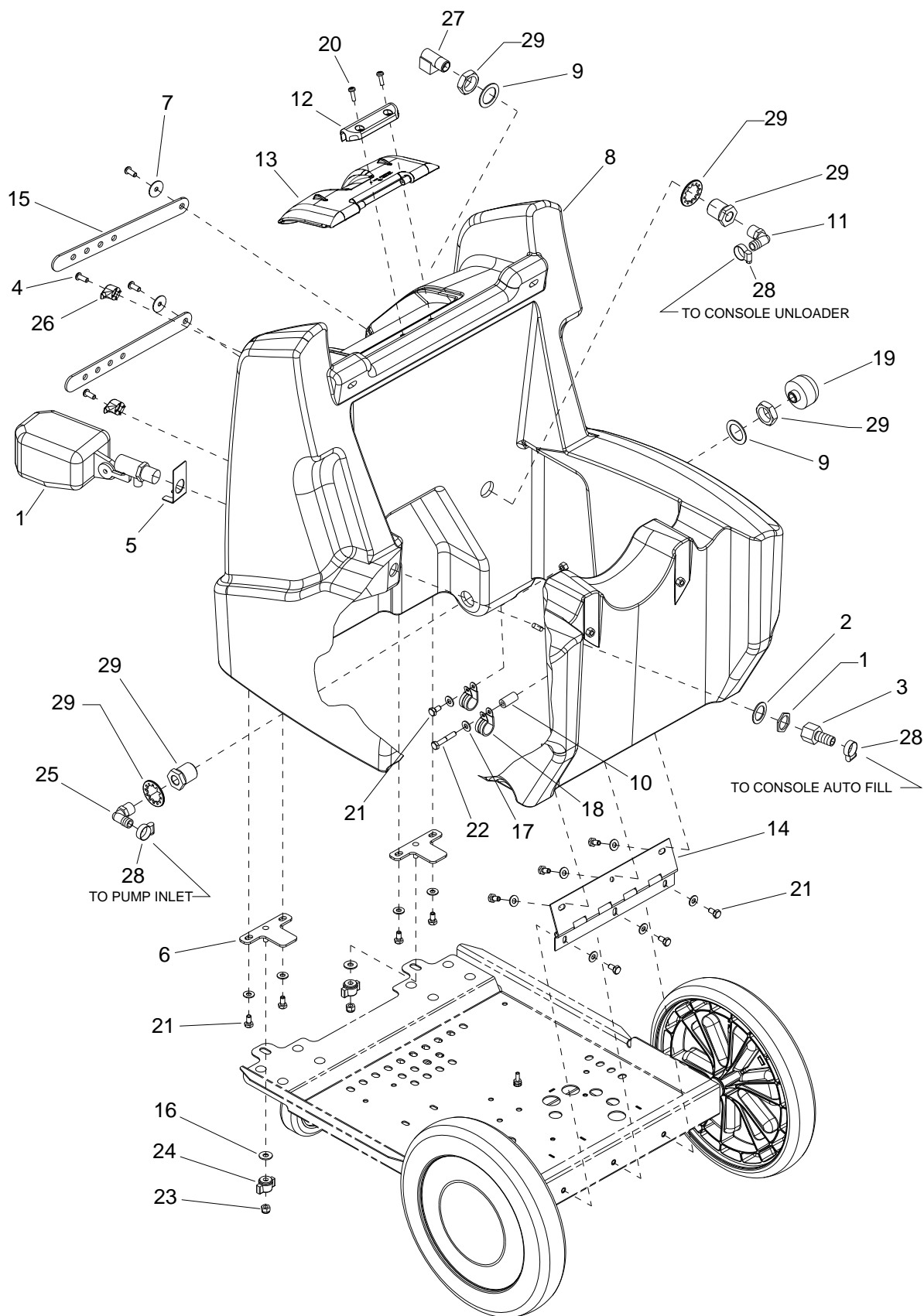
REF	PART NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES
1	86282320	1	HOSE, 1/2ID WIRE BOUND X 49"		
2	86321710	1	PUMP HEAD, 1200PSI		
3	86321700	1	PUMP MOTOR, 1200PSI, 120V		
4	86308220	1	HOSE,PULSE 27.0 3/8MPTX1/4MPT		
5	86368980	1	UNLOADER, 1200PSI W/KNOB		
6	86197610	1	HOSEBARB, 3/8MPTX3/8 90D DL		
7	86197730	1	TEE, 1/4 BRANCH		
8	86398950	1	HOSE,PULSE 32.0 1/4MPTx1/4MPT		
9	86197540	1	HOSEBARB, 3/8MPT X 1/2HOSE		
10	86321470	1	HOSE, 3/8 ID WIRE BOUND X 26"		
11	86197420	2	ELBOW, 3/8NPT STREET		
12	86197360	1	ELBOW, 1/4 NPT STREET		
13	86233150	2	CLAMP, 3/8 WORM GEAR		
14	86197290	2	BUSHING, 3/8 MPT X 1/4 FPT HEX		
15	86180340	1	ELL, 1/4P X 1/4T BR		
16	86190520	2	PLUG, 3/8 SOCHD BR		
-	86313060	1	PUMP ASM, 1200, 120V		INCLUDES 1-16
17	86270960	4	NUT, 1/4-20 CAPTIVE		
18	86010630	4	WASHER, 1/4 X 5/8 FLAT SS		
19	86274750	4	SCR, 1/4-20 X 3/4 HHCS PLTD		
20	86227950	1	BAND, ELASTIC 2.5 X .75 X .035		
-	86264960	1	CABLE TIE, .375 X 43"		NOT SHOWN
21	86329900	1	LOOM, 3/4" X 21",SPLIT, FLAME RET		
22	86264940	3	CABLE TIE 11.38" UL/CSA		
-	86368990	1	UNLOADER KIT, 1200PSI		INCLUDES ITEM 6



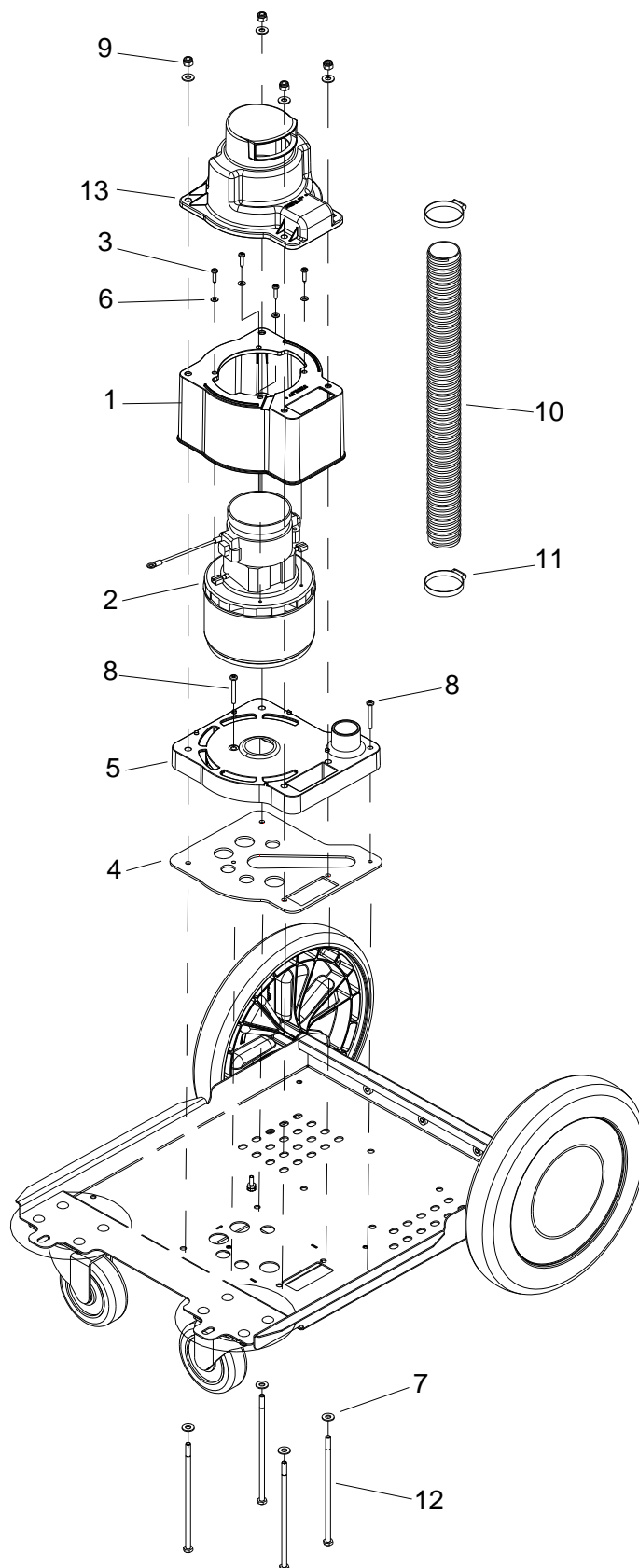
REF	PART NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES
1	86327640	1	PUMP ASM, PUMPOUT		
2	86329400	1	BRKT, PUMP, MOUNTING		
3	86325390	1	STRAINER, 20 MESH, FLOJET		
4	86279610	2	WASHER, SEAL 1/4X5/8OD SS		
5	86010650	4	WASHER, #10 X 9/16 FLAT		
6	86010630	2	WASHER, 1/4 X 5/8 FLAT SS		
7	86273810	2	SCR, 1/4-20 X 1.00 HHCS SS		
8	86005810	2	NUT, 1/4-20 HEX NYLOCK SS		
9	86270990	4	NUT, 10-32 HEX NYLOCK SS		
10	86329430	1	HOSE, 1/2ID WIRE BOUND X 11"		
11	86281950	1	HOSE, 1/2ID WIRE BOUND X 32"		
12	86233150	4	CLAMP, 3/8 WORM GEAR		
13	86325400	1	ELL, 5/8 SLIP X 1/2 HOSEBARB		
14	86329410	2	BRKT, PUMPOUT, RETAINER		



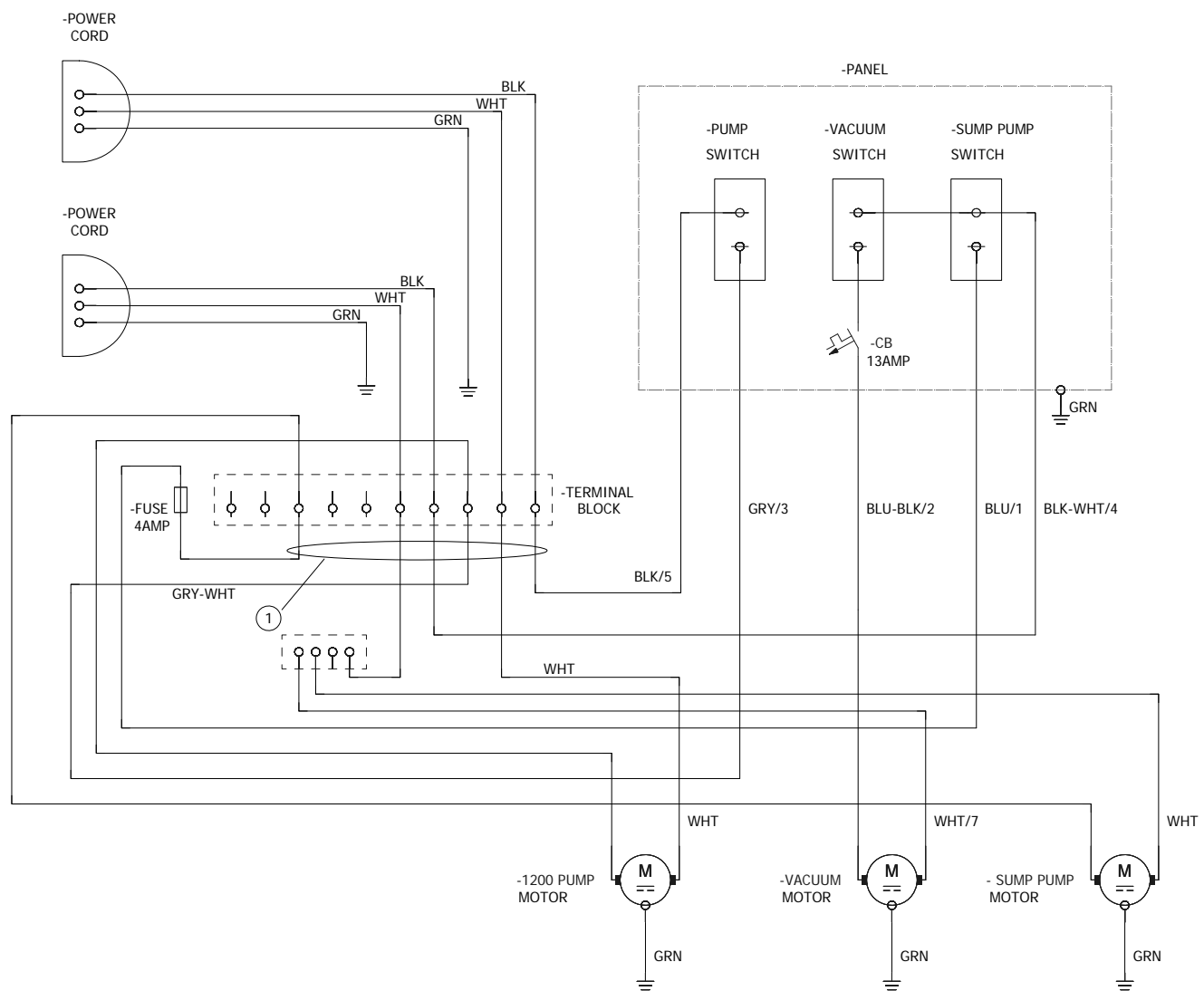
REF	PART NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES
1	86325590	1	STRAINER, 30 MESH, 3/4F		
2	86323330	2	WASHER, 1/4 ID X 1.0 OD FLAT, BLK		
3	86321720	1	PIPE ASM, 1.5", VACUUM		
4	86321160	1	TANK, REC, TRIM, AD		
5	86317720	2	SCR, 5/16-18 X 2.50 BSHCS SS		
6	86317230	1	HOSEBARB, 1.5MPT X 1.5 W/FLNG		
7	86316710	2	BRKT, CORD, MOUNT		
8	86001350	2	BUSHING, SPANNER .435 X 1.10		
9	86011020	2	WHEEL, 3" DIA. CUSHION RUBBER		
10	86010670	6	WASHER, 5/16 X 3/4 SS		
11	86010630	4	WASHER, 1/4 X 5/8 FLAT SS		
12	86236860	1	FTG, NIPPLE REDUCER 3/4" X1/2		
13	86275800	6	SCR, 8 X 3/4 PFHT/S BLK ZINC		
14	86273750	4	SCR, 1/4-20 X 5/8 HHCS SS		
15	86273740	2	SCR, 1/4-20 X 1.50 HHCS SS		
16	86197040	2	NUT, 5/16-18 HEX ACORN PLTD		
17	86001530	1	HOSEBARB, 1/2MPT X 1/2 HOSE 90		
18	86004000	1	GASKET, TANK LID		
19	86197820	1	ELBOW, 1.5 FPT X FS PVC		
20	86002380	1	CLAMP, 2.25 WORM GEAR		
21	86227120	1	ADAPTER, FLOAT 30 DEG		
22	86334490	1	DECK PLATE ASM, 6", YLW		
23	86199840	1	FLOAT SCREEN CAGE ASSY (SLIP)		
24	86161460	1	DUMP VALVE, 1 1/2"		



REF	PART NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES
1	87100370	1	FLOAT VALVE, BR END, 142PSI		2 COMPONENTS
2	86327130	1	WASHER,,.88IDX1.28ODX.062THK NYL		
3	86327090	1	HOSEBARB, 1/2F STR X 1/2 BR		
4	86324210	4	SCR, 1/4-20 X 5/8 BHCS BLK		
5	86324200	1	BRKT, LOCKING, AUTO FILL		
6	86324030	2	BRKT, MOUNTING, SOLUTION		
7	86323330	2	WASHER, 1/4 ID X 1.0 OD FLAT, BLK		
8	86321150	1	TANK, SOL, TRIM, AF		
9	86318790	2	WASHER, 1.032ID X 1.5OD X .062THK		
10	86298850	1	SPACER, .74ODX.39IDX1.0L NYL		
11	86197600	1	HOSEBARB, 1/4MPT X 3/8 90D DL		
12	86312010	1	LID, SOLUTION, HINGE BRKT		
13	86312000	1	LID, SOLUTION, COVER		
14	86311990	1	HINGE, 9.5" LG X .074 THK		
15	86297620	2	STRAP, HAND TOOL		
16	86010670	2	WASHER, 5/16 X 3/4 SS		
17	86010630	11	WASHER, 1/4 X 5/8 FLAT SS		
18	86233410	1	CLAMP, 3/4 DIA CUSHION .406 DIA		
19	86007970	1	STRAINER, 3/8 IN. NPT 60 MESH		
20	86276160	2	SCR, 10-32 X 5/8 PPHMS BLK		
21	86273830	10	SCR, 1/4-20 X 1/2 HHCS SS		
22	86273740	1	SCR, 1/4-20 X 1.50 HHCS SS		
23	86005810	2	NUT, 1/4-20 HEX NYLOCK SS		
24	86242130	2	KNOB, 1/4 HEX PRESS-LOC WING		
25	86197940	1	HOSEBARB, 3/8 MPT X 1/2 HOSE 90		
26	86238460	2	HOOK, STRAP		
27	86197420	1	ELBOW, 3/8NPT STREET		
28	86233150	3	CLAMP, 3/8 WORM GEAR		
29	86173640	2	ADPT,3/8 BLKHD		MULTIPLE COMPONENTS



REF	PART NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES
1	86312120	1	BASE, VAC MOTOR, 3-STAGE		
2	86318770	1	VAC ASM, 3-STAGE, 120V		
3	86317630	4	SCR, #8 X 3/4" PPHSMS TYPE AB		
4	86313810	1	GASKET, VAC MANIFOLD, SINGLE		
5	86312340	1	MANIFOLD, VACUUM		
6	86278990	4	WASHER, #8 X 3/8 FLAT		
7	86010630	8	WASHER, 1/4 X 5/8 FLAT SS		
8	86274090	2	SCR, 10-32 X 1.5 PPHMS		
9	86005810	4	NUT, 1/4-20 HEX NYLOCK SS		
10	86004300	1	HOSE, VAC, 1.5 ID X 30"L		
11	86002390	2	CLAMP, 1.75" WORM GEAR X .312		
12	86277840	4	SCR, 1/4-20 X 6.5 HHCS PLT		
13	86312080	1	COVER, VAC MOTOR		
-	86319030	1	VAC HOUSING, 3 STAGE		INCLUDES 86312080, 86312120



REF	PART NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES
1	86324280	1	HARNESS, MAIN, DUAL CORD, 1200		

Serial Number

REF. NO.	MODEL: SERIAL #
1	TBD

