

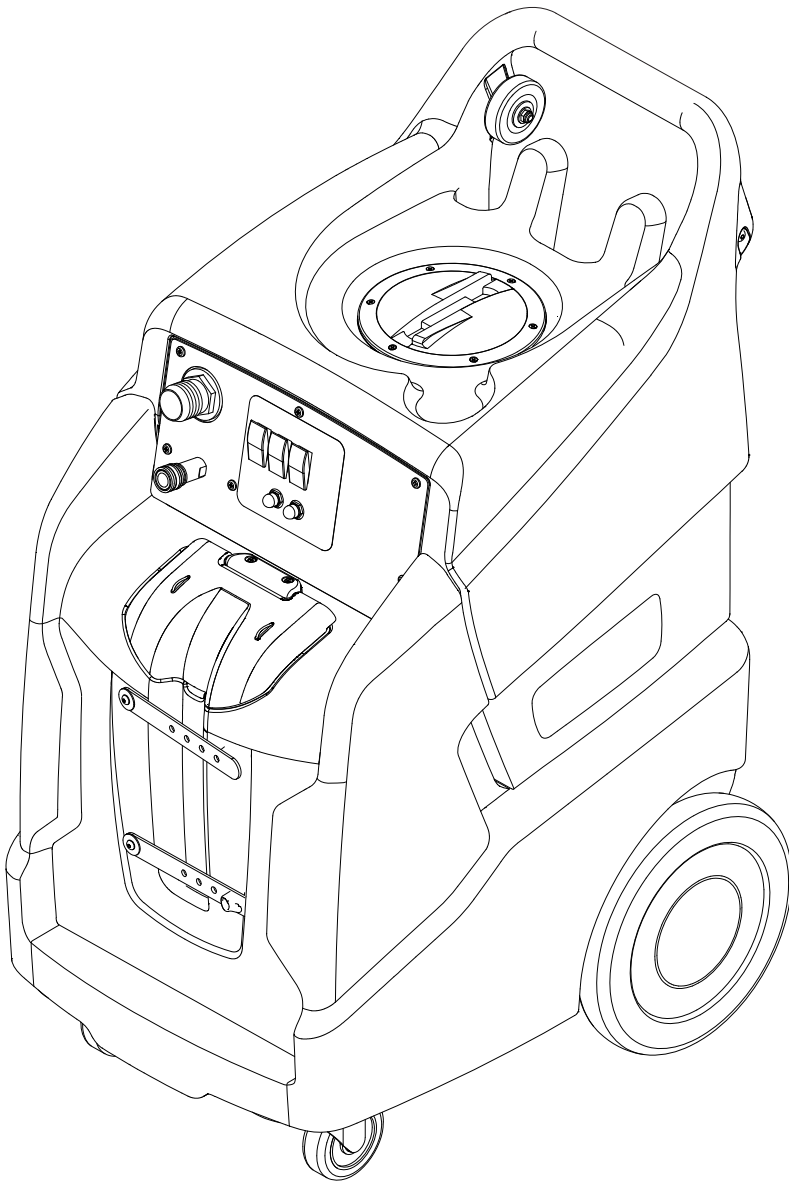
Warrior

150 PSI

Operating instructions (ENG)

MODELS:

**WARRIOR 150
WARRIOR 150-10
WARRIOR 150-05**



Read this instructions before using the machine.



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

OVERVIEW

The 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.

Machine Data Log / Overview	2
Table of Contents	3
How to Use This Manual	4

Safety

IMPORTANT SAFETY INSTRUCTIONS	5
HAZARD INTENSITY LEVEL	6
Grounding Instructions	7

Operations

Technical Specifications	8
Controls	9
Machine Operation	10
Chemicals	10
Pre-Run Inspection	11
Equipment Set-up	11
Heater Operation	11
Cleaning	12

Maintenance

Periodic Maintenance	13
Daily/Regular Maintenance	13
Vacuum Motor Replacement	14
Solution Pump Replacement	15
Troubleshooting	16

PARTS

Control Panel	19
Control Panel with Heat	21
Electrical with 2 Stage Vacuum	23
Electrical with Heat	25
Frame	27
Heater	29
Labels	31
Pump	33
Pump with Heat	35
Recovery	37
Solution	39
Vacuum, 2-Stage/3-Stage	41
Wiring 2-2 Stage Vacuum	43
Wiring 2-3 Stage Vacuum	44
Wiring With Heater	45
Circuit Indicator Option	46
Warrior Warranty	52

How to Use This Manual

This manual contains the following sections:

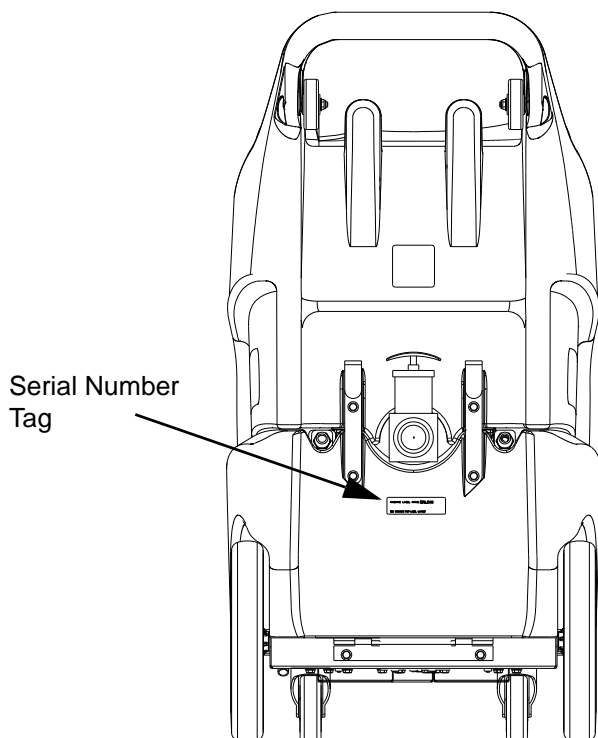
- How to Use This Manual
- Safety
- Operations
- Maintenance
- Parts List

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 approximately where shown.



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

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.
- **PRV NO.** – reference number.
- **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.

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

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: 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.

SAVE THESE INSTRUCTIONS

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



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 only manufacturer approved replacement parts.

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:

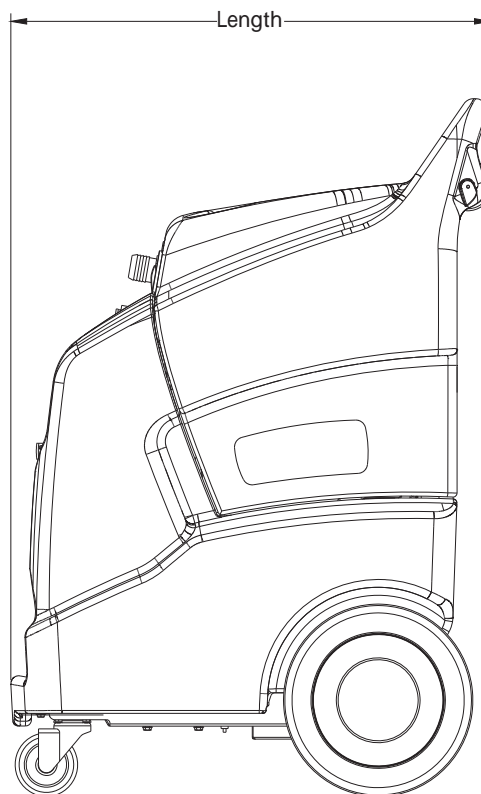
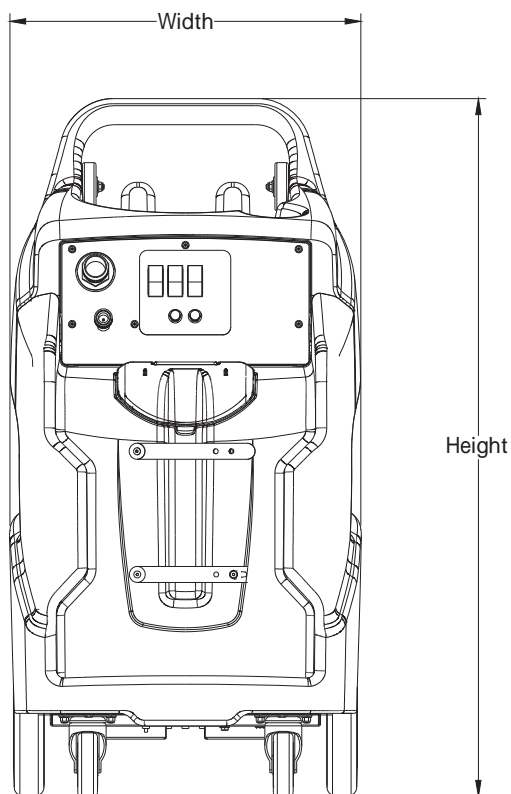
This appliance must be grounded. If it should malfunction or break down, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This appliance is equipped with a cord having an equipment-grounding conductor and grounding plug. The plug must be inserted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

WARNING:

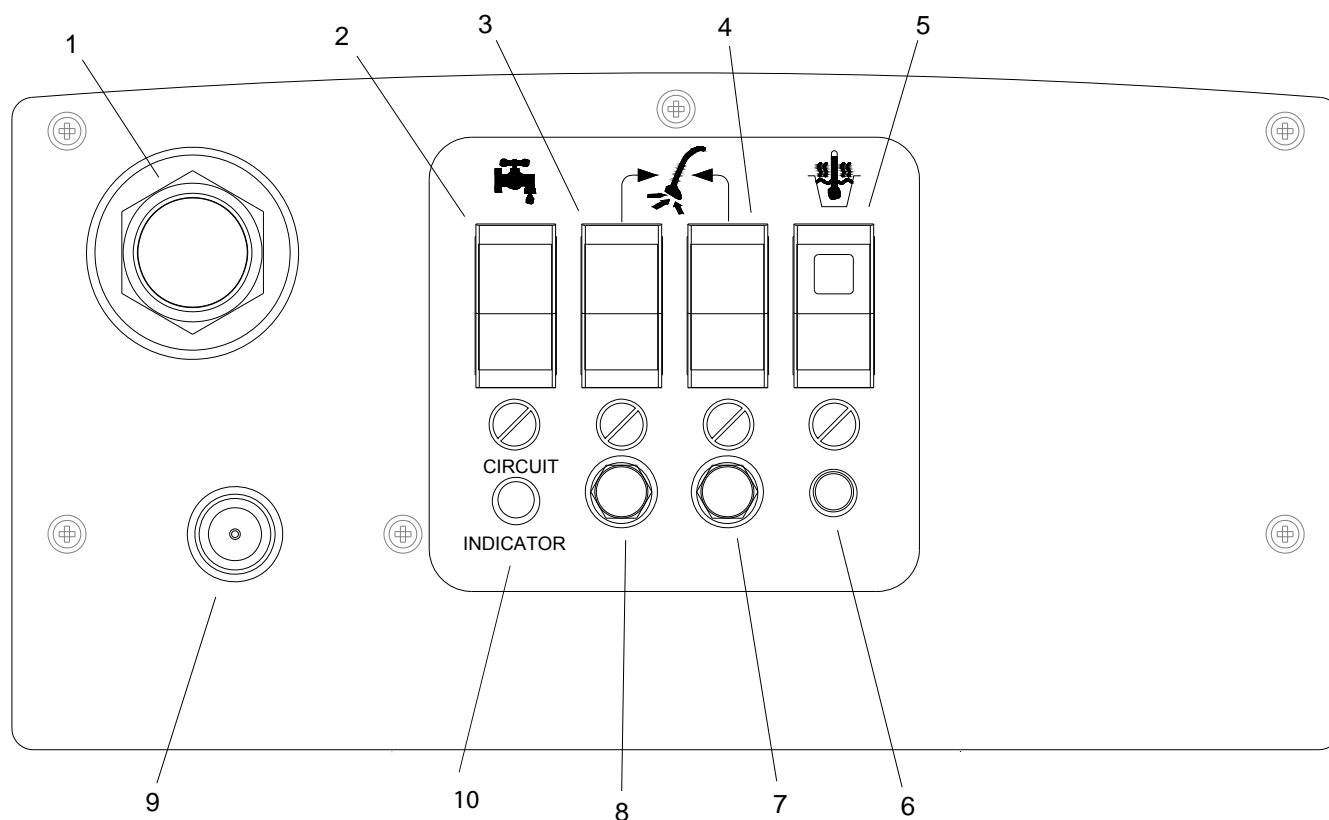
Improper connection of the equipment-grounding conductor can result in a risk of electric shock. Check with a qualified electrician or service person if you are in doubt as to whether the outlet is properly grounded. Do not modify the plug provided with the appliance - if it will not fit the outlet,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

Technical Specifications

MODEL	ITEM	MEASURE
ALL	Electrical	115 Volt, 60 hz, 15A
	Solution Pump	150 psi
	Solution Capacity	13 Gal
	Recovery Capacity	11Gal
	Height	43 inches
	Length	30 inches
	Width	22 inches
WARRIOR 150 &150-05	Vaccum Motor	Dual 2 Stage
	Weight- Empty	113 lbs
	Weight-Full Solution	208 lbs
	Power cord	1 X 25 feet
WARRIROR 150-10	Vaccum Motor	Dual 2 Stage
	Weight- Empty	120 lbs
	Weight-Full Solution	215 lbs
	Power cord	2 X 25 feet
	Heater	1850 watts



Controls



- | | |
|---|--|
| 1. Vacuum Accessory Tool Hook-up | 6. Heater Temperature Light (Units with Heat Only) |
| 2. Solution Pump Switch | 7. Breaker for Vacuum 2 |
| 3. Vacuum 1 Switch | 8. Breaker for Vacuum 1 |
| 4. Vacuum 2 Switch | 9. Solution Accessory Tool Hook-up |
| 5. Heater Switch with On Light (Units with Heat Only) | 10. Circuit Indicator |

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 carpet cleaning chemicals. But they are susceptible to chemical attack from some cleaning substances, such as hydrocarbon solvents and chlorinated bleaches. These non-compatible materials are not of the type used for carpet cleaning.

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 pump run dry.

WARNING:

Do not let pump run unattended.

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

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 cord from machine into properly grounded wall outlet.
2. Turn vacuum motor switch on and on to make sure there is electrical power at machine.
3. 150 PSI pump priming instructions:
 - Fill fresh water tank
 - Attach vacuum and solution hose to machine
 - Attach primer quick connect to end of solution hose
 - Place solution hose with primer quick connect into open end of vacuum hose and hold
 - turn vacuum and pump switches on
 - Once a continuous flow of water is entering the vacuum hose, this indicates pump is primed
 - Turn off vacuum and pump switches and disconnect primer quick connect
 - Connect solution hose and vacuum hose to carpet wand
 - Turn vacuum and pump switches on
 - Machine is ready to use.
4. Release water pressure by pulling valve on wand or tool after shutting machine off.

NOTE: *Wand orifice must be equivalent or larger than an 03 nozzle.*

Heater Operation

NOTE: *Units with Heat Only.*

WARNING:

The solution fittings on the machine will become extremely hot during operation. Allow sufficient time to cool, or run solution through the machine with the heater turned off before disconnecting or performing any maintenance on the heater.

Plug the two power cords into separate grounded circuits. The heater draws 15 amps of current.

Turn the solution pump **ON**. Fully prime the solution system before turning heater on.

Turn the heater switch on. The red light on the heater switch will be on when the heater switch is on. The red heater temperature light will be on when the heater is active and will turn off when the heater reaches maximum temperature.

On initial start-up the heater will take a few minutes to reach operating temperature.

When turning the pump and Heater OFF, make certain that you turn the heater OFF first.

Cleaning

WARNING:

Always use defoamer if foaming occurs. Foam will suspend large particles that may damage vacuum(s) as well as allow liquid into the vacuum motor(s) without activating the float shutoff.

1. Prior to cleaning, make certain that the nozzle is functioning properly.
 - a. To check, hold the wand about one foot above the surface to be cleaned and open the wand valve. A full spray should be observed from the nozzle.
 - b. If the nozzle is not showing a full spray pattern, adjust nozzle for proper pattern, clean, or replace nozzle.
2. Normally, chemical is applied on the push stroke of the wand when cleaning. Vacuuming is done on the pull stroke. For heavily soiled carpets the wand may be used in a scrubbing manner, applying chemical in both the push and pull stroke.
3. When cleaning, keep the working opening (wand mouth) flat on the surface being cleaned. Keep the wand moving when the valve is open.
4. The shutoff float inside the vacuum tank will impede the vacuum flow when the vacuum tank is full. When this occurs, empty the vacuum tank by opening the dump valve and dispose of the waste in a proper manner.

Once the vacuum tank has been emptied, you may once again proceed with cleaning.

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. If spray jets become clogged, remove the spray tips, wash them thoroughly, and blow dry.

NOTE: Do not use pins, wires, etc. to clean nozzles as this could destroy the spray pattern.

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



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. Flush pumping system with 1 to 2 gallons of clean water.
4. 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.

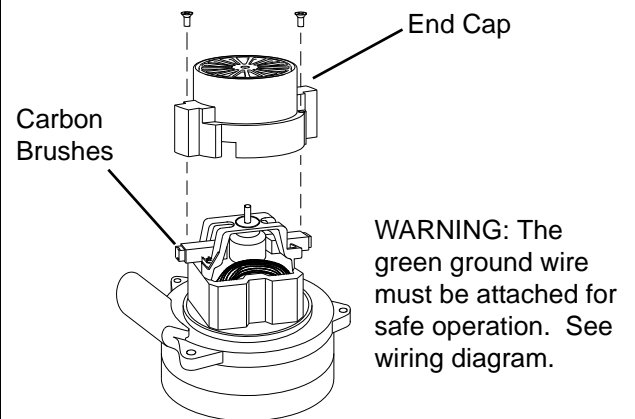
SERVICE SCHEDULE	DAILY	WEEKLY	QUARTERLY
Check machine for cord damage	*		
Check recovery dome and gasket for damage and cleanliness	*		
Check hoses for wear, blockages, or damage	*		
Check handles, switches, and knobs for damage	*		
Run one gallon of water through system	*		
Clean out recovery tank and check float valve to make sure it moves freely	*		
Clean out solution tank and remove and clean vacuum intake screen	*		
Clean outside of all tanks and check for damage	*		
Run vac 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 vac motor carbon brushes			*

! WARNING:

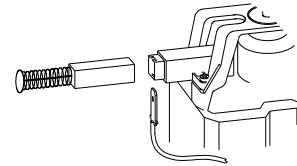
Only qualified maintenance personnel are to perform the following repairs.

Vacuum Motor Replacement

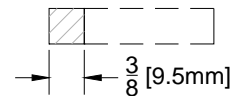
1. Turn off all switches and unplug machine.
2. Remove hardware under front of machine to access component compartment.
3. Remove vacuum motor cover and disconnect motor wires.
4. Remove the vacuum motor.
5. Reverse process to install vacuum motor.

Vacuum Motor Carbon Brushes Replacement

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.



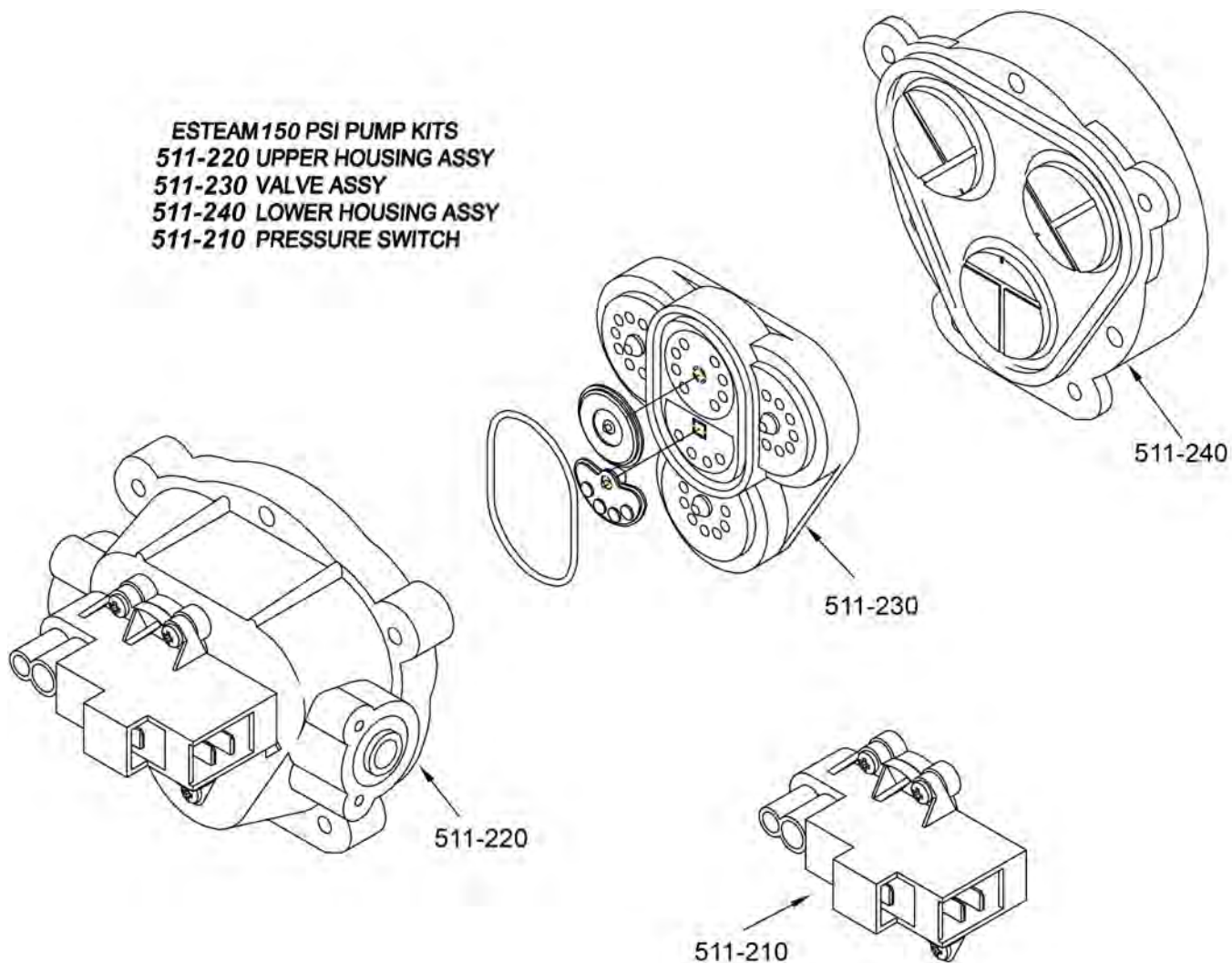
Periodically check the length of the carbon brushes. Replace both carbon brushes when either is less than 3/8" (9.5mm) long.

Solution Pump Replacement

⚠ WARNING:

Only qualified maintenance personnel are to perform the following repairs.

ESTEAM 150 PSI PUMP KITS
511-220 UPPER HOUSING ASSY
511-230 VALVE ASSY
511-240 LOWER HOUSING ASSY
511-210 PRESSURE SWITCH

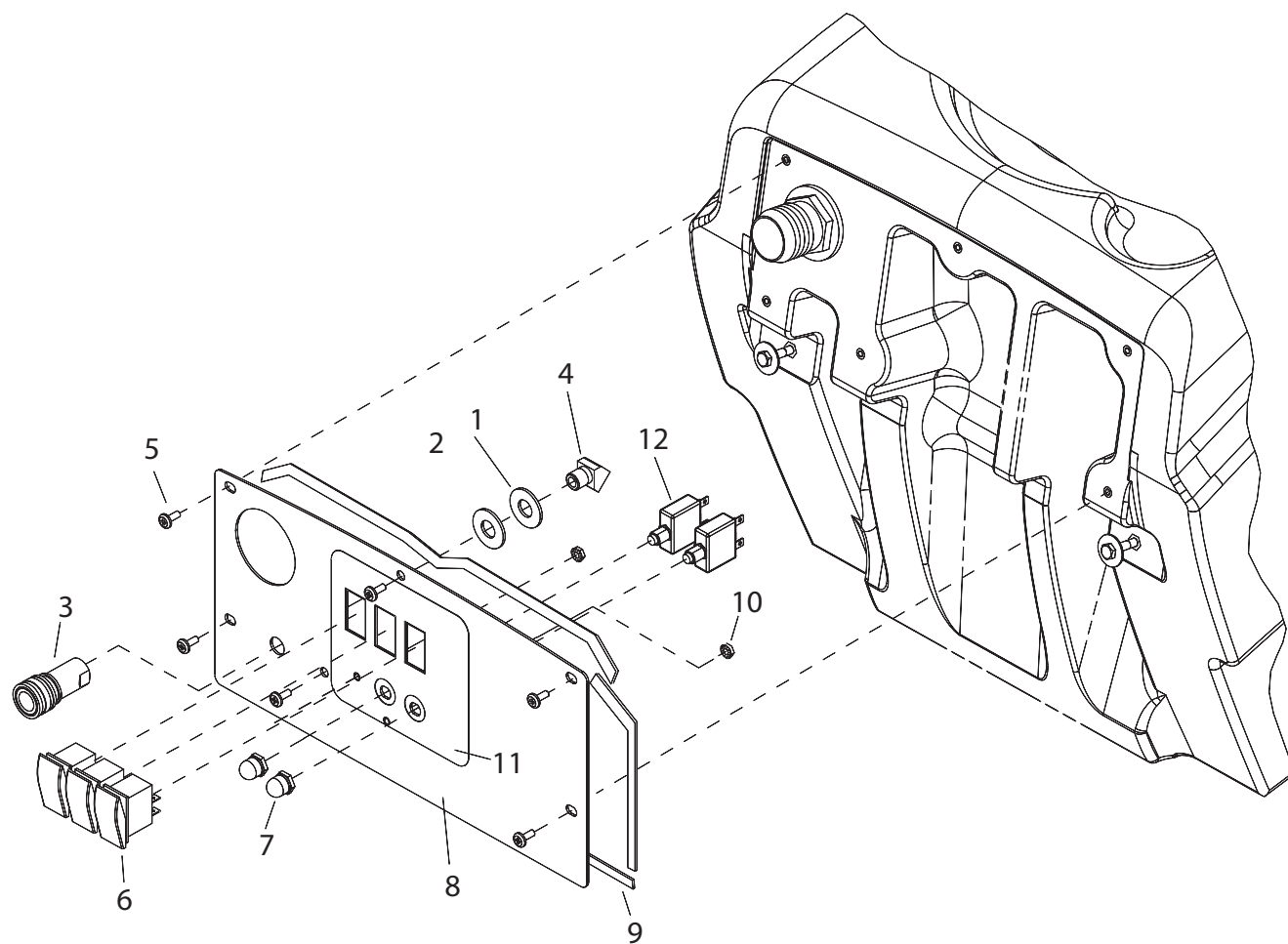


Troubleshooting

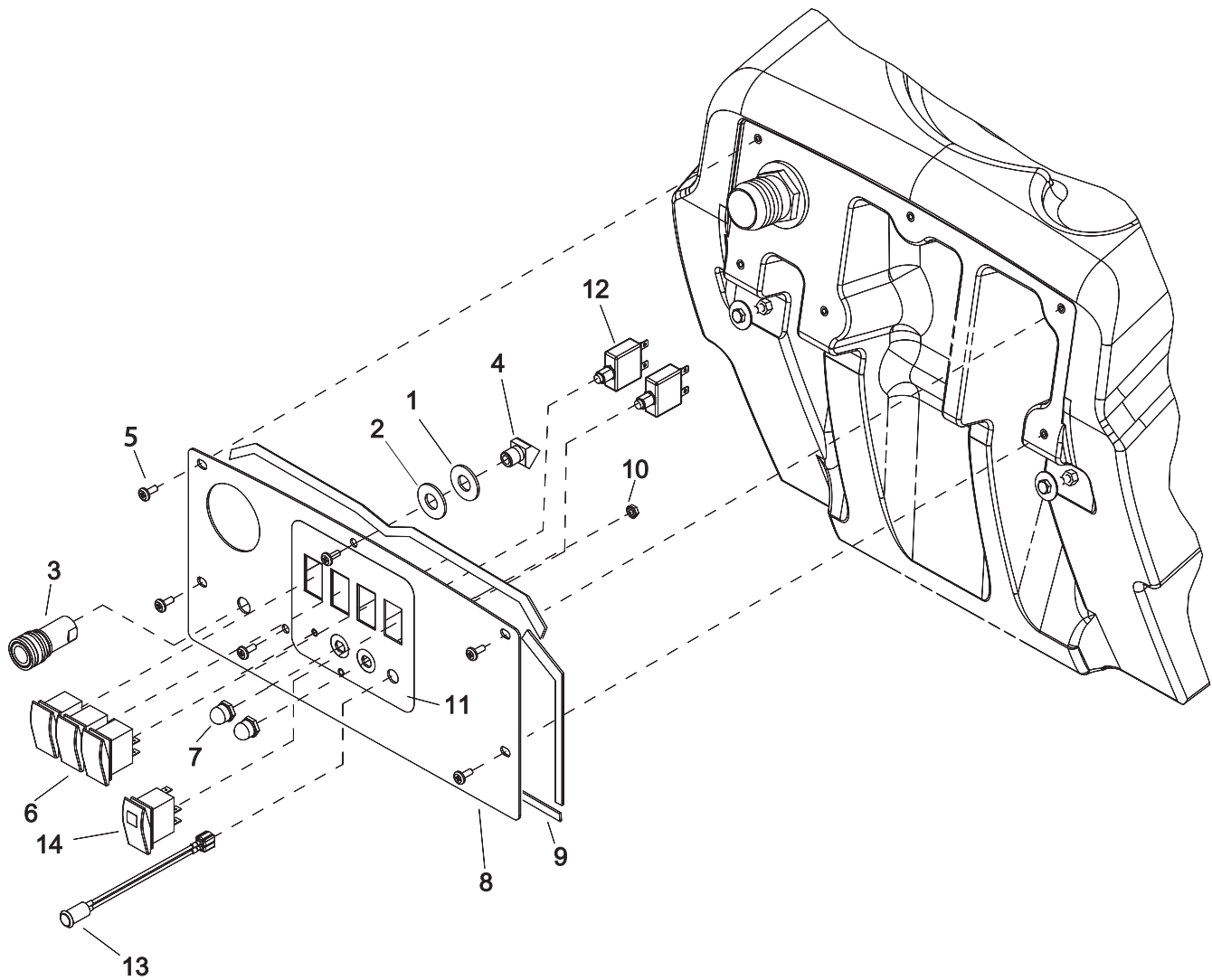
PROBLEM	CAUSE	SOLUTION
Loss of Power	Unit not plugged in	Connect unit to 3 prong grounded outlet.
	Dead electrical circuit	Check building circuit breaker or fuse box.
	Faulty power cord	Replace
Electrical shock	Receptacle not grounded	Contact an electrician to check building's wiring
	Internal wiring problem	Have a trained service technician check machine's wiring
Vac 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 or 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
	Vac motor seals leaking	Replace
	Floor tool vac 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.
Pump runs no solution	Pump inlet screen plugged	Clean inlet screen
	Pump not primed	Press trigger to open valve on cleaning wand to relieve air lock.
	Internal or external solution line damaged and leaking	Replace
Pump runs, loss of pressure	Internal pump components wearing out	Replace, see pump kit components
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	Make several passes without spray
Carpet browning	Leaving carpet too wet	Check for loss of vac 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

Notes:

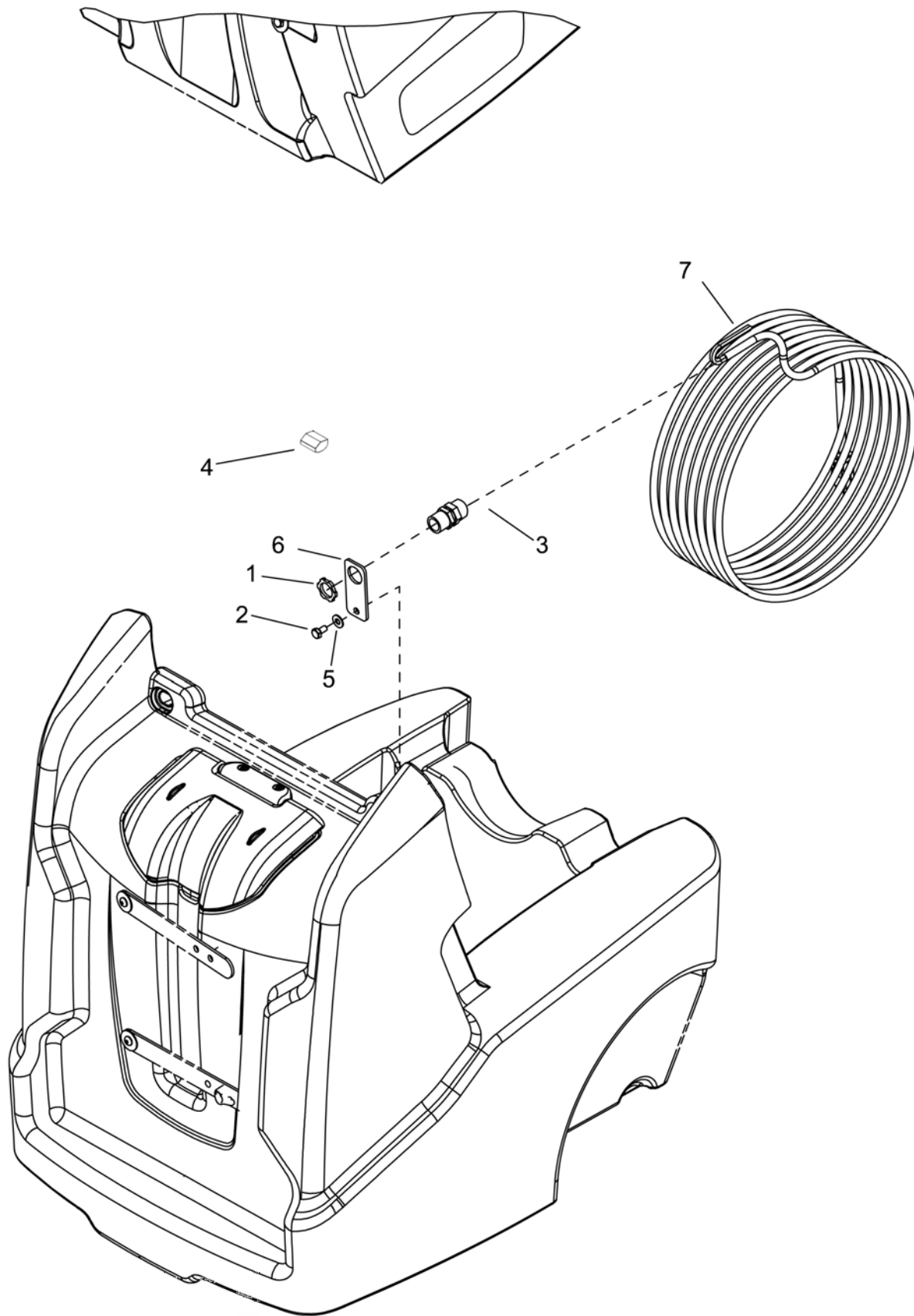
PARTS



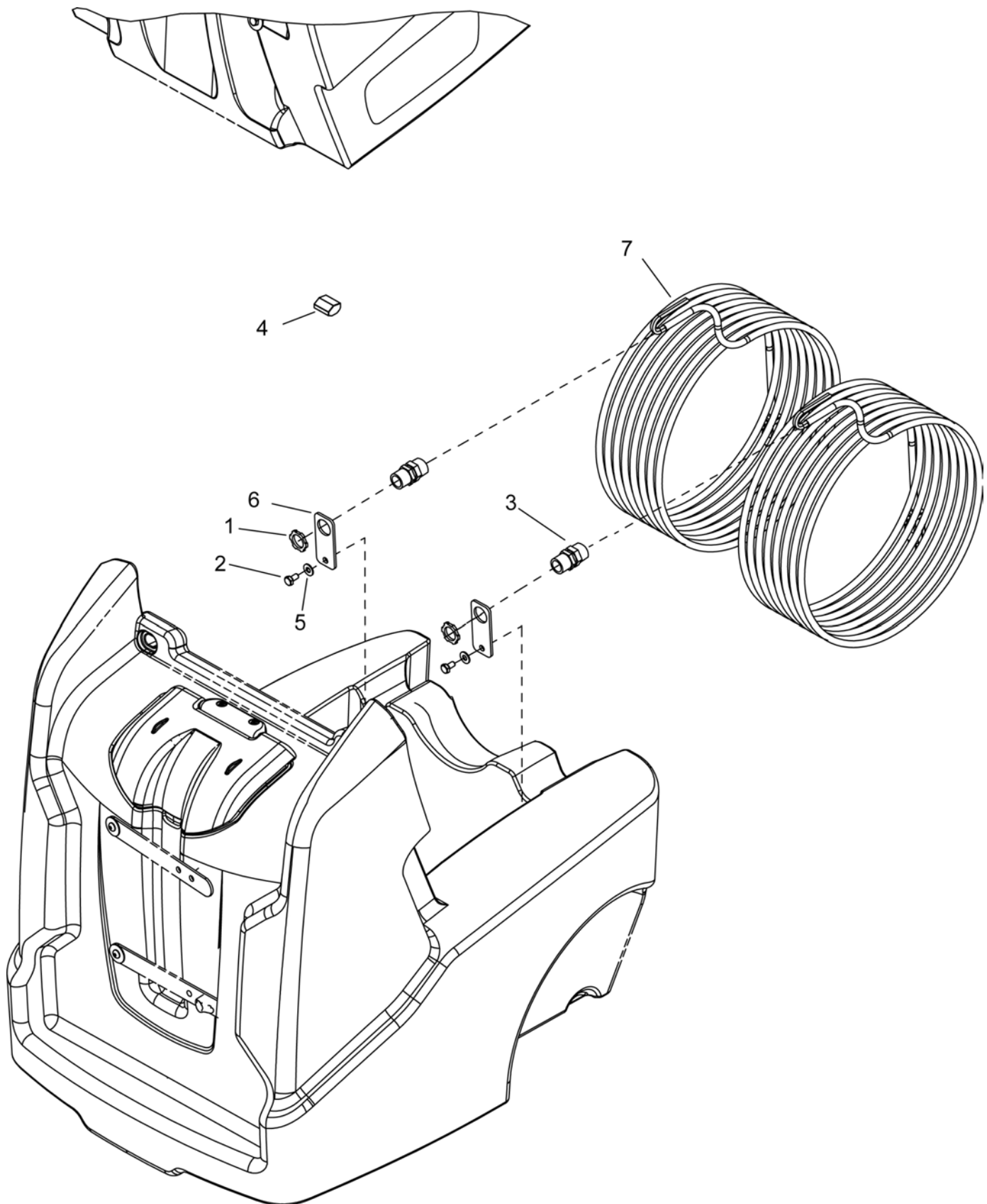
REF	PART NO	DESCRIPTION	NOTE
1	415-155	FW, 1/2 SS	
2	415-156	FW, 1/2 SS (Stand/Max OD)	
3	580-010	Q.C. 1/4 FEM (Close)	
4	555-184	Elbow 45,Street 1/4	
5	410-205	MS, 10-32 x 1/2 Panphil SS	
6	305-075	Switch, SPST 2-Position Rocker	
7	340-180	Boot, Seal Breaker	
8	845-081	Control Panel	
9	475-040	Gasket 1/8 x 1	
10	400-150	Locknut 10 x 32 Nylon SS	
11	703-008	Decal Warrior Panel	
12	340-162	Breaker 15A	



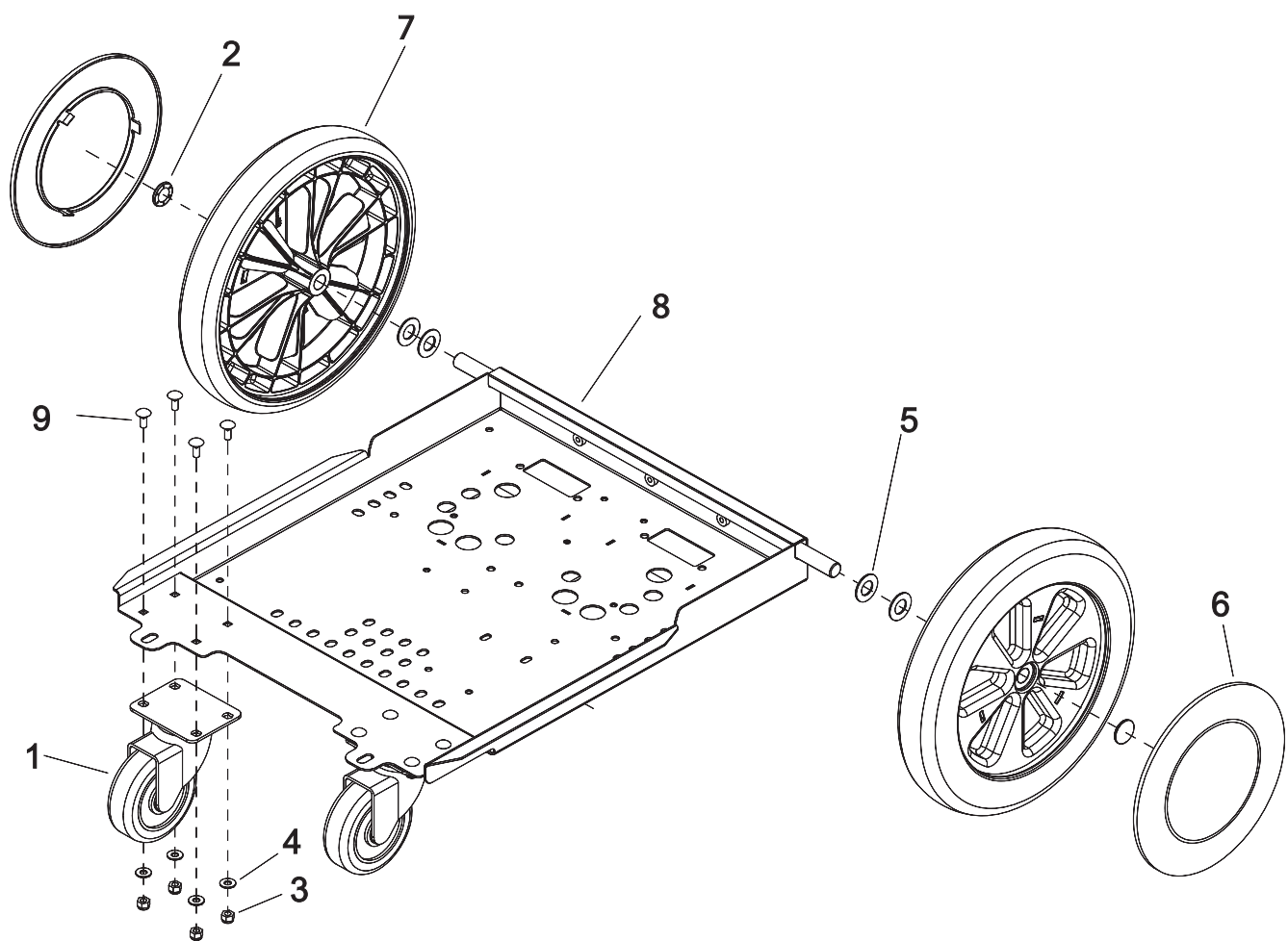
REF	PART NO	DESCRIPTION	NOTE
1	415-155	FW, 1/2 SS	
2	415-156	FW, 1/2 SS (Stand/Max OD)	
3	580-010	Q.C. 1/4 FEM (Close)	
4	555-184	Elbow 45,Street 1/4	
5	410-205	MS, 10-32 x 1/2 Panphil SS	
6	305-075	Switch, SPST 2-Position Rocker	
7	340-180	Boot, Seal Breaker	
8	845-081	Control Panel	
9	475-040	Gasket 1/8 x 1	
10	400-150	Locknut 10 x 32 Nylon SS	
11	703-008	Decal Warrior Panel	
12	340-162	Breaker 15A	
13	320-110	Lamp, Panel 110V	
14	305-076	Switch, Lighted 2-Position Rocker	



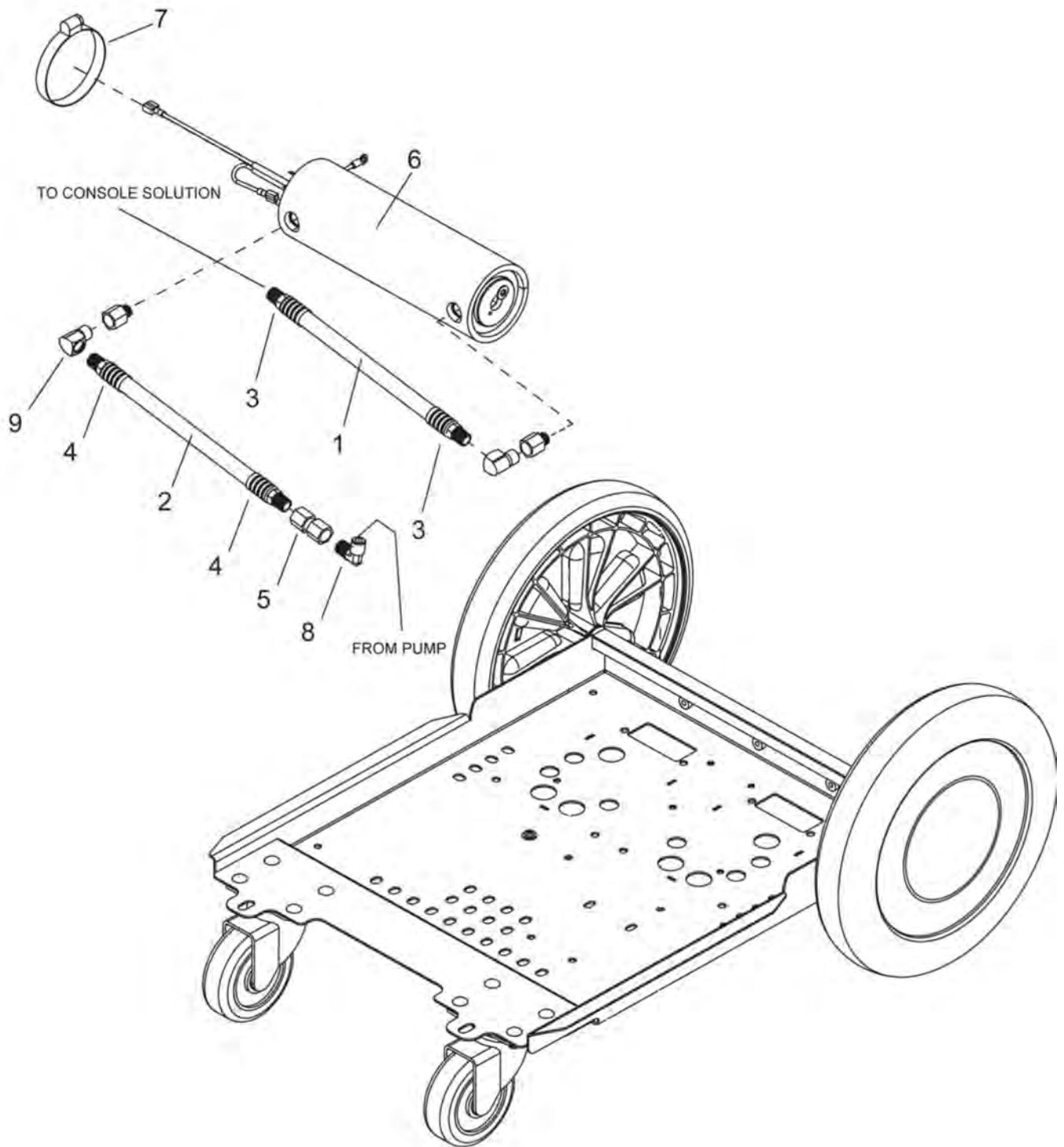
REF	PART NO	DESCRIPTION	NOTE
1	400-165	Locknut, 1/2 Steel/Strain Relief	
2	405-615	Bolt, 1/4 x 1/2	
3	335-015	Strain Relief, 14 Gauge	
4	325-015	Connector, 5 Position, Push Wire	
5	415-125	FW, 1/4 SS	
6	465-084	BRKT, Cord Strain Relief	
7	315-015	Cord, 25' Black 14/3 SJTW-A	



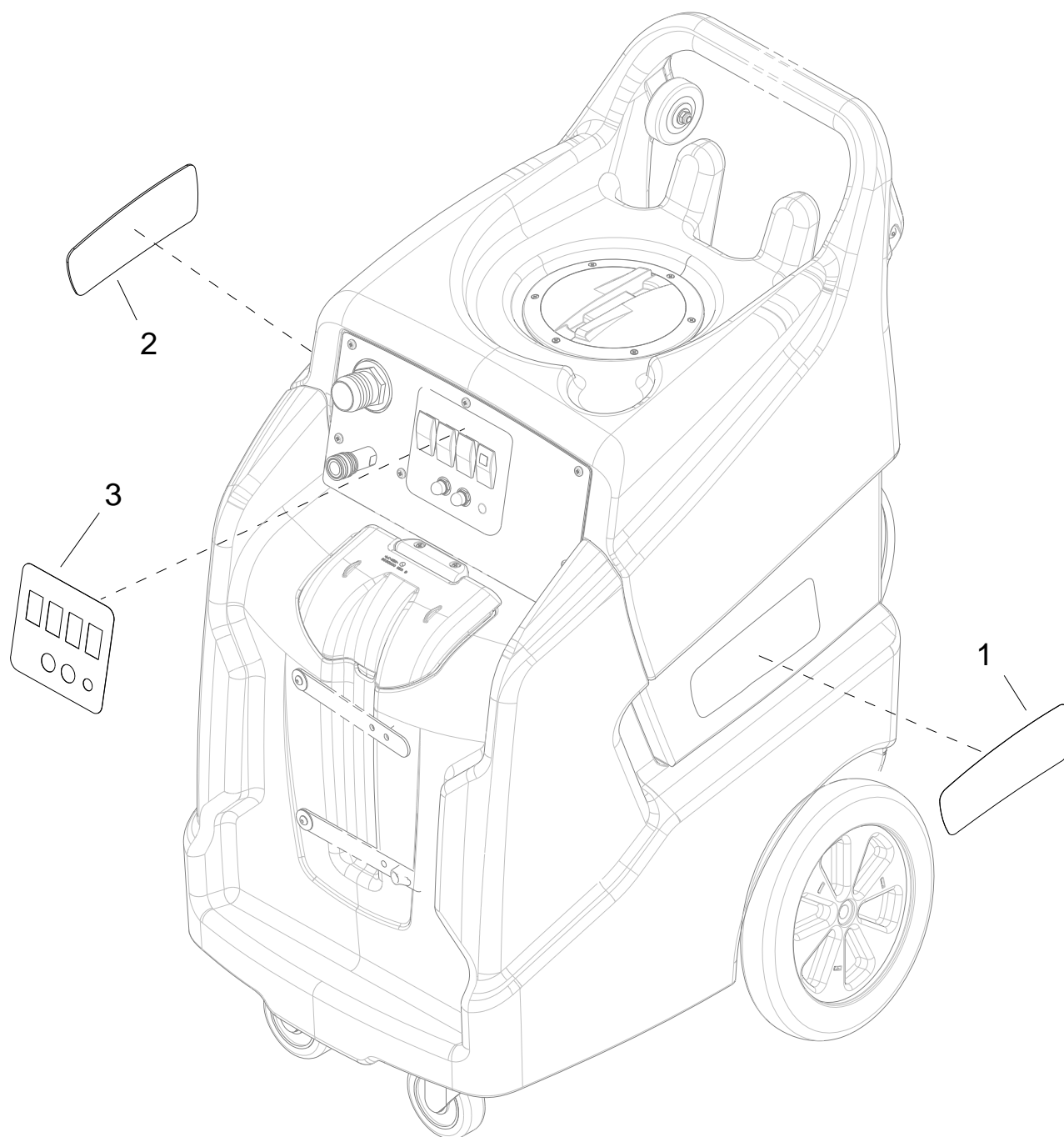
REF	PART NO	DESCRIPTION	NOTE
1	400-165	Locknut, 1/2 Steel/Strain Relief	
2	410-205	MS, 10-32 x 1/2 Panphil SS	
3	335-015	Strain Relief, 14 Gauge	
4	325-015	Connector, 5 Position, Push Wire	
5	415-125	FW, 1/4 SS	
6	465-084	BRKT, Cord Strain Relief	
7	315-015	Cord, 25' Black 14/3 SJTW-A	



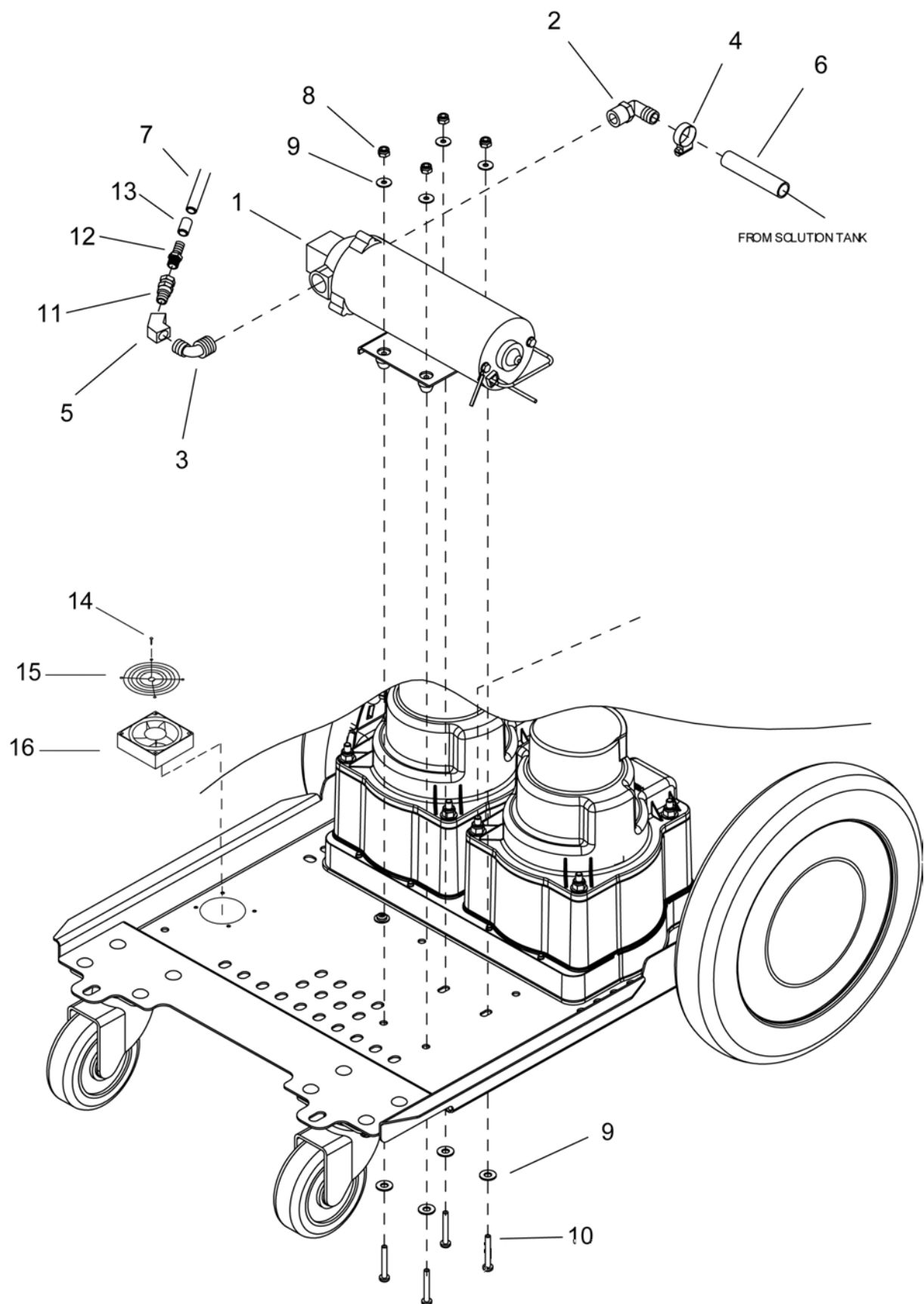
REF	PART NO	DESCRIPTION	NOTE
1	455-075	Caster, Swivel 4"	
2	455-090	Hubcap, 5/8 Shaft	
3	400-010	Hex Nut, 1/4 x 20 Zinc	
4	415-120	FW, 1/4 zinc	
5	415-165	FW, 5/8 SS	
6	455-085	Hubcap, 9.5 Wheel	
7	455-080	Wheel, 12 x 2.25	
8	845-090	Frame, Base, Warrior	



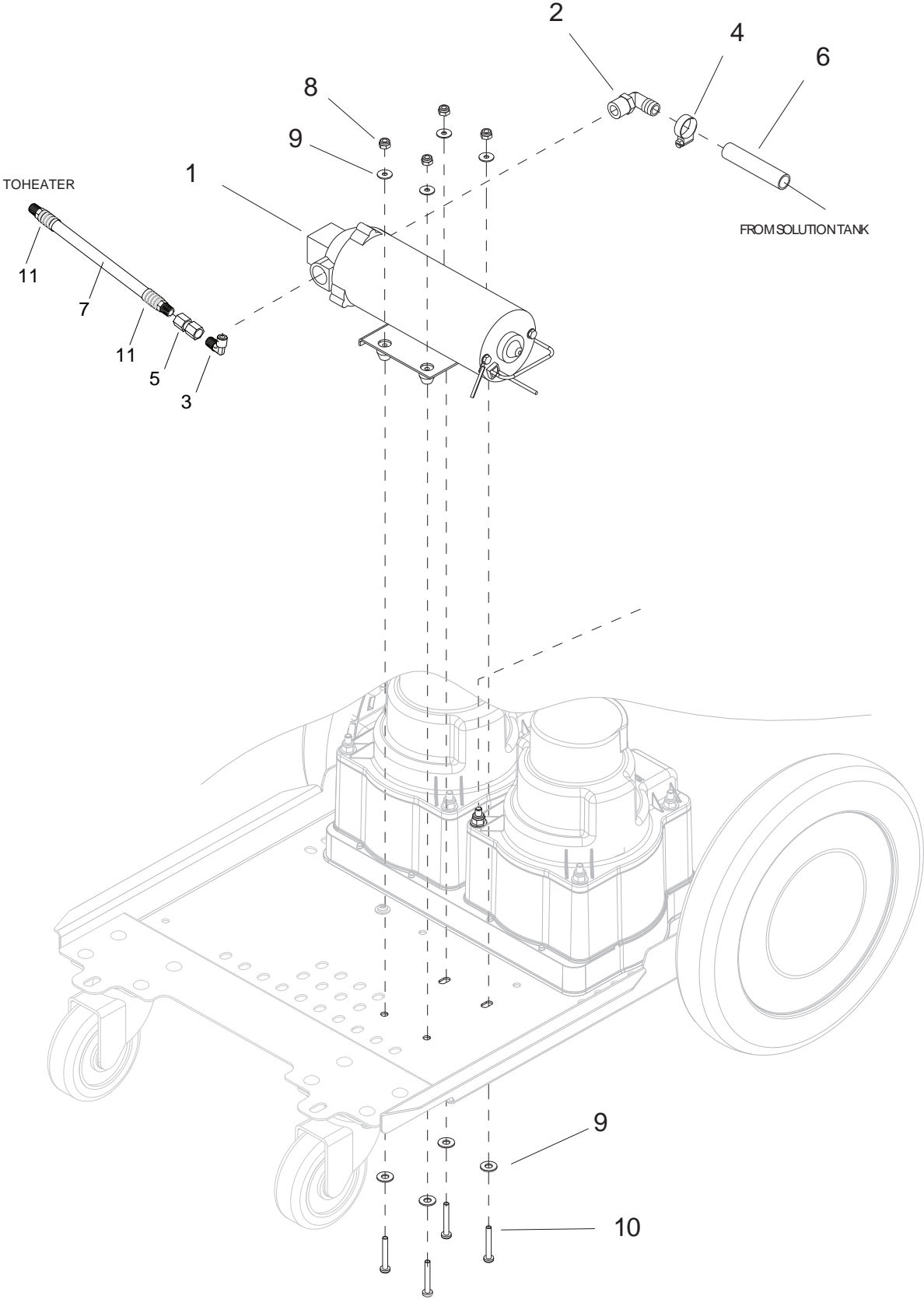
REF	PART NO	DESCRIPTION	NOTE
1	572-042	Blue Neptune 1/4	
2	572-125	Pulse Hose 3/8	
3	581-015	Crimp FTNG, 1/4 HP Hose - 1/4 MPT SVL	
4	581-065	Crimp FTNG, 3/8 Pulse Hose – 1/4 MPT SVL	
5	550-035	Check valve, 1/4 FM x FM	
6	490-005	Foamed Casing, Round 1850W	
7	425-12	Clamp Tube 3-1/2"	
8	555-210	Elbow 90, 3/8 MPT x 1/4 MPT	
9	555-208	Elbow 90, 1/4 Street Extruded	



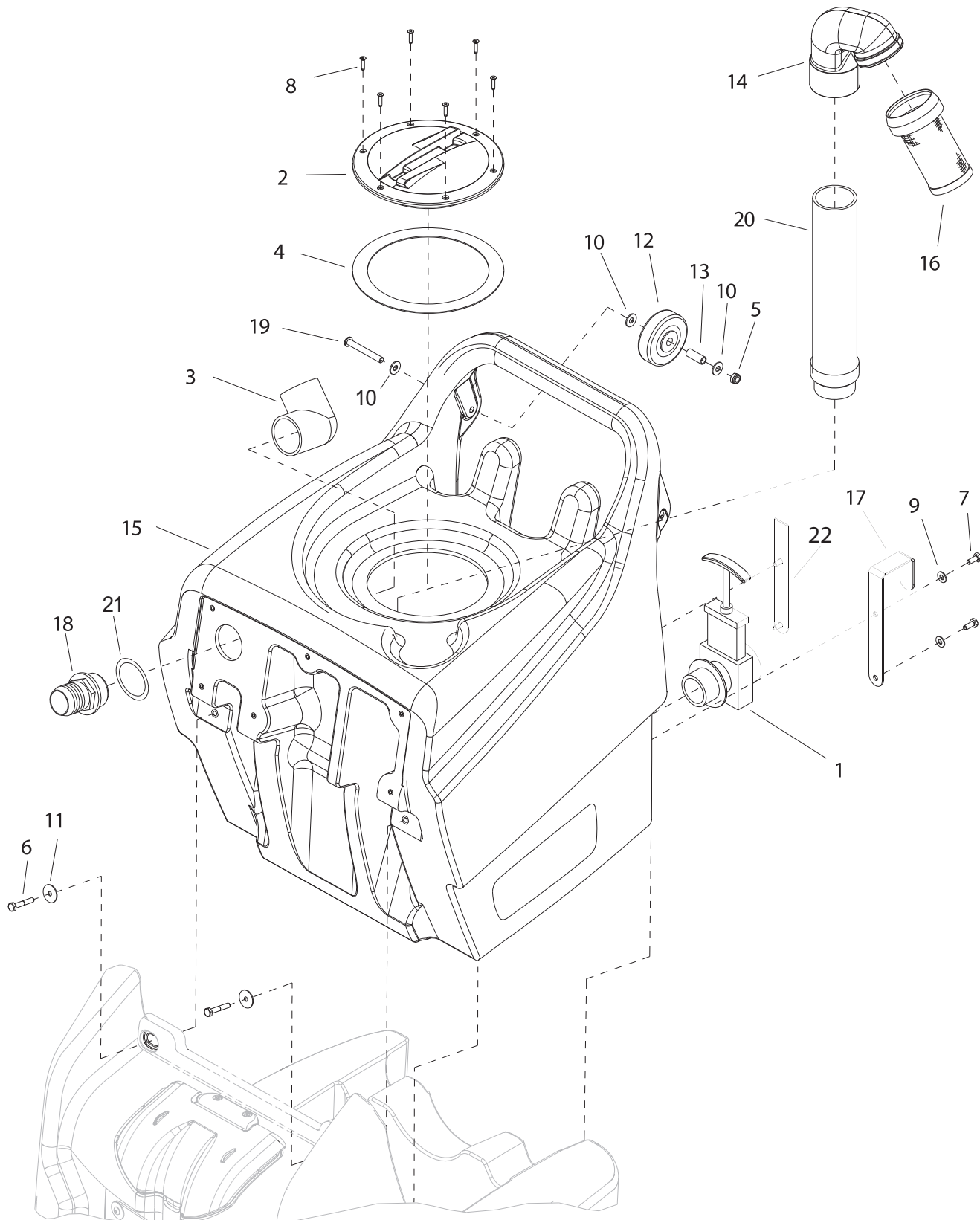
REF	PART NO	DESCRIPTION	NOTE
1	703-006	Decal Warrior LH	
2	703-007	Decal Warrior RH	
3	703-008	Decal Warrior Panel	



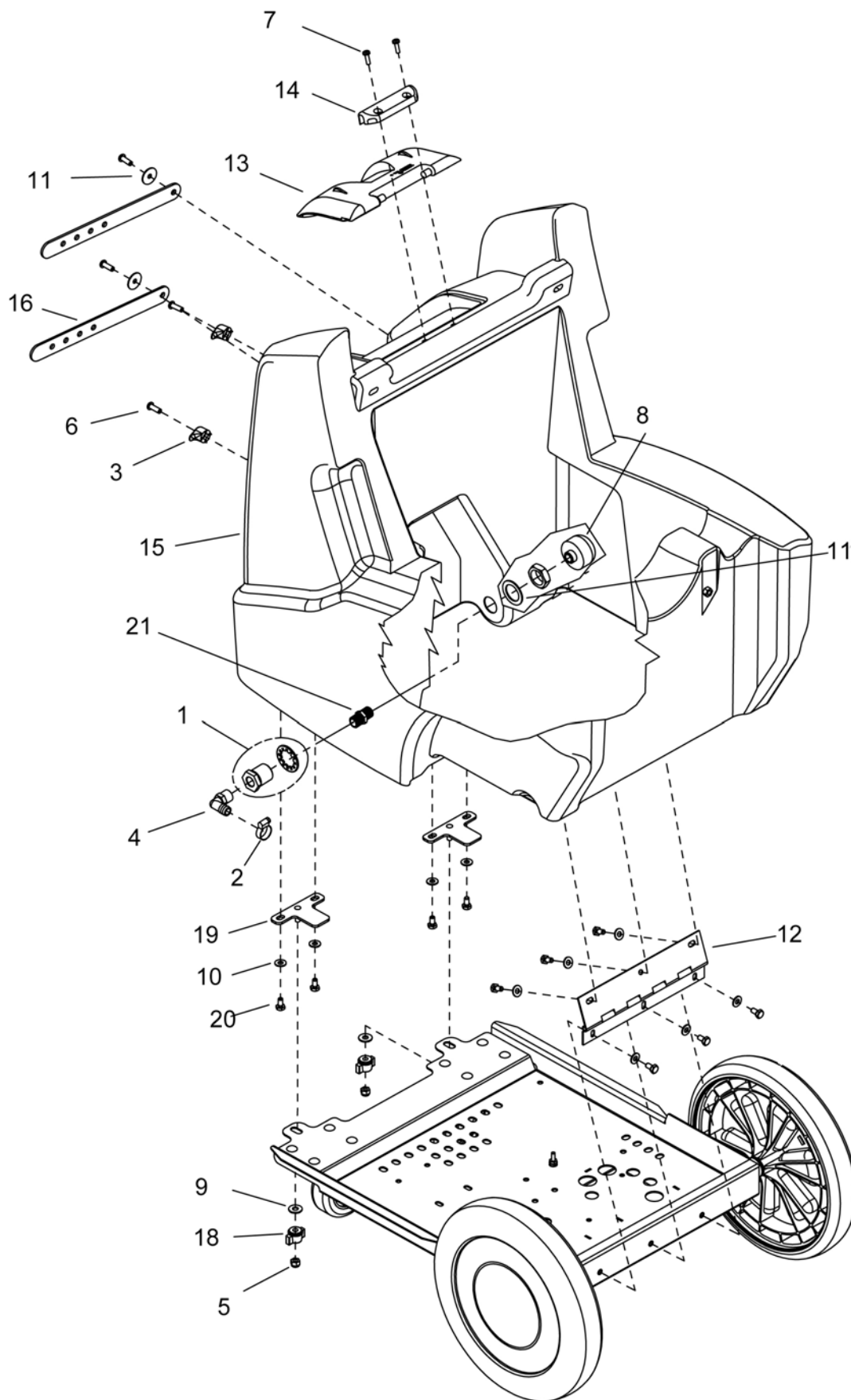
REF	PART NO	DESCRIPTION	NOTE
1	511-105	Pump, 150 PSI 115V	
2	585-110	Nylon, 90 Barb 1/2 x 3/8 NPT	
3	510-090	Nylon, 90 Barb 3/8 x 3/8 NPT	
4	425-005	Clamp #6	
5	555-182	Elbow 45, 1/4 FEM. Extruded	
6	572-155	Poly Spring hose, 1/2	
7	572-041	L.P. Hose 3/8	
8	400-135	Locknut, 1/4 x 20 Nylon Zinc	
9	415-125	FW, 1/4 SS	
10	405-020	Bolt, 1/4 x 1-1/4 SS	
11	582-080	swivel, 1/4 M x 1/4 F	
12	555-364	Hose Barb, 3/8 Barb x 1/4 MPT	
13	555-254	Ferrule, 3/8 Hose	
14	410-225	SMS, 10 x 1/2 Pan RB Zinc	
15	560-325	Guard, Finger 4" Muffin Fan	
16	333-005	Fan Muffin 4" 115V	



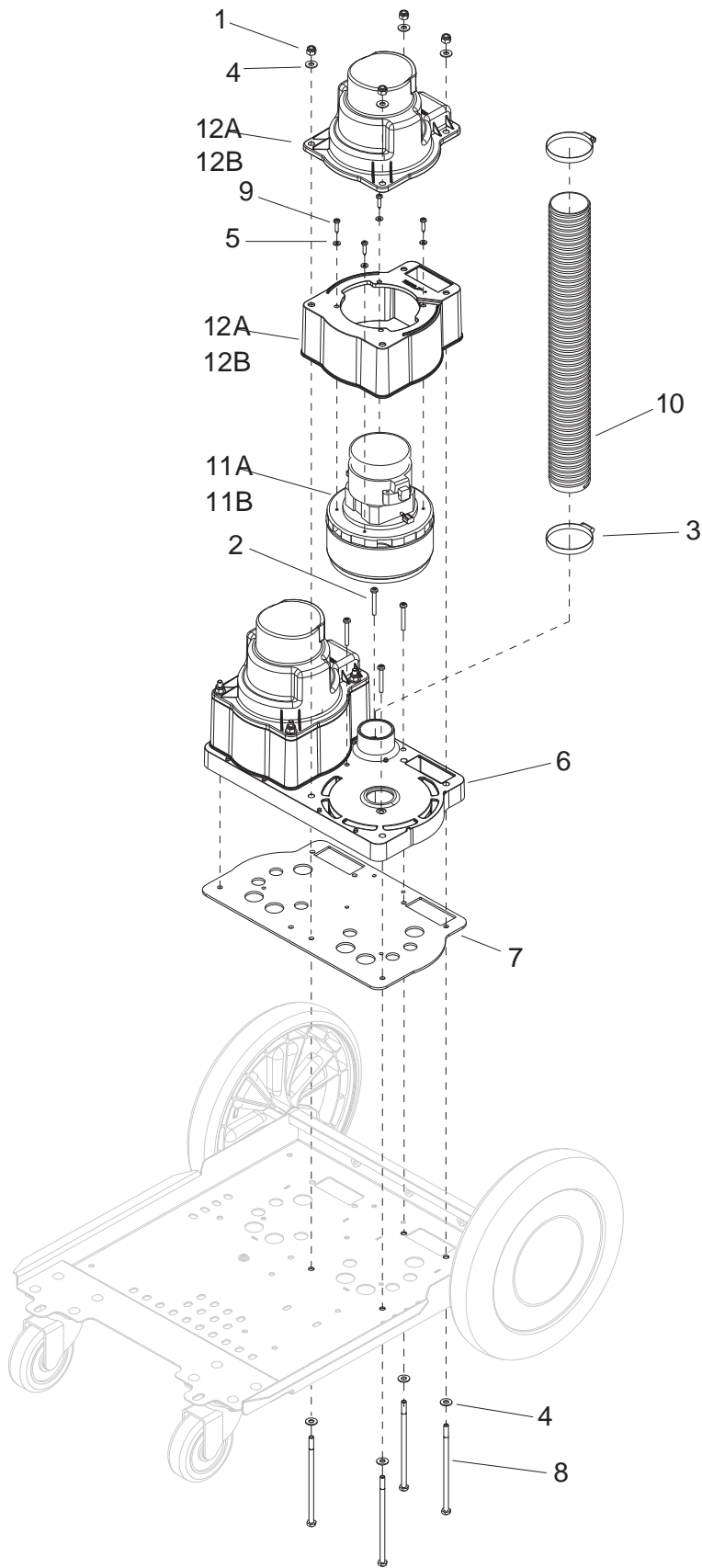
REF	PART NO	DESCRIPTION	NOTE
1	511-105	Pump, 150 PSI 115V	
2	585-110	Nylon, 90 Barb 1/2 x 3/8 NPT	
3	555-210	Elbow 90, 3/8 MPT x 1/4 MPT	
4	425-005	Clamp #6	
5	550-035	Check valve, 1/4 FM x FM	
6	572-155	Poly Spring hose, 1/2	
7	572-125	Pulse Hose 3/8	
8	400-135	Locknut, 1/4 x 20 Nylon Zinc	
9	415-125	FW, 1/4 SS	
10	405-615	Bolt, 1/4 x 1/2 SS	
11	581-065	Crimp FTNG, 3/8 Pulse Hose – 1/4 MPT SVL	



REF	PART NO.	DESCRIPTION	NOTES:
1	545-100	Dump Valve, 1 1/2"	
2	585-210	Clear Cover, 6" C/W Ring	
3	590-020	PVC ELB 1 1/2" 90, S x FIPT	
4	475-125	Gasket 6" Access Cover Clear	
5	400-116	Locknut, 5/16 x18 Nylon SS	
6	405-026	Bolt, 1/4 x 1-1/2 Zinc	
7	405-615	CS, 1/4 x 1/2 SS (Hex HD)	
8	410-125	SMS, 8 x 5/8 Pan Rob SS	
9	415-125	FW, 1/4 SS	
10	415-128	FW, 5/16 SS	
11	415-305	FNDW, 1/4 SS	
12	455-070	Wheel, 3"	
13	355-230	Vac Bolt Spacer 3/8 x 1-1/8	
14	597-015	Adpt (RM) 30 Degree, Float 2"	
15	495-320	Rec tank, Warrior Blue	
16	597-062	Float Screen Cage 2"	
17	465-082	BRKT, Cord Mount	
18	590-419	PVC Hose Barb, 2" HB x 1 1/2" MPT	
19	410-265	MS, 5/16 x 2-1/2 Pan Phil SS	
20	595-010	ABS Pipe, 2"	
21	415-420	Machined Washer 1 7/8	
22	465-066	Brace, Warrior Tank (W/O Heat Model)	

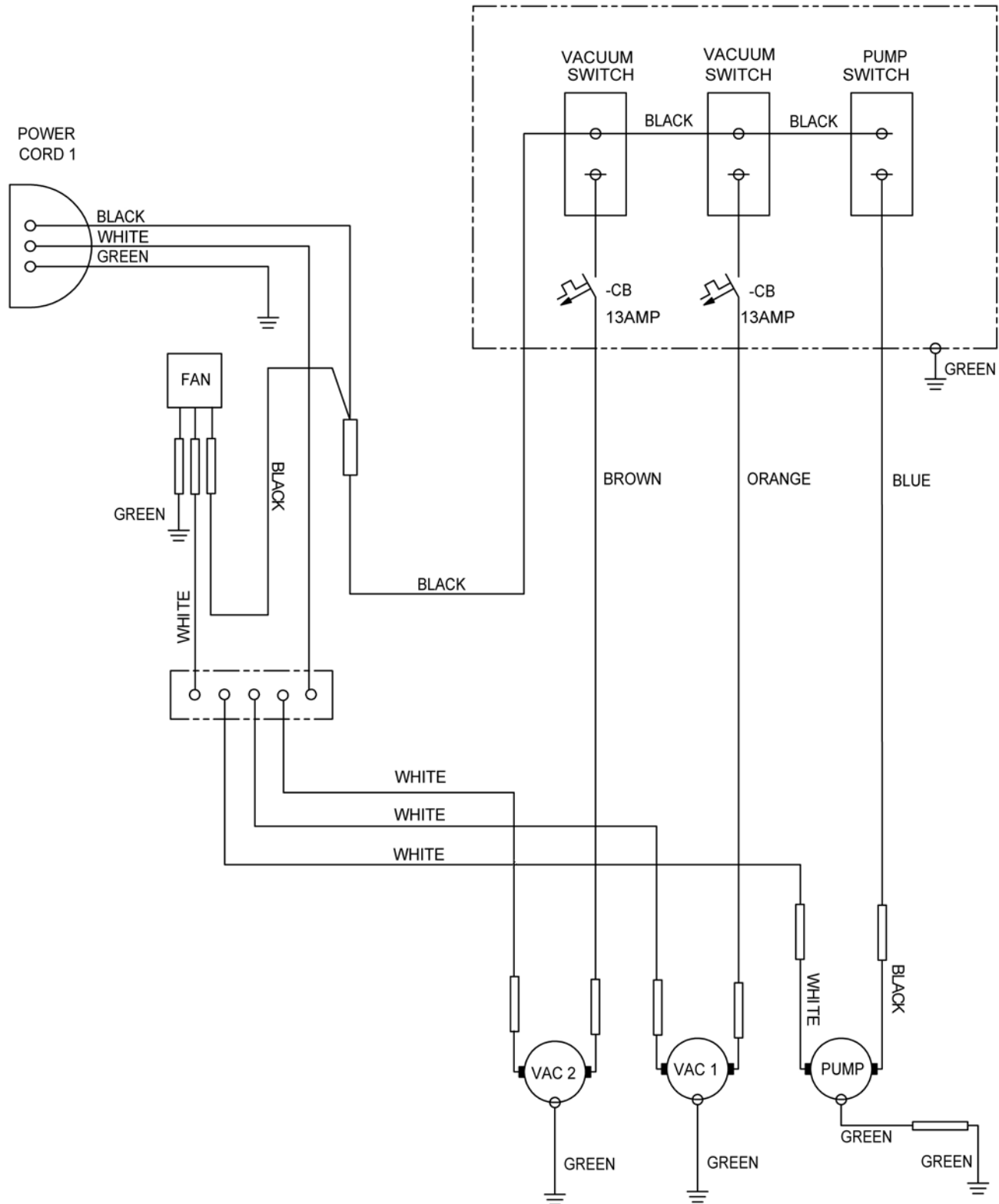


REF	PART NO.	DESCRIPTION	NOTES:
1	555-705	Terminal Bolt 3/8 x 3/8	
2	425-005	Clamp, #6	
3	350-115	Hook ,Strap	
4	585-110	Nylon 90 Barb, 1/2 x 3/8 NPT	
5	400-005	Hex Nut 1/4 SS	
6	410-226	MS, 14-20 x 3/4 Allan	
7	410-205	MS, 10-32 x 1/2 SS	
8	560-034	Strainer Acorn	
9	415-120	FW, 1/4 Zinc	
10	415-125	FW, 1/4 SS	
11	415-305	FNDW, 1/4 SS	
12	440-015	Hinge, 9.5 x .074	
13	495-330	Lid, Solution Tank	
14	440-010	Hinge BRKT, solution Tank	
15	493-325	Solution Tank	
16	460-015	Strap, Tool Holder	
17	415-187	FW, 1-1/8	
18	435-060	Knob, 1/4 Hex Press-Loc Wing	
19	845-089	Plate, mounting Solution	
20	405-615	CS, 1/4 x 1/2 SS (Hex HD)	
21	555-274	Hex Nipple, 3/8 x 1 1/2 Long	

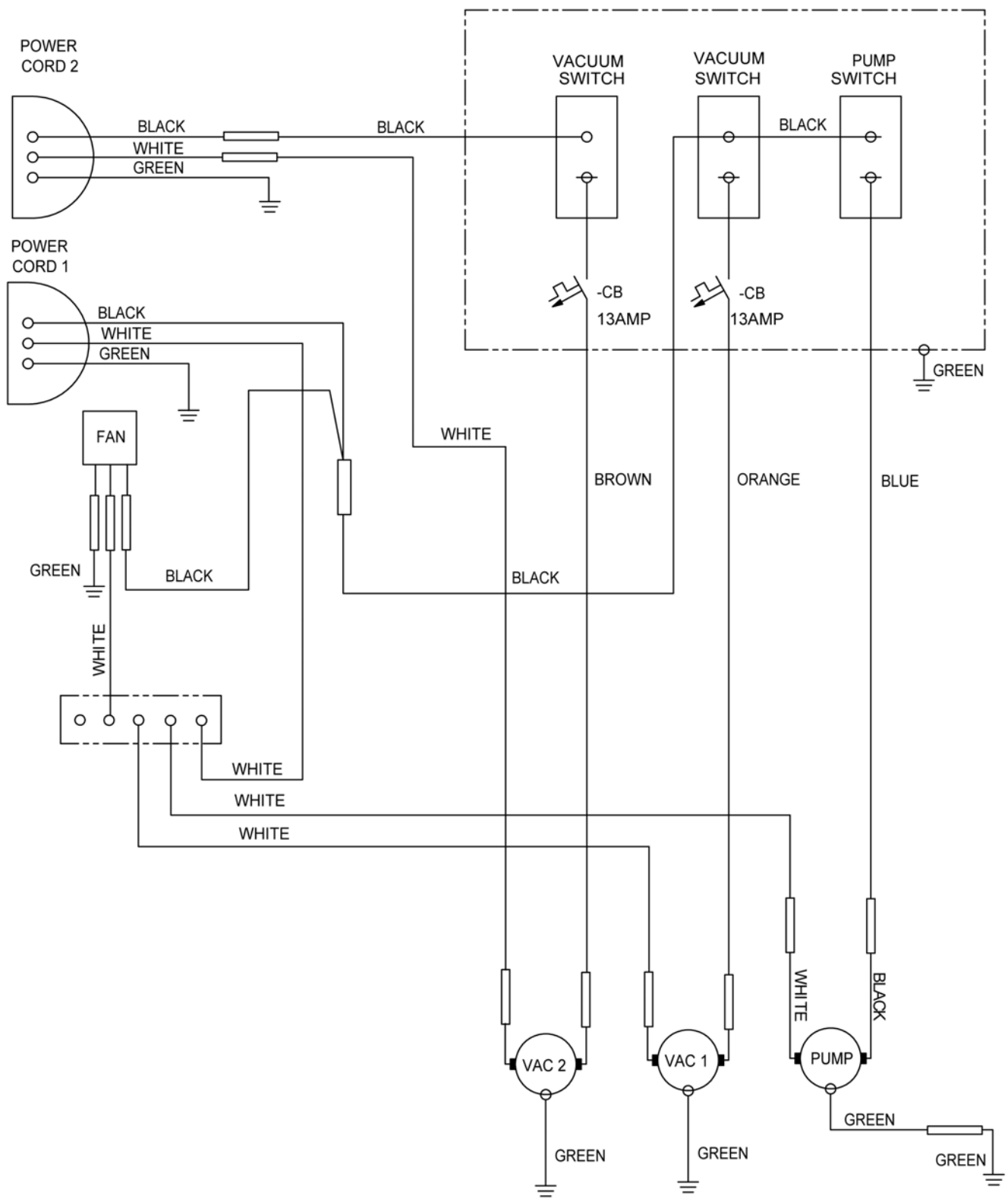


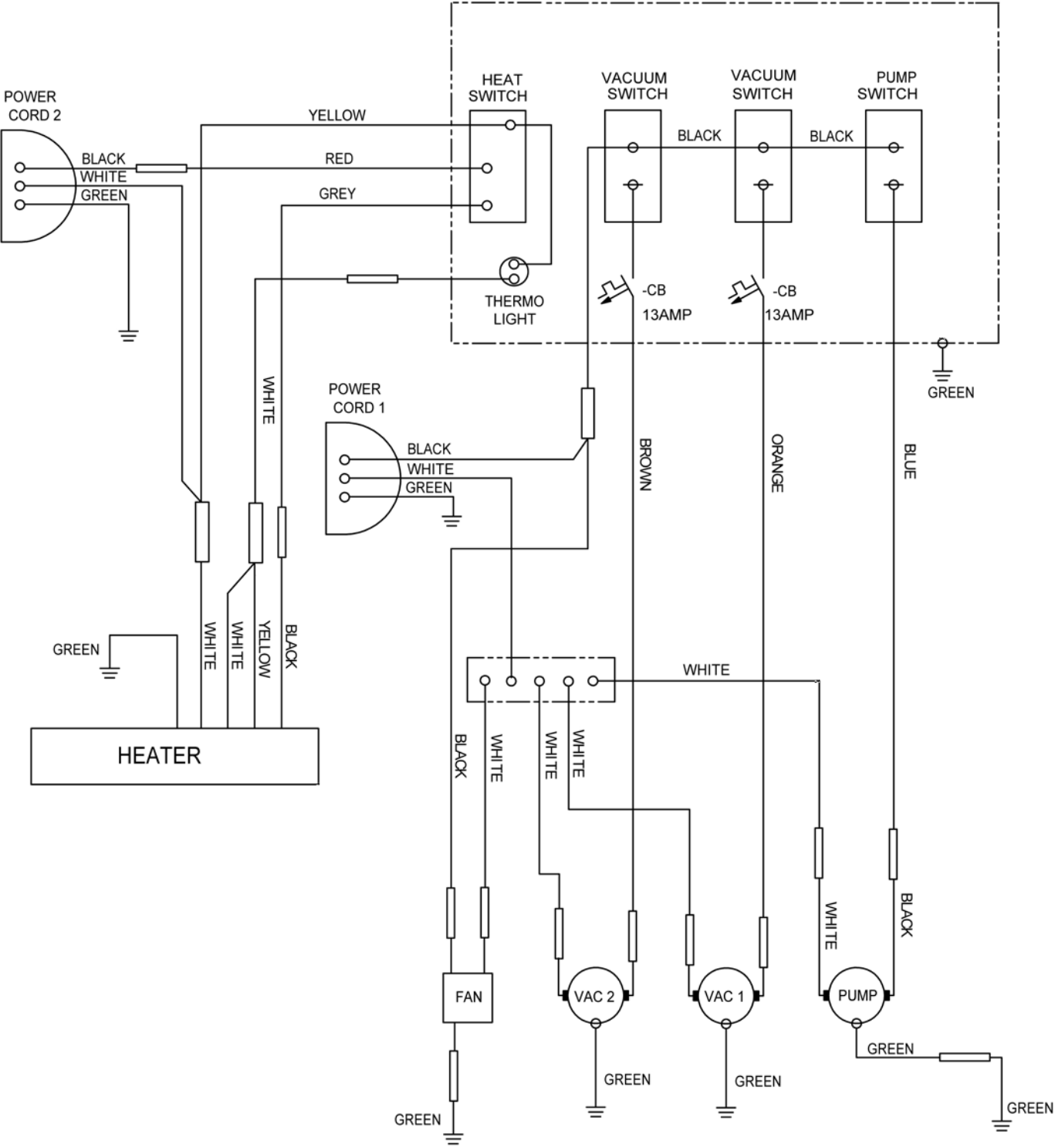
REF	PART NO.	DESCRIPTION	NOTES:
1	400-135	Locknut, 1/4 x 20 Nylon Zinc	
2	410-221	MS, 10-32 1-1/2 RH Soc	
3	425-015	Clamp, #28	
4	415-120	FW, 1/4 Zinc	
5	415-115	FW, #10 SS	
6	355-220	Manifold, Dual Vacuum	
7	475-072	Gasket, Vacuum Manifold	
8	405-065	6" Bolt	
9	410-136	SMS, 8 x 3/4	
10	570-020	Vac Hose 2"	
11A	355-300	Vac , 2-Stage	
11B	355-305	Vac , 3-Stage	
12A	355-310	Housing, Vac Motor, 2-Stage	
12B	355-315	Housing, Vac Motor, 3-Stage	

Wiring - 2 Stage Vacuum



Wiring - 3 Stage Vacuum





**WARRIOR 150 MODEL W/ OPTIONAL
CIRCUIT INDICATOR**

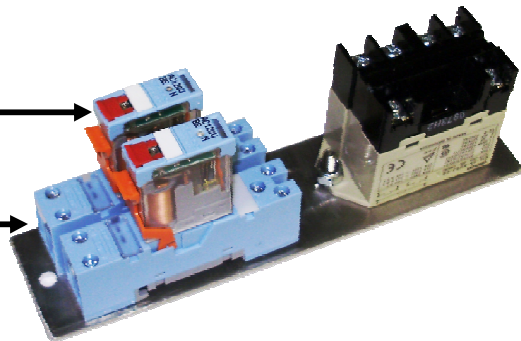


**CIRCUIT
INDICATOR**



RELAY 120V

SOCKET

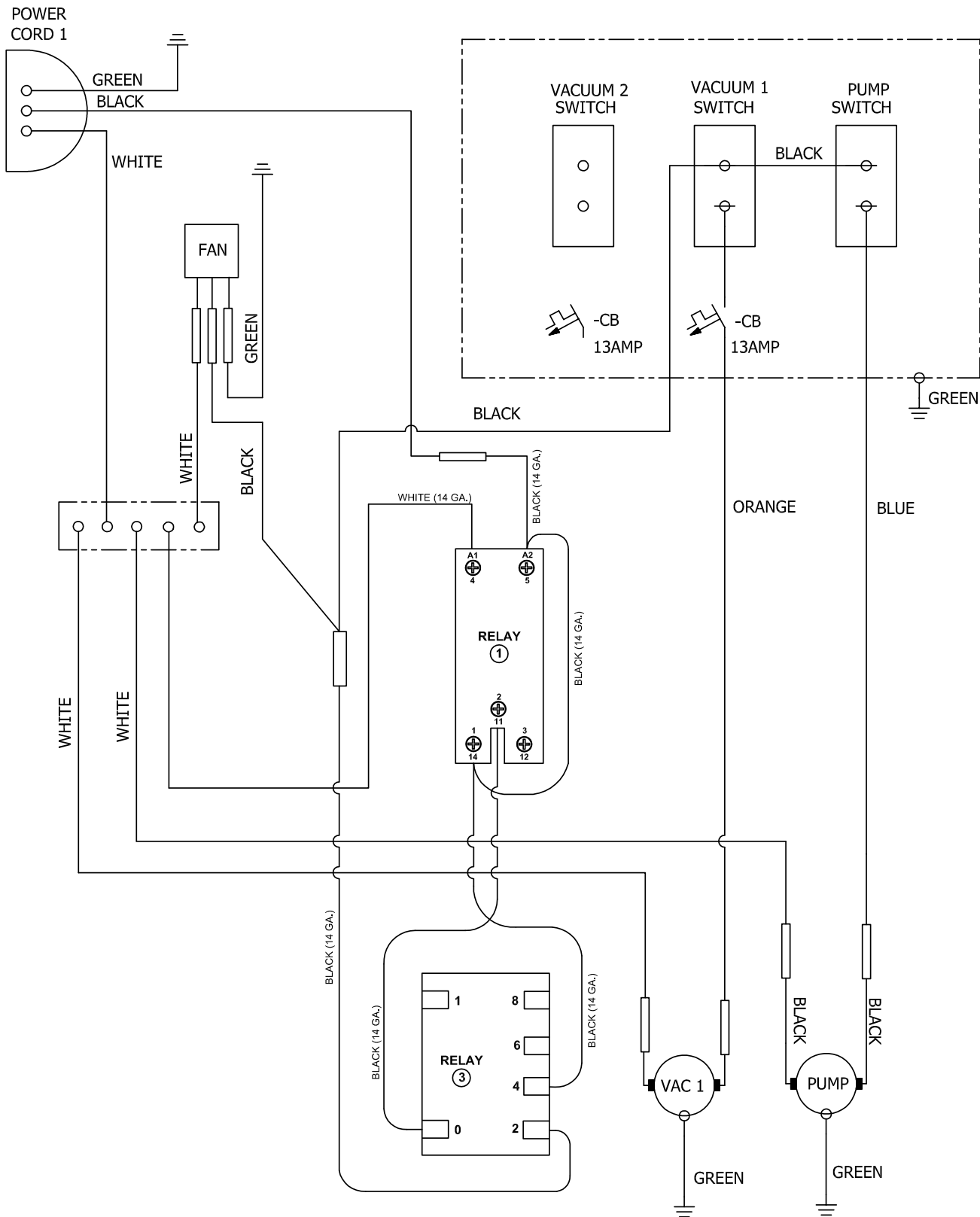


RELAY 240V

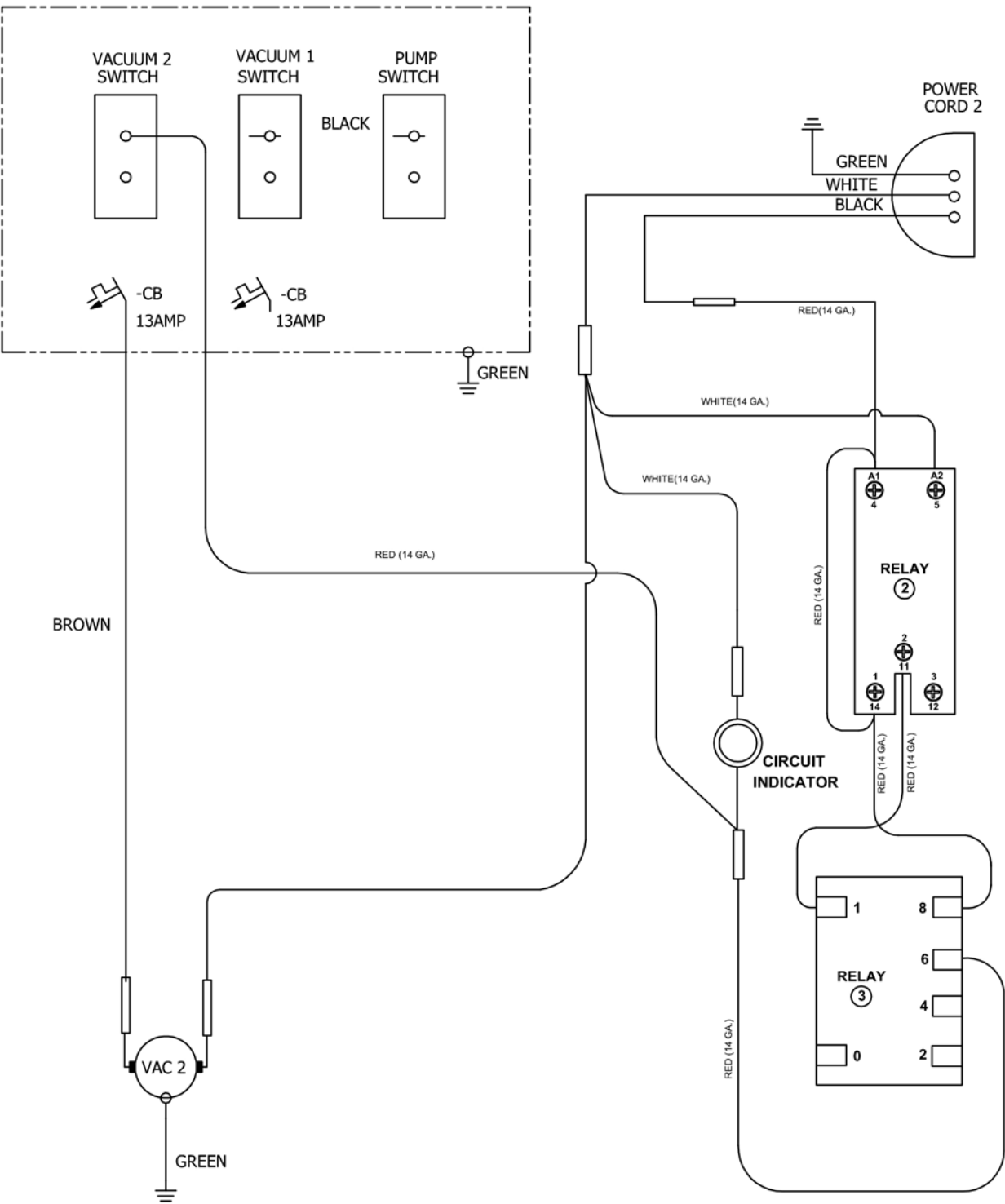
CIRCUIT INDICATOR PARTS LIST

REF	PART NO.	DESCRIPTION	NOTES:
1	845-036	Plate	
2	320-111	Lamp	
3	305-057	Relay 120V	
4	305-058	Socket	
5	305-059	Relay 240V	
6	703-108	Decal	
7	465-045	Relay Bracket	

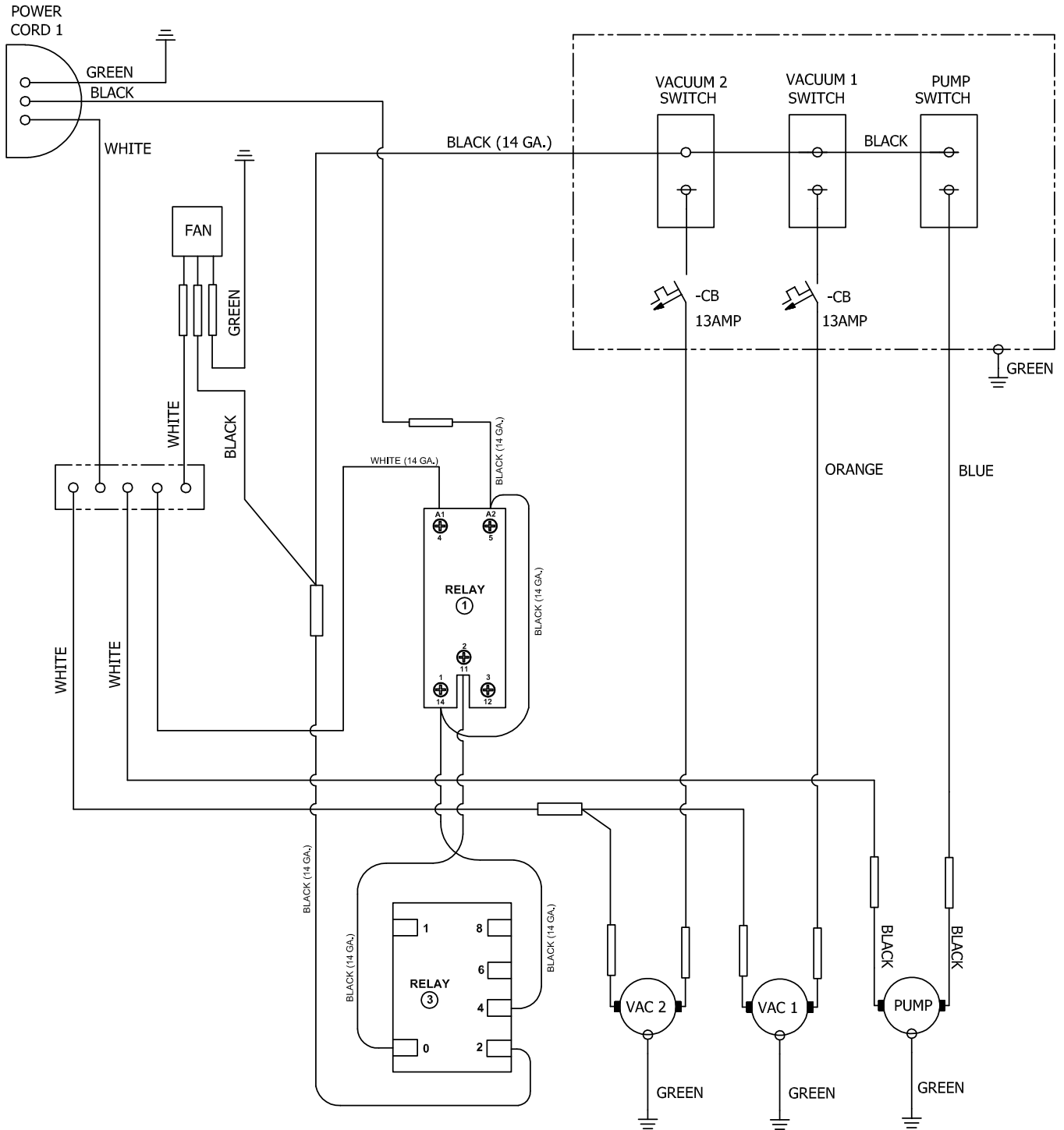
W15 2-3 STAGE VAC W/ OPTIONAL CIRCUIT INDICATOR WIRING PAGE 1



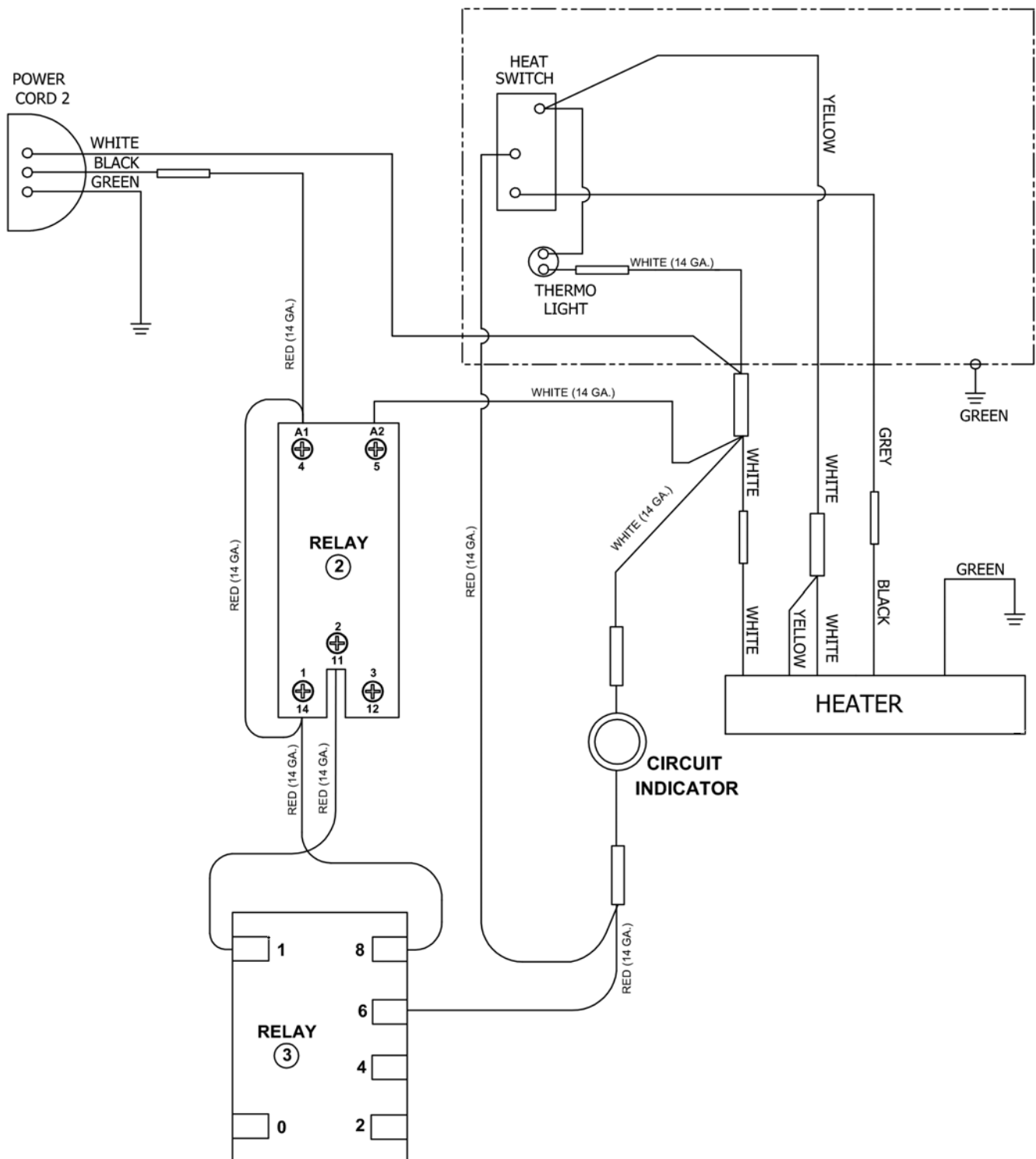
W15 2-3 STAGE VAC W/ OPTIONAL CIRCUIT INDICATOR WIRING PAGE 2



W15 HEATER MATE W/ OPTIONAL CIRCUIT INDICATOR WIRING PAGE 1



W15 HEATER MATE W/ OPTIONAL CIRCUIT INDICATOR WIRING PAGE 2





WARRANTY REGISTRATION / DELIVERY ACCEPTANCE

This form must be completed and returned to Esteam Cleaning Systems to activate your warranty.

Esteam would like to take this opportunity to point out a few operating and safety recommendations for your consideration.

* All units cords have a ground plug pin for your safety, never remove or operate any equipment if the ground pin on the plug has been removed.

* Defoamer is to be used in all machines. Improper use of chemicals will void warranty. Drycleaning solvents cannot be used in any Esteam extractors.

* Do not over fill recovery tanks as this will damage the vacuum motors. Vacuum motors showing any signs of moisture contamination will not be covered under warranty.

Model # _____ Serial # _____

Name: _____

Address: _____

City: _____ Province/State: _____

Postal Code/Zip: _____ Date of Purchase: _____
Month / Day / Year

Purchased From: _____

By signing this form I _____, accept the terms and conditions of the warranty.
(print)

I have been fully instructed in the safe operation and use of this equipment.

Signed: _____ Date: _____

Mail Warranty Registration / Delivery Acceptance to:

Esteam Manufacturing Ltd.
3750-19th Street NE
Calgary, Alberta, Canada
T2E 6V2

Or Fax to:
(403) 291 - 0546

ESTEAM® CLEANING SYSTEMS

Warrior Extractor Warranty

NOTICE: REVIEW THIS WARRANTY CAREFULLY AS THIS DOCUMENT CONTAINS LIMITATIONS AND EXCLUSIONS.

PART I:

Esteam Manufacturing Ltd. (hereinafter referred to as "Esteam") warrants each new Warrior Extractor, subject to the limitations as defined in the specific details of its warranty coverage defined below.

LIMITED LIFETIME HOUSING WARRANTY COVERAGE:

Esteam warrants the Warrior Polyethylene Machine Housing Unit to be free from defects in material and workmanship (including cracking, leaking or deterioration) for the life of the unit, expressly subject to the limitations stated herein.

In the event a defect occurs in a Warrior Housing Unit within ten years of receipt by the original customer, Esteam will, if satisfied on its examination that the failure is due to defective material or workmanship, repair or replace the Warrior Housing Unit, at no cost to the original customer, other than as maybe provided for in this warranty.

In the event a defect occurs in a Warrior Housing Unit subsequent to five years (and thereafter for ten years) of receipt by the original customer; Esteam will, if satisfied on its examination, that the failure is due to defective material or workmanship, provide to the original customer only, a new Housing Unit, at 50% of the then published retail pricing basis, for the remainder of the ten years, used by Esteam.

90 DAY LIMITED WARRANTY COVERAGE:

Esteam warrants all switches, vacuum hoses and solution hoses to be free from defects in material and workmanship, for any defect occurring within 90 days of receipt by the original customer of the Warrior Extractor; and further subject to the limitations stated below. 90 day on labor, subject to Esteam's approval; hourly labor credit is set by Esteam.

12 MONTH WARRANTY COVERAGE:

Subject to the Limited Lifetime Warranty and the 90 Day Limited Warranty; Esteam warrants all remaining items on the Warrior Extractor to be free from defect in material or workmanship (excluding any labor charges) for a period of 12 months from date of receipt of the unit by the original customer; and further subject to the limitations stated below.

PART II - REPLACEMENT PARTS (UNDER WARRANTY)

Replacement warranty parts will be genuine Esteam parts, or parts of similar kind and quality.

All replacement warranty parts are warranted to be free from defects in materials or workmanship from the date of the original unit purchase for the balance of the original warranty period namely: 90 days, 12 months, or the Lifetime, whichever is applicable; all in accordance with the terms of Part I, of this warranty.

PART III - LIMITATIONS ON WARRANTY COVERAGE

WHAT IS NOT COVERED:

Notwithstanding any other term or covenant of Esteam contained herein, the following provisions shall apply:

- (i) No warranty is provided for any Esteam product which has failed as a result of freezing, fire, misuse, alteration, improper amps or voltage, accidental damage, improper maintenance, unauthorized repairs, alterations, abuse, neglect or operation of a Esteam product not expressly recommended or contemplated by Esteam; and
- (ii) No warranty is provided for mechanical or electrical breakdown caused by scale, hard water buildup, improper use of chemicals or resins, damage due to environmental conditions, and acts of God, or other events beyond the control of Esteam; and
- (iii) No warranty is provided for mechanical or electrical breakdown or failure of an Esteam product resulting from ordinary wear and tear, or the consequences thereof; including but not limited to the gradual reduction of the operating performance of the product. The determination of what is or is not ordinary wear and tear is at the sole discretion of Esteam; and
- (iv) No warranty is provided for damage caused by the failure of non-warranted parts and/or accessories, even if warranted parts are damaged as a result of the failure of a non-warranted part; and
- (v) No warranty is provided for damage resulting from failure by the customer to maintain scheduled maintenance requirements. The Esteam system has many parts which must either be replaced or checked for wear on a regular basis; including but not limited to replacement filters and lubricants. This system requires regular maintenance, service and attention by the customer; and
- (vi) No warranty is provided as to any extra expenses incurred by the customer, including but not limited to economic, incidental, consequential loss or damage (e.g. all labour charges, rental equipment, down time, lodging, commercial or business loss of any nature or kind due to product failure); whether direct or

- indirect, exemplary or punitive damage or loss, and whether in contract, tort or otherwise; and
- (vii) No warranty is provided as to failure of any cosmetic item or finish, labeling, silk screening, decals, paint, trim or other similar decorative items.
 - (viii) Brass, rubber and synthetic rubber parts (e.g. "O" rings, diaphragms, gaskets, seals, grommets) are considered expendable in normal use, and are therefore not included in any warranty by Esteam.

PART IV - EXCLUSION OF LIABILITY

Esteam makes no warranties or representations, either expressed or implied, oral or written, in fact, or by operation of law, or otherwise, except as expressly stated herein as to the 90 day Limited, 12 month and Lifetime Extended warranties. Esteam, its officers, directors, agents, dealers and its affiliates (and their respective officers, directors, agents and dealers) shall not be liable to the customer nor to any party for any liability, including without limitation, strict liability, liability for loss, injury or damage due directly or indirectly to the use or operation of the Esteam product; consequential, exemplary and/or punitive damage or loss, whether in contract, tort, or otherwise.

PART V - RETURN GUIDELINES

Defective items must be replaced through a local Esteam Distributor. Replacement parts will be sent via prepaid regular ground service to the distributor. The defective part must be returned F.O.B. factory within 30 days including a letter providing the machine's serial number, date of purchase, material return authorization number, and customer name. If applicable, credit will be issued after the item has been evaluated by Esteam. Failure to comply with return policy will void the warranty on that item.

PART VI - CREDIT POLICY

All customers purchasing parts through an Esteam distributor must arrange credit directly with that distributor.

PART VII - OUTSIDE SOURCE WARRANTY REPAIRS

At the sole discretion of Esteam, it may be necessary to perform warranty/repairs at an outside source. An estimate must be submitted to and approved by Esteam prior to work being performed. Failure to do so will result in denial of your warranty claim.

PART VIII - TRANSFERABILITY

This warranty is not transferable to any subsequent owner.

PART IX - NOTICE - CUSTOMER OBLIGATIONS

- (i) Your responsibility as a customer includes but is not limited to cleaning, lubricating, seasonal maintenance (e.g. winterizing), replacement of worn parts and all regular scheduled or unscheduled maintenance.
- (ii) Any claim for warranty must be presented to Esteam or its authorized dealer, prior to the expiration of the time limitations specified and not thereafter, otherwise any warranty is void.
- (iii) Notwithstanding the generality of the foregoing customer obligations, Esteam does hereby bring to the attention of the customer, these specific maintenance operating requirements of the Warrior Extractor to validate its warranty:

(a) **Chemical Warning:**

Any improper use of chemicals shall void any Esteam warranty and thusly exclude any liability by Esteam. No dry cleaning chemical may be used in a Warrior Extractor; - as any such use may result in fire or pump/motor damage. A defoamer solution must be used by customer to limit foaming in the recovery tank.

(b) **Vacuum Motors:**

Require use of a defoamer. A vacuum motor showing moisture contamination on interior components shall void any warranty by Esteam.

(c) **Pumps:**

All pumps require daily flushing with clean water after use.

The foregoing constitutes Esteam's entire warranty and no other warranty, liability, contingency or responsibility, direct, indirect, consequential or in any other way connected with the sale or operation of Esteam machines or chemical product is expressed or implied.

**Warrior Extractor Warranty
Esteam Manufacturing Ltd. 3750-19th Street NE
Calgary, AB T2E 6V2 1-800-653-8338**