

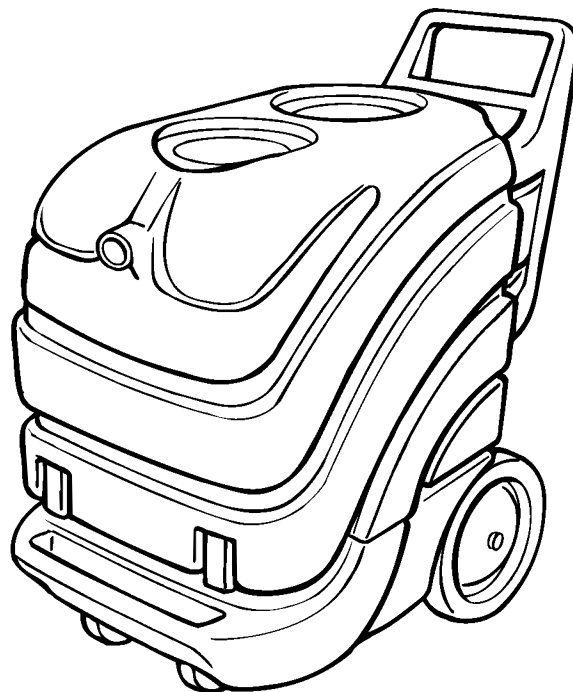


Trooper™ 1500H

Carpet Extractor with Heat

Model No.:
608570
608571 - Pac

Operator and Parts Manual



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608569
Rev. 01 (03-04)

This manual is furnished with each new model. It provides necessary operation and maintenance instructions and an illustrated parts list.

Read this manual completely and understand the machine before operating or servicing it.

Use the illustrated Parts Lists to order parts. Before ordering parts or supplies, be sure to have your machine model number and serial number handy. Parts and supplies may be ordered by phone or mail from any authorized parts and service center, distributor or from any of the manufacturer's subsidiaries.

This machine will provide excellent service. However, the best results will be obtained at minimum costs if:

- The machine is operated with reasonable care.
- The machine is maintained regularly - per the machine care instructions provided.
- The machine is maintained with manufacturer supplied or equivalent parts.

MACHINE DATA

Please fill out at time of installation for future reference.

Model No.- _____

Install. Date - _____

Serial No.- _____

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Trooper is a United States trademark of Tennant Company.

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SAFETY PRECAUTIONS

This machine is intended for commercial use. It is designed to clean carpet and upholstery in an indoor environment and is not constructed for any other use. Use only recommended accessory tools and commercially available carpet cleaners intended for machine application.

All operators must read, understand and practice the following safety precautions.

The following warning alert symbol and the "FOR SAFETY" heading are used throughout this manual as indicated in their description:

 **WARNING:** To warn of hazards or unsafe practices which could result in severe personal injury or death.

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

Failure to follow these warnings may result in: personal injury, electrocution, electrical shock, fire or explosion.

 **WARNING:** Do Not Use Flammable Liquids Or Operate Machine In Or Near Flammable Liquids, Vapors Or Combustible Dusts.

This machine is not equipped with explosion proof motors. The electric motors will spark upon start up and during operation which could cause a flash fire or explosion if machine is used in an area where flammable vapors/liquids or combustible dusts are present.

 **WARNING:** Do Not Pick Up Flammable Materials Or Reactive Metals.

 **WARNING:** Do Not Operate With Damaged Power Cord. Do Not Modify Plug. Unplug power Cord Before Servicing Machine.

If the supply cord is damaged or broken, it must be replaced by the manufacturer or it's service agent or a similarly qualified person in order to avoid a hazard.

 **WARNING:** Do Not Use Outdoors. Do Not Expose To Rain. Store Indoors.

The following information signals potentially dangerous conditions to the operator or equipment:

FOR SAFETY:

1. Do not operate machine:
 - With flammable liquids or near flammable vapors as an explosion or flash fire may occur.
 - Unless trained and authorized.
 - Unless operator manual is read and understood.
 - Unless cord is properly grounded.
 - With damaged cord or plug.
 - If not in proper operating condition.
 - In outdoor areas.
 - In standing water.
 - With the use of additional extension cords. Only use manufacturer's extension cord equipped with machine which has proper capacity and is grounded.
2. Before operating machine:
 - Make sure all safety devices are in place and operate properly.
 - Place wet floor signs as needed.
3. When using machine:
 - Do not run machine over cord.
 - Do not pull machine by plug or cord.
 - Do not pull cord around sharp edges or corners.
 - Do not unplug by pulling on cord.
 - Do not stretch cord.
 - Do not handle plug with wet hands.
 - Keep cord away from heated surfaces.
 - Report machine damage or faulty operation immediately.
 - Follow mixing and handling instructions on chemical containers
 - Never allow children to play on or around.
4. Before leaving or servicing machine:
 - Turn off machine.
 - Unplug cord from wall outlet.
5. When servicing machine:
 - Unplug cord from wall outlet.
 - Avoid moving parts. Do not wear loose jackets, shirts, or sleeves.
 - Use manufacturer supplied or approved replacement parts.
 - All repairs must be performed by a qualified service person.
 - Do not modify the machine from its original design.

6. When transporting machine:

- Get assistance when lifting machine.
- Unplug cord from wall outlet.
- Use tie-down straps to secure machine to truck or trailer.

GROUNDING INSTRUCTIONS

Machine must be grounded. If it should malfunction or breakdown, grounding provides a path of least resistance for electrical current to reduce the risk of 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.

SAFETY LABEL

The safety label appears on the machine in the location indicated. Replace label if it becomes damaged or illegible.



WARNING LABEL -

Located on back side of machine.

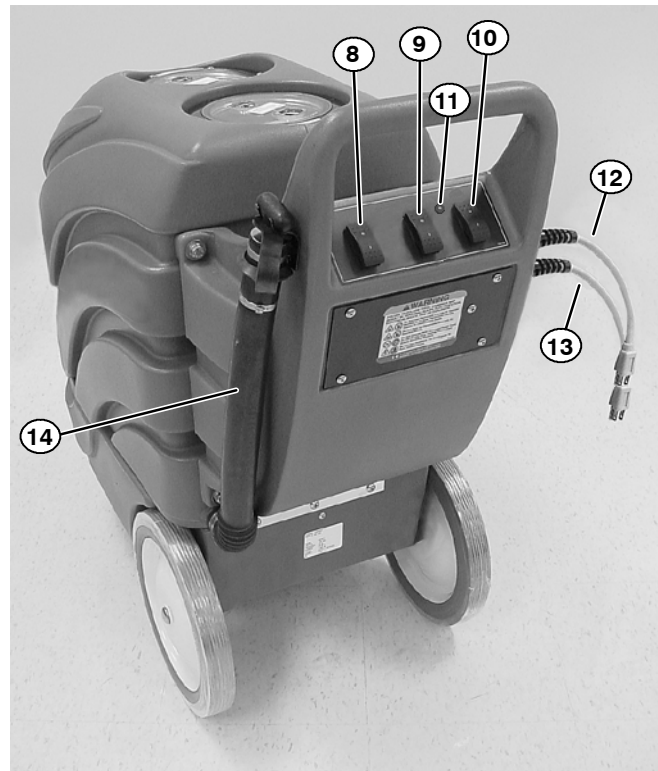


OPERATION

MACHINE COMPONENTS



- 1. Recovery Tank
- 2. Solution Tank
- 3. Accessory Tool Vacuum Hose Hookup
- 4. Latches
- 5. Accessory Tool Solution Hose Hookup
- 6. Casters
- 7. 305mm (12 in.) Stair Climbing Wheels



- 8. Vacuum ON/OFF Switch
- 9. Pump ON/OFF Switch
- 10. Heater ON/OFF Switch
- 11. Separate Circuit Indicator Light
- 12. Power Cord - Main
- 13. Power Cord - Heater
- 14. Recovery Tank Drain Hose

MACHINE SETUP

1. Carefully check carton for signs of damage. Report damages at once to carrier. The machine is shipped fully assembled and is ready for use.
2. Unscrew and remove solution tank lid. Using a hose or bucket, fill tank with 57L (15 gal) of hot water, 60°C (140°F) maximum (Figure 1).

ATTENTION: Use different buckets to fill and drain machine to prevent solution system clogs.



FIG. 1

⚠ WARNING: Do Not Use Flammable Liquids Or Operate Machine In Or Near Flammable Liquids, Vapors Or Combustible Dusts.

3. Add a recommended cleaning solution to the proper dilution ratio.

FOR SAFETY: When using machine, follow mixing and handling instructions on chemical containers.

ATTENTION: If using powdered cleaning chemicals, mix chemical with water prior to adding to the tank.

NOTE: If desired, water alone achieves excellent cleaning results.

4. Replace solution tank lid after filling.
5. Connect two 7.6 m (25 ft.) extension power cords into machine.
6. Plug each extension cord into separate grounded circuits. Circuit indicator lamp (green) will light when cords are on separate circuits (Figure 2).

ATTENTION: When plugging extension cords into receptacles be certain to use separate circuits. This will prevent a circuit overload. Do not activate heater if green indicator does not light.

FOR SAFETY: Do not operate machine unless cords are properly grounded.

FOR SAFETY: Do not operate machine with the use of additional extension cords. Only use manufacturer's extension cord equipped with machine which has proper capacity and is grounded.



FIG. 2

7. Attach vacuum and solution hoses to front of machine, then to floor or hand tool (Figure 3).



FIG. 3

OPERATION

OPERATING FLOOR TOOL

FOR SAFETY: Do not operate machine unless operator manual is read and understood.

NOTE: Vacuum carpet before cleaning.

1. Activate vacuum, pump and heater switches.

NOTE: Be certain that circuit indicator light is on to verify that two separate circuits are being used.

2. Place floor tool so bottom of glide plate or stainless steel shoes are parallel to floor. Squeeze trigger and apply downward pressure on floor tool head and slowly pull tool backwards using both hands. Release trigger 150 mm (6 in.) from end of stroke (Figure 4).

⚠ WARNING: Do Not Pick Up Flammable Materials Or Reactive Metals.



FIG. 4

3. Push floor tool forward over same path with trigger released when returning for next stroke. Continue this pull and push method with a slight overlap of each stroke.

NOTE: For heavily soiled areas, repeat stroke or change angle of stroke.

4. Check for excessive foam buildup in recovery tank. Use a recommended foam control solution to prevent vacuum motor damage.

ATTENTION: Excessive foam buildup will not activate the float shut-off screen. Vacuum motor damage may result.

5. When finished cleaning, turn off switches and drain recovery tank (See DRAINING RECOVERY TANK).
6. After cleaning, relieve water pressure from accessory tool before disconnecting hose. Squeeze trigger for five seconds after turning off the machine.

OPERATING HAND TOOL

Optional accessory tool is required.

FOR SAFETY: Do not operate machine unless operator manual is read and understood.

NOTE: This machine cleans most synthetic upholstery very well. Fabrics like Herculon and synthetic velvets will clean with excellent results. Extraction is not recommended for most cottons, silks, wools or natural fiber velvets. Check cleaning instructions sewn in furniture by manufacturer for further instructions. Extra caution should be taken with furniture that has been re-upholstered. Any material under new upholstery may bleed and discolor new fabric.

NOTE: Vacuum upholstery before cleaning.

1. **TEST FABRIC FOR COLORFASTNESS:** Pour a small amount of cleaning solution on a white cloth. Hold damp portion of cloth against an area of upholstery which is hidden from view. Hold it there for 60 seconds. If no color transfers to cloth, it should be safe to clean. However, always use your best judgement.

ATTENTION: Be certain the circuit indicator light is on to verify that two separate circuits are being used.

2. Activate vacuum, pump and heater switches.
3. Place hand tool on fabric and squeeze trigger while applying pressure on fabric and slowly pull tool backwards. Be careful not to over wet upholstery. Repeat stroke without spray to get fabric as dry as possible. Overlap cleaning strokes to avoid streaking (Figure 5).



FIG. 5

⚠ WARNING: Do Not Pick Up Flammable Materials Or Reactive Metals.

ATTENTION: Do not allow water or foam to enter float shut-off screen in recovery tank.

4. When finished cleaning, turn off switches and drain recovery tank (See DRAINING RECOVERY TANK).
5. After cleaning, relieve water pressure from accessory tool before disconnecting hose. Squeeze trigger for five seconds after turning off the machine.

DRAINING TANKS

FOR SAFETY: Before leaving or servicing machine, unplug power cords from wall outlets.

ATTENTION: Use different buckets to fill and drain machine to prevent solution system clogs.

DRAINING RECOVERY TANK

NOTE: When solution tank becomes empty, recovery tank must be drained.

1. Turn switches off and unplug power cords.
2. Remove drain hose from holder, position hose over floor drain and twist off knob to drain (Figure 6).



FIG. 6

3. Replace knob tightly before cleaning again.
4. After final draining, remove recovery tank lid and rinse both tank and float shut-off screen thoroughly to prevent odor buildup (Figure 9).

DRAINING SOLUTION TANK

1. To drain remaining solution from solution tank, disconnect solution hose and attach bleeder hose (bleeder hose supplied with machine) (Figure 7).

ATTENTION: Relieve water pressure from accessory tool before disconnecting hose. Squeeze trigger for five seconds after turning off the main power switch.

2. Activate pump switch. Pump solution into an empty bucket (Figure 7).



FIG. 7

3. Rinse solution tank with clean water to prevent odor buildup. Run vacuum motor for 30 seconds to discharge any moisture. Store extractor with covers off to promote air circulation.

MACHINE MAINTENANCE

To keep machine in good working condition, simply follow machine's daily, weekly and monthly maintenance procedures.

FOR SAFETY: When servicing machine, unplug cords from wall outlets.

For ease of servicing, machine tank is hinged to pivot away from chassis to allow access to inner components. Make sure tanks are empty before opening. To open machine for servicing, follow these steps:

- a. Unplug machine.
- b. Unlatch front two latches.
- c. Lift tank upward, away from chassis (Figure 8).



FIG. 8

OPERATION

DAILY MAINTENANCE (Every 4 Hours of Use)

1. Clean machine with a non-abrasive, nonsolvent cleaner.
2. Drain and rinse tanks thoroughly.
3. Remove any lint buildup from float shut-off screen (Figure 9).



FIG. 9

4. Remove and rinse solution tank screen (Figure 10).



FIG. 10

5. Inspect power cords for damage. Replace if damaged. Coil cords neatly after each use.
6. Remove any lodged debris from floor tool.
7. Check spray pattern for clogged spray tips.

WEEKLY MAINTENANCE (Every 20 Hours of Use)

1. Check floor tool for loose shoes. If loose, tap back in place with rubber mallet.
2. Inspect vacuum hose for holes and loose cuffs.

MONTHLY MAINTENANCE (Every 80 Hours of Use)

1. Inspect cord grips for damage. Replace if damaged. Neatly coil cords after each use.
2. Inspect tank for cracks.
3. Lubricate casters with a water resistant grease.
4. Remove spray tips from floor and hand tools and soak in an acetic acid solution.

NOTE: Do not use pins, paper clips, etc., to unplug spray tips. This will damage spray tips.

5. Flush pump system. Use acetic acid solution to dissolve normal alkaline chemical buildup. Follow these steps:

FOR SAFETY: When using machine, follow mixing and handling instructions on chemical containers.

- a. Premix .5L (16 oz.) of an acetic acid solution with 7.5L (2 gal) of hot water 60°C (140°F) and pour into solution tank.
- b. Place a bucket under spray tips to catch spray.
- c. Turn on pump switch.
- d. Squeeze trigger on tool for 30 seconds.
- e. Allow solution to remain in system for up to 6 hours in above freezing temperatures.
- f. Later, spray out acetic acid solution into a drain. Then run 11.4L (3 gal) of clean water through system to flush out impurities.

QUARTERLY MAINTENANCE (Every 250 Hours of Use)

Inspect motors for carbon brush wear. Replace brushes when worn to a length of 10mm (0.38 in.) or less. Contact an Authorized Service Center for carbon brush inspection.

ATTENTION: Contact an Authorized Service Center for machine repairs. Machine repairs performed by other than an authorized person will void the warranty.

STORING MACHINE


1. Before storing machine, be certain to flush out tanks and drain machine of all water.
2. Store machine in a dry area in the upright position.
3. Remove clear lids to promote air circulation.

⚠ WARNING: Do Not Use Outdoors. Do Not Expose To Rain. Store Indoors.

ATTENTION: If storing machine in freezing temperatures, be sure that machine and solution system are completely drained and dry.

RECOMMENDED STOCK ITEMS

Refer to Parts List section for recommended stock items. Stock Items are clearly identified with a bullet preceding the parts description. See example below:



Ref.	Part No.	Description	Qty.
1	701103	ASM., STANDPIPE	1
2	180618	• FLOAT, SHUTOFF	1
3	230187	NIPPLE	1
4	101714	• GASKET	1
5	210240	NUT, FLANGED	1

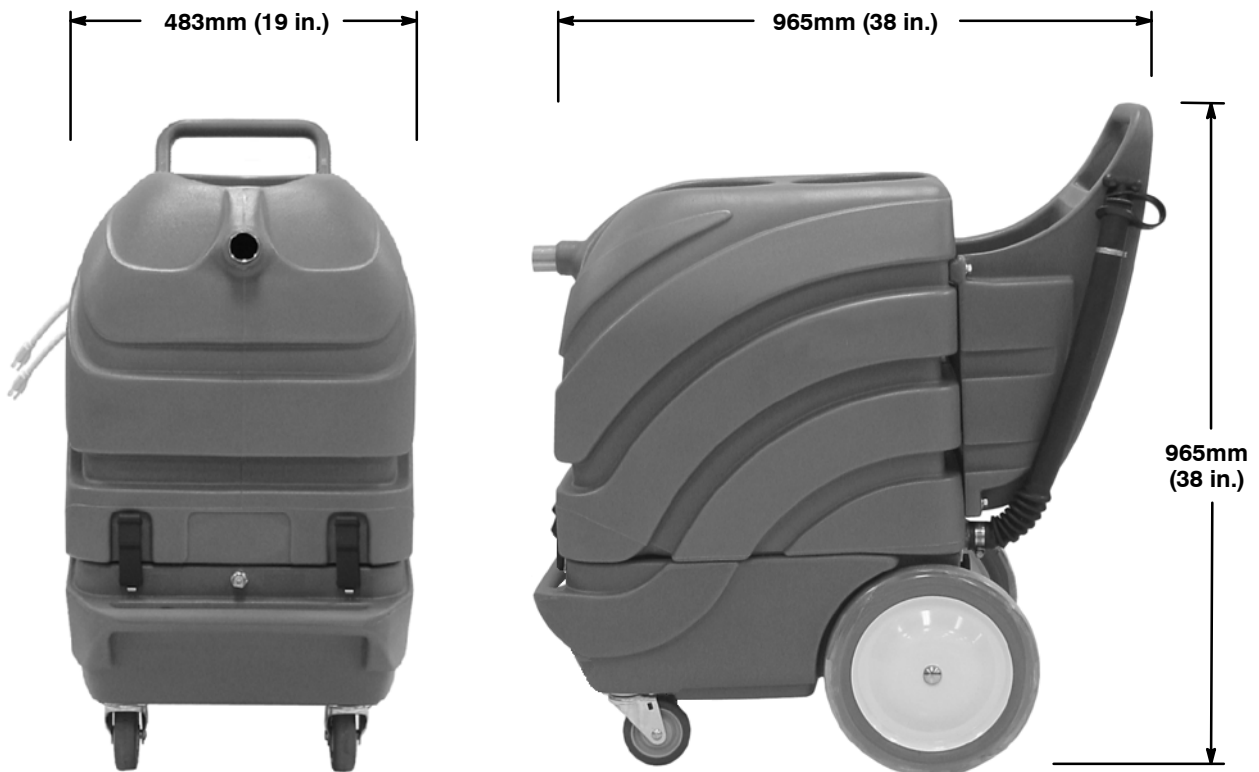
TROUBLE SHOOTING

PROBLEM	CAUSE	SOLUTION
Uneven or no spray from tips.	Dirty or plugged spray tips.	Clean or replace tips.
	Improper spray tip size or spray angle.	Replace with proper tips. Also check alignment of spray tips so all tips spray in a straight line.
	Worn spray tips.	Replace spray tips.
	Pump switch off.	Turn the pump switch on.
	Solution hose not connected.	Make sure solution hose is connected.
Leaking floor tool.	Quick coupler on floor tool faulty.	Replace quick coupler.
	Flow control valve leaking.	Contact Service Center.
	Hose split or fittings loose.	Replace hose and tighten fittings.
	Solution hose connection not fully engaged.	Reconnect quick coupler.
Solution pump will not operate.	Fuse blown or circuit breaker tripped in building.	Replace fuse or reset breaker in building.
	Faulty pump switch.	Contact Service Center.
	Loose wiring to solution pump.	Contact Service Center.
	Faulty solution pump.	Contact Service Center.
	Thermal overload activated - motor is too hot and will automatically shut down until cool.	Let motor cool and check what caused overheat.
Poor or no vacuum suction.	Fuse blown or circuit breaker tripped in building.	Replace fuse or reset breaker in building.
	Faulty vacuum switch.	Contact Service Center.
	Drain hose plug open or loose.	Plug drain hose and tighten knob.
	Lint is clogging float shut-off screen.	Remove recovery cover and clean lint off screen.
	Air is leaking around clear cover lids.	Tighten tank lids.
	Vacuum hose is loose.	Push hose firmly onto recovery tool and onto front of extractor.
	Holes in vacuum hose or hose cuffs loose on the hose.	Replace hose or thread cuffs securely onto hose.
	Faulty vacuum motor.	Contact Service Center.
	Faulty vacuum gasket.	Replace gasket.
Water not heating.	Float shut-off screen activated.	Turn off vacuum, empty tank.
	Thermostat failed.	Contact Service Center.
	Loose wires to heater.	Contact Service Center.
	Limit Thermostat breaker tripped.	Reset Limit Thermostat.
	Limit Thermostat breaker has failed.	Contact Service Center.

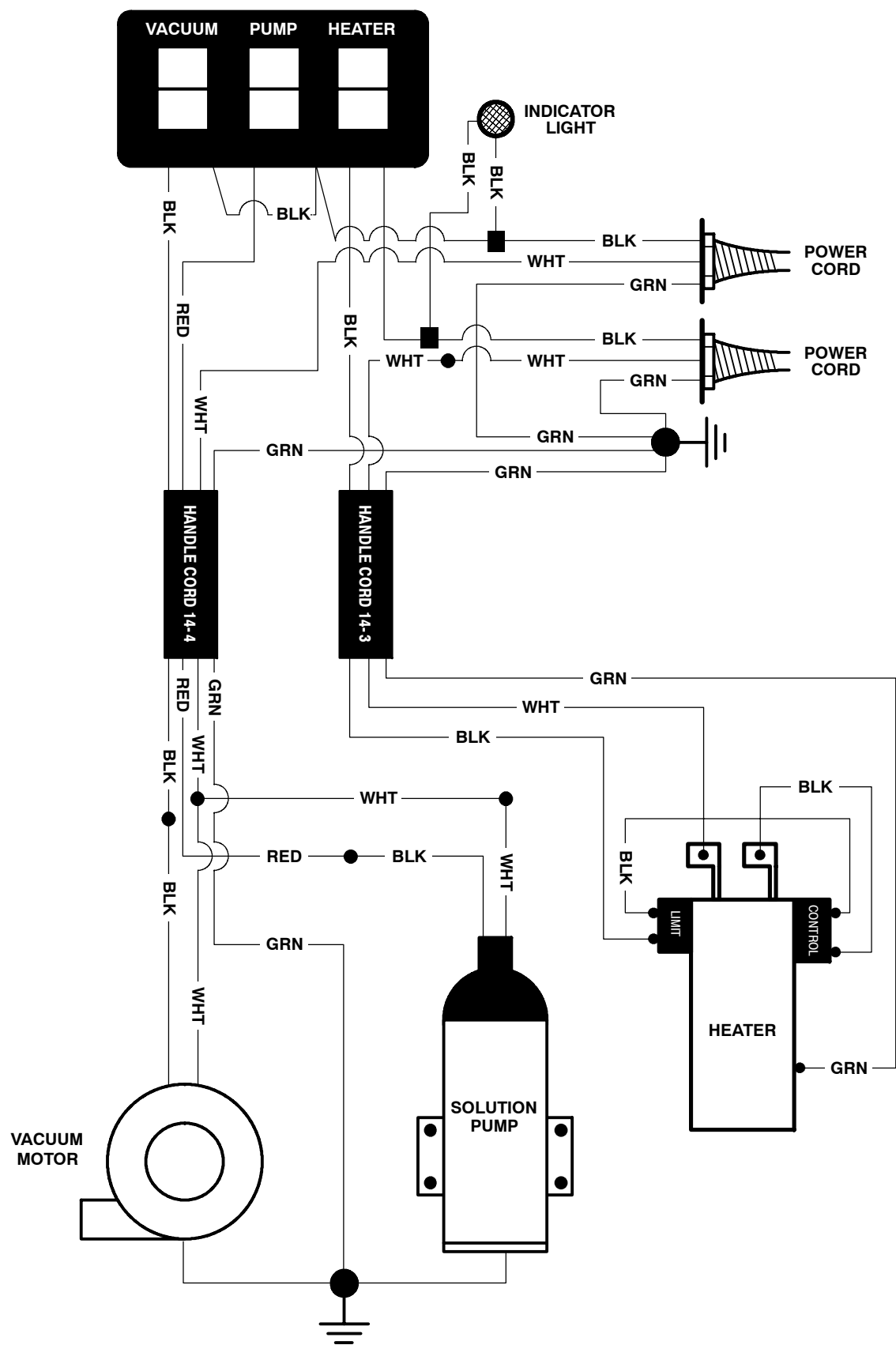
SPECIFICATIONS

MODEL	Trooper™ 1500H
LENGTH	965mm (38 in.)
WIDTH	483mm (19 in.)
HEIGHT	965mm (38 in.)
WEIGHT	61.2 kg (135 lb)
SOLUTION TANK CAPACITY	56.7L (15 gal)
RECOVERY TANK CAPACITY	71.9L (19 gal)
SOLUTION PUMP	1 A, 120V, 6.81L per min. (1.8 gpm) 6.9 bar (100 psi) max.
VACUUM MOTOR	13 A, 1.66 hp. 120V, 1560 watts
HEATER	14A, 120V, 1700 watts, 77°C (170°F) max. temp.
SEALED WATER LIFT	347.9 cm (137 in.)
DECIBEL RATING AT OPERATOR'S EAR, INDOORS ON CARPET	82dB(A)

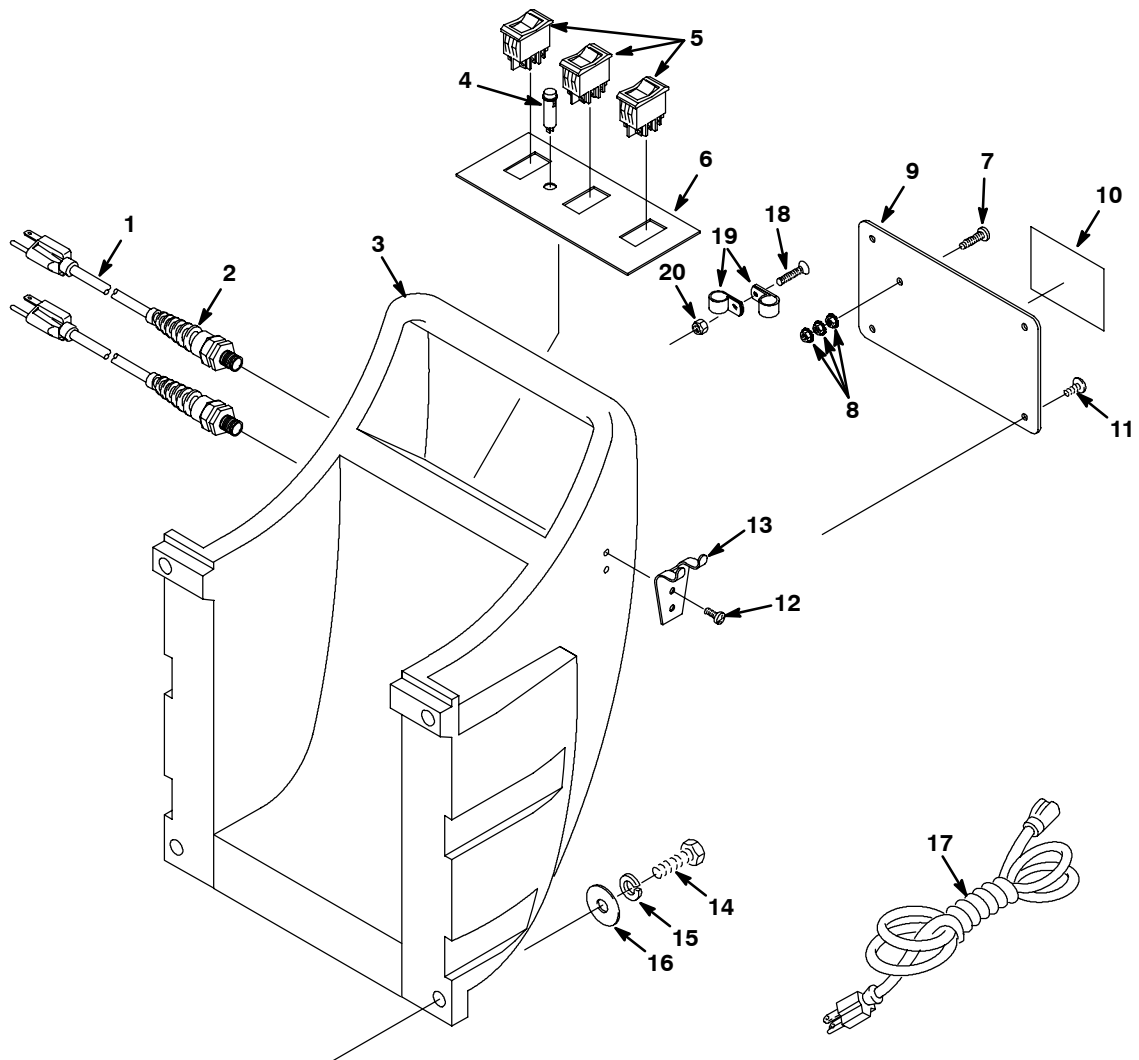
MACHINE DIMENSIONS



120V Wiring



HANDLE GROUP



REF	PART #	DESCRIPTION	QTY.
1	130227	●CORD, 14/3 X 20" YELLOW (120V)	2
2	130166	●CORD GRIP, NYLON/BLK W/NUT	2
3	611939	HANDLE, GREEN	1
4	130691	●LIGHT, INDICATOR - GREEN	1
5	608605	●SWITCH, ROCKER 250VAC, 10A	3
6	120189	DECAL, DASH	1
7	140900	SCREW, TRS 10-24X0.75 PHL	1
8	140519	NUT, #10-24 KEP	3
▽ 9	614121	ASSEMBLY, PLATE W/ LABEL	1
▲ 10	613284	LABEL, WARNING EXTRACTORS	1

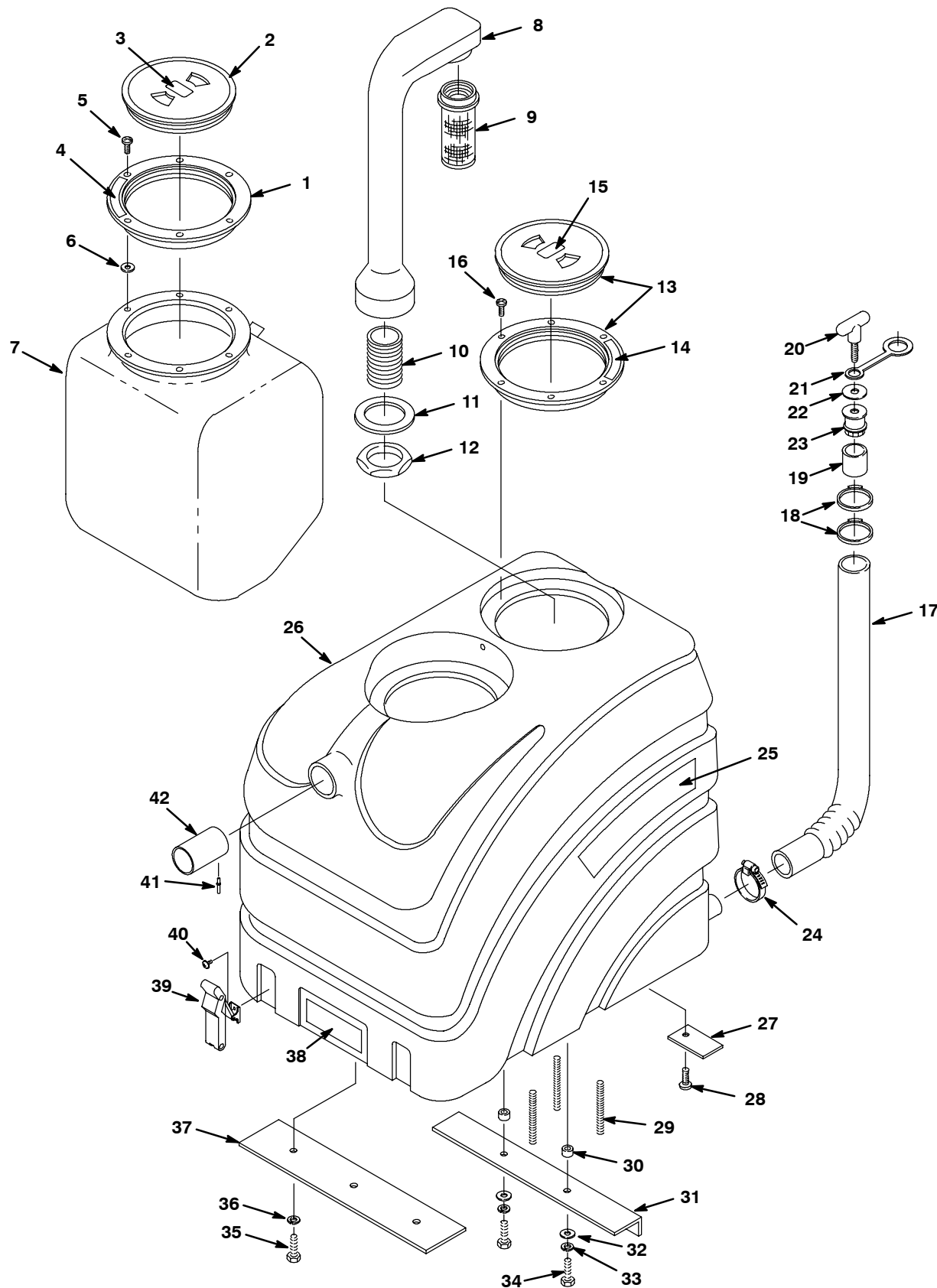
▽ ASSEMBLY

▲ INCLUDED IN ASSEMBLY

● RECOMMENDED STOCK ITEMS

REF	PART #	DESCRIPTION	QTY.
11	140197	SCREW, #10-24X0.38 TRSPHL, SEM	4
12	140825	SCREW, #6X1/2 PANPHL	2
13	611978	BRACKET, DRAIN HOSE HANGER	1
14	140231	SCREW, .38-16X1.50 HXHDGP	4
15	140017	WASHER, 3/8 LOCK	4
16	140028	WASHER, 0.42B 1.00D FLAT	4
17	130694	●CORD, EXT 14/3X25' YELLOW	2
18	15858.12	SCREW, #10-24X3/4 FLTPHL	1
19	140328	CLAMP, CABLE 3/8	2
20	140552	NUT, #10-24 NYLOCK	1

UPPER HOUSING GROUP



UPPER HOUSING GROUP

REF	PART #	DESCRIPTION	QTY.
▽	100103	COVER, ASSY. CLEAR LID W/ COUNTERSUNK HOLES	1
▲ 1	100109	LID, OUTER RING	1
▲ 2	100105	●LID, CENTER ONLY CLEAR	1
3	120190	DECAL, USE BLEEDER HOSE	1
4	120907	LABEL, IMPORTANT-ALWAYS...	1
5	140900	SCREW, TRS 10-24X0.75 PHL	6
6	140000	WASHER, 0.28B FLAT	6
7	602783	BLADDER	1
8	602448	STANDPIPE W/NIPPLE	1
9	180613	●FLOAT, SHUT-OFF (1) BALL	1
10	606088	FITTING, 1-1/2 NIPPLE	1
11	101714	GASKET, WASTE AIR CHAMBER	1
12	210240	NUT, FLANGED 1-1/2 FPT	1
13	100102	●CLEAR LID W/STANDARD HOLE	1
14	120907	LABEL, IMPORTANT-ALWAYS...	1
15	120906	LABEL, IMPORTANT-DRAIN...	1
16	140825	SCREW, #6X1/2 PANPHL	6
▽	190965	KIT, DRAIN HOSE COMPLETE	1
▲ 17	160627	HOSE, DRAIN	1
▲ 18	140072	CLAMP, HOSE, 1.56D STEPLESS	2
▲ 19	140921	SLEEVE, HOSE, DRAIN	1
▲▽	701061	●PLUG, ASSY, HOSE, DRAIN	1
▲▲20	230831	KNOB, DRAIN HOSE	1
▲▲21	230882	STRAP, DRAIN STOPPER	1
▲▲22	140056	WASHER, 3/8 FENDER	1
▲▲23	140955	FITTING, PLUG, DRAIN HOSE	1

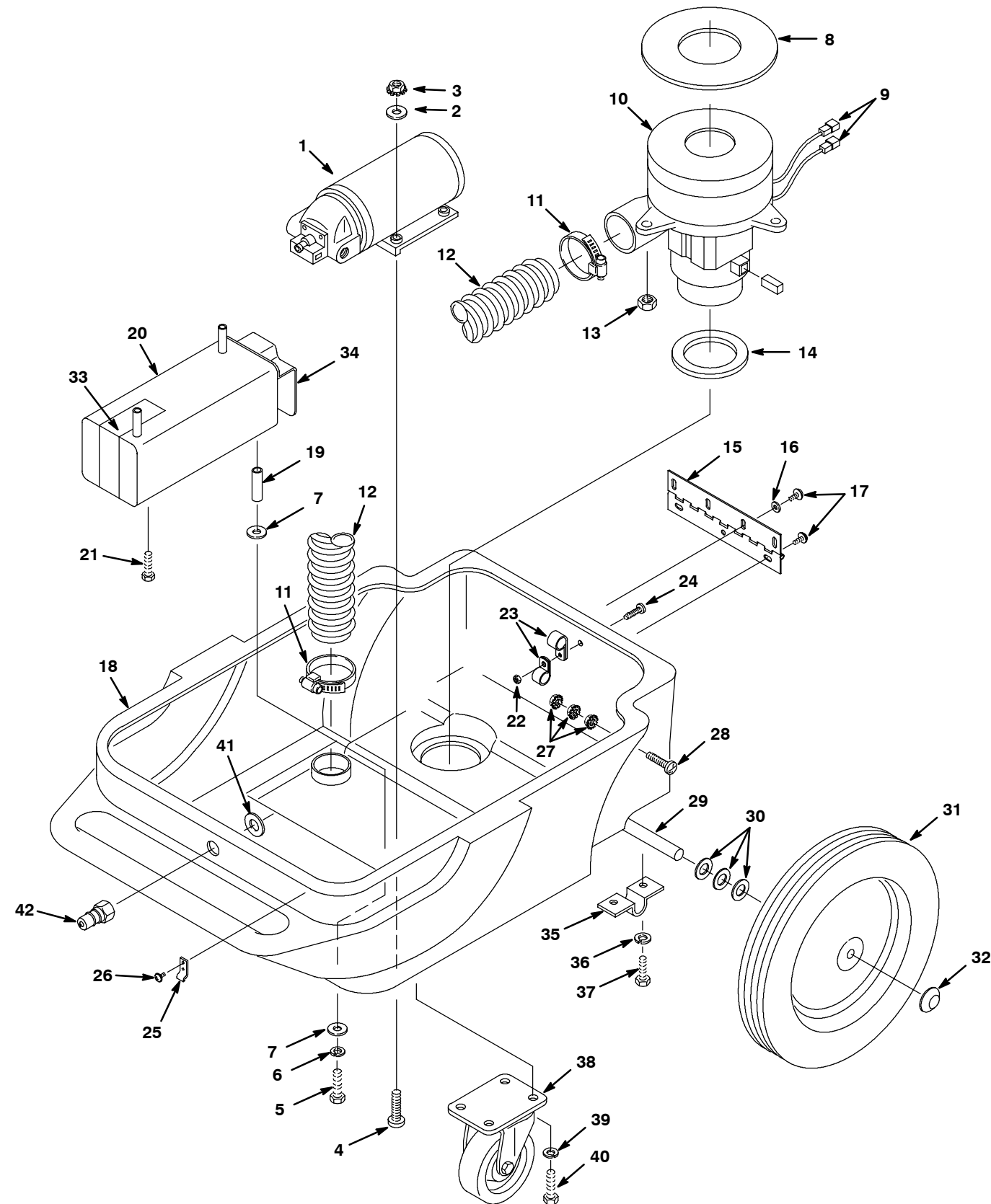
REF	PART #	DESCRIPTION	QTY.
24	614157	CLAMP, HOSE 27MM TO 51MM	1
25	608477	DECAL, TROOPER 1500H	2
26	608555	TANK, RECOVERY, GREEN	1
27	230845	PLATE, CORD CLAMP	1
28	140834	SCREW, .25-20X0.62 FLTPHL	1
29	140258	SCREW, 1/4-20X4-1/4 STUD	3
30	140134	SLEEVE, .376ODX.253IDX.28LG	2
31	230846	BRACKET, TANK SUPPORT	1
32	140000	WASHER, 0.28B FLAT	2
33	140016	WASHER, 0.25 LOCK	2
34	24672	SCREW, .25-20X0.75 HXHDCP	2
35	140259	SCREW, .25-20X0.62 HXHDCP	3
36	140016	WASHER, 0.25 LOCK	3
37	230946	BRACKET, TANK BRACE FRONT	1
38	608186	DECAL, "NOBLES"	1
39	140932	●LATCH, RUBBER, W/ KEEPER	2
40	609980	SCREW, #8-32X0.38 TRSPHL SEMS	4
41	140713	RIVET, BLIND, .188D X 0.58	1
42	230905	TUBE, INLET	1

▽ ASSEMBLY

▲ INCLUDED IN ASSEMBLY

● RECOMMENDED STOCK ITEMS

CHASSIS GROUP



CHASSIS GROUP

REF	PART #	DESCRIPTION	QTY.
1	180103	●PUMP, SOLUTION, 100 PSI, 120V	1
2	140011	WASHER, 0.21B FLAT	4
3	140519	NUT, #10-24 KEP	4
4	1014262	SCREW, #10-24X1.5 PANPHL	4
5	140869	SCREW, #10-24X1.75 PANPHL	2
6	069762005	WASHER, #10 LOCK	2
7	140011	WASHER, 0.21B FLAT	4
8	100118	●GASKET, VAC MOTOR, 5.7 DIA.	1
9	130133	TERMINAL, ML .25 RED	2
▽ 10	130996	●MOTOR, VAC 5.7D 3-STAGE	1
▲	602741	●BRUSH, CARBON 2/PK	1
▲	130486	FAN SHELL	1
11	140308	CLAMP, HOSE 1.31 TO 2.25	2
12	160629	●HOSE, 2" X 28" WHITE	1
13	41169	NUT, .25-20 NYLOCK	3
14	102567	●GASKET, VAC MOTOR INTAKE	1
15	230390	HINGE, TANK	1
16	140000	WASHER, 0.28B FLAT	4
17	140885	SCREW, .25-20X.50 TRSPHL	7
18	608566	CHASSIS, GREEN	1
19	140918	SPACER, .20X.31X1.00	2
▽ 20	180440	●HEATER ASSY, 120V, 1700W COMPLETE	1
▲	102566	INSULATOR, HEATER	1

REF	PART #	DESCRIPTION	QTY.
21	140823	SCREW, #10-24X0.62 TRSPHL	2
22	140552	NUT, #10-24 NYLCK	1
23	140328	CLAMP, CABLE 3/8	2
24	140196	SCREW, #10-24X1 TRSPHL	1
25	140932	KEEPER (PART OF LATCH)	2
26	609980	SCREW, #8-32X0.38 TRSPHL SEMS	4
27	140519	NUT, #10-24 KEP	3
28	140196	SCREW, #10-24X1 TRSPHL	1
29	608906	AXLE, 1/2 DIA X 18.352	1
30	140008	WASHER, 1/2 FLAT	6
31	103009	●WHEEL, 12" X 1.75 WHITE/GRAY	2
32	103019	CAP, HUB, WHEEL	2
33	102568	STRAP, NYLON W/ ADHESIVE	1
34	101288	COVER, HEATER	1
35	230746	BRACKET, AXLE, OFFSET	2
36	140016	WASHER, 0.25 LOCK	4
37	140259	SCREW, .25-20X0.62 HXHDCP	4
38	103065	●CASTER, 4" SWIVEL	2
39	140016	WASHER, 0.25 LOCK	8
40	140259	SCREW, .25-20X0.62 HXHDCP	8
41	140058	WASHER, .543X.875X.062 WAND	1
42	150933	●FITTING, QDC/04PM, SER 60	1

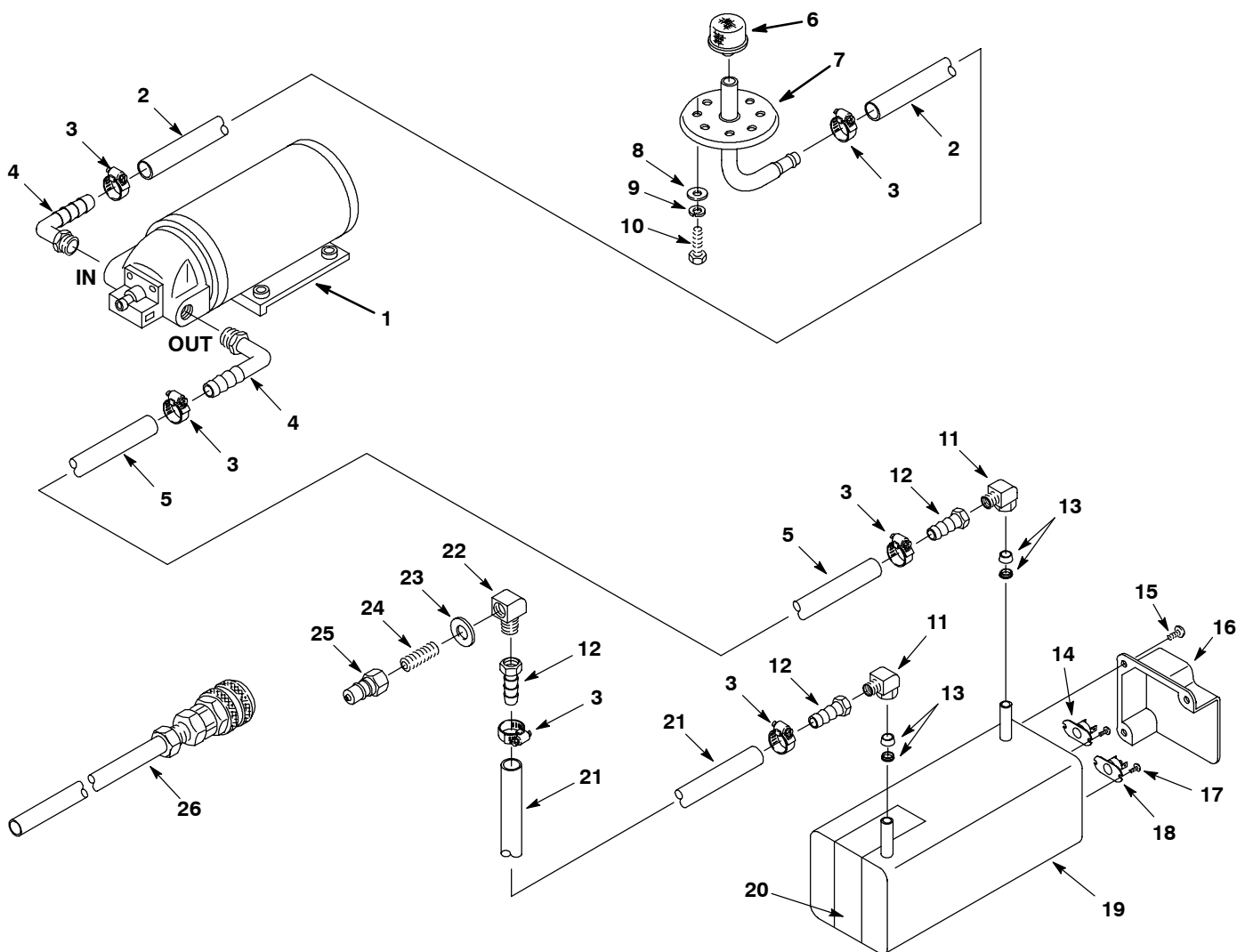
▽ ASSEMBLY

▲ INCLUDED IN ASSEMBLY

● RECOMMENDED STOCK ITEMS

PARTS LIST

PLUMBING GROUP



REF	PART #	DESCRIPTION	QTY.
1	180103	●PUMP, SOLUTION, 100 PSI, 120V	1
2	613488	HOSE, GRAY 3/8" X 24"	1
3	54333	CLAMP, HOSE, WORM, 0.31-0.88D	6
4	150412	FITTING, E90, PM06/BM06	2
5	609432	HOSE, GRAY 3/8" X 16"	1
6	180628	●FILTER, SCREEN, 100 MESH	1
7	600451	PLATE, BLADDER ASM	1
8	140000	WASHER, 0.28B FLAT	4
9	140016	WASHER, 0.25 LOCK	4
10	140259	SCREW, .25-20X0.62 HXHDGP	4
11	600545	FITTING, 90 DEG 1/4MPTX.312 TUBE	2
12	150511	FITTING, STR, PF04/BM06	3

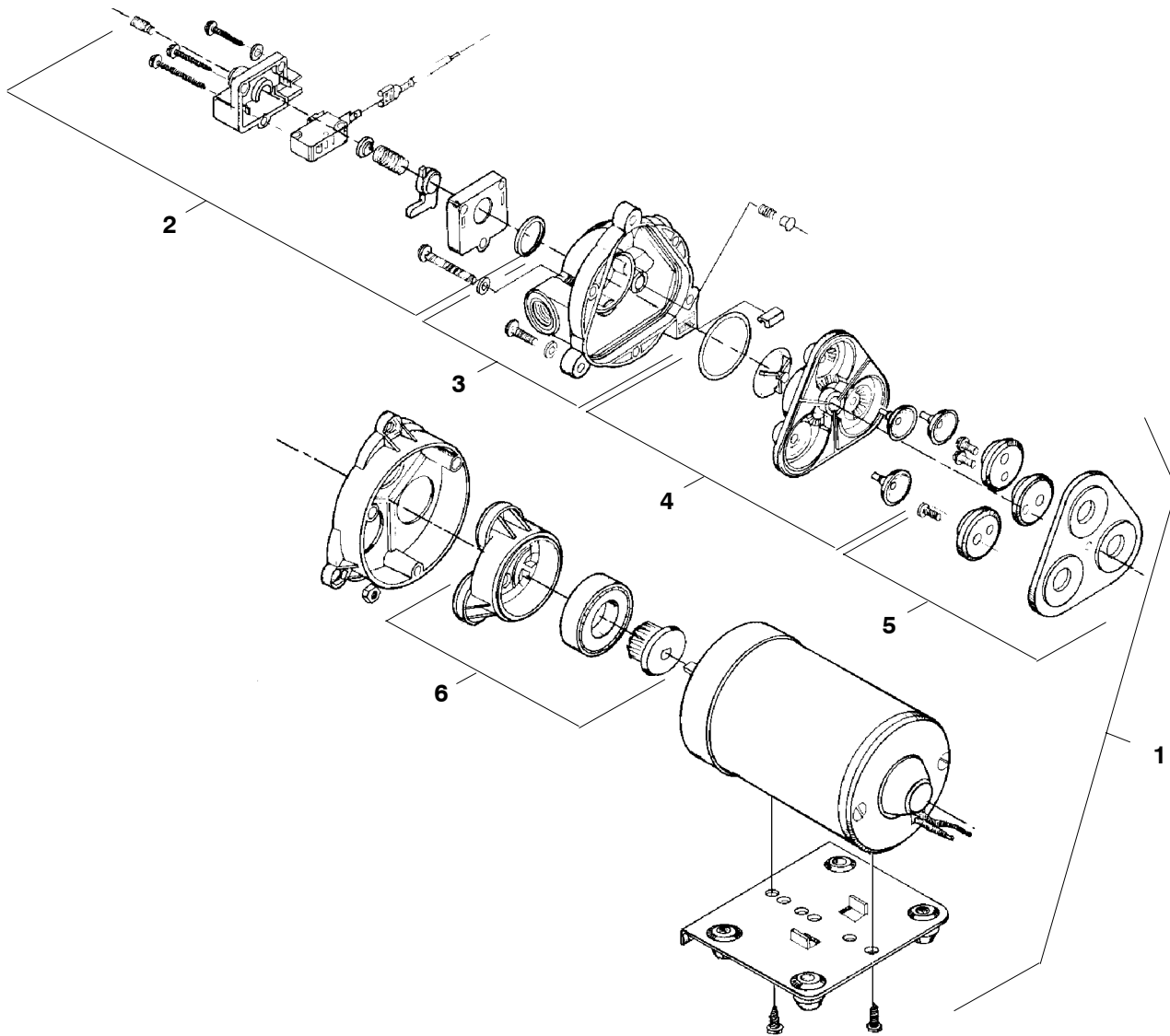
▽ ASSEMBLY

▲ INCLUDED IN ASSEMBLY

● RECOMMENDED STOCK ITEMS

REF	PART #	DESCRIPTION	QTY.
13	600546	FERRULE S/S FOR #600545	2
14	130692	CONTROL, THERMOSTAT	1
15	140197	SCREW, #10-24X0.38 TRSPHL, SEM	3
16	101288	COVER, HEATER	1
17	6032.6	SCREW, #8-32X0.38 PANPHL	4
18	130693	LIMIT, THERMOSTAT	1
▽ 19	180440	●HEATER ASSY, 120V, 1700W COMPLETE	1
▲	102566	INSULATOR, HEATER	1
20	102568	STRAP, NYLON W/ ADHESIVE	1
21	613482	HOSE, GRAY 3/8X5/8X12"	1
22	27048	FITTING, E90, PM04/PF04	1
23	140058	WASHER, .543X.875X.062 WAND	1
24	150615	FITTING, STR, 04PM CLOSE	1
25	150933	●FITTING, QDC/04PM, SER 60	1
26	700141	●HOSE, SOLUTION BLEEDER	1

PUMP BREAKDOWN



REF	PART #	DESCRIPTION	QTY.
▽ 1	180103	●PUMP, SOLUTION 100PSI 120V	1
▲ 2	190129	●KIT, PRESSURE SWITCH	1
	190172	●KIT, PRESSURE SWITCH (VITON)	1
	190134	●KIT, DIAPHRAGM ONLY	1

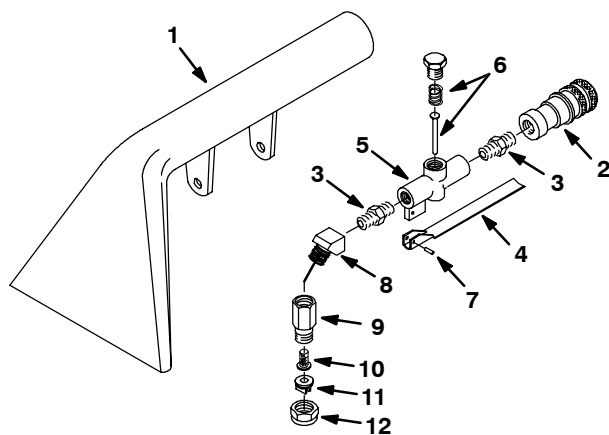
▽ ASSEMBLY

▲ INCLUDED IN ASSEMBLY

● RECOMMENDED STOCK ITEMS

REF	PART #	DESCRIPTION	QTY.
▲ 3	190128	●KIT, UPPER PUMP HOUSING	1
	190124	●KIT, CHECK VALVE ONLY	1
▲ 4	190171	●KIT, VALVE (VITON)	1
▲ 5	190131	●KIT, SERVICE	1
▲ 6	190130	●KIT, LOWER PUMP HOUSING	1

127mm (5 in.) HAND TOOL GROUP

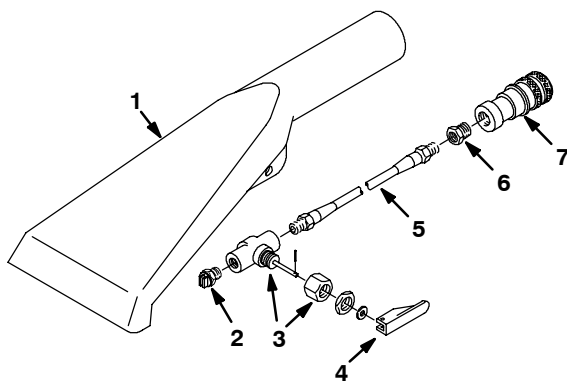


REF	PART #	DESCRIPTION	QTY.
▽	200505	●TOOL, HAND 127MM (5 IN.)	1
▲ 1	200431.BK	TOOL, HAND	1
▲ 2	150913	●FITTING, QDC PF04 FEM	1
▲ 3	150606	NIPPLE, HEX 1/4	2
▲ 4	200905	TRIGGER, HAND TOOL	1
▲ 5	210210	●VALVE, FLOW CONTROL	1

REF	PART #	DESCRIPTION	QTY.
▲ 6	190600	VALVE PIN & SPRING	1
▲ 7	140609	PIN, ROLL 3/16	1
▲ 8	150403	ELBOW, ST 1/4 45°	1
▲ 9	200992	BODY, SPRAY 1/4F	1
▲ 10	200996	SCREEN, SPRAY NOZZLE	1
▲ 11	200965	●TIP, SPRAY #8002	1
▲ 12	200994	CAP, SPRAY BODY	1

- ▽ ASSEMBLY
- ▲ INCLUDED IN ASSEMBLY
- RECOMMENDED STOCK ITEMS

76mm (3 in.) CREVICE TOOL GROUP

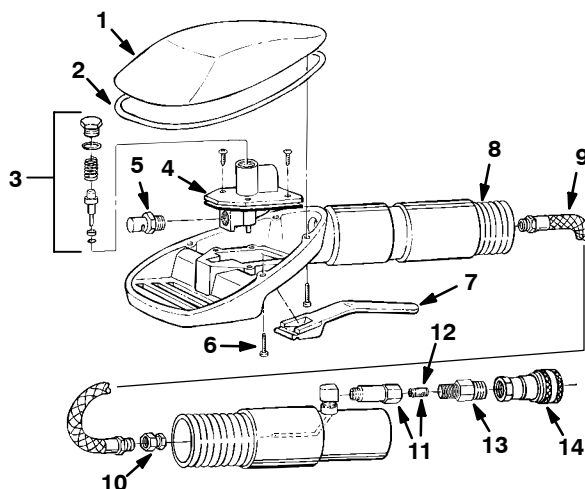


REF	PART #	DESCRIPTION	QTY.
▽	200517	●TOOL, CREVICE SERIES 60	1
▲ 1	200436.BK	TOOL, CREVICE	1
▲ 2	200975	●FITTING JET #5002	1
▲ 3	210014	●VALVE, TOGGLE W/NUT	1

REF	PART #	DESCRIPTION	QTY.
▲ 4	210020	POSITIONER, VALVE HANDLE	1
▲ 5	160106	HOSE, SOLUTION	1
▲ 6	150100	FITTING, 1/4MX1/8F BUSHING	1
▲ 7	150913	●FITTING, 1/4F, QD FML COUPLER	1

- ▽ ASSEMBLY
- ▲ INCLUDED IN ASSEMBLY
- RECOMMENDED STOCK ITEMS

UPHOLSTERY TOOL GROUP



REF	PART #	DESCRIPTION	QTY.
▽	200540	●ASM., TOOL, UPHOLSTERY SER 60	1
▲ 1	200845	COVER, UPHOLSTERY TOOL	1
▲ 2	200843	GASKET, COVER	1
▲ 3	190631	●KIT, SERVICE (VALVE ASM.)	1
▲ 4	210226	●VALVE, WATER/SOLUTION, LP	1
▲ 5	200991	●FITTING, JET, 1/8K	1
▲ 6	200838	SCREW, #6-32X0.75	4
▲ 7	200840	TRIGGER, UPHOLSTERY TOOL	1

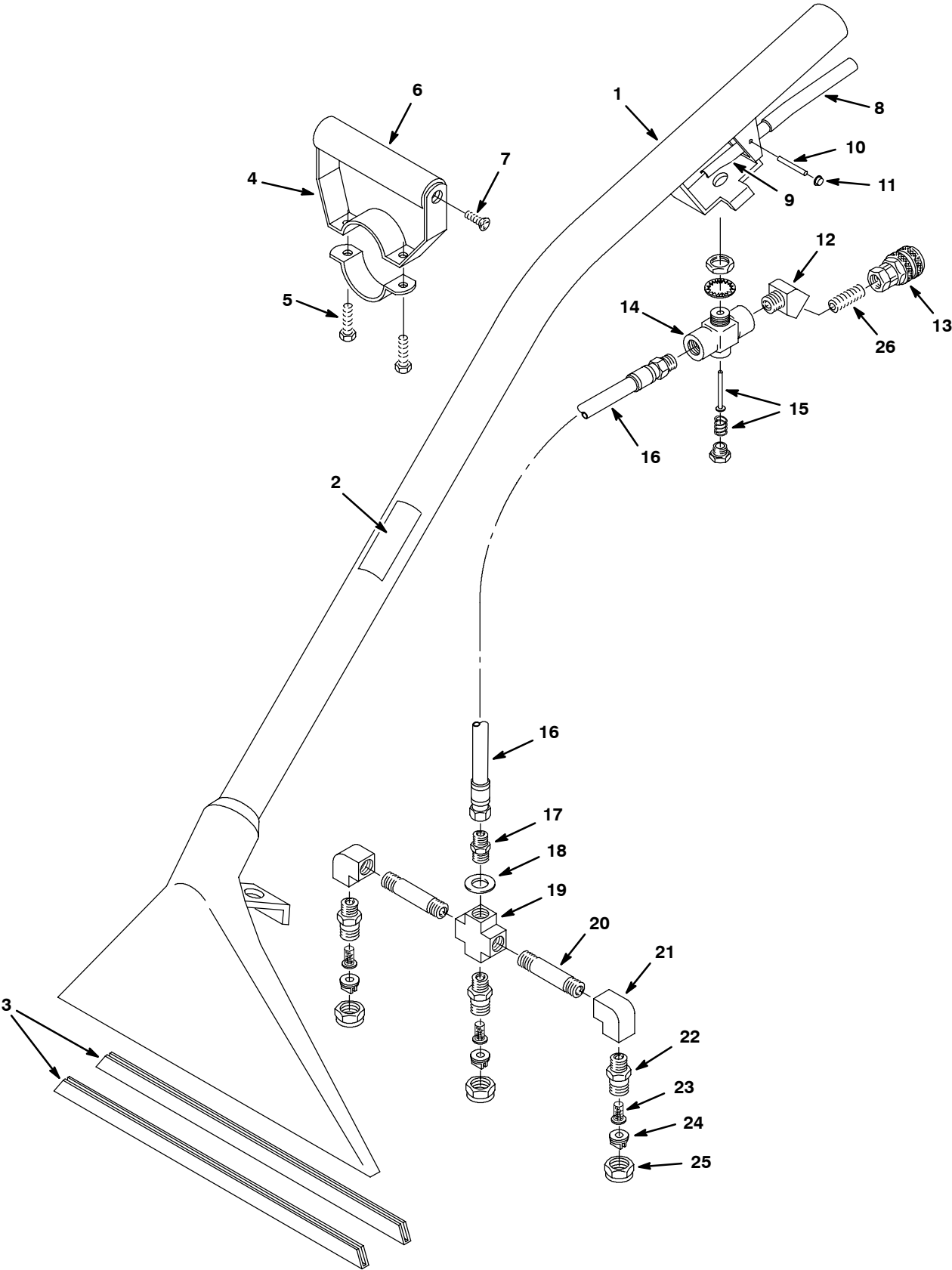
REF	PART #	DESCRIPTION	QTY.
▲ 8	200844	●HOSE, VACUUM W/O CUFFS	1
▲ 9	200837	●HOSE, SOLUTION	1
▲ 10	200848	FITTING, BRS (3 PCS.)	1
▲ 11	200842	FILTER, INLINE, COMPLETE	1
▲ 12	200841	SCREEN ONLY, INLINE FILTER	1
▲ 13	150606	FITTING, BRS, STR, PM04 X 1.38 HX NIP	1
▲ 14	150913	●FITTING, QDC PF04 SER 60	1

▽ ASSEMBLY

▲ INCLUDED IN ASSEMBLY

● RECOMMENDED STOCK ITEMS

330mm (13 in.) LOW PRESSURE FLOOR TOOL



330mm (13 in.) LOW PRESSURE FLOOR TOOL

REF	PART #	DESCRIPTION	QTY.
▽	600048	●ASM., FLOOR TOOL 330MM (13 IN.)	1
▲ 1	200403.BK	TOOL, FLOOR, BLACK	1
▲ 2	120846	DECAL, LOW PRESSURE TOOL	1
▲ 3	200939	●SHOE, 330MM (13 IN.) FLR TOOL	2
▲▽ 4	200927	GRIP, HAND, ADJ. COMPLETE	1
▲ 5	140259	SCREW, 1/4-20X5/8 HEXHD	2
▲ 6	200912	GRIP, HANDLE FOAM	1
▲ 7	140834	SCREW, 1/4-20X5/8 FLTPHL	2
▲ 8	200809	SLEEVE, HANDLE	1
▲ 9	200902	HANDLE, VALVE	1
▲ 10	140605	PIN, HANDLE	1
▲ 11	140520	NUT, 1/4 PUSH	2
▲ 12	150403	FITTING, E45 04PM/04PF	1
▲ 13	150913	●FITTING, QDC PF04 SER. 60	1

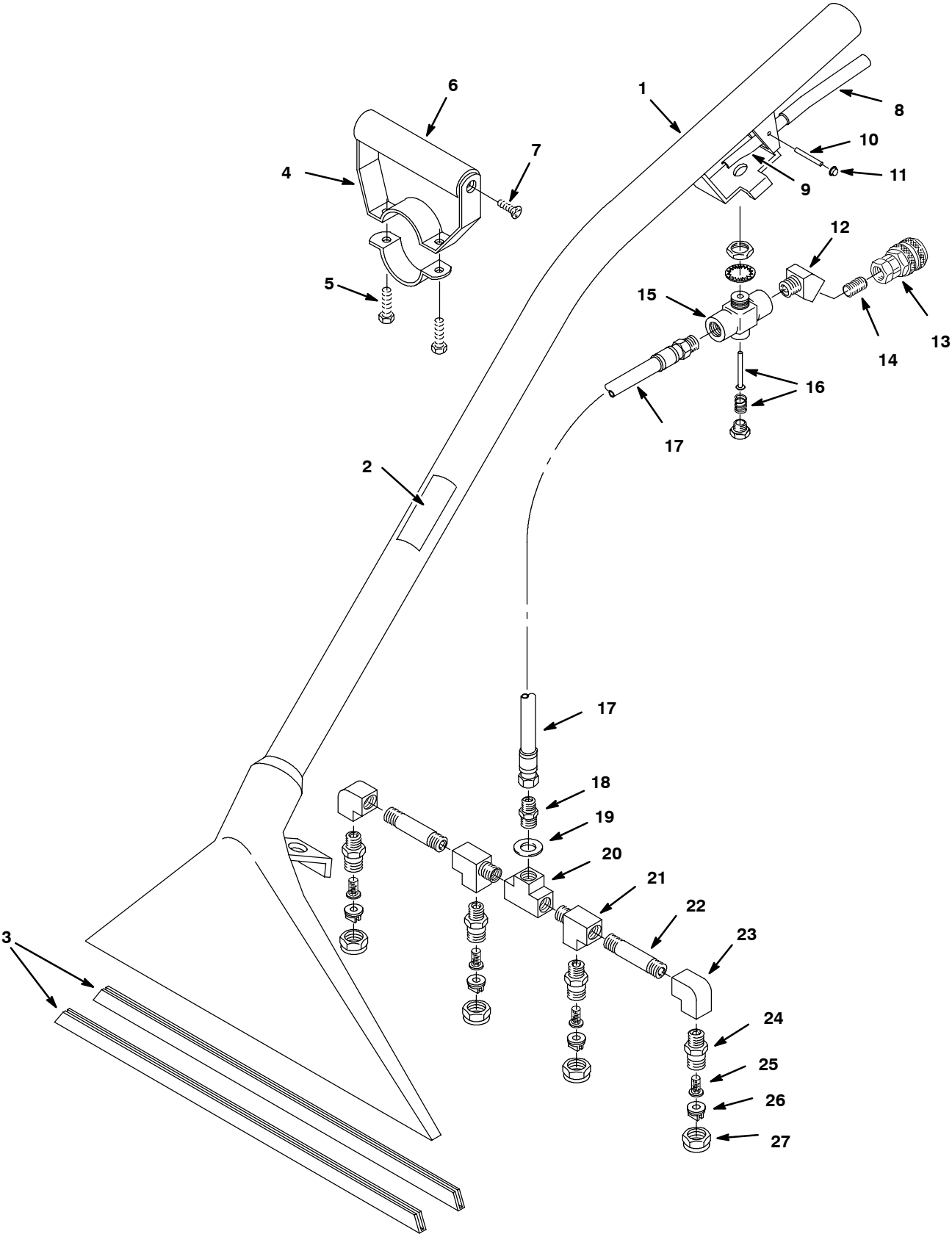
▽ ASSEMBLY

▲ INCLUDED IN ASSEMBLY

● RECOMMENDED STOCK ITEMS

REF	PART #	DESCRIPTION	QTY.
▲▽ 14	210150	●VALVE, FLOW CONTROL	1
▲ 15	190603	●KIT, VALVE PIN AND SPRING	1
▲ 16	160170	WAND HOSE ASSEMBLY, 46 IN.	1
▲ 17	150606	FITTING, 1/4MX1-3/8 HEXNIP	1
▲ 18	140058	WASHER, .543X.875X.062	1
▲▽	700062	ASM., SPRAY BAR, 12 IN. W/O TIPS	1
▲ 19	150700	CROSS, 1/4 FPTXFPTXFPTXFPT	1
▲ 20	150600	FITTING, 1/4MX2" NIPPLE	2
▲ 21	150401	FITTING, E90 04PF/04PF	2
▲ 22	200993	SPRAY BODY, 1/4 MALE	3
▲ 23	200996	●FILTER, SCREEN, 100 MESH	3
▲ 24	200964	●FITTING, TIP 11003, T-JET	3
▲ 25	200994	●CAP, NOZZLE, SPRAY #8002	3
▲ 26	150615	FITTING, 04PM CLOSE	1

406mm (16 in.) LOW PRESSURE FLOOR TOOL



406mm (16 in.) LOW PRESSURE FLOOR TOOL

REF	PART #	DESCRIPTION	QTY.
▽	200503	●ASM., FLOOR TOOL, 406MM (16 IN.)	1
▲ 1	200411.BK	TOOL, FLOOR, BLACK	1
▲ 2	120846	DECAL, LOW PRESSURE TOOL	1
▲ 3	200956	●SHOE, 406MM (16 IN.) FLR TOOL	2
▲▽ 4	200927	GRIP, HAND, ADJ. COMPLETE	1
▲ 5	140259	SCREW, 1/4-20X5/8 HEXHD	2
▲ 6	200912	GRIP, HANDLE FOAM	1
▲ 7	140834	SCREW, 1/4-20X5/8 FLTPHL	2
▲ 8	200809	SLEEVE, HANDLE	1
▲ 9	200902	HANDLE, VALVE	1
▲ 10	140605	PIN, HANDLE	1
▲ 11	140520	NUT, 1/4 PUSH	2
▲ 12	150403	FITTING, E45 04PM/04PF	1
▲ 13	150913	●FITTING, QDC PF04 SER. 60	1

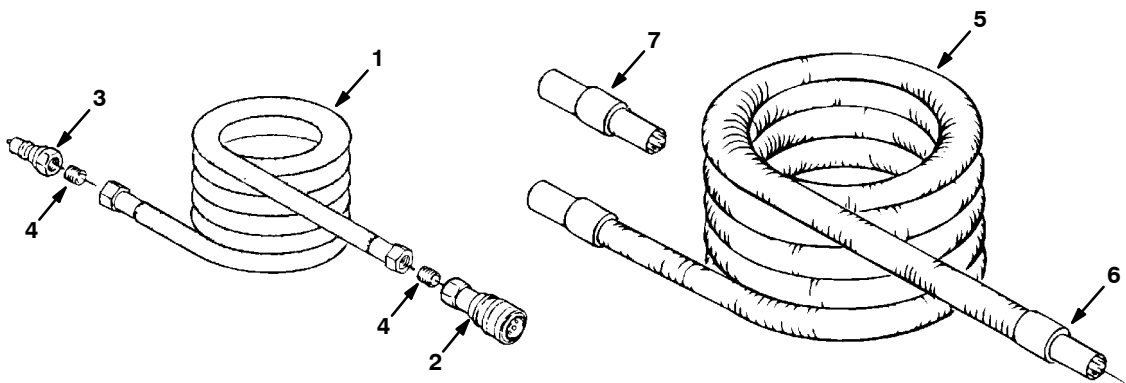
▽ ASSEMBLY

▲ INCLUDED IN ASSEMBLY

● RECOMMENDED STOCK ITEMS

REF	PART #	DESCRIPTION	QTY.
▲ 14	150615	FITTING, 04PM CLOSE	1
▲▽ 15	210150	●VALVE, FLOW CONTROL	1
▲ 16	190603	●KIT, VALVE PIN AND SPRING	1
▲ 17	160170	WAND HOSE ASSEMBLY, 46 IN.	1
▲ 18	150606	FITTING, 1/4MX1-3/8 HEXNIP	1
▲ 19	140058	WASHER, .543X.875X.062	1
▲▽	700656	ASM, SPRAY BAR 16IN. W/O TIPS	1
▲ 20	150706	FITTING, 1/4F TEE	1
▲ 21	150709	FITTING, TEE, 04PM/04PF/04PF	2
▲ 22	150600	FITTING, 1/4MX2" NIPPLE	2
▲ 23	150401	FITTING, E90 04PF/04PF	2
▲ 24	200993	SPRAY BODY, 1/4" MALE	4
▲ 25	200996	●FILTER, SCREEN, 100 MESH	4
▲ 26	200964	●FITTING, TIP 11003 T-JET	4
▲ 27	200994	●CAP, NOZZLE, SPRAY #8002	4

SOLUTION AND VACUUM HOSES GROUP



REF	PART #	DESCRIPTION	QTY.
▽ 1	160185	HOSE, SOLUTION 3/8X4.6M/15' (OPTIONAL)	1
	610792	HOSE, SOLUTION 1/4X7.6M/25' (STANDARD)	1
	160192	HOSE, SOLUTION 1/4X15.2M/50' (OPTIONAL)	1
▲ 2	150913	●FITTING, BRS, QDC, PF04, SER60	1
▲ 3	150933	FITTING, BRS, QDC, PM04, SER60	1
▲ 4	150615	FITTING, BRS, STR, PM04, CLOSE, T	2

REF	PART #	DESCRIPTION	QTY.
▽ 5	160400	HOSE, VACUUM 1-1/2X4.6M/15' (OPTIONAL)	1
	160401	HOSE, VACUUM 1-1/2X7.6M/25' (STANDARD)	1
	160402	HOSE, VACUUM 1-1/2X15.2M/50' (OPTIONAL)	1
▲ 6	160430	●CUFF, HOSE 1-1/2"	2
7	160451	●CONNECTOR, VAC HOSE 1-1/2"	1
N/S	220040	●BAG, HOSE W/DRAW STRING (OPTIONAL)	1

- ▽ ASSEMBLY
- ▲ INCLUDED IN ASSEMBLY
- RECOMMENDED STOCK ITEMS