

**Minuteman<sup>®</sup>**  
Excellence Meets Clean



**Parts and Instruction Manual**  
**TRS 14**  
**Total Recovery System**

This manual is furnished with each new **MINUTEMAN TRS 14** . This provides the necessary operating and preventive maintenance instructions. Operators must read and understand this manual before operating or servicing this machine.

This machine was designed to give you excellent performance and efficiency. For best results and minimal cost, please follow the general guidelines below:

- Operate the machine with reasonable care.
- Follow the manufacturers suggested maintenance instructions as provided in this booklet.
- Use original Minuteman supplied parts.

### TECHNICAL SPECIFICATIONS

<b>Model</b>	<b>TRS 14</b>
Model No.	TRS14115
Vac Motor	3 Stage 1 HP
Water Lift	80" (203cm)
Capacity	14 gal. (53L)
Flow	250psi at nozzle, 1gpm
Wheels	12" (30.5cm)
Casters	5" (13cm)
Length	32" (81cm)
Width	43" (109cm)
Height	25" (63.5cm)

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## Safety Precautions

This machine is intended for commercial use. Use only recommended cleaning solutions and accessory tools.

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

The following safety alerts symbols 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.

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

### FOR SAFETY:

1. **Do not operate machine:**
  - Unless trained and authorized.
  - Unless operator manual has been read and understood.
  - In flammable or explosive areas.
  - 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 an extension cord.
2. **Before operating machine:**
  - Make sure all safety devices are in place and operate properly.
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 to your distributor.
  - Follow mixing and handling instructions on chemical containers.

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.

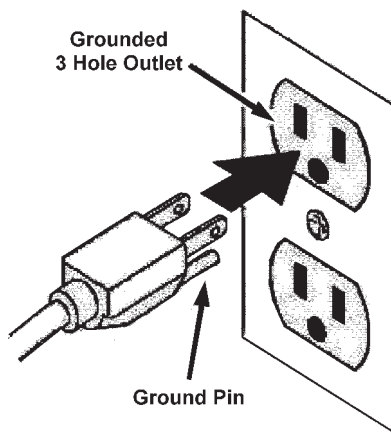
**! WARNING:** Hazardous Voltage. Shock or electrocution can result. Always unplug machine before servicing.

**! WARNING:** Flammable materials can cause an explosion or fire. Do not use flammable materials in tank(s).

**! WARNING:** Flammable materials or reactive metals can cause an explosion or fire.

## Grounding Instructions

Machine must be grounded. 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 code and ordinances. Do not remove ground pin; if missing, replace plug before use.



## Safety Labels

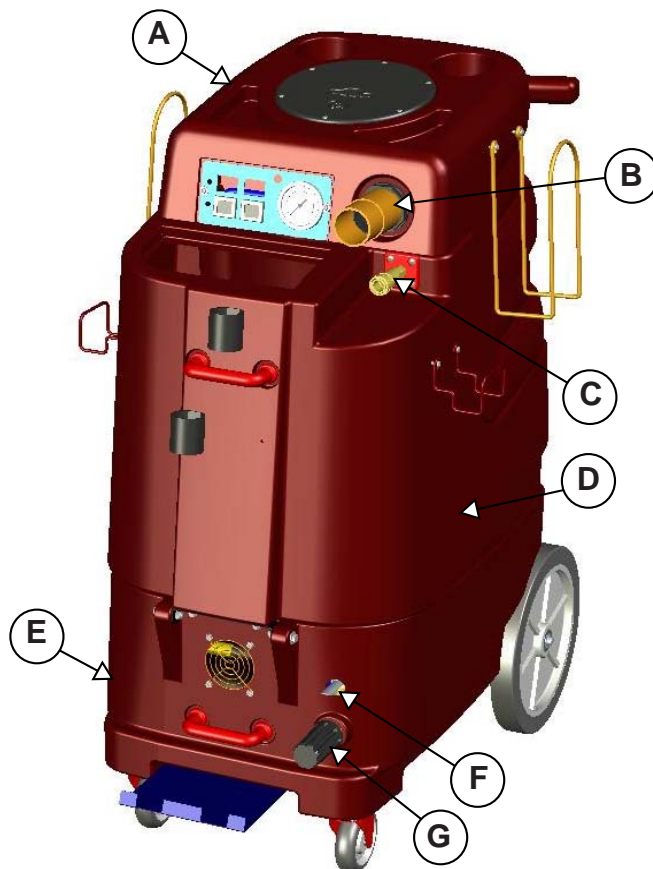
The safety labels appear on the machine in various locations. Replace labels if they become damaged or cannot be read.

**⚠ WARNING: Flammable materials can cause an explosion or fire. Do not use flammable materials in tank(s). Flammable materials or reactive metals can cause explosion or fire.**

**⚠ WARNING LABEL- Located on back. Label warns operator of safe practices of equipment**

## Machine Components

A	RECOVERY TANK	E	MOTOR HOUSING/BASE
B	VACUUM HOSE CONNECTOR	F	PRIME VALVE
C	SOLUTION HOSE CONNECTOR	G	PRESSURE REGULATOR
D	SOLUTION TANK		



# Machine Set Up

## Pre-Operation

1. Vacuum and remove all debris.
2. Perform MACHINE SETUP procedures.
3. Inspect power cord for damage.

## Set Up

1. Carefully check carton for signs of damage. Report damage at once to freight carrier. The machine is shipped fully assembled and is ready for use.
2. Open lid of solution tank. Fill solution tank with water or approved cleaning agent.

**⚠ WARNING: Flammable materials can cause an explosion or fire. Do not use flammable solutions or materials in tank(s).**

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

**ATTENTION: If using powdered cleaning chemicals, mix prior to adding.**

3. Attach solution hose. (Located front of machine.)

**NOTE: Make sure the quick disconnects snap together firmly. As you do this, always inspect hoses for cracks or fraying. Do not use if hoses are damaged.**


4. Attach other end of solution hose to wand.
5. Attach vacuum hose to recovery tank.
6. Locate a 20 Amp dedicated power circuit, and plug the machine cord in. The outlets must be properly grounded. Plugging into an ungrounded or improper outlet can result in equipment damage, fire, and/or harm to the operator. NEVER DISABLE THE GROUND PIN, AS SERIOUS PROBLEMS CAN RESULT!

**FOR SAFETY: Do not operate machine unless cord is properly grounded.**

**FOR SAFETY: Do not operate machine with the use of an extension cord.**

## Operation

1. Turn pump switch to "Hi Pressure" setting.
2. Step lightly on Power Prime for 30 seconds to prime pump completely. Use regulator adjustment to set pump at desired pressure on gauge.
3. Hook up your auto fill and pump out hoses to the appropriate connections on the back of the machine.
4. Switch on Pump-Out pump. NOTE: Pump will not begin to operate until tank is partially filled. The pump out is controlled by a sensor in the tank. MAKE SURE YOUR PUMP OUT HOSE IS SECURED TO A DRAIN.
5. Attach Auto Fill hose to a water inlet, such as a sink or a garden hose. Turn on the water at medium to medium low pressure. Monitor solution tank as it fills for the first time, to ensure that the Auto Fill shuts off correctly.
6. Switch on both Vacuum 1 and Vacuum 2
7. Begin cleaning. As you clean, monitor your tank levels. The clean water tank should never be run empty, and the dirty water tank should never be run full.

 **WARNING: Flammable materials or reactive metals can cause an explosion or fire. Do not pick up.**

1. Work away from outlet and power cord to prevent cord damage.
2. Use a recommended foam control solution in the recovery tank to prevent vacuum motor damage. Periodically check for excessive foam buildup in solution tank.
3. To clean heavily soiled areas, repeat cleaning path from different direction.
4. When ball float shuts off vacuum, it is time to empty the dirty water from the recovery tank, and refill solution tank.

**NOTE:** When cleaning upholstery, always check cleaning instructions sewn in furniture by manufacturer

5. After cleaning, relieve water pressure from tool before disconnecting hose. Squeeze trigger for five seconds after turning main power switch off.

## Draining Recovery Tank

**FOR SAFETY:** When servicing machine, unplug cord from wall outlet.

1. Turn machine off and unplug power cord.
2. Remove solution & vacuum hose
3. Lift up drain valve lever to empty solution tank.

## Machine Maintenance

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

**FOR SAFETY:** When servicing machine, unplug cord from wall outlet.

## Maintenance

### DAILY:

1. Empty and rinse out recovery tank thoroughly.
2. Wipe off power cord and check for damage, replace if necessary. Coil cord neatly after use.
3. Clean machine with an all purpose cleaner and damp cloth.

### Weekly Maintenance

(EVERY 20 HOURS OF OPERATION)

1. Flush solution system with a system maintainer to dissolve normal chemical buildup.
  - a. Pour 7.5L (2 gal) of hot water 60°C (140°F) into solution tank. Add system maintainer according to mixing instructions on bottle

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

- b. Operate machine for one minute.
  - c. Shut off machine and allow remaining solution to break down chemical buildup overnight.
  - d. Next day, spray out remaining solution and flush system with 11L (3gal) of clean water.
2. Inspect vacuum hoses for holes and loose cuffs.
  3. Inspect spray pattern for clogging. If clogged, remove spray tips and soak them in a recommended liquid neutralizer for up to six hours. To remove spray tip, twist spray tip body counter-clockwise. Do not use pointed objects to unplug tips, damage will occur.
  4. Lubricate wheels with water resistant oil.
  5. Inspect machine for water leaks and loose hardware.
  6. Remove float shut-off screen from recovery tank and clean.



## Storing Machine



1. Before storing machine, be certain to completely drain and rinse tanks of all water and solution.
2. Drain and dry the vacuum hose as well, using the drain hose provided
3. Store machine in a dry area in the upright position.
4. Open recovery tank cover to promote air circulation

## Troubleshooting

### **SYMPTOM: UNIT WILL NOT TURN ON:**

**PROBLEM:** Not plugged in.

**SOLUTION:** Plug machine in proper outlet.

**PROBLEM:** Circuit breaker has popped.

**SOLUTION:** Reset circuit breaker. Make sure no other items are running on the same circuit as machine. Outlet must be a 15-amp circuit.

**PROBLEM:** Wire from power cord has become disconnected from terminal block.

**SOLUTION:** Reattach wire to terminal block.

### **SYMPTOM: PUMP IS NOT RUNNING PROPERLY:**

**PROBLEM:** Quick disconnects are not completely locked together.

**SOLUTION:** Snap quick disconnects firmly together.

**PROBLEM:** The solution tank is empty.

**SOLUTION:** Fill the solution tank up with a premixed detergent.

**PROBLEM:** Jet on tool is clogged.

**SOLUTION:** Clean jet with soft wire brush or remove jet and flush clean.

**PROBLEM:** Filters are clogged.

**SOLUTION:** Remove filters and rinse clean with water.

**PROBLEM:** Brass check valve is stuck.

**SOLUTION:** Replace with new check valve.

**PROBLEM:** Pump wire has become disconnected.

**SOLUTION:** Reconnect wire.

**PROBLEM:** Switch on switch plate is bad.

**SOLUTION:** Replace switch.

**PROBLEM:** Pump motor brushes are worn out.

**SOLUTION:** Replace pump.



**SYMPTOM: VACUUM MOTOR IS NOT WORKING PROPERLY:**

**PROBLEM:** Hose not connected tightly to upholstery tool or machine.

**SOLUTION:** Connect hose tightly.

**PROBLEM:** Drain valve is not shut completely.

**SOLUTION:** Close drain valve completely.

**PROBLEM:** Vacuum tank lid is not on tightly.

**SOLUTION:** Secure the vacuum tank tightly.

**PROBLEM:** Ball float is shut off.

**SOLUTION:** Empty the vacuum tank of all wastewater.

**PROBLEM:** Water is coming out of vacuum motor.

**SOLUTION:** Use a low foaming detergent.

**PROBLEM:** Floor wand is clogged with hair, carpet fibers and or debris.

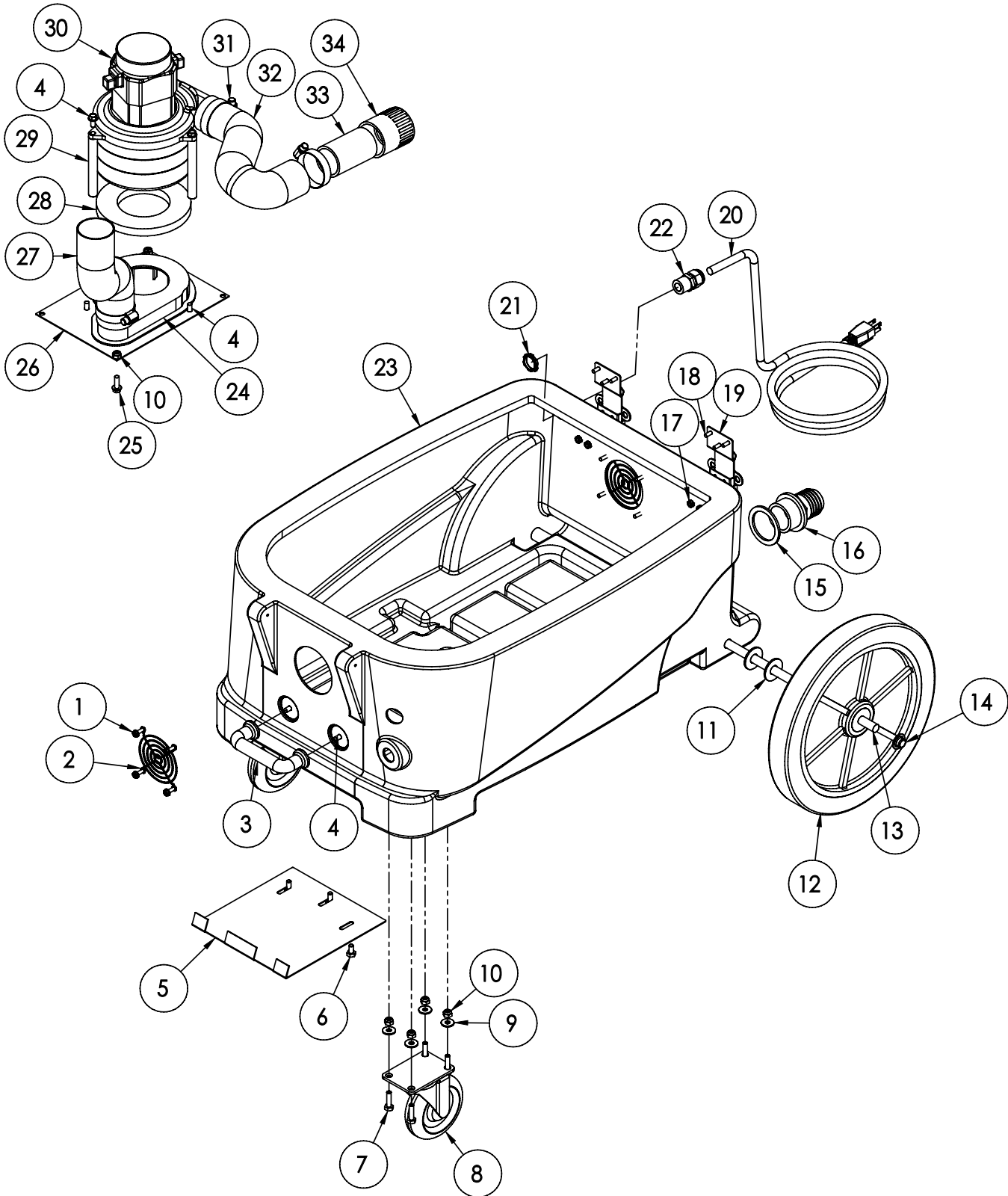
**SOLUTION:** Clean floor wand.

**PROBLEM:** Ball float is not installed correctly.

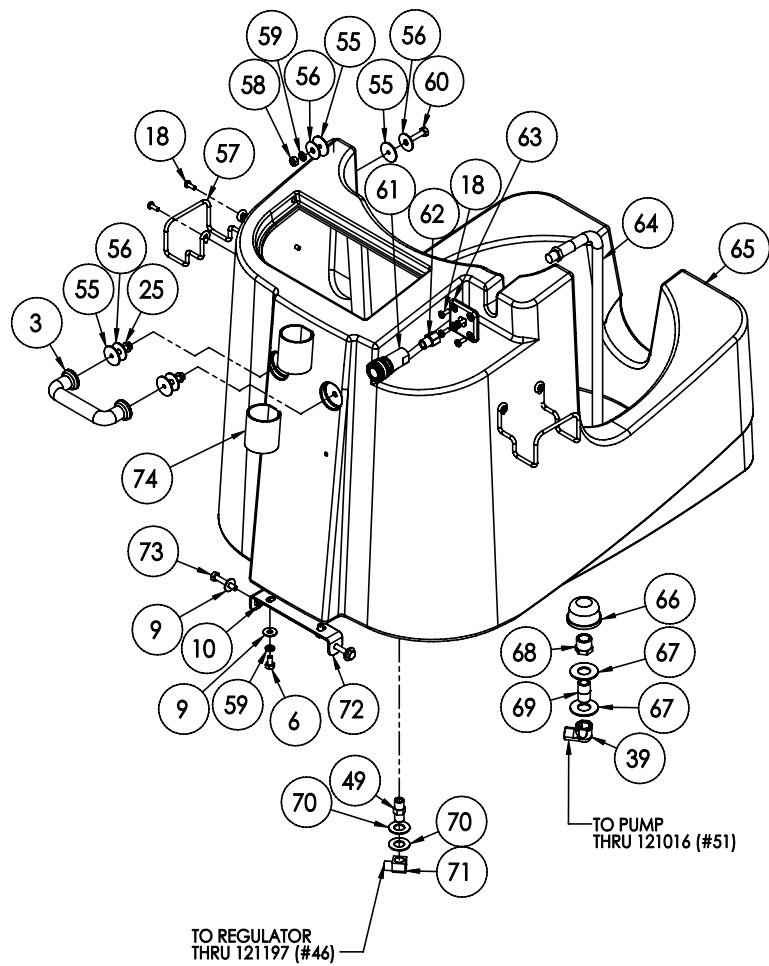
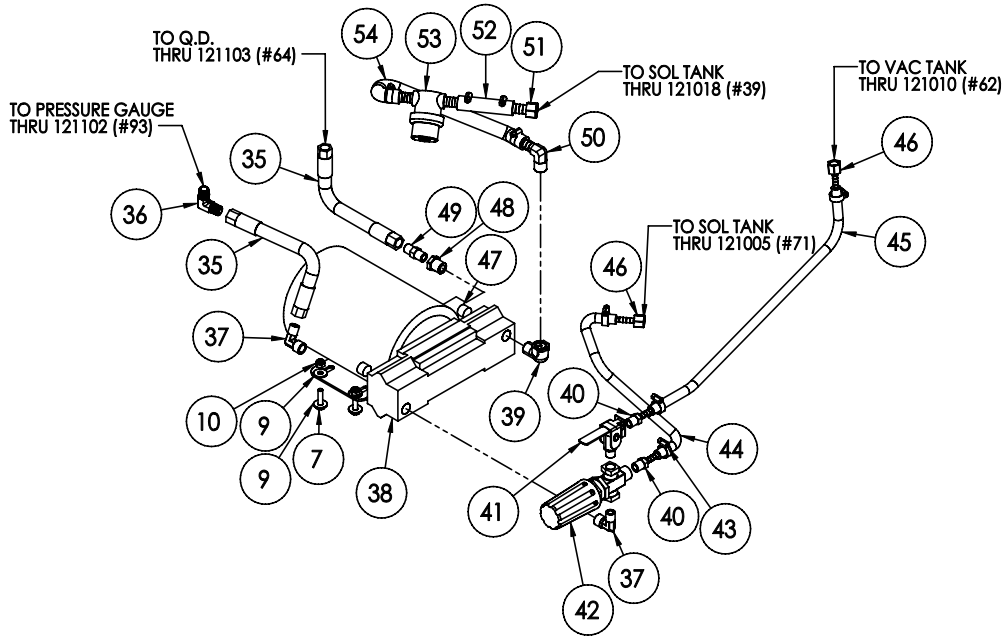
**SOLUTION:** Make sure that ball float is firmly installed on the elbow.

# Exploded Views

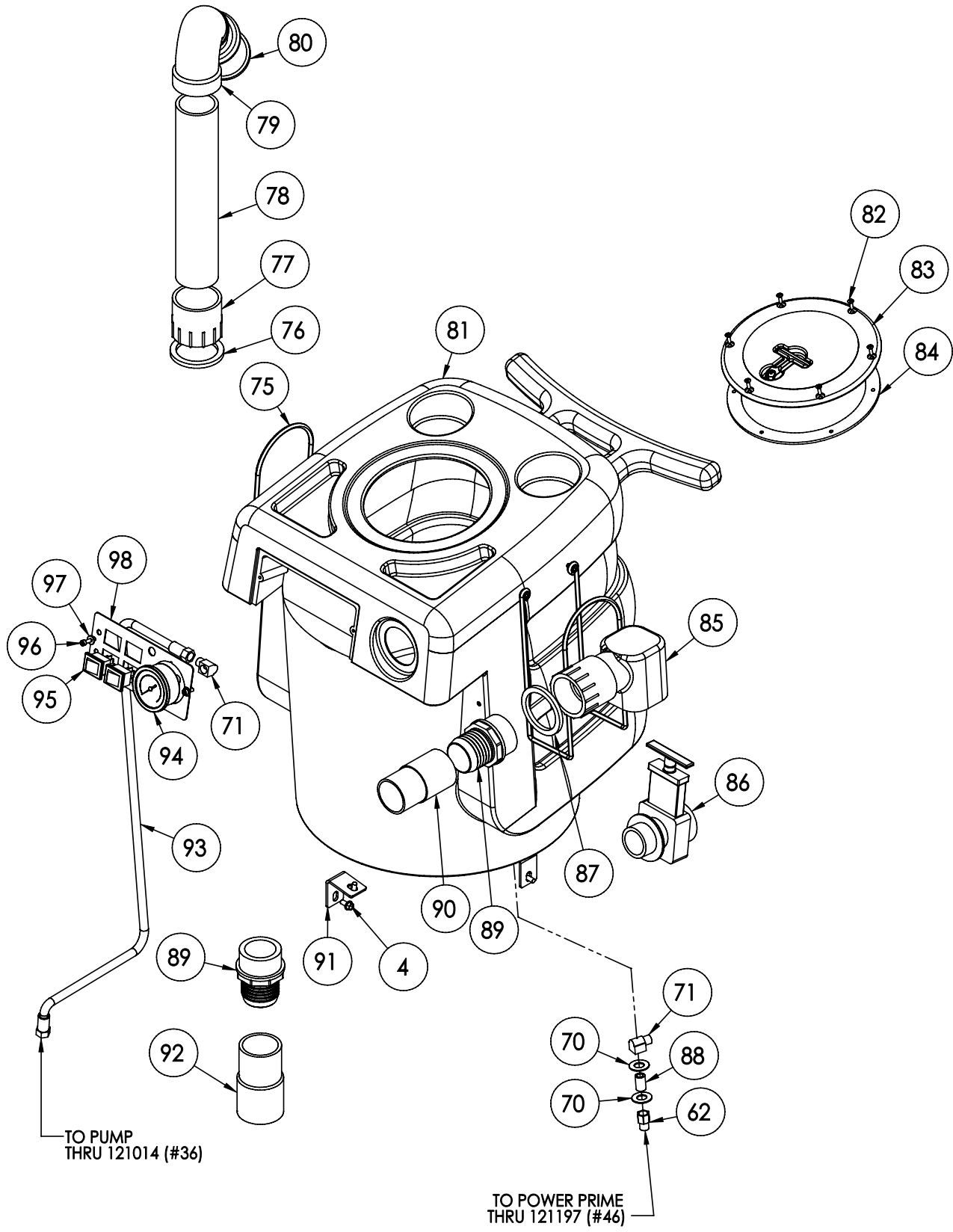
## TRS 14 - Base Assembly



# TRS 14 - Solution Tank Assembly

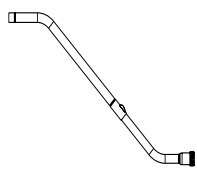

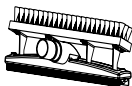
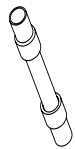

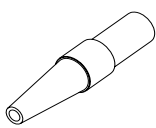
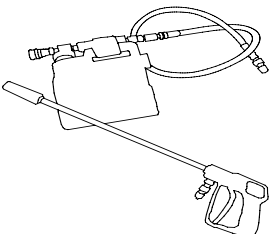


# TRS 14 - Recovery Tank Assembly



Bill Of Material - TRS 14							
Item	Part No.	Qty.	Description	Item	Part No.	Qty.	Description
1	121203	8	screw, #10 x 5/8" hex head, zinc	50	121017	1	elbow, brass, 90 deg, 1/2" barb x 3/8" mpt
2	121061	2	guard, cooling fan, wire	51	121016	1	adapter, brass, 1/2" barb x 3/8" fsw, ball end
3	121123	2	handle, breeze	52	121190	1	sol hose, 1/2" kuri 100psi
4	121182	12	bolt, 1/4-20 x 1/2" serrated hex flange, zinc	53	121104	1	filter, cup, in-line
5	121204	1	plate, wand mount	54	121212	1	sol hose, 1/2" kuri 100psi
6	121154	5	bolt, 1/4-20 x 1/2" hex head, zinc	55	121041	6	washer, buna 1-1/8" od x 3/16" id
7	121175	12	bolt, 1/4-20 x 1" hex head, s/s	56	121158	8	washer, 1/4" id x 1" od, flat, s/s
8	121128	2	caster, 4"	57	121127	2	hanger, wire for injection bottle
9	121157	20	washer, 1/4" flat, s/s	58	121161	2	nut, hex, 1/4-20 s/s
10	121162	16	nut, lock, 1/4-20, nylon insert	59	121160	4	washer, 1/4" lock, s/s
11	121167	4	washer, axle, cut 1/2" id	60	121155	2	bolt, 1/4-20 x 1-1/4" hex head
12	121059	2	wheel, 12"	61	121004	1	qd, brass, 1/4" f
13	121116	1	axle, 1/2" x 21", Breeze,M-series	62	121010	2	adapter, brass, extender, 1/4" mpt x 1/4" fpt, hex
14	121052	2	cap, axle, 1/2"	63	121122	1	plate, mounting, QD
15	121037	1	gasket, inlet, 1.80" i.d.	64	121103	1	sol hose, 45" x 1/4", (OAL), m x m, for Single Jet wands
16	121056	1	fitting, inlet, pvc, 1-1/2", gray	65	121206	1	sol tank, m series
17	121169	8	nut, kep, #10-32 zinc	66	121012	1	filter, strainer, 1/2"
18	121165	27	screw, 10-32 x 1/2 phil pan	67	121173	2	washer, 11/16" id x 1-1/2" od x .075, s/s
19	121124	2	latch, front breeze	68	121019	1	bushing, brass, 1/2" mpt x 3/8" fpt, hex
20	121031	1	power cord, ext, 50', 14/3 gry, UL	69	121020	1	nipple, brass, 3/8" x close
21	121163	1	nut, lock, 1/2" steel	70	121159	4	washer, 9/16" id x 1" od, flat, s/s
22	121053	1	fitting, strain relief, cord	71	121005	3	elbow, brass, 90 deg, 1/4" mpt x 1/4" fpt
23	121205	1	base, m series	72	121068	1	bracket, front hinge, sp/fb
24	121211	1	manifold, single vac	73	121202	2	bolt, 1/4-20 x 1-1/2" hex head, s/s
25	121181	4	bolt, 1/4-20 x 3/4" serrated hex flange, zinc	74	121129	2	veicro strap, kleen safe
26	121117	1	plate, single manifold, 6.5" x 9"	75	121067	2	hanger, wire formed, hose
27	121192	1	vac hose, 2", wire reinforced	76	121200	1	gasket, 2" inlet polyethylene, 3" OD 2.35" ID
28	121038	1	gasket, vacuum motor	77	121137	1	adaptor, pvc 2, fmsl x fmt
29	121125	3	vac support, 3 stage, 4-1/16"	78	121135	1	pipe, pvc, 2"
30	121021	1	vac motor, 3 stage, 115V, tangential	79	121077	1	elbow, 2" float
31	121051	3	clamp, hose, 2-1/4 DIA	80	121069	1	float, 2", ball style
32	121213	1	vac hose, 2", wire reinforced	81	121207	1	vac tank, m series
33	121214	1	pipe, pvc, 1-1/2"	82	121174	6	screw, #8 x 5/8 phil oval, s/s
34	121058	1	adapter, pvc, 1-1/2" fms x fmp	83	121044	1	lid, vac tank, black, 7"
35	121195	2	hose, 3/8" x 10", (OAL), f x fsw, surge, 1600psi	84	121045	1	gasket, 7", vac lid
36	121014	1	elbow, brass, 90 deg, 1/4" mpt x 1/4" mpt	85	121194	1	elbow, inlet assembly 2"
37	121199	2	elbow, brass, 90 deg, 3/8" mpt x 1/4" mpt	86	121054	1	valve, drain, 1-1/2"
38	121110	1	pump, 450 psi, 115V	87	121114	1	gasket, 2" inlet
39	121018	2	elbow, brass, 90 deg, 3/8" mpt x 3/8" fmp	88	121007	1	nipple, brass, 1/4" x close
40	121009	2	adapter, brass, 1/4" barb x 1/4" mpt	89	121138	2	inlet, 2"
41	121131	1	valve, prime, high pressure	90	121121	1	cuff, 2 x 1.5" crushproof
42	121111	1	regulator, 450 psi	91	121119	2	Bracket, L 070-036
43	121064	8	clamp, hose, 5/16-29/32	92	121126	1	cuff, 2"
44	121215	1	sol hose, 1/4" kuri 150psi	93	121102	1	sol hose, 1/4" x 39", (OAL), f x fsw, 3000psi
45	121216	1	sol hose, 1/4" kuri 150psi	94	121201	1	gauge, pressure, 2000 PSI
46	121197	2	adapter, brass, 1/4" sw barb x 1/4" fpt, w/gasket	95	121028	2	switch, rocker, 2 position
47	121198	2	plug, brass, 3/8" mpt, hex	96	121176	2	screw, #10-32 x 1/2" SHCS, alloy
48	121006	1	bushing, brass, 3/8" mpt x 1/4"	97	121072	2	washer, #8 flat, s/s
49	121008	2	nipple, brass, 1/4"m, hex	98	121118	1	plate, switch, sp, 4 hole w/gauge

**Tools & Accessories**

<b>121092 - TRS 14 Tool Assembly Complete</b>	
	<b>121089 - 1-1/2" Curved Telescopic Wand</b>
	<b>121086 - 1-1/2" Gulper Tool</b>
	<b>121090 - Scrub &amp; Vac Tool</b>
	<b>121091 - 1-1/2" Vac Hose Assy 25 FT.</b>
	<b>121082 - Faucet Fill Hose Assy</b>
	<b>121101 - Blower Attachment</b>
	<b>121097 - Slimline Injection Sprayer</b>

## Minuteman International Made Simple Commercial Limited Warranty

Minuteman International, Inc. warrants to the original purchaser/user that the product is free from defects in workmanship and materials under normal use. Minuteman will, at its option, repair or replace without charge, parts that fail under normal use and service when operated and maintained in accordance with the applicable operation and instruction manuals. All warranty claims must be submitted through and approved by factory authorized repair stations.

This warranty does not apply to normal wear, or to items whose life is dependent on their use and care, such as belts, cords, switches, hoses, rubber parts, electrical motor components or adjustments. Parts not manufactured by Minuteman are covered by and subject to the warranties and/or guarantees of their manufacturers. Please contact Minuteman for procedures in warranty claims against these manufacturers.

**Special warning to purchaser** -- Use of replacement filters and/or prefilters not manufactured by Minuteman or its designated licensees, will void all warranties expressed or implied. A potential health hazard exists without original equipment replacement.

All warranted items become the sole property of Minuteman or its original manufacturer, whichever the case may be.

Minuteman disclaims any implied warranty, including the warranty of merchantability and the warranty of fitness for a particular purpose. Minuteman assumes no responsibility for any special, incidental or consequential damages.

This limited warranty is applicable only in the U.S.A. and Canada, and is extended only to the original user/purchaser of this product. Customers outside the U.S.A. and Canada should contact their local distributor for export warranty policies. Minuteman is not responsible for costs or repairs performed by persons other than those specifically authorized by Minuteman. This warranty does not apply to damage from transportation, alterations by unauthorized persons, misuse or abuse of the equipment, use of non-compatible chemicals, or damage to property, or loss of income due to malfunctions of the product.

If a difficulty develops with this machine, you should contact the dealer from whom it was purchased.

This warranty gives you specific legal rights, and you may have other rights which vary from state to state. Some states do not allow the exclusion or limitation of special, incidental or consequential damages, or limitations on how long an implied warranty lasts, so the above exclusions and limitations may not apply to you.

**Cord Electric Group**..... Three years parts, two years labor, ninety days travel (Not to exceed two hours)  
**Exceptions**..... Port-A-Scrub, one year parts, six months labor  
MPV 13, one year parts  
MPV 14 and 18, two years parts, one year labor  
RapidAir blower, one year parts, one year labor  
Explosion-Proof Vacuum, one year parts, one year labor  
Pneumatic Vacuums, three years parts, one year labor  
EX 12 and EX12H, one year parts, one year labor

**Battery Operated Group**..... Three years parts, two years labor, ninety days travel  
(Not to exceed two hours)  
**Exceptions**..... Sweepers, one year parts, one year labor, ninety days travel  
(Not to exceed two hours)

**Internal Combustion Group**....One year parts, one year labor, ninety day travel  
(Not to exceed two hours)

**Replacement Parts**.....Ninety days  
**Batteries**.....0-3 months replacement, 4-12 months pro-rate  
**Polypropylene Plastic Tanks**...Ten years, no additional labor