


Minuteman[®]



User Manual

TRS-17 Total Recovery
System



This manual is furnished with each new **MINUTEMAN TRS 17**. 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.

Model ***TRS 17***

Model No. TRS17-115

Vac Motor	3 Stage
Water Lift	120" (305cm)
Capacity	17 gal. (64L)
Pump	600PSI (480PSI@nozzle), 0.85 gpm
Wheels	10" (25.4CM)
Casters	4" (10.16cm)
Length	37" (94cm)
Width	22" (56.88cm)
Height	39" (99.06cm)



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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: Never leave equipment unattended. Always unplug equipment before walking away.

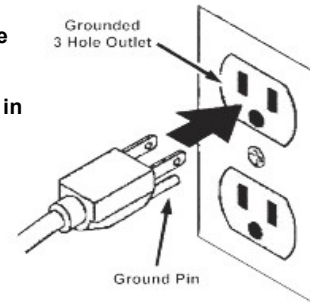


WARNING:



- **Hazardous voltage. Shock or electrocution can result. Always unplug machine before Servicing.**
- **Flammable Materials can cause an explosion or fire. Do not use flammable materials in tank(s).**
- **Flammable Materials or reactive metals can cause a fire.**

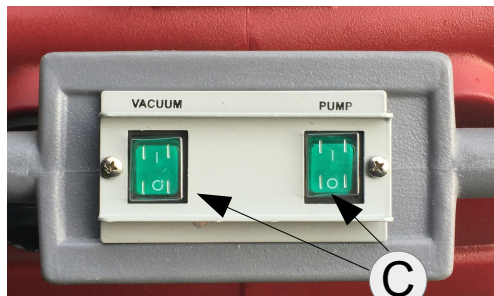
Grounding instructions: Machine must be grounded. This machine is equipped with a cord having an Equipment-grounding conductor and grounding plug. The plug must be plugged into an appropriate outlet that is properly installed in accordance with all local codes and ordinances. Do not remove ground pin; if missing, replace plug before use.



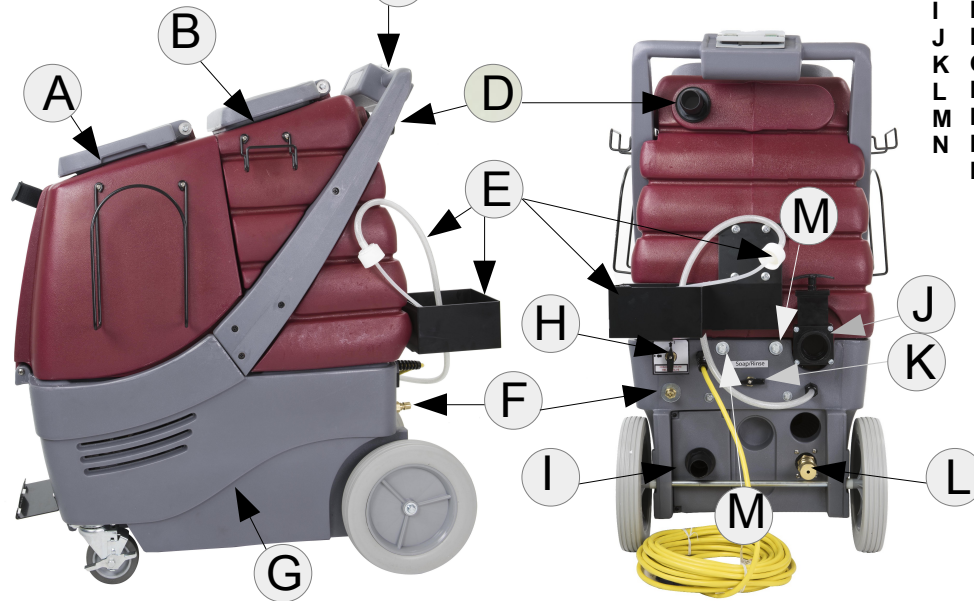
Safety Labels appear on the machine in various locations.
Replace labels if they become damaged or cannot be read.

This machine has warning labels on the left and right sides.
Labels warn operator of safe practices of equipment.

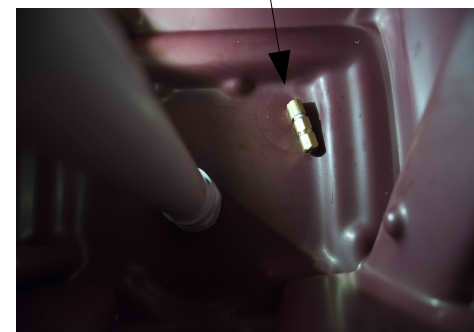
Machine Overview

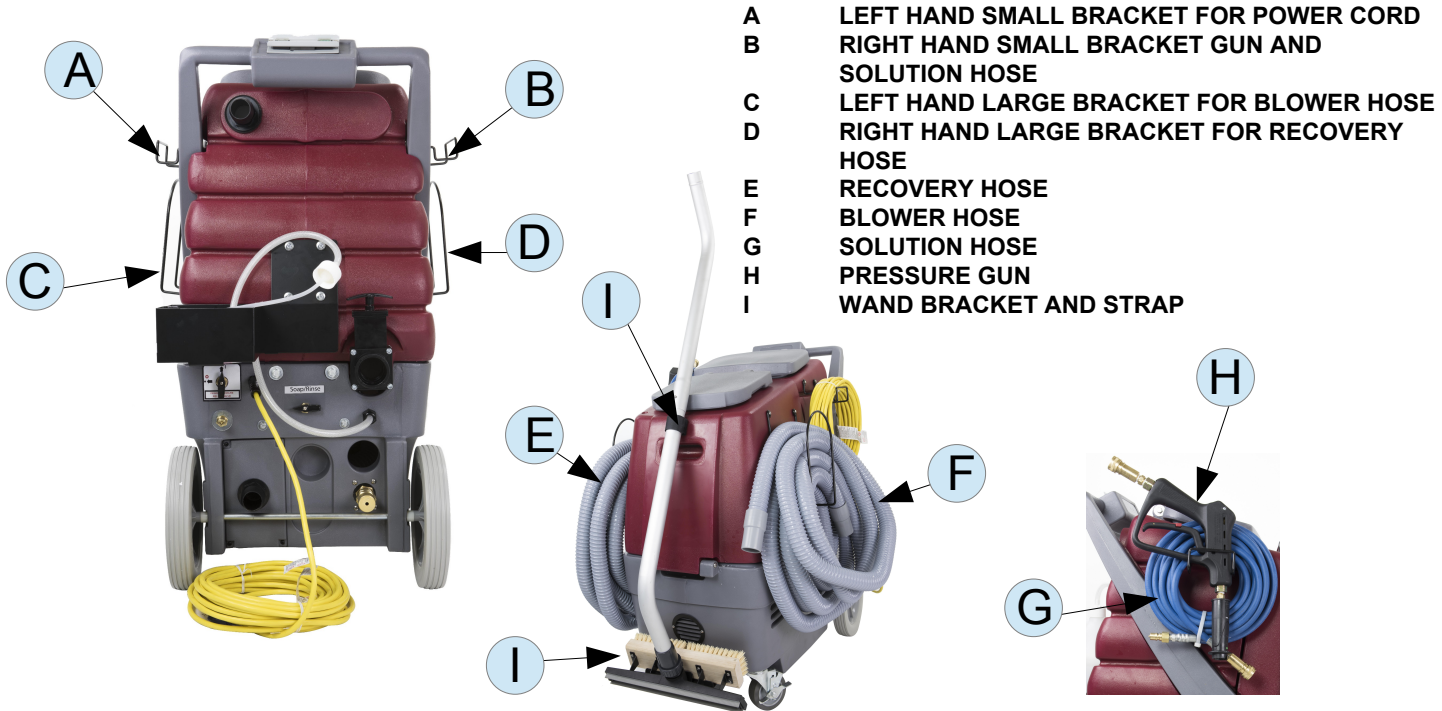


- A SOLUTION TANK
- B RECOVERY TANK
- C SWITCH BOX- VACUUM, PUMP
- D VACUUM HOSE CONNECTOR BARB
- E CHEMICAL FEED SYSTEM- BOTTLE DOCK AND INTAKE
- F SOLUTION HOSE Q.D.
- G MOTOR HOUSING/BASE



- H PRIMING/ PRESSURE RELIEF VALVE
- I BLOWER HOSE CONNECTOR BARB
- J RECOVERY TANK DUMP VALVE
- K CHEMICAL FEED SYSTEM VALVE
- L PRESSURE REGULATOR
- M MOTOR HOUSING ACCESS BOLTS (2)
- N PRESSURE RELIEF VALVE OUTLET IN RECOVERY TANK

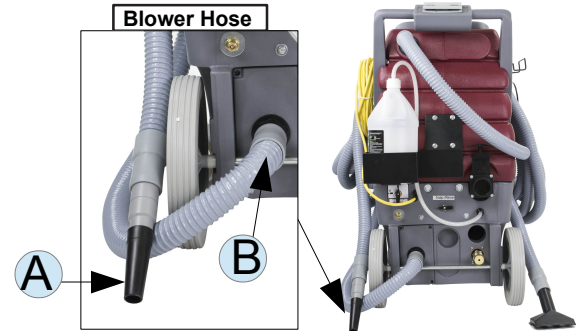




The TRS17 is equipped with 4 wire brackets. The two smaller brackets (A&B) are designed to hold the power cord, solution hose and accessories such as the pressure gun (G&H). The two larger brackets (C&D) are designed to hold the two larger hoses (E&F). The front of the unit has a convenient bracket and strap to secure the multi-purpose wand for easy transport (I).

Dryer assembly

The TRS 17 comes with a blower attachment. This attachment (A) hooks to the blower hose (B) and is designed to be used as a dryer by utilizing the vacuum motor exhaust exiting the rear of the machine.

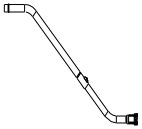









Clam Shell Design

Remove the two motor housing access bolts (SEE "M" ON PAGE 8) located on the rear of the machine. Lift up on handle to open unit. Once opened, loosen the hose clamp securing the vacuum hose to the bottom of the recovery tank. This will allow the top half to swing open for maximum accessibility.



121092 - TRS 17 Tool Assembly Complete

	<p>121089 - 1-1/2" Curved Wand</p>
	<p>121086 - 1-1/2" Gulper Tool</p>
	<p>121090 - Scrub & Vac Tool</p>
	<p>121091 - 1-1/2" Vac Hose Assy 25 FT.</p>
	

	<p>121101 - Blower Attachment</p>
	<p>9000AC - Pressure Sprayer</p>

Machine Set Up

When you receive the machine:

This machine is shipped fully assembled and in good operating condition. Great care has been taken, during the packing process, to ensure the machine will arrive in the same condition it left the factory. Carefully check carton for signs of damage. Report any damage to freight carrier immediately.



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.

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

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

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

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

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

Pre-operation

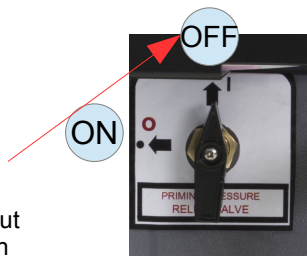
- Use a dry vacuum to remove any large debris
- Inspect cords and hoses for fraying or damage- replace if needed

Set up

- Open solution lid and fill solution tank with water or approved cleaning agent.
- Add an anti-foaming agent to prevent damage to vacuum system.
- Connect the female Quick Disconnect (Q.D.) on the high pressure solution hose to male Q.D. on bottom rear left of machine (see "F" on page 8). Make sure the Q.D.'s snap together firmly.
- Connect the male Q.D. on the high pressure solution line to the Female Q.D. on the wand. Make sure the Q.D.'s snap together firmly.
- Attach vacuum hose to recovery tank.
- Locate a dedicated 20 amp power circuit and plug the machine cord. Outlet must be properly grounded. Plugging into an ungrounded or improper outlet can result in equipment damage, fire, or harm to the operator/surroundings. Never disable the ground pin.

OPERATING INSTRUCTIONS

- Turn pump switch to on position
- Turn priming valve to open (“O”) position. See “H” on page 8.
- Confirm the unit is primed by observing steady flow from Priming valve outlet in Recovery tank. See “N” on page 8.
- Turn priming valve to off position. Never leave machine unattended with priming valve open.
- Switch on the Vacuum.
- Engage the chemical feed system by turning lever to the left side labeled “Soap”. To apply soap, pop the collar of the Pressure gun out into the low pressure setting. You can not apply chemical in the high pressure setting.
- Disengage the chemical feed system by turning the lever to the right side labeled “Rinse”
- Begin cleaning.
- Monitor your recovery tank water level to ensure your vacuum does not ingest liquid. If your machine stops vacuuming, check your recovery tank to ensure the vacuum shut off float is not engaged.
- Dump your waste water before the level reaches the shut off float.
- Work away from the outlet and power cord to prevent cord damage.
- After cleaning, turn your pump off then turn your Priming Valve to the open position to relieve pressure. Return to the closed position.
- Remove hoses and store on wire brackets. Roll up power cord and store on bracket.



Storing Machine

- Before storing machine be sure to completely rinse and drain both tanks of solution and waste water.
- Drain and dry both hoses
- Store machine in an upright position
- Store away from freezing temperatures
- Open recovery tank to promote air circulation

DRAINING RECOVERY TANK

- For your safety, turn machine off and unplug the power cord from the wall
- Remove solution and vacuum hoses
- Lift up on drain valve to empty contents of recovery tank. See “J” on page 8

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.

Daily Maintenance

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
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.

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.

Troubleshooting

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

Not plugged in.

SOLUTION:

Plug machine in proper outlet.

PROBLEM:

Building 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 20-amp circuit.

PROBLEM:

Wire from power cord has become disconnected from main harness.

SOLUTION:

Reattach wire to main harness.

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 water.

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:

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.

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



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