



## Electronic Service Manuals

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You may contact Michco through the following methods:  
Phone (517) 484-9312 or (800) 331-3339 MI, OH, IN only  
2011 N. High St. -- Lansing, Michigan -- 48906  
Fax: (517) 484-9836  
Email: [CustServ@Michco.com](mailto:CustServ@Michco.com)  
Web site: [www.Michco.Com](http://www.Michco.Com)  
Parts Web site: [www.FloorMachineParts.Com](http://www.FloorMachineParts.Com)

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By Fax: (517) 702-2041  
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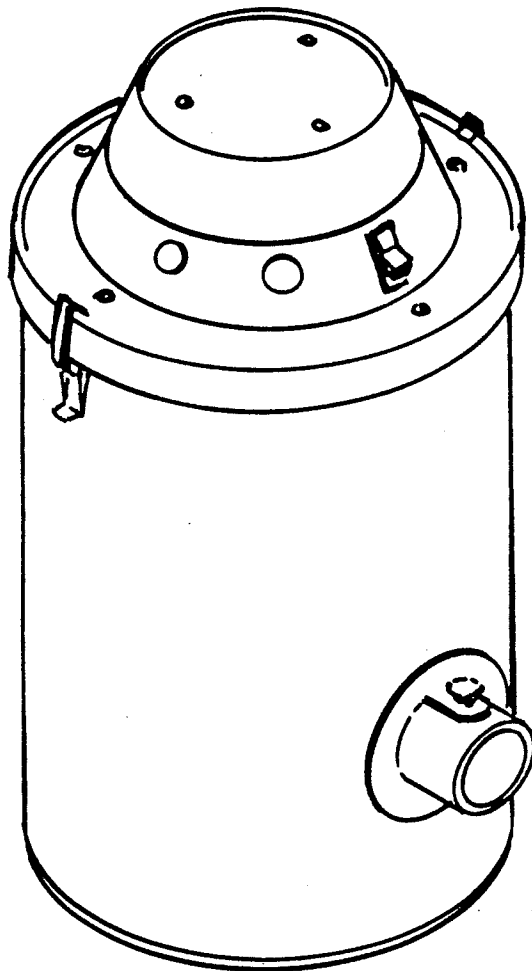
**Serving the Cleaning Industry Since 1922**

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**Critical  
Filter  
Vacuum  
X-1000**

**Model C80106 (X-1000-6)  
C80104 (X-1000-4)**

■ OPERATION ■ SERVICE ■ PARTS ■ CARE



Revised 4/94

**Minuteman<sup>®</sup>**

## **FOR COMMERCIAL USE ONLY**

### **IMPORTANT SAFETY INSTRUCTIONS**

When using an electrical appliance, basic precautions should always be followed, including the following:

#### **READ ALL INSTRUCTIONS BEFORE USING**

#### **WARNING - To reduce the risk of fire, electric shock, or injury:**

- Do not leave appliance when plugged in. Unplug from outlet when not in use and before servicing.

#### **WARNING**

Electrical shock could occur if used on wet surfaces. Do not expose to rain. Store indoors.

- Do not allow 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 attachments.
- Do not use with damaged cord or plug. If appliance is not working as it should, has been dropped, damaged, left outdoors, or dropped into water, return it to a service center.
- Do not pull or carry by cord, use cord as a handle, close a door on cord, or pull cord around sharp edges or corners. Do not run appliance over cord. Keep cord away from heated surfaces.
- Do not unplug by pulling on cord. To unplug, grasp the plug, not the cord.
- Do not handle plug or appliance with wet hands.
- Do not put any object into openings. Do not use with any opening blocked; keep free of dust, lint, hair, and anything that may reduce air flow.
- Keep hair, loose clothing, fingers, and all parts of body away from openings and moving parts.
- Do not pick up anything that is burning or smoking, such as cigarettes, matches, or hot ashes.
- Do not use without dustbag and/or filters in place.
- Turn off all controls before unplugging.
- Use extra care when cleaning on stairs.
- Do not use to pick up flammable or combustible liquids such as gasoline or use in areas they may be present.
- Connect to a properly grounded outlet only. See grounding instructions.

#### **SAVE THESE INSTRUCTIONS**

## INSPECTION

Carefully unpack and inspect your machine for shipping damage. Each unit is tested and thoroughly inspected before shipment, and any damage is the responsibility of the delivery carrier who should be notified immediately.

## ELECTRICAL

This machine is designed to operate on a standard 15 amp, 115 volt, 60 hz, AC circuit. Voltages below 105 volts AC or above 125 volts AC could cause serious damage to the motor.

## WARNING

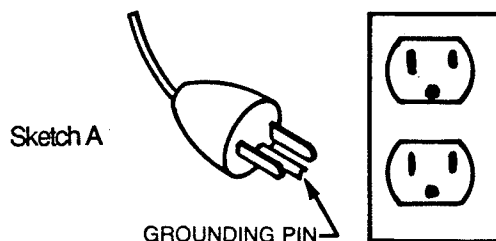
Electric motors can cause explosions when operated near explosive materials or vapors. Do not operate this machine near flammable materials such as solvents, thinners, fuels, grain dust, etc.

## GROUNDING INSTRUCTIONS

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

**DANGER** - 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.

This appliance is for use on a nominal 120-volt circuit and has a grounding plug that looks like the plug illustrated in sketch A below. Make sure that the appliance is connected to an outlet having the same configuration as the plug. No adapter should be used with this appliance.



## **USER MAINTENANCE INSTRUCTIONS**

All service and repair should be performed by qualified vacuum service representative or electrician. No user serviceable components are employed in the electrical vacuum lid head assembly. No lubrication of the motor is required.

### **CLOTH BAG & HOSE ASSY**

Cloth bag and hose assy. are user maintenance items and can be replaced when worn out. Cloth bags can be maintained by blowing dust off of the bag and then laundered. Cloth bags should be completely dried before re-installing into machine. For optimum performance, empty and clean filter bag regularly. A clogged and dirty bag restricts the flow of air and results in reduced vacuum. The Hose Assy can be maintained by wiping off with a dampened cloth of mild liquid soap and water, then allowed to dry.

### **CORD STORAGE**

While not in use storage can be accomplished by winding cord around motor lid assy. Cord should be completely unwound from Lid Assy. during operation.

- Do not use with damaged cord or plug. If appliance is not working as it should, has been dropped, damaged, left outdoors, or dropped into water, return to service center.
- Do not pull or carry by cord, use cord as handle, close a door on cord, or pull cord around sharp edges or corners. Do not run appliance over cord. Keep cord away from heated surfaces.
- Do not unplug by pulling cord. To unplug, grasp the plug, not the cord.
- Do not handle plug or appliance with wet hands.

Always unplug the machine when removing the motor head off the tank. This equipment should be stored indoors and not exposed to rain.

## **OPERATION AND FILTER CARE INSTRUCTIONS WHEN USED FOR ASBESTOS DUST RECOVER (X-1000-6)**

The Hako Minuteman Asbestos Vacuum has been specifically designed to clean up fibrous asbestos and asbestos dust of all types. Special filters reduce the incidence of airborne dust that would be created by any other method of cleaning.

During the removal of asbestos dust, do not sweep, scoop, shovel, or in any manner handle other than by vacuuming.

Do not at any time attempt to bypass, remove, substitute or by any other means change the filters used in this vacuum. Use only approved Hako Minuteman Asbestos Vacuum filters and filter bags.

Before attempting to use and before cleaning, be certain that you fully understand the instructions given for the setting up or cleaning/changing of filters of this vacuum.

Since each facility has its own individual and unique cleaning problems, it is suggested that you use the following guidelines in determining the length of time between filter changes.

In light cleaning situations (i.e. dust in brake drums and the truing of brake shoes) change filters once a day unless you have determined by checking that a shorter or longer period of time would be necessary to meet the 5 to 10 pounds of material.

### **TANK/FILTER SET-UP PROCEDURE**

1. Take the paper bag that has the cardboard collar attached and open it up by gently pulling the folds apart.
2. You will notice two creases on the top side of the collar; carefully bend the ends down (toward) the bag.
3. Insert this bag into the tank and push it to the bottom.
4. Locate the cardboard collar around the intake tube and gently work it up past the raised ring that runs around the tube.

5. Take the paper filter protector bag and insert it into the tank and snap the elastic band around the rim of the tank. (About 2 inches of the bag should be outside of the tank.)
6. Place the cloth filter bag onto and into the tank.
7. Place the formed wire basket into the cloth bag with wire ring toward the bottom of the tank.
8. Position the lid onto the tank.
9. Snap the lid latches into place.

For proper cleaning of tank and removal/changing of filters, see "Procedure for Removing Contaminated Filters and for Cleaning of Contaminated Tank".

## **PROCEDURE FOR REMOVING CONTAMINATED FILTERS AND FOR CLEANING OF CONTAMINATED TANK**

For the benefit of your health, you should always wear a face mask approved for use with asbestos any time you are using or cleaning this vacuum cleaner. You should also wear gloves.

1. Unplug machine from power source.
2. Carefully and slowly remove lid only (be sure you have not accidentally lifted the cloth filter bag at the same time). Set the lid/filter assembly aside.
3. Gently tap the inside of the cloth bag to loosen any particles that may be on the opposite surface. Do this all around the inside surface of the bag.
4. Gently remove the cloth bag and set aside.
5. Carefully undo the elastic band from around the tank, remove "filter protector" from tank and place into plastic bag marked "hazardous materials."
6. Using a wiping cloth, dampened with water (not soaking wet), wipe down all of the exposed surfaces inside of the tank; put the cloth aside-do not discard.
7. Carefully and "very" slowly, push the paper bag down and off of the intake tube, using the attached cardboard collar. After the collar is removed from the intake tube, take the damp cloth and wipe off any surfaces that were not previously wiped; at this time, rewipe the entire inside of the tank and drop the wiping cloth into the plastic bag.
8. **CAUTION:** Hazardous materials must be disposed of properly. Never throw contaminated debris in your usual trash receptacle. Place debris in a plastic bag or can marked "HAZARDOUS MATERIALS" and take to a hazardous waste handler.
9. For proper assembly of new filters, see "Tank/Filter Set-Up Procedure."

## **CHANGING THE PINK IMPACTION PREFILTER**

The pink impaction filter should be changed, using all of the precautions previously mentioned. The impaction filter should be changed when any of the following takes place:

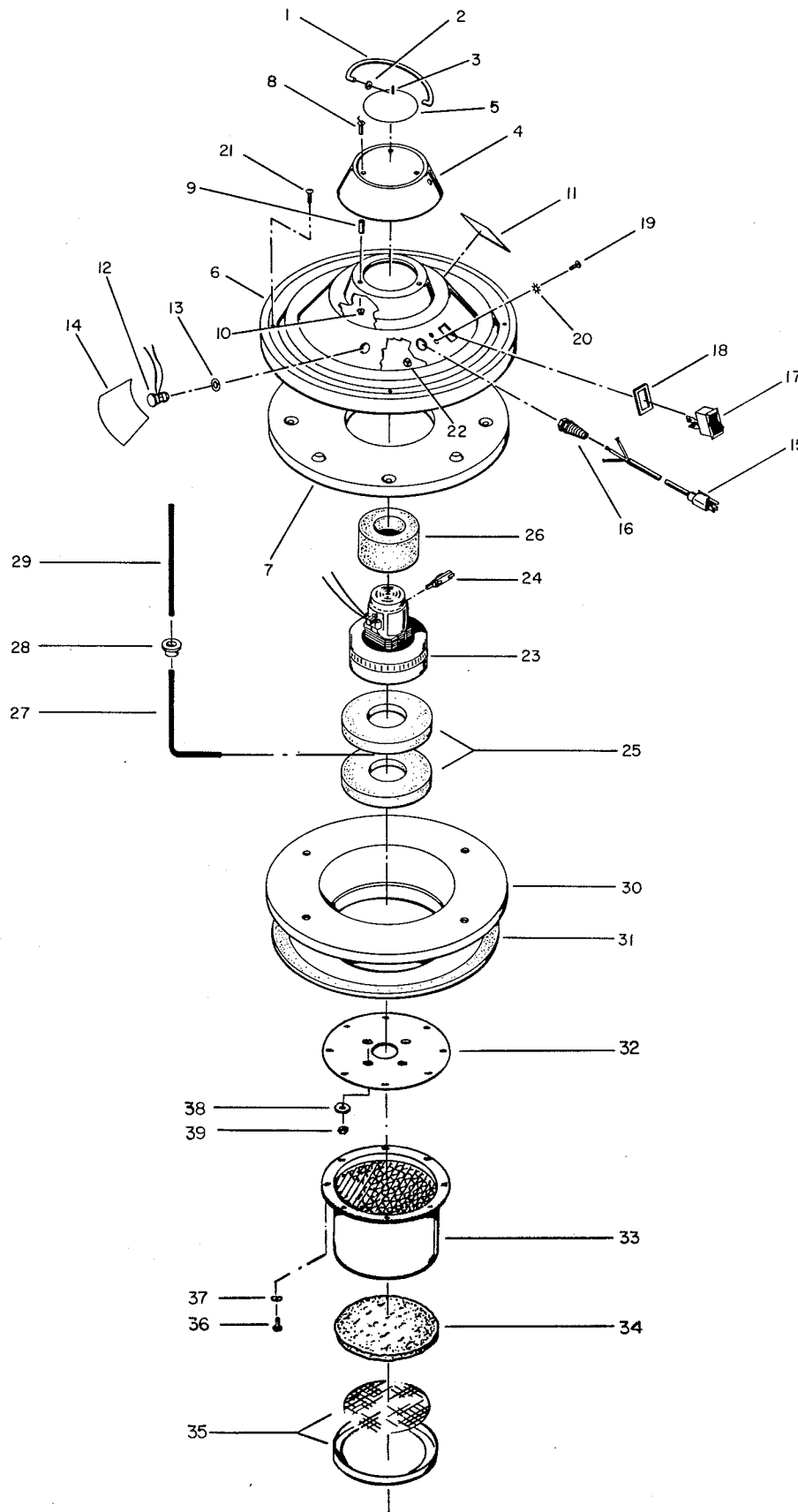
1. Anytime there is an indication of a filter tear during normal operation of the unit. This tear could be in any of the filters used.
  - a. paper dust containment bag
  - b. paper bag protector
  - c. cloth filter bag

These tears would show up during the tank clean-out procedure, or....

2. Every other tank clean-out period.

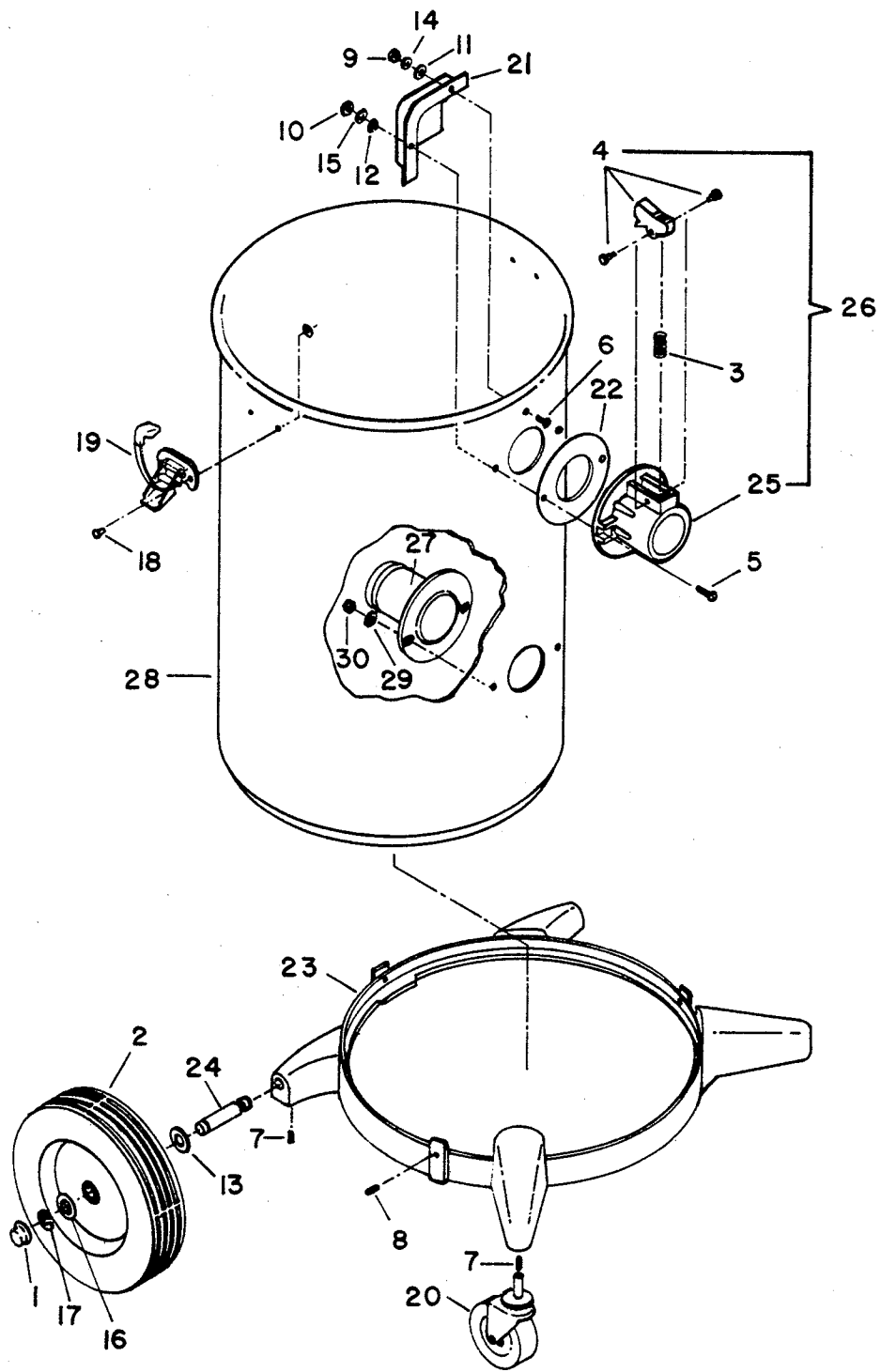
To change the impaction filter, do the following before you do Step #3 of the normal clean-out procedure.

- a. Wipe down all of the exposed surfaces on the underside of the removed lid, using the dampened wiping cloth (see Step #6).
- b. Carefully unclamp filter retainer from the side of the filter. Set the retainer aside.
- c. Remove the impact filter from the high efficiency filter. Be careful so as not to damage or puncture the paper media used in the final filter. Do not attempt to clean the pink impact filter in any way; dispose of by placing it into the tank you are now in the process of cleaning. **DO NOT USE ANY TOOLS TO REMOVE THE IMPACT FILTER.**
- d. Before proceeding any further in cleaning the tank, first place a new impact filter (one only) onto the H.E.P.A. filter. Replace the impact retainer and lock it into place by reclamping.
- e. You may now proceed with Step #3.



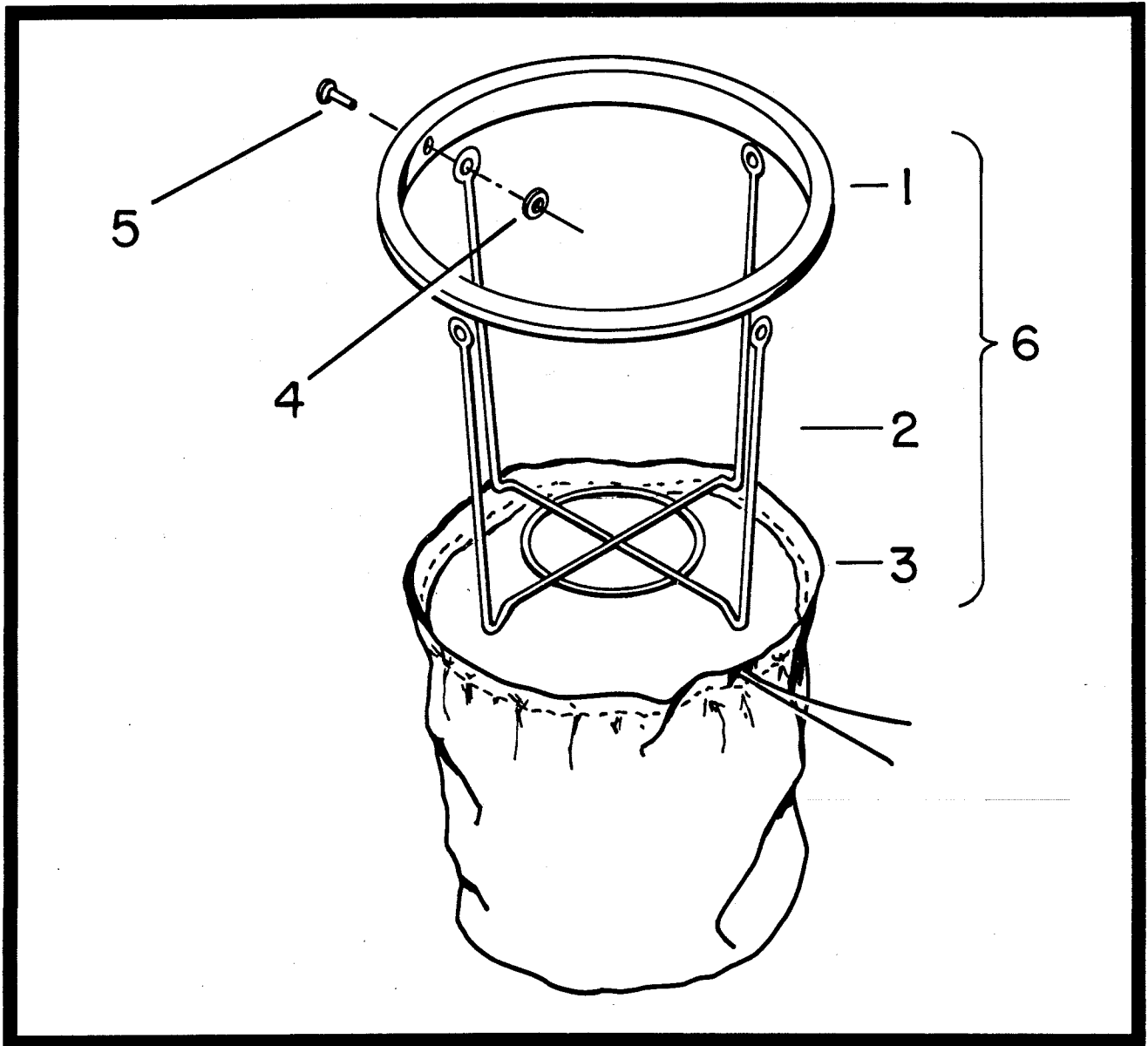
# PARTS LIST

ITEM	PART NO.	QTY.	DESCRIPTION
1	827743	1	Handle
2	711505	3	WSR - Flat
3	805073	2	Pin Cotter
4	831480	1	Motor Cap
5	715128	1	Decal Clor Bar P85 HEPA
6	760243PLT	1	Mtr Lid Cover PV6 Plated
7	760242PLT	1	Mtr Hold Down P85 PLT
8	712823	3	SCR-THMS 10-24 x 1.00 ST PL
9	831652	3	Spacer
10	712908	3	Nut-Flanged Wizz 10-24
11	715115	1	Decal Warning PV Dry
12	740088	1	Vac Light Sensor SW 115V
13	711715	1	Retaining Ring-Ext .75
14	715069	1	Decal Check Filters
15	381020	1	Orange Cord Set 16-3 50'
16	833237	1	Strain Relief
17	809754	1	Switch Rocker
18	831543	1	Gasket Switch
19	710355	2	SCR-MC 10-32 x .50 ST PL
20	711553	2	WSR-Internal Lock #10
21	711126	4	SCR-ST-B 10 x .75
23	380001	1	Vac Mtr Bypass 85" 115V
24	380028	2	Carbon Brush Repl.
25	828995	2	Gsk. Neop. 2.5 x 6 x .62
26	380064	1	Ring, Foam
27	760213	1	Venturi Tube
28	760904	1	Snub Bushing K375 x 125
29	760212	1	Vac Sensor Tube
30	760248	1	Mtr. Tank Lid w/Studs
31	760225	1	Gskt Lid 390 Series New
32	110012	1	Plate, Mounting
33	110010	1	HEPA Filter Copolm 1
34	110121PKG	1	Impact Filter SM RD PKG
35	750006	1	Retainer Impact Asy Comp.
36	710328	8	SCR-MC 8-32 x .37 ST PL
37	711552	8	WSR-Internal Lock #8
38	711519	4	WSR-Flat .25 x 1.01 x .06
39	711373	4	Nut-Nyloc 1/4 - 20



## PARTS LISTING



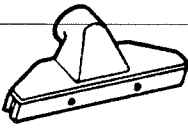

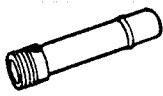

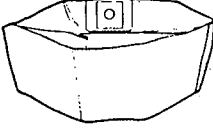
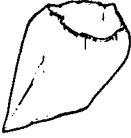
Item	Part No.	Qty.	Description
1	130032	2	Cap, Retainer
2	170047	2	Wheel 6"
3	390002	1	Spring .275 O.D.
4	390001	1	Trigger with Pins
5	712824	2	SCR-MC 10-24 x .75 ST PL
6	710530	1	SCR-MC 8-32 x .50 Brass
7	711005	4	SCR-SK 1/4-20 x .31
8	711006	3	SCR-MC 1/4-20 x .62
9	711304	1	Nut-Hex 8-32 ST PL
10	711310	2	Nut-Hex 10-32 ST PL
11	711502	1	WSR, Flat #8
12	711503		WSR, Flat #10
13	711582	2	WSR Wave .50 x .75 x .02
14	711542	1	WSR, Loc #8
15	711543	2	WSR, Helical Loc #10
16	711594	2	WSR, Flat .56 x .88 x .03 NI
17	711713	2	Retaining Ring-E Ext .50
18	711915	4	Rivet .19 x .28 x .37HD STNI
19	761054	2	Latch
20	900033	2	Caster, Swivel
21	900035	1	Deflector, Intake
22	390087	1	Gasket
23	900055PTD	1	Bracket, Wheel 4/6 Gal.
24	900066	2	Axle, Plated
25	390000	1	Intake, Injection Molded
26	390100	1	Intake, Injection Molded Comp.
27	750118	1	Tube Assy.
28A	900107	1	Tank, 4 Gal SS High Intake
28B	900083	1	Tank, 4 Gal PTD High Intake
28C	900093	1	Tank, 6 Gal SS Low Intake
28D	900092	2	Tank, 6 Gal PTD Low Intake
29	712320	2	Washer-Nylon .22 x .45 x .04
30	712638	2	Nut-Nyloc 10-24
****	805041	1	Cloth Filter 6 Gal
****	805044	1	Cloth Filter 4 Gal
****	761177PKG	1	Paper Filter Protector (12)
****	384003PKG	1	Disposable Paper Bag (10)
****	380049PLT	1	Bag Frame



### PARTS LIST

ITEM	PART NO.	QTY.	DESCRIPTION
1	760244MCH	1	Molded Bag Ring
2	760406PLT	1	Bag Frame
3	805040	1	Cloth Bag
4	711503	4	Washer
5	711903	4	Pop Rivet
6	800056	1	Bag Asy Comp.

**OPTIONAL INDUSTRIAL TOOLS AND ACCESSORIES**

<b>A</b>		800303	Hose Asy, Complete 1 1/2" x 10 ft.
<b>B</b>		800015	Wand Asy 1-1/2, Complete
<b>C</b>		800070 710356 710357 800187PTD 800217 800218	12" Gulper Tool SCR-MC 10-32 x .62 SCR-MC 10-32 x .75 Gulper Nozzle Fibre Shoe Rear Fibre Shoe Front
<b>D</b>		800024 800025 800176MCH	3" Rd Dust Brush, Alum, Complete Bristle Insert 5" Dust Brush HSG
<b>E</b>		800116	Swivel, Hose End Complete
<b>F</b>		110121PKG	Pink Impact Filter Protectors, Pkg. of 12
<b>G</b>		384003PKG	Disposable Paper Bags, Pkg. of 10
<b>H</b>		761177PKG	Disposable Filter Protectors, Pkg. of 12

## LIMITED WARRANTY

Minuteman International, Inc. warrants to the original purchaser/user that this product is free from defects in workmanship and materials under normal use and service for a period of three years from date of purchase. In addition, Minuteman International, Inc. will, at its option, honor labor warranty claims for the first 12 months from date of sale, provided such claims are submitted through and approved by factory authorized repair stations. Minuteman International, Inc. will, at its option, repair or replace without charge, except for transportation costs, parts that fail under normal use and service when operated and maintained in accordance with the applicable operation and instruction manuals.

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 International, Inc. such as engines, batteries, battery chargers, hydraulic pumps, and tires are covered by and subject to the warranties and/or guarantees of their manufacturers. Please contact Minuteman International, Inc. for procedures in warranty claims against these manufacturers.

**Special warning to purchaser** -- Use of replacement filters and/or prefilters not manufactured by Minuteman International, Inc. or its designated licensees, will void all warranties expressed or implied.

A potential health hazard exists without exact original equipment replacement.

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

Minuteman International, Inc. disclaims any implied warranty, including the warranty of merchantability and the warranty of fitness for a particular purpose. Minuteman International, Inc. 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 International, Inc. is not responsible for costs or repairs performed by persons other than those specifically authorized by Minuteman International, Inc. 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.

# ***Minuteman***<sup>®</sup>

**World Headquarters**  
Minuteman International, Inc.  
111 South Rohlwing Road  
Addison, Illinois 60101

(630) 627-6900  
FAX (630) 627-1130

**Minuteman Canada, Inc.**  
2210 Drew Road  
Mississauga, Ontario  
L5S 1B1

(905) 673-3222  
FAX (905) 673-5161