



Electronic Service Manuals

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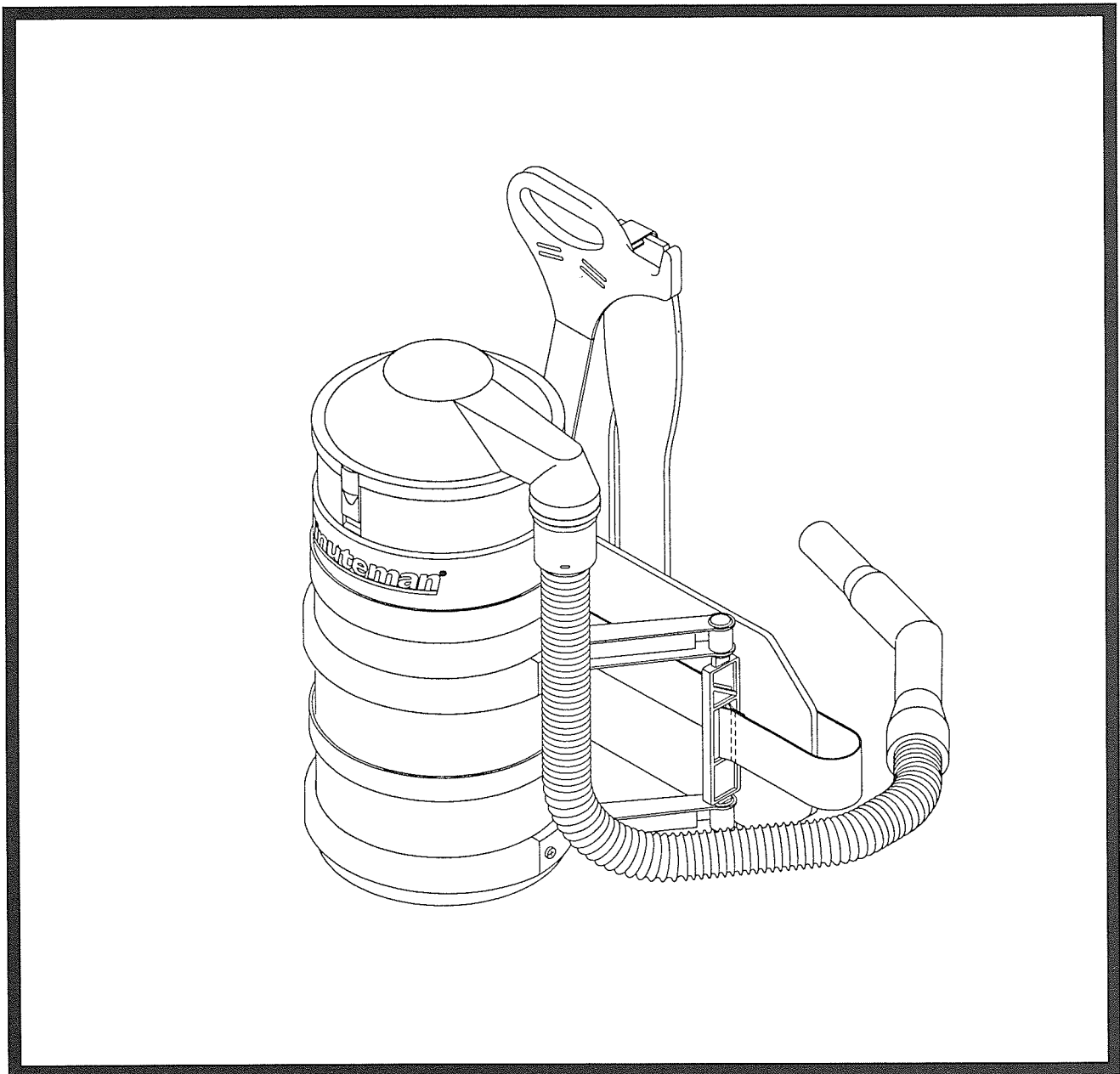
Serving the Cleaning Industry Since 1922

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BPV Back Pack Vacuum

Model No: C47185-00 115V
C47185-01 230V
C47400-00 115V, 400 HZ
C47195-00 115V
C47195-01 230V
C47190-00 115V
C47190-01 230V
C47185-01CE 230V
C47195-01CESWIS 230V
C47195-01CE 230V

■ OPERATION ■ SERVICE ■ PARTS ■ CARE



Revised 12/98

Minuteman[®]

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:

Electric shock could occur if used outdoors or on wet surfaces.

- Do not leave appliance plugged in. Unplug from outlet when not in use and before servicing.
- 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 where they may be present.
- Connect to a properly grounded outlet only. See grounding instructions.
- This machine is not suitable for picking up hazardous dust.

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.

USER MAINTENANCE INSTRUCTIONS

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

While not in use storage can be accomplished by winding cord around rear of machine. Cord hooks are provided.

This equipment should be stored indoors and not exposed to rain.

ELECTRICAL

This machine is designed to operate on a standard 15 amp. 120 volt, 60 hz, AC circuit. Voltages below 105 volt AC or above 125 volts AC could cause serious damage to the motor.

ELECTRICAL

This machine is designed to operate on a standard 10 amp. 230 volt, 50 hz, AC circuit.

WARNING

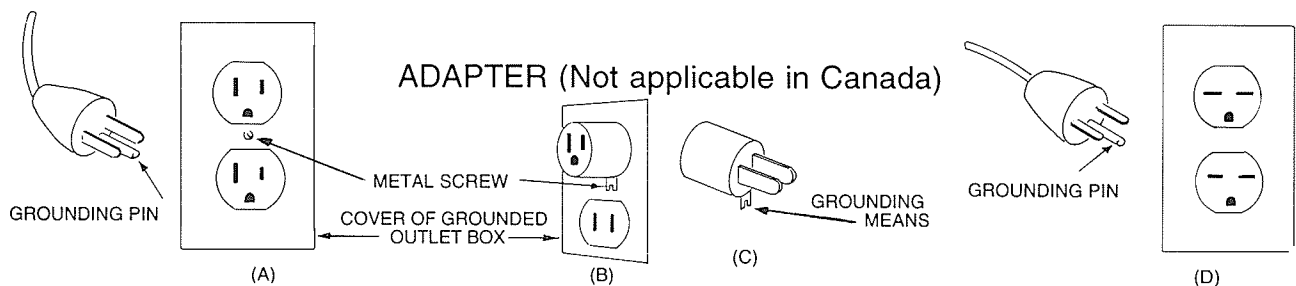
Electric motors can cause explosions when operated near explosive material or vapors. Do not operate this machine near flammable materials such as solvents, thinner, fuels, gain dust, etc.

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 machine.



POUR USAGE COMMERCIAL SEULEMENT

MODE D'EMPLOI SECURITAIRE

Lorsque l'on utilise un appareil électrique, des précautions de base doivent toujours être suivies telles que:

BIEN LIRE LE MODES D'EMPLOI AVANT USAGE

AVERTISSEMENT - Pour réduire les risques de feu, choc électrique ou blessure:

Pour réduire le risques des chocs électriques - Ne pas exposer à la pluie - Entreposer à l'intérieur.

- Ne pas quitter l'appareil lorsque la prise de courant est branchée. Débrancher de la sortie électrique lorsque la machine n'est pas en usage ou pour en faire le service.
- Ne pas permettre l'usage comme jouet. Etre très prudent lorsque l'appareil est utilisé en présence d'enfants.
- Utiliser tel que prescrit dans le livre d'opération et seulement avec les attachements recommandés par le fabricant.
- Ne pas s'en servir avec corde ou prise de courant endommagée. Si l'appareil ne fonctionne pas ou a été échappé, endommagé, entreposé à l'extérieur ou déposé dans l'eau, l'appareil devrait être envoyé à un département de service pour inspection.
- Ne pas tirer ou porter par le câble ou se servir du câble comme poignée. Ne pas fermer de portes sur le câble ou tirer le câble près d'objets pointus. Ne pas conduire l'appareil en écrasant le câble et soyez certain de protéger le câble entre toutes surfaces de chauffage.
- Ne pas débrancher en se servant du câble. Pour débrancher tirer sur la prise et non sur le câble.
- Ne pas manipuler la prise ou l'appareil avec les mains mouillées.
- Ne placer aucun objet dans la sortie et ne pas s'en servir si la sortie est obstruée. Eliminer toute poussière, maillon, cheveux ou quoique ce soit qui pourrait réduire le mouvement d'air.
- N'exposer aucun cheveux, vêtement, doigts ou autres aux ouvertures de l'appareil.
- Ne rien ramasser de ce qui brûle ou de fumée tels que cigarettes, allumettes ou cendres en feu.
- Ne pas employer sans filtre de poussière ou autre en position.
- Fermer tous les contrôles après utilisation.
- Soyez très prudent lors du nettoyage d'escaliers.
- Ne pas ramasser de liquide inflammable ou combustible tel que gazoline et ne pas utiliser dans les endroits ou ces derniers pourraient être présent.
- Brancher dans une prise avec une prise de terre seulement. Voir références pour prise de terre.

**CONSERVEZ CES RECOMMANDATIONS
DE MODE D'EMPLOI**

INSPECTION

Déballer soigneusement et inspecter la possibilité de tout dommage apparent. Chaque machine est complètement inspectée à l'usine et les dommages de transit sont la responsabilité de la compagnie de transport qui devrait être prévenue immédiatement.

INSTRUCTIONS A L'UTILISATEUR

Toute réparation ou entretien doit être fait par un représentant de service qualifié ou un électricien. Aucune pièce de la tête de l'aspirateur ne nécessite d'entretien de la part de l'utilisateur. Aucune lubrification du moteur n'est requise.

Si non en service, on peut le ranger en enroulant le cordon à l'arrière autour des crochets.

Cet équipement doit être rangé à l'intérieur.

ELECTRICITE

Cette machine est conçue pour opérer sur un circuit standard de 15 amp. 115 volt, 60 hz, circuit AC. Tous voltages en bas de 105 volts AC ou au delà de 125 volts AC pourrait occasionner des dommages au moteur.

ELECTRICITE

Cette machine est conçue pour opérer sur un circuit standard de 10 amp. 230 volt, 50 hz, circuit AC.

AVERTISSEMENT

Les moteurs électriques peuvent être la cause d'explosion si utilisés près de matériaux ou vapeurs explosifs. Ne pas opérer près de matériaux inflammables tels que solvant, gazolines, poussière de grain etc.

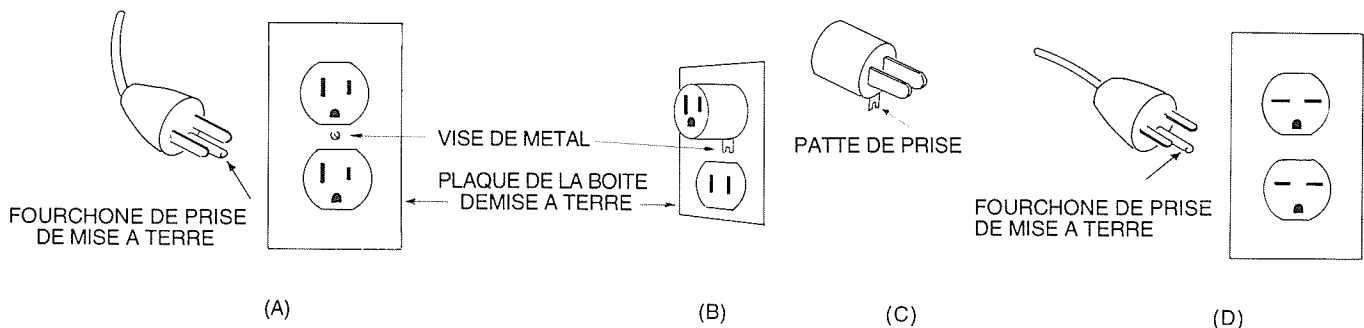
INSTRUCTIONS POUR PRISE DE TERRE

Cet appareil doit posséder une prise de terre, S'il y avait malfonction ou brisure, une prise de terre offre une voie de moindre résistance de façon à ce que le courant électrique réduise le risque de choc. Cet appareil est équipé d'une prise de terre de même qu'une prise de courant avec prise de terre. Cette prise doit être déposée dans une sortie adéquate qui sera installée selon les exigences et les lois locales.

DANGER - Un mauvais assemblage du conducteur de prise de terre pourrait causer un risque de choc électrique. Vérifier auprès d'un électricien certifié ou d'une personne qualifiée si vous avez des doutes à savoir si la prise est bien complétée. Ne pas modifier la prise qui vient avec cet appareil. Si la prise n'accède pas à la sortie, un électricien qualifié devrait la remplacer.

Cet appareil doit être utilisé sur un circuit de nominal de 115/120 volt et posséder une prise de terre qui ressemble à la prise illustrée dans le schéma A. Bien vous assurer que la sortie de courant soit de la même configuration que la prise. Aucun adaptateur ne doit être utilisé avec cet appareil.

ADAPTEUR (Non requis au Canada)



Removal of Lid

To remove the lid place a finger under the lid tab in front of the unit ONLY - NOT at the back where the handle is.

Pull tab out and up slightly to disengage tab from the canister and to clear the black ring on the filter bag. Grab lid by the elbow and pivot back towards the handle and lift up.

Fitting of Lid

The lid can be fitted so that the elbow (where the hose engages) is on the left or right sides. This enables the vac hose to be used by left or right hand operators. Remember to position the lid for the right or left before fitting the vacuum to your back.

To fit the lid, make sure the filter bag is located inside the canister so that the black ring on top of the filter bag is flushed with the top of the canister. Then locate the lid over the filter bag ring so that the tabs on the lid are in line with the inserts on the canister. Push lid firmly down so that tabs lock into position.

Fitting Unit to Operators Back

The unit comes with straps fastened for ease of packing. There are two distinct types of support pads.

Waist Back Pad Adjustments

- To unfasten hip belt buckle squeeze both “push-ins” with finger and thumb at the same time. To fasten simply slide pronged end into receiving end of buckle.
- To adjust hip belt straps pull on the free strap (on the pronged side). To loosen hip belt, unfasten buckle and slightly angle pronged part of buckle towards the vac and pull on the fixed end of the strap.

Shoulder Strap Adjustment

- To loosen simply tilt up strap lock and allow straps to slide. To tighten pull down on the bottom straps.
- Preferably lift the vac onto a table or countertop for ease of fitting.
- Loosen the shoulder straps (do not detach) slide arms under straps so that padding is over shoulders, **make sure straps do not twist**. Take up any slack on shoulder straps so that padding is over the shoulders.
- Sit the vac on your back so that the waist back pad is on top of the hips into the lower back.

This is important as the unit is ergonomically correct when the weight is distributed over the hips and not solely on the shoulders.

- Tighten hip belt so that the unit is snug in the lower back on top of the hips.
- Now pull on the lower shoulder straps to make a final adjustment to shoulder pads to suit your comfort.
- With the unit fitted comfortably, plug in electric cord into safe socket. To switch on, reach back with your left hand to the lower side of the unit to engage the switch and turn on.
Remember to bend at the knees when plugging in the cable or when bending to pick something up.

Operating the Vac

1. Stand upright as much as possible, your arm working the handle grip should be as straight as possible this will ensure that a) your arm is more relaxed and b) that the angle of the tubes/floor tool to the floor is easiest to push.
2. Remember to bend the knees to pick things up.

Removal of Unit

1. Turn off switch.
2. Release buckle on hip belt.
3. Loosen shoulder straps slightly, slide pad off one shoulder and then the unit from the other shoulder.
4. Unplug electric cable and wind the cable **starting from machine end and NOT the plug end**. This will help to prevent the cable from twisting and premature failing. When the cable is wound, place over **the hook position on the carry handle - DO NOT** wrap the cable around the machine or place behind the vac between the handle bar.

Maintenance and Storage

- Always empty filter bag when full. The filter bag is removed by detaching the lid and then lifting out the bag. Be careful not to get dust on the outside of the filter bag or inside the canister. Make sure the bag support stand is in position at the bottom of the canister under the filter bag. **This support stand must always be in position to support the filter bag to maintain vacuum performance.**
- Check filter bag for holes or tears. Replace filter bag immediately if torn or otherwise damaged.
- **The cleaner the filter bag is kept, the better the vacuum performs.** Remember this vacuum has powerful suction and can pull fine dust out of a carpet that other vacs may not have been able to do - this can mean that fine dust will coat the inside of the filter bag that could effect the performance - it could take a week or two to get all the fine dust out of the carpet. If fine dust, like talc, cement/plaster and fine clay is picked up it will clog the filter bag and reduce suction. Therefore, brush clean the inside of the filter bag regularly by turning the bag inside out to brush. Alternatively fit a paper bag inside the cloth filter bag.
- **Never wash the filter bag.**
- After use detach hose and clean out any dust build-up around the swivel cuff - this can be done by tilting and rotating detached cuff at vacuum inlet with vac switched on. Check hose, tubes, floor tool and unit lid for blockages regularly.
- When electric cable is **unplugged** check for any damage especially cuts. If damaged replace cable with a three core cable.
- Store unit upright on its base or hang by the carry handle. Always store cable on the hook of the carry handle. **DO NOT wrap cable around the machine and DO NOT store cable behind the machine over the carry handle bar.**

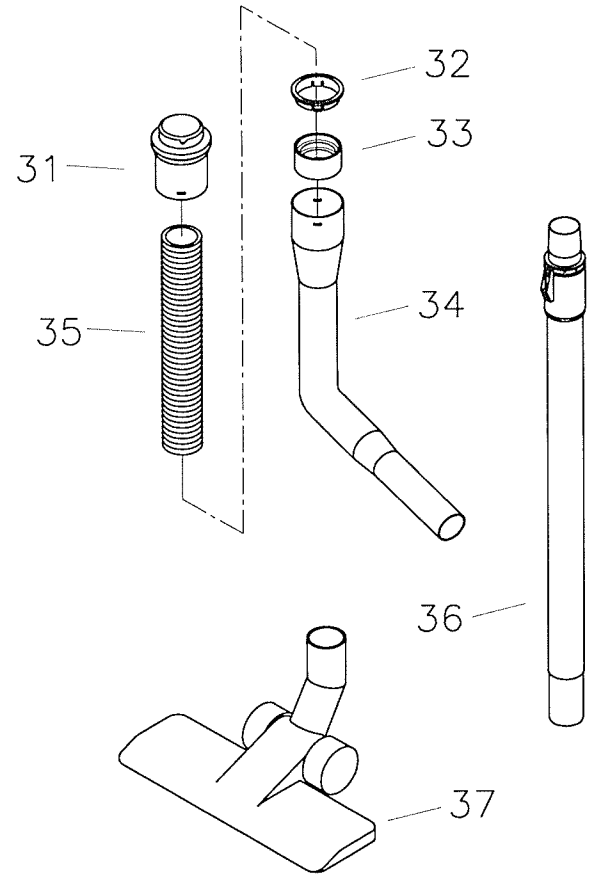
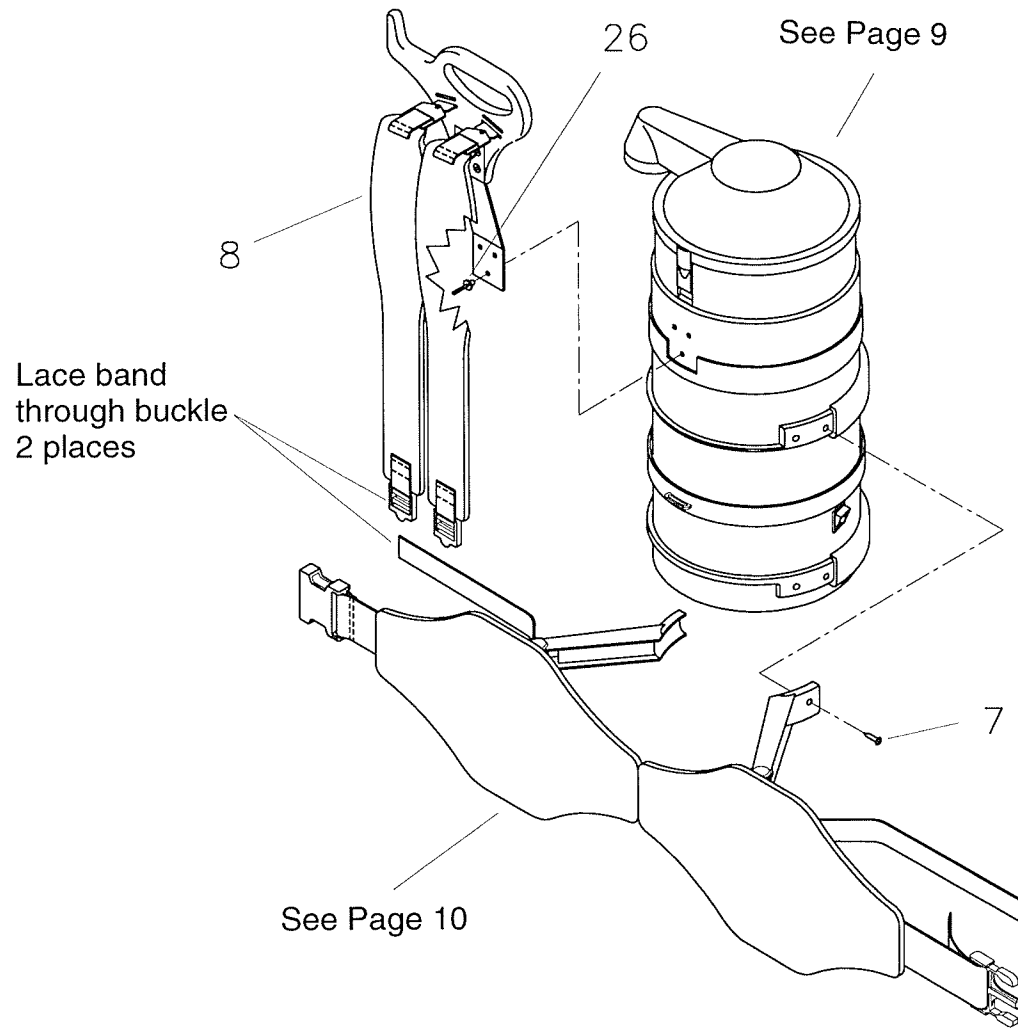
Paper filter bags

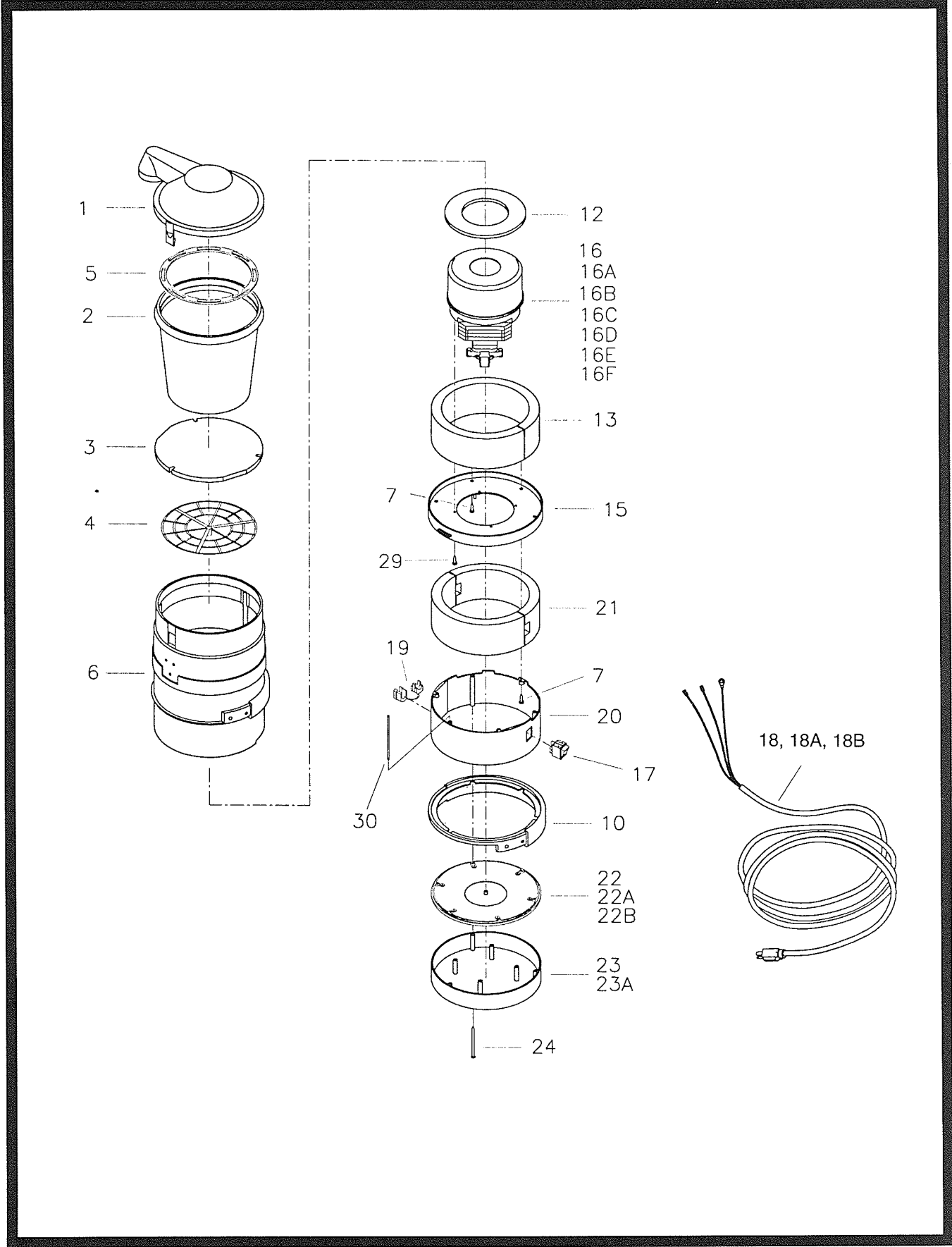
These are available from our supplier where you purchased this machine.

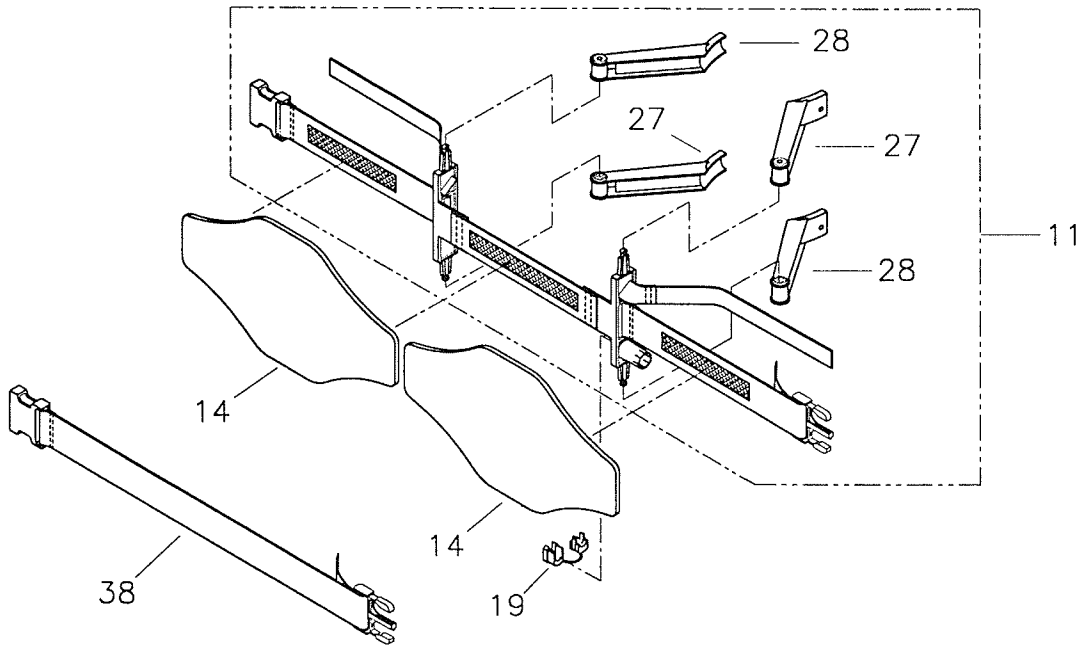
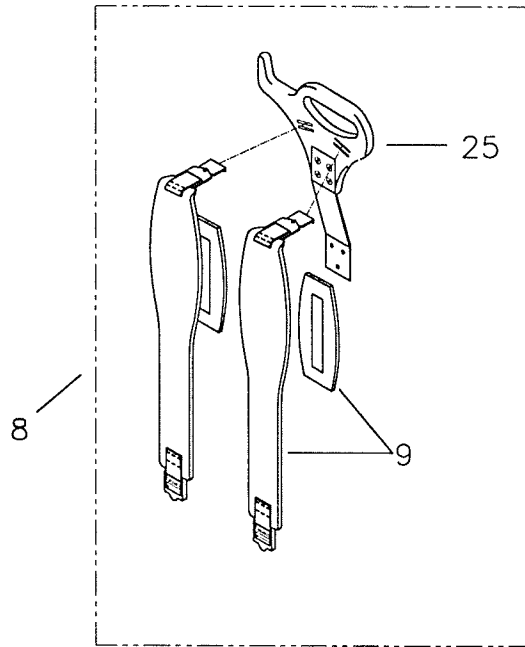
Parts List

Item	Part No.	Qty.	Description
1	293015	1	Inlet Cover Assembly
2	293017	1	Filter Bag
3	293018	1	Filter Disc
4	293019	1	Support Stand
5	293062	1	Filter Bag Ring
6	293075	1	Canister Assembly
7	293022	20	Screw #10 x 1.00
8	293065	1	Harness and Handle Assembly
9	293071	1	Shoulder Harness Assembly
10	293025	1	Bumper
11	293073	1	Back Pad Adjust Strap Assembly
12	293026	1	Motor Gasket
13	293028	1	Insulation, Top
14	293074	2	Back Pad
15	293030	1	Motor Support Disc
16	381001	1	Vac Motor 115V, Flow Thru
16A	381044	1	Vac Motor 230V, Flow Thru
16B	381062	1	Vac Motor 115V, H/P Flow Thru
16C	293066	1	Vac Motor 115V, Bypass
16D	293070	1	Vac Motor 230V, Bypass
16E	740612	1	Vac Motor 400 HZ, Flow Thru
16F	293077	1	Vac Motor 230V, H/P Flow Thru
17	740711	1	Switch
18	381020	1	Cord 120V, 50'
18A	740083	1	Cord 230V, 40'
18B	741027	1	Cord, Swiss
19	293044	2	Cable Grip
20	293031	1	Motor Shroud, Bottom
21	293032**	1	Insulation, Bottom
22	293033	1	End Disc, Bottom Flow Thru
22A	293068	1	End Disc, H/P Flow Thru
22B	293027	1	End Disc, Bottom Bypass
23	293034	1	Bottom Cap, Flow Thru
23B	293069	1	Bottom Cap, Bypass
24	293035	3	Screw CSK S/T #8 x 2.25
25	293036	1	Carry Handle
26	293037	3	Rivet
27	293067	2	Frame Bracket (bottom RHS, top LHS)
28	293072	2	Frame Bracket (top RHS, bottom LHS)
29	293047	2	Screw TEK #10 x 5/8"
30	293043	3	Pin
31	293058	1	Swivel Cuff
32	293059	2	Clip Ring
33	293060	2	Screw on Hull
34	293061	1	Pistol Grip
35	762241	1	Hose, 1.25 dia. x 4 ft.
36	293011	1	Telescoping Wand 1.25 dia.
37	293010	1	Combination Floor Tool 12"
38	293076	1	12" Extension Strap
39	293012PKG	1	Filter Bag, pkg. of 10

**NOT USED IN BY-PASS MODEL







FITTING THE PAPER BAGS

1. REMOVE THE LID.
2. OPEN UP THE PAPER BAG AND FIT INSIDE CLOTH FILTER (FIG. 1)
3. THEN FIT THE PAPER BAG RING INSIDE THE PAPER BAG
4. GENTLY REST THE PAPER BAG RING ON THE LIP OF THE CLOTH BAG (FIG. 2)
5. GENTLY FOLD THE TOP OF THE PAPER INWARDS OVER THE PAPER BAG RING (FIG. 3)

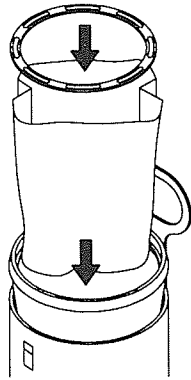


FIG. 1

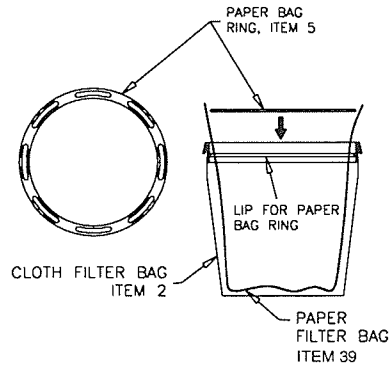


FIG. 2

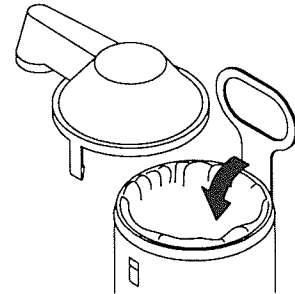


FIG. 3

REMOVING THE PAPER BAGS

1. REMOVE THE LID.
2. GRAB THE PAPER BAG WITH THE BAG RING (FIG. 4).
3. HOLD OVER RUBBISH BIN AND PULL OUT THE PAPER BAG RING THEN DISPOSE THE PAPER BAG (FIG. 5)
4. DO NOT THROW OUT THE PAPER BAG RING - IT IS TO BE RE-USED.

FIG. 4

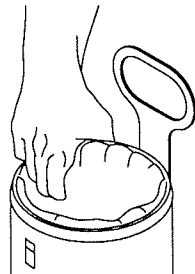
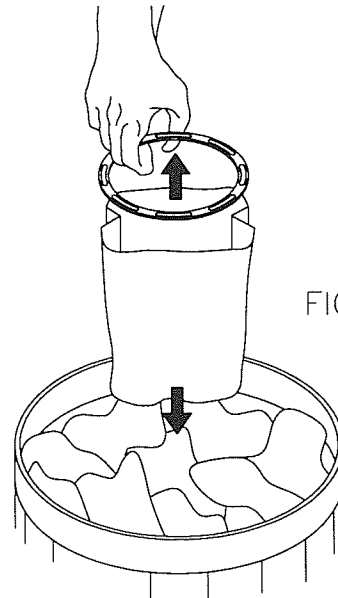
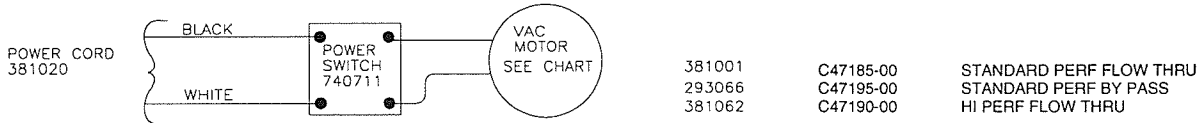
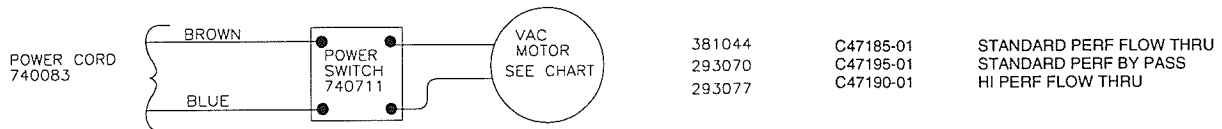


FIG. 5

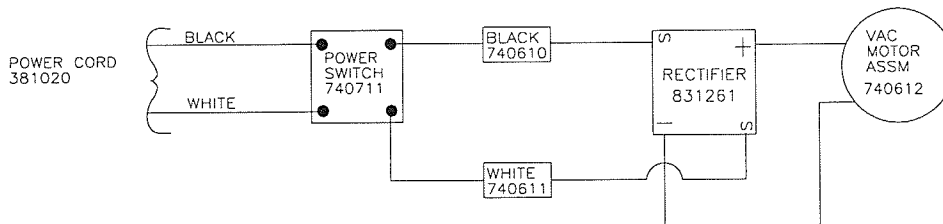




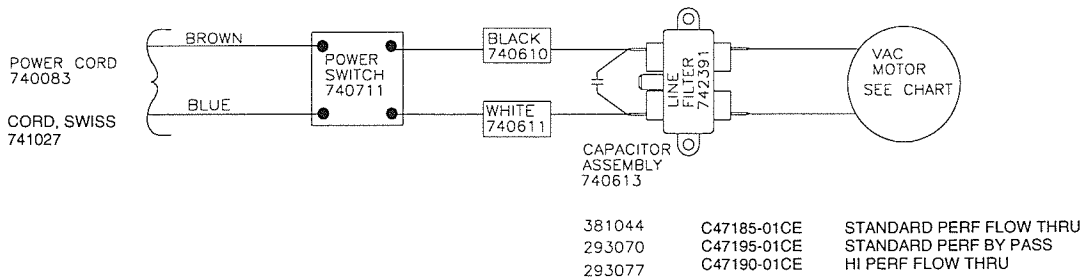
WIRING DIAGRAM 115 VOLT



WIRING DIAGRAM 230 VOLT



WIRING DIAGRAM 115 VOLT 400 HZ



WIRING DIAGRAM CE 230 VOLT

EC Declaration of Conformity

according to Directives 72/23, 89/392 and 89/336

We, Minuteman International Incorporated, of 111 South Rohlwing Road Addison Illinois 60101 USA, declare under our sole responsibility that the product C47185-01CE Commercial Backpack Vacuum to which this declaration relates corresponds to the relevant requirements of the EC Directives 72/23, 89/392 and 89/336. The following standards were used to determine compliance with the Directives: EN 292, EN 294, EN 811, EN 55014, EN 55104 and EN 60335-2-69.

SOUND		VIBRATION						
68 dB Operator	66 dB At 3m	1.8 m/s² At Operators Handle						
Tests were conducted on 11/20/97 with calibrated sound and vibration equipment under the conditions noted below: <table style="width: 100%; margin-top: 10px;"> <tr> <td style="width: 33%;">General Condition: Indoors</td> <td style="width: 33%;">Wind: 0 km/hr</td> </tr> <tr> <td>Temperature: 29°C</td> <td>Humidity: 70%</td> </tr> <tr> <td>Barometric Pressure: 29.5</td> <td></td> </tr> </table>			General Condition: Indoors	Wind: 0 km/hr	Temperature: 29°C	Humidity: 70%	Barometric Pressure: 29.5	
General Condition: Indoors	Wind: 0 km/hr							
Temperature: 29°C	Humidity: 70%							
Barometric Pressure: 29.5								

Kenneth Kaczmarz

Kenneth Kaczmarz, Standards Engineer

11/20/97

Date

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[®]

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