
Minuteman[®]
Excellence Meets Clean



**Parts and Instruction Manual
747 Wide Area Carpet Vacuum
Battery Power**

This manual is furnished with each new **MINUTEMAN 747 Wide Area Vacuum**. 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

Model	747
Model No.	MC827854
Height (retracted)	24" (61 cm)
Length (retracted)	37 ³ / ₄ " (96 cm)
Width	29 ¹ / ₂ " (75 cm)
Bristle width	26 ¹ / ₂ " (67 cm)
Volume flow rate	200 CFM (340 m ³ /hr)
Brush diameter	4" (10 cm)
Brush bristle	Conductive Nylon
Bag volume	9 ft ³ (.25 m ³)
Filter area	19 ft ² (1.75 m ²)
Hose diameter	5" (13 cm)
Motor	³ / ₄ HP (.6 kW), PM, 24VDC,
Wheel diameter (main)	16" (41 cm)
Wheel diameter (casters)	4" (10 cm)
Weight (without batteries)	154 lbs (70 kg)

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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, or injury:

- Do not leave appliance with batteries connected to machine. Disconnect batteries when not in use and before servicing.

WARNING

- 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.
- 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 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.

SAVE THESE INSTRUCTIONS

GENERAL BATTERY INFORMATION

Minuteman uses deep cycle batteries for all battery powered equipment. A deep cycle battery is designed for continuous duty over a long period of time. A deep cycle battery can be recharged many more times than a standard battery and still hold its original rating.

The batteries used for the AV-747-B are deep cycle, 80 amp hour batteries. It is very important to use deep cycle batteries in the machine to ensure extended life of the batteries. A common battery will usually have a life of 50 cycles before it begins to lose its original capacity. A cycle for a battery is when the battery is discharged then recharged. As you can see, a deep cycle battery should last up to 4 times longer than a standard battery.

A general rule for charging batteries after using the machine is for every hour the machine is run, the batteries should be charged for 2 hours. Example: If machine has run for 4 hours, batteries should be recharged for 8 hours.

BATTERY SERVICE AND INSTALLATION

•Warning: Battery acid can cause burns. When working on or around batteries, wear protective clothing and safety glasses. Remove metal jewelry. Do not lay tools or metal objects on top of batteries.

Have water readily available in case of an accident, for flushing acid from skin or clothing. Use plain water for flushing acid from eyes. Seek immediate medical attention.

When working on the electrical system of the machine, make sure the batteries are disconnected from the circuit.

CHARGING OF BATTERIES

Charging of batteries generates explosive gases. **DO NOT CHARGE BATTERIES WHEN OPEN FLAMES OR SPARKS ARE PRESENT. DO NOT SMOKE.** Make sure the charger is turned off before disconnecting it from the batteries. Charge the batteries in a well-ventilated area. Fluid levels should be checked before and after charging and maintained at the proper levels. The water should be to the bottom of the filler neck. Distilled water or tap water may be used. **CAUTION:** If water is to the top of the internal plates or below them, add water before charging or operating machine. This is an unsafe condition.

Check batteries periodically for leaks or cracks. If there are any leaks or cracks, replace the battery immediately. A leaking battery can cause a ground path that will reduce the life of the battery. Keep battery taps clean. If machine is not used for extended periods of time, batteries should be kept fully charged with a boost charge once a week.

MAINTENANCE AND OPERATION INSTRUCTIONS FOR AV-747-B VACUUM CLEANER

Though the AV-747-B is designed primarily for use on carpet, it performs very well on hard surface floors. Sand, dust, paper and so forth are readily vacuumed from these floors. However, it is not recommended that this machine be used to vacuum metal slugs, metal shavings or similar type debris from floors, either carpeted or otherwise.

Inspect the AV-747-B carton for shipping damage when received. Report any damage to delivering freight carrier immediately.

OPERATING

- a) Be sure the unit is used only on the voltage shown on nameplate.
- b) When starting the AV-747-B, push down slightly and momentarily on the handle. Doing this insures quick, easy starts, even when long pile carpets are being vacuumed.
- c) In general, carpets with short naps - such as indoor/outdoor carpeting - are best vacuumed with a setting of low, 2 or 3. Higher pile carpets are best cleaned with settings above 2. To adjust brush height, disengage the cam lever (on right side) from the machine base and position it in desired position. This handle is made to lock loosely in the positioning holes in the base.
- d) The rate at which an operator pushes the machine depends on the debris load, carpet nap length and type of debris. In areas where large amounts of "tracked in" sand are present, carpets should be vacuumed with a double pass - that is a forward and backward pass made without turning the machine around at the end of one pass. A slow, moderate walk pace by an operator, normally suffices to give good cleaning results.
- e) The filter bag should be kept clean. When it contains 15 - 20 pounds of normal debris, it is ready for cleaning. To clean, release bag clamp and remove from machine and empty.
- f) When storing, the handle may be folded over the cover. Two screws with wing nuts need to be removed from the handle assembly when it is put in this folded position.

MAINTENANCE

- a) Keep filter bag clean.
- b) A drop of number 30 oil should be applied to the caster bearings and main wheel axles, two or so times a year.
- c) To replace brush, remove brush drive belt from motor pulley by rotating motor shaft by hand and pulling outwardly on belt. Then, tip machine over on its top or side (hold motor mount assembly in position when tipping or turning over); remove the sheet metal guard covering the brush pulley. Use two small wrenches to simultaneously remove brush axle screws on each side of frame, and slip brush out of brush cavity. Remove screws, axle, pulley and bearing end caps from brush.

NOTE: Inspect and replace the brush bearing, if necessary, at the time of reassembly. When remounting end caps be sure to press them squarely into the machined brush ends. Note: Be sure to line up holes in caps and brush before pushing caps all the way into the brush core. After caps are lined up and pressed in squarely, tighten cap screws securely. All parts can now be reassembled. Turn both axle screws in brush axle at the same time for ease of installation. Also, be sure brush belt is on brush before putting brush in brush cavity. After brush axle screws are securely tightened, line up belt on brush pulley and then work the other end of the belt for tightness - it should be snugly tight, not taught. Adjust tightness, when necessary, by adjusting screw heights on front of motor mount platform. Check for tightness on fan belt also. If this belt is too loose, move motor toward front of machine by loosening motor mount screws and sliding motor on forward. Be sure motor is at right angles (square) with belts, then tighten mount screws. Recheck tightness of brush belt - adjust again, if necessary. Reassemble other parts and unit is ready for use.

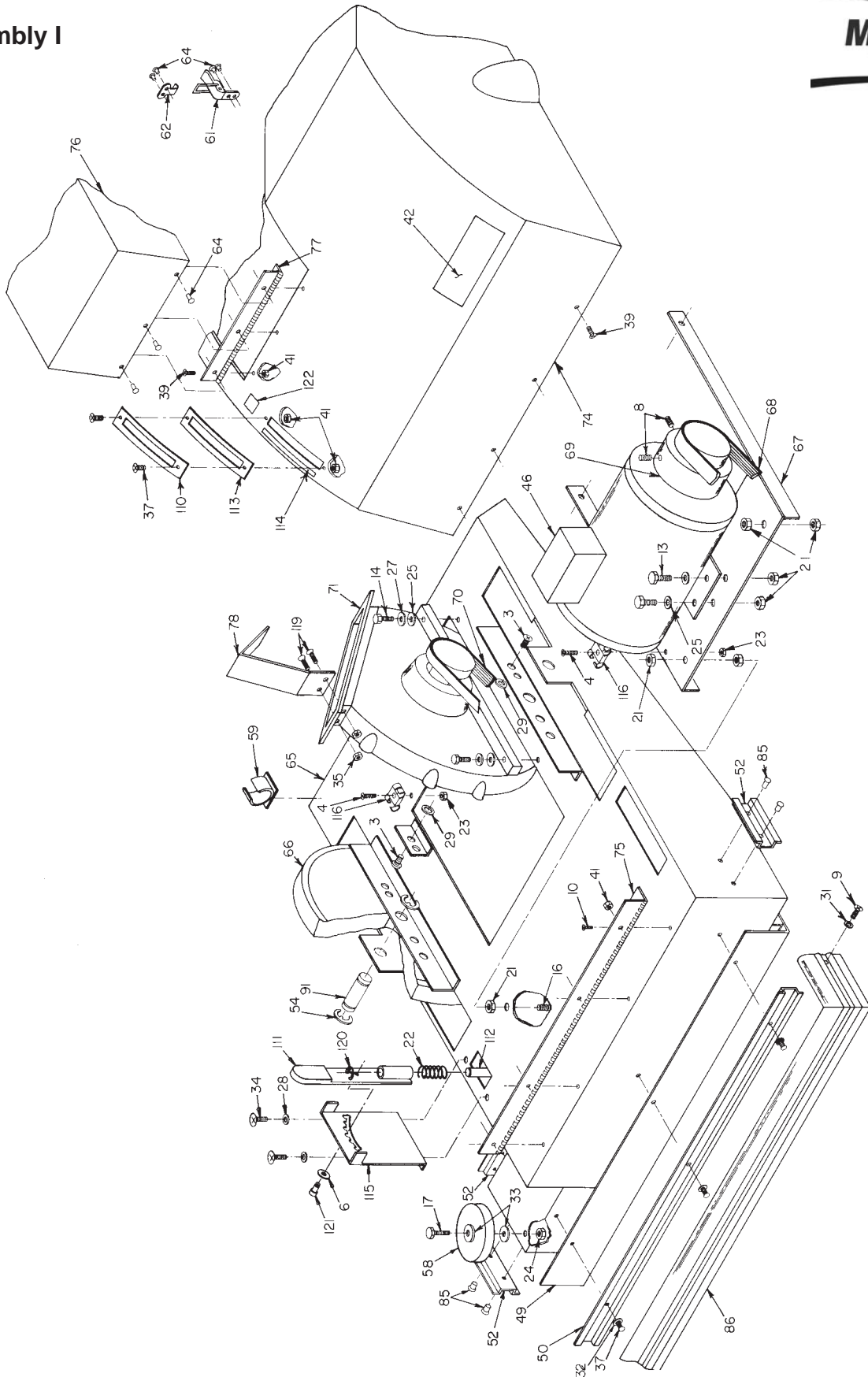
- d) When the filter bag is removed for cleaning (or replacement) be sure unit is disconnected from power source. It is good policy to inspect the fan to see if it has become fouled with debris such as string, wire and so forth.
- e) Periodically inspect the brush to determine whether it has become fouled with string, wire or similar debris.

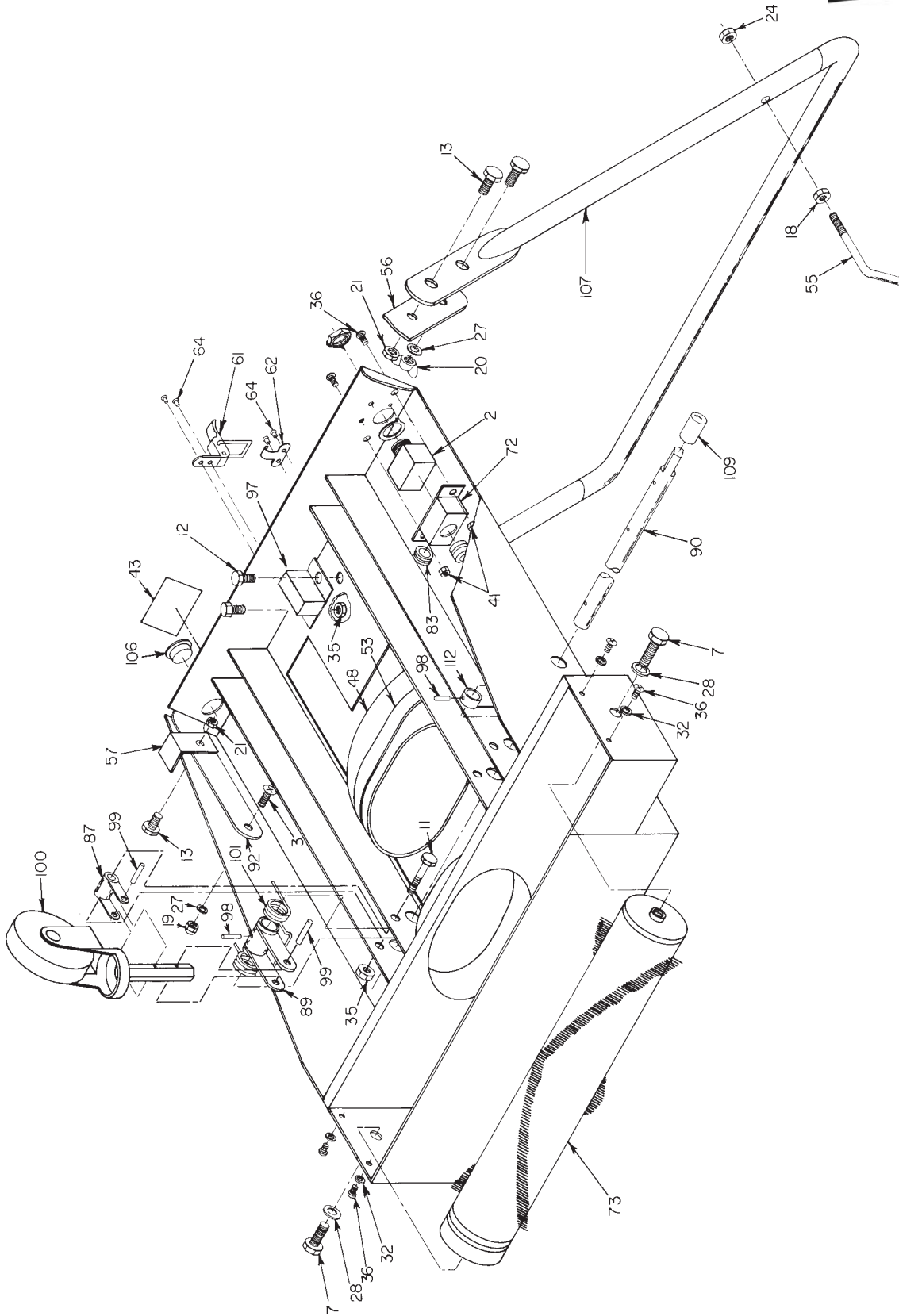
Main Assembly Bill of Material

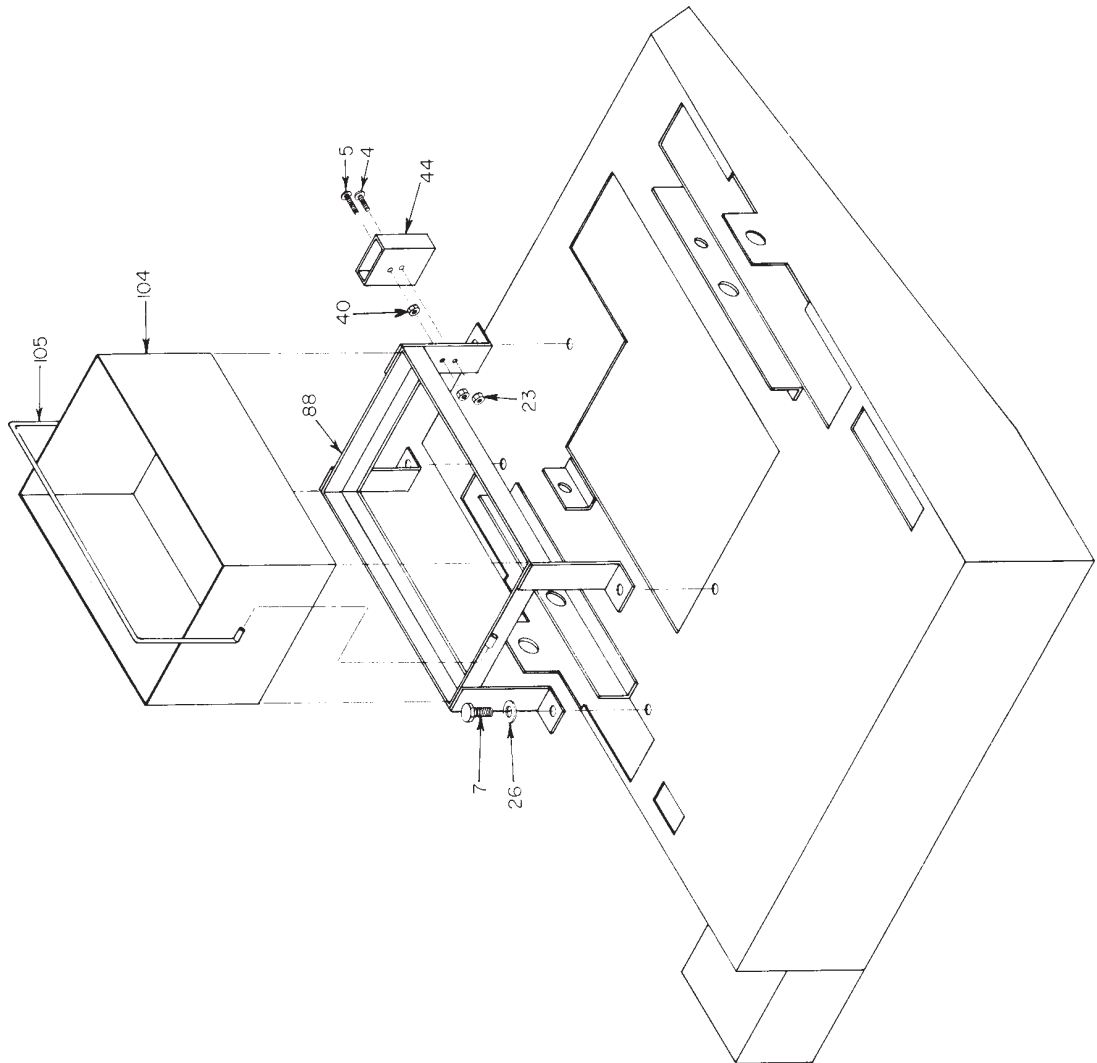
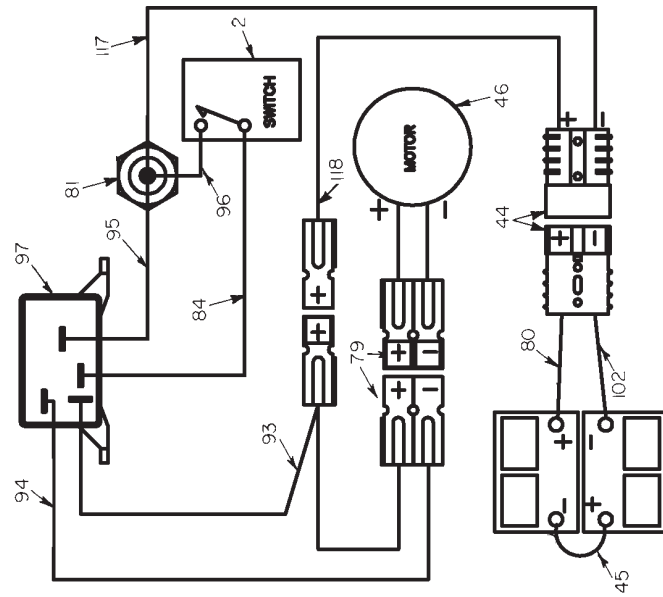
ITEM	PART NO.	QTY.	DESCRIPTION	ITEM	PART NO.	QTY.	DESCRIPTION
2	601163	1	SWITCH-20A125V LATCHING PB	68	827876	1	BELT-V 6 RIB POLY
3	710195	4	SCR-MC 5/16-18 X .50 ZINC	69	827877	1	PULLEY MOTOR
4	710207	3	SCR-MC 6-32 X .87 ZINC	70	827878	1	BELT-V 4 RIB POLY
5	710310	1	SCR-MC 6-32 X 1.5 ZINC	71	827880	1	FAN ASSY AV747
6	711599	1	WSR-FLT .187 X 1.00 X .06	72	827890	1	BOX SWITCH
7	710755	3	USE 711202 INSTEAD; SC 1/4-20 X .50 HEX Z	73	830721	1	BRUSH-STATIC FREE ASM
8	711016	2	SK 1/4-20 X .50	74	827905	1	COVER, 747 BATT
9	711115	1	SCR-ST-A 8 X .62 ZINC	75	827906	1	HINGE-BASE
10	711124	4	SCR-ST-B 10 X .37 NI	76	827910	1	COVER
11	711221	2	BLT-HH 1/4-20 X 2.25	77	827911	1	HINGE-COVER
12	712565	2	SCR-MC 1/4-20 X .62 SS	78	827912	1	BAFFLE
13	711228	8	BLT-HH 5/16-18 X .75 STL ZINC	79	827919	1	CONNECTOR-W/INSERT TERM
14	711231	4	BLT-HH 5/16-18 X 1.25	80	827925	1	CABLE ASY POSITIVE
16	710776	2	SCR-MC 5/16 X 2.50 ZINC	81	740132	1	INSULATOR (PLASTIC)
17	713045	1	BLT-HH 3/8-16 X 1.75 #5	82	828378	1	DECAL
19	711359	2	NUT-ACORN 5/16-18BR NIPL	83	828596	2	GROMMET
20	711366	2	NUT-WING 5/16-18 ST PL	84	740302	1	14G BLACK 13.50" B= 1
21	711379	16	NUT-FLANGED WIZZ 5/16-18	85	828893	6	RIVET
22	833929	1	SPRING-COMP .063 X .54 X 1.25	86	829182	1	BUMPER ASSY
23	711435	4	NUT-FLANGED WIZZ 6-32	87	829184	2	CASTER PIVOT
25	711506	8	WSR-FLT 5/16 (NARROW) ST PL	88	829185	1	BATTERY TRAY
27	711539	4	WSR-EXT LOCK 3/8	89	829186	2	CASTER BRKT
28	711544	8	WSR-HELICAL 1/4	90	829187	1	SHAFT
29	711575	5	WSR-FLT .31 X .75 X .06 STL	91	829202	2	AXLE REAR 747
31	712300	2	WSR #8 BR NIPL	92	829205	1	BRKT-HANDLE
32	711553	20	WSR-INT LOCK #10	93	829289	1	LEAD ASSY
33	711515	2	WSR-FLT .406 X .812 X .0625	94	829290	1	LEAD ASSY BLACK
34	712565	2	SCR-MC 1/4-20 X .62 SS	95	831026	1	WIRE LEAD ASY
35	712667	4	NUT-NYLOC 1/4-20 SS	96	809161	1	WIRE ASY 12GA BLK 18"
36	712810	10	SCR-MC 10-24 X .37 ZINC	97	740241	1	RELAY-24V 50AMP SPNO
37	712811	5	SCR-MC 10-24 X .50 STZ RD HD	98	829296	3	PIN-ROLL 1/4 X 7/8
39	712822	4	SCR-MC 10-24 X .50 SS TR	99	711620	4	PIN-ROLL .25 X 1.25
40	712900	1	NUT-HEX 10-24 STPL	100	829299	2	CASTER-SWIVEL
41	712908	12	NUT-FLANGED WIZZ 10-24	101	829310	2	SPRING-TORSION
42	715384	1	DECAL-MMAN 1.4 X 9.68 DK GRY	102	830301	1	CABLE ASY NEG
43	715029	1	DECAL-NAME PLATE SERIAL	103	831641	1	BAG, CLOTH 724/747 2-ZIPR
44	740097	1	CONNECTOR-SB50 RED HOUSING ONLY	104	830902	1	BATTERY BOX
45	740164-1	1	JUMPER CABLE ASSY, RED 4G 12"	105	830903	1	BATTERY STRAP
46	785208-1	1	DRIVE MTR .75HP 24V W/TERMINLS	106	832204	1	PLUG HOLE
48	808706	1	BLOWER HOSE	107	808759CTD	1	HANDLE 747 PVC COATED
49	833859	1	BRUSH PLATE 747 14GA	109	833472	1	END CAP 747
50	808720	1	BUMPER CLIP	110	833695	1	COVER PLATE 747 18GA
52	808737	3	BUMPER CLIP	111	833928	1	HANDLE, ADJUST NEW STYLE
53	808744	2	CLAMP-HOSE	112	833926	1	HANDLE MOUNT NEW STYLE
54	808756	4	RET RING-E TYPE .62 5133-62	113	833699	1	GASKET HANDLE 747
56	808760	1	HANDLE BRACKET	114	715506	1	DECAL-747 HEIGHT ADJ
57	808803	2	BRKT-HOLD DOWN	115	833927	1	ADJUSTING PLATE NEW STYL 3-16
58	808829	1	WHEEL-TRUCK	116	833725	1	CLIP-T
59	809444	2	CLIP-CORD	117	833762	1	8G RED 13.25
61	760428	1	LATCH ONLY-37-11-071-10	118	833763	1	8G BLACK 20.00"
62	760429	1	LATCH-KEEPER 372507117	119	710581	2	SCR-MC 1/4-20 X .75 ZINC
64	711910	2	RIVET-POP	120	711717	1	RET RING-E EXT .37
65	827855PTD	1	747 MAINFRAME PAINTED	121	832448	1	SHOULDER SCREW
66	827871	2	WHEEL	122	715504	1	DECAL-747 DISENGAGE
67	827873	1	MOUNT MOTOR				

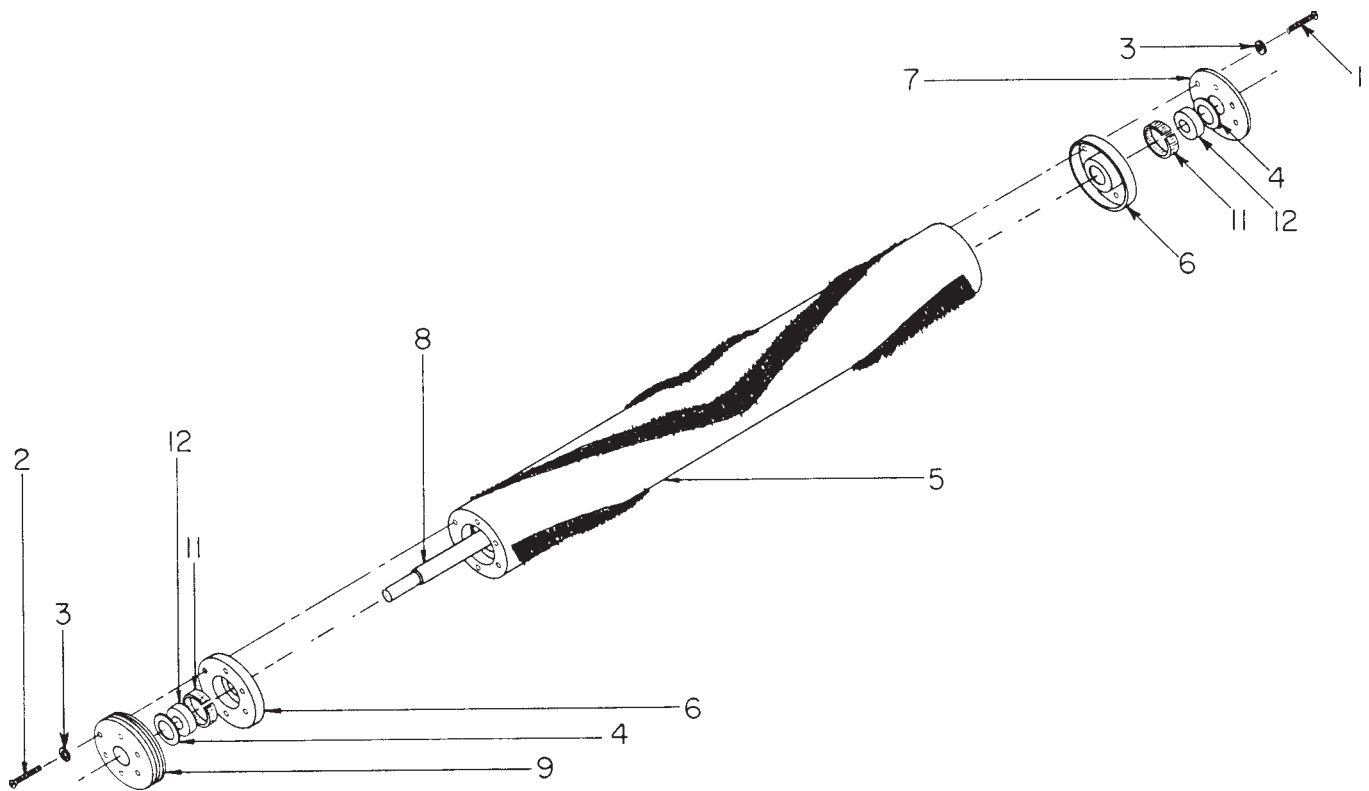
Diagrams for part numbers listed can be found on pages 5, 6, and 7

Main Assembly I

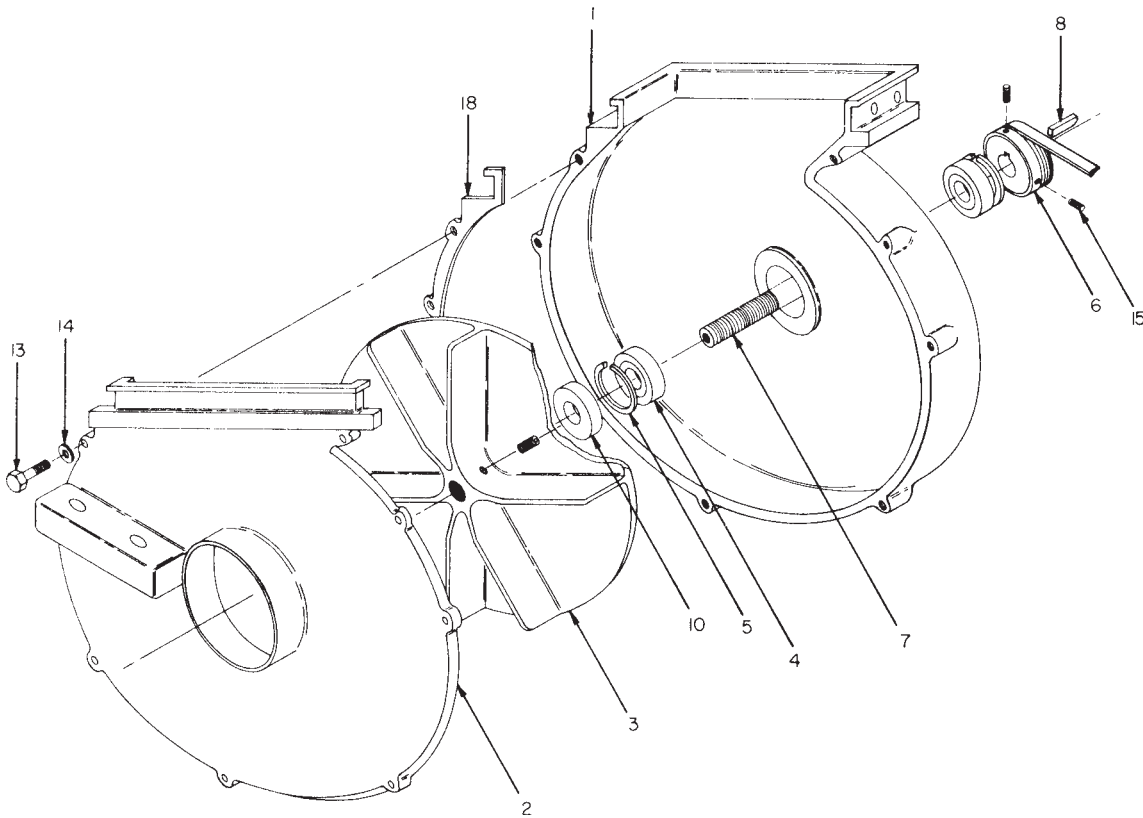




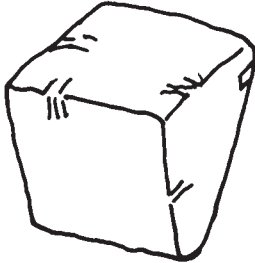
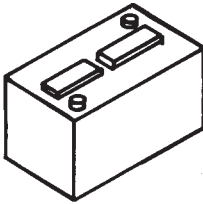
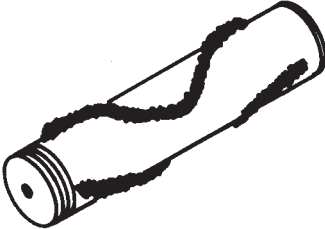
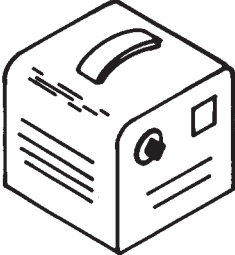




ITEM	PART NO.	QTY.	DESCRIPTION
1	711161	6	SCR - HI-LO #10-16 X 3/4, PAN HD. #10
2	711162	6	SCR-HI/LO #10 X 1 1/2 ZINC
3	711553	12	WSR-INT LOCK #10
4	712318	2	WSR-FLT .75 X 1.12 X .12 PL
5	828927	1	BRUSH-CORE STATIC FREE
6	827894	2	CUP BEARING
7	827896	1	COVER BEARING
8	827897	1	SHAFT BRUSH
9	827898	1	PULLEY BRUSH
11	828145	2	RET RING
12	828588	2	BEARING-.500 X 1.125 X .312
**	830721		BRUSH ASSEMBLY COMPLETE



ITEM	PART NO.	QTY.	DESCRIPTION
1	827881	1	HOUSING FAN BOTTOM MCH
2	827883	1	HOUSING FAN TOP MCH
3	808727BAL	1	BLOWER FAN BAL 724/747
4	801535	2	BEARING-MOTOR .6693 X 1.5748 X .4724
5	808733	2	RET RING
6	808734	1	FAN PULLEY
7	829183	1	SHAFT BEARING
8	808821	1	KEY-SQ .187 X 1
10	829285PLT	1	SPACER-.25 X .875 X .687 PLATED
13	711206	8	BLT-HH 1/4-20 X .87 STL ZINC
14	711544	8	WSR-HELICAL 1/4
15	711015	2	SK 10-24 X .37
18	827885	1	GASKET HSG
**	827880		FAN ASSEMBLY COMPLETE

	<p>831641 Cloth Bag 829277 Paper Bag Liner</p>
	<p>956721 Batteries</p>
	<p>827892 Nylon Tynex Brush Asy. 827893 Nylon Tynex Brush Core 830721 Static-Free Brush Asy. 828927 Static-Free Brush Core</p>
	<p>957722 Charger</p>

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