



Electronic Service Manuals

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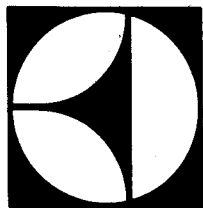
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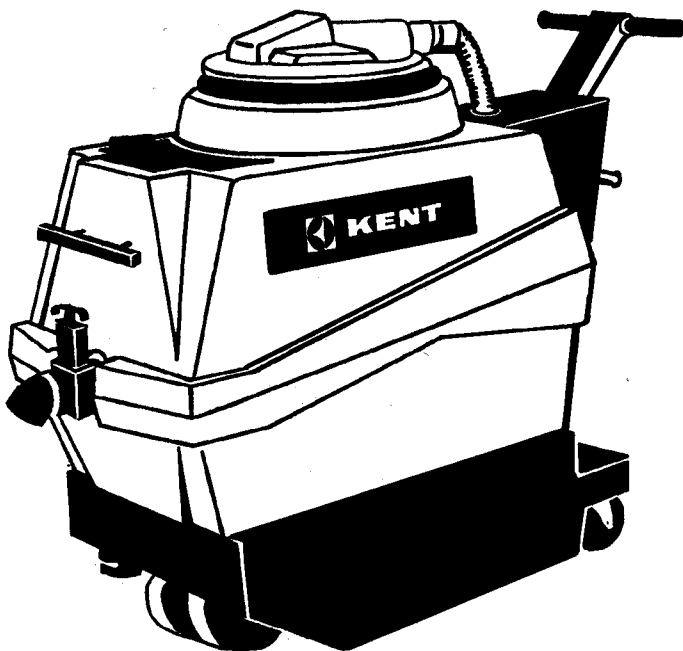
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Serving the Cleaning Industry Since 1922

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KENT



MODEL:
KX-20SC
SELF-CONTAINED
CARPET EXTRACTOR

OPERATING,
MAINTENANCE
INSTRUCTIONS
& ILLUSTRATED
PARTS LIST

THE KENT COMPANY

P.O. Box 1665

2310 Industrial Parkway

Elkhart, IN 46514

TEL: (219)293-8661, (800)334-1083

(800)642-6635 (Indiana)

FAX: (219)295-8610

TELEX: 25-8331 KENT CO EKR

JANUARY 1990

WRITE THE MODEL AND SERIAL NUMBER OF YOUR UNIT IN THE SPACE PROVIDED.
REFER TO THE DATA PLATE ON UNIT.

MODEL#

SERIAL#

RETAIN THIS OWNER'S MANUAL FOR FUTURE REFERENCE.

IMPORTANT RULES FOR SAFE OPERATION

This symbol points out important safety instructions which, if not followed, could endanger the personal safety and/or property of yourself and others. Read and follow all instructions in this manual before attempting to operate your machine.



CAUTION

It is important that in operation and handling the machine, certain normal precautions be observed to prevent the possibility of injury or damage.

Please read the rules for safe operation before you disassemble or use your machine.

SAFETY PRECAUTIONS

This Extractor is designed to be safe when used to perform cleaning functions as specified. Should damage occur to electrical parts, the Extractor should be repaired by the manufacturer or competent service agency before using to avoid further damage to the machine or physical injury to user.

A damaged power cord could cause electrical shock and/or fire. To minimize this possibility, observe the following precautions:

- Do not run over power cord.
- Avoid closing doors on power cord, pulling it around sharp edges, or placing sharp-edged objects upon it.
- Wind cord no tighter than is necessary to retain it.
- When disconnecting power cord from electrical outlet, grasp the plug. Pulling out by the cord itself can damage cord insulation and internal connections to plug. Also, avoid damage to insulation by keeping cord away from oil and heat.
- Whenever possible, plug the Extractor into a wall outlet. Use of extension cord or light socket with inadequate current carrying capacity could result in electrical shock or fire hazard.

- Switch power off before removing power cord from electrical outlet.
- Never store or transport the machine in below freezing temperatures.
- Do not use in areas where flammable and/or explosive vapor or dust is present to avoid possibility of fire or explosion. Some cleaning fluids can produce such vapors.
- Keep your work area well lighted to avoid picking up harmful materials and/or tripping accidents. Proper storage of machine in an out of the way area immediately after use will also prevent accidents caused by tripping over power wand.
- Store your Extractor indoors in a dry area not exposed to freezing or lower temperatures.
- Exercise strict supervision to prevent injury when using Extractor near children. Do not allow children to play or use Extractor and never leave it plugged in and unattended.

CUSTOMER RESPONSIBILITIES

Always use care when operating the machine. Keep clear of moving parts. Do not work on machine with power applied and observe the rules for safe operation. Keep the machine clean. Follow a regular maintenance and check schedule to provide efficient and safe operation. A well cared for machine will last longer and operate more efficiently. Always be careful for yourself and for others.

GENERAL INFORMATION

Your machine has been especially engineered and manufactured to give the maximum in performance in cleaning large carpeted areas.

With careful maintenance, according to the instructions outlined in the following pages, a high standard of operation throughout will be insured.

Carefully inspect all components to insure that there is no concealed freight damage. If such damage is discovered, file a "damage report" immediately with the delivering carrier.

The contents of this manual are based on the latest product information available at the time of publication. The right is reserved to make changes at any time, without notice, in price, color, materials, equipment, specifications and models.

SERVICE INFORMATION

To obtain consistent performance over the life of your

machine, read through these instructions and keep them handy for future reference. If you require service, contact the dealer from whom the machine was purchased, or the local authorized Kent service agency. Always refer to your Kent limited warranty for complete service information.

The model, type and serial number are indicated on the data plate. For prompt and complete information, always refer to these numbers when inquiring about service.

THE KENT CO.		
ELKHART, INDIANA USA		
SERIAL NO.	MODEL	
VOLTS	PHASE	Hz
MOTOR 1	A.M.P.	H.P.
MOTOR 2	A.M.P.	H.P.

GROUNDING INSTRUCTIONS

This machine should be grounded while in use to protect the operator from electrical shock. The machine is equipped with a suitable 3-conductor cord and a 3-prong grounding type receptacle. The green (or green and yellow) conductor in the cord is the grounding wire. Never connect the green (or green and yellow) wire to a live terminal. If your unit is for use on less than 150 volts, it has a plug that looks like Figure 1. If it is for use on 150 to 250 volts, it has a plug that looks like Figure 3. An adapter, Figure 2 is available for connecting Figure 1 plugs to 2-prong receptacles. The green (or green and yellow) grounding wire extending from the adapter must be connected to a permanent ground such as to a properly grounded outlet box. No adapter is available for Figure 3 plugs.

Use only 3-wire extension cords which have 3-prong grounding-type plugs and 3-prong receptacles that accept the appliance's plug. Replace or repair damaged cords.

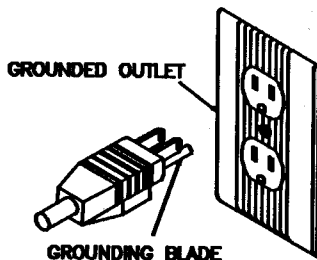


FIG.1

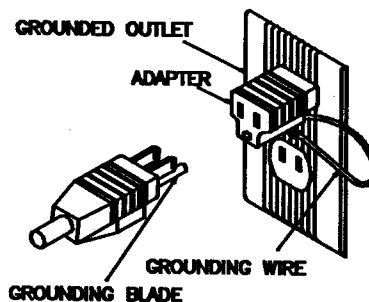


FIG.2

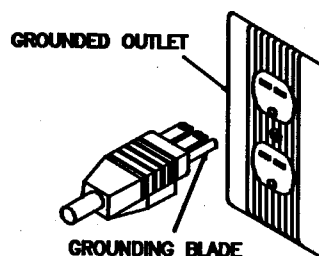


FIG.3

CARPET EXTRACTOR CONTROLS

CARPET EXTRACTOR CONTROLS

The control panel consists of three rocker switches, and above these are the corresponding indicator lights.

SWITCH #1 is a center-off switch that controls the pump. Pushing the rear half starts the pump and maintains solution pressure through the spray jets underneath. Pushing the front half of this rocker allows the use of the solution accessory fitting for upholstery cleaning. This position is also the one for activating the handle push switch for fingertip control of solution to the rug jets underneath.

SWITCH #2 is for starting the vacuum motor so that suction is available at the rug nozzle.

SWITCH #3 is for starting the brush agitation. The brush rotates with the direction of machine travel, which is forward.

The raise/lower lever located under the machine's handle grips is for lowering the extraction unit, which is suspended under the machine, into the "operate" position. Whenever the machine is not being used, or is being transported, this lever should be raised to lock in either side notch. The raised position keeps the brush in good condition for the next use.

The slide valve handle on the front of the machine opens and closes the discharge pipe of the recovery tank. This is used to dump the dirty liquid contents into buckets, low sinks, or drains.

OPERATION

The fill port of the solution tank is at the front of the blue, rectangular tank. Raise the hinged black cover and pour in cleaning ingredients. Water temperature must not exceed 130 degrees F (55 Degree C.).

Plug the power cord into a 115V grounded outlet and into the rear electrical socket of the machine. Operate the controls according to instructions given in previous paragraphs. The cleaning path will be 20" wide. Overlap the strokes, and proceed at a slow, steady rate. Extracted dirt and fluid are visible through the clear vacuum tank lid. When the recovery tank becomes too full, the float valve will close the vacuum port. This prevents drawing water into the vacuum motor in the lower compartment. When a carpet area is finished or recovery tank is full enough, stop the solution jets by releasing the handle push button and/or pushing switch #1 to OFF position. This prevents wetting the carpet unnecessarily. Also turn off the brush and vacuum motors by pushing switches #2 and #3 to "OFF". Place the raise/lower lever into the raised position. Dump the recovery tank only when containers or floor drains are available to catch the contents. When a job is completed, rinse the recovery tank thoroughly with clean water, and let dry by keeping the vacuum lid off.

CAUTION NOTE: Use non-foaming chemicals only. If a malfunction such as overflow of the recovery tank should occur, immediately shut off the vacuum motor, and pull the power cord plug from the wall. In no case should solution water be allowed to enter the vacuum port leading to the vacuum motor. Clean debris away, or correct problem that has caused this to happen.

MAINTENANCE

Clean the recovery tank at the end of each day, and leave covers off until next use, or until tanks are dry to prevent tank odors.

Clean fibrous material from underneath machine, and from areas of moving parts in recovery tank.

Replace a power cord that has become damaged.

TROUBLE SHOOTING GUIDE

(PROBLEM) WATER LEAKS THRU NOZZLES WHILE THE MACHINE IS OFF.

- The electric valve in the solution hose isn't sealing. Replace the valve if necessary.

(PROBLEM) SOLUTION NOT SPRAYING FROM NOZZLES WHEN PUMP SWITCH IS ON OR PUMP SWITCH BUTTON ON HANDLE IS DEPRESSED.

- If pump is running the fault is clogged hoses, filter or nozzles. Clean out is required. If pump will not run check for switch failure or bad wiring before replacing pump.

(PROBLEM) SOLUTION SPRAY PATTERN NOT EVEN, OR IS SOLID STREAM STREAKED RUG.

- Nozzle has lime or soap build-up. Unscrew the faulty nozzles and clean in vinegar. Do not use a sharp, hard object to scrape or punch thru the fine nozzle openings. The nozzle orifice should not be enlarged. Any small particle clinging inside the nozzles can cause streaking. Raise front of machine near a floor drain and observe the four (or five) jets in operation. Each spray pattern must be perfectly symmetrical to do a good job.
- A trouble light positioned on the floor for illumination is a great assistance in analyzing this problem.
- Any nozzle emitting an unsymmetrical stream must be removed. Temporarily remove its filter screen and clean out any debris. Note: A single hair or a tiny sliver of metal is the debris commonly found. Replace the nozzle if it can't be corrected by following the above instructions.

(PROBLEM) STAINED SPOTS ON RUG.

- Stains may remain after common dirt and food particles are extracted from rug. To prevent this, carefully pretreat petroleum and other stains using recommended chemicals and methods before extracting.

(PROBLEM) CARPET SOAKS UP WATER AND NOT MUCH WATER IS RECOVERED.

- Vacuum loss due to vac motor failure, tank gasket leakage, hose not tight or obstruction in suction nozzle area. Correct.

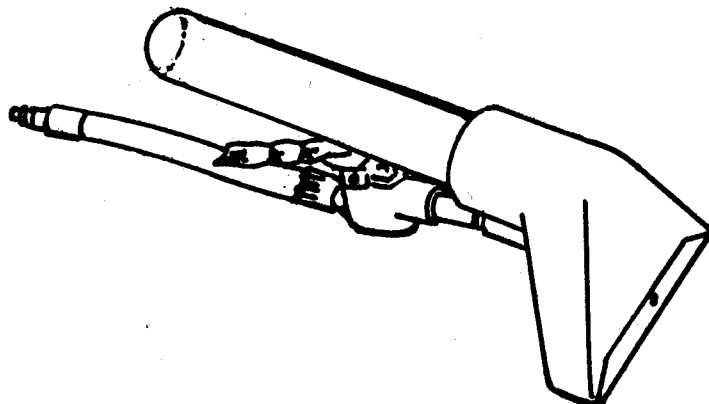
(PROBLEM) NO SOLUTION, BUT PUMP SWITCH IS ON. CARPET LOOKS STREAKED BEFORE AND AFTER DRIED.

- No solution in tank. Also, can get same results when solution gets very low in tank. Be sure to overlap strokes.

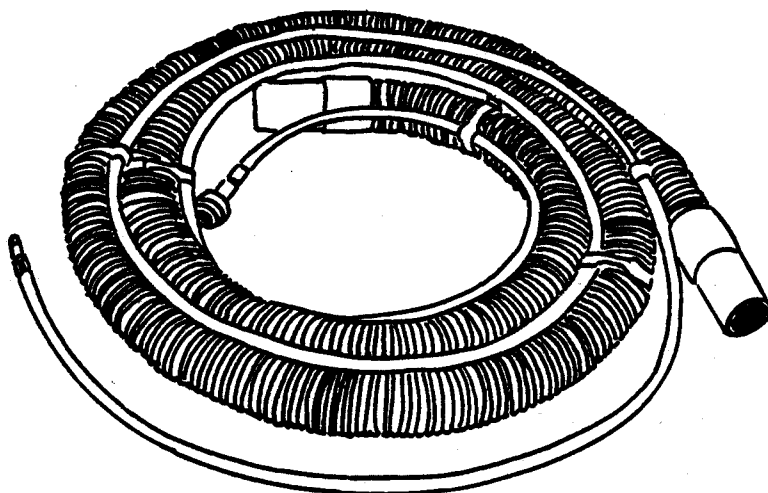
(PROBLEM) INDICATOR LAMP GOES "OFF" WHEN EXTRACTOR SWITCHES ARE TURNED ON, AND NOTHING RUNS.

- The wall outlet power source has blown fuse in breaker/fuse box located in building. There are no fuses in these machines.

ACCESSORIES:

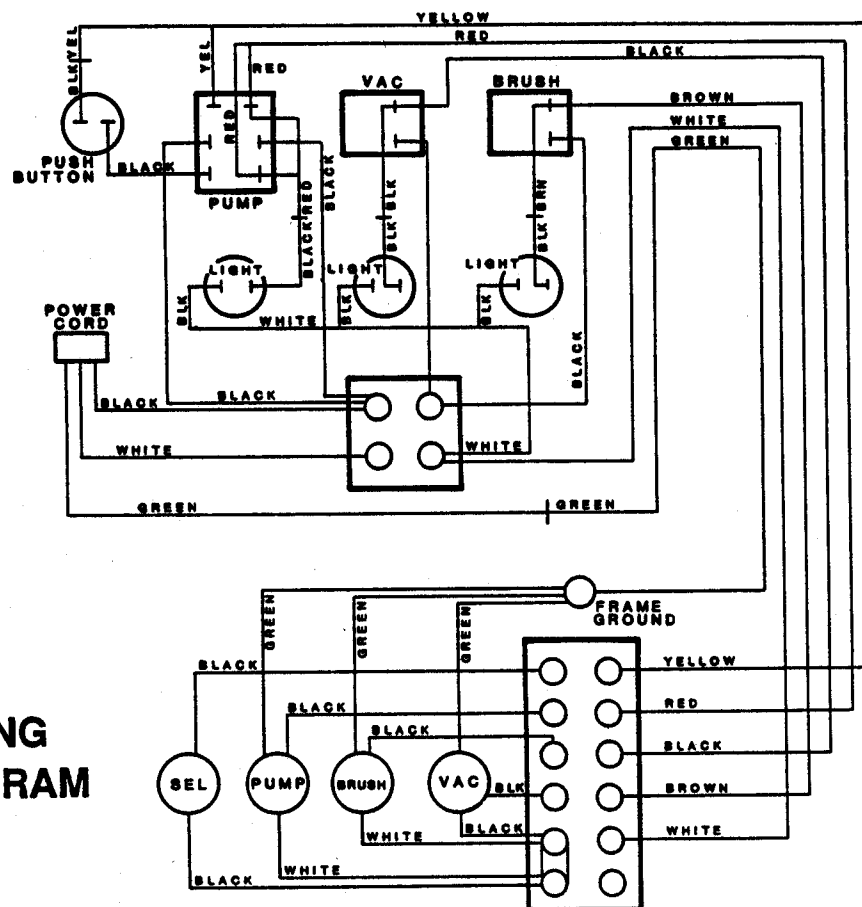


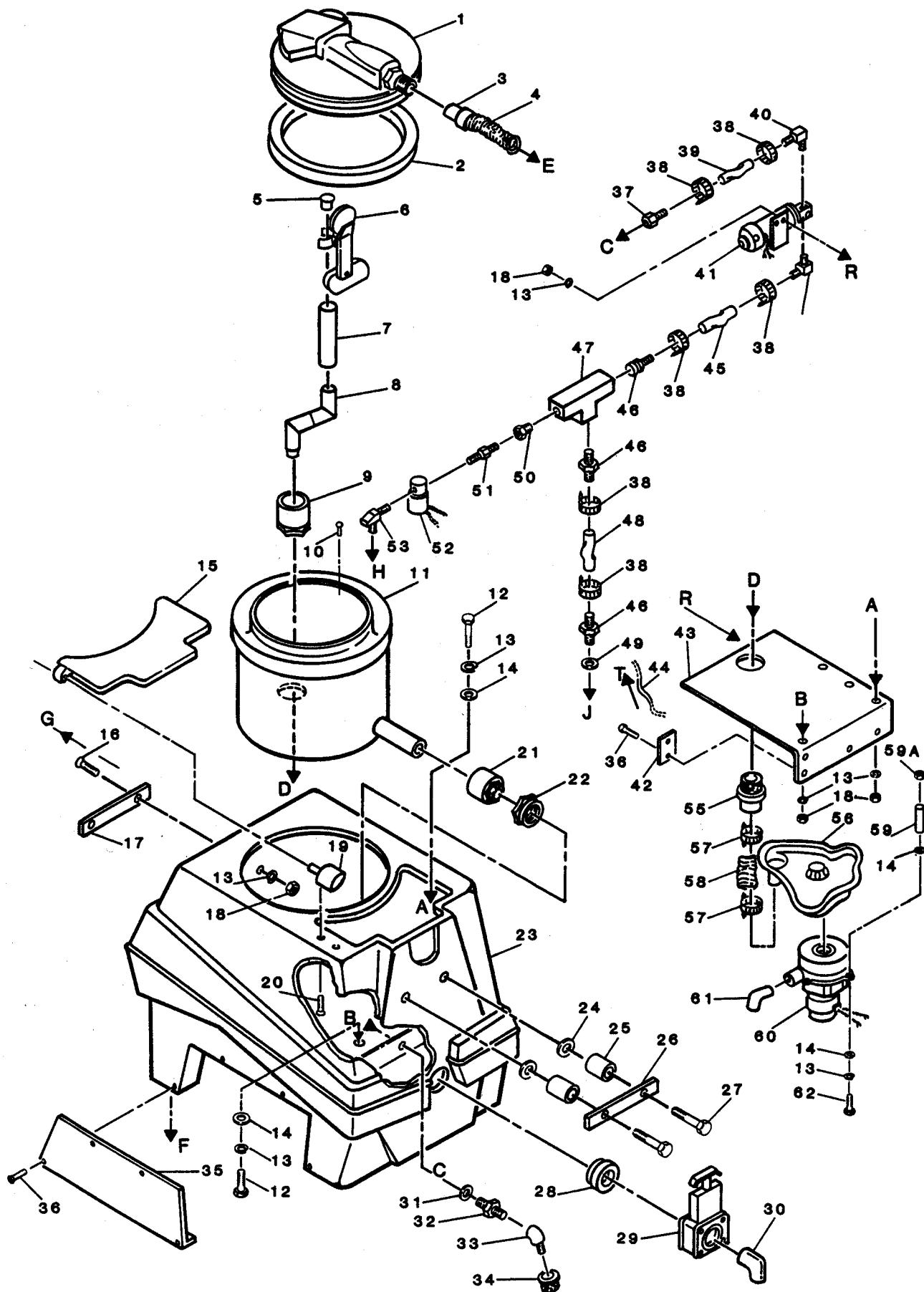
TOOLS 34019, HAND TOOL ASSEMBLY

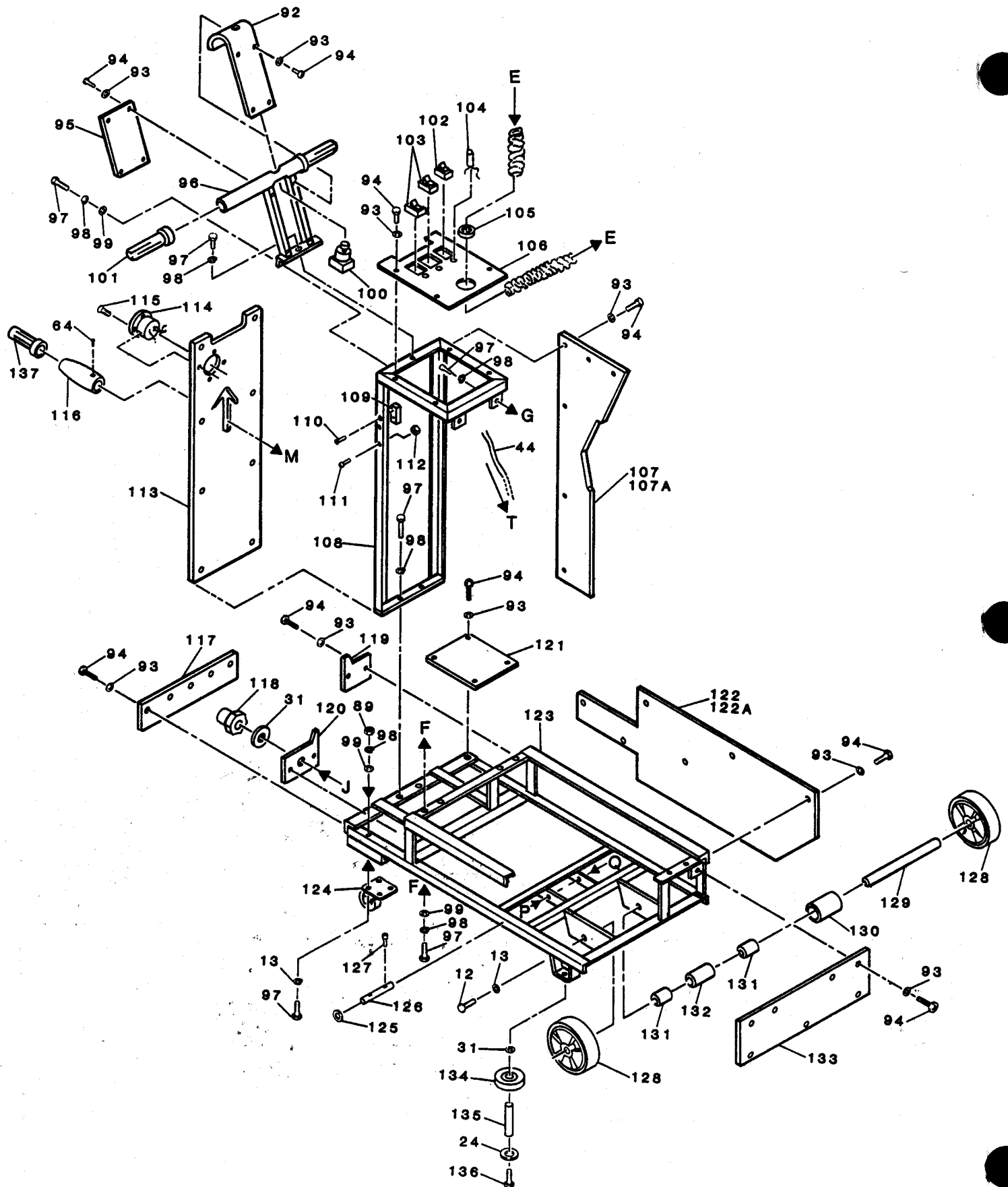


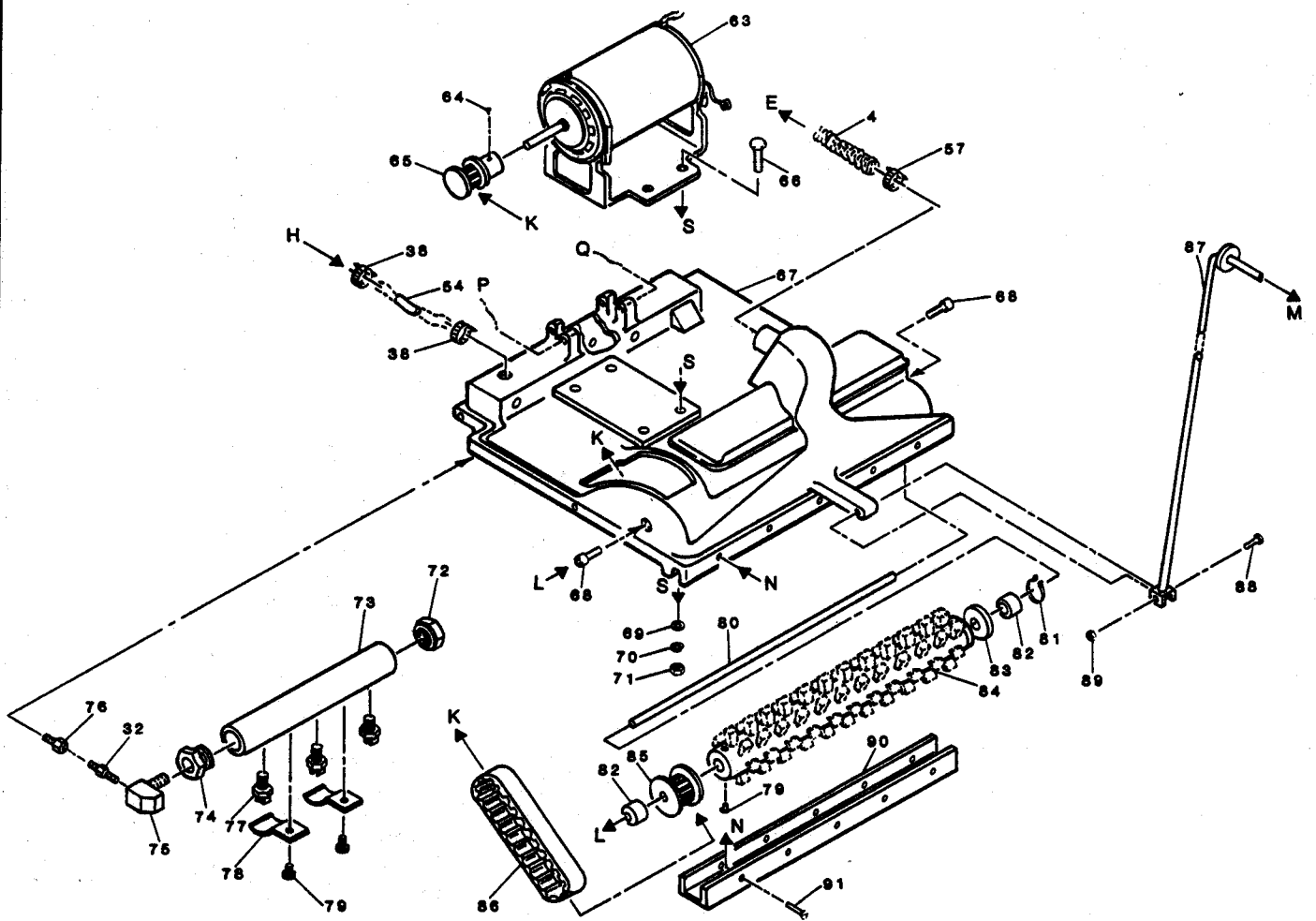
VACUUM HOSE & SOLUTION LINE, 33389/33224

WIRING DIAGRAM









DET	PART NO.	DESCRIPTION	QTY
1	039071	LID, PLASTIC--	
2	039072	GASKET, LID--RUBBER	
3	039073	HOSE, CUFF--	
4	039074	HOSE, VACUUM--1.50X48.00	
5	039075	FILTER, SCREEN--	
6	039076	ASM, FLOAT--	
7	039077	STACK, PIPE--	
8	039078	ASM, ELBOW--STACK	
9	039079	ADAPTER, FEMALE--1.50"	
10	039129	SCR FLAT HD 10X.75L SSTL	
11	039080	TANK, VACUUM--	
12	039128	SCR CAP HEX HD .250-20X.75	
13	002278	WSHR LK .262ID.489OD.062TSPLT	
14	039127	WSHR FLT .281ID.750OD.062T SST	
15	039081	COVER, TANK--SOLUTION	
16	002256	SCR CAP HEX HD .250-20X1.00L	
17	039082	BRACKET, BRACE--	
18	003283	NUT, HEX-- .250-20, ZN PLT	
19	039083	COVER, SOLUTION--PIVOT	
20	001289	SCR MACH RD HD 10-24X.500L	
21	039084	ADAPTER, SLIP--1.50, FEMALE/MALE	
22	039085	NUT, BULKHEAD--	
23	039086	HOUSING, SOLUTION--TANK	
24	039087	WSHR, FENDER--	
25	039088	SPACER, HANDLE--	
26	039089	HANDLE, FRONT--	
27	002282	SCR CAP HEX HD .250-20X2.50L	
28	039090	ADAPTER, THREADED--	
29	039091	VALVE, DUMP--	
30	039092	ELBOW, DRAIN--	
31	004478	WSHR FLT .562ID.875OD.062T STL	
32	039093	NIPPLE, BRASS--	
33	039094	FITTING, BRASS--45 DEG.	
34	039095	FILTER, PUMP--	
35	039096	PLATE, VENTILATION--	
36	001255	SCR MACH RD HD 8-32X.375L	
37	039097	FITTING, BRASS--FEMALE, .250"	
38	039098	CLAMP, HOSE-- .250 S.S.	
39	039099	HOSE, SOLUTION--7.00"L, TANK/PMP	
40	039100	FITTING, PLASTIC--90DEG	
41	039101	PUMP, WATER--100PSI, SERVICE	
42	039102	TERMINAL, BLOCK--LARGE	
43	039103	PLATE, STL--VACUUM/PUMP	
44	039104	WIRE, CORD--45" LONG	
45	039105	HOSE, SOLUTION--3.00"L	
46	039106	FITTING, BRASS--MALE, .250"	
47	039107	FITTING, BRASS--TEE, .250"	
48	039108	HOSE, SOLUTION--21"L	
49	004475	WSHR FLT .500ID1.87OD.105T STL	
50	039109	ADAPTER, BRASS-- .125FEM/.250MAL	
51	039110	NIPPLE, .125"	
52	039111	SOLENOID--	
53	039112	FITTING, BRASS--MALE, 90DEG, .125	
54	039113	HOSE, SOLUTION--17.50" LONG	
55	039114	ADAPTER, SLIP--1.50, MALE	
56	039115	MANIFOLD, VACUUM--	
57	039116	CLAMP, HOSE--1.250"	
58	039117	HOSE, VACUUM--GRAY, 2.00X12.50"L	
59	039118	SPACER, VACUUM--3 STAGE	
60	222226	NUT, HEX JAM-- .250-20, ZN PLT	
61	039119	MTR, VAC--3 STAGE	
62	039120	ELBOW, PLASTIC--90DEG	
63	223213	SCR CAP HEX HD .250-20X4.00L	
64	039121	BRUSH, MOTOR--	
65	001276	SCR SET CUP PT 10-24X.250L	
66	039122	PULLEY, MOTOR--	
67	039126	BOLT, SQ NECK-- .312-18X1.00L	
68	039123	CASTING, HOUSING--BRUSH/MOTOR	
69	002297	SCR MACH FLAT HD .312-18X.625L	
70	E49017	WSHR FLT .312ID.625OD.064T FBR	

DET	PART NO.	DESCRIPTION	QTY
70	004212	WSHR LK .326ID.588OD.078TSPLT	
71	003432	NUT, HEX-- .312-18, SST	
72	039143	STOPPER, BRASS-- .38	
73	039144	MANIFOLD, JET--3 NOZZLE	
74	039145	ADAPTER, BRASS-- .38 TO .25	
75	039146	FITTING, 90 DEG--MALE.25/FEM.25	
76	039147	FITTING, SWIVEL--FEMALE, .25"	
77	039148	JET, SPRAY--9503	
78	039149	CLAMP, JET MANIFOLD--	
79	001276	SCR SET CUP PT 10-24X.250L	
80	039150	SHAFT, STL--BRUSH	
81	039151	RING, RETAINING--	
82	039152	BEARING, BRUSH--	
83	039153	BLOCK, BEARING--BRUSH, END	
84	039154	BRUSH, CARPET	
85	039155	PULLEY, BRUSH--	
86	039156	BELT, BRUSH--195 X L075	
87	039157	LEVER, CONTROL--BRUSH	
88	002456	SCR CAP HEX HD .250-20X3.00L	
89	003283	NUT, HEX-- .250-20, ZN PLT	
90	039158	CASTING, SHOE--	
91	001276	SCR SET CUP PT 10-24X.250L	
92	039159	COVER, HANDLE--	
93	039125	WSHR 8 TRIM, BLK FINISH	
94	039124	SCR OVAL HD 8X.75L, BLK FINISH	
95	039160	BACKPLATE--HANDL	
96	039161	ASM, HANDLE--	
97	002253	SCR CAP HEX HD .250-20X.750L	
98	002278	WSHR LK .262ID.489OD.062TSPLT	
99	004462	WSHR FLT .250ID1.00OD.062T STL	
100	039162	ASM, MOMENTARY SWITCH--	
101	047418	HANDLE, GRIP	
102	039164	SWITCH, ROCKER--3-WAY	
103	039165	SWITCH, ROCKER--2-WAY	
104	039166	LIGHT, INDICATOR--SWITCH	
105	039167	PROTECTOR, HOSE--	
106	039168	PLATE, SWITCH--	
107	039169	PLATE, BRACE--LH	
108	039170	PLATE, BRACE--RH	
109	039171	ASM, BRACE--REAR	
109	039172	TERMINAL BLOCK--SMALL	
110	001304	SCR MACH FLAT HD 10-32X.500L	
111	223077	SCR MACH FLAT HD 8-32X.750L	
112	004252	WSHR LK .176ID.381OD.023T EXT	
113	039173	BACK PLATE--BRACE	
114	039174	INLET, CORD--MALE	
115	005458	SCR MACH PAN HD 10-24X.500L	
116	039175	HANDLE, LEVER--	
117	039176	PLATE, FRAME--REAR	
118	050815	COUPLING, QUICK DISCONNECT--BRS	
119	039178	PLATE, BACK--LH, STL	
120	039179	PLATE, BACK--RH, STL	
121	039180	PLATE, FRAME--TOP	
122	039181	SIDEPLATE, FRAME--LH	
122	039182	SIDEPLATE, FRAME--RH	
123	039183	ASM, FRAME--	
124	039184	CASTER, SWIVEL--	
125	004318	WSHR FLT .375ID1.06OD.120T STL	
126	039185	CASTING, PIVOT PIN--	
127	039186	PIN, COTTER-- .12 X 1.00LG	
128	039187	WHEEL, FRONT--	
129	039188	AXLE, FRONT--	
130	039189	SLEEVE, AXLE--	
131	039190	SPACER, AXLE--STL	
132	039191	SPACER, AXLE--PVC	
133	039192	PLATE, FRAME--FRONT	
134	039193	GUIDE, WALL PROTECTION--	
135	039194	SPACER, GUIDE--	
136	005423	SCR CAP HEX HD .250-20X2.00L	
137	047418	HANDLE, GRIP	

THE KENT LIMITED WARRANTY

Your Kent equipment, which has been manufactured, tested and inspected in accordance with carefully specified engineering requirements, is warranted to be free from defects in material and workmanship. This warranty is, however, subject to the following qualifications, conditions, and limitations which are set forth to provide you and all users of the Kent equipment with information concerning the duration, extent, availability, and applicability of this Kent limited warranty, the procedure to be taken to obtain its performance, and other information concerning the Kent warranty policy.

DURATION OF WARRANTY AND TO WHOM EXTENDED

This warranty extends for a period of one year from the date of the original purchase of the Kent equipment by the original purchaser.

PARTS OF KENT EQUIPMENT NOT COVERED BY WARRANTY

Certain parts of Kent equipment require replacement in the ordinary course of use due to normal wear by reason of their characteristics. These are normal wear items such as cords, gaskets, switches, bumpers, carbon brushes, handle grips, bags, hoses, bearings, etc.

EXCEPTIONS AND EXCLUSIONS FROM WARRANTY

This equipment is required to be used on electric current as indicated on the data plate. Otherwise damage, defects, malfunctions or other failures of the equipment arising from use on electric current not as indicated are excepted and excluded from this warranty.

Defects, malfunctions, failure or damage of the equipment caused by improper, unreasonable or negligent use or abuse while in the possession of the purchaser are likewise excluded from this warranty.

If repair is done on your equipment by anyone other than those below designated as authorized to perform such work without first having obtained factory instructions, The Kent Company, at its sole option, may determine that this warranty will not apply and that reimbursement for such repair will not be made because of the failure to comply with such factory specified instructions.

Briggs & Stratton Corporation engines are guaranteed by Briggs & Stratton Corporation for a period of one year. Parts and service are available only through Briggs & Stratton Corporation servicing dealers.

Honda engines are guaranteed by American Honda Motor Co., Inc. for a period of one year. Parts and service are available only through Honda servicing dealers.

Motor Appliance Corp. guarantees all Mac battery chargers to be free from defects in material or workmanship for a period of one year from date of manufacture. The nearest Mac authorized service facility should be contacted for service assistance.

FIVE YEAR POLY COMPONENT WARRANTY

Your Kent rotational molded polyethylene parts have been manufactured, tested and inspected in accordance with carefully specified engineering requirements and are warranted to be free from defects in material and workmanship.

This warranty extends for a period of five (5) years from the date of the original purchase of the Kent equipment by the original purchaser.

This warranty will not cover damage attributable to the following:

- (1) Improper, unreasonable or negligent use or abuse of the equipment.
- (2) Use of the equipment with hot water or high temperatures above 130 degrees Fahrenheit (55 degrees Centigrade).
- (3) "Warping", "creeping" or "distortion" of part so long as the same does not interfere with normal operation.
- (4) Abrasions or punctures of the equipment.

PROCEDURE TO BE TAKEN TO OBTAIN PERFORMANCE OF WARRANTY REPAIR

To secure repair of the equipment or any warranted parts under this warranty, the following procedure should be taken.

The inoperative equipment or warranted parts, together with satisfactory evidence of the purchase date, must be delivered, with shipping and delivery charges prepaid, to one of the following:

- (1) The dealer from whom purchased;
- (2) Any Kent distributor's service department in the United States;
- (3) Any Kent authorized service station in the United States.

If you are unable to locate any of the foregoing, you may write or otherwise communicate with The Kent Company, for instructions before repair service is performed by anyone else. In such event, The Kent Company will provide either the location of a closely available Kent distributor service department or Kent authorized service station or other factory instructions.

Upon compliance with the above procedure, all warranted defects will be repaired, at no additional charge or costs to the customer, and the repaired product returned to the customer, with all shipping and delivery charges prepaid.

In following the procedures above set forth, PLEASE MAKE CERTAIN to state the Kent model, type and serial number as shown on the data plate of the equipment.

REPLACEMENT

In the event of a defect, malfunction or failure of your Kent equipment or any warranted part to conform with this warranty, The Kent Company may, at its sole option and own expense, replace the equipment or any warranted part with another new identical or reasonably equivalent model or part in lieu of repairing the defect.

NO REFUND OF PURCHASE PRICE

The Kent Company will not, as a matter of its warranty policy, refund the customer's purchase price.

WARRANTY REGISTRATION CARD FOR YOUR KENT EQUIPMENT AND REQUEST FOR INFORMATION

Your Kent Company distributor from whom you purchased your equipment is responsible for the registration of your warranty with the factory. We ask that you cooperate with your distributor in supplying the necessary information on the warranty card so that we may better serve you. Any information or questions you may have concerning your Kent equipment or this warranty may likewise be secured from the factory. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

THE KENT COMPANY

P.O. BOX 1665 - ELKHART, INDIANA 46515

989