

Model No. KAIWHIZ

Operator and Parts Manual



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READ FIRST

INSTALL DATE	
Please fill out card for future records	
Install date	

Serial No.-

Read this manual prior to operation.

This machine will operate at its optimal efficiency if:

- The machine is operated with care.
- The machine is maintained properly and regulary per maintenance instructions.
- The machine is maintained with manufacturer parts only.

Carefully unpack and inspect your new KaiWhiz cleaning machine for shipping damage. Each unit is tested and thoroughly inspected before shipping. For instructions regarding any shipping damage, contact Kaivac Inc.immediately. All returns must have a Return Authorization Number (RAN).

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SAFETY PRECAUTIONS

EQUIPMENT WARNING

- Read all instructions to ensure safe operation of the KaiWhiz.

GROUNDING INSTRUCTIONS

-THE KAIWHIZ MUST BE GROUNDED. If it should malfunction or stop wprking, grounding provides a path of least resistance for electrical current, thereby reducing the risk of electrical shock. The KaiWhiz is also supplied with a ground fault circuit interruptor (GFCI) to reduce danger of electric shock. It must be maintained and tested regularly. This unit is equipped with a cord that has an equipment grounding conductor and a grounding plug. The plug must be inserted in an appropriate outlet that is properly installed and grounded in accordances. Cutting off the ground wire or using a cord that is not equipped with a ground plug will void the warranty on the unit, and Kaivac will accept NO responsibility associated with the unit.

TRAINING

- -Proper training is required before using the KaiWhiz. Contact your authorized KaiWhiz distributor for training information.
- -Instruction placards are attached to each KaiWhiz and should not be removed. these placards show proper cleaning procedures and safety precautions.

EQUIPMENT USE

- Do not use the equipment in a manner that it was not intended for by the manufacturer.
- See S-I-M-P-L-E Operation section for proper use of the equipment.

SPRAY GUN

- Never point the spray gun at people.

PREVENTION OF ELECTROCUTION

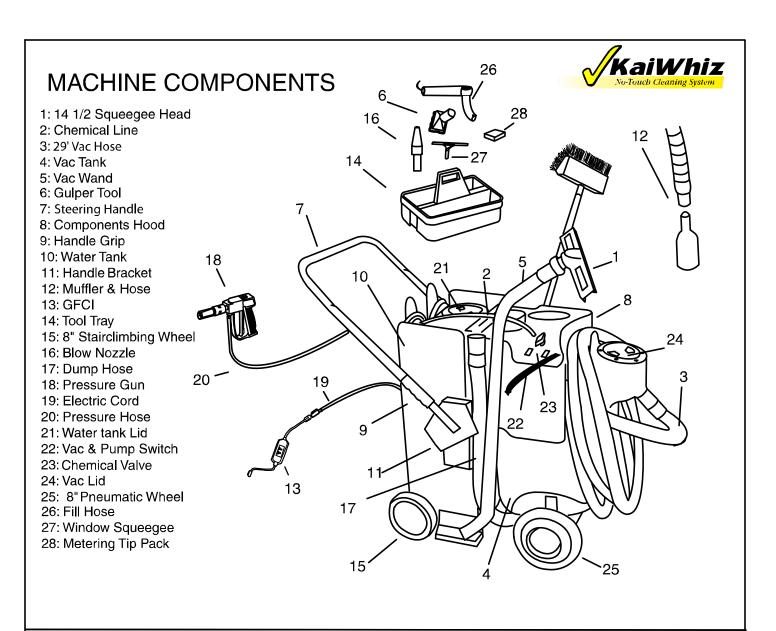
- Use the Groung Fault Circuit Interruptor (GFCI) with the kaiwhiz at all times.
- Test the GFCI before each use.
- Do not spray liquid from the KaiWhiz onto electrical outlets or on any electrical devices.

PERSONAL PROTECTION

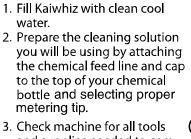
- Wear gloves, eye protection and ear protection when operating the KaiWhiz.

PREVENTING WATER DAMAGE TO BUILDINGS

- The KaiWhiz is to be used on water-reaiatant building surfaces only. These include concrete, terrazzo, ceramic tile and quarry tile.
- The KaiWhiz may be used for stripping on vinyl-composite tile floors, but daily cleaning of reilient flooring using the KaiWhiz is not recomended.
- Never overflow the water tank of the vacuum tank.
- Discontinus use if any leaks occur on the KaiWhiz.

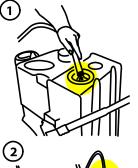


MACHINE PREPARATION



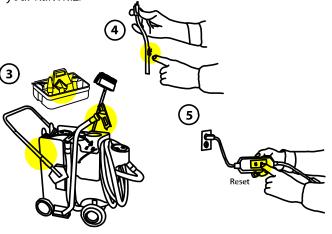
Check machine for all tools and supplies needed to complete task.

 Check all hoses and spray lines for damage prior to starting job. If damage is found do not continue until proper repairs are done.





5. Test GFCI (Ground Fault Circuit Interupter) to insure it is working properly. You are now ready to operate your KaiWhiz.



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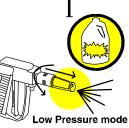
KaiWhiz

S*I*M*P*L*E

No-Touch Restroom Cleaning



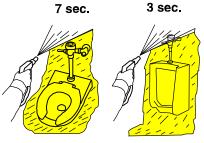
Turn chemical valve on. Check tank levels. Optional: Dust with KaiBlower.



Adjust spray gun to chemical injection, pull nozzle out and rotate to fan pattern.



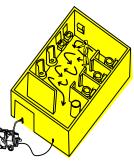
Inject chemicals on fixtures and soiled areas, start at the nearest fixture traveling in circular pattern.



Apply cleaning solution to fixtures. Sinks 2 sec.



Turn valve to Blast / Rinse



Rinse chemical from spray line onto floor



Optional: Manual Brush heavily soiled floors.



High pressure mode Adjust spray gun for high pressure wash and rinse.



Pressure wash fixtures in a top to bottom pattern. Sinks 7 sec.



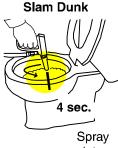
Pinpoint clean plumbing and seat top.



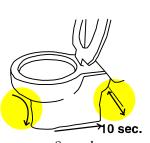
Clean hinges and seat bottom.



Place nozzle under rim and rotate.

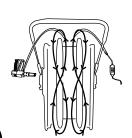


into bowl.

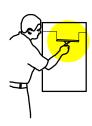


Spray bottom and base.

Toilet Cleaning time 30 sec.



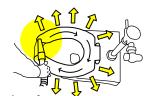
Loop and dry hose in a FIGURE 8 pattern onto hose wraps. Gun and hose should hang to the outside. © kaivac, 2001



Squeegee mirrors and flat surfaces.



Wet vac restroom floor from front to rear.



*Optional Blow dry flush handles and toilet seat tops. Load paper and supplies and examine

MACHINE MAINTENANCE





Always make sure machine is unplugged before lifting electrical cover assembly

Area Procedure

Floor Squeegee	* Check condition of rubber squeegee blades and wheels on the floor tool. Rough floor surfaces will cause the blades and wheels to wear out more quickly. Replace as necessary.
Spray Gun	 * Check spray pattern. If spray pattern will not pinpoint, clean orifice by removing it with an allen key and flushing. Replace if not pinpointing. * If nozzle becomes difficult to move from high to low pressure lubricate nozzle with a lithium grease. See Gun Lubrication procedure in manual.
Pressure Hoses	 * Wipe clean after each use. * Check for cuts or frays in the hose jacket, particularly at the end of the fittings. Replace hose if cuts are found.
Water Filter	 * Check filter screens for debris and clean as needed. Be careful not to crush the end of the filter screens when replacing. * Check the clear filter bowl cover to be sure it is tight. * Check for leaks around filter and filter connections.
Water Tank	* Check condition of filter in water tank. Clean as needed. * Empty the water tank to prevent mildew and bacteria growth. Empty tank by dipping the vacuum hose into the water tank, and transferring the water to the vacuum tank.
Vacuum Tank	 * Empty and flush vacuum tank. * Clean and disinfect. * Check the float shut-off screen to be sure it is not plugged up. A plugged filter screen restricts airflow and results in reduced suction.
Leaks	* Be alert for leaks around hoses, fittings, spray wand, tanks or elsewhere on the KaiWhiz. Discontinue use until leaks are repaired.
Electrical System	* The Ground Fault Circuit Interrupter (GFCI), must be tested before each use. * Electric cords must be inspected for tears or cuts in the insulation.

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TROUBLESHOOTING



! CAUTION

Always make sure machine is unplugged before lifting electrical cover assembly

A	D 11	D 11.0	electrical cover assembly
Area	Problem	Possible Cause	Remedy
Electrical	No power to pump or vac motor.	 KaiWhiz not plugged in. Switch not "on". GFCI tripped. Building circuit overloaded. Switch wires loose. Terminal block connections loose. 	 Plug machine in. Check switches for "on". Test and reset GFCI. Check and reset circuit. Disconnect power and check for loose wire. Disconnect power and check for loose wire.
	Electrical burning smell.	 Vac motor brushes worn. Vac motor hung up. Pump motor hung up. 	 Replace vac motor brushes. Remove vac motor & repair. Release pressure on hose and jog pump switch. Or replace.
Vacuum System	No / Weak vacuum.	 Vac tank full. Squeegee blades or wheels worn. Float shutoff screen dirty. Float ball stuck. Damaged hose. Dump hose plug missing. Access lid not tight. Vacuum hose plugged. Too much liquid in vac hose. Vac hose still wrapped. Muffler plugged. Leak in vac tank. 	 Empty vac tank. Replace wheels or blades and check peroidically. Wipe off float screen to clean. Tap float and release / clean. Cut and repair / replace. Contact dealer and replace. Tighten lid hand tight. Flush hose to remove debris. Allow air in when vacuuming. Unwrap vac hose fully. Remove padding and clean. If repairable, clean and dry affected area and silicone.
	Moister from exhaust.	 Vac tank full. Float shuttoff missing. Excessive foam in vac tank. 	 Dump vac tank. Replace. Use defoamer.
Blow dry	No air flow.	1. Hose disconnected.	1. Reconnect hose.
system	Moisture from nozzle.	1. Water in blow hose.	1. Dry blow line.
	Suction instead of blow action.	Vacuum hose connected to vac tank.	Reconnect to vac motor exhaust hose.

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TROUBLESHOOTING



! CAUTION

Always make sure machine is unplugged before lifting electrical cover assembly

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TROUBLESHOOTING

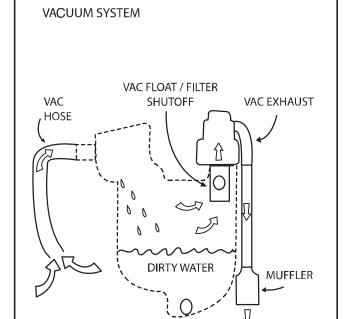


! CAUTION

Always make sure machine is unplugged before lifting electrical cover assembly

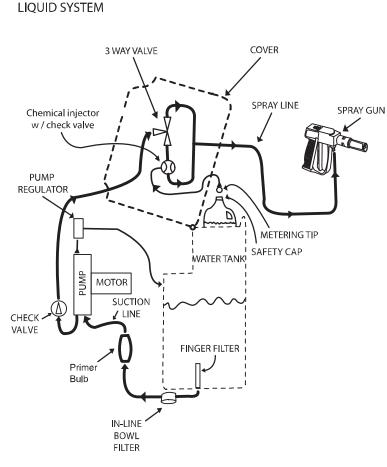
Possible Cause	Remedy
 Metering tip plugged. Wrong metering tip. 	 Remove and clean. Check and replace per chart.
 Debris in injector. Bad seat on injector 	1. Using an air line or equal, blow small bursts of air into
check valve. 3. Bad safety cap.	affected chemical line. Or remove electric box and clean injector. 2. Check injector o-ring or replace. 3. Repalce safety cap.
 Dump hose plug not removed. Clog in bottom of tank. 	Remove plug. Tip dump contents, remove debris.
 Hose cut. Clamp loose. Dump plug bushing missing. Plug missing. 	 If leak is less than 4" from tank side, cut and reattach. Or replace. Tighten hose clamp. Replace bushing. Replace plug.
 Flat tires. Debris wrapped around axle. Bearings tight. Wheels too loose on axle. Bearing falling out. 	 Inflate tires to 30 psi. Check for debris on axle. Grease bearings. Remove wheel, add washers to take up slack. Refer to remedy 4.
1. Worn blades or wheels. 1. Brass ring on wand not in groove. 2. Coupling nut too tight. 1. Coupling nut cracked. 2. Brass ring worn. 1. Squeegee wheels worn. 1. Squeegee wheels worn.	1. Replace wheels and /or blades. 1. Loosen coupling nut and reposition head on grove. 2. Loosen 1/2 turn. 1. Replace. 2. Replace. 1. Check wheels for wear/ replace. 1 Check wheels for wear/ replace.
	1. Squeegee wheels worn.

FLOW DIAGRAM

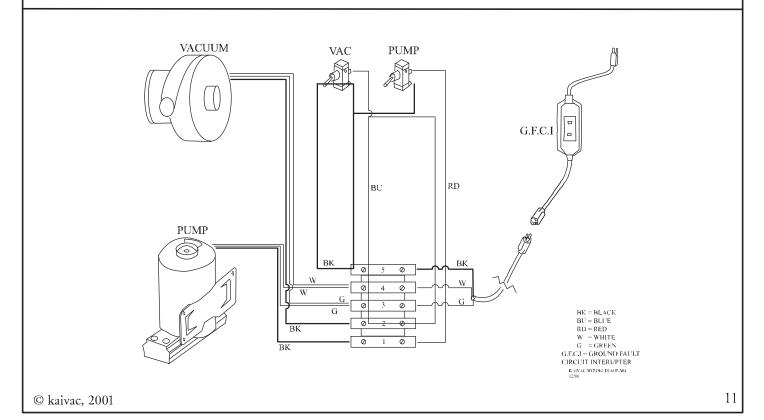


METERING TIP CHART

Flow rate: .75 gal. Per Minute
Black tip: 1.25 oz/gallon
Aqua tip: 3.00 oz/gallon
Orange tip: 4.75 oz/gallon
Tan tip: 9.50 oz/gallon



ELECTRICAL DIAGRAM



#	PART#	PART DESCRIPTION
		WATER TANK
1	KW018	15 LB WATER TANK
2	KW003	BECKSON LID
3	CSS17A	6 – BECKSON LID SCREWS
4	KW002	PIANO HINGE
5	CSS73	4 – SCREWS FOR PIANO HINGE
6	CSS74	2 – NUTS FOR HINGE SCREWS
7	LFT – KW010	2 – HANDLE ADJUST BRACKETS
	RGT- KW011	
8	CSS87	2 – HITCH PINS FOR BRACKET
9	KMB14	4 – 3/8 dia X ½ long BRACKET RETAINER BOLT
10		2 – WAND / CUP TRAYS
11	KMB13	2 – ¼ dia X ½ long BOLT
12	KMB15	2 – ¼ dia WASHERS
13	CSS38	1-1/8 in RIVET
14	CSS56	1 – RIVET BACKUP PLATE
15	KMBO6	2 – 8 in WHEELS
16	KW020	2 – 4 in X ½ dia AXLES
17	CSS01	4 – ½ in PUSH CAP NUTS
18	CSS40	2 – ½ in dia WASHERS
19	KW009	HANDLE
20	KF003	2 – YELLOW HANDLE GRIPS
21	KW012	1 – METAL CASTER BRACKET
22	KMB14	4 – 3/8 dia X ½ long BOLT
23	KMB16	4 – 3/8 dia WASHERS
24	KW015	1 – CASTER WITH PLATE
25	KMB13	4 – ¼ dia X ½ long BOLT
26	CSS27	4 – ¼ in NYLOC NUT
27		MUFFLER
28	00075	MUFFLER PAD
29	CSS75	1 - ¼ dia 20 - 31/2 long BOLT
30	SUBPC6BKW	1 – GRAB 20 in long
31	CSS76	2 – ½ 20 dia X 11/2 GRAB BAR RETAINER
32	KMB15	2 – ¼ dia WASHERS
33	CPS18	2 – SPINWELDS 3/8
34	CPS64 CPS07	1 – 3/8 m X fm 90deg 1 – FINGER FILTER
36	CPS09	27 INCHES OF ½ in WIRE REINFORCED HOSE
37	CPS10	4 – HOSE CLAMPS 7/16 X 25/32
38	CPS54	WATER FILTER
39	CPS69	1 – 3/8 npt X ¹ / ₄ NYLON BARB FOR RETURN LINE
40	CVS20	1 – SPINWELD #82 FOR SPICKET
41	CVS20	1 – SPICKET
42	KW004	1 – 50ft EXT CORD W / INLINE GFCI
43	SUBPHKW	35 ft PRESSURE HOSE ASSEMBLY
44	SUBGAKW	1 – GUN ASSEMBLY (W / .03 NOZZLE)
45	CPS74	1 – GON ASSEMBET (W 7.05 NOZZEE)
46	CPS75	1 – CABLE CLAMP .457
47	CSS11	2 – TAPING SCREWS
48	KMB09	2 – POLYETHYLENE CAPS FOR GRAB BAR
	I	l.

		UNDER COVER
49	KW019	COVER
50	SUBRLKW	RETURN LINE ASSEMBLY
51	CPS01	1 – 14 in ¼ CHEM HOSE
52	CPS73	1 – ¼ X ¼ X ¼ T CONNECTOR
53	CSS21	1 – 5 SNAP GRIP CLAMPS
54	CPS76	1 – npt X ¼ BARB 90deg
55		PUMP MOTOR
56	SUBPCPBKW50	PUMP SUPPORT BAR
57	KMB09	2 – POLYETHYLENE CAP FOR BAR
58	CSS77	2 – ¼ X 20dia X 21/2 long BAR RETAINER BOLS
59	CSS78	1 – ¼ X 20 dia X 2 in long BAR RETAINER BOLT
60	CSS79	3 – ¼ dia RUBBER WASHERS
61	CSS80	3 – ¼ dia FENDER WASHER
62	CSS27	4 – ¼ in NYLOC NUT
63	KMB15	5 – ¼ in dia FLAT WASHER
64	CSS82	2 – ¼ 20 dia X 5 in long
65	CSS83	1 – ¼ 20 dia X 4 in long
66	KMB15	3 – ¼ in dia FLAT WASHER
		VAC MOTOR
67	KW016	VAC MOTOR
68	KW021	GASKET FOR VAC MOTOR
69	SUBMFKW	MUFFLER HOSE ASSEMBLY
70	SCBIII ILV	1 – 20 in ¼ HOSE
71		2 – 11/4 X 11/2 GREY HOSE CUFFS
72	CSS17A	1- SCREW TO HOLD HOSE IN VAC MOTOR
73		WIREING FROM VAC TO TERMINAL
74	CSS86	³ / ₄ in LOOM (wire cover) 1.5 ft
		CHEMICAL INJECTOR SUB ASSEMBLY
75	CPS12J	1 – JE ADAMS INJECTOR
76	CPS01	1 - 27 in ¼ in BRAIDED HOSE
77	CSS21	1 – SNAP GRIP HOSE CLAMP
78	CPS38	1 – 3/8 QD PLUG
79	CPS39	1 – 3/8 COUPLER
80	CPS35	1 – ¼ BARB X 3/8 npt
81	CPS34	4 – FERRULE FOR ¼ in HOSE
82	CPS15A	1 – 44 in PRESSURE HOSE
83	CPS36	3 – ¼ npt X ¼ BARB FOR PRESSURE HOSE
84	CPS71	3 – ¼ m X ¼ fm 90 degs
85	CPS77	1 – T-BRASS ½ m X ¼ fm X ¼ fm
86	CPS23	1 – ¼ in QD PLUG
87	1/4 - 3422590	1- 3 WAY BRASS VALVE 1/4 X 1/4 X 3/8
<u></u>	3/8 – 3422490	
88	CPS24	1 – ¼ in QD COUPLER
89	CES02B	2 – ROCKER SWITCHES W/LEADS
90	CES02B CES10	1 – TERMINAL BLOCK
91	CSS17B	1 – TERMINAL BLOCK RETAINER SCREW
92	CHCAP	1 – CHCAP
93	CPS65	1 – RESTRICTION CLAMP
94	KMB13	1 - 20 X ½ long COVER RETAINER BOLT
95	CSS17A	2 – BECKSON LID SCREWS
	2001/11	

		COVER EXTERIOR
96	SUBSS	1 – SNAP AND STRAP
97	CSS20	1 – SNAP STUD FOR SUBSS
98	CSS11	1 – SCREW FOR SUBSS
99	CSS14	2 - #13 BECKSON CLIPS
100	CSS12	1 - #15 BECKSON CLIP
101	CSS17	6 – BECKSON CLIP SCREWS
		VAC TANK
102	KW017	1 – VAC TANK
103	CVS07	2 – SPINWELDS (not available)
104		1 – DUMP HOSE
105	KW013	1 – BRACKET / AXLE FOR PNEUMATIC WHEELS
106	KMB14	4 – 3/8 dia X ½ long BOLTS
107	KW014	2 – 8 in PNEUMATIC WHEELS
108	CSS01	2 – ½ in PUSH CAP NUTS
109	CSS40	$4 - \frac{1}{2}$ in WASHERS (2 per axle)
110	CSS84	1 – 3/8 dia X 21/2 long VAC TANK AD WATER TANK RETAINER
111	KMB16	1 – WASHER
112	KW003	1 – BECKSON LID
113	CSS17A	6 – BECKSON LID SCREWS
114	KW005	1 – SPINWELD FOR FLOAT
		FLOAT SHUTOFF
115	KW006	1 – 11/4 mnpt X 11/2 fm
116	KW001	1 – SCREEN
117	CVS29	1 – FLOAT BALL
		OTHER
118	SUBVHKW	1 – 281/2 ft VAC HOSE
119	CVS09A	1 – 281/2 ft HOSE
120	CVS08A	2 – HOSE CUFFS
121	SUBBLHSKW	25 ft BLOW HOSE
122		1 – 25 ft OF 11/4 HOSE
123		2 – HOSE CUFFS
124	CVA19	1 – VAC HOSE CONNECTOR
	CSS85	1 – BUNGIE CORD 16 in
	MTIPS2001	1 – METERING TIP PACK
127	CVS11	1 – VAC WAND
128	CVS12	1 – 141/2 in SQUEEGEE HEAD
129	CAA06	1 – WINDOW SQUEEGEE
130	CVS14	1 – GULPER TOOL 1 – BLOW NOZZLE
131	CVS13	1 – BLOW NOZZLE 1 – FILL HOSE
132	SUBFH	1 – FILL HOSE 1 – DECK BRUSH
133	CAS01A CAS02A	1 – BRUSH HANDLE
134	KW022	1 – BRUSH HANDLE 1 – CARRY TRAY
136	IX VV UZZ	1 – CARRY TRAY 1 – SHIPPING BOX
137		1 – SHIPPING BOX 1 – KAIWHIZ VIDEO
138		1 – WAIWHIZ VIDEO 1 – OWNERS MANUAL
139		1 – PLACARD SET
140	KWO23	1 – SERIAL PLATE
1-70	1111 023	1 SERVICE LETTE

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