

SENSEI

Instruction Manual

Operators and maintenance personnel must read and understand this manual before attempting to operate the unit. This manual has important information for use and safe operation. Keep this manual on file and readily available.

Ashbys Cleaning Equipment

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Contents

Important Safety Instructions	3
Before Operating the Machine.....	4
Unpacking & Inspection	4
Set Up & Operation.....	4
Water Extraction Cleaning	4
Emptying Sensei after Water Extraction Cleaning	5
Hot Solvent Cleaning.....	6
Emptying Sensei after Solvent Extraction Cleaning	7
Water Cleaning with a Hot Solvent Sensei	7
Maintenance.....	7
Exploded Diagram.....	9
Parts List.....	10
Wiring Diagram for MK1 Sensei without Heater	12
Wiring Diagram for MK1 Sensei with 1500W Heater	12
Warranty.....	13
Conditions of the Warranty	13

Important Safety Instructions

When using an electrical appliance to reduce the risk of fire, electric shock or injury, basic precautions should always be followed including but not limited to the following –

1. Do not leave a machine plugged in. Unplug from outlet when not in use and before servicing. Servicing should only be carried out by qualified personnel.
2. Use indoors only. Do not use outdoors and do not expose to rain.
3. Do not allow to be used as a toy. Must not be used by or near children.
4. Use only as described in this manual. Use only manufacturers recommended attachments.
5. Do not use with damaged lead or plug. If machine is not working as it should, has been dropped, damaged, left outdoors, or dropped into water, return it to a service centre.
6. Do not pull or carry by power lead, use power lead as handle, close a door on power lead, or pull power lead around sharp edges or corners. Do not run machine over power lead. Keep power lead away from heated surfaces.
7. Do not unplug by pulling on power lead. To unplug, grasp the plug not the power lead.
8. Do not handle plug or machine with wet hands.
9. 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 vacuum. Keep hair, loose clothing, fingers and all parts of body away from openings and moving parts.
10. Turn off all controls before unplugging. Use extra care when cleaning on stairs.
11. Do not use to pick up flammable or combustible liquids, such as gasoline or use in areas where that may be present.
12. Connect to a properly grounded outlet only. When working of site use a plug in RCD.

Before Operating the Machine

Operators and maintenance personnel must read and understand this manual before attempting to operate the unit. This manual has important information for use and safe operation. Keep this manual on file and readily available.

Unpacking & Inspection

Carefully unpack and inspect the compact extractor for shipping damage. Each unit is inspected and operated at the factory prior to shipping. Any damage should be reported to the carrier / supplier immediately.

Set Up & Operation

Water Extraction Cleaning

Warning: Use only Ashbys approved water extraction detergent mix. Do not use chemicals intended for pre-spray or rotary use. These will invalidate machine warranty.

1. Connect Sensei mains lead to 13 amp socket. **Only use electrical supply with earth leakage trip.** If your Sensei is fitted with an internal heater, water in the solution tank can be heated to a pre-set temperature of approx. 75°C.

To turn on the internal heater ensure heater element & low level float switch are covered by water.

1. Switch on mains power.
2. Now switch on the heater switch - a red light may come on depending on water temperature.

The light will switch off if the water is a desired temperature. The heater will only operate when the water temperature below is fixed thermostat setting & water level is above the low level safety cut-off.

2. Fill the solution tank with water and cleaning solution. Solution tank can be filled to within approx. 2 inches of solution tank lid.
3. Connecting Vacuum & Solution Hoses – The vacuum hose is the larger of the two hoses, and this is used to collect the dirty water. The solution hose carries the water from the machine to the tool head.

To connect the vacuum hose, simply push one cuffed end onto the Sensei's hose barb – located to the right of the main switch panel. The solution hose has two brass fittings (one at either end) – these are self-sealing. The male fitting is the plug end, and the female fitting is the socket. Pull back the outer sleeve of the female fitting on the machine and push the male fitting of the hose into it – then release the sleeve. This has now “locked” the solution hose onto your machine.

4. Attach desired cleaning tools - The tools you receive with your Sensei will depend on the package. However, they all connect to the hoses in basically the same way. The male connector

on the tool connects directly to the female connector on the solution hose. The vacuum hose just pushes on with a friction fit.

- a. Hand Tool - This is a small unit which can be used to clean upholstery, stairs, hard to reach areas, rugs etc.
 - b. Floor Tool - Used for cleaning main areas of carpet. It allows the operator to clean in a standing position, rather than on his hands and knees.
 - c. Power brushes are used when extra agitation is needed to remove dirt on heavy soiled carpets (such as pubs, hotels etc.) A power brush can save a lot of time and energy – especially in large open areas.
 - d. Hard Floor Wet Pick-up - Used for cleaning hard floors. Squeegee head with spray jet for rinsing and drying floors in one operation.
5. Adjust Flow Control Valve (if fitted) – Flow rate can be reduced by opening the flow control valve thus increasing circulation of water to the solution tank. Maximum flow and pressure is achieved when flow control valve is closed.
 6. Switch on the vacuum motor and the pump with flow control open. Then close flow control clockwise – commence cleaning in the normal way, fill solution tank with water & chemical mix as and when needed.

Warning : Use only Ashbys approved water extraction detergent mix. Do not use chemicals intended for pre-spray or rotary use. These will invalidate machine warranty.

Emptying Sensei after Water Extraction Cleaning

When recovery tank is full, the float valve will activate blocking the vacuum.

1. Switch off pump & vacuum motor, empty recovery tank via dump valve located on back of Sensei.
2. Once empty close the dump valve. Switch on pump & vacuum motors & resume work.
3. On completion of work, residual water in the solution tank can be drained using Pump-Out Hose supplied.

The Pump-Out Hose is a short piece of solution hose with a male connector on one end – this is connected to the solution connection on the machine. The other end is open (no connector) and should be put into the recovery tank. **Fully empty dirty water from the machines recovery tank.** Turn on pump and where applicable, close the flow control. Allow all the water to empty from the solution tank. Residual water below the level of the water intake filter should be sucked out using the vacuum hose connected to the Sensei.

For maximum life from the vacuum motor allow both water & air to be extracted by vacuum hose, rather than immersing hose cuff totally in water. This would put excess strain on the vacuum motor, especially if residual water is hot.

Important: Once this is done run both vacuum motors with recovery tank lid removed for approx. 3 minutes. This will help prolong the life of your vacuum motors by drying them out.

Hot Solvent Cleaning

Check your machines specification before attempting solvent cleaning. Only Sensei's with a built-in Hot Recirculating Solvent Cleaning System PC2001 can clean using solvents.

Warning : When solvent cleaning always follow safety procedures detailed on the solvent detergent container. Wear nitrile gloves, eye goggles or face visor and use suitable respirator mask and filter.

1. Fill Sensei solution tank to level above copper coil heat exchanger with the hottest water available (up to 70C), ensuring heater element and low level float switch are covered. Plug in mains lead to a 13 amp socket. Ensure that electrical supply is fitted with an R.C.D. earth leakage trip.
2. Switch on green mains switch, then switch on heater switch. The neon light above the heater switch will remain on until the heater is switched off by the pre-set thermostat at 70°C.
3. Whilst the machine is heating to full temperature, attach the stainless steel cage to the water tank fill opening, then fit 5 Ltr container of Ashbys Dry Clean Extra PC4502. Connect Solvent Intake Hose to small female brass connector and immerse the open end into the 5 Ltr container.

Warning: Only products designed for this type of equipment can be used. Incorrect use of products carries risk of fire or toxic contamination.

4. Connect Solvent Recirculation Hose to Sensei large female connector on Sensei. Connect large female connector on Solvent Recirculation Hose to Curtain tool (for curtain cleaning) or Kleenrite Upholstery Tool (for upholstery cleaning).
Connect Solvent Bleed Hose provided to small female connector on Solvent Recirculation Hose, then put open end of Solvent Bleed Hose into a clean bucket.
When the neon light above the heater switch is off, the water is up to temperature and the machine is ready to use. **Ensure Flow Control Valve on Sensei is closed** and switch on pump. Solvent will be drawn from the 5 Ltr container, through a heating coil and be vented into the bucket. Switch off pump immediately a steady flow of pure solvent is achieved.
5. Disconnect the Solvent Bleed Hose and connect the small female connector of the Solvent Recirculation Hose to the small male connector on the Sensei.
6. Now switch back on and the solvent will circulate through the copper heat exchange system. The Solvent Recirculation Hose will become hot.
7. Connect exhaust spigot at the rear of the Sensei and vent to outside atmosphere. Ensure no animals or plants are near venting outlet.

Warning: The Sensei must always be vented safely to outside atmosphere. Only use heavy duty Ashbys exhaust hose provided. Unsuitable hose will soften and collapse. If in doubt about hose suitability call Ashbys for technical advice. Never block or obstruct venting or exhaust spigot. Always allow Sensei to vent freely.

8. Connect Lightweight Solvent Vacuum Hose to Sensei vacuum tank hose spigot and solvent tool.
9. To commence cleaning once the solvent has reached the desired temperature, switch on both pump and vacuum motor (solvent pump should already be switched on - see instruction 5).
10. Commence cleaning procedure as taught on Ashbys Training Course 1. Note: If unsure of solvent cleaning methods and techniques call Ashbys for latest training course dates.

Emptying Sensei after Solvent Extraction Cleaning

1. Switch off both vacuum and solvent pump
2. Drain recovery tank via rear dump valve into suitable bucket. Dispose of solvent at designated site – never contaminate rainwater drains.
3. Disconnect small female connector on Solvent Recirculation Hose and connect Solvent Bleed Hose. Always have pump switched off and open end of the Solvent Bleed Hose in a bucket. Once this is done, remove the Solvent Intake Hose from the 5 Ltr container of Ashbys Dry Clean Extra PC4502. Put the open end of the Solvent Bleed Hose into the 5 Ltr container of Ashbys Dry Clean Extra PC4502 and switch on the pump to drain the system of solvent. Run the pump until dry. Cap the 5 Ltr Container and remove container cage.
4. To empty the hot water tank, switch off the heater and open the flow control valve. Connect the Red Water Pump out Hose to the female connector on the Sensei. Remove the Vacuum Tank Lid and put the open end of the Water Pump-Out Hose into the Sensei's vacuum tank. Switch on the pump and drain all water from the hot water tank, rinsing and cleaning the vacuum tank. Water which is below the water intake filter can be sucked out using the vacuum hose.
5. Empty the recovery tank using the dump valve.
6. Run the vacuum with the vacuum tank lid off to ensure the vacuum motor is moisture free before storage.

Water Cleaning with a Hot Solvent Sensei

Water cleaning with the Hot Solvent Sensei is possible by opening the Flow Control Valve and allowing water to be drawn from the hot water tank in the normal water cleaning manner. Only use large female connector as solution outlet.

Maintenance

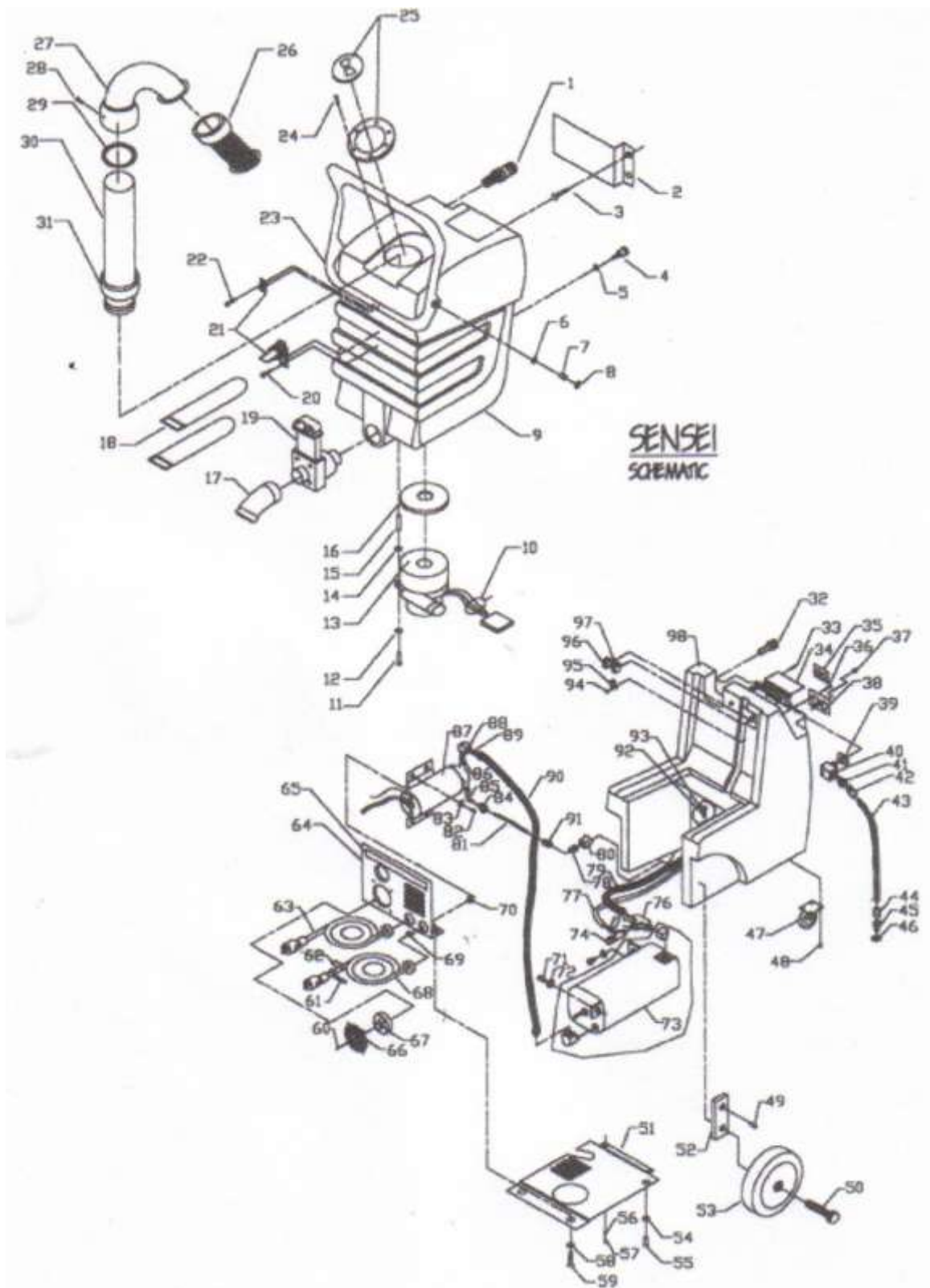
Please read the following chapter and ensure the relevant information is relayed to machine operators. It will allow you to get the best life and results from your machine components.

- Never allow machine, tools or hoses to freeze. This will cause water in pipes, pumps etc. to expand causing serious damage to equipment.
- Use Pump-Out Hose supplied to empty solution tank after cleaning. Empty remaining residue using the Vacuum Motor and Vacuum Hose as normal. This will extend the life of your vacuum motor.
- **Important:** Removing recovery tank lid & running the vacuum motor on completion of each job for approx. 3 minutes prolongs the vacuum motors life.
- This machine is designed to be moved on its rear wheels only. Wheeling this machine with all four wheels in contact with the ground can cause damage to the front castors.
- Always keep vacuum cut-out cage (located in recovery tank) clean & clear of obstructions such as fluff etc. Periodically remove cut-out cage and check the ball forms a good seal around nylon washer located at top of cage.

To do this remove cage from machine and hold upside down. Look for gaps between ball and washer. Change the float cage and ball should either become distorted. Gaps will allow water through to the vacuum motor.

- Spits of water coming from the exhaust vent located at the rear of the SENSEI is a tell-tale sign of this problem. Should this happen, stop the machine, run the vacuum motor with recovery tank lid off and replace the float cage if necessary. We always recommend the use of Ashbys Supreme Defoamer in recovery tank.
- Polyethylene body of the SENSEI can be cleaned with a damp cloth using soapy water – avoid electrical components and ALWAYS UNPLUG THE MACHINE FIRST.
- Finally for best results & a new appearance, clean with a silicone blended finishing product such as a Dashboard Renovator.
- Servicing should be every 6 months, or as required at Ashbys premises. It is usually false economy to run an un-serviced machine beyond this time. Include in the service hoses, hand tool & wand.
- Flow control knob should never be screwed in tightly as this can strip internal thread. Screw in only until full flow is achieved. Do not over tighten.
- The Ashbys twin jet stainless steel wand has filters which should be cleaned occasionally. These can be removed by unscrewing the jet restraining nut, removing jet, behind which is the filter. Clean this using a nail brush.

Exploded Diagram

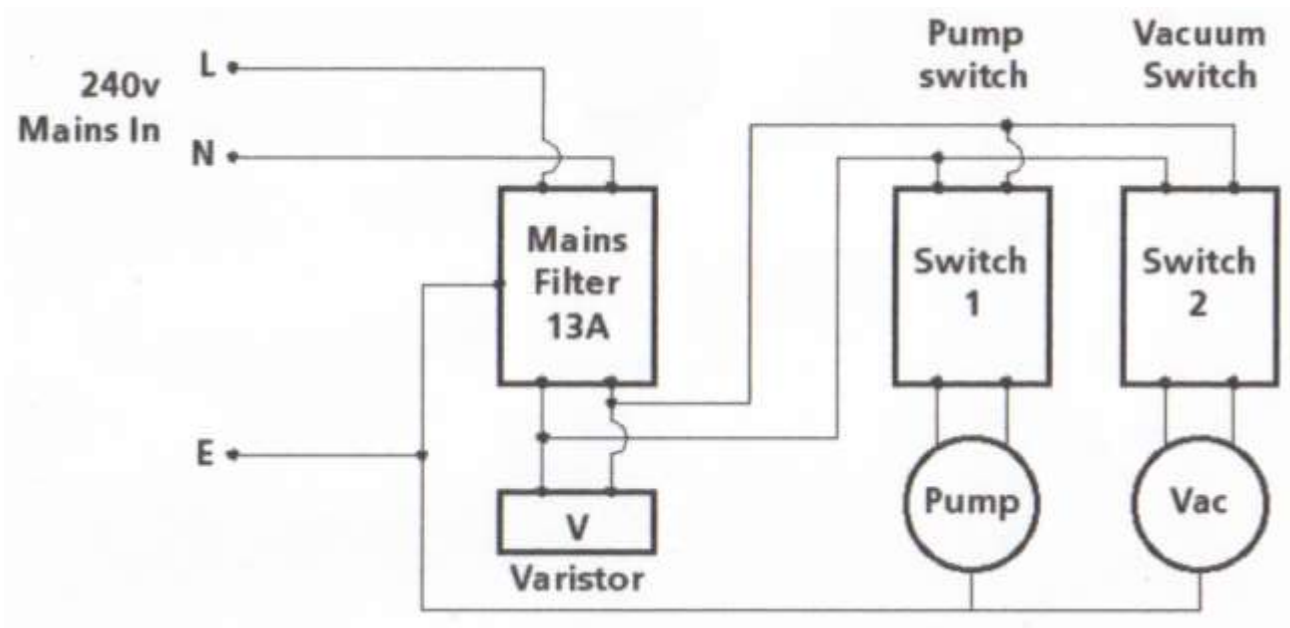


Parts List

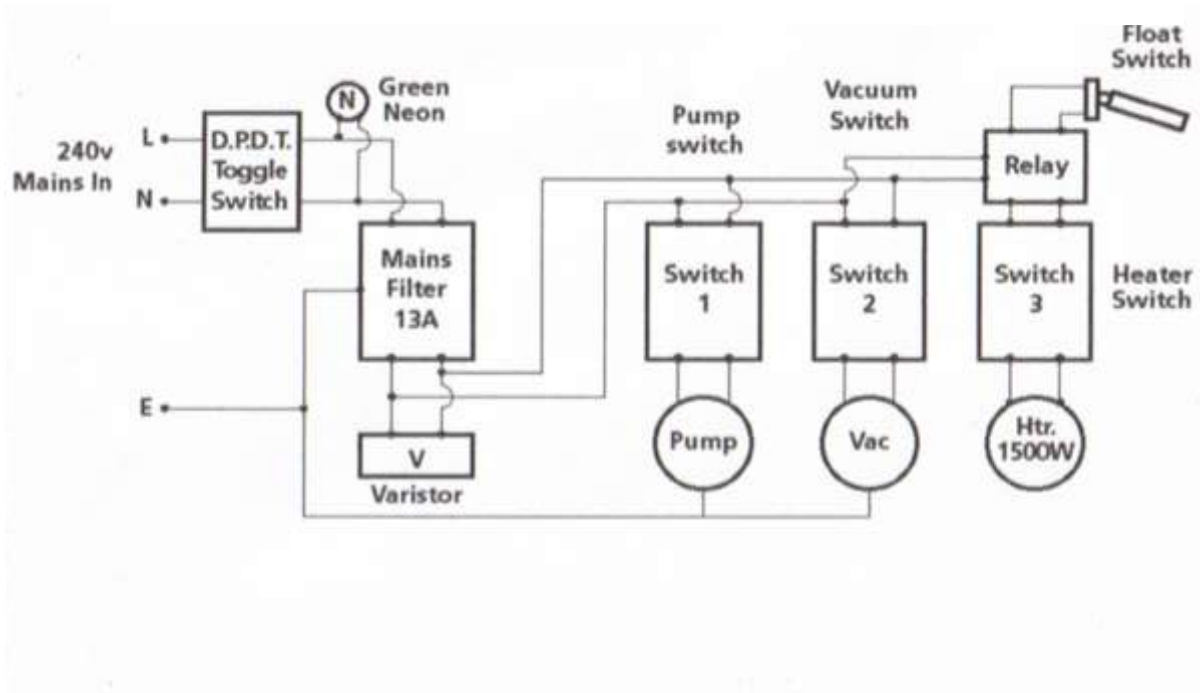
Item No.	Part No.	Amount Required	Description
1	260-33	1	Hose Barb 1-1/2 MT X 1-1/2 Barb
2	065-40	1	Baffle
3	280-02	2	Rivet 3/16x 1/2 Closed
4	140-13	1	Knob
5	390-24	1	Washer 1/4 X 5/8 Bonded Neoprene
6	390-04	1	Washer 1/4" Zinc
7	020-03	2	Hex Head Bolt 1/4 X 20X 3/4
8	110-14	3	Cap Plug 7/8
9	240-36	1	Recovery Bucket
10	340-02	12	Tie Wrap 4"
11	300-20	3	Hex Tap Bolt 1/4 X 20 X3-1/2 Zinc
12	See 14	-	-
13	360-05V	1	3 Stage Vac
14	390-03	6	Washer 1/4 S/S
15	065-24E	3	3-1/8 X 3/8 S/S Spacer
16	110-27	1	Vac Gasket
17	260-32	1	ABS Elbow 1-1/2" 45 Degree
18	320-05	2	Velcro Strap
19	370-06A	1	Dump Valve
20	See 22	-	-
21	140-03	1	Latch Draw Pull
22	280-02	4	Rivet 3/16 X 1/2 Closed
23	240-36A	1	Handle
24	300-17	6	PHSMS 8X 3/4 S/S
25	260-64A	1	Access Cover
26	090-12A	1	Float Cage Assembly
27	240-46	1	Tap Adapter
28	300-08	1	#6X 1/2 Flat Head Wood Screw
29	390-02	1	Rubber O-Ring 1-1.2"
30	260-20	1"	ABS Pipe 1-1/2
31	260-01	1	ABS NID Adaptor 1-1/2"
32	270-05	1	Quick Connect Female 1/4" Brass
33	300-07A	2	PHSM Screw #6 X 1/2 Black
34	065-03F	1	Solution Cover Sensei
35	170-22A	1	Switch Plate Label
36	See 6	-	-
37	050-30	1	Panel Lamp
38	335-08	1	Switch Plate Sensei
39	390-09	3	Washer 9/16" S/S USS Thin
40	030-16	1	Elbow 90 Degree 1/4" Street
41	030-32	6	Hose Barb 1/4 Male X 3/8 Barb
42	030-27	6	Ferrule 11/16 I.D.
43	150-03E	13-1/2"	3/8 Red Solution Hose
44	See 43	-	-
45	See 42	-	-
46	See 40	-	-
47	040-12	2	Caster Swivel 2-1/2" Thread 5/16 x 1"

48	020-29	2	Hex Bolt ¼ X 20 X 1/2 S/S
49	-	-	-
50	300-21	2	Shoulder Bolt
51	065-39	1	Access Plate W / Hinge Sensei
52	065-41	2	Bracket Wheel Sensei
53	040-08	2	Wheel 8" Grey Centred
54	390-03	3	Washer 1/4" S/S
55	020-05	2	Hex Bolt 1/4 X 20 X 1" Zinc
56	See 55	-	-
57	See 60	-	-
58	390-02	2	Washer #10 S/S
59	300-12	4	PHMS # 8 X 1/2 S/S
60	280-02	4	Rivet 3/16 X 1/2 Closed
61	170-41	2	Label Circuit Interrupter
62	170-31	1	Heater Mate Warning Tag
63	060-04A	1	Cord 14 Gauge
64	065-39A	1	Access Plate Back Sensei Coaled
65	170-31A	1	Heater Mate Warning Label
66	070-14A	1	Fan Finger Guard
67	070-14	1	Fan Axial 110V
68	060-04	1	Cord 12 Gauge
69	060-11	1	Strain Relief
70	220-12	2	Backing Nut 1/2"
71	See 50	-	-
72	390-03	3	Washer Flat 1/4" S/S
73	130-40	1	Heater Portable 6 Gallon
74	370-33	1	Pressure Relief Valve
75	030-28	1	Hose Barb 1/4 Male x ¼ Barb
76	030-54	1	TEE 1/4 Female
77	150-29	6"	1/4" Clear Nylon Braided
78	030-31	2	1/4 Female X 3/8 Barb
79	150-03E	6"	3/8" Red Solution Hose
80	030-13A	1	Elbow 45 Degree 1/4 Street
81	150-29B	9"	3/8 Clear Nylon Braided Solution Hose
82	020-29	4	Hex Bolt 1/4 X 20 X 1/2" S/S
83	90-03	1	Washer Flat 1/4" S/S
84	150-06	1	Hose Clamp Nylon #10
85	250-13	2	Pump Adapter
86	370-44	1	Check Valve
87	250-83	1	Pump
88	030-16	2	Elbow 90 Degree 1/4 Street
89	030-45	1	Reducing Bushing 3/8M x 1/4F
90	150-03E		Solution Hose
91	030-21	1	Ferrule ¼" I.D
92	030-35	1	Hose Barb 1/4 x 1/2 Barb
93	290-08	1	Acorn Screen
94	280-02	3	Rivet – Aluminium 3/16 x 1/2 Closed
95	050-19A	1	Wire Retainer 3/8"
96	380-02	1	Rocker Switch 2 Prong
97	380-15	1	Rocker Switch 3 Position 6 Terminal On/Off/On
98	240-36B	1	Sensei Housing Solution Tank

Wiring Diagram for MK1 Sensei without Heater



Wiring Diagram for MK1 Sensei with 1500W Heater



Warranty

We, Ashbys Specialist Cleaning Equipment, (hereinafter referred to as Ashbys), hereby warranty the Sensei machine for one year from date of purchase if purchased new or three months from date of purchase if purchased from Ashbys as reconditioned / second-hand. If purchased new, this is subject to a Full Service (which is chargeable – price on application) within first 6 months of purchase at Ashbys premises and limited to the terms and conditions listed below.

Conditions of the Warranty

This warranty shall not extend to any Ashbys product showing effects of misuse, abuse, disassembly, alteration, lack of proper maintenance, corrosive chemicals, improper voltage, accident damage, unauthorized repairs, use of other than genuine Ashbys part(s) and material(s), fire, flood, normal wear or other cause beyond Ashbys control.

WARNING ON CHEMICALS: Improper use of chemicals voids warranty and Ashbys liability. Defoamer is to be used in all Ashbys machines.

Ashbys is not responsible for any work performed on, equipment furnished thereto or repairs effected upon any of its products by other than Ashbys.

Brass, rubber and synthetic rubber products, quick disconnects, "O" rings, diaphragms, gaskets, seal, grommets and carbon brushes in both pumps and vacuum motors are considered expendable in normal use and therefore are not included in the warranty.

The warranty obligation extends only to the repair or replacement of parts found, upon Ashbys examination, to be defective. Unless any part or assembled unit replaced hereunder is returned, carriage prepaid, together with a letter describing the problem, to Ashbys within 15 days of replacement, this warranty is void and of no effect. Parts or assemblies, either repaired or replaced, at the discretion of Ashbys, will be returned carriage collect by Ashbys.

We request that you write in or call for an authorisation to return any warranty items. No replacement parts will be shipped without the serial numbers of the machine the part was taken out of and authorisation given by Ashbys nor will any credit be given until the defective parts are received by Ashbys.

This warranty also excludes any and all labour charges, carriage expenses, rental equipment used while warranty repairs are being performed and business losses of any nature from equipment failure.

The foregoing constitutes Ashbys entire warranty and no other warranty, liability, contingency or responsibility, direct, indirect, consequential or in any way connected with the sale or operation of Ashbys machines or chemical products is expressed or implied.

This warranty does not remove the rights of the purchaser provided by the UK law.