



## SERVICE MANUAL PARTS LIST

### BACKPACK VACUUM

**MODELS:**

**BP-1400**



SERVICE

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## I.- WARNING INSTRUCTIONS

### To reduce risk of fire, electric shock, or injury:

- Do not use outdoors or on wet surfaces.
- Do not leave vacuum cleaner unattended when plugged in. Turn off the switch and unplug the electrical cord 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 manufacturer's recommended attachments.
- Do not use with damaged cord or plug. If vacuum cleaner is not working as it should, has been dropped, damaged, left outdoors, or dropped into water, return it to a service center before using.
- Do not pull or carry by cord, use cord as a handle, close a door on cord, or pull a cord around sharp edges or corners. Do not run vacuum cleaner over cord. Keep cord away from heated surfaces.
- Do not use extension cords or outlets with inadequate current carrying capacity. Turn off all controls before unplugging.
- Do not handle plug or vacuum cleaner with wet hands.
- Do not put any objects into openings. Do not use with any opening blocked, keep free of dust, lint, hair, and anything that may reduce airflow.
- This vacuum cleaner creates suction. Keep hair, loose clothing, fingers, and all parts of body away from openings.
- Do not pick up anything that is burning or smoking, such as cigarettes, matches or hot ashes.
- Do not use without dust bag in place. 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.
- Store your cleaner indoors in a cool, dry area.
- Do not unplug by pulling on cord. To unplug, grasp the plug, NOT THE CORD.

**THESE MODELS ARE GROUNDED, CONNECT TO A PROPERLY GROUNDED OUTLET ONLY - SEE GROUNDING INSTRUCTIONS.**

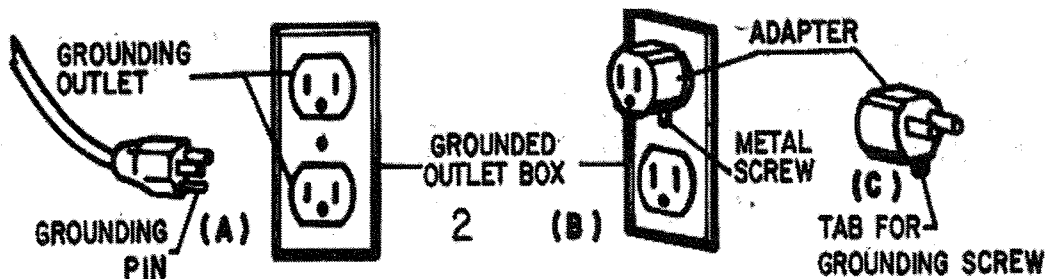
### GROUNDING INSTRUCTIONS

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 shock. This appliance is equipped with a cord having an equipment-grounding conductor and grounding plug. The plug must be inserted into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances.

**WARNING** - 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 normal 120 volt circuit, and has a grounded plug that looks like the plug illustrated in sketch A. A temporary adapter that looks like the adapter illustrated in fig B and C may be used to connect this plug to a 2-pole receptacle as shown in fig B if a properly grounded outlet is not available. The temporary adapter should be used only until a properly grounded outlet (fig A) can be installed by a qualified electrician. The green colored rigid ear, lug, or the like extending for the adapter must be connected to a permanent ground such as a properly grounded outlet box cover. Whenever the adapter is used, it must be held in place by a metal screw.

**Note:** In Canada, the use of a temporary adapter is not permitted by the Canadian Electrical Code.



## II.- SAFETY PRECAUTIONS

- Do not vacuum water or liquids.
- Do not vacuum up hard or sharp objects, as they may damage the hose, vacuum bag or the vacuum motor.
- Do not drop the vacuum on the floor.
- Do not operate the vacuum while it is standing on high-pile carpet. It is essential that the exhaust airflow is not restricted.
- Do not wash or launder the cloth vacuum bag. It would destroy the filtration capacity of the fabric.
- Do not kink or twist the power cord.
- Do not attempt to service the vacuum yourself. Repair by anyone other than an authorized repair service center may void the warranty.
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## III.- SPECIFICATIONS

POWER	AMPER	FILTRATION	Hz
1400 W	11.5	4 STAGE	60

## IV.- MAINTENANCE

- Clean the cloth vacuum bag regularly. After emptying the vacuum bag, turn it inside out and shake as much dust out of the fabric as possible. Optimum performance is achieved by using a paper vacuum bag with the cloth bag.
- Check the power cord for damage. Always unwind the cable completely.
- Ensure that the vacuum hose, the extension wand and the vacuuming accessories are not blocked.
- Ensure that the electrical outlet and the plug are securely connected. Incorrect connections may cause sparking and damage to the cable socket.
- Have your Backpack Vacuum served by an authorized repair service center if you suspect any potential problems.
- Use only approved paper vacuum bags.
- Ensure that the flexible vacuum bag ring provides a proper seal

## V.- TROUBLE SHOOTING CHART

### 1.- MOTOR DOES NOT RUN

PROBLEM	POSSIBLE CAUSE
Bad ON-OFF switch.	Replace switch.
Line cord open.	Replace cord.
Motor open.	Check motor and wiring.
There is no voltage line.	Check voltage line.

### 2.- LOW SUCTION

PROBLEM	POSSIBLE CAUSE
Full paper bag	replacement
Closed hose or wand	Clean obstruction
Slow motor	Check carbon brushes
Capped secondary filter	Clean filter

### 3.- LOW-POWER

PROBLEM	POSSIBLE CAUSE
Suction control dial	Check position of suction control dial
Motor damaged	Replace motor
Bad electrical connection.	Check wiring.
Filters obstructed	Change of filters

### ELECTRICAL CHARACTERISTICS

VOLTAGE	Hz	Amper
127 V ~	60 Hz	11.5

## VI.- OPERATING INSTRUCTIONS

Please read the following operating instructions carefully. They will help you to get the best performance from this professional quality vacuum cleaner and to maintain it in optimum condition.

**Follow these simple steps for easy and effective**

**operation of the Backpack vacuum.**

Open the lid and ensure that the cloth bag is correctly located and the flexible ring provides a proper seal when the lid is closed. For optimum filtration and maximum hygiene, it is advisable to use a paper vacuum bag in addition to the standard cloth bag.

If you use a paper vacuum bag, simply insert it into the cloth bag, making sure that the cardboard disk is centered on the flexible sealing ring.

When you replace the lid, the short nozzle in the center of the lid will be forced into the central hole of the cardboard disk of the paper vacuum bag thus providing a tight seal. Make sure the paper vacuum bag is tightly secured over the short nozzle before vacuuming.

Lock the lid down with the two latches. Always ensure that the vacuum bag is empty before vacuuming. Your Backpack vacuum has been fitted with a thermal overload switch to protect the motor against damage should the airflow be blocked for extended periods. This may occur if the vacuum bag is overfull or if the vacuum hose is blocked. The vacuum motor will stop before it can get too hot. If this happens, empty and thoroughly clean the vacuum bag or free any blockage and ensure that adequate airflow is restored. The motor will automatically restart after it has

cooled to a safe operating temperature.

1. The vacuum hose is fitted into the cuff in the lid. It should not be necessary to remove the hose in normal operation.

2. Place the Backpack vacuum on your back, adjust the shoulder straps until you feel comfortable and then tighten the waist belt. The Backpack vacuum is designed to ride higher on your back for maximum comfort.

3. Plug the cord into a 120 volt, grounded outlet. Always unwind the cord completely before vacuuming. It is important to maintain the power cord in good condition. This unit ships with a 50' 16AWG x 3 conductor

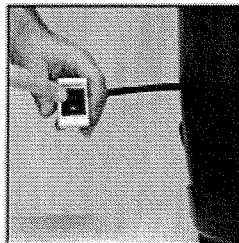
SJT extension cord. Always use a 16x3 SJT extension cord when operation this unit. Use care when pulling the cord around sharp edges and through doorways

**Never operate the Backpack vacuum if the power cord is damaged in any way.**

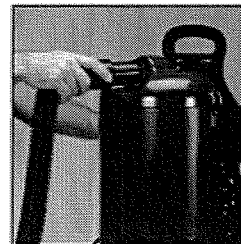
4. Attach the extension wand to the hose and fit the floor tool or any of the other vacuuming accessories on the wand.

5. Turn the vacuum on. The toggle switch is located on the switch box.

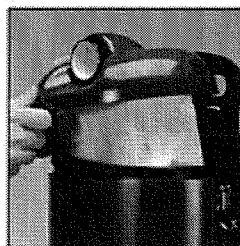
You may clip the switch box to the waist belt.



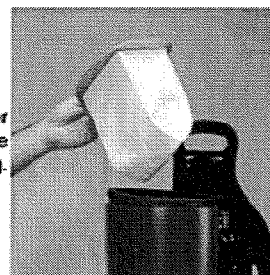
Turn off main power switch and unplug unit from wall outlet.



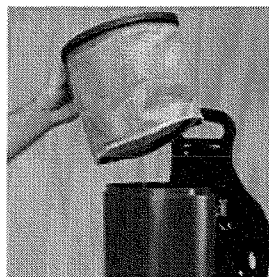
Remove vacuum hose from top of unit.



Release the two latches and lift off lid.



Separate lid from paper bag insert and dispose of paper bag.



Remove cloth filter bag, clean, dust and replace.



Insert new paper bag making sure to align lid nozzle with bag hole and replace latches.

## **VII.- REPLACEMENT PROCEDURES**

### **1. - TO REPLACE PAPER BAG (9 )**

- 1.1.- To change the bag of paper (9) release the cover side latches (2)
- 1.2.- Lift up the cover (18).
- 1.3.- Replace the paper bag and reassemble the cover(9).

### **2.- TO REPLACE CLOTH BAG (28)**

- 2.1.- Follow the steps indicated on point 1.1 and 1.2.
- 2.2.- Remove the cloth bag.
- 2.3.- Change the fabric bag and reassemble again.

### **3.- TO CHANGE THE SECONDARY FILTER FRAME(HEPA)(22).**

- 3.1.- Follow the steps indicated on point 1.1, 1.2 and 2.2.
- 3.2.- Remove the framework of the secondary filter (hepa)(22).
- 3.3.- Remove the secondary filter (hepa).(22) and reassemble again.

### **4.- TO CHANGE THE MOTOR (30)**

- 4.1.- Follow the steps indicated on point 1.1;1.2;2.2;3.2 and 3.3.
- 4.2.- Remove screws (3) from the back rest (7), screws (6) of the Cabinet support (17) and the front cabinet (16).
- 4.3.- Remove the secondary filter plate and the seal body philips screws(5).
- 4.4.- Remove the motor cover (20) with the top motor mount (35) and the motor shroud top (37) and motor seal (38)
- 4.5.-Disconnect the harness switch and the line cable
- 4.6.-Change the motor (30) and reassemble again.

### **5.- TO CHANGE THERMAL PROTECTION(1)**

- 5.1.- Follow the steps indicated on point 1.1 , 1.2 ,3.2,4.2 to 4.4.
- 5.2.- Remove the shroud engine (31) together with the lower shroud for engine.
- 5.3.- Withdraw the philips screws bread head screw (4) and remove the thermal protection.
- 5.4.- Replace and reassembly again.

### **6.- TO CHANGE SWITCH HARNESS (29)**

- 6.1.- Follow the steps indicated on point 1.1,1.2,2.2,3.2,4.2 to 4.5
- 6.2.- Remove the nut heyco (13) and the safe heyco (12) to be able to remove the harness switch.
- 6.3.- Replace and reassembly again

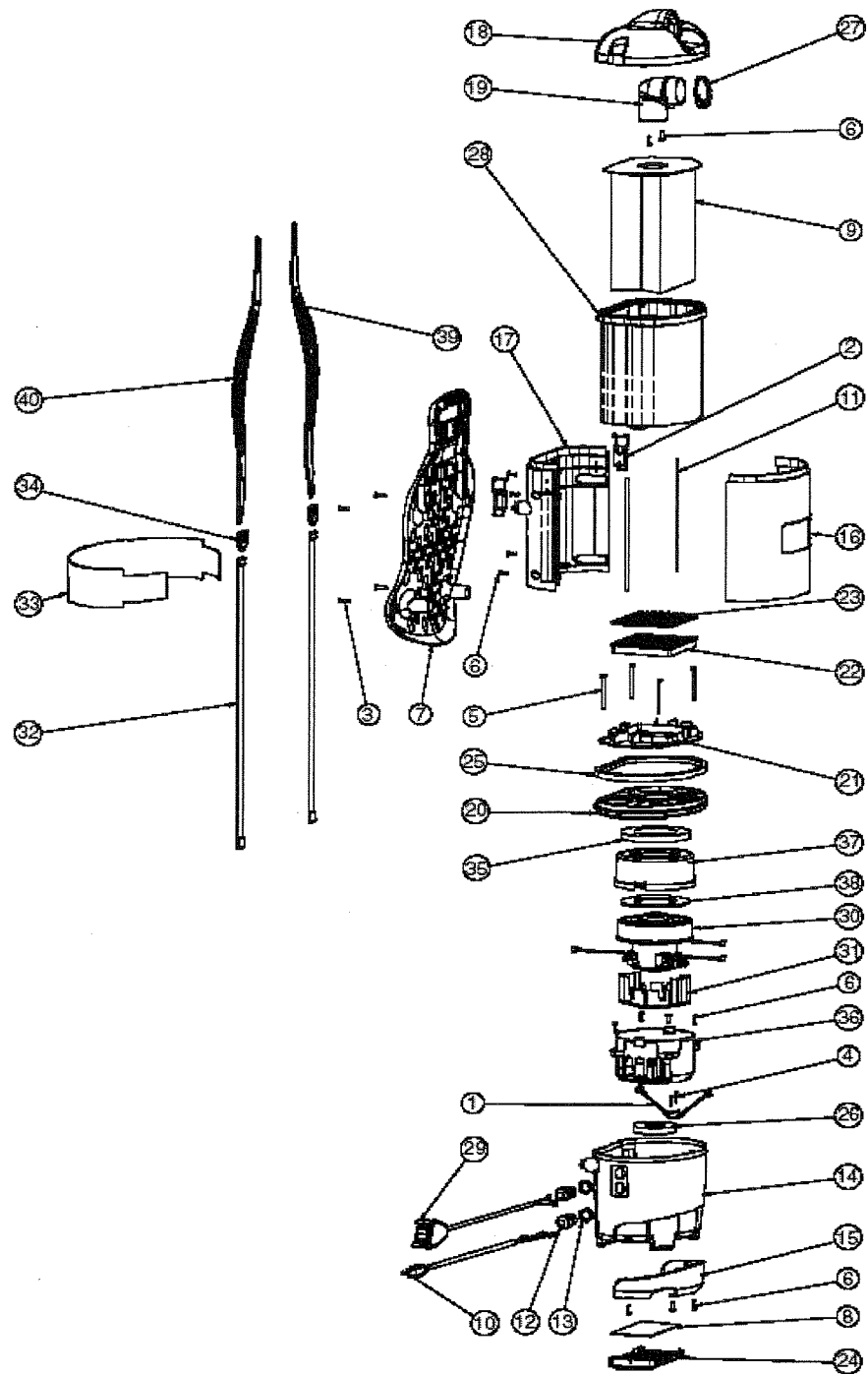
### **7.- TO CHANGE POWER HARNESS (10) ,FIG 2.**

- 7.1.- Follow the steps indicated on point 1.1,1.2,2.2,3.2,4.2 to 4.5
- 7.2.- Remove the the nut heyco (13) and the safe heyco (12) to be able to remove the harness switch
- 7.3.- Replace and reassembly again.

### **8.- TO REPLACE POST FILTER (8)**

- 8.1.- Remove the front cover (24) and the port filter (8).
- 8.2.- Replace and reassemble again.

## VIII.- ASSEMBLY VACUUM





## IX.- LIST PART

No.	PART N.	DESCRIPTION	QTY
1	49-5800-01-3	THERMAL PROTECTION SWITCH	1
2	49-5800-5	LATCH	1
3	49-5800-02-1	#10 .750 TYPE B PHI LIPS PAN HEAD SCREW	4
4	49-5800-03-9	#6 X .375 HI-LO PHI LIPS PAN HEAD SCREW	2
5	49-5800-04-7	#8-16 X 2.500 PHI LIPS PAN HEAD SCREW	4
6	49-5800-05-4	#8 X .625 HI-LO PHI LIPS PAN HEAD SCREW	4
7	49-5800-06-2	BACK REST	1
8	49-5802-1	POST FILTER	1
9	49-5803-9	PAPER BAG 10 PACK	1
10	49-5804-7	POWER HARNESS	1
11	49-5805-4	BAG COMPARTMENT SEAL	1
12	49-5800-07-0	HEYCO FITTING	1
13	49-5800-08-8	HEYO FITTING NUT	1
14	49-5800-09-6	MOTOR COMPARTMENT	1
15	49-5800-10-4	BUMPER	1
16	49-5806-2	FRONT PLATE	1
17	49-5807-0	BACK PLATE	1
18	49-5808-8	COVER	1
19	49-5809-6	HOSE INLET	1
20	49-5800-11-2	MOTOR COVER	1
21	49-5800-12-0	SECONDARY FILTER PLATE	1
22	49-5800-13-8	SECONDARY FILTER FRAME	1
23	49-5800-14-6	SECONDARY FILTER CAP	1
24	49-5800-15-3	POST FILTER FRAME	1
25	49-5800-16-1	BODY SEAL	1
26	49-5800-17-9	BOTTOM MOTOR MOUNT	1
27	49-5800-18-7	INLET SEAL	1
28	49-5810-4	SHAKE OUT BAG	1
29	49-5811-2	SWITCH HARNESS	1
30	49-5812-0	5.1" SINGLE STAGE TEK MOTOR	1
31	49-5800-19-5	TEK MOTOR SHROUD PC	1
32	49-5813-8	SHOULDER HARNESS STRAP	2
33	49-5800-20-3	WAIST BELT	1
34	49-5800-21-1	SHOULDER STRAP BUCKLE	2
35	49-5800-22-9	TOP MOTOR MOUNT	1
36	49-5800-23-7	MOTOR SHROUD BOTTOM 5.1 - 1 STAGE	1
37	49-5800-24-5	MOTOR SHROUD TOP 5.1 - 1 STAGE	1
38	49-5814-6	MOTOR SEAL	1
39	49-5800-25-2	RIGHT SHOULDER HARNESS	1
40	49-5800-26-0	LEFT SHOULDER HARNESS	1
		<b>NOT ILLUSTRATED</b>	
42	49-5818-7	CREVISE TOOL	
43	49-5817-9	UPHOLSTERY TOOL	
44	49-5819-5	DUST BRUSH TOOL BODY	
45	49-5820-3	DUST BRUSH BRISTLES	
46	49-5822-9	CARPET TOOL BODY	
47	49-5823-7	CARPET TOOL BUMPER	
48	49-5824-5	BARE FLOOR TOOL BODY	
49	49-5825-2	BARE FLOOR TOLL BRUSH	
50	49-5816-1	HOSE	
51	49-5800-27-8	TELESCOPE WAND	
52	49-5800-28-6	50' CABLE-EXTENSION 16	



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