# Rotobic



## Shadow Vac Back Pack Vacuum Cleaner

#### **OPERATING MANUAL AND PARTS GUIDE**

**MODEL: 12923012** 



#### **Hako Australia Pty Ltd**

ABN: 43 002 858 059

90 Wetherill St North, Silverwater NSW 2128 T: +61 2 8756 4700 F: +61 2 8756 4799

Landline Toll Free: 1800 257 221 E: hksales@hakoaustralia.com.au Website: www.hakoaustralia.com.au

## Safety Instructions

## Read this manual before using the back pack and always follow the Safety and Maintenance Instructions

- Do not leave the appliance when plugged in. Unplug from the power point when not in use and before servicing.
- Do not use outdoors or on wet surfaces.
- This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
- Children should be supervised to ensure that they do not play with the appliance.
- Use only as described in this manual. If appliance is not working as it should, has been dropped, damaged, left outdoors, or dropped into water, return it to a service centre.
- Do not pull or carry by cord or plug, use cord as a handle, close a door on cord, or pull
  cord around sharp edges or corners. Do not run appliance over cord. Keep cord away
  from heated surfaces.
- If the cord is damaged, it must be replaced by the manufacturer or its service agent or a similarly qualified person in order to avoid a hazard.
- Do not unplug by pulling on cord. To unplug, grasp the plug, not the cord.
- Do not handle plug or appliance with wet hands.
- Do not put any object into openings. Do not use with any opening blocked.
- Keep hair, loose clothing, fingers and all parts of body away from openings and moving parts.
- Turn off all controls before unplugging.
- Use extra care when cleaning stairs.
- Do not use to pick up flammable or combustible liquids, such as petrol, or use in areas where they may be present.

#### **SAVE THESE INSTRUCTIONS**

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## **Packaging**

- Every Shadow Vac unit comes with:
- A basic set of cleaning accessories: vacuum hose with elbow hand grip, 2 piece wand, and Ezi-Glide floor tool.
- Cloth filter bag
- Secondary filter (located under cloth filter bag)

## Assembly

- Remove lid by releasing latches and remove check both the cloth filter bag and secondary filter bag are included
- Rotate the canister lid so that the vacuum in let is on the left or right side to suit your 'vacuuming' arm.
- Attach hose end into canister lid inlet.
- Connect both wands together to create one length.
- Attach end of wand to other end elbow pistol grip.
- Attach Ezi-Glide floor tool to other end of wand

#### Start Up

- Unwind power supply cord and leave uncoiled on floor.
- Plug the cord into an electrical socket and switch power ON at the power point

## Wearing and Adjusting

- Loosen shoulder straps and waist strap to allow sliding of arm through the strap comfortably
- Lift machine onto one shoulder, by first inserting opposite arm through the shoulder strap by which the machine is lifted (like putting on a shirt or blouse), slide second arm through opposite shoulder strap so now the Shadow Vac is on both shoulders.
- Position the waist-band into the 'small' of your back just above your backside. This will lower
  the centre of gravity of the unit, and positions the weight closer to the body onto the stronger
  pelvic area. It provides freedom of movement for the arms, and prevents the unit from riding
  up the back when forward bending. It also provides greater manoeuvrability with less effort
  for any vacuuming task.
- Tighten waist strap until secure and comfortable.
- Pull down on both ends of the shoulder strap until the back supports just make contact with the back, bringing the unit into a vertical position. The tension in the shoulder straps should be minimal, enabling you to easily insert your fingers easily between the shoulder strap and shoulder.

## Controls and Features

- Switch the vacuum ON. The switch is located at the left hand side at waist level.
- The Ezi-Glide floor tool can be used for either hard floors or carpet.
- Removing the floor tool
  - Twist the chrome wand while holding the floor tool neck.
  - **Do not** stand on floor tool.

- The slide regulator on the hand grip of the wand controls the airflow and suction at the floor tool nozzle. The resistance between the tool and floor surface depends on floor type and suction. Opening the slide regulator will reduce the resistance. Adjust the regulator to an open position to reduce suction/airflow. Good for vacuuming low profile carpets or loose coverings e.g. tapestry, or upholstery corners using the correct vacuuming tool.
- Adjusting the regulator to the closed position increases suction and airflow. Good for plush or thicker pile carpets.
- The (optional) crevice tool is designed for crevice cleaning on upholstered furniture or spot cleaning.
- The (optional) dusting brush is used for upholstery, corner and cornices cleaning.
- Both the crevice tool and dusting brush can be used with or without the chrome wands, simply attach it to the end nozzle of the hose. The main advantage is to reduce the need for physical bending when vacuuming. The plastic ferrule at the chrome wand, allows for easy disconnection.
- For fine dust areas use the (optional) paper bag liners, inside the cloth filter bag.
- The Shadow Vac is provided with an integral cord restraint. Ensure that the cord is fitted through the lead guide in order to provide strain relief to the cord.
- The Shadow Vac is provided with on board tool storage. Store a crevice tool and dusting brush in the holes provided for ready access.

## Use,Operation and Maneuverability

- The slender profile of the Shadow Vac limits the protrusion from the operators back to 270mm. It is important to maintain this clearance to prevent collision while working.
- For comfortable operation of the Shadow Vac, stand upright with a relaxed posture, arms hanging
  loosely to the side. Maintaining a straight wrist, hold the hand grip section of the wand with one hand,
  parallel to the floor. The double swivel neck on the floor tool more than compensates for any height
  variance of operators, and maintains a flat vacuuming face to the floor.
- Use an easy arm-swing motion that covers approximately a 600mmstroke when vacuuming.
- Plan the work path based on location of the power point, room/furniture layout, and entrance and exit points
- Commence vacuuming using a systematic approach working one half of the area first, away from the power point and then the other half of the area, returning back to the start.
- Ensure that the power cord is clear of feet to reduce likelihood of tripping.
- When vacuuming under office desks, the reach of the wands is sufficient to avoid bending at the waist.
   When vacuuming under lower profile objects, or when picking up items off the floor, bend the knees and maintain a straight back.
- When turning do not twist at the waist, turn using your feet.
- Once finished, switch the vacuum OFF at the machine, then switch OFF at the power point and unplug
  from power socket. Remove Shadow Vac by unbuckling waist band and sliding strap off one shoulder by
  sliding hand and arm between shoulder strap and body. Lower unit to the floor using freehand (DO
  NOT DROP the vacuum unit)

## Maintenance and Storage

#### Cord Storage and Maintenance

- Gather the cord by winding from the machine end, checking for cuts, fractures any exposed wires.
   Cleaning the cord if soiled. This practice minimises the likelihood of knuckling, and provides a visual inspection of cord. Drape cord over the frame for storage.
- Replace badly kinked or knuckled cords. Knuckling is caused by stretching the cord. Stretching occurs by
  pulling on an entrapped cord, winding the cord from the machine end while still plugged into the power
  point, or winding the cord from the plug end.

#### Filter Bag Maintenance

The filter bag must be emptied frequently, and the fine dust coating removed from the bag surface.
 Access the filter bag by releasing the canister clamps holding the lid. To clean, push the bag inside out
 over a bin, and then brush the surface clean using a soft bannister brush or vacuum. Do not hit the bag
 against a wall because this may damage the filter media. Check the filter bag for perforations to maintain
 filtration efficiency.

#### Secondary Filter Maintenance

• The secondary filter is located under the filter bag. The filter can be cleaned by thoroughly washing in water with neutral detergent. Ensure the filter is dry before refitting or replace with a clean one while the washed one dries.

#### **Exhaust Filter Maintenance**

- The exhaust filter is located on the vacuum cleaner exhaust. To access, remove screw from end cap, and slide exhaust deflector clear of cap. Squeeze the sides of the exhaust deflector to remove.
- Clean the exhaust filter by thoroughly washing in water with neutral detergent.
- Ensure the filter is dry before refitting.

#### Blockage Checks, Hose and Hose Swivel Maintenance

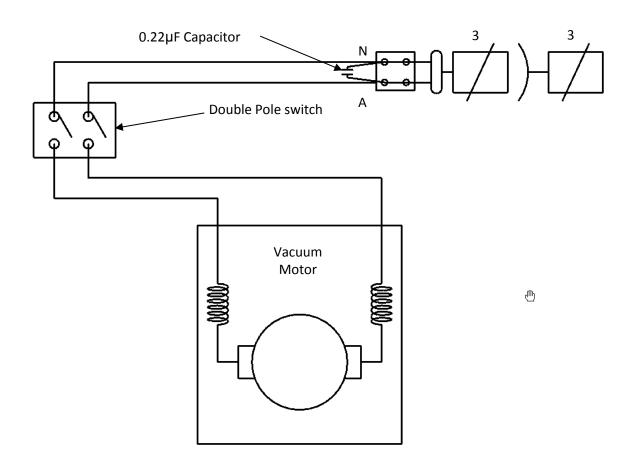
- Loss of suction can occur due to blockages, check for blockages at the floor tool, bent elbow and along hose length.
- Loss of suction can also occur if the hose splits, check the hose for splits.
- The double swivel action at each hose end may lock when heavily impregnated with dust. To free the
  joint, squeeze together the bayonet click ring retainers and clear the obstructing dust and debris, before
  re-assembling.

#### **Motor Maintenance**

Check vacuum motor carbon brushes at regular intervals using qualified personnel.

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## **Electrical Wiring Diagram**



## Specifications

Packaging	Machine 560 x 350 x 300mm – Package weight 8.4 kg				
Machine Weight	4.8 kg - not including cord and wand				
Electrical Power Supply	220-240V. a.c.,50 Hz				
Electrical Cord	18 metre, 10 ampere, 3 core ordinary duty extension cord				
Thermal Protection	105°C automatic reset thermostat				
Vacuum Motor	Series Motor, Flow Through, Twin Impeller System				
Air Flow	32 litres/sec				
Water Lift	2400mm				
Power Rating	1200 Watts				
Carbon Brush Life	600 - 800 hours average				
Noise Levels	Noise level at operator's ear level 72 dBA. The noise level readings do not exceed the 8 hr noise level equivalent of 85dBA referred to in clause 49 Occupational Health and Safety Regulation 2001				
Filter and Filtration	The filter bag capacity is 4.0 litres and constructed, using 380g/m2 polyester needle felt, rated at 5 micron. Filtration is rated at 99% efficiency at 1 micron.				
Secondary Filtration:	"U" media EU5. Filtration is rated at 20% at 0,5 micron, 35% at 1 micron and 95% at 5 micron				
Exhaust Filter	13mm foam media, 24 pores/cm				

Please note specifications can change without notice.

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## Shadow Vac Parts List

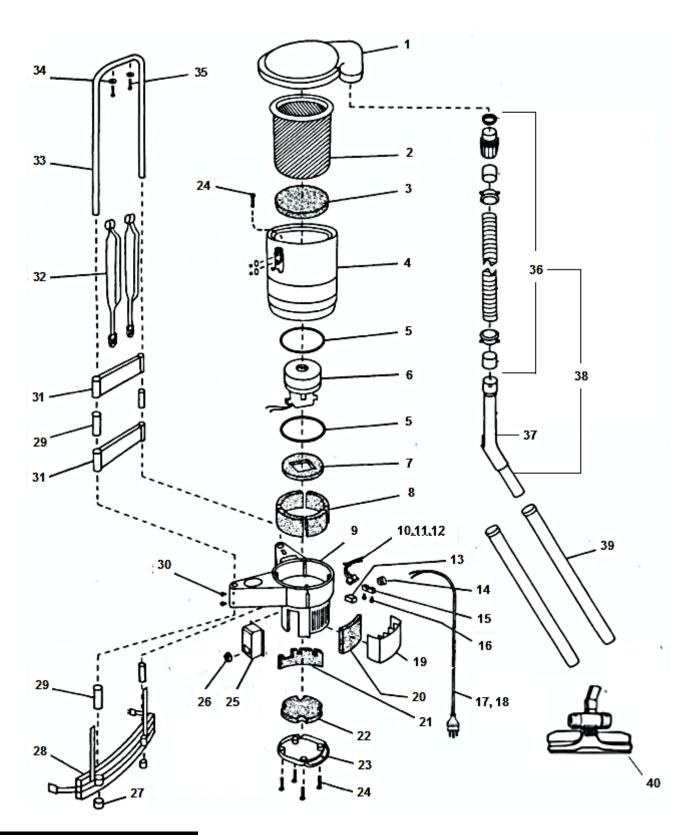
**Part No:** 12923012 - Shadow Vac 220 – 240 V a.c. 50 – 60 Hz

Item	Part No.	Part Name	Qty
1	13310005	Lid Canister Red	1
2	13806253	Filter Bag	
3	13805439	Filter Secondary	
4	13806262	Canister Back Pack Assy	1
	13806163	Canister Upper	1
	13310006	Latch Toggle	2
5	13806497	Sealing Ring	1
6	13806325	Motor Vac SV 1000W 240V B/P	1
	13805304	Carbon Brush	2
7	138806328	Cork Gasket	
8	13806268	Washer Foam 88X70X15 PE	
9	13806145	Canister Lower	1
10	13806104	Wire Brown 180mm 10A	1
11	13806107	Wire Blue 180mm 10A	1
12	13806135	Capacitor 0.22μF	1
13	13806108	Terminal Block 2 Way	1
14	13805403	Grommet 7.2mm ID	1
15	13806141	Cable Clamp	1
16	13380026	Screw WN1412 KB40 X 16Z	2
17	13806302	Cord Red 0.25m 10A 3Core	1
18	13620010	Cord Ext'n Red 18m 10A 3Core	1
19	13806143	Exhaust Cover	1
20	13806097	Foam Exhaust Back Pack	1
21	13806100	Foam Motor Canister Lower	1
22	13806270	Foam Cap Corner Fill	1
23	13620011	Cap Motor Canister Vented	1
24	13380048	Screw WN1412 KB50 X 20Z	
25	13750020	Plate Mtg Switch No PO	
26	13780014	Switch Rocker 2HP	
27	13806090	Cap Frame Tube	
28	13806146	Strap Padded Waist Blk	1
29	13806092	Tube Spacer 20 X 2 Wall 66 L Blk	4
30	13380031	Screw No. 8 x 3/8 B/Z	4
31	13806148	Strap Padded Back Blk	2
32	13806149	Strap Padded Shoulder Blk	2
33	13806094	Frame Tube Blk	1
34	13830120	Washer Poly 4.3 X 8.5 X 3 Blk	2
35	13380032	Screw No. 8 X 15 B/Z	2
36	13670006	Hose 32 dia x 1.2 Long Blk	1
37	13640002	Elbow BEP 32mm Blk	1
38	13806336	Hose BEP & Tank Fitting Assy	1
39	13820011	Chrome Wand 500 L	2
40	13797001	Tool Floor Ezi-Glide	1

<b>Optional Tool Accessories</b>						
41	10410427	Combination Floor Tool 270 Wide				
42	13806254	Combination Floor Tool 300 Wide				
43	13790001	Crevice Tool Back Pack				
44	11410559	Dusting Brush				
45	13806372	Paper Bag Filter 5pcs/Pkt				

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## Shadow Vac, Exploded Diagram



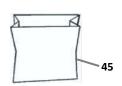
## **Optional Tool Accessories**











#### **General Warranty Policy**

Hako Australia Pty Ltd ACN 002 858 059 ("Hako") warrants to the original purchaser that the equipment specified in this manual ("Equipment") is free from defects in workmanship and materials under normal use for a period of 12 months.

Under this warranty, after examination discloses it to have been defective, Hako will repair or replace at its factory or authorised dealer service outlet, parts of the Equipment 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 via the Hako-authorised dealer or service agent the item was purchased.

The purchaser is responsible to return the defective goods at their expense, to the Hako-authorised dealer or service agent the item was purchased from.

This warranty does not apply to components replaced due to recommended service schedules, normal wear and tear or to items whose life is dependent on their use and care.

Use of replacement parts not manufactured or supplied by Hako will void all warranties expressed or implied and may give rise to a potential health hazard. All parts replaced under this warranty become the sole property of Hako or its original manufacturer, whichever the case may be.

This warranty is applicable only to the original purchaser. Hako is not responsible for costs or repairs performed by persons other than those specifically authorised by Hako. This warranty does not apply to damage from transportation, alterations by unauthorised persons, misuse or abuse of the equipment, use of non-compatible chemicals or parts, or damage to property, or loss of income due to malfunction of the Equipment. If a difficulty develops with this Equipment you should contact the dealer from whom it was originally purchased.

The warranty coverage period on Equipment will commence 1 year after the date of shipment from Hako to its dealer or authorised agent unless the Equipment is sold before this time. This sale date would then be the beginning date of the warranty coverage.

The following statements only apply to a consumer sale of goods or services as defined in the Australian Consumer Law. In this statement, 'Our' means 'Hako' and 'you' means 'original purchaser':

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

To the extent permitted by law, all other warranties whether implied or otherwise, not set out in these warranty terms and conditions are excluded and Hako is not liable in contract, tort (including, without limitation, negligence or breach of statutory duty) or otherwise to compensate you for:

- any increased costs or expenses;
- · any loss of profit, revenue, business, contracts or anticipated savings;
- any loss or expense resulting from a claim by a third party; or
- any special, indirect or consequential loss or damage of any nature whatsoever caused by Hako's failure in complying with its obligations.

The benefits given to you in this warranty are in addition to other rights and remedies under a law in relation to the Equipment or services to which this warranty applies.

## Warranty Registration Details

Purchaser:			Purchase	date:
Address:				
State:	PostCode:	Contact:		ph:
ModelNo.:	SerialNu	mber:		
Purchased from:				
Address:				

Please attach copy of receipt.

#### **Hako Australia Pty Ltd**

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90 Wetherill St North, Silverwater NSW 2128 T: +61 2 8756 4700 F: +61 2 8756 4799

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