

# 6-QUART RAVEN BACKPACK SERIES

By Sandia Products

## Please fill out the following information:

Model No: \_\_\_\_\_

Serial No: \_\_\_\_\_

Distributor Name: \_\_\_\_\_

Distributor Phone No: \_\_\_\_\_

Date of Purchase: \_\_\_\_\_



Built With Pride  
in the USA

## Returned Material Authorization (RMA) Procedure

Original purchaser must contact the manufacturer to follow correct RMA/warranty procedures. Must include a copy of RMA Sheet enclosed in the box with returned item. No returns shall be authorized unless the proper RMA procedures are followed. It is the responsibility of the distributor to repair the customer's equipment as soon as possible. If the distributor does not have the facilities to repair the equipment, it may be shipped or taken to an authorized service center for repair.

Customer must contact the manufacturer prior to working on or changing out any parts, etc. Manufacturer must issue an RMA Sheet containing approved labor time and replacement parts. Do not send parts or equipment back to manufacturer without an RMA Number and approval. No labor will be paid for, nor part costs paid for or reimbursed that have not been previously approved by manufacture. All warranty work must be approved and authorized to qualify and appropriate warranty procedures must be followed.

# Sandia

PRODUCTS

**Your Ultimate Choice in  
Profitable Cleaning Performance!**

15571 Container Lane, Huntington Beach, CA 92649

Phone: 714-901-8400 | Toll Free: 800-983-5834 | Fax: 714-901-8404

info@sandioplastics.com | www.sandioplastics.com

## SAFETY, OPERATION AND MAINTENANCE MANUAL WITH PARTS LIST

Please read before use!

**1.5 HP, 115 VOLT**

REGISTER  
YOUR  
MACHINE  
ONLINE!



# Sandia

PRODUCTS

**Your Ultimate Choice in  
Profitable Cleaning Performance!**

## IMPORTANT INFORMATION AND SAFETY INSTRUCTIONS

Register your Machine at [www.sandioplastics.com/registration.aspx](http://www.sandioplastics.com/registration.aspx)

Serial No: \_\_\_\_\_

**6-QUART RAVEN BACKPACK SERIES**

Reliable Power

Fastest Pick-Up

Maximum Airflow

Innovative Design

Lightweight

HEPA Filtration



**Your Ultimate Choice in  
Profitable Cleaning Performance!**

## Dear Valued Customer,

Congratulations on the purchase of your 6-Quart Raven Backpack Vacuum! The world of carpet cleaning is becoming more high-tech and competitive and we strive to provide you with the most innovative products. Our backpack vacuum is yet another example of this, bringing a new dimension to carpet and upholstery cleaning with its cutting-edge features, quality and value.

Please review this manual, paying careful attention to the Safety Instructions section. Keep in mind that any unnecessary damage, neglect or abuse of this machine will void your warranty. You can be confident that simple maintenance will ensure that your backpack vacuum provides quality performance for many years to come.

If warranty questions arise, please consult your manual or contact your distributor. Should you have any questions regarding maintenance, replacing parts or ordering parts, please call an authorized distributor.

Before you begin using your backpack vacuum, thoroughly review the Owner's Manual.

Again, congratulations on the purchase of your 6-Quart Raven Backpack Vacuum!

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## 7.0 Machine Parts List

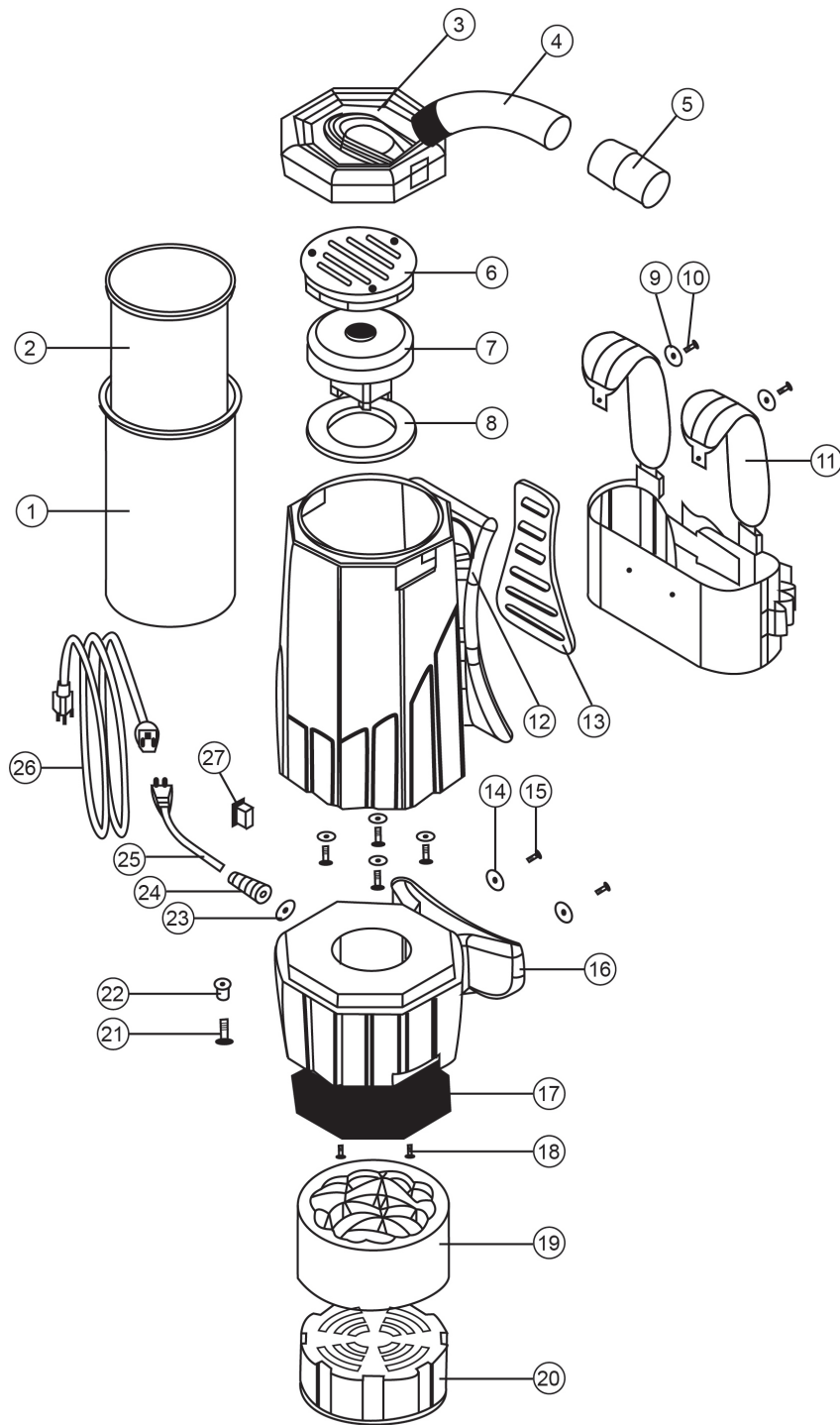
Item No.	Item Description	Qty.	Drawing No.
10-0007-6	6qt. Cloth Bag for 6qt. Backpack	1	1
10-0197	6qt. Paper Bags/10 Pack	0.1	2
BP-6-L-GRYGRAN	6qt. Backpack Lid Gray Granite	1	3
10-0024	1-1/2" Black Vacuum Hose	4	4
10-0195	Swivel Cuff	1	5
10-0008-B	Dome Filter w/ Bag Support	1	6
10-0219-6	Complete 6qt. HEPA Filter	1	6a
10-0013	Super Motor - Super Models Only	1	7a
10-0012	Whisper Motor - Whisper and Aviation Models Only	1	7b
10-0346	D-P Motor - D-P and Avenger Models Only	1	7c
10-0199	Vacuum Motor Gasket	1	8
10-0023	Shoulder and Waist Belt Washer	4	9
10-0022	Shoulder and Waist Belt Screw	4	10
10-0021	Shoulder and Waist Belt	1	11
BP-6-T-GRYGRAN	6qt. Backpack Tank Gray Granite	1	12
10-0020	Cushioned Back Pad	1	13
10-0015	1/4" Flat Washer	4	14
10-0014	Motor Screw	4	15
BP-6-B-BLKGRAN	6qt. Backpack Bottom Black Granite	1	16
10-0016-6	6qt. Deflector Plate	1	17
10-0017	Deflector Screw	3	18
10-0018	Sound Dampening Band	1	19
10-0019-6	6qt. Dual Cell Noise Filter	1	20
10-0070	Screw for Well Nut	1	21
10-0069	Well Nut for Cord Lock	1	22
10-0027-A	Strain Relief Nut	1	23
10-0027	Pigtail Strain Relief	1	24
10-0026	17" Power Cord (cord only)	1	25
10-0028	50-Foot Electrical Cord	1	26
10-0025	On/Off Switch	1	27
10-0155	Hose Cuff Straight	1	Not Pictured
10-0204-B	Washer for Rivet 10-0205	6	Not Pictured
10-0205	Body Rivet for Backpack	6	Not Pictured
10-0223-A	2-Piece Head Attachment	1	Not Pictured

## 5-Piece Standard Tool Kit

Item No.	Item Description	Qty.
10-0031	5" Upholstery Tool	1
10-0032	14" Scalloped Floor Tool	1
10-0033	17" Crevice Tool	1
10-0037	3" Round Dust Brush	1
10-0029	2 PC 2 Bend Button Lock Wand	1



## 6.0 Machine Schematic Drawing



## New Equipment Warranty

Lifetime on polyethylene plastic body, 5-years on motor and all electrical, 1-year on tools.

### Warranty Policy

All equipment is inspected and tested before shipping from the manufacturer. All parts are warranted to be new and free from defects in workmanship and material, under normal use to the original retail purchaser. This warranty limits manufacturer's liability for defects in workmanship or materials to replacement of defective parts only. Manufacturer accepts no liability for incidental or consequential damages arisen from the use of any equipment, defective or not. This warranty is in lieu of all expressed or implied warranties and is extended only to the original retail purchaser. Manufacturer sales and service representatives are not authorized to waive or alter the terms of this warranty, or to increase the obligations of the manufacturer under the warranty. Parts replaced or repaired under this warrant are warranted for the remainder of the original warranty period.

Freight charges and travel charges to and from the service provider shall be covered for ninety (90) days from the purchase date. After the ninety (90) day period, these freight charges shall be paid by the equipment owner, subject to manufacturer discretion. Certain circumstances may require additional consideration. No travel charges shall be covered after ninety (90) days.

Manufacturer covers up to 1-year (365 days) of service labor at manufacturer's calculated hourly labor rate/repair time when performed by a manufacturer's authorized-service provider. Ultimately, labor reimbursement costs are at the discretion of the manufacturer. After one 1-year, original retail purchaser is responsible for all labor costs with no manufacturer reimbursement.

Manufacturer charges a 15% restocking fee for any items that are being returned to stock. Items must be new, unused and free of damage. Only good for up to 1-year (365 days). After 1-year, manufacturer does not accept the return of any item(s) for a reimbursed price.

Authorized warranty replacement parts need to come directly from the manufacturer. Any use of any other parts will void warranty. Sandia Products, Inc. does not reimburse for parts used by the customer that were not supplied directly for the machine under warranty.

## 1.0 Safety Instructions

READ THIS MANUAL BEFORE OPERATING. KNOW THE PROPER OPERATION, CORRECT APPLICATIONS AND THE LIMITATIONS OF THIS EQUIPMENT **BEFORE** USE.

This backpack vacuum will afford you many years of trouble free operating satisfaction, provided it is given the proper care. All parts have passed rigid quality control standards prior to being assembled to produce the finished product. Prior to packaging, your backpack vacuum was again inspected for assurance of flawless assembly.

This backpack vacuum is protectively packed to prevent damage in shipment. We recommend that upon delivery, unpack the unit and inspect it for any possible damage. Only a visual inspection will reveal damage that may have occurred.

If damage is discovered, immediately notify the transportation company that delivered your vacuum. As a shipper, we are unable to report any claim for damage. You must originate any claim within five (5) days.

This manual is for your protection and information. Please read carefully since failure to follow precautions could result in discomfort or injury.

### Reduce the Risk of Fire, Electric Shock or Injury

DO NOT USE ON WET SURFACES. DO NOT EXPOSE TO RAIN. STORE INDOORS.

- DO NOT leave the vacuum when plugged in. Unplug from the outlet when not in use and before servicing.
- DO NOT vacuum up any liquids. This vacuum is for dry use only! To avoid electric shock, DO NOT expose to rain. Store indoors. DO NOT use on wet surfaces.
- This is not a toy. Close attention is necessary when used around or near children.
- Use only as described in this safety manual. Use only manufacturer’s recommended attachments, accessories, replacement parts and filters.
- DO NOT use this backpack vacuum with damaged cord or plug. If the vacuum is not working as it should, because it has been dropped, damaged, left outdoors or dropped into water, contact an authorized service center or factory.
- DO NOT pull or carry by the cord, use cord as a handle, close a door on the cord, or pull the cord around sharp edges or corners. Keep cord away from heated surfaces.
- DO NOT unplug the vacuum by pulling the cord. To unplug, grasp the plug, not the cord.
- DO NOT handle the plug of the vacuum with wet hands.
- DO NOT put objects into openings. DO NOT use with any opening blocked. Keep free of dust, lint, hair and anything that may reduce air flow.
- Keep hair, loose clothing, fingers and all body parts away from opening and moving parts.
- DO NOT pick up anything that is burning or smoking such as cigarettes, matches or hot ashes.

## 5.0 Troubleshooting Guide

CAUTION: Always disconnect power cord before servicing vacuum.  
WARNING: Repairs should only be performed by an authorized service center.

### PROBLEM: Loss of vacuum

CAUSE	SOLUTION
Cap is damaged	Inspect and replace if needed
Faulty vacuum motor	Call manufacturer or service center
Full paper bag filter	Replace paper filter bag
Clogged hose or wand	Remove obstruction
Loose or broken fan	Call manufacturer or service center

### PROBLEM: Motor is not running

CAUSE	SOLUTION
Faulty on/off switch	Call manufacturer or service center
Power cord defective	Call manufacturer or service center
Loose connection or wiring	Call manufacturer or service center
Motor defective	Call manufacturer or service center
Blown fuse or tripped circuit breaker	Replace fuse or reset circuit breaker

### PROBLEM: Dust blowing from vacuum when running

CAUSE	SOLUTION
Full paper bag	Replace filter bag
Paper filter bag not installed properly	Reinstall or replace paper filter bag properly
Cloth filter bag is dirty	Clean cloth filter bag
Cloth or paper filter bag is torn	Replace



## 4.0 Operation and Assembly Instructions Continued

### HEPA Models:

When the white disk inside your dome filter is discolored, replace it with a new HEPA filter with bag support. Replacement time frame of the HEPA filter depends on the frequency and application of use. For best results, replace every six (6) months.

### IMPORTANT:

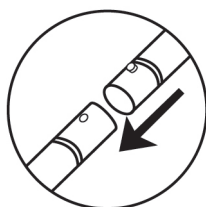
Following the instructions above is critical in prolonging the life of your vacuum. All filters must be used at all times.

The backpack comes assembled, but you will need to install the hose to the wand, and the wand to the attachment.

### Assembly of Attachments:

#### Wand Assembly (for 2-Piece Wand Only):

- Align the button lock of the upper wand section with the opening for the button lock on the lower wand section.
- Push the sections together until the button lock slides into place and the lock is secured.

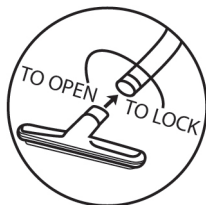


#### To Connect Wand to Hose:

- Connect the tapered end of the wand to the swivel cuff at the end of the hose.

#### To Connect Wand to Attachments:

- Turn wand nut counterclockwise approximately four (4) complete turns.
- Insert the tool into wand and coupling.
- While holding the tool in place, turn nut clockwise until wand nut is fully locked.



## Reduce the Risk of Fire, Electric Shock or Injury Continued

- DO NOT use without the proper cloth filtration bag, paper filter bag and other filters in place.
- DO NOT use the vacuum to pick up flammable or combustible liquids such as gasoline or use in areas where they may be present.
- Use extra care when cleaning on stairs.
- DO NOT use where oxygen or anesthetics are used.
- Turn off all controls before unplugging. Make sure the on/off switch is in the off position.
- The extension cord provided with this unit is 50-foot, 16/3-gauge wire and MUST be used with this unit to ensure grounding protection.
- Replace damaged or worn parts immediately with genuine, original equipment parts to maintain safety and to protect your limited warranty.
- DO NOT lubricate the motor.
- DO NOT tie extension cord to pigtail cord. This will damage the cord and will not be covered under warranty.
- DO NOT overstretch the safety power cord between the vacuum and the electrical outlet in the wall.
- DO NOT use without all filters correctly secured in place.
- When using the vacuum with a powerhead tool and connection, always turn off the vacuum and nozzle tool before connecting or disconnecting either the hose or power nozzle. Depending on your vacuum model, the hose may contain electrical wires. DO NOT use when damaged, cut or punctured.

Always turn OFF the vacuum before connecting, disconnecting or working on the vacuum. This vacuum must be connected to a properly grounded outlet only (see grounding instructions).

## 2.0 Grounding Instructions

**DANGER: IMPROPER GROUNDING METHOD CAN RESULT IN A RISK OF ELECTRIC SHOCK.**

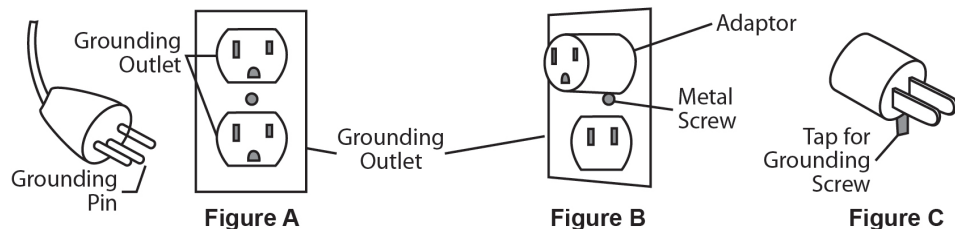
Electrical equipment must be grounded. If it should malfunction or breakdown, grounding provides a path of least resistance for electrical current to reduce the risk of electric shock. The vacuum is equipped with a cord containing a grounding conductor and grounding plug. The plug must be inserted into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances.

If repair or replacement of the cord or plug is necessary, DO NOT connect the grounded wire to a flat bed terminal. The wire with insulation having an outer surface that is green with or without yellow stripes is the grounding wire.

## Grounding Method

This electric equipment is for use on a normal 120 volt circuit. It has a grounded plug that looks like a the plug illustrated in (Fig A). A temporary adapter that looks like the adapter illustrated in (Fig B and C) may be used to connect this plug into 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 color rigid ear lug or the like extending from 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.



## 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 equipment. If it will not fit into the outlet, have a proper outlet installed by a qualified electrician.

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

## 3.0 Care of your Backpack Vacuum Cleaner

Treat your vacuum cleaner as you would any other high grade, precision made product. Dropping, unreasonable bumping across thresholds and other misuses may result in a damaged unit which will not be covered under warranty.

When not in use, the power cord should be wrapped around the molded-in cord wrap for storage. After each use, wipe the vacuum body, accessories and power cord with a slightly damp cloth.

## 4.0 Operation and Assembly Instructions

### PREPARATION AND OPERATION. DRY ONLY!

This vacuum is equipped with an air-thru motor and is designed for dry pickup only. Unpack the carton and remove the vacuum and attachments (if purchased with tools).

### Getting Started:

1. Make sure your on/off switch is in the OFF position.
2. Remove lid and check to make sure you have both a cloth filter bag and paper filter bag in place. Secure lid back onto the vacuum body, tightening securely. Both bags must be used at all times. Any damage resulting from the lack of using both bags will not be covered under warranty.
3. Thread your safety power cord around the built in cord knob on the side of the backpack. Do not tie or loop the pigtail cord with the extension cord.
4. Loosen the shoulder and waist belt straps and slide vacuum on.
5. Connect and tighten waist belt ensuring that majority of the weight is on your hips, not your shoulders.
6. Adjust the shoulder straps for comfort.
7. Connect the sternum straps for added support and ideal fit.
8. Plug your vacuum into a properly installed outlet.
9. Turn unit on and proceed with vacuuming.
10. Always store vacuum, safety power cord and tools in a cool, dry place indoors.

NOTE: The weight of the vacuum should be distributed on your hips. Adjust any strap as needed for your custom fit.

### To Change Paper Filter Bag:

1. Unscrew lid from body.
2. Remove full paper bag from the tank and dispose of properly.
3. Take new paper filter bag and set inside cloth filter bag, expanding it to the sides of the cloth filter bag.
4. Screw lid tightly back onto body.



### Cloth Filter Maintenance:

The cloth filter should be inspected and cleaned each time you empty the tank. DO NOT wash the cloth filter. It could cause shrinkage of the cloth and damage to the gasket. Simply shake off any dust or loose particles and brush the exposed surface with a soft bristle brush.

CAUTION: Always exercise caution when handling the vacuum. Dropping the vacuum could cause permanent damage to the internal components.