OPERATING MANUAL

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OVERVIEW

Read and follow all instructions before using these vacuums. Please read them carefully as failure to follow these precautions could result in injury. When using electrical equipment, basic safety precautions should always be followed.

WARNING: The basic vacuum is designed for dry/damp pickup. Do not attempt to pick-up liquids under any condition without using an automatic shut off assembly.

The following warnings should be adhered to reduce the risk of fire, electrical shock or injury:

1. DO NOT leave vacuum unatended when plugged in. Unplug from outlet when not in use and before servicing.

2. Electric shock could occur if used on wet surfaces. DO NOT expose to rain; store indoors.

3. Use only as described in this manual. Use only Larson Electronics' recommended attachments and replacement filters.
4. Do noT use with damaged cord or plug. If vacuum is not working because it has been dropped, damaged, left outdoors, or submerged in water, return it to Larson Electronics for servicing. Call 1-800-369-6671 for a return authorization number. **Do not return contaminated vacuums.**

5. DO NOT pull, carry by cord, or use cord as a handle. Keep cord away from heated surfaces.

6. DO NOT unplug by pulling on cord. To unplug, grasp the plug.

7. DO NOT handle plug or vacuum with wet hands.

8. DO NOT put any objects into motor openings. DO NOT use with openings blocked.

9. DO NOT vacuum anything that is burning or smoking, such as cigarettes, matches, or hot ashes.

10. For toxic dusts, do not use without paper filter bag, intermediate filter, and HEPA filter properly installed.

11. DO NOT use in areas where flammable or combustible liquids, such as gasoline, may be present.

12. DO NOT use where oxygen or anesthetic gases are used.

13. DO NOT use an extension cord unless absolutely necessary. If an extension cord is required, the wire size must be 14/3 or larger and should not exceed 50 feet in length. Extension cords must be three-wire type to insure grounding protection.

14. Replace damaged or worn parts immediately with genuine original equipment to maintain safety and protect your limited warranty.

Note: Absolute HEPA filtered vacuums meet ANSI Standard Z9.2-1979 with UL-586 tested and labeled HEPA filter.

OVERVIEW

Absolute HEPA filtered vacuums are designed for industrial plants, clean rooms, nuclear plants or wherever dangerous air or dust pollutants must be removed. Triple filtration provides 99.97% efficiency in retention of particles down to 0.3 microns in size. Absolute filters are a necessity when an extremely high level of cleanliness is required for the removal of asbestos, lead, and other toxic dusts. Each absolute filter at its final assembly, is tested and labeled by the manufacturer to the latest industrial standards and specifically to the UL-586 standard. Precision testing is performed with thermally generated D.O.P. (Doctyl Phthalate) aerosol according to Mil-Standard 282. The test machinery is specially designed to assure the guaranteed efficiency of 99.97% on a particle size of 0.3 microns. Each absolute filter is individually tested and certified by the manufacturer, with a prominently displayed label showing results of the actual D.O.P. test.

3-STAGE HEPA FILTRATION SYSTEM

STAGE 1

Totally enclosed double-ply paper filter bag with special fold-over self-adhesive seal patch. Throwaway bags are stenciled with caution instructions for disposal purposes. Paper bags produce filtration efficiency down to 5 microns.

STAGE 2

Intermediate filter made of double-ply nonwoven media. The filter has a sewn-in elastic top to fit around the HEPA filter. (Elastic is placed below rim of HEPA filter). When used with Stage 1 paper bag, filtration efficiency is down to 2 microns.

STAGE 3

Certified absolute filter is constructed of an aluminum outer casing with filter media of high strength micro-fibered glass paper separated by corrugated aluminum sheeting that is entrapped in steel screening for protection against damage to media. The HEPA filter is designed to filter particles down to 0.3 microns. Absolute filter meets ANSI Standard Z9.2 and UL-586 Standard. For models AV-2, AV-2BP, AV-2P, and AV-2PBP, the certified absolute filter has a molded plastic housing. It meets the same specifications, and meets ANZI Standard Z9.2.

STEEL VACUUMS - DRY OPERATION

INITIAL SETUP

1. Remove vacuum from carton. Unsnap clamps, remove motor head and HEPA filter, and carefully set aside.

2. Unpack 2-ply intermediate filters, 2-ply disposable paper filter bags, OSHA approved 6 mil poly bags (sold separately), hose, and attachments from inside vacuum tank.

3. Arrange a 6 mil poly bag in the bottom of the vacuum tank, if used. (See illustration of dry filter setup.) Install a 2-ply disposable paper filter bag onto the inlet fitting by holding on to the free ends of cardboard attached to paper bag and pull it forward over the inlet fitting so that the cardboard is as close to the tank's wall as possible.

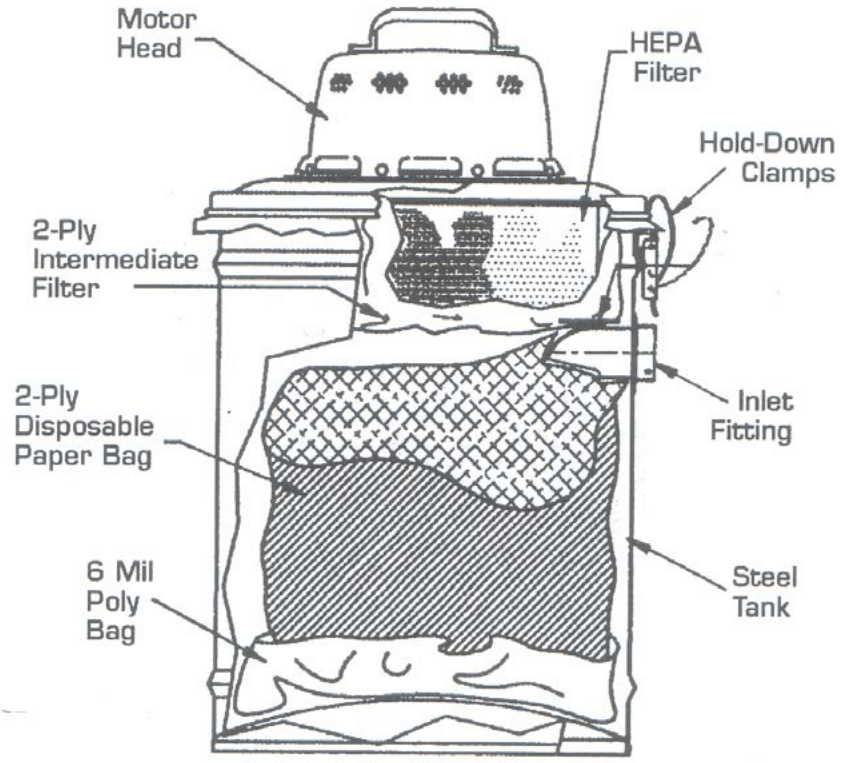
4. Place the 2-ply intermediate filter in position on top of tank and fold edge over outside of tank, overlapping approximately one inch.

5. Insert HEPA filter, being careful not to move the 2-ply intermediate filter. The HEPA filter's sealing gasket must sit evenly on the tank's rim so that an air tight seal will be obtained.

6. Replace the motor head assembly on top of the HEPA filter, seated on top of the vacuum tank, and resnap clamps.

7. Line up slots in the swivel connector with retaining rivets on intake fitting. Insert swivel connector and twist clockwise until rivets rest against slot end.

8. To attach wand assembly, align button lock of upper and lower sections and push together. Attach various tools by inserting them into the wand nut and coupling. Turn nut clockwise clockwise until fully locked.



Note: To insure a snug fit, make sure that the lid area and top edge of vinyl sealing gasket are free of dirt and other foreign matter.

STEEL VACUUM - WET OPERATION (OPTIONAL)

INITIAL SETUP

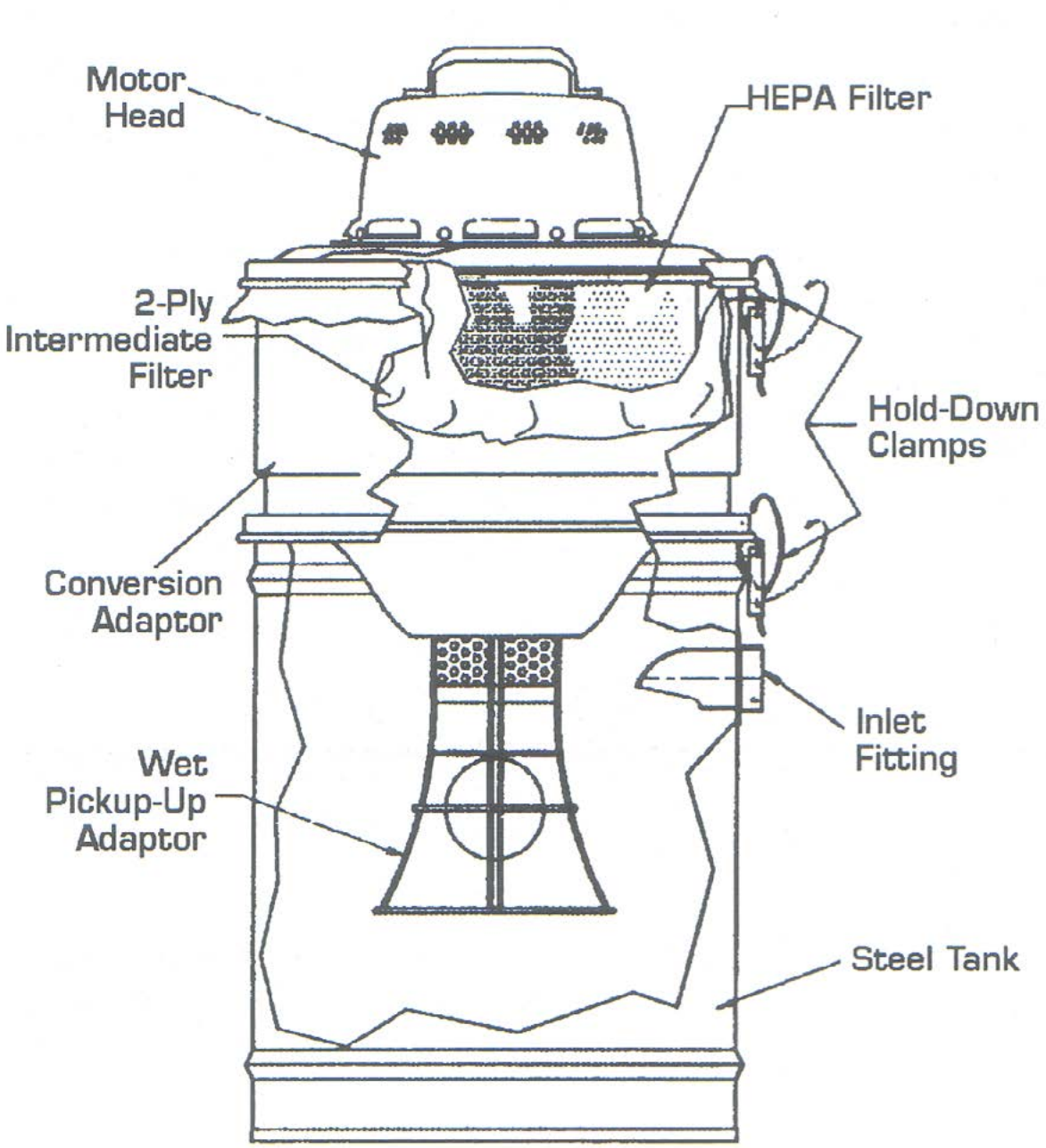
In order to use this vacuum for wet pickup you must install a wet pickup conversion kit, an optional accessory. The kit consists of a conversion adaptor and wet pickup adaptor.

INSTALLATION OF WET CONVERSION ADAPTOR

1. Carefully remove the motor head, HEPA filter, and 2-ply intermediate filter. Set aside.

2. Set the wet pickup adaptor on the tank's rim. Next set the conversion adaptor on top of the wet pickup adapter and snap down clamps.

3. Follow HEPA filter assembly installation instructions from previous page.



Note: To insure a snug fit, make sure that the lid area and top edge of vinyl sealing gasket are free of dirt and other foreign matter.

PNEUMATIC MOTOR VERSION

INITIAL SETUP

1. Secure a compressed air source capable of supplying a minimum 80 - 100 psi and 70 cfm flow rate. A minimum hose I.D. of a 1/2" is required to connect to a 1/2" Industrial Interchange style male plug.
2. The air motor has no moving parts and requires no service if the air source is clean air, free of oil and water. An "ON-OFF" valve is provided to regulate flow to the air motor.

Warning: Operating this air motor above 100 psi may cause implosion of the metal can. Do not tamper with the relief valve supplied internally on the air motor.

FILTER MAINTENANCE

Caution: Always unplug vacuum from power source before changing filters.

2-Ply Disposable Paper Filter Bag

When the 2-ply disposable paper bag is full, it must be replaced. Excessive overfilling of this bag makes if difficult to remove from the vacuum tank and can result in breakage and/or spills.

2-Ply Intermediate Filter

The 2-ply intermediate filter should be replaced with every fifth (5) change of the paper bag, or whenever there is damage or visible collection of debris on the outside of the filter.

HEPA Filter

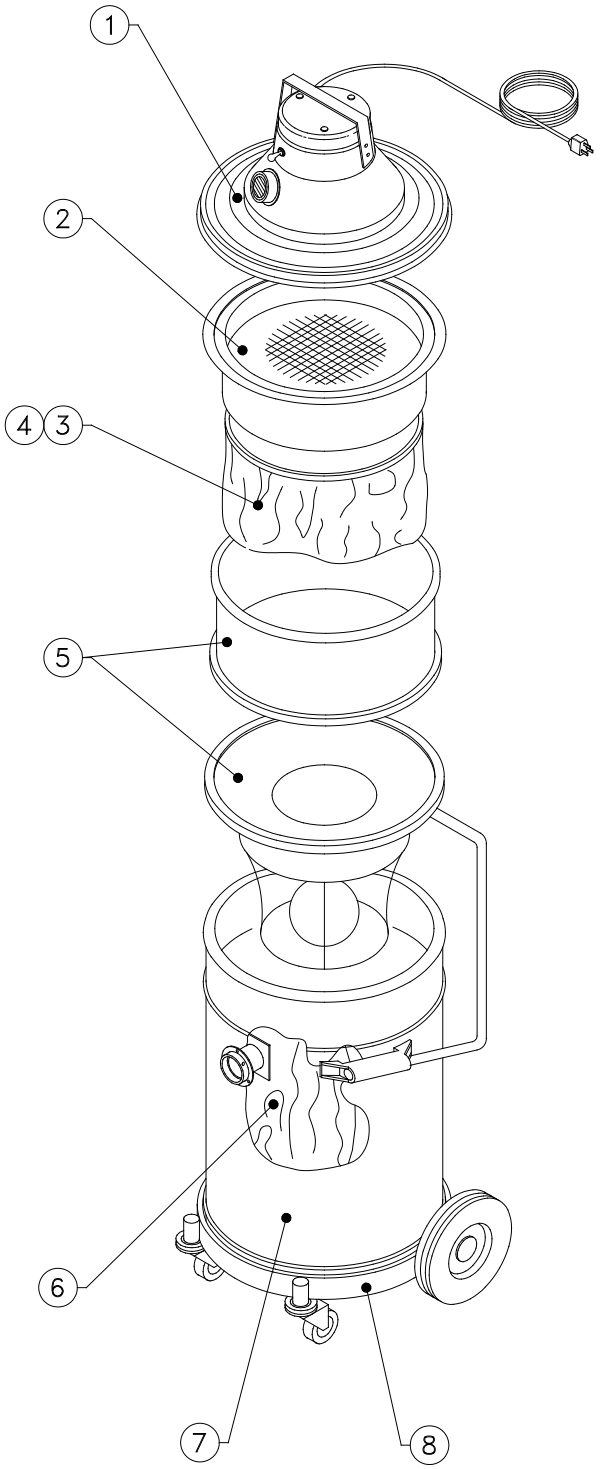
Replace the HEPA filter when loss of suction continues to occur after you have checked for an obstruction in the hose or wand, installed a new 2-ply-disposable paper filter bag, and installed 2-ply intermediate filter.

Caution: Hazardous materials must be disposed of properly. NEVER throw contaminated debris in your standard trash receptacle. Place debris in a 6 mil poly bag or container marked with HAZARDOUS MATERIALS warning and dispose of in accordance with your local hazardous waste regulations.

EQUIPMENT MAINTENANCE

Contact distributor or manufacturer to receive written authorization for return of vacuum. Transportation charges to the service location must be paid by the purchaser. Warranty is void if electrical components are serviced by non-factory service personnel. The use of non-certified parts can result in possible safety hazards and void UL certifications. To insure warranty, please return the enclosed warranty registration card within 10 days of purchase. For service, call Larson Electronics' customer service department at 1-800-369-6671.

VACUUM FILTER SETUP AND INSTALLATION



ITEM #	DESCRIPTION	AV-2	AV-2P	AV-5	AV-5P	AV-15	AV-15P
1	MOTOR HEAD ASSEMBLY	AV-2MH	AV-2PMH	AV-5MH	AV-5PMH	AV-15MH	AV-15PMH
2	HEPA FILTER	AV-2H		AV-5H		AV-15H	
3	INTERMEDIATE FILTER (DISPOSABLE)	AV-5I		AV-5I		AV-15I	
4	OPTIONAL INTERMEDIATE DACRON FILTER (WASHABLE)	AV-5D		AV-5D		AV-15D	
5	OPTIONAL AUTO SHUT-OFF ASSEMBLY	N/A		AV-5WP		AV-15WP	
6	RECOVERY BAG (DISPOSABLE)	AV-2B		AV-5B		AV-15B	
7	RECOVER CAN	AV-2C		AV-33495		AV-15CSS	
8	DOLLY	N/A		AV-308234		AV-15DA	

ORDERING INFORMATION

REPLACEMENT BAGS AND FILTERS

AV-2 SERIES

AV-2H	HEPA Filter (99.97% UL) - 2 gallon - 1 each
AV-2B	Paper Recovery Bags - 2 gallon - 5/package
AV-5I	Intermediate Filter - 2 gallon - 2/package

AV-5 SERIES

AV-5H	HEPA Filter (99.97% UL) - 5 gallon - 1 each
AV-5B	Paper Recovery Bags - 5 gallon - 5/package
AV-5I	Intermediate Filter - 2/package - fits AV-5 & AV-2 series

AV-15 & AV-55 SERIES

AV-15H	HEPA Filter (99.97% UL) - 15 gallon - 1 each - fits AV-15 & 55 series
AV-15B	Paper Recovery Bags - 15 gallon - 5/package
AV-15I	Intermediate Filter - 15 gallon - 2/package - fits AV-15 & AV-55 series

ACCESSORIES

AV-5WP	5 gallon auto shut-off assembly for water pick-up
AV-15WP	15 gallon auto shut-off assembly for water pick-up (fits 55 gallon series)
AV-650	Poly tool for water pick-up - adjustable roller wheels
AV-H10	Extenstion hose - 1 1/2” - 10 ft. w/cuffs
AV-H50	Extension hose - 1 1/2” - 50 ft. w/cuffs
AV-HC-1	Hose to hose coupler - 1 1/2”
AV-HN10	Neoprene extension hose - 1 1/2” - 10 ft. w/cuffs
AV-C1	Hose cuff - 1 1/2”
AV-103	11” plastic crevice tool - 1 1/2”
AV-100	Curved steel wand - 1 1/2” - 5 ft.
AV-6200	14” aluminum floor brush - 1 1/2”
AV-6203	Water squeegee tool - 14” - 1 1/2”
AV-102	Carpet tool - 14” - 1 1/2”
AV-101	Inlet swivel connector - 1 1/2”
AV-105	Goose neck hose adaptor for 55 gallon drum lid - 1 1/2”
AV-3RB	3” round brush - 1 1/2” plastic connector