

Read all safety rules carefully before attempting to operate. Retain for future reference.



DANGER!

Never operate this unit when flammable materials or vapors are present because electrical devices produce arcs or sparks that can cause a fire or explo-sion.

NEVER OPERATE UNATTENDED!

User manual. Please review before operating vac.



Shop-Vac® Wet/Dry Vacuums

SERIES H87

Commercial/Industrial Use

Description

The Shop-Vac® Wet/Dry vacuum cleaners are for vacuuming wet and dry non-volatile materials. Equipped with powerful, permanently lubricated, Single or Two-Stage By-Pass motors. Standard filtration systems to handle dry or wet pick-up. Double filtration is available for most Shop-Vac® Vacs and is standard on Shop-Vac® Commercial Vacuums. Automatic float shut off prevents overflow during wet pick-up. Includes versatile 1-1/2" (3.81cm) diameter accessories. UL listed.

When using an electrical appliance, basic precautions should always be followed, including the following: READ ALL INSTRUCTIONS BEFORE USING THIS APPLIANCE.

f WARNING – to reduce the risk of fire, electric shock

- Do not leave appliance when plugged in. Unplug from outlet when not in use and before servicing. Connect to a properly grounded outlet only. See Grounding Instructions.
- Do not expose to rain store indoors.
- Do not allow to be used as a toy. Close attention is necessary when used by or near chil-
- Use only as described in this manual. Use only Manufacturer's recommended attachments.
- Do not use with damaged cord or plug. If appliance is not working as it should, has been dropped, damaged, left outdoors or dropped into water, contact Shop-Vac Corporation for
- Do Not: pull or carry by cord, 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 sur-
- 7. 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 openings blocked; keep free of dust, lint, hair and anything that may reduce air flow.
- 10. Keep hair, loose clothing, fingers and all parts of body away from openings and moving parts.

- 11. Do not pick up anything that is burning or smoking, such as cigarettes, matches or hot ashes
- 12. Do not use without dust bag and/or filters in place.
- 13. Turn off all controls before unplugging.
- 14. Use extra care when cleaning on stairs.
- 15. Do not use to pick up flammable or combustible liquids such as gasoline or use in areas where they may be present.
- 16. Do not use your cleaner as a sprayer of flammable liquids such as oil base paints, lacquers, household cleaners, etc.
- 17. Do not vacuum toxic, carcinogenic, combustible or other hazardous materials such as asbestos, arsenic, barium, beryllium, lead, pesticides or other health endangering materials. Specially designed units are available for these purposes.
- 18. Do not pick up soot, cement, plaster or drywall dust without cartridge filter and collection filter bag in place. These are very fine particles that may pass through the foam and affect the performance of the motor or be exhausted back into the air. Additional collection filter bags are available.
- 19. Do not leave the cord lying on the floor once you have finished the cleaning job. It can become a tripping hazard.
- 20. Use special care when emptying heavily loaded tanks.
- 21. To avoid spontaneous combustion, empty tank after each use.
- 22. The operation of a utility vac can result in foreign objects being blown into eyes, which can result in eye damage. Always wear safety goggles when operating vacuum.
- 23. STAY ALERT. Watch what you are doing and use common sense. Do not use vacuum cleaner when you are tired, distracted or under the influence of drugs, alcohol or medication causing diminished control.



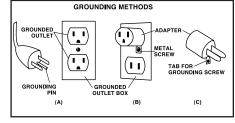
A WARNING – DO NOT LEAVE VACUUM UNATTENDED WHEN IT IS PLUGGED IN AND/OR OPERATING. UNPLUG UNIT WHEN NOT IN USE.

ROUNDING NSTRUCTIONS

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 electric 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 QUALI-FIED ELECTRICIAN.

This appliance is for use on a nominal 120-volt circuit, and has a grounded plug that looks like the plug illustrated in sketch A. A temporary adaptor that looks like the adaptor illustrated in sketches B and C may be used to connect this plug to a 2-pole receptacle as shown in sketch B if a properly grounded outlet is not available. The temporary adaptor should be used only until a properly grounded outlet (sketch A) can be installed by a qualified electrician. The green colored rigid ear, lug or the like extending from the adaptor must be connected to a permanent



ground such as a properly grounded outlet box cover. Whenever the adaptor is used, it must be held in place by a metal screw.

NOTE: IN CANADA, THE USE OF A TEMPORARY ADAPTOR IS NOT PERMITTED BY THE CANADIAN ELECTRICAL CODE.

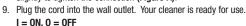
When using the appliance at a distance where an extension cord becomes necessary, a 3-conductor grounding cord of adequate size must be used for safety, and to prevent loss of power and overheating. Use the table below to determine A.W.G. wire size required. To determine ampere rating of your vacuum, refer to nameplate located on rear of motor cover. Before using appliance, inspect power cord for loose or exposed wires and damaged insulation. Make any needed repairs or replacements before using your appliance. Use only three-wire outdoor extension cords which have three-prong grounding-type plugs and three-pole receptacles which accept the extension cord's plug. When vacuuming liquids, be sure the extension cord connection does not come in contact with the liquid.

NOTE: STATIC SHOCKS ARE COMMON IN DRY AREAS OR WHEN THE RELATIVE HUMIDITY OF THE AIR IS LOW. THIS IS ONLY TEMPORARY AND DOES NOT AFFECT THE USE OF THE APPLIANCE. TO REDUCE THE FREQUENCY OF STATIC SHOCKS IN YOUR HOME, THE BEST REMEDY IS TO ADD MOISTURE TO THE AIR WITH A CONSOLE OR INSTALLED HUMIDIFIER.

Volts			Total length of cord in feet			
120V			25	50	100	150
Ampere Rating More Not More Than Than		AWG				
0	-	6	18	16	16	14
6	-	10	18	16	14	12
10	-	12	16	16	14	12
12	-	16	14	12	Not recon	nmended

UNPACKING AND

- 1. Pull lid latches in an outward motion and remove tank cover and any accessories which may have been shipped in the tank.
- 2. Before replacing tank cover, refer to Dry Pick-Up or Wet Pick-Up Operation in this manual to ensure you have the proper filters installed and inlet deflector is positioned correctly for your cleaning
- Your vacuum comes with the filters already installed for dry pick-up. For filters recommended for wet pick-up refer to wet pick-up operation.
- 4. Be sure inlet deflector is in proper position.
- Replace tank cover and apply pressure with thumbs to each latch until it snaps tightly in place. Make sure both lid latches are clamped securely.
- Insert long machine hose end with locking-nut into inlet of tank and tighten. Do not over-tighten.
- Attach the extension wands to the accessory end of the hose. Twist slightly to tighten the connection (Figure A).
- Attach one of the cleaning accessories (depending on your cleaning requirements) on the extension wands. Twist slightly to tighten the connection (Figure A).





MOUNTING WALL BRACKET & TOOL **HOLDER**

(Not standard with all models)

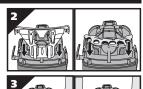
Mount the wall bracket to a wall stud (Figure 1). Secure with hardware provided. NOTE: An inadequately mounted wall bracket could become loose and fall, causing injury or damage to the wet/dry vacuum. The location used to mount the wall bracket should be strong enough to hold the combined weight of the vacuum and accessories.

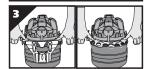


TOOL HOLDER ASSEM

(Not standard with all models)

- 1. Replace tank cover and apply pressure with thumbs to each latch until it snaps tightly in place. Make sure both lid latches are clamped securely.
- 2. With rear of unit facing you, take tool holder and position it with the tabs facing rear tank cover (Figure 2).
- Press tabs of tool holder into the slots on mounting lugs on rear of tank cover (Figure 3).
- 4. Press down until tabs snap into place.





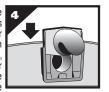


WARNING – ALWAYS DISCONNECT THE PLUG FROM THE WALL OUTLET BEFORE REMOVING THE TANK COVER.

DRY PICK-UP OPERATION

(Not standard with all models)

The cartridge filter can be used for wet or dry pick-up; installation is the same for both. For dry-pick up be sure the opening of the inlet deflector is facing the tank bottom (Figure 4). Use the cartridge filter in position over the lid cage for most general dry material pick-up. With the tank cover in an upside down position, slide the cartridge filter down over the lid cage, pushing until the filter seals against the cover (Figure 5). Place filter retainer into the top of the cartridge filter, hold the tank cover with one hand, turn the handle on the filter retainer clockwise to tighten, locking the filter into place



(Figures 6 & 7). To remove the filter for cleaning, again hold the tank cover and turn the filter retainer counter-clockwise to loosen and remove, slide the cartridge filter off the lid cage (Figures 8 & 9). To clean the cartridge filter shake or brush off excess dirt or rinse (from the inside of the filter) with water, dry completely (approximately 24 hours) and re-install. (Figures 10 & 11). Note: If the filter has been used for wet pick-up, it must be cleaned and dried before using for dry pick-up.



CAUTION – KEEP FILTERS CLEAN.

Efficiency of the vacuum is largely dependent on the filter. A clogged filter can cause overheating and possibly damage the cleaner. Check the filter periodically and replace as required.













INSTALLING THE

(Not Standard with All Models)

- Use for dry pick-up only. Use in conjunction with cartridge filter for picking up soot, cement, plaster or drywall dust.
- With cord disconnected from receptacle, pull latches in an outward motion and remove tank cover.
- Unscrew hose locking-nut and remove hose from inlet (Figure 12).
- Remove inlet deflector from deflector guide (Figure 13). NOTE: Hose must be removed before inlet deflector can be taken out.
- With the opening of the inlet deflector facing the bottom of the filter bag, slide collection bag collar over deflector matching notches of bag collar to tabs on inlet deflector, bag will only fit properly one way (Figure 14).
- Slide deflector with collection bag attached into deflector guide (Figure 15).
- Reinsert hose into inlet and tighten locking-nut (Figure 16).
- 8. Fold bottom of collection bag to fit shape of tank.





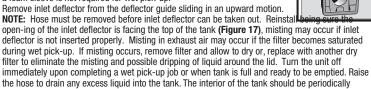






UP

Remove ALL dirt and debris found in the tank. The vacuum requires only a minimum of conversion when going from dry to wet pick-up. Remove all dry use filters from the vacuum. A clean cartridge filter may be used for vacuuming small amounts of liquids. For best results when vacuuming large quantities of liquid, remove the cartridge filter. When vacuuming liquids containing debris, it is recommended purchasing a foam sleeve and install over filter cage; otherwise a foam sleeve is not required for wet pick-up.



The foam sleeve should be cleaned periodically as described in the following steps:

- 1. Always disconnect the plug from the wall receptacle before removing the tank cover. Place tank cover in an upside down position. Remove foam sleeve by sliding it up and off the lid cage. NOTE: For H87S model filter retainer must be removed first.
- Shake excess dust off foam sleeve with a rapid up and down movement.
- Hold foam sleeve under running water for a minute or two, rinsing from the inside. A water wash is not always required, depending on the condition of the foam sleeve.
- Gently wring out excess water, blot foam sleeve with a clean towel, and allow to dry. The foam sleeve is now ready to be reinstalled on the lid cage. NOTE: For H87S model filter retainer must

NOTE: WET PICK-UP ACCESSORIES SHOULD BE WASHED PERIODICALLY, ESPECIALLY AFTER PICK-ING UP WET, STICKY KITCHEN ACCIDENTS. THIS CAN BE ACCOMPLISHED WITH A WARM SOLUTION OF SOAP AND WATER.

This vacuum can be used as a powerful blower. To use your unit as a blower unscrew blower port cover located on the backside of the motor housing (Figure 18). The blower port cover is equipped with a retaining strap to prevent loss of the port cover while blower is in use. Clear hose of any obstructions before attaching to blower port. Insert hose end with locking-nut into blower port on rear of unit and tighten. Do not over-tighten. Caution should be used when using as a blower due to the powerful force of air when using certain attachments.



WARNING – ALWAYS WEAR EYE

PROTECTION TO PREVENT ROCKS OR DEBRIS FROM BEING BLOWN OR RICOCHETING INTO THE EYES OR FACE WHICH CAN RESULT IN SERIOUS INJURY.

EMPTYING LIQUID WASTES FROM THE TANK

Your Shop-Vac[®] Wet/Dry may be emptied of liquid waste by removing the tank cover. To empty, stop the motor and remove the plug from the wall receptacle. Remove the tank cover and deposit the liquid waste contents in a suitable drain. After the tank is empty, return the cover to its original position. To continue use, plug the cord into the wall receptacle and start the motor.

AUTOMATIC SUCTION SHUT-OFF

The vacuum is equipped with an automatic suction shut-off that operates when picking up liquids. As the level of the liquid rises in the tank, an internal float rises until it seats itself against a seal at the intake of the motor, shutting off suction. When this happens, the motor will develop a higher than normal pitch noise and the suction is drastically reduced. If this occurs, turn unit off immediately. Failure to turn unit off after float rises and shuts off suction will result in extensive damage to the motor. To continue use, empty the liquid waste from the tank as outlined in the previous paragraph.

NOTE: IF ACCIDENTALLY TIPPED OVER, THE VACUUM COULD LOSE SUCTION. IF THIS OCCURS, TURN UNIT OFF AND PLACE VAC IN UPRIGHT POSITION. THIS WILL ALLOW THE FLOAT TO RETURN TO ITS NORMAL POSITION, AND YOU WILL BE ABLE TO CONTINUE OPERATION.

LUBRICATION

No lubrication is necessary as the motor is equipped with lifetime lubricated bearings.

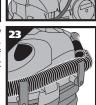
STORAGE

1. The power cord can be wrapped around the cord wraps provided on the top of the tank cover located in front and behind the handle (Figure 19). To remove the cord from the cord wraps grasp the sides of the rear cord wrap located behind the handle, turn counter clockwise 180° until the tip of the cord wrap is above the handle (Figure 20). Grasp the entire cord behind the handle and pull above the rear cord wrap, pull cord towards the front of the vac until the cord becomes disconnected from the front cord wrap (Figure 21). Grasp the sides of the rear cord wrap and turn clockwise 180° to return it to its original position (Figure 22).

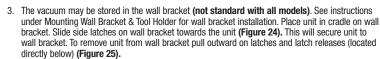








2. The hose holder (not standard with all models) may be used for easy storage of the hose. Remove accessory from end of hose. With hose connected to tank inlet and front of unit facing you, wrap hose around top of the tank cover in a clockwise direction. Secure end of hose by clipping it in hose holder attached to right side of tank cover (Figure 23).







The cleaner should be stored indoors.

TROUBLESHOOTING						
Trouble	Possible Cause	Remedy				
Suction weakens or cleaner runs hot	Clogged filter	Brush dirt from filter. If condition continues, change filter.				
	Air leak	Check all fittings for tight fit (nozzles, hose, etc.) Check that tank cover is sealed properly.				
	Obstruction in hose or nozzle.	Check nozzle, hose, etc. for obstructions, and remove if present.				
Misting in the exhaust air	Saturated filter	Replace saturated filter with a dry filter.				

WARNING – IF ANY OF THE MOTOR HOUSING PARTS SHOULD BECOME DETACHED OR BROKEN, EXPOSING THE MOTOR OR ANY OTHER ELECTRICAL COMPONENTS, OPERATION SHOULD BE DISCONTINUED IMMEDIATELY TO AVOID PERSONAL INJURY OR FURTHER DAMAGE TO THE VACUUM. REPAIRS SHOULD BE MADE BEFORE REUSING THE VACUUM.