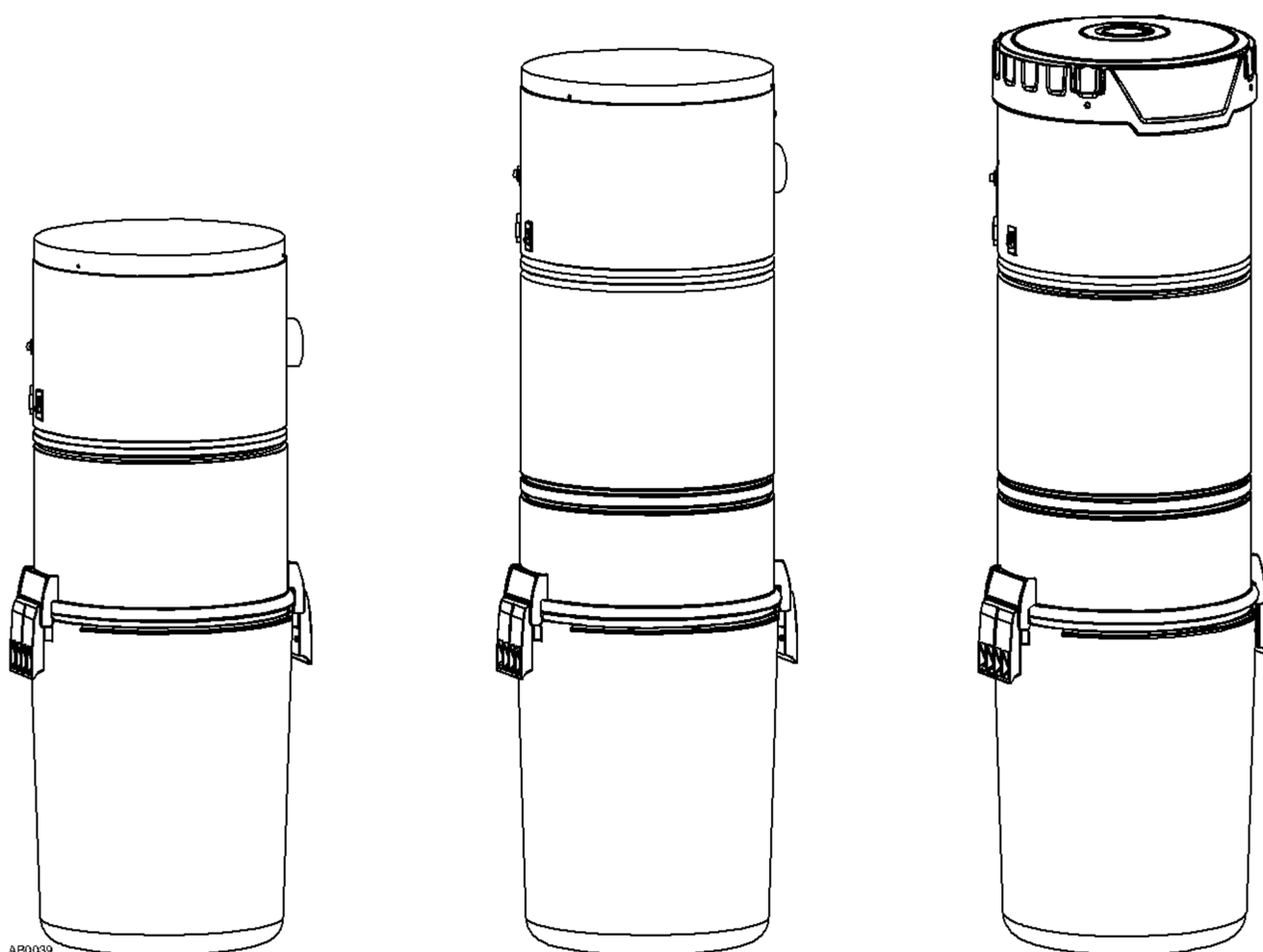


CENTRAL VACUUM POWER UNITS

⚠ FOR RESIDENTIAL USE ONLY ⚠

BQ1 / BQ2 / BQ3



MODELS SFDB-DH, SFDB-DI AND SFDB-DJ

BROAN-NuTONE CANADA ULC; MISSISSAUGA, ONTARIO WWW.BROAN.CA 1-888-882-7626

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IMPORTANT SAFETY INSTRUCTIONS

SAVE THESE INSTRUCTIONS READ ALL INSTRUCTIONS BEFORE USING THIS APPLIANCE

When using an electrical appliance, basic precautions should always be followed, including the following:

WARNING

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

1. Do not use on wet surfaces or outdoors.
2. Do not vacuum liquids or fine powders (such as drywall dust).
3. Do not use to pick up flammable or combustible liquids such as gasoline or use in areas where they may be present.
4. Do not pick up anything that is burning or smoking, such as cigarettes, matches, or hot ashes.
5. Do not allow to be used as a toy. Close attention is necessary when used by or near children.
6. Use only as described in this manual. Use only manufacturer's recommended attachments.
7. Keep hair, loose clothing, fingers and all parts of body away from openings and moving parts.
8. Turn off all controls before unplugging.
9. Use extra care when cleaning on stairs.
10. Do not handle plug or appliance with wet hands.
11. Do not use with damaged cord or plug. If appliance is not working as it should, if it has been dropped, damaged, left outdoors, or dropped into water, return it to a Service Center.
12. Keep your work area well lighted.
13. Connect to a properly grounded outlet only. See grounding instructions shown on page 9.
14. When performing installation, servicing or cleaning the unit, it is recommended to wear safety glasses and gloves.
15. When applicable local regulations comprise more restrictive installation and/or certification requirements, the aforementioned requirements prevail on those of this document and the installer agrees to conform to these at his own expenses.

CAUTION

1. Do not put any object into openings. Do not use with any opening blocked; keep free of dust, lint, hair and anything that may reduce air flow.
2. Ensure air flows freely and exhausts unobstructed from top or side outlet.
3. Do not use without filter (or filters, according to the model) in place.
4. Do not use to blow leaves or debris.
5. Do not place any object on top of the unit.
6. Do not install the unit horizontally.
7. Do not use the pail as a wash bucket.
8. Do not use the pail as a stool.
9. Avoid picking up sharp objects.
10. This appliance is for use on a standard 120 VAC, dedicated 15-amp branch circuit. Some brands of house panel breakers may be more sensitive to startup current than others (for example, Square D brand). In the event where nuisance tripping of the house panel breaker occurs*, we recommend changing the breaker with an "HM" type of the same AMP rating.
*after ensuring that the circuit is DEDICATED to the central vacuum unit, meaning that there is no other electrical device connected to the central vacuum unit circuit.
11. Do not unplug the unit by pulling on cord. To unplug, grasp the plug, not the cord.
12. Store your vacuum cleaner indoors in a clean, dry area, and away from extreme temperatures.
13. Any servicing other than that recommended in this manual should be performed by an authorized service facility.
14. We recommend that your unit be inspected by a specialized technician once a year.

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GENERAL INFORMATION

TOOL LISTING

Depending on the installation, the use of the following tools may be required:

Wire strippers, 1/4" and 1/2" drill bits, utility knife, putty knife, 2 1/2" hole saw, keyhole saw, hammer, cold chisel, level, flashlight, drill, electrical tape, Phillips no. 2 screwdriver, wrench, hacksaw, tape measure, safety glasses.

Power tools are recommended to make the installation proceed quickly. A mask and gloves should be worn when cutting ducting and using glue.

WORKING WITH PLASTIC TUBING

CUTTING TUBING

Measure the length of tube needed. Allow 5/8" of tubing for inserting into fittings and 1 1/2" for placing into flexible tubing. Cut the plastic tubing with a hacksaw, ensuring that the cut is exactly square. Use wire cutters or tin snips to cut flexible tubing, 8" lengths of flexible tubing should not be cut.

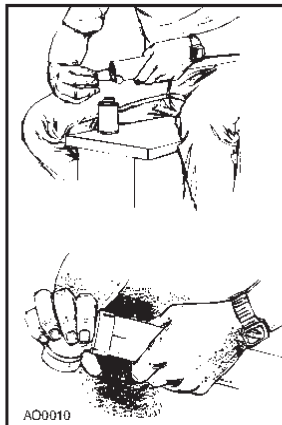
Use a small knife or steel wool to remove any burrs from the inside of the tube.

Use a file to slightly bevel the outside of the tube so that it will easily slide into the fitting. Use steel wool or a light grained sandpaper to buff the surface of the tube which will be glued.

MAKING A JOINT

Insert the tube into the fitting, aligning both parts as they will be installed. Mark the tube and the fitting to quickly realign the joint.

Apply cement in an inch-wide band to the outside of the tube. Insert the tube into the fitting with the alignment marks a quarter turn apart, and then quickly push and turn the fitting to align the marks and spread the cement. Allow 1 minute for the joint to dry.



CEMENTING FLEXIBLE TUBING

Ensure the ends of the flexible tubing are even. When joining flexible tubing to plastic tubing or to an inlet mounting plate, apply cement to both the inside of the flexible tubing and the outside of the plastic tubing or mounting plate tubing ring. Twist both pieces while joining them to evenly spread the glue. Allow 5 minutes for the cement to set in flexible tubing.

SECURE WIRE TO TUBING

The low-voltage power wiring is run along with the tubing. Use electrical tape to secure the wire to the tubing. Tape the wire approximately every 12" to 18".



WALL INLET INSTALLATION

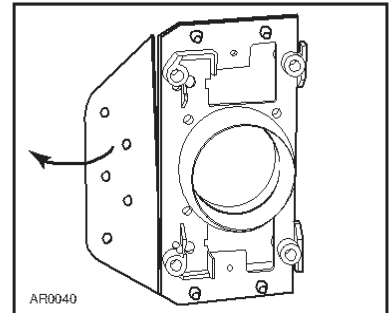
MAKING THE WALL INLET CUTOUT

The wall inlet should be located 18" on-center from the floor and directly in line with the attic or basement inlet tubing hole previously drilled in the wall plate or header. The wall inlet cutout must be exactly 3 7/8" high by 2 7/8" wide.

ATTACHING THE INLET MOUNTING PLATE (V144)

Reach through the inlet hole and locate the inlet tubing. Pull the flexible tubing through the inlet hole and remove the low-voltage wiring from inside the tube.

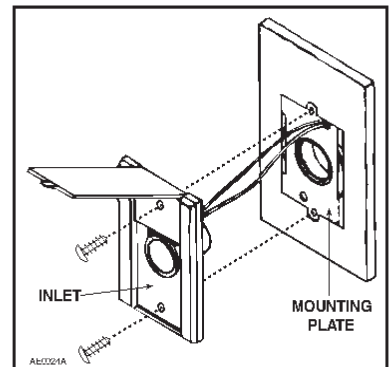
Remove the nail flange from the inlet mounting plate (see illustration at right). Apply cement to both the inside of the flexible tubing and to the outside of the mounting plate's tube ring. Insert the mounting plate's tube ring in the flexible tubing and twisting the pieces as you join them to spread the cement, and align the mounting plate in a vertical position.



Now, strip the ends of the two low-voltage wires, and then connect the wires to the screw terminals on the back of the inlet cover. When the wiring is complete, assemble the inlet cover to the tube guard and mounting plate.

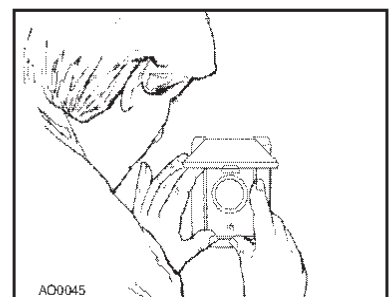
COMPLETING THE INLET ASSEMBLY

Once you have attached the mounting plate to the flexible tubing, pull the low-voltage wire through the top wiring hole in the mounting plate.



INSTALLING THE INLET (V111)

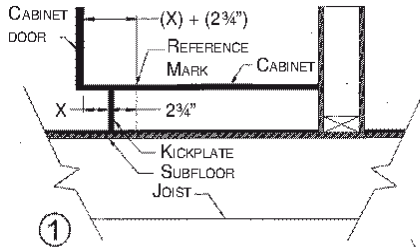
Place the inlet into the wall cutout (the inlet cover remains on the outside). Hold the inlet in place and gradually tighten down each screw a little bit at a time.



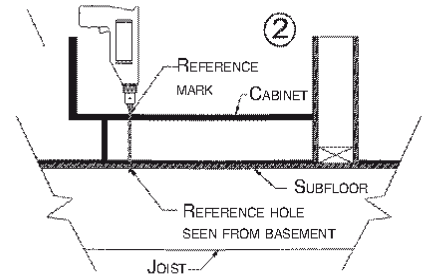
V600W VACUSWEEP® INLET VALVE INSTALLATION

CONNECTION FROM BELOW

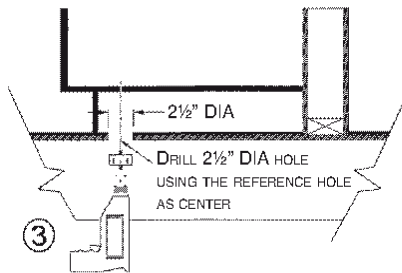
- ① Measure distance (X) between the kickplate face and the inside edge of the cabinet. Then add $2\frac{3}{4}"$ to the measured distance. Refer to figure ①. Measure out the new distance ($X + 2\frac{3}{4}"$) from the cabinet door, to the reference mark.



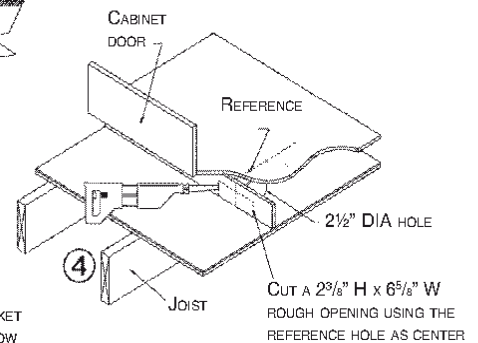
- ② Drill a small reference hole straight down through to the basement. Refer to figure ②. Locate the reference hole in the basement and verify that there are no obstructions within 2" of either side and 4" behind.



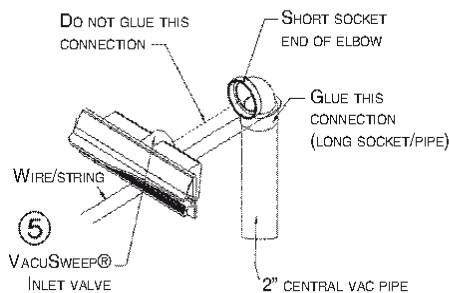
- ③ Cut a $2\frac{1}{2}"$ diameter hole from the basement up into the base of the counter using the reference hole as a center. Refer to figure ③.



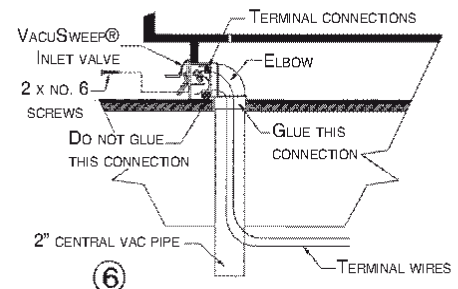
- ④ Using the reference hole as a center, cut a $2\frac{3}{8}"$ H x $6\frac{5}{8}"$ W rough opening in the kickplate face. Refer to figure ④.



- ⑤ Glue the long socket of the tight elbow (part no. V382XS) onto a section of 2" central vacuum tube. Make the terminal connections to the V600W VacuSweep inlet valve by sliding the low-voltage wire into wire clips. Turn the power to the vacuum unit ON to test the connection. After successful completion of the test, turn power to the vacuum unit OFF. Wrap a piece of wire/string around the pipe. Using the wire/string to temporarily hold the pipe and elbow in place, insert the V600W VacuSweep inlet valve into the cabinet base and elbow. **DO NOT GLUE** this connection (Designed for friction fit). Refer to figure ⑤.



- ⑥ Remove the wire/string. With the door in an open position, secure the V600W VacuSweep inlet valve to the cabinet base using no. 6 screws. Refer to figure ⑥. **Ensure that the spring on the electrical connector has $1/8"$ clearance to rough opening.** Continue with remainder of central vacuum connections.

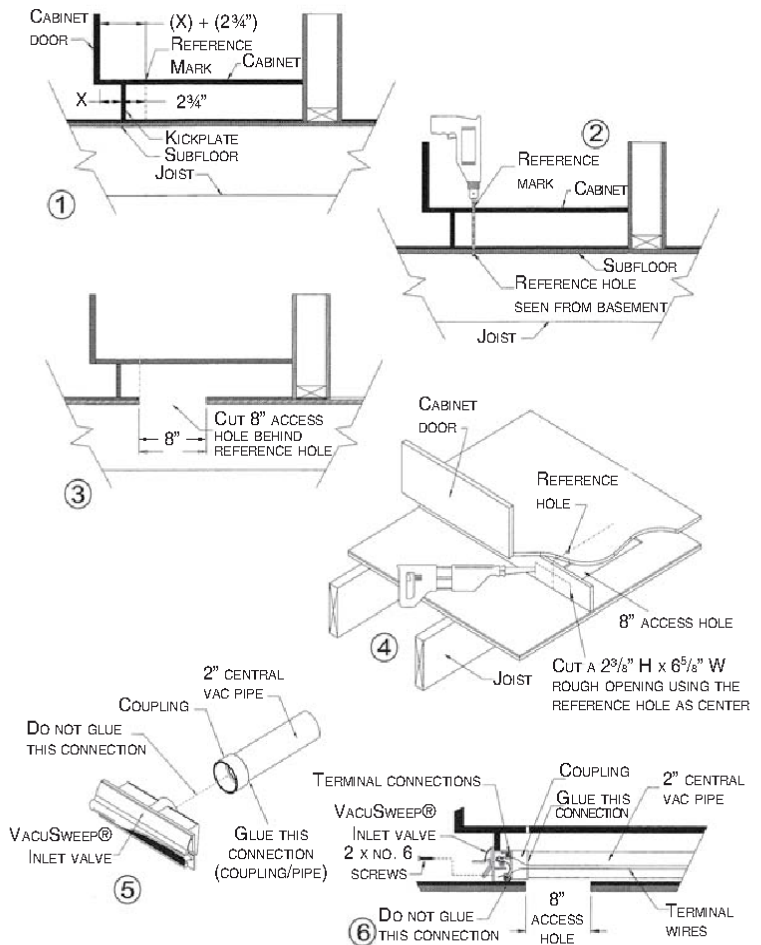


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V600W VACUSWEEP® INLET VALVE INSTALLATION (CONT'D)

CONNECTION FROM BEHIND

- ① Choose a location under the cabinet for the V600W VacuSweep inlet valve so that it can be connected to the central vacuum tube. Measure distance (X) between the kickplate face and the inside edge of the cabinet. Then, add 2 $\frac{3}{4}$ " to the measured distance. Refer to figure ①. Measure out the new distance (X + 2 $\frac{3}{4}$ ") from the cabinet door, to the reference mark.
- ② Drill a small reference hole straight down through to the basement. Refer to figure ②. Locate the reference hole in the basement and verify that there are no obstructions.
- ③ Using a reciprocating saw, cut an access hole in the floor under the cabinet and approximately 8" behind the location of the V600W VacuSweep inlet valve reference hole so that the V600W VacuSweep inlet valve can be connected to vacuum tube by reaching through the access hole. Refer to figure ③.
- ④ Using the reference hole as a center, cut a 2 $\frac{3}{8}$ " H x 6 $\frac{5}{8}$ " W rough opening in the kickplate face. Refer to figure ④.
- ⑤ Insert a coupling (part no. V127) onto the rear of the housing. **DO NOT GLUE** this connection (Designed for friction fit). Refer to figure ⑤. Make the terminal connections to the V600W VacuSweep inlet valve by sliding the low-voltage wire into wire clips. Turn the power to the vacuum unit ON to test the connection. After successful completion of the test, turn power to the vacuum unit OFF. Insert the V600W VacuSweep inlet valve into the cabinet base and tube.
- ⑥ With the door in an open position, secure the V600W VacuSweep inlet valve to the cabinet base using no. 6 screws. Refer to figure ⑥. **Ensure that the spring on the electrical connector has 1/8" clearance to rough opening.** From the basement reach through the access hole and glue a section of 2" central vacuum tube to the coupling. Continue with remainder of central vacuum connections.

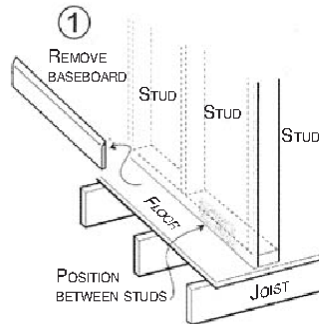


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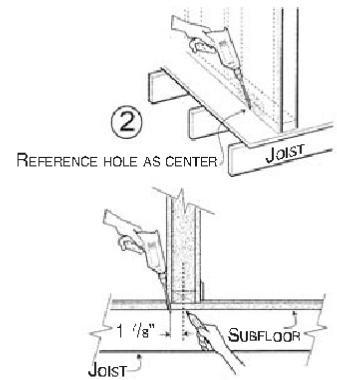
V600W VACUSWEEP® INLET VALVE INSTALLATION (CONT'D)

CONNECTION IN A WALL

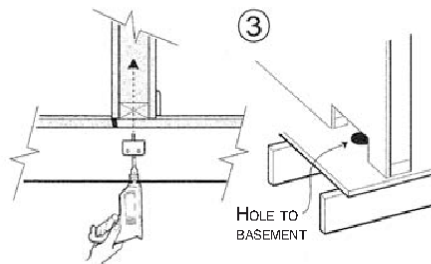
① Remove the baseboard and locate studs in the wall where V600W VacuSweep inlet valve will be installed. Locate a position where the inlet will be clear of vertical studs and have free access either up or down dependent on location of central vacuum connection to the rest of the system. Refer to figure ①.



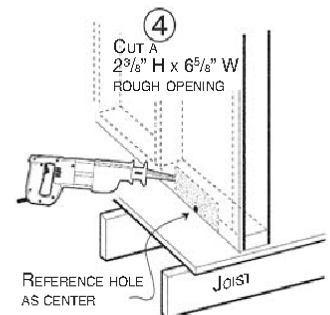
② Holding the drill at a 45° angle and as close to the wall as possible, between located studs, drill a small reference hole through the floor and subfloor. Locate this reference hole from beneath and measure over approximately 1 7/8" to center of base plate of wall. Ensure you have 1 1/2" clearance from any obstacles if connecting from below. Refer to figure ②.



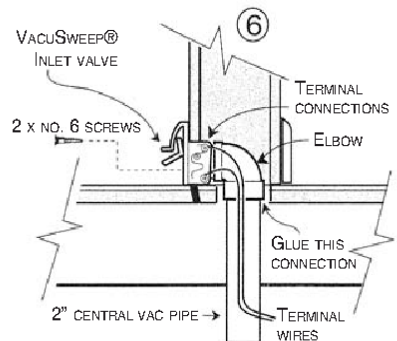
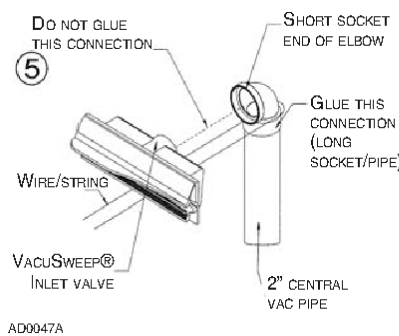
③ If installation is from below use a 2 1/2" diameter hole saw to remove wood floor and base plate, sufficient to locate V600W VacuSweep inlet valve centered over the reference hole. Refer to figure ③.



④ Using the reference hole as a center, cut a 2 3/8" H x 6 5/8" W rough opening in the wall and baseboard. Refer to figure ④.



⑤ Glue the long socket of the tight elbow (part no. V382XS) onto a section of 2" central vacuum tube. Make the terminal connections to the V600W VacuSweep inlet valve by sliding the low-voltage wire into wire clips. Turn the power to the vacuum unit ON to test the connection. After successful completion of the test, turn power to the vacuum unit OFF. Wrap a piece of wire/string around the tubing. Using the wire/string to temporarily hold the pipe and elbow in place, insert the V600W VacuSweep inlet valve into the opening at the base of the wall and elbow. **DO NOT GLUE** this connection (Designed for friction fit). Refer to figure ⑤.



⑥ Remove the wire/string. With the door in an open position, secure the V600W VacuSweep inlet valve to the wall using no. 6 screws. Refer to figure ⑥. **Ensure that the spring on the electrical connector has 1/8" clearance to rough opening.** Continue with remainder of central vacuum connections.

POWER UNIT INSTALLATION

⚠ WARNING

Do not install outdoors. Before being hung, rest the unit on a leveled surface to prevent the unit to fall down. When performing installation, servicing or cleaning the unit, it is recommended to wear safety glasses and gloves.

LOCATING THE POWER UNIT

- Locate the power unit away from the general living area in an accessible location for cleaning and maintenance.
- Locate the power unit within 6 feet of a grounded electrical outlet. The power unit requires a 120 VAC power source, dedicated 15-amp branch circuit.
- Do not locate the power unit close to a source of extreme heat (i.e.: water heater) or in an area with a high ambient temperature (i.e.: attic, furnace room).
- If the power unit is located in a closet or a small utility room, make sure the area is well-ventilated (e.g.: with door louvers).

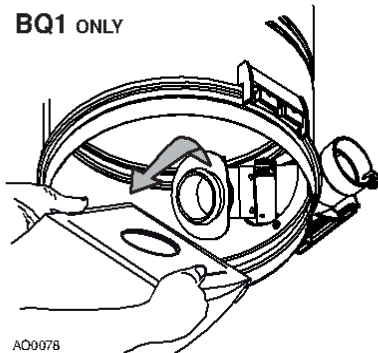
CHANGING INTAKE LINE DIRECTION

The intake line connects to the right side of the unit. However, it is possible to change this configuration; to connect the intake line to the left side of the unit, follow these steps:

- 1 Remove debris pail from power unit by releasing both latches on sides of the unit, pulling them out and then pushing up. Detach the pail from unit.

BQ1 ONLY

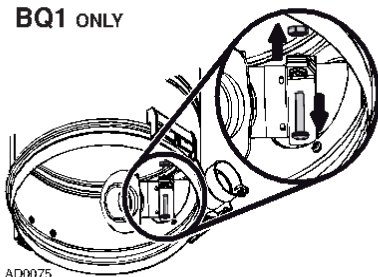
BQ1 only: Grasp the edges of the bag collar and pull down; the bag will slide off easily. **Do not pull on the bag.** Set the bag aside.



AD09078

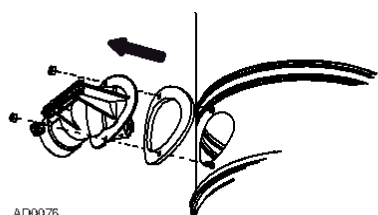
- 2 **BQ1 only:** Using a Phillips screwdriver no. 2, remove the screw tightening the bag adapter and intake elbow junction. Disassemble the bag adapter from the intake elbow and set aside with its screw and nut.

BQ1 ONLY



AD09075

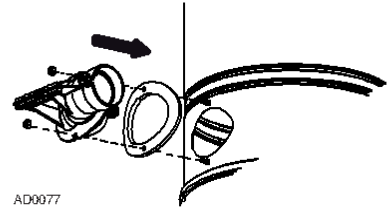
- 3 **All units:** Disassemble the intake elbow from the back of the unit using a 3/8" socket to remove both retaining nuts and screws.



AD09076

- 4 **All units:** Flip the intake elbow 180°, then reassemble it to the unit, taking care to keep its gasket at its original position.

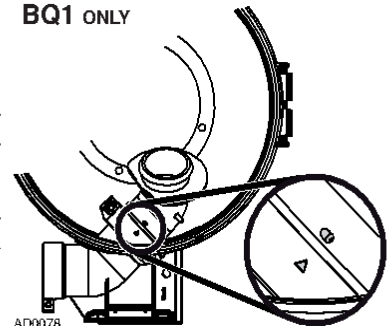
NOTE: Ensure the gasket is not folded in order to prevent lack of suction and noise.



AD09077

- 5 **BQ1 only:** Reassemble the bag adapter to the intake elbow. Align triangle with small inclined stud, then tighten the junction using the screw and nut previously removed in 2.

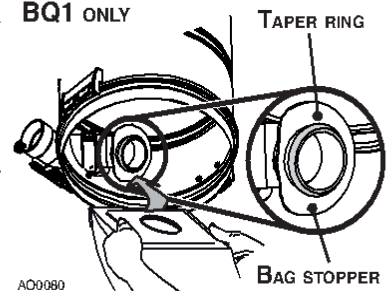
BQ1 ONLY



AD09078

- 6 **BQ1 only:** Put the bag back in place by grasping the edges of its collar and insert over bag adapter. Be careful not to tear the bag. Ensure the collar is positioned between the taper ring and the bag stopper on the bag adapter.

BQ1 ONLY



AD09080

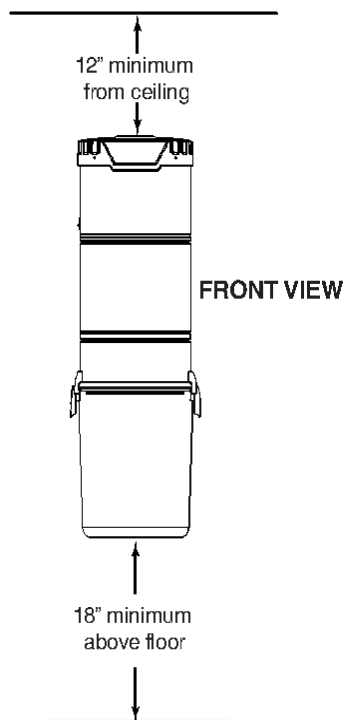
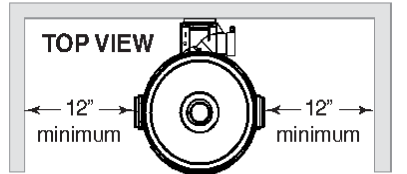
- 7 **All units:** Put the pail back in its place.

POWER UNIT INSTALLATION (CONT'D)

MOUNTING THE POWER UNIT

- 1 Carefully remove debris pail from power unit. Make sure bag is properly installed in power unit (BQ1 unit only). Remove the installation kit and securely reinstall debris pail.
- 2 Refer to illustration below to maintain minimum walls and floor clearance dimensions.

MINIMUM CLEARANCE DIMENSIONS

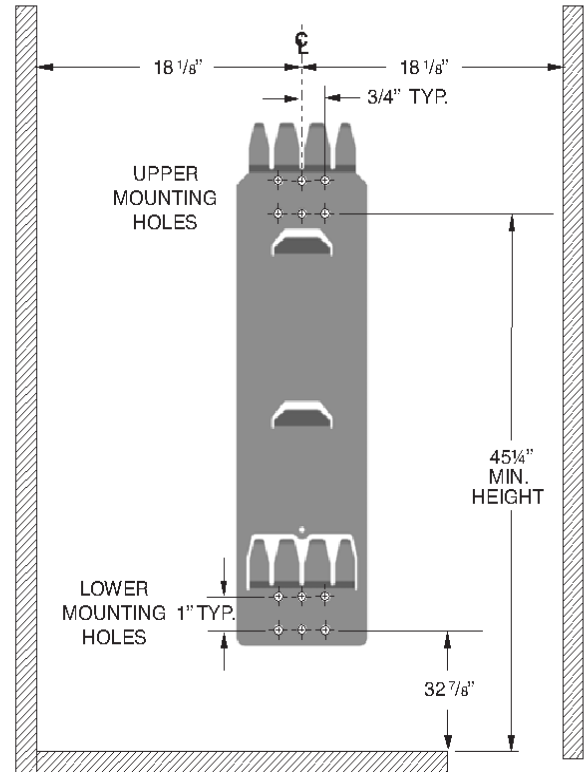


AD00039A

- 3 Position and install the wall mounting bracket with the provided screws. Refer to illustration in the right column for proper mounting dimensions.

CAUTION

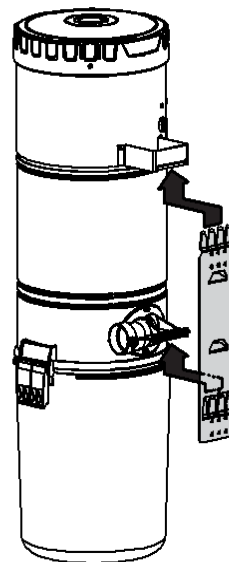
Ensure to screw the wall mounting bracket directly to a wall stud for a solid installation.



AD00079A

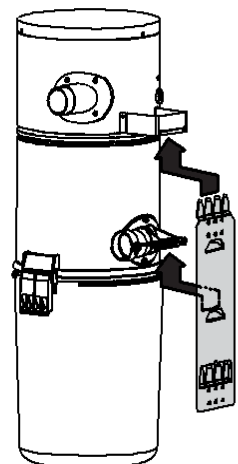
- 4 Use the provided mounting screws to secure the mounting bracket on the wall through upper and lower mounting holes.
- 5 Hang power unit onto wall mounting bracket. Ensure the back brackets of the power unit are engaged with corresponding wall bracket fingers (or top fingers and lower tab for BQ1 model; see figure below). Pull the power unit down to secure.

BQ2 AND BQ3



AD00074

BQ1

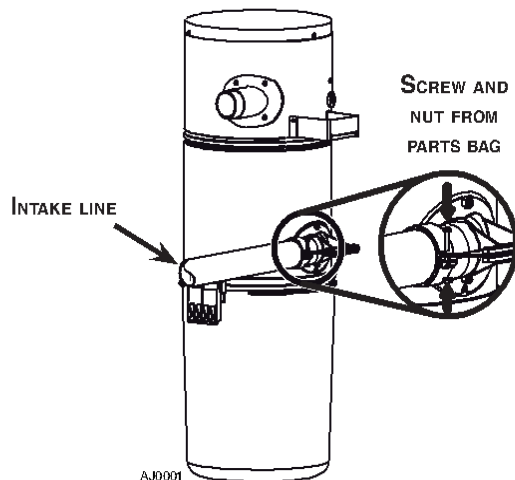


POWER UNIT INSTALLATION (CONT'D)

FITTING MAIN LINE TO POWER UNIT

- 1 Run house vacuum line up to the elbow behind the power unit. Insert the end of the line in the elbow opening and secure house vacuum line by hand tightening the screw and nut provided (see illustration below) **DO NOT GLUE.**

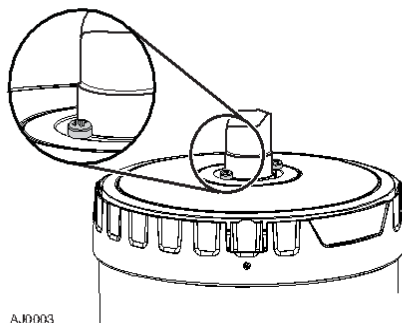
INTAKE LINE TYPICAL CONNECTION
TO POWER UNIT



- 2 Assemble exhaust tubing to exhaust outlet on top or top side of the unit, according to the power unit model. **DO NOT GLUE.**

NOTE FOR BQ3 UNIT ONLY

If desired, the coupling or elbow used to connect the exhaust line to the top of the unit may be secured using two 5/8" included screws. See illustration at right.



- 3 Make sure all tubing connections are air tight.
- 4 The exhaust should not be vented into a wall, ceiling or concealed space in the house. It is recommended to vent the vacuum exhaust air to the outdoors. Exterior vented exhaust line should end using Model V145 wall cap.

NOTE: For optimal indoor air quality, exhausting the power unit to the outdoors is recommended but is not required.

GROUNDING INSTRUCTIONS

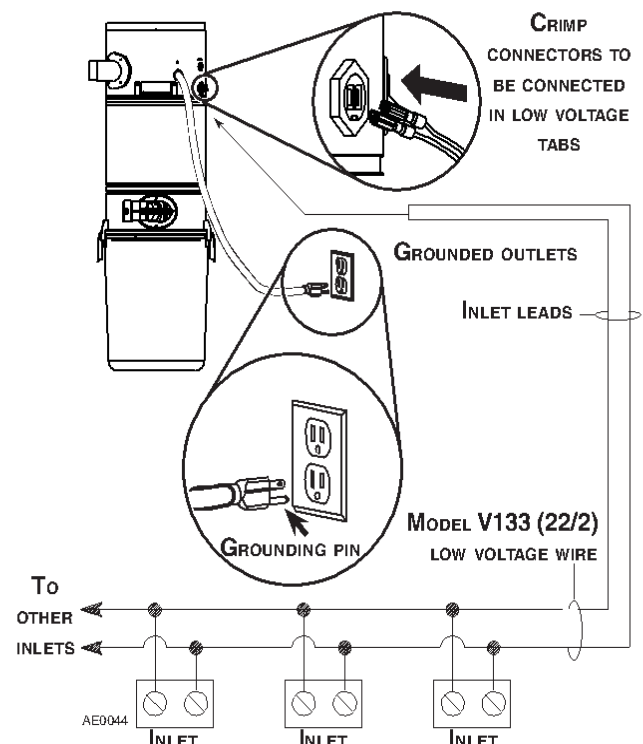
⚠ WARNING

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.

Grounding Instructions – This appliance must be grounded. If it should malfunction or break down, 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 plugged into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances.

WIRING

This appliance is for use on a standard 120 VAC, dedicated 15-amp branch circuit with a NEMA 5-15R receptacle. Make sure that the power unit is connected to an outlet and has a grounding attachment plug that looks like the plug shown in illustration below. No adapter should be used with this power unit.



NOTE: Inlet leads to be connected to power unit low voltage tabs using crimp connectors (included in parts bag) and low voltage harness.