

Centravac Superpower System DIY Installation Guide

Before you start please read these instructions thoroughly. You will be pleased to learn that a Centravac Superpower cleaning system is surprisingly easy to install, and will provide you with years of trouble-free enjoyment. All Centravac Superpower cleaning systems may be installed in either existing or new construction. In either case, the number of outlets required and their locations must be determined before starting the installation.

STEP 1: Choosing the Outlet Locations

Choose central locations for outlet valves in order to cover maximum area with the deluxe 30-foot (9m) length hose. Usually several rooms (or The Entire Main Floor) can be serviced from a single Outlet valve (Fig 1).

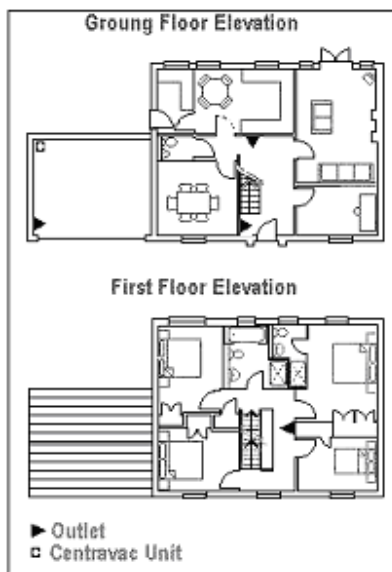


Fig 1

Since floor plans are normally drawn to 1:50 scale (1 to 4 inch), a 180mm (7 inch) piece of string will help to determine outlet valve locations and vac hose coverage using the floor plans of the construction. If

the building is existing or under construction use a 9m (30 foot) tape or cord. Be sure every inch of floor, wall, cupboard and ceiling can be reached; bearing in mind the hose may have to reach around pieces of furniture. Good locations are centrally located in hallways, landings, cupboards or walls on or near doorways. **Caution – Do not place outlet valves where a door slides on a wall, behind possible furniture, or behind open doors.** In existing homes consider whether you will want floor outlets or wall outlets. Wall height is a matter of individual preference e.g. to match the electrical outlet height (Can be adjusted for disabled users).

STEP 2: Choosing the Centravac Superpower System Location

The Centravac Superpower system can be mounted on almost any wall. It should be out of the way yet accessible so the dirt receptacle may be easily emptied. You will need to plug your Centravac Superpower system into an electric outlet with a 13-amp circuit. Suggested locations include garages, utility rooms under stair cupboards, cellars or externally under a weatherproof hood (**Not with the American tin can units**).

STEP 3: Planning the Vac Ducting System

Plan the entire vac ducting installation from the Centravac Superpower system to the desired location of the outlet(s).

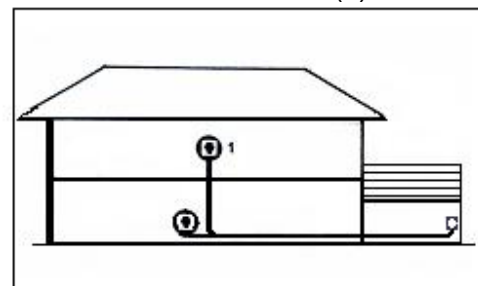


Fig. 2

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It is advisable to run your vac ducting under the floor in structures with basements or in the crawl space. In locations with no under floor access vac ducting may run “up” to the attic and over to the Centravac Superpower system using the same precautions and basic procedures as with a “down” system.

In multi-storey properties, vac ducting can run to upper levels, through existing services inc. lift shafts, cupboards, wardrobes, under stairways or in partition walls before the plaster board is finally fixed.

STEP 4: Tools Required.

- ❑ **13mm (") Electric Drill**
- ❑ **57mm (2.25") Hole Saw or Cutter**
- ❑ **Steel Tape Measure**
- ❑ **Screwdriver (Phillips)**
- ❑ **Screwdriver (Common Blade)**
- ❑ **Wire Cutters**
- ❑ **Common Hacksaw or Small Hacksaw**
- ❑ **Hammer**
- ❑ **Masonry Drill Bit**
- ❑ **Stanley Knife**
- ❑ **Electrical Tape**
- ❑ **Chisel**
- ❑ **Metal Coat Hanger (for pilot holes)**

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STEP 1: Installing the Outlet Valves in existing properties.

Determine as closely as possible the desired location of the outlet valve. Drill a small pilot hole in the floor directly below the proposed outlet valve location. A straight length of coat hanger wire, cut at an angle, makes a good pilot hole drill bit but be careful not to snag the carpeting. Leave straightened length of coat hanger wire through this pilot hole to serve as locator and guide point. (See fig 3).

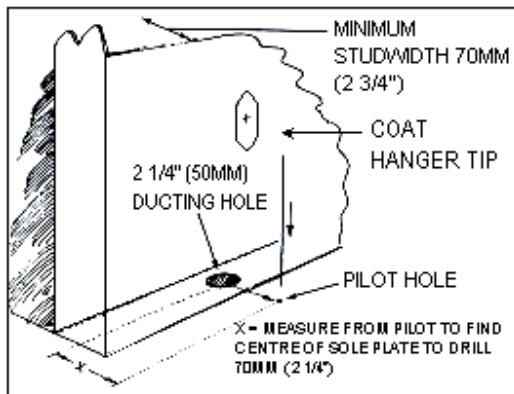


Fig. 3 Wall outlet - Existing Structures

From beneath floor, measure over from the pilot hole to locate the centre of the sole plate.

NOTE: You may want to drill a 19mm (3/4") inspection hole to avoid drilling into the bottom of a stud or other "inner wall" obstruction. Drill a 60mm (2-1/4") diameter hole through the centre of the sole plate. Using a flashlight or probe, inspect the interior of the wall to be sure there are no obstructions.

NOTE: The opening you are going to cut in the wall for the outlet valve should be located between studs, clear of obstructions such as plumbing, wiring, underfloor

heating, etc. Minimum stud width for sufficient clearance for inner wall mounting bracket assembly is 70mm (2-3/4") (See fig 3).

Using METAL Stud-mounting Brackets.

Centred at the desired height above floor level, cut an almost square opening 70mm (2-3/4") wide by 65mm (2-1/2") high in the wall directly above the 60mm (2-1/4") sole plate hole. Cut or file two 20mm (3/4") high triangular pieces above and below the almost square opening so that your wall opening exactly resembles (Fig 4).

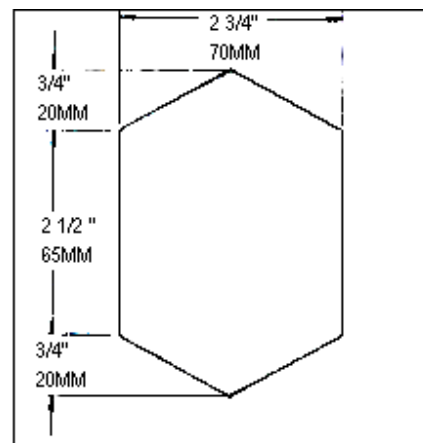


Fig. 4

Now cut or break off the "New Construction section from the metal wall elbow to the pre-riveted mounting bracket then glue 90° dual adaptor ring to it (fig 5).

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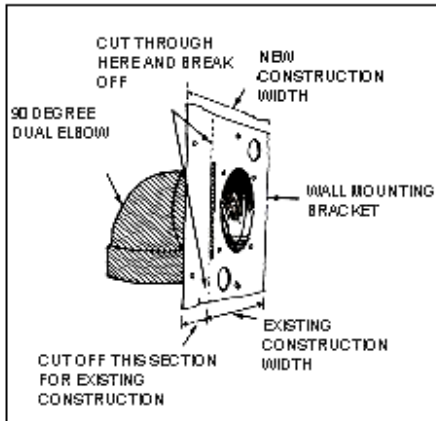


Fig. 5

Insert top screw **only** through the outlet valve and gently squeeze the outlet valve stem into bracket assembly until you are able to just start the top screw threads into the bracket assembly hole.

Strip the low voltage wire and tape it to the 90-degree short elbow with approximately 153mm (6") sticking through the wire guide hole. Join two outlet valve wires with the wire connectors supplied. Attach a small weight to the other end of the low-volt wire and drop the weighted wire through the opening in the wall. Allow wire and weight to drop through the sole plate (Fig 6).

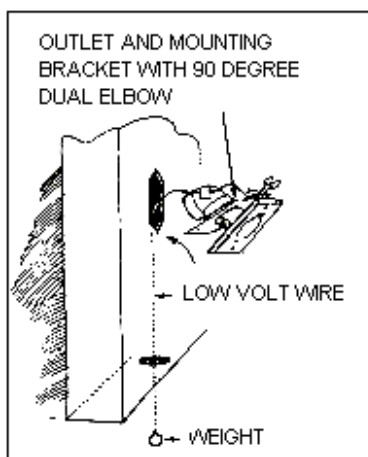


Fig. 6 Outlet installation - Existing Structures

Insert the assembled 90° dual elbow and wall-bracket assembly through the walls cutout hole as illustrated (Fig 7).

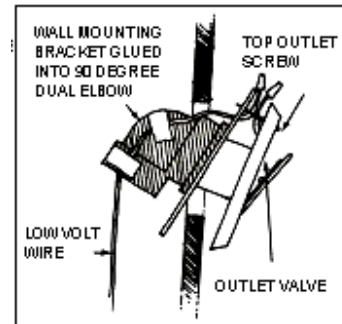


Fig. 7 Wall side view

Once the metal mounting bracket is completely installed inside the wall cavity, slide the entire assembly upwards so the metal plate is flush with the inner wall surface and the outlet valve is flush with outer wall surface. You can insert your index finger through the outlet valve opening and gently squeeze the outlet valve stem further into the inner wall assembly (see Fig 8).

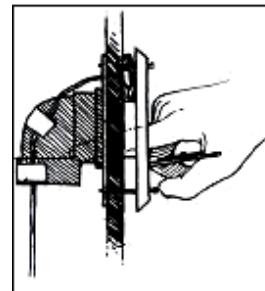


Fig. 8

NOTE: Always mount the outlet valve so the lid pulls down to open.

Now, insert and partially tighten bottom outlet valve screw. Tuck low-voltage wires and connectors under the sides of the wall outlet valve. Adjust outlet valve for perfect vertical alignment and tighten both outlet valve-mounting screws. Be sure the outlet valve lid operates freely. Apply glue to an

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adequate length of ducting and aim it upwards through the hole and into the 90° dual elbow fitting on the back of the mounting plate. Join this branch line to the trunk line using a 90° sweep tee.

If the outlet valve is to be serviced from the attic, shorter pieces of ducting joined by couplings may be required due to overhead space restrictions. Pre-cut these pieces and work quickly to prevent the cement on the end of the ducting from drying before it reaches the fittings at the valve elbow.

Using PLASTIC Stud-mounting Brackets.

Having determined the location is suitable cut a 65mm (2 1/2") x 110mm (4 3/8") hole in the wall at the desired outlet valve location (See Fig. 9).

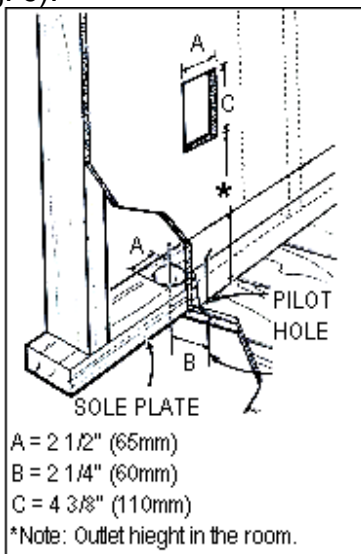


Fig. 9

Now **cut** or **break off** the "new construction" section from plastic wall mounting bracket. Tape low-voltage wire to the end of a sufficiently long piece of ducting and pass it up from beneath. If the trunk line is in the attic, tie a weight to the end of the low-voltage wire and lower it

through the opening. Remove the wire and pass it through the upper hole in the trimmed mounting plate. Bare an inch of both wire leads and wrap them around the lugs on the back of the valve in a clockwise direction. Tighten the lugs with a Phillips screwdriver.

Apply cement to the flange on the back of the mounting plate and attach a 90° dual elbow fitting oriented in the appropriate direction. Tilt the mounting plate forward and angle it into the hole in the wall. Centre the mounting plate in the hole and pull outward. (See figure. 10).

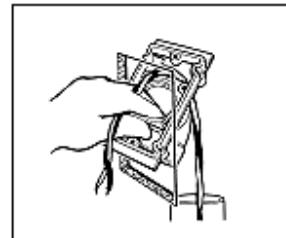


Fig. 10

Hold the mounting plate in place with a bent coat hanger. Open the valve lid and slide the valve flange first over the end of the coat hanger. Keep tension on the coat hanger while inserting the valve into the mounting plate with a twisting motion (See Fig. 11).

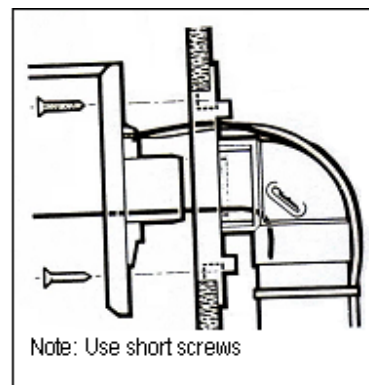


Fig 11

Do not use glue; the built in mounting plate gasket will provide a positive seal. Align the

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screw holes in the valve with those in the mounting plate. Using the screws provided, secure the valve in place. **Use the extra short screw if the longer screw is going to interfere with the ducting behind.** Do not over tighten.

Apply glue to an adequate length of ducting and aim it upwards through the hole and into the 90° dual elbow fitting it on the back of the mounting plate. Join this branch line to the trunk using a 90° sweep tee.

If the outlet valve is to be serviced from the attic, shorter pieces of ducting joined by couplings may be required due to overhead space restrictions. Pre-cut these pieces and work quickly to prevent the cement on the end of the ducting from drying before it reaches the fitting at the end of the valve below.

Floor Outlet Valves

To install a floor outlet, drill a pilot hole and with a coat hanger check the location as previously described. When you are sure that a joist or other obstruction will not block the proposed location, cut a hole in the carpet slightly larger than your 57mm (2 1/4") drill bit. Drill a 57mm (2 1/4") hole in the floor. Chisel or saw this hole larger to accommodate the outlet valve low-voltage connections. (Fig. 12).

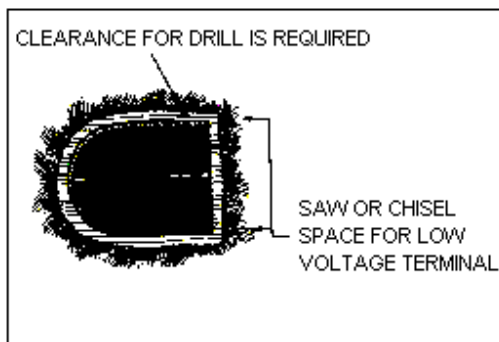


Fig. 12 Floor Outlet Hole

Assemble an adapter reducer bushing and some low-voltage wire to an outlet valve. Screw the valve to the floor. Repeat until all outlets are installed.

Wardrobe Wall Installation – Existing structure

Often it is only practical to install your Centravac Superpower system with the line coming up through the floor inside a closet and then through both sides of the wall. To use this method, select suitable outlet valve locations, exercising same precautions as for normal wall installations. Using a length of coat hanger pierce a hole through both walls. (Fig. 13).

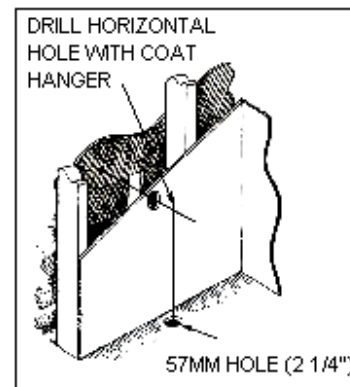


Fig. 13 Installation in existing structure

Be sure to hold wire perfectly horizontal so that both interior and exterior holes line up with one another. Check for inner wall obstructions by bending a short length of coat hanger wire at a right angle and twirling this right angle piece inside the wall.

Drill a 57mm (2 1/4") hole horizontally through both sides of the wall.

Make the hole in the exterior wall surface into the same shape opening as described previously in **STEP 1 – (Installing Outlet Valves)** (Fig. 4).

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From inside the wardrobe, cut a 57mm (2 1/4") hole through the floor, either directly below the opening in the wall or at a convenient spot. **(CAUTION: - Make pilot hole as in STEP 1 (previously.)** Run low-voltage wire through wall to exterior of wardrobe.

Pass low voltage wire through the wire guide hole of the inner wall wardrobe assembly (Fig. 14) and tape low-voltage wire assembly immediately behind the metal bracket.

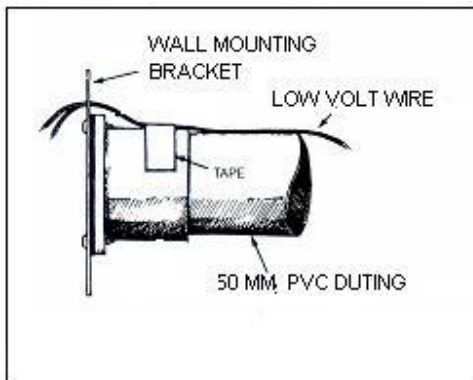


Fig. 14 Inner wall assembly

Attach wires to the low-voltage terminals at the rear of the outlet valve.

Place the inner wall assembly lengthwise through the wall opening and arrange assembly so that the metal bracket is flush with the surface of the wall. Screw the outlet to the wall as described previously in STEP 1, then complete as per (Fig. 15).

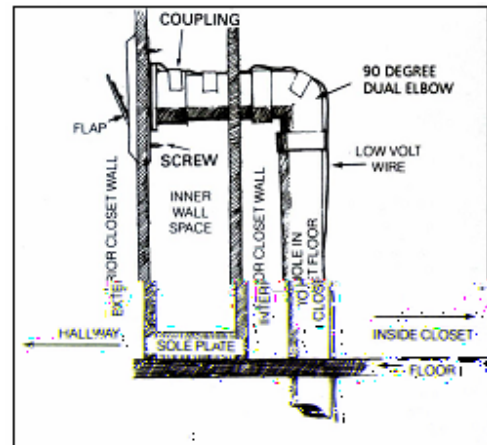


Fig. 15 Inner wall assembly - installed

Wall Valve Installation – New Construction

Select a probable location for your outlet valve and drill a pilot hole in the floor. You will need to check that the ducting path is clear and that installations of obstructions such as floor joists, central heating ducts, plumbing wires are considered.

At the intended outlet valve location, drill a 57mm (2 1/4") diameter hole through sole plate. To pinpoint centre of hole, measure over 51mm (2") from side of stud and 51mm (2") from front of sole plate. (Fig 17).

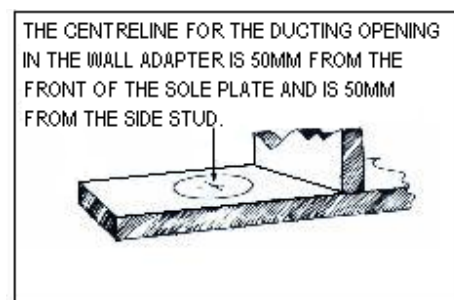


Fig. 16

Guide a length of ducting into a stud-mounting bracket assembly. Cut the low-voltage wiring, bring approximately 150mm (6") through the top wire guide hole in the stud bracket assembly and double it back into the elbow hole. Tape the wiring to the

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ducting at the assembly elbow and again close to the end. Then tuck the remaining wire into the bottom of the ducting. Screw the plasterboard onto the face of the assembly. (See Fig 18).

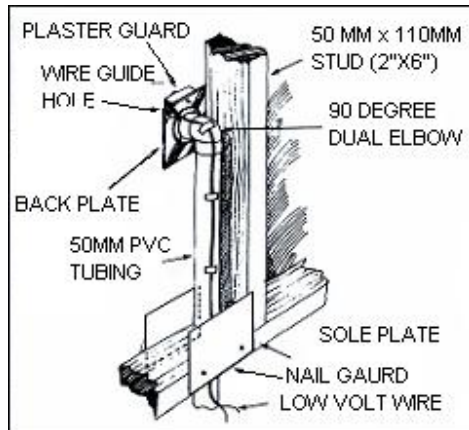


Fig. 17 Stud mounting

Drop the bottom of the ducting through the 57mm (2 1/4") hole and nail the stud mounting bracket assembly to the stud. Make sure the centre of the outlet hole is at the correct height above floor level and the ducting extends below the sub flooring.

Be sure to install a nail guard when holes are drilled through the sole or top plates. This is to prevent a nail or screw from penetrating the vacuum ducting. **Go to STEP 2 "Installation of Ducting System"** and complete ducting system as much as possible.

After the walls are finished and painted, the plaster guards will be removed and outlet valves installed. The ducting system may be completed at that time and the Centravac Superpower unit can be installed and commissioned.

STEP2: Installation of Ducting System (New or Existing Properties)

Starting at the outlet furthest from the Centravac Superpower unit, temporarily fasten the main line in position. (**Good idea:** - From a nail or overhead pipe etc., make two loops of string or low-voltage wire to pass the PVC ducting through, to hold it in position while you work.)

Push a length of PVC ducting up into the bottom of the outlet valve assembly. Bear in mind, ducting enters all fittings approximately 19mm (3/4"). Measure, cut and slip-fit this vertical line to main horizontal line with a 90° **sweep** elbow.

To avoid potential clogging problems when installing ducting and fittings, here are some recommendations.

- **Always make straight cuts on ducting.**
- **Always remove burrs from end of ducting.**
- **Be sure ducting fits against shoulder of fittings with no gaps.**
- **Glue ducting side only before assembly into fittings.**
- **Always connect additional outlet valves to main trunk line with 90-degree sweep tee (Fig. 19).**

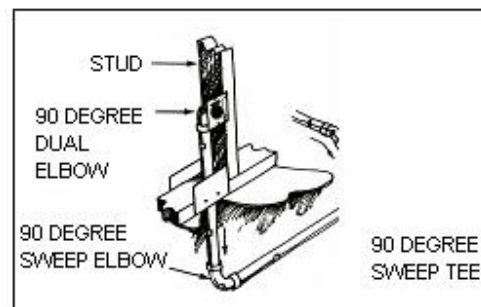


Fig. 18 Typical underfloor installation

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Be sure to install sweep tee fittings so the sweep is always towards the Centravac Superpower unit (Fig. 20).

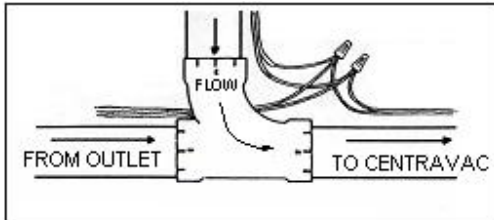


Fig. 19 90 Degree sweep tee

Always run branch lines, from the sides or top of the main trunk, never from out of the bottom, as this will create a trap for dirt to fall into.

Always install the low-voltage wire along as you assemble the ducting. Join or splice wire with wire connectors at each branch or junction in the ducting. Neatly cable-tie the wiring to ducting every 1.5m. Proceed until the ducting system is complete.

STEP3: Installation of Centravac Superpower Unit.

The Centravac Superpower unit is screwed into the wall with the bottom screws of the mounting bracket located 1.2m (48") up from the floor to allow convenient removal of the dirt canister. For proper motor cooling, there must be at least 225mm (8") between the unit and the ceiling.

If mounted on a concrete wall, drill the wall, with a masonry bit and insert plastic or lead anchors. As an alternative mounting in concrete walls 51mm x 116mm (2" x 4") studs or plywood may be suspended from overhead.

With the Centravac Superpower unit mounted, strip the low-voltage wire and crimp into the two "slip-on" terminals

provided. Connect the main ducting line to the left hand side of the unit, with the connector and clamp provided. **Do not** cement this connection to the Centravac Superpower unit in case you wish to remove at some future date. Do not install Centravac Superpower unit where the ambient temperature exceeds 120 ° Fahrenheit (48.9° C).

NOTE: For top-loading units, follow directions provided with the unit.

If a vented system is to be installed, the exhaust air should not be vented into a wall, ceiling, or concealed space. Exterior venting over 10ft (3m) is not recommended.

NOTE: All outlets operate automatically when the hose end is inserted into the outlet valve. Alternatively you can upgrade from a manual hose to an electriflex On/Off switchable hose for even more convenience.

WIRING

Plug power into an appropriate 120/220/230/240V – 50/60 cycle electrical outlet. Be sure line voltage is sufficient to handle 15-amp load.

Enjoy your Centravac for many years to come!

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