

# NuTone®

## *Two Year Limited Warranty*

**WARRANTY OWNER:** NuTone warrants to the original consumer purchaser of its products that such products will be free from defects in materials or workmanship for a period of two (2) years from the date of original purchase. **THERE ARE NO OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.**

**During this two year period,** NuTone will, at its option, repair or replace, without charge, any product or part which is found to be defective under normal use and service. THIS WARRANTY DOES NOT EXTEND TO FLUORESCENT LAMP STARTERS OR TUBES. This warranty does not cover (a) normal maintenance and service or (b) any products or parts which have been subject to misuse, negligence, accident, improper maintenance or repair (other than by NuTone), faulty installation or installation contrary to recommended installation instructions.

The duration of any implied warranty is limited to the two year period as specified for the express warranty. Some states do not allow limitation on how long an implied warranty lasts, so the above limitation may not apply to you.

**NUTONE'S OBLIGATION TO REPAIR OR REPLACE, AT NUTONE'S OPTION, SHALL BE THE PURCHASER'S SOLE AND EXCLUSIVE REMEDY UNDER THIS WARRANTY. NUTONE SHALL NOT BE LIABLE FOR INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES ARISING OUT OF OR IN CONNECTION WITH PRODUCT USE OR PERFORMANCE.** Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights, which vary from state to state. This warranty supersedes all prior warranties.

**WARRANTY SERVICE:** To qualify for warranty service, you must (a) notify NuTone at the address stated below or telephone 1/800-543-8687, (b) give the model number and part identification and (c) describe the nature of any defect in the product or part. At the time of requesting warranty service, you must present evidence of the original purchase date.

\_\_\_\_\_  
Date of Installation

\_\_\_\_\_  
Builder or Installer

\_\_\_\_\_  
Model No. and Product Description

### **IF YOU NEED ASSISTANCE OR SERVICE:**

For the location of your nearest NuTone Independent Authorized Service Center:

**Residents of the contiguous United States** Dial Free 1-800-543-8687

Please be prepared to provide:

Product model number • Date and Proof of purchase • The nature of the difficulty

**Residents of Alaska or Hawaii should write to:** NuTone Inc. Attn: Department of National Field Service, 4820 Red Bank Road, Cincinnati Ohio 45227-1599.

**Residents of Canada should write to:** Broan-NuTone Canada, 1140 Tristar Drive, Mississauga, Ontario, Canada L5T 1H9.

Rev. 01/2005

NuTone®



# ADVANTAGE®

CENTRAL VACUUM SYSTEMS

# BUILT-IN CENTRAL CLEANING SYSTEM

## CV-653 POWER UNIT



## HOMEOWNERS OPERATING INSTRUCTIONS

Product specifications subject to change without notice.

4820 Red Bank Road, Cincinnati, Ohio 45227  
Printed in U.S.A., Rev. 5/05, Part No. 88105

# IMPORTANT SAFETY INSTRUCTIONS

## SAVE THESE INSTRUCTIONS

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

### READ ALL INSTRUCTIONS BEFORE USING THIS APPLIANCE

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

- Do not use on wet surfaces or outdoors.
- Do not allow to be used as a toy. Close attention is necessary when used by or near children.
- Use only as described in this manual. Use only manufacturer's recommended attachments.
- 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.
- Keep hair, loose clothing, fingers, and all parts of body away from openings and moving parts.
- Do not pick up anything that is burning or smoking, such as cigarettes, matches, or hot ashes.
- Do not use without dustbag and filter in place.
- Turn off all controls before unplugging.
- Use extra care when cleaning on stairs.
- Do not use to pick up flammable or combustible liquids such as gasoline or use in areas where they may be present.
- Always turn off power brush before connecting or disconnecting.
- A current-carrying hose contains electrical wires. Do not use the hose if it is damaged, cut or punctured. Avoid picking up sharp objects. Connect to a properly grounded outlet only. See installation instructions for grounding instructions.
- 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.
- Do not unplug the unit by pulling on cord. To unplug, grasp the plug, not the cord.
- Do not handle plug or appliance with wet hands.
- Suitable for household or commercial use.
- Any servicing other than that recommended in this manual should be performed by an authorized service facility.

REF.	ORIGINAL PART NO.	PART DESCRIPTION	CURRENT REPLACEMENT PART NO.
1	32984	Motor Housing Assembly	32984-206
2	84128	Filter	84128-000
3	68683	Molded Flange & Tube Assy	68683-000
4	63089	Gasket	63089-000
5	52834	Screw #8 x .75	52834-015
6	44334	Filter Support	44334-000
7	52321	Tube Assembly	52321-000
8	44079	Gasket-Inlet	44079-000
9	99030	Inlet Gasket	99030-000
10	33836	Wall Plate Assembly	33836-000
11	33477	Pail Gasket	33477-000
12	33883	Motor Assembly	33883-REB
13	30364	Motor Gasket (not shown)	30364-000
14	87150	Cover Assembly	87150-000
15	1851A	Motor Screws	1851A-000
16	33541	Hardware Bag Assembly	33541-000
17	391	Filter Bag (Pack of 3)	391
18	1852A	Brush Kit	1852A-000
19	1850A	Valve Seal Kit	1850A-000
20	18028	Nut	18028-015
21	52833	Screw #8-32	52833-015
22	65495	Strain Relief	65495-000
23	87055	Cord Set	87055-000
24	33536	Rocker Switch	33536-000
25	87119	Control Board	87119-000
26	87175	Wrap Around	87175-000
27	35910	Lower Pail	35910-000

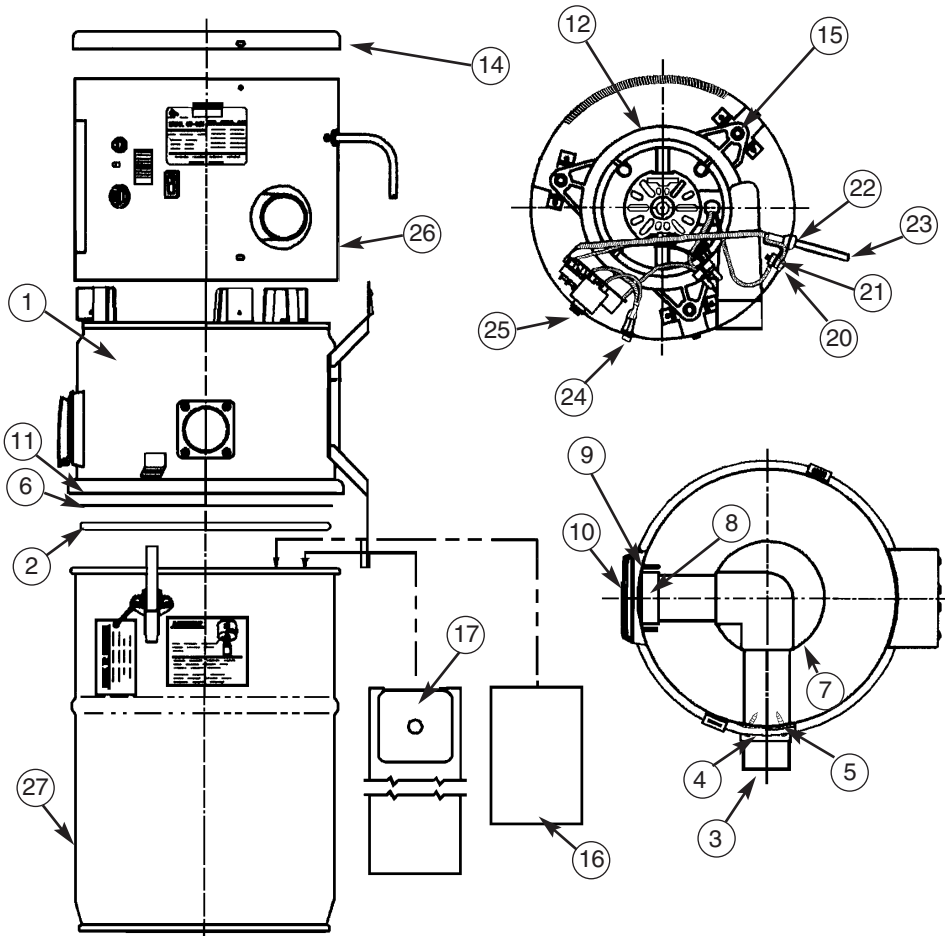
↑  
**NOTE: Always order by  
current part number**

# NuTone®

Attn: Parts Department  
Madison & Red Bank Rds.  
Cincinnati, OH 45227-1599  
Phone: (513) 527-5426  
Fax: (513) 527-5173

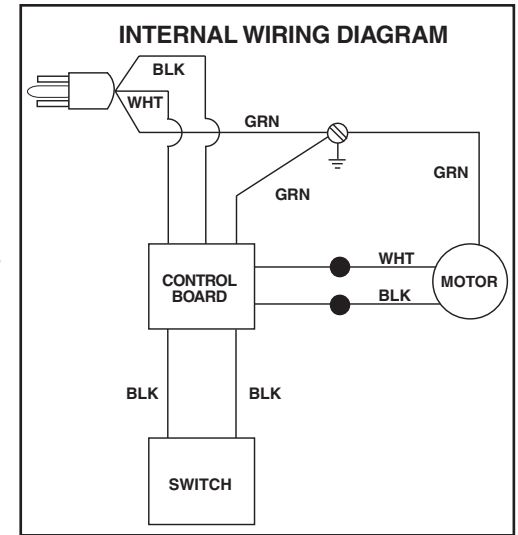
# PARTS LIST

EFFECTIVE DATE	MODEL NUMBER	PRODUCT GROUP
REVISED JUNE 1998	CV-653	CENTRAL VAC



## INTRODUCTION

The power unit is located away from the everyday living areas of your home – usually in the garage, basement, or utility room. Through a network of strong, lightweight tubing, the power unit connects to inlets strategically placed around your home. You attach cleaning tools to the system's hose and insert the hose into the inlet. Inserting the hose automatically turns on the power unit.



## OPERATION

**WARNING: To avoid electric shock, never use hose and tools on a wet surface. To avoid fire hazard, do not use vacuum to pick up matches, fireplace ashes, or smoking material.**

The system status indicator light on the side of the power unit indicates that the power unit is ready for use. Under normal operation, the light will be green. The light will change to amber when it is time to change the soil bag. See page 4 for directions on changing the soil bag.

When you are ready to clean, attach the wands and cleaning tool onto the end of the hose. Open the inlet cover and insert the end of the hose into the inlet.

For non-switched hoses, inserting the hose automatically turns on the power unit; removing the hose shuts off the power unit. Some hoses have switches which can be used to activate power unit. **NOTE:** The inlet located on the power unit does not automatically work when the hose is inserted. To turn on the power unit inlet, use the rocker switch located on the side of the power unit.

Use the cleaning tools as you would for any other vacuum cleaner. Avoid picking up pine needles, popsicle sticks, and other similar objects. These kinds of objects may become lodged in the hose or tubing.

## VACUUM POWER CONTROL

The wand ends of the deluxe hoses are equipped with a control ring to regulate suction. The control ring covers a 'bleeder' hole. Open the hole to reduce the suction for cleaning draperies, small rugs, and other light fabrics. Some very thick, plush carpets with high density yarns also require reduced suction to make the nozzle easier to push. Be sure to close the control ring completely over the hole to produce the maximum power required for most other cleaning tasks. (The economy hose does not have a control ring.)

## BAG REPLACEMENT

An extra disposable bag is located in the lower receptacle section of the Power Unit. With a six gallon capacity, under normal conditions the bag requires changing approximately twice a year.

When the light on the side of the power unit changes to amber, it indicates that the soil bag has been in use for twenty five hours, and should be changed. Follow directions below to change the bag. Once you have changed the bag and replaced the dirt receptacle, unplug the power unit for five seconds, then plug it back in. This resets the light to green.

If you have been vacuuming large quantities of pet hair, etc., you may need to replace your bag more frequently. If you notice a loss of vacuum prior to the light changing to amber, check your soil bag and replace as needed. If changing the bag does not correct the loss of vacuum, see the Troubleshooting Guide on pages 6-7.

To remove the disposable bag, lift the two canister latches and remove the lower canister. Grasp the edges of the bag's collar and pull down. Do not pull on the bag. The bag will slide off easily.

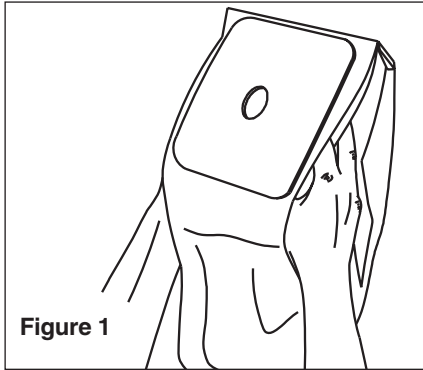


Figure 1

### INSTALLING A NEW BAG

1. Open bag out at pleats.
2. Grasp collar where indicated and insert over bag adapter. Be careful not to tear the bag.
3. Be sure the collar is positioned above the lugs on the bag adapter.

A set of three (3) replacement bags (Model 391) and a replacement filter may be purchased from your local NuTone Sales Outlet. For the name of your nearest NuTone Sales Outlet, call NuTone, toll free at 1-800-543-8687.

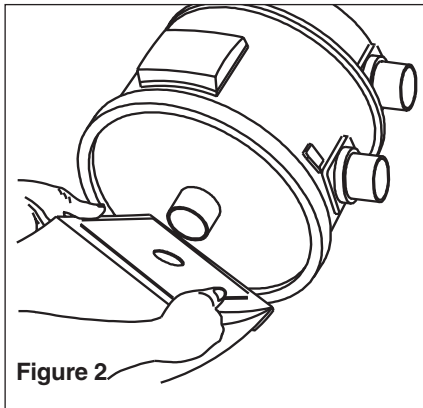


Figure 2

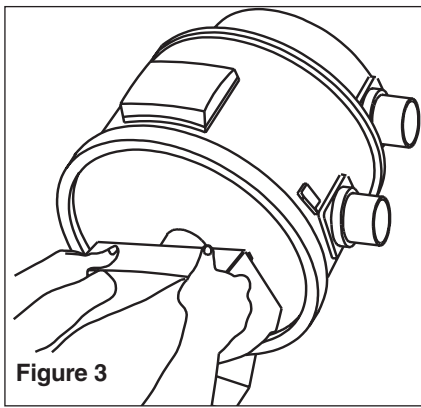


Figure 3

## POWER & TURBINE BRUSHES AND HOSES



### 599 – MOTOR DRIVEN POWER BRUSH

Wide motorized roller bar beats dirt from carpet then picks it up with revolving nylon brushes. Features edge-cleaning, built-in light. Includes two chrome-plated steel wands with retainers for 4-ft. Power Brush Cord. Cord, with bi-pin plug, connects 599 to current-carrying hose models or, model 599-CS extension cord.



### 343G – TWIN-TURBINE AIR-DRIVEN BRUSH

Air-driven brush powered by the strong air flow of your NuTone Central Cleaning System. Lightweight, durable and self-adjusting to any carpet, the Turbine Brush requires no separate power cord or electrical connection.



### CT330B TURBINE STAIR TOOL

Hand-held air-driven turbine brush, perfect for cleaning stairs, car interiors, all those tight places.



### CH230 – HIGH PERFORMANCE HOSE

1 3/8" diameter hose reduces turbulence and provides freer air flow. A switch on the end of the 30' hose lets you turn power unit on and off as you clean.

NOT SHOWN:

#### 372 – STANDARD HOSE

Efficient Standard Hose for use with NuTone Cleaning Tools. Rotary control on handle regulates suction. 32'.

#### 599-CS – POLARIZED 35-FOOT EXTENSION CORD

Use to connect Model 599 Power Brush cord to electrical outlet. Strappings included for attaching cord to 332, 372 or CH230 Hoses.



### CH310 – STANDARD CURRENT-CARRYING HOSE

30' Standard Current-Carrying Hose eliminates the need for the 599-CS Extension Cord. Can be used with all NuTone Cleaning Tools.

NOT SHOWN:

#### 332 – ECONOMY CRUSHPROOF HOSE

Durable crush-proof hose is designed to provide good flexibility with strength...springs back immediately to original shape. 32' long.

\*All NuTone hoses include convenient storage hanger.



### CH510 – DELUXE CURRENT-CARRYING HOSE

30' large diameter Deluxe Current-Carrying Hose for use with the 599 Power Brush. Eliminates the need for 599-CS Extension Cord. Hose features bi-pin plug at one end to connect to Power Brush Cord. Cord at other end plugs into wall outlet. Comfort-grip handle, three position on/off switch provides fingertip control of entire system. Adjustable lever regulates air movement to suit cleaning needs. Can be used with all NuTone Cleaning Tools.



## TOOL SETS & ACCESSORIES

NuTone offers a choice of three Tool Sets, each containing: Combination Floor/Rug Tool, Wand(s), Dusting Brush, Upholstery Tool, Crevice Tool and Tool Caddy. These tools are similar to the tools provided with any vacuum cleaner and are used for similar cleaning chores. Used with the Central Cleaning System Hose, they allow you to conveniently and efficiently clean numerous areas in your home, including walls, and surfaces above the floor.

The Floor Rug Tool provided with the Deluxe Tool Set moves from carpeted to non-carpeted areas without adjustment. With the Standard and Basic Tool Sets, a single-pedal toe-touch lever raises or lowers the brush as you go from carpets to bare floors and back again. Each Floor/Rug Tool has a 360° universal swivel to permit you to move the tool freely and easily as you clean under, around and on top of surfaces. Tools are handsome European styling in black or gray as shown.



**CK230 DELUXE TOOL SET**  
Floor/Rug Tool has front and rear wheels to move smoothly across surfaces. Includes Ratcheting Wand for added convenience. Brushes are natural fiber. Crevice tool is notched to provide continuous air flow. Cloth tool storage bag included.



**CK120 STANDARD TOOL SET**  
Floor/Rug Tool has dual wheels for smooth performance and even air flow. Two chrome steel wands included. Brushes are nylon bristles. Cloth tool storage bag included.



**CK110 BASIC TOOL SET**  
Floor/Rug Tool moves from floor to carpet with single pedal operation. Two plastic wands included. Brushes are nylon bristles.



**CT155B HARD FLOOR TOOL**  
11 3/4" brush efficiently cleans hardwood flooring, tile and other hard floor surfaces. Two rows of soft bristles, dual wheels, and swivel neck.



**CT143B UNIVERSAL DUSTING BRUSH**  
Versatile elongated dusting brush will change the way you dust. Great for desks, bookshelves, blinds, etc. Soft nylon bristles.



**CT109B PET BRUSH**  
Nylon bristles for gentle grooming. Removable bristles for easy cleaning.



**CA130 HOSE SOCK**  
Protects furniture, walls and woodwork. Fits all 30' - 32' central cleaning hoses, 1 1/4" - 1 3/8" in diameter. Purchase hose separately.

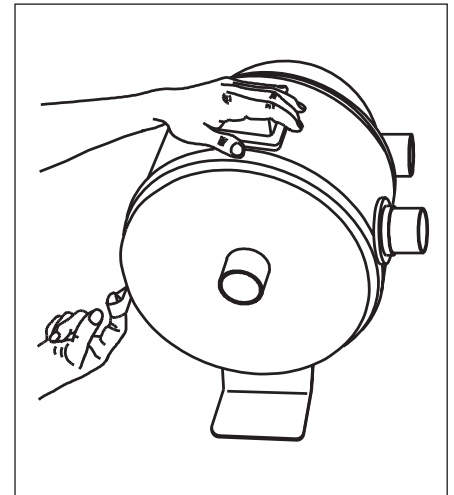
## CLEANING THE SECONDARY FILTER

A secondary safety filter, located between the motor and the soil bag, provides protection against dirt being pulled into the motor if the disposable bag should accidentally be torn. This filter should be checked and cleaned, if necessary, when replacement bags are installed. Simply brush filter clean. If the filter is excessively soiled, wash in a mild detergent and thoroughly dry before replacing.

**IMPORTANT: Operation of the Power Unit without the secondary safety filter installed will void the warranty.**

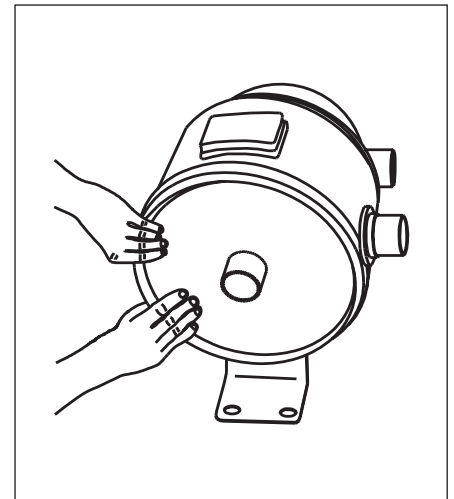
### REMOVING FILTER

Remove lower receptacle and disposable bag. Using tab on edge of filter, pull and loosen filter from canister wall. Then, carefully pull filter off of bag adapter.



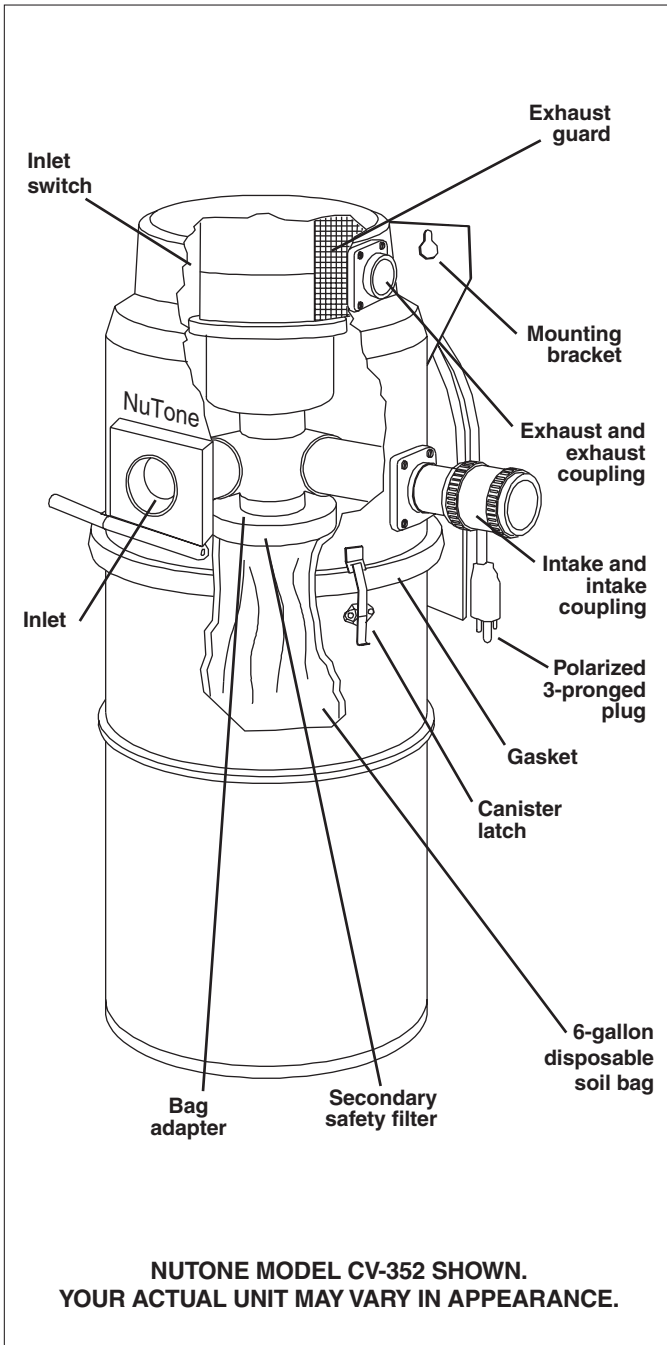
### REPLACING FILTER

Make sure the filter is installed so that the pull tab is on the outside and accessible for future filter removal. Align hole in center of filter with opening in the middle of the bag adapter. Press filter upward until center hole locks over lugs on bag adapter. Press filter's outer edge until it is secure against rib inside canister.



# TROUBLESHOOTING GUIDE

# Read Before Calling Service Center



Trouble	Possible Cause	Possible Remedy
1. Loss or decrease of vacuum occurs.	1a. Disposable bag filled.	1a. Remove disposable bag and install replacement. <b>Note:</b> Check secondary filter for possible dirt and dust accumulation and wash to clean if necessary.
	1b. Obstruction in the hose. A blockage in the hose can be determined by inserting the hose into any Wall Inlet and, while Power Unit is running, check each additional inlet for normal suction by holding the palm of your hand over the open inlet. If normal suction is felt at all other inlets, insert the hose into a second inlet. If the blockage still exists it is located in the hose. However, if the blockage does not occur when the hose is changed, the blockage is probably located in the tubing system leading to the original inlet.	1b. Disconnect the hose from the wall Inlet and insert a blunt instrument into the hose – slightly smaller in diameter – such as a flexible garden hose. Push the garden hose through the cleaning system hose until the obstruction has been cleared.
	1c. Obstruction in the tubing system inside the walls.	1c. Insert hose end into any inlet with Power Unit running, place the palm of your hand over the opposite end of the hose. When you can feel the suction increase, hold your hand over the hose end for a few seconds and then quickly remove your hand. This procedure repeated several time should clear the obstruction. If the blockage is not cleared, service will be necessary.
	1d. Wall Inlet cover not properly sealed.	1d. Check all Wall Inlet covers to be sure they are closed and sealed tightly.
2. Power unit does not start.	2a. Defective inlet. Check other Wall Inlets.	2a. Replace defective Wall Inlet.
	2b. Thermoprotector has been activated.	2b. Check the overload protector button located on the side of the Power Unit. Push to reset system. NOTE: Model CV-352 has an automatic reset thermoprotector built into the motor. This protector is a safety device which will open the motor circuit if heat build-up in the motor causes the protector to operate. Two common causes of heat build-up: (a) filter bag is filled; (b) intake is blocked. Remedy as described under <b>loss of vacuum</b> (above).
	2c. Blown fuse or tripped circuit breaker.	2c. Replace fuse or reset circuit breaker.
3. Power unit fails to stop when the hose is removed.	3a. An electrical short has occurred somewhere in the system.	3a. A complete check of all Wall Inlet and Power Unit low voltage control lead connections (external yellow leads). Turn system off by removing fuse or tripping circuit breaker at house fuse box.