



Electronic Service Manuals

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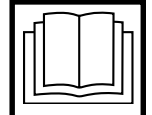
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Carpetwin™ 16XP/20XP



OPERATOR MANUAL
Advance MODELS 56323776, 56323777
56323778, 56323779



Nilfisk
Advance

setting standards

11/97 revised 1/01 Form Number 56041387

TECHNICAL SPECIFICATIONS

Model		Carpetwin 16XP	Carpetwin 16XP	Carpetwin 16XP	Carpetwin 20XP
Model Number		56323779	56323777	56323778	56323776
Voltage/frequency	V/Hz	100 / 50/60	120 / 60	220-240 / 50/60	120 / 60
Rated Power	W	N/A	970	1,040	1,080
Protection Class (electrical)			⚡	⚡	⚡
Protection grade (mec, moist, dust)		IP 30	IP 30	IP 30	IP 30
Sound Pressure Level (at 1.5m)	dB(A)/20μPa	74	74	74	74
Total Weight	lbs / kg	34/15.3	34/15.3	34/15.3	57/26
Vibrations at the Hand Controls	m/s ²	<2.5m/s ²	<2.5m/s ²	<2.5m/s ²	<2.5m/s ²

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INTRODUCTION

This manual will help you get the most from your **Advance Carpetwin**. Read it thoroughly before operating the machine.

Note: Bold numbers in parentheses indicate an item illustrated on page 7.

This product is intended for commercial use only.

PARTS AND SERVICE

Repairs, when required, should be performed by your Authorized Advance Service Center, who employs factory trained service personnel, and maintains an inventory of Advance original replacement parts and accessories.

Call the ADVANCE DEALER named below for repair parts or service. Please specify the Model and Serial Number when discussing your machine.

(Dealer, affix service sticker here.)

NAME PLATE

The Model Number and Serial Number of your machine are shown on the Nameplate on the machine. This information is needed when ordering repair parts for the machine. Use the space below to note the Model Number and Serial Number of your machine for future reference.

MODEL NUMBER _____

SERIAL NUMBER _____

UNCRATE THE MACHINE

When the machine is delivered, carefully inspect the shipping carton and the machine for damage. If damage is evident, save the shipping carton so that it can be inspected. Contact the Advance Customer Service Department immediately to file a freight damage claim.

IMPORTANT SAFETY INSTRUCTIONS

When using an electrical appliance, basic precautions should always be followed, including the following:
Read all instructions before using.

This machine is only suitable for commercial use, for example in hotels, schools, hospitals, factories, shops and offices other than normal residential housekeeping purposes.

WARNING!

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

- * Do not leave the appliance when it is plugged in. Unplug the unit from the outlet when not in use and before servicing.
- * To reduce the risk of electric shock, do not use on wet surfaces. 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 children.
- * Use only as described in this manual. Use only the manufacturer's recommended attachments.
- * Do not use with a damaged cord or plug. If the appliance is not working as it should be, has been dropped, damaged, left outdoors or dropped into water, return it to a service center.
- * Do not pull or carry by the cord or use the cord as a handle. Do not close a door on the cord, or pull the cord around sharp edges or corners. Do not run the appliance over the cord. Keep the cord away from heated surfaces.
- * Do not unplug by pulling on the cord. To unplug, grasp the plug, not the cord.
- * Do not handle the plug, cord or appliance with wet hands.
- * Do not put any object into openings. Do not use with any opening blocked. Keep free of dust, lint, hair and anything that might reduce air flow.
- * Keep loose clothing, hair, 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, or any health endangering dusts.
- * Do not use without dustbag and/or filters 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.
- * Connect to a properly grounded outlet only. See Grounding Instructions.

SAVE THESE INSTRUCTIONS

IMPORTANTES MESURES DE SÉCURITÉ

Lors de l'utilisation d'un appareil électrique, suivez toujours les précautions d'usage, y compris celles qui suivent :
Lisez toutes les instructions avant de faire fonctionner l'aspirateur.

Cette machine ne convient qu'à un usage industriel, par exemple dans les hôtels, les écoles, les hôpitaux, les usines, les boutiques et bureaux et tout ce qui n'est pas pour l'entretien domestique résidentiel normal.

ATTENTION!

Pour réduire tout risque d'incendie, de choc électrique ou de blessure :

- * Ne pas laisser l'appareil sans surveillance lorsqu'il est branché. Débrancher lorsque l'appareil n'est pas utilisé et avant l'entretien.
- * Pour réduire les risques de choc électrique, ne pas aspirer de matières humides, ne pas exposer à la pluie et garder l'aspirateur à l'intérieur.
- * Ne pas permettre aux enfants de jouer avec l'appareil. Une attention particulière est nécessaire lorsque l'appareil est utilisé par des enfants ou à proximité de ces derniers.
- * N'utiliser que conformément à cette notice avec les accessoires recommandés par le fabricant.
- * Ne pas utiliser si le cordon ou la fiche est endommagé. Retourner l'appareil à un atelier de réparation s'il ne fonctionne pas bien, s'il est tombé ou s'il a été endommagé, oublié à l'extérieur ou immergé.
- * Ne pas tirer soulever ou traîner l'appareil par le cordon. Ne pas utiliser le cordon comme une poignée, le coincer dans l'embrasure d'une porte ou l'appuyer contre des arêtes vives ou des coins. Ne pas faire rouler l'appareil sur le cordon. Garder le cordon à l'écart des surfaces chaudes.
- * Ne pas débrancher en tirant sur le cordon. Tirer plutôt la fiche.
- * Ne pas toucher la fiche ou l'appareil lorsque vos mains sont humides.
- * N'insérer aucun objet dans les ouvertures. Ne pas utiliser l'appareil lorsqu'une ouverture est bloquée. S'assurer que de la poussière, de la peluche, des cheveux ou d'autres matières ne réduisent pas le débit d'air.
- * Maintenir les cheveux, les vêtements amples, les doigts et toutes les parties du corps à l'écart des ouvertures et des pièces mobiles.
- * Ne pas aspirer de matières en combustion ou qui dégagent de la fumée, comme des cigarettes, des allumettes ou des cendres chaudes.
- * Ne pas utiliser l'appareil si le sac à poussière ou le filtre n'est pas en place.
- * Mettre toutes les commandes à la position ARRÊT avant de débrancher l'appareil.
- * User de prudence lors du nettoyage des escaliers.
- * Ne pas aspirer des liquides inflammables ou combustibles, comme de l'essence, et ne pas faire fonctionner dans des endroits où peuvent se trouver de tels liquides.
- * Ne brancher qu'à une prise de courant avec mise à la terre. Voir les instructions visant la mise à la terre.

CONSERVER CES INSTRUCTIONS

GROUNDING INSTRUCTIONS

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 plugged into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances.

⚠ DANGER!

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.

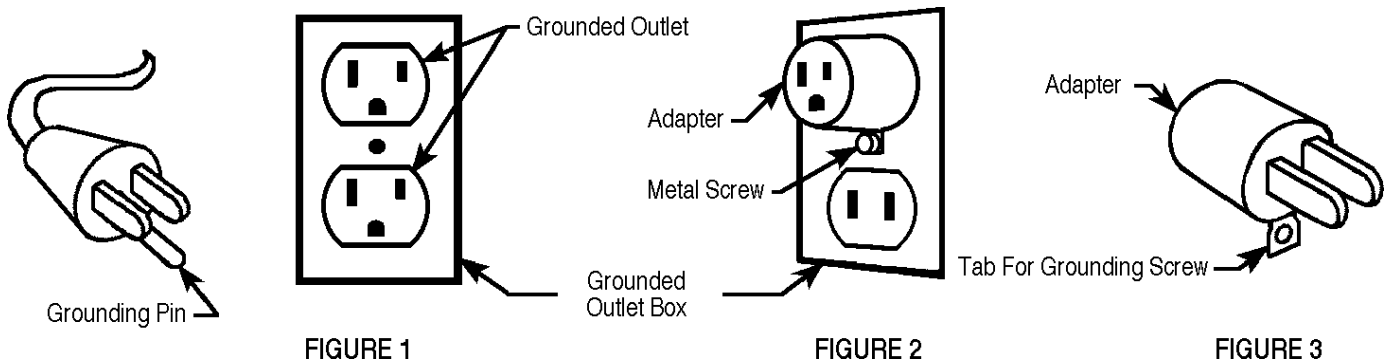
120VAC GROUNDING INSTRUCTIONS

This appliance is for use on a nominal 120-volt circuit, and has a grounding plug that looks like the plug illustrated in Figure 1 below. A temporary adapter illustrated in Figures 2 and 3 may be used to connect this plug to a 2-pole receptacle as shown in Figure 2 if a properly grounded outlet is not available. The temporary adapter should be used only until a properly grounded outlet (Figure 1) can be installed by a qualified electrician. The green-colored rigid ear, tab, or the like extending from the adapter must be connected to a permanent ground such as a properly grounded outlet box cover. Whenever the adapter is used, it must be held in place by a metal screw. Grounding adapters are not approved for use in Canada.

Replace the plug if the grounding pin is damaged or broken.

The Green (or Green/Yellow) wire in the cord is the grounding wire. When replacing a plug, this wire must be attached to the grounding pin only.

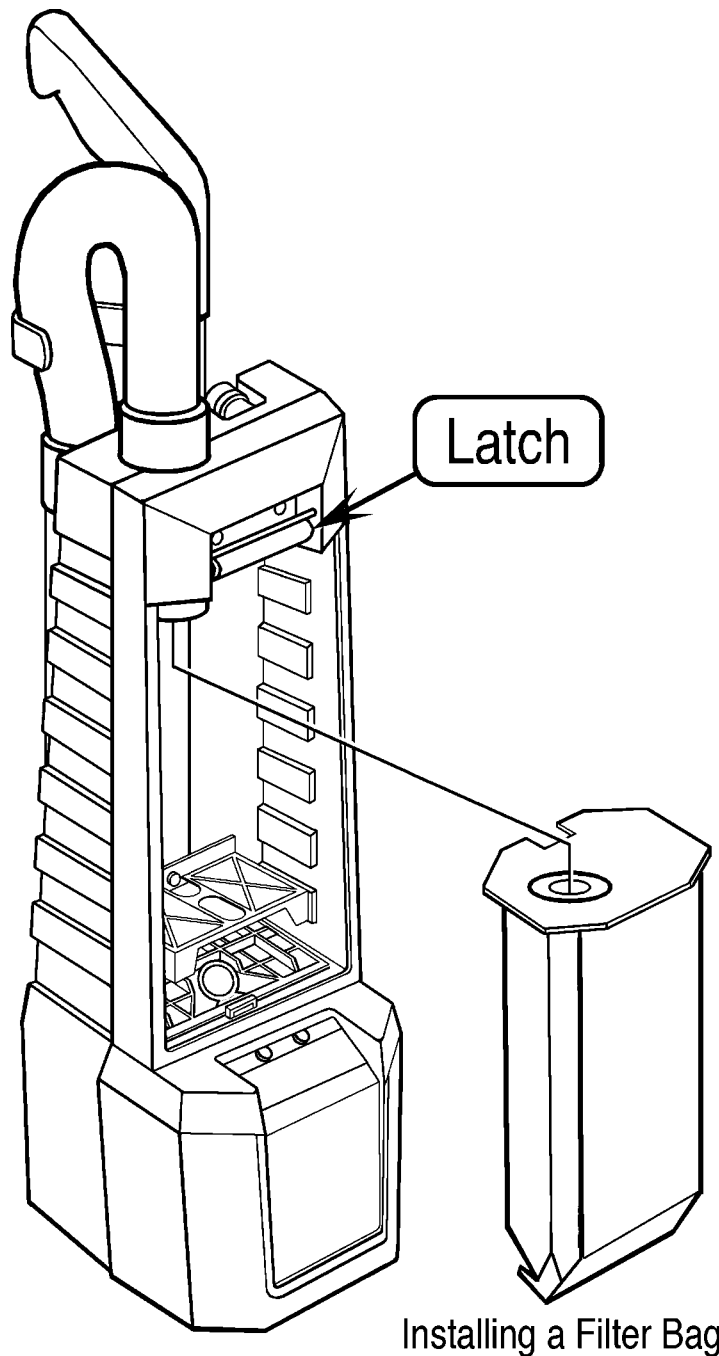
Extension cords connected to this machine should be 12 gauge, three-wire cords with three-prong plugs and outlets. DO NOT use extension cords more than 50 feet (15 m) long.



PREPARING THE MACHINE FOR USE

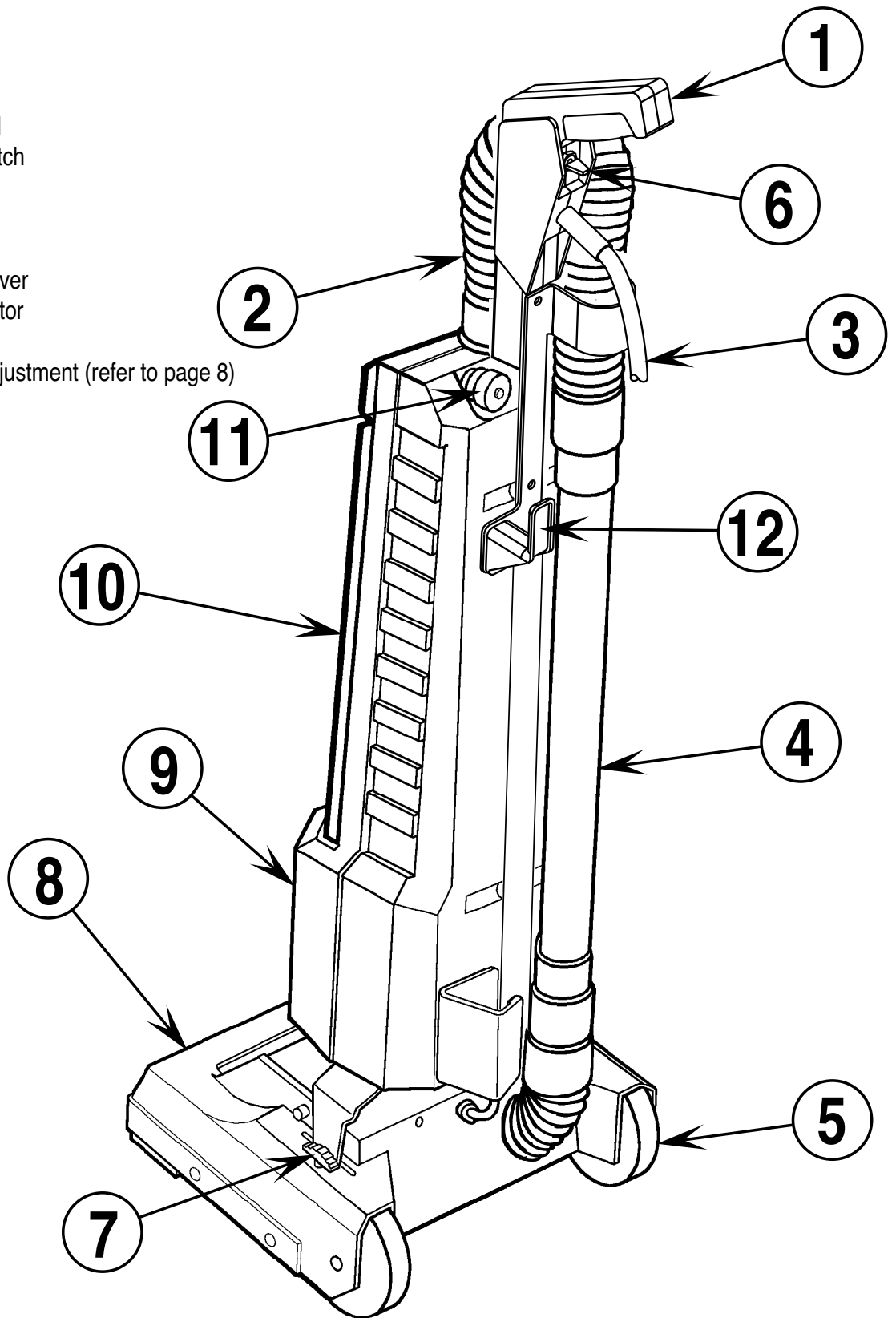
INSTALLING A FILTER BAG

- 1 Push in the Latch and remove the Bag Housing Cover. Install either a Cloth Filter Bag or a Paper Filter Bag.
- 2 Push the **Cloth Filter Bag's** rubber seal over the intake tube.
Expand the **Paper Filter Bag** by pulling out the pleats. Hold on to the cardboard square and push the filter bag's rubber seal onto the intake tube.
- 3 Install the Bag Housing Cover. Do not pinch the bag between the cover and the housing.



KNOW YOUR MACHINE

- 1 Handle
- 2 Vacuum Hose
- 3 Power Cord
- 4 Wand
- 5 Transport Wheel
- 6 Main Power Switch
- 7 Pedal
- 8 Brush Housing
- 9 Upper Housing
- 10 Bag Housing Cover
- 11 "Bag Full" Indicator
- 12 Cord Hook
- 13 Brush Height Adjustment (refer to page 8)



OPERATION

- 1 Plug the Power Cord (3) into a properly grounded outlet.
- 2 Step DOWN on the Pedal (7) and lower the Upper Housing (9) to a comfortable operating position.
- 3 Turn the Main Power Switch (6) ON.
- 4 Turn the Brush Height Adjustment Knob (13) one notch at a time to the point where the machine just starts to pull itself along. Low number settings are usually for low-pile carpet; higher number settings for deep pile carpet. Do not set the brush too low or the vacuum will be hard to push and vacuum efficiency will be reduced.
- 5 To vacuum under desks or beds, the Upper Housing may be lowered further by stepping on the Pedal again.
- 6 Change the bag whenever the "Bag Full" Indicator (11) shows red.
If the Indicator shows red before the bag is full, the inside of the bag may be coated with very fine dust, or debris may be built up somewhere between the brush and the Upper Housing.

USING THE WAND

The flexible Vacuum Hose and Wand make it easy to clean high surfaces and tight corners. To use the Wand, put the handle in the upright locked position. The brush motor will stop automatically. Remove the Wand from its holder at the back of the machine. Place the Wand back in its holder after use.



- 1 Unplug the Power Cord and wrap it around the Cord Hooks.
- 2 Turn the Brush Height Adjustment Knob to the HIGH setting to raise the brush off the floor during storage.
- 3 Check the Maintenance Schedule and perform any required maintenance before storage.
- 4 Store the machine indoors in a clean, dry place.

IMPORTANT!

Carbon motor brush service, or any service other than those mentioned in this manual, should be performed by an authorized service representative.

MAINTENANCE SCHEDULE

DAILY

- Check the Filter Bag
- Check the Brush for debris
- Check the Power Cord for damage

EVERY 3RD BAG CHANGE

- Clean Secondary Filter
- Clean Exhaust Filter

ONCE A YEAR

Have your Advance Dealer check the carbon motor brushes once a year or after 500 operating hours.

MAINTENANCE

⚠ CAUTION!

Unplug the Power Cord before performing any machine maintenance.

CHANGING THE FILTER BAG

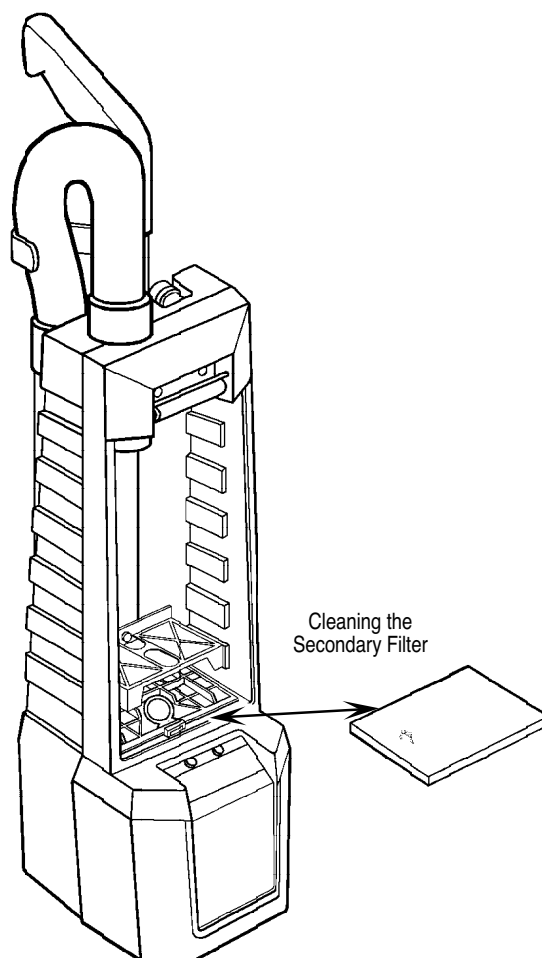
Check the Filter Bag daily to see that it is installed correctly. Change the bag whenever the Bag Full Indicator shows RED or if the bag is damaged or full. **To Change the Bag:**

- 1 Remove the Bag Housing Cover.
 - 2 Grasp the top of the filter bag, pull it downward and out of the housing.
 - 3 Discard the Paper Filter Bag. Empty the Cloth Filter Bag and clean it either by vacuuming or laundering when necessary. Make sure the bag is completely dry before using it again.
 - 4 Install a new Paper Filter Bag or the clean Cloth Filter Bag.
 - 5 Push the **Cloth Filter Bag's** rubber seal onto the intake tube.
Expand the **Paper Filter Bag** by pulling out the pleats. Hold on to the cardboard square and push the filter bag's rubber seal onto the intake tube.
 - 6 Close the bag housing. Do not pinch the bag between the cover and the housing.
-

CLEANING THE SECONDARY FILTER

The secondary filter catches dirt spilled from the bag before it can enter the vacuum motor. The filter is located just below the bag inside the Upper Housing. The filter should be cleaned every third time that the bag is changed (more often in very dusty applications). **To Clean the Secondary Filter:**

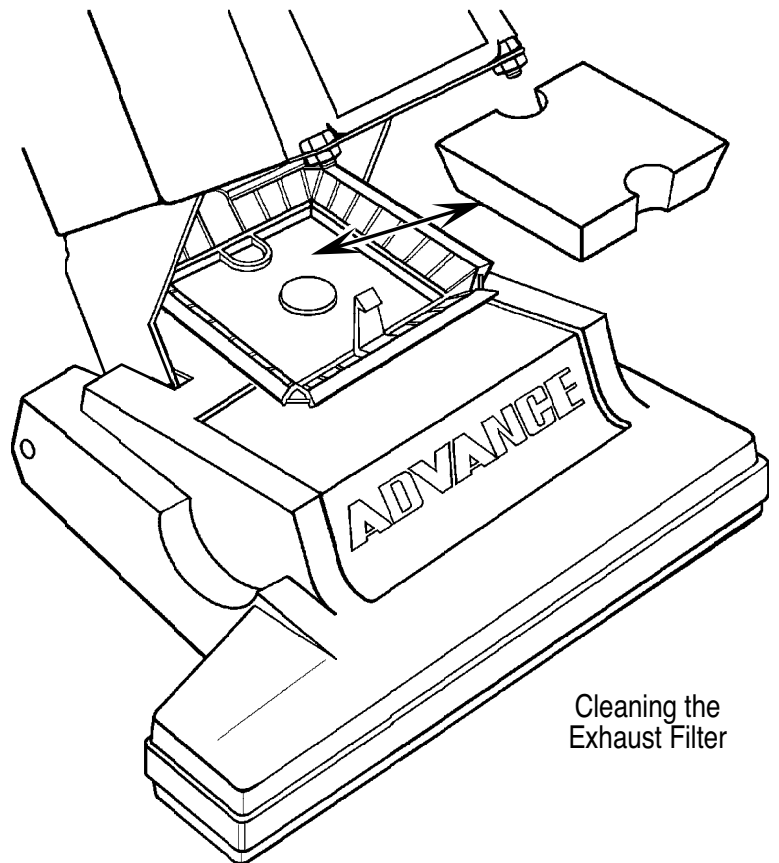
- 1 Remove the Bag Housing Cover.
- 2 Pull the filter holder ring UP and remove the filter.
- 3 Wash the foam filter in warm water. Let the filter dry completely before putting it back into the machine.



CLEANING THE EXHAUST FILTER

The exhaust filter cleans the air discharged from the vacuum motor. The filter is located just under the Upper Housing. The filter should be cleaned every third time that the bag is changed (more often in very dusty applications). **To Clean the Exhaust Filter:**

- 1 Step DOWN on the Pedal and lower the handle.
- 2 Pull the filter holder DOWN to open, and remove the filter.
- 3 Wash the foam filter in warm water. Let the filter dry completely before putting it back into the machine.



Cleaning the Exhaust Filter

SERVICING THE VACUUM MOTOR BRUSHES

Have your Advance Dealer check the carbon motor brushes once a year or after 500 operating hours.

⚠ IMPORTANT!

The motors will be ruined if they are run with worn-out brushes. This kind of motor failure is not covered by warranty.

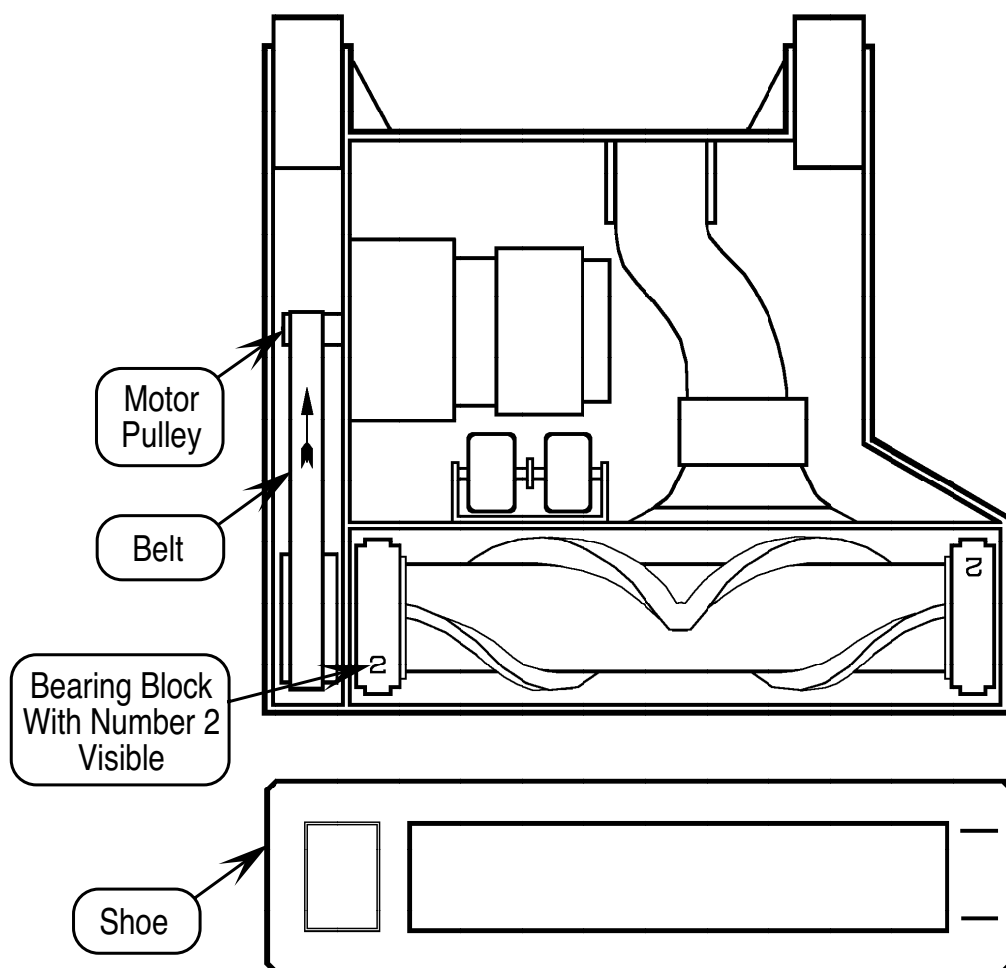
MAINTENANCE

CHANGING THE BRUSH / BELT

By turning the Brush Height Adjustment Knob, you can compensate for some normal brush wear. Rotating the Bearing Blocks allows you even more compensation. Change the brush when the brush bristles are worn to 1/4 inch (6 mm). **To**

Rotate the Bearing Blocks or Change the Brush:

- 1 Remove the bottom cover from the brush housing.
- 2 Remove the Shoe from the brush housing.
- 3 Look to the number visible on the bearing blocks. If the number showing is **2**, you can rotate the bearing blocks to number **1** and still have some brush wear left. Replace the brush if the number visible is **1**.
- 4 Stretch the Belt as you pull the Brush out of the Base.
- 5 Inspect the Belt and Motor Pulley, replace if necessary.
- 6 Rotate the Bearing Blocks so that number **1** is visible and install the Brush with the Belt. Or, install a new brush with the Belt so that number **2** is visible on the Bearing Blocks.
- 7 Install the Shoe and the bottom cover.



Changing the Brush or Rotating the Bearing Blocks

VACUUM MOTOR TROUBLESHOOTING

WARNING!

Unplug the power cord before attempting any service to the machine.

Poor Vacuum Pickup Possible Causes:

- Full filter bag
- Debris blockage in vac shoe opening and hoses
- Clogged vac secondary filter and exhaust filter
- Holes/cracks in wand and hose
- Broken brush belt

No Pick up - Vac Motor Stops Running:

- Vacuum motor needs service (worn carbon brushes and bearings)

Note: An internal thermo (heat sensing) over load device is built into the motor's electrical windings. This opens (stops) the circuit when the air flow needed for cooling is restricted. Try to determine the cause and correct it (troubleshoot the first 3 possible causes listed under poor vacuum pickup shown above). The thermo over load device will automatically reset when the motor is allowed to cool.

BRUSH MOTOR TROUBLESHOOTING

WARNING!

Unplug the power cord before attempting any service to the machine.

Brush Motor Stops Running:

- Debris wrapped around brush
- Brush height adjustment knob not adjusted properly
- Worn brush assembly bearings

Note Carpetwin 16XP Only: An internal current sensing circuit board is wired into the brush motor to protect the motor from both electrical and mechanical overloads. If an overload occurs and has caused the circuit protector to trip, unplug the power cord and investigate possible causes listed above. When the cause of the original problem is determined and corrected, reset the protector by turning the main switch OFF and then turning it back ON, this will automatically reset the protector. If the overload protector trips repeatedly, contact your local Advance dealer for service.



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