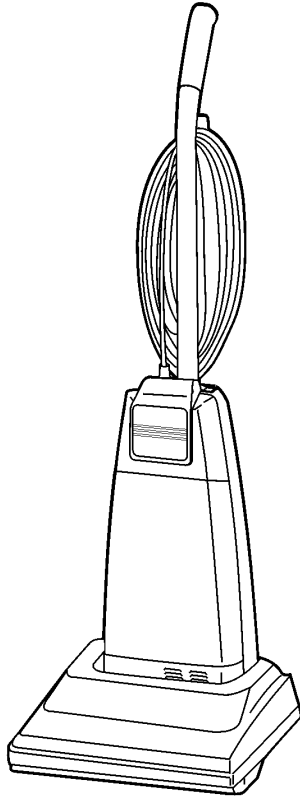


# Service Manual

Vacuum Cleaner

**MC-V5504-00**



<b>Model</b>	<b>MC-V5504-00</b>
<b>Power Source</b>	AC 120V (60 Hz)
<b>Power Consumption</b>	9.0 Amps
<b>Cord Length</b>	50 Ft.
<b>Motor Protector</b>	Yes
<b>Height Adjust</b>	Auto
<b>Weight</b>	14.5 lbs.

Specifications are subject to change without notice for further improvement.

## **⚠ WARNING**

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

**Panasonic®**

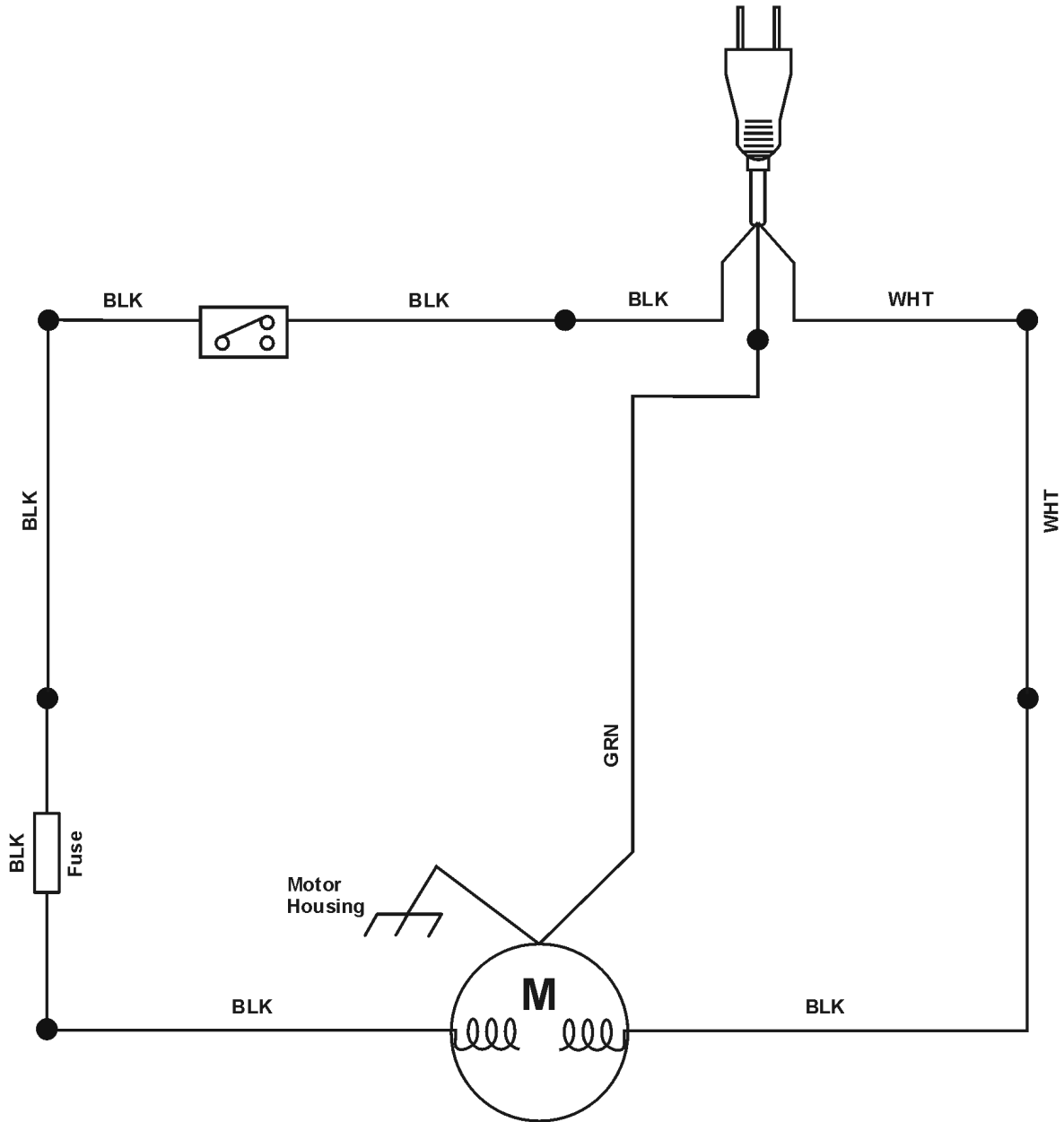
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# CONTENTS

	<b>Page</b>		<b>Page</b>
<b>1 WIRING DIAGRAM AND DRAWING</b> .....	<b>3</b>	3.2. Belt Replacement .....	11
1.1. Wiring Diagram .....	3	3.3. Agitator Assembly .....	11
1.2. PICTORIAL DIAGRAM .....	4	3.4. Nozzle Housing Replacement .....	12
<b>2 EXPLODED VIEW AND PARTS LIST</b> .....	<b>5</b>	3.5. Power Cord / On-Off Switch Replacement .....	13
2.1. Body .....	5	3.6. Hose Replacement .....	13
2.2. Motor Fan .....	7	3.7. Motor Replacement .....	13
2.3. Nozzle Housing .....	8	3.8. Motor Replacement .....	14
2.4. Packing Material .....	10	3.9. Carbon Brush Replacement .....	14
<b>3 REPLACEMENT INSTRUCTIONS</b> .....	<b>11</b>	3.10. Motor Fan .....	15
3.1. Lower Plate .....	11		

# 1 WIRING DIAGRAM AND DRAWING

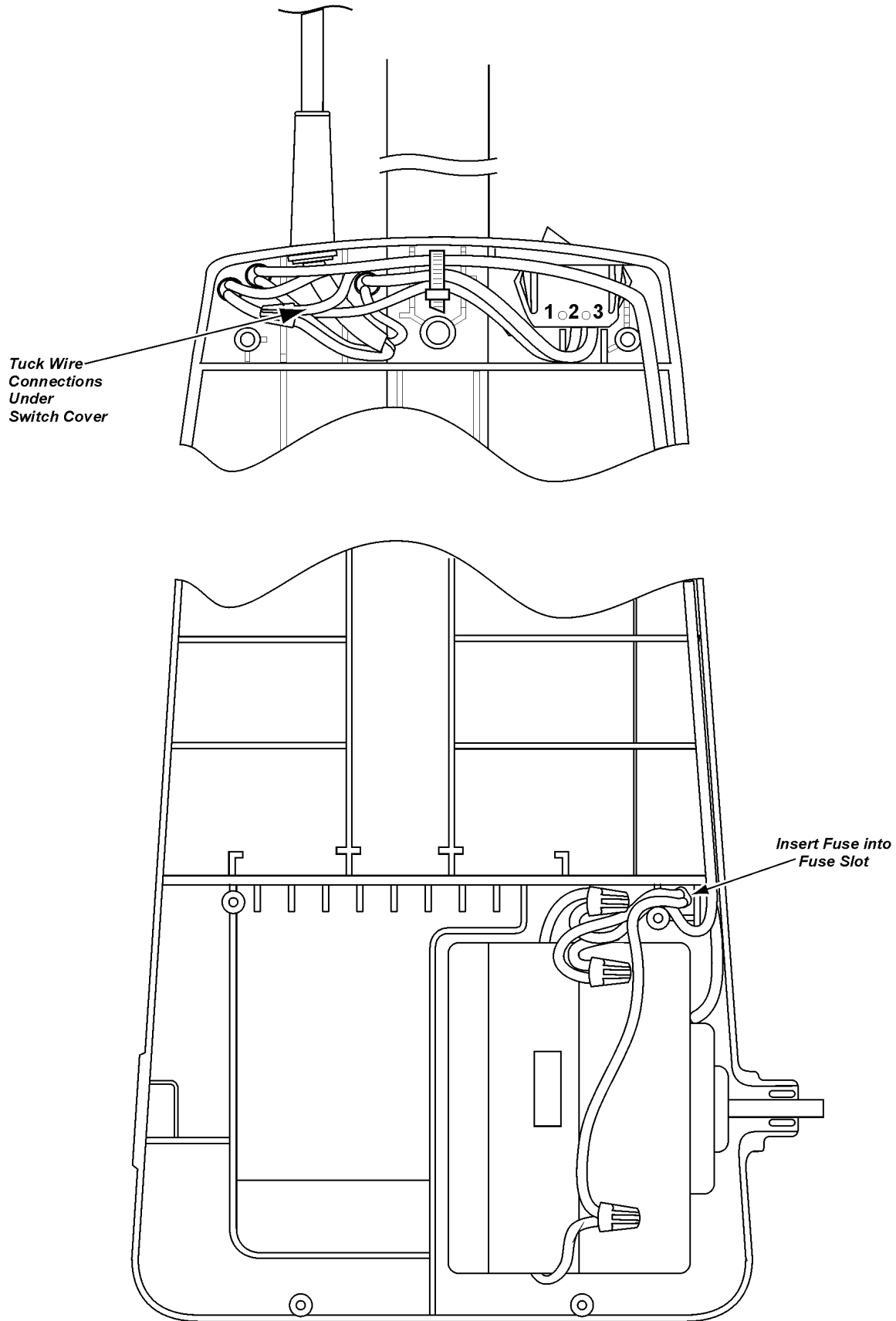
## 1.1. Wiring Diagram



## 1.2. PICTORIAL DIAGRAM

### NOTE:

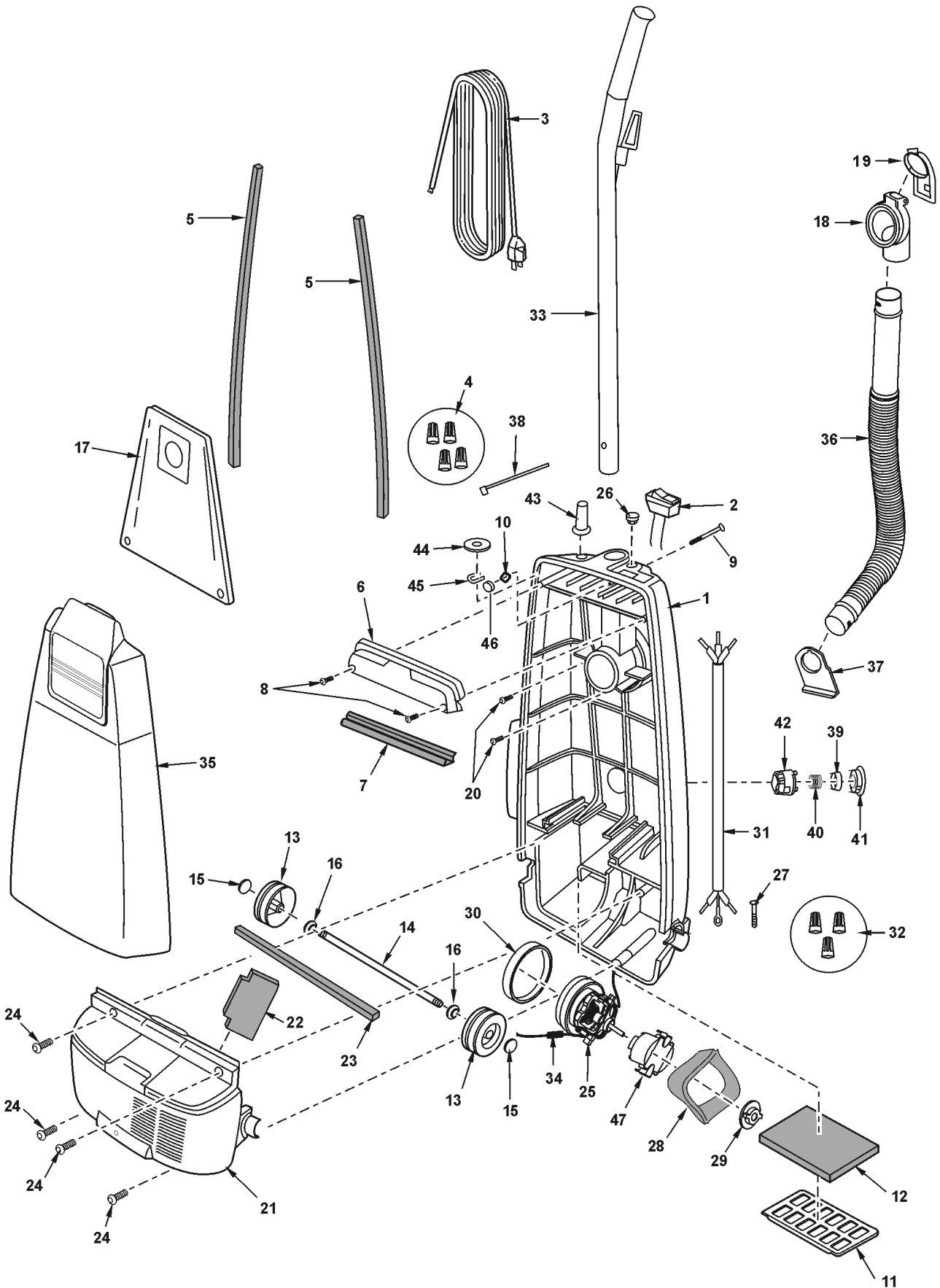
For general servicing, it is necessary to eliminate pinching of any wire during reassembly. After servicing any electrical component or electrical enclosure, the unit should be reassembled and checked for dielectric breakdown or current leakage.



# 2 EXPLODED VIEW AND PARTS LIST

## 2.1. Body

### 2.1.1. Exploded View

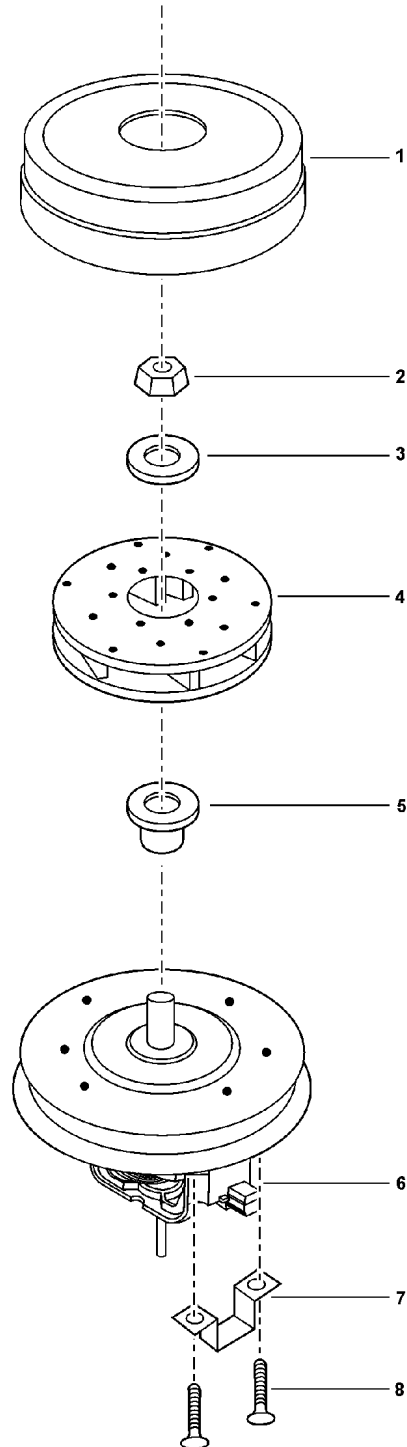


## 2.1.2. Parts List (Body)

Ref. No.	Part No.	Part Name & Description	Quantity	Remarks
1	AC88KARFZV07	Dust Compartment	1	Includes items 38,44,45 and 46
2	AC98EARFZ0U	ON/OFF Switch	1	Includes items 38 and 46
3	AC94EAPNZY02	Power Cord	1	Includes items 38,44,45 and 46
4	AMC-1CTCE23	Wire Connector	4	Shipped 10 per package
5	AC66KV01V06	Packing, Dust Container	2	
6	AC03EARFZV06	Switch Cover	1	Includes item 46
7	AC73KV0ZV06	Packing (Switch Cover)	1	
8	AXTN4+16BFY	Screw (Switch Cover)	2	Shipped 10 per package
9	AMC73B-V00	Handle Screw	1	
10	AMP21B-170	Nut (Handle Screw)	1	
11	AMC32K-V00	Filter Supporter	1	
12	AMC37K-V00	Secondary Filter	1	
13	AC01CV0ZVUB	Wheel	2	
14	AC16CUSZ00	Shaft, Roller	1	Shipped 10 per package
15	AC74SUSZ00	Stopper (Wheel)	2	
16	AXWG6E115FY	Washer (Wheel)	2	Shipped 10 per package
17	AC16KJYZ00	Dust Bag (Type U6)	1	
18	AC60HF74VU6	Suction Inlet	1	
19	AMC02H-F70E	Cover (Suction Inlet)	1	
20	AXTN4+16BFY	Screw (Suction Inlet)	2	Shipped 10 per package
21	AC09FAECZV07	Motor Case	1	
22	AMC02L-V00	Packing (Rear Cover)	1	
23	AC19FJPZV06	Packing (Motor Case)	1	
24	AXTN4+20BFY	Screw (Motor Case)	4	Shipped 10 per package
25	AC92FTEZ0U	Motor, Fan	1	
26	AC38HAPNZ0U	Cover Cap	1	
27	AXYN4+E10FFY	Screw, Ground	1	
28	AC99GAMMZ00	Noise Suppressor	1	
29	AMC03F-V00	Motor Support (Rear)	1	
30	AMC02F-E00	Motor Support Rubber (Front)	1	
31	AC37GTEZ0U	Wire Cord	1	
32	AMC-1CTCE23	Wire Connector	3	Shipped 10 per package
33	AC95BTEZVU7	Handle	1	Include cord storage hook
34	AC99WARGZ00	Lead Wire Assembly	1	
35	AC60KCMYZU03	Dust Cover	1	
36	AC34PV02V06	Hose	1	
37	AMC24P-2V0	Hose Supporter	4	
38	AMC596-702	Wire Tie	1	Shipped 10 per package
39	AC69KJMV06	Protector	1	
40	AC70KAECZY00	Protector Spring - Yellow	1	
41	AC18MJMV06	Protector Spring	1	
42	AC68KJMV06	Protector Case	1	
43	AC51E4GZU01	Rubber Protector	1	
44	AXWE10J223FE	Washer	1	
45	AC06WAPNZ00	Cord Retainer	1	
46	AC61LAGMZ00	Packing (Insulator)	1	
47	AC93FTEZ0U	Plastic Cover (Motor)	1	

## 2.2. Motor Fan

### 2.2.1. Exploded View

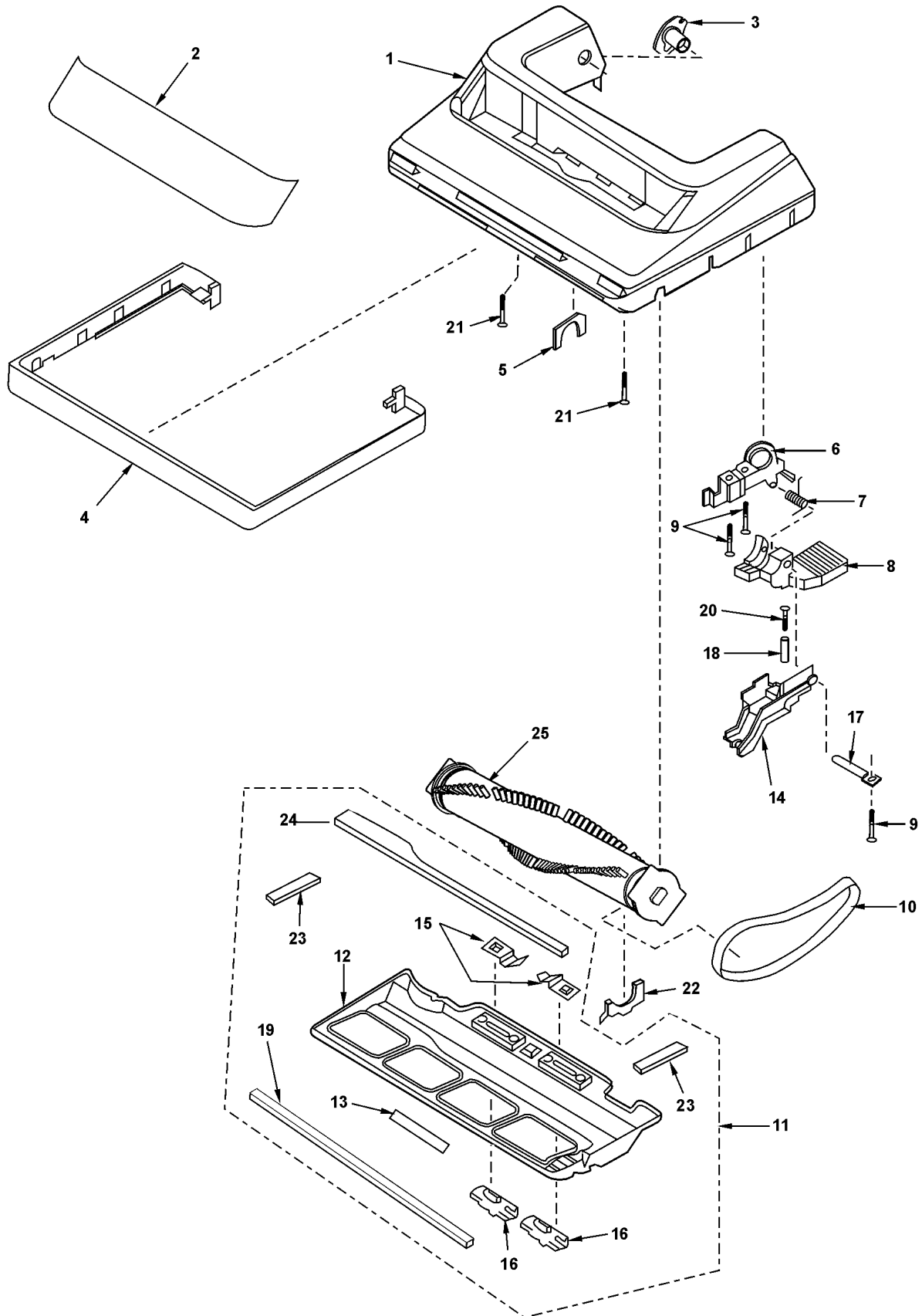


### 2.2.2. Parts List (Motor Fan Assembly)

Ref. No.	Part No.	Part Name & Description	Quantity	Remarks
1	AMC53F-AV00U	Fan Case	1	
2	AMC33F-AC00U	Nut	1	
3	AMC62F-AV00U	Washer	1	
4	AC98FRFZ00	Fan	1	
5	AMC60F-AV00U	Spacer	1	
6	AC27FRFZ00	Brush Assembly	1 (set)	
7	AC02DV3Z0U	Bracket	2	
8	AC40DV3Z0U	Screw	4	

## 2.3. Nozzle Housing

### 2.3.1. Exploded View



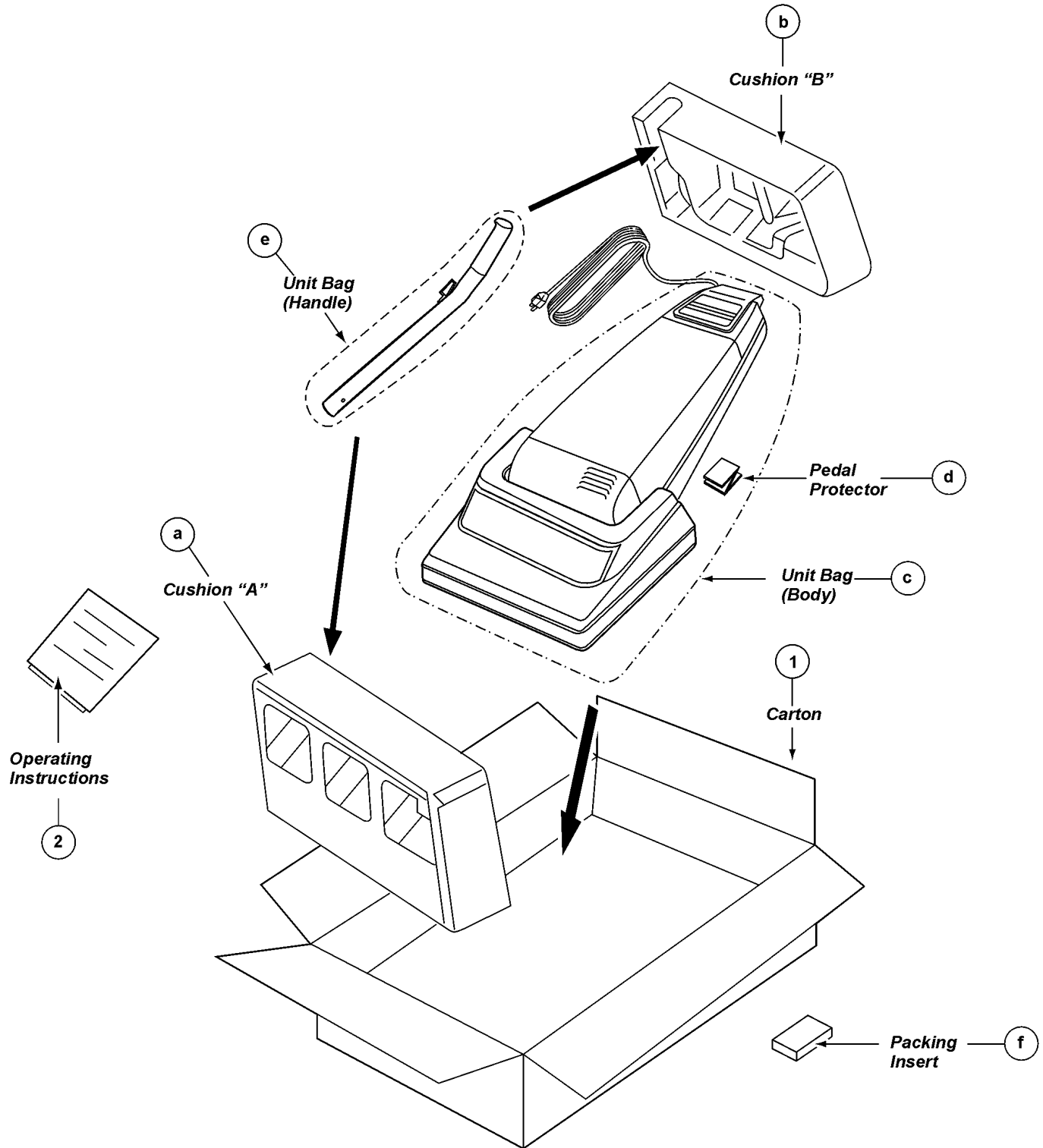


## 2.3.2. Parts List (Nozzle Housing)

Ref. No.	Part No.	Part Name & Description	Quantity	Remarks
1	AC01ACMYZU03	Nozzle Housing	1	Includes Item 4
2	AC21H2XZU03	Window	1	
3	AMC25S-V00	Shaft (Plastic)	1	
4	AC10A2VZV07	Furniture Guard	1	
5	AMC81A-V00	Packing (Nozzle)	1	
6	AMC43A-2V0	Frame	1	
7	AMC58A-2V0	Spring (Pedal)	1	Shipped 10 per package
8	AMC47A-2V0U	Pedal	1	
9	AXTN4+16BFY	Screw (Frame)	3	Shipped 10 per package
10	AC28SJPZ00	Belt	1	
11	AC91AARFZ00	Lower Plate Assembly	1	
12	AC27AARFZ00	Lower Plate	1	
13	AC07ZADFZ00	Warning Label	1	
14	AMC11S-2V0W	Belt Cover (Rear)	1	
15	AC70NYUZ00	Stop Latch Spring	2	
16	AMC68N-V30K	Latch	2	
17	AMC51A-2V0	Pedal Shaft	1	
18	AMC74S-Z100G	Spacer	1	
19	AC74AAAEZ00	Packing (Lower Plate Front)	1	
20	AXTN4+28BFY	Screw (Spacer)	1	Shipped 10 per package
21	AMC68A-V30	Screw (Nozzle)	2	Shipped 10 per package
22	AMC82A-2V0	Agitator Holder	1	
23	AMC39A-2V0	Packing (Lower Plate Sides)	2	
24	AMC74A-2V0	Packing (Lower Plate Back)	1	
25	AC84RBZDZ000	Agitator Unit	1	

## 2.4. Packing Material

### 2.4.1. Exploded View



### 2.4.2. Parts List

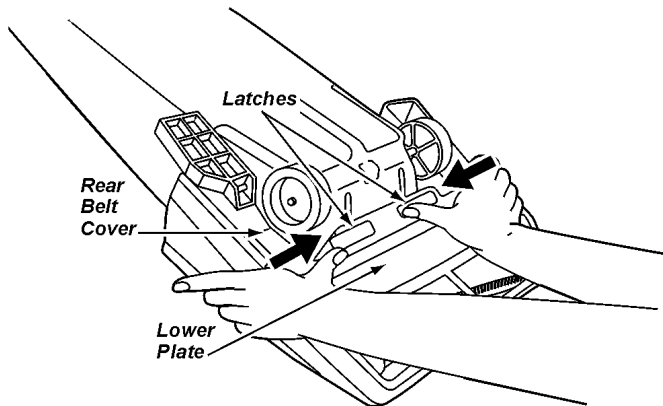
Ref. No.	Part No.	Part Name & Description	Quantity	Remarks
1	AC61ZCCA000	Packaging Assembly	1	Includes 1 and items a-g
2	AC01ZCMY000	Operating Instructions	1	

## 3 REPLACEMENT INSTRUCTIONS

### 3.1. Lower Plate

#### 3.1.1. Removal

1. Place handle in low position.
2. Turn the vacuum cleaner over exposing the underside. Release the lower plate by pressing the two (2) latches that secure it inward.
3. Separate the lower plate from the vacuum.



#### 3.1.2. Installation

1. Close the rear belt cover.
2. Hook the front of the lower plate into the slots on the front of the nozzle housing. Press the lower plate down into place.
3. Fasten the lower plate by pushing the two (2) latches outward.

**NOTE:** For general servicing, it is necessary to eliminate pinching of any wire during reassembly. After servicing any electrical component or enclosure, the unit should be reassembled and checked for dielectric breakdown or current leakage.

### 3.2. Belt Replacement

#### 3.2.1. Removal

1. Follow the removal instructions outlined in the AGITATOR ASSEMBLY REMOVAL/INSTALLATION section.

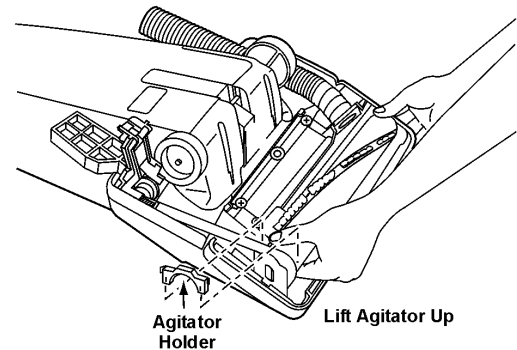
#### 3.2.2. Installation

1. Place the new belt around the motor shaft and follow the installation instructions in the AGITATOR ASSEMBLY REMOVAL/INSTALLATION section.

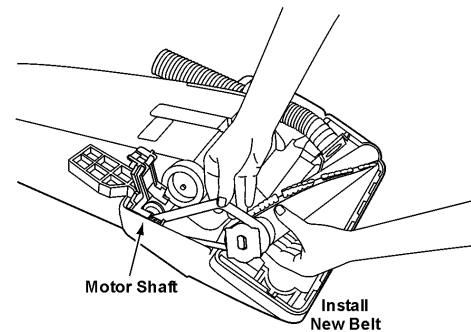
### 3.3. Agitator Assembly

#### 3.3.1. Removal

1. The brushes are not replaceable separately. When the brushes need replacing, the agitator assembly will have to be replaced.



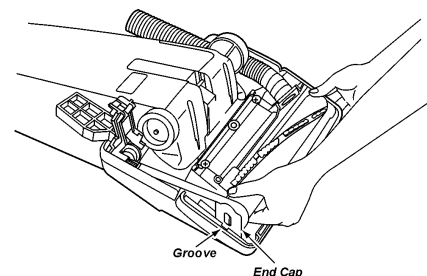
2. Carefully lift up on the agitator assembly until it clear both sides of the nozzle housing.



3. Remove the belt from the motor shaft by sliding it off between the end of the shaft and the nozzle housing.

#### 3.3.2. Installation

1. Place the belt around the motor shaft.

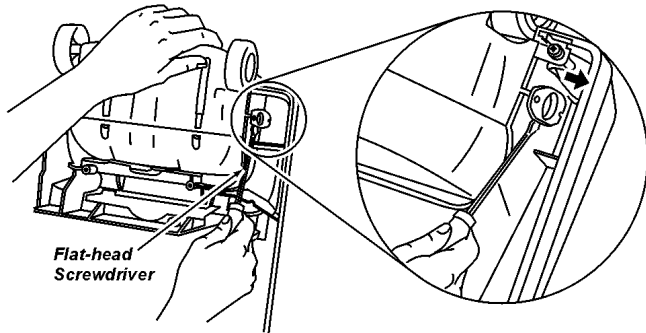


2. Place the belt around the agitator pulley on the agitator assembly.
3. Reassemble the new agitator assembly back into the nozzle housing by placing the side opposite the belt partially into the slot. The small tabs should be aligned with the nozzle. This will hold the agitator in place and leave both hands free to place enough tension on the belt to allow that side of the agitator to return to the nozzle housing slot.
4. Rotate the agitator assembly by hand to insure nothing rubs and to check for correct assembly.
5. Reassemble lower plate.

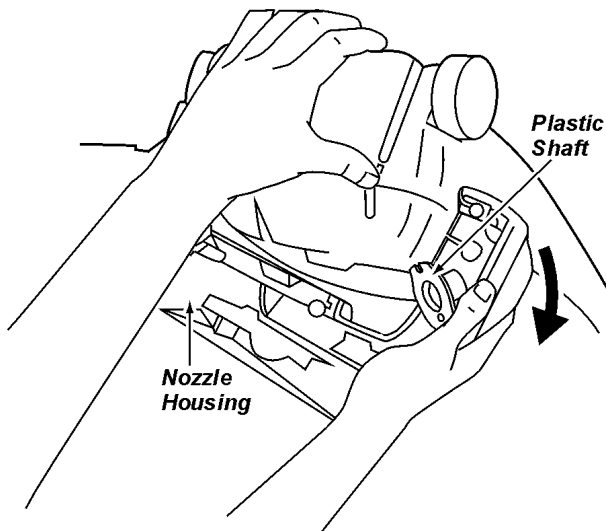
### 3.4. Nozzle Housing Replacement

#### 3.4.1. Removal

1. Remove the lower plate as outlined in the LOWER PLATE REMOVAL/INSTALLATION section.
2. Remove the belt and agitator assembly as outlined in the respective sections.
3. Remove the nozzle hose by pulling up on the hose to remove it from the nozzle housing. Pull the nozzle hose out of the back of the nozzle housing.



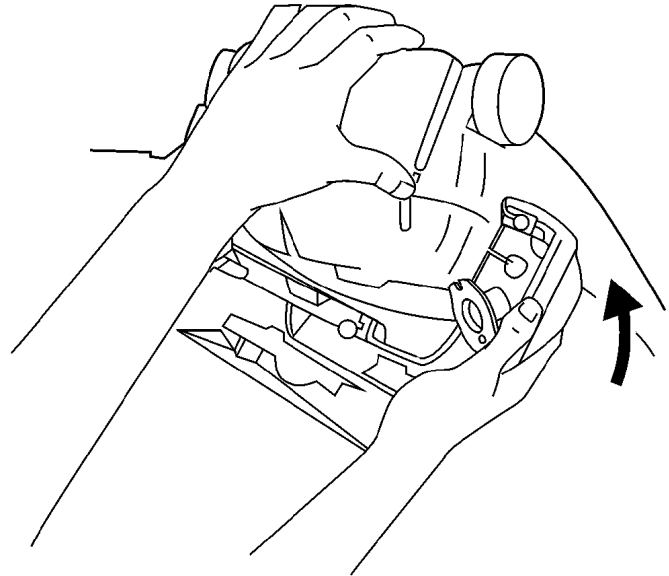
4. Insert a flat blade screwdriver between the nozzle housing and the plastic shaft. Pry out the plastic shaft as illustrated.



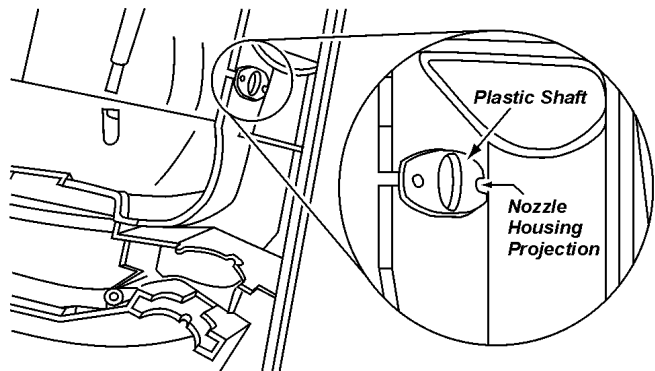
5. Remove the nozzle housing as illustrated.
6. Remove the nozzle packing, window and handle release assembly.

#### 3.4.2. Installation

1. Install the nozzle packing, if not already in place, window and handle release assembly in the new nozzle housing.
2. Fit the nozzle around the motor shaft side first, and rotate it into place on the dust container as illustrated.



3. Slide the plastic shaft through the nozzle housing and into the dust container. Make sure that the slot on the bottom of the plastic shaft is down and seated onto the projection.

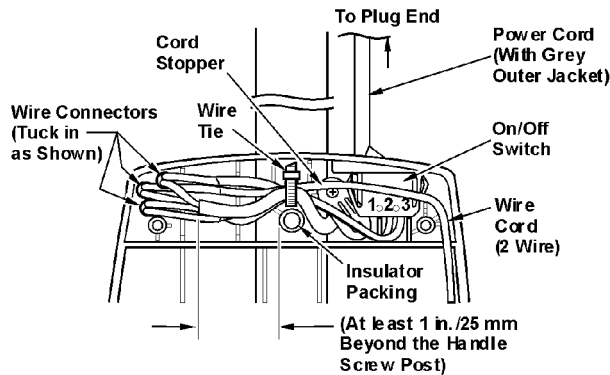


4. Reassemble the nozzle hose by inserting it into the nozzle housing. Push the nozzle hose down into the slot in the nozzle housing. Make sure that the tab on the hose supporter is inserted into the slot.
5. Install the belt, agitator assembly, and the lower plate according to the respective instructions.

## 3.5. Power Cord / On-Off Switch Replacement

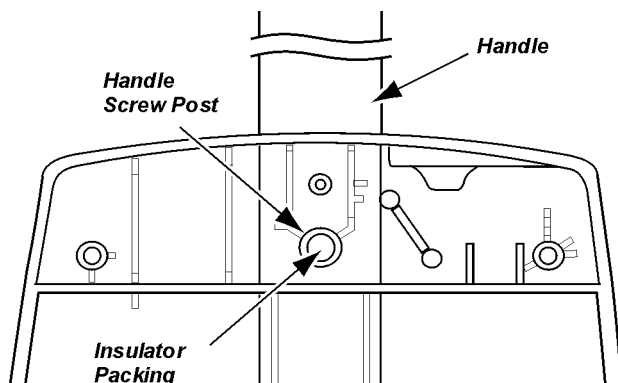
### 3.5.1. Removal

1. Remove the dust cover and switch cover to expose the electrical connections of the power cord, on-off switch and wire cord.
2. Pull the power cord into the dust compartment in order to remove the strain relief (for power cord replacement) by prying or cutting, remove the wire connections, and wire tie, if present.
3. Remove the on-off switch (for on-off switch replacement) by depressing the retaining tabs while pushing up and out of the dust compartment at the same time.
4. Pull the power cord out of the dust compartment (for power cord replacement).

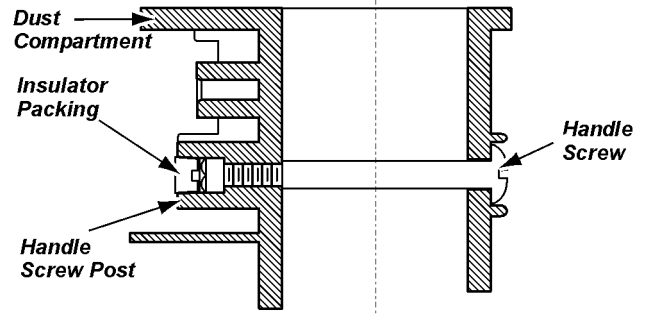


### 3.5.2. Installation

1. Insert the new power cord (power cord replacement only) into the dust compartment as far as necessary in order to place a new cord retainer in proper location on power cord. The proper location is approximately one and one eighth inches/thirty millimeters ( $1 \frac{1}{8}$ "/30 mm) of new power cord outer jacket extending past the cord retainer and washer. The washer goes between the cord retainer and the dust compartment. Attach wires with wire connectors according to the wiring diagram in the front of this manual. **ONLY USE A NEW CORD RETAINER, DO NOT REUSE A CORD RETAINER.**
2. For switch replacement only, insert the new ON/OFF switch with the numbers 1,2,3, facing toward you, into the dust compartment until secured by the retaining tabs. Use a wire tie in the location illustrated taking care not to overtighten it. Tuck the wire connectors back into the dust compartment as illustrated in the close-up view.



3. Ensure that the insulator packing is installed correctly.



4. Replace the switch cover, the two (2) switch cover screws, and the dust cover. Care should be taken not to pinch wires and make sure that the switch cover goes on easily and stays flat. If there is resistance to the switch cover lying flat and in place, stop, remove the cover and make sure that no wires are being pinched. **DO NOT USE A POWER SCREWDRIVER TO SECURE THE COVER.**

**NOTE:** For general servicing, it is necessary to eliminate pinching of any wire during reassembly. After servicing any electrical component or electrical enclosure, the unit should be reassembled and checked for dielectric breakdown or current leakage.

## 3.6. Hose Replacement

### 3.6.1. Removal

1. Remove the end of the hose from the tool holder and then remove the hose adapter by unscrewing it.
2. Remove the other end of the hose by depressing the two tabs which secure it to the back of the dust compartment.

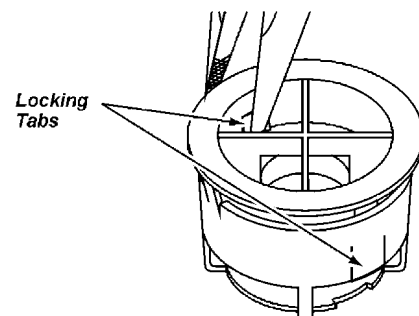
### 3.6.2. Installation

1. Install the new hose. Insert the hose adapter into the tool holder.
2. Install the new hose to the back of the dust container by pressing it into place until the tabs are securely locked into the dust compartment.

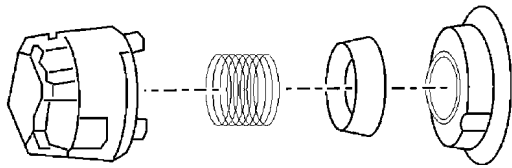
## 3.7. Motor Replacement

### 3.7.1. Removal

1. Remove the dust cover and dust bag.
2. Remove the motor protector by pushing in, one at a time, on the tabs that secure it to the dust compartment. Push the motor protector out the back of the dust compartment.
3. Once the motor protector has been removed it can be disassembled for replacement of parts.



### 3.7.2. Installation



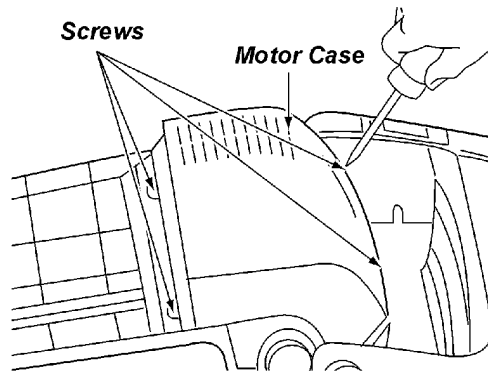
1. Reinstall the motor protector into the dust compartment by aligning the two tabs under the top flange with the slots in the dust compartment by applying pressure from the back of the vacuum until it snaps into place.
2. Install the dust cover by first ensuring all wiring is routed correctly so that no wires may be pinched during assembly.

**NOTE:** For general servicing, it is necessary to eliminate pinching of any wire during reassembly. After servicing any electrical component or electrical enclosure, the unit should be reassembled and checked for dielectric breakdown or current leakage.

## 3.8. Motor Replacement

### 3.8.1. Removal

1. Remove the dust cover by grasping the top near the on-off switch and pulling sharply out toward you.



2. Remove the lower plate, agitator assembly, belt, the plastic shaft, and the nozzle housing as instructed in the respective removal sections.
3. Turn the vacuum over to the front side.
4. Remove the four (4) screws from the motor case and then remove the motor case.
5. Disconnect the motor leads and remove the motor. Remove the motor support rubber (rear), noise suppressor, and the motor support rubber (front). Place these items on the new motor.

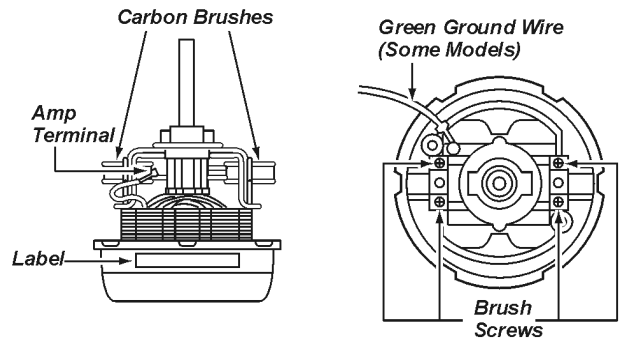
### 3.8.2. Installation

1. Place the motor back into the dust compartment with brushes aligned parallel to the front edge of the dust compartment.
2. Rewire per the Pictorial Diagram.
3. Replace the motor case and the four (4) screws.
4. Turn the vacuum back over and replace the plastic holder, thick side out, plastic shaft, light bulb assembly, nozzle housing, belt, agitator assembly, and lower plate according to the respective installation instructions.

## 3.9. Carbon Brush Replacement

### 3.9.1. Removal

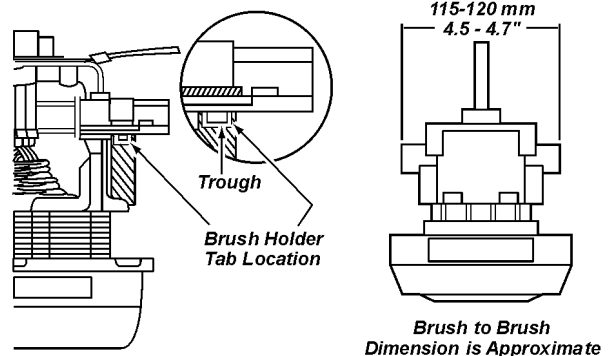
1. After removing the motor, see MOTOR REPLACEMENT, make sure that you have properly identified it.



2. Remove the amp terminals located on each brush end. Replace the brush assembly which should include the brush holder. Reinstall the amp terminals onto the new brush assembly. Complete brush change on one side before starting on the other side.

**NOTE:** Do not drop screws into the motor.

3. There are two (2) brushes located on the motor as identified. A phillips head screwdriver will be required to remove the four (4) screws that hold the brush holder onto the motor.



**NOTE:** When inserting the brush assembly, be sure that the TAB on the bottom of the brush holder is positioned in the trough as shown.

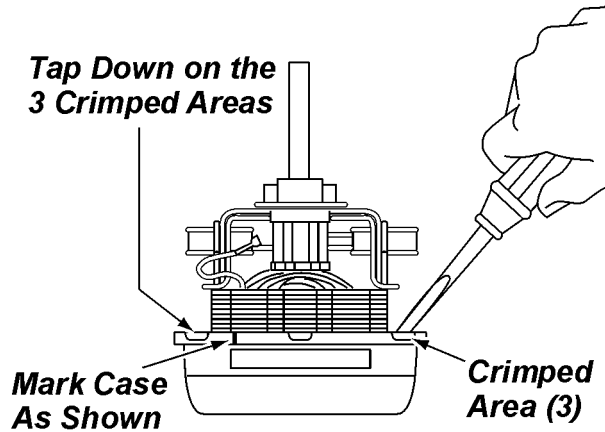
### 3.9.2. Installation

1. Replace the brush holder bracket with two (2) Phillips screws on each side of the motor.
2. As a final check to assure proper installation of brushes, measure across the brushes for the approximate dimension as shown.

### 3.10. Motor Fan

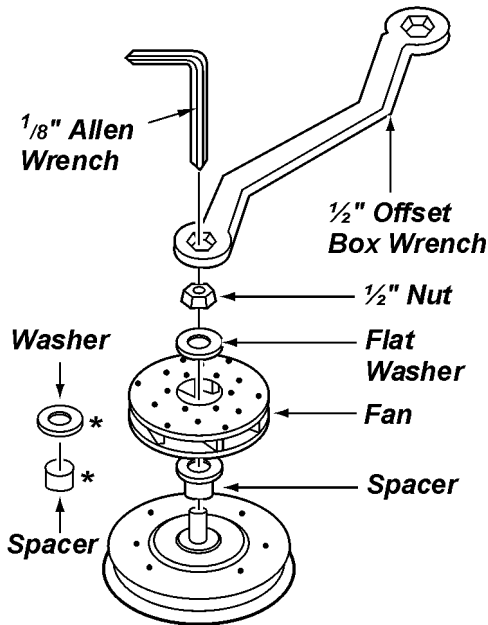
#### 3.10.1. Removal

1. Mark the position of the fan case's location on the motor with a pencil, or score it with a sharp object before disassembly. This will aid you in reassembling the fan case.



2. The fan case has three (3) crimped sections on it to hold the case onto the motor. These will have to be straightened by using a pair of needle nose pliers and by tapping out on the crimp area with a flat blade screwdriver. Be sure and straighten all three (3) crimped area. Remove the fan case from the motor unit.
3. Tools required to remove the fan from the shaft will be a 1/8 - inch Allen wrench, a 1/2 -inch offset box wrench, torque wrench, and a hammer.

**NOTE: Be careful when handling the sheet metal parts as there could be sharp edges. Do not scratch or bend the motor shaft. Scratches will cause belt breakage during operation.**

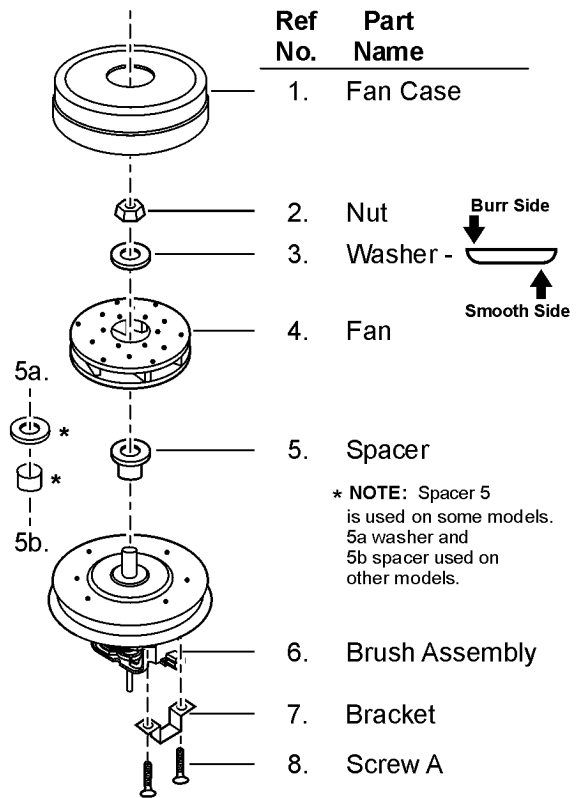


4. Place the 1/2 - inch box wrench over the 1/2 -inch hex nut that holds the fan onto the motor shaft. While holding the wrench on the nut, place the 1/8 -inch Allen wrench into the end of the motor shaft and loosen the nut while holding the Allen wrench still. The nut will have to be turned clockwise as it is a left-hand thread. After removing the nut, remove

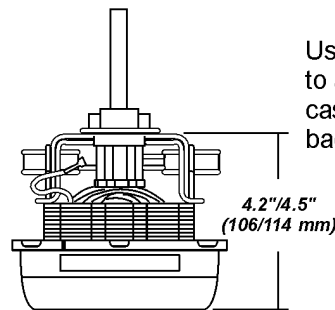
the fan. There is a spacer left on the motor that is not required to be removed. If spacer is removed, reassemble per exploded view.

#### 3.10.2. Installation

1. Place the new fan onto the motor shaft, making sure that the spacer is still on the motor. The large diameter hole, approximately 1 1/8-inch, will be on the top of the fan as you install it.
2. Install the flat washer with the burr side of the washer facing away from the fan. Screw the nut onto the motor shaft, turning it counterclockwise, left-hand threads, and torque to 20-30-inch pounds. Be sure to hold the motor shaft by placing the 1/8-inch allen wrench into the motor shaft end while torquing the nut.
3. Align your marks on the fan case as you put the fan case back on and tap around the case uniformly. Tap the three (3) crimped areas over and then use a flat blade screwdriver to re-crimp them.



4. See illustration for reassembly specifications.



Use these specifications to assure that the fan case has been tapped back to the original position.

These measurements are approximate.