RICCAR®

Ultra Lite Weight Vacuum Service Manual

RSL1 RSL1A RSL1AC RSL2 RSL3 RSL3C RSL4 RSL5 RSL5C

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

1. Do not leave vacuum unattended when plugged in. Unplug from outlet when not in use and before servicing.

2. Do not attempt to service the unit while vacuum is plugged in.

3. WARNING: ELECTRIC SHOCK COULD OCCUR IF USED OUTDOORS OR ON WET SURFACES.

4. Do not allow to be used as a toy. Close attention is necessary when used by or near children.

5. Use only as described in this manual. Use only manufacturer's recommended attachments.

6. Do not use with damaged cord or plug. If vacuum is not working as it should, has been dropped, damaged, left outdoors, or dropped into water, return it to a service center.

7. Do not pull or carry by cord, use cord as a handle, close a door on cord, or pull cord around sharp edges or corners. Do not run vacuum over cord. Keep cord away from heated surfaces.

8. Do not unplug by pulling on cord. To unplug, grasp the plug, not the cord.

9. Do not handle plug or vacuum with wet hands.

10. Turn off all controls before unplugging.

11. 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.

12. Keep hair, loose clothing, fingers and all parts of body away from openings and moving parts.

13. Do not pick up anything that is burning or smoking, such as cigarettes, matches or hot ashes.

14. Do not use without vacuum bag and/or filters in place.

15. Use extra care when cleaning on stairs.

16. Do not use to pick up flammable or combustible liquids such as gasoline or use in areas where they may be present.

17. For grounded models, connect to a properly grounded outlet only. See Grounding Instructions.

I. Basic Assembly and Operation

A. Parts Identification

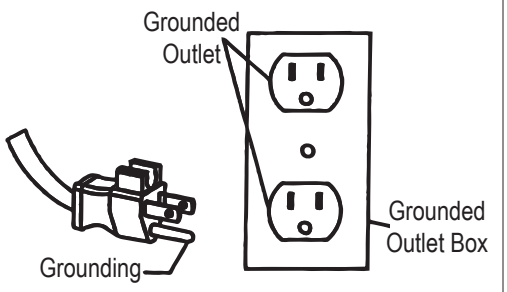
I. Basic Assembly and Operation

B. Grounding Instructions

This vacuum 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 vacuum 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.

This vacuum is for use on a nominal 120 volt circuit and has a grounding attachment plug that looks like the plug illustrated in Figure *B. Grounding*. Make sure that the vacuum is connected to an outlet having the same configuration as the plug. No adapter should be used with this vacuum.

Figure B. Grounding



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 vacuum. If it will not fit the outlet, have a proper outlet installed by a qualified electrician.

C. General Performance

- Keep machine and all accessories clean and in good operating condition.
- Change vacuum bags and filters as recommended to maintain optimum cleaning efficiency.
- Always use genuine bags, belts and parts, as use of other products may result in poor cleaning or filtration performance. Tacony filtration products are designed for maximum performance.
- Have machine checked periodically by the retailer
- Store machine carefully in dry area.

I. Basic Assembly and Operation

D. Installing the Handle

The vacuum cleaner and the handle are packed seperately. To assemble handle:

1. Remove the two handle bolts located at the top of the upper handle duct (Fig. A.)
2. Remove the handle tube bracket. (Fig. B)
3. Line up the handle tube with the posts in the upper handle duct (Fig. C)
4. Secure the handle tube bracket over the handle tube with the two handle bolts (Fig. D)

Fig. A

Fig. B

Fig. C

Fig. D

I. Basic Assembly and Operation

E. Operation

On/Off Switch

RSL1, RSL1A, RSL1AC: To turn the vacuum on press the foot switch on the nozzle (Fig. A)

RSL2, RSL3, RSL3C: Press the switch in the handle to the I position.

RSL4, RSL5, RSL5C: To Turn the vacuum on low speed, push the handle switch to the (I) position.

To turn the vacuum on high speed, push the handle switch to the (II) position.

To turn the vacuum off, push the handle switch to the (O) position. (Fig. B)

How to Lower the Handle

To release the handle, step on the left rear corner of the vacuum cleaner (Fig. C) and pull back on the handle (Fig. D.)

Fig. A

Fig. B

Fig. C

Fig. D

I. Basic Assembly and Operation

E. Operation (continued)

Cicuit Breaker Protector (Not applicable to RSL5 and RSL5C)
Your vacuum cleaner comes equipped with a Manual Reset Circuit Breaker Protector. This circuit breaker is designed to protect your vacuum cleaner from damage due to an obstruction in the agitator or motor fan. Should this situation occur, the circuit breaker protector will safely shut off your vacuum cleaner to avoid any potential damage.

To reset the circuit breaker:

CAUTION: Unplug the vacuum cleaner before servicing.

1. Check for problem (obstruction or clog in agitator or motor fan.)
2. Correct problem.
3. Locate “tripped” breaker — the small black rocker switch located on the back side of the nozzle housing. (Fig. A)
4. Push the reset button.
5. Plug vacuum cleaner in and begin using again.

Fig. A

II. Maintenance

A. How to Change the Vacuum Bag

1. Always operate the vacuum cleaner with a vacuum bag installed.
2. Unplug the vacuum cleaner.
3. Unzip the cloth outer bag.
4. Remove the old bag by pressing the tab as shown. (Fig. A)
5. Close the inlet of old the bag by pulling the cardboard tab as shown. (Fig. B)
6. Install the new vacuum bag. Be sure the bag collar is tucked behind the tabs as shown. (Fig. C)
7. Then press the top of the bag collar into place until the bag holder tab catches it as shown. (Fig. D)
8. Zip the cloth bag closed.

Fig. A

Fig. B


Fig. C

Fig. D

II. Maintenance

B. Removing Nozzle Cover

CAUTION: Unplug the vacuum cleaner before servicing.

1. Release the nozzle and flip the vacuum over so the bottom plate is showing.
2. Remove the two screws holding the nozzle cover on.(Fig. A)
3. Release the two tabs located at the rear of the nozzle and remove the nozzle cover. (Fig. B)
4. Flip the machine back over and lift the nozzle cover off. (Fig. C)

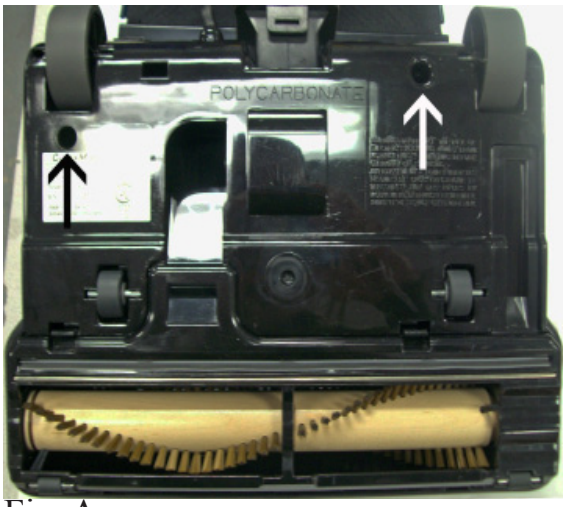


Fig. A


Fig. B

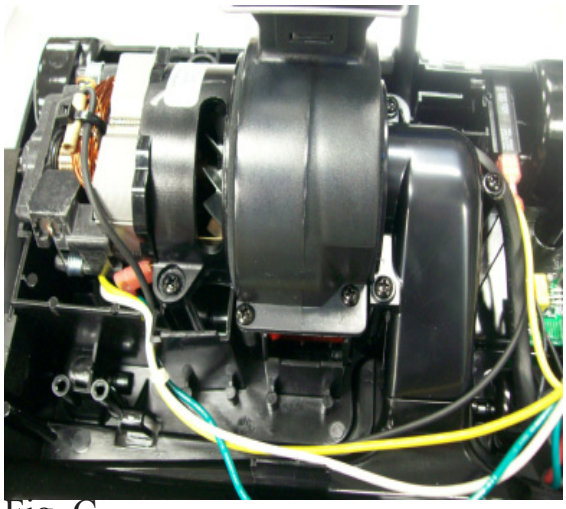


Fig. C

II. Maintenance

C. Replacing the Belt (RSL1, RSL1A, RSL1AC, RSL2, RSL3, RSL3C, RSL4)

CAUTION: Unplug the vacuum cleaner before servicing.

1. Release the nozzle and flip the vacuum over so the bottom plate is showing.
2. Remove the baseplate by pressing the two tabs and pulling down. (Fig. A)
3. Remove the agitator.
4. Remove the nozzle cover as shown on page 10, *II. Maintenance, B. Removing Nozzle Cover*
6. Discard the old belt and place the new belt around the motor shaft. (Fig. B)
7. Loop the belt around the agitator and replace the agitator as shown. (Fig. C)

   NOTE: Make sure the agitator end caps are both turned the same way. The flat side should be facing the baseplate unless the brushes are well worn. If the brushes are worn down, place the flat side of the endcaps down into the nozzle housing to increase cleaning performance and extend the life of the brushroll. (Fig. D)
8. Reinstall the baseplate into the nozzle housing.
9. Replace the nozzle cover making sure the tabs are locked in and replace the two screws.

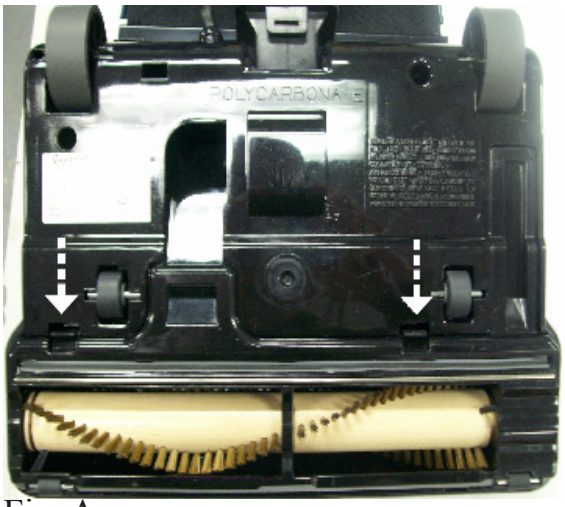


Fig. A

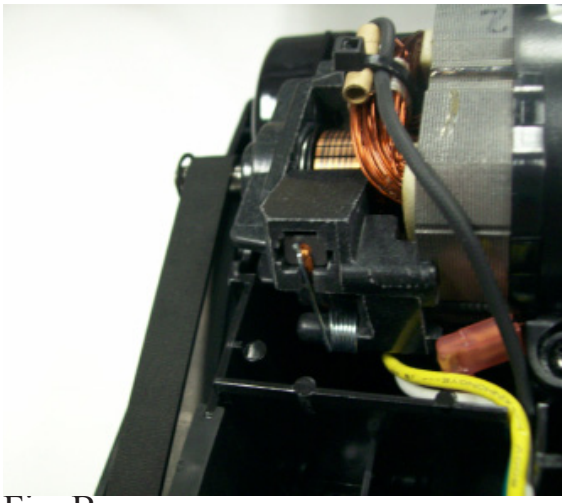


Fig. B


Fig. C


Fig. D

II. Maintenance

C. Replacing the Belt (RSL5, RSL5C)

CAUTION: Unplug the vacuum cleaner before servicing.

1. Remove the nozzle cover as shown on page 10, *II. Maintenance, B. Removing Nozzle Cover*
2. Release the nozzle and flip the vacuum over so the bottom plate is showing.
3. Remove the baseplate by pressing the two tabs and pulling down. (Fig. A)
4. Remove the agitator.
5. Discard the old belt and place the new belt around the motor shaft.(Fig. B)
6. Loop the belt around the agitator and roll the agitator into place as shown. (Fig. C and D)

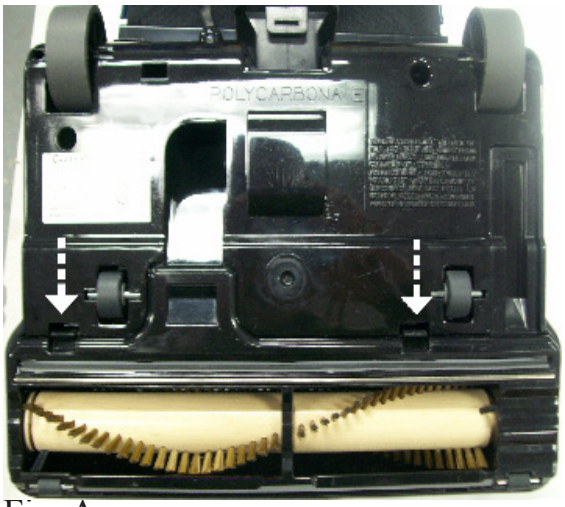


Fig. A

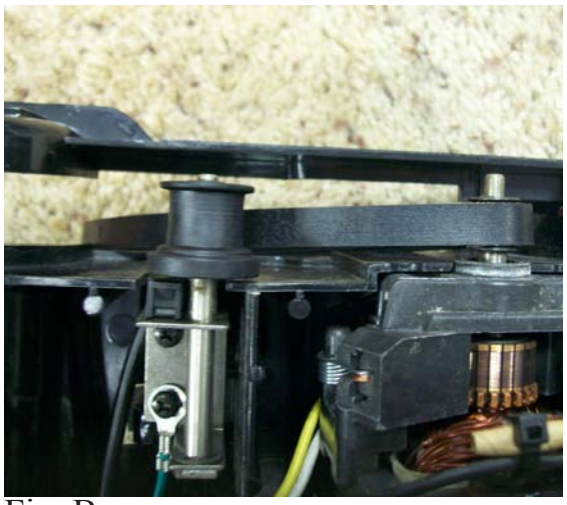


Fig. B


Fig. C


Fig. D

II. Maintenance

D. Replacing the Squeegee (RSL4, RSL5, RSL5C)

CAUTION: Unplug the vacuum cleaner before servicing.

1. The squeeegee is located on the baseplate cover (Fig. A)
2. Remove the cover by pressing on the two tabs
3. Flip the baseplate over. There are 5 small openings on the underside (Fig. B)
4. Insert a small screwdriver through the openigs to push the squeegee out of the baseplate cover (Fig. C)
5. Filp the baseplate cover back over. Press the new squeegee into the groove in the baseplate. It may be necessary to use a small screwdriver to press it into place. (Fig. D)

Fig. A

Fig. B

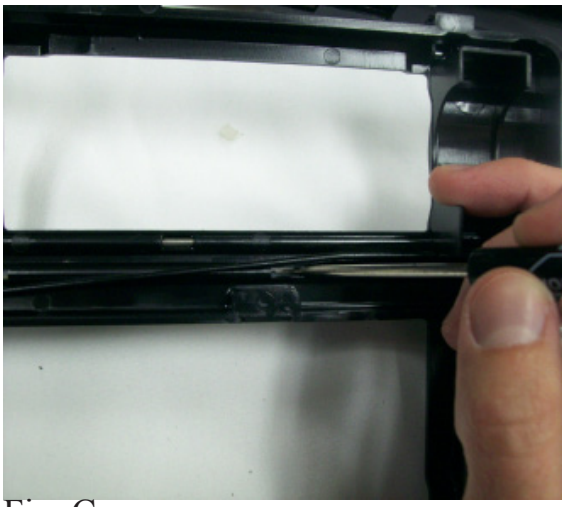


Fig. C

Fig. D

II. Maintenance

E. Replacing the Wheels

CAUTION: Unplug the vacuum cleaner before servicing.

1. Use a large flat screw driver to pop out the old wheel as shown. (Fig A)
2. Remove wheel from axle and slide new wheel onto axle. (Fig. B)
3. Press the wheel into place until both sides of the axle lock intothe base tray. It may be necessary to use a screwdriver to press the axles into place. (Fig. C)

Fig. A

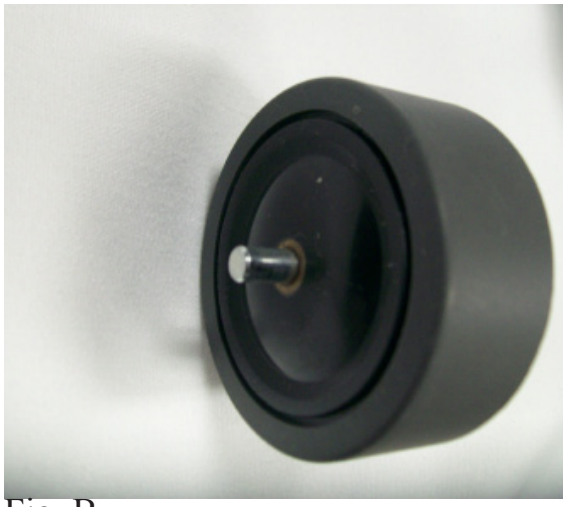


Fig. B

Fig. C

II. Maintenance

F. Replacing the Power Cord (RSL1, RSL1A, RSL1AC)

CAUTION: Unplug the vacuum cleaner before servicing.

1. Remove the nozzle cover as shown on page 10, *II. Maintenance, B. Removing Nozzle Cover*
2. Remove the screw and strain relief washer holding the power cord in place. (Fig. A)
3. Disconnect the power cord leads. (Fig.B and C)
4. Rewire power cord. White wire is crimpled with white wire from motor. Black wire goes to circuit breaker. For assistance, see wire diagram on page 28.
5. Loop power cord as shown (Fig. D) and reinstall screw and retaining washer.
6. Replace nozzle cover.

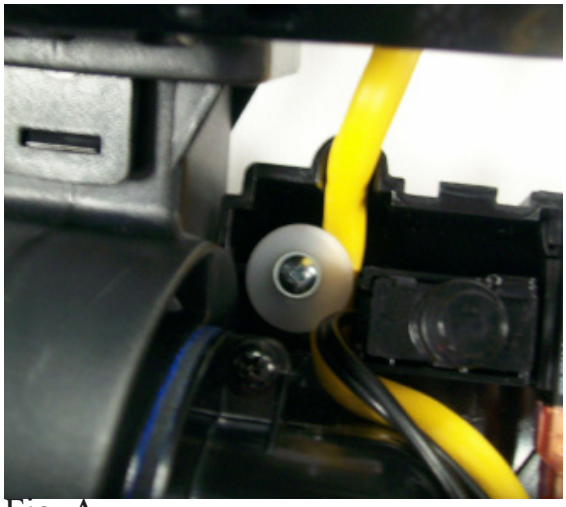


Fig. A

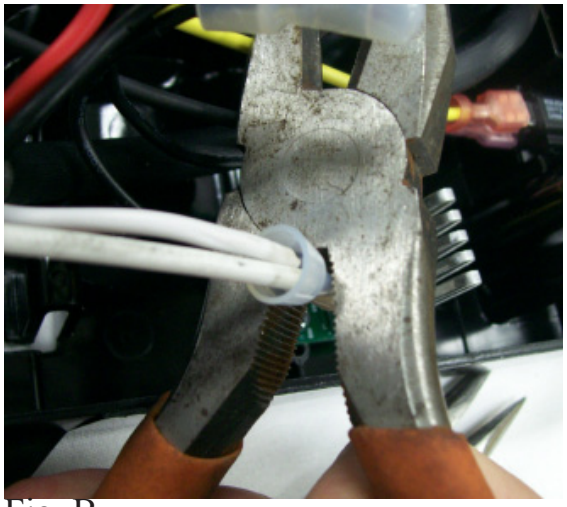


Fig. B

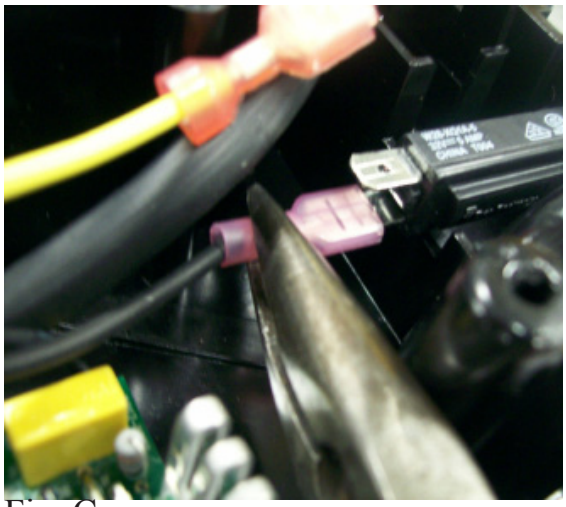


Fig. C

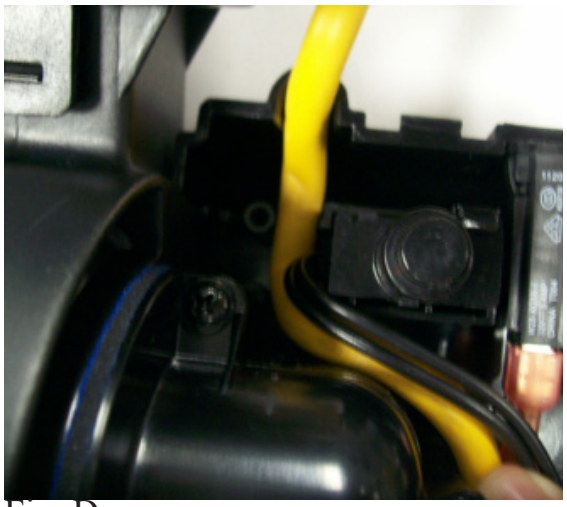


Fig. D

II. Maintenance

F. Replacing the Power Cord (RSL2, RSL3, RSL3C, RSL4, RSL5, RSL5C)

CAUTION: Unplug the vacuum cleaner before servicing

1. Remove the upper cord hook screw (Fig. A)
2. Remove the (4) screws from the handle grip. (Fig. B)
3. Remove the upper cord hook and handle back and slide grip out of handle tube (Fig. C)
4. Separate grip to expose wiring.(Fig. D)

(Continued on next page)

Fig. A

Fig. B

Fig. C

Fig. D

II. Maintenance

F. Replacing the Power Cord (RSL2, RSL3, RSL3C, RSL4, RSL5, RSL5C)

5. Disconnect the power cord leads from the switch and uncrimp from motor cord. (Fig.A)
6. Discard old cord
7. Connect the new power cord leads to the switch and motor cord (See wiring diagrams on pages 33-35
8. Put handle grip back together being careful not to pinch any wires and slide the grip into the handle tube.Let the switch hang out of the opening. (Fig A)Do not put the screws in at this time
9. Line up the hole in the cord strain relief with the hole in the handle tube and the handle back.(Fig.B)
10. Insert the top of the handle back into the grip, line up the holes, and replace the cord hook and cord hook screw. (Fig C)
11. Put (4) screws back into handle grip. (fFig. D) Be sure the short screw goes in the uppermost part of the handle.
12. Press the switch back into place

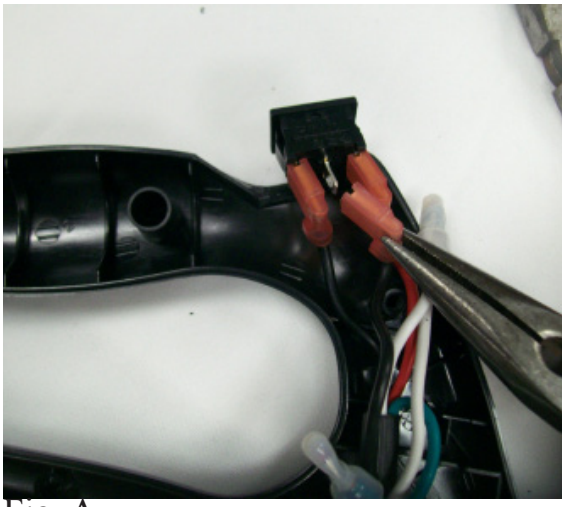


Fig. A

Fig. B

Fig. C

Fig. D

II. Maintenance

F. Replacing the Power Cord (RSL2, RSL3, RSL3C, RSL4, RSL5, RSL5C cont.)

13. Remove the nozzle cover as shown on page 10, *II. Maintenance, B. Removing Nozzle Cover*
14. Remove the screw and washer holding the motor cord in place (Fig. A.)
14. RSL2/RSL3/RSL4: Remove the crimp nuts holding the motor cord wires by squeezing them with pliers as shown in Fig. B or cut the wires. Discard the old crimp nuts and the power cord/motor cord assembly.

    RSL5/RSL5C: Remove the black, white, and red leads from the PC board (Fig. C) by squeezing the connectors with needle nosed pliers. Remove the crimp nut from the green wire by squeezing it with pliers as shown in Fig. B or cut the wire. Discard the old crimp nut and power cord/motor cord assembly.
15. Rewire the motor cord using the appropriate wire diagram for the model located on pages 33-36.
16. Position the motor cord as shown in Fig. D and replace the washer and screw.
17. Reattach the nozzle cover.

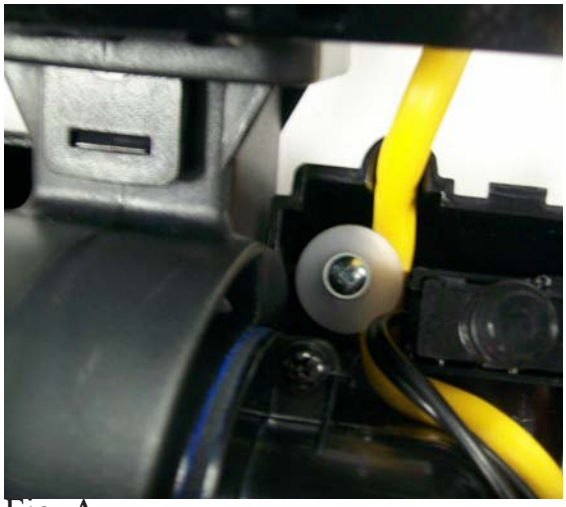


Fig. A

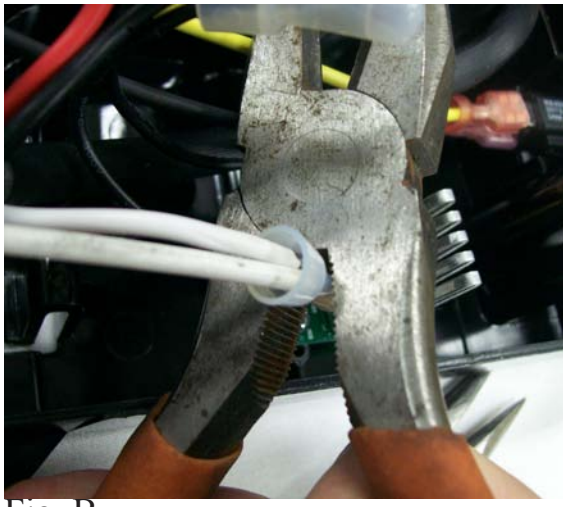


Fig. B

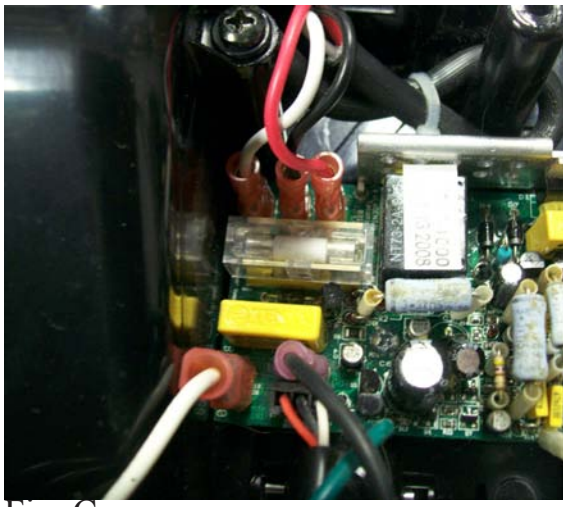


Fig. C

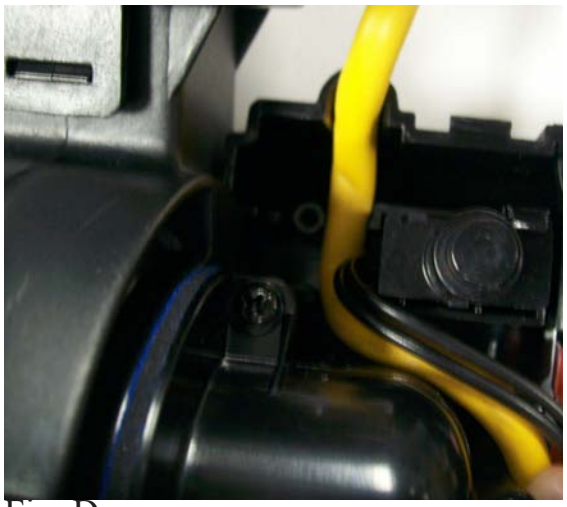


Fig. D

II. Maintenance

G. Replacing the Switch

CAUTION: Unplug the vacuum cleaner before servicing.

Foot Switch Version (RSL1, RSL1A, RSL1AC)

1. Remove nozzle cover as shown on page 10, *II. Maintenance, B. Removing Nozzle Cover*
2. Remove lead wires from switch.
3. Attach wires to new switch.
4. Reassemble

Switch in Handle (RSL2, RSL3, RSL3C, RSL4, RSL5, RSL5C)

1. Diassemble handle grip as shown on page 16, *Section II Maintenance, F. Replacing the Power Cord.*
2. Remove leads from switch.
3. Install new switch. See wiring diagrams on pages 33-35.
4. Reassemble as shown on page 17, *II. Maintenance, F. Replacing the Power Cord*

II. Maintenance

H. Replacing the Circuit Breaker (Not present on RSL5 or RSL5C)

CAUTION: Unplug the vacuum cleaner before servicing.

1. Remove nozzle cover as shown on page 10, *II. Maintenance, B. Removing Nozzle Cover*
2. Remove leads from circuit breaker. (Fig. A and B)
3. Squeeze the tabs on the side of the circuit breaker with needlenose pliers and push it out through the nozzle. (Fig. C)
4. Push new breaker into nozzle from the outside until it clicks. (Fig. D)
5. Reattach leads.
6. Reassemble.

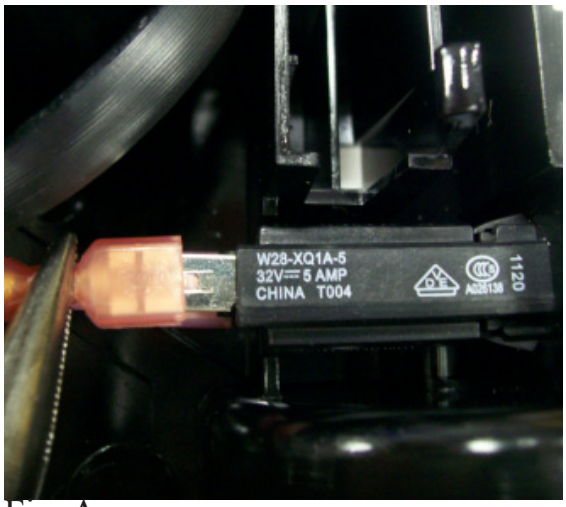


Fig. A

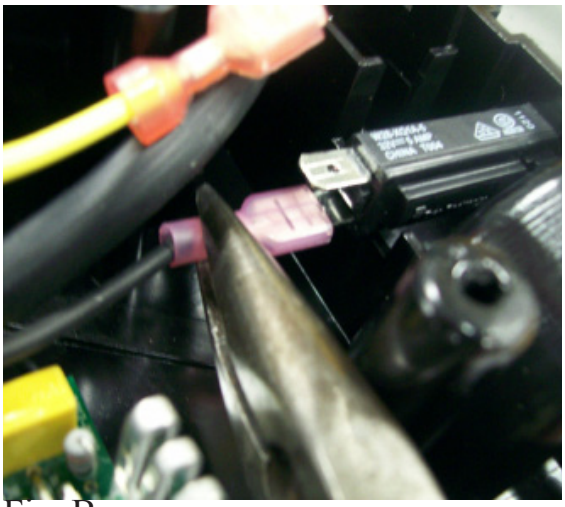


Fig. B

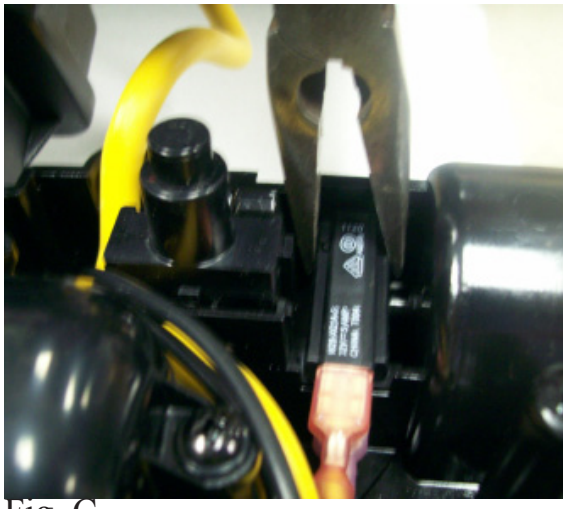


Fig. C

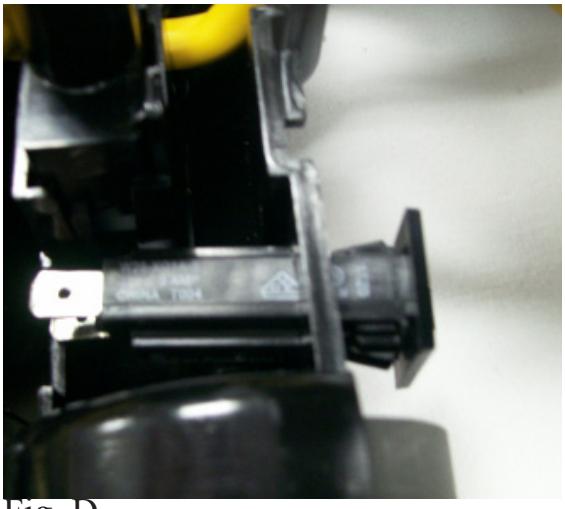


Fig. D

II. Maintenance

I. Replacing the PC Board (RSL4)

CAUTION: Unplug the vacuum cleaner before servicing.

1. Remove the nozzle cover as shown on page 10, *II. Maintenance, B. Removing Nozzle Cover*
2. Remove the (2) screws holding the PC board. (Fig. A)
3. Disconnect the PC Board wires.(Fig. B)
4. Install the new board using the screws.
5. Rewire the new PC board (See wiring diagram, pg. 34)

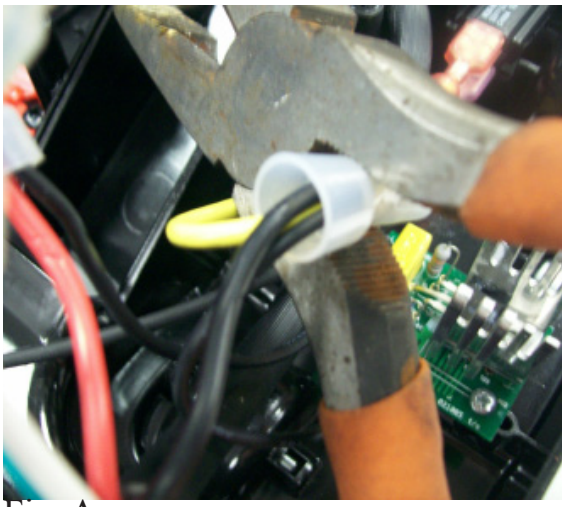


Fig. A

Fig. B

II. Maintenance

I. Replacing the PC Board (RSL5, RSL5C)

CAUTION: Unplug the vacuum cleaner before servicing.

1. Remove the nozzle cover as shown on page 10, *II. Maintenance, B. Removing Nozzle Cover*
2. Remove the screw holding the PC board. (Fig. A)
3. Carefully remove all connectors from the PC board.(Fig. B)
4. Carefully clip the zip tie holding the PC board wires (Fig C)
5. Remove the screw holding the PC board ground wire to the idler arm. (Fig. D)
6. Remove old PC board.
7. Connect the wires to the new PC board. (See wiring diagram on pg. 35)
8. Use the screw to secure the new PC board (Fig. A.)
9. Reassemble machine.

Fig. A

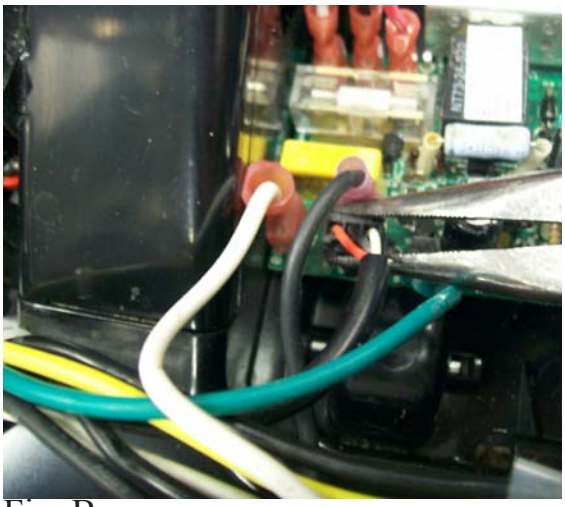


Fig. B

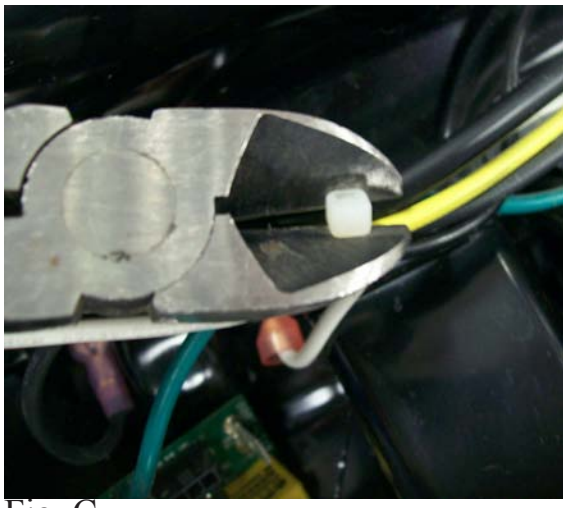


Fig. C

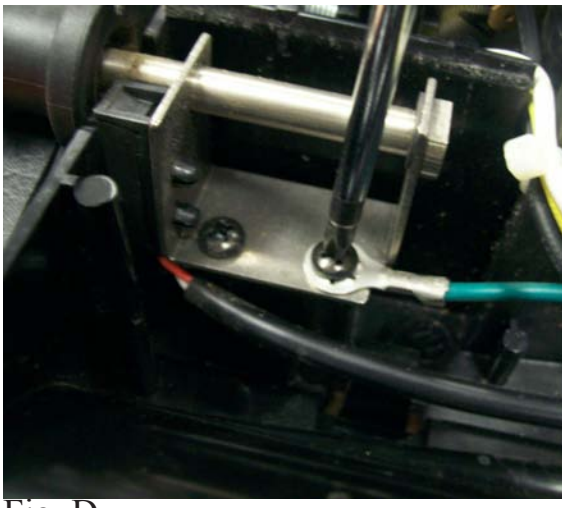


Fig. D

II. Maintenance

J. Accessing the Handle Duct and Motor

CAUTION: Unplug the vacuum cleaner before servicing.

1. Release the handle duct from the bag collar holder by pressing the two tabs located on either side of the bag inlet on the handle duct as shown. (Fig. A)
2. Lift the bag holder spring to release the lower bag clip (Fig. B)
3. Remove the cloth outer bag and set aside.
4. Remove the nozzle cover as shown on page 10, *II. Maintenance, B. Removing Nozzle Cover*
5. Flip the machine back over and stand it upright.
6. Remove the four screws (two black and two silver) securing the upper fan housing to the lower fan housing. (Fig. C and D)
7. Lift the handle duct from lower fan housing.

Fig. A

Fig. B

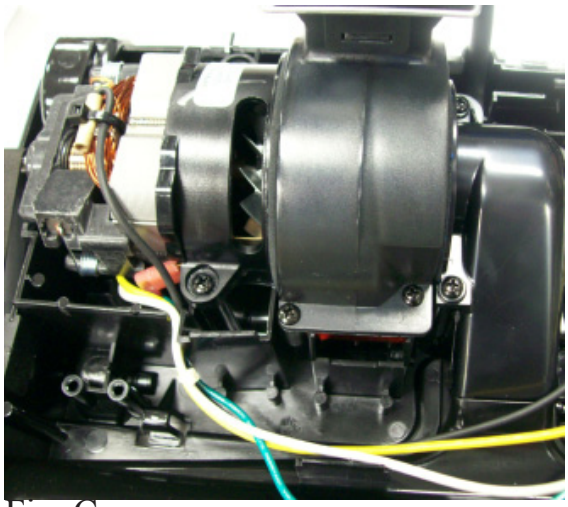


Fig. C

Fig. D

II. Maintenance

K. Removing Clogs

If a foreign object is caught in the vacuum a clog may form. If the vacuum is clogged a decrease in cleaning performance may occur.To remove a clog, follow the steps below:

CAUTION: Unplug the vacuum cleaner before servicing.

1. Access the motor as shown on page 22, *Section II. J. Maintenance, Accessing the Motor*
2. Check the handle duct for clogs.
3. Any clogs can be removed by running a stiff piece of wire or another object through the handle duct.
4. If the handle duct is clear, remove the three screws for the fan duct cover and check the fan duct
5. for clogs. (Fig. A and B)
6. Reassemble the vacuum

Fig. A

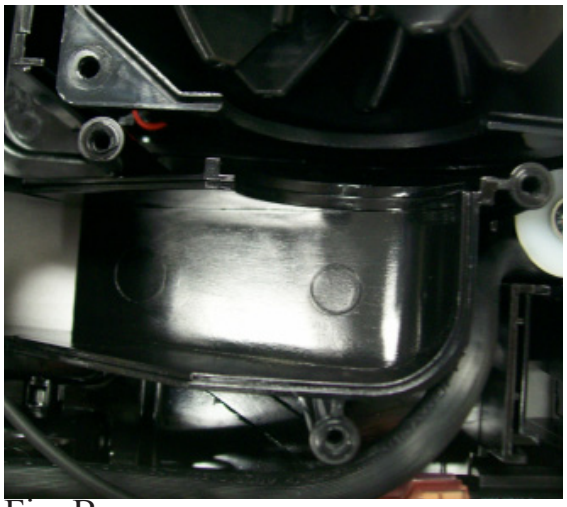


Fig. B

II. Maintenance

L. Replacing the Motor Fan

CAUTION: Unplug the vacuum cleaner before servicing

1. See page 22, *Section II. Maintenance, J. Accessing the Motor* to expose the motor.
2. Remove the two srews holding motor in place.
3. Secure motor shaft with vice grips. (Fig. A)
4. Remove the nut from the motor fan using a 7/16” socket. (Fig. B)
5. Remove old fan from the motor shaft. (Fig. C)
6. Install new fan and secure with the washer and nut.(Fig. D)

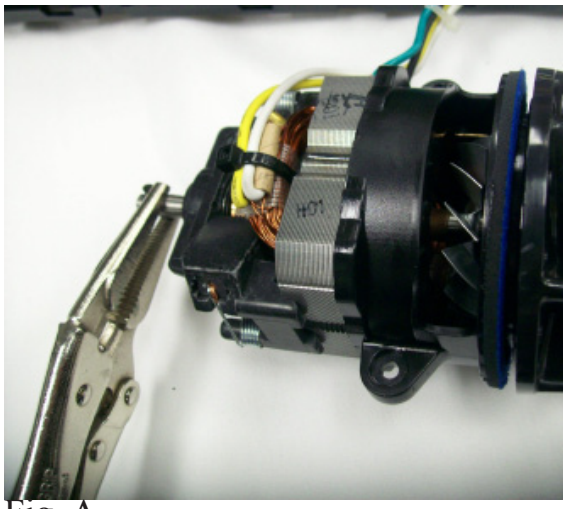


Fig. A

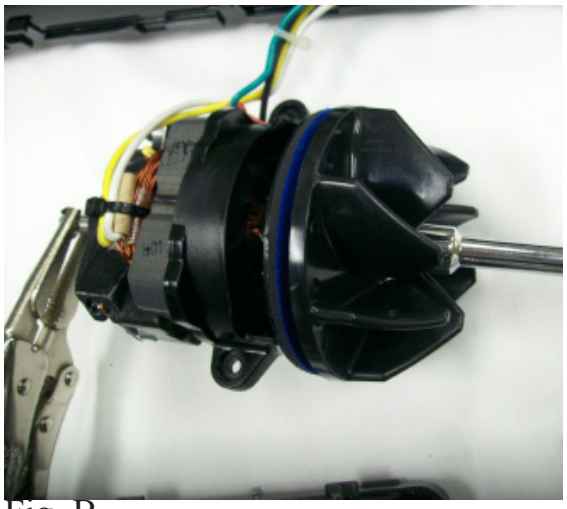


Fig. B

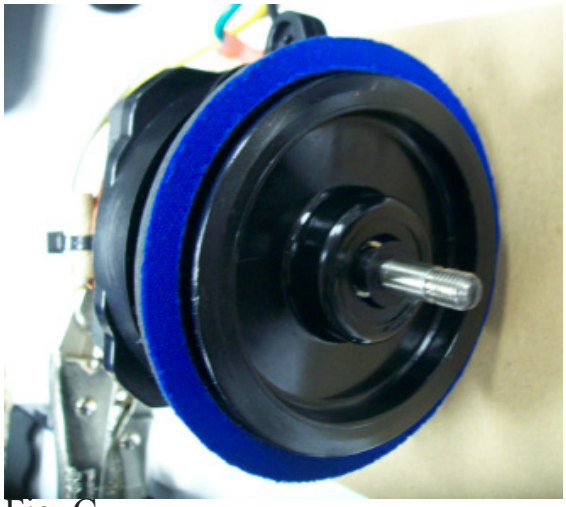


Fig. C

Fig. D

II. Maintenance

M. Replacing the Motor

CAUTION: Unplug the vacuum cleaner before servicing

1. Follow the instructions on page 22, *Section II. J. Maintenance, Accessing the Motor* to expose the motor.
2. Remove the two screws holding motor in place. (Fig. A)
3. Disconnect all wires. Squeeze the wire crimp nuts with pliers to loosen them. (Fig B, C, and D)
4. Secure the new motor with the two motor screws (Fig.A) and rewire (see wiring diagrams, page 33-35)
5. Reassemble the vacuum.

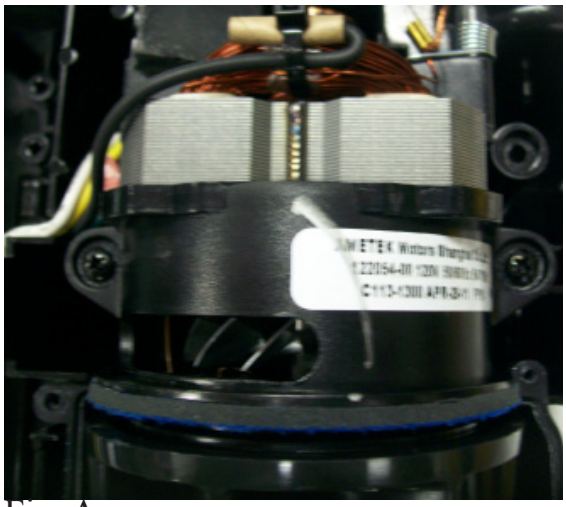


Fig. A

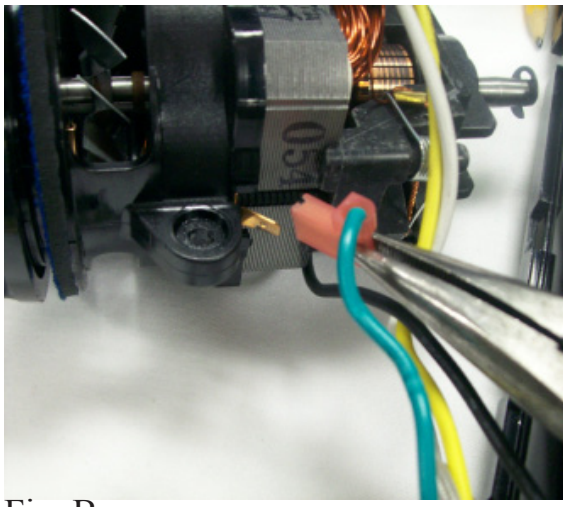


Fig. B

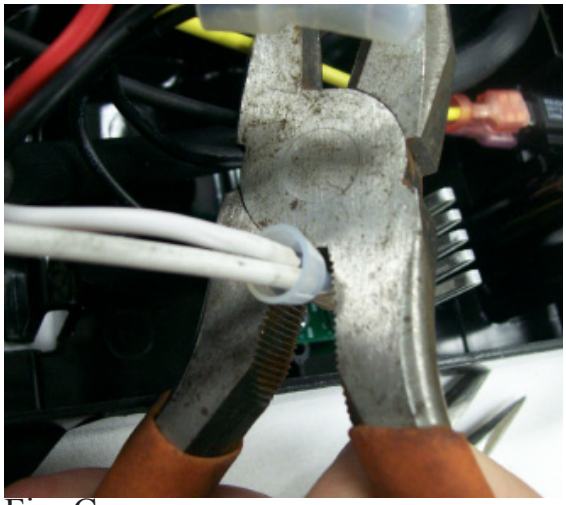


Fig. C

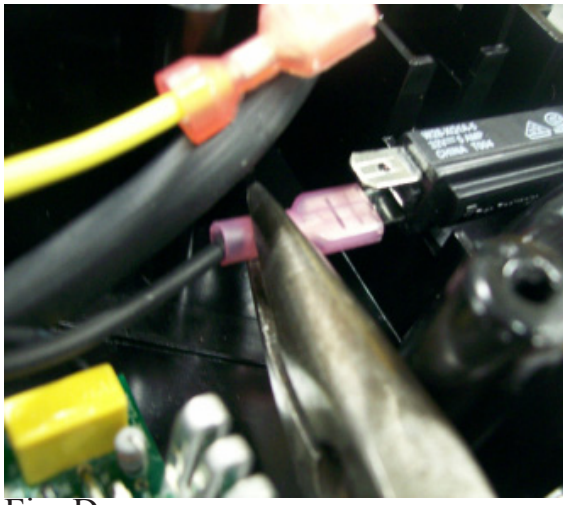


Fig. D

II. Maintenance

N. Replacing the Motor Seals

CAUTION: Unplug the vacuum cleaner before servicing
NOTE: The blue seals cannot be used on any RSL1 or RSL2 made prior to the use of the blue seals.
1. Access and remove the motor as shown on page 22, *Section II. Maintenance, J. Accessing the Motor*
2. Remove the fan as shown on page 24, *Section II Maintenance, L. Replacing the Motor Fan* .
3. Peel off the seal behind the motor fan and the fan duct cover seal. (Fig. A)
4. Clean both areas of all residue and replace seals. (Fig. B)

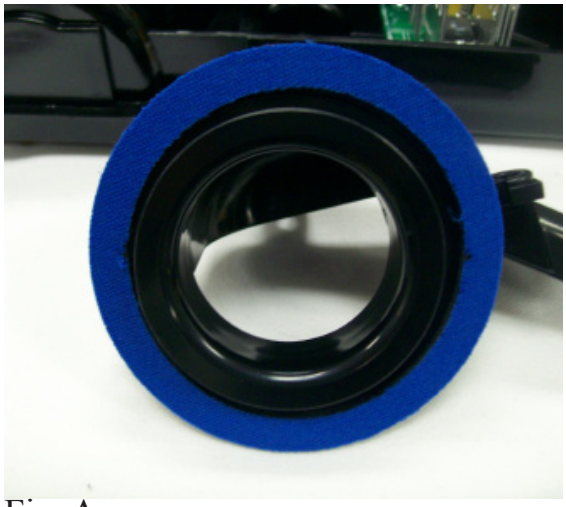


Fig. A

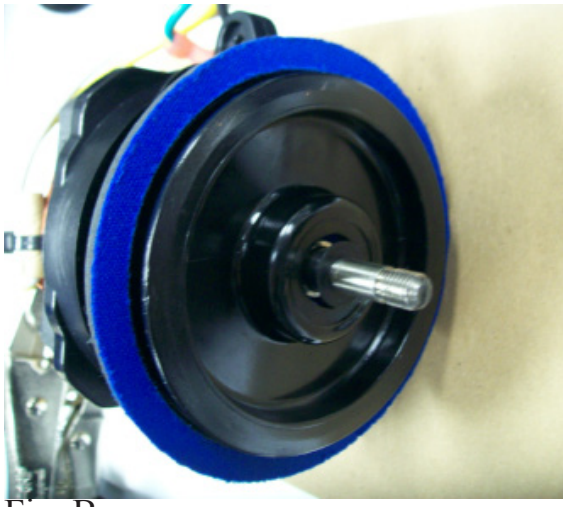


Fig. B

O. Replacing the Upright Stop

CAUTION: Unplug the vacuum cleaner before servicing.

1. Start by following the instructions to remove the motor on page 22, *Section II. Maintenance, J. Accessing the Motor*
2. Remove the two screws securing the red upright stop. (Fig. C)
3. Install new upright stop using the two screws.
4. For ease of operation, add a dab of lithium grease to the catch on the upright stop.
5. Reassemble the vacuum.

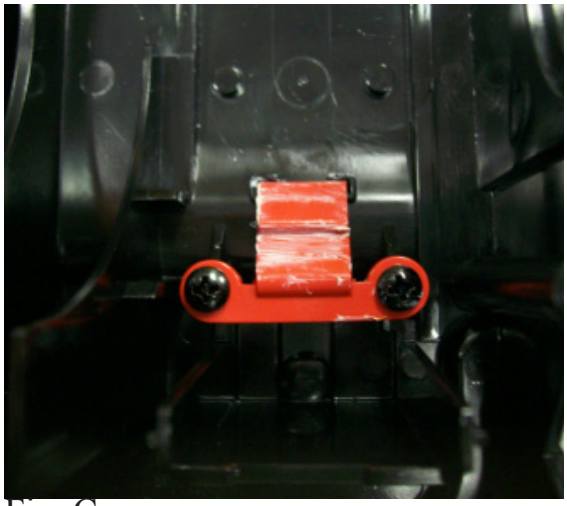


Fig. C

II. Maintenance

P. Replacing the Hall Sensor Assembly (RSL5, and RSL5C only)

CAUTION: Unplug the vacuum cleaner before servicing

1. Remove the nozzle cover as shown on page 10, *II. Maintenance, B. Removing Nozzle Cover*
2. Carefully clip the zip tie that holds the wiring (Fig. A)
3. Remove the two screws holding the hall sensor assembly in place. (Fig. B)
4. Carefully remove the hall sensor connection plug from the PC board. (Fig. C)
5. Install the new hall sensor assembly using the two screws. Be sure to secure the PC board ground wire to the hall sensor base as shown in Fig. D. The hall sensor pully should be positioned on top of the belt as shown in Fig. B.
6. Insert the hall sensor connection plug back into the PC board.
7. Reassemble machine and test.

Fig. A

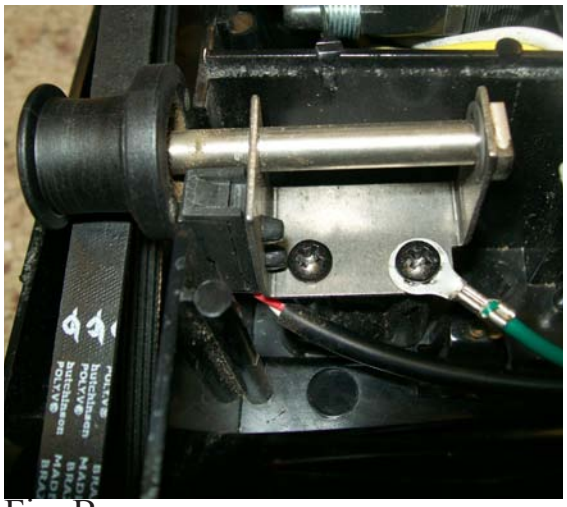


Fig. B

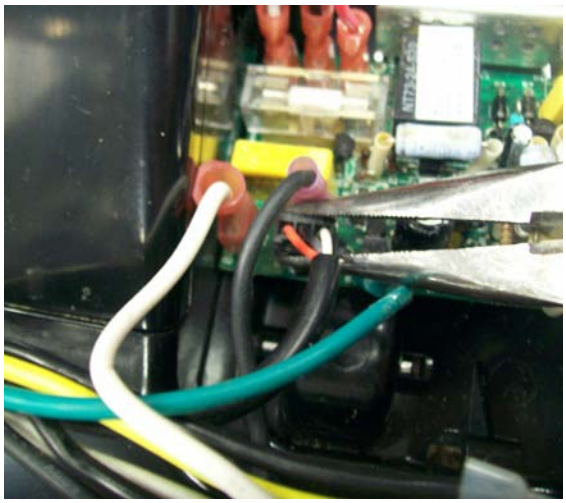


Fig. C

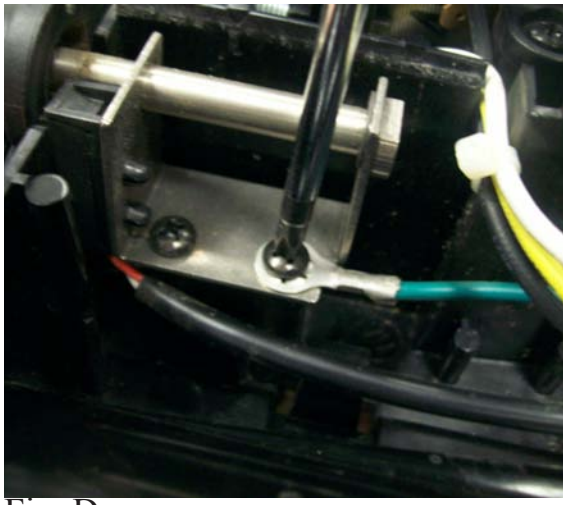


Fig. D

II. Maintenance

Q. Agitator Disassembly (RSL5 and RSL5C only)

CAUTION: Unplug the vacuum cleaner before servicing

1. Use two ratchets with 11mm sockets to loosen one of the nuts as shown in Fig. A.
2. Remove the end caps, bearing cartrige and pully. It may be necessary to gently pry the components apart with a screwdriver. (Fig. B)
3. Use needle nosed pliers to pull the brush strips out of the slots in the core.
4. Fig. C: A fully disassembled agitator.

Fig. A

Fig. B

Fig. C

III. Troubleshooting

A. Performance

1. Vacuum not cleaning floor surface.

Possible Cause	Solution
1. The belt is weak.	Replace the belt.
2. The brushes are worn.	For wooden brushrolls: Flip the agitator end caps over so that the rounded side touches the baseplate as shown on *pg. 11, Replacing the Belt*. This will extend the life of the brushes by pushing them closer to the cleaning surface.
	For wooden brushrolls: Replace the agitator. For steel brushrolls: Replace brush strips
3. The bag is full.	Change the filter bag.
4.. The machine is clogged	Remove the clog.
5. The motor seals are compromised	Replace the motor seals.

2. Vacuum hard to push on deep pile carpet.

Possible Cause	Solution
1. The belt is stretched.	Replace the belt.
2. There is grime on the bottom plate.	Clean the bottom plate.
3. The brushes are worn.	Wood agitatot: Flip the agitator over or replace the agitator. Steel agitator: Replace brush strips.
4. The wheels are not turning.	Lubricate the wheels with grease.
5. The bottom plate is out of place.	Snap the bottom plate in place.

3. Vacuum does not pick up well.

Possible Cause	Solution
1. The belt is stretched or worn.	Replace the belt.
2. The filter bag is full.	Replace the filter bag.
3. The brush strips are worn.	Flip the agitator (wood) over or replace the brush strips (steel.)
4. The bottom plate is not installed correctly.	Snap the bottom plate in place.

4. Belt wearing too fast or breaking constantly.

Possible Cause	Solution
1. The belt is defective.	Replace the belt.
2. The agitator bearing is seizing.	Replace the bearing (steel) or the agitator (wood.)
3. The motor shaft is contaminated.	Clean the motor shaft.
4. Problem with motor	Check the armature shaft for play.

III. Troubleshooting

A. Performance (continued)	
5. Excessive vibration or loud noise	
Possible Cause	Solution
1. An agitator bearing is damaged.	Replace the bearing or agitator.
2. The agitator is out of balance.	Replace the agitator.
6. Circuit Breaker Trips Constantly	
Possible Cause	Solution
1. There is an obstruction in the brushroll or motor fan.	Remove obstruction.
2. The circuit breaker is weak from repeated tripping.	Replace circuit breaker.
3. The agitator is seizing up.	Repalce agitator.
4. The motor is defective.	Replace motor
7. Vacuum only runs on one speed	
Possible Cause	Solution
1. The switch is defective or wired incorrectly.	Check the switch wiring and check the switch for continuity.
2. The PC board is defective or wired incorrectly.	Check the wiring. Replace the PC board.
8. Vacuum won't stay in the upright position	
Possible Cause	
1. Upright stop is broken.	Replace the upright stop.See *Replacing the Upright Stop, pg. 6*
9. Motor stops and brush roll jam light is flashing	
Possible Cause	Solution
1. There is an obstruction in the brushroll or motor fan.	Remove obstruction.
2. Belt is broken or stretched	Replace belt.
3. Hall Sensor or PC board problem	Bypass the hall sensor using the hall sensor test plug (part number D001-0000.) If the problem persists during hall sensor bypass, replace PC board. If the problem is not present during hall sensor bypass, replace hall sensor assembly See *pg. 28, Replacing the hall sensor.*

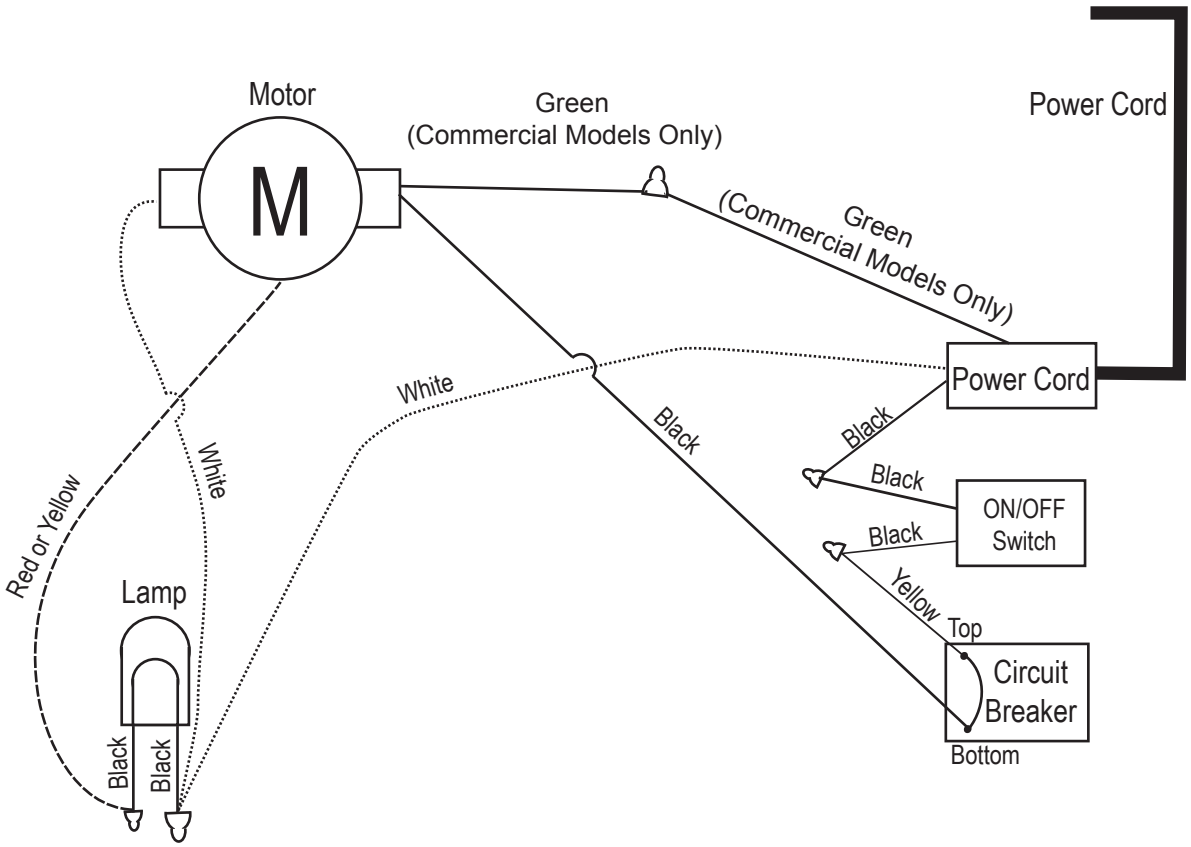
III. Troubleshooting

B. Motor	
1. Excessive vibration in motor.	
Possible Cause	Solution
1. The fan is damaged.	Replace the fan. *See page 25, Replacing the Motor Fan*
2. The motor is damaged.	Replace the motor. *See page 26, Replacing the Motor*
2. Excessive sparks, arcing, or electrical smell coming from motor.	
Possible Cause	Solution
1. The carbon brushes are worn.	Replace the motor. S*ee page 26, Replacing the Motor*
2. The armature is damaged.	Replace the motor. S*ee page 26, Replacing the Motor*
3. The armature is shorted out.	Replace the motor. *See page 26, Replacing the Motor*
4. The commutators are worn.	Replace the motor. *See page 26, Replacing the Motor*
5 There is excessive play in the bearings.	Replace the motor. *See page 26, Replacing the Motor*
3. Motor going on and off; not starting at times.	
Possible Cause	Solution
1. The carbon brushes are stuck or worn.	Replace the motor. S*ee page 26, Replacing the Motor*
2. The armature is shorted out.	Replace the motor. S*ee page 26, Replacing the Motor*

C. Electrical	
1. Power cord gets hot.	
Possible Cause	Solution
1. There is a short in the vacuum.	Check the Amps.
2. The cord is not uncoiled.	Uncoil the power cord.
2. No Power or vacuum is turning on/off	
Possible Cause	Solution
1. There is no power to the outlet.	Check the outlet for power.
2. There is a break in the cord.	Replace the power cord. *See page15-18, II. Maintenance, F. Replacing the Power Cord*
3. The circuit breaker needs reset.	Check and reset the circuit breaker on the back of the vacuum.
4. There is a pinched or cut wire.	If machine is shutting on and off when handle is moved check the wiring in the grip for pinched or cut wires.
5. Handle switch or leads are damaged.	Test the handle switch continuity. Replace if damaged. *See page 19, II. Maintenance, G. Replacing the Switch*
6. Motor is dead.	Check motor for damage/burning/loose connections. Replace motor if necessary. *See page 26, Replacing the Motor*

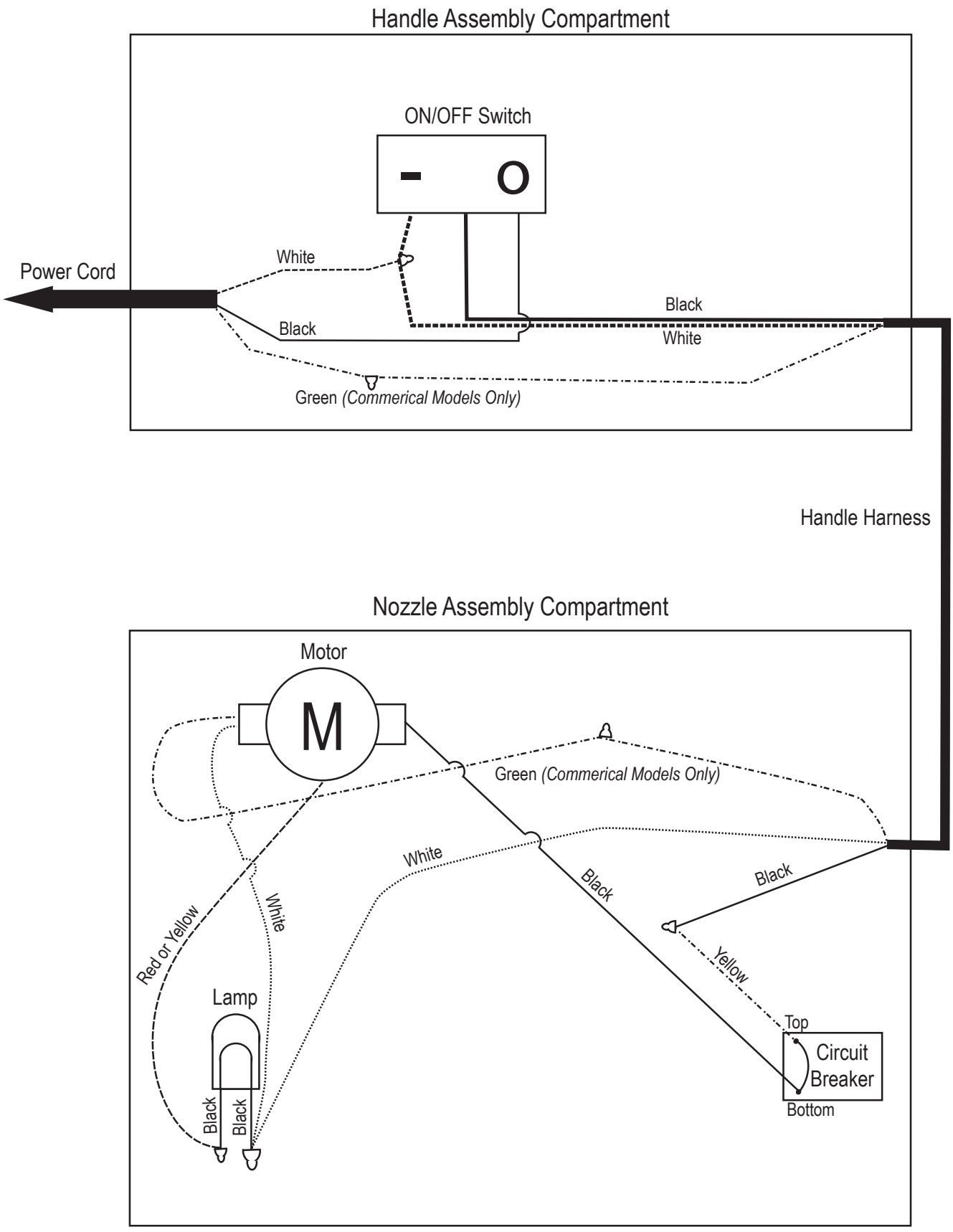
IV. Diagrams

A. RSL1, RSL1A, RSLAC



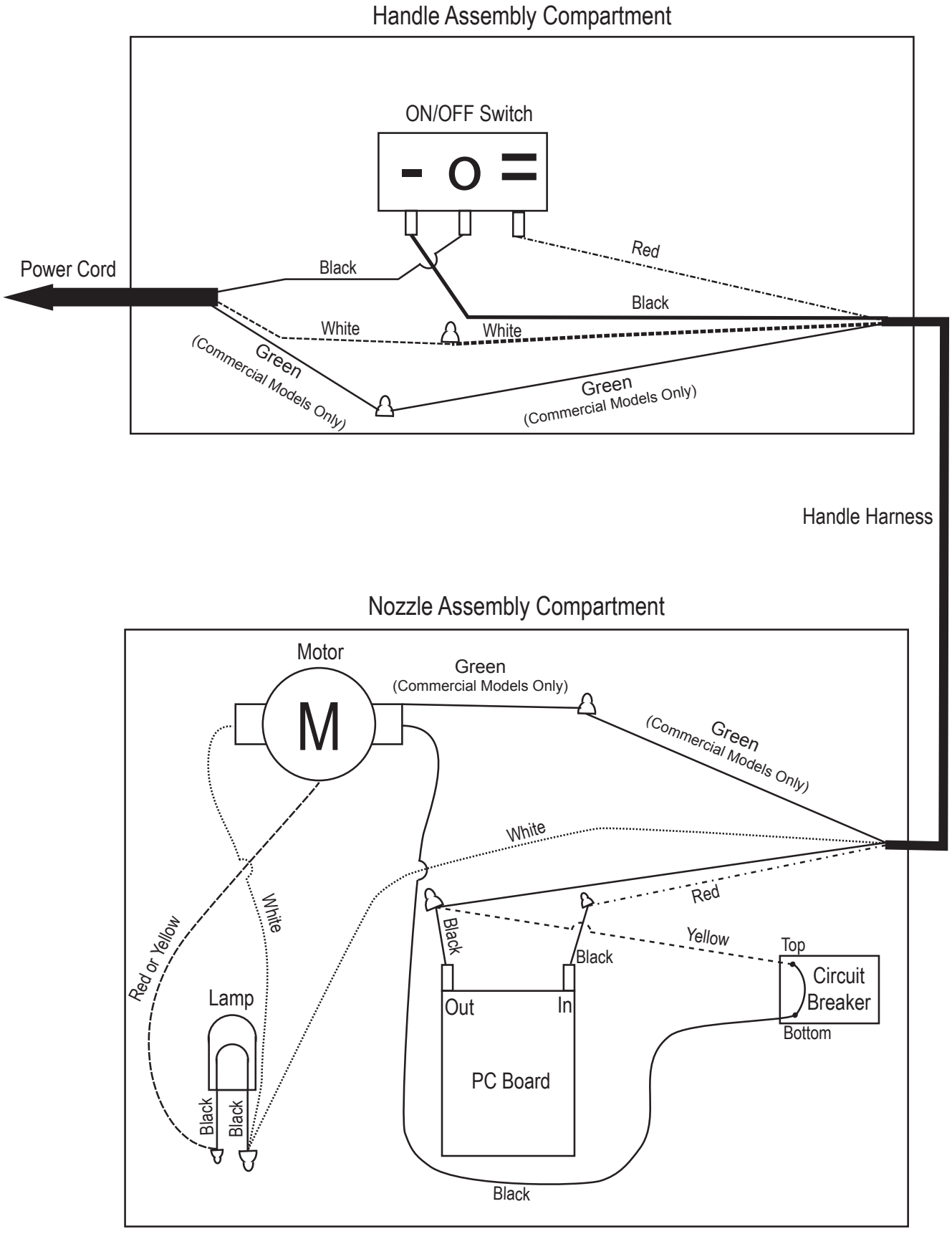
IV. Diagrams

B. RSL2, RSL3, RSL3C



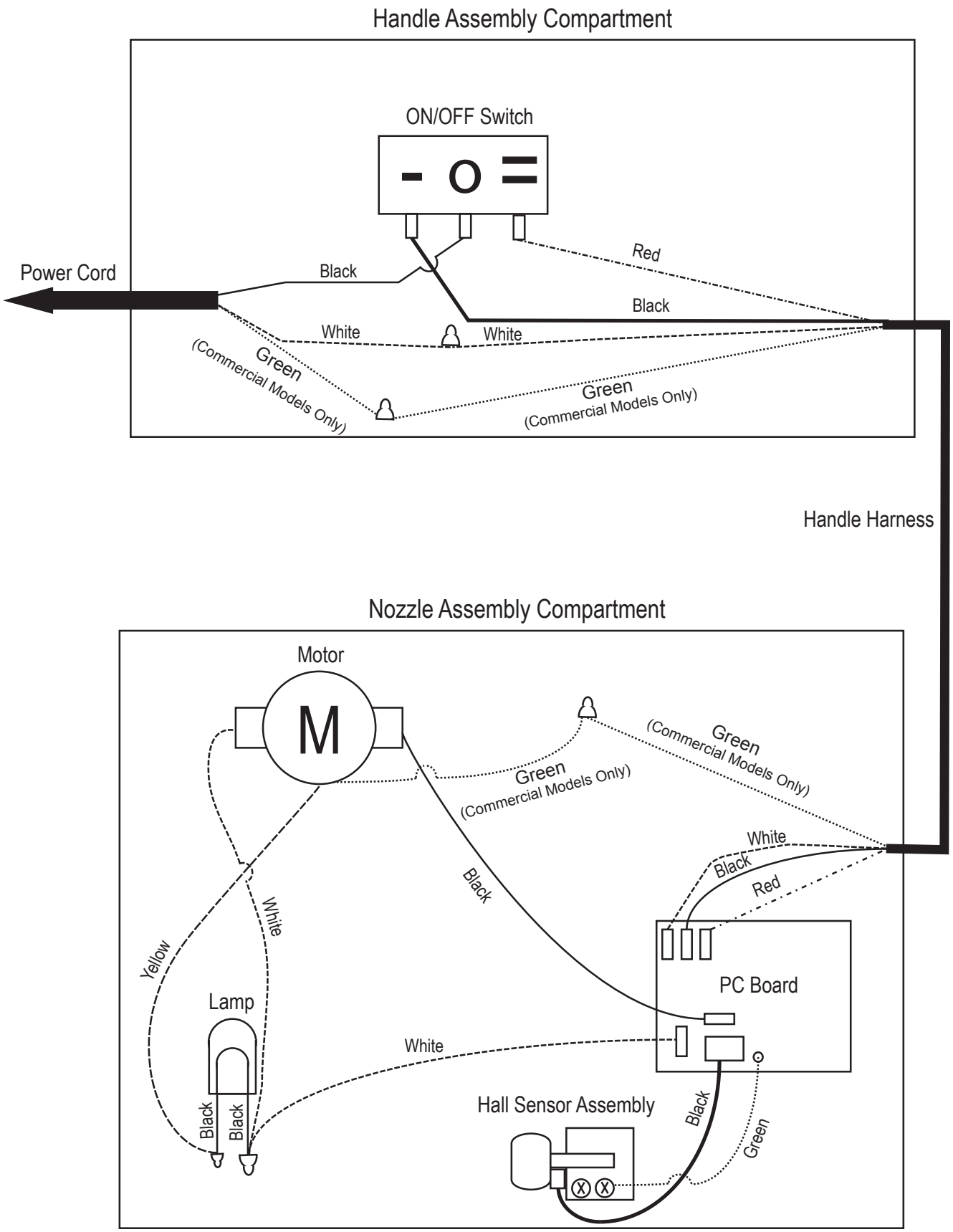
IV. Diagrams

C. RSL4



IV. Diagrams

D. RSL5, RSL5C



V. Contact Information

Should you need further assistance please contact Tacony Technical Service

Phone: 800-643-7459
Email: d.humphrey@tacony.com
Hours: 6:00am-4:30pm Monday through Friday

Tacony Manufacturing
#3 Industrial Drive
St. James, MO 65559

For parts orders please speak with a Vac Pros Representative at 800-827-8877