

SpeedClean®

Innovative Maintenance Tools.

MODEL

SC-TC-60

Tube Cleaner



SPEEDCLEAN®

OPERATING & MAINTENANCE INSTRUCTIONS

Thank you for purchasing SpeedClean’s SC-TC-60 tube cleaning machine. We appreciate your business and look forward to serving you in the future. As with all SpeedClean products, you can be assured that the finest quality components and workmanship have gone into this machine.

Please take a few minutes to read the following Operating and Maintenance Instructions. Please pay particular attention to the safety instructions and exercise caution when using this machine.

SC-TC-60

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WARNING! Read and understand all instructions. Failure to follow all instructions listed below may result in electric shock, fire and/or serious personal injury.

Save these Instructions!!

1. Work Area

- **Keep your work area clean and well lit.** Cluttered benches and dark areas invite accidents.
- **Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust.** Power tools create sparks which may ignite the dust or fumes.
- **Keep bystanders, children, and visitors away while operating a power tool.** Distractions can cause you to lose control.

2. Personal Safety

- **Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use tool while tired or under the influence of drugs, alcohol, or medication.**
- **Dress properly.** Do not wear loose clothing or jewelry. Contain long hair. Keep your hair, clothing, and gloves away from moving parts.
- **Do no overreach.** Keep proper footing and balance at all times. Proper footing and balance enables better control of the tool in unexpected situations.
- **Use safety equipment.** Always wear eye protection. Dust mask, non-skid safety shoes, hard hat, and hearing protection are recommended.

3. Operational Safety

- **This unit is to be used only by trained operators.**
- **Keep clear of moving shaft.** Make sure the shaft will not catch on anything while in use.
- **Be sure to select the proper size flexible shaft and tool for the job.** Do not force the tool. Use the correct tool for the application.
- **Check flexible shaft for weak or worn condition before each use.** Make certain that all connections are tight and secure.
- **Do not use with flammable or explosive fluids such as gasoline, fuel oil, kerosene, etc.** Do not use in explosive atmospheres.
- **Disconnect the plug from the power source and turn off water supply before disconnecting hoses, fittings, or flexible shaft and before making any adjustments or changing accessories.** Such preventive safety measures reduce the risk of starting the unit accidentally.
- **Do not use tool if foot switch does not turn it on or off.** Any tool that cannot be controlled with the switch is dangerous and must be repaired.
- **Store idle tools out of reach from children and other untrained persons.** Tools are dangerous in the hands of untrained users.
- **Use only accessories that are recommended by the manufacturer for your model.** Accessories that may be suitable for one tool may become hazardous when used on another tool.

- Check for misalignment or binding of moving parts, breakage of parts, and any other condition that may affect the tool's operation. If damaged, have the tool serviced before using.
- If the machine does not operate properly or is damaged, contact Speedclean Customer Service.

4. Service

- Unplug the power cord when servicing the unit or leaving the machine unattended.
- Tool service must be performed only by qualified repair personnel. Service or maintenance performed by unqualified personnel could result in a risk of injury.
- When servicing a tool, use only identical replacement parts. Follow instructions in the Maintenance section of this manual. Use of unauthorized parts or failure to follow Maintenance Instructions may create a risk of electric shock or injury.
- **DANGER!! DO NOT OPERATE THE UNIT WITH COVER(S) REMOVED WITH MOVING PARTS AND ELECTRICAL CONNECTIONS EXPOSED!!!**

Do's

- Keep this manual with the unit at all times.
- Always grasp the plug - not the cord - when unplugging from AC power.
- Always run **clean** water through the unit.
- Always secure the unit while transporting to prevent it from damage.
- Store unit indoors in a cool, dry area and protect from freezing. If the unit is stored in an unheated location and temperatures reach freezing, damage to the internal components may occur.
- Always be extra careful when not on level, secure ground.
- Keep operational area clear of all persons.
- Use only SPEEDCLEAN recommended attachments.

Don'ts

- Don't use the SC-TC-60 if it is not in good operating condition, is not completely assembled, or is damaged. Always inspect the unit to ensure there are no leaks.
- Don't operate without eye protection.
- Don't spray the SC-TC-60 with high-pressure water. Wipe it down with a damp rag.
- Don't point flexible shafts at people or animals as the end of the shaft rotates at high speeds which may cause serious injury.
- Don't use the unit with combustible fluids.

- Don't roll the unit over the power cord, pull the cord, close the door on the cord or pull the cord around sharp corners. Keep the cord away from HOT surfaces.
- Don't expose unit to rain.
- Don't allow water to freeze in unit.
- Don't use the machine if it has a damaged cord or plug.
- Don't use the unit in an environment or on objects that are above 175° F (79° C).
- Don't use unit with children in the immediate area.

SC-TC-60

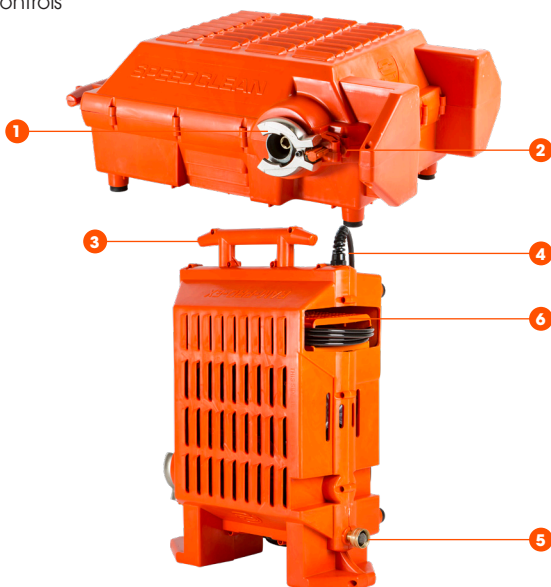
Grounding/Electrical Safety

- **Make certain that the power source conforms to the requirements of the equipment.**
- **This product must be grounded.** If it should electrically malfunction or break down, grounding provides a low resistance path to carry electricity away from the user. Grounded tools must be plugged into an outlet properly installed and grounded in accordance with all codes and ordinances. Never remove the grounding prong or modify the plug in any way. **DANGER!!** Improper connection of the equipment-grounding conductor can result in risk of electrocution. Check with a qualified electrician if you are in doubt as to whether the outlet is properly grounded. **DO NOT USE ANY TYPE OF ADAPTER PLUG WITH THIS PRODUCT.**
- This unit is equipped with a Ground Fault Circuit Interrupter (GFCI) at the plug end of the cord for electrocution protection. **DO NOT REMOVE THIS DEVICE.** If replacement of the plug or cord becomes necessary, use only identical replacement parts that include GFCI protection.
- **Use only 3-wire extension cords that have 3-prong grounding type plugs and 3-pole cord connectors that accept the plug from the product.** Use only extension cords that are rated for outdoor use. These extension cords are identified by a marking, "Acceptable for outdoor use; store indoors while not in use". Do not use damaged extension cords. Examine extension cord before using and replace if damaged. When using an extension cord, be sure to use one large enough to carry the current the product will draw. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating. If in doubt, use the next heavier gage. The smaller the gage number, the larger the cord.
- **Do not abuse the cord. Never use the cord to carry the tools or pull the plug from an outlet. Keep cord away from heat, oil, sharp edges or moving parts. Replace damaged cords immediately.** Damaged cords increase the risk of electric shock.
- **Avoid body contact with grounded surfaces such as pipes, radiators, ranges and refrigerators.** There is an increased risk of electric shock if your body is grounded.
- **Don't expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock. Store unit indoors in a cool, dry area.

The SC-TC-60 tube cleaner uses a brush on the end of a rotating, polymer-encased flexible steel shaft. As the operator feeds the rotating brush/shaft assembly through the tube, the brush or tool loosens any deposits (mud, sand, etc.) and water flows through the casing to flush them out. A solenoid operated ball-valve controls the water flow.

The SC-TC-60 with a ½ HP (0.4 kW) motor is designed for cleaning tubes and pipes ¼"-1" (6.4-25.4mm) I.D. It is a compact, self-contained, carry-anywhere unit which permits operation in tight quarters.

1. Quick Connect Latch
2. Latch Lock
3. Carry Handle
4. GFCI Power Cord
5. Garden Hose Connector
6. Foot Pedal

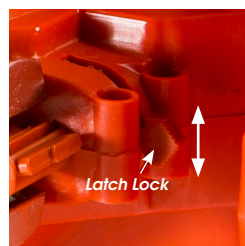


Pre-Operation Checklist

- ✓ Check for adequate water supply. Use no smaller than a 5/8" garden hose for water supply.
- ✓ Check ground fault circuit interrupter (GFCI). Test & reset.
- ✓ Check all connections.

Connecting Flexible Shaft

1. Select the proper size flexible shaft (SC-TC-S02, SC-TC-S03) for tube diameter and length to be cleaned.
2. Insert square end of flexible shaft into the square in the drive shaft of the machine. The shaft may have to be turned up to 90 degrees for alignment.
3. Push flexible shaft strain relief into quick connect latches and turn locking peg to lock shaft in place.



Latch Lock moves to the UP position to lock and DOWN to unlock.

Operating Procedure

CAUTION: Do not operate this machine without eye protection.

1. Connect water hose to water inlet of no more than 100 psi. Water supply should be clean. Make sure screen washer is in place.
2. Plug electric cord into an outlet in accordance with the power requirements on the nameplate and push the "Reset" button on the GFCI.
3. Ensure that the two hoses in the footswitch assembly are plugged into the two pneumatic switches in the foot pedal compartment. Each side of the footswitch corresponds to a different drive direction of the shaft.
4. Select proper size cleaning tool and fasten onto end of flexible shaft. Never use a tool larger than I.D. of tube. **NOTE:** Most tubes are rolled at tube sheet. Always measure I.D. beyond roll or consult manufacturer's manual for tube O.D. and gauge.
5. Position shaft locator on the outside of the flexible shaft so that when the shaft is fully inserted in the tube, the entire cleaning tool extends outside the other end of the tube.
6. Uncoil flexible shaft completely and feed it into the tube. **DO NOT FORCE SHAFT DOWN TUBE.** Allow machine to do the work. If resistance is felt, back off 2"-3" (50-75mm) and feed shaft again until it goes easily. If resistance is too great, use a smaller cleaning tool.
7. For easiest operation, if possible, insert shaft into tube and keep there for several hours before starting in order to remove loops from flexible shaft. **CAUTION:** Minimum operating radius of flexible shaft is eighteen inches. However, it is recommended that the shaft be kept as free from loops as possible. This is especially critical nearest the drive unit.
8. After completing the job, always unplug machine before disconnecting water supply. Running a shaft "dry" may damage the seals. **CAUTION:** The SC-TC-60 is designed to be used wet or dry — NOT BOTH. It is equipped with a water seal. If used dry, the water seal will no longer prevent water leakage.

Forward/Reverse Foot Pedal

- The direction the shaft rotates is controlled by the two-way foot pedal.
- Clockwise rotation is considered the "Forward" direction
- Position the foot pedal like the gas pedal of a car and rock your foot back and forth to control direction.

SC-TC-60

Maintenance & Storage

Maintenance

Keep machine clean and dry to maximize performance and longevity. Follow maintenance outlined in this manual, such as checking for weak spots, leaks, slices or cuts in hose, replace shafts when worn. Additional maintenance details follow in this manual. If the machine does not operate properly or has been damaged or exposed to water, call the factory for assistance — do not try to service the unit yourself.

Storage

Disconnect water supply line. Disconnect the flexible shaft and drain water to prevent rusting of shaft. Do not store machine where residual water in machine may freeze. Refer to Flexible Shaft manual for flexible shaft storage.

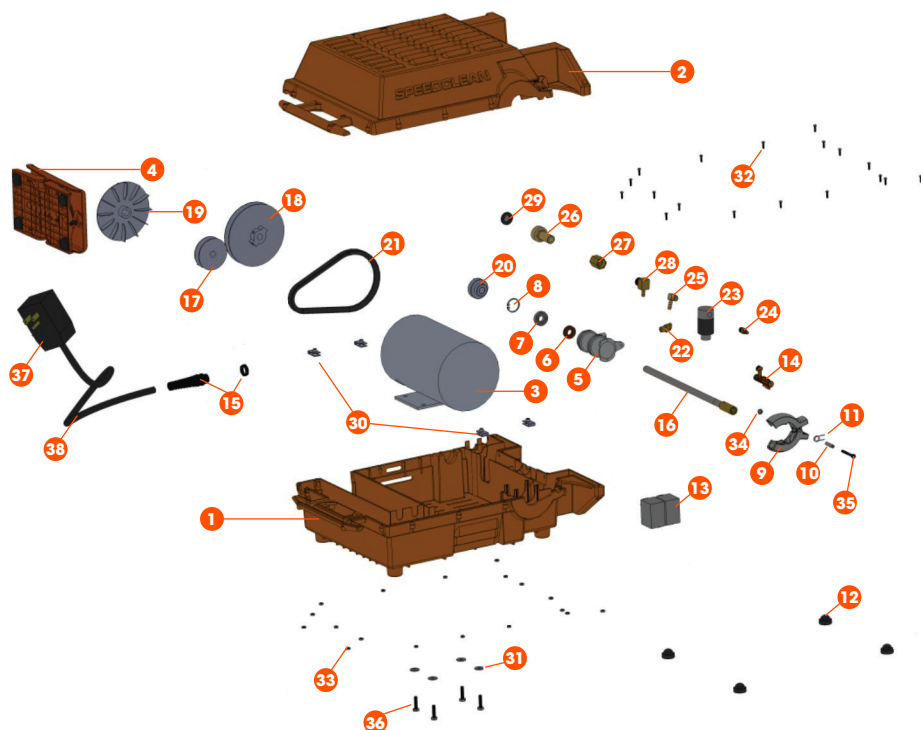
Trouble Shooting

PROBLEM	PROBABLE CAUSE	SOLUTION
Runs in one direction only	<ul style="list-style-type: none"> Leak in air control circuit Faulty wire connection(s) Leak in footswitch air bellows or air hoses Faulty air switch 	<ul style="list-style-type: none"> Disconnect power. Disconnect air hoses from air switches to allow foot pedal bellows to inflate to full height. Reconnect and tighten all connections Disconnect power. Check wiring. Switch air hoses to isolate problem (machine or footswitch) Check/replace air switches
Water leaking from base	<ul style="list-style-type: none"> Leak in water circuit plumbing Leak at shaft manifold seal 	<ul style="list-style-type: none"> Disconnect power. Check hoses and fittings for leaks. Tighten loose connections. Check for leak where drive shaft enters shaft manifold. Replace manifold seal.
Runs for short period of time and/or stops, GFCI trips/won't reset	<ul style="list-style-type: none"> Electrical short to ground Overheated, disconnect from power. Unit will automatically turn on when cool. 	<ul style="list-style-type: none"> If GFCI trips often call SpeedClean. There may be an unsafe electrical condition. Allow unit to cool.
Motor runs but shaft/brush does not turn	<ul style="list-style-type: none"> Problem drive coupler Broken flexible shaft 	<ul style="list-style-type: none"> Disconnect power. Check drive coupler for damage. Replace shaft fittings and/or core.
No water through flexible shaft	<ul style="list-style-type: none"> Problem with water supply Inlet screen clogged Solenoid valve not functioning 	<ul style="list-style-type: none"> Water supply not on, restrictions in hose or hose too small, water supply pressure insufficient. Remove hose and clean screen. Replace solenoid valve, call Speedclean.

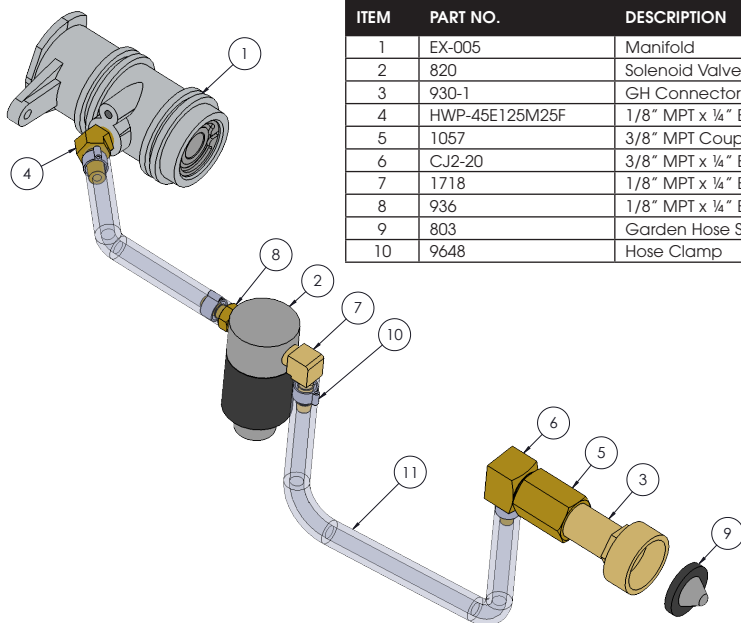
Problem Not Listed, Call Speedclean Customer Service: 1-888-700-3540.

Specifications

SC-TC-60	
Motor	½ HP, 230/115 VAC motor
Power Requirements	230 V 50/60 Hz @ 4.5 A 115 V 50/60 Hz @ 9.0 A
Rotational speed	860 RPM
Input water connection	¾" standard garden hose
Maximum water pressure	100 psi (7 bar)
Maximum water temperature	140 °F (60 °C)



ITEM	PART NO.	DESCRIPTION	ITEM	PART NO.	DESCRIPTION
1	SC-TC-BH	Bottom Housing	22	HWP-45E125M25F	Elbow, 1/8" NPT
2	SC-TC-TH	Top Housing	23	820	Solenoid Valve
3	829	Motor, 1/2 HP	24	936	Barbed Hose Fitting
4	SC-TC-FPR	Foot Pedal	25	1718	Elbow, 1/4" Barb x 1/8" MPT
5	EX-005	Manifold	26	930-1	Garden Hose Connector
6	824	Lip Seal	27	1057	Coupling, 3/8" NPT
7	825	Bearing	28	CJ2-20	Elbow, 1/4" Barb
8	826	Snap Ring	29	803	Screen Washer
9	SQC-07	Latch	30	879	Motor Clip
10	SQC-08	Spacer	31	HWW-252	Washer, 1/4"
11	SQC-10	Torsion Spring	32	HWS-0632S-50	Screw, #6-32 x 1/2"
12	EX-007	Rubber Foot	33	HWN-0632	Nut, #6-32
13	834R-1	Air Switch	34	HWN-1024	Nut, #10-24
14	SC-TC-LL	Latch Lock	35	HWS-1024-163-SC	Screw, #10-24 x 1-5/8"
15	530-122	Strain Relief	36	1234-1	Screw, 1/4"-20 x 1"
16	873	Shaft Driver Assembly	37	CV-CFCI-A	GFCI Adapter
17	831	Pulley, 2-1/2"	38	809-E	Power Cord
18	830	Pulley, 5"	NS	SC-TC.517-HRNS	Wiring Harness
19	829-60-1	Cooling Fan	NS	9648	Hose Clamp
20	833-1	Bearing	NS	935	Hose, 1/4"
21	832	V-Belt			

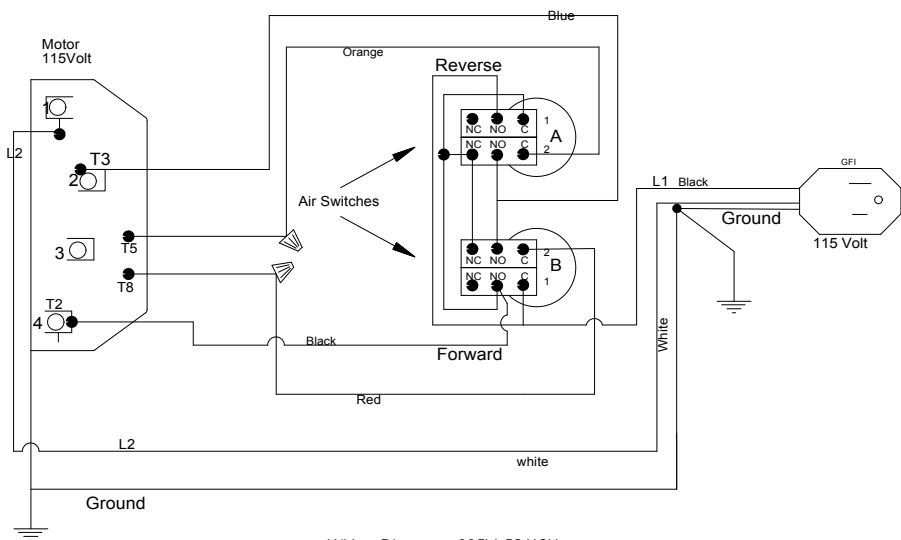


ITEM	PART NO.	DESCRIPTION
1	EX-005	Manifold
2	820	Solenoid Valve
3	930-1	GH Connector
4	HWP-45E125M25F	1/8" MPT x 1/4" Barb Elbow
5	1057	3/8" MPT Coupling
6	CJ2-20	3/8" MPT x 1/4" Barb Elbow
7	1718	1/8" MPT x 1/4" Barb Elbow
8	936	1/8" MPT x 1/4" Barb Hose Fitting
9	803	Garden Hose Screen
10	9648	Hose Clamp

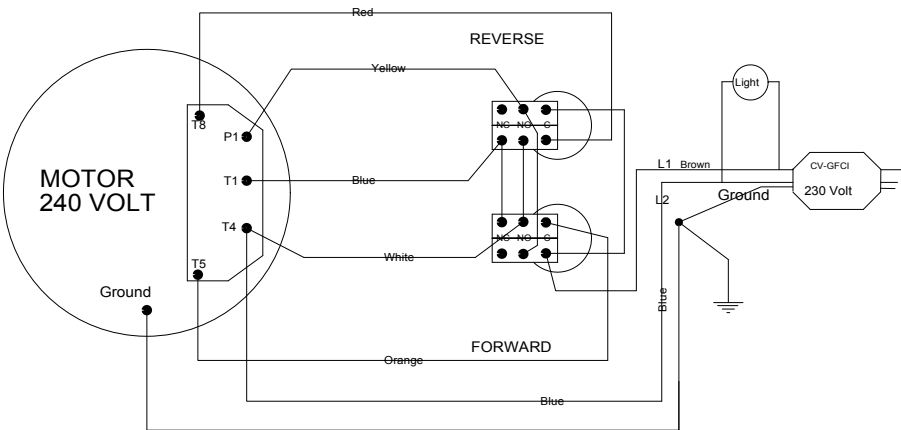
DESCRIPTION	PART NO.
702 Flexible Shaft 15'	SC-TC-S02-15R
702 Flexible Shaft 25'	SC-TC-S02-25R
702 Flexible Shaft 35'	SC-TC-S02-35R
703 Flexible Shaft 15'	SC-TC-S03-15R
703 Flexible Shaft 25'	SC-TC-S03-25R
703 Flexible Shaft 35'	SC-TC-S03-35R
Grit Brush 7/16" - 5/8" ID	SC-TC-BGB-075
Grit Brush 11/16" - 3/4" ID	SC-TC-BGB-100
Grit Brush 13/16" - 1" ID	SC-TC-BGB-125
Brush for 1" ID	SC-TC-BN-1
Brush for 1 1/2" ID	SC-TC-BN-1/2
Brush for 1 1/16" ID	SC-TC-BN-11/16
Brush for 1 3/16" ID	SC-TC-BN-13/16
Brush for 1 5/16" ID	SC-TC-BN-15/16
Brush for 3/4" ID	SC-TC-BN-3/4
Brush for 5/8" ID	SC-TC-BN-5/8
Brush for 7/16" ID	SC-TC-BN-7/16
Brush for 7/8" ID	SC-TC-BN-7/8
Brush for 9/16" ID	SC-TC-BN-9/16

SC-TC-60

Wiring Diagram



Wiring Diagram, 115V, 50/60Hz



Wiring Diagram, SC-TC-60 50Hz

Wiring Diagram, 240V, 50/60Hz

This unit has been carefully tested and inspected and is warranted to be free from defects in material or workmanship. The company will, under this warranty, repair or replace any parts which prove, upon examination, to be defective. This warranty is valid for one year from date of purchase by original purchaser.

This warranty excludes accessories, unusual wear, abuse, damage resulting from an accident, or unreasonable use of this machine. It is recommended that any repairs be done by SpeedClean as improperly performed repairs will void the warranty.

For repairs or warranty information DO NOT contact the place of purchase. Call SpeedClean Customer Service at (888) 700-3540.

To obtain warranty service a proof of purchase is required and the unit must be returned freight prepaid. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. SpeedClean reserves the right to improve products. Contact the factory for the latest configuration and uses.



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