

GENERAL SAFETY RULES

Work Area

1. **Keep work area clean and well lit.** Cluttered benches and dark areas invite accidents.
2. **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.
3. **Keep bystanders, children, and visitors away while operating a power tool.** Distractions can cause you to lose control.

Electrical Safety

1. **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. Do not use any adapter plugs. Check with a qualified electrician if you are in doubt as to whether the outlet is properly grounded.** If the tool should electrically malfunction or break down, grounding provides a low resistance path to carry electricity away from the user.
2. **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.
3. **Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
4. **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.
5. **When operating a power tool outside use an outdoor extension cord marked “W-A” or “W”.** These cords are rated for outdoor use and reduce the risk of electric shock.
6. **Test the Ground Fault Circuit Interrupter (GFCI) provided with the power cord to insure it is operating correctly before operating machine.** Machine must have a properly functioning ground fault circuit interrupter on the power cord. GFCI reduces the risk of electric shock.
7. **Only use proper three-wire extension cords in good condition which have three-prong grounding plugs and three-pole receptacles which accept the tool’s plug.** Use of damaged, inferior, or other extension cords will not ground the tool. Increases the risk of electric shock and bodily injury or death.
8. **Extension cords are not recommended unless they are plugged into a Ground Fault Circuit Interrupter (GFCI) found in circuit boxes or outlet receptacles.** The GFCI on the machine power cord will not prevent electric shock from the extension cords.
9. **Keep all electric connections dry and off the ground.** Reduces the risk of electric shock.

10. **DO NOT touch plugs or tools with wet hands.** Reduces the risk of electric shock.

Personal Safety

1. **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.** A moment of inattention while operating power tools may result in serious personal injury.
2. **Dress properly. Do not wear loose clothing or jewelry. Contain long hair. Keep your hair, clothing, and gloves away from moving parts.** Loose clothes, jewelry, or long hair can be caught in moving parts.
3. **Avoid accidental starting. Be sure switch is off before plugging in.** Plugging in tools that have the switch on invites accidents.
4. **Remove adjusting keys or switches before turning the tool on.** A wrench or key that is left attached to a rotating part of the tool may result in personal injury.
5. **Do not overreach. Keep proper footing and balance at all times.** Proper footing and balance enables better control of the tool in unexpected situations.
6. **Use safety equipment. Always wear safety glasses and rubber soled, non-slip shoes.** Dust mask, non-skid safety shoes, hard hat, or hearing protection must be used for appropriate conditions.

Tool Use and Care

1. **Use clamps or other practical way to secure and support the workpiece to a stable platform. Do not force tool.** Holding the work by hand or against your body is unstable and may lead to loss of control.
2. **Do not force tool. Use the correct tool for your application.** The correct tool will do the job better and safer at the rate for which it is designed.
3. **Do not use tool if switch does not turn it on or off.** Any tool that cannot be controlled with the switch is dangerous and must be repaired.
4. **Disconnect the plug from the power source before making any adjustments, changing accessories, or storing the tool.** Such preventative safety measures reduce the risk of starting the tool accidentally.
5. **Store idle tools out of reach of children and other untrained persons.** Tools are dangerous in the hands of untrained users.
6. **Maintain tools with care.** Keep cutting tools sharp and clean. Properly maintained tools, with sharp cutting edges are less likely to bind and are easier to control.
7. **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. Many accidents are caused by poorly maintained tools.

8. **Only use 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.

Service

1. **Tool service must be performed only by qualified repair personnel.** Service or maintenance performed by unqualified repair personnel could result in injury.
2. **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.

SPECIFIC SAFETY RULES

1. **Only wear leather gloves.** Never use any other type of glove, such as cloth, rubber, or coated gloves. Never grasp a rotating cable with a rag. These items could become wrapped around the cable and cause serious injury.
2. **Never operate machine with belt guard removed.** Fingers can get caught between belt and pulley.
3. **Do not overstress cables.** Keep leather-gloved hand on the cable for control when machine is running. Overstressing cables because of an obstruction may cause twisting, kinking, or breaking of the cable and may result in serious injury.
4. **Place the machine at a distance not greater than two feet from the opening.** Greater distances can result in cable twisting or kinking.
5. **Machine is designed for ONE-PERSON operation.** Operator must control foot switch and cable.
6. **Do not operate machine in reverse (REV).** Operating machine in reverse can result in cable damage and is used only to back cutting tool out of an obstruction.
7. **Keep hands away from rotating drum.** Do not reach into drum unless machine is unplugged. Hand may be caught in the moving parts resulting in serious injury.
8. **Be careful when cleaning drains where cleaning chemicals have been used.** Avoid direct contact with skin and eyes. Drain cleaning chemicals can cause serious burns as well as damage the cable.
9. **Do not operate machine if operator or machine is standing in water.** Will increase risk of electrical shock.
10. **Wear safety glasses and rubber soled, non-slip shoes.** Use of this safety equipment may prevent serious injury.
11. **Before starting each job, check that the cable in the drum is not broken or kinked, by pulling the cable out and checking for wear or breakage.** Always replace worn out (kinked or broken) cables with genuine GENERAL replacement cables.

12. **Only use this tool in the application for which it was designed. Follow the instructions on the proper use of the machine.** Other uses or modifying the drain cleaner for other applications may increase risk of injury.

Ground Fault Circuit Interrupter (GFCI)

Your machine is equipped with a ground fault circuit interrupter, which protects you against shock if a short circuit should occur. Check that receptacle is properly grounded. Test the GFCI before each use.

1. Plug into 120-volt receptacle.
2. Push test button. Indicator light will go out and power to machine should cut off.
3. If light does not go out when test button is pushed, equipment should not be used until proper repairs can be made.
4. To restore power after test, push reset button. With the reset button depressed, if the machine doesn't start, stops while running, or if the operator experiences a mild shock, **do not use the machine!** Tag the machine out of service and take it to a motor repair center or return it to the factory for repairs.

! THE SECTION OF CORD BETWEEN THE WALL PLUG AND THE GFCI IS NOT IN THE PROTECTED CIRCUIT.

FEATURES

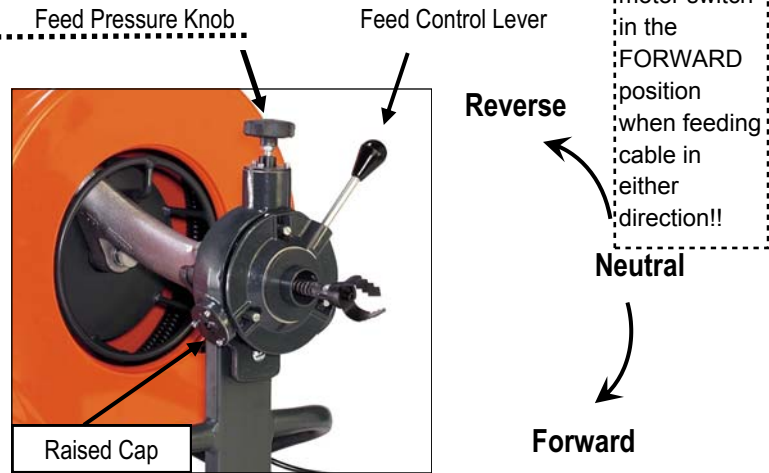


Speedrooter 91 shown (Right) with Cable Guide Tube (Cat. # S91-GT)














DO NOT OVER-TIGHTEN. KNOB HAS BEEN ADJUSTED PRIOR TO RENTAL AND SHOULD NOT NEED ADJUSTMENT! ONLY ADJUST IF CABLE STOPS FEEDING WITH NO RESISTANCE.

POWER CABLE FEED



Cutter Application Chart (Table 2)

Cutter	Cat. #	Typical Applications
Cutters for 1/2" Cables		
Arrow Head 	AH	Starting Tool, ideal for cutting and scraping.
1-1/2" U-Cutter 	1-1/2UC	Finishing tool, works well in grease stoppages.
Small Retrieving Tool 	RTR-1	To remove or retrieve loose objects.
13" Flexible Leader 	LE-1	Tool for negotiating around difficult bends.
Cutters for 5/8" and 3/4" Cables		
Spear Head 	SHD	Starting Drill—gets water flowing.
2" U-Cutter 	2UC	For Cutting and Scraping
3" & 4" Side Cutter Blades 	3SCB & 4SCB	For Cutting—Scraping walls of pipe.
3" Heavy Duty Saw Blade 	3HDB	For Cutting Roots
4" Rotary Saw Blade 	4RSB	For Cutting Roots
Large Retrieving Tool 	RTR-2	For removing loose objects or broken cables.
26" Flexible Leader 	LE-3	Helps cable get through tight traps and bends.

Note: There are no fixed rules for what cutter to use. If one tool doesn't take care of a stoppage, simply try another.

OPERATION SET-UP

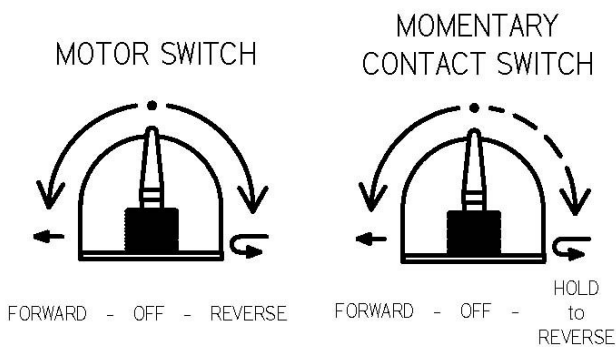
MAKE SURE THE MOTOR SWITCH IS IN THE 'OFF' POSITION!

- Place machine at a distance not greater than two feet from the drain opening. Be sure the Speedroter Guide Tube (S91-GT) is in place. If you can't get the machine this close to the drain opening, run the cable through the optional Guide Tube Extension (GTE) or a metal guide tube to prevent cable whipping.
- Position the air foot pedal for easy accessibility. The machine is designed for one-person operation. Be sure you can quickly remove your foot from the pedal in an emergency.
- Lock the wheels by lifting the brake handle located next to the left wheel and pressing it into the clip.
- Be sure the motor switch is in the **off** position.
- Make sure the Power Cable Feed is set to match the cable size you have selected. If you're using 3/4" or 5/8" cables, the feed should be assembled with the raised side of the lower two caps outward. If you are using 1/2" cables, the feed should be assembled with the raised side of the caps inward.
- Select the proper cutting tool (See Cutter Application Chart—Table 2). A good tool to start with is the Spearhead or 2" U-Cutter. If you are having difficulty getting around a P-Trap or close bend, try the flexible leader. After the line has been opened, follow with larger blades, which scrape the inside edges of the pipe, assuring a real cleaning job.
- Insert the cutter into the female connector at the end of the cable and tighten the connecting screw and lock washer **firmly** in place.



OPERATION

1. Before stepping on the foot pedal, pull cable from the drum and slide it into the drain as far as it will go.
2. Tighten the knob at top of the Power Cable Feed so that the feed roller presses against the cable. Be sure not to over tighten since this could cause excess cable wear.
3. The feed lever controls the feeding rate and direction of the cable. Move the lever down to feed cable out of drum. The further the lever is moved downward, the faster the cable will feed out. Move lever up to retract cable into drum. When the lever is in the middle (neutral) position, cable will spin in place.
4. Move the motor switch to the **forward** position.
5. With a gloved hand on the Guide Tube, depress the air foot pedal to start machine. Feed the cable into the line and against the obstruction with a firm, even pressure. Adjust the feeding rate to the resistance met. Do not force the cable - let the cutter do the work. The job won't go any faster and you could damage the cable.
6. Don't leave too much slack in the cable since this will cause whipping. If the cable starts to bend or build up too much twist, release pressure on the foot pedal and rotate the drum in the opposite direction to relieve the twist on the cable. Push any excess cable back into the drum and then continue.
7. If you're having trouble getting around tight bends, try putting the machine in reverse while applying steady pressure.

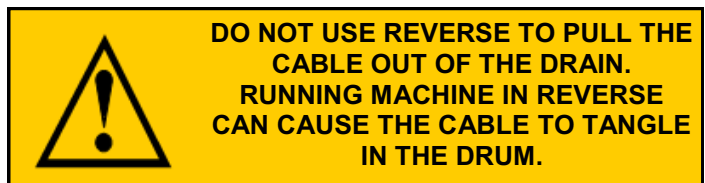


Don't do this for more than a few seconds at a time since this could cause tangling in the drum or kinking.

8. If you still can't get around the bend, you're probably using too large a cable. Switch to a 5/8" or 1/2" diameter cable. (See Cable Application Chart—Table 1)
9. When the cable reaches the stoppage, allow the cable to progress forward slowly, chewing into the stoppage as it goes. This slow forward movement will reduce stress on the cable while doing a more thorough cleaning job. A back and forth action often works best.

Hint: It's often helpful to have a small stream of water running in the line to wash the cuttings away while the machine is in operation and after.

10. Be careful not to let the cutter get caught in the stoppage as you work through it. This can cause kinking and breaking of the cable. When you feel the cable starting to twist in your hands, stop the machine and retract the cable. This will free the cutter from the obstruction. Then allow the cable to move forward slowly into the stoppage. Remember, no cutting takes place when the blades stop turning.
11. After the line has been opened, retract the cable by moving the feed lever up. Make sure the motor switch is in the **forward** position. This is important to prevent the cable from tangling in the drum or in the line.
12. When the cutter is near the drain opening, take your foot off the pedal to stop drum rotation. Never retract the cutter from drain while cable is rotating. The cable could whip and cause serious injury.

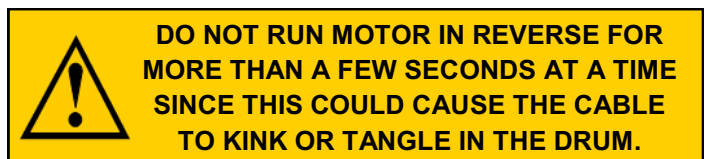


SPECIAL OPERATIONS

IF CABLE GETS CAUGHT IN LINE

The motor can be reversed to free the cable if it gets caught in line. (Note: if using Power Cable Feed, putting motor in reverse will cause the feed control lever to operate opposite of normal.)

1. Move motor switch to the reverse position.
2. Depress the foot pedal while pulling on the cable.
3. After cable is loose, move switch back into forward position.



IF CABLE TANGLES IN DRUM

This is caused by using too much pressure when feeding the cable or feeding the cable into the line while running the machine in reverse. To untangle the cable, rotate the drum in opposite direction. This will usually get the cable to lie in the drum properly.

If the cable has become badly tangled, which shouldn't occur if used properly, it can be straightened out by removing the distributor tube from the machine. To do this:

