RIDGID

Drain Cleaner Manual

K-750 Drain Cleaning Machine

⚠ WARNING!

Read this Operator's Manual carefully before using this tool. Failure to understand and follow the contents of this manual may result in electrical shock, fire and/or serious personal injury.

Table of Contents

*Original Instructions - English

Drain Cleaner

K-750 Drain Cleaning Machine

RIDGID®

K-750 Drain Cleaning Machine	
Record Serial Number below and retain product serial number which is located on nameplate.	
Serial No.	

Safety Symbols

In this operator's manual and on the product, safety symbols and signal words are used to communicate important safety information. This section is provided to improve understanding of these signal words and symbols.

This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

⚠ DANGER DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury.

⚠ WARNING WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.

⚠ CAUTION CAUTION indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

NOTICE NOTICE indicates information that relates to the protection of property.

This symbol means read the operator's manual carefully before using the equipment to reduce the risk of injury. The operator's manual contains important information on the safe and proper operation of the equipment.

This symbol means always wear safety glasses with side shields or goggles when handling or using this equipment to reduce the risk of eye injury.

This symbol indicates the risk of hands, fingers or other body parts being caught, wrapped or crushed in the drain cleaning cable.

This symbol indicates a risk of electrical shock.

This symbol indicates the risk of entanglement in a belt and pulley.

General Safety Rules*

⚠ WARNING

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

SAVE THESE INSTRUCTIONS!

Work Area Safety

- **Keep 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.

Electrical Safety

- **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.
- **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.
- **Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
- **Do not abuse the cord. Never use the cord to carry the tool 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.
- **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.

Personal Safety

- **Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a tool while you are tired or under the influence**

* The text used in the General Safety Rule section of this manual is verbatim, as required, from the applicable UL/CSA 745 1st edition standard. This section contains general safety practices for many different types of power tools. Not every precaution applies to every tool, and some do not apply to this tool.

of drugs, alcohol or medication. A moment of inattention while operating power tools may result in serious personal injury.

- **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.
- **Avoid accidental starting. Be sure switch is OFF before plugging in.** Carrying power tools with your finger on the switch or plugging in power tools that have the switch ON invites accidents.
- **Remove adjusting keys or wrenches before turning the tool ON.** A wrench or a key left attached to a rotating part of the power tool may result in personal injury.
- **Do not 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, or hearing protection must be used for appropriate conditions.

Tool Use and Care

- **Use clamps or other practical way to secure and support the workpiece to a stable platform.** Holding the work by hand or against your body is unstable and may lead to loss of control.
- **Do not force the tool. Use the correct tool for your application.** The correct tool will do the job better and safer at the rate for which it was designed.
- **Do not use tool if the switch does not turn it ON and OFF.** Any tool that cannot be controlled with the switch is dangerous and must be repaired.
- **Disconnect the plug from the power source before making any adjustments, changing accessories, or storing the tool.** Such preventive safety measures reduce the risk of starting the tool accidentally.
- **Store idle tools out of the reach of children and other untrained persons.** Tools are dangerous in the hands of untrained users.
- **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.
- **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.
- **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.

Service

- **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 electrical shock or injury.

Drain Cleaner Safety Warnings

⚠ WARNING

This section contains important safety information that is specific to this tool.

Read these precautions carefully before using the K-750 Drain Cleaning Machine to reduce the risk of electrical shock or other serious personal injury.

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE!

Keep this manual with the machine for use by the operator.

Drain Cleaner Safety

- **Only wear RIDGID® drain cleaning gloves or mitts ("gloves"). Never grasp the rotating cable with anything else, including other gloves or a rag.** They can become wrapped around the cable, causing hand injuries. Only wear latex or rubber gloves *under* RIDGID drain cleaner gloves. Do not use damaged drain cleaning gloves.
- **Never operate machine with the belt guard removed.** Fingers can be caught between the belt and pulley.
- **Do not allow the cutter to stop turning while the machine is running.** This can overstress the cable and may cause twisting, kinking or breaking of the cable. Twisting, kinking or breaking cable may cause striking or crushing injuries.
- **Keep gloved hand on the cable whenever the machine is running.** This provides better control of the cable and helps prevent twisting, kinking and breaking of the cable. Twisting, kinking or breaking cable may cause striking or crushing injuries.
- **Position machine within three feet of the drain inlet**

or properly support exposed cable when the distance exceeds three feet. Greater distances can cause control problems leading to twisting, kinking or breaking of the cable. Twisting, kinking or breaking cable may cause striking or crushing injuries.

- **One person must control both the cable and the foot switch.** If the cutter stops rotating, the operator must be able to turn the machine motor off to prevent twisting, kinking and breaking of the cable. Twisting, kinking or breaking cable may cause striking or crushing injuries.
- **Do not operate the machine in REV (reverse) rotation except as described in this manual.** Operating in reverse can result in cable damage and is used to back the tool out of blockages.
- **Keep hands away from rotating drum and guide tube. Do not reach into drum unless machine is unplugged.** Hand may be caught in the moving parts.
- **Do not wear loose clothing or jewelry. Keep your hair and clothing away from moving parts.** Loose clothing, jewelry or hair can be caught in moving parts.
- **Always use appropriate personal protective equipment while handling and using drain cleaning equipment.** Drains may contain chemicals, bacteria and other substances that may be toxic, infectious, cause burns or other issues. **Appropriate personal protective equipment always includes safety glasses and RIDGID drain cleaning gloves,** and may include equipment such as latex or rubber gloves, face shields, goggles, protective clothing, respirators and steel-toed footwear.
- **Practice good hygiene.** Use hot, soapy water to wash hands and other body parts exposed to drain contents after handling or using drain cleaning equipment. Do not eat or smoke while operating or handling drain cleaning equipment. This will help prevent contamination with toxic or infectious material.
- **Do not operate this machine if operator or machine is standing in water.** Operating machine while in water increases the risk of electrical shock.
- **Only use drain cleaning machine to clean drains of recommended sizes according to these instructions.** Other uses or modifying the drain cleaning machine for other applications may increase the risk of injury.

The EC Declaration of Conformity (890-011-320.10) will accompany this manual as a separate booklet when required.

Description, Specifications and Standard Equipment

Description

The RIDGID® K-750 Drain Cleaning Machine will clean drain lines 3" to 8" in diameter and 200 feet in length depending on size of cable. Corrosion resistant cable drum holds 100 feet of 3/4" diameter cable or 125 feet of 5/8" diameter cable. Cable spins at 200 RPM.

The drum is belt-driven by a 1/2 HP electric motor that has a grounded electrical system. An integral Ground Fault Interrupter (GFCI) is built into the line cord. A pneumatic foot switch provides ON/OFF control of the motor. A "kickstand" base is provided for machine stability during operation.

The cable has a quick change coupling system for connecting or disconnecting tools. An optional AUTOFEED advances or retracts the cable at a rate up to 20 feet per minute. A manual feed option is also available.

Specifications

Cable Size and Type	Recommended Line Size and Reach	
	Line Size	Reach
5/8" Cable	3" to 6"	150'
3/4" Cable	4" to 8"	200'

Line Capacity .....*See Following Chart.*

Drum Capacity.....100' of 3/4" Cable or
125' of 5/8" Cable

Motor Type .....Induction

Motor Rating

115V Motor .....115VAC Single Phase
6.5 A, 60Hz

230/240V Motor 230/240VAC
3.6 A, 50Hz, 550W

No Load Speed .....200 r/min (RPM)

Weight (Machine Only)...95 lbs.

Dimensions

Length.....26"

Width.....21"

Height .....43"

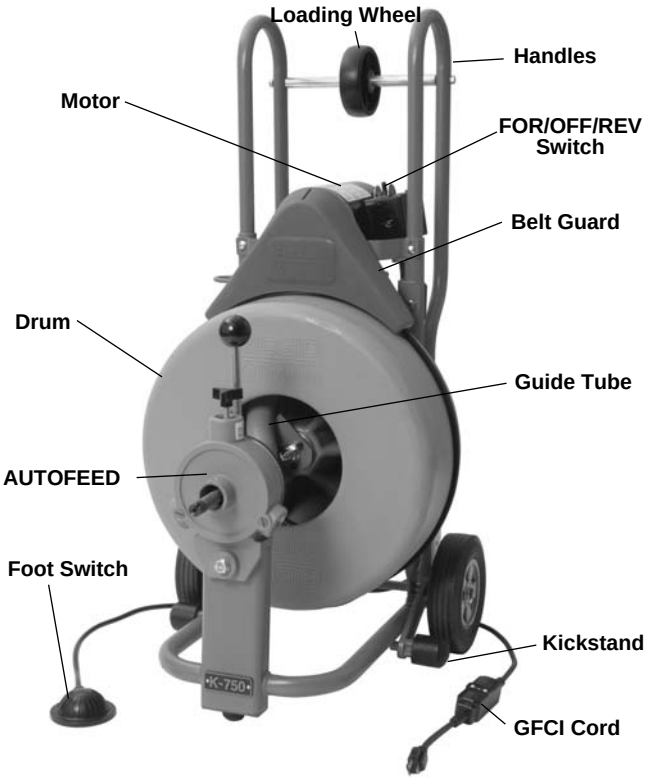


Figure 1 – K-750 Drain Cleaning Machine with AUTOFEED

Figure 2 – Machine Serial Number

The machine serial number is located on the rear drum support. The last 4 digits indicates the month and year of the manufacture. (04 = month, 10 = year).

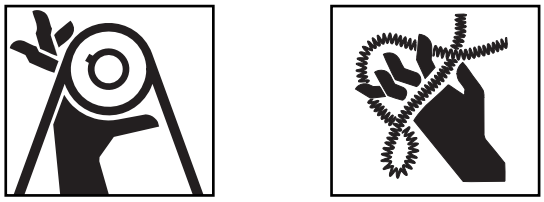
Standard Equipment

All K-750 Drain Cleaning Machines come with one pair of RIDGID Drain Cleaning Gloves.

NOTICE This machine is made to clean drains. If properly used it will not damage a drain that is in good condition and properly designed, constructed and maintained. If the drain is in poor condition, or has not been properly designed, constructed and maintained, the drain cleaning process may not be effective or could cause damage to the drain. The best way to determine the condition of a drain before cleaning is through visual inspection with a camera. Improper use of this drain cleaner can damage the drain cleaner and the drain. This machine may not clear all blockages.

Machine Assembly

⚠ WARNING



To reduce the risk of serious injury during use, follow these procedures for proper assembly.

FOR/OFF/REV switch should be OFF and machine unplugged before assembly.

Installing Handles

1. Remove the bolts and nuts retaining the belt guard bracket to the machine frame, remove belt guard.
2. Loosely assemble loading wheel to handles with provided bolts *(see Figure 3)*.

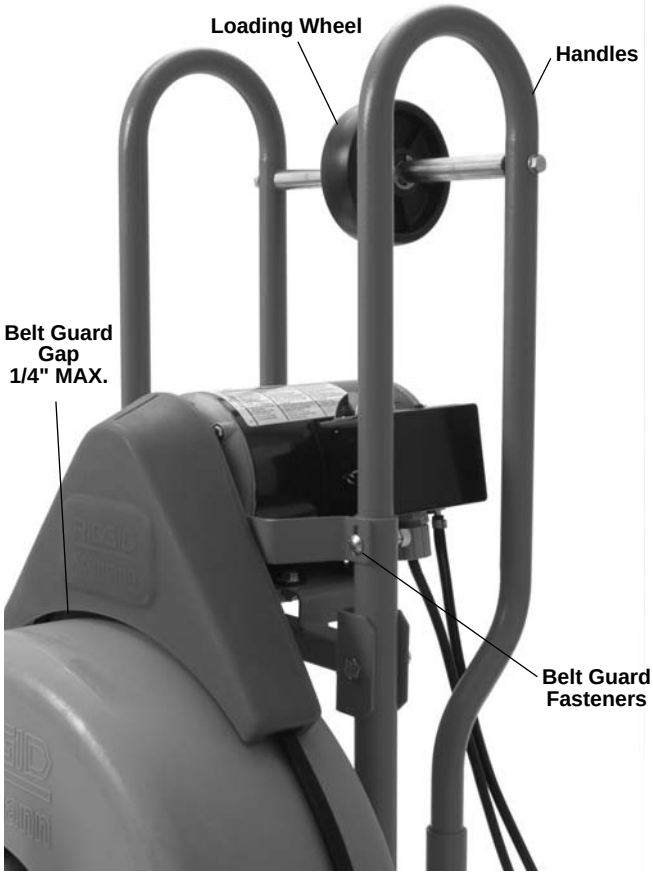


Figure 3 – Handle Installation and Belt Guard Adjustment

3. Insert handles into machine frame and install bolts through belt guard bracket, machine frame and handle. Install nuts to retain bolts, do not tighten.
4. Firmly tighten bolts holding loading wheel to handles.
5. Adjust gap between guard and drum to less than 1/4". Firmly tighten belt guard bracket bolts. Confirm that gap between belt guard and drum is less than 1/4" to prevent fingers and other objects from being pulled into the belt and pulley. Adjust if necessary.

Installing Cable

Do not remove the bands or cables from the cable carton. The cable is under tension and can whip or strike if released.

Manual Cable Installation – this can be used for both Manual and AUTOFEED units.

1. Retrieve male coupling end of cable through the center hole of the carton and pull approximately 6' of cable from the carton.
2. Connect the male coupling of the cable to the pigtail coupling *(See Figure 4)*. Confirm connection is secure.
3. Pull short sections of cable from the carton and manually feed into the drum. Do not turn machine ON.

AUTOFEED Cable Installation

1. Retrieve male coupling end of cable through center hole of carton and pull cable from carton. Lay cable out straight in a flat area (such as an empty paved

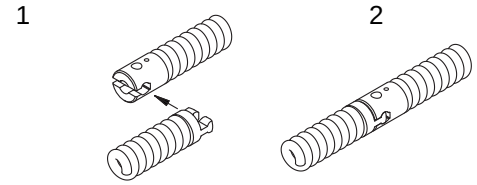
Connecting/Disconnecting 5/8" and 3/4" Drum Machine Cable Couplings

Keep couplings clean and lubricated. Plunger pin must move freely and fully extend to secure connection.

New style – Plunger pin

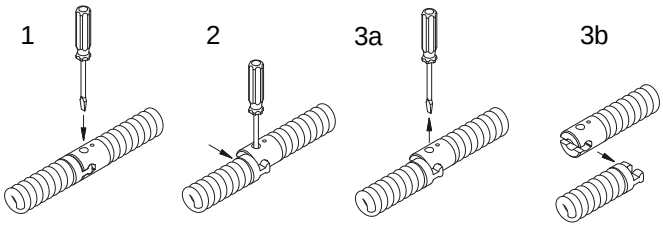
Screwdriver required.

Connecting



1. Slide the couplings together. If needed, depress plunger pin.
2. Confirm connection is secure. (plunger pin fully extended).

Disconnecting

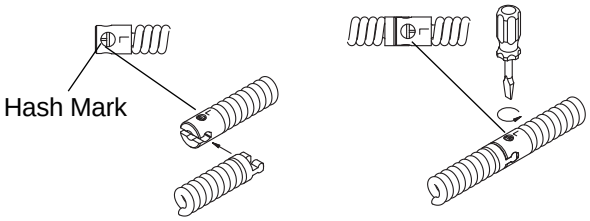


1. Insert the screwdriver to depress the plunger pin.
2. Push the couplings apart until the male coupling contacts the screwdriver.
3. Remove the screwdriver and push the couplings apart.

Old style – Rotating pin

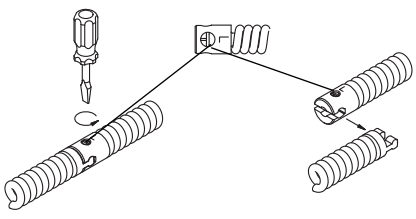
Screwdriver required.

Connecting



1. Slide the couplings together.
2. Rotate pin so hash mark is away from end of cable (towards "L" stamped on coupling). Confirm connection is secure.

Disconnecting



1. Rotate pin so hash mark is towards end of cable (away from "L" stamped on coupling).
2. Push the couplings apart.

Figure 4

parking lot or driveway) with no obstructions or items that could become wrapped around the cable.

2. When using an AUTOFEED to load cable, the rotating cable will tend to walk sideways. To prevent this, place suitable stops (such as wood blocks) on either side of the cable at 10 foot intervals.
3. After properly inspecting and setting up the drain cleaner, attach the cable to the pigtail as shown in *Figure 4*. Make sure that no one is in the area around the cable. Tighten the AUTOFEED knob so that the roller touches the cable plus one additional turn. With the FOR/OFF/REV switch in the FOR position, press the foot switch to start the drum turning. Move the feed handle in the opposite direction of the cable rotation to feed the cable into the drum.
4. When 10' of cable is left outside of the drum, step off the foot switch and move the FOR/OFF/REV switch to OFF. Loosen the AUTOFEED knob and manually feed the remaining cable into the drum. Do not use the AUTOFEED to put all of the cable in the drum. The cable end can whip around and cause serious injury.

Attaching Front Guide Hose (Optional Accessory For Use With AUTOFEED)

1. Pull approximately 4' of cable from the drum.
2. Slide Front Guide Hose over the cable, adapter end first. Pull plunger pin head up and place adapter over the mounting collar on the AUTOFEED. Make sure plunger pin locks into the hole in the mounting collar.

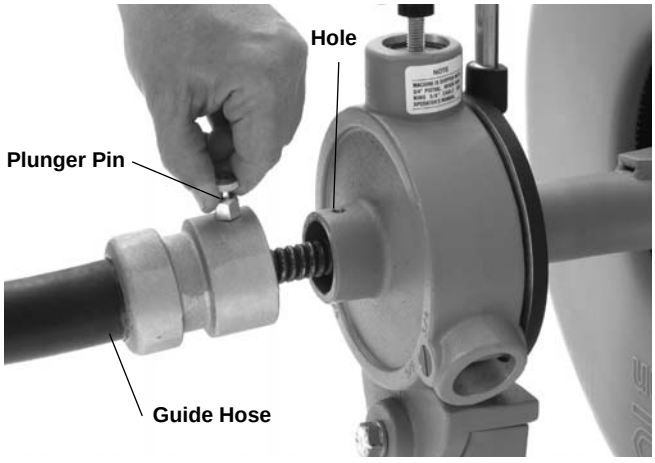


Figure 5 – Attaching Front Guide Hose To AUTOFEED

Pre-Operation Inspection

⚠ WARNING

Before each use, inspect your drain cleaning machine and correct any problems to reduce the risk of serious injury from electric shock, twisted or broken cables, chemical burns, infections and other causes and prevent drain cleaner damage.

Always wear safety glasses, RIDGID drain cleaning gloves, and other appropriate protective equipment when inspecting your drain cleaner. For extra protection from chemicals and bacteria on the equipment, wear latex, rubber or other liquid barrier gloves under the RIDGID drain cleaning gloves.

1. Inspect the RIDGID drain cleaning gloves or mitts ("gloves"). Make sure they are in good condition with no holes, tears or loose sections that could be caught in the rotating cable. It is important not to wear improper or damaged gloves. The gloves protect your hands from the rotating cable. If the gloves are not RIDGID drain cleaning gloves or are damaged or worn out, do not use machine until RIDGID drain cleaning gloves are available. *See Figure 6.*

Figure 6 – RIDGID Drain Cleaning Gloves – Leather, PVC

2. Make sure that the drain cleaning machine is unplugged and inspect the power cord, Ground Fault Circuit Interrupter (GFCI) and plug for damage. If the plug has been modified, is missing the grounding prong or if the cord is damaged, to avoid electrical shock, do not use the machine until the cord has been replaced by a qualified repair person.
3. Clean any oil, grease or dirt from all equipment handles and controls. This helps prevent the machine or control from slipping from your grip.

4. Make sure the foot switch is attached to the drain cleaning machine. Do not operate the machine without the foot switch.
5. Inspect the drain cleaning machine for the following items:
   - Proper assembly and completeness
   - Any broken, worn, missing, mis-aligned or binding parts
   - Smooth and free movement of the AUTOFEED handle throughout range. Rotate the drum and make sure that it turns freely without binding.
   - Presence and readability of the warning label *(see Figure 7)*.
   - Presence and proper adjustment of the belt guard. Belt guard should be adjusted so that the gap between the guard and the drum is no more than 1/4". *(See Figure 3.)*
   - Any condition which may prevent safe and normal operation.

   If any problems are found, do not use the drain cleaner until the problems have been repaired.

Figure 7 – Warning Label

6. Clean any debris from the cable and cutting tools. Inspect cables for wear and damage. Inspect for:
   - Obvious flats worn into the outside of the cable (cable is made from round wire and the profile should be round).
   - Multiple or excessively large kinks (slight kinks up to 15 degrees can be straightened).
   - Space between cable coils indicating that the cable has been deformed by stretching, kinking, or running in reverse (REV).
   - Excessive corrosion from storing wet or exposure to drain chemicals.

   All of these forms of wear and damage weaken the cable and make cable twisting, kinking or breaking more likely during use. Replace worn and damaged cable before using drain cleaner.

   Make sure the cable is fully retracted with no more than 6" of cable outside of the machine. This will prevent whipping of the cable at start up.
7. Inspect the tools for wear and damage. If necessary, replace prior to using the drain cleaning machine. Dull or damaged cutting tools can lead to binding, cable breakage, and slow the drain cleaning process.
8. Make sure that the FOR/OFF/REV switch is set to the OFF position.
9. With dry hands, plug cord into properly grounded outlet. Test the GFCI provided in the electrical cord to insure that it is operating correctly. When the test button is pushed in, the indicator light should go off. Reactivate by pushing the reset button in. If the indicator light goes on, the GFCI is functioning properly. If GFCI is not functioning properly, unplug the cord and do not use the drain cleaning machine until the GFCI has been repaired.

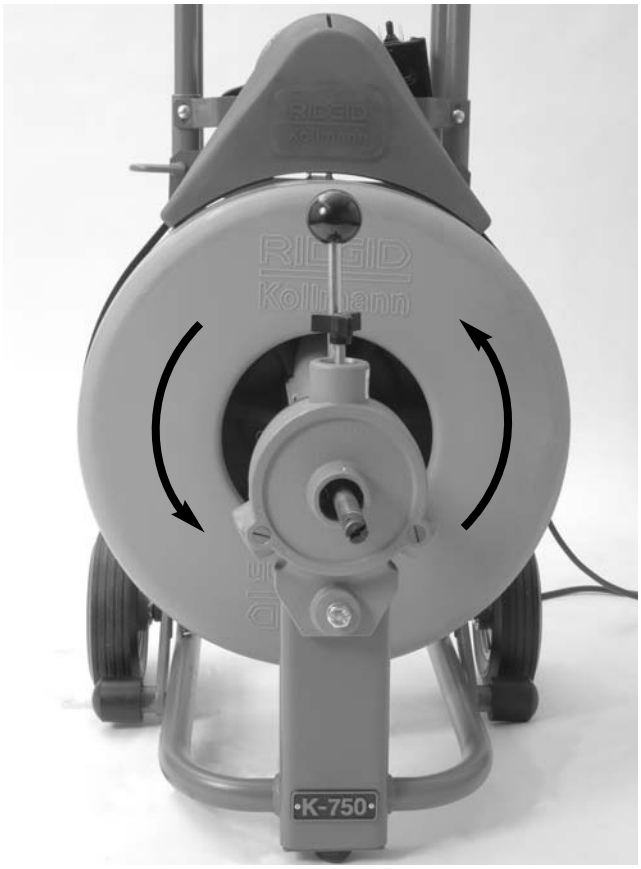


Figure 8 – Proper Drum Rotation (FOR Switch Position)

10. Move the FOR/OFF/REV switch into the FOR position. Press the foot switch and note the direction of rotation of the drum. If the foot switch does not control the machine operation, do not use the machine until the foot switch has been repaired. The drum should rotate counter-clockwise when viewed from the front of the drum, and will match the drum direction s*hown on the warning label (Figure 7) and shown in Figure 8.* Release the foot switch and let the drum come to a complete stop. Place the FOR/OFF/REV switch into the REV position, and repeat above testing to confirm that the drain cleaner operates properly in reverse. If the rotation is not correct, do not use the machine until it has been repaired.
11. With the inspection complete, move the FOR/OFF/-REV switch into the OFF position and, with dry hands, unplug the machine.

Machine and Work Area Set-Up

⚠ WARNING

Set up the drain cleaning machine and work area according to these procedures to reduce the risk of injury from electric shock, fire, machine tipping, twisted or broken cables, chemical burns, infections and other causes, and prevent drain cleaner damage.

Always wear safety glasses, RIDGID drain cleaning gloves, and other appropriate protective equipment when setting up your drain cleaner. For extra protection from chemicals and bacteria on the machine and in the work area, wear latex, rubber or other liquid barrier gloves under the RIDGID drain cleaning gloves. Rubber soled, non-slip shoes can help prevent slipping and electric shock, especially on wet surfaces.

1. Check work area for:
   - Adequate lighting.
   - Flammable liquids, vapors or dust that may ignite. If present, do not work in area until sources have been identified and corrected. The drain cleaner is not explosion proof and can cause sparks.
   - Clear, level, stable dry place for machine and operator. Do not use the machine while standing in water. If needed, remove the water from the work area. Wood or other coverings may need to be put down.
   - Properly grounded electrical outlet. A three-prong or GFCI outlet may not be properly grounded. If in doubt, have outlet inspected by a licensed electrician.
   - Clear path to electrical outlet that does not contain any potential sources of damage for the power cord.
   - Clear path to transport the drain cleaner to the work area.
2. Inspect the drain to be cleaned. If possible, determine the access point(s) to the drain, the size(s) and length(s) of the drain, distance to tanks or mainlines, the nature of the blockage, presence of drain cleaning chemicals or other chemicals, etc. If chemicals are present in the drain, it is important to understand the specific safety measures required to work around those chemicals. Contact the chemical manufacturer for required information.

   If needed, remove fixture (water closet, etc.) to allow access to the drain. Do not feed the cable through a fixture. This could damage the drain cleaner and the fixture.
3. Determine the correct drain cleaning equipment for the application. The K-750 drain cleaner is made for:
   - 3" to 6" lines up to 150' long with $^{5}/_{8}$" cable
   - 4" to 8" lines up to 200' long with $^{3}/_{4}$" cable

   Drain cleaners for other applications can be found by consulting the the Ridge Tool Catalog.

   Inner-Core Cable is not recommended for use through P-Traps and severe bends in lines smaller than 4".

   Optional 24" flexible trap leaders can be added to aid users through traps and tight clean-outs.
4. Make sure machine has been properly inspected.
5. If machine is equipped with an AUTOFEED, confirm that the AUTOFEED is set to the proper size for the cable being used *(see Figure 9)*. The slots in the ends of the pins should align with the size of cable being used. A screwdriver can be used to turn the pins. The AUTOFEED adjustment knob may need to be loosened to allow the size to be adjusted.
6. If needed, place protective covers in the work area. The drain cleaning process can be messy.

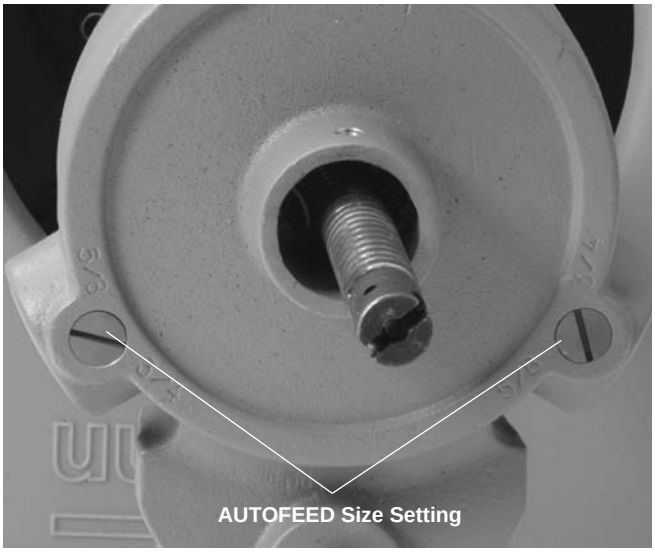


Figure 9 – AUTOFEED Size Setting

7. Take the drain cleaning machine to the work area along the clear path. If the machine needs to be lifted, use proper lifting techniques. Use care moving equipment up and down stairs, and be aware of possible slip hazards. Wear appropriate footwear to help prevent slips.
8. Position the drain cleaning machine so that the K-750 cable outlet is within 3 feet of the drain access. Greater distances from the drain access increases the risk of the cable twisting or kinking. If the machine cannot be placed with the cable outlet within 3' of the drain access, extend the drain access back to within 3' of the cable outlet with similar sized pipe and fittings. Improper cable support can allow the cable to kink and twist and can damage the cable or injure the operator. *See Figure 10.* If using front guide hose, place machine so that at least 6" of guide hose can be placed in drain opening.

Figure 10 – Example of Extending Drain to Within 3' of Cable Outlet

9. Tilt the machine forward and use your foot to rotate one kickstand at a time to the backside of the wheel. The machine should firmly rest on the kickstands. The kickstands stabilize the machine and help prevent tipping or walking during use. If working on soft ground, it may be necessary to place wood or other solid material under the drain cleaner for proper support.

Figure 11 – Setting Kickstands

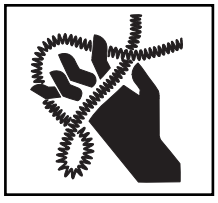
10. Evaluate the work area and determine if any barriers are needed to keep bystanders away from the drain cleaner and work area. The drain cleaning process can be messy and bystanders can distract the operator.
11. Select proper tool for the conditions.
    If the nature of the obstruction is unknown, it is good practice to use a straight or bulb auger to explore the obstruction and retrieve a piece of the obstruction for inspection.
    Once the nature of the obstruction is known, an appropriate tool can be selected for the application. A good rule of thumb is to start by running the smallest available tool through the blockage to allow the backed up water to start flowing and carry away the debris and cuttings as the drain is cleaned. Once the drain is open and flowing, other tools appropriate for the blockage can be used. Generally, the largest tool used should be no bigger than the inside diameter of the drain minus one inch.
    Proper tool selection depends on the specific circumstances of each job and is left to the users' judgement.
    A variety of other cable attachments are available and are listed in the Accessories section of this manual. Other information on cable attachments can be found in the RIDGID Catalog.

12. Securely install tool on the end of the cable *(See Figure 4)*. If the connection is not secure, the cutting tool may fall off in use.
13. Position the foot switch for easy accessibility. You must be able to hold and control the cable, control the foot switch, and reach the FOR/OFF/REV switch.
14. Confirm that the FOR/OFF/REV switch is in the OFF position.
15. Run the cord along the clear path. With dry hands plug the drain cleaner into a properly grounded outlet. Keep all connections dry and off the ground. If the power cord is not long enough, use an extension cord that:
    - Is in good condition.
    - Has a three prong plug similar to that supplied on the drain cleaner.
    - Is rated for outdoor use and contains a W or W-A in the cord designation (i.e. SOW), or complies with H05VV-F, H05RN-F types or IEC type design (60227 IEC 53, 60245 IEC 57).
    - Has sufficient wire size (16 AWG (1.5mm^2) for 50' (15.2m) or less, 14 AWG (2.5mm^2) for 50' – 100' (15.2m – 30.5m) long). Undersized wires can overheat, melting the insulation or causing a fire or other damage.

    When using an extension cord, the GFCI on the drain cleaner does not protect the extension cord. If the outlet is not GFCI protected, it is advisable to use a plug in type GFCI between the outlet and the extension cord to reduce the risk of shock if there is a fault in the extension cord.

Operating Instructions

⚠ WARNING



Always wear eye protection to protect your eyes against dirt and other foreign objects.

Only wear RIDGID drain cleaning gloves or mitts. Never grasp the rotating cable with anything else, including a glove or a rag. They can become wrapped around the cable, causing serious injury.

When cleaning drains that might contain hazardous chemicals or bacteria, wear appropriate protective equipment, such as goggles, face shields or respirators, to prevent burns and infections. For extra protection from chemicals and bacteria on the machine and in the work area, wear latex, rubber or other liquid barrier gloves under the RIDGID drain cleaning gloves. Rubber soled, non-slip shoes can help prevent slipping and electric shock, especially on wet surfaces.

Follow operating instructions to reduce the risk of injury from twisted or broken cables, cable ends whipping around, machine tipping, chemical burns, infections and other causes.

1. Make sure that machine and work area is properly set up and that the work area is free of bystanders and other distractions.
2. Pull cable out of drum and feed into drain. If needed, loosen AUTOFEED knob. Push cable as far into drain as it will go. At least one foot (.3 m) of cable must be in drain so that the end of the cable will not come out of the drain and whip around when the machine is started.

   Directly route the cable from the outlet of the machine to the drain opening, minimizing exposed cable and changes in direction. Do not tightly bend the cable – this can increase the risk of twisting or breaking.

Figure 12 – In Operating Position, Manually Feeding Cable

3. Assume a proper operating position:
   - Be sure you can control the ON/OFF action of the foot switch and can quickly release the foot switch if needed. Do not press foot switch yet.
   - Be sure that you have good balance, do not have to over reach, and cannot fall on the foot switch, drain cleaning machine, the drain or other hazards.

- You must be able to place at least one hand on the cable at all times to control and support the cable.
- You must be able to reach the FOR/OFF/REV switch.

This operating position will help to maintain control of the cable and machine. *See Figure 12.*

4. Move the FOR/OFF/REV switch to the FOR (FORWARD) position. Do not depress the foot switch yet. FOR/OFF/REV refers to the drum/cable rotation and not to the direction of cable movement. Do not rotate the cable in reverse except as specifically described in these instructions. Running the drain cleaner in REV can damage the cable.

Operation

The K-750 Drain Cleaning Machine is available in two different feed configurations, either manual feed or AUTOFEED. A K-750 supplied with the AUTOFEED can either feed the cable with the AUTOFEED (feed lever position) or by manually pulling the cable from the drum and feeding it into the drain. With the AUTOFEED you can switch back and forth between operating methods as needed. A K-750 without the AUTOFEED can only be used manually.

Feeding The Cable Into The Drain

Manual Operation

Confirm that at least one foot (.3 m) of cable is in the drain. Grasp the exposed cable with both gloved hands equally spaced and pull 6"-12" of cable out of the drum so that there is a slight bow in the cable. Gloved hands must be on the cable to control and support the cable. Improper cable support can allow the cable to kink or twist and can damage the cable or injure the operator. Make sure that the cable outlet of the drain cleaner is within 3' of the drain opening.

Depress the foot switch to start the machine. The person controlling the cable must also control the foot switch. Do not operate the drain cleaner with one person controlling the cable and another person controlling the foot switch. This can lead to twisting, kinking and breaking of the cable. Feed the rotating cable into the drain. The rotating cable will work its way into the drain as you push on the cable with gloved hands. Do not allow the cable to build up outside the drain, bow or curve. This can allow the cable to twist, kink or break.

When the cable has been fed into the drain opening, pull 6"-12" more cable from the drum and continue feeding the rotating cable into the drain.

AUTOFEED Operation

Confirm that at least one foot (.3 m) of cable is in the drain. Tighten the AUTOFEED knob *(Figure13)* so that the roller touches the cable plus one additional turn. Do no overtighten the knob – this can cause premature failure of the AUTOFEED or cable.

Grasp near the center of the exposed length of cable with a gloved hand. Gloved hand must be on the cable to control and support the cable. Improper cable support can allow the cable to kink or twist and can damage the cable or injure the operator. Make sure that the cable outlet of the drain cleaner is within 3' of the drain opening. Place the other hand on the AUTOFEED lever. AUTOFEED lever should be in neutral (Vertical) position *(see Figure 13).*

See "Using Machine With A Front Guide Hose" if using a guide hose.

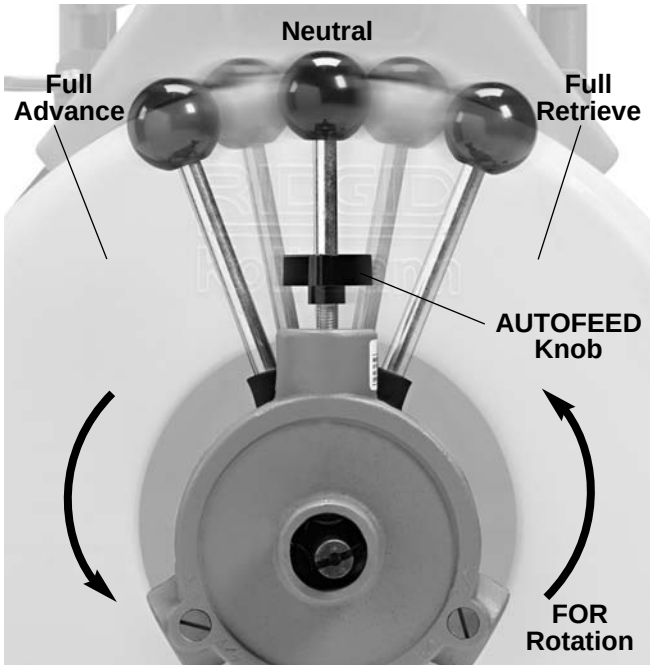


Figure 13 – AUTOFEED Lever Positions (Cable Turning In FOR Direction)
NOTE: Rate of cable advance or retrieve varies by handle movement from neutral.

Depress the foot switch to start the machine. The person controlling the cable must also control the foot switch. Do not operate the drain cleaner with one person controlling the cable and another person controlling the foot switch. This can lead to twisting, kinking and breaking of the cable. With the cable rotating, move the AUTOFEED control handle in the same direction that the cable rotates. This will cause the cable to feed out of the machine. The further the control handle from the neutral position, the faster the cable will be fed (up to 20' per minute, maximum). The rotating cable will work into the drain as you control the cable with your gloved hand. Do not allow the cable to build up outside the drain, bow or curve. This can allow the cable to twist, kink or break.

Figure 14 – Operating the K-750 using the AUTOFEED

If it is difficult to get the cable through a trap or other fitting, the following methods or combinations of methods can be used.

- Sharp thrusts of the cable, both with and without the cable rotating, can help the cable through a trap.
- In some cases with the switch in the OFF position, rotating the drum by hand can change the orientation of the cutter to allow it to more easily negotiate the fitting.
- Run the drain cleaner in REV (REVERSE) rotation for several seconds while pushing on the cable. Only do this long enough to get the cable started through the trap. Running the cable in reverse can damage the cable.
- Use a flexible leader between the tool and the cable.
- If these options don't work, consider using a smaller diameter or more flexible cable, or a different drain cleaner.

Cleaning The Drain

As you feed the cable into the drain, you may see the cable slow down or build up outside the drain. Always keep your hands on the cable. You may feel the cable start to wind or load up (this may feel like the cable is starting to twist or squirm). This may be a transition in the drain (trap, elbow, etc.), build up in the drain (grease, etc.) or the actual blockage. Feed the cable slowly and carefully. Do not let cable build up outside the drain. This can cause the cable to twist, kink or break.

Pay attention to the amount of cable that has been fed into the drain. Feeding cable into a larger drain, septic tank or similar transition may cause the cable to kink or knot and prevent removal from the drain. Minimize the amount of cable fed into the transition to prevent problems. Each wrap of the cable in the drum is approximately four feet long. If using $^{5}/_{8}$" cable with a $^{3}/_{4}$" pigtail, do not feed the connection through the AUTOFEED. This could damage the AUTOFEED.

If an additional length of cable is needed, *see the section "Adding Additional Cable".*

Working The Blockage

If the end of the cable stops turning, it is no longer cleaning the drain. If the end of the cable becomes lodged in the blockage and power is maintained to the drain cleaner, the cable will start to wind up (this may feel like the cable is starting to twist or squirm). Having a hand on the cable allows you to feel this wind up and control the cable. If the cable end stops turning or if the cable starts to wind up, immediately pull the cable back from the obstruction:

- **Manual Operation** – pull back on the cable to free the cable end from the blockage.
- **AUTOFEED Operation** – move the feed lever in the direction opposite the cable rotation to free the cable end from the blockage.

Don't keep the cable rotating if the cable is stuck in a blockage. If the cable end stops turning and the drum keeps rotating, the cable can twist kink or break.

Once the cable end is free of the blockage and turning again, you can slowly feed the cable end back into the blockage. Do not try to force the cable end through the blockage. Let the spinning end "dwell" in the blockage to completely break it up. Work the tool in this manner until you have moved completely past the blockage (or blockages) and the drain is flowing. Manual operation is usually the best choice if the cable repeatedly gets stuck when using the AUTOFEED. If using an AUTOFEED machine manually, the feed knob may need to be loosened, and the feed lever placed in the neutral position.

While working the blockage, the cable and tool may become clogged with debris and cuttings from the blockage. This can prevent further progress. The cable and tool need to be retrieved from the drain and the debris removed. *See section on "Retrieving the Cable"*.

Handling A Stuck Tool

If the tool stops turning and the cable cannot be pulled back from the blockage, immediately release the foot switch while firmly holding the cable. Do not remove hands from cable or cable may kink, twist and break. The motor will stop and the cable and drum may turn backwards until the energy stored in the cable is relieved. Do not remove hands from cable until the tension is released. Place FOR/OFF/REV switch in OFF position.

Freeing A Stuck Tool

If the tool is stuck in the blockage, with the FOR/OFF/-REV switch in the OFF position and the foot switch released, try pulling the cable loose from the blockage. If the tool will not come free from the blockage, place the FOR/OFF/REV switch in the REV position. Grasp the cable with both gloved hands, press the foot switch for several seconds and pull on the cable until it is free of the blockage. Do not operate the machine in the REV position any longer than required to free the cutting tool from the blockage or cable damage can occur. Place the FOR/OFF/REV switch in the FOR position and continue cleaning the drain.

Retrieving The Cable

Once the drain is open, start a flow of water down the drain to flush the debris out of the line. This can be done by running a hose down the drain opening, turning on a faucet in the system or other methods. Pay attention to the water level, as the drain could plug again.

With water flowing through the drain, retrieve the cable from the line. The flow of water will help to clean the cable as it is retrieved. The FOR/OFF/REV switch should be in the FOR position – do not retrieve the cable with the switch in the REV position, this can damage the cable. As with feeding the cable into the drain, cables can be caught while being retrieved.

- **Manual Operation** – With both gloved hands equally spaced on the exposed cable for control, pull 6"-12" lengths of cable from the drain at a time and feed it into the drum .
- **AUTOFEED Operation** – With one hand near the center of the exposed length of cable, move the feed lever in the direction opposite the cable rotation to retrieve the cable. The rotating cable will work its way out of the drain and back into the drum.

Continue retrieving cable until the cable end is just inside the drain opening. Release the foot switch and allow the machine to come to a complete stop. Do not pull the end of the cable from the drain while the cable is rotating. The cable can whip around and cause serious injury. Pay attention to the cable during retrieval as the cable end can still become stuck.

Place the FOR/OFF/REV switch in the OFF position. Pull the remaining cable from the drain with gloved hands and feed back into the drain cleaner. If needed, change the tool and continue cleaning following the above process. Several passes through a line are recommended for complete cleaning.

Using Machine With A Front Guide Hose

The front guide hose is an optional accessory to help protect fixtures and contain the liquid and debris thrown off of the cable. It can only be used with an AUTOFEED. Using the Front Guide hose can decrease feedback from the cable, making it harder to tell what conditions the cable is encountering. This may increase the possibility of damage to the cable. Using the front guide hose makes it more difficult to switch back a forth between manual and AUTOFEED operation.

Using a machine with the front guide hose is similar to using a machine with just the AUTOFEED. Follow instructions for AUTOFEED operation with the following exceptions:

- When setting up the machine, insert the guide hose at least 6" into the drain.
- Instead of holding the cable, hold the guide hose. *See Figure 15.* Always control the guide hose and properly support the cable to prevent the cable from twisting, kinking or breaking.

Figure 15 – Using Machine with Guide Hose

When using a front guide hose, pay attention how the guide hose feels in your hand and watch the drum rotation. Because the guide hose is over the cable, there is less sensitivity to the loading of the cable, and it is harder to tell if the tool is rotating or not. If the tool is not rotating, the drain is not being cleaned.

If the tool continues to get hung up in the blockage, stop using the AUTOFEED (leave the feed lever in the neutral position) and work the cable manually. To do this, the cable must be retrieved from the drain and the guide hose removed to allow proper positioning of the machine to the drain and access to the cable. Do not try to work the cable by hand with the front guide hose in place.

When retrieving the cable, be sure to stop the cable before the tool is pulled into the end of the guide hose to prevent damage.

Adding Additional Cable

If more cable is necessary to clean the drain than is available in the machine drum, use the following procedures to add additional cable.

1. Make sure that the FOR/OFF/REV switch is in the OFF position and the machine is unplugged.
2. Pull the cable connection from the drum. If using the AUTOFEED, the feed knob may need to be loosened.
3. Disconnect the cable from the pigtail and secure the cable so it cannot slip down the drain.
4. If loading another cable in the existing drum, see “Installing Cable” in the Assembly section.
5. Make sure that the drain cleaning machine is properly set up. Attach the end of the cable in the drain to the cable in the drum. Feed any excess cable back into the drum.
6. Resume cleaning the drain. Make sure that the cable is rotating and up to speed before feeding cable in.

Drum Removal and Installation

1. Make sure that the FOR/OFF/REV switch is in the OFF position and the machine is unplugged.
2. If needed, remove AUTOFEED from machine by unscrewing mounting bolt with 3/4" wrench. Bolt and AUTOFEED will come off as one. *See Figure 16.*

Figure 16 – Removing AUTOFEED

3. Push down on motor table to release belt tension and slip belt off of the drum. *See Figure 17.*

Figure 17 – Releasing Belt Tension

4. Use 3/4" wrench to remove the bolt that holds the drum to the machine frame. *See Figure 18.*

Figure 18 – Removing Drum Bolt

5. Lay machine on it's back *(see Figure 19)*. Use proper lifting technique to lift the drum off of its mounting position. A drum with 100' of cable can weigh as much as 150 pounds. In some cases, two people will be needed to handle a drum of cable.

Figure 19 – Removing Drum

6. Reverse steps 2-5 to reassemble a drum to the K-750 frame. Exercise care when standing the machine up to tighten the drum bolt.

Maintenance Instructions

⚠ WARNING

FOR/OFF/REV switch should be OFF and machine unplugged before performing any maintenance.

Always wear safety glasses and RIDGID drain cleaning gloves and other appropriate protective equipment when performing any maintenance.

Cleaning

The machine should be cleaned as needed with hot, soapy water and/or disinfectants. Do not allow water to enter motor or other electrical components. Make sure unit is completely dry before plugging in and using.

Cables

Cables should be thoroughly flushed with water after every use to prevent damaging effects of sediment and drain cleaning compounds. Flush cable with water and drain debris from drum by tipping machine forward after every use to remove sediment, etc. which can corrode cable.

To help prevent corrosion during storage, cables can be coated with RIDGID Cable Rust Inhibitor. Once the cable is clean and dry, pull the cable from the drum. While manually feeding the cable back into the drum, wipe the Cable Rust Inhibitor on the cable with a cloth.

Do not apply the Cable Rust Inhibitor to a rotating cable. The cloth and your hand can become entangled in the cable, and Cable Rust Inhibitor can be slung from rotating cable.

AUTOFEED

After each use, hose out AUTOFEED assembly with water and lubricate with lightweight machine oil.

Lubrication

Lubricate motor as per instructions on motor.

Lubricate machine with general purpose grease at grease fitting (located at connection of guide tube and drum) If drum is changed or removed, once a week if used every day: once a month if used less.

Front Guide Hose

After use, flush the guide hose with water and drain. When dry, a small amount of Cable Rust Inhibitor can be placed in the guide hose to help keep it flexible.

Accessories

⚠ WARNING

To reduce the risk of serious injury, only use accessories specifically designed and recommended for use with the RIDGID K-750 Drain Cleaning Machine, such as those listed below. Other Accessories suitable for use with other tools may be hazardous when used with the K-750 Drain Cleaning Machine.

Inner Core (IC) Cables

Good flexibility and more cleaning power to the cable end.

	Catalog No.	Model No.	Description
	92460	C-25	25' IC Cable (7.6m)
	92465	C-26	50' IC Cable (15.2m)
	92470	C-27	75' IC Cable (22.9m)
5/8 (16mm)	43647	C-24	100' IC Cable (30.5m)
	92475	C-28	25' IC Cable (7.6m)
	92480	C-29	50' IC Cable (15,2m)
	41212	C-75	75' IC Cable (22.9m)
3/4 (20mm)	41697	C-100	100' IC Cable (30.5m)

Hollow Core Cables

	Catalog No.	Model No.	Description
5/8 (16mm)	32737 58192	C-27HC C-24HC	75' HC Cable (22.9m) 100' HC Cable (30.5m)
3/4 (20mm)	47427 47432	C-75HC C-100HC	75' HC Cable (22.9m) 100' HC Cable (30.5m)

Leaders and Pig Tails

	Catalog No.	Model No.	Description
	92555	T-458	⅝" x 2' Leader
	92560	T-468	¾" x 2' Leader
	44122	—	⅝" Pigtail, 4½" Long
	44117	—	¾" Pigtail, 6" Long

Accessories

	Catalog No.	Model No.	Description
	43637	A-7558	Drum Assembly w/⅝" Pigtail
	41982	A-7534	Drum Assembly w/¾" Pigtail
	43642	A-75	AUTOFEED Assembly
	41992		C-100IC Kit w/Tools, ¾" x 100'
	49032		Front Guide Hose Assembly
	46015	E-453	Allen Wrench
	41937	—	RIDGID Leather Drain Cleaning Gloves
	70032	—	RIDGID PVC Drain Cleaning Gloves
	59360	A-3	Tool Box
	59987		Cable Rust Inhibitor 1 GAL.
	31487	A-7570	⅝" Repair Splicer
	92805	A-6582	⅝" Male Coupling
	92810	A-6583	⅝" Female Coupling
	31492	A-7571	¾" Repair Splicer
	92880	B-6840	¾" Male Coupling
	92885	B-6841	¾" Female Coupling

Tools and Replacement Blades – Fits 5/8" and 3/4" Cables

Fits C-24, C-25, C-26, C-27, C-28, C-29, C-75, C-100, C-27HC, C-24HC, C-75HC, and C-100HC

	Catalog No.	Model No.	Description	Replacement Blade(s)	Replacement Holder
	92485	T-403	P-Trap Cutter, 3"	92835	92900
	92490	T-404	P-Trap Cutter, 3½"	92840	92900
	92495	T-406	Spear Blade, 1¾"	92850	92915
	92500	T-407	Retrieving Auger, 2 9/16"	—	—
	92505	T-408	Sawtooth Cutter, 3"	92890	92915
	51762	T-409	H-D Bulb Auger, 1¾"	—	—
	92510	T-411	Double Cutter, 2"	92815	92905
	92515	T-412	Double Cutter, 2½"	92820	92905
	92520	T-413	Double Cutter, 3"	92825	92910
	92525	T-414	Double Cutter, 4"	92830	92910
	92530	T-416	Double Cutter, 6"	92855	92910
	92535	T-432	3-Blade Cutter, 2"	92860	92895
	92540	T-433	3-Blade Cutter, 3"	92865	92895
	92545	T-434	3-Blade Cutter, 4"	92870	92895
	92550	T-436	3-Blade Cutter, 6"	92875	92895

Machine Storage

⚠ WARNING The drain cleaner and cables must be kept dry and indoors or well covered if kept outdoors. Store the machine in a locked area that is out of reach of children and people unfamiliar with drain cleaners. This machine can cause serious injury in the hands of untrained users.

Service and Repair

⚠ WARNING

Improper service or repair can make machine unsafe to operate.

The “Maintenance Instructions” will take care of most of the service needs of this machine. Any problems not addressed by this section should only be handled by an authorized RIDGID service technician.

Tool should be taken to a RIDGID Independent Authorized Service Center or returned to the factory.

Disposal

Parts of the K-750 drain cleaner contain valuable materials and can be recycled. There are companies that specialize in recycling that may be found locally. Dispose of the components in compliance with all applicable regulations. Contact your local waste management authority for more information.

For EC Countries: Do not dispose of electrical equipment with household waste!

According to the European Guideline 2002/-96/EC for Waste Electrical and Electronic Equipment and its implementation into national legislation, electrical equipment that is no longer usable must be collected separately and disposed of in an environmentally correct manner.

Chart 1 Troubleshooting

PROBLEM	POSSIBLE REASONS	SOLUTION
Cable kinking or breaking.	Cable is being forced.	Do Not Force Cable! Let the cutter do the work.
	Cable used in incorrect pipe diameter.	Use correct cable for pipe.
	Motor switched to reverse.	Use reverse only if cable gets caught in pipe.
	Cable exposed to acid.	Clean and oil cables routinely.
	Cable worn out.	If cable is worn, replace it.
	Cable not properly supported.	Support cable properly, see instructions.
Drum stops while foot switch is depressed. Restarts when foot switch is re-depressed.	Hole in foot switch or hose.	Replace damaged component.
	Hole in air switch.	If no problem found with pedal or hose, replace diaphragm switch.
Drum turns in one direction but not the other.	Faulty FOR/OFF/REV switch.	Replace switch.
Ground Fault Circuit Interrupter trips when machine is plugged in or when foot pedal is depressed.	Damaged power cord.	Replace cord set.
	Short circuit in motor.	Take unit to authorized service center.
	Faulty Ground Fault Circuit Interrupter.	Replace cord set that includes a Ground Fault Circuit Interrupter.
	Moisture in motor, switch box or on plug.	Take drain cleaner to an Authorized Service Center.
Motor turning but drum is not.	Belt slipping because cable is being forced.	Do not force cable.
	Belt not on drum or pulley.	Re-install belt.
AUTOFEED doesn't work.	AUTOFEED full of debris.	Clean AUTOFEED.
	AUTOFEED needs lubrication.	Lubricate AUTOFEED.
	AUTOFEED not set properly for cable size.	Properly set AUTOFEED, see instructions.
Machine wobbles or moves while cleaning drain.	Cable not evenly distributed.	Pull all cable out and refeed in, evenly distribute.
	Kickstands are not on ground.	Move kickstands to use position.
	Ground not level/stable.	Place on level stable surface.

What is covered
RIDGID® tools are warranted to be free of defects in workmanship and material.

How long coverage lasts
This warranty lasts for the lifetime of the RIDGID® tool. Warranty coverage ends when the product becomes unusable for reasons other than defects in workmanship or material.

How you can get service
To obtain the benefit of this warranty, deliver via prepaid transportation the complete product to RIDGE TOOL COMPANY, Elyria, Ohio, or any authorized RIDGID® INDEPENDENT SERVICE CENTER. Pipe wrenches and other hand tools should be returned to the place of purchase.

What we will do to correct problems
Warranted products will be repaired or replaced, at RIDGE TOOL'S option, and returned at no charge; or, if after three attempts to repair or replace during the warranty period the product is still defective, you can elect to receive a full refund of your purchase price.

What is not covered
Failures due to misuse, abuse or normal wear and tear are not covered by this warranty. RIDGE TOOL shall not be responsible for any incidental or consequential damages.

How local law relates to the warranty
Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific rights, and you may also have other rights, which vary, from state to state, province to province, or country to country.

No other express warranty applies
This FULL LIFETIME WARRANTY is the sole and exclusive warranty for RIDGID® products. No employee, agent, dealer, or other person is authorized to alter this warranty or make any other warranty on behalf of the RIDGE TOOL COMPANY.

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