

Owner's Manual & Safety Instructions

Save This Manual Keep this manual for the safety warnings and precautions, assembly, operating, inspection, maintenance and cleaning procedures. Write the product's serial number in the back of the manual (or month and year of purchase if product has no number). Keep this manual and the receipt in a safe and dry place for future reference.

22f

BauerTM

1724E-B

SELF-FEEDING HAND-HELD ELECTRIC DRAIN CLEANER



Visit our website at: <http://www.harborfreight.com>
Email our technical support at: productsupport@harborfreight.com

64063

When unpacking, make sure that the product is intact and undamaged. If any parts are missing or broken, please call 1-888-866-5797 as soon as possible.

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⚠ WARNING

Read this material before using this product. Failure to do so can result in serious injury. **SAVE THIS MANUAL.**

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SAFETY



SETUP

OPERATION

MAINTENANCE

WARNING SYMBOLS AND DEFINITIONS	
	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.
	Indicates a hazardous situation which, if not avoided, will result in death or serious injury.
	Indicates a hazardous situation which, if not avoided, could result in death or serious injury.
	Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.
	Addresses practices not related to personal injury.

IMPORTANT SAFETY INFORMATION

General Power Tool Safety Warnings

WARNING

Read all safety warnings and all instructions.
Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

Save all warnings and instructions for future reference.

The term "power tool" in the warnings refers to your mains-operated (corded) power tool.

Work Area Safety

1. **Keep work area clean and well lit.**
Cluttered or 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 children and bystanders away while operating a power tool.**
Distractions can cause you to lose control.

Electrical Safety

1. **Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with grounded power tools.** *Unmodified plugs and matching outlets will reduce risk of electric shock.*
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 for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts.** *Damaged or entangled cords increase the risk of electric shock.*
5. **When operating a power tool outdoors, use an extension cord suitable for outdoor use.** *Use of a cord suitable for outdoor use reduces the risk of electric shock.*
6. **If operating a power tool in a damp location is unavoidable, use a Ground Fault Circuit Interrupter (GFCI) protected supply.** *Use of a GFCI 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 a power tool while you are 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. **Use personal protective equipment. Always wear eye protection.** *Protective equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.*
3. **Prevent unintentional starting. Ensure the Trigger is in the off-position before connecting to power source, picking up or carrying the tool.** *Carrying power tools with your finger on the Trigger or energizing power tools that have the Trigger on invites accidents.*
4. **Do not overreach. Keep proper footing and balance at all times.** *This enables better control of the power tool in unexpected situations.*
5. **Dress properly. Do not wear loose clothing or jewelry. Keep your hair, clothing and gloves away from moving parts.** *Loose clothes, jewelry or long hair can be caught in moving parts.*
6. **If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used.** *Use of dust collection can reduce dust-related hazards.*
7. **Only use safety equipment that has been approved by an appropriate standards agency.** *Unapproved safety equipment may not provide adequate protection. Eye protection must be ANSI-approved and breathing protection must be NIOSH-approved for the specific hazards in the work area.*

Power Tool Use and Care

1. **Do not force the power tool. Use the correct power tool for your application.** *The correct power tool will do the job better and safer at the rate for which it was designed.*
2. **Do not use the power tool if the Trigger does not turn it on and off.** *Any power tool that cannot be controlled with the Trigger is dangerous and must be repaired.*
3. **Disconnect the plug from the power source before making any adjustments, changing accessories, or storing power tools.** *Such preventive safety measures reduce the risk of starting the power tool accidentally.*
4. **Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool.** *Power tools are dangerous in the hands of untrained users.*
5. **Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use.** *Many accidents are caused by poorly maintained power tools.*
6. **Keep cutting tools sharp and clean.** *Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.*

7. **Use the power tool, accessories and tool bits etc. in accordance with these instructions, taking into account the working conditions and the work to be performed.** Use of the power tool for operations different from those intended could result in a hazardous situation.

Service

Have your power tool serviced by a qualified repair person using only identical replacement parts.

This will ensure that the safety of the power tool is maintained.

Drain Cleaner Safety Warnings

1. Maintain labels and nameplates on the tool. These carry important safety information. If unreadable or missing, contact Harbor Freight Tools for a replacement.
2. To reduce the risk of electrical shock, do not put motor or cord in water or other liquid.
3. Do not wear cloth gloves or loose clothing, or use a rag to grasp the cable to prevent entanglement.
4. Use appropriate personal protective equipment while handling and using Drain Cleaner. Drains may contain chemicals, bacteria and other substances that may be toxic, infectious, cause burns or other issues. Appropriate personal protective equipment always includes ANSI-approved splash-resistant safety glasses under face shield, NIOSH-approved dust mask/respirator, and heavy-duty LEATHER work gloves, and may include equipment such as latex or rubber gloves under LEATHER work gloves, protective clothing, and steel toed footwear.
5. Do not use in pipe containing drain cleaning chemicals.
6. Do not use in pipe obstructed by roots.
7. Wash hands after use. Use hot, soapy water to wash hands and other exposed body parts exposed to drain contents after handling or using Drain Cleaner. Do not eat or smoke while operating or handling Drain Cleaner. This will help prevent contamination with toxic or infectious material.
8. Have your Drain Cleaner serviced by a qualified repair person using only identical replacement parts. This will ensure that the safety of the Drain Cleaner is maintained.
9. Do not put too much stress on Cable. Quickly release tension if it starts to build in the cable. Excess tension will cause the Cable to twist, kink, or break.
10. Reverse Motor direction only when pulling the Cable off an obstruction. Trying to push the Cable down the pipe or pull it out of a pipe while in reverse operation will unravel and break the Cable. Wait for the Drum to stop turning completely before changing the Rotation Switch.
11. Only use Drain Cleaner to clean drains of recommended sizes according to these instructions. Other uses or modifying the Drain Cleaner for other applications may increase the risk of injury.
12. Wash hands after use. Use hot, soapy water to wash hands and other exposed body parts exposed to drain contents after handling or using Drain Cleaner. Do not eat or smoke while operating or handling Drain Cleaner. This will help prevent contamination with toxic or infectious material.
13. Avoid unintentional starting. Prepare to begin work before turning on the tool.
14. Do not lay the tool down until it has come to a complete stop. Moving parts can grab the surface and pull the tool out of your control.
15. When using a handheld power tool, maintain a firm grip on the tool with both hands to resist starting torque.
16. Do not leave the tool unattended when it is plugged into an electrical outlet. Turn off the tool, and unplug it from its electrical outlet before leaving.
17. This product is not a toy. Keep it out of reach of children.
18. People with pacemakers should consult their physician(s) before use. Electromagnetic fields in close proximity to heart pacemaker could cause pacemaker interference or pacemaker failure. In addition, people with pacemakers should:
 - Avoid operating alone.
 - Do not use with Trigger locked on.
 - Properly maintain and inspect to avoid electrical shock.
 - Properly ground power cord. Ground Fault Circuit Interrupter (GFCI) should also be implemented – it prevents sustained electrical shock.
19. The warnings, precautions, and instructions discussed in this instruction manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.

Vibration Safety

This tool vibrates during use.

Repeated or long-term exposure to vibration may cause temporary or permanent physical injury, particularly to the hands, arms and shoulders.

To reduce the risk of vibration-related injury:

1. Anyone using vibrating tools regularly or for an extended period should first be examined by a doctor and then have regular medical check-ups to ensure medical problems are not being caused or worsened from use. Pregnant women or people who have impaired blood circulation to the hand, past hand injuries, nervous system disorders, diabetes, or Raynaud's Disease should not use this tool. If you feel any symptoms related to vibration (such as tingling, numbness, and white or blue fingers), seek medical advice as soon as possible.
2. Do not smoke during use. Nicotine reduces the blood supply to the hands and fingers, increasing the risk of vibration-related injury.
3. Wear suitable gloves to reduce the vibration effects on the user.
4. Use tools with the lowest vibration when there is a choice.
5. Include vibration-free periods each day of work.
6. Grip tool as lightly as possible (while still keeping safe control of it). Let the tool do the work.
7. To reduce vibration, maintain the tool as explained in this manual. If any abnormal vibration occurs, stop use immediately.



SAVE THESE INSTRUCTIONS.

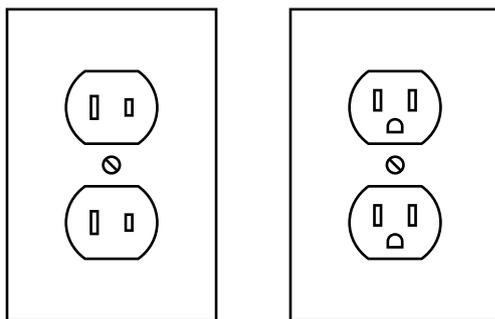
⚠ WARNING



TO PREVENT ELECTRIC SHOCK AND DEATH FROM INCORRECT GROUNDING WIRE CONNECTION:

Check with a qualified electrician if you are in doubt as to whether the outlet is properly grounded. Do not modify the power cord plug provided with the tool. Never remove the grounding prong from the plug. Do not use the tool if the power cord or plug is damaged. If damaged, have it repaired by a service facility before use. If the plug will not fit the outlet, have a proper outlet installed by a qualified electrician.

Double Insulated Tools: Tools with Two Prong Plugs



Outlets for 2-Prong Plug

1. Tools marked “Double Insulated” do not require grounding. They have a special double insulation system which satisfies OSHA requirements and complies with the applicable standards of Underwriters Laboratories, Inc., the Canadian Standard Association, and the National Electrical Code.
2. Double insulated tools may be used in either of the 120 volt outlets shown in the preceding illustration. **(See Outlets for 2-Prong Plug.)**

Ground Fault Circuit Interrupter (GFCI)

The appliance is equipped with a ground fault circuit interrupter (GFCI), which reduces the risk of electric shock. Check that the receptacle is properly grounded and test the GFCI before each use.

1. Plug the GFCI Power Plug into a grounded, 120 VAC electrical outlet.
2. Press the TEST button. The GFCI indicator light should go out and power to the appliance should cut off.

WARNING! TO PREVENT SERIOUS INJURY: If the light does not go out when TEST button is pushed, do not use the appliance until it is properly repaired.

3. To restore power after TEST, push the RESET button.

WARNING! TO PREVENT SERIOUS INJURY: If the appliance doesn’t start, stops while running, or if you experience an electric shock, disconnect the power cord and do not use the appliance. Have it repaired by a qualified electrician or replace it.

Note: The Power Cord is not GFCI-protected from the GFCI to the 3-prong plug in the electrical outlet.

Extension Cords

- Grounded** tools require a three wire extension cord. **Double Insulated** tools can use either a two or three wire extension cord.
- As the distance from the supply outlet increases, you must use a heavier gauge extension cord. Using extension cords with inadequately sized wire causes a serious drop in voltage, resulting in loss of power and possible tool damage. (See Table A.)
- The smaller the gauge number of the wire, the greater the capacity of the cord. For example, a 14 gauge cord can carry a higher current than a 16 gauge cord. (See Table A.)
- When using more than one extension cord to make up the total length, make sure each cord contains at least the minimum wire size required. (See Table A.)
- If you are using one extension cord for more than one tool, add the nameplate amperes and use the sum to determine the required minimum cord size. (See Table A.)
- If you are using an extension cord outdoors, make sure it is marked with the suffix "W-A" ("W" in Canada) to indicate it is acceptable for outdoor use.

- Make sure the extension cord is properly wired and in good electrical condition. Always replace a damaged extension cord or have it repaired by a qualified electrician before using it.
- Protect the extension cords from sharp objects, excessive heat, and damp or wet areas.

NAMEPLATE AMPERES (at full load)	EXTENSION CORD LENGTH				
	25'	50'	75'	100'	150'
0 – 2.0	18	18	18	18	16
2.1 – 3.4	18	18	18	16	14
3.5 – 5.0	18	18	16	14	12
5.1 – 7.0	18	16	14	12	12
7.1 – 12.0	18	14	12	10	-
12.1 – 16.0	14	12	10	-	-
16.1 – 20.0	12	10	-	-	-

* Based on limiting the line voltage drop to five volts at 150% of the rated amperes.

Symbology

	Double Insulated
V	Volts
~	Alternating Current
A	Amperes
n ₀ xxxx/min.	No Load Revolutions per Minute (RPM)

	WARNING marking concerning Risk of Eye Injury. Wear ANSI-approved safety goggles with side shields.
	Read the manual before set-up and/or use.
	WARNING marking concerning Risk of Fire. Do not cover ventilation ducts. Keep flammable objects away.
	WARNING marking concerning Risk of Electric Shock. Properly connect power cord to appropriate outlet.

Specifications

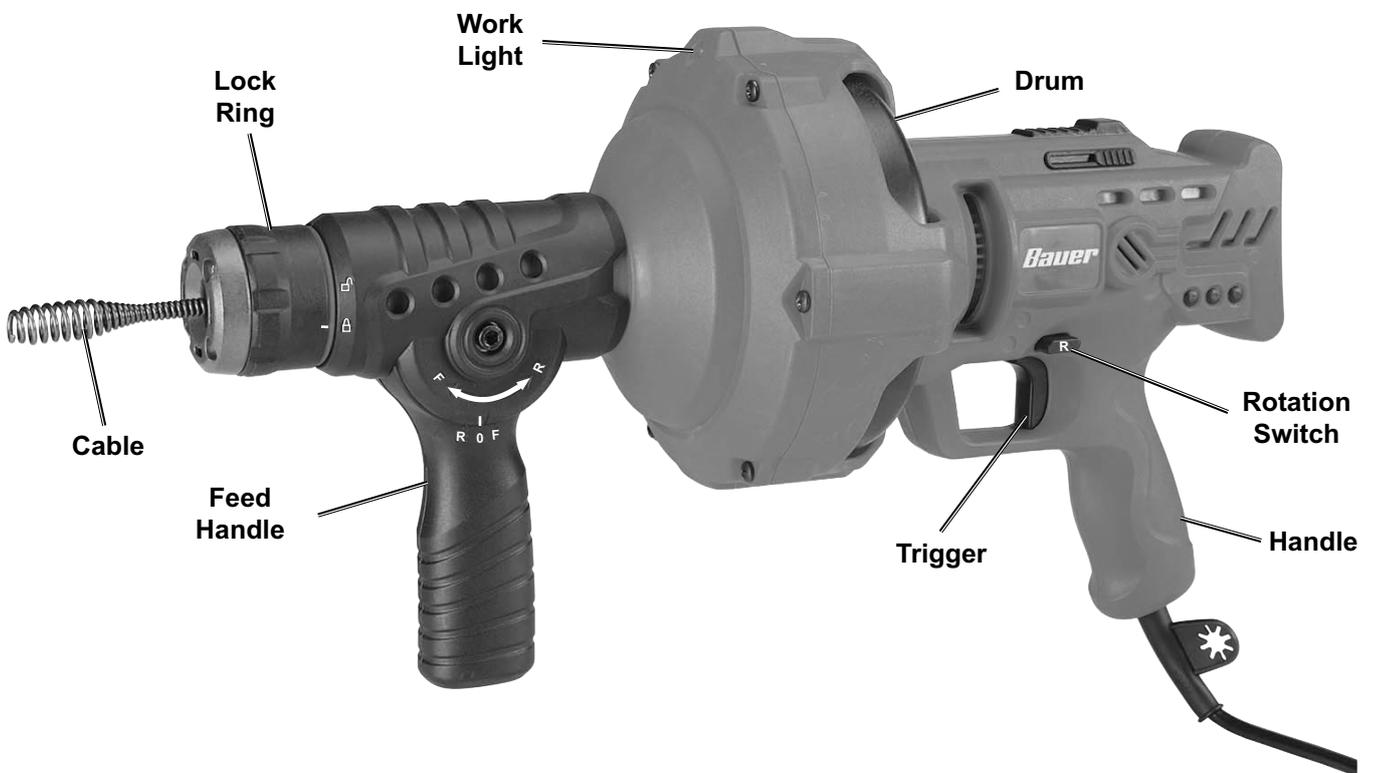
Electrical Rating	120VAC, 60Hz, 2.3A
Drum Speed	0 - 560 RPM
Cable Size	Ø1/4" x 23' L
Drain Pipe Capacity	3/4" to 2"

Setup - Before Use:



Read the **ENTIRE** IMPORTANT SAFETY INFORMATION section at the beginning of this manual including all text under subheadings therein before set up or use of this product.

Functions





Read the **ENTIRE IMPORTANT SAFETY INFORMATION** section at the beginning of this manual including all text under subheadings therein before set up or use of this product.

Tool Set Up

⚠️ WARNING

TO PREVENT SERIOUS INJURY FROM ACCIDENTAL OPERATION:

Make sure that the Trigger is in the off-position and unplug the tool from its electrical outlet before performing any procedure in this section.

TO PREVENT SERIOUS INJURY:

DO NOT OPERATE WITH ANY GUARD DISABLED, DAMAGED, OR REMOVED.



Wear ANSI-approved splash-resistant safety goggles, NIOSH-approved dust mask/respirator under face shield, and heavy-duty LEATHER gloves, and other appropriate protective equipment when setting up the Drain Cleaner. For extra protection from chemicals and bacteria on the appliance and in the work area, wear latex, rubber or other liquid barrier gloves under the heavy-duty LEATHER work gloves. Before use, inspect gloves to be sure they are free of defects or loose sections that could be caught in the Drain Cleaner Cable. Rubber soled, non-slip shoes can help prevent slipping and electric shock, especially on wet surfaces.

TO PREVENT SERIOUS INJURY FROM ELECTRIC SHOCK, TWISTED/BROKEN CABLES, CHEMICAL BURNS, INFECTIONS AND OTHER CAUSES AND PREVENT DRAIN CLEANER DAMAGE:

Before each use, inspect Drain Cleaner and correct any problems.

1. Unplug Drain Cleaner and inspect the power cord, Ground Fault Circuit Interrupter (GFCI) and plug for damage. If the plug has been modified, or if the cord is damaged, to avoid electrical shock, do not use the appliance until the cord has been replaced by a qualified electrician.
2. Inspect the tool for broken, worn, missing, misaligned or binding parts or any other condition which may prevent safe and normal operation.
3. Check the Cable for wear and damage. Replace Cable before use if any section:
 - a. is worn or flattened,
 - b. is kinked more than 15°,
 - c. has spaces between coils (often caused by running motor in reverse or pulling on cable),
 - d. shows signs of corrosion.
4. Install the Drain Plug and make sure it is properly tightened.
5. Make sure that switches and handles move smoothly between positions and lock in place.
6. Move Lock Ring to unlocked position.
7. Check that all warning labels are present, firmly attached and readable.
8. Before use, fully retract the Cable with no more than 2" of Cable outside of the appliance. This will keep the Cable from "whipping" when the appliance is turned on.
9. Clean any oil, grease or dirt from all equipment handles and controls. This helps prevent the appliance or control from slipping during use.

Work Area Set Up

SAFETY

1. Verify that work area has adequate lighting for the job.
2. Make sure work area is free of flammable liquids, vapors or dust that may ignite. Sparks can be generated during Drain Cleaner operation. Do not work in area until these sources of ignition have been identified and corrected.
3. Do not use the appliance while standing in water. If needed, remove the water from the work area.
4. Verify the electrical outlet is properly grounded. A three-prong or GFCI outlet may not be properly grounded. If in doubt, have outlet inspected by a licensed electrician.
5. Make sure there is a clear, unobstructed path from the Drain Cleaner to the electrical outlet.
6. Inspect the drain to be cleaned. If possible, determine the best 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.

SETUP

7. If there are chemicals present in the drain, read and adhere to the specific safety measures required to work around those chemicals. Contact the chemical manufacturer for required safety instructions and information.
8. If necessary, remove fixture (toilet, sink, etc.) to allow access to the drain. **Do not feed the Cable through a fixture.** This could damage the Drain Cleaner and the fixture.

OPERATION

9. If needed, place protective covers over the work area floor. Cleaning the clogged drain can be a messy operation.
10. To prevent Cable from whipping, place Drain Cleaner within 6 inches of drain line. **The greater the distance from the drain line, the higher the risk of the Cable twisting or kinking.**
11. If needed, set up barriers to keep bystanders away from the Drain Cleaner and work area during operation.
12. Run the power 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.
13. If the power cord is not long enough, use an extension cord that is in good condition and has a plug similar to the one supplied on the Drain Cleaner. Keep the connection off the ground to prevent it from accidentally getting wet.
14. Also verify that the extension cord is rated for outdoor use and contains a W or W-A in the cord designation (i.e. SOW).
15. Verify the extension cord has sufficient wire size (16 AWG for 50' or less, 14 AWG for 50' – 100' long). Undersized wires can overheat, melting the insulation or causing a fire or other damage.
16. When using an extension cord, the GFCI on the Drain Cleaner does not protect the extension cord. If the outlet is not GFCI protected, use a plug-in type GFCI between the outlet and the extension cord. This will reduce the risk of shock if there is a fault in the extension cord.

MAINTENANCE

General Operating Instructions

1. Make sure that the Trigger is in the off-position and the Lock Ring is unlocked, then plug in the tool.
2. To prevent Cable from whipping, place Drain Cleaner within 6 inches of drain line. This will keep Cable from hazardously “whipping” when activating the Drain Cleaner.
3. **Make sure Rotation Switch is in L position.**

NOTICE: The R position of the Rotation Switch must **ONLY** be used momentarily to relieve Cable tension. If it is used for even just a few seconds in a row, the Cable may be permanently damaged. **LEAVE FEED HANDLE IN NEUTRAL POSITION.** While in the R position, the Cable movement from the Feed Handle would be reversed as well.

4. With the Drain Cleaner off, pull the Cable out of Drum with both gloved hands and feed into the drain. Gradually work the Cable at least 12" into the drain.
5. Squeeze Trigger and press Feed Handle forward to continue feeding Cable into the drain.
6. As you feed Cable, you may feel and see Cable slow down and/or start to wind or load up (a “twisting” or “squirming” motion). This may indicate a change in drain line (such as a drain trap, elbow, etc.), a build up in the drain (mud or grease), or the actual blockage. Continue to slowly feed the Cable until the Cable reaches the blockage.

CAUTION! Do not allow Cable to build up outside drain. This can cause Cable to twist, kink or break.

7. If there is an exceptionally difficult clog, release the Trigger, lock the Rotation Switch in the middle, and twist the Lock Ring counterclockwise to exert direct force on the cable. This will also prevent the Cable from turning, advancing, or retracting. **TO PREVENT CABLE DAMAGE, DO NOT TOUCH THE TRIGGER WHILE THE LOCK RING IS LOCKED.** Twist the Lock Ring clockwise and switch Rotation Switch to L to resume normal operation.
8. If the Cable becomes lodged in a narrow part of the drain or in a drain trap, allow the Cable to try and work itself past the obstruction. If Cable still won't pass obstruction, release the Trigger and use sharp downward thrusts to try and pass obstruction. Once Cable is past, squeeze the Trigger and press Feed Handle forward to continue feeding.
9. To retract Cable, **keep Rotation Switch in L position** and pull Feed Handle backwards.
10. To prevent accidents, turn off the tool, dry your hands, and unplug the tool after use. Clean the Cable (see below), then store the tool indoors out of children's reach.

Cleaning the Cable

1. Thoroughly flush Drain Cleaner Cable with clean water after every use. Doing so will help prevent the build-up of sediment and any drain cleaning chemicals still in the cable.
2. Once Cable has been flushed, carefully tip the Drain Cleaner forward to empty out any remaining debris.
3. Rotate the Drum until the Drain Plug is visible. Remove the Drain Plug and tilt the Drain Cleaner backward to allow any remaining fluid to drain out of the Drum. Store the Drain Plug in the holder on the Power Cord.
4. Once the Cable is clean and dry, pull the Cable from the Drum.
5. Lubricate with oily rag as you feed Cable back into Drum.

CAUTION! Do not pull a rotating cable.



Figure A: Drain Plug Location

NOTICE

Rotation Switch controls rotation of drum only. **DO NOT USE ROTATION SWITCH IN R (REVERSE) POSITION WHILE REMOVING CABLE FROM DRAIN/PIPE.** Use reverse direction only momentarily for relieving pressure or untangling cable from a blockage.

Warranty void if cable damaged from allowing motor to twist excessively against blockage, or if drum is run in reverse long enough to untwist cable.

Maintenance and Servicing



Procedures not specifically explained in this manual must be performed only by a qualified technician.

⚠️ WARNING

TO PREVENT SERIOUS INJURY FROM ACCIDENTAL OPERATION:

Make sure that the Trigger is in the off-position and unplug the tool from its electrical outlet before performing any procedure in this section.

TO PREVENT SERIOUS INJURY FROM TOOL FAILURE:

Do not use damaged equipment. If abnormal noise or vibration occurs, have the problem corrected before further use.

Cleaning, Maintenance, and Lubrication

1. **BEFORE EACH USE**, inspect the general condition of the tool. Check for:
 - loose hardware,
 - misalignment or binding of moving parts,
 - damaged cord/electrical wiring,
 - cracked or broken parts, and
 - any other condition that may affect its safe operation.
2. **AFTER USE**, wipe external surfaces of the tool with clean cloth. Store indoors out of the reach of children.
3. **⚠️ WARNING! TO PREVENT SERIOUS INJURY: If the supply cord of this power tool is damaged, it must be replaced only by a qualified service technician.**

Installing Replacement Cable

1. Pull old Cable (1) out of Drum (20) until connection to Drum Cable (8) is accessible.
2. Remove Cable Screw (2) from Drum Cable. Separate Cable from Drum Cable.
3. Connect new Cable to Drum Cable using Cable Screw and feed Cable back into Drum.

Troubleshooting

Problem	Possible Causes	Likely Solutions
Motor shuts off during use.	<ol style="list-style-type: none"> 1. The motor may have been shut off by its internal thermal protection switch, or auto reset breaker. 2. GFCI breaker tripped. 	<ol style="list-style-type: none"> 1. Turn Rotation Switch to OFF. Allow motor to cool off completely before restarting and stay clear of cable when turning motor back on. 2. Make sure all electrical components are dry and all insulation is in good repair. Press reset button. If GFCI trips again, have appliance serviced by qualified electrician before further use.
Cable kinks, twists, or breaks.	<ol style="list-style-type: none"> 1. Too much force on the cable. 2. Too much space between Drain Cleaner and drainpipe inlet. 3. Cable used is wrong size for drain pipe. 4. Cable exposed to acid. 5. Cable worn out. 	<ol style="list-style-type: none"> 1. Do not force cable. Let Drain Cleaner do the work. 2. Move Drain Cleaner to within 6 inches of drainpipe inlet. 3. Change cable size. 4. Clean and oil cable after each use. 5. Replace cable.
Cable tangles in drum.	<ol style="list-style-type: none"> 1. Too much force on the cable. 2. Motor running in reverse. 3. Automatic feed mechanism frozen. 	<ol style="list-style-type: none"> 1. Do not force cable. Let Drain Cleaner do the work. 2. Retract Cable with the Rotation Switch in the L position. 3. Technician should lubricate automatic feed mechanism bearings.
Power Cord GFCI trips when unit is plugged in or when Trigger is pressed.	<ol style="list-style-type: none"> 1. Trigger defective. 2. Short circuit in Motor. 3. Excess moisture touching Power Cord or Drain Cleaner. 4. Frayed Power Cord or faulty GFCI unit. 	<ol style="list-style-type: none"> 1. Repair or replace Trigger. 2. Have Motor repaired or replaced by a qualified technician. 3. Dry cord and unit. 4. Electrician must replace Power Cord with GFCI.



**Follow all safety precautions whenever diagnosing or servicing the tool.
Disconnect power supply before service.**

PLEASE READ THE FOLLOWING CAREFULLY

THE MANUFACTURER AND/OR DISTRIBUTOR HAS PROVIDED THE PARTS LIST AND ASSEMBLY DIAGRAM IN THIS MANUAL AS A REFERENCE TOOL ONLY. NEITHER THE MANUFACTURER OR DISTRIBUTOR MAKES ANY REPRESENTATION OR WARRANTY OF ANY KIND TO THE BUYER THAT HE OR SHE IS QUALIFIED TO MAKE ANY REPAIRS TO THE PRODUCT, OR THAT HE OR SHE IS QUALIFIED TO REPLACE ANY PARTS OF THE PRODUCT. IN FACT, THE MANUFACTURER AND/OR DISTRIBUTOR EXPRESSLY STATES THAT ALL REPAIRS AND PARTS REPLACEMENTS SHOULD BE UNDERTAKEN BY CERTIFIED AND LICENSED TECHNICIANS, AND NOT BY THE BUYER. THE BUYER ASSUMES ALL RISK AND LIABILITY ARISING OUT OF HIS OR HER REPAIRS TO THE ORIGINAL PRODUCT OR REPLACEMENT PARTS THERETO, OR ARISING OUT OF HIS OR HER INSTALLATION OF REPLACEMENT PARTS THERETO.

Parts List

Part	Description	Qty
1	Cable	1
2	Cable Screw	1
3	Screw	23
4	Circlip for Hole	1
5	Bearing	1
6	Front Cover	1
7	Spring Lock	2
8	Lock Ring	1
9	Screw	6
10	Drum Cable	1
11	Bearing	2
12	Front Housing	1
13	Screw	2
14	Flat Washer	6
15	Right Cover	1
16	Screw	4
17	Lock Nut	1
18	Feed Handle Right	1
19	Screw	4
20	Bearing	1
21	Junction Valve	1
22	Drum	1
23	O-Ring	1
24	Drain Plug	1
25	Screw	1
26	Flat Washer	1
27	Left Cover	1
28	Locating Plate	1
29	Screw	6
30	Bearing	6
31	Fixed Bearing Seat	1

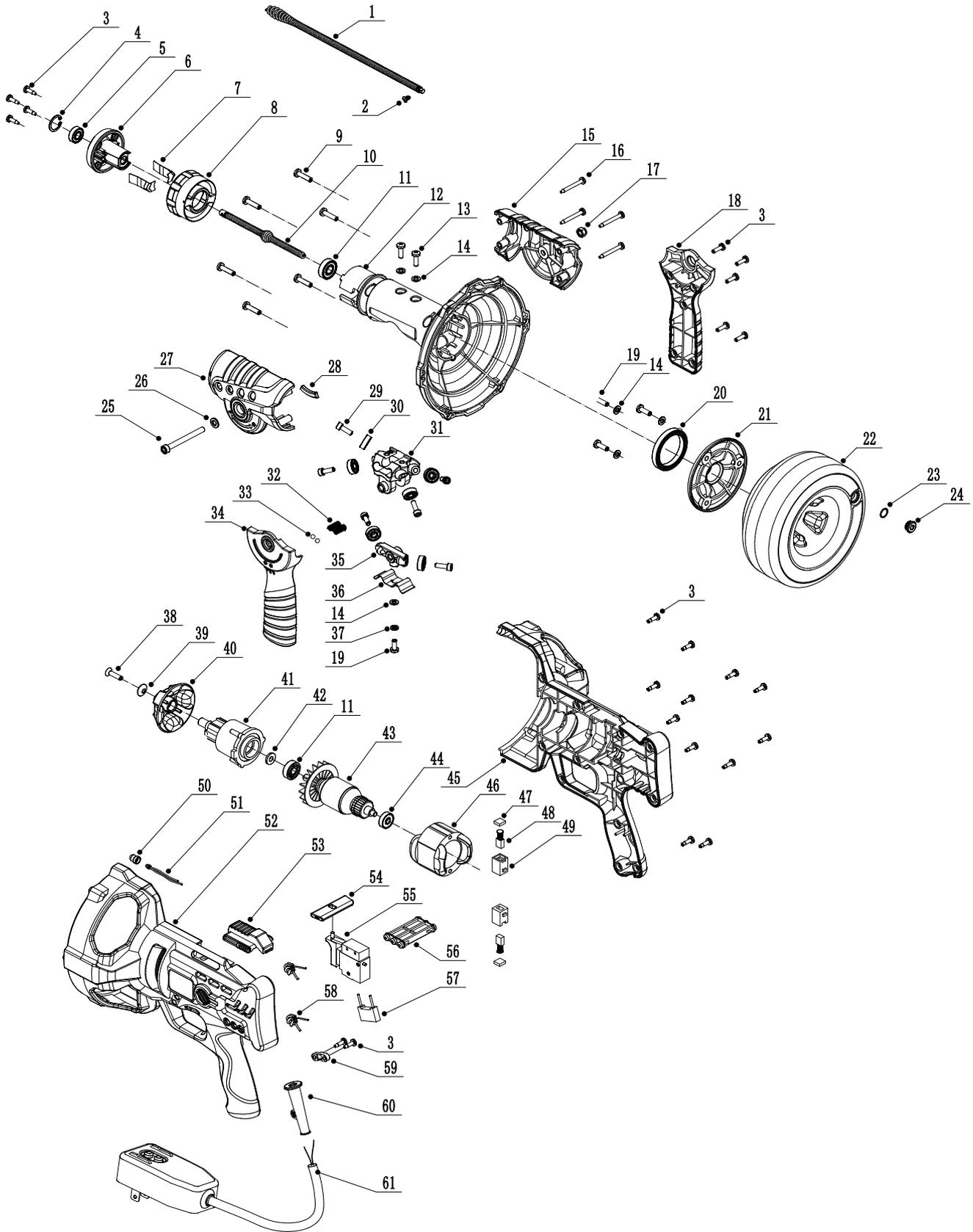
Part	Description	Qty
32	Spring	2
33	Steel Ball	2
34	Feed Handle Left	1
35	Mobile Bearing Seat	1
36	Leaf Spring	1
37	Spring Washer	1
38	Screw	1
39	Sink Hole Washer	1
40	Connection Head	1
41	Reduction Box	1
42	Washer	1
43	Rotor	1
44	Bearing	1
45	Right Cover	1
46	Stator	1
47	Carbon Brush Cover	2
48	Carbon Brush	2
49	Carbon Brush Holder	2
50	LED Light Cover	1
51	LED Light	1
52	Left Cover	1
53	Top Plate	1
54	Rotation Switch	1
55	Trigger	1
56	Side Plate	1
57	Capacitor	1
58	Inductor	2
59	Press Plate	1
60	Power Cord Guard	1
61	GFCI power cord	1

Record Product's Serial Number Here: _____

Note: If product has no serial number, record month and year of purchase instead.

Note: Some parts are listed and shown for illustration purposes only, and are not available individually as replacement parts.

Assembly Diagram



SAFETY

SETUP

OPERATION

MAINTENANCE

Limited 90 Day Warranty

Harbor Freight Tools Co. makes every effort to assure that its products meet high quality and durability standards, and warrants to the original purchaser that this product is free from defects in materials and workmanship for the period of 90 days from the date of purchase. This warranty does not apply to damage due directly or indirectly, to misuse, abuse, negligence or accidents, repairs or alterations outside our facilities, criminal activity, improper installation, normal wear and tear, or to lack of maintenance. We shall in no event be liable for death, injuries to persons or property, or for incidental, contingent, special or consequential damages arising from the use of our product. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation of exclusion may not apply to you. THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS.

To take advantage of this warranty, the product or part must be returned to us with transportation charges prepaid. Proof of purchase date and an explanation of the complaint must accompany the merchandise. If our inspection verifies the defect, we will either repair or replace the product at our election or we may elect to refund the purchase price if we cannot readily and quickly provide you with a replacement. We will return repaired products at our expense, but if we determine there is no defect, or that the defect resulted from causes not within the scope of our warranty, then you must bear the cost of returning the product.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

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