# **Operating Instructions**



Wear mitts with rivets provided with machine. Never grasp a rotating cable with a rag, loose fitting cloth or leather glove that may become wrapped around the cable causing serious injury.

Always wear eye protection to protect your eyes against dirt and other foreign objects. Wear rubber soled, non-slip shoes.

Be very careful when cleaning drains where cleaning compounds have been used. Wear gloves when handling cable and avoid direct contact to the skin and especially the eyes and facial area as serious burns can result.

Do not operate if clutch handle is damaged or does not function properly. Clutch is a safety feature designed to stop rotation of cable or adapters when released.

**CAUTION** It is important to know approximate distance from inlet to main sewer or septic tank. Over-running cable too far into main sewer or septic tank can cause cables to knot up and prevent their return through small line.

# Cleaning Drain using 5/8" Sectional Cable

1. Assume the correct operating posture in order to maintain proper balance (*Figure 6*).

**AWARNING** Should an unexpected situation arise, this posture provides you with the opportunity to safely keep control of the machine and cable.

- Be sure you can quickly release the clutch handle.
- Hand must be on the cable to control its twisting action when it hits an obstruction.
- Must have access to FOR/OFF/REVERSE switch.



Figure 6 – Proper Operating Position

- 2. Without turning the machine on, pull sufficient cable out of the machine to start tool and cable into the drain inlet. Push cable into inlet as far as it will go.
- 3. Pull enough extra cable through machine to form almost a half circle between machine and line opening.
- 4. Hold cable loosely in mitted hand. Put FOR/OFF/RE-VERSE switch in FOR (forward) position.
- NOTE! The motor will start but cable will not rotate.
- 5. With mitted hand on cable, push down on clutch handle with opposite hand to engage cable. Push down on top of the cable loop with a definite snap to advance the cable.
- NOTE! A slow or gradual engaging of the clutch handle causes excessive wear of the jaw set. The clutch is instant-acting and returning clutch handle to its original position frees cable instantly.
- 6. As soon as excess cable has gone into line, release clutch handle and pull six to ten inches of cable out of machine with mitted hand.
- 7. Continue to feed the cable into the line until resistance or obstruction is encountered. This will become apparent to operator as it will be difficult to feed additional cable into line and/or the cable will have a tendency to twist sideways in operator's hands.
- 8. If cable loads down in the obstruction, relieve load by pulling back on cable with short, quick jerks to free cutter. Slowly advance cable back into the obstruction. Repeat this process until the obstruction is clear. Remember, make sure the cutter is rotating at all times and never force the cable. At this point, pro-

gress depends upon the sharpness of the tool and nature of the obstruction.

### A WARNING

Do not allow tension to build up in the cable. This will happen if the cutting tool hits a snag and stops turning, but the motor and cable continue to rotate. Torque builds until the cable suddenly twists, potentially wrapping around your hand or arm. This can happen quickly and without warning, so proceed slowly and carefully as you feed the cable into the drain. Releasing clutch handle will stop the cable rotating and releases the torque. If tool gets hung up in an obstruction, refer to Reverse Operating Instructions in the "Special Procedures" section.

- Once obstruction is cleared, it is recommended that operator flush debris from line with running water. Repeat Step 8 several times if necessary for thorough cleaning job and then work cable through additional stoppages as required.
- 10. To add cable, the following procedure should be followed:
  - After reaching the end of each cable section, turn the machine OFF.
  - Secure the cable by looping it in the line (*Figure 7*). This procedure is especially useful when cleaning a line that has rapid fall, such as working from a stack line.



Figure 7 – Looping Cable In Line

- With line secured, insert another section of cable in through the front of the machine (female end first) until approximately one foot remains out the front of the machine.
- Attach cable to cable in line and resume operation.
- 11. To retrieve cable from drain line, the following procedure should be followed:
  - Leave FOR/OFF/REV switch in FOR (forward) position.
  - Push down on clutch handle to engage cable. With mitted hand pull cable out of line (if possible) or hold cable against edge of inlet to thread the cable out until loop forms in front of the machine.

- NOTE! By holding the cable against the edge of the inlet, in the FOR (FORWARD) position, the rotation will rapidly "thread" the cable out of the line.
  - When loop forms, release clutch handle and push excess cable back through machine. Disconnect one section at a time.

**A WARNING** When disconnecting sections, remember to turn unit off and secure cable in line.

• Once section of cable is removed, insert the secured cable in through the front of the machine and continue removing sections until tool on last section of cable is just inside sewer inlet.

**A WARNING** Never retract tool from sewer inlet while cable is rotating. Tool can whip causing serious injury.

- 12. Turn FOR/OFF/REV Switch to OFF position.
- 13. Pull remaining cable and tool from sewer.

**CAUTION** After using, thoroughly flush and drain cables, couplings and tools with water due to damaging effects of some drain cleaning compounds.

# Cleaning Drain Using <sup>5</sup>/16" or <sup>3</sup>/8" Cable Adapter

1. Assume the correct operating posture in order to maintain proper balance (*Figure 6*).

**A WARNING** Should an unexpected situation arise, this posture provides you with the opportunity to safely keep control of the machine and cable.

- Be sure you can quickly release the clutch handle.
- Hand must be on the cable to control its twisting action when it hits an obstruction.
- Must have access to FOR/OFF/REVERSE switch.
- Pull out enough cable by hand to insert into the drain opening and hand-feed the cable into drain until it stops feeding easily. Push cable down drain line keeping your control hand close to the drain opening.
- 3. Hold cable loosely in mittened hand, put FOR/OFF/ REV SWITCH in FOR (forward) position.

NOTE! The motor will start but cable will not rotate.

- 4. With mitted hand on cable, push down on clutch handle with opposite hand to engage adapter.
- 5. Continue hand-feeding the cable slowly until the drain is opened or blockage is encountered.

A WARNING Keep your cable hand close to the drain opening to keep control of the cable and help prevent cable flip-over.

6. When you reach the blockage, work the cable back and forth to clear the obstruction. At this point,

progress depends on the type of tool being used and nature of the blockage. Advance cable slowly.

- If cable gets hung up in the obstruction, release the clutch handle to stop the rotation of the cable. Refer to "Reverse Operation" in the "Special Procedures" section.
- 8. Once obstruction is cleared, it is recommended that operator flush debris from line with running water. Repeat *Step 6* several times if necessary for thorough cleaning job and then work cable through additional stoppages as required.

**CAUTION** Cable is not attached inside drum. When approaching end of cable, keep hand securely on cable to avoid losing it down the drain.

- To withdraw cable from line with machine running, leave FOR/REV lever in FORWARD position and slowly pull cable from drain.
- 10. As excess cable is retrieved from line, hand-feed cable back into K-50.
- 11. Release clutch handle just prior to cable or tool emerging from drain opening. Cable or tool may contain debris and splash work area.

**A WARNING** Never retract tool from sewer inlet while cable is rotating. Tool can whip causing serious injury.

- 12. Turn FOR/OFF/REV Switch to OFF position.
- 13. Pull remaining cable and tool from sewer.

# **Special Procedures**

## **Reverse Operation**

Running machine in reverse will cause premature failure of cable. Use reverse only to free a tool or cable caught in an obstruction. If this should occur, immediately release clutch handle and place FOR/OFF/REV switch to OFF position. After motor comes to a complete stop, place FOR/OFF/REV switch in the REV (reverse) direction. Engage clutch handle only until cable or tool is free of obstruction. Once it is free, release clutch handle immediately. Turn unit OFF. Run unit in FOR (forward) direction and follow normal operating procedure.

**AWARNING** Never operate this machine in REV (reverse) for any other purpose. Operating in reverse can damage a cable and cause serious injury.

## **Brake Adjustment**

The cable adapter is equipped with a quick-acting brake which will immediately stop rotation of the drum when the clutch handle is pulled upwards. After attaching cable adapter to your K-50 Machine, test for proper braking action as follows:

- 1. Put switch in FORWARD position to start motor.
- 2. Push clutch handle forward to engage clutch driver jaws. Drum will rotate.
- 3. Pull up on clutch handle to release jaws and activate brake. Drum should stop turning immediately.

If drum does not stop immediately, readjust brake mechanism as follows:

#### A WARNING

# Make sure machine is unplugged from power source before making any adjustment.

- 4. Slightly loosen two set screws "A" using a <sup>5</sup>/<sub>32</sub>" hex wrench (*Figure 9*).
- 5. Turn set screw "B" clockwise <sup>1</sup>/<sub>4</sub> turn (*Figure 9*).
- 6. Operate machine to check for proper braking action.
- 7. If drum does not stop immediately, repeat *Steps 2 and 3* until brake functions properly.
- 8. Tighten set screws "A" and recheck tension on set screw "B".

Due to normal wear, future adjustment will become necessary for effective braking.



Figure 9 – Cable Adapter

# Accessories

**AWARNING** Only the following RIDGID products have been designed to function with the K-50 Drain Cleaning Machine. Other accessories suitable for use with other tools may become hazardous when used on the K-50. To prevent serious injury, use only the recommended accessories.

## Cables

Catalog No.	Model No.	Description
62225	C-1	25' (7.6m) w/Bulb Auger
56782	C-1IC	<sup>5</sup> /16″ x 25′ (7.6m) Inner Core w/Bulb Auger
89400	C-21	50' (15.2m) w/Bulb Auger
62235	C-2	25' (7.6m) w/Drop Head Auger
56787	C-2IC	<sup>5</sup> / <sub>16</sub> " x 25' (7.6m) Inner Core w/Drop Head Auger
89405	C-22	50' (15.2m) w/Drop Head Auger
62245	C-4	25' (7.6m) w/Male Coupling
62250	C-5	35' (10.7m) w/Bulb Auger
62260	C-6	35' (10.7m) w/Male Coupling
96037	C-6IC	35' (10.7m) w/Male Coupling
62265	C-7	7 <sup>1</sup> / <sub>2</sub> ' (2.3m) Tight-Wind
62270	C-8	7 <sup>1</sup> / <sub>2</sub> ′ (2.3m) All-Purpose Wind
51317	C-9	10' (3.1m) Heavy-Duty Wind

# Accessories

Catalog No.	Model No.	Description
59235 84325	A-14-6 A-14-10	6' Rear Guide Hose 10' Rear Guide Hose
59270	A-18	Front Guide Hose Assembly
59210	A-10	Cable Carrier (Holds 90' C-8, C-9)
59205 59295	A-1 A-2	Left-Hand Mitt Right-Hand Mitt
59230	A-13	Pin Key, 5/8" Cable

# **Adapters with Cable**

Catalog No.	Model No.	Description
59250	A-17-A	Adapter with 25' x 5/16" Cable w/Bulb Auger
59255	A-17-B	Adapter with 35' x 3/8" Cable w/Bulb Auger
59265	A-17-C	Adapter with 35' x 3/8" Cable w/Male Coupling
92095	A-17-D	Adapter with 250' x <sup>5</sup> /16" Cable w/Bulb Auger
92100	A-17-E	Adapter with 250' x 5/16" Cable w/Drop Head

# Tools for C-4, C-6, C-7, C-8, and C-9

Catalog No.	Model No.	Description
62990	T-201	Straight Auger, 5" Long
62995	T-202	Bulb Auger, 11/8" O.D.
63000	T-203	Bulb Auger 7/8" O.D.
55457	T-225	Retrieving Auger
62067	T-201A	Straight Flex Auger
63065	T-217	Drop Head, 4" Long
54837	T-204	"C" Cutter, 1″
63005	T-205	"C" Cutter, 1³/₅″
63010	T-206	Funnel Auger, 3" Long
63015	T-207	Spiral Cutter, 1 <sup>1</sup> /4"
63020	T-208	Spiral Cutter, 1 <sup>1</sup> /2"
63025	T-209	Spiral Cutter, 2"
63030	T-210	Grease Cutter, 1"
63035	T-211	Grease Cutter, 1 <sup>3</sup> / <sub>8</sub> "
63040	T-212	Grease Cutter, 1 <sup>3</sup> / <sub>4</sub> "
63045	T-213	4-Blade Cutter, 1″
63050	T-214	4-Blade Cutter, 1³/₀″
63055	T-215	4-Blade Cutter, 1³/₄″
63060	T-216	Chain Knocker, 2"
63280	T-218	Flue Brush, 3"
63070	T-219	Flue Brush, 2 <sup>1</sup> /2"
63080	T-220	Flue Brush, 2"
63220	T-221	Flue Brush, 1 <sup>1</sup> /2"
52812	T-230	H-D "C" Cutter, 2″
52817	T-231	H-D "C" Cutter, 2¹/₂″
52822	T-232	H-D "C" Cutter, 3″
48482	T-250	Tool Set includes: – T-203 – T-217 – T-205 – A-13 – T-210

NOTE! See Ridge Tool Catalog for complete list of tools and accessories.

# **Maintenance Instructions**

### A WARNING

Make sure machine is unplugged from power source before performing maintenance or making any adjustment.

# Lubrication

Lubricate machine with grease at grease fitting (located on jaw housing) once a week if used every day; once a month if used less. Place a drop of oil on each of the bearing points, thrust bearing, clutch jaws, etc., at least once a year.

## Cables

Cables should be thoroughly flushed with water to prevent damaging effects of sediment and drain cleaning compounds. Periodically lubricate cables and couplings with RIDGID Cable Rust Inhibitor. When not in use, store cables indoors to prevent deterioration by the elements.

Cables should be replaced when they become severely corroded or worn. A worn cable can be identified when outside of coils become flat.

## **Clutch Jaw Assembly (Jaw Set)**

The clutch jaw assembly should be periodically cleaned.

 Place machine on its nose end. Remove the two (2) socket head cap screws from the rack and pinion housing with a <sup>1</sup>/<sub>4</sub>" hex key (*Figure 10*).



Figure 10 – Remove Socket Head Cap Screws

- 2. Remove the rack and pinion housing. The clutch jaw assembly is contained in the K-50 housing.
- 3. Clean and lubricate clutch jaw assembly with oil.
- 4. If worn, replace the clutch jaw assembly.
- 5. Reinstall the jaws into the housing and replace the rack and pinion assembly.
- Attach rack and pinion housing to machine with socket head cap screws.

## **Cable Containers**

Cable container on 5/16'' and 3/8'' cable adapter should be periodically cleaned.

- 1. Remove cable from the cable adapter. Cable is not attached to inside of drum.
- 2. Remove three 1/4" screws holding tube and flange to the drum.
- 3. Clean inside of drum and flange assembly. Certain cleaning agents and solvents damage plastic parts.

Some of these are: gasoline, carbon tetrachloride, chlorinated cleaning solvents, ammonia and household detergents that contain ammonia. Avoiding use of these and other types of cleaning agents minimizes the probability of damage.

4. Reinstall the flange assembly to the drum and replace cable.

# **Machine Storage**

A WARNING Motor-driven equipment must be kept indoors or well covered in rainy weather. 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.

If machine has been exposed to freezing weather, unit must be run for ten (10) to twenty (20) minutes without load to warm up. Failing to do this will result in frozen bearings. If machine is exposed to weather for a period of time, moisture will form across motor windings causing motor to burn out.

# **Service and Repair**

A WARNING



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. All repairs made by Ridge service facilities are warranted against defects in material and workmanship.

**AWARNING** When servicing this machine, only identical replacement parts should be used. Failure to follow these instructions may create a risk of electrical shock or other serious injury.

If you have any questions regarding the service or repair of this machine, call or write to:

Ridge Tool Company Technical Service Department 400 Clark Street Elyria, Ohio 44035-6001 Tel: (800) 519-3456 E-mail: TechServices@ridgid.com