

- Position the foot pedal for easy accessibility. The machine is designed for one-person operation. Be sure you can quickly remove your foot from the pedal in an emergency.
- Be sure the motor switch is in the **off** position.
- Select the proper cutting tool (See Cutter Application Chart—Table 2). A good tool to start with is the Arrow Head or Boring Gimlet. After the line is opened, follow with larger blades, which scrape the inside edges of the pipe, assuring a real cleaning job.
- Insert the cutter into the female connector at the end of the 3/8" or 1/2" cable and tighten the connecting screw and lock washer **firmly** in place.

Operation

- Begin by pulling the cable from the drum and sliding it into the drain as far as it will go.
- Move the motor switch to the **forward** position.
- With both hands (wearing *leather* gloves) on the cable, depress the air foot pedal to start machine.



- Guide the rotating cable into the line and against the obstruction with a firm, even pressure. Do not force the cable - let the cutter do the work. The job won't go any faster and you could damage the cable.

DO NOT USE TOO MUCH FORCE - LET THE CUTTER DO THE WORK.

- Don't leave too much slack in the cable since this will cause whipping. If the cable starts to bend or build up too much twist, release pressure on the foot pedal and rotate the drum in the opposite direction to relieve the twist on the cable. Push any excess cable back into the drum and then continue.
- If you're having trouble getting around tight bends, try putting the machine in reverse while applying steady pressure. Don't do this for more than a few seconds at a time since this could cause tangling in the drum or kinking.

- If you still can't get around the bend, you're probably using too large a cable. Switch to a 3/8" diameter cable, or even a smaller one if necessary. (See Cable Application Chart—Table 1)
- Continue to feed cable slowly into line until resistance or obstruction is met. Then move the rotating cable back and forth to chew up the stoppage thoroughly.

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

- After the line has been cleared, return the cable to the drum with the motor turning **forward**. This is important to prevent the cable from tangling in the drum or in the line.
- When the cutting tool is near the drain opening, take your foot off the pedal to stop drum rotation. Never retract the cutting tool from drain while cable is rotating. The cable could whip and cause serious injury.

CAUTION

Do not use reverse to pull the cable out of the drain. Always run the machine in forward, whether you are feeding the cable into the line or pulling it out.

Power Cable Feed

(Optional—Cat. # PO-MR)

The variable speed Power Cable Feed is designed for use with 1/2" and 3/8" cables. If the feed was purchased separately, see "How to Install Power Cable Feed."



- Be sure you have read and understand the instructions for manual feed before using the Power Cable Feed. Misuse of the feed can result in severe damage to the cable.

- Put the feed control handle in the neutral position. Then, loosen the feed tension knob and pull three feet of cable from the drum.
- Slide the guide tube (Cat. # MR-GT) over the cable and snap the tube into place on the feed spout. (Be sure to remove the cutter and connecting screw from the female connector first. Reattach desired cutter to cable after guide tube is attached to feed.)
- Place the machine as close as possible to the drain opening. The guide tube should extend into drain. Guide tube extensions (Cat. # GTE) are also available.
- Tighten the feed tension knob until the top roller contacts the cable. Then, tighten the knob another two turns.



Note: In operation, use the least pressure possible to get the job done in order to minimize wear on the feed and cable.

- Put the motor switch in the **forward** position (the drum rotates counter-clockwise when viewed from the front).
- The feed lever controls the feeding rate and direction of the cable. Move the lever down to feed the cable out of the drum. The further the lever is moved downward, the faster the cable will feed out. Move the lever up to retract the cable into the drum. When the lever is in the middle (neutral) position, the cable will spin in place.
- Place the end of the cable into the drain opening. Depress the air foot pedal and feed the cable slowly forward. Adjust the feeding rate to the resistance. Don't feed faster than the cable is going into the drain. Too much slack between the machine and drain opening can cause the cable to whip and kink.
- When the cable reaches stoppage, put the feed in neutral. Then allow the cable to progress forward slowly, chewing into stoppage as it goes. This slow movement will reduce stress on cable while doing a more thorough cleaning job. A back and forth motion often works best.
- Move the feed lever to the reverse position (upward) to retract the cable. If more pulling power is required, the motor may be put in reverse and the feed lever moved downward to forward position.

CAUTION

Running in reverse could cause cable tangling. Change motor to forward rotation periodically to relieve cable twist.

Special Operations

IF CABLE GETS CAUGHT IN LINE

The motor can be reversed to free cable if it gets caught in the line. Use the following procedure:

- Move the switch on motor to reverse position.
- Pull the cable out of the drain while the drum is rotating in reverse.
- When the cable has been freed, move the switch to the forward position.



Note: Do not run motor in reverse for more than a few seconds at a time since this could cause tangling in the drum or kinking.

IF CABLE TANGLES IN DRUM

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

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



DISCONNECT MACHINE FROM POWER SOURCE BEFORE UNTANGLING CABLES!

- Loosen the four bolts that hold the distributor tube cone on the front of the drum.
- Pull the cone and distributor tube forward, then pull the tangled portion of the cable out of the drum.
- After the cable has been straightened out, slide the distributor tube and cone back along the cable until it can be repositioned and bolted to the front of the drum.
- Then, push the excess cable back into the drum.

HOW TO REMOVE DRUM FROM MACHINE



DISCONNECT MACHINE FROM POWER SOURCE BEFORE EXCHANGING DRUMS!

- Push down on the spring-loaded motor and slide the V-Belt off the back of the drum.
- Reach behind the drum and locate the drum retaining latch. Pull the latch to release the drum shaft, then pull the drum forward off of the machine.
- To install the drum, simply slide drum onto machine. The latch will lock automatically.

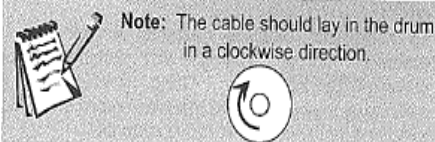
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- Remove the belt guard by loosening retaining knob on top. Position the V-Belt around the drum, then press down on the motor and slip V-belt onto the pulley. Be sure to reattach the belt guard.

HOW TO INSTALL 1/2" AND 3/8" CABLES IN DRUM

! DISCONNECT MACHINE FROM POWER SOURCE BEFORE INSTALLING CABLES!

- There is a socket inside the drum for the back end of the cable. Rotate the drum so that the socket is at the bottom.
- Position the distributor tube so that it is pointing downward.
- Push the cable into the drum until there is a full loop in the drum.
- Reach into the drum, grasp the cable, and bend it into the socket.
- Remove V-Belt and rotate the drum to the right, or clockwise, with one hand while pushing cable into the drum with the other hand.



Accessories

HOW TO USE J-DRUM (Optional—Cat. # MR-250)

The J-Drum holds 50 feet of 1/4" or 5/16" cable to be used when you need to clear smaller (1-1/4" to 2") lines. These cables have a basin plug head that can be spun through most strainers. (See Cable Application Chart—Table 1)



! DISCONNECT MACHINE FROM POWER SOURCE BEFORE INSTALLING CABLES!

- To install cable, open chuck jaws fully so that cable will pass through easily.
- Slide the back end of the cable (opposite to the end with basin head) through spout and into the drum. The cable will be easier to install if you bend the last inch of cable at a 45 degree angle.
- When working through difficult stoppages or tight bends, tighten the chuck to provide more torque and to prevent the cable from tangling in the drum.
- Clean and lubricate chuck regularly to prevent corrosion.

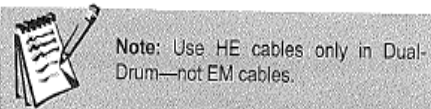
HOW TO USE DUAL-DRUM

(Optional—Cat. # MR-280)

The Dual-Drum holds two different diameter cables at the same time. Inner and outer drum compartments protect the cable from tangling. You can easily switch from 1/4" to 5/16" or 3/8" cables without removing either one from the drum.

! DISCONNECT MACHINE FROM POWER SOURCE BEFORE INSTALLING CABLES!

- Install 1/4" cable into the Dual-Drum by sliding the back end of the cable (opposite to end with basin head) through spout and into the inner drum. The cable will be easier to install if you bend the last inch of cable at a 45 degree angle.
- Install the 5/16" or 3/8" cable into the outer drum by sliding the back end of the cable (opposite to the end with the Female connector) through the spout. Reach one hand into the drum through one of the three ports in the face of the drum and pull the cable end to the left side of the outer drum. Then push another two feet of cable into the drum while pulling the cable downward to form a loop. The cable should lay in the drum in a clockwise direction.



- Select the appropriate cable for the line you are working on. (See Cable Application Chart—Table 1) If a 1/4" cable is required, reach into the Dual-Drum and pull the cable out of the inner drum and through the spout. If a larger cable is required, slide the 1/4" cable back through the spout, then reach into the drum and pull the 5/16" or 3/8" cable from the outer drum through the spout.
- Each of the cables can be "chucked" in place to provide more torque by pressing the knurled knob against the spring and tightening it against the cable.

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HOW TO INSTALL DOLLY (Optional—Cat. # MR-W)

The dolly makes it easy to transport the Mini-Rooter to and from the job. Designed especially for the Mini-Rooter, it snaps on and off in seconds and holds the machine securely.

To install:

! DISCONNECT MACHINE FROM POWER SOURCE BEFORE INSTALLING DOLLY!

- Hold the dolly horizontally above the Mini-Rooter with the wheels toward the back of the machine.
- Tilt the top of the dolly down so the hooks on the mid-point of the dolly slip under the top crossbar of the machine. Then, lower the wheels to the ground.
- Step behind the machine. With one foot on the axle, tilt the machine back.
- Swing the locking brackets over the rear gussets and tighten the knobs on either side to hold the dolly securely in place.



HOW TO INSTALL POWER CABLE FEED (OPTIONAL)

! DISCONNECT MACHINE FROM POWER SOURCE BEFORE INSTALLING POWER CABLE FEED!

- Put the feed control lever in the neutral (middle) position, then loosen the feed tension adjustment knob until the top feed roller lifts out of the way.
- Pull three feet of cable from drum. Remove cutter and connecting screw from cable.
- Fully loosen upper clamp knob on the feed support bracket and snap the clamp over the Mini-Rooter's upper frame. Center the feed over the drum spout and slide the cable through the feed rollers. Then moderately tighten the knob.

- Loosen the two lower clamp cap screws to allow the clamps to fit over the lower frame. Note that the "short" clamp half should be closest to the floor.
- It may be necessary to loosen and re-adjust the upper tube length to get the correct fit. Loosen the two set screws in the upper tube and slide the assembly to get the best fit.
- When alignment is correct, tighten the lower clamp set screws. Screws should **not** be fully tightened. Make snug only so that the bracket is able to pivot.
- Fully tighten the upper tube set screws.
- Test the bracket by loosening the knob and swinging the feed assembly outward. It should disengage and swing smoothly.
- Swing the feed assembly back and the clamp should snap into the locked position. Tighten the knob to secure the feed for operation. Do not attempt to use or transport the unit unless the upper clamp knob is tightened.

Maintenance

To keep your machine operating smoothly, it is essential that all bearings and distributor tube bushings be lubricated. Oiling moving parts is particularly important where machine comes in contact with sand, grit and other abrasive material.

! DISCONNECT MACHINE FROM POWER SOURCE BEFORE PERFORMING MAINTENANCE ON MACHINE!

CABLE MAINTENANCE

To get the maximum service from your cables, be sure that they are clean and well oiled. This not only provides running lubrication but greatly extends the life of the cables as well. Some users periodically pour oil directly into the drum. Then, as the drum turns, the cables get complete lubrication. Our SNAKE OIL is ideally suited for this purpose, since it not only lubricates the cables, it deodorizes them as well.



FEED MAINTENANCE

Keep feed free of excessive soil and grit. It is recommended that the feed be flushed with fresh water followed by a light oiling of the moving parts. No disassembly is normally required. Failure to feed can usually be traced to the following possibilities: