

# Owner's Manual

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# Footage



## Trenchless Service Line Replacement Tools

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## **SAFETY PRECAUTIONS PERSONAL PROTECTION**



- Wear all required personal protective equipment including but not limited to:
- Approved Safety Goggles
- Gloves
- Do not modify “The Wedge” without the written consent of Footage Tools Inc.

## **KEEP TOOL IN GOOD CONDITION**



Be sure the tool is in good operating condition. Inspect the striking surface of the hammer and the flaring tool before each use. If either striking face surface is mushroomed, grind or file the striking surface to its approximate original shape, maintaining a slight crown on the end before use. Use only a soft faced brass hammer. (Do not use a hardened steel hammer!).



**WARNING: STAY CLEAR OF AREA BEHIND AND AROUND PULLING END OF OPERATION**

## **PLEASE NOTE:**

The Wedge SE is recommended for replacing existing galvanized, copper and lead service lines.

The Wedge SE3 is recommended for replacing existing PE & PVC service lines.

## **USING THE “THE WEDGE SE” SERVICE LINE REPLACEMENT TOOL**

### **REQUIRED TOOLS AND EQUIPMENT**

1. “The Wedge” Service Line Replacement Tool.
2. 3/8” Cable with ferrule on one end, fused to a point on the other, at least 10 feet longer than pipe to be replaced.
3. Soft faced brass hammer.
4. Deburring tool.
5. Safety goggles and gloves.
6. Cable grip or clamp.
7. Copper or PE adapters.
8. Two adjustable wrenches.

# “The Wedge SE & TE” Operating Instructions

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## SERVICE REPLACEMENT PROCEDURE

1. Expose pipe to be replaced at both ends and disconnect.
2. Insert the fused end of the cable into the threaded end of the “The Wedge SE” and out through the pointed end. Pull the entire length of cable through “The Wedge SE” until the ferrule on the cable seats inside “The Wedge SE”.
3. Continue to thread the cable (fused end first) through the pipe to be replaced until at least 24” of cable is exposed at the other end.

## REPLACING SERVICE LINE WITH COPPER PIPE

Flare the copper pipe as per the following procedure:

4. Wear safety goggles as per safety regulations and put on gloves.
5. Using a wheel-type tubing cutter with a good blade, cut the copper tubing to the desired length. Be sure that the cut is square.
6. Remove all burrs from both the inside and the outside of the mouth of the tube.
7. Inspect the striking faces of the flaring tool and soft face brass hammer for mushrooming. If either face is mushroomed do not proceed until the deformed material is removed.
8. Slide the flared tube-coupling nut over the end of the tube. If it does not fit, the tube is out of round and must be re-rounded before proceeding with the flaring operation.
9. Lubricate the shank and the flaring surface of the flaring tool with potable grease and insert the tapered end into the tube mouth and tap the tool with a soft face brass hammer while rotating the tool. Frequently slide the flared tube nut up to the flare to check the size of the flare. The flare is correct when the flared end of the tube is large enough to be snug inside the flared tube nut yet it is small enough to allow the flared tube nut to be turned by hand. A good flare should not have any cracks on the edges. If any cracks appear or if the flare is otherwise unsuitable, re-cut the tube and start over until a perfect flare is achieved.



“The Wedge SE” shown ready to install copper pipe using the compression connector provided by Footage.



Cable shown attached to cable grip #K1684-5

10. Connect the replacement pipe to “The Wedge SE” by threading the flare tube nut over the wedge, using two adjustable wrenches.

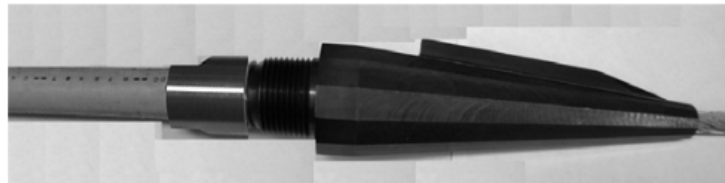
# “The Wedge SE & TE” Operating Instructions

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11. Pull the cable by the attached fused end until tight and attach cable grip or clamp.
12. Attach the cable grip or clamp to a backhoe, truck or winch and pull the tool through the pipe to be replaced while simultaneously installing the replacement pipe. The old pipe may either split or be pulled out, depending on pipe material and condition. If the pipe is pulling out intact, use a tubing cutter to separate it into sections to allow the cable grip to be repositioned after each haul.

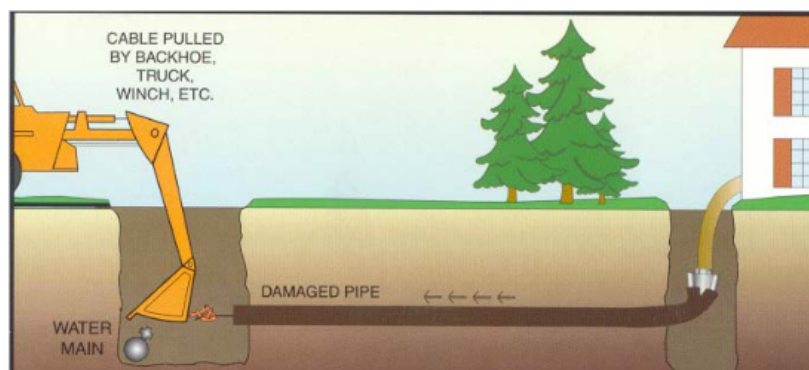
## REPLACING SERVICE LINE WITH PE PIPE

13. Cut the PE pipe to the desired length. Be sure the cut is straight.
14. Remove all burrs from both the inside and the outside of the mouth of the pipe.
15. Using an adjustable wrench, thread the appropriate PE pipe puller into the pipe required to be installed, up to the end of the thread, or until it becomes too difficult to thread.
16. Connect the replacement pipe to “The Wedge SE” by threading the wedge into the puller, using another adjustable wrench.



“The Wedge SE” shown ready to install P.E. pipe using the P.E. puller adapter provided by Footage.

17. Pull the cable by the attached fused end until tight and attach cable grip or clamp.
18. Attach the cable grip or clamp to a backhoe, truck or winch and pull the tool through the pipe to be replaced while simultaneously installing the replacement pipe. The old pipe may either split or be pulled out, depending on pipe material and condition. If the pipe is pulling out intact, use a tubing cutter to separate it into sections to allow the cable grip to be repositioned after each haul.



## AIRLINE CABLE AND K1684-5 CABLE GRIP

### MAXIMUM LOAD CAPACITIES

- K1684-5 Cable Grip rated at 8,000 lbs. Maximum load
- 1/4" diameter airline cable – breaking strength 7,000 lbs.
- 5/16" diameter airline cable – breaking strength 9,800 lbs.
- 3/8" diameter airline cable – breaking strength 14,400 lbs.

## **WARNING**

**IF THE WEDGE DOES NOT START TO SPLIT THE OLD SERVICE AND ADVANCE TOWARDS THE MAIN AFTER APPLYING THE PULLING FORCE LISTED ABOVE TO THE AIRLINE CABLE.....**

***“STOP PULLING AND CALL FOOTAGE TOOLS CUSTOMER SERVICE AT 1-888-737-3668”***

# “The Wedge SE & TE” Operating Instructions

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Parts list:



Footage Tools Inc, 54 Audia Court, Vaughan, ON. Canada L4K 3N4

Phone: (905) 695-9900 • Fax: (905) 695-8874 • Toll Free: 1-888-737-3668 • [www.footagetools.com](http://www.footagetools.com)