

## Open-Type Fused Cutout Operation



### 1. Scope

This work practice outlines the steps to safely open and close open-type overhead distribution cutouts.

The following actions are outside the scope of this work practice:

- Mounting of the cutout to the pole
- Installation of the fuse holder in the cutout

### 2. Application

This work practice is for qualified Seattle City Light (SCL) electrical line workers who operate open-type cutouts installed on distribution poles.

It is assumed that all SCL electrical line workers who are operating open-type fused cutouts have (1) completed the necessary training to operate the cutout and tools described in this work practice and (2) have completed the necessary training required of a “qualified electrical employee” as defined in Washington Administrative Code (WAC) 296-45-065.

Further, it is assumed that all qualified electrical employees who are operating cutouts have read and understand the manufacturer operating instructions. See Section 7, Sources.

### 3. Required PPE

It is assumed that all SCL electric line workers who are operating cutouts are already wearing the following required PPE:

- Hard hat
- Safety Glasses
- Flame-Resistant (FR) clothing of the appropriate category
- Work boots
- Work gloves

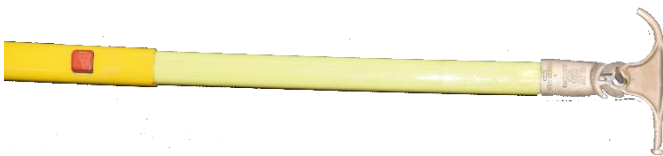


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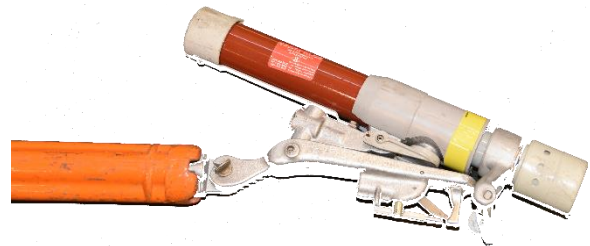
### 4. Required Tools

A hot stick with a disconnect hook is required for closing the cutout and an S&C Loadbuster tool is required for opening the cutout. See figures 5a and 5b.

**Figure 5a. Hot Stick With Disconnect Hook**



**Figure 5b. Loadbuster Tool Mounted to a Universal Pole**



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### 5. Steps

**DANGER!** Hazardous voltage is present. Avoid contact with energized circuits or hardware. Fused cutouts are designed to protect equipment. A fuse cutout cannot protect personnel from injury or electrocution if contact is made with an energized circuit or hardware.

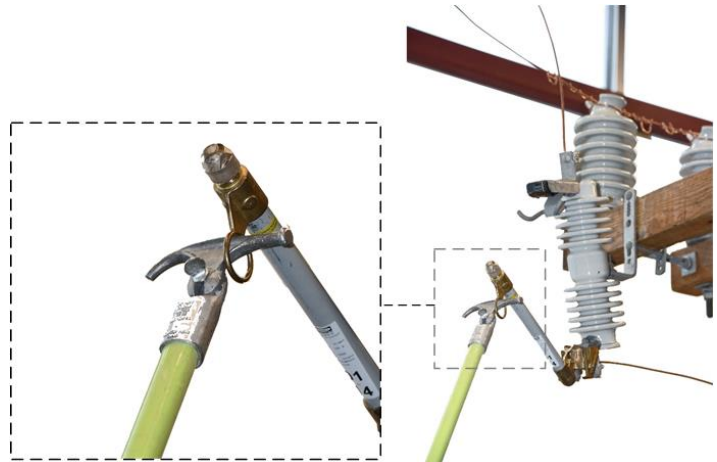
Please review all steps carefully to ensure safe operation. Two separate sets of steps are presented: one for closing a cutout, and one for opening a cutout.

## 5.1 Closing the Cutout

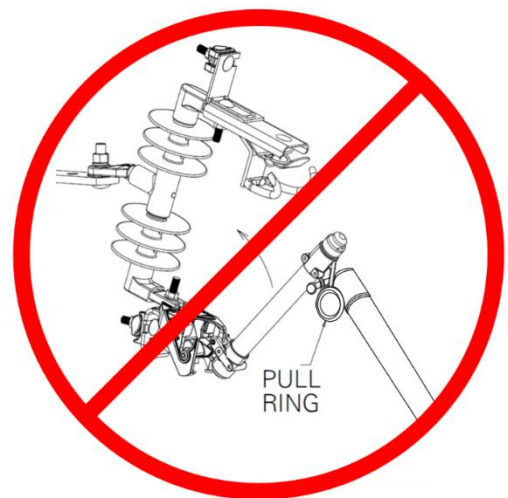
**WARNING!** Stay clear of the exhaust path and look away when closing a cutout. Hot gases and high velocity particles can be expelled from the bottom of the fuseholder if a fault is present, causing serious injury.

### Step 1 Insert the disconnecting hook into the pull ring.

Insert the disconnecting hook of the hotstick into the pull ring of the fuseholder and swing the fuseholder to within an intermediate position of approximately 45 degrees from the fully closed position.



**WARNING!** Do not place the disconnecting hook under the ring. Doing so can cause the disconnecting hook to slide from underneath the pull ring of the fuseholder, causing the fuseholder to fail to fully engage in the closed position and swing open, creating an arc flash that can lead to serious injury or death.



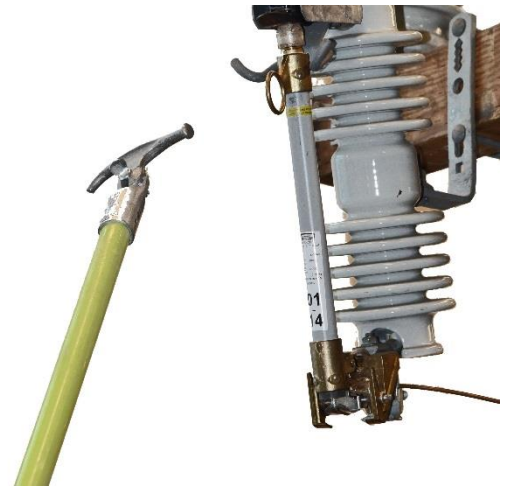
### Step 2 Close the cutout.

Quickly and firmly drive the fuseholder to the closed position using a vigorous thrust.



**Step 3 Remove the hot stick from the pull ring.**

Carefully remove the hot stick from the pull ring, taking care to avoid opening the fuseholder.

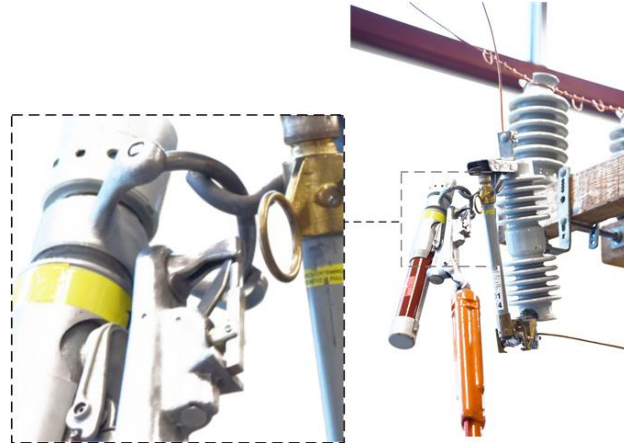


## 5.2 Opening the Cutout

The instructions provided below are for opening the cutout using an S&C Loadbuster loadbreak tool. Follow the manufacturer operating instructions if a different loadbreak tool is used.

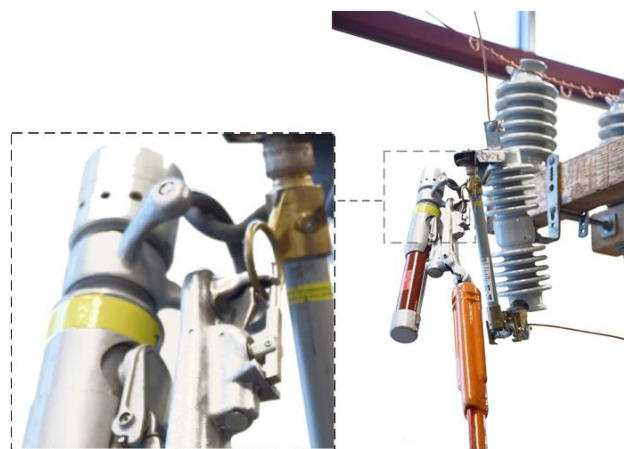
### Step 1 Hook anchor over the attachment hook.

Reach across in front of the fuse cutout with the loadbreak tool and hook the anchor, located at the top of the loadbreak tool, over the attachment tool on the far side of the fuse cutout.



### Step 2 Swing the loadbreak tool toward the fuse tube and pass the loadbreak tool pull-ring hook through the pull ring on the fuse tube.

The pull-ring latch will deflect and upon complete entry of the pull ring, will spring back, locking the loadbreak tool to the pull ring.



### Step 3 Open the cutout

Operate the loadbreak tool with a firm, steady pull until it is extended to its maximum length.

An audible pop can be heard when the loadbreak tool snaps into the fully extended position.



**Step 4 Remove the loadbreak tool.**



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**6. References**

**WAC 296-45-065**; Training

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**7. Sources**

**Cooper Power Series, Fusing Equipment Catalog Data CA132026EN**; “UltraSIL polymer-insulated and porcelain Type L and LB open distribution cutout,” Eaton, Cleveland, OH, March 2019

**Cooper Power Systems, Fusing Equipment KS010-01-1**; “UltraSIL polymer-insulated and porcelain Type L and LB open distribution cutout,” Eaton, Cleveland, OH, March 2019

**Cooper Power Series, Cutouts and Fuse Links MN132007EN**; “UltraSIL polymer-insulated and porcelain Type L and LB open distribution cutout installation instructions,” Eaton, Cleveland, OH, January 2016

**S&C Electric Co. Instruction Sheet 351-500**; “S&C Type XS Fust Cutouts Outdoor Distribution, 14.6 kV through 25 kV,” S&C Electric Co., May 6, 2011

**S&C Electric Co. Instruction Sheet 811-505**; “Loadbuster®—The S&C Loadbreak Tool”

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