

# Instructions for Installation, Operation and Maintenance of A.B. Chance Company Type C Loadbreak Porcelain and Polymer Cutout

## GENERAL

**⚠ DANGER**

The A. B. Chance Type C Loadbreak Cutout is for protection of equipment only. It **DOES NOT** protect personnel from injury or electrocution if contact with energized circuits or hardware occurs.

The A. B. Chance Company Type C Loadbreak Cutout is an expulsion type distribution fuse. Its primary functions are to interrupt fault or overload current within its rating on a distribution line to protect the electric circuit and/or connected equipment and to provide a loadbreaking capability to intentionally isolate connected equipment.

**⚠ CAUTION**

The equipment covered by this instruction guide should be selected, installed and serviced by competent personnel who understand proper safety procedures. This instruction guide is written for such personnel and is not a substitute for adequate training and experience in safety procedures regarding this type of equipment.

ANSI Standard C37.48 prescribes guidelines for application, operating and maintenance of distribution cutouts and shall be followed in addition to this instruction guide.

## INSTALLATION

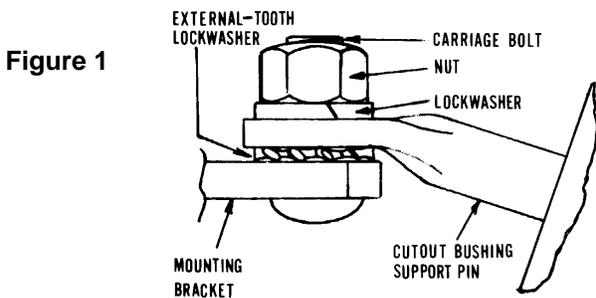
**NOTE:** A properly sized cutout must be selected for each installation with consideration to recovery voltage, continuous current, BIL and fault interrupting rating. Should there be any concern regarding use of this cutout as rated, consult your supervisor before installation.

Securely attach mounting bracket if supplied with cutout, to crossarm or pole.

**⚠ WARNING**

**DO NOT** mount this cutout in vaults or other enclosed areas because of the expulsion emitted during current interruption.

Mount the cutout on the mounting bracket with the external tooth lockwasher placed between the mounting bracket and the cutout bushing support pin (see Figure 1). Tighten the nut finger tight. Rotate the cutout on the mounting bracket to provide maximum clearance for the operator and vented ends which expel hot gases and high velocity particles during interruption and to provide maximum ease of operation. Securely tighten carriage bolt nut.



To attach electrical leads, first loosen top and bottom terminal washer faced nuts. Wire brush conductors and apply a coating of oxidation inhibitor before inserting conductor into terminal. Tighten washer faced nuts to approximately 20 ft./lb.

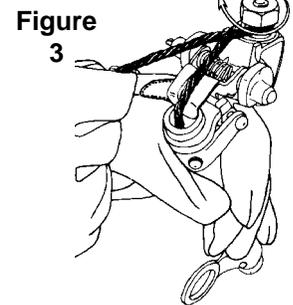
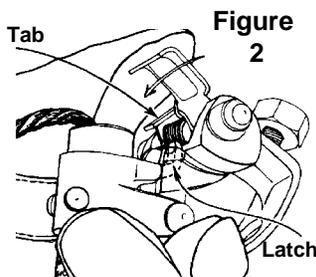
To install the fuselink in the fuseholder, remove the cap from the upper ferrule of the fuseholder assembly. Slide the fuselink, cable end first, into the top of the fuseholder and pull out at the lower end.

**Note:** Some fuselinks have removable button heads. If this type of link is used on cutouts not equipped with an arc shortening rod, tighten the button head firmly before installing the fuselink in the fuseholder

**⚠ CAUTION**

Do not remove or damage the small tube on the fuselink. It is an integral part of the fuselink and removal or damage may result in the cutout's failure to interrupt.

Replace the cap on the upper fuseholder ferrule and tighten with a wrench. Holding the fuseholder at the lower end, rotate the link ejector about its pivot until it stops, making certain that the tab on the link ejector engages the latch on the lower fuseholder ferrule. (See Figure 2.) Holding the ejector in this position, feed the cable over the link ejector channel and around the thread stud in a clockwise direction. (See Figure 3.) Maintaining tension on the fuselink cable, tighten the fuselink attachment nut with a wrench. Clip excess fuselink cable.



**⚠ CAUTION**

Do not use 100 amp or smaller fuselinks in 200 amp fuseholders by employing washers or other means. This could result in the cutout to fail to interrupt.

**NOTE:** Cutouts using an arc shortening rod require the use of removable buttonhead fuselinks. To attach the fuselink to the arc shortening rod, remove the screw-type buttonhead (and washer if equipped) from the fuselink. Screw the arc shortening rod (attached to cap) onto the fuselink and tighten firmly. (See Figure 4.) Follow same procedure as outlined in above paragraph.

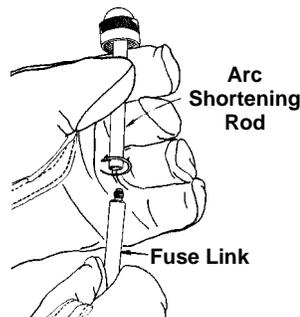


Figure 4

**⚠ CAUTION**

Do not replace arc shortening rod with a standard cap. the rod is required to achieve the designated interrupting rating and use of the cutout without the rod will reduce the cutout's interrupting capability and may cause the cutout to fail to interrupt.



## OPERATION

### ⚠ CAUTION

Use only approved A. B. Chance Co. loadbreak fuseholders. This fuseholder has a trip lever attached for loadbreaking purposes. Use of any other fuseholder eliminates any loadbreak capability, and may result in property damage or personal injury

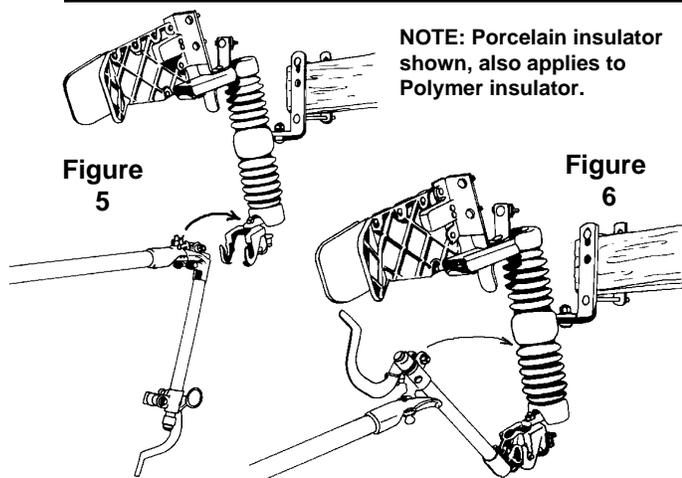
### ⚠ CAUTION

Only qualified personnel should operate a cutout. Such personnel should wear appropriate protective equipment such as rubber gloves, hard hats, safety glasses, etc., in accordance with established utility and safety practices

Once the fuselink has been installed in the fuseholder, insert the disconnect stick into the opening in the fuseholder trunnion. Place the fuseholder into the hinge as shown in Figure 5. Remove the disconnect stick.

### ⚠ WARNING

Hot gases and high velocity particles are expelled from fuseholder during interruption. This expulsion can cause serious injury. Stay away from conical area below and in-line with fuseholder.



After positioning himself well clear from the vented end and exhaust path of the cutout, the operator should place the disconnect stick in the ring on the upper ferrule of the fuseholder. Rotate the fuseholder to an intermediate position as in Figure 6. Look away from the cutout. Quickly and firmly drive the fuseholder into the closed position. Remove disconnect stick from the ring carefully to avoid opening the fuseholder.

All Type "C" Loadbreak Cutouts are equipped with an arc chute type interrupter. The arc chute enables the cutout to perform as a loadbreak

device capable of interrupting load currents. Refer to the catalog number for information regarding specific loadbreaking capability.

To operate this loadbreak device place a disconnect stick in the pull ring on the fuseholder as shown in Figure 7a. Position yourself slightly to one side of the cutout, about two feet to one side, look away from the cutout and pull sharply on the disconnect stick without hesitation.

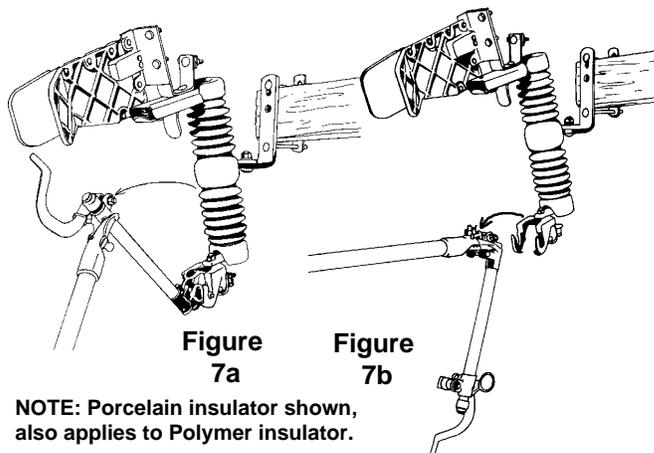
### ⚠ WARNING

Hot gases and particles are expelled from the arc chute during opening. These can cause personal injury. Look away and position yourself to the side of the arc chute when opening.

After opening fuseholder, swing it into a full open position. Use a disconnect stick to remove the fuseholder from the cutout hinge as shown in Figure 7b.

### ⚠ CAUTION

Store fuse holder in an upright position out-doors or in a non-heated weather protected area. Excessive water entering the bore of the fuse holder may cause interior corrosion, damage the fuse holder liner or damage the fuse link. These conditions may cause the fuse to fail to interrupt an over-current.



## MAINTENANCE

Refer to ANSI Standard C37.48 as a general guide. Periodically inspect the fuselink at the lower open end of the fuseholder for evidence of corrosion. Replace fuselinks which show signs of deterioration (broken strands, heavy corrosion, etc.). Replace broken/ cracked porcelain or torn polymer insulator and clean or replace if heavily contaminated. Inspect contacts for excessive pitting or burning and replace as necessary. Check the fuseholder fiber liner for cracking or excessive erosion. If cracked or if the I.D. is larger than .650 inches and .860 inches on the 100 and 200 amp

fuseholders respectively, then replace the fuseholders. If the fuseholder shows any signs of electrical tracking it should be replaced.

Check the trip lever on the fuseholder for burrs or excessive erosion. Replace fuseholder if necessary. Check arc chute for cracks and replace if broken. On lines not energized, operate the trip lever by completely opening and closing the device to check for smooth operation and replace if necessary.

These instructions do not claim to cover all details or variations in equipment, nor to provide for all possible conditions to be met with concerning installation, operation, or maintenance of this equipment. If further information is desired or if particular problems are encountered which are not sufficiently covered in this guide, contact A. B. Chance Company.



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