Fusing Equipment
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COOPER POWER SERIES

Automatic Sectionalizing Link Installation Instructions

Powering Business Worldwide

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Safety for life

Eaton meets or exceeds all applicable industry standards relating to product safety in its Cooper Power™ series products. We actively promote safe practices in the use and maintenance of our products through our service literature, instructional training programs, and the continuous efforts of all Eaton employees involved in product design, manufacture, marketing, and service.

We strongly urge that you always follow all locally approved safety procedures and safety instructions when working around high voltage lines and equipment, and support our "Safety For Life" mission.

Safety information

The instructions in this manual are not intended as a substitute for proper training or adequate experience in the safe operation of the equipment described. Only competent technicians who are familiar with this equipment should install, operate, and service it.

A competent technician has these qualifications:

- Is thoroughly familiar with these instructions.
- Is trained in industry-accepted high and low-voltage safe operating practices and procedures.
- Is trained and authorized to energize, de-energize, clear, and ground power distribution equipment.
- Is trained in the care and use of protective equipment such as arc flash clothing, safety glasses, face shield, hard hat, rubber gloves, clampstick, hotstick, etc.

Following is important safety information. For safe installation and operation of this equipment, be sure to read and understand all cautions and warnings.

Hazard Statement Definitions

This manual may contain four types of hazard statements:

DANGER

Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

WARNING

Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION

Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

CAUTION

Indicates a potentially hazardous situation which, if not avoided, may result in equipment damage only.

Safety instructions

Following are general caution and warning statements that apply to this equipment. Additional statements, related to specific tasks and procedures, are located throughout the manual.

DANGER

Hazardous voltage. Contact with hazardous voltage will cause death or severe personal injury. Follow all locally approved safety procedures when working around high- and low-voltage lines and equipment. G103.3

WARNING

Before installing, operating, maintaining, or testing this equipment, carefully read and understand the contents of this manual. Improper operation, handling or maintenance can result in death, severe personal injury, and equipment damage. G101.0

WARNING

This equipment is not intended to protect human life. Follow all locally approved procedures and safety practices when installing or operating this equipment. Failure to comply can result in death, severe personal injury and equipment damage. G102.1

WARNING

Power distribution and transmission equipment must be properly selected for the intended application. It must be installed and serviced by competent personnel who have been trained and understand proper safety procedures. These instructions are written for such personnel and are not a substitute for adequate training and experience in safety procedures. Failure to properly select, install or maintain power distribution and transmission equipment can result in death, severe personal injury, and equipment damage. G122.2

Product information

⚠ CAUTION

Eaton's Cooper Bussmann® series Automatic Sectionalizing Link is designed to be operated in accordance with normal safe operating procedures. These instructions are not intended to supersede or replace existing safety and operating procedures. READ ALL THE INSTRUCTIONS BEFORE INSTALLING THE AUTOMATIC SECTIONALIZING LINK. The Automatic Sectionalizing Link should be installed and serviced only by personnel familiar with good safety practice and the handling of high-voltage electrical equipment.

The Cooper Bussmann® series Automatic Sectionalizing Link (ASL) is a completely self-contained device that, when used in conjunction with either an upstream autorecloser or a multi-shot circuit breaker, sectionalizes and isolates the network thereby reducing the number of customers disconnected due to permanent faults. The ASL discriminates between transient and permanent faults, greatly reducing the number of outages caused by transient no-damage faults such as lightning.

Application

The ASL is designed for use on a single-phase distribution lateral or branch, downstream from an autorecloser or multi-shot circuit breaker. The ASL is supplied complete and ready to install into a NEMA interchangeable mount such as the Cooper Power Systems Type L Open Distribution Cutout.

The ASL is factory set for "pick-up" current and number of counts to operation and is not field adjustable. Before installation, check the type designation on the bottom cap to determine if the correct application of the sectionalizer is being made. Once positioned and the line energized, the device is self-powered and will function based on the preset conditions programmed into the logic board.

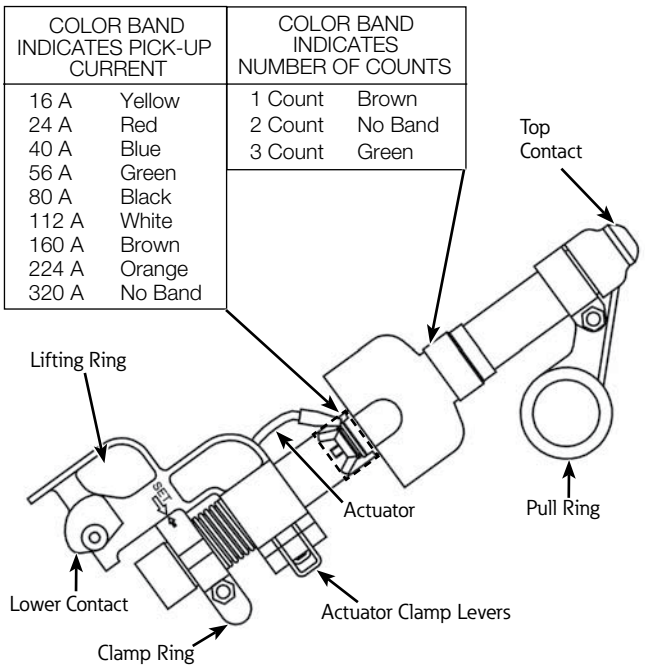

Figure 1. Line drawing of ASL with component identification.

Part Number

This is illustrated by the following example:

Voltage Rating	Product Type	Pick-up Current (A)	Mounting Type	Number of Counts	System Frequency
15	ASL	112	C*	2	US**

* Denotes contact arrangement for use with given fuse mount. Type C is for NEMA interchangeable type of fuse mount.

** Denotes system frequency: US for 60 Hz (no mark for 50 Hz)

The example for part number 15ASL112C2US covers a 15 kV sectionalizer set to a 112 ampere "pick-up" current and suitable for use in a NEMA interchangeable fuse mount such as Cooper Power Systems Type L, with operation after two counts of fault current on a 60 Hz system. The part number is stamped in the sealing cap on the lower end of the ASL.

Color bands are located on the body of the ASL for easy identification of count and pick-up rating.

For further information concerning the selection of the Automatic Sectionalizing Link, see catalog section CA132045EN or contact your Eaton representative.

Operation

ASL operation is accomplished by discharging an internal capacitor into a small actuator ("or striker") which unlatches the carrier tube and causes it to swing down, as shown in Figure 2.

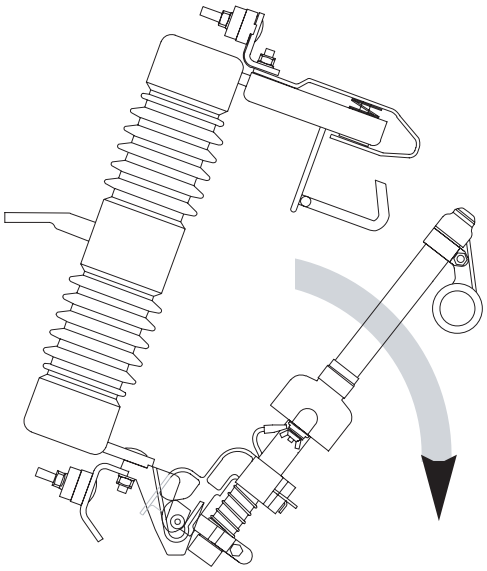

Figure 2. ASL in de-latched position.

⚠ CAUTION

As always when working near live high voltage equipment follow all approved safety practices when installing or removing an Automatic Sectionalizing Link.

Installation

1. Ensure the ASL is in the SET position. Refer to section on resetting ASL.
2. With the ASL inverted, insert hook stick into the ASL lifting ring.
3. Place ASL into the hinge of the cutout (See Figure 3).
4. To close the ASL, insert hook stick into the pull ring and rotate the sectionalizer to an intermediate position as in Figure 4.
5. Quickly and firmly drive the fuseholder into the closed position.

⚠ WARNING

Fault locating and repair in accordance with existing procedures should be completed before replacing the ASL actuator and reinstalling the device.

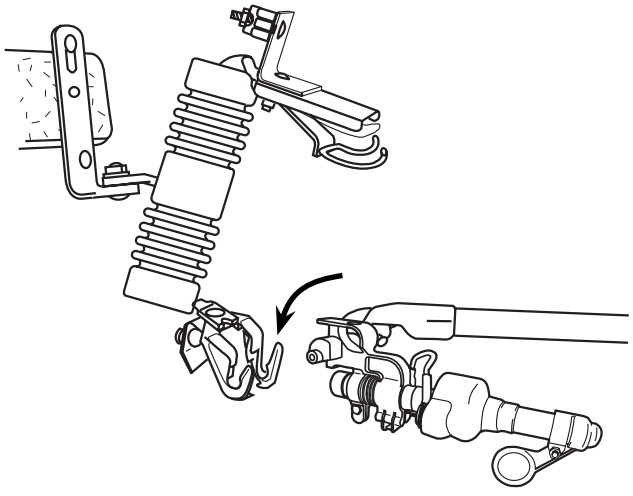

Figure 3. Inserting ASL into the Type L cutout.

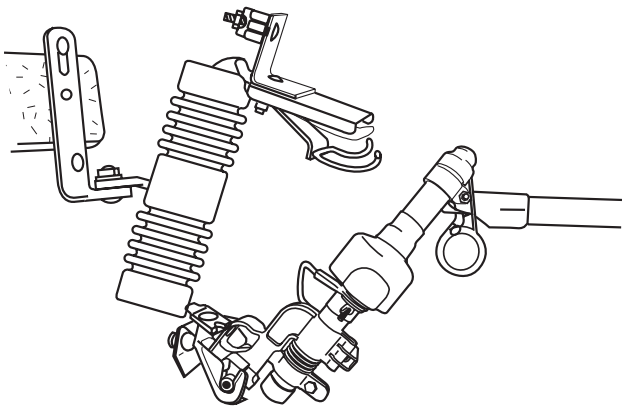

Figure 4. Closing the ASL into the Type L cutout.

⚠ WARNING

Do not attempt to interrupt load current by pulling on the ASL's pull ring to open the cutout. An arc started by opening a cutout under load in this manner could cause injury or damage to equipment.

Removal

If it is required to disengage the ASL for any reason, it may be de-latched by engaging the finger on the end of the operating pole through the pull ring and pulling downwards. **Do not disengage while the ASL is carrying line current**. The sectionalizer may be lifted down via the lifting ring.

Load break operation

The ASL is designed for dead break only. Interchangeable mounts are fitted with hooks for use with a loadbreak tool. To open the ASL under load, use an appropriate loadbreak tool designed for use with interchangeable cutouts and follow instructions provided with such a tool.

Actuator replacement

1. Loosen the wing nut and remove spade terminal.
2. Unscrew actuator from the lower casting and discard spent actuator assembly as scrap metal. If actuator is unspent, refer to paragraph on disposal of actuator.
3. Screw in new actuator assembly until finger tight in the housing. The face of the actuator should be approximately flush with the casting or recessed by no more than 1/16 inch.
4. Lightly apply a contact grease, such as Kearney™ conductive lubricant, to both sides of the actuator spade terminal. Wipe clean flat face of actuator terminal on main body of ASL and apply light covering of grease.
5. Locate spade terminal under washer and wing nut.
6. Tighten wing nut.

Resetting the ASL

1. Compress the operating spring by pressing the lower contact casting towards the clamp ring until the arrows on these two components are aligned.
2. Move the clamp over until it has gone "over center" and has latched. Refer to Figure 5.

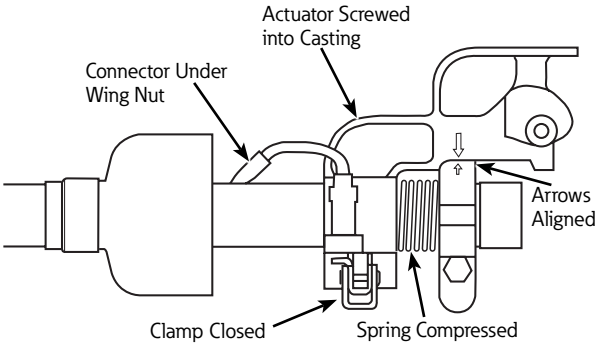

Figure 5. ASL in SET position.

Disposal of actuator

No attempt should be made to section or dismantle these devices. Once functioned, by following the appropriate waste disposal regulations, these devices can be disposed of as scrap metal. Unfired devices should be functioned individually by application of the correct firing current. Large numbers of devices should be disposed of by burning in a controlled manner.

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