# Installation and Adjustment

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| Qualified Persons                |  |  |
|----------------------------------|--|--|
|                                  |  |  |
|                                  | Only qualified persons who are knowledgeable in the installation, operation, and maintenance of overhead and underground electric distribution equipment, along with all associated hazards, may install, operate, and maintain the equipment covered by this publication. A qualified person is someone who is trained and competent in:  |  |
|                                  | The skills and techniques necessary to distinguish exposed live parts from nonlive parts of electrical equipment   |  |
|                                  | The skills and techniques necessary to determine the proper approach distances corresponding to the voltages to which the qualified person will be exposed   |  |
|                                  | • The proper use of special precautionary techniques, personal protective equipment, insulated and shielding materials, and insulated tools for working on or near exposed energized parts of electrical equipment   |  |
|                                  | These instructions are intended ONLY for such qualified persons. They are<br>not intended to be a substitute for adequate training and experience in safety<br>procedures for this type of equipment.  |  |
| Read this<br>Instruction Sheet   | NOTICE   |  |
|                                  | Thoroughly and carefully read this instruction sheet and all materials included in the product's S&C Instruction Handbook before installing or operating your S&C Type SMD-40 Power Fuses. Familiarize yourself with the Safety Information and Safety Precautions on pages 3 through 4. The latest version of this publication is available online in PDF format at <b>sandc.com/en/support/product-literature/.</b>  |  |
| Retain this<br>Instruction Sheet | This instruction sheet should be available for reference whenever S&C Type SMD-40 Power Fuses are used. Retain this instruction sheet in a location where you can easily retrieve and refer to it.   |  |
| Proper Application               | A WARNING  |  |
|                                  | S&C Type SMD-40 Power Fuses must only be used for specific fusing applications that are within the ratings of the model selected. S&C Type SMD-40 Power Fuse ratings are listed on a ratings label attached to the unit.   |  |
| Warranty                         | The warranty and/or obligations described in S&C's Price Sheet 150 "Standard Conditions<br>of Sale–Immediate Purchasers in the United States" (or Price Sheet 153, "Standard<br>Conditions of Sale–Immediate Purchasers Outside the United States"), plus any specia<br>warranty provisions, as set forth in the applicable product-line specification bulletin<br>are exclusive. The remedies provided in the former for breach of these warranties shal<br>constitute the immediate purchaser's or end user's exclusive remedy and a fulfillment o<br>the seller's entire liability. In no event shall the seller's liability to the immediate purchase:<br>or end user exceed the price of the specific product that gives rise to the immediate<br>purchaser's or end user's claim. All other warranties, whether express or implied or<br>arising by operation of law, course of dealing, usage of trade or otherwise, are excluded<br>The only warranties are those stated in Price Sheet 150 (or Price Sheet 153), and THERF<br>ARE NO EXPRESS OR IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS<br>FOR A PARTICULAR PURPOSE. ANY EXPRESS WARRANTY OR OTHER OBLIGATION<br>PROVIDED IN PRICE SHEET 150 (OR PRICE SHEET 153) IS GRANTED ONLY TO THF<br>IMMEDIATE PURCHASER AND END USER, AS DEFINED THEREIN. OTHER THAN AN<br>END USER, NO REMOTE PURCHASER MAY RELY ON ANY AFFIRMATION OF FACT OF<br>PROMISE THAT RELATES TO THE GOODS DESCRIBED HEREIN, ANY DESCRIPTION<br>THAT RELATES TO THE GOODS, OR ANY REMEDIAL PROMISE INCLUDED IN PRICE |  |

#### Warranty Qualifications

For the standard warranty contained in the seller's standard conditions of sale (as set forth in Price Sheet 150) to apply to S&C Type SMD-40 Power Fuses, these mountings must be installed in accordance with instructions found in this publication.

The standard warranty contained in the seller's standard conditions of sale (as set forth in Price Sheet 150) does not apply when fuse units or end-fittings of other than S&C manufacture are used in S&C SMD-40 mountings or when S&C fuse units or end-fittings are used in mountings of other than S&C manufacture.

#### Understanding Safety-Alert Messages

Several types of safety-alert messages may appear throughout this instruction sheet and on labels and tags attached to your S&C Type SMD-40 Power Fuses. Familiarize yourself with these types of messages and the importance of these various signal words:

## A DANGER

"DANGER" identifies the most serious and immediate hazards that will likely result in serious personal injury or death if instructions, including recommended precautions, are not followed.

# A WARNING

"WARNING" identifies hazards or unsafe practices that can result in serious personal injury or death if instructions, including recommended precautions, are not followed.

# 

"CAUTION" identifies hazards or unsafe practices that can result in minor personal injury if instructions, including recommended precautions, are not followed.

## NOTICE

"NOTICE" identifies important procedures or requirements that can result in product or property damage if instructions are not followed."

#### Following Safety Instructions

If you do not understand any portion of this instruction sheet and need assistance, contact your nearest S&C Sales Office or S&C Authorized Distributor. Their telephone numbers are listed on S&C's website sandc.com, or call the S&C Global Monitoring and Support Center at 1-888-762-1100.

NOTICE

| Read this instruction sheet thoroughly and carefully |  |
|--|--|
| before installing your S&C Type SMD-40 Power Fuses.  | l la |



Replacement Instructions and Labels

If additional copies of this instruction sheet are needed, contact your nearest S&C Sales Office, S&C Authorized Distributor, S&C Headquarters, or S&C Electric Canada Ltd.

It is important that any missing, damaged, or faded labels on the equipment be replaced immediately. Replacement labels are available by contacting your nearest S&C Sales Office, S&C Authorized Distributor, S&C Headquarters, or S&C Electric Canada Ltd.

## A DANGER



S&C Type SMD-40 Power Fuses contain high voltage. Failure to observe the precautions below will result in serious personal injury or death.

Some of these precautions may differ from company operating procedures and rules. Where a discrepancy exists, users should follow their company's operating procedures and rules.

- QUALIFIED PERSONS. Access to S&C Type SMD-40 Power Fuses must be restricted only to qualified persons. See the "Qualified Persons" section on page 2.
- 2. **SAFETY PROCEDURES.** Always follow safe operating procedures and rules.
- 3. **PERSONAL PROTECTIVE EQUIPMENT.** Always use suitable protective equipment, such as rubber gloves, rubber mats, hard hats, safety glasses, arc-flash clothing, and fall-protection, in accordance with safe operating procedures and rules.
- SAFETY LABELS. Do not remove or obscure any of the "DANGER," "WARNING," "CAUTION," or "NOTICE" labels and tags. Remove tags ONLY if instructed to do so.
- 5. **ENERGIZED COMPONENTS.** Always consider all parts live until de-energized, tested, and grounded.
- 6. **MAINTAINING PROPER CLEARANCE.** Always maintain proper clearance from energized components.

- 7. Do not remove the fuse unit from its carton until ready to use.
- 8. Handle fuse units with care. Do not drop or throw them.
- 9. Do not place hand over the upper seal of the fuse unit when handling. There is the remote possibility that the current-responsive section of the fuse unit may have been weakened in shipping or handling. As a result, the spring-loaded actuating pin may be unpredictably released and driven forcibly through the upper seal.

# Adjustments

Follow these steps to install the S&C SMD-40 mounting:

- **STEP 1.** Remove the mounting from its shipping crate, taking care not to lift it by the live parts or contacts.
- **STEP 2.** Attach the mounting to a supporting frame or structure, using appropriate hardware (not included with mounting). See Figure 1.

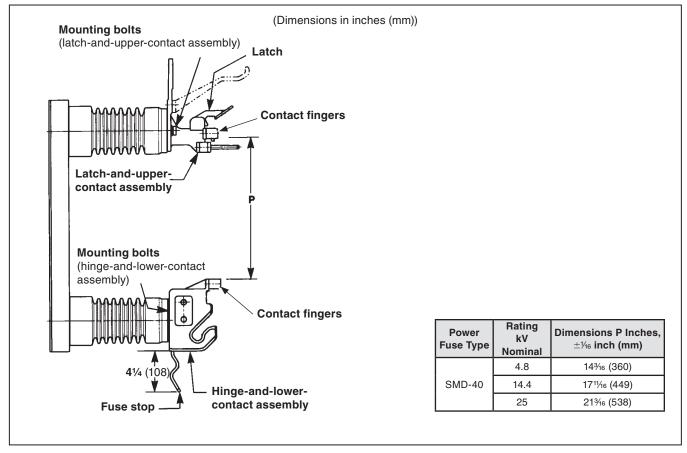


Figure 1. Live-part spacing for S&C Type SMD-40 Power Fuses.

S&C Type SMD-40 Mountings are factory-assembled and adjusted, and further adjustment should not be required. However, to verify no misalignment of parts has occurred during shipping or installation, the following precautionary checks are recommended:

- **STEP 1.** Accurately measure the distance between the contact fingers of the latch-and-upper-contact assembly and the corresponding contact fingers of the hinge-and-lower-contact assembly (Dimension P in Figure 1 on page 6). Check that this dimension is within the tolerance established for Dimension P. If adjustment is necessary, loosen the latch-and-upper-contact assembly mounting bolts and move the assemblytoward or away from the hinge-and-lowercontact assembly as needed to bring Dimension P within the specified limits. Make sure Dimension P is maintained between the upper and lower contact fingers on both sides of the fuse mounting. Fully tighten the latch-andupper-contact assembly mounting bolts.
- Install a fuse unit—with end-fittings attached STEP 2. as directed in S&C Instruction Sheet 252-555in the hinge-and-lower-contact assembly of the de-energized mounting and slowly close the fuse into the latch-and-upper-contact assembly. Check that the fuse-unit end-fitting makes an "on-center" approach to the contacts on the latch-and-upper-contact assembly. If adjustment is necessary, slightly loosen the hinge-and-lower-contact assembly mounting bolts and, using the holder as a lever, bring the hinge-and-lower-contact assembly into proper alignment with the latch-and-upper-contact assembly. Recheck to be sure Dimension P is still within the specified tolerance. Also, check that the fuse stop is still positioned as shown in Figure 1 on page 6 Retighten the hinge-andlower-contact assembly mounting bolts.

- **STEP 3.** Move the fuse to the **Closed** position and check that the latch of the latch-and-upper-contact assembly securely engages the fuse-unit upper end-fitting. Then, using a conventional hookstick, move the fuse from the **Closed** position to the **Open** position to ensure the latch properly disengages from the fuse-unit upper end-fitting when the pull-ring is operated.
- **STEP 4.** Verify the presence of the NO-OX-ID® "A Special" oxidation-inhibiting grease applied to the contact fingers of the latch-and-upper-contact assembly and to the contact fingers of the hinge-and-lower contact assembly—and that this grease is still free of contaminants. If necessary, clean the contact fingers with a nontoxic, nonflammable solvent and apply a coating of the grease available from Sanchem Inc. or similar nonmetallic-filler oxidation-inhibiting grease.
- **STEP 5.** If aluminum-alloy body connectors are to be used to connect the conductors, the following procedures should be employed:
  - (a) Thoroughly wire-brush the current-transfer surfaces of each connector and immediately apply a liberal coating of Penetrox® A (available from Burndy Corp.) to the brushed surfaces.
  - (b) Wire-brush each fuse-mounting terminal pad and apply a coating of Penetrox A. Then, bolt the connectors to the terminal pads.
  - (c) Prepare the conductors using established procedures and clamp them in their respective connectors.