

Installation

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Introduction

Qualified Persons

WARNING

Only qualified persons 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 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 not intended to be a substitute for adequate training and experience in safety procedures for this type of equipment.

Read this Instruction Sheet

NOTICE

Thoroughly and carefully read this instruction sheet and all materials included in the product's instruction handbook before installing or operating the manual PME Pad-Mounted Gear. Become familiar with the Safety Information on pages 4 through 6 and Safety Precautions on pages 7 through 8. The latest version of this publication is available online in PDF format at sandc.com/en/contact-us/product-literature/.

Retain this Instruction Sheet

This instruction sheet is a permanent part of the manual PME Pad-Mounted Gear. Designate a location where users can easily retrieve and refer to this publication. A manual holder is provided inside the switchgear.

Proper Application

WARNING

The equipment in this publication must be selected for a specific application. The application must be within the ratings furnished for the equipment. Contact the local S&C Sales Office for ratings of arc-resistant PME Pad-Mounted Gear. Ratings for this gear are listed on the ratings label on the interior of the doors (right-hand doors only for double-door models).

Warranty

The warranty and/or obligations described in S&C's Price Sheet 150, "Standard Conditions of Sale—Immediate Purchasers in the United States," (or Price Sheet 153, "Standard Conditions of Sale—Immediate Purchasers Outside the United States"), plus any special warranty provisions, as set forth in the applicable product-line specification bulletin, are exclusive. The remedies provided in the former for breach of these warranties shall constitute the immediate purchaser's or end user's exclusive remedy and a fulfillment of the seller's entire liability. In no event shall the seller's liability to the immediate purchaser or end user exceed the price of the specific product that gives rise to the immediate purchaser's or end user's claim. All other warranties, whether express or implied or arising by operation of law, course of dealing, usage of trade or otherwise, are excluded. The only warranties are those stated in Price Sheet 150 (or Price Sheet 153), and THERE ARE NO EXPRESS OR IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. ANY EXPRESS WARRANTY OR OTHER OBLIGATION PROVIDED IN PRICE SHEET 150 (OR PRICE SHEET 153) IS GRANTED ONLY TO THE IMMEDIATE PURCHASER AND END USER, AS DEFINED THEREIN. OTHER THAN AN END USER, NO REMOTE PURCHASER MAY RELY ON ANY AFFIRMATION OF FACT OR PROMISE THAT RELATES TO THE GOODS DESCRIBED HEREIN, ANY DESCRIPTION THAT RELATES TO THE GOODS, OR ANY REMEDIAL PROMISE INCLUDED IN PRICE SHEET 150 (OR PRICE SHEET 153).

**Warranty
Qualifications**

The standard warranty contained in the seller's standard conditions of sale (as set forth in Price Sheet 150) does not apply to manual PME Pad-Mounted Gear where fuse units, fuse unit end-fittings, holders, refill units, or switch blades of other than S&C manufacture are used in conjunction with S&C SME Mountings. Nor does it apply to manual PME Pad-Mounted Gear where other than Fault Fiter® Electronic Power Fuses, S&C Switch Blades, or the current-limiting fuses listed in Table 2 of S&C Information Bulletin 660-50 are used in conjunction with Fault Fiter Electronic Power Fuse mountings and S&C Holders designed therefore, or when current-limiting fuses are applied other than as set forth in the "Recommended Voltage Ratings" section of S&C Information Bulletin 660-50.

Safety Information

Understanding Safety-Alert Messages

Several types of safety-alert messages may appear throughout this instruction sheet and on labels and tags attached to the product. Become familiar with these types of messages and the importance of these various signal words:

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.

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

“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 any portion of this instruction sheet is unclear and assistance is needed, contact the 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 Support and Monitoring Center at 1-888-762-1100.

NOTICE

Read this instruction sheet thoroughly and carefully before installing the manual PME Pad-Mounted Gear.

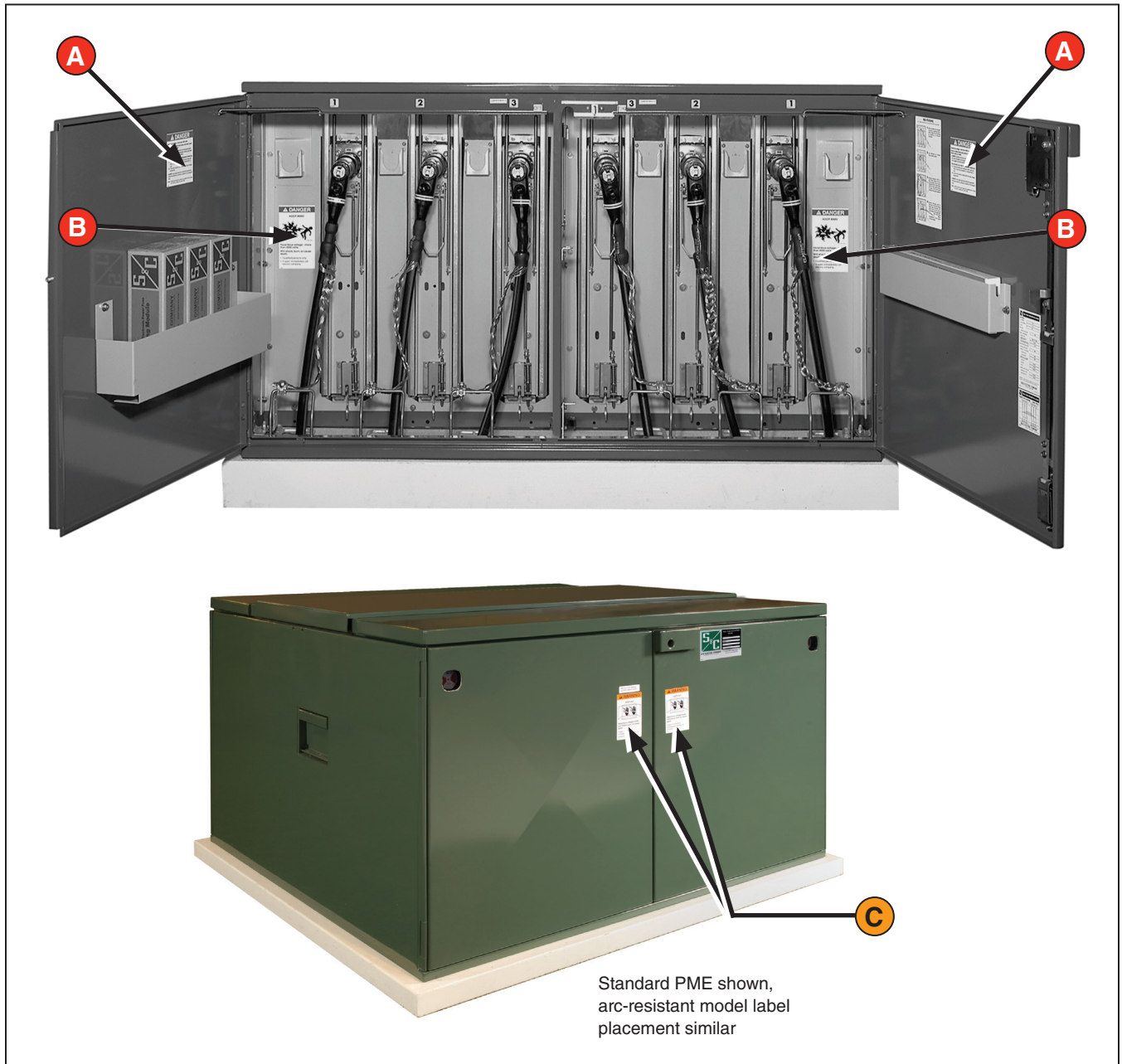


Replacement Instructions and Labels

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

Location of Safety Labels



Reorder Information for Safety Labels

Location	Safety Alert Message	Description	Part Number
A	⚠ DANGER	Hazardous Voltage – more than 4000 volts...	G-6503
B	⚠ DANGER	Keep Away. Hazardous voltage-more than 4000 volts...	G-6500
C	⚠ WARNING	Keep Out. Hazardous voltage inside.	G-6398●

● The same labels also are located on the rear doors.

Safety Information



Reorder Information for Safety Labels

Location	Safety Alert Message	Description	Part Number
A	⚠ DANGER	Hazardous Voltage – more than 4000 Volts...	G-6503
B	⚠ DANGER	Keep Away. Hazardous voltage-more than 4000 Volts...	G-6500

⚠ DANGER



Pad-mounted gear contains 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.

1. **QUALIFIED PERSONS.** Access to pad-mounted gear 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, and flash clothing in accordance with safe operating procedures and rules.
4. **SAFETY LABELS.** Do not remove or obscure any of the "CAUTION," "WARNING," or "DANGER" labels.
5. **KEY INTERLOCKS.**
 - If optional key interlocks were furnished, they must be in place.
 - Check the operating sequence of key interlocks to verify proper sequencing.
 - After the pad-mounted gear is installed, either: (1) destroy the extra set of keys or (2) make them accessible only to qualified persons. This will maintain the integrity of the key-interlock scheme.
 - Key interlocks are not security locks and are not substitutes for padlocks.
6. **OPENING DOORS.** Do not force doors open. Forcing a door open can damage the latching mechanism. If optional key interlocks are provided, correctly position the interlocks so the doors can be opened.
7. **CLOSING AND LOCKING DOORS.**
 - Doors must be securely closed and latched, with padlocks in place at all times unless work is being performed inside the enclosure.
 - Mini-Rupter® Switches have switch-operating-shaft access covers located on the sides of the pad-mounted gear enclosure. They must be closed and padlocked at all times unless the switches are being operated.
 - Do not close a door on a TransFuser™ Mounting in the **Open** position with a fuse in the mounting. The door will strike the fuse pulling, which will interfere with door closing. The door may be closed if the fuse is removed from the mounting.
8. **ENERGIZED TERMINALS.** Always assume both sets of power terminals on any Mini-Rupter Switch or fuse are energized unless proved otherwise by test, by visual evidence of open-circuit conditions on both sets of terminals, or by observing that both sets of terminals are grounded.
9. **BACKFEED.** Mini-Rupter Switches and fuses may be energized by backfeed.
10. **DE-ENERGIZING, TESTING, AND GROUNDING.** Before touching any device that is to be inspected, replaced, serviced, or repaired in the high-voltage compartments, always disconnect Mini-Rupter Switches and fuses from all power sources (including backfeed), test for voltage, and properly ground.

DANGER



Pad-mounted gear contains 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.

11. **TESTING.** Test for voltage on both sets of power terminals of any Mini-Rupter Switch or fuse using proper high-voltage test equipment before touching any device that is to be inspected, replaced, serviced, or repaired in the high-voltage compartments.
12. **GROUNDING.**
 - Make sure the pad-mounted gear enclosure is properly grounded to the station or facility ground.
 - After the gear has been completely disconnected from all sources of power and tested for voltage, install suitable grounding cables in all compartments before touching any device that is to be inspected, replaced, serviced, or repaired in the high-voltage compartments.
13. **SWITCH POSITION.**
 - Always confirm the **Open/Close** position of Mini-Rupter Switches by visually observing the position of the switch blades.
 - Switches may be energized by backfeed.
 - Switches may be energized in any position.
14. **MAINTAINING PROPER CLEARANCE.** Always maintain proper clearance from energized components.
15. **FUSE STORAGE.**
 - Always store fuses in a clean, dry location.
 - Do not store end-fittings, holders, interrupting modules, or fuses in termination compartments unless the unit is equipped with the optional **Fuse Storage** feature.

Packing

S&C Manual PME Pad-Mounted Gear is fastened to a wood skid for shipment. Any components specified, such as fuses, refill units, fuse holders, end fittings, etc., are packed separately and, when practical, are shipped within the enclosure.

At the first opportunity, remove all packing materials (cardboard, paper, foam padding, etc.) from the outside of the gear. This will prevent the finish from being damaged by rainwater absorbed by the packing materials and will also prevent wind-induced abrasion from loose cardboard.

Inspection

Examine the shipment for external evidence of damage as soon after receipt as possible, preferably before removal from the carrier's conveyance. Check the bill of lading to make sure all listed shipping skids, crates, and containers are present.

If there is visible loss and/or damage:

1. Notify the delivering carrier immediately.
2. Ask for a carrier inspection.
3. Note condition of shipment on all copies of the delivery receipt.
4. File a claim with the carrier.

If concealed damage is discovered:

1. Notify the delivering carrier within 15 days of receipt of shipment.
2. Ask for a carrier inspection.
3. File a claim with the carrier.

Also, notify S&C Electric Company in all instances of loss and/or damage.

Handling

 **WARNING**

When handling the gear with an overhead hoist, observe standard lifting practices as well as the general instructions below. **Failure to follow these precautions can result in serious personal injury or equipment damage.**

Complete these steps to lift the switchgear:

- STEP 1.** Make sure the lifting tabs are securely bolted to the enclosure before lifting the gear.
- STEP 2.** Use 6-foot (183-cm) or longer hoist slings of equal length to prevent overstressing the enclosure during lifting. (4-foot [122-cm] hoist slings are acceptable for two-compartment pad-mounted gear models: PME-4 and -5.)
- STEP 3.** Arrange the hoist slings so as to distribute the lifting forces equally between the lifting tabs. See Figure 1.
- STEP 4.** Avoid sudden starts and stops.

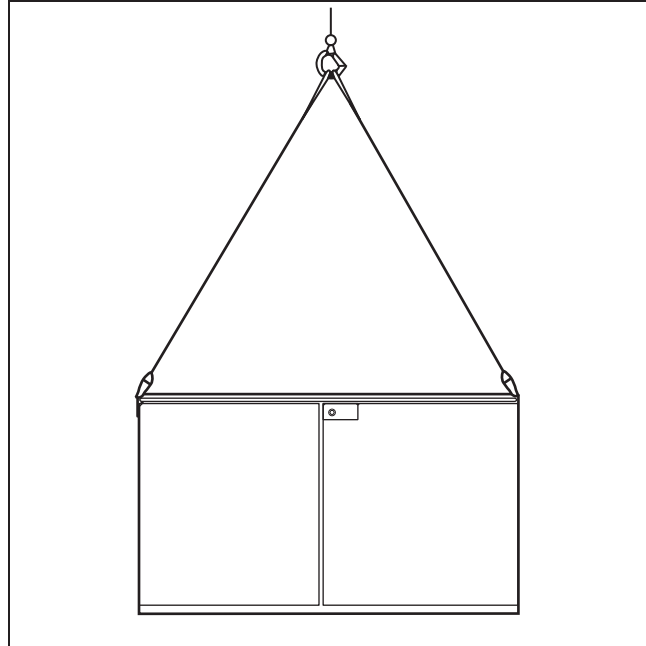


Figure 1. Hoisting arrangements.

The following instructions cover installation of arc-resistant models of manual PME Pad-Mounted Gear that features elbow-connected encased components and are available in ratings of 14.4 kV and 25 kV. Switch terminals are equipped with 600-ampere rated bushings and fuse terminals are equipped with 200-ampere rated bushing wells.

Bushing and bushing-well interfaces are in accordance with ANSI/IEEE Standard 386 to accept all standard separable insulated connectors and inserts. Parking stands are provided adjacent to each bushing and bushing well.

Arc-resistant manual PME Pad-Mounted Gear is operated the same as standard manual PME Pad-Mounted Gear. Refer to S&C Instruction Sheet 665-510 for instructions regarding operation of manual PME Pad-Mounted Gear. The instruction sheets, along with a catalog dimensional drawing showing cable-locating and anchor-bolt dimensions, are included in the Installation and Operation Information Kit provided with the gear.

Wiring diagrams for the gear and associated options are also provided in the kit. All personnel involved with the installation and operation of the equipment must be thoroughly familiar with the contents of the information kit.

The catalog number stamped on the nameplates affixed to the outside of the doors of the pad-mounted gear is suffixed with letter-number combinations. These suffixes indicate the inclusion of optional features, such as key interlocks (catalog number suffix “-C1”, “-C3”, or “-C4”).

Installation

Access to the Interior

NOTICE

Do not apply any undue force when attempting to open the doors. The use of undue force may damage the latching mechanism.

Access to the interior of S&C PME Pad-Mounted Gear is controlled by the Penta-Latch® Mechanism, which must be opened with a pentahead socket wrench or tool except when hexhead actuators are specified.

The latching mechanism is coordinated with the provisions for padlocking such that the mechanism can be unlatched only after the padlock has been removed, and the padlock can be installed only after the door has been securely closed and completely latched.

Opening the Front Doors

Complete the following steps to open the doors:

STEP 1. Use a pentahead socket wrench or tool (a hexhead socket wrench or tool when catalog number suffix “-B1” or “-B2” is specified) to unlatch the Penta-Latch Mechanism by rotating the actuator counterclockwise approximately 60° against spring resistance until a distinct “click” is heard and the actuator reaches its stop. See Figure 2. This single motion unlatches the mechanism and recharges the latching spring for the subsequent closing operation.

STEP 2. Pull the door open and secure it with the door holder.

NOTICE

If optional key interlocks are furnished, correctly position the interlocks so the doors can be opened.

STEP 3. *For double-door models of pad-mounted gear:* The left-hand door is secured closed by a rotating latch and is overlapped by the right-hand door which is equipped with the Penta-Latch Mechanism. The left-hand door can be opened after opening the right-hand door and disengaging the rotating latch. To disengage the latch, rotate it upward. See Figure 3 on page 13.



Unlatching the Penta-Latch Mechanism with a pentahead socket wrench. A distinct click indicates the mechanism is unlatched and recharged.



Opening the door.



When closing the door, firmly push it. The mechanism latches automatically when all latching points are engaged.

Figure 2. Penta-Latch Mechanism operation.

Closing the Front Doors

STEP 1. Close the left-hand door, where applicable, and secure it with the latch by rotating the latch downward over the stop on the outer edge of the door. See Figure 3. The right-hand door of double-door models of pad-mounted gear is equipped with the Penta-Latch Mechanism that latches automatically when the door is closed.

To close a door equipped with the Penta-Latch Mechanism: Place one hand at the midpoint of the door-front near the edge and firmly push the door closed. See Figure 2 on page 12. When the latch points are positively engaged, the spring mechanism will trip to latch the door.

STEP 2. Check the roof to make sure all sections are properly secured. If the roof section is not latched to the pad-mounted gear, a mechanical interlock in the right-hand door will prevent the door from properly latching.

STEP 3. Pull outward on the cover of the Penta-Latch Mechanism to verify the door has latched securely. If it has not, use a pentahead (or hexhead, when applicable) socket wrench or tool to rotate the actuator counterclockwise until a distinct “click” is heard and the actuator reaches its stop.

If the actuator will not rotate counterclockwise, the mechanism was already charged for closing but was not closed properly. Close the door again, making sure that all latch points engage completely and simultaneously.

STEP 4. Insert a padlock into the hasp when the door is securely latched.

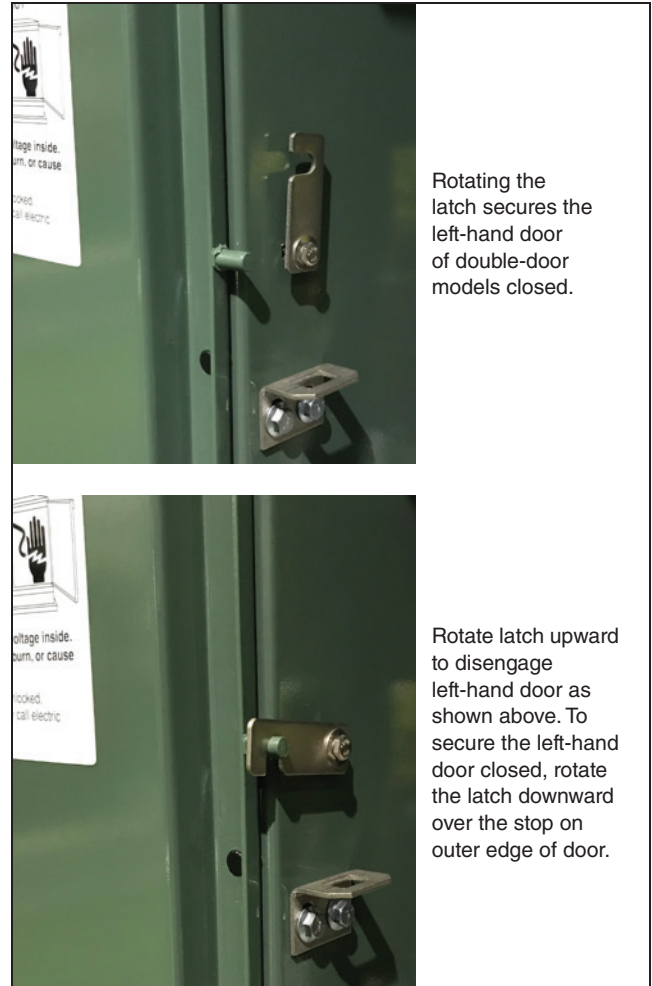


Figure 3. The left-hand door retainer.

Installation

Placing the Gear

Complete the following steps when placing the gear:

- STEP 1.** At the installation site, remove all separately packaged components shipped within the pad-mounted gear enclosure and set them aside in a protected area. Two-compartment models are furnished with two large deflectors; four-compartment models are furnished with four large deflectors and two small deflectors. Set these items aside in a protected area.
- STEP 2.** Open the doors to the interior of the gear and secure them with the door holders.
- STEP 3.** Refer to the catalog dimensional drawing furnished and verify the enclosure compartments are positioned correctly for this installation; reposition the gear if necessary.
- STEP 4.** The pad-mounted gear enclosure will be bolted directly to the mounting pad using user-furnished $\frac{5}{8}$ -inch diameter anchor bolts and supplied hardware. Refer to the anchor bolt detail in Figure 4. Anchor brackets and hold-down clamps must not be used.

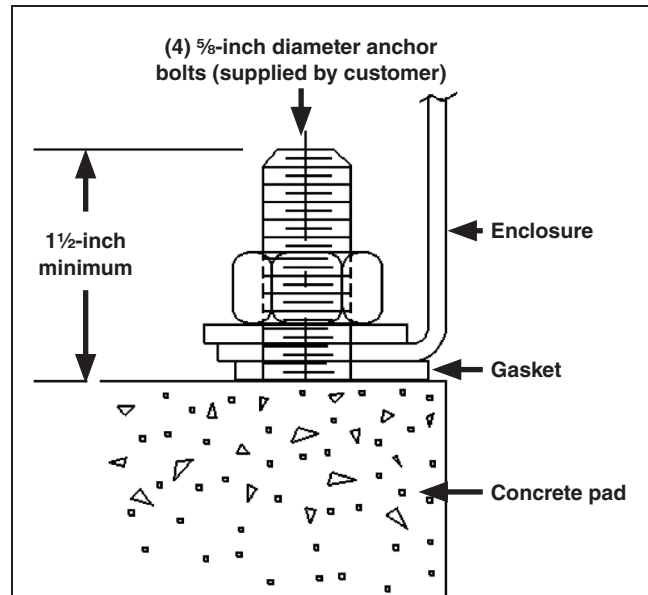


Figure 4. Anchor bolt detail.

STEP 5. Following the precautions given in the “Handling” section on page 10, lift the unit a few feet in the air and caulk along the entire underside of the enclosure bottom flange using room-temperature vulcanizing (RTV) silicon-rubber compound. The RTV is to be applied directly to the gasket.

Note: If excess lengths of direct-buried cable are in place and it is desired to feed them into the termination compartments as the unit is being lowered, special attention must be paid to cable position in the termination compartments for fuses.

Open the doors and secure them with the door holders to allow any excess cable to be fed over the door stiles. Then, as the enclosure is being lowered into place, the cables for connection to the fuse terminals must be fed between the horizontal cable guides, as shown in Figure 5 and on the cable-training tag affixed to the enclosure.

Note: Cables for connection to the fuse terminals must be fed between the horizontal cable guides so they will not interfere with TransFuser Mounting operation. Special cable training is not required in the termination compartments for switches.

NOTICE

To be arc-resistant, the pad-mounted gear enclosure must be securely attached to the mounting pad in accordance with the anchor bolt plan shown on the catalog dimensional drawing.

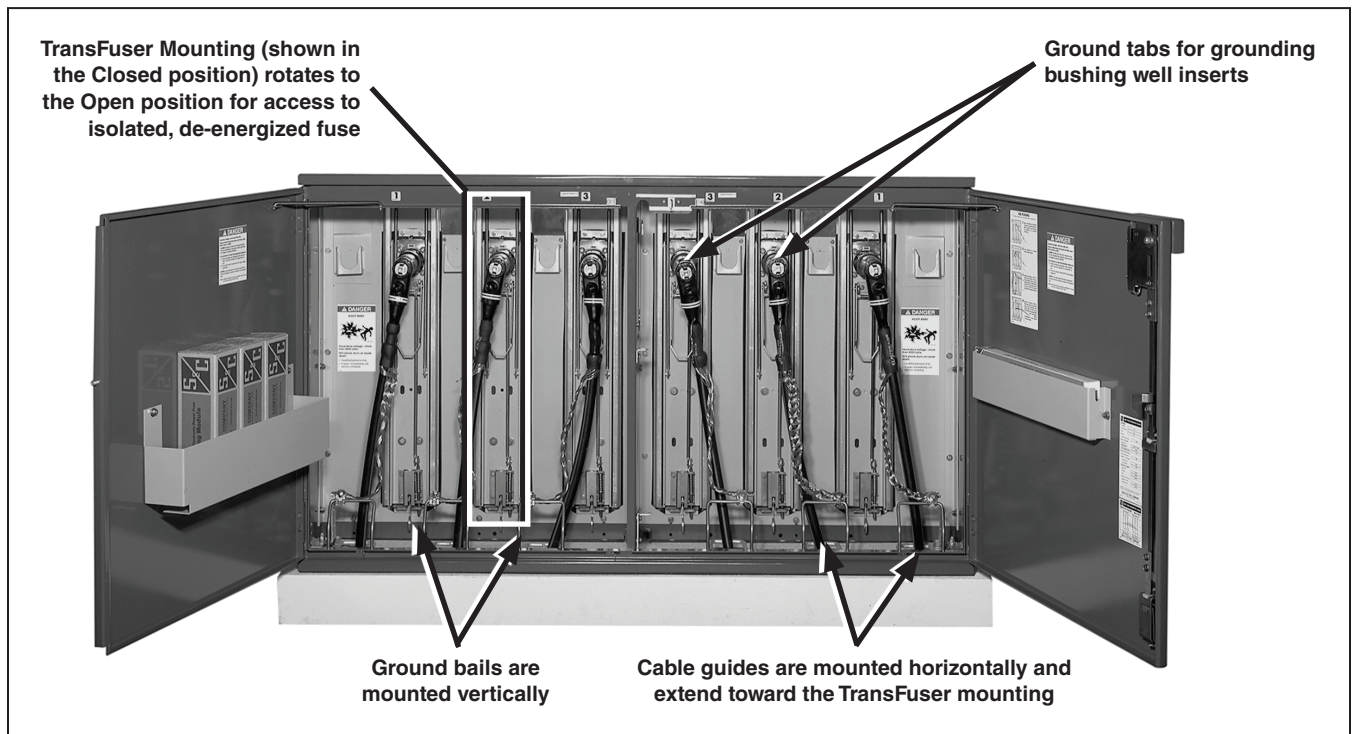


Figure 5. Cables in fuse-termination compartments must be trained between horizontal cable guides, as shown, to prevent interference with TransFuser Mounting operation.

Installation

Installing the Deflectors

After mounting the enclosure to the mounting pad, assemble the deflectors to the switchgear by completing the following steps:

- STEP 1.** Bolt one of the large deflectors to the bottom of a switch or fuse compartment frame using the supplied $\frac{5}{16}$ -inch serrated nuts. Refer to Figure 6, Figure 7, and Figure 8. Repeat for the other compartment(s)

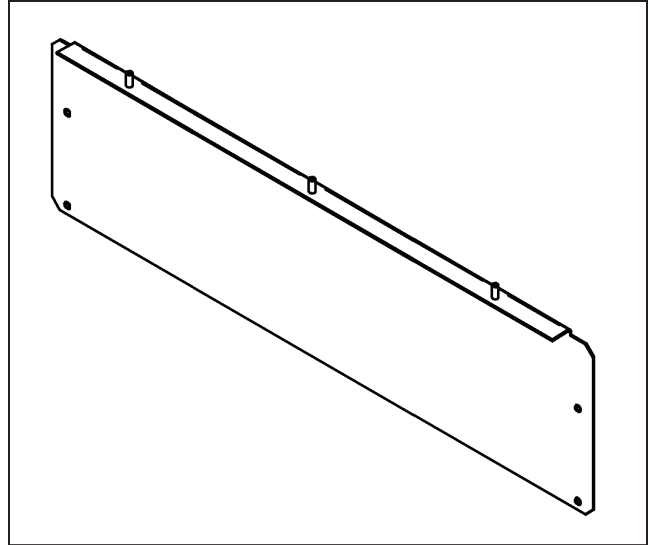


Figure 6. Large deflector.

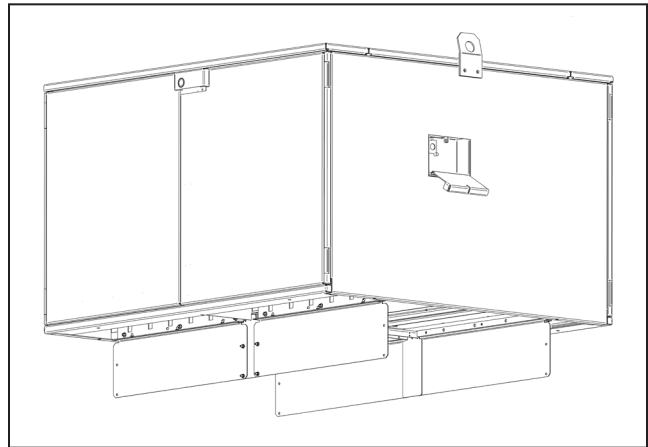


Figure 7. Deflector assembly.

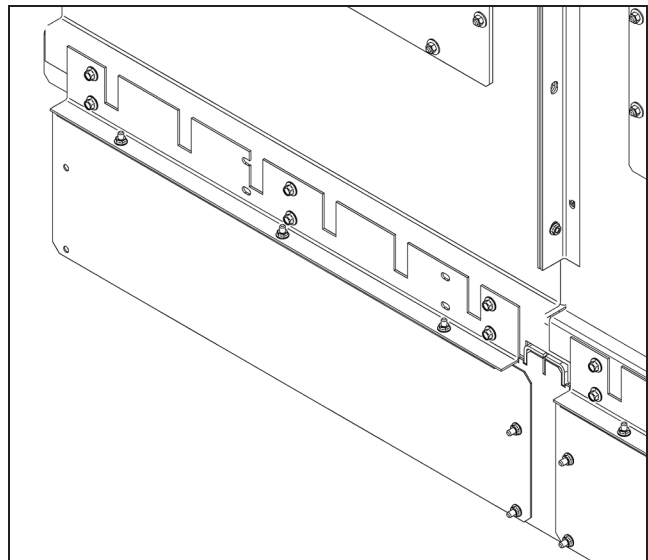


Figure 8. Close-up of deflector assembly.

STEP 2. *On four-compartment models:* Install the two small deflectors. Refer to Figure 9. Each small deflector is installed behind the two large deflectors. Then, bolt the small deflector into place using the supplied $\frac{5}{16}$ -inch serrated nuts.

NOTICE

To be arc-resistant, the pad-mounted gear enclosure deflectors must be properly installed.

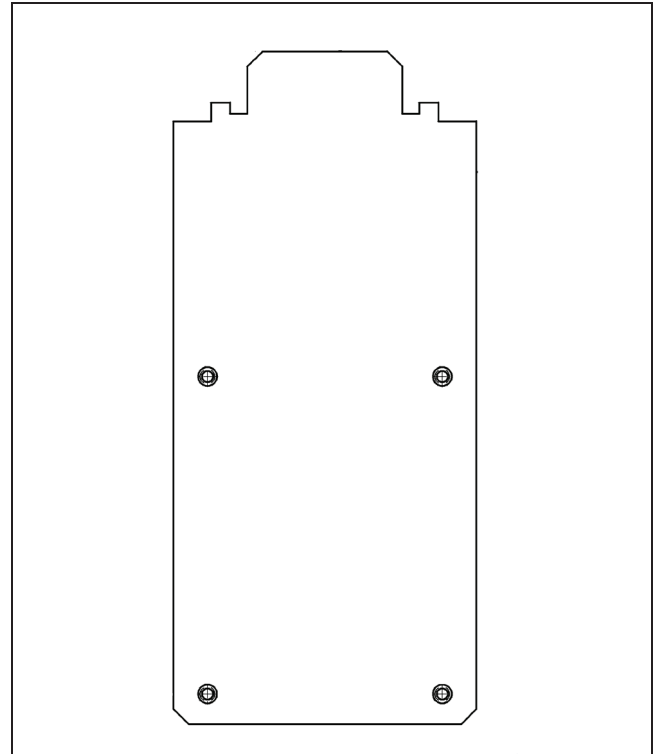


Figure 9. Small deflector.

Cable Terminations

WARNING

Before energizing the gear, replace the shipping caps on all bushings and bushing wells with elbows or insulated protective covers or plugs. **Failure to replace the shipping caps can result in a flashover and serious personal injury or death.**

Switch terminals are equipped with 600-ampere rated bushings, and fuse terminals are equipped with 200-ampere rated bushing wells. Bushing and bushing-well interfaces conform to ANSI/IEEE Standard 386 to accept all standard separable insulated connectors, or “elbows,” and inserts. Appropriate elbows● and inserts must be supplied and installed by the user.

Complete the following steps to terminate the cables:

- STEP 1.** Before installing elbows and inserts, remove the shipping covers from bushings and bushing wells.
- STEP 2.** Ground each insert by connecting a short ground wire from the insert to the ground tab directly above the bushing well. See Figure 5 on page 15.

WARNING

When grounding inserts, minimize the length of the ground wire. **Use of a longer ground wire can result in a flashover to energized parts inside the component compartment and serious personal injury or death when the TransFuser Mounting is rotated to the Closed position.**

- STEP 3.** Verify the cables in termination compartments for fuses are correctly positioned between the cable guides. Terminate the cables with the elbows, following the elbow manufacturer’s instructions.

NOTICE

Do not allow solvents used to clean cables prior to termination to contact the viewing windows. The solvent can permanently etch the polycarbonate material.

● Switch-termination compartments cannot accommodate 600-ampere elbows manufactured by Blackburn when piggybacked.

The 600-ampere bushings supplied in S&C Manual PME Pad-Mounted Gear are equipped with a stud as standard. Bushings are available without studs to accommodate 600-ampere elbows that do not require a stud. See Figure 10.

NOTICE

Do not install vertical-type feedthrus on the parking stands of fuse-termination compartments of gear equipped with SME-20 Power Fuse Mountings or Fault Fiter Electronic Power Fuse Mountings. The eyebolt of the feedthru can damage the blown-fuse viewing window.

STEP 4. Connect the cable concentric-neutral ground wires to the ground bails and rods provided, making sure the cables have sufficient mobility to allow the elbows to be moved from bushings to parking stands.

STEP 5. Connect the ground pads inside the pad-mounted gear enclosure to the system ground facility in accordance with the user's standard grounding practice. Use the equivalent of 4/0 copper cable (or cable sized in accordance with the user's standard practice) in either a single or multiple connection to realize the maximum momentary rating of the gear. For a multiple connection, cables smaller than 1/0 copper or equivalent should not be used.

NOTICE

Concentric-neutral ground wires must be positioned so that they will not interfere with TransFuser Mounting operation when the elbows are on the parking stands.

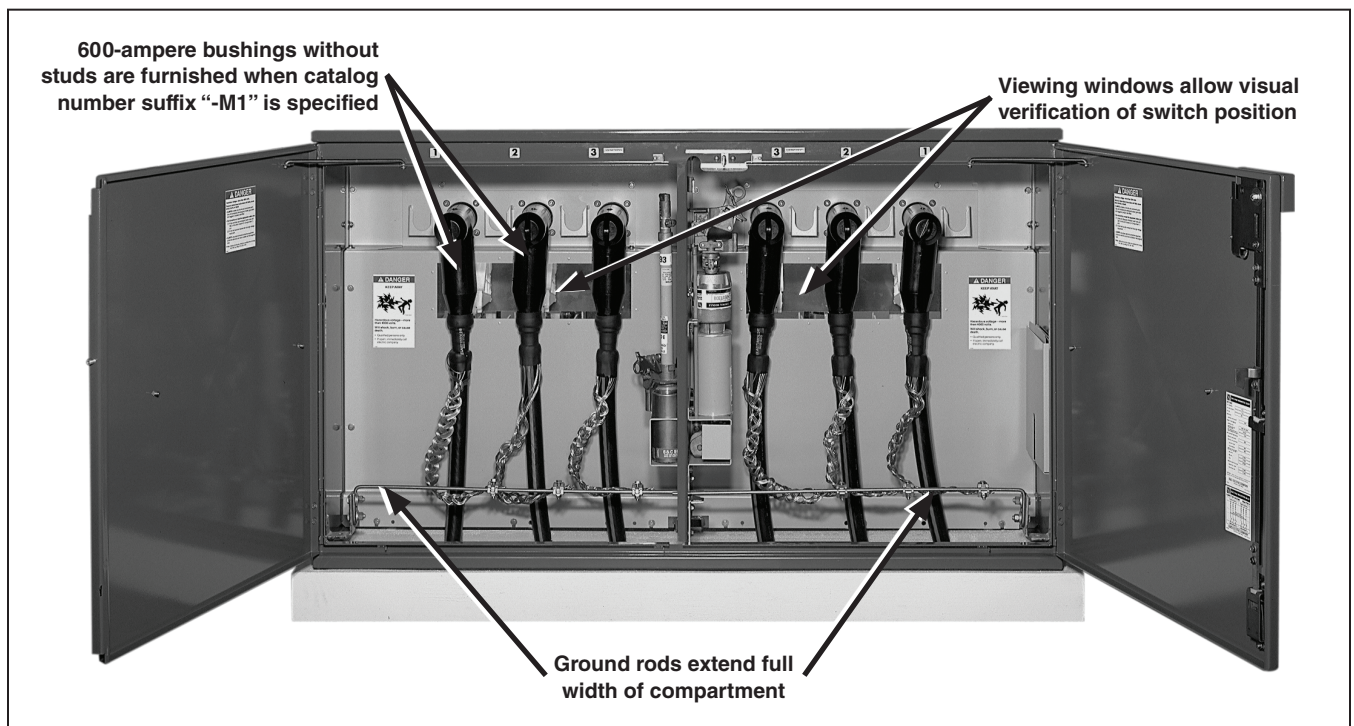


Figure 10. Bushings for Mini-Rupter Switches are available with and without studs to accommodate all 600-ampere elbows. Switches are available with and without all 600-ampere elbows.

Installation

Fault Indicators

Optional mounting provisions for fault indicators are available. Fault indicators are to be furnished by the user and installed in accordance with the manufacturer's instructions. If mounting provisions are specified, mount the fault indicators on the mounting brackets and attach the associated sensors to the cables below the cable terminators.

Completing the Installation

To complete the installation, perform the following checks:

- STEP 1.** Check the functional operation of the key interlocks, if furnished.

WARNING

An extra set of keys is provided with pad-mounted gear that has optional key interlocks. These keys are for use only during installation. After installation, either: (1) destroy the extra set of keys or (2) make them accessible only to authorized persons. This will maintain the integrity of the key-interlock scheme. **Failure to maintain the integrity of the key interlock scheme may lead to equipment damage, personal injury, or death.**

NOTICE

Key interlocks are not security locks and are not a substitute for padlocks. If optional key interlocks are furnished, correctly position the interlocks so the doors can be opened.

- STEP 2.** Make sure the doors open and close without binding and that shimming of the pad-mounted gear enclosure is adequate.

NOTICE

Do not apply any undue force when attempting to open the doors. The use of undue force may damage the latching mechanism.

- STEP 3.** Check for space between the enclosure gasket and the foundation. A resilient closed-cell gasket on the bottom flange of the enclosure protects the finish from being scratched during installation and isolates it from the alkalinity of a concrete foundation. This gasket also helps to seal the enclosure to the foundation to guard against entry of rodents, insects, or weeds, and to discourage tampering.

If the gasket cannot compensate for an uneven foundation, grout the bottom of the enclosure as necessary. Any grout applied should be recessed enough to permit caulking.

- STEP 4.** To complete the installation, caulk around the bottom of the enclosure with a weatherproof compound applied with a standard caulking gun. A room-temperature vulcanizing (RTV) silicon-rubber compound is recommended. Apply a suitable compound to fill the spaces between the cable and the conduit, and cap all empty conduits to prevent the entry of moisture or rodents.

- STEP 5.** Remove the lifting tabs and replace the bolts to plug the blind-tapped holes.

- STEP 6.** Check the interior of the pad-mounted gear. Remove all foreign materials and tools that may have been mislaid, and sweep the interior clear of debris.
- STEP 7.** Store spare SMU-20® Fuse Units, SM-4® Refill Units, or Fault Fiter fuse interrupting modules (as applicable) in the fuse-storage racks inside the fuse-compartment doors.
- STEP 8.** Wipe down the exterior of the enclosure with a clean, damp cloth. To preserve the integrity of the surface, refinish any scratches or abrasions with S&C touch-up finish and red-oxide primer which are available in aerosol spray cans. See S&C Specification Bulletin 665-31 for catalog number information used for ordering. No other finish or primer is approved. The area to be touched up should be cleaned to remove all oil and grease. Sand the area, removing any traces of rust that may be present, and make sure that all edges are feathered before applying primer.
- Note:** Labels indicating the area around the pad-mounted gear that must be kept clear so that work on the gear can be done safely are provided in the Installation and Operation Information Kit. These labels (or equivalent labels) should be affixed to the exterior of the gear. Refer to the “Location of Safety Labels” section on pages 5 through 6.

Upon completion of these installation instructions, refer to S&C Instruction Sheet 665-510 for operating instructions.

Dielectric Testing

For the convenience of users who normally perform electrical tests on system components such as pad-mounted gear, appropriate withstand test values are given in Table 1:

Table 1. Ratings and Insulation Test Values

Rating, kV		Withstand, kV		
Nom.	Max ^①	60-Hertz, RMS ^②	Dc ^{③④}	Impulse (BIL)
14.4	17	36	50	95
25	27●	60	70	125
25	29■	60	70	125

① Maximum voltage ratings are lower than the values listed when current-limiting fuses are used. Consult the appropriate current-limiting fuse manufacturer for complete fuse ratings.

② Ac withstand tests made on this equipment after shipment by S&C should be conducted at no more than 0.75 times the values shown. When making ac tests, the time duration for application of the test voltage should be limited to less than 10 seconds.

③ The column headed “Dc” is given as a reference only for those making dc tests and represents values believed to be appropriate and approximately equivalent to the corresponding power-frequency withstand test values specified for components of this voltage class. The presence of this column in no way implies any requirement for a dc withstand test on these components.

④ Dc withstand tests made on this equipment after shipment by S&C should be conducted at no more than 0.75 times the values shown. When making dc tests, the test voltage should be raised in discrete steps—one minute per step.

● With fuses.

■ Without fuses.