

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 S&C 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 S&C 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. Ratings for manual PME Pad-Mounted Gear are listed in the ratings table in Specification Bulletin 665-31. 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 S&C Manual PME Pad-Mounted Gear. 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 S&C Manual PME Pad-Mounted Gear.

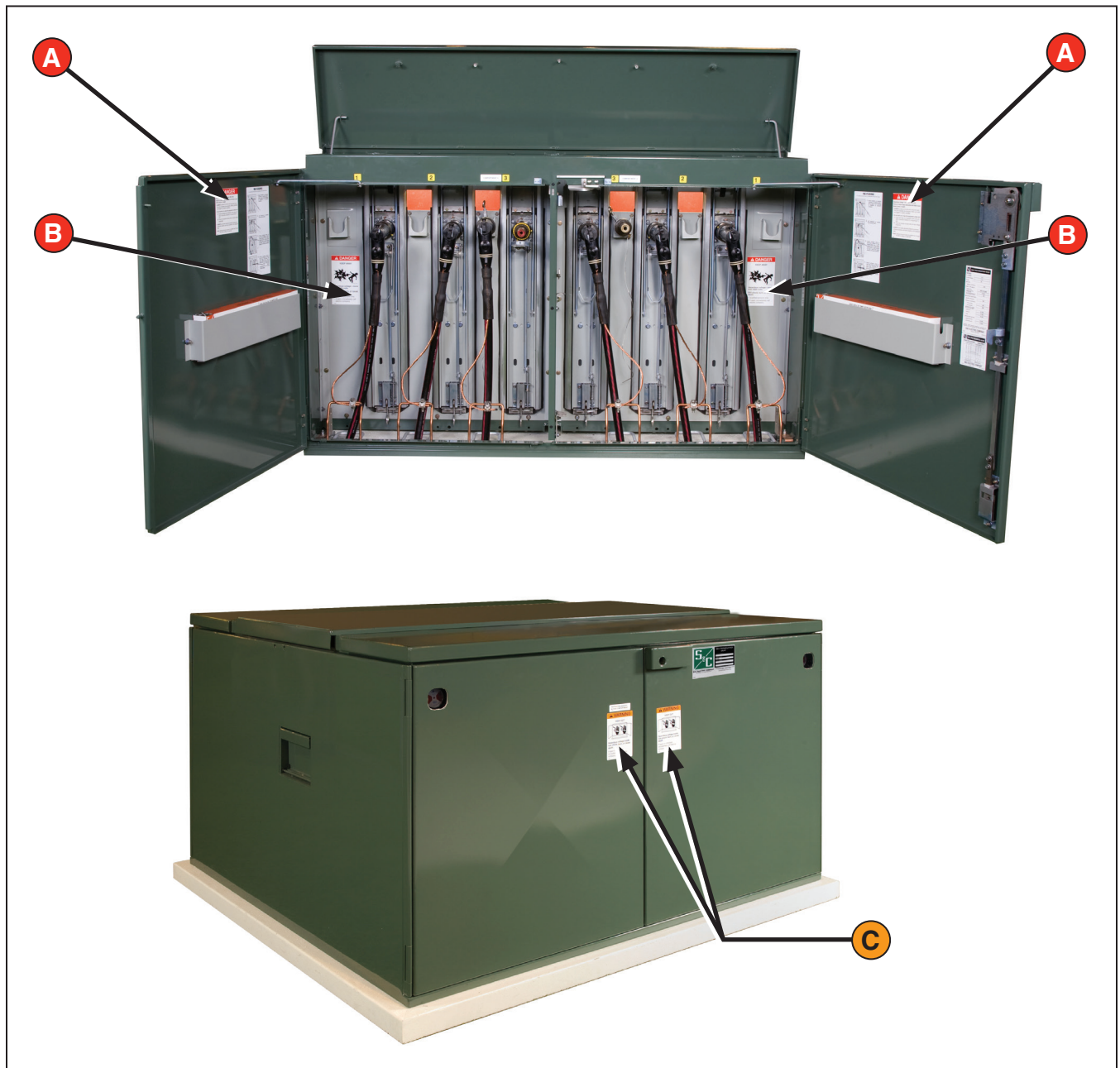


Replacement Instructions and Labels

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 are located on the rear doors as well.

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 pull-ring, 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.
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.

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.

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 (catalog number suffix "-E1," "-E2," or "-E3").

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 listed 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 and the general instructions below. **Failure to follow these precautions can result in serious personal injury or equipment damage.**

Complete the following steps when lifting the gear:

- 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 to distribute the lifting forces equally between the lifting tabs. See Figure 1.
- STEP 4.** Avoid sudden starts and stops.

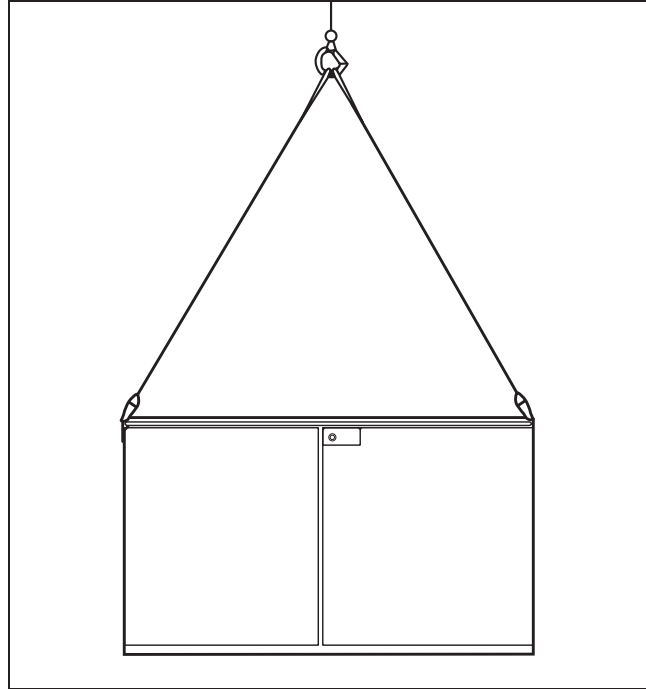


Figure 1. Hoisting arrangements.

Instruction manuals regarding installation and operation of the pad-mounted gear are included in the “Installation and Operation Information Kit” provided with each unit of S&C Manual PME Pad-Mounted Gear. A catalog dimensional drawing showing cable-locating and anchor-bolt dimensions is also provided in the information kit. All personnel involved with installation and operation of the gear should be thoroughly familiar with the contents of the kit.

The following instructions cover installation of S&C Manual PME Pad-Mounted Gear. For operation instructions, refer to S&C Instruction Sheet 665-510.

S&C Manual PME Pad-Mounted Gear, which is available in ratings of 14.4 kV and 25 kV, permits manual switching and provides fault protection for underground distribution systems. This gear features elbow-connected encased components and accommodates separable insulated connectors. Each unit contains the following:

- External handle-operated 600-ampere Mini-Rupter Switches for three-pole live switching of three-phase source circuits
- TransFuser Mountings (These are fuse-handling mechanisms with mechanical interlocks. Models available offer a choice of S&C Type SME-20 and SME-4Z Power Fuses, Fault Fiter Electronic Power Fuses, or a variety of single-barrel current-limiting fuses.)
- A Penta-Latch® Mechanism on each door (right-hand door only for double-door models) for access control (The mechanism provides automatic door latching and permits padlocking only when the door is latched closed. Doors can be opened only with a pentahead socket wrench or tool.)

A variety of optional features are available for S&C Manual PME Pad-Mounted Gear. The catalog number stamped on the nameplate affixed to the enclosure door is suffixed with letter-number combinations applicable to the gear furnished.

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 (catalog number suffix “-B1” or “-B2”) are specified.

The latching mechanism is coordinated with the provisions for padlocking so the mechanism can be unlatched only after the padlock has been removed. 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 6 on page 15.



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.

Opening the Roof Section

The roof section over each cable compartment is hinged to allow easy cable pulling during installation. To open the roof section, complete the following steps:

- STEP 1.** Remove the $\frac{3}{8}$ -16-inch standard ESNA nuts, $\frac{3}{8}$ -inch standard washers, and the $\frac{3}{8}$ -inch large washers that attach the roof sections to the PME Pad-Mounted Gear enclosure. Each roof section will have three ESNA nuts, three standard washers, and three large washers (two of each for two compartment models: PME-4 and -5). See Figure 3 for the location of the hardware.
- STEP 2.** After removing the roof hardware, the spring-loaded roof section will pop up slightly. See Figure 4. A mechanical interlock, furnished in each door containing a Penta-Latch Mechanism, prevents the door from closing and latching when the roof section is not secured to the enclosure.
- STEP 3.** Lift up the roof section and latch it at both ends using the supplied retainers. See Figure 5.

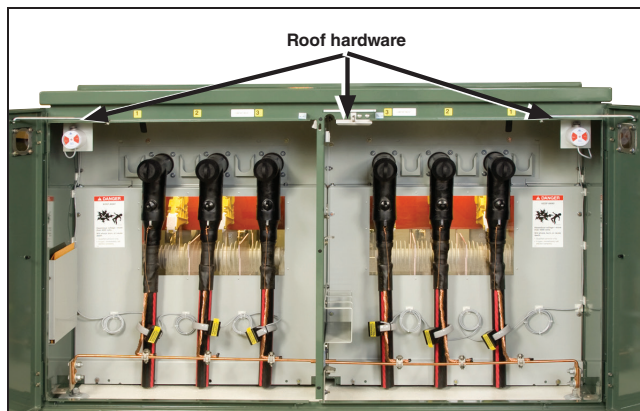


Figure 3. Location of the roof hardware.



Figure 4. Roof section disengaged from the pad-mounted gear enclosure.



Figure 5. The roof open and latched.

Closing the Roof Section

To close the roof section, complete the following steps:

- STEP 1.** Remove the retainers from the roof section and place them in the horizontal position.
- STEP 2.** Lower the roof section.
- STEP 3.** While applying force to the roof section, secure the roof to the enclosure using the $\frac{3}{8}$ -inch large flat washers, $\frac{3}{8}$ -inch standard washers, and $\frac{3}{8}$ -16- inch ESNA nuts. S&C recommends tightening the center hardware first. Additional roof hardware is shipped with the PME Pad-Mounted Gear.

Note: A mechanical interlock, furnished in each door containing a Penta-Latch Mechanism, prevents the door from closing and latching when the roof section is not secured to the enclosure.

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 6. The right-hand door of double-door models of pad-mounted gear is equipped with the Penta-Latch Mechanism, which 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 all latch points engage completely and simultaneously.

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

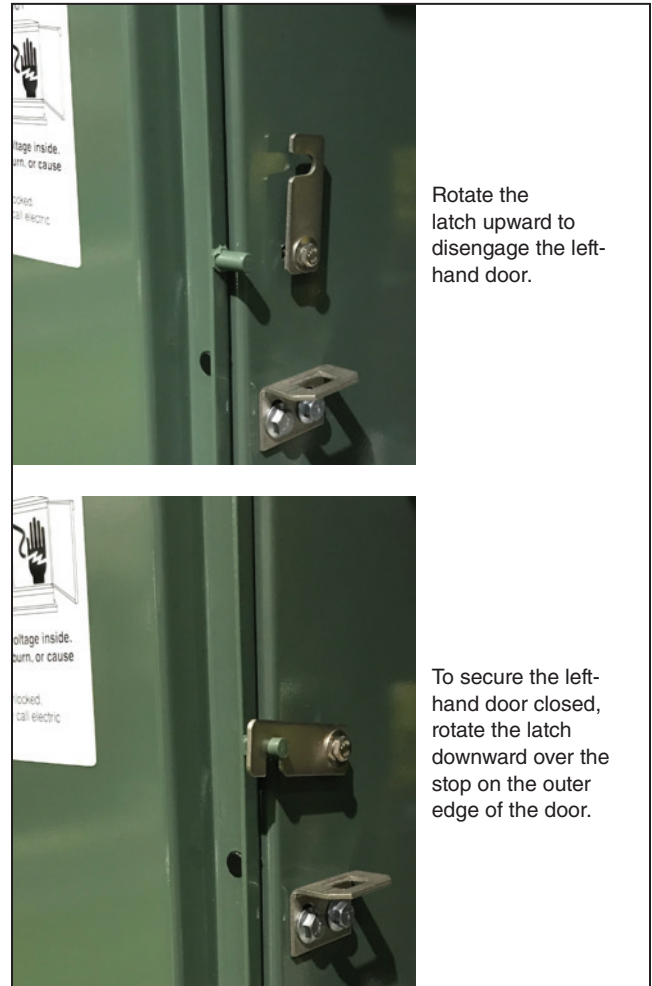


Figure 6. The left-hand door retainer.

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.
- STEP 2.** Unbolt the enclosure from its skid and lift the unit onto the mounting pad, observing the precautions given in the “Shipping and Handling” section on page 9.
- STEP 3.** Open the doors to the interior of the gear and secure them with the door holders.
- STEP 4.** Refer to the catalog dimensional drawing furnished and verify the enclosure compartments are positioned correctly and the unit is properly aligned with respect to the anchor bolts (or flush anchors).

Note: 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.

First, the doors must be opened (with door holders in place) 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 7 on page 17 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.

- STEP 5.** Level the pad-mounted gear enclosure using metal shims as required between the mounting pad and the enclosure. Shim the enclosure of four-compartment units until the tops of the compartment doors are even.

For two-compartment units: Shim the enclosure until the top of each door is parallel with the top of the gear.

- STEP 6.** Secure the enclosure to the pad using the anchor brackets provided (see anchor-bolt detail on the catalog dimensional drawing). Make sure all compartment doors open and latch closed without binding. Binding indicates enclosure distortion, which must be corrected by additional shimming.

Note: If the pad-mounted gear is installed on a pad with cables in conduit, the roof sections over the cable compartments can be opened to allow the cables to be pulled up through the roof opening instead of the door opening.

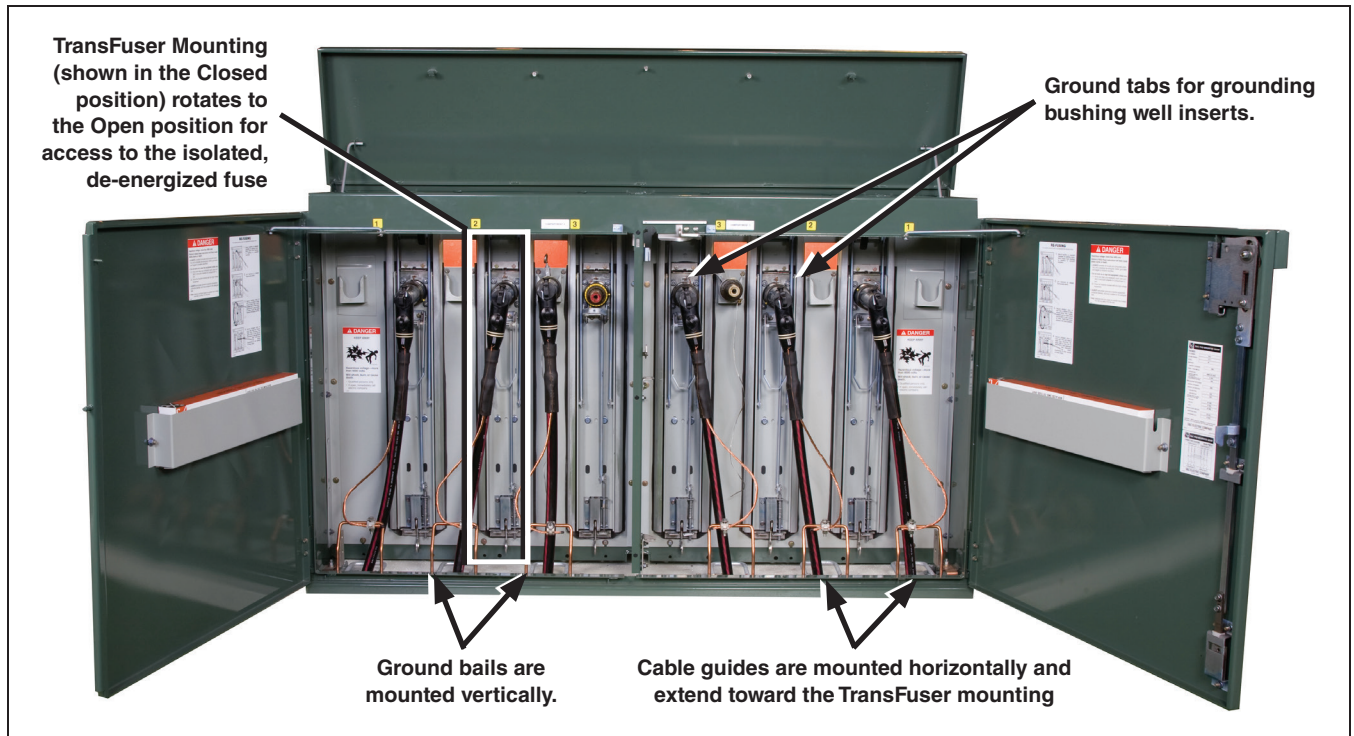


Figure 7. Cables in fuse-termination compartments must be trained between the horizontal cable guides, as shown, to prevent interference with TransFuser Mounting operation.

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 cables:

STEP 1. Before installing elbows and inserts, remove the shipping covers from the 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 7 on page 17.

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. Then, 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 (catalog number suffix “-M1”) to accommodate 600-ampere elbows that do not require a stud. See Figure 8.

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 they will not interfere with TransFuser Mounting operation when the elbows are on the parking stands.

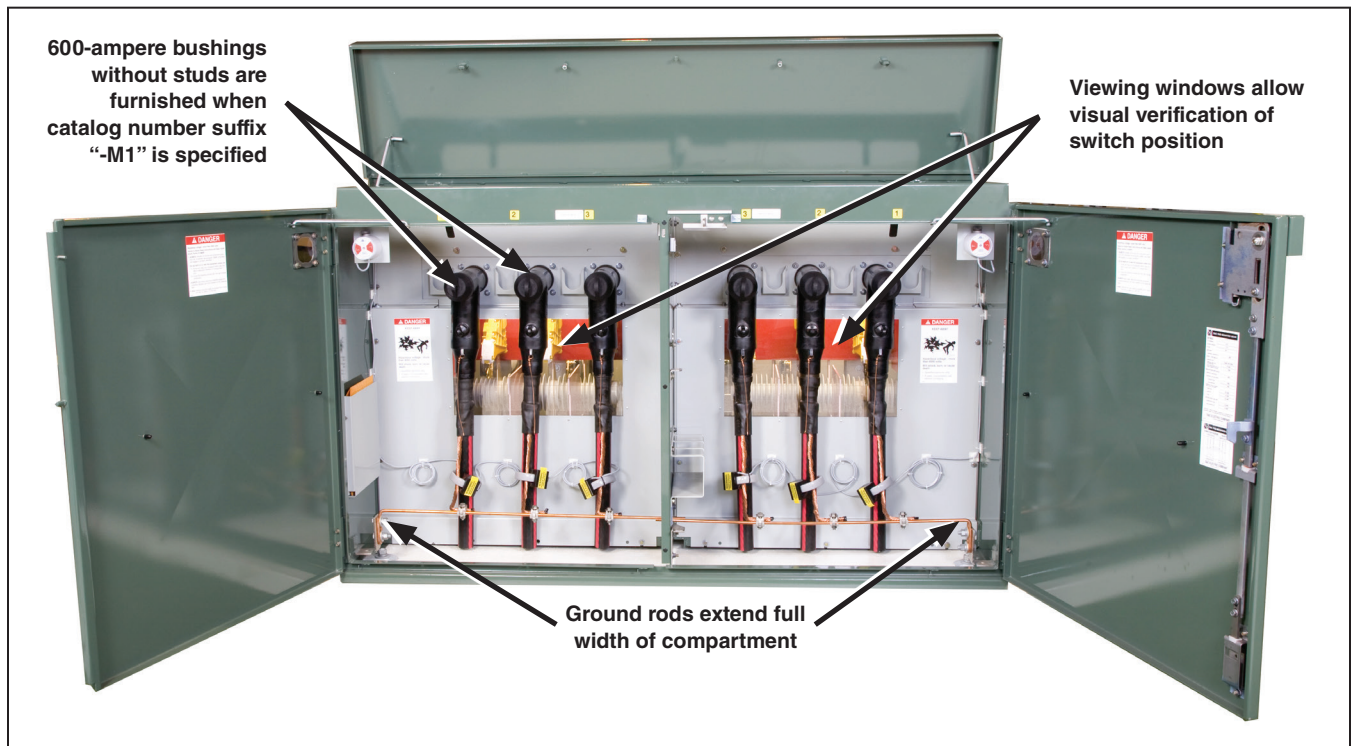


Figure 8. Bushings for Mini-Rupter Switches are available with and without studs to accommodate all 600-ampere elbows. Switches are available with and without all 600-ampere elbows.

Installation


Fault Indicators

Optional mounting provisions for fault indicators (catalog number suffix “-F1” or “-F2”) 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

Complete the following steps to complete the installation:

- 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.

- STEP 2.** Make sure the doors open and close without binding and 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. Also, if optional key interlocks are furnished, correctly position the interlocks so the doors can be opened.

- 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.** 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 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.