⚠ DANGER

This quick operation guide is not a replacement for adequate training and safety procedures for this product. Read S&C Instruction Sheet 665-511 thoroughly and carefully before using this document. **Failure to have adequate training and understanding of these instructions will likely result in serious personal injury or death if the instructions, including recommended precautions, are not followed.**

⚠ WARNING

Manual PME Pad-Mounted Gear—PMH Configuration must be installed, operated, and maintained by qualified persons knowledgeable in underground electric power distribution equipment and the associated hazards. For more information on the requirements of a qualified person, see the "Introduction" section of S&C Instruction Sheet 665-511. **These instructions are not intended to be a substitute for adequate training and experience in safety procedures for this type of equipment. Failure to follow these operating and safety procedures can result in serious injury.**

NOTICE

Fuse handling in this instruction sheet is to be performed with a shotgun-style hotstick.

⚠ DANGER

When access to high-voltage compartments is required for inspection, service, or repairs, always observe the precautions below. **Failure to observe these precautions likely will result in serious personal injury or death.**

1. Access to pad-mount gear must be restricted only to qualified persons. See the Warning above.
2. Always follow safe operating procedures and rules.
3. Before touching any device, always disconnect switches and fuses from all power sources (including backfeed), test for voltage, and properly ground.
4. Always assume both sets of power terminals on any 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 both sets of terminals are grounded.
5. Test for voltage on both sets of power terminals of any switch or fuse using proper high-voltage test equipment.
6. After the gear has been completely disconnected from all power sources and tested for voltage, install suitable grounding cables in all compartments.
7. Make sure the enclosure is properly grounded to the station or facility ground. Do not return equipment to service unless such grounds are properly made.

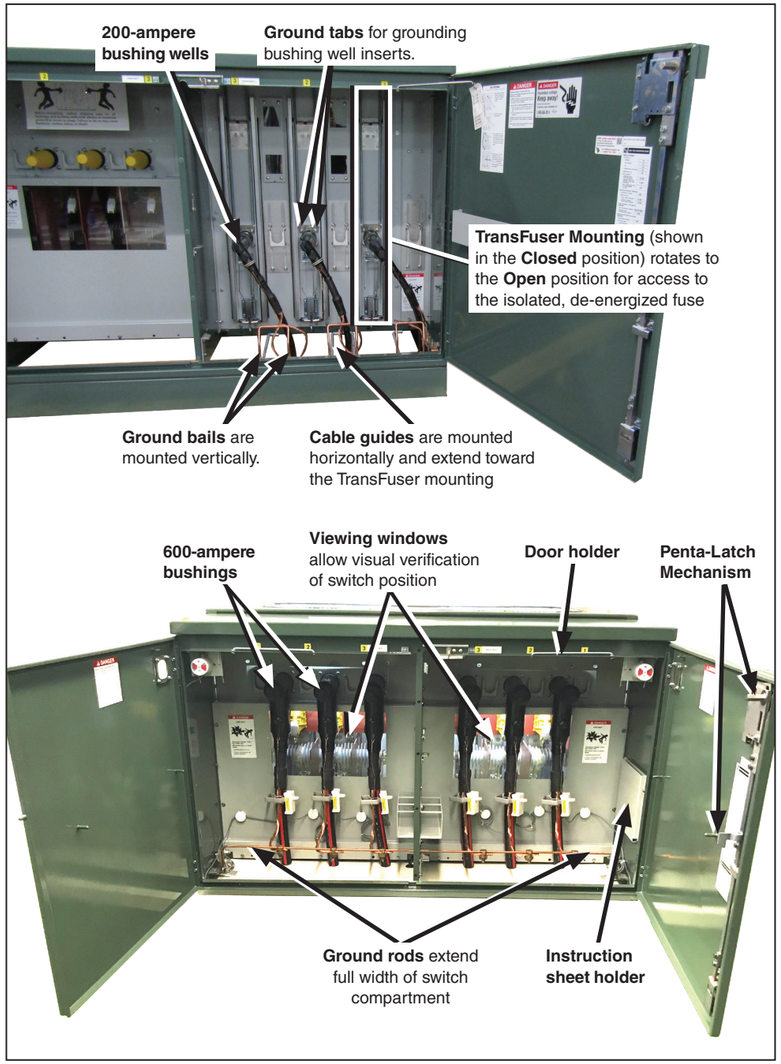

Figure 1. The manual Model PME-11 showing open-door views of fuse-and switch termination compartments and switch-termination compartments.

Access to Interior

For instructions on opening, closing, and securing the enclosure doors, see S&C Instruction Sheet 665-511.

Operating the Mini-Rupter® Switch

STEP 1. Remove the padlock and open the switch operating shaft access cover. See Figure 2 and Figure 3.

STEP 2. Remove the folding operating handle from its storage pocket behind the access cover. Unfold the handle until it is latched and slide it onto the hex switch operating shaft.

STEP 3. Rotate the handle in the appropriate direction to open or close the switch, and check the SWITCH POSITION indicator to verify the switch is in the desired position.

STEP 4. Open the enclosure doors.

STEP 5. Check the physical position of the switch by using the viewing window provided in the switch-termination compartment. See Figure 1.

⚠ WARNING

To avoid accident or injury, always confirm the **Open/Close** position of the Mini-Rupter Switch by visually observing the position of the switch blades through the viewing windows.

STEP 6. Remove and fold the operating handle, and return the handle to its **Storage** position. Then, close and padlock the access cover.

⚠ CAUTION

Do not leave the switch operating shaft access cover unlocked if the gear is left unattended.

STEP 7. Close and lock the enclosure doors.

Figure 2. Switch access cover padlock.

Figure 3. The access cover open and the folding switch operating handle installed.

Opening the TransFuser™ Mounting

⚠ DANGER

The following procedures assume the user has supplied and installed loadbreak inserts and loadbreak elbows.

Open the Mini-Rupter Switches before proceeding if deadbreak inserts and deadbreak elbows are installed or if company operating procedures and rules do not permit switching with elbows. **Failure to open the switches when deadbreak inserts and elbows are used will result in a flashover and serious injury.**

STEP 1. Open the fuse termination compartment door and secure it with the door holder. See Figure 1. On double-door models, the adjacent door should be closed and latched to minimize exposure.

STEP 2. Install a portable feedthru or standoff insulator on the parking stand above the cable guide of the elbow to be moved. This ensures when the elbow is moved, the cable will not interfere with the TransFuser Mounting. Following the elbow manufacturer's instructions, remove the 200-ampere loadbreak elbow (thus interrupting any load through the fuse to be removed), and move the elbow to the portable feedthru or standoff insulator.

⚠ WARNING

If elbows are stored on feedthru or standoff insulators for an extended period, cover the 200-ampere interface with an insulating protective cap with a drain wire and connect the drain wire to the ground bail.

Failure to connect the drain wire to the ground bail can result in a flashover, injury, and equipment damage.

The insulated protective cap and drain wire must be removed before operating the TransFuser Mounting mechanism. Failure to remove the cap and drain wire will interfere with mechanism operation.

⚠ DANGER

When changing fuses, the 200-ampere interface need not be covered because it will be exposed only temporarily. If company operating procedures and rules require it, the interface may be covered with an insulating protective cap without a drain wire. A cap with a drain wire must not be used. **Operation of the TransFuser Mounting mechanism will draw the grounded drain wire inside the medium-voltage compartment close to energized parts, which will result in a flashover and serious injury.**

STEP 3. When the elbow has been moved and mounted on a feedthru or standoff insulator, the TransFuser Mounting mechanism may be operated. Using the shotgun stick, raise the mechanical interlock to unlock the TransFuser Mounting. See Figure 4. This interlock cannot be lifted to the **Unlocked** position until the elbow has been removed, and it guards against gaining fuse access while it is carrying current.

STEP 4. Secure the shotgun stick to the pull-ring at the lower end of the TransFuser Mounting. Do not ratchet the shotgun stick all the way up when securing the pull-ring. Doing so may hinder with the movement of the TransFuser Mounting. See Figure 5. In one motion, using an outward pull, rotate the TransFuser Mounting end to expose the fuse. See Figure 7.

STEP 5. Make sure the mounting is latched before removing the shotgun stick. Then, disengage the shotgun stick from the pull-ring. Using the shotgun stick, push against the top of the mounting to verify it has securely latched. With the TransFuser Mounting latched in the **Open** position, the fuse is de-energized, isolated from high voltage, and accessible for removal from the mounting using the shotgun stick.

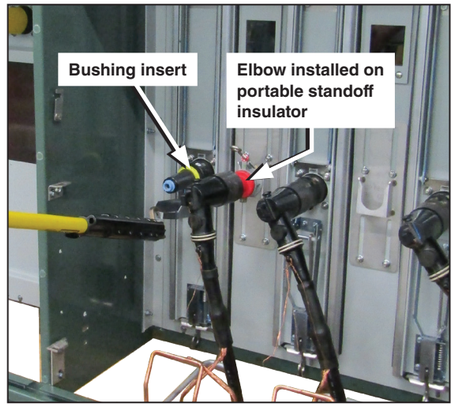

Figure 4. Raising the mechanical interlock to unlock the TransFuser Mounting.

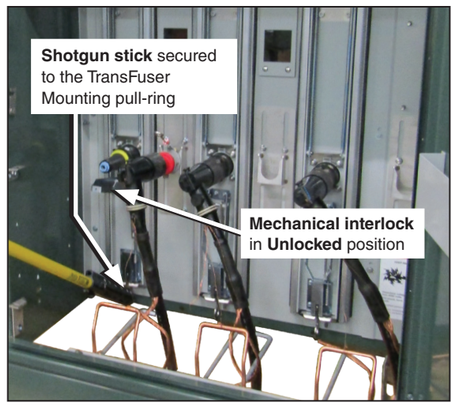

Figure 5. Unlatching (or latching) a TransFuser Mounting in the Closed position.

Fusing

Manual PME Pad-Mounted Gear's TransFuser Mountings can accommodate Type SME-20 Power Fuses (SMU-20® Fuse Units in SME-20 Fuse Mountings).

Assembling Power Fuses

SMU-20 Fuse Units contain a copy of the instruction sheet for assembling fuses.

Installing the Fuse in the Mounting

STEP 1. Secure a shotgun stick tightly to the fuse pull-ring with the fuse positioned so the fuse body is below the stick. Grasp the shotgun stick with both hands approximately 2 feet (61 cm) apart, placing one hand on the shotgun-stick latch mechanism.

STEP 2. Lift the fuse and lower it into the fuse-mounting cradle. See Figure 6.

STEP 3. With the fuse securely seated in the cradle, with one motion push the fuse forward to latch it in the **Closed** position. See Figure 7. Disengage the shotgun stick from the fuse.

Figure 6. A fuse lowered into the cradle in preparation for latching into a TransFuser Mounting.

Figure 7. Latching (or unlatching) a TransFuser Mounting in the Open position.

STEP 4. Verify the fuse is properly latched in the fuse mounting. While holding the shotgun stick, push against the fuse holder assembly and pull on the fuse assembly, as shown in Figure 6, by locating the ring of the stick in the opening below the pull-ring.

Closing the TransFuser Mounting

After the fuse has been installed or replaced, close the mounting and energize the fuse as follows:

STEP 1. Secure a shotgun stick to the pull-ring at the top of the TransFuser Mounting. Do not ratchet the stick all the way up when securing the pull-ring. Doing so may hinder mounting movement. See Figure 5. In one motion, with an outward pull, rotate the mounting end for end to return the fuse to the medium-voltage compartment. Make sure the mounting latches are in this position before removing the shotgun stick. Then, disengage the stick from the pull-ring. Using the stick, push against the bottom of the mounting to verify it has securely latched.

STEP 2. Lower the mechanical interlock to lock the TransFuser Mounting. If a protective cap was placed on the bushing interface, remove it with the shotgun stick.

STEP 3. Move the elbow from the portable feedthru or standoff insulator to the bushing in accordance with the elbow manufacturer's instructions. Remove the portable feedthru or standoff insulator from the parking stand.

STEP 4. Close and latch the enclosure doors. Pull outward on the Penta-Latch Mechanism cover to verify the door has latched securely. Padlock the door.

Replacing a Blown Fuse

STEP 1. Gain access to the blown fuse following the instructions found in the "Opening the TransFuser™ Mounting" section on page 1.

STEP 2. Remove the fuse by grasping a shotgun stick with both hands approximately 2 feet (61 cm) apart, placing one hand on the shotgun-stick latch mechanism.

STEP 3. Secure the shotgun stick tightly to the fuse pull-ring.

STEP 4. Stand in a normal, upright position facing the shotgun stick. Unlatch the fuse with a short, outward pull on the fuse pull-ring. Then, remove the fuse from its mounting with an upward and outward lifting motion. When the fuse has been removed from the TransFuser Mounting, the mounting may be left with the live parts in the termination compartment and the doors may be closed.

NOTICE

Always store fuses in a clean, dry location. Do not store fuses in termination compartments unless the enclosure is equipped with the optional **Fuse Storage** feature.

STEP 5. Assemble a replacement fuse by following the instructions provided with each SMU-20 Fuse Unit.

STEP 6. Install the fuse in its mounting following the instructions found in the "Installing the Fuse in the Mounting" section.

Note: Take the blown fuse back to the service center for proper disposal.