

Padmount PMH Switchgear, 27 kV, Parts



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1. Scope

This standard covers the requirements for replacement parts for S&C Electric Company (S&C) 27 kV padmount PMH switchgear. It is applicable to the following Seattle City Light (SCL) switchgear:

Type	Stock Number	S&C Electric Catalog Number
PMH-5	250195	156513R3-A10-F12-K20-P5-E102
PMH-9	250190	55153R3-A10-F12-K18-P5
PMH-10	250192	55243R3-A10-F12-K18-P5
PMH-11	14292	55163R3-A10-F12-K18-P5
PMH-12	250191	55173R3-A10-F12-K18-P5

This standard applies to the parts listed in Tables 5.3, 6, 7, 8 and 9.

Note: some parts do not have a stock number.

Information about parts required to install new switchgear is outside the scope of this standard.

2. Application

This standard is for use by SCL field personnel, engineers, and Material Control to identify and acquire PMH switchgear replacement parts. Field personnel and engineers are encouraged to work with Material Control when ordering parts.

This standard is to be used in conjunction with the SCL standards cited in Sections 11 and 12.

For new construction projects, 2-Way Vista switches, stock number 012673, have replaced PMH-5 switchgear. Engineering is encouraged to replace failed or end-of-life PMH-5 switchgear with 2-Way Vista switches when possible. See Construction Standard 0801.12 for information related to installing new PMH switchgear.

Most of the PMH-5 switches installed throughout the SCL electrical distribution system are remote supervisory model, stock number 250195. The remainder of the switches are manual, non-stock, and have varying S&C catalog numbers.

All parts listed in this standard can be replaced by SCL field personnel. However, S&C recommends that the Mini-Rupter switch and its components be inspected, installed, and tested by an S&C Field Service Technician.

3. Industry Standards

Parts shall meet or exceed the applicable industry standards upon which the original switchgear was constructed. Parts shall be new and compatible with the parts furnished with the original switchgear.

4. PMH-5 Switchgear

Figure 4a. PMH-5 Switchgear Compartment 1 Overall View

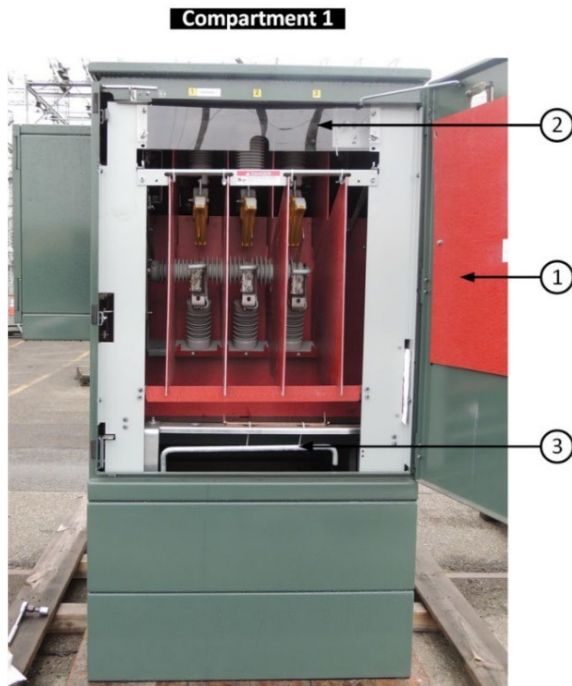


Figure 4b. PMH-5 Switchgear Compartment 1 Detailed View

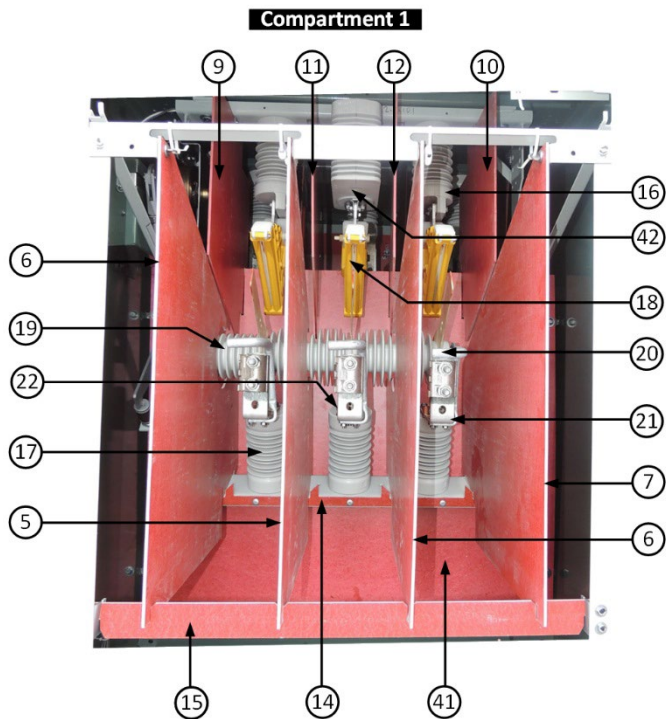


Figure 4c. PMH-5 Switchgear Compartment 2 Overall View

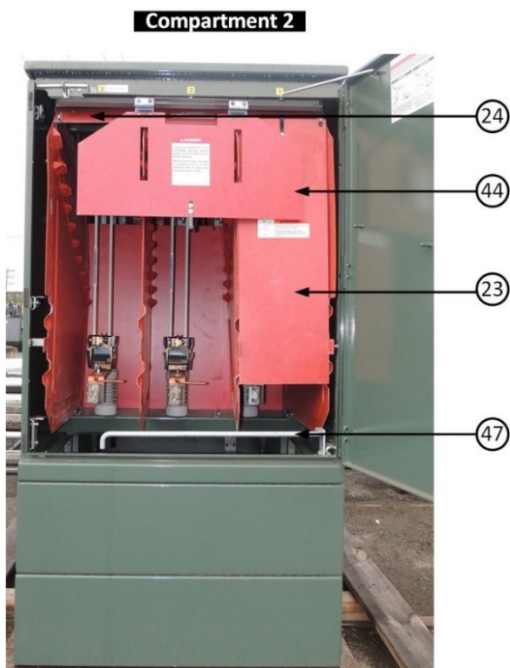
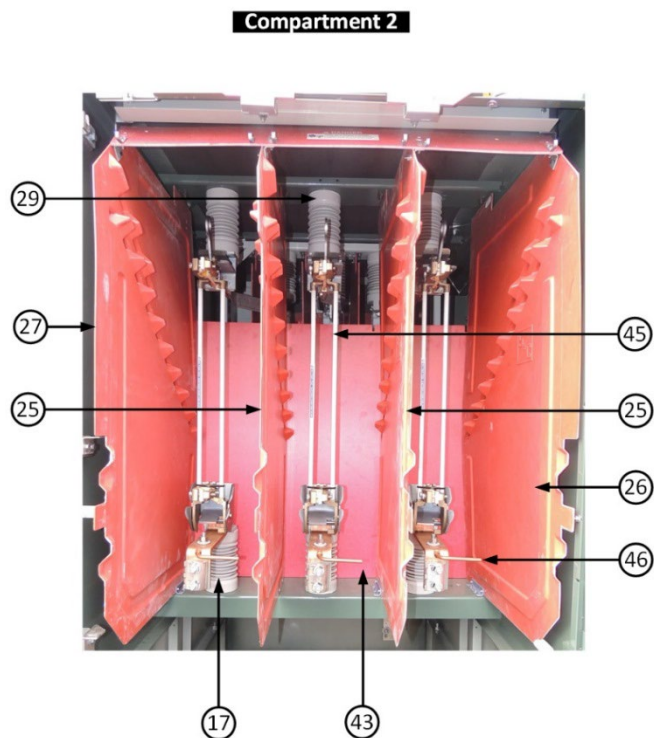


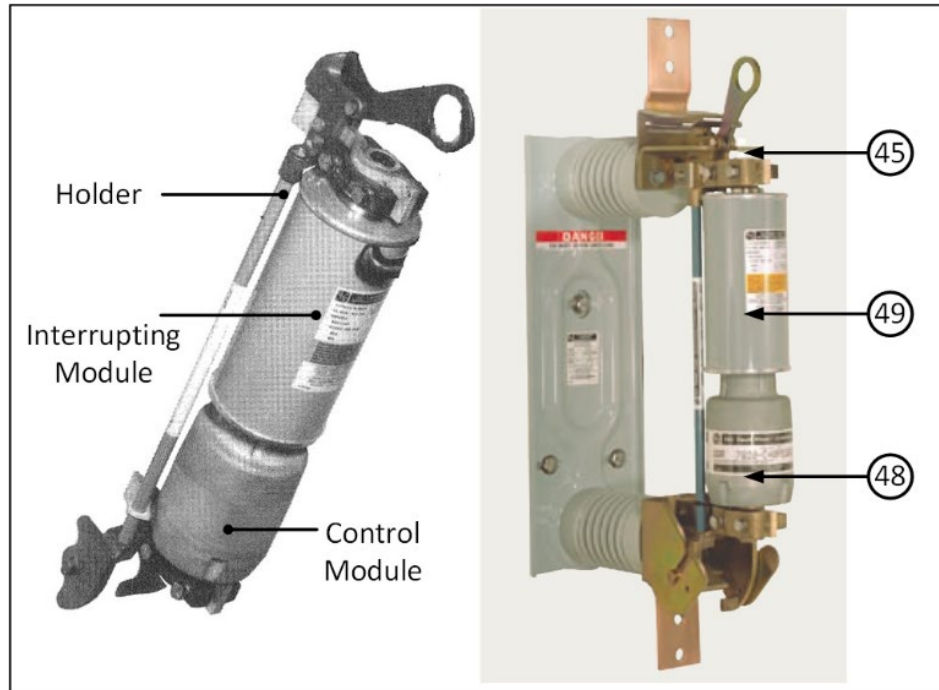
Figure 4d. PMH-5 Switchgear Compartment 2 Detailed View



4.1 Fault-Fiter Electronic Power Fuses

Parts for S&C Electric Fault Fiter electronic power fuses include an interrupting module, control module, and a disconnect style fuse holder. Parts are rated 29 kV maximum, 150 kV BIL, 600 A continuous, 40 kA interrupting, symmetrical. For more information, refer to S&C Electric Descriptive Bulletin 441-30 or Specification Bulletin 441-31. See Figure 4.1.

Figure 4.1 S&C Fault-Fiter Power Fuse



In legacy applications, these fuses have been used in conjunction with S&C-type PMH-5 padmount switchgear to protect distribution transformers rated 3 MVA and above. Parts listed in Table 4.3 are for maintenance of existing installations; new installations should utilize multi-purpose, distribution switchgear specified in SCL 4501.65. Obsolete control modules, Stock No. 259443 and 259846, should be replaced with Stock Nos. 259423 and 012682 respectively.

The control module includes a current transformer and electronic circuit which provide source power, current sensing, and electronically determined time-current characteristics for the fuse. The interrupting module carries load current continuously through a main current section and, during a fault condition, transfers current to a circuit-interrupting section in response to a signal from the control module.

See Table 4.1 for control module specifications.

Table 4.1. Control Module Specifications

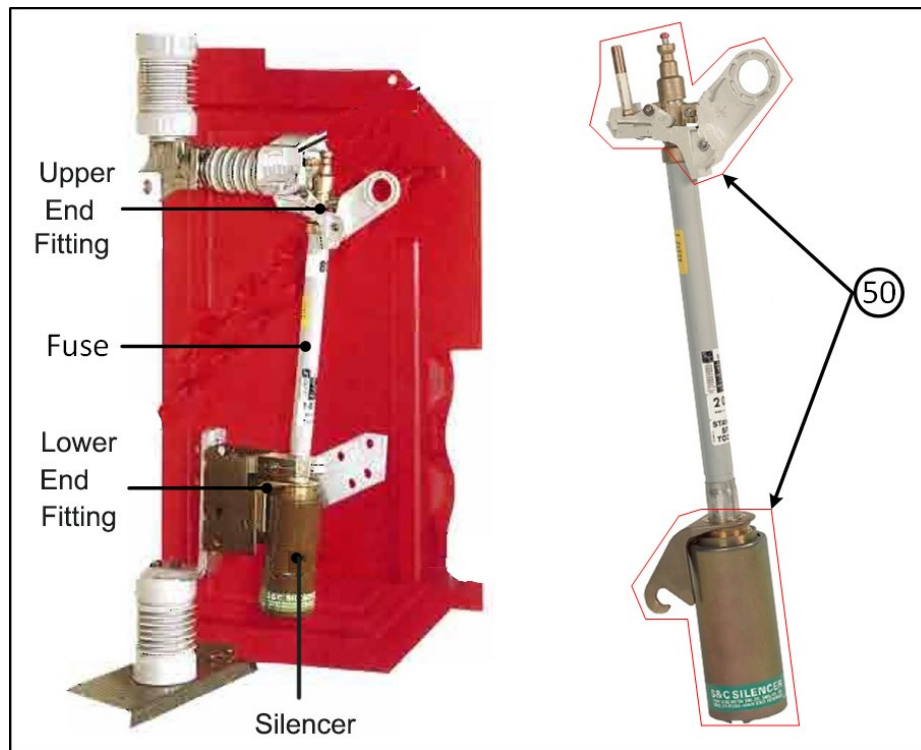
Stock No.	Transformer Application (MVA)	Pick-Up Minimum / High Amperes	Short Time Delay Band
259413	5	400 / 3000	1
259423	7.5	400 / 3000	2
359426	10	400 / 6000	2
012682	15	600 / 6000	2

4.2 SMU-20 Power Fuses

SMU-20 fuses are also used in certain PMH-5 switches. Parts and accessories related to this type of fuse are shown in Figure 4.2, as follows:

- Upper end fitting (Stock No. 015159)
- Lower end fitting (with locknut) (Stock No. 015160)
- Kit containing both end fittings and the silencer (Stock No. 682585)

Figure 4.2 SMU-20 Power Fuse



4.3 Motor Operator Kit

Remote supervisory PMH-5 switches are equipped with a low voltage enclosure that contains motor controls and accessories. Most of the parts inside the enclosure are identified with the S&C part number. Parts ordering shall be coordinated through Material Control. See Table 4.3 for complete parts list.

A Motor Operator Kit containing 24 VDC ZSD relay, PT, CTs, battery, and charger may also be ordered separately. See Figure 4.3.

Figure 4.3. Motor Operator Kit

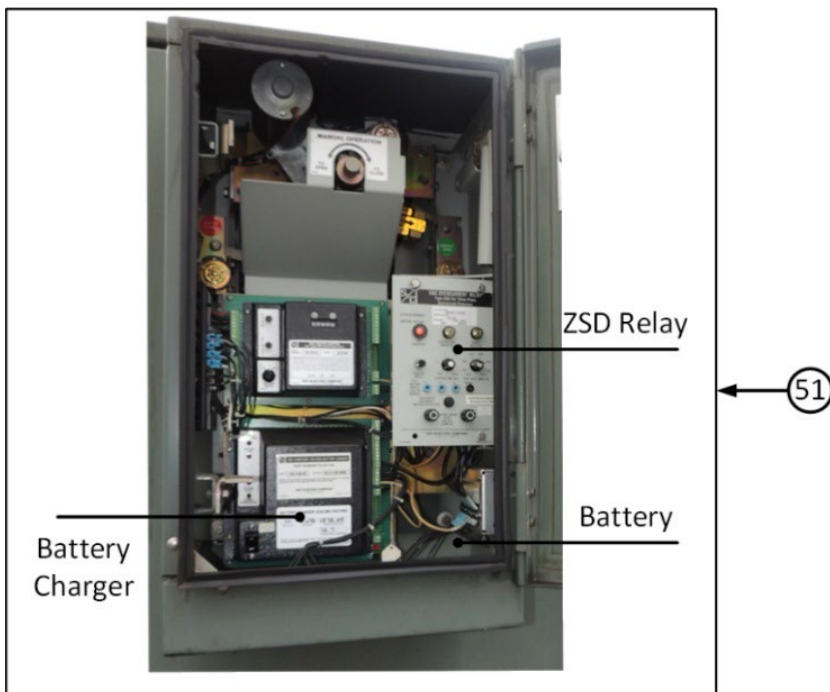


Table 4.3 PMH-5 Switchgear Parts List

Item #	S&C Part No.	S&C Part Description	Stock No.	# of Items Per Compartment Number	
				1	2
1	BA-4021	Switch Dual-Purpose Barrier	13309	1	–
1	QCPA-5785	Switch Dual-Purpose Barrier, Clear, See-Through	15011	1	–
2	CP-1270	Switch Window	–	1	–
3	C-1798-1	Cabinet Ground Rod	–	1	1
5	BA-1047-1	Lower Switch Barrier Assembly (Post-2005)	13311	1	–
5	BA-4011-1	Lower Switch Barrier Assembly (Pre-2005)	14280	1	–
6	BA-1047-2	Lower Switch Barrier Assembly (Post-2005)	13310	2	–
6	BA-4011-2	Lower Switch Barrier Assembly (Pre-2005)	14281	2	–
7	BA-1044-1	Lower Switch End Barrier Assembly (Post-2005)	13312	1	–
7	BA-4011-1	Lower Switch Barrier Assembly (Pre-2005)	14280	1	–
9	BA-4020-1	Upper Switch End Barrier Assembly	14283	1	–
10	BA-4020-2	Upper Switch End Barrier Assembly	14284	1	–
11	BA-4019-1	Upper Switch Interphase Barrier Assembly	14285	1	–
12	BA-4019-2	Upper Switch Interphase Barrier Assembly	14286	1	–
14	B-25806	Switch Barrier Guide	14291	1	–
15	B-25804	Barrier Guide	13263	1	–
16	PA-7259	Indoor Insulator 25 kV 125 kV BIL	–	2	–
17	PA-7228	Indoor Insulator 25 kV 125 kV BIL	14293	3	3
18 ^a	SDA-4726	Arc Compressor Assembly, Yellow (Post-2010)	–	3	–
18 ^a	SA-40889	Arc Compressor Assembly, White (Pre-2010)	–	3	–
19 ^a	PA-7261	Rotating Strut Assembly (Post-2005)	–	1	–
19 ^a	BA-7136	Rotating Strut Assembly (Pre-2005)	–	1	–
20	S-86110	Switch Grounding Stud	–	3	–
21	SD-3489	Switch Cable Connector	–	3	–
22	SDA-2695	Lower Contact Assembly	–	3	–
23	BA-3880	Fuse Dual-Purpose Barrier	13267	–	3
23	QCPA-5786	Fuse, Dual-Purpose Barrier, Clear, See-Through	15012	–	3
24	BA-3872	Fuse Stiling Barrier Assembly	13268	–	1
25	BA-3662	Fuse Interphase Barrier Assembly	13264	–	2
26	BA-3661-1	Fuse End Barrier Assembly	13265	–	1
27	BA-3661-2	Fuse End Barrier Assembly	13266	–	1
29	PA-7229	Indoor Insulator 25 kV 125 kV BIL	–	–	3
39	4745T	Cable Connector Assembly	–	3	3
41	B-25787	Switch Back Barrier Assembly	14288	1	–
42	81603R2	Voltage Sensor	–	1	–
43	B-25707	Fuse Back Barrier	14290	–	1
44	QCA-6994	Fuse Barrier Assembly	–	–	1
45	99113	Fault-Fiter Holder Assembly	259100	–	3
46	QS-93377	Grounding Rod	–	–	3
47	QCA-7123	Ground Rod Assembly	–	–	1
48 ^b	7010-C40S1T3D8	Electronic Control Module, 5 MVA Transformer	259413	–	3
48 ^b	7010-C40S2T3D8	Electronic Control Module, 7.5 MVA Transformer	259423	–	3
48 ^b	7010-C40S2T6D8	Electronic Control Module, 10 MVA Transformer	259426	–	3
48 ^b	7010-C60S2T6D8	Electronic Control Module, 15 MVA Transformer	012682	–	3

Table continued on next page.

Table 4.3 PMH-5 Switchgear Parts List, continued

Item #	S&C Part No.	S&C Part Description	Stock No.	# of Items Per Compartment Number	
				1	2
49	803600R2	Interrupting Module	259500	—	3
50	3097	Replacement End Fittings and Silencer	682585	—	3
51	38971R2-A1A10Y8Z1	Motor Operator Kit	250163	—	—
—	9931-267	Battery	014299	—	—
—	TA-2333R1	Charger	13664	—	—
—	38930R1-V-S108	ZSD Relay	10259	—	—
—	TA-1758	Current Sensor Assembly	—	—	—

Notes:

^a It is recommended that arc compression (18) and rotary strut assembly (19) be replaced by an S&C Electric Field Service Technician. If a pre-2005 switchgear requires items (18) and (19), it is recommended that the entire Mini-Rupter switch be replaced. Item 39 is shipped loose. See Figure 11b.

^b Pickup minimum / high amperes and short time delay band values for the electronic control module are listed in Table 4.1.

^c The Motor Operator Kit (item 51) contains battery, charger, ZSD relay, current sensor, and voltage sensor (item 42). The motor operator kit components are installed at various locations within the PMH-5 switchgear.

5. PMH-9 Switchgear

Figure 5a. PMH-9 Switchgear Compartments 1 and 2 Overall View

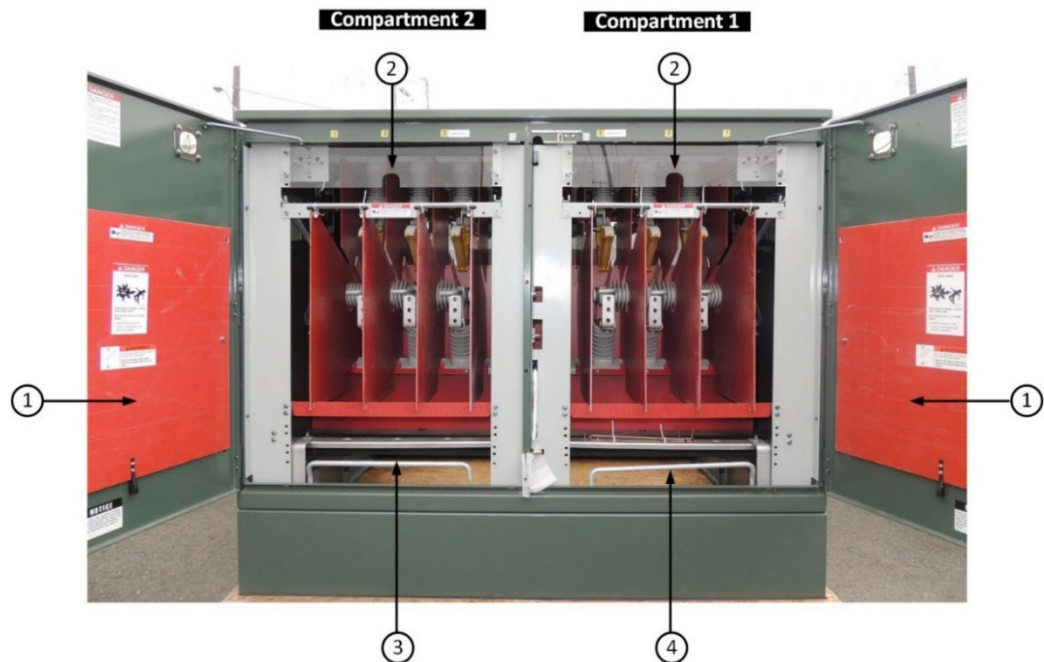


Figure 5b. PMH-9 Switchgear Compartments 1 and 2 Detailed View

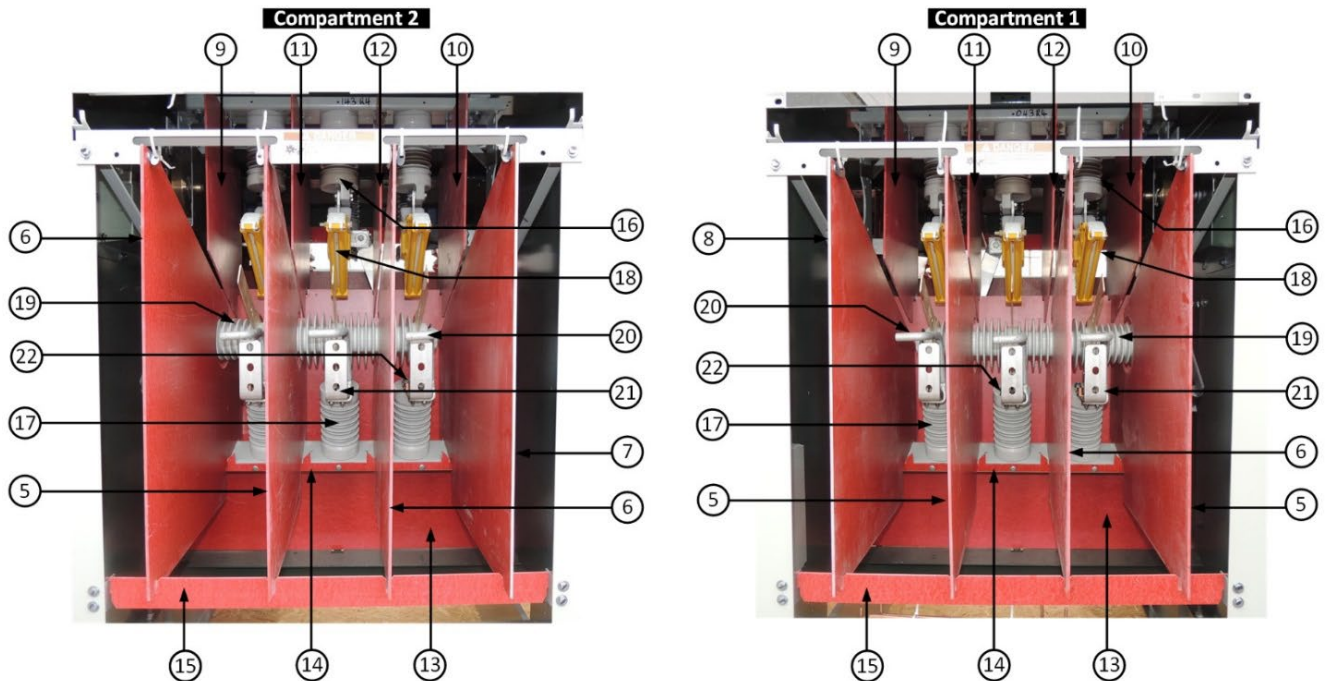


Figure 5c. PMH-9 Switchgear Compartments 3 and 4 Overall View



Figure 5d. PMH-9 Switchgear Compartments 3 and 4 Detailed View

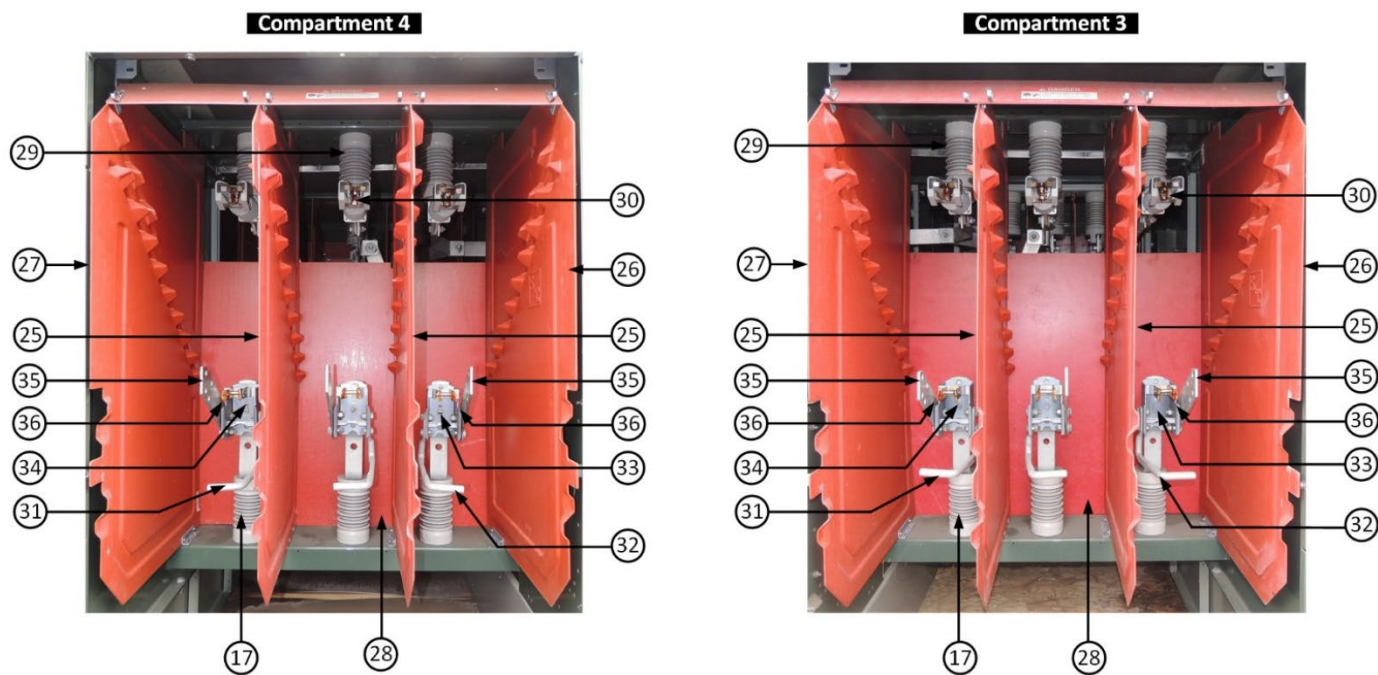


Table 5. PMH-9 Switchgear Parts List

Item #	S&C Part No.	S&C Part Description	Stock No.	# of Items Per Compartment Number			
				1	2	3	4
1	BA-4021	Switch Dual Purpose Barrier	13309	1	1	–	–
1	QCPA-5785	Switch Dual Purpose Barrier, Clear, See-Through	15011	1	1	–	–
2	CP-1270	Switch Window	–	1	1	–	–
3	C-1798-1	Cabinet Ground Rod	–	–	1	–	1
4	C-1798-2	Cabinet Ground Rod	–	1	–	1	–
5	BA-1047-1	Lower Switch Barrier Assembly (Post-2005)	13311	2	1	–	–
5	BA-4011-1	Lower Switch Barrier Assembly (Pre-2005)	14280	2	1	–	–
6	BA-1047-2	Lower Switch Barrier Assembly (Post-2005)	13310	1	2	–	–
6	BA-4011-2	Lower Switch Barrier Assembly (Pre-2005)	14281	1	2	–	–
7	BA-1044-1	Lower Switch End Barrier Assembly	13312	–	1	–	–
8	BA-1044-2	Lower Switch End Barrier Assembly	14282	1	–	–	–
9	BA-4020-1	Upper Switch End Barrier Assembly	14283	1	1	–	–
10	BA-4020-2	Upper Switch End Barrier Assembly	14284	1	1	–	–
11	BA-4019-1	Upper Switch Interphase Barrier Assembly	14285	1	1	–	–
12	BA-4019-2	Upper Switch Interphase Barrier Assembly	14286	1	1	–	–
13	B-25778	Switch Back Barrier Assembly	14287	1	1	–	–
14	B-25806	Switch Barrier Guide	14291	1	1	–	–
15	B-25804	Barrier Guide	13263	1	1	–	–
16	PA-7259	Indoor Insulator 25 kV 125 kV BIL	–	3	3	–	–
17	PA-7228	Indoor Insulator 25 kV 125 kV BIL	14293	3	3	3	3
18 ^a	SDA-4726	Arc Compressor Assembly (Yellow) (Post-2010)	–	3	3	–	–
18 ^a	SA-40889	Arc Compressor Assembly (White) (Pre-2010)	–	3	3	–	–
19 ^a	PA-7261	Rotating Strut Assembly (Post-2005)	–	1	1	–	–
19 ^a	BA-7136	Rotating Strut Assembly (Pre-2005)	–	1	1	–	–
20	S-86110	Switch Grounding Stud	–	3	3	–	–
21	SD-3489	Switch Cable Connector	–	3	3	–	–
22	SDA-2695	Lower Contact Assembly	–	3	3	–	–
23	BA-3880	Fuse Dual Purpose Barrier	13267	–	–	3	3
23	QCPA-5786	Fuse Dual Purpose Barrier, Clear, See-Through	15012	–	–	3	3
24	BA-3872	Fuse Stiling Barrier Assembly	13268	–	–	1	1
25	BA-3662	Fuse Interphase Barrier Assembly	13264	–	–	2	2
26	BA-3661-1	Fuse End Barrier Assembly	13265	–	–	1	1
27	BA-3661-2	Fuse End Barrier Assembly	13266	–	1	1	1
28	B-25708	Fuse Back Barrier	14289	1	–	1	1
29	PA-7229	Indoor Insulator 25 kV 125 kV BIL	–	–	–	3	3
30	SA-38945	Uni-Rupter	–	–	–	3	3
31	S-86072	Fuse Grounding Stud	–	–	–	1	2
32	S-86107	Fuse Grounding Stud	–	–	–	2	1
33	SA-40063-4	Lower Fuse Clip Assembly RH	–	–	–	2	1
34	SA-40063-3	Lower Fuse Clip Assembly LH	–	–	–	1	2
35	C-743	Fuse Connector Adapter	–	–	–	3	3
36	XC-742	Fuse Terminal Pad Spacer	–	–	–	3	3

Table continued on next page.

Table 5. PMH-9 Switchgear Parts List, continued

Item #	S&C Part No.	S&C Part Description	Stock No.	# of Items Per Compartment Number			
				1	2	3	4
37	SA-40053	Disconnect Latch and Pull Ring (Upper Fitting)	015159	—	—	3	3
38	FD-2062	Trunnion (Lower Fuse Fitting Assembly)	015160	—	—	3	3
39	4745T	Cable Connector Assembly	—	3	3	3	3
52	3143R1-A1	Optional Clip-Style Fuse Holder with Upper Latch-End Adapter	014998	—	—	—	—

Notes:

^a It is recommended that arc compression (18) and rotary strut assembly (19) be replaced by an S&C Electric Field Service Technician. If a pre-2005 switchgear requires items (18) and (19), it is recommended that the entire Mini-Rupter switch be replaced. Items 38 and 39 are shipped loose. See Figures 11a and 11b.

6. PMH-10 Switchgear

Figure 6a. PMH-10 Switchgear Compartments 1 and 2 Overall View

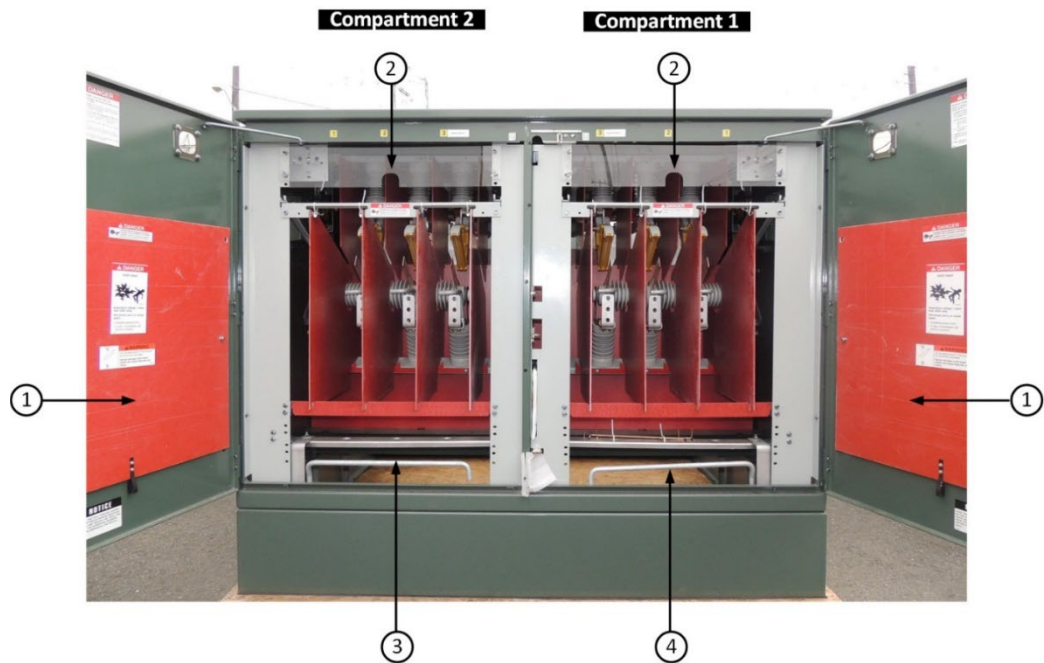


Figure 6b. PMH-10 Switchgear Compartments 1 and 2 Detailed View

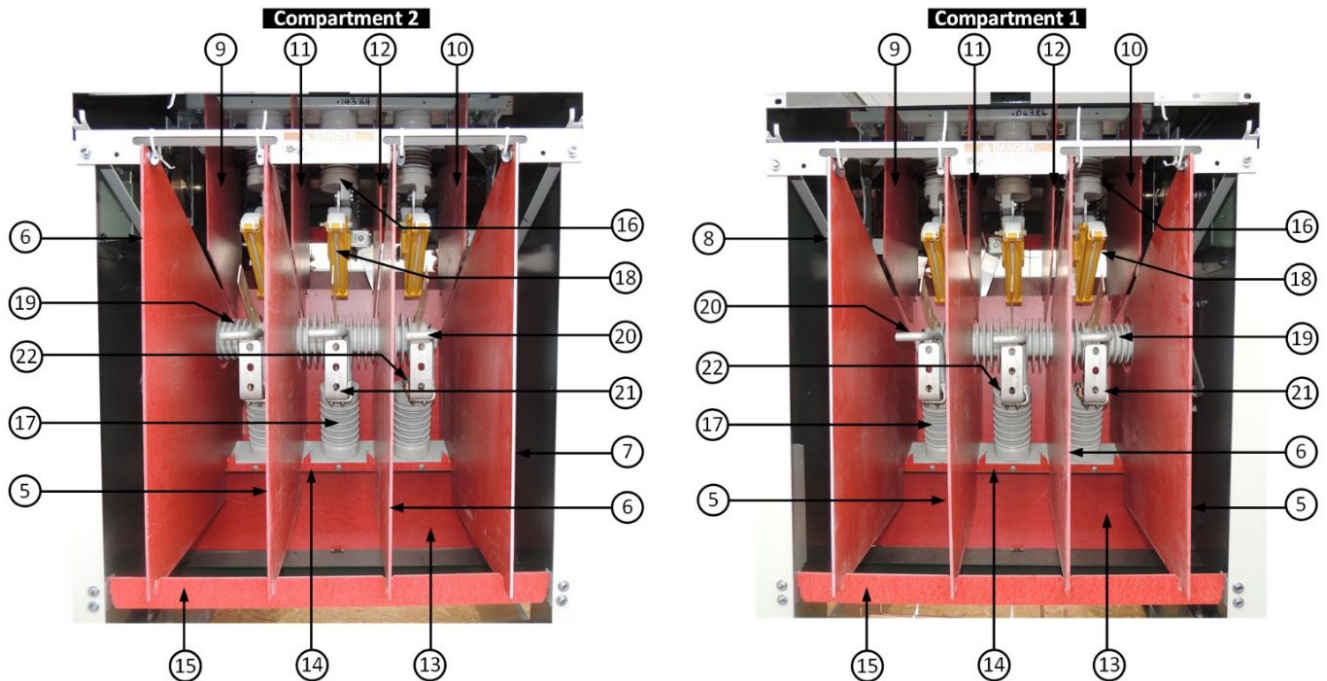


Figure 6c. PMH-10 Switchgear Compartments 3 and 4 Overall View

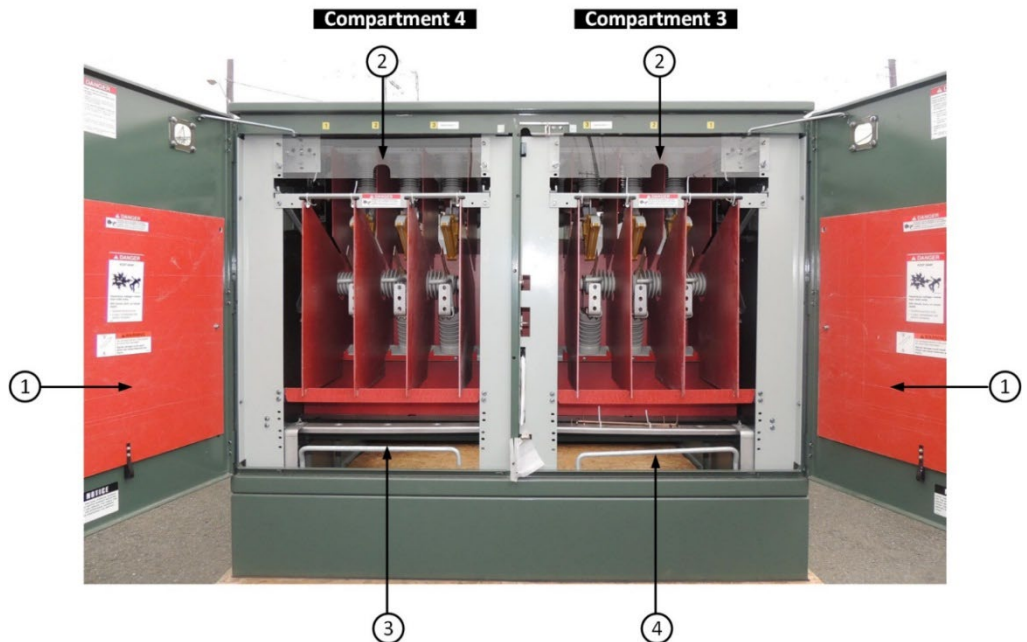


Figure 6d. PMH-10 Switchgear Compartments 3 and 4 Detailed View

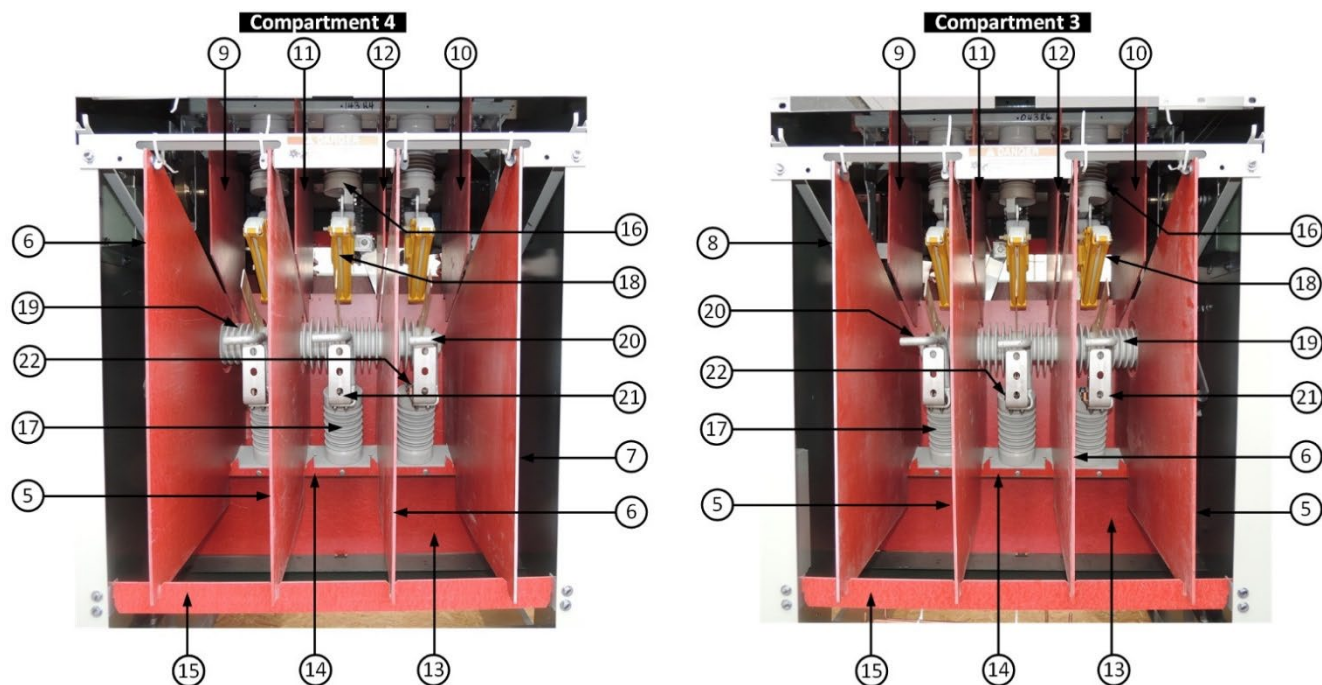


Table 6. PMH-10 Switchgear Parts List

Item #	S&C Part No.	S&C Part Description	Stock No.	# of Items Per Compartment Number			
				1	2	3	4
1	BA-4021	Switch Dual-Purpose Barrier	13309	1	1	1	1
1	QCPA-5785	Switch Dual-Purpose Barrier, Clear, See-Through	15011	1	1	1	1
2	CP-1270	Switch Window	–	1	1	1	1
3	C-1798-1	Cabinet Ground Rod	–	1	1	1	1
4	C-1798-2	Cabinet Ground Rod	–	1	1	1	1
5	BA-1047-1	Lower Switch Barrier Assembly (Post-2005)	13311	2	1	2	1
5	BA-4011-1	Lower Switch Barrier Assembly (Pre-2005)	14280	2	1	2	1
6	BA-1047-2	Lower Switch Barrier Assembly (Post-2005)	13310	1	2	1	2
6	BA-4011-2	Lower Switch Barrier Assembly (Pre-2005)	14281	1	2	1	2
7	BA-1044-1	Lower Switch End Barrier Assembly	13312	1	1	1	1
8	BA-1044-2	Lower Switch End Barrier Assembly	14282	1	1	1	1
9	BA-4020-1	Upper Switch End Barrier Assembly	14283	1	1	1	1
10	BA-4020-2	Upper Switch End Barrier Assembly	14284	1	1	1	1
11	BA-4019-1	Upper Switch Interphase Barrier Assembly	14285	1	1	1	1
12	BA-4019-2	Upper Switch Interphase Barrier Assembly	14286	1	1	1	1
13	B-25778	Switch Back Barrier Assembly	14287	1	1	1	1
14	B-25806	Switch Barrier Guide	14291	1	1	1	1
15	B-25804	Barrier Guide	13263	1	1	1	1
16	PA-7259	Indoor Insulator 25 kV 125 kV BIL	–	3	3	3	3
17	PA-7228	Indoor Insulator 25 kV 125 kV BIL	14293	3	3	3	3
18 ^a	SDA-4726	Arc Compressor Assembly (Yellow) (Post-2010)	–	3	3	3	3
18 ^a	SA-40889	Arc Compressor Assembly (White) (Pre-2010)	–	3	3	3	3
19 ^a	PA-7261	Rotating Strut Assembly (Post-2005)	–	1	1	1	1
19 ^a	BA-7136	Rotating Strut Assembly (Pre-2005)	–	1	1	1	1
20	S-86110	Switch Grounding Stud	–	3	3	3	3
21	SD-3489	Switch Cable Connector	–	3	3	3	3
22	SDA-2695	Lower Contact Assembly	–	3	3	3	3
39	4745T	Cable Connector Assembly	–	3	3	3	3

Notes:

^a It is recommended that arc compression (18) and rotary strut assembly (19) be replaced by an S&C Electric Field Service Technician. If a pre-2005 switchgear requires items (18) and (19), it is recommended that the entire Mini-Rupter switch be replaced. Items 39 and 40 are shipped loose. See Figure 11b.

7. PMH-11 Switchgear

Figure 7a. PMH-11 Switchgear Compartments 1 and 2 Overall View

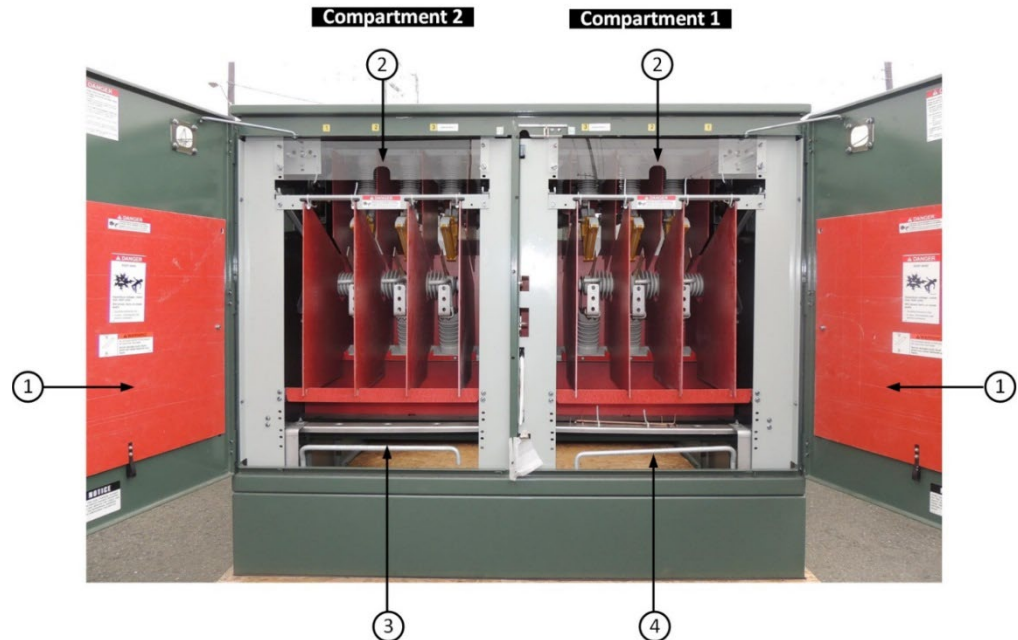


Figure 7b. PMH-11 Switchgear Compartments 1 and 2 Detailed View

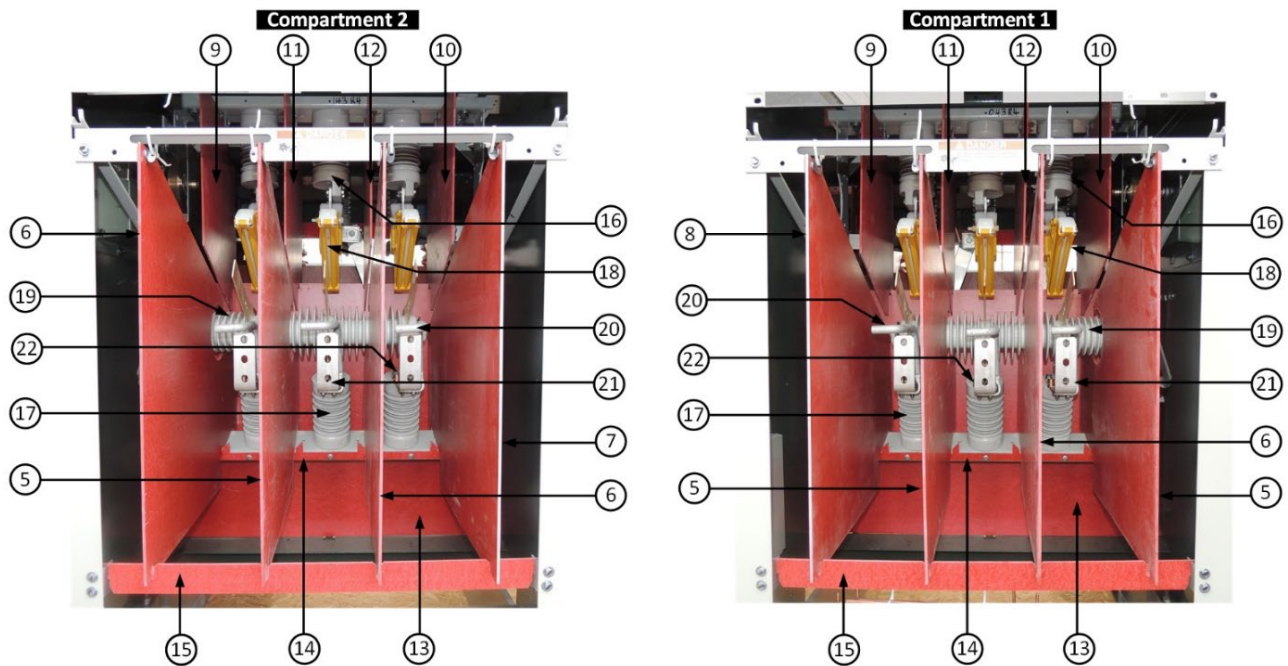


Figure 7c. PMH-11 Switchgear Compartments 3 and 4 Overall View



Figure 7d. PMH-11 Switchgear Compartments 3 and 4 Detailed View

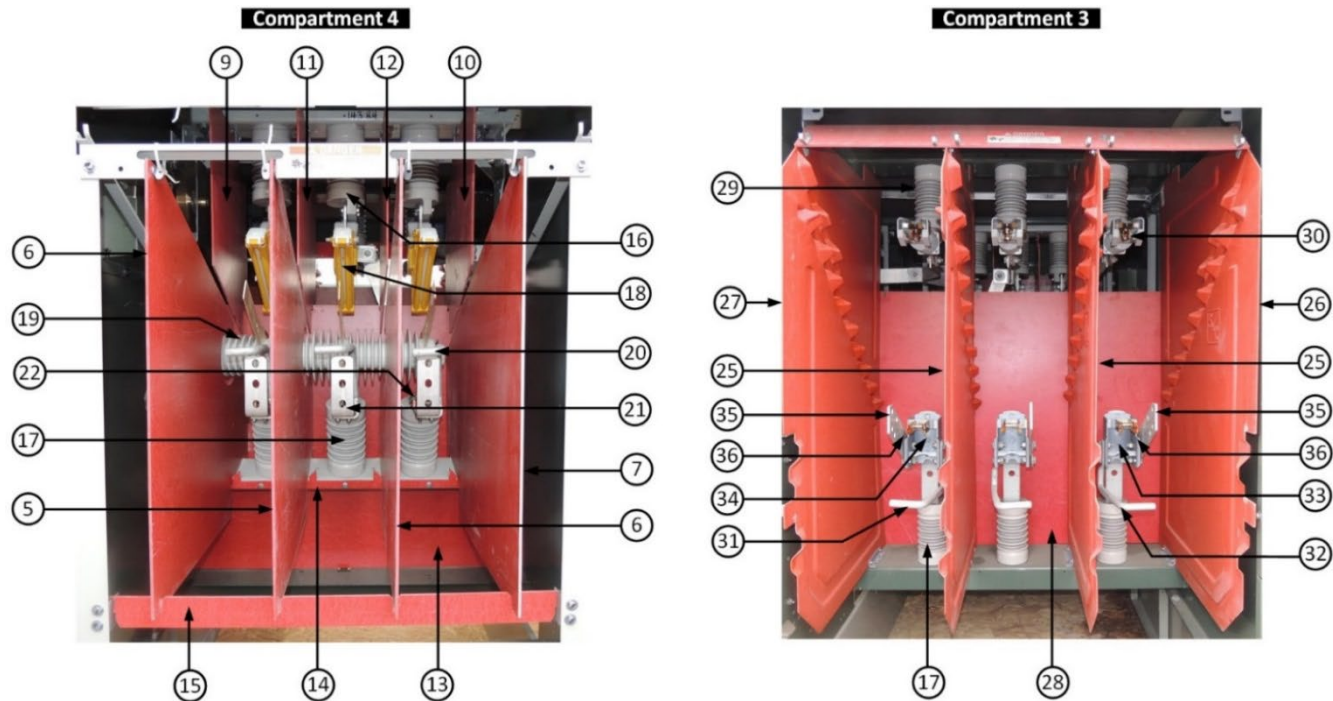


Table 7. PMH-11 Switchgear Parts List

Item #	S&C Part No.	S&C Part Description	Stock No.	# of Items Per Compartment Number			
				1	2	3	4
1	BA-4021	Switch Dual-Purpose Barrier	13309	1	1	–	1
1	QCPA-5785	Switch Dual-Purpose Barrier, Clear, See-Through	15011	1	1	–	1
2	CP-1270	Switch Window	–	1	1	–	1
3	C-1798-1	Cabinet Ground Rod	–	1	1	1	1
4	C-1798-2	Cabinet Ground Rod	–	1	1	1	1
5	BA-1047-1	Lower Switch Barrier Assembly (Post-2005)	13311	2	1	–	1
5	BA-4011-1	Lower Switch Barrier Assembly (Pre-2005)	14280	2	1	–	1
6	BA-1047-2	Lower Switch Barrier Assembly (Post-2005)	13310	1	2	–	2
6	BA-4011-2	Lower Switch Barrier Assembly (Pre-2005)	14281	1	2	–	2
7	BA-1044-1	Lower Switch End Barrier Assembly	13312	1	1	–	1
8	BA-1044-2	Lower Switch End Barrier Assembly	14282	1	1	–	1
9	BA-4020-1	Upper Switch End Barrier Assembly	14283	1	1	–	1
10	BA-4020-2	Upper Switch End Barrier Assembly	14284	1	1	–	1
11	BA-4019-1	Upper Switch Interphase Barrier Assembly	14285	1	1	–	1
12	BA-4019-2	Upper Switch Interphase Barrier Assembly	14286	1	1	–	1
13	B-25778	Switch Back Barrier Assembly	14287	1	1	–	1
14	B-25806	Switch Barrier Guide	14291	1	1	–	1
15	B-25804	Barrier Guide	13263	1	1	–	1
16	PA-7259	Indoor Insulator 25 kV 125 kV BIL	–	3	3	–	3
17	PA-7228	Indoor Insulator 25 kV 125 kV BIL	14293	3	3	3	3
18 ^a	SDA-4726	Arc Compressor Assembly (Yellow) (Post-2010)	–	3	3	–	3
18 ^a	SA-40889	Arc Compressor Assembly (White) (Pre-2010)	–	3	3	–	3
19 ^a	PA-7261	Rotating Strut Assembly (Post-2005)	–	1	1	–	1
19 ^a	BA-7136	Rotating Strut Assembly (Pre-2005)	–	1	1	–	1
20	S-86110	Switch Grounding Stud	–	3	3	–	3
21	SD-3489	Switch Cable Connector	–	3	3	–	3
22	SDA-2695	Lower Contact Assembly	–	3	3	–	3
23	BA-3880	Fuse Dual Purpose Barrier	13267	–	–	3	–
23	QCPA-5786	Fuse Dual-Purpose Barrier, Clear, See-Through	15012	–	–	3	–
24	BA-3872	Fuse Stiling Barrier Assembly	13268	–	–	1	–
25	BA-3662	Fuse Interphase Barrier Assembly	13264	–	–	2	–
26	BA-3661-1	Fuse End Barrier Assembly	13265	–	–	2	–
27	BA-3661-2	Fuse End Barrier Assembly	13266	–	–	2	–
28	B-25708	Fuse Back Barrier	14289	–	–	1	–
29	PA-7229	Indoor Insulator 25 kV 125 kV BIL	–	–	–	3	–
30	SA-38945	Uni-Rupter	–	–	–	3	–
31	S-86072	Fuse Grounding Stud	–	–	–	1	–
32	S-86107	Fuse Grounding Stud	–	–	–	2	–
33	SA-40063-4	Lower Fuse Clip Assembly RH	–	–	–	2	–
34	SA-40063-3	Lower Fuse Clip Assembly LH	–	–	–	1	–
35	C-743	Fuse Connector Adapter	–	–	–	3	–
36	XC-742	Fuse Terminal Pad Spacer	–	–	–	3	–
37	SA-40053	Disconnect Latch and Pull Ring (Upper Fitting)	015159	–	–	3	–
38	FD-2062	Trunnion (Lower Fuse Fitting Assembly)	015160	–	–	3	–
39	4745T	Cable Connector Assembly	–	3	3	3	3
52	3143R1-A1	Optional Clip-Style Fuse Holder w/ Upper Latch-End Adapter	014998	–	–	–	–

Notes:

^a It is recommended that arc compression (18) and rotary strut assembly (19) be replaced by an S&C Electric Field Service Technician. If a pre-2005 switchgear requires items (18) and (19), it is recommended that the entire Mini-Rupter switch be replaced. Items 38 and 39 are shipped loose. See Figures 11a and 11b.

8. PMH-12 Switchgear

Figure 8a. PMH-12 Switchgear Compartments 1 and 2 Overall View

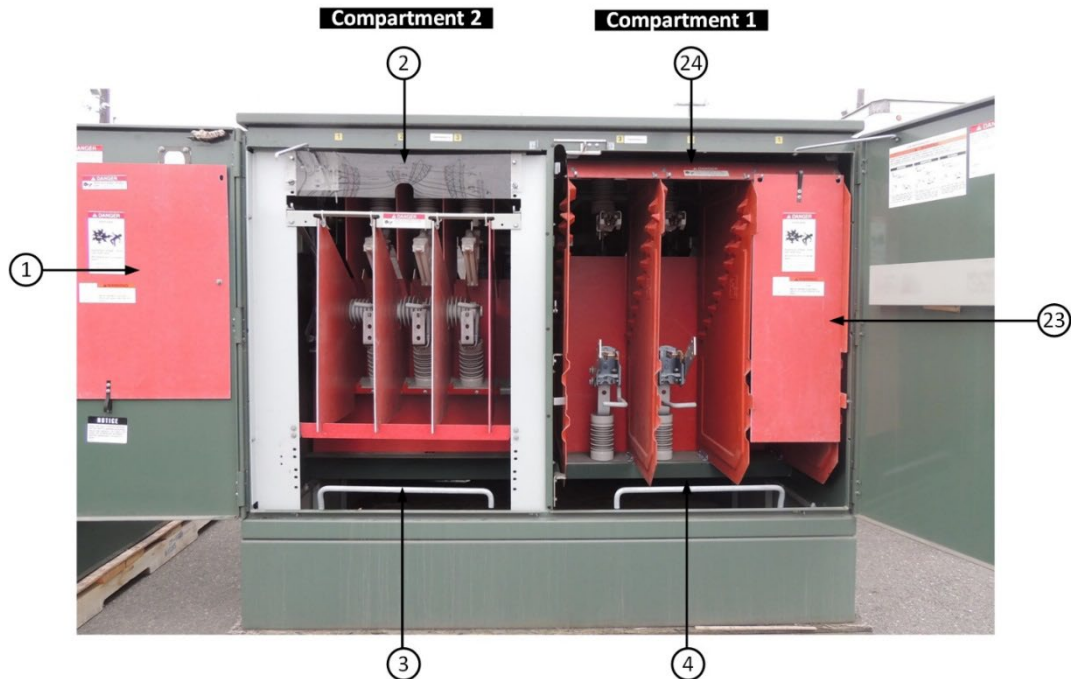


Figure 8b. PMH-12 Switchgear Compartments 1 and 2 Detailed View

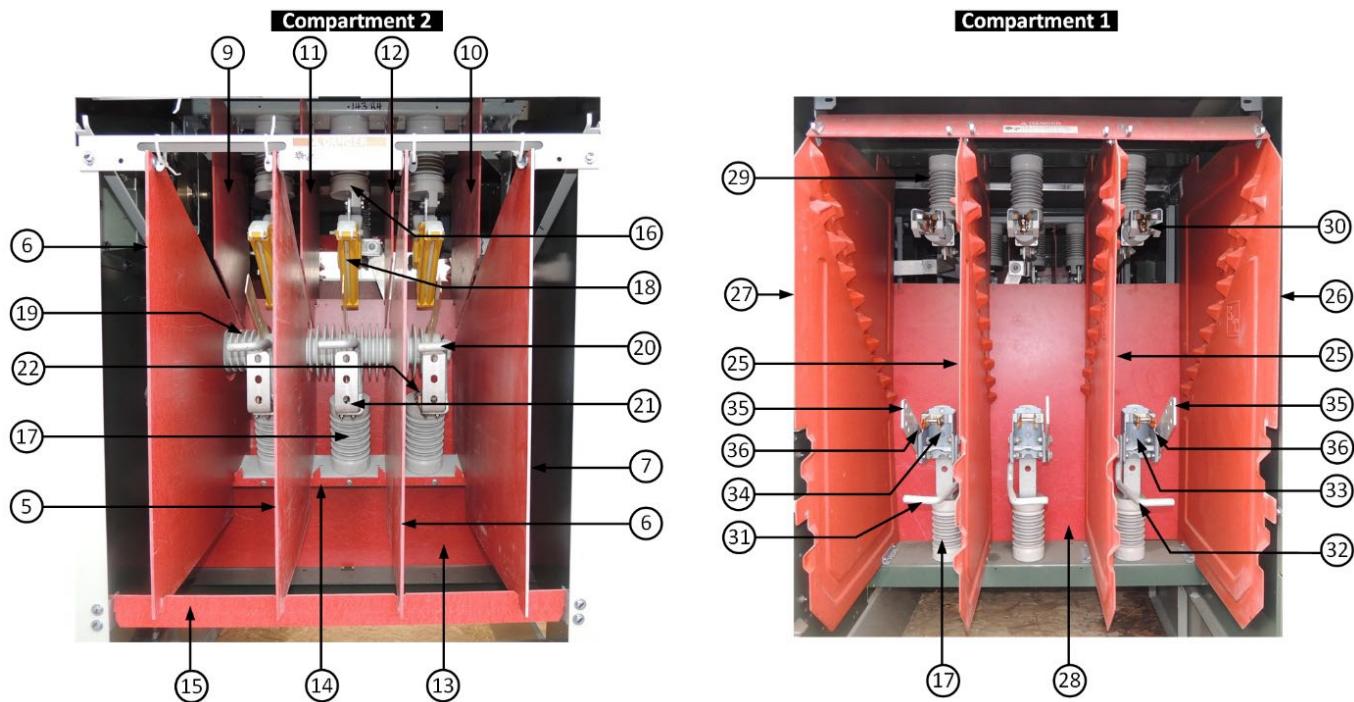


Figure 8c. PMH-12 Switchgear Compartments 3 and 4 Overall View

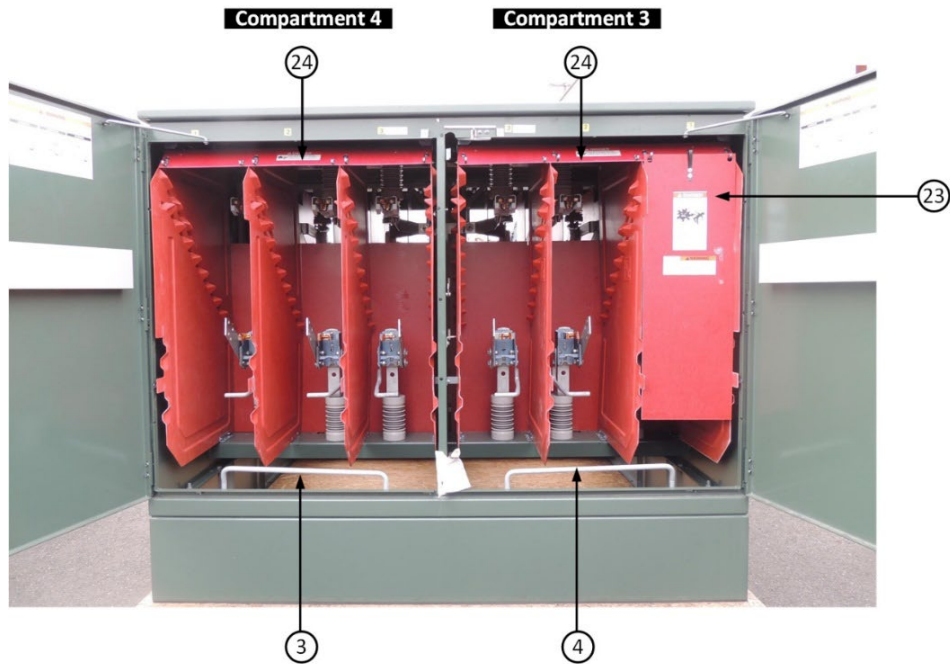


Figure 8d. PMH-12 Switchgear Compartments 3 and 4 Detailed View

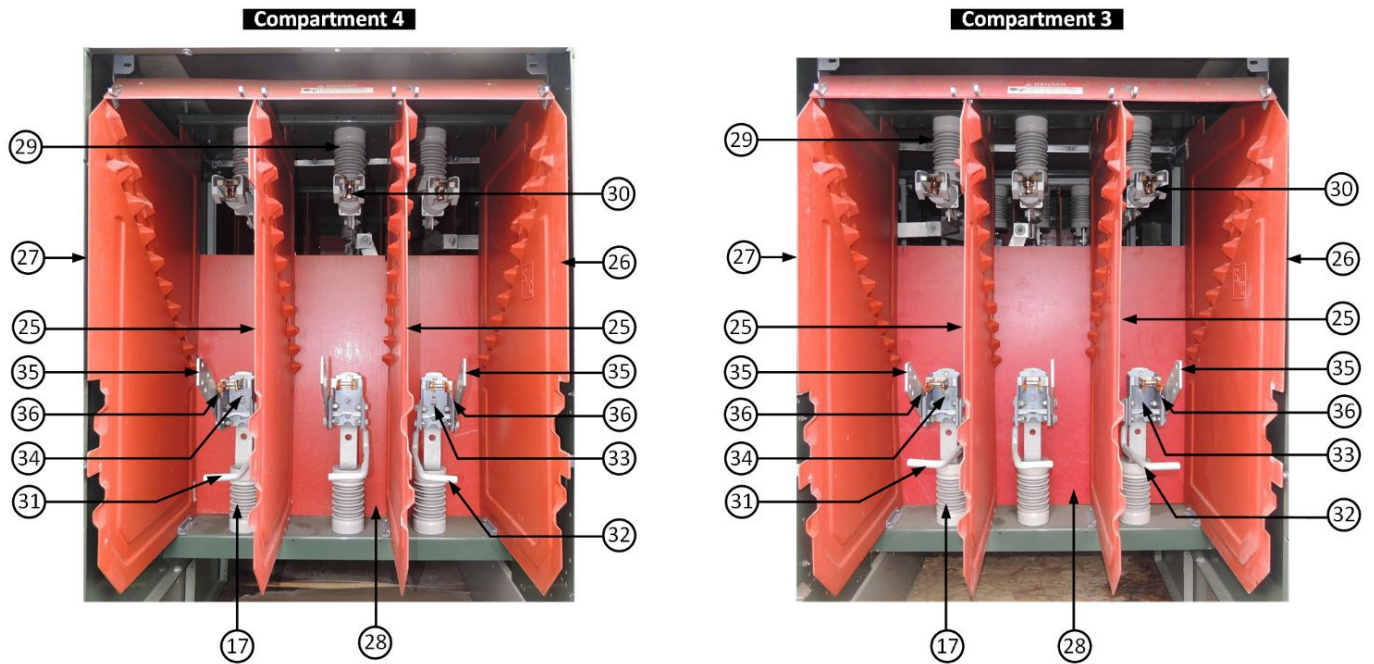


Table 8. PMH-12 Switchgear Parts List

Item #	S&C Part No.	S&C Part Description	Stock No.	# of Items Per Compartment Number			
				1	2	3	4
1	BA-4021	Switch Dual-Purpose Barrier	13309	–	1	–	–
1	QCPA-5785	Switch Dual-Purpose Barrier, Clear, See-Through	15011	–	1	–	–
2	CP-1270	Switch Window	–	–	1	–	–
3	C-1798-1	Cabinet Ground Rod	–	1	1	1	1
4	C-1798-2	Cabinet Ground Rod	–	1	1	1	1
5	BA-1047-1	Lower Switch Barrier Assembly (Post-2005)	13311	–	1	–	–
5	BA-4011-1	Lower Switch Barrier Assembly (Pre-2005)	14280	–	1	–	–
6	BA-1047-2	Lower Switch Barrier Assembly (Post-2005)	13310	–	2	–	–
6	BA-4011-2	Lower Switch Barrier Assembly (Pre-2005)	14281	–	2	–	–
7	BA-1044-1	Lower Switch End Barrier Assembly	13312	–	1	–	–
8	BA-1044-2	Lower Switch End Barrier Assembly	14282	–	1	–	–
9	BA-4020-1	Upper Switch End Barrier Assembly	14283	–	1	–	–
10	BA-4020-2	Upper Switch End Barrier Assembly	14284	–	1	–	–
11	BA-4019-1	Upper Switch Interphase Barrier Assembly	14285	–	1	–	–
12	BA-4019-2	Upper Switch Interphase Barrier Assembly	14286	–	1	–	–
13	B-25778	Switch Back Barrier Assembly	14287	–	1	–	–
14	B-25806	Switch Barrier Guide	14291	–	1	–	–
15	B-25804	Barrier Guide	13263	–	1	–	–
16	PA-7259	Indoor Insulator 25 kV 125 kV BIL	–	3	3	3	3
17	PA-7228	Indoor Insulator 25 kV 125 kV BIL	14293	–	3	–	–
18 ^a	SDA-4726	Arc Compressor Assembly (Yellow) (Post-2010)	–	–	3	–	–
18 ^a	SA-40889	Arc Compressor Assembly (White) (Pre-2010)	–	–	3	–	–
19 ^a	PA-7261	Rotating Strut Assembly (Post-2005)	–	–	1	–	–
19 ^a	BA-7136	Rotating Strut Assembly (Pre-2005)	–	–	1	–	–
20	S-86110	Switch Grounding Stud	–	–	3	–	–
21	SD-3489	Switch Cable Connector	–	–	3	–	–
22	SDA-2695	Lower Contact Assembly	–	–	3	–	–
23	BA-3880	Fuse Dual-Purpose Barrier	13267	3	–	3	3
23	QCPA-5786	Fuse Dual-Purpose Barrier, Clear, See-Through	15012	3	–	3	3
24	BA-3872	Fuse Stiling Barrier Assembly	13268	1	–	1	1
25	BA-3662	Fuse Interphase Barrier Assembly	13264	2	–	2	2
26	BA-3661-1	Fuse End Barrier Assembly	13265	2	–	2	2
27	BA-3661-2	Fuse End Barrier Assembly	13266	2	–	2	2
28	B-25708	Fuse Back Barrier	14289	1	–	1	1
29	PA-7229	Indoor Insulator 25 kV 125 kV BIL	–	3	–	3	3
30	SA-38945	Uni-Rupter	–	3	–	3	3
31	S-86072	Fuse Grounding Stud	–	1	–	1	2
32	S-86107	Fuse Grounding Stud	–	2	–	2	1
33	SA-40063-4	Lower Fuse Clip Assembly RH	–	2	–	2	1
34	SA-40063-3	Lower Fuse Clip Assembly LH	–	1	–	1	2

Table continued on next page.

Table 8. PMH-12 Switchgear Parts List, continued

Item #	S&C Part No.	S&C Part Description	Stock No.	# of Items Per Compartment Number			
				1	2	3	4
35	C-743	Fuse Connector Adapter	—	3	—	3	3
36	XC-742	Fuse Terminal Pad Spacer	—	3	—	3	3
37	SA-40053	Disconnect Latch and Pull Ring (Upper Fitting)	015159	3	—	3	3
38	FD-2062	Trunnion (Lower Fuse Fitting Assembly)	015160	3	—	3	3
39	4745T	Cable Connector Assembly	—	3	3	3	3
52	3143R1-A1	Optional Clip-Style Fuse Holder with Upper Latch-End Adapter	014998	—	—	—	—

Notes:

- ^a It is recommended that arc compression (18) and rotary strut assembly (19) be replaced by an S&C Electric Field Service Technician. If a pre-2005 switchgear requires items (18) and (19), it is recommended that the entire Mini-Rupter switch be replaced. Items 38 and 39 are shipped loose. See Figures 11a and 11b.

9. Packaging

Parts shall be packaged to prevent damage during shipping, handling and storage.

Individual packages shall be legibly marked with:

- Manufacturer name
- Manufacturer catalog number
- Product description
- Seattle City Light stock number

Shipping containers shall be legibly marked with:

- Seattle City Light purchase order number
- Seattle City Light stock number

10. Issuance

Stock Unit: EA

11. Loose Parts

PMH switchgear is shipped with loose parts packed inside a cardboard box. The box contains upper and lower fuse fittings, anchor bolt bracket, and cable connector assembly.

Figure 11a. PMH-9, -11 and -12 Fuse Compartment Parts

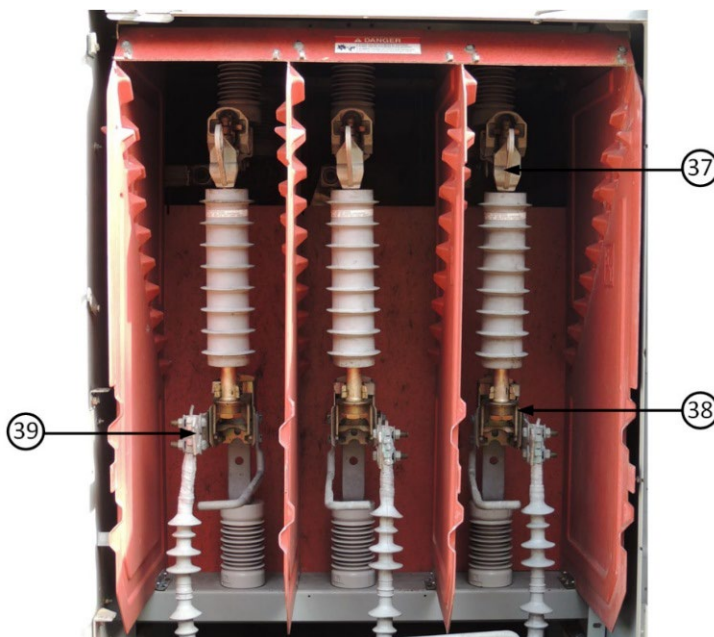
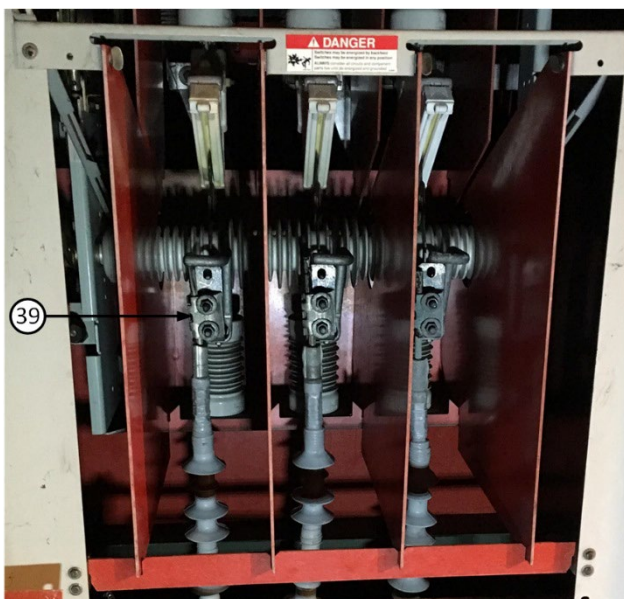
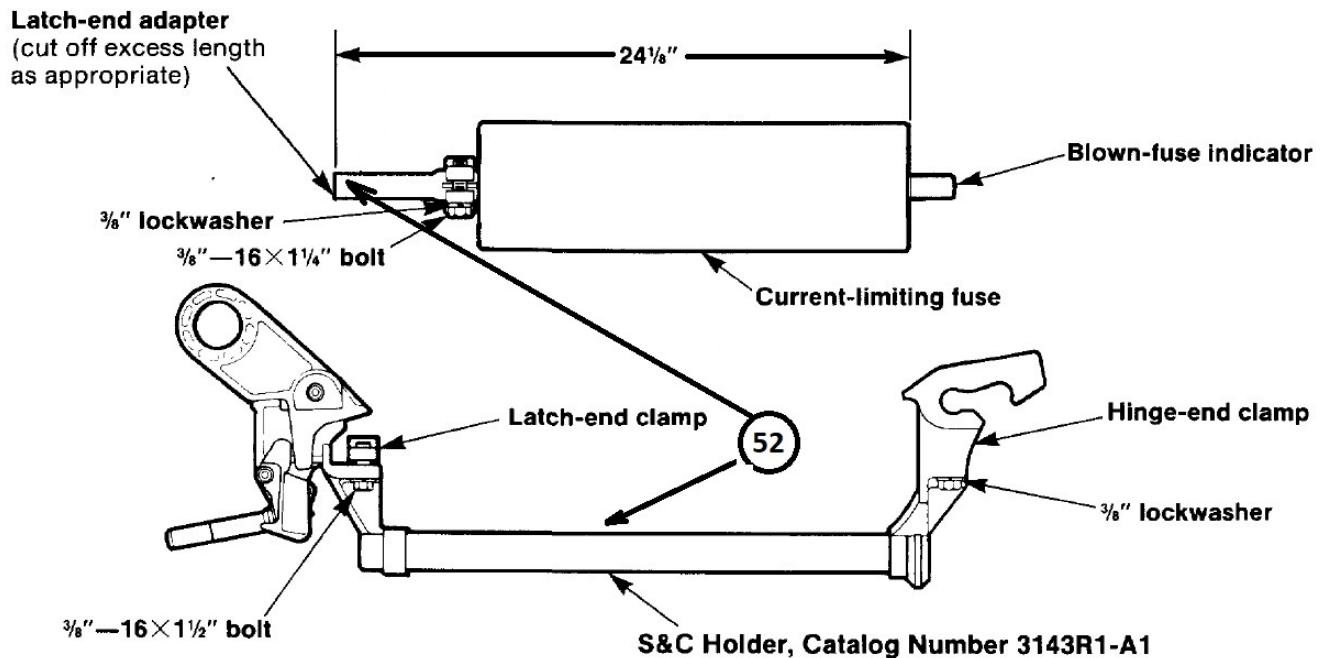


Figure 11b. PMH Switchgear Switch Compartment Parts



12. Fuse Holder for Clip-Style Fuses

A combination of the S&C fuse holder, S&C Part No. 3143R1-A1, and the upper latch-end adapter, S&C Part No. SA-41576, allows Type X current limiting fuses to be used with the PMH switchgear. SCL Stock No. 014998 is for the combination of the fuse holder and the latch-end adapter.



13. References

SCL Construction Standard 0801.12; "Padmount PMH Switchgear Installation"
SCL Design Standard 9686.18; "Padmount PMH Switchgear, 27 kV, Parts, Drawings"
S&C Electric Descriptive Bulletin 441-30; "S&C Fault Fiter Electronic Power Fuses"
S&C Electric Specification Bulletin 441-31; "S&C Fault Fiter Electronic Power Fuses"

14. Sources

SCL Material Standard 4507.80; "Switchgear, 27 kV, Three-Phase, Dead-Front, Padmount"
SCL Material Standard 4507.90; "Padmount Live-Front Switchgear, 27 kV"
SCL Work Practice 1167.13; "Padmount PMH Switch Signs and Labels"
SCL Work Practice 1167.19; "Padmount PMH Switchgear Condition Assessment"
SCL Work Practice 1167.21; "Padmount PMH Switchgear Parts Cross-Reference"
Shetab, Muneer; SCL Standards Engineer, subject matter expert, and originator of 4507.95