

PA-2000

PA-1000

### SERIES PA-2000 MINIATURE CERAMIC SWITCHES

Insulated with L-533 steatite; only 1 1/4" dia. (3/8" smaller than standard switches). Same ratings as larger switches. Features maximum voltage flashover; high Q, low loss steatite body; minimum intercircuit capacity; insulated front-back clips. Metal parts, except clips and contacts, cadmium plated; withstand 25-hour salt spray test. Rated: 2.75 amps, 15 VDC; 230 mA, 115 VAC, make-break resistive load. Breakdown, 1500 VAC rms between critical parts. One-piece shaft for accurate indexing. Adjustable stop or continuous rotation mtg. using single hole with locating lug. Bushing 3/8"-32 thread, 3/8" long. Shaft, full round 1/4" dia. x 2 1/4" long from mtg. surface. With mtg. nut, lockwasher and knob. Shpg. Wt., 3 oz. per section. **Bulk switches supplied less knobs and instruction sheets. For switches to meet military specifications, write for prices and information.**

### SERIES PA-1000 MINIATURE PHENOLIC SWITCHES

Insulated with type PBE laminated phenolic per MIL-3115-B. Same size as PA-2000 ceramic switches. Rated: 2 amps, 15 VDC; 150 mA, 110 VAC. Breakdown, 1000 VAC. Positive, adjustable stop or continuous rotation; 30° or 60° detents available. Withstand 25-hour salt spray test. With knob. Shpg. Wt., 3 oz. per section. **Bulk switches supplied less knobs and instruction sheets. Military specifications available as above.**

#### MINIATURE ROTARY SWITCHES

No. Sect.	Total No. Poles	PA-2000 Ceramic			PA-1000 Phenolic		
		CRL No. PA-		Total Pos.	CRL No. PA-		Total Pos.
		Shtg.	Non-Shtg.		Shtg.	Non-Shtg.	
1	1	2000	2001	2-12	1000	1001	2-11
1	2	2002	2003	2-6	1002	1003	2-5
1	2	2004	2005	2-12	1004	1005	2-11
1	3	2006	2007	2-5	1006	1007	2-3
1	3	2008	2009	2-12	1008	1009	2-11
1	4				1010	1011	2
2	4	2010	2011	2-6	1012	1013	2-5
4	4	2012	2013	2-12	1014	1015	2-11
1	5	2014	2015	2-3			
1	5	2016	2017	2-12	1016	1017	2-11
1	6	2018	2019	2			
2	6	2020	2021	2-5	1018	1019	2-3
3	6	2022	2023	2-6	1020	1021	2-5
3	6	2024	2025	2-12	1022	1023	2-11
2	8				1024	1025	2
4	8	2026	2027	2-6	1026	1027	2-5
3	9	2028	2029	2-5			
3	12				1028	1029	2
2	10	2030	2031	2-3			
2	10	2032	2033	2-6	1030	1031	2-5
2	12	2034	2035	2			
2	12	2036	2037	2-6	1032	1033	2-5
3	15	2038	2039	2-3			
3	18	2040	2041	2			

#### SPECIAL CIRCUIT AND 60° INDEXING SWITCHES

1	1	2052*		2-10	1034*		2-10
1	2	2042†		2-10	1040†		2-10
2	2	2048‡	2049‡	2-12			
1	1	2050§		4			
1	2		2043‡	2-6		1035††	2-6
2	2		2049‡	2-6		1037††	2-6

\*All shorted to common in full CCW, progressively opened and dropped with CW rotation. †All open in full CCW, progressively picked up and shorted to common with CW rotation. ‡Silver clips and contacts. §For switching dual lines. †60° indexing; 1 1/2" spacing between sections.

#### SEPARATE SECTIONS

For use with 30° index assemblies No. PA-300, PA-301 and PA-302, except Nos. PA-17, PA-20 and PA-45, for use with 60° index assemblies PA-304 and PA-305.

No. Poles	Indexing	PA-2000 Ceramic			PA-1000 Phenolic		
		CRL No. PA-		Total Pos.	CRL No. PA-		Total Pos.
		Shtg.	Non-Shtg.		Shtg.	Non-Shtg.	
1	30°	0	1	2-12	30	31	2-11
2	30°	2	3	2-6	32	33	2-5
3	30°	4	5	2-5	34	35	2-3
4	30°				36	37	2
5	30°	6	7	2-3			
6	30°	8	9	2			
1	30°	10*	19*	2-5	38*	39*	2-5
1	30°	11†	18†	2-11	40†	41†	2-11
1	30°	12‡		2-10	43‡		2-10
1	30°	13‡		2-10	49‡		2-10
1	60°	20	17	2-6		45	2-6

\*Unused contacts one side of common connected and shorted out. †All unused contacts connected and shorted out. ‡Active contacts shorted to common in full CCW, progressively opened and dropped with CW rotation. §All active contacts open in full CCW, progressively picked up and shorted to common with CW rotation.

#### SILVER CLIPS AND CONTACTS

CRL Number		Index	No. of Poles	No. of Positions
Shorting	Non-Shorting			
PA-16	PA-21	30°	1	2-12
PA-14	PA-23	30°	2	2-6
PA-15	PA-24	30°	4	2

#### INDUSTRIAL NET PRICES SERIES PA-2000 CERAMIC

Shtg.	Non-Shtg.	Unit Pkg., Net Each, Lots of					Bulk	
		1-4	5-9	10-24	25-49	50-99		100-249
2000	2001	\$2.61	\$2.18	\$1.96	\$1.86	\$1.74	\$1.57	\$1.39
2002	2003	2.61	2.18	1.96	1.86	1.74	1.57	1.39
2004	2005	3.72	3.10	2.79	2.65	2.48	2.23	1.97
2006	2007	2.61	2.18	1.96	1.86	1.74	1.57	1.39
2008	2009	4.74	3.95	3.56	3.38	3.16	2.84	2.51
2010	2011	3.72	3.10	2.79	2.65	2.48	2.23	1.97
2012	2013	5.70	4.75	4.28	4.07	3.80	3.42	3.02
2014	2015	2.61	2.18	1.96	1.86	1.74	1.57	1.39
2016	2017	6.81	5.68	5.11	4.85	4.54	4.09	3.61
2018	2019	2.61	2.18	1.96	1.86	1.74	1.57	1.39
2020	2021	3.72	3.10	2.79	2.65	2.48	2.23	1.97
2022	2023	4.74	3.95	3.56	3.38	3.16	2.84	2.51
2024	2025	7.92	6.60	5.94	5.64	5.28	4.75	4.19
2026	2027	5.70	4.75	4.28	4.07	3.80	3.42	3.02
2028	2029	4.74	3.95	3.56	3.38	3.16	2.84	2.51
2030	2031	3.72	3.10	2.79	2.65	2.48	2.23	1.97
2032	2033	6.81	5.68	5.11	4.85	4.54	4.09	3.61
2034	2035	3.72	3.10	2.79	2.65	2.48	2.23	1.97
2036	2037	7.92	6.60	5.94	5.64	5.28	4.75	4.19
2038	2039	5.37	4.48	4.03	3.83	3.58	3.22	2.84
2040	2041	5.37	4.48	4.03	3.83	3.58	3.22	2.84
2042		2.37	1.98	1.78	1.69	1.58	1.42	1.25
2048	2049	5.37	4.48	4.03	3.83	3.58	3.22	2.84
2050		2.61	2.18	1.96	1.86	1.74	1.57	1.39
2052		2.37	1.98	1.78	1.69	1.58	1.42	1.25
	2043	2.37	1.98	1.78	1.69	1.58	1.42	1.25
	2045	3.30	2.75	2.48	2.35	2.10	1.98	1.75
0	1	1.32	1.10	.99	.94	.88	.79	
2	3	1.32	1.10	.99	.94	.88	.79	
4	5	1.32	1.10	.99	.94	.88	.79	
6	7	1.32	1.10	.99	.94	.88	.79	
8	9	1.32	1.10	.99	.94	.88	.79	
10	19	1.32	1.10	.99	.94	.88	.79	
11	18	1.32	1.10	.99	.94	.88	.79	
12		1.32	1.10	.99	.94	.88	.79	
13		1.32	1.10	.99	.94	.88	.79	
20	17	1.32	1.10	.99	.94	.88	.79	
14	23	2.16	1.80	1.62	1.54	1.44	1.30	
15	24	2.16	1.80	1.62	1.54	1.44	1.30	
16	21	2.16	1.80	1.62	1.54	1.44	1.30	

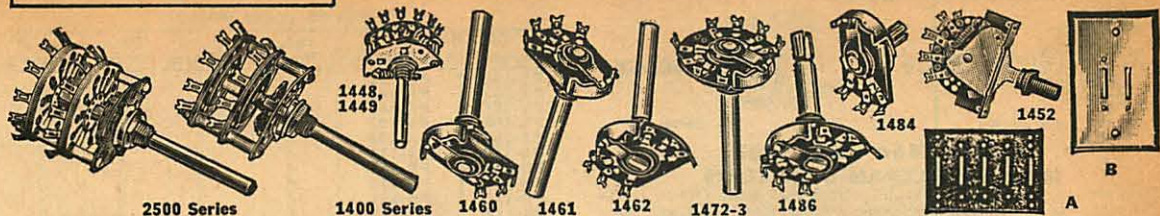
#### SERIES PA-1000 PHENOLIC

1000	1001	\$1.98	\$1.65	\$1.49	\$1.42	\$1.32	\$1.19	\$1.05
1002	1003	1.98	1.65	1.49	1.42	1.32	1.19	1.05
1004	1005	2.82	2.35	2.12	2.01	1.88	1.69	1.49
1006	1007	1.98	1.65	1.49	1.42	1.32	1.19	1.05
1008	1009	3.57	2.98	2.68	2.55	2.38	2.14	1.89
1010	1011	1.98	1.65	1.49	1.42	1.32	1.19	1.05
1012	1013	2.82	2.35	2.12	2.01	1.88	1.69	1.49
1014	1015	4.17	3.48	3.13	2.97	2.78	2.50	2.21
1016	1017	4.92	4.10	3.69	3.51	3.28	2.95	2.60
1018	1019	2.82	2.35	2.12	2.01	1.88	1.69	1.49
1020	1021	3.57	2.98	2.68	2.55	2.38	2.14	1.89
1022	1023	5.55	4.63	4.17	3.96	3.70	3.34	2.94
1024	1025	2.82	2.35	2.12	2.01	1.88	1.69	1.49
1026	1027	4.17	3.48	3.13	2.97	2.78	2.50	2.21
1028	1029	3.57	2.98	2.68	2.55	2.38	2.14	1.89
1030	1031	4.92	4.10	3.69	3.51	3.28	2.95	2.60
1032	1033	5.55	4.63	4.17	3.96	3.70	3.34	2.94
1034		1.98	1.65	1.49	1.42	1.32	1.19	1.05
	1035	1.98	1.65	1.49	1.42	1.32	1.19	1.05
	1037	2.82	2.35	2.12	2.01	1.88	1.69	1.49
1040		1.98	1.65	1.49	1.42	1.32	1.19	1.05
30	31	.96	.80	.72	.68	.64	.58	
32	33	.96	.80	.72	.68	.64	.58	
34	35	.96	.80	.72	.68	.64	.58	
36	37	.96	.80	.72	.68	.64	.58	
38	39	.96	.80	.72	.68	.64	.58	
40	41	.96	.80	.72	.68	.64	.58	
43		.96	.80	.72	.68	.64	.58	
	45	.96	.80	.72	.68	.64	.58	
49		.96	.80	.72	.68	.64	.58	

#### SEPARATE INDEX ASSEMBLIES

Index assemblies for series PA-1000 and PA-2000 interchangeable. **CRL No. PA-300 Assembly**—Contains PA-300 (30°) index, P-120 pointer knob, adjustable stop plate, two 1/4" spacers, two 3/8" spacers, four 1/2" spacers, 2 1/2" tie bolts, nuts, lockwashers and fiber spacer washers. Rear shaft length 2". Use with 1 to 3 sections. **CRL No. PA-301 Assembly**—Contains PA-301 index (30°), P-120 pointer knob, adjustable stop plate, two 1/4" spacers, two 3/8" spacers, ten 1/2" spacers, four 1 1/2" spacers, 5" tie bolts and hardware. Rear shaft length 4". Use with 4 to 6 tie bolts. **CRL No. PA-302 Assembly**—Contains PA-302 (30°) index, P-120 pointer knob, adjustable stop plate, four 3/8" spacers, two 1/2" spacers, sixteen 1/4" spacers, eight 1 1/2" spacers, 7" tie bolts, and hardware. Rear shaft length 6". Use with 7 to 9 sections. **CRL No. PA-304 Assembly**—Contains PA-304 (60°) index and hardware same as PA-300. Rear shaft length 2". Use with 1 to 3. **CRL No. PA-305 Assembly**—Contains PA-305 (60°) index and hardware same as PA-301. Rear shaft length 4". 4 to 6 sections.

CRL No.	Indexing	Net Each, Lots of					
		1-4	5-9	10-24	25-49	50-99	100-249
PA-300	30°	\$1.50	\$1.25	\$1.13	\$1.07	\$1.00	\$0.90
PA-301	30°	1.98	1.65	1.49	1.42	1.32	1.19
PA-302	30°	2.58	2.15	1.94	1.84	1.72	1.55
PA-304	60°	1.50	1.25	1.13	1.07	1.00	.90
PA-305	60°	2.10	1.75	1.58	1.50	1.40	1.26



## SERIES 2500 CERAMIC ROTARY SWITCHES

Made of highest quality (grade L-533) Steatite insulation. Meet critical requirements of RF circuit applications. Bushing  $\frac{3}{8}$ "-32 thread  $\frac{3}{8}$ " long. Shaft  $1\frac{1}{8}$ " long,  $\frac{1}{4}$ " full round. Sections  $1\frac{1}{2}$ " dia. Positive index 30° with adjustable stop. Index assemblies and hardware are identical and interchangeable with those of the 1400 Series. Switches include pointer knob, nut and lockwasher. Rated: 2.75 amps, 15 v. DC; 230 ma, 115 v. AC. Breakdown, 1500 v. AC between critical parts. Shipping Weight, 5 oz. per section.

## SERIES 1400 PHENOLIC ROTARY SWITCHES

Extremely compact design. Mounting bushings  $\frac{3}{8}$ "-32 thread,  $\frac{3}{8}$ " long. Shafts  $1\frac{1}{8}$ " from end of bushing;  $\frac{1}{4}$ " full round. Sections  $1\frac{1}{2}$ " dia. Positive 30° index with adjustable stop. With mounting nut, lockwasher and pointer knob. Index assemblies and hardware are identical and interchangeable with those of 2500 series. Rated: 2.75 amps at 15 v. DC; 230 ma at 115 v. AC. Breakdown, 1000 v. AC rms. Shipping Weight, 4 oz. per section.

## ROTARY SELECTOR SWITCHES

Ceramic Types CRL Number		No. Sections	No. Poles	No. Positions	Phenolic Types CRL Number	
Shorting	Non-Short.				Shorting	Non-Short.
2500	2501	1	1	2-6	1400	1401
2502	2503	1	2	2-11	1402	1403
2504	2505	1	2	2-5	1404	1405
2510	2511	2	2	2-6	1410	1411
2512	2513	2	2	2-11	1412	1413
2506	2507	1	3	2-3	1406	1407
2520	2521	3	3	2-6	1420	1421
2522	2523	3	3	2-11	1422	1423
		1	4	2	1408	1409
2514	2515	2	4	2-5	1414	1415
		4	4	2-6	1426	1427
		4	4	2-11	1428	1429
2516	2517	2	6	2-3	1416	1417
2524	2525	3	6	2-5	1424	1425
		2	8	2-5	1418	1419
		4	8	2-5	1430	1431

## SEPARATE SECTIONS

Deluxe Types: .187" rotor slot, use P-270, P-271, P-272 Indexes.

Ceramic Types CRL Number		No. Poles	No. Positions	Phenolic Types CRL Number	
Shorting	Non-Short.			Shorting	Non-Short.
TD	XD	1	2-6	AD	HD
UD	YD	1	2-11	BD	JD
PD	RRD	2	2-5	CD	KD
SD	SSD	3	2-3	DD	LD
VD	ZD	4	2-3	ED	MD
		1	2-5	EED	BBB
		1	2-11	FD**	AAD**
GGD*	FFD*	1	2-10	GD*	CCD*
PISD†		1		PID†	
NSD and PSD			Resistance Decade†	ND and PD	
QSD			Capacitance Decade†	QD	

\*All unused contacts connected and shorted out. †9 contacts, open in full CW, progressively picked up and shorted to common with CW rotation. ‡Combine for resistance decade switch. \*\*Unused contacts one side of common connected and shorted out.

## SEPARATE INDEX ASSEMBLIES

Deluxe Type: 1-piece shaft. .187" thick flat; use deluxe 1400 or 2500 Series sections. Units include index, pointer knob and hardware for complete assembly.

CRL No. P-270—For 1-3 sections; 2" rear shaft.  
CRL No. P-271—For 3-5 sections; 4" rear shaft.  
CRL No. P-272—For 5-10 sections; 8" rear shaft.

## INDUSTRIAL NET PRICES CERAMIC SWITCHES, SECTIONS

CRL Model Number	Net Each, Lots of				
	1-4	5-9	10-24	25-49	50-99
2500 thru 2507	\$2.82	\$2.35	\$2.12	\$2.01	\$1.88
2510 thru 2517	4.02	3.35	3.02	2.87	2.68
2520 thru 2525	5.16	4.30	3.87	3.68	3.44
All Sections	1.35	1.13	1.02	.97	.90

## PHENOLIC SWITCHES, SECTIONS

	1-4	5-9	10-24	25-49	50-99	100-249
1400 thru 1409	\$2.52	\$2.10	\$1.89	\$1.80	\$1.68	\$1.51
1410 thru 1419	3.06	2.55	2.30	2.19	2.04	1.84
1420 thru 1425	3.90	3.25	2.93	2.78	2.60	2.34
1426 thru 1431	4.50	3.75	3.38	3.21	3.00	2.70
AD, BD, CD, DD, ED	1.05	.88	.79	.75	.70	.63
HD, JD, KD, LD, MD	1.05	.88	.79	.75	.70	.63
EED and BBB	1.35	1.13	1.02	.97	.90	.81
FD, GD, PID, ND, PD	1.05	.88	.79	.75	.70	.63
QD, AAD, CCD	1.05	.88	.79	.75	.70	.63

## INDEX ASSEMBLIES

	1-4	5-9	10-24	25-49	50-99
P-270	\$1.65	\$1.38	\$1.24	\$1.18	\$1.10
P-271	2.10	1.75	1.58	1.50	1.40
P-272	2.85	2.38	2.14	2.03	1.90

## ROTARY ACTION FLAT SWITCHES

Laminated phenolic insulation. Rated: 5.5 amps, 6 v. DC; 230 ma, 110 v. AC. Breakdown, 1000 v. AC rms. Bushing  $\frac{3}{8}$ "-32 thread,  $\frac{3}{8}$ " long. Shaft  $\frac{1}{4}$ " dia.,  $2\frac{1}{4}$ " long. Shipping Weight, 3 oz.

CRL No.	No. Poles	No. Pos.	Net Each, Lots of				
			1-4	5-9	10-24	25-49	50-99
1448†	6	3	\$2.37	\$1.98	\$1.78	\$1.69	\$1.58
1449‡	6	3	2.37	1.98	1.78	1.69	1.58
1450†‡	4	2	1.65	1.38	1.24	1.18	1.10
1451†‡	4	2	1.98	1.65	1.19	1.42	1.32
1488‡	6	3	3.60	3.00	2.70	2.57	2.40
1489‡	6	3	3.60	3.00	2.70	2.57	2.40

\*Positive Index. †Non-shortening. ‡Spring return. ‡Combination positive and spring return index.

## GENERAL PURPOSE SWITCHES

Laminated phenolic insulation. Rated: 1.75 amps, 24 v. DC; 230 ma, 115 v. AC. Breakdown, 1000 v. AC rms. Bushing  $\frac{3}{8}$ "-32 thread,  $\frac{3}{8}$ " long except 1484,  $\frac{1}{4}$ ". Positive index unless otherwise noted.

CRL No.	No. Poles	No. Pos.	Net Each, Lots of				
			1-4	5-9	10-24	25-49	50-99
1460	1	2	\$1.08	\$0.90	\$0.81	\$0.77	\$0.72
1461	1	3	1.08	.90	.81	.77	.72
1462	2	2	1.08	.90	.81	.77	.72
1463†	1	2	1.08	.90	.81	.77	.72
1464†	2	2	1.08	.90	.81	.77	.72
1465†	1	4	1.80	1.50	1.35	1.28	1.20
1472†	2	3	1.08	.90	.81	.77	.72
1473	2	3	1.08	.90	.81	.77	.72
1483‡	1	3	.75	.63	.58	.54	.50
1484†	1	3	.90	.75	.68	.66	.60
1486*	2	3	1.08	.90	.81	.77	.72

\*Non-shortening; all others shorting. †Spring return indexing. ‡3 active with AC-DPST line switch. ‡Remote speaker switch. ‡Remote auto radio spkr. switch. \*Remote stereo spkr. switch.

## ECONOMY LEVER ACTION SWITCHES

New nylon rotor design results in low cost for use singly or in groups. Have positive and/or spring return index design with shorting or non-shortening contacts. High-quality laminated phenolic insulation, clips and contacts silver-plated brass. Rated 2.75 amps at 15 v. DC, 230 ma at 115 v. AC. Two-hole type mounting bracket supplied with 6-32 tapped holes. Dimensions of single switch  $\frac{3}{8}$ " w. x  $1\frac{1}{8}$ " h. x  $1\frac{1}{4}$ " d. behind panel. Complete with knob and mounting hardware. Shipping weight, 4 oz. Index Abbreviations: Pos., Positive; Sp., Spring Return.

CRL No.	Shorting	Non-Shorting	No. Poles	No. Pos.	Index	Net Each, Lots of				
						1-4	5-9	10-24	25-49	50-99
1452	1454	2	3	Pos.	\$1.26	\$1.05	\$0.95	\$0.90	\$0.84	\$0.76
1453	1455	2	3	Sp.	1.26	1.05	.95	.90	.84	.76
1466	1467	2	3	Pos., Sp.	1.26	1.05	.95	.90	.84	.76
1456	1457	4	2	Sp.	1.44	1.20	1.08	1.03	.96	.86
1459	1458	4	2	Pos.	1.44	1.20	1.08	1.03	.96	.86

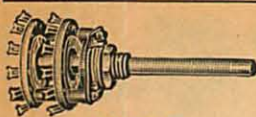
Mounting Plates for Lever Switches—Type A made of .035" die cut steel, black crackle finish. Provides  $\frac{3}{4}$ " spacing between switches. Type B for use in electrical outlet boxes. Satin chrome steel with mounting holes  $3\frac{1}{4}$ " between centers. Shpg. Wt., 4 oz.

CRL No.	Fig.	No. Switches	Size, Inches	CRL No.	Fig.	No. Switches	Size, Inches
P-1755	A	1	$1\frac{1}{2}$ x $2\frac{3}{8}$	A	5	2	$3\frac{3}{4}$ x $2\frac{3}{8}$
P-1756	A	2	$1\frac{1}{2}$ x $2\frac{3}{8}$	B	2	2	$2\frac{3}{4}$ x $4\frac{1}{2}$
P-1757	A	3	$2\frac{3}{4}$ x $2\frac{3}{8}$	B	1	1	$2\frac{3}{4}$ x $4\frac{1}{2}$
P-1758	A	4	$3\frac{1}{4}$ x $2\frac{3}{8}$				

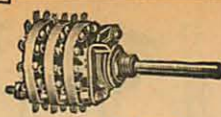
## INDUSTRIAL NET PRICES

CRL Number	Net Each, Lots of				
	1-4	5-9	10-24	25-49	50-99
Type A Plates	\$0.30	\$0.25	\$0.23	\$0.22	\$0.20
Type B Plates	.63	.53	.48	.46	.42

CENTRALAB IS CONSTANTLY DEVELOPING AND MAKING BETTER PRODUCTS. AS THEY ARE RELEASED, WE WILL ADD THEM TO OUR COMPLETE UP-TO-DATE STOCK



PA Series



PS Series

## MIL-S-3786A STYLE SRO3 MINIATURE CERAMIC SWITCHES

Designed to meet MIL-S-3786A. Insulated with Grade L-533 steatite, Dow Corning 200 silicone treated against surface moisture. Breakdown, 1000 VAC rms between critical parts. Coin silver clips and contacts; hot tin-dipped terminals. Adjustable stops or continuous rotation on 30° index. Ceramic sections 1 3/4" dia. x .125" th. Single hole mounting with locating lug at 1 1/4" radius. Bushing, 3/8"-32NEF-2A threaded, 3/8" lg. from mtg. surface. Shaft 1/8" dia. full round, 2 1/4" lg. from mtg. surface. With nut, lockwasher and P-120 pointer knob. Ratings: 450 mA at 115 VAC; 8 amps, 6 VDC; 5.5 amps, 12 VDC (make-break resistive load).

### SERIES PA-6000 SWITCHES

CRL Number		Poles to Section	No. Sections	No. Poles	No. Positions
Shorting	Non-Short				
PA-6000	PA-6001	1	1	1	2-11
PA-6002	PA-6003	2	1	2	2-5
PA-6004	PA-6005	1	2	2	2-11
PA-6006	PA-6007	3	1	3	2-3
PA-6010*	PA-6011*	4	1	4	2
PA-6012	PA-6013	2	2	4	2-5
PA-6018	PA-6019	3	2	6	2-3
PA-6024*	PA-6025*	2	2	8	2

\*Fixed, 2-position stop.

### SEPARATE INDEX ASSEMBLY

CRL No. PA-600—Used with PA-60, PA-70 or PA-80 separate sections to assemble special units of 1 to 4 sections; 30° indexing. Rear shaft 2" long.

### SEPARATE SECTIONS, 30° INDEXING

Used with PA-600 index assembly. Hot solder-dipped terminals. Coin silver clips and contacts. Sections 1 3/4" dia. Phenolic types rated 1000 VAC rms breakdown between critical parts. Phenolic units .062" thick; others .125" thick.

Total Poles	No. Pos.	Phenolic Secs.		Mycalex Secs.		Ceramic Secs.	
		Shorting	Non-Short	Shorting	Non-Short	Shorting	Non-Short
1	2-11	PA-60	PA-61	PA-70	PA-71	PA-80	PA-81
2	2-5	PA-62	PA-63	PA-72	PA-73	PA-82	PA-83
3	2-3	PA-64	PA-65	PA-74	PA-75	PA-84	PA-85
4	2	PA-66	PA-67	PA-76	PA-77	PA-86	PA-87

### INDUSTRIAL NET PRICES

CRL Number	Net Each, Lots of					
	1-4	5-9	10-24	25-49	50-99	100-249
PA-6000 thru PA-6003	\$3.39	\$2.83	\$2.55	\$2.42	\$2.26	\$2.03
PA-6004 thru PA-6005	5.19	4.33	3.90	3.71	3.46	3.11
PA-6006 thru PA-6011	3.39	2.83	2.55	2.42	2.26	2.03
PA-6012 thru PA-6025	5.19	4.33	3.90	3.71	3.46	3.11
PA-600	1.50	1.25	1.13	1.07	1.00	.90
PA-60 thru PA-67	1.35	1.13	1.02	.97	.90	.81
PA-70 thru PA-77	1.98	1.65	1.49	1.42	1.32	1.19
PA-80 thru PA-87	1.98	1.65	1.49	1.42	1.32	1.19

NOTE: Items requiring certified test data and government source inspection are special. Prices and information supplied on request.

### MULTIPLE POSITION SWITCHES

Laminated phenolic insulation, type PBE per MIL-P-3115B. Voltage breakdown between critical parts 1000 VAC rms. Bushing 3/8" th. 3/8" lg. Shaft 1/8" dia. 2 1/4" lg. from mtg. surface. Rated 5.5 amps, 6 VDC; 2.75 amps, 15 VDC; 1.75 amps, 24 VDC; 230 mA, 115 VAC rms. Shpg. Wt., 4 oz. per section. PA-3000 Series—18-position. Provides accurate crisp indexing in both single and multiple-section versions through the use of new hill-and-dale index. Sections 2 1/4" w. x 2 1/4" h. x 1/4" thick. Positive 20° indexing. Adjustable stops or continuous rotation. PA-4000 Series—24-position. Sections 1 3/4" w. x 2 1/4" h. x 1/4" thick.

CRL No.	PA-Short.	PA-Non-Short.	*	No. Pos.	Net Each, Lots of					
					1-4	5-9	10-24	25-49	50-99	100-249
3000	3001	1	2-17	\$2.04	\$1.70	\$1.53	\$1.45	\$1.36	\$1.22	
3002	3003	2	2-17	2.94	2.45	2.21	2.09	1.96	1.76	
3004	3005	3	2-17	3.84	3.20	2.88	2.74	2.56	2.30	
3006	3007	4	2-17	4.68	3.90	3.51	3.33	3.12	2.81	
4000	4001	1	2-23	2.16	1.80	1.62	1.54	1.44	1.30	
4002	4003	2	2-23	3.18	2.65	2.39	2.27	2.12	1.91	
4004	4005	3	2-23	4.17	3.48	3.13	2.97	2.78	2.50	
4006	4007	4	2-23	4.98	4.15	3.74	3.55	3.32	2.99	

\*Number of poles and number of sections.

### SERIES PS SUBMINIATURE ROTARY SWITCHES

Deluxe, ceramic insulated rotary switches that are ultra-small. Weigh less than 1 oz. each, yet have the same electrical ratings as switches much heavier and larger. Ideally suited for band switching, transistor circuits, aircraft instruments, etc. Insulation is Dow Corning 200 Silicone treated L-533 steatite; resistance exceeds 10,000 megohms. Size: Ceramic sections 1/2" thick spaced 1/4" apart with ceramic spacing; spacing between front plate and first section, 1/4". All hardware except clips, contacts, and index spring are of cadmium plated steel. Mounting: Single hole with optional locating lug on 3/8" radius. Bushing 1/4"-32 thread, 1/4" long. Shaft 1/8" dia. x 1 1/4" long. Rated: Make and break, resistance load 3.5 amps at 6 volts DC, 160 milliamperes at 110 VAC. Index: Positive 30°; fixed stop.

### SERIES PS (CONTINUED)

CRL Number		Total Poles	No. of Positions	Poles Per Sec.	No. of Sections
Shorting	Non-Shorting				
PS-100	PS-101	1	11	1	1
PS-102	PS-103	2	11	1	2
PS-104	PS-105	2	5	2	1
PS-106	PS-107	3	11	1	3
PS-108	PS-109	3	3	3	2
PS-110	PS-111	4	5	2	1
PS-112	PS-113	4	2	4	1
PS-114	PS-115	6	5	2	3
PS-116	PS-117	6	3	3	2
PS-118	PS-119	8	2	4	2
PS-120	PS-121	9	3	3	3
PS-122	PS-123	12	2	4	3

### SEPARATE SECTIONS

Ceramic*		Phenolic		Total Poles	No. Pos.	Fixed Stop Indexing
Short.	Non-Short.	Short.	Non-Short.			
PS-20	PS-21	PS-40	PS-41	1	11	
PS-22	PS-23	PS-42	PS-43	2	5	Use P-501 thru P-511
PS-24	PS-25	PS-44	PS-45	3	3	
PS-26	PS-27	PS-46	PS-47	4	2	

Breakdown Voltage: \*1500 VAC rms; †1000 VAC rms.

### SEPARATE INDEX ASSEMBLIES

Designed for maximum of three sections. Includes: Index and shaft assembly; P-106 knob; six 3/8" spacers; two 1/4" spacers; two 1/8" spacers; two 3/8" spacers; two 1 1/2" tie bolts; nuts, lockwashers, washers; and 16 plastic spacer washers.

CRL Number	No. of Positions	CRL Number	No. of Positions
P-501	2	P-507	8
P-502	3	P-508	9
P-503	4	P-509	10
P-504	5	P-510	11
P-505	6	P-511	Continuous Rotation
P-506	7		

### INDUSTRIAL NET PRICES

CRL Number	Shorting	Non-Short.	Net Each, Lots of					
			1-4	5-9	10-24	25-49	50-99	100-249
PS-100	PS-101	\$4.80	\$4.00	\$3.60	\$3.42	\$3.20	\$2.88	
PS-102	PS-103	6.02	5.00	4.50	4.28	4.00	3.60	
PS-104	PS-105	4.80	4.00	3.60	3.42	3.20	2.88	
PS-106	PS-107	7.20	6.00	5.40	5.13	4.80	4.32	
PS-108	PS-109	4.80	4.00	3.60	3.42	3.20	2.88	
PS-110	PS-111	6.00	5.00	4.50	4.28	4.00	3.60	
PS-112	PS-113	4.80	4.00	3.60	3.42	3.20	2.88	
PS-114	PS-115	7.20	6.00	5.40	5.13	4.80	4.32	
PS-116	PS-117	6.00	5.00	4.50	4.28	4.00	3.60	
PS-118	PS-119	6.00	5.00	4.50	4.28	4.00	3.60	
PS-120	PS-121	7.20	6.00	5.40	5.13	4.80	4.32	
PS-122	PS-123	7.20	6.00	5.40	5.13	4.80	4.32	
PS-20 thru PS-27		2.10	1.75	1.58	1.50	1.40	1.26	
PS-40 thru PS-47		1.68	1.40	1.26	1.20	1.12	1.01	
P-501 thru P-511		1.95	1.63	1.47	1.40	1.30	1.17	

### PACKAGED SWITCH HARDWARE FOR 1400 AND 2500 SERIES SWITCHES

CRL No.	Description	Pkg. 100	CRL No.	Description	Pkg. 100
P-124	3/4" metal spacer	\$1.80	P-145	7" screw	\$ 8.40
P-125	3/4" metal spacer	1.80	P-146	9" screw	12.00
P-126	3/4" metal spacer	1.80	P-147	Nut	1.80
P-127	3/4" metal spacer	1.80	P-148	Lockwasher	1.80
P-128	1 1/2" metal spacer	1.80	P-177	Phenol. spacer wshr.	1.80
P-136	1 1/2" screw	1.80	P-181	steatite spacer	4.80
P-137	1 1/2" screw	1.80	P-187	steatite spacer	4.80
P-138	2" screw	4.80	P-188	steatite spacer	4.80
P-139	2 1/2" screw	4.80	P-189	steatite spacer	4.80
P-149	4 1/2" screw	8.40	P-190	steatite spacer	4.80
P-143	5" screw	8.40	P-192	steatite spacer	8.40

### FOR PA-6000 SERIES MINIATURE SWITCHES

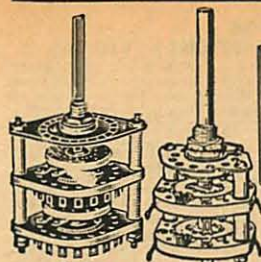
P-395	Min. MIL screw	\$8.40	P-397	Min. MIL lockwasher	\$ 1.80
P-396	Min. MIL nut	1.80	P-398	MIL spacer washer	1.80

### FOR PS-100 SERIES SUBMINIATURE SWITCHES

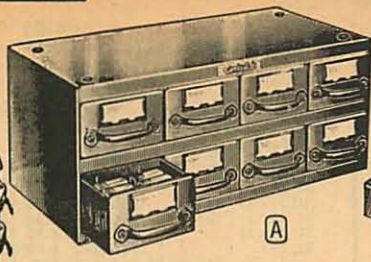
P-515	1 1/4" screw	\$8.40	P-520	3/8" steatite spacer	\$1.80
P-516	Nut	1.80	P-521	3/8" steatite spacer	1.80
P-517	Lockwasher	1.80	P-522	3/8" steatite spacer	1.80
P-518	Flat washer	1.80	P-523	3/8" steatite spacer	1.80
P-519	Spacer washer	1.80	P-524	3/8" steatite spacer	1.80

### FOR PA-1000 & PA-2000 SERIES MINIATURE SWITCHES

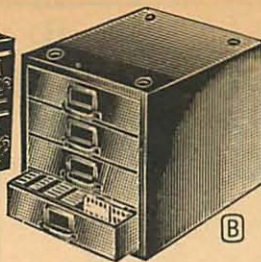
CRL No.	Description	Pkg. 100	CRL No.	Description	Pkg. 100
P-319	Min. stop plate	\$4.80	P-348	3/8" steatite spacer	\$ 4.80
P-325	3/8" steatite spacer	4.80	P-350	1/2" steatite spacer	4.80
P-326	3/8" steatite spacer	4.80	P-352	1" steatite spacer	4.80
P-328	3/8" steatite spacer	4.80	P-362	1" screw	1.80
P-329	3/8" steatite spacer	4.80	P-370	2" screw	4.80
P-330	3/8" steatite spacer	4.80	P-374	2 1/2" screw	4.80
P-332	3/8" steatite spacer	4.80	P-382	4" screw	8.40
P-334	3/8" steatite spacer	4.80	P-384	5" screw	8.40
P-336	3/8" steatite spacer	4.80	P-388	7" screw	12.00
P-340	3/8" steatite spacer	4.80	P-390	Nut	1.80
P-342	3/8" steatite spacer	4.80	P-392	Lockwasher	1.80
P-344	3/8" steatite spacer	4.80	P-394	Phen. spacer washer	1.80



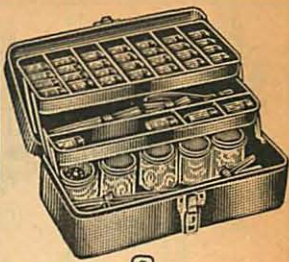
Series JV-9000 Ham Switch



A



B



C

**SERIES JV-9000 HEAVY-DUTY POWER SWITCHES**  
Rotary power switch insulated with Grade L-533 steatite. Rated: 9 amps, 110 VAC; 30 amps, 5 VDC; 15 mA, 2500 VAC. Break-down, 3000 VAC rms between critical parts. Coin silver contacts; 20° indexing adjustable stop. Mtg. bushing 3/8"-32 thread, 3/8" long. Sections 2 1/4" dia. Shipping Weight, 6 oz. per section.

**SERIES JV-9000 ROTARY SWITCHES**

CRL Number		Poles to Section	No. Sections	No. Poles	No. Positions
Shorting	Non-Shorting				
JV-9000	JV-9001	1	1	1	2-17
JV-9002	JV-9003	3	1	3	2-5
JV-9004	JV-9005	1	2	2	2-5
JV-9006	JV-9007	3	2	6	2-5
JV-9008	JV-9009	1	3	3	2-17
JV-9010	JV-9011	3	3	9	2-5
JV-9012	JV-9013	1	4	4	2-17
JV-9014	JV-9015	3	4	12	2-5
JV-9016	JV-9017	1	5	5	2-17
JV-9018	JV-9019	3	5	15	2-5
JV-9020	JV-9021	1	6	6	2-17
JV-9032	JV-9033	2	1	2	2-8
JV-9034	JV-9035	2	2	4	2-8
JV-9036	JV-9037	2	3	6	2-8
JV-9038	JV-9039	2	4	8	2-8

**SERIES JV-9000 SEPARATE SECTIONS**

CRL Number		Number Poles	Number Positions
Shorting	Non-Shorting		
JV-8	JVN-8	1	2-17
JV-9	JVN-9	3	2-5
JV-10	JVN-10	2	2-8
JV-18*	JVN-18*	1	2-18

\*Rotor has 17 fingers making contact with 17 contacts on stator, leaving one contact open. By cutting off unwanted fingers this section can be adapted to special circuits, e.g., one off, nine progressively shorting positions.

**SERIES JV-9000 DIAL PLATES, INDEX ASSEMBLY**

CRL Nos. P-230, P-231 or P-232—2 1/4" dia., etched aluminum on black background; 20°; marked 1-5 for P-230, 1-8 for P-232, and 1-7 for P-231.

CRL No. JV-7 Index Assembly—Includes shaft, tie rods, spacers, nuts and lockwashers, adjustable stop pin, 2" black bar knob and dial plate.

**INDUSTRIAL NET PRICES**

CRL Number	Net Each, Lots of				
	1-4	5-9	10-24	25-49	50-99
JV-9000 thru JV-9003	\$10.50	\$ 8.75	\$ 7.88	\$ 7.49	\$ 7.00
JV-9004 thru JV-9007	17.40	14.50	13.05	12.40	11.60
JV-9008 thru JV-9011	24.30	20.25	18.23	17.32	16.20
JV-9012 thru JV-9015	31.20	26.00	23.40	22.23	20.80
JV-9016 thru JV-9019	38.10	31.75	28.58	27.15	25.40
JV-9020 and JV-9021	45.30	37.75	33.98	32.28	30.20
JV-9032 and JV-9033	10.50	8.75	7.88	7.49	7.00
JV-9034 and JV-9035	17.40	14.50	13.05	12.40	11.60
JV-9036 and JV-9037	24.30	20.25	18.23	17.32	16.20
JV-9038 and JV-9039	31.20	26.00	23.40	22.23	20.80
JV-8 thru JV-10	6.90	5.75	5.18	4.92	4.60
JVN-8 thru JVN-10	6.90	5.75	5.18	4.92	4.60
JV-18 and JVN-18	7.50	6.25	5.63	5.35	5.00
JV-7 Index	4.50	3.75	3.38	3.21	3.00
P-230 thru P-232	.21	.18	.16	.15	.14

**STEATITE HAM-TYPE SWITCHES**

Heavy-duty Grade L-533 steatite insulation for ham applications. Available in 60° and 90° index. All metal parts except clips and contacts are cadmium plated steel; all units have phenolic shaft through switch sections. Positive index with adjustable stop; 60° units have 2-6 active positions; 90° units, 2-4. Single hole mounting; 3/8"-32 thread bushing 3/8" long. Shaft 1/2" dia., 2 1/4" long, full round. Rated: 250 milliamperes at 115 VAC; 5 milliamperes at 1500 V AC; 1.75 amps at 24 VDC; will handle 15 watts; for tubes operating at voltages up to 1 kv and inputs to 150 watts. Unit complete includes mounting nut, lockwasher, pointer knob and dial plate. Shipping Weight, 4 oz. per section.

**NON-SHORTING HAM SWITCHES**

CRL Number		No. Poles*	Net Each, Lots of					
90°	60°		1-4	5-9	10-24	25-49	50-99	100-249
2542	2550	1	\$2.37	\$1.98	\$1.78	\$1.69	\$1.58	\$1.42
2543	2551	2	3.36	2.80	2.52	2.39	2.24	2.02
2544	2552	3	4.32	3.60	3.24	3.08	2.88	2.59
2545	2553	4	5.34	4.45	4.01	3.81	3.56	3.21
2546	2554	5	6.30	5.25	4.73	4.49	4.20	3.78
XXD†	ZDD†	1	1.20	1.00	.90	.86	.80	.72

\*One pole per section. †Separate sections; use with "P" Series Index assemblies.

**SEPARATE INDEX ASSEMBLIES**  
Deluxe 90° and 60° Types: 2-piece shaft with phenolic rear, metal front; for high voltage operation; use XXD section for 90°; use ZDD section for 60°.

CRL No. 90°	CRL No. 60°	Rear Shaft	Suggested No. Sections
P-278	P-273	2"	1 to 2
P-279	P-274	4 1/4"	3 to 4
P-280	P-275	7"	5 to 8

CRL Number Index Assembly	Net Each, Lots of					
	1-4	5-9	10-24	25-49	50-99	100-249
P-273 and P-278	\$1.38	\$1.15	\$1.04	\$0.99	\$0.92	\$0.83
P-274 and P-279	1.74	1.45	1.31	1.25	1.16	1.04
P-275 and P-280	2.16	1.80	1.62	1.54	1.44	1.30

**DUAL SPEAKER SWITCH KIT**

(Not Illustrated.) Primarily designed for rear seat auto radio speaker applications. It is adaptable, however, to many commercial applications. Contains: 1484 switch, P-216 bracket-dial plate, P-401 knob, two self-tapping metal screws and instruction sheet. CRL No. PK-300—**\$105** Net Each.

**CENTRALAB SWITCH KITS**

**STANDARD KITS (FIG. A)**

Convenient, ready source of stock sections, indexes and hardware. Packed in heavy gauge steel, 8-drawer Equipto cabinet, 23 1/4" w. x 9 1/2" h. x 12" d. with blue, baked enamel finish.

**CRL No. SWK-810 Kit**—PA-1000 series miniature phenolic parts: 106 pieces of 1 1/4" dia. phenolic sections, 32 index assemblies with spacers, nuts, washers, knobs and dial plates. Makes **\$17700** up to 32 regular or special switches. Net Each.

**CRL No. SWK-820 Kit**—PA-2000 series miniature ceramic parts: 102 pieces of 1 1/4" dia. steatite sections, 32 index assemblies with spacers, washers, nuts, knobs and dial plates. Makes **\$21000** up to 32 regular or special switches. Net Each.

**CRL No. SWK-814 Kit**—1400 series phenolic switch parts: 100 pieces of 1 1/4" dia. phenolic sections, 30 index assemblies with spacers, washers, nuts, knobs and dial plates. Makes **\$18480** 30 regular or special switches. Net Each.

**CRL No. SWK-825 Kit**—2500 series ceramic switch parts: 100 pieces of 1 1/4" dia. steatite sections, 29 index assemblies with spacers, washers, nuts, knobs and dial plates. Both 30° and 60° indexes and sections included. Makes 29 switches. **\$20880** Net Each.

**CRL No. SWK-860 Kit**—PA-6000 series miniature ceramic military switch parts: 76 pcs. of 1 1/4" dia. sections, 32 ceramic, 24 phenolic and 20 Mycalex® sections, 35 index assemblies with spacers, washers, nuts and dial plates. Makes 35 regu- **\$20820** lar or special switches. Net Each.

\*Mycalex Corp. of America trademark.

**JUNIOR SIZE SWITCH KITS (FIG. B)**

Packed in attractive light blue and gray 4-drawer steel cabinets 10" x 11 1/4" x 10". With balanced stock of index assemblies and separate sections for every application.

**CRL No. SWK-410 Kit**—PA-1000 series miniature phenolic parts: 48 phenolic 1 1/4" dia. sections, 13 index assemblies and hardware for making 13 phenolic regular or special switches. **\$7300** Net Each.

**CRL No. SWK-420 Kit**—PA-2000 series miniature ceramic parts: 52 ceramic 1 1/4" dia. switch sections, 13 complete index assemblies and hardware for making 13 ceramic regular or special **\$9580** switches. Net Each.

**CRL No. SWK-460 Kit**—PA-6000 series miniature military switch parts: 45 1 1/4" dia. phenolic sections, 15 complete index assemblies, plus hardware. Makes 15 regular or special switches. **\$8980** Net Each.

**CRL No. SWK-480 Kit**—PA-6000 series miniature military switch parts: 24 ceramic and 16 Mycalex sections, 1 1/4" dia.; 15 complete index assemblies, plus hardware. Makes 15 **\$10780** switches. Net Each.

**CRL No. SWK-400 Kit**—PS100 series subminiature switch parts: 30 1" ceramic sections, 16 complete index assemblies, plus hardware for assembling 16 regular or special switches. **\$11740** Net Each.

**CUSTOM SWITCH KIT (FIG. C)**

Contains all the parts and tools necessary for any prototype designer to construct the special switch he needs. Packed in handy metal tray cabinet, set up and ready to use. Makes 25 four-section miniature rotary phenolic or ceramic switches with factory precision. Contact nibbling tool can cut any contact arrangement you need. **\$15000** CRL No. PK-20-S Kit—Complete. Net Each.