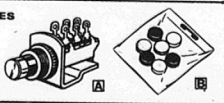


# SWITCHCRAFT

## DVR SWITCH SERIES DVR-2000



Recognition of individual switch positions occurs quickly, even from a distance, with this single station non-illuminated pushbutton switch. With plunger in the "out" position, a black recognition color band contrasts with the recognition cap color. With plunger set to the "in" position, only the colored recognition cap is visible. Special copper alloy, silver plated, U-shaped contactors assure uniform tension. Contactors are rated at 0.5 amp, D.C., 3 amps, A.C., 125 volts, non-inductive load. Threaded bushing mounts in a single-hole .406" (10 1/2") diameter in panels up to 1/4" thick. Mounting centers are 1/4" minimum. If non-turn mount circuitry requires 1/2" behind panel, 3/4" or 4" circuitry requires 2 1/2" behind panel. Solder lug terminals have 3/16" diameter hole and wrap-around wiring notches. Order Recognition Color Cap Kits for custom color coding according to your individual requirements.

Part No. Monetary New Lock	Part No. Push-Release	Switching	Ex. 1-9	10-24	25-49	50-99	100-249
DVR-2203	DVR-2703	1-C	1.48	1.11	1.02	.925	.74
DVR-2208	DVR-2708	2-C	1.72	1.28	1.18	1.08	.88
DVR-2212	DVR-2712	4-C	2.16	1.62	1.49	1.35	1.08

### RECOGNITION COLOR CAP KITS

Part No.	Contents	Ex. 1-9	10-24	25-49	50-99	100-249
R-132	Assortment Kit, 1 ea. - red, black, green, blue, white, brown and yellow caps.	.72	.54	.495	.45	.36



## "LITEL-SWITCH" SWITCHES

Series 1000, 200, tiny momentary contact pushbutton switches. Rugged, dependable action. All contacts insulated from panel bushing with interlocking phenolic washers. Series 100 and 200, springs are of nickel silver, recommended only for low level circuits where contact resistance is unimportant. One-piece plastic button and shaft in red or black. Mounts in 3/8" hole in panels up to 1/4".

Part No. Red Button	Part No. Black Button	Action	Schem.	Ex. 1-9	10-24	25-49	50-99	100-249
101	201	S.P.D.T.	1-A	1.04	.78	.715	.65	.52
103	203	S.P.D.T.	1-C	1.28	.98	.88	.80	.64



## "BUTTON-SWITCH" SWITCHES

Series 903, 923. Usually small, momentary action pushbutton switches. Enclosed in metal housing; black or red plastic button. Series 903, Fig. 2 back, panel mounting, 1/2" hole, mounts in panels up to 1/4" thick. Series 923, Fig. 2 front panel mounting, 1/4" hole, mounts in panels up to 1/2" thick. Both rated at 250 mts, A.C., non-inductive load, 30 watts max.

Part No. Red Button	Part No. Black Button	Action	Schem.	Ex. 1-9	10-24	25-49	50-99	100-249
903	913	S.P.D.T.	1-C	1.60	1.20	1.10	1.00	.80
923	933	S.P.D.T.	1-C	1.68	1.28	1.16	1.05	.84



## NON-LOCKING FLAT FRAME SWITCHES

Only 1 1/2" W. 1 1/2" H. mounts in 1/4" hole in panels up to 1/2" thick. Flat frame construction provides multiple pole switching with minimum depth behind panel. Fine silver contacts rated at 3 amps, 300 watts max., A.C., non-inductive load. One piece black button and shaft, 3/8" diameter threaded shank.

Part No.	Action	Schem.	Ex. 1-9	10-24	25-49	50-99	100-249
4001	S.P.S.T.n.c.	1-A	1.60	1.20	1.10	1.00	.80
4003	S.P.D.T.	1-C	1.72	1.28	1.18	1.08	.88
4008	S.P.D.T.	2-C	2.20	1.65	1.51	1.38	1.10

FOR DETAILED INFORMATION AND/OR ADDITIONAL TYPES AND MODELS  
REQUEST A COPY OF SWITCHCRAFT'S ENGINEERING SPECIFICATION CATALOG.

# Pushbutton, Lever Switches

## "LEV-R" SWITCHES



13000

Small lever action switches in two and three position types, locking and non-locking action. Requires half the space usually needed for a lever switch; frame bushing and shaft nickel plated brass. Supplied with locknut and screw on black knob. Fine silver contacts rated at 3 amps, 300 watts max., A.C., non-inductive load. Non-locking types mount in panels up to 1/4" thick. Both Series are 1/4" wide; requires 2 1/4" behind panel, mounts in single 1/4" hole. "Add suffix letter 'L' to Part No. to indicate locking type.

SERIES 3000		TWO POSITION TYPES		Schematic		Ex. 1-9	10-24	25-49	50-99	100-249
Part No. No. Locking	Action	Pos. 1	Pos. 2	Pos. 1	Pos. 2	Ex. 1-9	10-24	25-49	50-99	100-249
3003	S.P.D.T.	1-C	1-C	3.20	2.40	2.20	2.00	1.80		

SERIES 3000		THREE POSITION TYPES		Schematic		Ex. 1-9	10-24	25-49	50-99	100-249
Part No. No. Locking	Action	Pos. 1	Pos. 2	Pos. 1	Pos. 2	Ex. 1-9	10-24	25-49	50-99	100-249
3034	S.P.S.T.	1-A	1-A	3.56	2.67	2.45	2.23	1.78		
3036	S.P.D.T.	1-C	1-C	4.04	3.03	2.78	2.53	2.02		
30312	S.P.D.T.	2-C	2-C	5.40	4.05	3.71	3.38	2.70		

SERIES 13000		TWO POSITION TYPES		Schematic		Ex. 1-9	10-24	25-49	50-99	100-249
Part No. No. Locking	Action	Pos. 1	Pos. 2	Pos. 1	Pos. 2	Ex. 1-9	10-24	25-49	50-99	100-249
13001	S.P.S.T.	1-A	1-A	2.88	2.18	1.98	1.80	1.44		
13008	S.P.D.T.	1-C	1-C	4.04	3.03	2.78	2.53	2.02		

SERIES 13000		THREE POSITION TYPES		Schematic		Ex. 1-9	10-24	25-49	50-99	100-249
Part No. No. Locking	Action	Pos. 1	Pos. 2	Pos. 1	Pos. 2	Ex. 1-9	10-24	25-49	50-99	100-249
13036	S.P.D.T.	1-C	1-C	4.20	3.15	2.89	2.63	2.10		
130312	S.P.D.T.	2-C	2-C	5.40	4.05	3.71	3.38	2.70		

## "TELEVER" SWITCHES



16000

Series 6000 and 16000. Rugged telephone type lever switches featuring "I-Beam" frame construction which results in a relatively light construction with sturdiness of a structural "I-Beam". Available in two and three positions, locking and non-locking types. Nylon rollers on the lever actuate the special nickel silver springs, providing smooth action; assures long dependable spring life. Welded crossbar palladium contacts are standard, rated at 2 amps, 300 watts max., A.C., non-inductive load. Series 6000 mounts with four No. 3-48 machine screws. Mounting centers 1/2" x 1/4", mounts in panels up to 1/4" thick. Series 16000 features single hole mounting, 1/2" x 3/2" threaded bushing. Mounts in 1/2" dia. hole in panels up to 1/4" thick. Part No. 545, "Stop Plate" provides positive "stop" for two position action. Both Series switches supplied with black insulated knob. All have tinned solder lug terminals. "Add suffix letter 'L' to Part No. to indicate locking type. Series 16000 non-locking type can be converted to locking type by removing "Stop Plate".

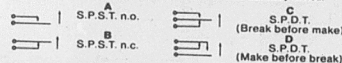
SERIES 6000		TWO POSITION TYPES		Schematic		Ex. 1-9	10-24	25-49	50-99	100-249
Part No. No. Locking	Action	Pos. 1	Pos. 2	Pos. 1	Pos. 2	Ex. 1-9	10-24	25-49	50-99	100-249
6006	S.P.D.T.	1-C	1-C	6.16	4.62	4.24	3.85	3.08		

SERIES 16000		TWO POSITION TYPES		Schematic		Ex. 1-9	10-24	25-49	50-99	100-249
Part No. No. Locking	Action	Pos. 1	Pos. 2	Pos. 1	Pos. 2	Ex. 1-9	10-24	25-49	50-99	100-249
16008	S.P.D.T.	1-C	1-C	6.16	4.62	4.24	3.85	3.08		
160012	S.P.D.T.	2-C	2-C	8.64	6.57	6.02	5.46	4.38		

SERIES 16000		THREE POSITION TYPES		Schematic		Ex. 1-9	10-24	25-49	50-99	100-249
Part No. No. Locking	Action	Pos. 1	Pos. 2	Pos. 1	Pos. 2	Ex. 1-9	10-24	25-49	50-99	100-249
16036	S.P.D.T.	1-C	1-C	6.44	4.83	4.43	4.03	3.22		
160312	S.P.D.T.	2-C	2-C	8.76	6.57	6.02	5.46	4.38		

## BASIC SCHEMATIC CIRCUITS

Switch circuitry can be described as combinations of basic schematic circuits as shown below. N.O. means normally open; N.C. means normally closed.



# SWITCHCRAFT

# Lever, Slide Switches

## "LT" SWITCH"



U.S. Pat.  
No. 3,433,906  
Canadian Pat.  
No. 850,234

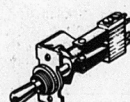
Series 41000. Smallest, high-quality, telephone type lever switch. Available. Two or three position types with positive locking and/or non-locking action. Special damping block guards against transient feedback. "Can't-Cheer" detent guide prevents accidental action.

tuator by-pass of switching positions. Switch is an interlocked box where spring frame, its parallel steel members terminate in an interlocked box where spring combinations are mounted. The special long life, nickel-silver springs can be individually fastened to any one of the frame's four switch stacks mounting positions. Welded crossbar palladium contacts rated at 2 amps, 200 watts max., A.C., non-inductive load are standard. Series 41000 mounts on 3/16" centers in a 1/2" dia. hole in panels up to 1/4" thick. Requires only 2 1/4" depth behind panel. The bushing includes a keyway to accept the non-turn ring which prevents switch turning or twisting in panel. "Add suffix 'L' to Part No. to indicate locking type.

SERIES 41000		TWO POSITION TYPES		Schematic		Ex. 1-9	10-24	25-49	50-99	100-249
Part No. No. Locking	Action	Pos. 1	Pos. 2	Pos. 1	Pos. 2	Ex. 1-9	10-24	25-49	50-99	100-249
41203	S.P.D.T.	1-C	1-C	4.92	3.69	3.38	3.08	2.46		
41208	S.P.D.T.	2-C	2-C	6.16	4.62	4.24	3.85	3.08		
41212	S.P.D.T.	4-C	4-C	8.36	6.27	5.75	5.23	4.18		

SERIES 41000		THREE POSITION TYPES		Schematic		Ex. 1-9	10-24	25-49	50-99	100-249
Part No. No. Locking	Action	Pos. 1	Pos. 2	Pos. 1	Pos. 2	Ex. 1-9	10-24	25-49	50-99	100-249
41308	S.P.D.T.	1-C	1-C	6.16	4.62	4.24	3.85	3.08		
41312	S.P.D.T.	2-C	2-C	8.36	6.27	5.75	5.23	4.18		
41324	S.P.D.T.	4-C	4-C	12.28	9.21	8.44	7.68	6.14		

## "FEATHER-LEVER" SWITCHES



Miniature lever switches, lightweight, compact, mount on 3/16" centers. Available in 2 and 3 position locking and non-locking types. Actuator designed for use with standard lever actuator operation over entire life of switch. Rugged steel frame withstands rough usage, shock and vibration. Nickel silver springs with fine silver contacts, rated at 2 amperes, 200 watts, max., A.C., non-inductive load. Supplied with black plastic push-on knob. Series 29000, with bushing, mounts in 3/8" O.D. panel hole. Supplied with locknut. Require only 1/2" depth behind panel, mount in panels up to 1/4" thick.

SERIES 29000		TWO POSITION TYPES		Schematic		Ex. 1-9	10-24	25-49	50-99	100-249
Part No. No. Locking	Action	Pos. 1	Pos. 2	Pos. 1	Pos. 2	Ex. 1-9	10-24	25-49	50-99	100-249
29206	S.P.D.T.	1-C	1-C	3.52	2.64	2.42	2.20	1.76		

SERIES 29000		THREE POSITION TYPES		Schematic		Ex. 1-9	10-24	25-49	50-99	100-249
Part No. No. Locking	Action	Pos. 1	Pos. 2	Pos. 1	Pos. 2	Ex. 1-9	10-24	25-49	50-99	100-249
29312	S.P.D.T.	1-C	1-C	4.92	3.69	3.38	3.08	2.46		

## "LEVER-LITE" III" SWITCHES SERIES 84000



"Lever-Lite" III, Series 84000, is the third generation illuminated lever switches which embody the most modern electrical, mechanical, and human factors design concepts. Available in 2- and 3-position types with locking, non-locking, and talk-listen functions. Contact springs are silver plated phosphor bronze. Contacts are welded crossbar palladium rated at 2 amps, 200 watts max., A.C., non-inductive load.

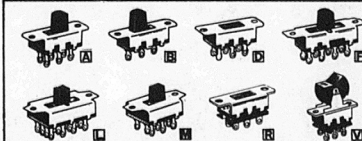
Lever illumination is multi-color, i.e., 2-position switches have AMBER color (NEUTRAL position) and GREEN (DOWN position); 3-position switches have RED (UP position), AMBER (NEUTRAL), and GREEN (DOWN position). Switch uses one, standard T-1 3/4 flange base lamp supplied. "Lever-Lite" III is mounted, relamped (without tools), terminated, and removed from front of panel. Color filters changeable from front. Terminals are solder lug type, which also accept AMP 110 FASTON. Mounting hole is 7/8" x 1 1/2". Behind panel dimensions are 1 3/8" H. x 3/4" W. x 1 1/8" D. maximum.

SERIES 84000		TWO POSITION TYPES		Schematic		Ex. 1-9	10-24	25-49	50-99	100-249
Part No. No. Locking	Action	Pos. 1	Pos. 2	Pos. 1	Pos. 2	Ex. 1-9	10-24	25-49	50-99	100-249
84206	S.P.D.T.	1-C	1-C	8.64	6.48	5.94	5.40	4.32		

SERIES 84000		THREE POSITION TYPES		Schematic		Ex. 1-9	10-24	25-49	50-99	100-249
Part No. No. Locking	Action	Pos. 1	Pos. 2	Pos. 1	Pos. 2	Ex. 1-9	10-24	25-49	50-99	100-249
84312	S.P.D.T.	1-C	1-C	10.68	8.01	7.34	6.68	5.34		

\*Add suffix 'L' to part number to indicate locking type.

FOR DETAILED INFORMATION AND/OR ADDITIONAL TYPES AND MODELS  
REQUEST A COPY OF SWITCHCRAFT'S ENGINEERING SPECIFICATION CATALOG.



Series 46000R, 49000, 50000, 51000R, low-cost, precision "double-wipe" slide switches. Switches use special U-shaped, bifurcated sliders to assure continuous wiping action. Contacts rated at 0.5 amp, D.C., 3 amps, A.C., 125 volts, non-inductive load. Standard slider lug terminals have 5/16" dia. center hole and wrap-around notch for wiring ease. Most switches furnished with black 1 1/2" knob and 140" (1 1/2") dia. mounting holes. Nos. 46206LFR, 46256LFR flush screwdriver actuated knobs. All slide and rocker switches are U.L. approved unless otherwise noted.

New Phase III Switches, Series 46000E, high performance switches, feature glass filled nylon terminal boards, allowing excellent mechanical stability, high leakage resistance, the ability to withstand high temperatures, flame retardance, and self-extinguishing characteristics. Standard knob color is black. Terminal holes in solder lug are .070" x .085" and accept wires as large as #14 AWG. Series 46000E, are U.L. and C.S.A. listed.

**SERIES 46000R AND 46000E**  
**2 AND 3 POSITION GENERAL PURPOSE TYPE**  
Series 46000R rated at 3 amps, A.C., 0.5 amp, D.C., 125 volts, non-inductive load. Nos. 46206LFR and 46256LFR feature a flush screwdriver slotted knob. All Series 46000R U.L. listed. Series 46000E, 2 position types with locking or momentary functions, U.L. and C.S.A. listed. Rated at 0.5 amp, D.C., 3 amps, A.C., 125 volts, non-inductive load. Unless otherwise indicated, switches have non-shorting contacts and black nylon knob with serrated crown. Nos. 46256LFE have flush actuators.

Three position types with positive center detent action. All have shutter type dust cover to prevent dirt and dust from contaminating switch contacts. Series 46310LFR type - locking in all positions.

Part No.	Action	Fig.	Ex. 1-9	10-24	25-49	50-99	100-249
46202LR	S.P.S.T.	A	.60	.45	.413	.375	.30
46203LR	Locking S.P.D.T.	A	.64	.48	.44	.40	.32
46206LR	Locking S.P.D.T.	D	.88	.66	.605	.55	.44
46208LR	Locking S.P.D.T.	A	.72	.54	.495	.45	.36
46208MR	Locking S.P.D.T.	B	1.00	.75	.688	.625	.50
46256LFE	Locking S.P.D.T.	R	1.00	.75	.688	.625	.50
46256LFR	Locking S.P.D.T.	D	.92	.69	.633	.575	.46

Part No. Circuitry

46311LFR S.P.T.T. L

46313LFR D.P.T.T. L

46313LDR D.P.T.T. L

46313LDR D.P.T.T. L

46313LDR D.P.T.T. L

46313LDR D.P.T.T. L

46313LDR D.P.T.T. L

46313LDR D.P.T.T. L

46313LDR D.P.T.T. L

46313LDR D.P.T.T. L