

Keylite* Pushbutton Switches — Illuminated or Non-Illuminated

STANDARD TYPES



SLOPE KEYS — NARROW



SLOPE KEYS — WIDE



STEP KEYS — NARROW



STEP KEYS — WIDE



HALF KEYS — NARROW
(12 mm)



WINDOW KEYS — WIDE
(17 mm) Replaceable Legends



COLORED INSERTS

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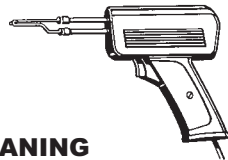
SPECIFICATIONS

- Ratings** — Switch — 10mA at 24 VDC.
- Mechanical Life and Electric Life** — 5 million operations momentary, 10,000 maintained
- Initial Contact Resistance** — 50 milliohms max.
- Insulation Resistance** — 10⁹ Ohms minimum
- Contact Bounce** — 2.0 ms maximum
- Operating Force** — 150 grams approx.
- Total Key Travel** — .098 (2.5 mm)
- Pre-Travel** — .039 (1 mm)
- Ambient Temperature** — -25°C to +85°C (-13°F to +185°F)
- Mounted Method** — Direct soldering onto standard Matrix printed circuit board.
- Interchangeable Keys** — Large variety of colors

MATERIALS

- Housing** — Polycarbonate
- Key Cap** — ABS
- Switching Contacts** — Gold plate over silver plated brass.

CAUTION AND



RECOMMENDATIONS

FOR SOLDERING AND CLEANING

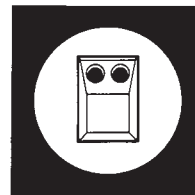
Contamination of the contacts of miniature switches is the most common cause of problems in low energy circuits. This is due to the inability of current to flow through the increased resistance of the switch contacts due to the contamination. As most contamination occurs during the installation and cleaning of the switch, proper care when installing the switch can reduce problems in this area. The following procedures should be followed to reduce the possibility of switch contact contamination.

Hand Solder

1. Use rosin core solder .030" — .040" diameter.
2. A small soldering iron in the 30 to 40 watt range should be used.
3. The solder joint should not be overheated.
4. Do not position switch with terminations straight up.
5. No clean up should be necessary. However, if used, do not allow solvents to enter non-sealed areas of switch.

Wave solder — Miniature Switches

Do not immerse or spray with solvents to remove flux except for switches designed for this type of cleaning.
The use of wave solder oil is not advised.



Clean Lines
Positive Tactile
Action, Bright
LED Indicators



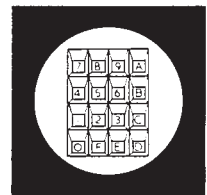
Keys Are Detachable
and Interchangeable
with Improved
Push-On Design



Stand-Off Lugs
Minimize
Solder-Creepage



Half Key Feature



RECOMMENDED KEY REMOVAL METHOD
1. Operate switch. 2. Insert small screwdriver into resulting gap at 'A'. 3. Gently twist.
NOTE: When removing keys from within a matrix e.g. No. 3 above, first remove Nos. 9 and 6 by the above method then remove No. 3.

LED SPECIFICATIONS			
Color	Red	Green	Yellow
Maximum ratings			
Forward current	30mA	30mA	30mA
Forward voltage	3.0 @ 10mA	3.0 @ 20mA	3.0 @ 10mA
Intensity (typical)	2.0 mcd @ 10mA	1.5 mcd @ 20mA	2.0 mcd @ 10mA

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KEYLITE ORDERING GUIDE — For assembled switches

Poles and Throw	Contact Operation	Base Catalog Number	Suffix Numbers — Add to Base Catalog Number						Other Features		
			LED Colors and Quantity		Operator Key Style and Number or LED's			Operator Key Color			
			Description	Suffix Number	Style	Number of LED Holes	Suffix Number	Color	Suffix Number	Feature	Suffix Number or Letter
1PDT	Momentary	SB6SDV	One Red, Narrow Spacing ①	14	Slope, Narrow	None	1A	White	1	Colored Inserts	Applicable to Key Styles 2E, 4E & 6E Only
			One Red, Wide Spacing ②	15	Slope, Wide	None	2A				
			One Green, Narrow Spacing ①	24	Slope, Narrow	One	3A				
			One Green, Wide Spacing ②	25	Slope, Wide	One	4A				
			One Yellow, Narrow Spacing ①	34	Step, Narrow	None	1D				
			One Yellow, Wide Spacing ②	35	Step, Wide	None	2D				
			Two Red ③	44	Step, Narrow	One	3D				
			Two Green ③	54	Step, Wide	One	4D				
			Two Red ③	44	Step, Narrow	Two	5D				
			Two Green ③	54	Step, Wide	Two	6D				
			No LED	64	Half, Narrow	None	1B				
			Two Yellow ③	74	Half, Wide	One	2B				
				74	Half, Narrow	Two	3B				
			One Red, One Green ③④	84	Window, Wide	None	2C				
			One Red, One Yellow ③④	94	Window, Wide	One	4C				
	94	Window, Wide	Two	6C							
One Green, One Yellow ③④	04	Colored, Wide Insert	None	2E							
	04	Colored, Wide Insert	One	4E							
	04	Colored, Wide Insert	Two	6E							
		Paddle Key	None	1F							
		Paddle Key	One	2F							
		Paddle Key	Two	3F							
		Illuminated paddle Key	No Light Bars	1G							
		Illuminated Paddle Key	One Light Bar	2G							
		Illuminated Paddle Key	Two Light Bars	3G							
		Slant Key	None	1H							

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FOOTNOTES

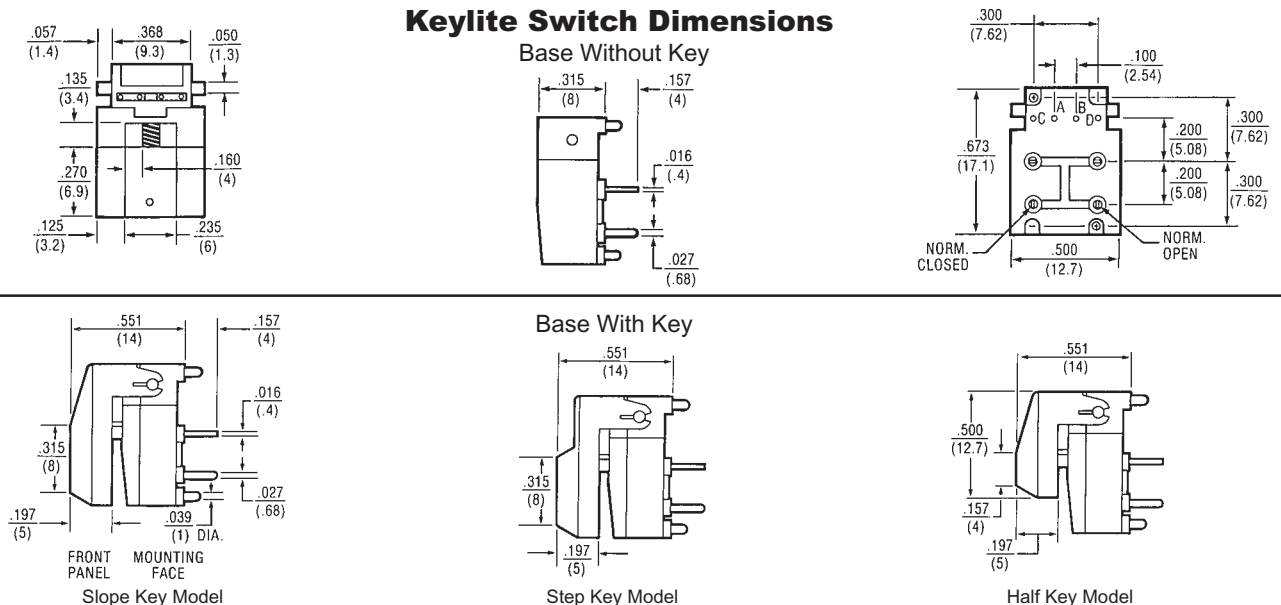
Mounting of LED's

- ① LED is mounted in center holes A(-) and B(+).
- ② LED is mounted in outer holes C(-) and D(+).
- ③ LED's are mounted in holes C(+) and A(-), holes B(-) and D(+).
- ④ Colored LED's are mounted left to right.

ORDERING EXAMPLES:


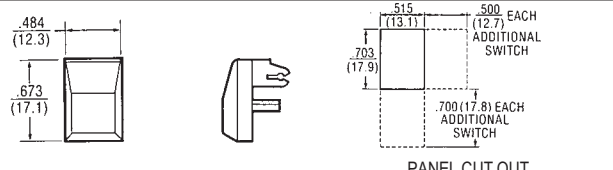

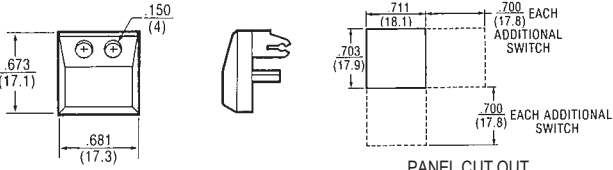

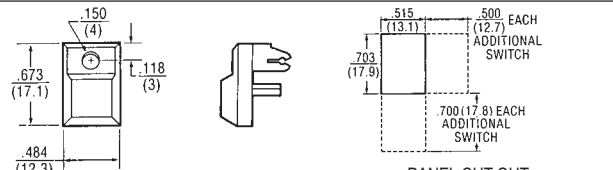

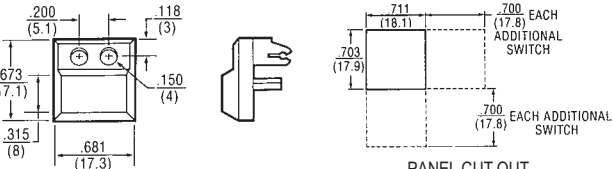

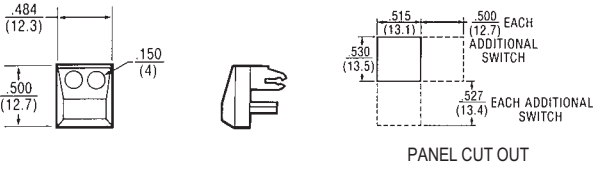

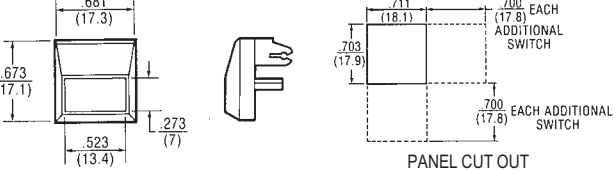

SB6SDV143A1 — Momentary switch, narrow spaced red LED, white narrow slope Key.

Keylite Switch Dimensions



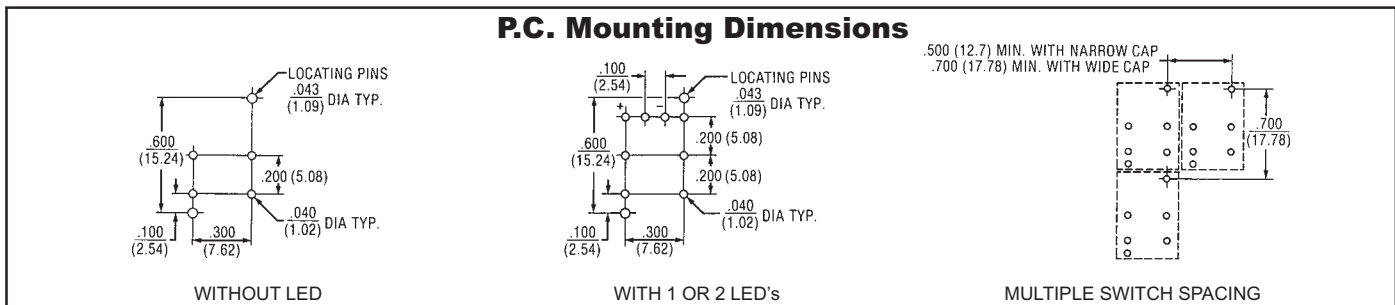
Keylite* Pushbutton Switches — Illuminated or Non-Illuminated

OPERATOR KEY SELECTION TABLE

Key Description	Key Dimensions	Momentary Action		Key Color	Color Code		
		Key Part Number	Number of LED Holes				
 Narrow Slope Key		W-KN-21	None	Black	No letter Suffix		
		W-KN-22	1				
		W-KN-23	2				
 Wide Slope Key		W-KN-24	None	White	A		
		W-KN-25	1				
		W-KN-26	2				
 Narrow Step Key		W-KN-40	None	Red	B		
		W-KN-41	1				
		W-KN-42	2				
 Wide Step Key		W-KN-43	None	Green	C		
		W-KN-44	1				
		W-KN-45	2				
 Half Keys		W-KN-28	None	Blue	D		
		W-KN-29	1				
		W-KN-30	2				
 Window Keys		W-KN-37	None	Gray	E		
		W-KN-38	1				
		W-KN-39	2				
 Colored Insert Keys				Yellow	F		
						Orange	G

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Ordering Example: W-KN-21D is a blue narrow slope key w/no LED holes.
W-KN-45 is a black wide step key w/two LED holes.



Keylite* Pushbutton Switches — Illuminated or Non-Illuminated

OPERATOR KEY SELECTION TABLE

Description	Key Dimensions	Key Part Number	Illuminated Features	Key Color	Suffix Code		
			Number of Light Bars				
<ul style="list-style-type: none"> LED's are mounted under the paddle Color of light bar determined by LED 	<p>PANEL CUT-OUT</p>	W-KN-68	None	Black	No letter Suffix		
		W-KN-69	1			White	A
		W-KN-70	2			White	A
<ul style="list-style-type: none"> LED's are mounted outside the paddle 	<p>PANEL CUT-OUT</p>	W-KN-71	Number of LED Holes	Red	B		
		W-KN-72	1	Blue	D		
		W-KN-73	2	Yellow	F		
<ul style="list-style-type: none"> No LED's 	<p>PANEL CUT-OUT</p>	W-KN-74	None	Orange	G		

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Ordering Examples: W-KN-70E is a gray paddle key with 2 light bars.
W-KN-72D is a blue paddle key with 1 LED hole.
W-KN-74 is a black slant key.

ADDITIONAL KEYLITE OPTIONS

<p>STATIC SHIELDING</p> <ul style="list-style-type: none"> Static Shielding prevents static electricity from entering the circuit via the LED. Withstands up to 11,000 volts DC. Can be provided on any key style. 	
<p>SEALANT TAPE</p> <ul style="list-style-type: none"> Adhesive tape seals switches for wave soldering. Tape is discarded after wash. Key caps shipped unassembled. 	<p>CUSTOM INK STAMPING</p> <p>Available upon request.</p>

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ADDITIONAL KEYLITE OPTIONS — KEYBARS

PANEL CUT-OUT

1.02 (25.9) — .703 (17.9) EACH ADDITIONAL SWITCH — 1.01 (25.7) EACH ADDITIONAL SWITCH

P.C. BOARD LAYOUT

200 (5.08) — 100 (2.54) — .600 (15.24) — .100 (2.54) — .300 (7.62) — .300 (7.62) — .100 (2.54) — .200 (5.08) — .200 (5.08) — .200 (5.08) — .200 (5.08) — .040 (1.02) DIA. TYP. — .043 (1.09) DIA. TYP. — LOCATING PINS

DIMENSION: W/LED LOCATION HOLES

99 (25) — .35 (8.9) — .24 (6.1) — .15 (3.8) — .15 (3.8) — .24 (6.1) — .35 (8.9) — .15 (3.8)

A B C D E F

LED HOLE LOCATIONS SEE NOTE 1.

ORDERING EXAMPLES

EXAMPLE:
W-KN-49G-ACE, is the orange key with LED holes in positions A, C, and E. (Shown at left)

EXAMPLE:
W-KN-49, is the black key with no LED holes.

Part No.	Color
W-KN-49*	Black
W-KN-49A*	White
W-KN-49B*	Red
W-KN-49C*	Green
W-KN-49D*	Blue
W-KN-49E*	Gray
W-KN-49F*	Yellow
W-KN-49G*	Orange
W-KN-49H*	Brown

*For LED holes see note 1

NOTE:

- Center LED holes (B, E) cannot be ordered with outer holes (A, C) or (D, F) respectively.
- Accommodates 2 switches.
- Standard LED hole is $\frac{150}{4}$ diameter

.99" (25 mm) KEYBAR

PANEL CUT-OUT

1.41 (35.8) — .703 (17.9) EACH ADDITIONAL SWITCH — 1.395 (35.4) EACH ADDITIONAL SWITCH

P.C. BOARD LAYOUT

100 (2.54) — 100 (2.54) — .600 (15.24) — .100 (2.54) — .300 (7.62) — .700 (17.78) — .300 (7.62) — .100 (2.54) — .200 (5.08) — .200 (5.08) — .200 (5.08) — .200 (5.08) — .040 (1.02) DIA. TYP. — .043 (1.09) DIA. TYP. — LOCATING PINS

DIMENSION: W/LED LOCATION HOLES

1.38 (35) — .34 (8.6) — .45 (11.4) — .45 (11.4) — .34 (8.6) — .25 (6.4) — .15 (3.8) — .25 (6.4)

A B C D E F

LED HOLE LOCATIONS SEE NOTE 1.

ORDERING EXAMPLES

EXAMPLE:
W-KN-50C-BDF, is the green key with LED holes in positions B, D, and F. (Shown above)

EXAMPLE:
W-KN-50, is the black key with no LED holes.

Part No.	Color
W-KN-50*	Black
W-KN-50A*	White
W-KN-50B*	Red
W-KN-50C*	Green
W-KN-50D*	Blue
W-KN-50E*	Gray
W-KN-50F*	Yellow
W-KN-50G*	Orange
W-KN-50H*	Brown

*For LED holes see note 1

NOTE:

- Center LED holes (B, E) cannot be ordered with outer holes (A, C) or (D, F) respectively.
- Accommodates 2 switches.
- Standard LED hole is $\frac{150}{4}$ diameter

1.38" (35 mm) KEYBAR

PANEL CUT-OUT

1.52 (38.6) — .703 (17.9) EACH ADDITIONAL SWITCH — 1.505 (38.2) EACH ADDITIONAL SWITCH

P.C. BOARD LAYOUT

100 (2.54) — 100 (2.54) — .600 (15.24) — .100 (2.54) — .300 (7.62) — .300 (7.62) — .300 (7.62) — .200 (5.08) — .200 (5.08) — .200 (5.08) — .200 (5.08) — .200 (5.08) — .200 (5.08) — .040 (1.02) DIA. TYP. — .043 (1.09) DIA. TYP. — LOCATING PINS

DIMENSION: W/LED LOCATION HOLES

1.49 (37.8) — .74 (18.8) — .65 (16.5) — .65 (16.5) — .35 (8.9) — .24 (6.1) — .15 (3.8) — .15 (3.8) — .24 (6.1) — .35 (8.9) — .24 (6.1) — .15 (3.8)

A B C D E F G H J

LED HOLE LOCATIONS SEE NOTE 1.

ORDERING EXAMPLES

EXAMPLE:
W-KN-51B-ACEH, is the red key with LED holes in positions A, C, E, and H. (Shown above)

EXAMPLE:
W-KN-51, is the black key with no LED holes.

Part No.	Color
W-KN-51*	Black
W-KN-51A*	White
W-KN-51B*	Red
W-KN-51C*	Green
W-KN-51D*	Blue
W-KN-51E*	Gray
W-KN-51F*	Yellow
W-KN-51G*	Orange
W-KN-51H*	Brown

*For LED holes see note 1

NOTE:

- Center LED holes (B, E, H) cannot be ordered with outer holes (A, C) or (D, F) or (G, J) respectively.
- Accommodates 3 switches.
- Standard LED hole is $\frac{150}{4}$ diameter

1.49" (37.8 mm) KEYBAR

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