

# Distinctive Characteristics

Industry's first molded rocker with TV rating. Designed to handle large inrush current. JWM models certified for TV-5 rating and JWL models for TV-8 rating.

Special 5A @ 72V DC rating for JWL models to use in worldwide telecommunication equipment for power distribution applications.

Prominent external insulating barriers increase insulation resistance and dielectric strength.

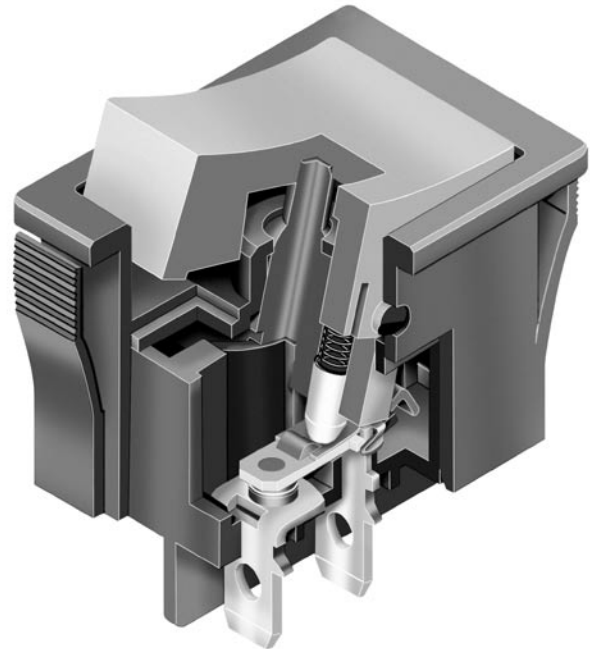
Constructed for dust resistance with interior cover between actuator and contact area.

Specially designed to break light contact welds.

JWMW panel seal version meets IP67 of IEC60529 Standards (similar to NEMA 4 and 6).

Terminals are molded in and epoxy sealed to lock out flux, dust, and other contaminants.

Housing and case of heat resistant resin meet UL 94V-0 standard.



Actual Size JWM



# General Specifications

## Electrical Capacity (Resistive Load)

**Power Level:** 10A @ 125/250V AC for JWM & JWMW models; 10A @ 30V DC for JWMW; 16A @ 125/250V AC for JWL models; 5A @ 72V DC for telecommunication applications

## Other Ratings

**Contact Resistance:** 10 milliohms maximum for JWM & JWMW; 20 milliohms maximum for JWL  
**Insulation Resistance:** 1,000 megohms minimum @ 500V DC  
**Dielectric Strength:** 2,000V AC minimum between contacts for 1 minute minimum; 4,000V AC minimum between contacts & case for 1 minute minimum  
**Mechanical Life:** 25,000 operations minimum  
**Electrical Life:** 25,000 operations minimum  
**Nominal Operating Force:** JWM & JWMW Single Pole 3.92N & Double Pole 7.84N  
 JWL Single Pole 5.00N & Double Pole 10.00N  
**Angle of Throw:** 26°

## Materials & Finishes

<b>Housing/Frame &amp; Barrier:</b>	Polyamide (UL94V-0)	<b>Movable Contacts:</b>	Silver alloy
<b>Interior Seal for JWM &amp; JWL:</b>	Polyphenylene sulfide	<b>Stationary Contacts:</b>	Silver alloy
<b>Case/Base:</b>	Melamine (UL94V-0)	<b>Terminals:</b>	Brass with silver plating

## Environmental Data

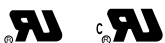
**Operating Temp Range:** -25°C through +70°C (-13°F through +158°F) for JWM & JWL; -25°C through +85°C (-13°F through +185°F) for panel seal JWMW model  
**Humidity:** 90 ~ 95% humidity for 96 hours @ 40°C (104°F)  
**Vibration:** 10 ~ 55Hz with peak-to-peak amplitude of 1.5mm traversing the frequency range & returning in 1 minute; 3 right angled directions for 2 hours  
**Shock:** 50G (490m/s<sup>2</sup>) acceleration (tested in 6 right angled directions, with 5 shocks in each direction)  
**Sealing:** IP67 of IEC60529 standard for panel seal JWMW model; dust resistant inner seal for others.

## Installation

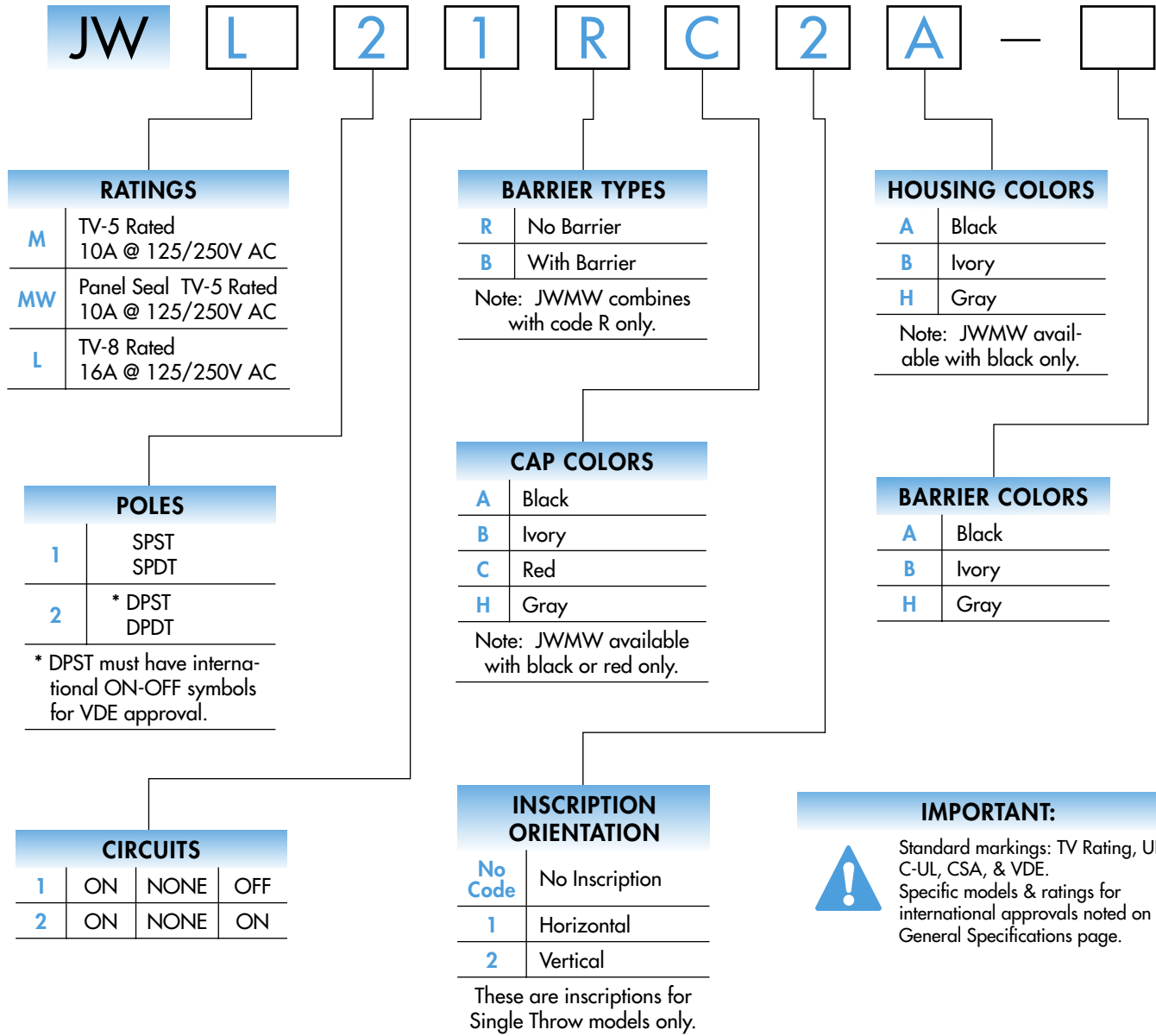
**Soldering Time & Temp:** Manual Soldering: See Profile A in Supplement section.

## Standards & Certifications

**Flammability Standards:** UL94V-0 for housing/frame & case/base of JWL, JWM, & JWMW models  
**TV Ratings for UL & CSA:** JWM & JWMW (TV-5) Overload Test @ 120V AC for 50 operations: Steady State Current (rms) 7.5A; Minimum Inrush Current (peak) 111A  
 UL File No. WOYR2.E44145  
 CSA File No. 023535-0-000  
 JWM & JWMW (TV-5) Endurance Test @ 120V AC for 25,000 operations: Steady State Current (rms) 5A; Minimum Inrush Current (peak) 78A  
 JWL (TV-8) Overload Test @ 120V AC for 50 operations: Steady State Current (rms) 12A; Minimum Inrush Current (peak) 163A  
 JWL (TV-8) Endurance Test @ 120V AC for 25,000 operations: Steady State Current (rms) 8A; Minimum Inrush Current (peak) 117A  
**UL & C-UL Recognized:** JWM & JWMW models recognized at 10A @ 250V AC & JWMW at 10A @ 30V DC; JWL models recognized at 16A @ 250V AC; 5A @ 72V DC (specify "/U-DC" after part number to request UL rating be marked on DC rated switches); UL File No. WOYR2.E44145; C-UL File No. WOYR8.E44145.  
**CSA Certified:** JWM & JWMW models certified at 10A @ 250V AC; JWL models certified at 16A @ 250V AC; CSA File No. 023535-0-000  
**VDE Approved:** JWM models approved at steady state 5A, inrush 80A, resistive 10A, & motor load 6A all at 250V AC; VDE License No. 115637; JWL models approved at steady state 8A, inrush 128A, resistive 16A, & motor load 8A all at 250V AC; VDE License No. 115637.  
 Note: JWM & JWL Double Pole, Single Throw models approved only with the international on-off symbols on the actuator.



### TYPICAL SWITCH ORDERING EXAMPLE

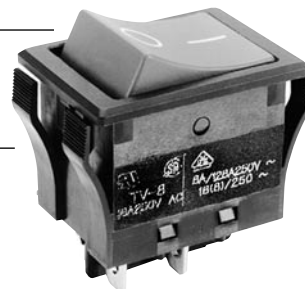


### DESCRIPTION FOR TYPICAL ORDERING EXAMPLE

#### JWL21RC2A

Red Rocker Cap with International ON-OFF Symbols in Vertical Orientation

DPST ON-NONE-OFF Circuit



Black Housing

TV-8 Rated  
16A @ 125/250V AC

### RATINGS

**M**

TV-5 Rated

Power Level

10A @ 125/250V AC

**MW**

Panel Seal TV-5 Rated

Power Level

10A @ 125/250V AC

**L**

TV-8 Rated

Power Level

16A @ 125/250V AC

### POLES & CIRCUITS

Pole	Model	Rocker Position			Connected Terminals			Throw & Schematics
		Down	Center	Up	Down	Center	Up	
SP	JWM11 JWMW11 JWL11	ON	NONE	OFF	1-1b	OPEN	OPEN	SPST 
SP	JWM12 JWMW12 JWL12	ON	NONE	ON	1-1b	OPEN	1-1α	SPDT 
DP	JWM21 JWMW21 JWL21	ON	NONE	OFF	1-1b 2-2b	OPEN	OPEN	DPST 
DP	JWM22 JWMW22 JWL22	ON	NONE	ON	1-1b 2-2b	OPEN	1-1α 2-2α	DPDT 

### BARRIER TYPES & COLORS

**R**

No Barrier

Flange/Housing Material: Polyamide  
Finish: Matte



JWM



JWL

**B**

With Barrier

Barrier Material: Polyamide  
Finish: Matte



JWM



JWL

No-barrier type has a flat flange which is an integral part of the switch.

Barrier type designates that either AT217 (for JWM) or AT218 (for JWL) is factory assembled. Dimensions for barriers are shown in the Accessories section.

JWMW panel seal device has exterior seal of acrylonitrile butadiene rubber covering the flange.

Barrier Colors Available:

**A**

Black

**B**

Ivory

**H**

Gray

### CAP COLORS



Cap Material:  
Polyphenelene Oxide  
  
Finish: Matte

Rocker cap is an integral part of the switch and not available separately.  
JWMW available with black or red caps only.

Cap Colors Available:



Black



Ivory



Red



Gray

### INSCRIPTIONS

No Code

No Inscription

1

Inscription for Horizontal Mounting

2

Inscription for Vertical Mounting



DPST models without inscriptions do not have VDE approval.

The IEC symbols for On-Off are supplied with Single Throw models only.  
Orientation of inscription must be selected.  
Inscription Colors: Black ink on Ivory or Gray cap. White ink on Black or Red cap.  
Contact factory for other inscriptions.

### HOUSING

Material: Polyamide

Finish: Matte

Colors Available:



Black



Ivory



Gray

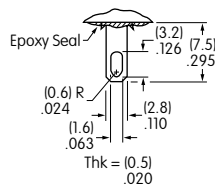
JWMW panel seal models available in black housing only.

### TERMINALS

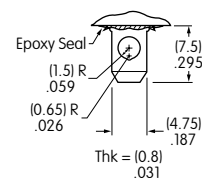
Solder Lug/.110" (2.8mm) Quick Connect

Solder Lug/.187" (4.75mm) Quick Connect

JWM & JWMW



JWL



This switch assembly with connectors is not UL, C-UL, CSA, or VDE approved.

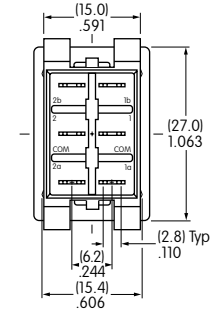
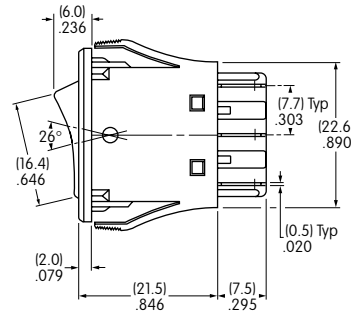
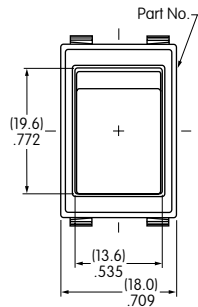
### TYPICAL SWITCH DIMENSIONS

#### TV-5 No Barrier • 10 Amp

#### Single & Double Pole



JWM11RC1A

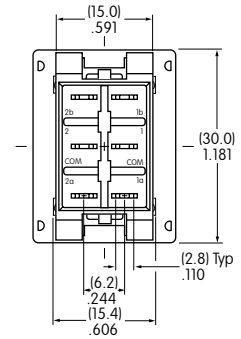
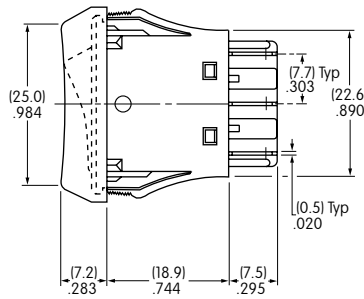
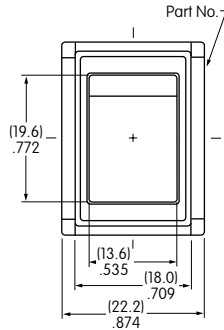


#### TV-5 With Barrier • 10 Amp

#### Single & Double Pole



JWM11BCA-H

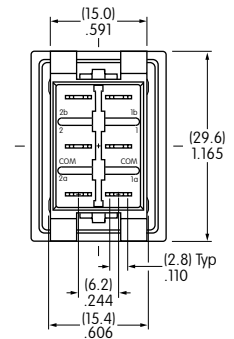
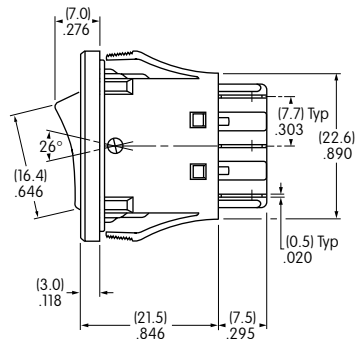
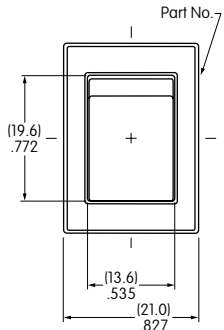


#### Panel Seal • TV-5 No Barrier • 10 Amp

#### Single & Double Pole



JWMW22RCA



Single pole double throw models do not have terminals 2a, 2, & 2b; single throw models do not have 1a & 2a.

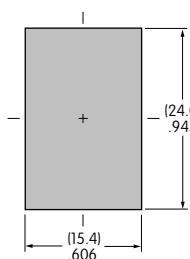
### PANEL CUTOUTS FOR JWM MODELS

#### Panel Thickness Range

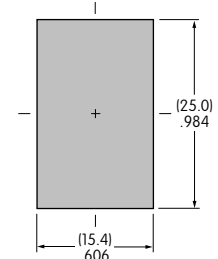
Without Barrier (JWM & JWMW):  
.039" ~ .157" (1.0mm ~ 4.0mm)

With Barrier (JWM):  
.024" ~ .126" (0.6mm ~ 3.2mm)

JWM



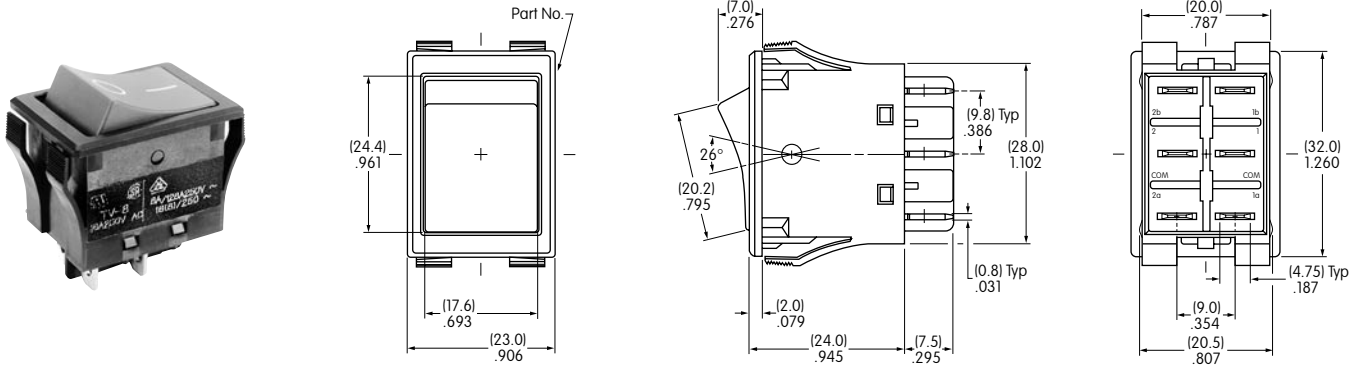
JWMW



### TYPICAL SWITCH DIMENSIONS

#### TV-8 No Barrier • 16 Amp

#### Single & Double Pole

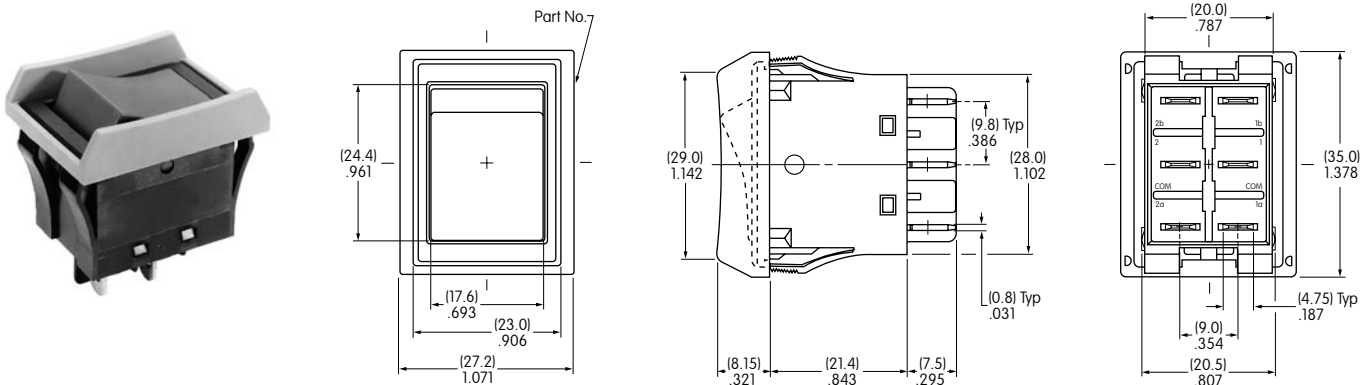


JWL21RC2A

Single pole double throw models do not have terminals 2a, 2, & 2b; single throw models do not have 1a & 2a.

#### TV-8 With Barrier • 16 Amp

#### Single & Double Pole



JWL11BCA-H

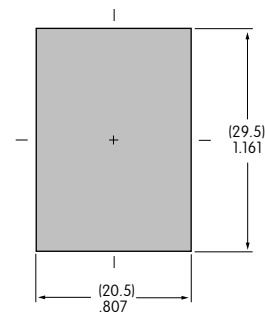
Single pole double throw models do not have terminals 2a, 2, & 2b; single throw models do not have 1a & 2a.

### PANEL CUTOUT FOR JWL MODELS

#### Panel Thickness Range

Without Barrier:  
.039" ~ .157" (1.0mm ~ 4.0mm)

With Barrier:  
.024" ~ .126" (0.6mm ~ 3.2mm)



### OPTIONAL DUST COVER

#### AT4126

#### Dust Cover for JWL Rocker

Lid: Clear Polyvinyl Chloride

Base: Black Polyamide

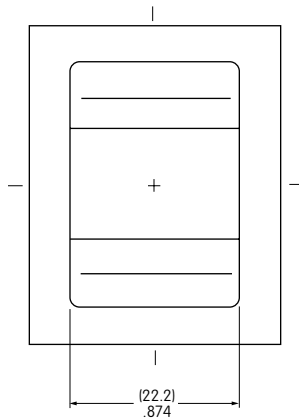
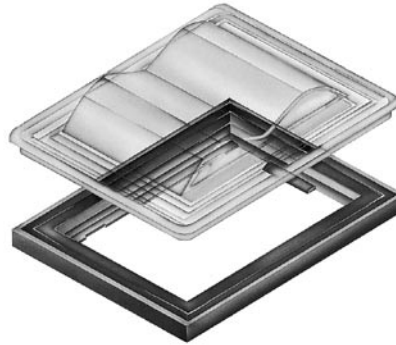
Recommended Temperature Range:

-10° ~ +70°C (+14°F ~ +158°F)

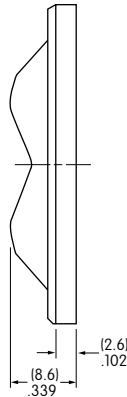
Loses pliability below 0°C (+32°F)

Recommended Panel Thickness:

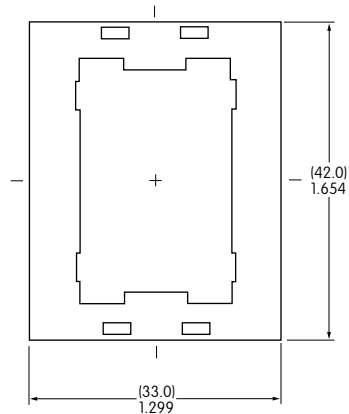
.031" ~ .134" (0.8mm ~ 3.4mm)



Top

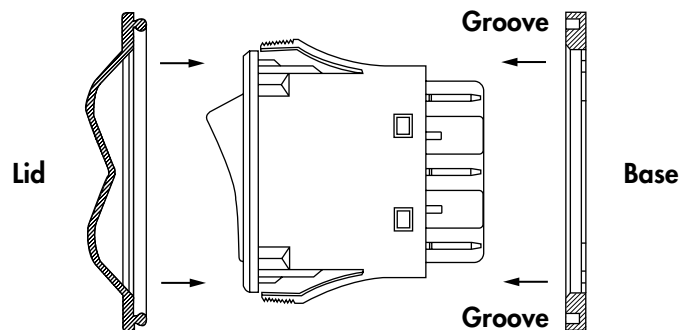


Side



Bottom

#### Switch



#### Assembly Instructions:

- (1) Insert bottom of switch through the **base** until the tabs lock into place.
- (2) Snap the switch into the panel.
- (3) Seat the **lid** into the **grooves** of the **base**.