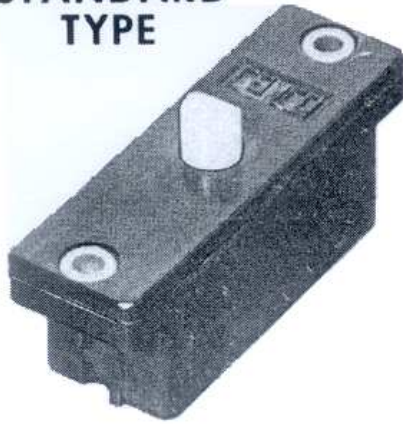


### STANDARD TYPE



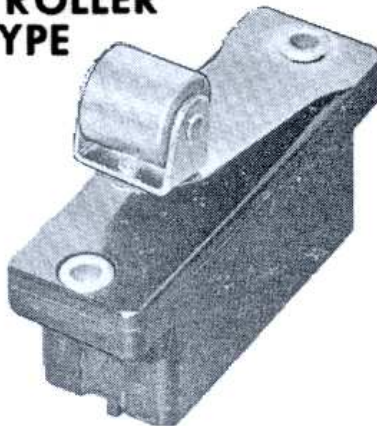
#### FEATURES:

- N.O. and N.C. single pole double throw
- 2 N.O. and 2 N.C. double pole double throw
- Snap action silver cadmium oxide contacts with high contact pressure, and low resistance.
- Precision operation for repeat accuracy, reliability and long life performance.
- Contact mechanism completely enclosed in a molded case.
- Rugged duty nylon operating button for optimum strength and high speed reliability.
- Terminal screws or plug in socket readily accessible for ease of wiring.
- Underwriters Laboratories, Inc. Recognized.
- Temperature Limits  
-50°F. - +185°F.

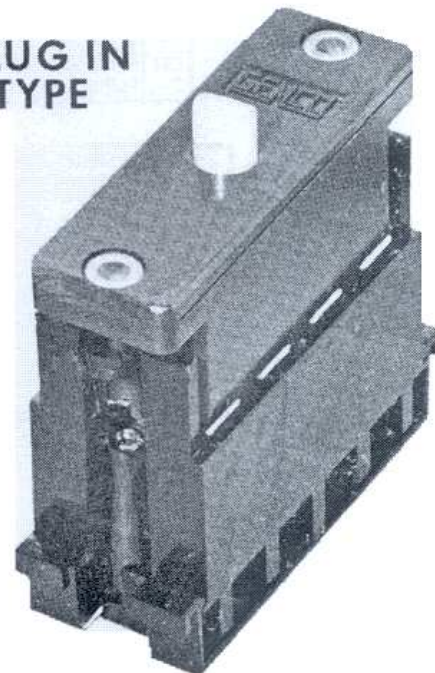
### SEALED PLUNGER TYPE



### LEAF ROLLER TYPE



### PLUG IN TYPE



# PRECISION LIMIT SWITCH UNIT

# Gemco

## DESCRIPTION

The Gemco Precision Snap Switches are designed for industrial duty applications where compact size, complete reliability and millions of trouble free operations are required.

## CONSTRUCTION

The housing is a molded material which has excellent resistance to arcing and carbon tracking. The operating button is of molded nylon, a material with excellent wear characteristics.

The button is well guided at the top and bottom to insure accurate repeatability and minimum wear. The large button diameter and bearing surface allows it to be actuated by either a rotating or reciprocating cam.

## MOUNTING SNAP SWITCH

The mounting of the precision snap switch is accomplished with two No. 6 screws in the brass eyelets, which also serve to rivet and seal the case. The No. 6-32 binder head terminal screws in the rear of the unit are easily accessible.

## PLUG-IN SOCKET

The new plug in socket allows for substitution of switches without disturbing original wiring. They are provided with saddle clamp wiring and have a convenient marking strip.

## SADDLE CLAMP TERMINALS

Facilitates assembly of single or multi-stranded conductor where connector fittings are not being used. Assures isolation for individual connections. Available on S.P.D.T. only.

## CATALOG NUMBERING SYSTEM

1950-1-B-A-A0

CATALOG SECTION

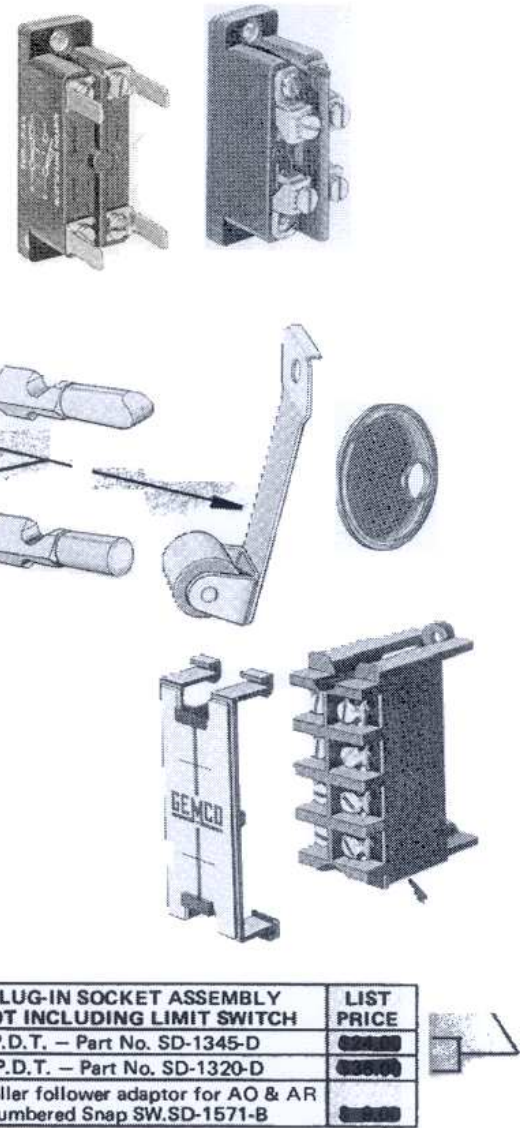
	TYPE OF OPERATOR	LIST PRICE ADDITION
AO	PLUNGER CAM OPERATED	NO ADDITION
AR	PLUNGER WITH BOOT-CAM OPERATOR	0.0000
BO	LEVER & 1/2" DIA. ROLLER ASS'Y.	0.0000
BR	LEVER & 1/2" DIA ROLLER ASS'Y WITH BOOT	0.0000
DO	PLUNGER PUSH OPERATOR (CYCL-SET & 2004 K RLS)	NO ADDITION
DR	PLUNGER WITH BOOT PUSH OPERATED	0.0000

	MOUNTING ARRANGEMENT	LIST PRICE ADDITION
A	FRONT - MTG.	NO ADDITION
B	SIDE - MTG.*	0.0000

\*Not available on plug in

	TERMINALS	LIST PRICE ADDITION
B	BINDER	NO ADDITION
P	PLUG IN	S.P. 0.0000 D.P. 0.0000
C	915/917 CYCL-SET	S.P. 0.0000 D.P. 0.0000
D	SADDLE CLAMP	S.P. 0.0000 D.P. Not Avail.

	CONTACT ARRANGEMENT	LIST PRICE
1	S.P.D.T.	0.0000
	1-N.O.	0.0000
	1-N.C.	0.0000
	D.P.D.T.	0.0000
4	2-N.O.	0.0000
	2-N.C.	0.0000

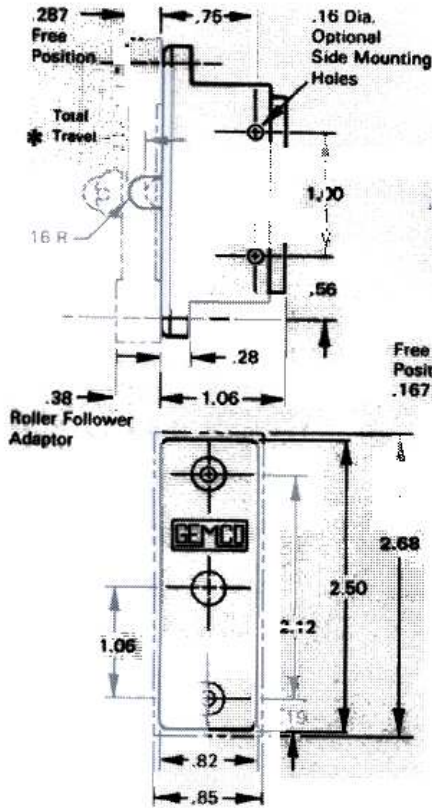


	PLUG-IN SOCKET ASSEMBLY NOT INCLUDING LIMIT SWITCH	LIST PRICE
	S.P.D.T. - Part No. SD-1345-D	0.0000
	D.P.D.T. - Part No. SD-1320-D	0.0000
	Roller follower adaptor for AO & AR numbered Snap SW.SD-1571-B	0.0000

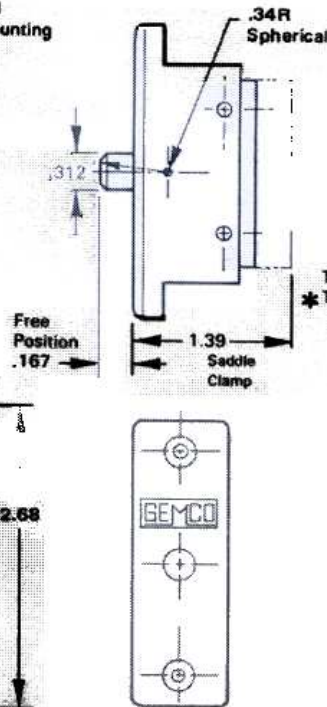
*See 2004 Page 3*

*1950-4-B-A-A0 REPLACED BY C-H 04-537081 & Roller Follower - N/C FD-0180000*

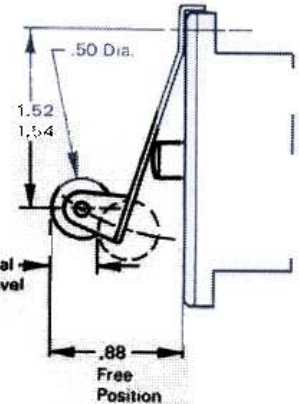
### SNAP SWITCH WITH STANDARD "AO" OPERATOR AND ADAPTOR OPTION



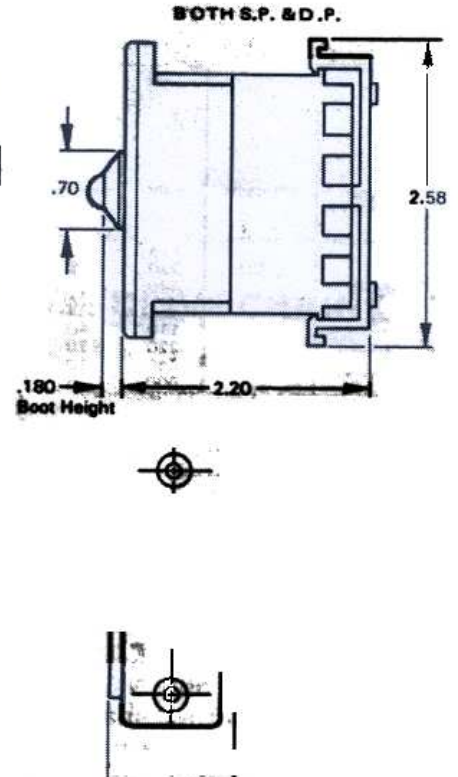
### SNAP SWITCH WITH STANDARD "DO" OPERATOR AND SADDLE CLAMP OPTION (S.P.D.T. ONLY)



### SNAP SWITCH WITH LEAF ROLLER "BO" OPERATOR



### PLUG-IN SNAP SWITCH WITH PLUG-IN SOCKET ASSEMBLY AND PLUNGER BOOT OPTION

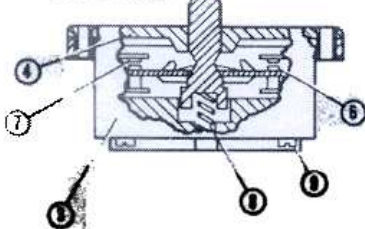


Mounting Holes for No. 6 Screw

ABOVE DIMENSIONS FOR BOTH S.P.D.T. and D.P.D.T. SWITCHES

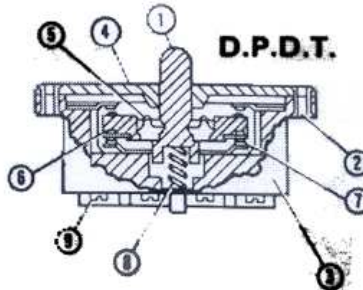
\* See Operation Data Chart

#### S.P.D.T.



1. Plunger
2. Eyelet
3. Enclosure
5. Contact Spring
6. Movable Contact Ass'y
7. Stationary Contact Ass'y
8. Return Spring
9. Terminal Screws

#### D.P.D.T.



#### OPERATING DATA STANDARD OPERATOR

	S.P.D.T.	D.P.D.T.
PRETRAVEL	.067-.074	
DIFFERENTIAL	.015-.025	
RESET OVERTRAVEL	.032-.059	
TOTAL TRAVEL	.103-.120	
OPERATING FORCE	14-16 oz	

#### LEAF ROLLER OPERATOR

	S.P.D.T.	D.P.D.T.
PRETRAVEL	145-185	145-185
DIFFERENTIAL	.038-.063	.063-.115
RESET OVERTRAVEL	.077-.099	.047-.087
TOTAL TRAVEL	.220-.230	.220-.230
OPERATING FORCE	14-16 oz	14-16 oz

#### SPECIAL PURPOSE SWITCHES

Part No.	Description	Product Line	List Price
1950-1404	SPDT	1970	
1950-1405	DPDT	1970	
1950-1406	SPST*	1980	
1950-1408	SPDT*	915/917/2004	

\*slow make - slow break

1950-1416 \$

ALL DIMENSIONS  
IN INCHES

Gemco Electric  
1080 N. Crooks Rd.  
Clawson, Michigan 48017-1097

DIMENSION SHEET

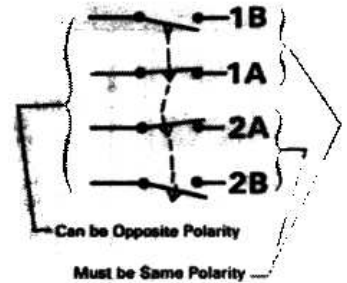
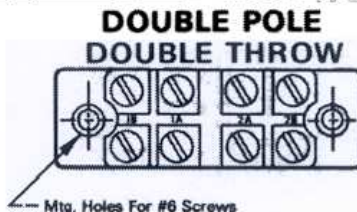
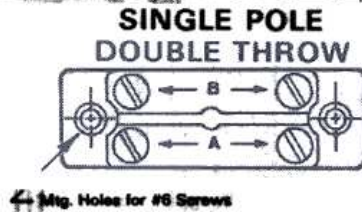
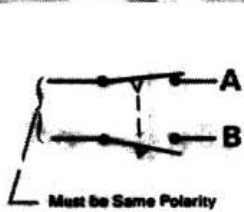
**ELECTRICAL CONTACTS**

The welded silver cadmium oxide contacts provide the following advantages: (1) High electrical conductivity, (2) Excellent resistance to sticking contacts, (3) Minimum electrical erosion.

The presence of cadmium oxide gives high arc quenching characteristics of cadmium without a reduction of high conductivity of fine silver. This is because the cadmium oxide remains as discrete particles throughout the silver base and each exhibits its own physical characteristics.

**ELECTRICAL CONTACT RATINGS**

Switch Type	Contacts	Volts	AC					Volts	DC		
			Inductive Pilot Duty 35% Power Factor				Continuous Carrying Amperes		Resistive 75% Power Factor	Inductive Pilot Duty and Resistive	
			Make		Break					Make and Break Amperes	Continuous Carrying Amps.
			Amps.	VA	Amps.	VA	Double Throw				
1950-4	DPDT	115	30	3450	3	345	10	10	0.2	10	
		230	15	3450	1.5	345	10	10	0.1	10	
		440	7.5	3450	0.75	345	10	10	.....	10	
		575	6	3450	0.6	345	10	10	.....	10	
1950-1	SPDT	110	40	.....	15	.....	15	15	0.25	15	
		220	20	.....	10	.....	15	15	0.1	15	
		440	10	.....	6	.....	15	15	.....	15	
		600	6	.....	6	.....	15	15	.....	15	

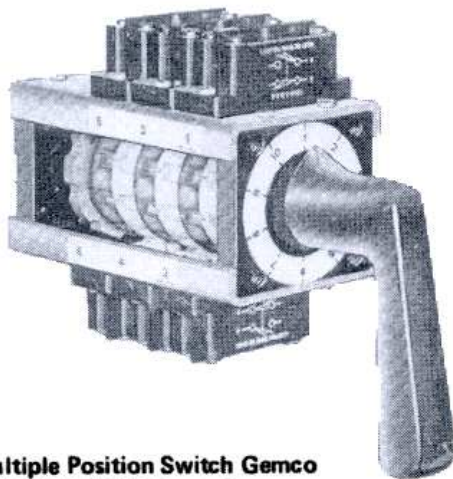


**APPLICATION NOTE:**

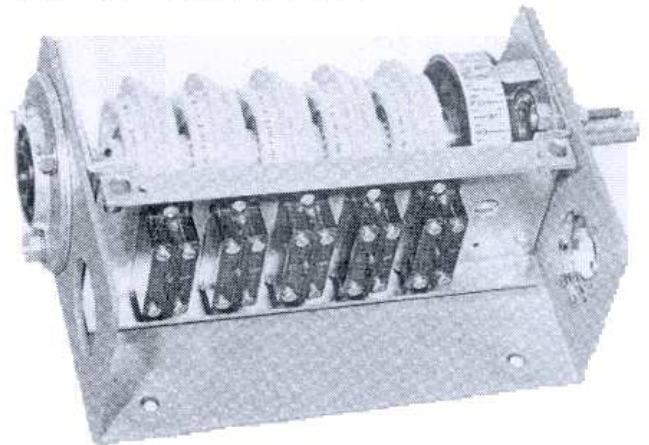
The N.O. and N.C. contacts of the single pole, double throw snap switch must be used on circuits of the same polarity. The two pole snap switch has two electrically separate poles, which can be used on opposite polarities.

The N.O. and N.C. circuit of each pole of the two pole snap switch, however, must be used on the same polarity.

**APPLICATIONS USING GEMCO PRECISION LIMIT SWITCH UNITS**



Multiple Position Switch Gemco KAM-DEK (Refer to Gemco Catalog Sections 1946)



Gemco 5 Circuit NEMA 1 Rotating Cam Limit Switch with Timing Dial (Refer to Gemco Catalog Sections 1980 & 1981)