

# INSTALLATION—OPERATION AND MAINTENANCE INSTRUCTIONS WITH PARTS LIST FOR JOYCE ROTARY LIMIT SWITCH MODEL LS8-404

## DESCRIPTION

This rotary limit switch is designed to control the limits of travel of rotating reversing equipment. The limit switch input switch shaft is connected to a worm gear. Adjustable self lubricating nylon roller cams are concentrically mounted on the worm gear. These adjustable cams actuate the single pole double throw precision limit switch units.

**CAUTION: DISCONNECT ELECTRICAL POWER BEFORE REMOVING COVER.  
DANGER OF SEVERE ELECTRICAL SHOCK.**

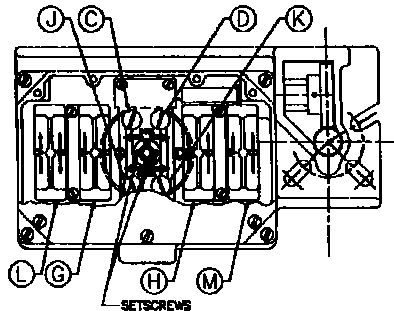
## ADJUSTMENT

Refer to figure 1. The electrical switch units G, H, L and M are shown with contact positions assumed when the cams are not actuating the switch units.

When the cam rotates and actuates the "B" (closed) contact opens and the "A" (open) contacts close. Each electrical switch unit has its independent adjustable cam.

### To Adjust "G" Switch

1. Loosen Yellow set screw.
2. Turn screw "C" until cam roller trips "G".
3. Retighten Yellow set screw.



### To Adjust "L" Switch

1. Loosen Blue set screw.
2. Turn screw "J" until cam roller trips "L".
3. Retighten Blue set screw

### To Adjust "H" Switch

1. Loosen Green set screw.
2. Turn screw "D" until cam roller trips "H".
3. Retighten Green set screw.

### To Adjust "M" Switch

1. Loosen Red set screw.
2. Turn screw "K" until cam roller trips "M".
3. Retighten Red set screw.

## LUBRICATION

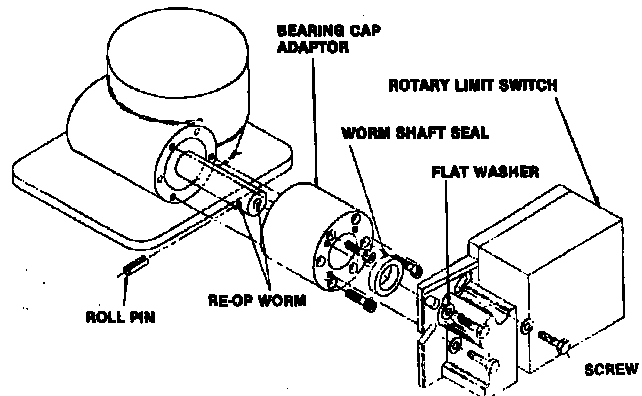
The limit switch is lubricated at the factory and should not require lubrication for the life of the switch.

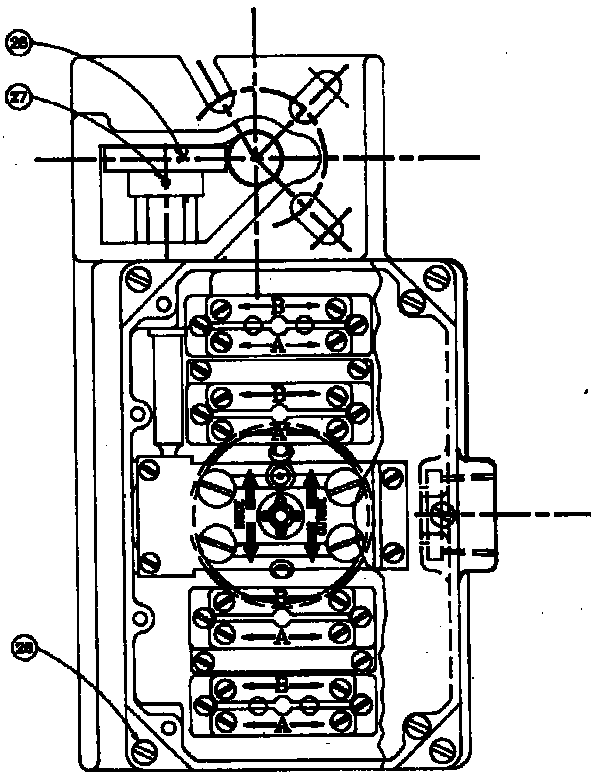
### Typical Mounting



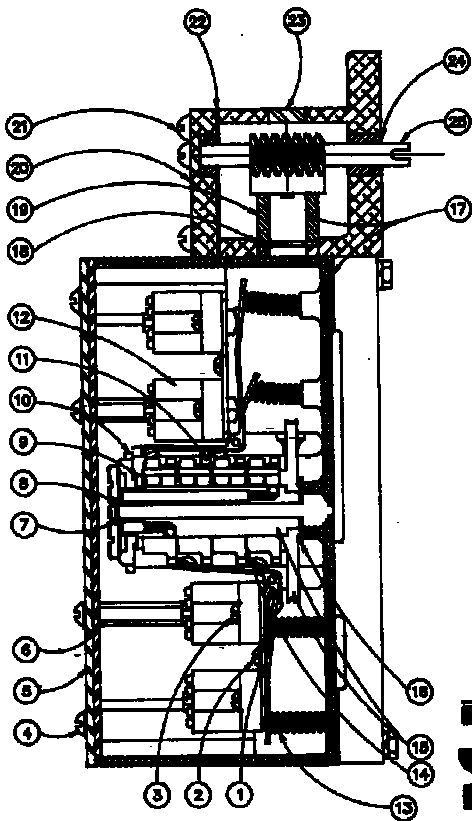
### Electrical Connections

Contacts	Volts	Make & Break Amperes	
		AC	DC
SPDT	110	15	0.25
	220	15	0.1
	440	15	—
	600	15	—
DPDT	115	10	0.2
	230	10	0.1
	440	10	—
	575	10	—





ITEM#	PART#	DESCRIPTION
1	08910452	LEVER ASS'Y
2	65767	RND. HD. MACHINE SCREW
3	08910453	RND. HD. MACHINE SCREW
4	88048	RND. HD. MACHINE SCREW
5	08910454	L.S. COVER
6	08910455	L.S. COVER GASKET
7	08910456	EXT. "E" TYPE RETAINING RING
8	08910457	SPACER RLS CENTER POST
9	08910458	SPACER CAM BLOCK (.080 THK.)
10	08910459	ADJ. BRACKET ASS'Y
11	08910460	GEAR ASS'Y W/ ROLLER
12		SWITCHES
	08910450	SWITCH (S.P.D.T.)
	08910451	SWITCH (D.P.D.T.)
13	08910461	COMPRESSION SPRING
14	08910462	SPACER CAM BLOCK (.016 THK.)
15		CAM BLOCK & WORM GEAR ASS'Y
	08910442	5:1 RATIO
	08910443	10:1 RATIO
	08910444	20:1 RATIO
	08910445	30:1 RATIO
	08910446	40:1 RATIO
	08910447	60:1 RATIO
	08910448	80:1 RATIO
	08910449	120:1 RATIO
16	08910463	SHIM CAM BLOCK (.020 THK.)
17		CASE & SHAFT ASS'Y
	08910434	5:1 RATIO
	08910435	10:1 RATIO
	08910436	20:1 RATIO
	08910437	30:1 RATIO
	08910438	40:1 RATIO
	08910439	60:1 RATIO
	08910440	80:1 RATIO
	08910441	120:1 RATIO
18	08870244	SEAL
19	08870240	SPACER
20	08870243	COVER
21	08870273	RND. HD. MACHINE SCREW
22	08870242	GASKET
23	08870246	PLUG
24	08870241	BEARING
25	08820332	INPUT SHAFT
26	08870274	RND. HD. MACHINE SCREW
27	85085	ROLL PIN
28	08870245	WORM GEAR



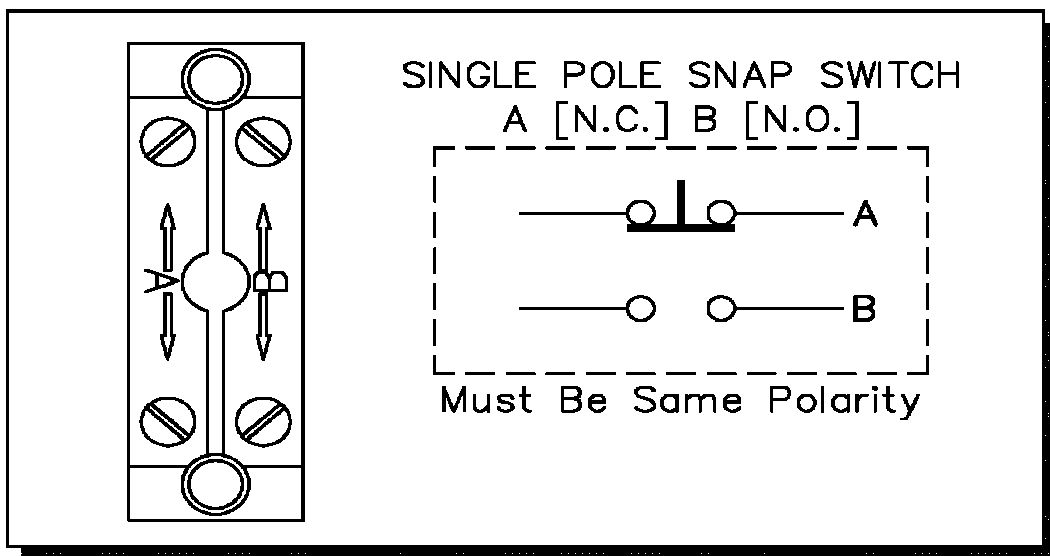
**JOYCE**

LIFTS AND JACKS

JOYCE/DAYTON CORP.  
P.O. BOX 1630, DAYTON, OHIO 45401

**Switch Information for**  
**Joyce/Dayton** Rotary Limit Switch  
Model LS8-402 and LS8-404

The switches used in the LS8 are precision rugged duty snap action switches. For wiring information see the following schematic for the single pole switch. Each switch has one (1) "N.C." (Normally closed), and one (1) "N.O." (Normally open) contact per switch.



**Schematic diagram**

**Must Be Same Polarity** is in reference to the use of D.C. voltage through the switch. Because of the proximity of the contacts in the switch the manufacture recommends that the polarity of the D.C. voltage through the switch be the same for the N.O. and N.C. contacts, this is recommend to avoid arcing in the switch.

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