INSTALLATION AND MAINTENANCE INSTRUCTIONS

SERIES 44 ROTARY LIMIT SWITCH

⚠ WARNING

Always disconnect power before installing or servicing. Failure to do so could lead to product damage or personal injury.

DESCRIPTION

The Series 44 rotary limit switch is designed to coordinate reversing operations with the number of revolutions of a motor shaft or driven equipment. Typical applications include limiting travel of machinery, opening and closing of doors and windows, operating valves, and various sequencing operations. Primary internal components are shown in Figure 1 and are the same for all forms.

The operating system consists of adjustable cams driven by a shaft through a gear reduction. Each cam operates the contacts of one switch unit.

FIGURE 1

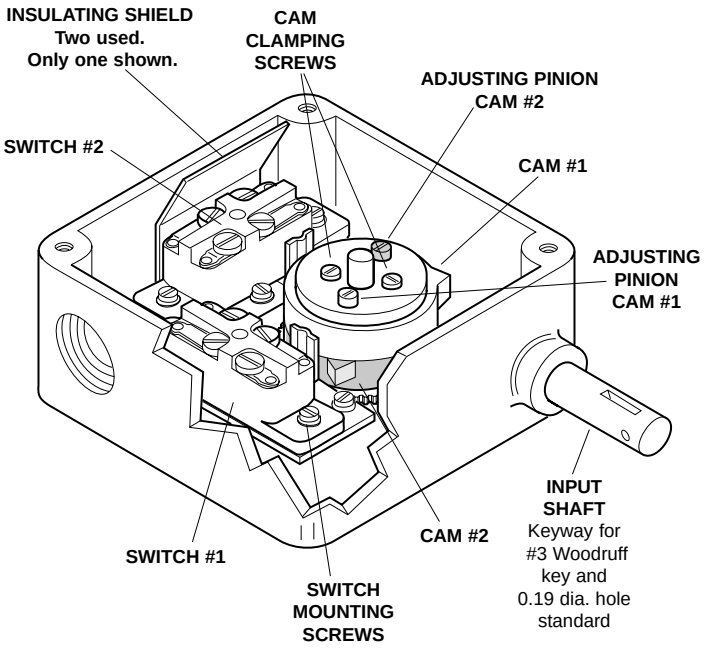

TABLE 1 **TURNS OF INPUT SHAFT**

SWITCH TYPE	GEAR RATIO	TO TRIP		TO RESET	OVER-TRAVEL
		MAX.	MIN.		
S.P.D.T. D.P.D.T. SNAP ACTION	32:1	30	1	5/8	1
	128:1	120	4	2 1/2	5
SLOW MAKE* SLOW BREAK FOR QUICK RESET	32:1	30	1	1/8	1
	128:1	120	4	1/4	5

***** Slow make and break switches not recommended with dc.

INSTALLATION

Remove all source of power.

Mount switch using #10 or 5mm screw, lockwasher and flat washer (supplied by others) through mounting holes provided in the enclosure. To maintain watertight integrity, use nylon washer (supplied) between flat washer and housing (Fig 2). If input shaft is to be used in conjunction with another shaft, a flexible coupling is recommended to eliminate stress on the shaft and bushings. Input shaft is provided with a slot for a #3 Woodruff key and a 0.19" dia. hole for ease in mounting any type coupling or sprocket. The maximum permissible speed of the input shaft is 600 rpm.

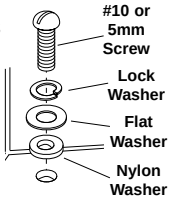

FIGURE 2

CAUTION

When mounting Rotary Limit Switch, align input shaft with coupling to minimize stress on shaft and bushings.
DO NOT USE HAMMER OR SIMILAR TOOL TO FORCE COUPLING OR SPROCKET ONTO INPUT SHAFT.
Excessive stress on shaft may result in damage to rotary limit switch and could invalidate warranty.

ADJUSTMENT

Operating mechanism should be adjusted to correlate the motion of the equipment that it is controlling. For switch limitations, see Table 1, below. To adjust trip point of each switch unit:

1. Remove all power from the device.
2. Remove the enclosure cover.
3. Loosen the two cam clamping screws on top of the cam assembly one quarter turn each (Fig 1).
4. Locate the adjusting pinion of each cam. Light colored pinion adjusts cam for switch #1 (top cam). Dark colored pinion adjusts cam for switch #2 (bottom cam).
5. With a screwdriver, turn cam pinion rotating cam in direction to operate switch.
6. When the operating cam has been adjusted so the cam lobe has tripped the switch, the adjustment is complete.
7. Retighten clamping screws and replace enclosure cover.

⚠ CAUTION

Be sure insulating shields are in place over switches before replacing enclosure cover.

MAINTENANCE

The device has been permanently lubricated at the factory. An increase in life may be obtained by occasionally placing a small quantity of grease on the worm and worm gear.

If a switch unit should need to be replaced, remove the two mounting screws and replace switch.

TABLE 2 **SWITCH CONTACT RATINGS**

AC Pilot Duty			DC Pilot Duty		
S.P.D.T., D.P.D.T. and Slow Make Slow Break Switches			S.P.D.T., D.P.D.T. and Slow Make Slow Break Switches		
Volts	Break	Make	Volts	S.P.D.T.	D.P.D.T.
115	15 amp	40 amp	120	0.50 amp	0.25 amp
230	10 amp	20 amp	240	0.20 amp	0.1 amp
460	6 amp	10 amp	575	0.02 amp	–
575	5 amp	8 amp			

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