



Contact positions shown are when cams ARE NOT actuating levers.

600 VOLT MAX.

# INSTRUCTION SHEET 2006 SERIES 4 CIRCUIT RLS UNIT

## **WARNING:**

LOOSEN CAM SET SCREW BEFORE ADJUSTING OR DAMAGE OF CAMS WILL OCCUR

## **DESCRIPTION**

This rotary limit switch is designed to control the limits of travel of rotating reversing equipment.

The limit switch input shaft is connected to a worm gear. Adjustable self lubricating nylon roller-cams are concentrically mounted

FIG. #1

H D C G

to the worm gear. These adjustable cams actuate the precision limit switches by utilizing a lever assembly.

#### **INSTALLATION**

This limit switch may be mounted in any convenient position. When installed, this limit switch will provide long life with a minimum amount of service maintenance.

#### The following recommendations will prove helpful:

- Install the limit switch so that the shaft load will not exceed
   five pounds.
- A flexible coupling is recommended for all installations other than gear drive application.
- Coupling should be employed in a manner that results in a
  minimum of thrust loading on the shaft. If switches are
  mounted with the shaft up or down, some additional thrust
  loading resulting from the weight of the shaft plus a very
  light coupling is permissible.
- Whenever possible, a separate support bearing for the drive sprocket should be used.
- 5. Permissible speed of the input shaft is 2000 R.P.M.

#### LUBRICATION

This limit switch was lubricated at the factory and should not require lubrication for the life of the switch.

## **ADJUSTMENT**

Refer to figure #1. The electrical switch units "G", "H", "L" an "M" are shown with the contact positions assumed when the cams ARE NOT actuating the switch units.

When the cam rotates and actuates the switch, the "B" (closed) contact opens and the "A" (open) contact closes. Each precision switch has (1) one independent adjustable cam.

#### TO ADJUST SWITCH "M"

- Loosen Red Set Screw
- 2. Turn "K" to Trip "M"
- 3. Tighten Red Set Screw

## TO ADJUST SWITCH "H"

- 1. Loosen Green Set Screw
- 2. Turn "D" to Trip "H"
- 3. Tighten Green Set Screw

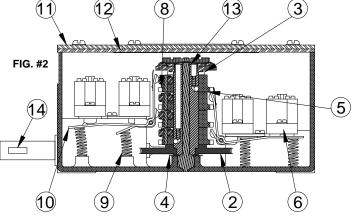
## TO ADJUST SWITCH "L"

- 1. Loosen Blue Set Screw
- 2. Turn "J" to Trip "L"
- 3. Tighten Blue Set Screw

## TO ADJUST SWITCH "G"

- Loosen Yellow Set Screw
- 2. Turn "C" to Trip "G"
- 3. Tighten Yellow Set Screw

Nominal Input Shaft	Turns of Input Shaft			
to Cam Ratio	Maximum	Minimum	Over Travel	To Reset
5:1	4	1/8	1/8	1/16
10:1	8-1/2	1/4	1/4	1/8
20:1	17	1/2	1/2	1/4
30:1	26	1	3/4	3/8
40:1	35	1	1 1	1/2
60:1	53	2	2	3/4
80:1	72	2-1/2	2-1/2	1
120:1	108	3	3	1-1/2



#### **RENEWAL PARTS**

When ordering renewal parts give this form No. PF-046, Item No., Description, Part No., Quantity, and the Complete Unit Number stamped on the label. Reference FIG. #1 and FIG. #2

Number stamped on the label. Reference FIG. #1 and FIG. #2					
ITEM	DESCRIPTION	PART NUMBER	QTY		
1	Case & Shaft Assembly		1		
	5:1 Ratio	PSD-0092400-DN			
	10:1 Ratio	PSD-0092500-DN			
	20:1 Ratio	PSD-0092600-DN			
	30:1 Ratio	PSD-0092700-DN			
	40:1 Ratio	PSD-0092800-DN			
	60:1 Ratio	PSD-0092900-DN			
	80:1 Ratio	PSD-0093000-DN			
	120:1 Ratio	PSD-0093100-DN			
2	Cam Block & Worm Gear Assy.		1		
	5:1 Ratio	PSD-0093500-DN			
	10:1 Ratio	PSD-0093600-DN			
	20:1 Ratio	PSD-0093700-DN			
	30:1 Ratio	PSD-0093800-DN			
	40:1 Ratio	PSD-0093900-DN			
	60:1 Ratio	PSD-0094000-DN			
	80:1 Ratio	PSD-0094100-DN			
	120:1 Ratio	PSD-0094200-DN			
3	Shim Cam Block (.080 Thick)	PS-0003300-A	1		
4	Shim Cam Block (.020 Thick)	PS-0000800-A	1		
5	Shim Cam Block (.016 Thick)	PS-0003200-A	3		
6	Limit Switch Standard SPDT	1950-1-B-A-DO	4		
	Optional DPDT	1950-4-B-A-DO			
	Optional SMSB	1950-1408			
7	Adjusting Bracket Assembly	PSD-0024700-B	1		
8	Gear and Roller Assembly	PSD-0090400-A	4		
9	Spring Compression	PM-0018000-A	4		
10	Lever Assembly	PSD-0024500-A	2		
11	Cover	PC-0069200-A	1		
12	Cover Gasket	PS-0001000-A	1		
13	Spacer Center Post	M-0073000-A	1		
14	Woodruff Key (#404)	04-564019-DN	1		