

# ROTO-BIN-DICATOR® SINGLE SWITCH MODELS

HOUSING PARTS LIST	PART NO.	DESCRIPTION	QTY.	MOUNTING PLATE	
	LAR110940	Frame Assembly <input type="checkbox"/> Aluminum <input type="checkbox"/> S.S. includes shaft seal, clutch & drive shaft, bearings and stub shaft	1		
		Specify weatherproof or explosionproof. LAR110930 supplied only in mating pairs for explosionproof models.			
	LAR121960	Cover <input type="checkbox"/> Aluminum <input type="checkbox"/> S.S.	1	<b>DETAILS COMMON FOR ALL TYPES</b>	
	LAR120050	Switch Bracket	1		
	LAR110070 LAR110100	110vac, 50/60 HZ Motor Kits 220vac, 50/60 HZ Motor Kits	1	<b>DESCRIPTION</b> <input type="checkbox"/> MODEL "R" WEA. PRF. 110vac <input type="checkbox"/> MODEL "RB" WEA. PRF. 220vac <input type="checkbox"/> MODEL "RX" EXP. PRF. 110vac <input type="checkbox"/> MODEL "RXB" EXP. PRF. 220vac	
	LAR111025	Micro Switch; Single Pole-Double Throw	1		
	LAR130300	Terminal Block	1		
	LAR131220	Cover Gasket (Not furnished on explosionproof units)	1		
	NOTE: 304 stainless steel is standard for metal parts of all shafts and paddles.				

## SIDE OF BIN MOUNTING

<input type="checkbox"/> <b>TYPE 1</b> FLEXIBLE SHAFT AND FOUR VANE PADDLE FLEXIBLE SHAFT H-36 MOUNTING PLATE <input type="checkbox"/> H-19 <input type="checkbox"/> H-19SS PADDLE H-371 2" x 7" 6-5/8" 5-7/8"	<input type="checkbox"/> <b>TYPE 2</b> FLEXIBLE SHAFT AND FOUR VANE PADDLE FLEXIBLE SHAFT H-36 MOUNTING PLATE <input type="checkbox"/> H-19 <input type="checkbox"/> H-19SS PADDLE H-370 1-1/2" x 5" 6-5/8" 5-7/8"	<input type="checkbox"/> <b>TYPE 3</b> FLEXIBLE SHAFT WITH SINGLE VANE PADDLE MOUNTING PLATE <input type="checkbox"/> H-19 <input type="checkbox"/> H-19SS PADDLE H-372 1" X 2-7/8" 3-3/4" 5-7/8"
<input type="checkbox"/> <b>TYPE 3i</b> SOLID SHAFT WITH INSERTABLE PADDLE MOUNTING THREAD 1-1/4" NPT PADDLE H-379 4-1/2" 8-1/4" 5-7/8"	<input type="checkbox"/> <b>TYPE 4</b> SOLID SHAFT WITH FOUR VANE PADDLE MOUNTING PLATE <input type="checkbox"/> H-19 <input type="checkbox"/> H-19SS PADDLE H-370 1-1/2" x 5" 3-3/4" 5-7/8"	<input type="checkbox"/> <b>TYPE 5</b> SOLID SHAFT WITH FOUR VANE PADDLE MOUNTING PLATE <input type="checkbox"/> H-19 <input type="checkbox"/> H-19SS PADDLE H-371 2" x 7" 3-3/4" 5-7/8"

## TOP OF BIN MOUNTING

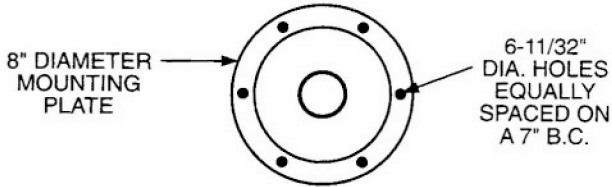
<input type="checkbox"/> <b>TYPE 6</b> MOUNTING PLATE <input type="checkbox"/> H-192 <input type="checkbox"/> H-192SS FLEXIBLE SHAFT <input type="checkbox"/> H-36 (OPTIONAL) COUPLING H-38 SHAFT EXTENSION <input type="checkbox"/> Galv. <input type="checkbox"/> S.S. SHAFT GUARD <input type="checkbox"/> Galv. <input type="checkbox"/> S.S. PADDLE H-370 1-1/2" x 5" 6-1/2" Overall Shaft Length 20' Lengths Not Uncommon	<input type="checkbox"/> <b>TYPE 7</b> MOUNTING PLATE <input type="checkbox"/> H-192 <input type="checkbox"/> H-192SS FLEXIBLE SHAFT <input type="checkbox"/> H-36 (OPTIONAL) COUPLING H-38 SHAFT EXTENSION <input type="checkbox"/> Galv. <input type="checkbox"/> S.S. SHAFT GUARD <input type="checkbox"/> Galv. <input type="checkbox"/> S.S. PADDLE H-371 2" x 7" 6-1/2" Overall Shaft Length 20' Lengths Not Uncommon	<input type="checkbox"/> <b>TYPE 8</b> MOUNTING PLATE <input type="checkbox"/> H-192 <input type="checkbox"/> H-192SS FLEXIBLE SHAFT <input type="checkbox"/> H-36 (OPTIONAL) COUPLING H-38 SHAFT EXTENSION <input type="checkbox"/> Galv. <input type="checkbox"/> S.S. SHAFT GUARD <input type="checkbox"/> Galv. <input type="checkbox"/> S.S. MULTI-FLEX PADDLE (DIM.X) <input type="checkbox"/> H-373 Neoprene-24" <input type="checkbox"/> H-374 Stainless Steel-17" Overall Shaft Length 20' Lengths Not Uncommon DIM.X 6-1/2" 1-1/2"
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# OPERATION-INSTALLATION & WIRING INSTRUCTIONS

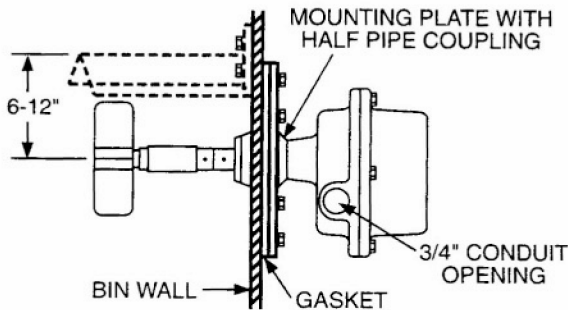
**Operation** centers around the low torque slow speed synchronous motor. The motor either turns the paddle in the absence of the bulk material, or turns itself to actuate the Micro switch when paddle rotation is stopped by the bulk material. Constant power to the stalled motor keeps the switch actuated until the paddle is again free to turn.

**Mounting Location:** There must be free flow of material both to and away from the paddle and shaft. Keep the paddle and shaft out of the direct flow of material. Protective baffles or offset mounting may be required.

## Mounting Surface Preparation:



- A. On a 7" bolt circle, drill and tap or drill 6 equally spaced holes in bin wall for 1/4" bolts or cap screws. Bolt heads should be tack welded to bin inner wall. Cut 5" diameter hole to pass paddle. If required, fabricate & weld or bolt protective baffle to inner wall.

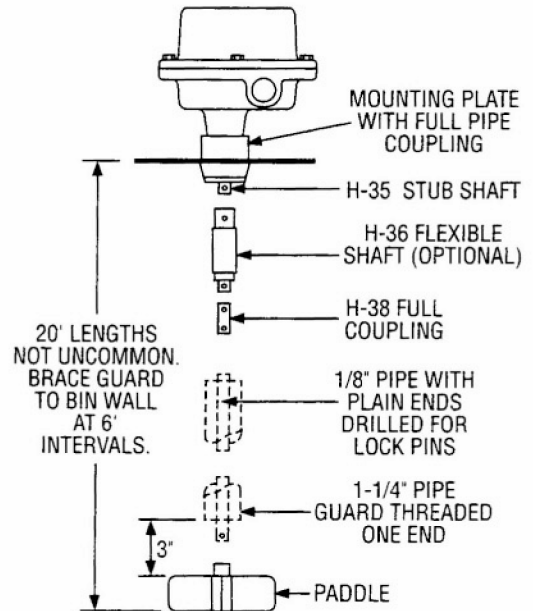


## Mounting on Top of Bin:

- Cut shaft extension pipe to required length and drill a 1/8" hole through the pipe 7/16" from each end.
- Assemble shaft extension to H-38 coupling and pin securely.
- Cut pipe guard 5" shorter than overall extended shaft & paddle length. Thread one end 1-1/4" NPT.
- Assemble guard over extension and screw securely into mounting plate.
- Assemble paddle to shaft extension and pin securely.

**Note:** Shaft extension must be free to turn inside of shaft guard pipe. Drive all lock pins in flush to lock securely.

\* Shaft length 12" and longer require pipe ground.



**NOTE:** If separate couplings are used in place of conventional mounting plates with integral couplings, be sure they are welded in the bin wall or top so that half the coupling protrudes inside the bin. Use only *half* couplings for side of bin mounting.



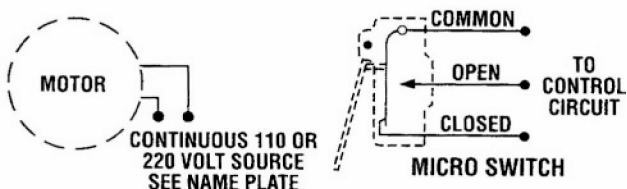
**Warning - Explosionproof Units:** In hazardous locations, a seal fitting must be located within 18" of the control. In order to preserve the explosionproof integrity of the casting, care must be exercised when removing and replacing the cover so no damage is done to the flanges.



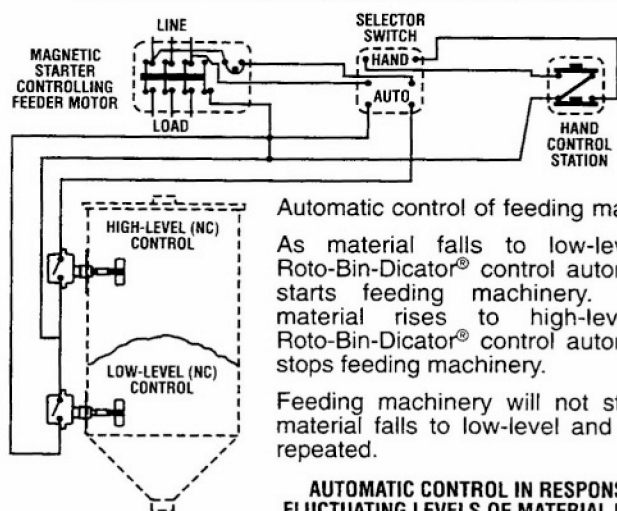
## WIRING:

- Connect power source for motor to terminal block. **Continuous power is essential. Motor may be stalled indefinitely without damage.**
- Make wiring connections to control Micro switch using a separate circuit from that of the motor.
- Apply power to motor circuit checking freeness of operation and actuation of the Micro switch.
- Fasten housing cover securely to prevent damage from dust or moisture.

## SCHEMATIC CIRCUIT DIAGRAM



## AUTOMATIC BIN LEVEL CONTROL WIRING DIAGRAM



Automatic control of feeding machinery.

As material falls to low-level, the Roto-Bin-Dicator® control automatically starts feeding machinery. When material rises to high-level, the Roto-Bin-Dicator® control automatically stops feeding machinery.

Feeding machinery will not start until material falls to low-level and cycle is repeated.

**AUTOMATIC CONTROL IN RESPONSE TO FLUCTUATING LEVELS OF MATERIAL IN A BIN.**

