

Model: **MB-UB3**

Under-belt mounting

DESCRIPTION

The MB-UB3 underbelt mounting assembly facilitates installation of the model RH, R21 or R22 wheeled encoders under the convey belt (or roller). The pivot yoke rotates 360° relative to the mounting plate giving maximum flexibility in locating the plate. The pivot point allows for up and down movement of the encoder with the conveyor belt while the 2 springs assure constant contact of the measuring wheels with the conveyor. The pivot point and pivot yoke are centered on the encoder to automatically optimize for alignment with the conveyor and minimize wheel wear. An optional lock washer can be inserted to lock the pivot yoke into a fixed position, preventing it from rotating for conveyor applications that reverse direction. Nylon washers are included to accommodate the thinner handle on the R21 and R22 wheeled encoders.

INSTALLATION

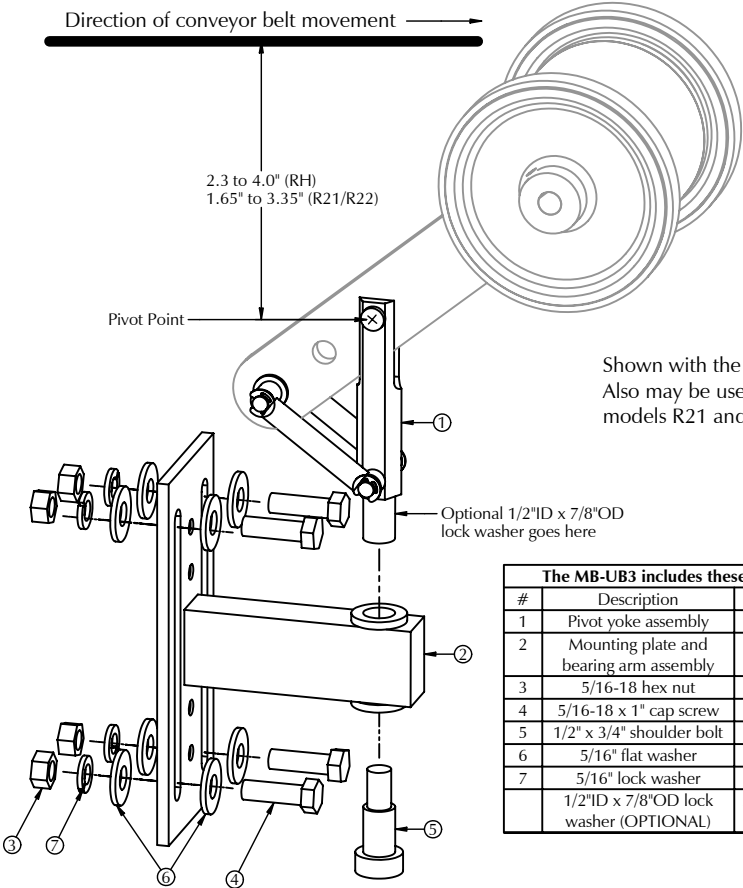
- 1. Assemble the pivot yoke onto the encoder as shown in figure 3. Note: the yoke attaches to the hole at the center of the encoder arm, and the springs attach to the outermost hole of the encoder arm.
- 2. Attach the pivot yoke to the mounting plate and bearing arm assembly using the 1/2" x 3/4" shoulder bolt as shown in figure 1. After tightening the shoulder bolt, the pivot yoke should rotate freely.

OPTIONAL: to prevent the pivot yoke from rotating, insert the 1/2"ID x 7/8"OD lock washer onto the pivot yoke before installing. If the conveyor operates in both directions then the lock washer should be installed to prevent the encoder from rotating 180° when the conveyor reverses direction. In this case, if the pivot yoke is not locked in a fixed position then there could be premature wheel tread wear for the measuring wheels, or the cable could become tangled.

- 3. Bolt the mounting plate to the conveyor frame using 5/16-18 cap screws and hardware supplied as shown in figure 1. The pivot yoke should be perpendicular to the conveyor belt with the pivot point below the belt as shown in figure 1, and be positioned so the encoder is aligned with the belt. The greatest pressure is applied when the pivot point is closest to the belt.

Note: The bearing arm can be attached to different locations on the mounting plate to facilitate installation.

- 4. Make sure the encoder has unobstructed rotation and up/down movement.
- 5. Attach the cable so the cord is clear of the pivot point and sharp edges, and with sufficient slack to allow for expected up/down and sideways movement.



Shown with the RH encoder.
Also may be used with the models R21 and R22 encoders.

The MB-UB3 includes these parts (Figure 1)			
#	Description	Part No.	Qty
1	Pivot yoke assembly	(see figure 3)	1
2	Mounting plate and bearing arm assembly	(see figure 2)	1
3	5/16-18 hex nut	550-NUT009	4
4	5/16-18 x 1" cap screw	550-SCR306	4
5	1/2" x 3/4" shoulder bolt	550-SCR309	1
6	5/16" flat washer	550-WSH008	8
7	5/16" lock washer	550-WSH009	4
	1/2"ID x 7/8"OD lock washer (OPTIONAL)	550-WSH012	1

Fig. 2: Mounting Plate and Bearing Arm Assembly			
#	Description	Part No.	Qty
1	Bearing arm	500-MCH094A	1
2	Mounting plate	500-MCH095A	1
3	1/2" Bronze bearing	500-BRN006	2
4	1/4-20 x 3/4" Flat head screw	550-SCR308	2

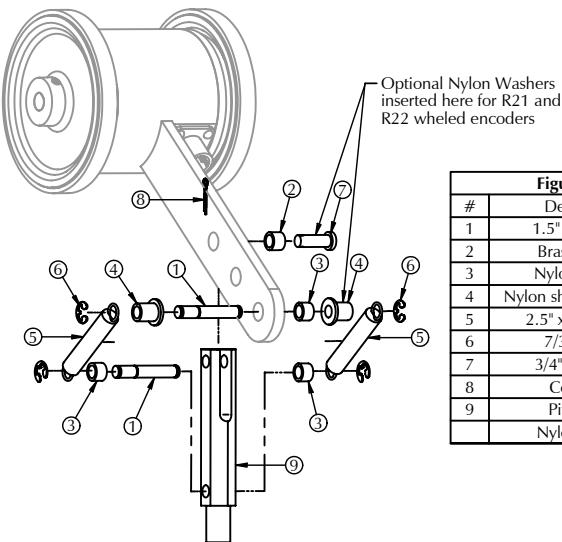
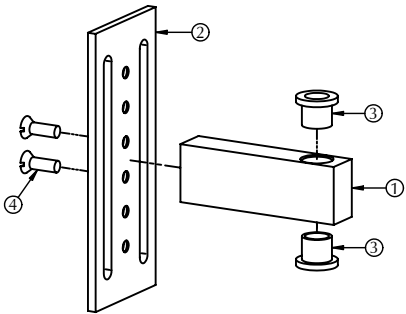


Figure 3: Pivot Yoke Assembly			
#	Description	Part No.	Qty
1	1.5" x 1/4" pins	500-MCH096A	2
2	Brass bushing	500-MCH041	1
3	Nylon bushing	550-MSC007	3
4	Nylon shoulder washer	550-MSC008	2
5	2.5" x 3/8" spring	500-MSC009	2
6	7/32" E-ring	550-RNG010	4
7	3/4" Clevis pin	550-MSC004	1
8	Cotter pin	550-MSC005	1
9	Pivot yoke	500-MCH093A	1
	Nylon washer	550-WSH006	4