# Installation Instructions: MX002057 Shim Kit

## Shimming the Bearings

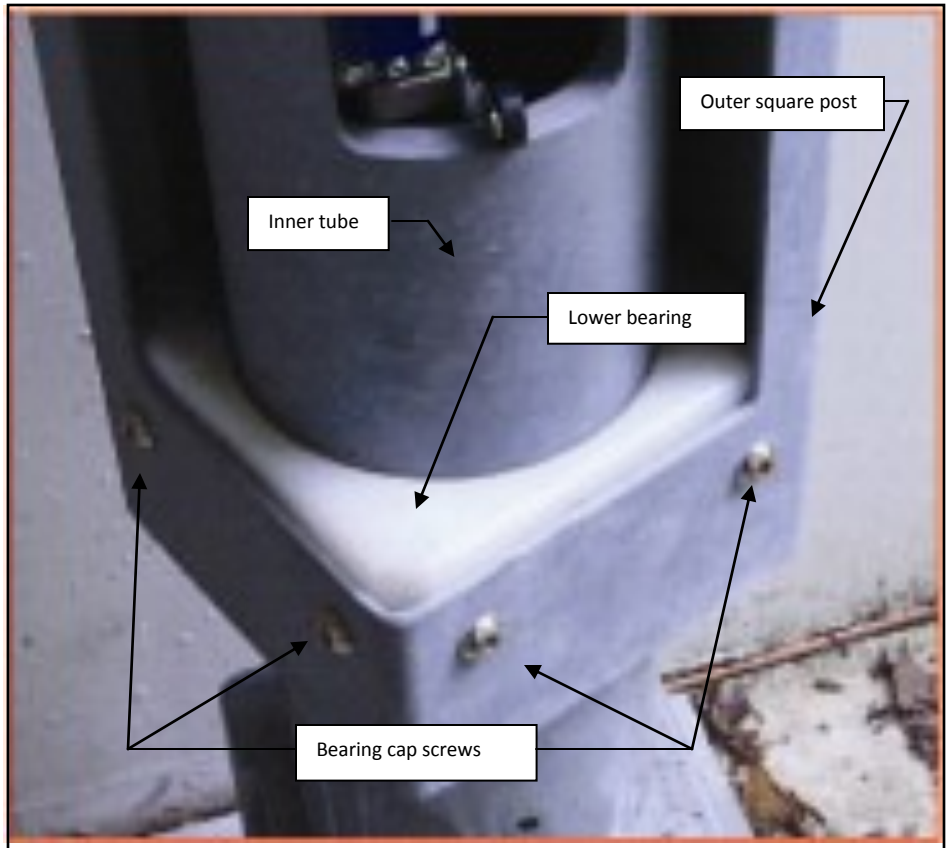
The Shim Kit includes four 0.020-inch and four 0.060-inch (0.5 and 0.15mm) shims. If parts are missing, contact your HySecurity distributor.

Prior to taking steps to shim the bearings, consider the following:

- Measure the thickness of the material remaining in the upper bearing. Be sure to measure the thinnest portion of the bearing. If the thickness is ¼-inch or less, **do not use the shims.** Instead, replace both the upper and lower bearings. You will need to order a *Bearing and Shim Kit.* Refer to the HySecurity *Price Book* for the correct kit and part numbers.
- Look at the bearing halves. One half is usually worn more than the other. Use different shim thicknesses to keep the inner tube centered inside the post.

To install shims, take the following steps:

1. To access the upper bearing, close the gate.
2. Turn off the gate operator's power source. This ensures that the gate will not move while you are installing the shims.
3. Use a jack screw to lift and block the gate panel. This transfers the weight off the bearings.
4. Loosen, but do NOT remove the four screws in the outer post that secure the worn portion of the bearing. There are four ¼-20 tapped holes adjacent to the screws. Bolts (¼ - 20) may be screwed into these holes to aid in adjusting the gap while shimming.
5. Use both types of shims to make a shim packet that will close the gap tolerance to within 0.020 to 0.040 inches (0.5 to 1.0mm). Use a feeler gauge to measure the gap.



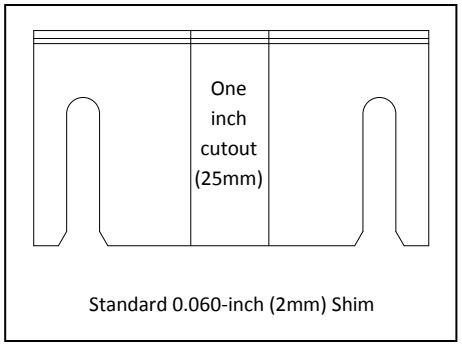

**Cut-away view of SwingRiser post**

**NOTE:** The weld seam inside the post may prevent the shim from sliding behind the bearing. If this happens, cut 1-inch (25mm) out of the middle of a shim and install the two slotted pieces on each side of the weld.

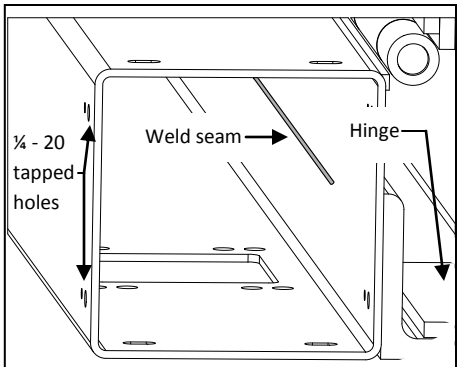
6. Force the shim pack into the space between the worn bearing (A) and the square post. Loosen the screws that secure portion B and force equal-sized shim packets between bearing (B) and the outer post so the gap between the inner tube and the bearings (both portions A and B) remains between 0.020 and 0.040 inches (0.5 and 1.0mm).

   **IMPORTANT:** Keep the bearings centered and maintain a consistent gap around the diameter of the inner tube. Another way to measure for consistent gap tolerance is shown in the illustration. If the distance between the outside of the post and the outside diameter of the tube equals ¾-inch (19mm) and the bearings are centered, a consistent gap should exist around the inner tube. It is likely that the gap is within the needed 0.020 to 0.040 inch (5 to 1.0mm) tolerance.

7. Re-tighten the screws to secure the re-shimmed bearings.
8. Remove the block from the gate.
9. Turn the power back on.
10. Open the gate to access and shim the lower bearing.
11. Repeat steps 2 through 10 for the lower bearing.



Standard 0.060-inch (2mm) Shim



Standard square post without inner tube manufactured from 2/2008 to present.