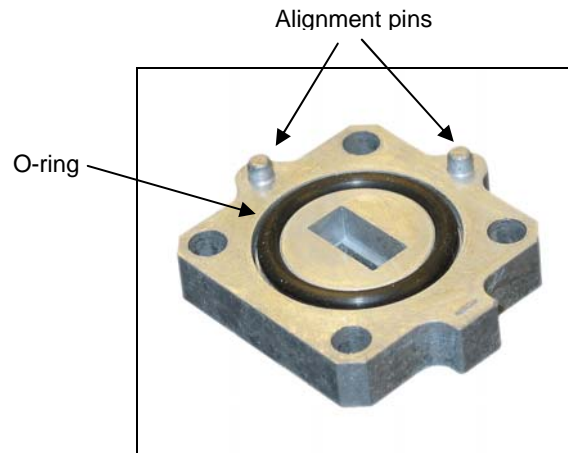


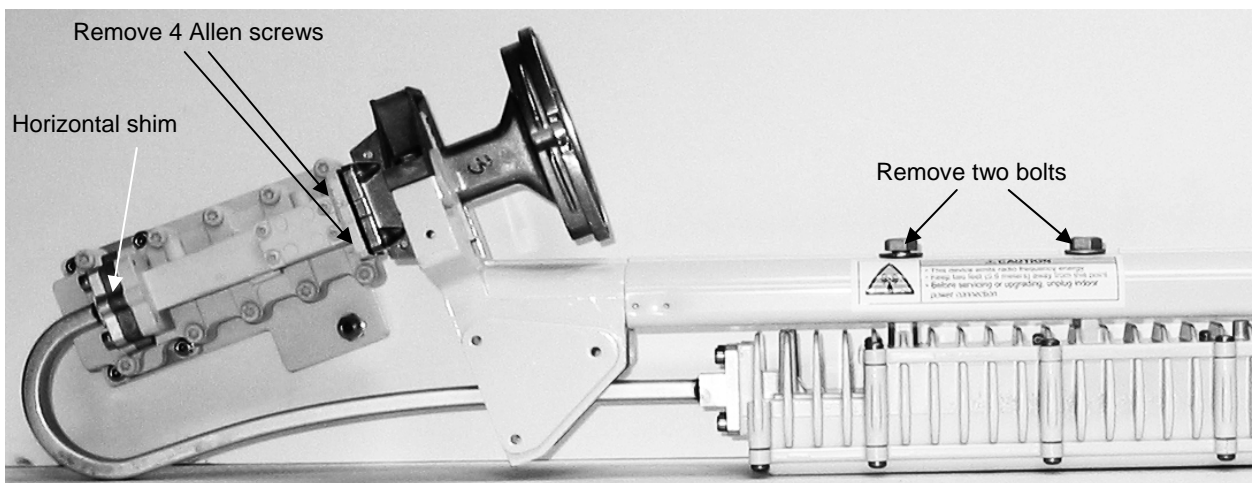
## Installing the vertical shim kit

Out of the box, the radio assembly is configured to transmit with horizontal polarization. However, the radio assembly can be reconfigured in the field to transmit with vertical polarization. A Vertical TX Shim Kit, HNS model # VTX-SHIM-KIT, is necessary to make this transformation and is typically packaged separately from the radio assembly. Figure 1 illustrates the vertical shim kit. If your specifications require a vertical transmit polarization, follow the instructions below.



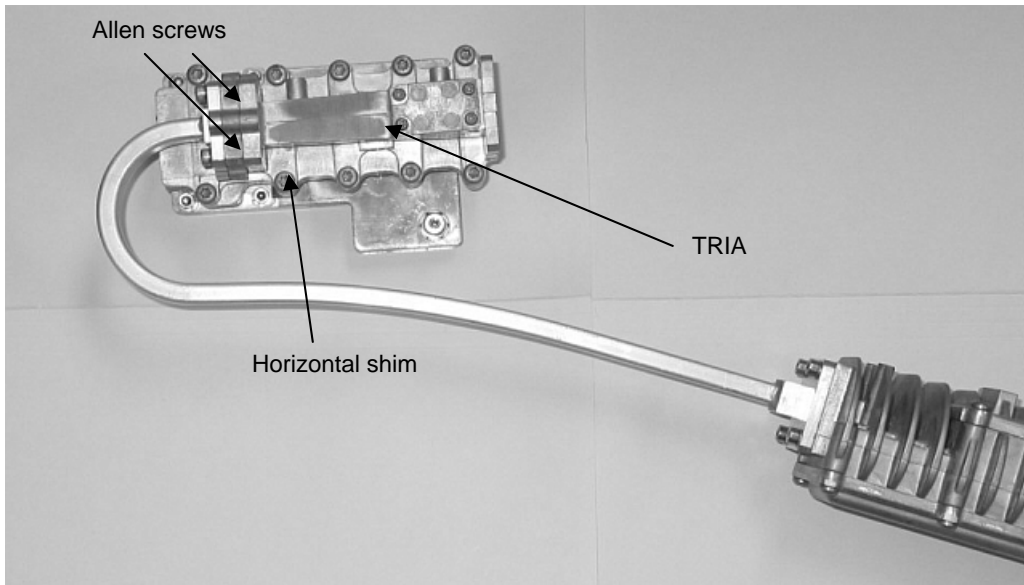
**Figure 1. Vertical shim with O-ring**

1. If the radio assembly is already attached to the feed arm you must remove it by removing the screws and bolts shown in Figure 2.



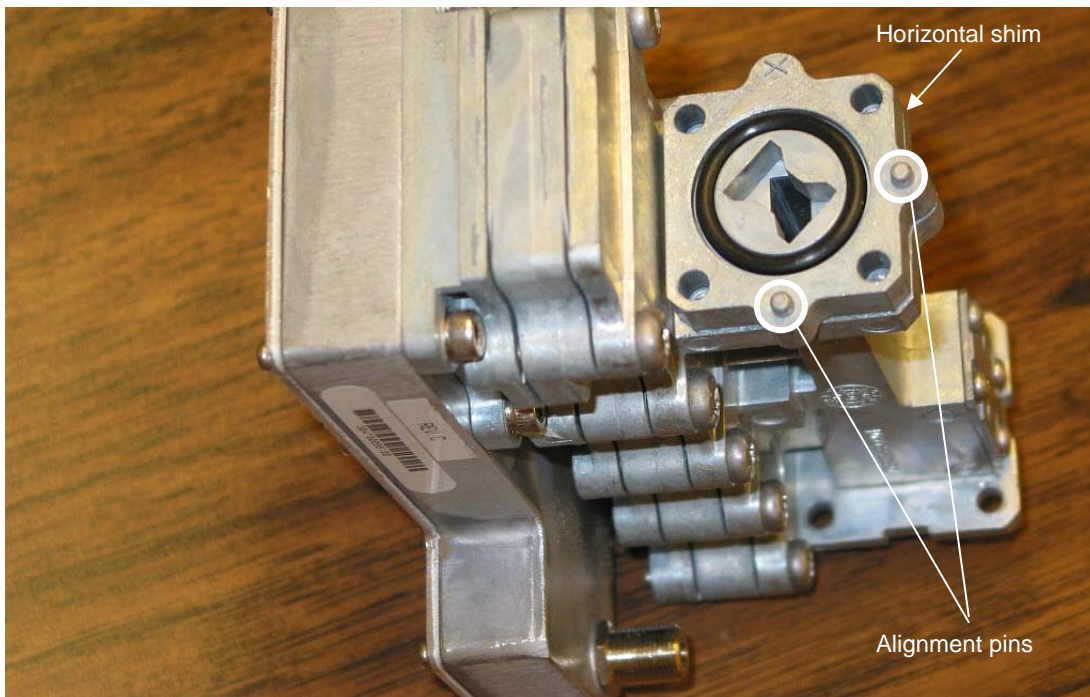
**Figure 2. Removing the radio assembly from feed arm**

2. Once the radio assembly is removed from the feed arm, remove the four Allen screws that attach the feed horn to the horizontal shim and TRIA (Transmit Receive Isolation Assembly). See Figure 3.



**Figure 3. Removing the four Allen screws**

Figure 4 shows the orientation of the TRIA with a horizontal shim attached. The TRIA would be rotated 90 degrees if a vertical shim were attached.



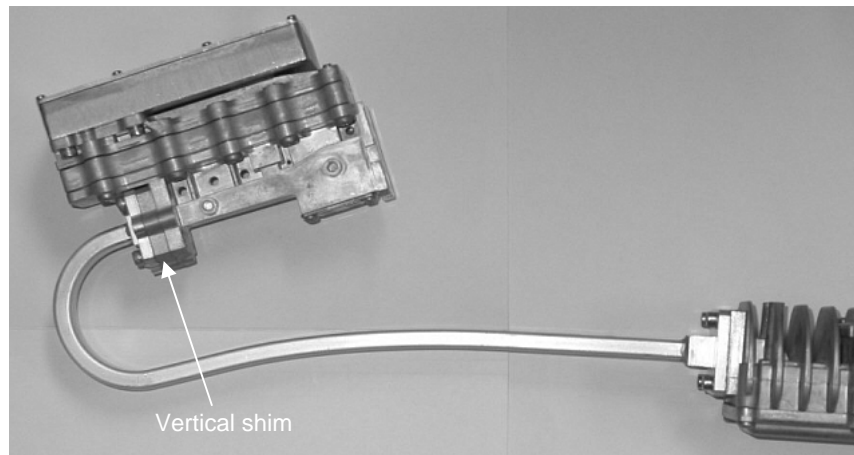
**Figure 4. TRIA orientation with horizontal shim installed**

3. Remove the horizontal shim and replace it with the vertical shim. The vertical shim can only be positioned one way because of alignment pins in the TRIA. When it is inserted it looks like Figure 5.



**Figure 5. Vertical shim installed on TRIA**

4. After the vertical shim is in place, re-connect the feed horn to the TRIA using the four Allen screws previously removed. Because of the position of the alignment pins on the vertical shim, the TRIA must be rotated 90 degrees before it can be reattached to the feed horn. Figure 6 shows the radio assembly with vertical shim in place.



**Figure 6. Radio assembly with vertical shim installed**