

# Installing the X Axis Proximity Switch on PRS Gantry Tools



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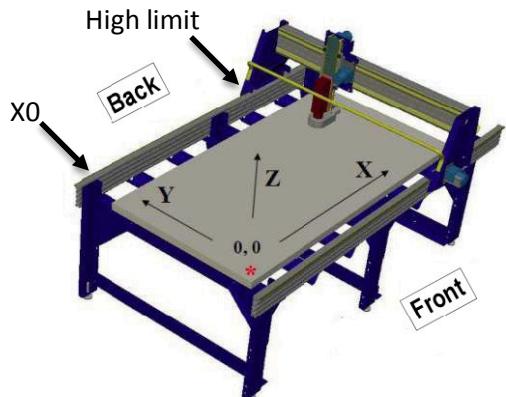
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## Proximity sensors install kit

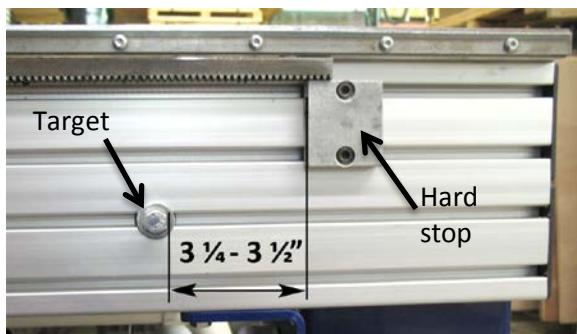
The two bolts that will serve as the proximity switch targets will need to be fastened with the two washers and T-nuts that have been provided. The X axis sensor wire (the one with red heat-shrink) and two nuts will be required to install the sensor onto your machine. You will also need zip ties (not included in the kit) to secure the wire to the machine neatly.

**Note:** The kit pictured on the title page includes the X axis (red heat-shrink) and Y axis (blue heat-shrink) sensor wires, as well as two of the sensors. This is the proximity switch included with a new machine and may not match yours if you only ordered the X axis kit.

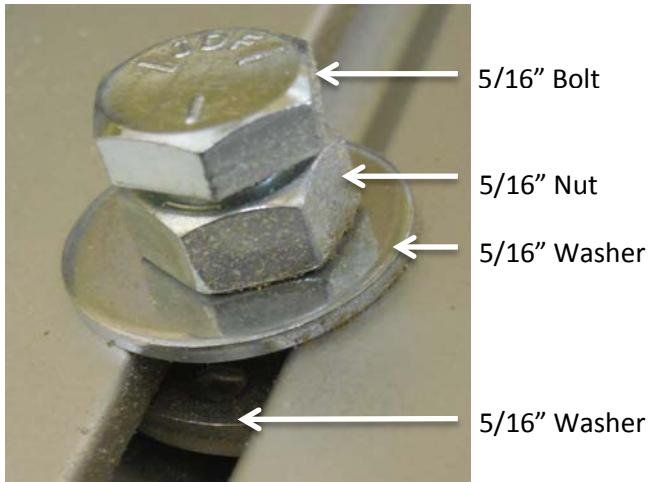
### Installing the X0 target



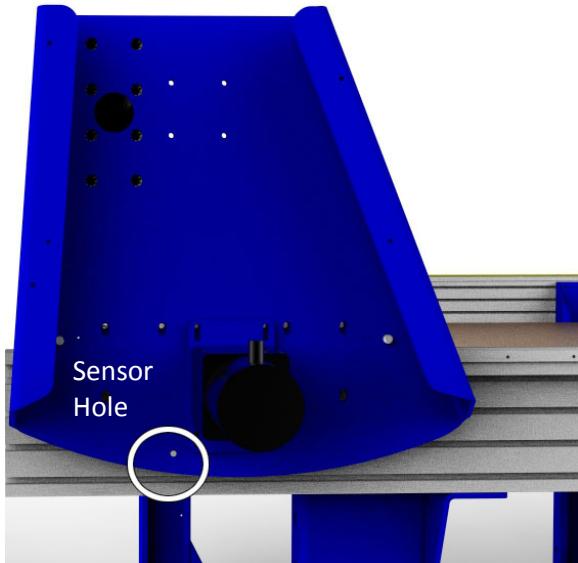
The X0 target is installed on the back left of your table.



Slide one of the T-nuts into the lower-middle groove of the extrusion and lightly install a bolt and washer into it. Adjust the bolt until it is spaced about 3.5" from the hard stop.



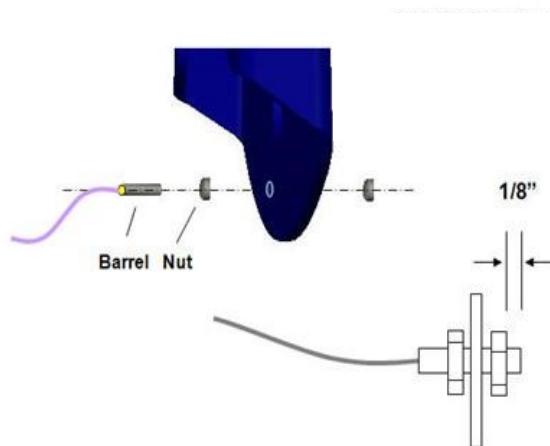
Once installed, the target should look like the image to the left.



Check that the gantry can center the proximity sensor hole over the target without hitting the hard stop. The proximity switch hole is shown in the white circle to the left. Move the target as needed to achieve this and then tighten it. The goal here is to get the gantry close to the hard stop, but still have enough space to stop before hitting it. This will maximize your work area.

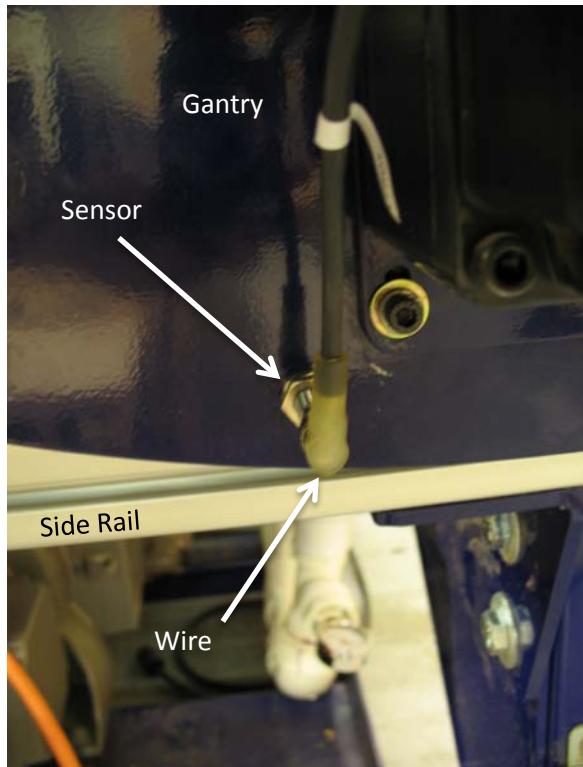
You will want to duplicate this process on the other end of the extrusion for the high limit as shown in the first picture of this section. Adjust the gantry to the same distance from the opposing hard stop. Then install the other target under the proximity sensor hole. These will be the limit switches and will bound your working area.

## Installing the proximity sensor



Locate the 8mm threaded hole in the gantry end plate. Roll the gantry into position so that this hole is directly over one of the target bolts.

Thread the barrel proximity switch into the hole until it comes to rest on the target. Back the switch out until there is a  $1/32'' - 1/16''$  (1-2mm) gap between the proximity switch and the proximity target.



Roll the gantry away from the switch and thread one of the nuts onto the front side of the switch (on the inside of the end plate). Thread the other nut onto the backside so that the end plate is "sandwiched" between the two nuts.

To complete the install, route the sensor cable (marked with red heat-shrink) from the sensor to the control box following all of the other wires. Then connect the X axis proximity switch cable by threading the nut on the connector onto the back of the switch.

See the control box wiring instructions for your machine type for the instructions on how to hook up proximity sensor cables.

**Note:** Current kits ship with red heat shrink on X axis wires for easier identification.