Phase Shifter Limit Switch Settings

Scott Anderson 10-8-2015

The Delta Phase Shifter low (inner) limit switches were reset because the Delta beam pipe now has a triangular support that sticks into the off axis gap of the phase shifter. The triangular support is 1/4" or 6.35 mm. The phase shifter has plates which will hold the magnets in place in case of an epoxy failure. The plates add about 2 mm to each side of the off axis gap of the phase shifter. This would nominal give a motor limit switch setting of 14.35 mm, to give a 1 mm clearance on either side of the triangular support. The triangular support is not flat in the y direction, so the motor limit switches were set to slightly greater than a 15.5 mm gap to give at least a 1 mm clearance on either side. The phase shifter low soft limit is set to 16 mm. The limit switch settings are as follows:

Top Low (inner)

Motor Limit 15.5682 mm, Kill 15.0581 mm.

Bottom Low (inner)

Motor Limit 15.6983 mm, Kill 14.8723 mm

For reference Top Hi (outer) limit switch is set to 102.253 mm