

## FCC Startup Retro-Alignment Check S-AB-P-194 Rev A

**Intent:** This procedure aligns the UV retro-beam from the FCC's. The procedure is performed from within the Bay at the UVAT typically before the start of shot operations.

**Prerequisites:**

- Ensure the UVAT laser is ON (per S-AB-P-151) and both the Main and FCC alignment beams are co-aligned (per S-AB-P-178).
- Ensure the PMA is aligned to the UVDP ASP in the required beamline (per S-AB-P-195).
- If automated temperature compensation is available, it should be turned OFF during the alignment procedure. It may be turned ON after the alignment procedure has been completed.

**Procedure**

<b>1</b>	Turn OFF automated temperature compensation.		<input type="checkbox"/>			
Propagate the UVAT FCC alignment beam (small beam) to the UVDP ASP pointing camera.						
<b>2</b>	<ul style="list-style-type: none"> <li>• Insert the 5-inch mirror at the output of the UVAT into the beam path.</li> <li>• Remove the compensating plate from the beam path.</li> <li>• Rotate the rotating wedge assembly in the FCC alignment beam path on the UVAT to the "open" position (i.e.: no wedge in the beam).</li> </ul>		<input type="checkbox"/>			
<b>3</b>	If necessary, make minor adjustments to the 5-inch mirror at the output of the UVAT to place the FCC alignment beam onto the 'fine' pointing ASP reference to within $\pm 1$ -pixel in both x and y directions.		<input type="checkbox"/>			
<b>4</b>	Move the FCC to the "low intensity tuned" position.	<table style="margin-left: auto; margin-right: auto;"> <tr> <td style="border-bottom: 1px solid black; padding: 0 5px;">Low</td> <td style="border-bottom: 1px solid black; padding: 0 5px;">High</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> </table>	Low	High	<input type="checkbox"/>	<input type="checkbox"/>
Low	High					
<input type="checkbox"/>	<input type="checkbox"/>					
<b>5</b>	Rotate the wedge wheel so that the doubler wedge is in the beam path.		<input type="checkbox"/>			
<b>6</b>	Run <i>centroid</i> and ensure that the FCC retro is within $\pm 1$ pixel of the doubler "tuned" pointing reference on the UVAT ASP fine pointing camera. <ul style="list-style-type: none"> <li>• If it is not, perform the Quarterly PM per S-AB-P-181 below</li> </ul>		<input type="checkbox"/>			
<b>7</b>	Rotate the wedge wheel so that the tripler wedge is in the beam path. (continues)		<input type="checkbox"/>			

**Vol. IX System Startup and Shut Down**  
**Chapter 4 Beamlines**



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<b>8</b>	Run <i>centroid</i> and ensure that the FCC retro is within $\pm 1$ pixel of the tripler "tuned" pointing reference on the UVAT ASP fine pointing camera. If it is not, perform the quarterly PM per S-AB-P-181	<input type="checkbox"/>	<input type="checkbox"/>
<b>9</b>	Repeat Steps 4 - 8 for the "high intensity tuned" position.	<input type="checkbox"/>	
<b>10</b>	Turn ON automated temperature compensation, if required.	<input type="checkbox"/>	
<b>11</b>	Move the FCC to the position required for shots.	<input type="checkbox"/>	

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(End)