

LHAM4 - D0900421 - Coordinates Definition

DRAWING #	COORDINATES DEFINITION
	Systems defines the location of the HAM4-L1 0,0,0 Local CS at the origin of the Assy.
D0900422 AdvLIGO VE HAM4-L1, Vacuum Equipment Assembly	<p>The position of the Vacuum Equipment is defined by:</p> <ol style="list-style-type: none"> 1. Positioning the CS in the VE Assy at 300.0 mm above the Nozzle "A" Centerline (Z = -300.0 mm) as per DCC Doc T010076-v1 Page 29 2. The orientation of the Chamber with respect to the IFO Global CS is defined by DCC Doc G1000125-v8 3. Systems insert the assembly mating the AdvLIGO 0,0,0 Local CS from the VE Assy, to the HAM4-L1 0,0,0 Local CS at the origin of the Assy
D0900423 AdvLIGO SEI HAM4-L1, XYZ Local CS for ISO Table Assembly	<p>The position of the ISO TABLE is defined by:</p> <ol style="list-style-type: none"> 1. Positioning the CS in the ISO Table Assy at 325.0 mm above the Table Optical Surface as per DCC DocT010076-v1 Page 29 2. The orientation of the ISO Table with respect to the IFO Global CS is defined by DCC Doc G1000125-v8 3. Systems insert the assembly mating the AdvLIGO 0,0,0 Local CS from the ISO Table Assembly, to the HAM4-L1 0,0,0 Local CS at the origin of the Assy
D0900424 AdvLIGO SUS HAM4-L1, XYZ Local CS for HSTS (SR2) Assembly	<p>The position of the HSTS (SR2) is defined by:</p> <ol style="list-style-type: none"> 1. The Coordinates from DCC P/N D0902216-v8. X = -594.1 mm; Y = -347.1 mm; Z = -84.4 mm; Yaw Angle = 87.6° 2. With these coordinates systems creates the 3D Sketch to position SR2 on the HAM Table 3. Systems insert the assembly mating the AdvLIGO 0,0,0 Local CS from the MC1 Suspension, to the HAM4-L1 0,0,0 Local CS at the origin of the Assy
D1101474 AdvLIGO SUS HAM4-L1, XYZ Local CS for SR2 Scraper Baffle Assembly	<p>The position of the HSTS SR2 Scraper Baffle is defined by:</p> <ol style="list-style-type: none"> 1. Mike S. (AOS) provides a STEP file created in ZEMAX 2. Systems convert STEP File into a SW Model, adding the required CS 3. From the SW Model, Systems find out the Local Coordinates of the SR2 Baffle X = -573.6 mm; Y = -920.1 mm; Z = -76.9 mm; Yaw Angle = 92.5° 4. With these coordinates systems creates the 3D Sketch to position SR2 Scraper Baffle on the HAM Table 5. Systems insert the assembly mating the AdvLIGO 0,0,0 Local CS from the SR2 Scraper Baffle, to the HAM4-L1 0,0,0 Local CS at the origin of the Assy
D1000514 HEPI, HAM, Chamber Level Assembly, aLIGO SEI	<p>The position of the HEPI is defined by:</p> <ol style="list-style-type: none"> 1. Positioning the CS in the HEPI Assy at 1852.0 mm above the concrete floor as per DCC Doc E1000659-v2 2. The orientation of the HEPI with respect to the IFO Global CS is defined by DCC Doc G1000125-v8 3. Systems insert the assy mating the AdvLIGO 0,0,0 Local CS from the HEPI, to the HAM2-L1 0,0,0 Local CS at the origin of the Assy
D1101476 AdvLIGO HAM4-L1 ISI Table, XYZ Local CS for Balance Masses Assembly	<p>The position of the Balance Masses Assembly is defined by:</p> <ol style="list-style-type: none"> 1. Positioning the CS in the Masses Assy at 325.0 mm above the Table Optical Surface as per DCC DocT010076-v1 Page 29 2. Systems creates the 3D Sketch to position the Assy D1101476 on the HAM Table 3. Systems insert the assembly mating the AdvLIGO 0,0,0 Local CS from the Balance Masses Assy, to the HAM4-L1 0,0,0 Local CS at the origin of the Assy
D1101475 AdvLIGO SUS HAM4-L1, XYZ Local CS for SR2 AR Baffles Assembly	<p>The position of the HSTS SR2 AR Baffles is defined by:</p> <ol style="list-style-type: none"> 1. Mike S. (AOS) provides a STEP file created in ZEMAX 2. Systems convert STEP File into a SW Model, adding the required CS 3. From the SW Model, Systems find out the Local Coordinates of the 1X SR2 AR Baffle & 2X Hartmann Baffles i) X = -614.9 mm; Y = 444.9 mm; Z = -90.1 mm; Yaw Angle = 87.6° ii) X = 122.0 mm; Y = 639.0 mm; Z = -94.3 mm; Yaw Angle = 33.0° iii) X = 130.6 mm; Y = -750.0 mm; Z = -94.3 mm; Yaw Angle = 6.6° 4. With these coordinates systems creates the 3D Sketch to position 1X SR2 AR Baffle & 2X Hartmann Baffles on the HAM Table 5. Systems insert the assembly mating the AdvLIGO 0,0,0 Local CS from the SR2 AR Baffle, to the HAM4-L1 0,0,0 Local CS at the origin of the Assy

D1101473 AdvLIGO SUS HAM4-L1, XYZ Local CS for OptLev DLC Assembly	<p>The position of the OptLev DLC is defined by:</p> <ol style="list-style-type: none"> 1. The Coordinates from DCC P/N E1000608-v2 X = 114.6 mm; Y = -907.4 mm; Z = -197.9 mm; Yaw Angle = 0.0° 2. With these coordinates systems creates the 3D Sketch to position OptLev DLC on the HAM Table 3. Systems insert the assembly mating the AdvLIGO 0,0,0 Local CS from the OptLev DLC, to the HAM4-L1 0,0,0 Local CS at the origin of the Assy
D1101863 AdvLIGO SEI HAM4-L1, XYZ Local CS for HWS Optics Assembly	<p>The position of the HWS Optics Assembly (TCS) is defined by:</p> <ol style="list-style-type: none"> 1. TCS provides the assembly (D1101846) with all components already defined on the HAM Table 2. Systems creates the 3D Sketch to position the Assy D1101863 on the HAM Table. 3. Systems insert the assembly mating the AdvLIGO 0,0,0 Local CS from the HWS Optics Assy, to the HAM4-L1 0,0,0 Local CS at the origin of the Assy
D1101814 Cable Harness Routing Configuration - HAM4	<p>The position of the Cable Harness is defined by</p> <ol style="list-style-type: none"> 1. Positioning the CS in the Cable Harness Assy at 325.0 mm above the Table Optical Surface as per DCC Doc E1000403-v1 2. Systems creates the 3D Sketch to position the Assy D1000581 on the HAM Table 3. Systems insert the assembly mating the AdvLIGO 0,0,0 Local CS from the Cable Harness Assy, to the HAM4+A1-L1 0,0,0 Local CS at the origin of the Assy