LHAM2 - D0900365 - Coordinates Definition

DRAWING #	COORDINATES DEFINITION
	Systems defines the location of the HAM2-L1 0,0,0 Local CS at the origin of the Assy.
D0900366 AdvLIGO VE HAM2-L1, Vacuum Equipment Assembly	The position of the Vacuum Equipment is defined by: 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 HAM2-L1 0,0,0 Local CS at the origin of the Assy
D0900367 AdvLIGO SEI HAM2-L1, XYZ Local CS for ISO Table Assembly	The position of the ISO TABLE is defined by: 1. Positioning the CS in the ISO Table Assy at **252.9 mm** above the Table Optical Surface as per DCC Doc E1000403-v2 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 HAM2-L1 0,0,0 Local CS at the origin of the Assy
D0900368 AdvLIGO SUS HAM2-L1, XYZ Local CS for HLTS **(PR3)** Assembly	The position of the HLTS **(PR3)** is defined by: 1. The Coordinates from DCC P/N E1100492-v11. **X = 381.5 mm; Y = -177.4 mm; Z = -94.5 mm; Yaw Angle = 0.64°** 2. With these coordinates systems creates the 3D Sketch to position PR3 on the HAM Table 3. Systems insert the assembly mating the AdvLIGO 0,0,0 Local CS from the PR3 Suspension, to the HAM2-L1 0,0,0 Local CS at the origin of the Assy
D0900413 AdvLIGO SUS HAM2-L1, XYZ Local CS for HSTS **(MC1)** Assembly	The position of the HSTS **(MC1)** is defined by: 1. The Coordinates from DCC P/N E1100492-v11. **X = 49.5 mm; Y = 255.0 mm; Z = -107.0 mm; Yaw Angle = 134.4°** 2. With these coordinates systems creates the 3D Sketch to position MC1 on the HAM Table 3. Systems insert the assembly mating the AdvLIGO 0,0,0 Local CS from the MC1 Suspension, to the HAM2-L1 0,0,0 Local CS at the origin of the Assy
D0900414 AdvLIGO SUS HAM2-L1, XYZ Local CS for HSTS **(MC3)** Assembly	The position of the HSTS **(MC3)** is defined by: 1. The Coordinates from DCC P/N E1100492-v11. **X = 49.5 mm; Y = 720.0 mm; Z = -107.0 mm; Yaw Angle = 134.3°** 2. With these coordinates systems creates the 3D Sketch to position MC3 on the HAM Table 3. Systems insert the assembly mating the AdvLIGO 0,0,0 Local CS from the MC3 Suspension, to the HAM2-L1 0,0,0 Local CS at the origin of the Assy
D0900415 AdvLIGO SUS HAM2-L1, XYZ Local CS for HSTS **(PRM)** Assembly	The position of the HSTS **(PRM)** is defined by: 1. The Coordinates from DCC P/N E1100492-v11. **X = -68.0 mm; Y = -628.0 mm; Z = -103.7 mm; Yaw Angle = 0.3°** 2. With these coordinates systems creates the 3D Sketch to position PRM on the HAM Table 3. Systems insert the assembly mating the AdvLIGO 0,0,0 Local CS from the PRM Suspension, to the HAM2-L1 0,0,0 Local CS at the origin of the Assy
D1101537 AdvLIGO SUS HAM2-L1, XYZ Local CS for AUX SUS **(SM1)** Assembly	The position of the AUX SUS **(SM1)** is defined by: 1. The Coordinates from DCC P/N E1100492-v11. **X = -459.7 mm; Y = 752.9 mm; Z = -107.0 mm; Yaw Angle = 54.6°** 2. With these coordinates systems creates the 3D Sketch to position SM1 on the HAM Table 3. Systems insert the assembly mating the AdvLIGO 0,0,0 Local CS from the SM1 Suspension, to the HAM2-L1 0,0,0 Local CS at the origin of the Assy
D1101538 AdvLIGO SUS HAM2-L1, XYZ Local CS for AUX SUS **(SM2)** Assembly	The position of the AUX SUS **(SM2)** is defined by: 1. The Coordinates from DCC P/N E1100492-v11. **X = -559.4 mm; Y = -630.9 mm; Z = -107.0 mm; Yaw Angle = 36.1°** 2. With these coordinates systems creates the 3D Sketch to position SM2 on the HAM Table 3. Systems insert the assembly mating the AdvLIGO 0,0,0 Local CS from the SM2 Suspension, to the HAM2-L1 0,0,0 Local CS at the origin of the Assy

D1101539 AdvLIGO SUS HAM2-L1, XYZ Local CS for AUX SUS **(PMMT1)** Assembly	The position of the AUX SUS **(PMMT1)** is defined by: 1. The Coordinates from DCC P/N E1100492-v11. **X = -858.5 mm; Y = -477.8 mm; Z = -107.0 mm; Yaw Angle = 65.5°** 2. With these coordinates systems creates the 3D Sketch to position PMMT1 on the HAM Table 3. Systems insert the assembly mating the AdvLIGO 0,0,0 Local CS from the PMMT1 Suspension, to the HAM2-L1 0,0,0 Local CS at the origin of the Assy
D1101540 AdvLIGO SUS HAM2-L1, XYZ Local CS for AUX SUS **(PMMT2)** Assembly	The position of the AUX SUS **(PMMT2)** is defined by: 1. The Coordinates from DCC P/N E1100492-v11. **X = -198.6 mm; Y = 487.7 mm; Z = -107.0 mm; Yaw Angle = 64.1°** 2. With these coordinates systems creates the 3D Sketch to position PMMT2 on the HAM Table 3. Systems insert the assembly mating the AdvLIGO 0,0,0 Local CS from the PMMT2 Suspension, to the HAM2-L1 0,0,0 Local CS at the origin of the Assy
D0900420 AdvLIGO SUS HAM2-L1, XYZ Local CS for **In-Vacuum Periscope** Assembly	The position of the **In-Vacuum Periscope** is defined by: 1. The Coordinates from DCC P/N E1100492-v11. **X = -218.5 mm; Y = 0.0 mm; Z = -107.0 mm; Yaw Angle = 0.0°** 2. With these coordinates systems creates the 3D Sketch to position In-Vacuum Periscope on the HAM Table 3. Systems insert the assembly mating the AdvLIGO 0,0,0 Local CS from the In-Vacuum Periscope, to the HAM2-L1 0,0,0 Local CS at the origin of the Assy
D1101406 AdvLIGO SUS HAM2-L1, XYZ Local CS for **Fixed Mount Optics** Assembly	The position of the **Fixed Mount Optics** is defined by: 1. The Coordinates from DCC P/N E1100492-v11. **(For a detailed coordinates values & Optics, see PDF Drawing D1101406 in DCC)** 2. With these coordinates systems creates the 3D Sketch to position Fixed Mount Optics on the HAM Table 3. Systems insert the assembly mating the AdvLIGO 0,0,0 Local CS from the Fixed Mount Optics, to the HAM2-L1 0,0,0 Local CS at the origin of the Assy
D1000514 HEPI, HAM, Chamber Level Assembly, aLIGO SEI	The position of the HEPI is defined by: 1. Positioning the CS in the HEPI Assy at **1856.0 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
D1001625 AdvLIGO HAM2-L1 ISI Table, XYZ Local CS for Balance Masses Assembly	The position of the Balance Masses Assembly is defined by: 1. Positioning the CS in the Masses Assy at **252.9** mm above the Table Optical Surface as per DCC Doc E1000403-v1 2. Systems creates the 3D Sketch to position the Assy D1001625 on the HAM Table 3. Systems insert the assembly mating the AdvLIGO 0,0,0 Local CS from the Balance Masses Assy, to the HAM2-L1 0,0,0 Local CS at the origin of the Assy
D1101408 AdvLIGO HAM2-L1 ISI Table, IO Straight Baffles Assembly	The position of the IO Straight Baffles Assembly is defined by: 1. Positioning the CS in the Masses Assy at **252.9** mm above the Table Optical Surface as per DCC Doc E1000403-v1 2. Systems position all IO Baffles on the HAM Table by sketch layout provided by IO group 3. Systems insert the assembly mating the AdvLIGO 0,0,0 Local CS from the IO Straight Baffles Assy, to the HAM2-L1 0,0,0 Local CS at the origin of the Assy
D1101407 AdvLIGO SUS HAM2-L1, XYZ Local CS for **MC Refl Periscope** Assembly	The position of the **MC Refl Periscope** is defined by: 1. The Coordinates from DCC P/N E1100492-v11. **i) X = -368.5 mm; Y = 500.0 mm; Z = -107.0 mm; Yaw Angle = 21.0°** **ii) X = 28.6 mm; Y = -125.0 mm; Z = -107.0 mm; Yaw Angle = 0.0°** 2. With these coordinates systems creates the 3D Sketch to position 2X MC Refl Periscopes on the HAM Table 3. Systems insert the assembly mating the AdvLIGO 0,0,0 Local CS from the In-Vacuum Periscope, to the HAM2-L1 0,0,0 Local CS at the origin of the Assy
D0900371 AdvLIGO SUS HAM2-L1, XYZ Local CS for **Faraday Isolator** Assembly	The position of the **Faraday Isolator** is defined by: 1. The Coordinates from DCC P/N E1100492-v11. **X = -504.3 mm; Y = 38.3 mm; Z = -107.0 mm; Yaw Angle = 53.7°** 2. With these coordinates systems creates the 3D Sketch to position Faraday Isolator on the HAM Table 3. Systems insert the assembly mating the AdvLIGO 0,0,0 Local CS from the Faraday Isolator, to the HAM2-L1 0,0,0 Local CS at the origin of the Assy

D1101410 AdvLIGO SUS HAM2-L1, XYZ Local CS for **IO PSL PD** Assembly	The position of the **IO PSL PD** is defined by: 1. The Coordinates from DCC P/N E1100492-v11. **X = -851.9 mm; Y = 270.6 mm; Z = -107.1 mm; Yaw Angle = 25.0°** 2. With these coordinates systems creates the 3D Sketch to position IO PSL PD on the HAM Table 3. Systems insert the assembly mating the AdvLIGO 0,0,0 Local CS from the IO PSL PD, to the HAM2-L1 0,0,0 Local CS at the origin of the Assy
D1101411 AdvLIGO SUS HAM2-L1, XYZ Local CS for **OptLev DLC** Assembly	The position of the **OptLev DLC** is defined by: 1. The Coordinates from DCC P/N E1000608-v2 **X = 922.4 mm; Y = 75.9 mm; Z = -125.9 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 HAM2-L1 0,0,0 Local CS at the origin of the Assy
D1101412 AdvLIGO HAM2-L1 ISI Table, IO EQ Stop Baffles Assembly	The position of the IO EQ Stop Baffles Assembly is defined by: 1. Positioning the CS in the Masses Assy at **252.9** mm above the Table Optical Surface as per DCC Doc E1000403-v1 2. Systems position all IO Baffles on the HAM Table by sketch layout provided by IO group 3. Systems insert the assembly mating the AdvLIGO 0,0,0 Local CS from the IO Straight Baffles Assy, to the HAM2-L1 0,0,0 Local CS at the origin of the Assy
D1000581 Cable Harness Routing Configuration - HAM2	The position of the Cable Harness is defined by 1. Positioning the CS in the Cable Harness Assy at **252.9** mm above the Table Optical Surface as per DCC Doc E1000403-v1 2. Systems creates the 3D Sketch to position the Assy D1000581on the HAM Table 3. Systems insert the assembly mating the AdvLIGO 0,0,0 Local CS from the Cable Harness Assy, to the HAM1-L1 0,0,0 Local CS at the origin of the Assy