

LBSC5 - D0900506 - Coordinates Definition

DRAWING #	COORDINATES DEFINITION
	Systems defines the location of the BSC5-L1 0,0,0 Local CS at the origin of the Assy.
D0900507 AdvLIGO VE BSC5-L1, Vacuum Equipment Assembly	The position of the Vacuum Equipment is defined by: 1. Positioning the CS in the VE Assy at the intersection of the 2 Nozzles Centerlines of the BSC Lower Shell. (Ref. Point is the origin of the Assy) 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 BSC5-L1 0,0,0 Local CS at the origin of the Assy
D0900516 AdvLIGO SEI BSC5-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 1661.7 mm below 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 BSC5-L1 0,0,0 Local CS at the origin of the Assy
D0900517 AdvLIGO SUS BSC5-L1, XYZ Local CS for ETMY Assembly	The position of the ETMY is defined by: 1. The Coordinates from DCC P/N D0902216-v8. X = -200.0 mm; Y = -531.9 mm; Z = -80.0 mm; Yaw Angle = 90.0° 2. With these coordinates systems creates the 3D Sketch to position ETMY on the BSC Table 3. Systems insert the assembly mating the AdvLIGO 0,0,0 Local CS from the ETMX Suspension, to the BSC5-L1 0,0,0 Local CS at the origin of the Assy
D0900436 AdvLIGO SUS BSC5-L1, XYZ Local ETM Tel Assembly	The position of the ETM Tel is defined by: 1. Following the "X" & "Y" coordinates from the ETMX 2. Then matching the Local "Z" coordinate value from the ETMX (Quad Structure). 3. From the SW Model, Systems find out the Local Coordinates of the ETM Tel Assy : X = -200.0 mm; Y = 136.5 mm; Z = -80.0 mm; Yaw Angle = 90.0° 4. With these coordinates systems creates the 3D Sketch to position ETM Tel Assy on the BSC Table 5. Systems insert the assembly mating the AdvLIGO 0,0,0 Local CS from the ETM Tel Assembly, to the BSC5-L1 0,0,0 Local CS at the origin of the Assy
D1200677 AdvLIGO SUS BSC5-L1, XYZ Local SLC Arm Cavity Baffle Assembly	The position of the SLC Arm Cavity Baffle is defined by: 1. Following the "X" & "Y" coordinates from the ETMX 2. Then matching the Local "Z" coordinate value from the ETMY (Quad Structure). 3. From the SW Model, Systems find out the Local Coordinates of the SLC Arm Cavity Baffle X = -1045.4 mm; Y = 0.0 mm; Z = 1292.1 mm; Yaw Angle = 0.0° 4. With these coordinates systems creates the 3D Sketch to position SLC Arm Cavity Baffle on the BSC Table 5. Systems insert the assembly mating the AdvLIGO 0,0,0 Local CS from the SLC Arm Cavity Baffle Assembly, to the BSC5-L1 0,0,0 Local CS at the origin of the Assy
D1000513 HEPI, BSC, Chamber Level Assembly, aLIGO SEI	The position of the HEPI is defined by: 1. Positioning the CS in the HEPI Assy at 1850.0 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 BSC5-L1 0,0,0 Local CS at the origin of the Assy
D1201071 AdvLIGO BSC5-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 Balance Masses Assy at 1661.7 mm below the Table Optical Surface as per DCC DocT010076-v1 Page 29 2. Systems creates the 3D Sketch to position the Assy D1201071 on the BSC Table 3. Systems insert the assembly mating the AdvLIGO 0,0,0 Local CS from the Balance Masses Assy, to the BSC5-L1 0,0,0 Local CS at the origin of the Assy
D1200111 ALIGO, CABLE HARNESS ROUTING - BSC5_BSC10	The position of the Cable Harness is defined by 1. Positioning the CS in the Cable Harness Assy at 1661.7 mm below the Table Optical Surface as per DCC DocT010076-v1 Page 29 2. Systems creates the 3D Sketch to position the Assy D1200111 on the BSC Table 3. Systems insert the assembly mating the AdvLIGO 0,0,0 Local CS from the Cable Harness Assy, to the BSC5-L1 0,0,0 Local CS at the origin of the Assy