

Dr.Auto OBD Diagnostic Unit – Mechanical Connections

Source	Target	Joint	Delta	Description
main_enclosure_base	brass_heatset_inserts	heat-set press fit	(0, 0, 0)	Enclosure Base Shell â” Standoff Heat-Set Inserts â€” heat-set press fit; Standoff Heat-Set Inserts centered on Enclosure Base Shell
main_enclosure_base	case_heatset_inserts	heat-set press fit	(42.5, 10, 22.5)	Enclosure Base Shell â” Enclosure Corner Inserts â€” heat-set press fit; Enclosure Corner Inserts sits 42.5mm right, 10mm up, 22.5mm forward from Enclosure Base Shell
pcb_mounting_screws	brass_heatset_inserts	threaded mating	(0, -4.5, 0)	PCB Mounting Fasteners â” Standoff Heat-Set Inserts â€” threaded mating; Standoff Heat-Set Inserts sits 4.5mm down from PCB Mounting Fasteners
main_enclosure_lid	main_enclosure_base	aligned mating	(0, -17, 0)	Enclosure Top Lid â” Enclosure Base Shell â€” aligned mating; Enclosure Base Shell sits 17mm down from Enclosure Top Lid
enclosure_assembly_screws	case_heatset_inserts	threaded mating through lid	(0, -8, 0)	Case Assembly Screws â” Enclosure Corner Inserts â€” threaded mating through lid; Enclosure Corner Inserts sits 8mm down from Case Assembly Screws
obd_male_connector	main_enclosure_base	snap-fit retention slots	(0, -21.5, -66.5)	OBD-II Male 16-Pin Connector â” Enclosure Base Shell â€” snap-fit retention slots; Enclosure Base Shell sits 21.5mm down, 66.5mm back from OBD-II Male 16-Pin Connector
som_thermal_heatsink	main_enclosure_base	M2 screws and standoffs	(0, 14, 0)	SOM Heat Sink â” Enclosure Base Shell â€” M2 screws and standoffs; Enclosure Base Shell sits 14mm up from SOM Heat Sink
lte_gps_antenna_adhesive	main_enclosure_lid	double-sided adhesive tape	(0, 11, 0)	Internal Patch Antenna Mount â” Enclosure Top Lid â€” double-sided adhesive tape; Enclosure Top Lid sits 11mm up from Internal Patch Antenna Mount
obd_transceiver_stn1110_mount	main_enclosure_base	integrated snap clips	(0, 17, 0)	Multi-Protocol OBD Interface IC Mount â” Enclosure Base Shell â€” integrated snap clips; Enclosure Base Shell sits 17mm up from Multi-Protocol OBD Interface IC Mount
can_transceiver_mount	main_enclosure_base	integrated snap clips	(0, 17, 0)	Automotive CAN Transceiver Mount â” Enclosure Base Shell â€” integrated snap clips; Enclosure Base Shell sits 17mm up from Automotive CAN Transceiver Mount

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som_thermal_heatsink	edge_compute_som	mount	(0, -5.3, 0)	SOM Heat Sink → Edge Compute Module → mount; Edge Compute Module sits 5.3mm down from SOM Heat Sink
lte_gps_antenna_adhesive	lte_gps_module	mount	(8, 7.5, 0)	Internal Patch Antenna Mount → Cellular and GPS Module → mount; Cellular and GPS Module sits 8mm right, 7.5mm up from Internal Patch Antenna Mount
obd_transceiver_stn1110_mount	obd_transceiver_stn1110	mount	(0, 6.7, 0)	Multi-Protocol OBD Interface IC Mount → Multi-Protocol OBD Interface IC → mount; Multi-Protocol OBD Interface IC sits 6.7mm up from Multi-Protocol OBD Interface IC Mount
can_transceiver_mount	can_transceiver	mount	(0, 6.6, 0)	Automotive CAN Transceiver Mount → Automotive CAN Transceiver → mount; Automotive CAN Transceiver sits 6.6mm up from Automotive CAN Transceiver Mount
obd_male_connector	automotive_buck_regulator	attached	(0, 10.9, 0)	OBD-II Male 16-Pin Connector → Vehicle Power Regulator → attached; Vehicle Power Regulator sits 10.9mm up from OBD-II Male 16-Pin Connector
obd_male_connector	tv_s_diode_protection	attached	(0, 11.7, 0)	OBD-II Male 16-Pin Connector → Transient Voltage Suppressor → attached; Transient Voltage Suppressor sits 11.7mm up from OBD-II Male 16-Pin Connector