



Guided Soft Target

Overview

The AB Dynamics Guided Soft Target is the next generation of platform designed for use in the testing of vehicle Advanced Driver Assistance Systems (ADAS). Both our GST100 and GST120 benefit from many class-leading features including the ultra-low height of just 100mm. The GST120, with its class-leading 4.8kWh battery is the only product on the market capable of testing highway assist and drive pilot systems at realistic highway speeds.

The Guided Soft Target is designed to enable high-speed collisions to be carried out without causing significant damage to the test vehicle. It consists of a Low-Profile Chassis (LPC), which can be driven over, and a separate foam panel body (the Soft Car 360 harmonized Global Vehicle Target, GVT). When the low-profile vehicle is driven over, the wheels of the vehicle retract into the chassis to protect the suspension of the GST and to provide the minimum possible shock input to the test vehicle suspension.



Features

- Aluminium chassis – wheels retract into chassis when LPC is driven over
- Electric drive system with belt drive transmission
- Electrically-actuated steering system
- Lithium Iron Phosphate battery pack giving outstanding power to weight ratio
- GST battery packs are certified safe for air freight transportation under the UN38.3 battery transportation safety testing requirement
- 4-disc hydraulic braking system with failsafe emergency braking
- Using AB Dynamics' proven driverless control system, with hardware mounted in water-resistant casing.
- Position feedback from Inertial navigation System with GPS correction
- Accurate path-following and speed control capability
- Synchro software allows coordinated motion with other vehicles (either driven manually or equipped with AB Dynamics driving robots)

Specification

	GST100	GST120
Maximum acceleration (with soft car body fitted)	0.22g	0.28g
Maximum deceleration	0.8g	0.8g (with ABS)
Maximum lateral acceleration	0.4-0.5g	0.4-0.5g
Low profile chassis mass (LPC)	315kg	345kg
LPC length	2950mm	3160mm
LPC width	1680mm	1680mm
LPC height (Suspension retracted into chassis)	100mm	100mm
LPC wheelbase	1400mm	1670mm
LPC Front track	790mm	790mm
Max ground clearance, set to max ride height	20mm	20mm
Edge details (edge for minimal radar reflection)	22deg	22deg
Battery capacity	3.6kWh (removable for shipping)	4.8kWh (removable for shipping)
Path-following accuracy (1SD RMS typical maximum, Compatible with OxTS and Genesys products)	2cm	2cm
Over-run capacity	Up to 1000kg per wheel+*	Up to 1000kg per wheel+*
Typical maximum speed (with Soft Car 360)	100km/h	120km/h

+(500kg with ultra-low-profile top plate)

* HD version available for use with heavy trucks



GST120 is compatible with AB Dynamics suite of ADAS platforms and driving robots.

