



STāSIS – A6 3.0T Flash & Exhaust

General Description

The STāSIS A6 3.0T Exhaust (C6 chassis) is a direct bolt on, CNC mandrel bent, T304 stainless steel cat-back system featuring one mid-muffler and two rear mufflers terminating into twin polished tips etched with STāSIS logos. Helmholtz resonance chambers are utilized to tune and refine the sound output. This sound was developed through extensive testing of design variables with state of the art Real Time Spectrum Analysis software. The system is optimized to reduce back pressure and increase the overall power output of the engine. These goals have been achieved while maintaining low levels of cabin resonance during cruising speeds.

The STāSIS Signature Series A6 3.0T ECU Flash utilizes a complete re-calibration of all engine operating parameters controlled by the vehicle computer. Taking into account increases in boost pressure in combination with optimized timing and fuel parameters, STāSIS has achieved dramatic increases in both torque and horsepower throughout the power-band while maintaining the reliability and durability of the OEM engine. Use of the Signature Series ECU Flash in combination with the Exhaust allows for maximum power output by combining the increased power output of the supercharger with the free flowing characteristics of the exhaust.

STāSIS can be defined as a condition of balance among various forces and that is the driving force behind our unique engineering approach. Drawing on years of motorsport and engineering experience the STāSIS team develops a range of products for a vehicle that work harmoniously together.

System Contents

- (1) STāSIS Signature Series Exhaust System
 - (1) Necessary mounting hardware
- (1) STāSIS Signature Series ECU Flash

Supported Audi Vehicles

Model: A6
Model Years: 2009-2011

Features

- The STāSIS exhaust system is a direct bolt-in replacement for the original equipment manufacturer (OEM) exhaust, no welding or fabrication is required.
 - T304 Stainless Steel pipes shaped with CNC mandrel bender to ensure constant pipe radius.
 - Mounted using OEM hangers by utilizing the stock slip joint connections at the downpipe mufflers.



- STāSIS mufflers incorporate reflective (active) and passive technologies to optimize sound and performance
 - The oval muffler chambers have been extensively developed and tested to minimize exhaust back pressure to the engine, while maintaining excellent exhaust scavenging.
 - The STāSIS resonators and mufflers combine to give an exhaust tone which is noticeably deeper and stronger with aggressive throttle input, while maintaining non-intrusive cabin drone at cruising speeds in the appropriate gear.
- STāSIS exhaust systems are designed using the latest in 3D design and sound spectrum analysis software. Measurements of frequency and decibel levels are taken throughout the entire rpm range of the engine and fine tuned to achieve the proper sound quality. The STāSIS muffler design gives an exhaust note that is noticeably deeper and stronger at all throttle applications while maintaining a tone that is not intrusive or “droning” at normal everyday driving speeds.

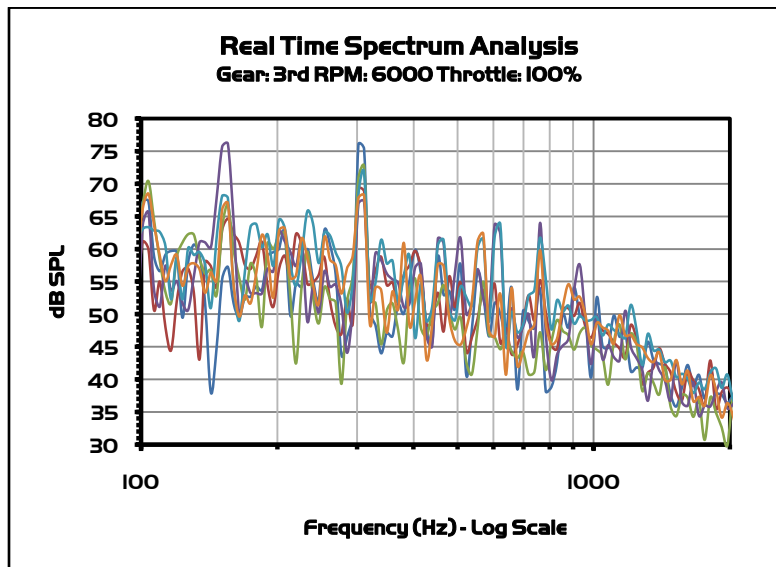


Figure 2 – Audio data compiled during development process.

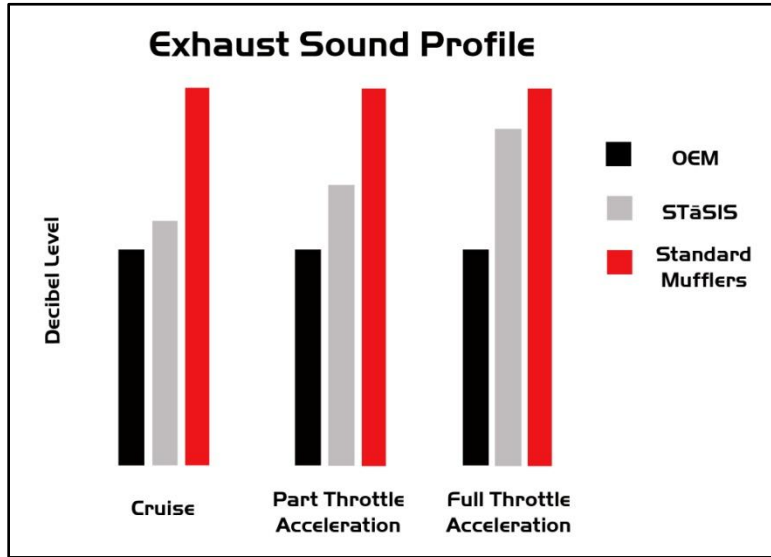


Figure 3 – Comparison of exhaust characteristics.

- All OEM heat shields are retained to ensure no additional thermal stress is introduced into the vehicle’s structural and cosmetic components.
- Every STāSIS exhaust system is tested extensively to simulate the wide range of situations encountered in real world driving. Including but not limited to city commuting, canyon road carving, and multi day track events.

	OEM Exhaust	STāSIS Exhaust
Peak Horsepower	300	306
Pipe Diameter	50 mm (2.00")	57 mm (2.25")
Complete Assembly Weight	25 kg (55 lbs)	21 kg (45 lbs)

Table 1: Comparison of OEM to STāSIS exhaust system

- Ultimate power gains are shown when the exhaust system is coupled with the STāSIS Signature Series ECU Flash.
 - The supercharger boost pressures have been dramatically increased over the OEM application by recalibration of the bypass valve programming. By adding up to 8 psi of boost through programming, the STāSIS flash eliminates the need for costly pulley and hardware upgrades.
 - Ignition timing and fuel injection changes coupled with higher levels of boost pressure from the supercharger combine to produce substantial gains in top end power.
 - Increased exhaust flow results from the higher supercharger output. The 100% free flowing STāSIS Exhaust System is recommended to obtain peak gains from ECU tuning.
 - See attached dynamometer graph for power gains.

A6 3.0T ECU Flash Comparison - Crankshaft Power

