



### **Audi B7 S4 Rear Brake Kit White paper:**

The STaSIS rear brake upgrade for the Audi B7 S4 replaces the OEM components in the rear brake assembly. The kit includes the following:

- (2) STaSIS 2 piece rotor assemblies
- (2) STaSIS caliper mounting brackets
- (1) High temp brake fluid
- (1) Goodridge brake lines
- (1) Necessary mounting hardware
- (1) Ferodo 2500 Pad Set

The STaSIS brake assembly replaces the 302 mm 1 piece cast iron rotor with a 2 piece rotor consisting of an aluminum hat and light weight rotor. Weighing in at just 13.5 pounds, the new assembly removes 4 pounds of rotating weight at each corner. Compared to the OEM rotor, the STaSIS rotor features directional slotting to whisk away pad material and water. The heat treated iron-based rotor is cooled by the vented aluminum STaSIS hat, increasing the thermal capacity of the system.

Braided stainless steel wrapped Teflon brake lines replace the flexible rubber factory units that deform when subjected to high braking pressures. Stronger lines allow less change under increased pressure and therefore the interaction between pedal application and caliper piston displacement is more linear. This allows the driver to more accurately apply braking modulation during spirited driving.

High boiling point brake fluid and performance brake pads replace the street-oriented OEM units – larger temperature ranges and higher temperature ceilings result.

	OEM Audi B7 S4	STaSIS
Rotor Diameter (mm)	302	330
Rotor Thickness (mm)	22	22
Rotor Weight (lbs)	17.5	13.5
Pad Temp. Range (F°)	0 – 500	0 - 1000

**Table 1: Comparison of OEM B7 S4 and STaSIS/ALCON Brake Systems**

### **Engineering Approach:**

STaSIS 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 STaSIS team develops a range of products for a vehicle that work harmoniously together.

However, each individual product requires a specific engineering approach. For brakes, design goals such as rotating mass, heat retention, and brake bias are prioritized. Rotating mass is minimized, while heat retention and radiation are maximized. Brake bias is measured and adjusted to optimally suit each application.

Every part designed by STaSIS is thoroughly analyzed using the latest in Finite Element Analysis, as well as being subjected to destructive testing. Before being released to the public, every component is rigorously tested both on the racetrack and street. This thorough testing ensures our products can stand up to the widely varying conditions encountered in daily driving.