

STaSiS Engineering B8 Signature Line Suspension

SL Suspension Kit

Parts List

Qty	Description	Part Number
2	Front Damper B8 S5	SA02.2500.00
2	Rear Damper B8 S5	SA02.2510.00
2	Front Springs	SP03.1070.00
2	Front Upper Spring Mount	SA10.0007.02
2	Rear Springs	SP02.6475.00
2	Rear Spring Tenders	SP03.0003.00
2	Rear Spring Tender Coupler	SP03.0002.00
2	Rear Perch Male	SA01.3018.00
2	Rear Perch Female	SA01.3019.00
2	UHMWPE Spring Washer	SA10.0001.00
2	Rear Spring Perch Spacer	SA02.3510.00
2	Perch Wrench	SA01.3001.00
2	Front Nylock Nut M12	HA03.0107.00
2	Rear Nylock Nut M10	HA03.0120.00
2	Rear Spacer Bolt M8	HA01.0806.00
2	Rear Spacer Washer M8	HA02.0802.00

Special Tools Required

Qty	Description	Part Number
1	Torque Wrench	VAG 1331
1	Torque Wrench	VAG 1332
1	Engine/transmission jack	VAG 1383 A
1	Spring Compressor	VAG 1752/1
1	Spring holder	VAG 1752/7
1	Spreader	3424
1	Tensioning strap	T10038



STaSIS Motorsport and Signature Line Suspension Limited Warranty

Limited Lifetime Warranty

Stasis Engineering warrants its line of Ohlins based Motorsport and Signature Line suspension kits against manufacturing and material defects for the lifetime of its operation to the original retail purchaser (referred to as "consumer" herein). This warranty cannot be transferred to another individual or entity and is limited to the following listed terms and conditions-

- Included Warranty Card must be returned after installation for warranty terms to be in effect. If no warranty card is on file for the consumer requesting the warranty, all terms will be null and void.
- Limited warranty covers damper component and assembly defects in manufacturing, material, and workmanship.
- Warranty will not cover any damaged component due to installation/removal damage, vehicle accident damage, incidental debris or rock contact, and/or curb impact.
- Corrosion damage due to environmental conditions is not covered under the lifetime warranty. STaSIS Engineering requires consumers coat the entire damper with a lubricant-protectant spray after installation. STaSIS recommends using Boeshield T9 lubricant-protectant, a spray application which forms a resilient waxy coating on the assembly after drying. This spray is available for purchase directly from STaSIS or any Sears retail outlet.
- Seal Heads are considered a high wear item and are not covered under the limited warranty after installation and initial use.
- **Ohlins based Motorsport and Signature Line dampers require a bi-annual (2 year/ 25,000 mile) service interval in order to maintain proper operation and performance levels.**
 - To schedule service, contact STaSIS Engineering directly, parts must be returned with a STaSIS issued RMA number which is issued when scheduled.
 - Service consists of a complete overhaul of 2 front and 2 rear dampers. Overhaul will include a complete disassembly and inspection of all dampers, replacement of all seal heads, and fluid change for all dampers. Cost to consumer - \$399.00 plus any applicable shipping charges.
 - Consumer will be advised of any added costs from worn or damaged parts requiring replacement before re-assembly.
- Warranty requests for dampers that have not been serviced within the past 24 months will incur a service charge of \$100.00 per damper.
- STaSIS Engineering reserves the right to make changes to the design of the assembly without assuming any obligation to modify or update any products previously manufactured.
- All warranty and service claims will be completed on a first come first serve basis. Claims will be turned around in a maximum of 3 business days with the exception of parts non-availability.
- Warranty will be honored based on the evaluation and the discretion of STaSIS Engineering. All warranty requests honored by STaSIS will include all return shipping costs at the calculated ground shipping rate. If expedite service is requested, customer must cover the cost difference.

INDEMNIFICATIONS: Customer agrees to indemnify, hold harmless STaSIS, the STaSIS authorized dealership, and Audi of America against any and all claims, actions, and damages including injuries to persons and/or death or disease arising or alleged to arise, in whole or in part due to the performance enhancement of the vehicle.

EXCLUSIONS: STaSIS only warrants parts sold in, and installed on, automobiles built to United States and Canada specifications. "Defects in material and workmanship" shall not include the effects of normal wear and tear of a part installed on a performance-enhanced automobile.

STaSIS Motorsport and Signature Line Suspension Limited Warranty

This Limited Warranty is void if STaSIS or its designated representative determines that the STaSIS part has been subjected to alteration, neglect, misuse or abuse; if any repairs have been attempted by anyone other than STaSIS or its designated representative; or if failure is caused by accident, acts of God or other causes beyond the control of STaSIS. Neglect, misuse and abuse include any installation, operation or maintenance of the automobile or part not in conformity with the instructions contained in the documentation provided with the automobile and part or otherwise available from the automobile manufacturer or STaSIS Engineering.

LIMITATIONS: No agent, dealer, distributor, service company or other party is authorized to change, modify or extend the terms of this Limited Warranty in any manner whatsoever.

DISCLAIMERS: STaSIS and its representatives shall not be liable for any injury, loss, cost or other damage, whether incidental or consequential, arising out of any defect covered by this Limited Warranty, including, without limitation, towing charges, rental car fees, labor for installation and removal of the product(s), loss of use of the automobile while it is being repaired, or damages resulting from the enhanced performance of the automobile, even if STaSIS has been advised of the possibility of such damage. The liability for materials and workmanship of STaSIS under this Limited Warranty, if any, shall not exceed the sum of the original amount paid for the defective product. These disclaimers shall be equally applicable to any service provided by STaSIS or its designated representatives.

LEGAL RIGHTS: This Limited Warranty gives purchasers of STaSIS parts specific legal rights. Purchasers/consumers may have other rights which vary from state to state. Some states do not allow limitations on how long an implied warranty lasts, so this limitation may not apply.

B8 SL Suspension Installation Instructions

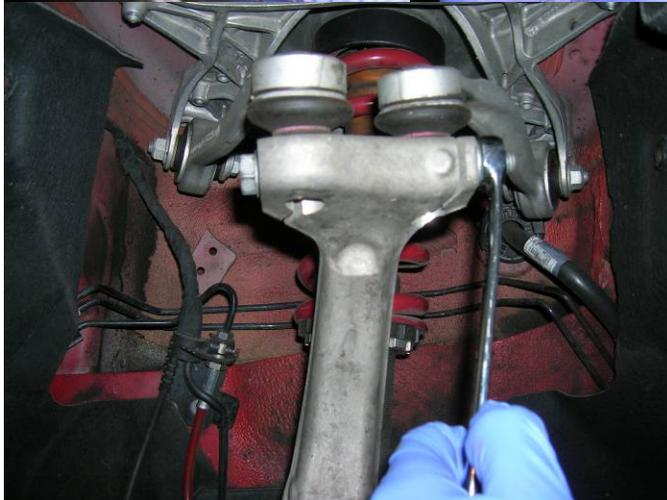
Please read ALL instructions prior to attempting installation. Please torque all fasteners to specifications.

Torque Values

Front damper to upper mount	37 ft-lbs
Front damper upper mount to body	56 ft-lbs
Front damper fork pinch bolt	30 ft-lbs + 180°
Front damper fork to lower link	66 ft-lbs
Upper link pinch bolt	29 ft-lbs
Rear damper to upper mount	26 ft-lbs
Rear damper upper mount to body	37 ft-lbs
Rear damper to upright	111 ft-lbs
Rear sway bar link to lower control arm	30 ft-lbs
Rear sway bar link to sway bar	30 ft-lbs
Rear sway bar mounts	19 ft-lbs

Front Removal

1	<p>Before removing any parts, park the car on a secure, stable, and level surface. Remove wheel trim; pull trim cap off light-alloy wheels (using puller in vehicle tool kit) and loosen (but do not remove) the wheel lug nuts. Jack the vehicle up, and place the car on four stable jack stands or use a professional vehicle lift. We recommend having two people available for certain steps of the installation.</p>
2	Remove wheels
3	Before removing left suspension strut, remove headlight range control link from track control link.
4	<p>Remove the fastener and plastic nut on the inside of the fender lip.</p> <p>This is to provide additional clearance for the tires. The clip will not be reinstated.</p>
5	<p>Remove pinch bolt for upper control arms. Remove both joint pins in upper control arms from the wheel bearing housing. The slits in the wheel bearing housing must not be widened using a chisel or similar tool! This can cause the pinch arms to crack. If the control arm pins are stuck in the housing, tap lightly with a rubber mallet on the bottom of the control arms.</p>



6 Disconnect the bolt that connects the swaybar link to the damper fork. Bolt can remain on swaybar link.

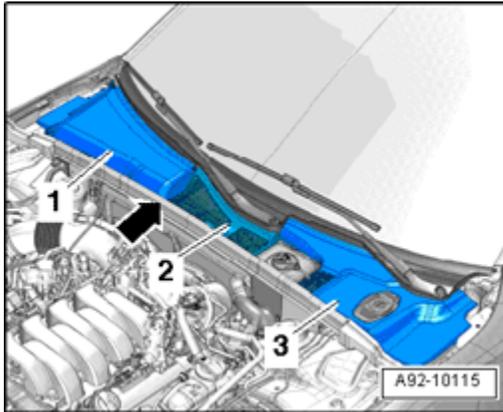


7 Remove bolts that connect damper fork to lower link and damper. Use spreader (Audi Tool # 3424 or equivalent) to remove fork from damper. Pull bearing housing down to gain enough clearance to remove fork.

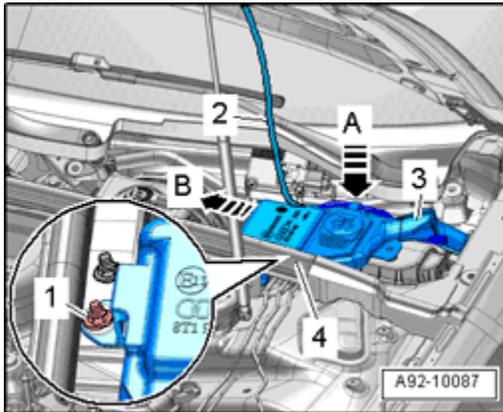


8 Perform these steps on both sides of the car and then open the front hood to reach the bolts that hold the upper mount.

9 Unclip plenum chamber covers-1 & 3 - and remove them.

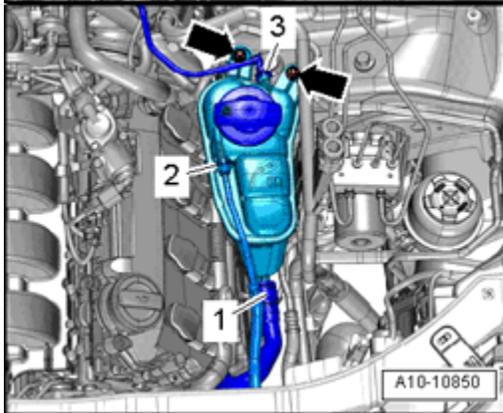


10 Remove nut - 1 - . Remove filler neck - 3 - with filler tube from washer fluid reservoir and body opening - **arrow B** - .

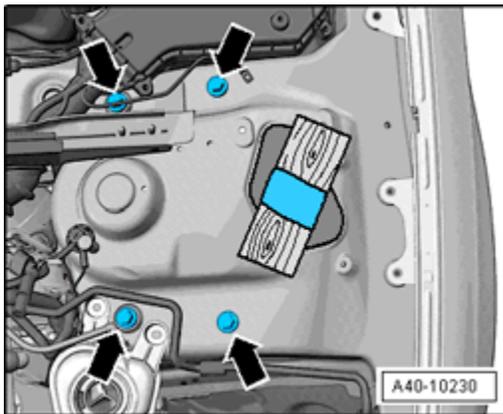


11 Remove nuts - **arrows** - , move coolant reservoir upward and lay it aside to access the mounting bolt.

Do not disconnect any coolant lines, reservoir does not have to be removed.

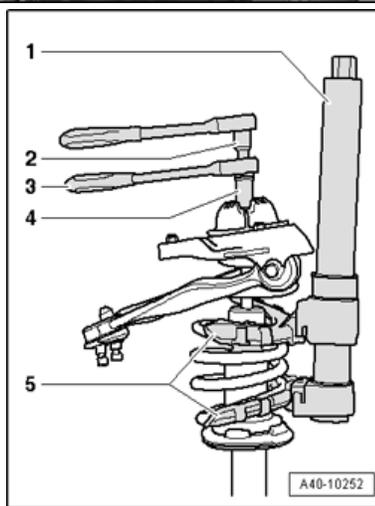


12 Remove bolts - **arrows** - and remove suspension strut with the mounting bracket.



13 Remove OEM damper and spring from upper mount.

Note: You will **not** reuse the OEM bumpstop, the thick washer, and the nylock nut that sits on top of the damper shaft.



14 Remove swaged aluminum upper spring seat retainer. Use a small chisel and hammer to bend over the swaged lip. A die grinder can also be used to grind the lip off of the center of the aluminum retainer.



15 Install spring with delrin upper mount onto the STaSIS damper.

Install upper cradle and rubber upper mount onto the damper assembly. Hold upper damper pin in between the cradle and mount with a 21mm wrench while tightening the nut for the damper pin to the rubber upper mount. Tighten nylock nut to 37 ft-lbs.

CAUTION – DO NOT grab the damper shaft with any tools while tightening the nylock nut.

NOTE – Spring assembly will be loose at preset perch height. This is normal and will get loaded once installed in the vehicle.



<p>16</p>	<p>Installation is the reverse of removal.</p> <p>Once the damper is installed check that the spring perch is set at the proper installed height, as shown in the picture. The Dimension should be 68mm from the top of the cylinder head (yellow mark) to the bottom of the locking coil ring. (80mm for S5 cabriolet)</p> <p>Before compressing the suspension, confirm that the upper urethane spring mounts are properly seated on the springs, the springs will self center onto the cradle once the suspension is compressed.</p> <p>Note: Bonded rubber suspension bushings can only be turned to a limited extent. <u>All mounting bolts of the suspension links must only be tightened when the suspension is compressed to the curb weight position.</u> This can be done by jacking up the wheel while the car is on the lift.</p>
<p>17</p>	<p>Install Wheel and tighten</p> <p>Note – do not fully tighten bolts until car is at ride height.</p>

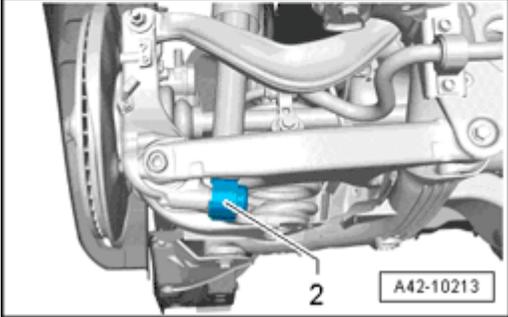
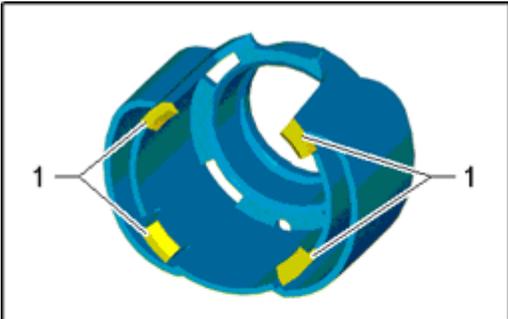
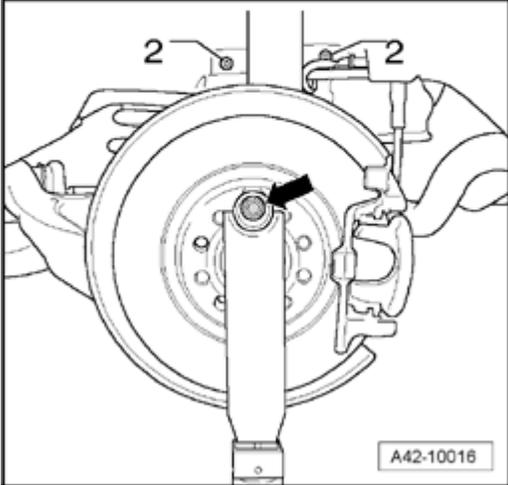
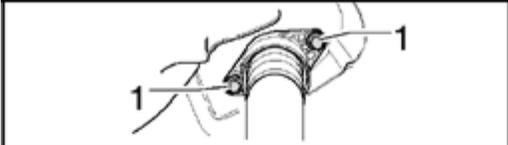


Rear Removal

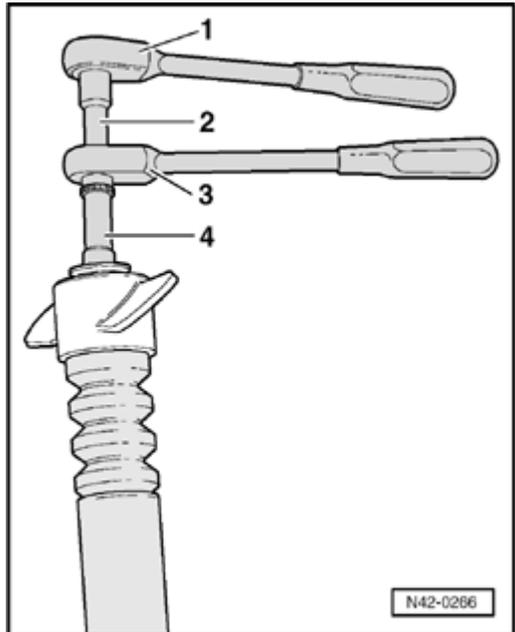
1 Remove wheel

2 Remove upper damper bolts. Then remove lower damper bolt and remove damper.

Note: Discard the lower bolt cover. It will not be reused.



3 Remove upper mount from OEM damper and set aside.
Note: It will be reused when installing the STaSIS damper.



4 Insert pry bar between upright and lower control arm (see picture) and push down to relieve tension from spring. You may need assistance to remove the spring while you are pushing the suspension down.

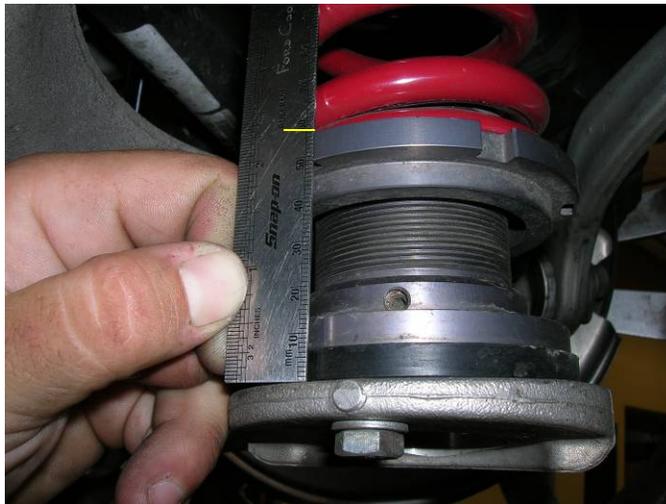


5 Remove the OEM lower rubber spring mount, it will not be reused.
Note: You may remove the stone guard to make it easier to make height adjustment, however this is not a requirement.

Rear Installation

- 6 Install STaSIS lower spring perch onto lower control arm and secure with the supplied bolt.

Note: Check That the perch is set to the proper installed height. As shown in the picture below. The dimension should be **55mm** from the bottom of the rear spring perch spacer to the spring seat (yellow mark). (**77 mm for S5 cabriolet**) (**60mm for A5 sportback**) **DO NOT** include the UHMWPE washer thickness in the measurement.



7 Install STaSIS spring and OEM upper rubber mount. Earlier kits include a tender spring with a coupler on top of the main spring.

Note: You will have to use a pry bar in the same manner used to remove the OEM spring



8 Install the OEM upper damper mount onto the STaSIS damper. Grab cylinder head with a wrench and tighten nylock nut to 37 ft-lbs.



9 Install damper assembly and torque to:

Upper bolt: 37 ft-lbs

Lower bolt: 111 ft-lb, longer bolt spacer goes against the upright, short spacer between the bolt head and damper end eye.

Note –

Bonded rubber suspension bushings can only be turned to a limited extent. The mounting bolts of the suspension links must only be tightened when the suspension is compressed to the curb weight position. This can be done by jacking up the wheel while the car is on the lift.



10

Install wheels and tighten. Lower the car onto its wheels and torque all wheel lug bolts to the recommended torque.

Check ride height – See next page

STaSiS recommended ride heights-

Front - **13 11/16” from the center of the wheel to the fender lip**

Rear - **13 1/2” from the center of the wheel to the fender lip**

Note: Check wheel alignment after suspension installation

Rev. 1 11/2/08

STaSiS Signature Line Ride Height Adjustment

Ride height inspection and adjustment procedure:

1. After completing installation of the kit, set the vehicle on the ground and drive the car around the block to settle the suspension. To take ride height measurements **MAKE SURE THE VEHICLE IS PARKED ON A LEVEL SURFACE. VERY IMPORTANT!**
2. Measure the ride height of the vehicle at four points for future reference. Measure from the center of the wheels to the bottom of the fender lip.
3. If you are pleased with this ride height then you are done, save the measurements for future reference. If not continue to step 4.
4. Calculate the difference between the actual ride height and the ride height you would like the car to sit at for the right front wheel. For optimum handling we recommend this be done with the driver in the car and $\frac{3}{4}$ of a tank of fuel. We recommend that the distance between the center of the wheels and the bottom of the fender lip is not set below 13.0 inches. The suspension is operating too close to its maximum bump travel and handling can be negatively impacted.
5. The ratio between the front shock body motion and wheel motion is about 0.65 to 1 and the rear is 0.80 to 1. This means that the wheel travels about 1 inch for every 0.65 inches of shock body travel on the front and 0.80 inches of spring travel on the rear. Therefore, for example, if you wanted to lower the car $\frac{1}{2}$ inch from its current ride height at the right front wheel, then you would have to lower the lower spring perch on the right front shock body by $\frac{1}{2} \times 0.65 = 0.32$ inches. The rear motion ratio is calculated the same way.
6. Repeat steps 4 & 5 for the left front, left rear and right rear wheels.
7. Armed with the data from steps 4,5 & 6, securely jack the car up and place it on four jack stands. Remove the wheels if necessary to reach the lower spring perches. For the front dampers, loosen the lower perch lock ring and thread the lower perch up or down by the amount you have calculated in step 5. The rear spring perch does not have a locking ring and can be turned freely. Record the location of the perches so you can have it as a future reference if needed. Once the desired height is attained, tighten the locking perch against the spring perch.
8. Place the wheels back on the car and lower it to the ground. Drive the car around the block or press up and down on the car 3 or 4 times at each of the four wheels to settle the suspension before you make any measurements. Make sure the car is in the exact same location as before and go to step 2.

STaSIS Signature Line Maintenance Instructions

Custom Valved Ohlins Threaded Steel Dampers

The STaSIS Coil Over kit is designed to provide superior service for the lifetime of your vehicle. As this suspension system is a race car derived kit with high performance components, routine maintenance is required to insure the optimal operation of your suspension system.

We recommend the following steps are performed bi-annually, preferably before and after the winter season. Vehicles that are exposed to more abusive environments, such as sea salt, road salt or dirt roads may necessitate more frequent maintenance.

1. Securely support the vehicle on four jack stands and remove the road wheels.
2. Clean the threaded portion of the damper with a non metallic brush using soap and water.
3. We recommend lowering or raising the lower spring perch to allow access to clean the threaded portion of the damper that is covered by the perches.
4. Lubricate the threaded portion of the damper with "Boeshield T9" lubricant-protectant or a similar wax based lubricant.
5. Return the perches to their original location and tighten the locking perches. Spray protectant on the remaining components of the damper assembly.
6. Check the rear spherical bearings and verify that they are properly lubricated.
7. Service your dampers with STaSIS every 2 years to maintain product warranty and optimal functionality.
8. If you have any questions about this, please call STaSIS at 707-935-9700.

Secure the road wheels and return the vehicle to the ground. Watch that the springs seat properly on the spring perches