

# Suspension (Continued) - ABC Conversion to Coil-Overs & Sway/Anti-roll Bars

**NOTE :** *there are options available to convert your R230 to coil-overs. These I will detail below. Please note that more options are appearing continually, but I am still having difficulty obtaining detailed reviews from owners who have experience with conversions.*

## **SL350 Road Test (comes from MB factory with the standard MB coil-overs and sway bars)**

### **Short Test Drive of the base SL (V6 SL350) :**

It uses the engine found in cars like the E320, except here, it is bored out to 3.7 litres and horsepower jumps up to 245-hp, torque 258 lb/ft. I was expecting this car to be “adequate” in terms of performance but surprisingly, it offers much more than adequate performance. Performance won’t touch an SL500 or above, but it sure isn’t a slacker.



The steering was unusually light and gave the impression that it was vague, yet it responded quickly to driver input and made the big SL handle pretty nicely. I had no trouble taking the car around the “racetrack style” country roads here where handling is a necessity if you drive especially sporty and fast. Handling felt safe and secure at all times. There was a little body roll but it didn’t bother me much. I actually felt the heavy weight of the SL is a plus for keeping the car on road.

The suspension was a fusion between softness and stiffness, more the former. It was easy to tell that the suspension was tuned for comfort, it still did a good job of providing the basics and so much more for sporty driving. At the end of the day however, this changes nothing from the fact that all SL’s are cruisers at heart. SL350 up to SL65 AMG, they’re all biased towards relaxed driving.

***I can summarise the suspension, handling and steering qualities all in one word : smooth.***

*Video links driving the SL350 and “standard” coil-overs :*

- <https://www.youtube.com/watch?v=zMhVjDMm30I&t=420s>
- <https://www.youtube.com/watch?v=1iW94XDR8IQ&t=27s>
- <https://www.youtube.com/watch?v= euTxjEdlvE&t=12s>
- [https://www.youtube.com/watch?v=zDjX8\\_iJdvk&t=341s](https://www.youtube.com/watch?v=zDjX8_iJdvk&t=341s)

### **Comparison of Engine and Vehicle Weights :**

	SL350 (std. coil-overs)	SL55 AMG	SL63 AMG	SL65 AMG
Engine Weights (lb)	449	485	439	452

<b>Vehicle Weights (lb)</b>	3,719	4,310	4,150	4,494
<b>ABC - removed weight (lb)</b>	n/a	176	176	176
<b>Coil-Over + Sway Bar Parts (lb)</b>	n/a	66	66	66
<b>Vehicle Weight Reduction (lb)</b>	n/a	110	110	110
<b>Vehicle Weight after Conversion</b>	3719	4,200	4,040	4,384

***KV Coil-Overs (fitted as standard by MB to SL65 Black Series)***

The Black Series SL65 uses an adjustable coil-over suspension (KW Variant3) including front and rear sway/anti-roll bars, as opposed to the unnatural-feeling Active Body Control (ABC), as used on all other SLs (except the SL350).

However, befitting the serious nature of the Black Series, the suspension is quite stiff.



***Coil-Over Replacement Additional Parts Required (ONLY if installing from SL65 Black Series Parts)***

**MB OEM - Front Black Series Additional Parts Listed :**

- 1x A 230 320 23 11 - Torsion bar
- 4x N 910 143 008 010 - Screws for torsion bar
- 2x N 000 000 003 279 - Hexagon nut (torsion bar to rod)
- 2x A 230 333 02 50 - Bushing
- 2x A 230 323 00 17 - Torsion bar linkage left and right

**MB OEM - Rear Black Series Additional Parts Listed :**

- 1x A 230 320 22 11 - Torsion bar
- 2x N 910 105 012 012 - Screws for torsion bar
- 2x N 913 023 012 002 - Nuts for torsion bar
- 2x N 913 023 008 003 - nut (torsion bar to rod)
- 2x A 230 320 07 89 - Torsion bar linkage left and right

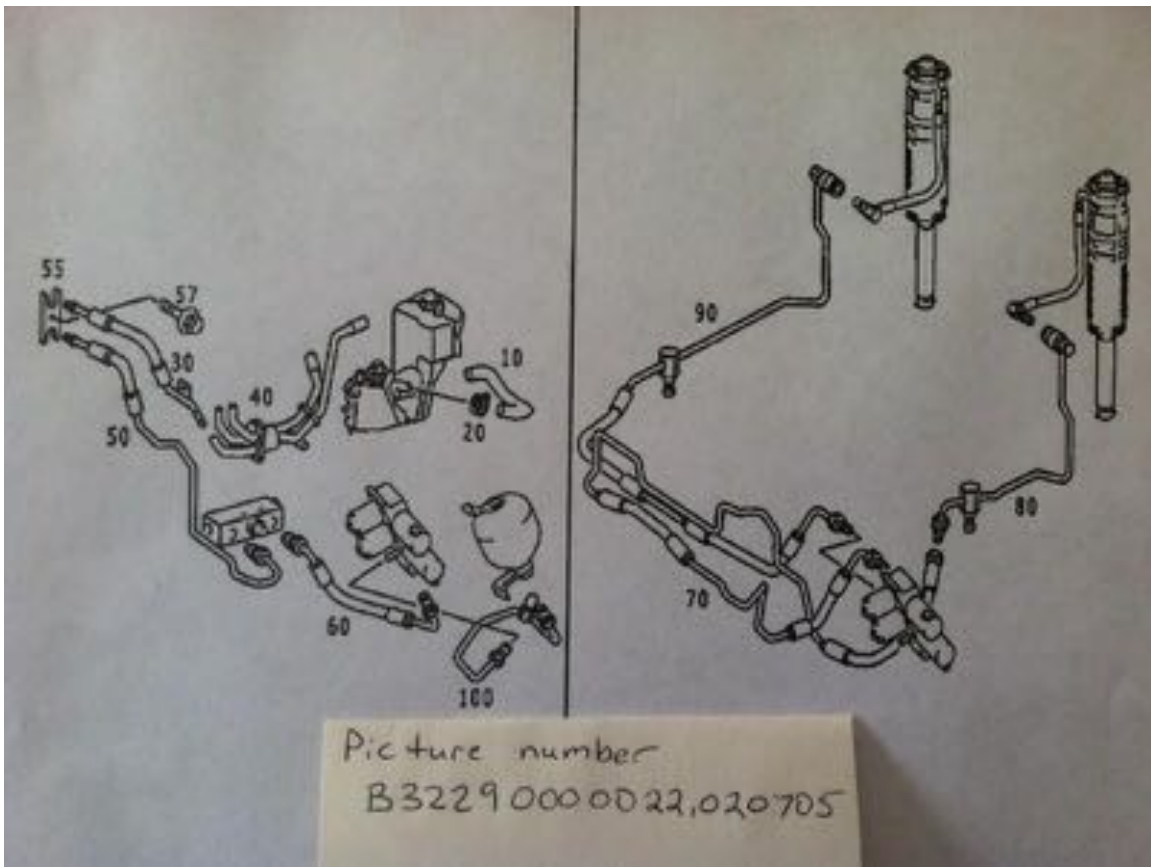
**NOTE :** *Black Series parts tend to be too expensive for a conversion, along with being for heavier V12.*

***Coil-Over Conversion Notes***

- The European SL350 has coil-overs and sway/anti-roll bars as standard
- The Black Series SL65 has coil-overs as standard

- DO NOT buy a conversion kit without sway/ant-roll bars, as can make your car unstable
- It is good conversion option to use standard MB parts from the European MB SL350, as all should be available through your MB dealer network in all parts of the World, except possibly North America (SL350 never sold in North America)
- After conversion, the ABC option can be removed from the car system by coding (see coding notes further below), using a Mercedes Star Das scanner. For example, on the Black Series SL65 with standard coil-overs, when you do a "quick test" via the dealer Star Diagnosis, there are current fault codes in control units that say "this fault code can be ignored in Black Series models"

**Example of Deleted ABC Components :**



**Removing ABC From the R230 Using STAR DEV :**

When going in to ME28 F3 stand -> Explizite Kodierung on the car (not in SIM).

**NOTE :** All models w209, w220 and so on are listed and all drop Down menus, also R230 is with dashes - - - -

Under R230 the following options are available (EU3EU4 ULEV and JAPAN). **NOTE :** here only the EU3EU4 options are shown :

**Use this coding for NO ABC and WITH DISTRONIC :**

R230\_M113\_E50\_EU3EU4\_NAG\_ART\_250\_km/h\_KickPWG\_PKK\_MRM\_1131531279\_1131532779\_1131533079

**Use this coding for NO ABC and NO DISTRONIC :**

R230\_M113\_E50\_EU3EU4\_NAG\_VGB\_250\_km/h\_KickPWG\_PKK\_MRM\_1131531279\_1131532779\_1131533079

**Use this coding for WITH ABC and WITH DISTRONIC :**

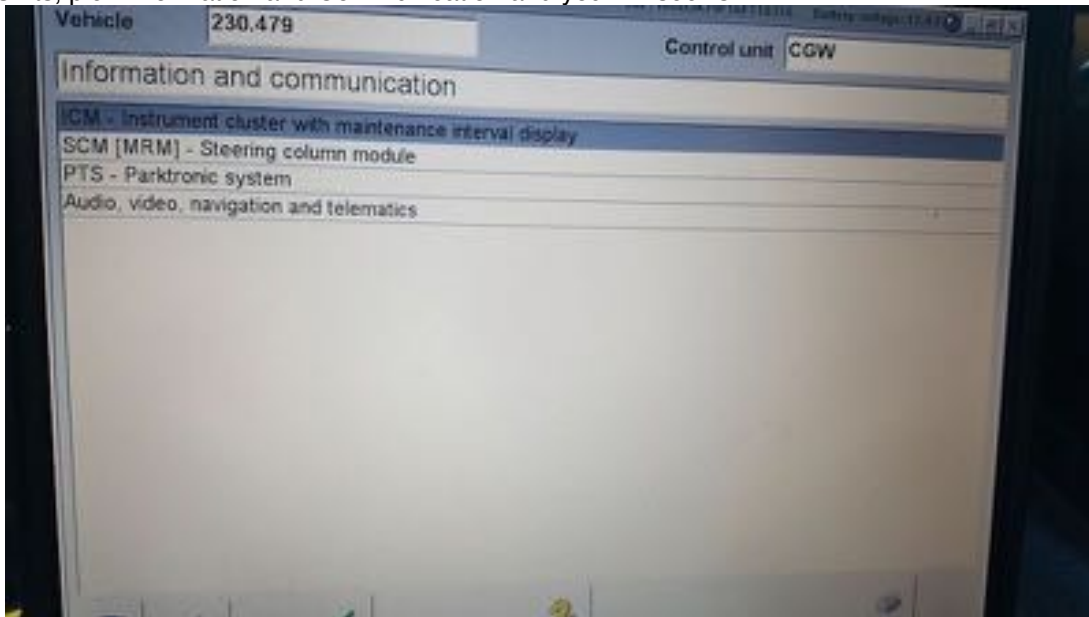
R230\_M113\_E50\_EU3EU4\_NAG\_ART\_ABC\_250\_km/h\_KickPWG\_PKK\_MRM\_1131531279\_1131532779\_1131533079

**Use this coding for WITH ABC and NO DISTRONIC :**

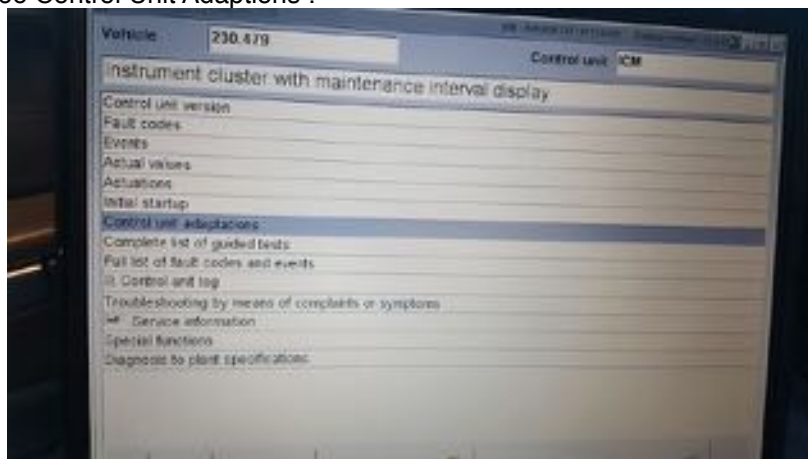
R230\_M113\_E50\_EU3EU4\_NAG\_VGB\_ABC\_250\_km/h\_KickPWG\_PKK\_MRM\_1131531279\_1131532779\_1131533079

**DIY For Coding Out ABC on R230 Cars :**

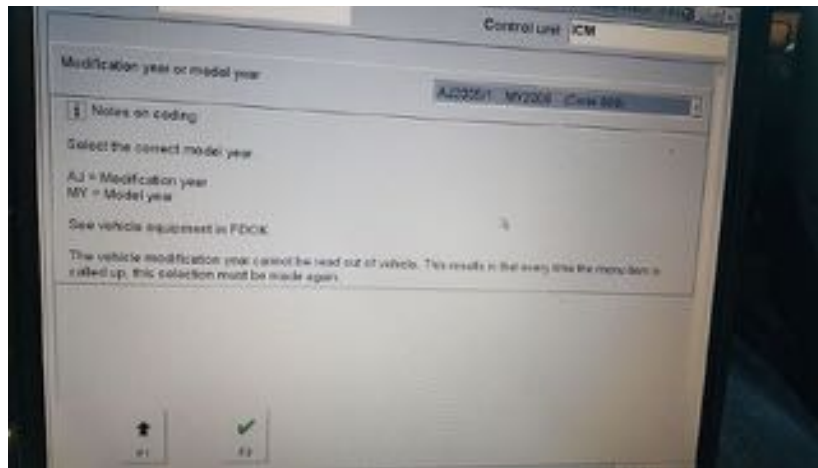
- To do this, you need a Star with Developer mode. Hook up SDS to your car and when it reads your car, select Control Units, pick Information and Communication and you will see ICM :



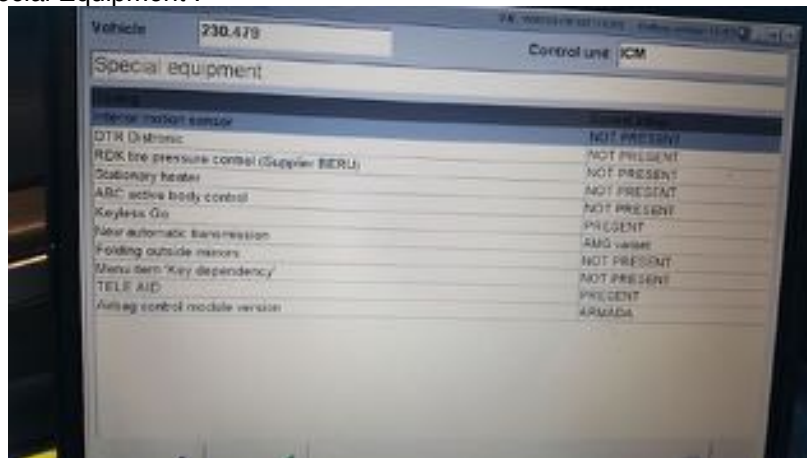
- After ICM, you will see Control Unit Adaptions :



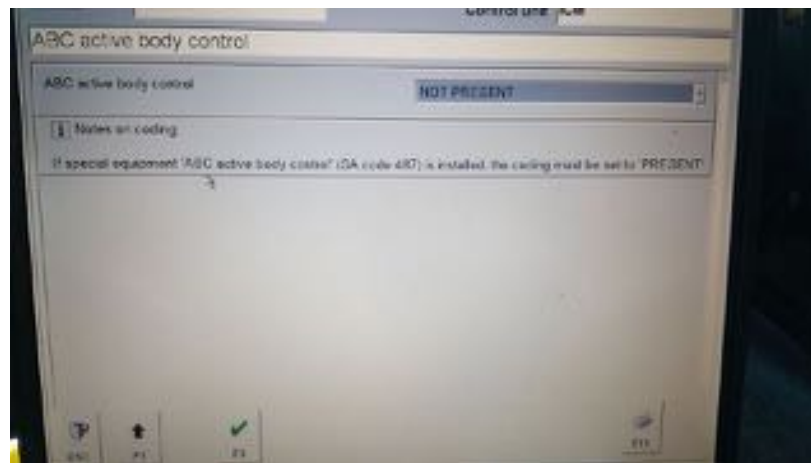
- From there, pick the year of your model :



- From there, pick Special Equipment :



- Pick ABC :



- Then go to the drop down tab and change it from PRESENT to NOT PRESENT, and click F3.
- After that, turn off the car, with the doors closed.
- Wait 1-2 mins and start the car back up (no more ABC codes and no white or red lights).

**NOTE :** *the above is is only for R230s (not any W215, W216, W220, W221)*

### ***Owner Comments Following Conversion to SL350 "Coil-Overs"***

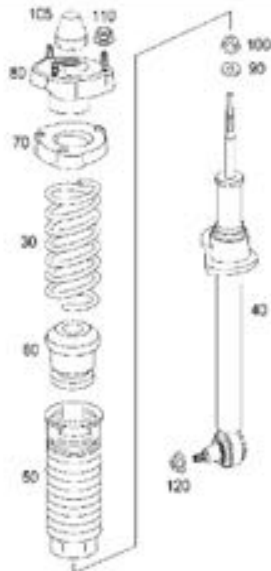
- The SL350 "Coil-Overs" make the SL55 handle better
- Not much more harsh than the hydraulic ABC
- Really it feels the same, unless you are very sensitive
- Now the SL55 is more perfect for cornering, a more stable supercar
- Finally, a reliable SL

**Coil-Over Conversion Described in Detail for SL55 AMG - Using European SL350 Standard Factory Parts**

**NOTE :** An SL350 coil-over conversion with sway/anti-roll bars, will more than handle the power of the SL55 AMG and all parts below, are available through Mercedes-Benz dealer network.

**MB OEM - FRONT Conversion Parts :**

**A 230 323 08 00 - FRONT Damper/Shock Absorber Strut** **x2** ~\$276 ea.



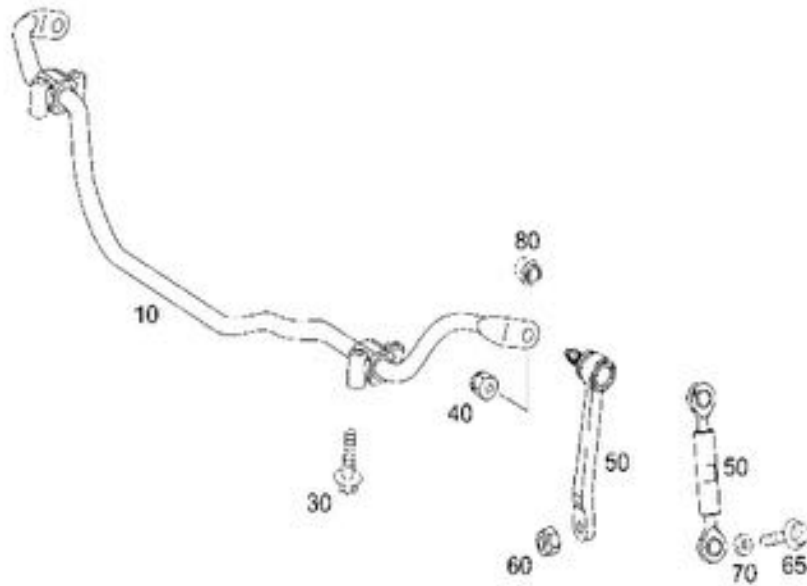
**A 230 321 02 04 - FRONT Coil Spring** **x2** ~\$73 ea.



**A 230 323 00 20 - FRONT Lower Strut Seat/Mounting** **x2** ~\$65 ea.



**A 230 320 21 11 - FRONT Sway/Anti-Roll/Torsion Bar (opt. adjust. link #50)** **x1** ~\$125



**A 230 320 05 89 -** FRONT Sway/Anti-Roll/Torsion Bar Linkage (left) **x1** ~\$46 ea.



**A 230 320 06 89 -** FRONT Sway/Anti-Roll/Torsion Bar Linkage (right) **x1** ~\$46 ea.



**A 211 320 33 89 -** FRONT Sway/Anti-Roll/Torsion Bar Rod Link Stabiliser (left and right) same as front **x2** ~\$40 pair



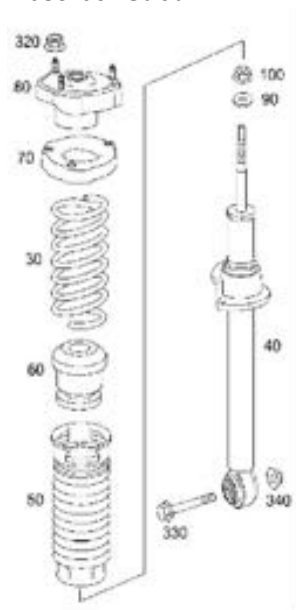
**A 211 323 00 68 -** FRONT Lower Sway/Anti-Roll/Torsion Arm Ball Joint **x2** ~\$20 ea.



- N 910 143 008 010 - Screws for Torsion Bar x4
- N 000 000 005 272 - Hexagon Nut (torsion bar <math>\leftrightarrow</math> rod and rod <math>\leftrightarrow</math> to spring control arm) x4
- A 230 323 00 92 - FRONT Boot Cover x2
- A 230 323 00 44 - FRONT Rubber Bumper x2
- A 230 321 01 84 - FRONT Shim x2
- A 211 323 00 38 - FRONT Dust Cap x2

**MB OEM - REAR Conversion Parts :**

- A 230 326 09 00 - REAR Damper/Shock Absorber Strut x2    ~\$250 ea.



- A 230 324 02 04 - REAR Coil Spring x2    ~\$73 ea.



- A 230 326 00 64 - REAR Strut Mount x2    ~\$55 ea.



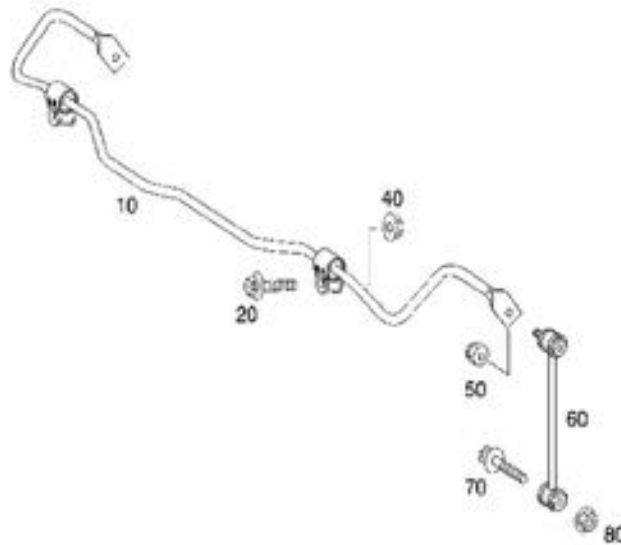


A 230 320 05 11 -

REAR Sway/Anti-Roll/Torsion Bar

x1

~\$125



A 211 320 33 89 -

REAR Sway/Anti-Roll/Torsion Bar Rod Link Stabiliser (left and right) same as front

x2

~\$40 pair



N 000 000 000 437 -

Screws for Torsion Bar

x2

N 913 023 012 002 -

Nuts for Torsion Bar

x2

A 140 990 06 51 -

Hexagon Nut (torsion bar to rod)

x2

N 913 023 010 002 -

Hexagon Nut (rod to spring control arm)

x2

A 230 323 00 92 -

REAR Boot Cover

x2

A 230 325 00 84 -

REAR Shim

x2

A 230 326 00 68 -

REAR Bump Stop

x2

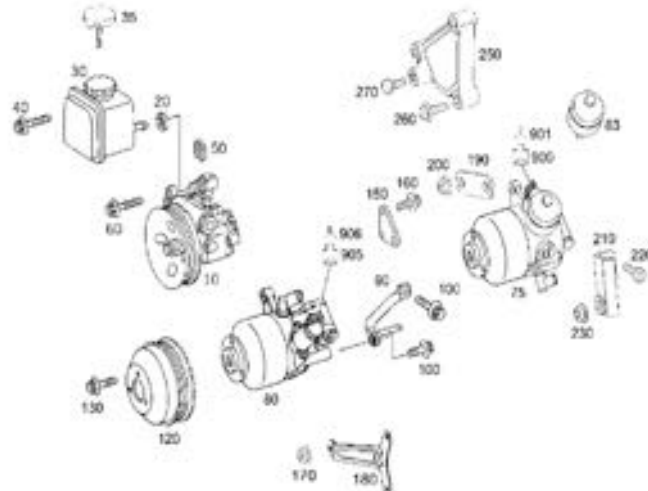
A 005 466 40 01 -

SL350 Single PS Pump (tandem pump is A 005 466 09 01)

x1

~\$350

(Diagram below (#10) is single PS pump, while (#75) is an ABC/PS tandem pump) :



Single



Tandem



**Rebuild Master Tech - Coil-Over Conversion Kits for SL55 AMG (inc. sway bars)**

Rebuild Master Tech (RMT) <http://www.rebuildmastertech.com/>  
920 SW 2nd PL, Pompano Beach FL 33069 Ph: (954) 934-9000

**NOTE : THESE ITEMS (inc. Core Options) NOT AVAILABLE FOR INTERNATIONAL SHIPPING (inc. Canada)**

- **OPTION #1:** you pay a refundable deposit of US\$1,500, refundable when you return your old ABC Struts (prepaid return shipping label provided by calling us, but applies to Continental USA Only).
- **OPTION #2:** You send your old ABC Struts first to us (avoids paying a deposit). Once we receive the old struts, your new parts will be shipped. (on placing order, prepaid shipping label will be provided, but applies to Continental USA Only)

**KIT 1 - Using European SL350 parts (as listed above) :**

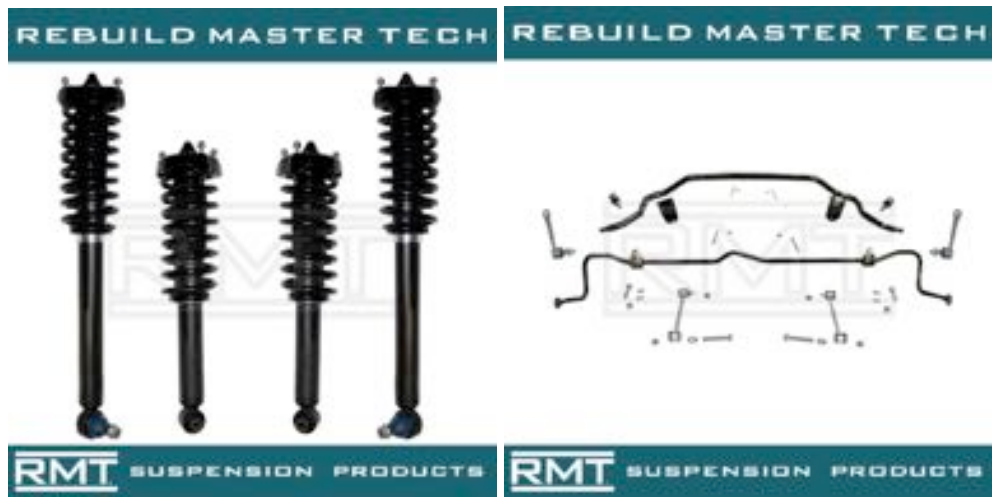
OEM INTERCHANGE PART #: 2303202913 , 2303204513 , 2303203013 , 2303204413 , 2303204713 , 2303204613

**NOTE : costs around US2,500 (after old ABC struts returned for US\$1,500 refunded deposit)**

SKU : M230-A331-AD4K-001

This kit is for SL-Class AMG (R230) SL55 AMG V8 Engines Only (it will NOT fit Vehicles with V12 Engines). It will take a minimum 15 Hours of labour and reprogramming the ABC out of the system so no warning lights come on. RMT offers to assist your mechanic with the installation. Kit includes OEM Shock Absorbers, Coil Springs, Sway Bars, Links & Power Steering Pump. Requires no modification to your vehicle and are OEM designed to "Bolt on" without any welding or cutting.





**Kit 2 - Using "VVK Nordic Car Design" Custom Conversion Parts (2 versions - Street and Sport) :**

**NOTE :** *"Street" version costs around US\$3,899 and "Sport" version cost around US\$4,199 (both after old ABC struts returned for US\$1,500 refunded deposit). Also, both versions are available directly from manufacturer "VVK-USA" for around US\$3,998 and they ship internationally.*

VVK-USA Nordic Car design is located in Jupiter, FL (U.S.A) and are comprised of automotive engineers and industrial designers with links to Nordic design and quality : [vvk.usa.contact@gmail.com](mailto:vvk.usa.contact@gmail.com)

This is VVK's premier product for the R230 Mercedes is made in the USA with precision CNC'd parts built to last. This kit includes everything you need to safely and securely replace your entire ABC system with a coil-over suspension :

- Full Coil-over Suspension (30-Way simultaneous compression & rebound adjustment on top of each strut)
- Replacement Power Steering Pump (Eliminates the stock dual pump which feeds ABC)
- Custom sport VVK Front and Rear Sway Bars. 3-Way Adjustable Front, 2-Way Adjustable Rear. (these are NOT the smaller OEM bars designed for the lighter V6 SL350).
- All Required Hardware for Complete Install

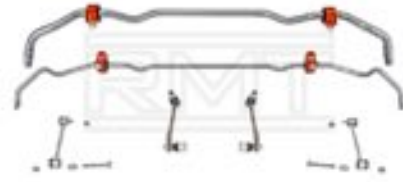
**The VVK kit is available in two options :**

- **Street :** The Street model is valved for your everyday cruising vehicle, with lots of added control. With a wide range of adjustable valving you can easily set the car to match your driving style and needs, always with increased control, truly transforming your SL into the sports car it should have been from the factory. Dial in softer damping for smooth cruising or turn it up when you want to feel like you're in a sports car.
- **Sport :** The Sport kit goes a step further and increases the spring rate over the Street version. Especially suitable for those who enjoy aggressive driving, track days and also wide-body cars. The fine tuned spring/damper combo really lends a race car feel. For those with faster SL's, this will make you feel like you are riding an actual Mercedes supercar.





REBUILD MASTER TECH



RMT SUSPENSION PRODUCTS