

BMW ESA products

The Tractive R&D team in their WP past developed BMW ESAI and ESAIL. Tractive also has developed dynamic ESA solutions for several high-end powersport brands worldwide. So we consider ourselves quite experienced in electronic adjustable suspension and certainly specialised in BMW electronic suspension from 2005 till now. Suspension service companies can become Tractive dealers and order the technical parts needed for ESA1, ESA2 or dynamic ESA replacement and service. For example [Beemershop USA](#) and [ESARepair](#) in the Netherlands.

Most ESA shock absorbers consist of

- a damper with adjustable damping by a stepper motor or solenoid valve
- a spring
- a spring preload (ESAI EPA) or spring rate adjuster, mostly electronic, mostly only for the rear shock.

There are several reasons to use our ESA products (pls check XXXXXXXXXXXX (link Youtube movie of facebook post):

1. For new suspension make ride height or spring rate customer specific. Tractive Shocks come in different ride height and with a range of springs. At the same time they are fully serviceable and tuneable.
2. Replace worn suspension. After some use the stock suspension slowly degrades or becomes dysfunctional (leaking, not functioning). The Tractive shocks come with a heavy duty design for serious loading; 16mm induction hardened CrMo piston rods for increased durability and the electronic adjustment is as good as indestructible
3. Improve ride quality

The Tractive shocks outperform the stock shocks in comfort, but also in handling. This is due to the specific damping setup and the electronic components used. For ESAI and ESAIL we use the most reliable stepper motor, for dynamic ESA the most stable and fastest valve on the market

4. The Tractive BMW ESA shocks as described on this page do not have the most extreme offroad properties. But in the TT Adventure line there is a full line Plug&Play shock absorbers with extra canister and aluminum shock absorber housing for optimal thermal stability.

A suspension service company or an experienced BMW dealer mostly has the tools to disassemble the stock shock absorber. It is a relatively simple operation as shown in XXXXXX (link Youtube movie of facebook post). In below picture is shown how a BMW R1200GS 13- shock is being replaced with a spring fitting to the weight of the rider and 25mm lower rideheight.

Application List BMW ESA

Model	Yr	Type		Article	Description
R1200GS	04-12	FRONT	damper	46BM04-S1057	P&P ESAI, use Tractive EPA or no (E)PA, order spring
R1200GS	04-12	FRONT LOW25	damper	46BM04-S1061	P&P ESAI, use Tractive EPA or no (E)PA, order spring

R1200GS ADV	06-13	FRONT	damper	46BM06- S1065	P&P ESAI, use Tractive EPA or no (E)PA, order spring
R1200GS	04-12	REAR	damper	46BM04- S1056	P&P ESAI, use STOCK EPA or order Tractive (E)PA, order spring
R1200GS	04-12	REAR LOW25	damper	46BM04- S1060	P&P ESAI, use STOCK EPA or order Tractive (E)PA, order spring
R1200GS ADV	06-13	REAR	damper	46BM06- S1064	P&P ESAI, use STOCK EPA or order Tractive (E)PA, order spring
R1200GS	13-	FRONT	damper	46BM13- P1040	P&P dyn Esa, order spring
R1200GS	13-	REAR	damper	46BM13- P2029	P&P dyn Esa, inc PDS, use STOCK EPA, order spring
R1200GS	13-	FRONT LOW25	damper	46BM13- P1040/X01	P&P dyn Esa, order spring
R1200GS	13-	REAR LOW25	damper	46BM13- P2029/X01	P&P dyn Esa, inc PDS, use STOCK EPA, order spring
R1200GS ADV	14-	FRONT	damper	46BM14- P1047	P&P dyn Esa, order spring
R1200GS ADV	14-	REAR	damper	46BM14- P2046	P&P dyn Esa, inc PDS, use STOCK EPA, order spring
R1200RT	05-09	FRONT	damper	46BM05- S1081	P&P ESA1, order spring
R1200RT	05-09	REAR	damper	46BM05- S2080	P&P ESA1, PDS, use STOCK EPA or order Tractive PA, order spring
R1200RT	05-09	FRONT LOW25	damper	46BM05- S1089	P&P ESA1, order spring
R1200RT	05-09	REAR LOW25	damper	46BM05- S2088	P&P ESA1, PDS, use STOCK EPA or order Tractive PA, order spring
R1200RT	10-13	FRONT	damper	46BM10- S1079	P&P ESA2, order spring
R1200RT	10-13	REAR	damper	46BM10- S2078	P&P ESA2, PDS, use STOCK EPA and STOCK spring unless lower weight
R1200RT	10-13	FRONT LOW25	damper	46BM10- S1087	P&P ESA2, order spring
R1200RT	10-13	REAR LOW25	damper	46BM10- S2086	P&P ESA2, PDS, use STOCK EPA, order spring
R1200RT	14-	FRONT	damper	38BM14- P1053	P&P dyn ESA, order spring
R1200RT	14-	FRONT LOW25	damper	38BM14- P1054	P&P dyn ESA, order spring
R1200RT	14-	REAR	damper	46BM14- P3053	P&P dyn ESA, use STOCK EPA and STOCK spring unless lower weight

R1200RT	14-	REAR LOW25	damper	46BM14- P3054	P&P dyn ESA, use STOCK EPA, order spring
S1000XR	15-	REAR	damper	46BM15- P1077	P&P dyn ESA shock, uses STOCK EPA, order spring, needs mounting fork (dis)assembly
S1000XR	15-	FRONT	cc DDA leg	35BM15- P8077	P&P dyn ESA closed cartridge, one leg, use STOCK spring
R1200R	15-	FRONT	cc DDA leg	35BM15- P8073	P&P dyn ESA closed cartridge, one leg, use STOCK spring
R1200R	15-	REAR	damper	46BM15- P3073	P&P dyn ESA, no spring/EPA, uses STOCK EPA and STOCK spring
R1200RS	15-	FRONT	cc DDA leg	35BM15- P8072	P&P dyn ESA closed cartridge, one leg, no spring, uses STOCK spring
R1200RS	15-	REAR	damper	46BM15- P3072	P&P dyn ESA, no spring/EPA, same as 46BM15-P3073

LOW25: rideheight 25mm lower than stock; CC Closed Cartridge ; DDA Dynamic Damping Adjustment; P&P Plug & Play; EPA Electric Preload Adjuster