

**WORLDS LARGEST CUP SERIES.....**

**GERMANY, BELGIUM, NETHERLANDS** Along with BMW Challenge & NES 500

“Used K-MAC adjuster kits since 2023” 12,000 race kilometers RESULT:

“You Have The Best Solution In The World”

**BMW** 1966 2025 **“TOTAL SYSTEM”** **FRONT - CAMBER (& CASTER)**  
**REAR - CAMBER (& EXTRA TOE)**

incl. all latest ‘F’ & ‘Mini’ Series (also latest ‘G’ Series ‘5’, ‘6’, ‘7’, ‘8’, ‘Z’ and ‘X’5, ‘X’6).

Today’s Autos only have Front Toe “directional” adjustment - even exotic BMW ‘M’, Mercedes ‘AMG’, No Camber or Caster essential to adjust tire contact angles. It is all to do with cost savings & ever increasing speed of assembly lines. Excess edge load also causing ruptured side walls, rim damage.

**FRONT ‘STRUT’ ADJUSTERS: K-MAC Inventors of the ‘3’ STAGES ...**

(Also inventors, Patentees of the “All Positional” system, allowing Biggest & Quickest Adjustment)



**2's  
POS/NEG**

**K-MAC  
Camber  
(& Caster)**



**3.5's  
POS/NEG**

**K-MAC  
Camber  
(& Caster)  
FIT WITHOUT  
COIL OVERS**



**3.5's  
POS/NEG**

**K-MAC  
Camber  
(& Caster)  
FIT WITHOUT  
COIL OVERS**

**STAGE 1 (STREET)**

Provides ‘M’ series “Caster” specs plus “Camber” for 1st time. Stage 1 design Similar to OEM. Steel with ball race thrust bearings and OEM style large shock absorbing centers. Centers (instead of rubber) are high performance elastomer

**STAGE 2 (STREET/RACE)**

Unlike all other brands not steel or soft billet alloy. Instead ultimate very highest aircraft 7075 aluminium. Centers H/Duty spherical bearings PTFE lined “encased in elastomer”, and replaceable while F Series similar to OEM but elastomer. Then separate H/Duty (85mm diam.) fully sealed thrust bearings for “steering loads”.

**STAGE 3 (FULL RACE)**

All the Stage 2 features but no elastomer/flex for tauter/quicker steering response, more effective shock control. (“F” series - Again setting new standards, massive 30mm I.D. Self align spherical bearings)

**FRONT “LOWER ARM” ADJUSTERS ALSO NON “STRUT” SUSPENSIONS:**

K-MAC Inventors, Patentee’s of the Single Wrench Adjustment System”, accurately on car (under load - direct on alignment rack). No more what has plagued the industry for years - the time consuming and inaccurate need to disassemble and reposition bushings each time a new setting required!

**Front Upper ‘A’ Arms  
Inner Bushings ....  
RACE DAYS Extra Adjustment  
Also precise Camber & Caster**



**CAMBER - LOWER ARM INNER BUSHES:**

for “EXTRA” Camber adjustment. RACE DAYS further reduce “Understeer” (and also increase track width).

**CASTER - THRUST ARM INNER BUSHES:**

K-MAC MONO BALL / 2 AXIS design Caster adjustable (also improve brake and steering response). With 2 1/2 times the load bearing area of steel spherical bearings that soon pound out.



AVAILABLE FROM

**WWW.K-MAC.COM**

**REAR “LOWER & UPPER ARM” ADJUSTERS:**

Again K-MAC single wrench adjustment system. CAMBER where none existed before, or doubling existing adjustment range. EXTRA TOE adjustment to compensate for the new Camber facility ALL KMAC BUSH KITS SUPPLIED WITH EXTRACTION / INSERTION TOOLS.



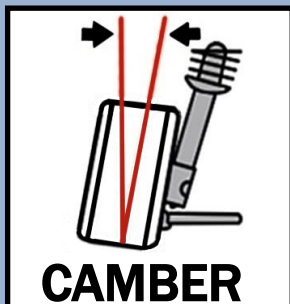
**DONT BE SOLD SUBSTITUTES!**

**STREET (or RACE - In the pursuit of hitting those corner apex’s every time and front row of the grid lap times !)**

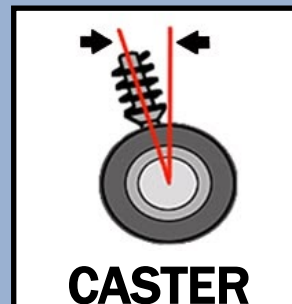
# '4' WHEEL ALIGNMENT TODAY'S AUTO'S

IS NOW ONLY 'TOE' - **"DIRECTIONAL"** ADJUSTMENT

*Even Performance BMW 'M' & 'AMG' MODELS !*



**ALL TO DO WITH ....**  
Cost cutting & ever  
increasing speed of  
"New Car Assembly Lines"

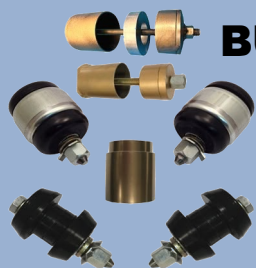


# CATALOG

**Suit virtually all 1966 to 2026 !**

# BMW

Sedans, Coupes,  
Wagons, SUV  
MINI



**BUSHINGS**

**STRUT TOPS**



## WE DID IT

Re Establishing  
**FRONT & REAR "CAMBER / CASTER"**  
ALLOWING TO ADJUST TIRE "CONTACT ANGLES"

## RESOLVING

**COSTLY, PREMATURE, EXCESS EDGE TIRE WEAR**  
*Through high Cambered roads, Altered height, Wide  
profile tires, Performance driving or Curb knock damage.*

● **ACTUAL INVENTORS / PATENTEE'S** ●

- **BUSHINGS:** Single Wrench - Precise On Car Adjustment
- **STRUT TOPS:** Biggest & Quickest Adjustment System
- **'A' ARMS/WISHBONE:** "Ball Joint" Adjustment System

**BUSHINGS - WITH K-MAC NO SPECIAL TOOLS AND NO ARM REMOVAL !**

**AUDI to VOLVO**

(chances are we make it)

Experience of Resolving OEM  
Suspension Shortcomings Since 1964

1888 847 9099 (24/7)  
sales@k-macalign.com  
www.k-macalign.com

**'NO'  
USA  
Duty!**

GENUINE  
**K-MAC** ALIGN  
.com  
STREET / RACE

**FIGHT BACK - Proudly "MANUFACTURING" - Not Relabelled Imports !**

**OFTEN QUOTED "FULL FRONT AND REAR WHEEL ALIGNMENT"  
is actually only "Toe" - "directional" adjustment!**

(even the most exotic models BMW 'M' or Mercedes AMG).

It's all to do with cost cutting & the ever increasing speed of assembly lines.

**No more ongoing trips to dealers or alignment shops or consistently trialing tire brands -  
INSTEAD - RE INSTATE ADJUSTMENT FIX IT RIGHT THE 1st. TIME !**

**CAMBER** - Essential to adjust Tire contact angles resolving costly, premature excess edge load / wear which can also cause higher impact, ruptured side walls and rim damage.

**CASTER** - Correctly resolves steering pull, increases steering response, with better turn in and high speed directional control, along with reduced dive / lift under brake and acceleration.

**K-MAC MAXIMUM POSSIBLE ADJUSTMENT RANGE**

... and its no wonder - Experience of Manufacturing Front & Rear kits longer then any other company. Proudly "In-house" (not importing / relabeling), which also allows total control over quality & rapid / constant design improvements

**FRONT ADJUSTMENT**

**'STRUT' SUSPENSION**  
(Top Strut Mounts)

**CAMBER (& CASTER)**

Street, Street/Race, Full Race



**UPPER WISHBONES**  
Adjustable Bushings  
Retains OEM Hi Strength  
Forged arms !



**REAR ADJUSTMENT**

**REAR PROVIDES Camber & 'Extra' Toe Adjustment**  
(Precise single wrench)



**ALSO TURNBUCKLE**  
Adjustable Camber Arms  
Competition Rated  
Chromoly Steel not Alloy



**All E36, 46, Z4  
E87-90  
MINI '01-'24**

**BUSHINGS: ALSO REPLACING THE HIGHEST WEARING & EXTRA FOR 'TRACK' DAYS or COLLISION DAMAGE**

The above Camber and Caster facility's are essential - the proper solution with capability of ongoing, precise adjustment to return vehicle to factory specs anytime. Result of day to day commuting - encountering high cambered roads, with excess passenger side edge wear, wheel "squat" through altered height - load carrying or lowering. Fitting wide profile tires / wheels or curb knock damage. The correct solution to resolving steering pull.

**TRACK DAYS** - With K-MAC the combination of both "Adjustable" Strut Tops and also Front and Rear Bushing Kits allows to dial in extra negative Camber (and track width) to dramatically reduce understeer. Improving ability to hit those corner apex's every time and go deeper into the corners, with improved traction and braking response. In the pursuit of "front row of the grid" lap times.

At K-MAC we saw this need to design precisely adjustable bolt-on kits, (like the OEM adjusters that were once available) and provide again the full range of adjustment capability. The unique patented designs for both the strut adjusters and bushings means K-MAC kits can be fast and accurately adjusted (under load) direct on alignment rack. Bushings (prior to the K-MAC design breakthrough of "Single Wrench" precise on car adjustment) has always required labour intensive bush removal and then the inaccurate and time consuming trialing / repositioning.

The replacement bush kits provide Camber and Caster for the Front and Camber for the Rear (with Extra Rear Toe adjustment to compensate for this new Camber facility). All are supplied with bush extraction and insertion tubes.

Added bonus is (besides K-MAC strut tops mounts) the 4 front and 4 rear K-MAC bushes also replace the highest wearing suspension bushings. And are designed for durability with more then twice the load bearing area. Most aftermarket brands merely eliminate the OEM air voids in the attempt to improve brake and steering response - but in reality can cause the opposite preventing the multi link / angled suspension arms of today's auto's traveling through their required arcs. Causing binding, locking up and actual breakage. K-MAC bushings where required are Mono ball - 2 Axis / self aligning. Its no wonder situations in all out competition racing, where Race Safety scrutineers ongoing inspection / evaluation rule only K-MAC bushings allowed to be used. The Rear Camber (and Toe) bushings also decrease rear end flex and can be fined tuned for maximum traction on race days.

**ALSO SEE REAR COVER - PRODUCT BACKGROUND "BUSHINGS"**



# FINALLY FRONT & REAR ONGOING

NOW CAN ADJUST  
TIRE CONTACT ANGLES !

**Camber, Caster (and extra Toe)**

AUDI TO VOLVO



MAJORITY TODAY'S AUTO'S ONLY HAVE BASIC

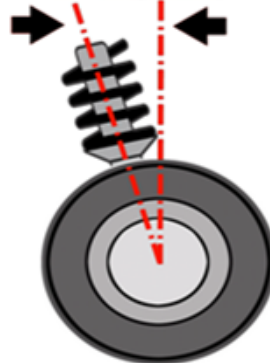
**'TOE' "Directional Adjustment"**

Even Exotic BMW 'M' / Mercedes 'AMG'



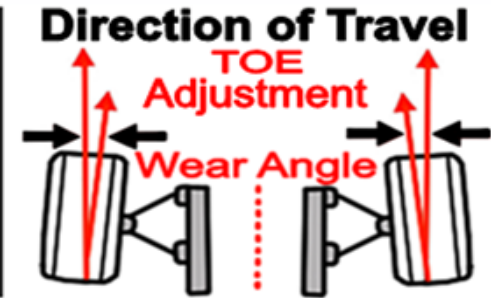
**CAMBER** Plus **CASTER**

Adjusts tire "contact angle." **Correctly**  
**compensates** for costly, premature  
edge wear / Improves traction.



**ALLOWS**  
improved High  
speed directional  
stability along with

Mit der Spureinstellung alleine wird nur  
die Verschleissposition verschoben



**(NOT JUST "TOE")**

Existing (**directional adjustment**)  
only alters wear position but  
increases the overall wear rate.

Better steering Response, Resolving steering pull, with Quicker turn in and  
Reduced Dive / Lift on Brake / Acceleration

**With KMAC - Fix it Right the 1st. Time!**

**AGAIN - FULL FRONT & REAR ALIGNMENT MEANS JUST THAT**

Compared Chosen  
K-MAC - UK BMW  
Cup Series



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**"You Have The Best Solution In The World"**

**60 Years Market Leadership - Through Innovation - Not Imitation**

**K-MAC AMONGST OTHERS, THE ACTUAL INVENTORS OF** – BALL JOINT: Slide adjustable (now the industry standard) along with **BUSHINGS: On car single wrench** – precisely adjustable (no more time consuming removal repositioning each time). **STRUTS: 2 Bolt Flange** - eliminating undersize "Crank Bolts" fail safe lock system with twice adjustment range. **TOP MOUNTS: Aperture design** - Biggest / Quickest adjustment system. **MUSTANG: (2005 Up)** - K-MAC resolving the need to remove struts to change settings. **CAMARO: (2010 up)** resolving the need to drill strut towers to install. **BMW: (2014 up 'F' Series)** - Strut adjuster for the 1st. Time - both Camber & Caster adjustable.

✓ **Replacement top strut mounts** - Unique patented design provides the Biggest/and Quickest adjustment system and Stage 2 and 3 unlike other brands are not steel or soft billet alloy but ultimate very highest strength aircraft 7075 grade aluminum. Weight 1 kilo (2.2lbs).

✓ **Fit with or without adjustable coil-overs** Stage 2 and 3 strut tops also fitting all brands Coil-Overs 60-70mm I.D.. Include extra H/Duty self aligning (self lubed / PTFE lined) spherical bearings and with K-MAC separate H/Duty fully sealed radial thrust bearings to absorb steering loads. Stage 2 and 3 centers are also replaceable for virtual lifetime usage.

✓ **And with K-MAC bushings** - **60 years ongoing design experience** means constant improvements – Unique Mono ball / self aligning bushes (without the use of OEM air voids). Advantage of "Spherical Bearings", but with 2½ times the load bearing area. Result - dramatic improvement to brake and steering response (unlike unforgiving urethane bushes that can bind/ lock up arms).

**• COMPETITION PROVEN • BIGGEST ADJUSTMENT RANGE • NON-SLIP LOCK SYSTEM •**

(And we always appreciate any ideas to further improve our market leadership).

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**K-MAC Camber (& Caster)**



**3.5's POS/NEG**

**K-MAC Camber (& Caster) FIT WITHOUT COIL OVERS**



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**STREET (or RACE - In the pursuit of hitting those corner apex's every time and front row of the grid lap times !)**

# FRONT STRUT TOPS CAMBER & CASTER

Latest **Series4** Patented Designs

**BIGGEST RANGE**

**STRUT TOPS 3.5°'s Pos/Neg BUSHES 2°'s Pos/Neg**

# BUSHINGS 5

**Front & Rear See Page 11-15**

**2026 Incl. (Front & Rear) "F & G" SERIES & MINI**

Designed to fit with OEM diam. Coils or all strut brands (60-70mm) I.D. coil overs.

Replacement "no" Modifications



**STREET** Captive Ball Race thrust bearings with Elastomer **STEEL**

Elastomer bushings to extend life / commutor use. Thrust bearings for steering loads.



**STREET / RACE** Self align Spherical Bearings with Elastomer **ALL ALLOY - Ultimate 7075 grade**

Also features "Top Seats" with separate thrust bearings for steering loads. **Suit OEM** (and all 60-70mm Coil Overs)



**FULL RACE** Self align Spherical Bearings **ALL ALLOY - Ultimate 7075 grade**

Also features "Top Seats" with separate thrust bearings for steering loads. **Suit OEM** (and all 60-70mm Coil Overs)

**1,2,3,4,5**  
Page 5-6

**6, 7**  
Page 7-8

**8, X**  
Page 8

**'M' & Mini**  
Page 9-10

**Don't Be Sold Substitutes SIMPLY THE BEST**

**K-MAC - EXPERIENCE OF MANUFACTURING KITS LONGER THEN ANY OTHER COMPANY!**

**BMW FRONT & REAR - 1966 to 2026**

**CHECK LIST** - Re All The Features Not Found In Other Brands. . . F20 - F83/87 1/2/3/4 Series incl. 'M'

✓ Biggest adjustment range Camber (AND ALSO CASTER). ✓ Quickest to change both settings. ✓ Fit also with "Adaptive Suspension" and / or Strut brace. ✓ No height increase. K-MAC unique design also allows "full" shock travel / absorption. ✓ Manufactured - Unlike other brands not from steel or soft billet alloy but ultimate/highest aircraft 7075 grade aluminum. ✓ Includes separate H/Duty radial thrust bearings fully sealed for steering loads / prevent noise / spring drag / binding. ✓ Fit with OEM diam. springs or all brands of coil overs (60-70mm I.D.)!

• **STAGE 2 (STREET / RACE)** - "Centers" similar to OEM but elastomer not rubber for improved steering response and day to day commuting.

• **STAGE 3 (FULL RACE)** - "Centers" Extra H/Duty (Twice Industry Standard) Self align spherical bearings (Self lubed - PTFE lined). No elastomer / flex for Tauter / Quicker response

• **STAGE 2 & 3 Centers are also replaceable for virtual lifetime usage.**

• Also see page 11 Front "Lower Arm" Camber (& Caster) bushings

**ADJUST FOR EVEN TIRE WEAR OR RACE DAYS**

**REDUCE UNDERSTEER - DEEPER INTO CORNERS WITH INCREASED TRACTION & BRAKING RESPONSE**

BMW 1, 2, 3 & 4 Series	Incl. 'X' (also see page 8 - 'M' Series Page 9, 10)	BUSHINGS PAGE 11 - 15
F20, F21 '1' ('11-'20) F22, F23 '2' ('14-'20) incl. 'M' (F87- if Carbon Fibre Strut Brace see Page 9)	Incl. Adaptive Suspension	
Front Camber & Caster (3/5 bolt strut mount)	Stage 2 kit (Street / Race)	#192616-2 N pair \$695
* TRACK DAYS - ALSO SEE ADJ. BUSHINGS PAGE 11	Stage 3 kit (Full Race)	#192616-3 N pair \$695
F45 '2' incl 'X' Active Tourer ('14-'19) F46 '2' incl. 'X' Gran Tourer ('15-'20) F48 X1 ('15-'20) incl. 'M'		
Front Camber & Caster	Stage 2 kit (Street / Race)	#195316-2 N pair \$695
*	Stage 3 kit (Full Race)	#195316-3 N pair \$695
F30,31,35 '3' ('12-'20) F32,33,36 '4' ('14-'19) Incl.'X'Drive (Carbon Fibre Strut Brace Page 8)	Adaptive Suspension	
Front Camber & Caster (3/5 bolt strut mount)	Stage 2 kit (Street / Race)	#192616-2 N pair \$695
*	Stage 3 kit (Full Race)	#192616-3 N pair \$695
F87 'M2', F80 'M3', F82 / F83 'M4' ('14-'20)	Carbon Fibre Strut Brace	Incl. Adaptive Suspension
Front Camber & Caster (3/5 bolt strut mount)	Stage 2 kit (Street / Race)	#192716-2 P pair \$795
*	Stage 3 kit (Full Race)	#192716-3 P pair \$795
E81, E82, E87, E88 '1' ('04-'14) incl. 'M'		
	Stage 1 Kit (Street)	#192416-1 J pair \$395
*	Stage 2 Kit (Street / Race)	#192416-2 L pair \$545
	Stage 3 Kit (FULL Race)	#192416-3 L pair \$545
E90, E91, E92, E93 '3' ('05-'13) ('M' see page 9), E46 '3' ('98-'05) ('M' see page 9)		
E36 '3' 316, 318, Roadster / Z3 ('95-'02), 320, 323, 325 (7/92-'98). (E36 'M', Z3'M' Stage 2 & 3 see page 9)		
	Stage 1 kit (Street)	#192416-1 J pair \$395
*	Stage 2 kit (Street / Race)	#192416-2 L pair \$545
	Stage 3 kit (Full Race)	#192416-3 L pair \$545

**BMW 3 Series cont. - 'M' Series see page 9**

**E36 '3' 320, 325 ('91-6/92).**

Front Camber & Caster	<b>Stage 1 kit</b> (Street)	#192316-1 J pair	\$395
	<b>Stage 2 kit</b> (Street / Race)	#192316-2 L pair	\$545
	<b>Stage 3 kit</b> (Full Race)	#192316-3 L pair	\$545

**\* TRACK DAYS - ALSO SEE ADJ. BUSHINGS PAGE 11**

**E30 '3' ('82-'94) Incl. 'M' (All Wheel Drive 325ix See Page 8)**

Front Camber & Caster	<b>Stage 1 kit</b> (Street) E30 Incl 'M'	#193316-1 J pair	\$395
	<b>Stage 2 kit</b> (Street / Race) E30 Incl 'M'	#193316-2 L pair	\$545
	<b>Stage 3 kit</b> (Full Race) E30 Incl 'M'	#193316-3 L pair	\$545

**E21 '3' ('75-'83), E10 1502 - 2002 ('66-'77)**

Front Camber & Caster	<b>Stage 1 kit</b> (Street) 1502-2002, E21	#192016-1 J pair	\$395
	<b>Stage 2 kit</b> (Street / Race) 1502-2002	#192016-2 L pair	\$545
	<b>Stage 3 kit</b> (Full Race) 1502-2002	#192016-3 L pair	\$545
Front Camber & Caster	<b>Stage 2 kit</b> (Street / Race) E21	#192116-2 L pair	\$545
	<b>Stage 3 kit</b> (Full Race) E21	#192116-3 L pair	\$545

**BMW 5 Series**

**G30, 31 F90/X5M, G32. G05 F95 X5M ('17-'24) NON-STRUT MODELS - Bushings Camber & Caster**



**CAMBER adjustable "BUSHES" Pair** Improve traction, Resolve premature edge tire wear. Adjusts lower arms retains top of tire clearance (Race days increase track width)  
**G05 F95 'X'5M #194616-6L \$545**  
**G30, G31, F90 X5M 'M' #194516-6L \$545**  
 (Up to 2° Pos or Neg).



**CASTER adjustable "BUSHES" Pair** Compensate for Camber change. Correctly resolves steering pull, reduced dive / lift. Mono ball / 2 Axis for improved brake and steering response.  
**G05 F95 X5 #196016 M \$595**  
**G30, G31, F90 X5M #196316 M \$595**

**ABOVE CAMBER (lower control arm inner) and CASTER (inner thrust arm) bushes are precisely adjustable - Single wrench accurately (under load) on vehicle. Unique K-MAC patented design. No special tools required.**



**ADDITIONAL ADJUSTMENT "UPPER WISHBONE ARMS" (CAMBER & CASTER)**  
 Replacement "Inner Bushes" Set of 4 (Fit without arm removal) Up to extra 2 degrees Pos. or Neg. ALL ABOVE MODELS #194516-4J \$380

**E60, E61 incl. 4WD ('03-'10) ('M' Series Stage 1,2&3 See Page 9)**

Front Camber & Caster	<b>Stage 1 kit</b> (Street)	#192416-1 J pair	\$395
	<b>Stage 2 kit</b> (Street / Race)	#192416-2 L pair	\$545
	<b>Stage 3 kit</b> (Full Race)	#192416-3 L pair	\$545

**\***

**E39 '5' 518, 520, 523, 525, 528, Z8 ('96-'04) 530, 535, 540 ('96-9/97) Incl. 'M' (Excl. air susp.)**

Front Camber & Caster	<b>Stage 1 kit</b> (Street)	#192416-1 J pair	\$395
	<b>Stage 2 kit</b> (Street / Race)	#192416-2 L pair	\$545
	<b>Stage 3 kit</b> (Full Race)	#192416-3 L pair	\$545

**\***

**E39 '5' 530, 535, 540 (10/97-'04) Incl. 'M' (Excl. air susp.)**

Front Camber & Caster	<b>Stage 1 kit</b> (Street)	#193616-1 J pair	\$395
	<b>Stage 2 kit</b> (Street / Race)	#193616-2 L pair	\$545
	<b>Stage 3 kit</b> (Full Race)	#193616-3 L pair	\$545

**\***

**E34 '5' 530, 535, 540, Incl. M5 ('88-'96), 525 ('88-8/92), 518, 520, 524 ('88-6/90) Incl. 'M'**

Front Camber & Caster	<b>Stage 1 kit</b> (Street)	#193416-1 J pair	\$395
	<b>Stage 2 kit</b> (Street / Race)	#193416-2 L pair	\$545
	<b>Stage 3 kit</b> (Full Race)	#193416-3 L pair	\$545

**\***

**E34 '5' 525 (9/92-'96) 518, 520, 524 (7/90-'96) Incl. 'M'. E28 '5' ('82-'88) Incl. M**

Front Camber & Caster	<b>Stage 1 kit</b> (Street)	#193316-1 J pair	\$395
	<b>Stage 2 kit</b> (Street / Race)	#193316-2 L pair	\$545
	<b>Stage 3 kit</b> (Full Race)	#193316-3 L pair	\$545

**\***

**E28 '5' incl M5, 518, 520, 525, 528, 533, 535 ('81-'88)**

Front Camber & Caster	<b>Stage 1 kit</b> (Street)	#193316-1 J pair	\$395
	<b>Stage 2 kit</b> (Street / Race)	#193316-2 L pair	\$545
	<b>Stage 3 kit</b> (Full Race)	#193316-3 L pair	\$545

**\***

**E12 '5' (9/76-'81)**

Front Camber & Caster	<b>Stage 1 kit</b> (Street)	#193216-1 J pair	\$395
	<b>Stage 2 kit</b> (Street / Race)	#193216-2 L pair	\$545
	<b>Stage 3 kit</b> (Full Race)	#193216-3 L pair	\$545

**\***

**E12 '5' ('72-8/76)**

Front Camber & Caster	<b>Stage 1 kit</b> (Street)	#193116-1 J pair	\$395
	<b>Stage 2 kit</b> (Street / Race)	#193116-2 L pair	\$545
	<b>Stage 3 kit</b> (Full Race)	#193116-3 L pair	\$545

**\***

**G32 '6' G06/X6 'M', F96 ('17-'24). F06, F12, F13 '6' ('11-'17) NON-STRUT MODELS - Bushings Camber & Caster**



**CAMBER adjustable "BUSHES" Pair** Improve traction, Resolve premature edge tire wear. Adjusts lower arms retains top of tire clearance (Race days increase track width)

G32, G06 F96 X6 'M' #194616-6L \$545  
F06, F12, F13 #194516-1K \$495, 'M' #194516-3K \$495  
(Up to 2° Pos. Or Neg.)



**CASTER adjustable "BUSHES" Pair** Compensate for Camber change. Correctly resolves steering pull, reduced dive / lift. Mono ball / 2 Axis for improved brake and steering response

G32, G06 F96 X6 'M' #196016M \$595  
F06, F12, F13 incl. 'M' #194516-2K \$495

**ABOVE CAMBER** (lower control arm inner) and **CASTER** (inner thrust arm) bushes are precisely adjustable - Single wrench accurately (under load) on vehicle. Unique K-MAC patented design. No special tools required.



**ADDITIONAL ADJUSTMENT "UPPER WISHBONE ARMS" (CAMBER & CASTER)**

Replacement "Inner Bushes" Set of 4 (Fit without arm removal) Up to extra 2 degrees Pos. or Neg. **ABOVE ALL MODELS #194516-4J \$380**

**E62, 63, E64 '6' ('03-'10) Excl. 'M' (Page 9)**

Front Camber & Caster **Stage 1 kit** (Street) #192416-1 J pair \$395

\* **TRACK DAYS - ALSO SEE ADJ. BUSHINGS PAGE 11** **Stage 2 kit** (Street / Race) #192416-2 L pair \$545

**Stage 3 kit** (Full Race) #192416-3 L pair \$545

**E24 '6' (5/82-'89) Incl. 'M'**

Front Camber & Caster **Stage 1 kit** (Street) #193316-1 J pair \$395

\* **Stage 2 kit** (Street / Race) #193316-2 L pair \$545

**Stage 3 kit** (Full Race) #193316-3 L pair \$545

**E24 '6' ('77-4/82) Incl. 'M'**

Front Camber & Caster **Stage 1 kit** (Street) #193216-1 J pair \$395

\* **Stage 2 kit** (Street / Race) #193216-2 L pair \$545

**Stage 3 kit** (Full Race) #193216-3 L pair \$545

**BMW 7 Series**

**G11, G12 ('15-'22). G07 X7 ('19-'26), F01, F02, F03 '7' ('09-'15) NON-STRUT MODELS**



**CAMBER adjustable "BUSHES" Pair** Improve traction, solve premature edge tire wear. Adjusts lower arms retains top of tire clearance (Race days increase track width)

G07/X #194616-6L \$545  
G11, G12 #194616-7L \$545  
F01, F02, F03 #194516-1K \$495  
(Up to 2° Pos. Or Neg.)



**CASTER adjustable "BUSHES" Pair** Compensate for Camber change. Correctly resolves steering pull, reduced dive / lift. Mono ball / 2 Axis for improved brake and steering response

G07/X #196016 M \$595  
G11, G12 #194116 M \$595  
F01-F03 #194516-2K \$495

**ABOVE CAMBER** (lower control arm inner) and **CASTER** (inner thrust arm) bushes are precisely adjustable - Single wrench accurately (under load) on vehicle. Unique K-MAC patented design. No special tools required.



**ADDITIONAL ADJUSTMENT "UPPER WISHBONE ARMS" (CAMBER & CASTER)**

Replacement "Inner Bushes" Set of 4 (Fit without arm removal) Up to extra 2 degrees Pos. or Neg. **G07/X, G11-12, G14-16 F01, F02, F03, F04 #194516-4J \$380**

**E65, E66, '7' ('02-'08)**

\* Front Camber & Caster **Stage 1 kit** (Street) #194316-1 J pair \$395

**E38 '7' ('94-'01)**

(Smaller diam. coil over use -2 or -3)

Front Camber & Caster **Stage 1 kit** (Street) #193616-1 J pair \$395

\* **Stage 2 kit** (Street / Race) #193616-2 L pair \$545

**Stage 3 kit** (Full Race) #193616-3 L pair \$545

**E32 '7' ('86-'94)**

Front Camber & Caster **Stage 1 kit** (Street) #193416-1 J pair \$395

\* **Stage 2 kit** (Street / Race) #193416-2 L pair \$545

**Stage 3 kit** (Full Race) #193416-3 L pair \$545

## BMW 7 Series cont.

BUSHINGS PAGE 11 - 15 **8**

E23 '7' ('77-'86)

Front Camber & Caster	<b>Stage 1 kit</b> (Street)	#193816-1 J pair	\$395
	<b>Stage 2 kit</b> (Street / Race)	#193816-2 L pair	\$545
	<b>Stage 3 kit</b> (Full Race)	#193816-3 L pair	\$545

\* TRACK DAYS - ALSO SEE ADJ. BUSHINGS PAGE 11

E3 '7', E9 2500, 2.8, 3.0/2/3 ('68-'77)

\*

Front Camber & Caster	<b>Stage 1 kit</b> (Street)	#191716-1 J pair	\$395
	<b>Stage 2 kit</b> (Street / Race)	#191716-2 L pair	\$545
	<b>Stage 3 kit</b> (Full Race)	#191716-3 L pair	\$545

## BMW 8 Series

BUSHINGS PAGE 11 - 15

E31 '8' 840, 850 ('90-'00)

\*

Front Camber & Caster	<b>Stage 1 kit</b> (Street)	#192316-1 J pair	\$395
	<b>Stage 2 kit</b> (Street / Race)	#192316-2 L pair	\$545
	<b>Stage 3 kit</b> (Full Race)	#192316-3 L pair	\$545

## BMW Z Series ('M' Series Stage 2 & 3 See Page 9)

BUSHINGS PAGE 11 - 15

G29 ('18-'20)

Front Camber & Caster	<b>Stage 2 kit</b> (Street/Race)	#192816-2 P pair	\$795
	<b>Stage 3 kit</b> (Full Race)	#192816-3 P pair	\$795

E89 Z4 ('09-'17) E85 Z4, E86 Z4 ('02-'08) E36/7 Z3, E36/8 Z3 ('96-'02) ('M' Page 9)

\*

Front Camber & Caster	<b>Stage 1 kit</b> (Street)	#192416-1 J pair	\$395
	<b>Stage 2 kit</b> (Street / Race)	#192416-2 L pair	\$545
	<b>Stage 3 kit</b> (Full Race)	#192416-3 L pair	\$545

## BMW X Series - SUV 4WD

BUSHINGS PAGE 11 - 15

F45 (14-20), F46 (15-20), F48 X1 ('15-'20)

\*

Front Camber & Caster	<b>Stage 2 kit</b> (Street / Race)	#195316-2 N pair	\$695
	<b>Stage 3 kit</b> (Full Race)	#195316-3 N pair	\$695

F22, 23, 30, 31, 32, 33, 34, 35, 36, 'X'Drive ('15-'20) \*Carbon Fibre Strut Brace see F80-83 Page 8

\*

<b>Stage 2</b>	#192616-2 N pair	\$695
<b>Stage 3</b>	#192616-3 N pair	\$695

F25 X3 ('11-'17), F26 X4 ('14-'18)

\*

Front Camber & Caster	<b>Stage 2 kit</b> (Street / Race)	#192916-2 N pair	\$695
	<b>Stage 3 kit</b> (Full Race)	#192916-3 N pair	\$695

E84 X1 ('09-'15) E83 X3 ('03-'09) E90-93'X Drive ('09-'13)

\*

Front Camber & Caster	<b>Stage 1 kit</b> (Street)	#192416-1 J pair	\$395
	<b>Stage 2 kit</b> (Street / Race)	#192416-2 L pair	\$545
	<b>Stage 3 kit</b> (Full Race)	#192416-3 L pair	\$545

E30 325ix ('89-'91)

Front Camber & Caster	<b>Stage 1 kit</b> (Street)	#193316-4 K pair	\$495
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G05 X5 ('17-'24), G06 X6 ('17-'24). G07 X7 G09 XM ('19-24). F15, F85 'M' X5 ('14-'19). F16, F86 'M' X6 ('15-'19). E70/'M' X5 ('06-'13). E71/'M' X6 ('08-'14) NON-STRUT MODELS - Lower arm Adj. Bushings Camber & Caster (or Top Arms)



**CAMBER adjustable "BUSHES" Pair** Improve traction, Resolve premature edge tire wear. Adjusts lower arms retaining top of tire clearance (Race days increase track width)

G05 F95X 5M, G06 F96X 6M	#194516-6L	\$545
G07 X7, G09 XM, G11, 12 '7'	#194616-7L	\$545
E70-72, X5/6/M	#193816 i	\$345
F15, 16, F85, 86	#193816-5K	\$495

(Up to 2° Pos. Or Neg.)



**CASTER adjustable "BUSHES" Pair** Compensate for Camber change. Correctly resolves steering pull. Reduced dive / lift. Mono ball / 2' Axis for improved brake and steering response.

G05 XM, G06 XM	#196016 M	\$595
G07X, G09 XM, G11, G12	#194116 M	\$595
F15-86, E70-72	#193816-4J	\$395

ABOVE **CAMBER** (lower control arm inner) and **CASTER** (inner thrust arm) bushes are precisely adjustable - Single wrench accurately (under load) on vehicle. Unique K-MAC patented design. No special tools required.



**ADDITIONAL ADJUSTMENT "UPPER WISHBONE ARMS" (CAMBER & CASTER)**

Replacement "Inner Bushes" Set of 4 (Fit without arm removal) Up to extra 2 degrees Pos. or Neg.	E70-72, F15, 16, 85, 86 X5/6/M	#194516-7J	\$380
	G05X, G06X/M	#194516-4J	\$380

E53 X5 ('99-'06)

\*Not air suspension - (See bushings Camber 193616-6 H, Caster 193616-4 i)

\*

Front Camber & Caster	<b>Stage 1 kit</b>	#194116-1 J pair	\$395
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**G05,F90,95,M5('17-'24), G06/X,F96'M'(20-24) G07,G11,G12 'M' ('20-'26), F10,M5,F06,F12,F13 M6 ('11-'17)**



**CAMBER adjustable "BUSHES" Pair** Improve traction, Resolve premature edge tire wear. Adjusts lower arms retains top of tire clearance (Race days increase track width)  
**G30, F90, G32 #194516-6L \$545**  
**G05, F95, G06, F96 #194616-6L \$545**  
**G07, G09, G11, G12 #194616-7L \$545**  
**F06-13 #194516-3K \$495**



**CASTER adjustable "BUSHES" Pair** Compensate for Camber change correctly resolves steering pull, reduced dive / lift. Mono ball / 2 Axis for improved brake and steering response.  
**G30, F90 X5M #196316 M \$595**  
**G05 F95 X, G06 F96X #196016 M \$595**  
**G07, G09, G11, G12 #194116 M \$595**  
**F06, 07,10,11,12,13 #194516-2K \$495**

**ABOVE CAMBER (lower control arm inner) and CASTER (inner thrust arm) bushes are precisely adjustable - Single wrench accurately (under load) on vehicle. Unique K-MAC patented design. No special tools required.**



**ADDITIONAL ADJUSTMENT "UPPER WISHBONE ARMS" (CAMBER & CASTER)**  
 Replacement "Inner Bushes" Set of 4 (Fit without arm removal) Up to extra 2 degrees  
 Pos. or Neg. G05, F90, F95, G06/X, F96, F06-13 #194516-4J \$395

**F87 'M2', F20, F21 '1', F22, F23 '2' ('11-'20) No Carbon Fibre Strut Brace Incl. Adaptive suspension**  
 Front Camber & Caster (3 / 5 bolt mount) **Stage 2 kit (Street / Race) #192616-2 N pair \$695**

**Stage 3 kit (Full Race) #192616-3 N pair \$695**

**F87 'M2' F20, F21 '1', F22, F23 '2' ('14-'20) Carbon Fibre Strut Brace Adaptive Suspension**

Front Camber & Caster(3 / 5 bolt mount) **Stage 2 kit (Street / Race) #192716-2 P pair \$795**

**Stage 3 kit (Full Race) #192716-3 P pair \$795**

**F80 M3, F82 / F83 M4 ('14-'20) Incl. Carbon Fibre Strut Brace Adaptive Suspension**

Front Camber & Caster(3 / 5 bolt mount) **Stage 2 kit (Street / Race) #192716-2 P pair \$795**

**Stage 3 kit (Full Race) #192716-3 P pair \$795**

**F30, F31, F35 '3' 'M' ('12-'20) F32, F33, F36 '4' 'M' ('14-'20) Incl. 'X' Drive, 'M' Adaptive Suspension Carbon Fibre Strut Brace**

Front Camber & Caster (3 / 5 bolt mount) **Stage 2 kit (Street / Race) #192716-2 P pair \$795**

**Stage 3 kit (Full Race) #192716-3 P pair \$795**

**F45 '2' 'M' incl 'X' Active Tourer ('14-'20) F46 '2' 'M' incl 'X' Grand Tourer ('15-'20) F48 X1 'M' ('15-'20)**

**Stage 2 kit (Street / Race) #195316-2 N pair \$695**

**Stage 3 kit (Full Race) #195316-3 N pair \$695**

**E90, E92, E93, M3 ('08-'13)**

Front Camber & Caster **Stage 2 kit (Street / Race) #193616-2 L pair \$545**

**Stage 3 kit (Full Race) #193616-3 L pair \$545**

**E82 M1 (07-13)**

Front Camber & Caster **Stage 2 kit (Street / Race) #193616-2 L pair \$545**

**Stage 3 kit (Full Race) #193616-3 L pair \$545**

**E46 M3 ('96-'06)**

**Stage 2 kit (Street / Race) #193616-2 L pair \$545**

**Stage 3 kit (Full Race) #193616-3 L pair \$545**

**E36 M3 ('92-'99)**

**Stage 2 kit (Street / Race) #191916-2 L pair \$545**

**Stage 3 kit (Full Race) #191916-3 L pair \$545**

**E30 M3 ('86-'92)**

Front Camber & Caster **Stage 1 kit (Street) #193316-1 J Pair \$395**

**Stage 2 kit (Street / Race) #193316-2 L pair \$545**

**Stage 3 kit (Full Race) #193316-3 L pair \$545**

**E85 Z4 M ('02-'08), E86 Z4 M ('06-'08), E89 Z4 ('09-'17)**

**Stage 2 kit (Street / Race) #193616-2 L pair \$545**

**Stage 3 kit (Full Race) #193616-3 L pair \$545**

**Z3 M ('97-'02)**

**Stage 2 kit (Street / Race) #192416-2 L pair \$545**

**Stage 3 kit (Full Race) #192416-3 L pair \$545**

**E60, E61 M5 ('05-'10) E63, E64 M6 ('03-'10)**

Front Camber & Caster **Stage 1 kit (Street) #193616-1 J pair \$395**

**Stage 2 kit (Street / Race) #193616-2 L pair \$545**

**Stage 3 kit (Full Race) #193616-3 L pair \$545**

**E39 M5 ('96-'9/97)****10**

Front Camber & Caster	<b>Stage 1 kit</b> (Street)	#192416-1 J pair	\$380
	<b>Stage 2 kit</b> (Street / Race)	#192416-2 L pair	\$545
	<b>Stage 3 kit</b> (Full Race)	#192416-3 L pair	\$545

**E39 M5 ('10-'97-'04)**

	<b>Stage 1 kit</b> (Street)	#193616-1 J pair	\$380
	<b>Stage 2 kit</b> (Street / Race)	#193616-2 J pair	\$545
	<b>Stage 3 kit</b> (Full Race)	#193616-3 J pair	\$545

**E34 M5 ('89-'95)**

Front Camber & Caster	<b>Stage 1 kit</b> (Street)	#193416-1 J pair	\$380
	<b>Stage 2 kit</b> (Street / Race)	#193416-2 L pair	\$545
	<b>Stage 3 kit</b> (Full Race)	#193416-3 L pair	\$545

**E28 M5 ('85-'88)**

\*

	<b>Stage 1 kit</b> (Street)	#193316-1 J pair	\$380
	<b>Stage 2 kit</b> (Street / Race)	#193316-2 L pair	\$545
	<b>Stage 3 kit</b> (Full Race)	#193316-3 L pair	\$545

**E24 M6 ('83-'89)**

\*

Front Camber & Caster	<b>Stage 1 kit</b> (Street)	#193316-1 J pair	\$380
	<b>Stage 2 kit</b> (Street / Race)	#193316-2 L pair	\$545
	<b>Stage 3 kit</b> (Full Race)	#193316-3 L pair	\$545

**BMW MINI (All models 2001 - 2024)**

All the  
very latest Design  
Updates!

- ✓ K-MAC patented Design - Biggest & Quickest Adjustment System (Camber & Caster)
- ✓ Fit OEM diam. Springs & all Coil overs (60-70mm I.D.)
- ✓ **STAGE 1 (Street), STAGE 2 (Street/Race), STAGE 3 (Full Race)**

**ALSO SEE PAGE 12 - All model MINI adjustable control arms and bushings....**  
**"In the pursuit of front row of the grid lap times on track days"**  
**FRONT LOWER CONTROL ARMS - Inner rear bushings (Ultimate Mono ball / 2 Axis / Self aligning - Extra 1•5 degrees Pos. Caster or kits to resolve steering pull)**

- Experience of Manufacturing adjuster kits longer than any other company ●

**Mini Mk III - F55, F56, F57 ('14-'24) Incl. Clubman / Countryman 3 & 5 door hatch**

Front Camber & Caster	<b>Stage 2 kit</b> (Street / Race)	#195416-2 N pair	\$695
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* TRACK DAYS - ALSO SEE ADJ. BUSHINGS PAGE 13	<b>Stage 3 kit</b> (Full Race)	#195416-3 N pair	\$695
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**Mini Mk III - F54 ('15-'17), F60 ('16-'24) Incl. Clubman / Countryman**

Front Camber & Caster	<b>Stage 2 kit</b> (Street / Race)	#195316-2 N pair	\$695
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*	<b>Stage 3 kit</b> (Full Race)	#195316-3 N pair	\$695
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**Mini Mk II - R55, R56, R57, R58, R59, R60, R61 (11/06-'16) Coupe, Roadster, Clubman, Countryman**

	<b>Stage 2 kit</b> (Street / Race)	#195216-2 L pair	\$545
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*	<b>Stage 3 kit</b> (Full Race)	#195216-3 L pair	\$545
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**Mini Mk I - R50, R52, R53 (3/02-10/06)**

	<b>Stage 2 kit</b> (Street / Race)	#195116-2 L pair	\$545
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	<b>Stage 3 kit</b> (Full Race)	#195116-3 L pair	\$545
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**Mini Mk I - R50 ('01-2/02)**

Front Camber & Caster	<b>Stage 1 kit</b> (Street)	#195016-1 J pair	\$395
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# BMW BUSHINGS INCLUDING ADJUSTABLE CAMBER, CASTER, TOE ①

**(Front & Rear)** Experience of Manufacturing kits Longer than any other company!

**Unique Patented Designs - Quickest, Biggest Adjustment Systems**  
**All the popular (premature wear) and critical (\*Race Winning) Bushes . . .**

**Series 4**

All K-MAC kits come with bush extraction/insertion tubes. With added feature of "additional adjustment" to compliment K-MAC "Top of Strut" adjusters.

\* While today's aftermarket bush brands even though they eliminate the OEM air voids, the consequence is 2 AXIS movement is restricted, preventing the modern multi-link suspension arms travelling through their required arcs causing binding / locking up which can lead to even more severe shudder, wheel tramp, loss of traction and fatigue breakage of arms.

**K-MAC kits also significantly extend wear life having more than twice the load bearing area**

**G01 X'3', G45 X '3', G02 X'4', G30 '5', G32 '6', F90 '5', F95 '5', F96 '6', G07 'X7', G09 'XM', G14-16 '8M'**  
**F20-F83/87, E82, E83, E84, E85, E86, E87, E88, E89, E90, E91, E92, E93. Incl. 'M'** **MINI PAGE 13**

**FRONT CAMBER - Inner Arm (Pair)** G05 F95X5M, G06 F96X6M, G07X7/M #194616-6 L \$545  
 F90/X5M, G32/Gran #194516-6 L \$545  
 G14, 15, 16 '8' F91, 92, 93 #194616-8 L \$545  
 G11, G12 '7' #194616-7 L \$545  
 G01 X3 30i, M50, G02 X4 #194216 L \$545  
 G45 X3, 20, 30, M50 #194216 L \$545  
 F20,21,22,23,25,26 30-36,E84 incl. 'X', 'M' #193616-8 J \$395  
 F15,16,85,86 X5/6, incl. 'M' #193816-5 K \$495  
 F01-13, 18 #194516-1 K \$495  
 F06-13 'M' #194516-3 K \$495

**ADJUSTMENT FOR 1ST. TIME.**  
 Precise accurate single wrench.  
 Unique K-MAC patented design allowing direct on Align rack UNDER LOAD.  
 Resolve Costly, premature excess edge tire wear gain traction.

**F80-83, 87 See Strut Tops (#192616-2/3, #192716-2/3)**  
 E70-72 X5/6, incl. 'M' #193816 i \$345  
 E81,82,87-89 incl. 'M' excl. 'X' #193916-4 J \$395  
 E24 (5/82-89) 28,38,39,52,53,60-67,83'X' incl. 'M' #193616-6 H \$320

**2°s POS/NEG**

● All above kits allow Extra Neg (Or Pos.) Camber (plus track width further lowering lap times Race days).

**Page 5**

**FRONT CASTER - Thrust Arm (Pair)** G05 F95 X5M, G06 F96X6M, G07X7/M #196016 M \$595  
 F90 X5M, G32/Gran #196316 M \$595  
 G14, 15, 16 '8' F91, 92, 93 #196216 M \$595  
 G11, G12 '7' #194116 M \$595  
 G01 X30i, M50, G02 X4 #194216-1 L \$545  
 G45 X3 20, 30, M50 #194316 L \$545  
 F20,21,22,23,30-36 incl. 'M' excl 'X' #193916-5 K \$495  
 F22,23,30-36 'X' Drive #193916-7 K \$495  
 F01,02,03,04 #194516-7 K \$495  
 F06,07,10,11,12,13,18 incl. 'M' #194516-2 K \$495  
 F80-83, 87 'M' #193916-6 K \$495  
 F25, 26 X3/4 #193816-6 J \$395  
 F45-48 See Mini Page 13  
 F15,16,85,86 E70-72, X5/6 incl. 'M' #193816-4 J \$395  
 E53, 83 'X' #193616-4 i \$345  
 E84 'X' #193616-9 i \$345  
 E85, 86 See E46 Page 12  
 E60-67, E81,82,87-89 incl. 'M' #193916-2 J \$395  
 E60-67 4WD #193916-3 J \$395  
 E38, 39, 52 (6 Cyl) #193616-7 J \$395  
 (8 Cyl) #193816-9 J \$395  
 E3, E9, E10, E12, E21, \*E23, E24,28,31,32,34 See Page 13

**2 Axis / Mono Ball**

**PRECISE ADJUSTMENT.**  
 Compensate for Camber change. Resolve steering pull, Improve hi-speed directional control.  
**K-MAC are also Mono ball / Self aligning significantly improving Brake & Steering response.**

**\*FRONT UPPER 'A' ARMS (NOT "STRUT" SUSPENSION) - Besides "Lower arm adjusters" (Camber & Caster). Also see Page 5-9 re upper inner bushings. Precisely adjustable for Camber and also Caster Pos. Or Neg. (plus 2 degrees).**

**REAR CAMBER & TOE - DOUBLES EXISTING ADJUSTMENT RANGE** F95 G05X5M, F96 G06 X6M, G07 X7/M #194626 L \$545  
 F90 X5M, G32/Gran #194626-3 L \$545  
 G14, 15, 16 '8' F91, 92, 93 #194626-4 L \$545  
 G11, G12 '7' #194726 L \$545  
 G01 X3 30i, M50, G02 X4 #194226 L \$545  
 F01,02,04 #194626-1 K \$495  
 F06, F10, F12, F13 'M' #194626-2 K \$495  
 F06, 07, 10, 11, 12, 13, 18 #194526 K \$495  
 F80-83, 87 #193926-7 K \$495  
 F20, 21, 22, 23, 30-36 incl. 'X' #193926-5 K \$495  
 F20-36 'M' (CAMBER) #193926-6 G \$320  
 F25-26 'X' #193926-8 K \$495  
 F45-48 See MINI P13  
 E81,82,84,87,88,90-93 Incl 'X', excl. 'M' #193926 J \$495  
 (E83,85,86,89. see E46) Above Camber only (incl 'M') #193926-3 J \$395  
 E70-72,F15,16, 85,86 (5/6) incl. 'M' 'X' #193826-1 K \$495  
 53X,60-66 incl. 'M' #193726 K \$495  
 E38,39 #193526K \$495 E39 M, 52 #194026 K \$495


**ALSO UPGRADING BUSHES TO ELIMINATE FLEX / TOE CHANGE WHEN CORNERING.** Along with retaining existing Hi-Strength Forged alloy arms.


**K-MAC.... BUSH EXTRACTION TOOLS INCLUDED - FIT WITHOUT TIME CONSUMING need for control arm removal.**

\*Unique K-MAC Patented Design  
 Precise single wrench adjustment ON CAR / UNDER LOAD !

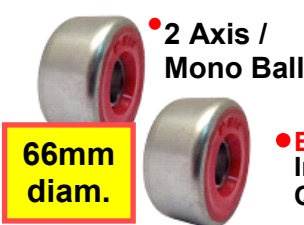
**All kits include Bush extraction / insertion tubes**

**F01, F02, F03, F04, F06, F07, F10, F11, F12, F13, F15, F16, F18. E38, E39, E52, E53, E60-66, E70, E71, E72 Incl. 'M'**


 <p><b>1.0°'s POS/NEG</b></p>	<b>REAR Upper / Inner Camber adj. (Pair)</b> E81,82,84,87,88,90-93 incl. 'M' #193926-3 G \$295
	<b>REAR Lower Arm CAMBER &amp; TOE Kits</b> F20,21,22,23,30-36 incl. 'M' #193926-9 G \$295 With above rear provides Camber and also full adjustability of the (10) multi link arms

 <p><b>1.5°'s POS/NEG</b></p>	<b>REAR Thrust Arms Turnbuckle Adjustable Camber / Toe (Pair)</b> (E83,85,86,89 see E46) E81, 82, 84, 87,88, 90-93 incl. 'M' #193926-2 K \$495 Resolve fatigue breaking F20, 21, 23, 30-36 incl. 'X', 'M' #193926-6 K \$495 of OEM arms. Turnbuckle adjustable - Chromoly tube. F45,46, 48 See MINI P13
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**E46 (2/01 up) \*'M' see below, E85 / E86 Z4 ('02-'08) Incl. 'M'**

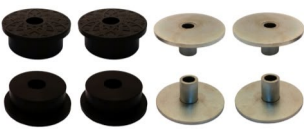
 <p><b>2 Axis / Mono Ball</b> <b>66mm diam.</b></p>	<b>FRONT Control Arm Inner Rear Bushes</b> No Caster offset #193518-1 G \$295 Resolve premature failure. One Caster offset #193518-2 G \$295 Improve braking / traction. *Both Caster offset #193518-3 G \$295 (K-MAC - Not solid but self aligning) *E46'M'
	• <b>Extra Positive Caster</b> - for Anti-dive/lift Improved directional control. No Caster offset #193618-1 G \$295 Quote P/N ending in —'3' • <b>Up to 1.5°</b> One Caster offset #193618-2 G \$295 Or fit to resolve "Steering pull" (—2 light pull, —3 strong pull) #193618-3 G \$295


**E30, E36, Z3. Incl. 'M', E46 incl. 'M' (to 1/01) \*Excl. 'M'**

 <p><b>2 Axis / Mono Ball</b> <b>60mm diam.</b></p>	<b>FRONT Control Arm Inner Rear Bushes (Pair)</b> Resolve premature failure. No Caster offset #192418-1 G \$295 Improve braking / traction. One Caster offset #192418-2 G \$295 (K-MAC - Not solid but self aligning) *Both Caster offset #192418-3 G \$295
	• <b>Extra Positive Caster</b> - for Anti-dive/lift Improved directional control. No Caster offset #192418-1 G \$295 Quote P/N ending in —'3' • <b>Up to 1.5°</b> One Caster offset #192418-2 G \$295 Or fit to resolve "Steering pull" (—2 light pull, —3 strong pull) #192418-3 G \$295

**E36 (not 316, 318 Ti), E46, E83, E85/E86(Z4 '02-'08), E89(Z4 '09-'18). Incl. 'M'**

 <p><b>2 Axis / Mono Ball</b></p>	<b>REAR Lower/Outer Arm Camber Adjustable Bushes (Pair)</b> Precise single wrench adjustment. Doubles existing adjustment range to resolve costly premature inner edge wear, improve traction. #192426 H \$320
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	<b>REAR Trail Arm Front Bushes (Pair) ULTIMATE H/DUTY KIT</b> Specially designed to improve traction and enhance cornering stability by containing side load / G forces. Resolves also separation of center mount tubes and premature failure of OEM bushes. #192428-1 H \$320
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 <p><b>+ - Up to 2.0°</b></p>	<b>REAR H/Duty Camber "Turnbuckle Adjustable" Lower Arms (Pair)</b> High strength tapered chromoly tube (not alloy) with self align elastomer Bushings. Genuine K-MAC - Providing extra Camber adjustment (Pos. Or Neg). Precise "turnbuckle adjustable" on car. Unlike the OEM pressed steel arms or aftermarket alloy arms K-MAC are extra H/Duty competition rated. #192526 L \$545 Track days - increase track width or fine tune for maximum traction.
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**E24 (5/82-89), E28, 31, 32, 34, 38, E39, 52, 53, 60-66, 83**



**FRONT Control Arm **Camber** Adjustable Inner Bushes (Pair)**  
 E24 (5/82-89), E28, 38, E39, 52, 53, 60-66, 83 X incl. 'M'  
 E31, E34

#193616-6 H \$320  
 #193616-7H \$320

**E24 (5/82-'89), E28, E31, E32, E34**



**FRONT Thrust Arm **Caster** Adjustable Inner Bushes (Pair)**  
 •Also improved Steering & Braking response.

E24 (5/82-89), E28  
 E31, E32, E34

#193316-5 H \$320  
 #193416-5H \$320

**E23 (9/82-'86), E24 (5/82-89), E28 (520, 525 - 4/86-'88, 528, 535-'82-'88), E32, E34**



**REAR **Camber** & **Toe** adjustable Bushes (2 Pair)**  
 Precise single wrench adjustment. Replaces all 4 main rear bushings. K-MAC - Maximum adjustment and extended bush life.

#193326 H \$320

**E3, E9, E10 (1502-2002), E12, E21, E23 ('77-'9'82), E24 ('77-4/82), E28 (520,525 '82-4/86), E30, E36 (316, 318 Ti), Z3 Incl. 'M'**



+ - **Up to 1.25**

**REAR **Camber** & **Toe** Adjustable Bushes (2 Pair)**  
**Like all K-MAC bushings - all the features:** Absolute maximum adjustment range, Patented "single wrench" adjustment system. Strongest and long term maintenance free. Unlike other brands nickel chromed centers with spiral grease grooves. Fail safe lock system. Professional bush extraction tool included.

#192026 G \$320

**E3, E9, E12, E21, E23, E24 ('77-4/82)**



**FRONT Thrust Arm to Chassis Bushes (Pair)**  
 Improve Steering & Braking response

#192118-1 D \$95

**MINI R50 - R61, F54, F55, F56, F60. Incl. F22, F45, F46, F48**



**70mm diam.**

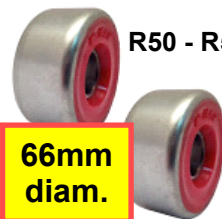
R60, R61, F54, F55, F56, F57, F60  
 F45, F46, F48  
 • 2 Axis / Mono Ball

**FRONT Control Arm Inner Rear Bushes (Pair)**  
 Resolve premature failure. Improve braking / traction.  
 •(K-MAC - Not solid but self aligning)  
 \***Extra Positive Caster** - for Anti-dive/lift Improved directional control. Quote P/N ending in —'3'  
 Or fit to resolve "Steering pull" (—2 light pull, —3 strong pull)

No Caster offset  
 One Caster offset  
 \*Both Caster offset

\* **+- Up to 1.5°**

#195218-1 H \$320  
 #195218-2 H \$320  
 #195218-3 H \$320



**66mm diam.**

R50 - R59  
 • 2 Axis / Mono Ball

**FRONT Control Arm Inner Rear Bushes (Pair)**  
 Resolve premature failure. Improve braking / traction.  
 •(K-MAC - Not solid but self aligning)  
 \***Extra Positive Caster** - for Anti-dive/lift Improved directional control. Quote P/N ending in —'3'  
 Or fit to resolve "Steering pull" (—2 light pull, —3 strong pull)

No Caster offset  
 One Caster offset  
 \*Both Caster offset

\* **+- Up to 1.5°**

#195118-1 H \$320  
 #195118-2 H \$320  
 #195118-3 H \$320



**+- Up to 2.0°**

**REAR CAMBER Competition rated H/Duty (Chromoly steel not extruded alloy control arms) turnbuckle adjustable on car (2 axis 95 elastomer bushings)**

R50-R61 ('01-'16)  
 F54, F55, F56, F57, F60 \*Also F45, F46, F48 ('15-'25)

#195026 K \$495  
 #195126 K \$495

# Quick Reference / "Popular" FRONT Strut Tops

## ADJUSTER KITS - Camber & Caster

14

**STAGE 1 (STREET). STAGE 2 (STREET/RACE). STAGE 3 (FULL FACE)**

<b>F80, 82, 83, 87 (Carbon Fibre strut Brace)</b>		
* K-MAC - ALL STAGE 2 & 3 Fit with OEM diam springs or all smaller Coil overs.	#192716-2P STREET/RACE	\$795
	#192716-3P FULL RACE	\$795
<b>F20, 21, 22, 23, 30, 31, 32, 33, 35, 36 incl 'M'</b>		
	#192616-2N STREET/RACE	\$695
	#192616-3N FULL RACE	\$695
<b>E90, 91, 92, 93, E46, 82, 85, 86, 87, 88 (excl 'M')</b>		
	#192416-1J STREET	\$395
	#192416-2L STREET/RACE	\$545
	#192416-3L FULL RACE	\$545
<b>'M' E90, 91, 92, 93, E46, 82, 85, 86</b>		
	#193616-1J STREET	\$395
	#193616-2L STREET/RACE	\$545
	#193616-3L FULL RACE	\$545
<b>E36, 316, 318 ('91-'03), 320, 323, 325 (7/92-98) Z3</b>		
	#192416-1J STREET	\$395
	#192416-2L STREET/RACE	\$545
	#192416-3L FULL RACE	\$545
<b>E36 'M', Z3M</b>		
	#191916-2L STREET/RACE	\$545
	#191916-3L FULL RACE	\$545
<b>E30 incl 'M'</b>		
	#193316-1J STREET	\$395
	#193316-2L STREET/RACE	\$545
	#193316-3L FULL RACE	\$545
<b>E60, 61, 63, 64, E39 (518-528)</b>		
	#192416-1J STREET	\$395
	#192416-2L STREET/RACE	\$545
	#192416-3L FULL RACE	\$545
<b>E39, 530-540 incl 'M'</b>		
	#193616-1J STREET	\$395
	#193616-2L STREET/RACE	\$545
	#193616-3L FULL RACE	\$545
<b>E34 525 (9/92-96), 518-524 (7/90-96) incl M</b>		
<b>See Catalog all models back to 1968</b>	#193416-1J STREET	\$395
	#193416-2L STREET/RACE	\$545
<b>MINI F55, 56, 57 ('14-'24)</b>		
	#195416-2N STREET/RACE	\$695
	#195416-3N FULL RACE	\$695
<b>F54 ('15-'17)</b>		
	#195316-2L STREET/RACE	\$695
	#195316-3L FULL RACE	\$695
<b>R55, 56, 57, 58, 59, 60, 61 (11/06-'16)</b>		
	#195216-2L STREET/RACE	\$545
	#195216-3L FULL RACE	\$545
<b>R50, 52, 53 (3/02-10/06)</b>		
	#195116-2L STREET/RACE	\$545
	#195116-3L FULL RACE	\$545

# Quick Reference / "Popular" Bushings

FRONT / REAR ADJUSTABLE - CAMBER, CASTER, TOE

Also Resolve Premature Wear (& Race Winning Bushes)

Product Features  
see page 11-13

NON STRUT MODELS G30,31,38,F90,95. '6' G32,X6,F96'M' G11-12. F01-12, F18 incl 'M'			
<b>FRONT</b> CONTROL ARM <b>Camber</b> Adjustable Inner Bushes (Pair)	G05 F95 X5M, G06 F96 X6M G30 F90/X5M, G32 / Gran F91, 92, 93 (G14, 15, 16) 8M G07 X7, G09 XM, G11, G12 '7'	#194516-6 K \$495 #194516-6 K \$495 #194616-8 L \$545 #194616-7 K \$495	
THRUST ARM <b>Caster</b> Adjustable Inner Bushes (Pair)	G05 F95 X5M, G06 F96 X6M G30, F90 X5M, G32 / Gran F91, 92, 93 (G14, 15, 16) 8M F01, 02, 03, 04 F06, 07, 10, 11, 12, 13, 18 incl. 'M'	#196016 M \$595 #196316 M \$595 #196216 M \$595 #194516-4 K \$495 #194516-2 K \$495	
<b>REAR</b> Inner <b>Camber &amp; Toe</b> Adjustable Bushes (Pair)	G32 F90 X5M G14, 15, 16 '8' (F91, 92, 93) F95 G05, F96 G06 G07 X7, G09 XM F06, 07, 10, 11, 12, 13, 18	#194626-3 L \$545 #194616-8 L \$545 #194626 L \$545 #194726-4 K \$495 #194526 K \$495	Up to 2 degrees - Pos. or Neg. NOTE: Purposely designed to allow for wide profile tires by maintaining clearance top of tire to outer fender when adjusting to reduce costly, premature inner edge (Neg.) wear
F20 - F83 - 89, E90 - 93, F20 - 36, F87 Incl. 'M'			
<b>FRONT</b> CONTROL ARM <b>Camber</b> Adjust Inner Bushes (Pair)	E81,82,87-93 incl. 'M' excl 'M' F20,21,22,23,25,26,30-36, E84 incl. 'X' 'M'	#193916-4 J \$395 #193616-8 J \$395	(In addition to adj. strut tops - see page 4)
THRUST ARM <b>Caster</b> Adjustable Inner Bushes (Pair)	E60-67, E81, 82, 87-93 incl. 'M' F20, 21, 22, 23. 30-36. incl. 'M' F80 - F83, 87 'M'	#193916-2 I \$345 #193916-5 J \$395 #193916-6 J \$395	
<b>REAR</b> Lower <b>Camber &amp; Toe</b> Adjustable Inner Bushes (2 pair)	E81, 82, 84'X', 87, 88, 90-93 excl 'M' 'M' (Camber) F20, 21, 22, 23, 30-36 incl. 'X'	#193926 K \$495 #193926-4 J \$395 #193926-5 K \$495	(E83, 85, 86, 89. see E46)
E46 (2/01 up 66mm diam.) E85 / E86 (Z4 '02-'08). Incl. 'M'			
<b>FRONT</b> CONTROL ARM Inner Rear Bushes (Pair) 2 Axis / Self Aligning	(Incls. Extra Pos. Caster offset) Resolve premature failure. Improve braking / traction.	*Extra Positive Caster - for Anti-dive/lift. Improved directional control. (-3)	No Caster offset #193518-1 G \$295 One Caster offset #193518-2 G \$295 *Both Caster offset #193518-3 G \$295 E46 'M' (60mm diam.) No Caster offset #193618-1 G \$295 One Caster offset #193618-2 G \$295 *Both Caster offset #193618-3 G \$295
E30, E36, E46 (to 1/01), Z3. Incl. 'M'			
<b>FRONT</b> CONTROL ARM Inner Rear Bushes (Pair) 2 Axis / Self Aligning	(Incls. Extra Pos. Caster offset) Resolve premature failure. Improve braking / traction.	*Extra Positive Caster - for Anti-dive/lift. Improved directional control. (-3)	No Caster offset #192418-1 G \$295 One Caster offset #192418-2 G \$295 *Both Caster offset #192418-3 G \$295
E36 (not 316, 318 Ti), E46, E83, E85/86(Z4 '02-'08), E89(Z4 '09-'18). Incl. 'M'			
<b>REAR</b> LOWER / OUTER ARM <b>Camber</b> Adjustable Bushes (Pair)	Doubles existing adj. range to resolve costly premature inner edge wear, improve traction.		#192426 H \$320
TRAIL ARM Front Bushes (Pair)	Specially designed to improve traction and enhance cornering stability by containing side load / G forces. Resolves also separation of center mount tubes and premature failure of OEM bushes.		#192428-1 H \$320
E3, E10 (1502-2002), E12, E21, E23 (7/77-9/82), E24 ('77-4/82), E30, E28 (520,525 '82-4/86), E36 (316, 318 Ti), Z3 Incl. 'M'			
<b>REAR</b> CAMBER & TOE Adjustable Bushes (2 Pair)	Replaces all 4 main rear bushings. K-MAC - Maximum adjustment and extended bush life.		#192026 G \$295
E23 (9/82-'86), E24 (5/82-89), E28 (520, 525 - 4/86-'88, 528, 535-'82-'88), E32, E34			
<b>REAR</b> CAMBER & TOE Adjustable Bushes (2 Pair)	Replaces all 4 main rear bushings. K-MAC - Maximum adjustment and extended bush life.		#193326 H \$320

# PRODUCT BACKGROUND RE K-MAC BUSHINGS

**Over 60 Years Market Leadership - Through Innovation - Not Imitation**

- ◆ **K-MAC Unique Patented design bushings** not only re-instating Camber, Caster adjustment - but also replacing the highest wearing suspension bushings. K-MAC - specially designed so “no special tools or time consuming need” to remove control arms to install !
- ◆ **OEM rubber bushes use air voids** for “two-axis” / self align movement (which is essential as majority today's vehicles have multi link arms with different angle mount points) but the air voids also reduce steering response, allow wheel hop and loss of traction under braking and acceleration .
- ◆ **While the majority of aftermarket brands eliminate these air voids**, but in so doing they restrict the two-axis movement which can cause binding, locking up as arms travel through there required suspension arcs. Resulting in even more severe wheel hop, loss of traction!
- ◆ **K-MAC bushes where needed therefore feature a unique “two-axis mono ball” design.** Allowing arms to travel through their required suspension arcs without binding improving traction, steering and braking response. K-MAC designs also significantly extends wear life having more then twice the load bearing area of OEM bushes. With over 60 years of proven bush design technology means they are noiseless, long term, maintenance free.
- ◆ **Today's Auto's have only Toe 'in' or 'out' - directional adjustment.** This is all dealers or alignment shops can adjust (with broad - “in spec” tolerance margins) much to the frustration of owners who then mistakenly assume brand of tire is the issue ! Not the reality - there is no longer adjustment of Front Camber and Caster or Rear Camber (and extra Toe) to spread load more evenly - **TO FIX IT RGHT THE 1st TIME !**
- ◆ **With the result - No more ongoing trips to dealers or alignment shops.** K-MAC bushes resolving costly, premature excess edge tire wear, improving traction and steering response. Reduced dive/lift under brake/acceleration and allow “ongoing” adjustment capability to resolve steering pull or curb knock damage. Excess passenger side edge wear through high cambered roads, altered height / load carrying or spirited driving

**WITH ADJUSTMENT BEING JUST A “SINGLE WRENCH”**

**This K-MAC patented invention has revolutionised the industry . . .**

No more “time consuming” removal of control arms to change bush / Camber settings. With K-MAC it's now on car easily accessible adjustment -  
Ultimate direct on alignment rack **UNDER LOAD !**

**WIDE PROFILE TIRES, LOWERED SUSPENSION, LOAD CARRYING, CURB KNOCK DAMAGE**

**Top Arm or Lower Arm adjusters?**

**BEWARE** - The industry standard is “Rear Top Link Adjuster arms” which **DECREASE** outer fender clearance and the metal end links soon pound out.

**WHILE** - K-MAC elastomer bushes are Lower Arm Adjuster's **RETAINING** outer fender clearance (plus widening track width if adjusting for extra Negative Camber on Race days)

● **COMPETITION PROVEN** ● **BIGGEST ADJUSTMENT** ● **NON SLIP LOCK SYSTEM** ●