

SUSPENSION GEOMETRY



Front suspension geometry can be altered to improve the cars road holding, further enhancing its cornering ability. Standard settings from the factory are 1-3° of positive camber, approximately 3° of Castor, and 1/16" toe out tracking. The easiest alteration to make is to fit negative camber bottom arms. These add 1 1/2° of negative camber to whatever the car already has, ie. if you have 1° positive camber, you will get 1/2° negative camber. Always check the camber first as lowering the car naturally reduces camber. For road applications 1 1/2° negative camber is as much as is required.

Exact camber can be achieved by the use of rose jointed bottom arms. These are really only suitable for race applications as the rose joints are not designed to do volumous miles without requiring replacement.

Castor can be altered by using either the heavy duty tie rod set (designed for road use) or the rose jointed set really only suitable for racing. The heavy duty tie rods are increased in diameter from 1/2" to 7/8" to reduce flexing, therefore controlling suspension variations when on the move.

To further enhance this control, poly-nylon bushes are available to replace the standard rubber items. These help reduce wandering under braking, making the car more stable. These bushes can, of course, be fitted to the standard tie rods. Poly-nylon bushes are also available for the bottom arms.

C-AJJ3364
Negative camber bottom arm set. -1.5°

C-AJJ3364A
Negative camber bottom arm set. -2°

C-AJJ3364B
Negative camber bottom arm set. -2.5°

WB1
Polyurethane bottom arm bush set, early arms with straight hole.

WB2
Polyurethane bottom arm bush set, late arms with tapered hole.

C-AJJ3363
Hiem jointed bottom arm set.

21A1091
Heavy duty adjustable tie rod set.

C-STR628
Harder rubber tie bar bush for road use.

WB3
Polyurethane tie bar bush set.

Rose jointed tie rods allow infinite adjustment of castor angles, combining them with the rose jointed bottom arms facilitates exact settings of both sides of the suspension - critical for racing. There are rubber boots available to protect the rose joints from dirt.

C-AJJ3365
Hiem jointed tie rods.

C-AJJ3367
Hiem joint boot.

When aligning a car that has been lowered substantially or major alterations to suspension angles have been carried out, it is often found that the track rod end is not held onto the track rod by sufficient threads. To counter this problem we can supply an extended tie rod end.

GSJ158
Longer tie rod end.

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For alteration of the rear camber there are three types of radius arm bracket. First is a fixed set that adds 1 1/2° of negative camber to whatever the car has with standard ones. The second is adjustable to allow preferential settings to be reached. The third is adjustable for both camber and toe.

MS69
Fixed rear camber brackets.

MS70
Adjustable rear camber brackets.

MS73
Adjustable camber & toe rear trailing arm brackets

MSRJF
1/2" UNF X 1/2" female hiem joint.

C-AJJ3363/RE
1/2" UNF X 1/2" Male hiem joint.

The Mini's rear subframe is rubber mounted. Polyurethane (stiffer, much longer lasting) bushes are now available for the rear subframe trunnions. Cars manufactured before 1976 use the same bush (2A5818/POLY) at the front and rear of the subframe, 8 per car. Starting in 1976 (MKIV) the front trunion bush was enlarged. That bush (21A2560/POLY) is also available in Poly. These later cars use 4 of each 2A5818/POLY and 21A2560/POLY. Made in the USA, the Poly bushes are less expensive than the imported rubber originals!

2A5818/POLY
Rear subframe trunion bush, fits front and rear trunion up to 1975, front only 1975-on.

2A2560/POLY
Rear subframe trunion bush, fits rear trunion 1976-on.



Cars with hydroelastic may be fitted with oversized "Progressive Bump Stops" to reduce body roll and dive.

C-AJJ4007
Front progressive bump stop kit.

C-AJJ3313
Rear progressive bump stop kit.

AHH7074
Replacement Rubbers for progressive bump stops.