

# POWERFLEX®

## PART NUMBER

# PFF40-502G

## DESCRIPTION

## FRONT UPPER ARM INNER BUSH CASTER ADJUSTABLE

## INSTALLATION GUIDE

### Contents (parts per pack):

2 x Polyurethane Bushes	2 x Mild Steel Outer Shells
2 x Stainless Steel Sleeves	1 x PTFE/Silicone Grease
2 x Washers	1 x Spanner

Please read the complete fitting instructions and check package components before fitment. These fitting instructions are to be used as a guide and in conjunction with workshop manual.

It is recommended that:

- all work to be carried out by a licensed technician;
- all safety precautions adhered to;
- wheel alignment to be checked and adjusted as required after any suspension work.
- All fasteners must be tensioned to manufacturer's torque settings.

### Fitting Instructions:

1. Remove the original rubber bush from the arm, clean any dirt and corrosion from the bore in the arm. Using a file, remove any sharp edges from around the bore of the arm creating a small chamfer.
2. Press in one of the outer shells from the top of the arm as shown in figure 1. Start with the leading edge and ensure that the shell is pressed in square. The outer shell will sit flush in the arm.
3. Press the bush into the bore of the outer shell as shown in figure 1. Ensure the flatter head of the bush is positioned such that it will face the front of the vehicle.

**Tip: Press in the bush with a some washing up liquid around the bore of the arm.**

4. Place the washer over the stainless steel sleeve so it sits against the adjustable hex.
5. Apply some of the supplied grease to the bore of the polyurethane bush and insert the sleeve into the bore of the bush as shown in figure 1, so that the adjustable hex and washer sit against the flat face of the bush.

6. Refit the arm back to the vehicle, check and adjust wheel alignment to desired settings, and then tension all hardware to manufacturers recommended torque settings

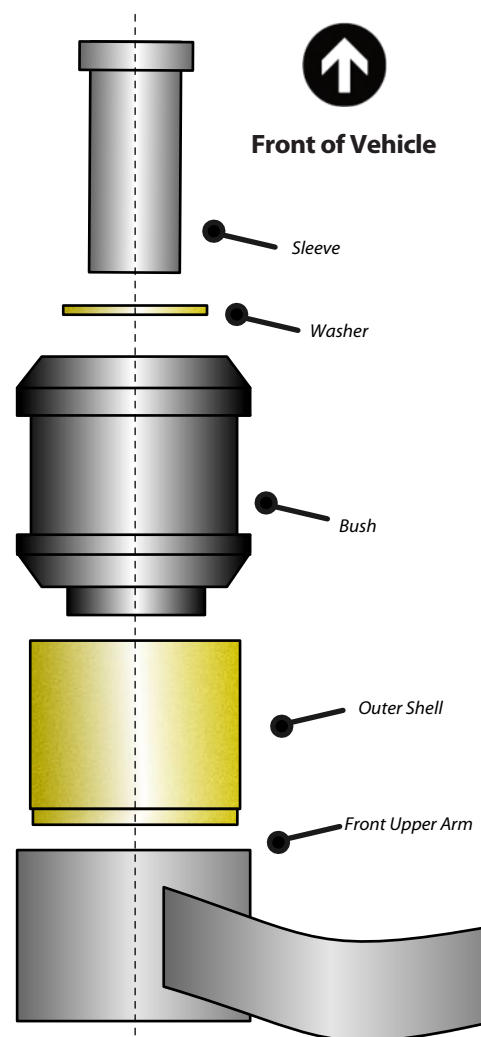


Figure 1



**PART NUMBER**

**PFF40-502G**

**DESCRIPTION**

**FRONT LOWER ARM INNER BUSH  
CAMBER ADJUSTABLE**

**ADJUSTMENT GUIDE**

**Adjustment Instructions:**

This bush can be adjusted with the included hex spanner to change front wheel geometry on your Mercedes-Benz. This bush offers predominantly front-wheel caster adjustment, but when used alongside PFF40-501G for some applications it can be used to accurately adjust camber and caster. See Figure 1. On some vehicles, there is an adjustable bolt available from Mercedes-Benz for adjusting the other control arm for camber.

The standard Mercedes-Benz bushes offer +/- 4mm of adjustment, whilst Powerflex' bushes offer +/- 6mm. This means that geometry can be adjusted by 50% more than the factory bush.

There is a notch next to the offset bore of the adjustable sleeve, to clearly identify it's position. See Figure 2.

Figure 3 shows the position of offset bore within the sleeve for different geometry positions. The bore should be towards the inside of the car for increased negative camber.

Adjustments on these bushes changes both camber and caster angles. Table 1 shows the angle change when each bush is adjusted to it's maximum offset in each direction.

Powerflex recommends using professional 4-wheel alignment equipment with our adjustable bushes to ensure wheel alignment is exactly correct.

40-501G	40-502G	CAMBER CHANGE °	CASTER CHANGE °
+6mm	0	-1.00	0.40
-6mm	0	1.00	-0.40
0	+6mm	-0.23	-1.00
0	-6mm	0.23	-1.00
+6mm	+6mm	-1.18	-0.60
+6mm	-6mm	-0.80	0.60
-6mm	+6mm	0.78	-1.40
-6mm	-6mm	1.25	0.60

Table 1: bush positions and resultant Camber and Caster angles

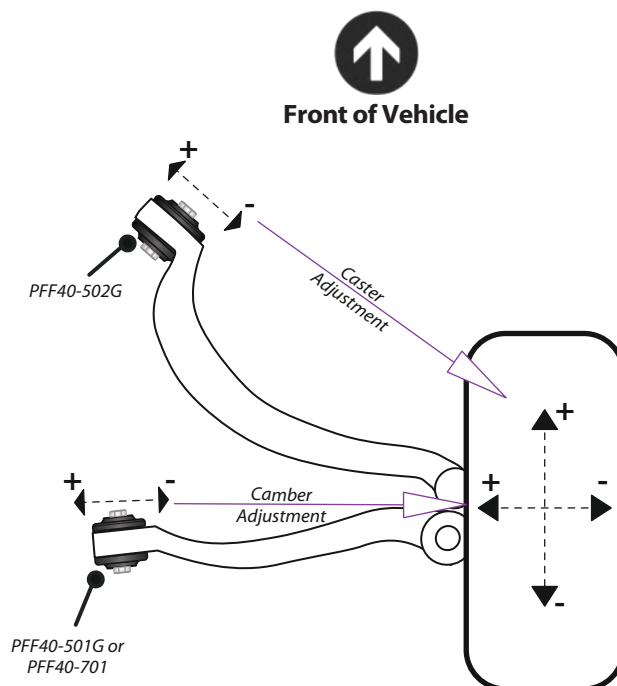


Figure 1: Top down view of front suspension

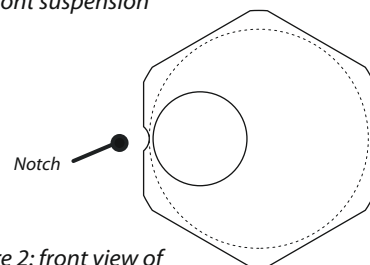


Figure 2: front view of adjustable sleeve

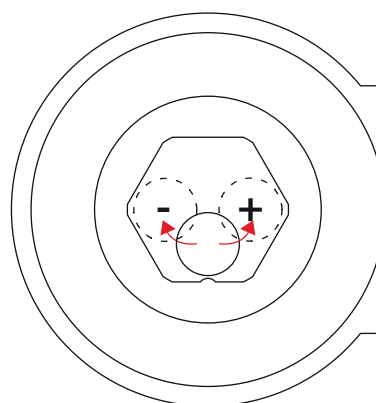


Figure 3: Front view of front suspension bush PFF40-501G