Installing Beam Adjusters

The adjuster needs to be installed dead-centre to the beam. Begin by scribing a line along the beam, through the centre-line of the beams original anchor screw location (highlighted in the picture in red). The width of the adjuster must also be marked on the beam (centre it over the original screw) so a corresponding amount can be cut out. After double checking the marks, a grinder is used to cut the centre from the beam. A few millimetres clearance either side is required, but no more.

If you are not confident cutting square and straight with a grinder, you can attach hose clamps around either side of the section to be cut to act as guides. Note: the centre area of the beam will be filled with grease and some of it will probably have melted and dripped out due to the hot grinder cut. Clean any excess from the beam. This is approximately where the centre mechanism will be located inside the beam. At standard height the short anchor screw will end up clamping the torsion bars in approximately the same position as the original anchor screw did on the unmodified beam. You can see how it all works – the inner centre mechanism keeps the torsion bars centred together, while the long adjusting screws in the outer housing do the work. As I mentioned, one adjuster will give you 50mm of adjustment (lowering potential). Slide the old centre onto the torsion bars to keep them better aligned for the challenging task of aligning and inserting the torsion bars through the centre mechanism of the adjuster housing. To accurately locate the centre mechanism while the torsion bars are being pushed through, temporarily remove the short anchor screw and assemble it in the housing with the ‘long’ screw (just a few turns). This will give you better control of the adjuster. To save confusion later, mark the holes with arrows to ensure correct orientation when the short screw is re-installed. Now let the fun begin! Slip the adjuster unit in place and slide the torsion bars into the beam and through the adjusters centre mechanism. Sometimes the bars’s ends and edges will catch and you may need to remove the suspension arm so that you can wiggle the torsion bar’s outer ends with one hand while the other is aligning things at the centre. Once all the torsion bars are through the mechanism centre, remove the ‘old’ centre that was used to keep the bars aligned. Replace the suspension arm (with its anchor screw tight) to keep the bars aligned and push the torsion bars all the way through. The centre anchor divot in the torsion bars should now be aligned under the corresponding thread in the centre mechanism and the suspension arm and seal should be snug up against the beam.
Now remove the temporary ‘long’ anchor screw and re-install the proper ‘short’ one. It must now be done up very tight – if its loose, it will allow the torsion bars to flop around. The centre mechanism is now turned within the housing to hide the short anchor screw and expose the hole that the ‘long’ anchor screw winds into. Don’t worry about the alignment etc of the arms or complete mechanism just yet. The ‘long’ anchor screw and its clamp block (the machined alloy component) and lock nut can now be installed.

This is okay to do the long anchor screw up tight, but assemble the lock nut/clamp block only finger tight for now. Fit the second suspension arm and its anchor screw. You’ll notice that with the two suspension arms and the torsion tube grease seals installed the adjuster ‘self-centres’ in the beam with a few mm clearance either side.

A good rule of thumb is to install the adjuster so that its front face is ‘square’ with the beam’s mounts, demonstrated here with a metal cut off. This places the adjuster in a position that allows you to raise the car to an inch or two below standard height, providing a good range of ‘dump’ from just one adjuster.