

# FORMULA 4X4

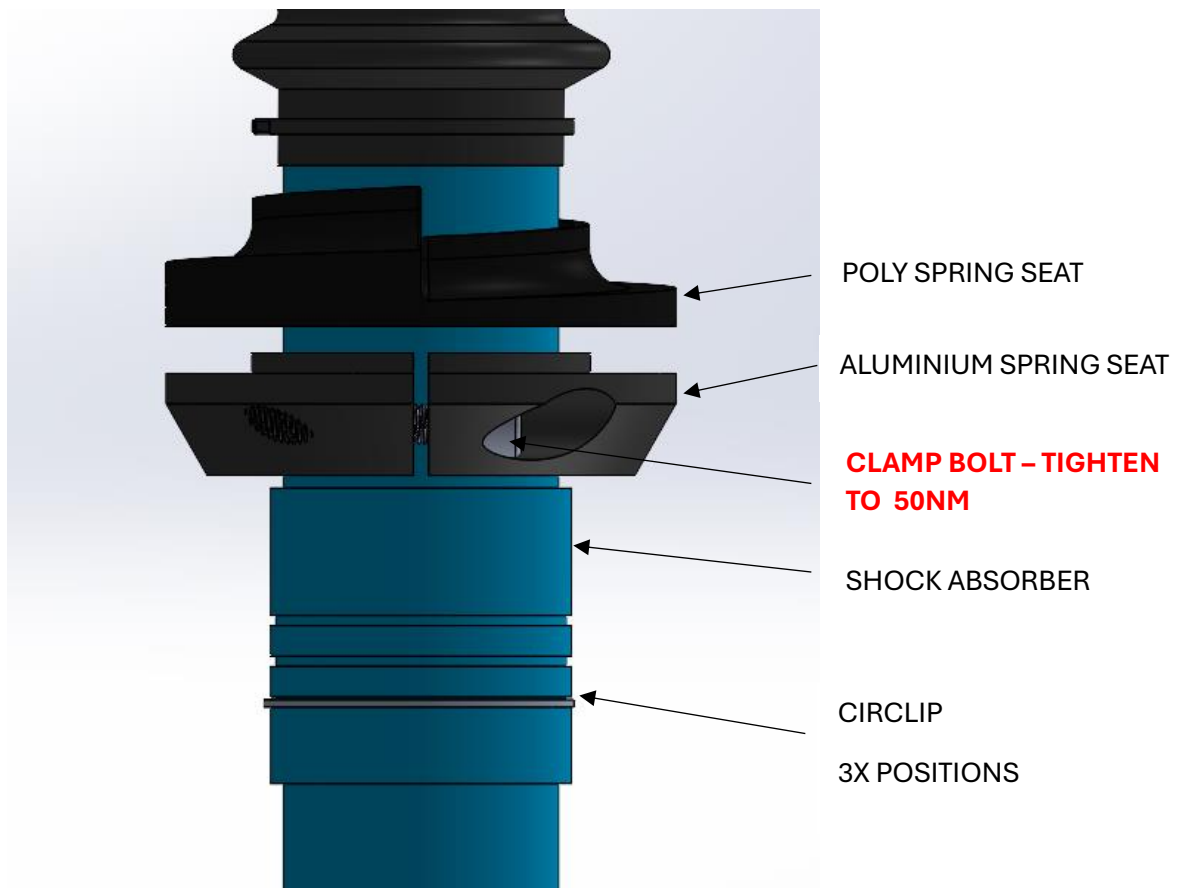
Formula struts must be assembled and fitted to the vehicle by qualified persons only, using the appropriate procedures and equipment.

**NOTE:**

- Spring seat can be placed in one of three positions to trim vehicle height.
- Ensure that aluminium spring seat base clamp bolt is tightened to 50Nm so that it is secure on shock once seated on circlip.

The lower of the circlip positions is equal to Original Equipment Manufacturer (OEM) spring seat height. If using aftermarket coil springs and only wanting the lift stated by the manufacturer of the coil springs at the specified weight range of your vehicle you should leave the circlip in this position

Position 2 and 3 are used for fine tuning ride heights (for example additional weight) and/or raising the vehicle using OEM coil springs.



THIS VIEW IS AN EXPLODED VIEW TO SHOW COMPONENTS AND DOES NOT DEMONSTRATE ASSEMBLED VIEW

It is the installers responsibility to ensure that correct alignment & driveline correction products/components are also installed if adjusting the spring seat height above OEM height. Some examples of these products are (but not limited to); upper control arms, sway bar relocation products, diff relocation products.

Raising of the spring seat position will alter the height of the vehicle by approximately 12-16mm each increment, dependant on the vehicle it is installed on and load/accessories fitted.

The coil spring assembly must be removed from the vehicle and disassembled to adjust the spring seat position.

### How high can I lift the front of my vehicle?

This depends on the specific vehicle. For example, with a Toyota Hilux, you can achieve a 3-inch lift, but for other vehicles like a Mitsubishi Triton, you may only be able to achieve a 55-60mm lift. Each vehicle is different, and the purpose of adjustable struts is to tailor the height to individual needs.

### What's the point of having height-adjustable struts if you can't lift the vehicle to 3 inches?

- Leveling the vehicle
- Adjusting for additional weight without purchasing new springs
- Compensating for extra weight added to the front of the vehicle
- Reducing the vehicle's rake; many pickups are designed with a front-end down rake from the factory, which allows the vehicle to sit level when load is added to the back.

### What are the negatives or consequences of lifting the front of your vehicle too high?

- **Poor ride quality:** When you preload a coil on any strut designed for a larger lift, the shock's working range is compromised. You won't have the same amount of up-and-down travel as designed, leading to the shock potentially "topping out."
- **Reduced down travel:** As mentioned above, when going off-road, the vehicle may lift wheels sooner than before since the strut is more extended at ride height.
- **Additional components required:** Lifting may necessitate components like a diff drop or sway bar relocation brackets.
- **Wheel alignment issues:** Lifting can cause alignment problems, though solutions such as upper control arms (UCA) are typically available to address this.

### What are the benefits of Formula 4x4 Height Adjustable Struts?

- **Height adjustment:** Fine-tune the vehicle height in small increments.
- **Use of OEM coils:** Gain a small lift without replacing coils, which can be useful for offsetting the installation of accessories like a bull bar.

### How much height will each ring groove lift the vehicle?

Each groove is spaced 7mm apart, with the lowest groove equivalent to the OEM spring seat height. The lift will range from 12 to 16mm for each ring groove by which the spring seat is raised.

### Do the struts need to be removed from the vehicle to adjust the height?

Yes, the complete assembly must be removed from the vehicle, and appropriate equipment must be used to adjust the height. Instructions are attached for generic height adjustment. For convenience, it might be best to order individual items so adjustments can be made prior to fitment.

### Why does the coil look bent when the spring seat is raised and assembled?

Tapered coils tend to look the worst when the spring seat is raised, but even standard coils may appear to bend sideways rather than compress evenly when preloaded beyond their designed range. While this isn't normal in appearance, it's what happens when components are pushed to their limits.