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### Clio 2 RS Roll Centre Correction Kit

#### Kit Overview.

This is a roll centre correction kit for all Clio 2 RS models. The kit raises the front roll centre to an optimum position after substantially lowering the car. Raising the roll centre after lowering the car brings the roll centre closer to the centre of gravity of the car meaning less weight is transferred in cornering resulting in reduced body roll and less understeer.

With this kit you will need to swap to Laguna four stud hubs and uprights. We use Laguna uprights for their additional strength at the bottom ball joint mounting. This conversion to Laguna hubs is straight forward - the brakes can be swapped straight over and the standard driveshafts can be retained - the struts will need to have the brackets replaced with our kit that allows the fitting of the 65mm hole centre uprights, we can do this for you. You will also need to use our bump steer kit.

#### Fitting.

Pure Motorsport accept no responsibility whatsoever for incorrect fitment of this kit. It is highly recommended that a competent and suitably trained vehicle mechanic fit this kit and have access to the correct tools. You will need wheel alignment equipment and a bump steer gauge to set-up the car following fitting this kit. These instructions are offered as a guide only and further information may be required in the form of a workshop manual.

Jack up the vehicle, secure on axle stands and remove the front wheels.

#### **Remove:**

- Brake callipers and hang them up in the wheel-arch
- Brake discs
- The bottom ball joint pinch bolt and split the ball joint
- Track rod end securing nuts and split the ball joint
- Both bottom ball joints
- The anti roll bar bracket on the wishbone
- Both hub nuts
- Both front strut bolts
- Both front uprights and hubs
- Both front struts
- Both track rod ends

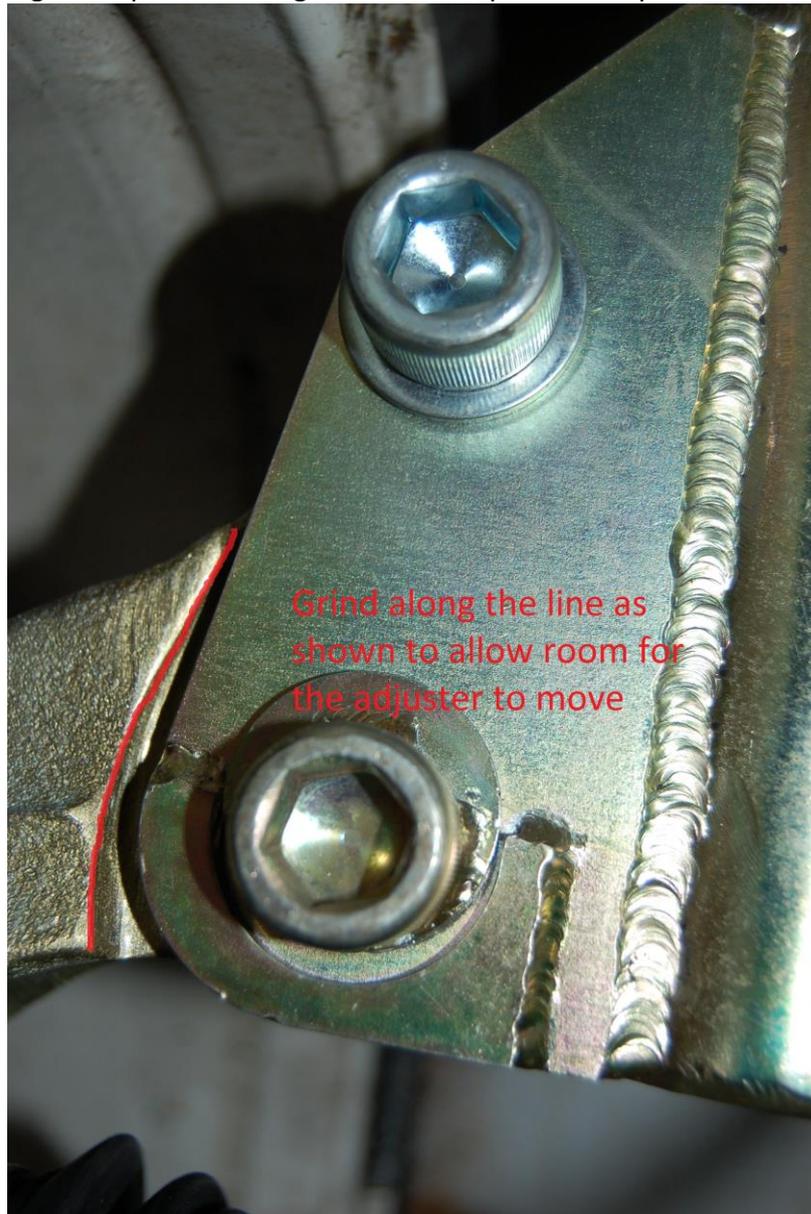
If your struts require a change of mounting plate, weld these onto a bare strut body – remove all of the damper internals prior to welding.

There is one camber adjustment ellipse per strut – fit these to the front.

If you are supplying your own Laguna uprights and using our strut mounting plates then you will need to grind a small amount from the upright to clear the plates – see below. You will also need to drill the bottom hole on the upright out to 14mm and the steering arm to 12mm.

Next fit the Laguna uprights and hubs to the strut bodies. Don't fit springs at this stage.

Tighten up bolts enough to hold it in place – torque them after set-up.



Fit the spherical bearing housings to the wishbones with a caster locking plate suitable for your intended caster setting. Torque bolts to 116Nm.



If you are using a front anti roll bar you will need to cut off the front corner of ARB clamp to clear the new spherical bearing housing.  
Fit the spacers and bolt (as shown below) to the outer joint. Torque M14 bolt to 165Nm.



### Fit the bump steer kit to the track rod

Set the steering wheel straight ahead and fit the track rod adaptors and rod ends checking that there is adequate thread engagement.

Fit the bolt from the top, the small spacer on top and large spacer underneath and do the nut up.



Depending on how wide your front track width is, you will probably find that the track rod is too long to get back to parallel toe. If this is the case cut a few threads off the end of the track rod with a thin disc in an angle grinder.

Refit your driveshaft hub nuts, brakes and wheels and it's time for setup.

Set vehicle at ride height by using blocks or have the car on a lift – don't fit springs yet.

Set desired caster angle using different locking plates as required.

With the wheels straight ahead, set the camber angle using the elliptic washer on the strut mounting plate. Tighten M16 bolts to 255Nm.

With the springs out check you have a full range of bump and droop travel on full steering lock both ways, without running out of misalignment on any of the spherical bearings. If you do run out of misalignment, you may have to modify your dampers to limit droop travel.

Set front toe to desired setting or close to parallel for the bump steer set up procedure.

Apply the brakes with a pedal depressor, check steering is centred and set up your bump steer measuring equipment.

Measure bump steer and adjust using different amount of shims on top of the upper spacer until you reach the desired set up.

Repeat on the other side of the car.





Once you are happy with the bump steer set up, refit all the components, torque rod end bolt to 116Nm.  
Set front toe to your final settings.

Once you have refitted the springs, set up corner weights.

Recheck: caster, camber and toe settings.

#### Settings.

Due to the huge variation of suspension set ups and driver preference we cannot give 'recommended' settings for bump steer.

However, a good starting point is to reduce bump steer to the minimum possible with slight toe out in bump.

Caster angle will be limited by inner wheel arch clearance when on full bump so check full bump suspension travel before settling on a particular caster setting.

If you get stuck please ring for help and advice.

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