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Useful info

DIFFICULTY
RATING



TIME TAKEN
Half a day



ESSENTIAL TOOLS

Spanners and expanding grips

Trolley jack and axle stands

Screwdrivers

25 mm worm-drive clip

Spring compressor clamps

Wire brush

Silicone lubricant spray

ASTRA VXR SUSPENSION UPGRADE

Courtenay Sport fit DAP uprated fast road springs and a Whiteline anti-roll bar, massively improving the handling and it only took half a day to complete!

Vauxhall did a great job with the Astra VXR's handling, with its rear beam axle having an amount of controlled flex to generate high cornering speeds in a predictable manner. But manufacturers like to give the average driver plenty of information by progressive reduction of grip through roll. Reducing roll makes the tyres work harder to deliver increased grip and make the car much more pointy. Fitting an anti-roll bar also takes the strain away from the springs and dampers which are there primarily to control vertical movement of the wheels.

Courtenay's Mark Watts reckons that any car fitted with an up-rated rear anti-roll bar will feel more 'alive'

and fun to drive without compromising ride comfort and is the best modification that can be done to an Astra chassis. Commenting on the DAP fast road springs, Mark thinks they are an excellent compromise providing improved handling without a major effect on ride. They also lower the VXR by 20 mm, which is already lower than other Astras from the factory.

Raising the bar

The Whiteline Automotive 24 mm adjustable anti-roll bar has settings from soft to hard which are set depending on use. A soft/medium setting is ideal for winter use when road surfaces are more slippery and a harder setting is ideal for summer/dry roads and track day use. The fixed Whiteline 24 mm roll bar, although

cheaper, is stuck on one setting. The adjustable bar has two hole adjustment at the top end of the drop link bracket and four adjustment holes on the end of the bar itself - the basic rule for both is the most forward holes give you the hardest setting and the further back it's fastened, the softer it will be. There's only four adjustment positions as the front hole of the bracket allows the use of the two front holes on the roll bar and the rear hole on the bracket allows the use of the two rear holes on the roll bar. Whiteline recommend that, if in doubt, go for the softest setting first. This also allows you to get a proper feel for the range of adjustment. Courtenay usually set the bar on VXR's with the bolt at the top of the link on the bracket set in the rearward position and the second hole

back on the end of the roll bar.

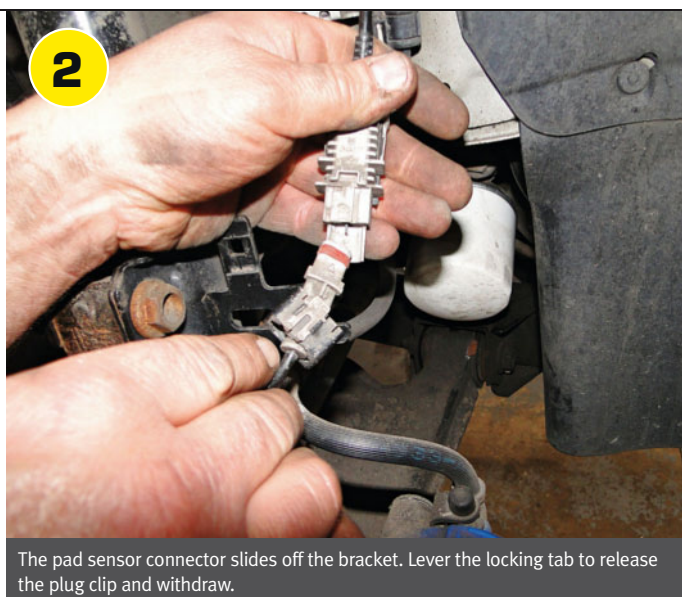
It's also recommended that all fittings should be re-tightened as necessary after a settling-in period of no more than 60 miles and for noise and friction-free operation it's worth giving the bushes a clean and re-lubing occasionally. The adjustable rear anti-roll bar is priced at £178.75 and the fixed bar is £163.50. The DAP fast road springs shown are £183.85 per set of four (all prices correct at the time the magazine went to press).

After fitting, have the wheel alignment checked and adjusted as required. Ideally the serious approach to handling will involve a professional four wheel alignment check after the suspension work has been done. This will ensure you get the most from your new set up.

FRONT SPRINGS



Grab the tab of the brake pipe retaining clip and slide out.



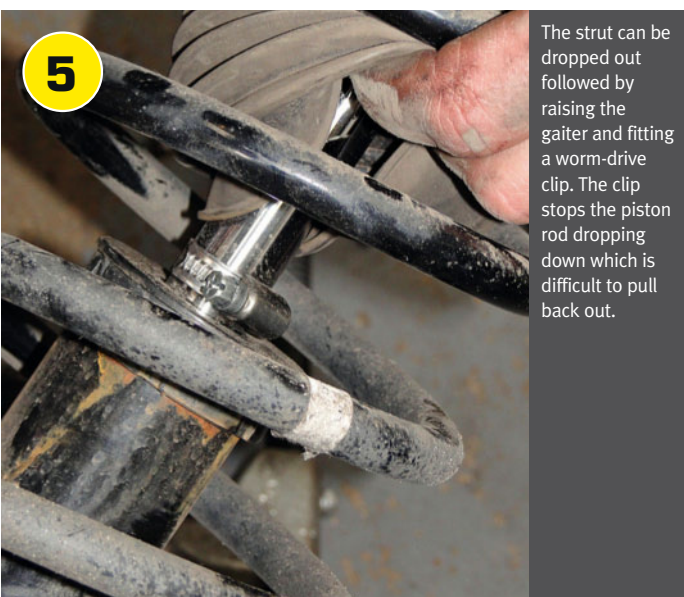
The pad sensor connector slides off the bracket. Lever the locking tab to release the plug clip and withdraw.



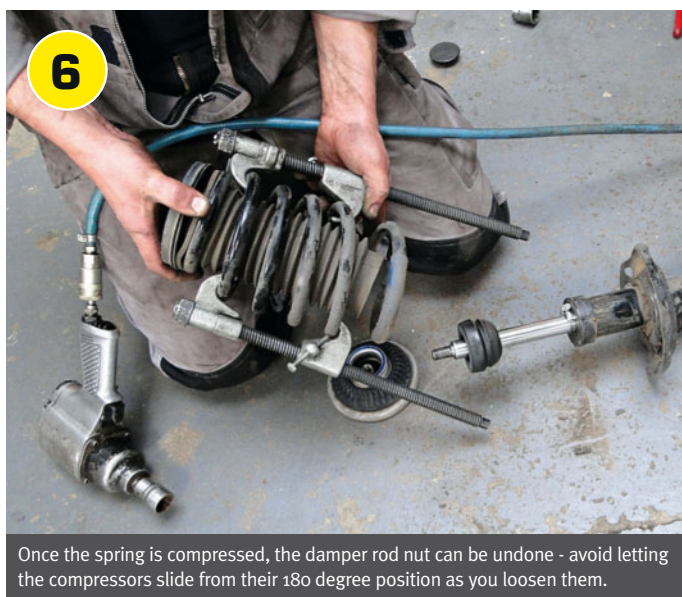
Two bolts holding the hub assembly and a nut on the link arm are the only other items to separate to make the strut ready for removal.



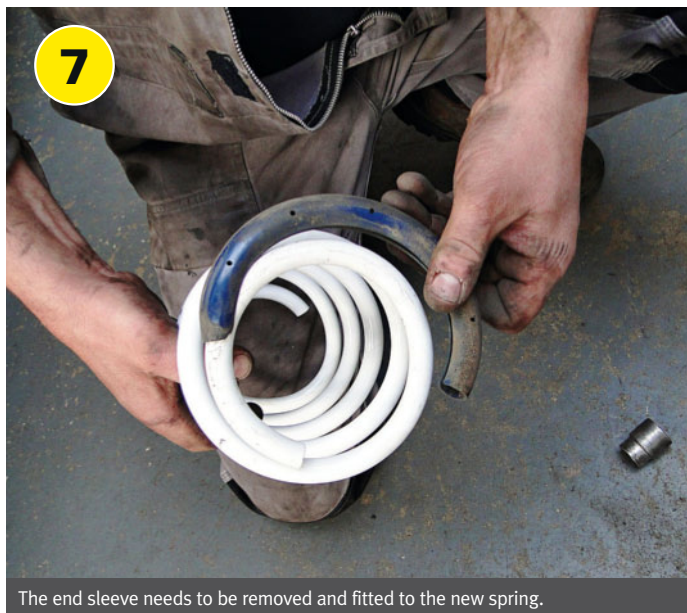
The top of the strut is released by simply levering open the jaws of the clip either side and using a second screwdriver to lever the two halves apart.



The strut can be dropped out followed by raising the gaiter and fitting a worm-drive clip. The clip stops the piston rod dropping down which is difficult to pull back out.



Once the spring is compressed, the damper rod nut can be undone - avoid letting the compressors slide from their 180 degree position as you loosen them.



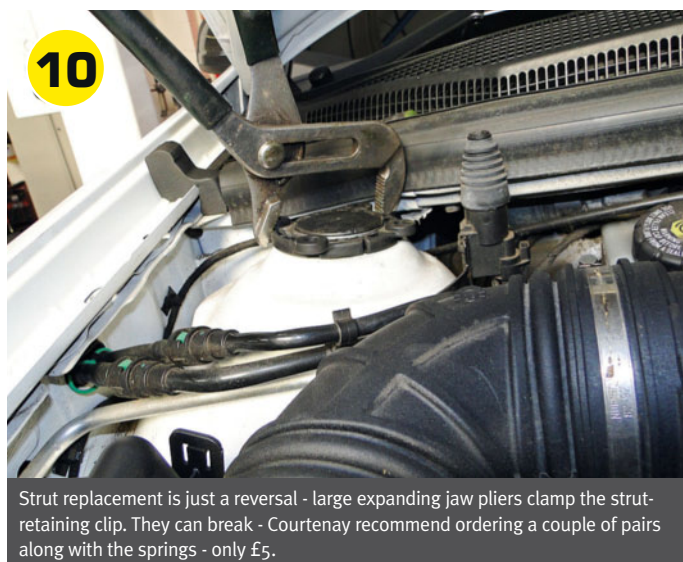
The end sleeve needs to be removed and fitted to the new spring.



The spring platform tends to accumulate dirt and rust sets in early so it's worth cleaning up with a wire brush.

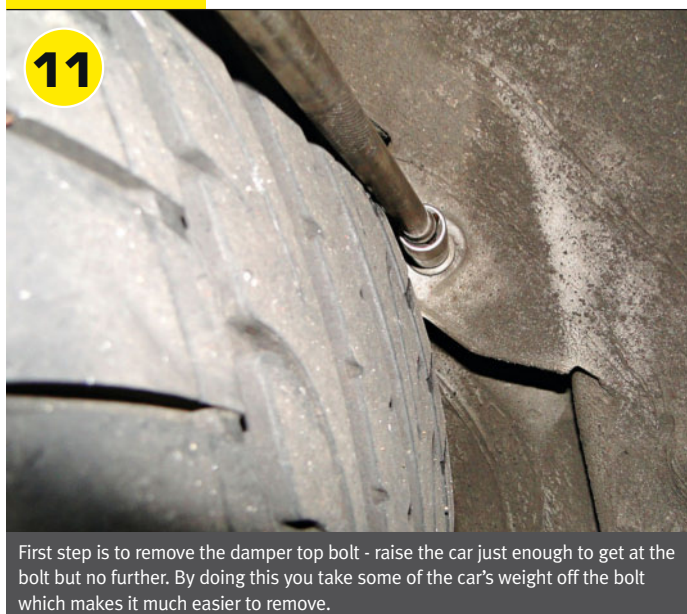


The complete assembly - make sure the bottom end of the new spring fits into the shaped spiral depression in the platform.



Strut replacement is just a reversal - large expanding jaw pliers clamp the strut retaining clip. They can break - Courtenay recommend ordering a couple of pairs along with the springs - only £5.

REAR SPRINGS



First step is to remove the damper top bolt - raise the car just enough to get at the bolt but no further. By doing this you take some of the car's weight off the bolt which makes it much easier to remove.



Once the top of the damper is detached, raise the wheel off the ground. It will now be easy to wiggle out the spring.



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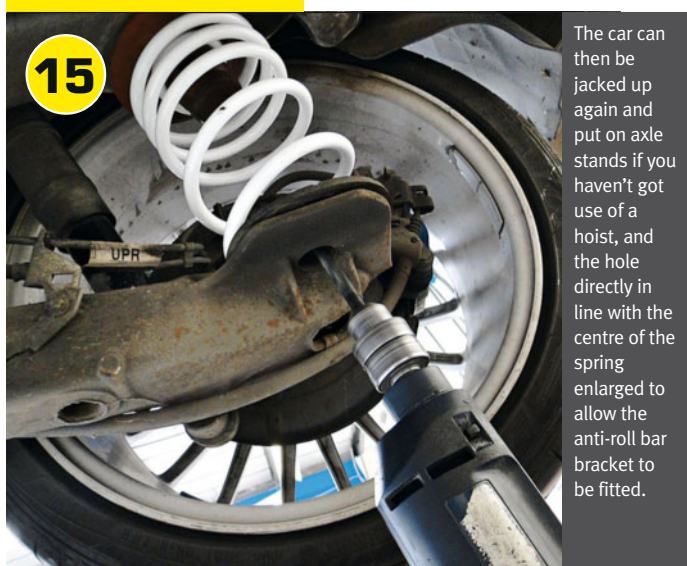
Remove the bump stop from the old spring and use a silicon spray or similar lubricant to make it easier to push into the new spring.



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The new spring can be fitted and at this point if the job is being done on hard-standing, the car is gently lowered to allow the top damper bolt to be inserted.

ANTI ROLL BAR FITTING



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The car can then be jacked up again and put on axle stands if you haven't got use of a hoist, and the hole directly in line with the centre of the spring enlarged to allow the anti-roll bar bracket to be fitted.



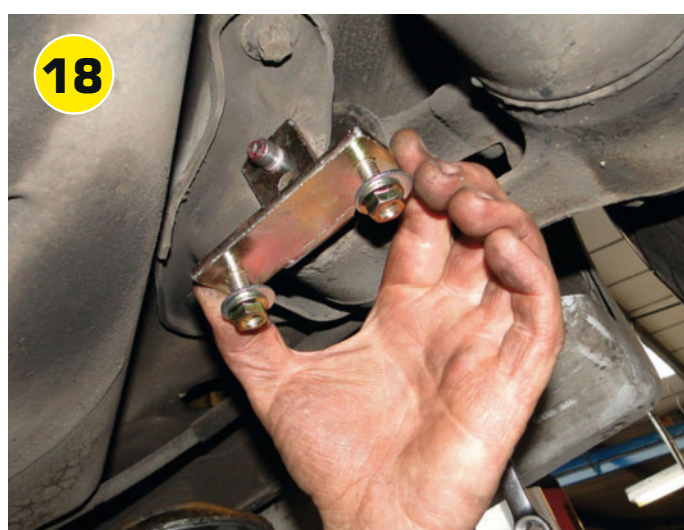
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Courtenay always touches-in the exposed metal with rust-protection paint.



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The bracket bolt can then be inserted with its large washer in the top of the arm and the bracket fitted - the bracket has been designed to slot neatly between the spring platform reinforcement.



18

Remove the arm pivot nut and fit the bush platform bracket.

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Before fitting the bush and retainer to the bar, apply the lube supplied on both the inside and outside of the bush to prevent wear.

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Fully tighten the bracket bolts and the bar is fitted but leave the pivot nut until the bar is fully fitted.

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Courtenay don't normally attach the bushed link to the forward hole of the bracket on VXR's but here the customer requested a harder setting.

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It's recommended that the second hole from the front of the bar is used. The front hole has a greater anti-roll effect and using the rearmost hole has the softest effect on the suspension.

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The final step is to retighten the pivot nut when the anti-roll bar is in its natural ride height position. A final loosen/tighten is ideally done on a garage ramp/hoist.

Thanks

Thanks to all at Courtenay Sport, Jon and Mark and the team including Dave who showed us how the job was done. Visit their website at www.courtenaysport.co.uk or call 01692 404313.

