

MAXTON

MAXTONSUSPENSION.CO.UK



RT10 OWNERS MANUAL

ADJUSTING THE REBOUND DAMPING

The rebound damping adjuster on your Maxton damper unit is unlike other makes of damper. It does not click when you turn the adjuster. To adjust the rebound damping carry out the following instructions :

Unlike other units the rebound damping is set from minimum

1. Insert a suitable round tool into one of the four holes in the end of the damper as in figure 1. A pop rivet or allen key approximately 2.5mm in diameter could be used as a suitable adjusting tool.



FIG 1



FIG 2

2. Turn the tool towards the minus sign on the end of the damper unit until it stops. The rebound damping is now on minimum. As you adjust the rebound damping count the number of sweeps. A sweep is the movement from one side to the other, which is also a quarter of a revolution. See FIG 1 and FIG 2.

It is important that you do not force the rebound damping adjuster on to minimum as the adjuster can seize.

3. Now insert the tool into the hole so the adjuster will rotate towards the plus sign. Turn the tool one sweep at a time until you reach your desired setting. You can adjust a quarter or half a sweep of rebound damping, you do not always have to turn the adjuster one full sweep. Written below in the box is the recommended base setting for the rebound damping.

The photographs in figures and 1 and 2 illustrate the action used to adjust the rebound damping. FIG 1 shows a fork end and FIG 2 shows a spherical rod end and.

IMPORTANT INFORMATION

Use minimum as a reference point. It is important that you do not run the shock on minimum rebound damping. Conversely the maximum setting must never exceed 8 sweeps from minimum.

THE REBOUND DAMPING HAS BEEN BASE SET TO MINIMUM PLUS

SWEEPS

ADJUSTING THE COMPRESSION CONTROL VALVE

The Compression Control Valve is a unique adjuster to a Maxton damper. Original Equipment shock absorbers and other manufacturers of motorcycle shock absorbers do not have this adjustment. On other makes of motorcycle shock absorber there is no way of controlling the base amount of compression damping, you would have to send the unit back to the manufacturer to be revalved.

The Compression Control Valve sets the base amount of compression damping in the shock absorber and the adjusters on the High and Low speed remote reservoir adjusters fine tune the compression damping.

The Compression Control Valve or CCV controls the longer/larger movements of the rear suspension. It supports the bike with the spring, holding the bike up in corners. When you adjust the CCV you change the pressure on the compression shim stack on the piston, making it harder for the shims to peel back. This means it has dramatic affect on the handling of the bike. When adjusting the CCV, adjust it 1 or 2 clicks at a time.

The Compression Control Valve damping is set from minimum.

To adjust the CCV on a Maxton unit you must first remove the spring from the damper unit. **Always make sure you measure the fitted length of the spring on the unit, before you remove it. Then you can refit the spring to give the same amount of preload.**

1. Once the spring has been removed turn the damper unit upside down so the bottom of the unit points upwards. You now see the alloy bump cap where the piston rod enters the shock body. To one side of the piston rod is a brass button OR adjuster pin recessed in the bump cap.
2. Depress the brass button or adjuster pin using an M6 socket screw or something similar. Make sure you apply pressure to the screw and brass button/pin while you adjust the unit. See FIG 3



FIG 3



FIG 4

CONT....

3. Turn the whole piston rod assembly clockwise (as you look over the shock) towards the 'S' meaning Soft. As you turn the rod assembly it clicks, count the number of clicks until the rod assembly stops. The Compression Control Valve is now on minimum. See FIG 4
4. Now turn the piston rod assembly in the opposite direction (anti-clockwise) to set the damping to the desired number of clicks. The recommended setting for the Compression Control Valve has been written in the box below.
5. Once you reached your chosen number off clicks, remove the M6 socket screw so the brass button pops up. Now when you turn the piston rod assembly there are no clicks, meaning the compression damping adjuster has disengaged. If the brass button does not pop up, depress the piston rod assembly down into the shock body a short distance and the brass button will disengage/pop up.
6. Refit the spring to the damper unit, making sure you set the preload or fitted length of the spring back to previously measured length.

IMPORTANT INFORMATION

Always make sure that the brass button or adjuster pin has disengaged, meaning there are no clicks in the piston rod assembly. Other wise when you fit the spring to the damper unit and turn the preload adjusters, you will damage the compression adjuster assembly.

THE COMPRESSION CONTROL VALVE HAS BEEN BASE SET TO MINIMUM PLUS	CLICKS
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NOTES

CHANGING THE REMOTE RESERVOIR DAMPING ADJUSTERS

On the remote reservoir there are two speeds of compression damping, low speed compression damping and high speed compression damping.

- The low speed compression damping is the first part of the downward movement; it affects the ride over the smaller bumps in the road or track.

- The high speed adjuster is for larger or longer movements, such as undulations or 'dips' in the road. The high speed adjuster is a "fine tuner" for the Compression Control Valve. If you reach one end of the adjustment, you can then change the Compression Control Valve to put you back in the middle of the range on the high speed adjuster.

ADJUSTING THE LOW SPEED COMPRESSION DAMPING

The low speed compression damping adjuster is the screw in the centre of the silver knob. To adjust the low speed damping you simply insert a 3mm allen key into the screw and turn. The adjuster clicks when you turn the screw.

- To increase the low speed compression damping, turn the screw clockwise towards the 'H' or hard. This makes the back of your bike firmer; it gives you more support and stops it from running wide under power.

- To reduce the low compression damping, turn the screw anti-clockwise towards the 'S' or Soft. This makes the back of the bike softer; meaning the back of the bike will ride bumps better and feel more compliant.

The low speed compression damping is adjusted from the maximum setting back. This means the setting is always a minus setting, for example -10 clicks. The recommended base setting for the low speed compression damping is written in the box on the next page.



FIG 7

THE LOW SPEED COMPRESSION DAMPING HAS BEEN BASE SET TO MAXIMUM MINUS

CLICKS

ADJUSTING THE HIGH SPEED COMPRESSION DAMPING

The high speed compression damping adjuster is the large silver knob with a 14mm hexagonal drive at one end. To adjust the high speed you either turn the knob with your hands or use a 14mm spanner or socket.

THIS ADJUSTER DOES NOT CLICK, YOU MUST COUNT THE REVOLUTIONS AS YOU CHANGE THE HIGH SPEED COMPRESSION DAMPING. WE RECOMMEND THAT YOU CHANGE THE ADJUSTER BY ONE REVOLUTION AT A TIME SO YOU NOTICE A DIFFERENCE IN THE HANDLING.

- To increase the high speed compression damping, turn the knob clockwise towards the 'H' or hard. This makes the back of your bike firmer; it gives you more support and stops it from running wide under power.

- To reduce the high compression damping, turn the knob anti-clockwise towards the 'S' or Soft. This makes the back of the bike softer; meaning the back of the bike will ride bumps better and feel more compliant.

The high speed compression damping is adjusted from the maximum setting back. This means the setting is always a minus setting, for example -1 revolution. The recommended base setting for the high speed compression damping is written in the box on the next page.



FIG 8



FIG 9

THE HIGH SPEED COMPRESSION DAMPING HAS BEEN BASE SET TO MAXIMUM MINUS REVS
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AT ONE END OF THE REMOTE RESERVOIR IS AN M5 SOCKET SCREW. THIS IS THE GAS SCREW THAT HOLDS THE NITROGEN CHARGE IN THE SHOCK ABSORBER. IF UNSCREWED THE SHOCK ABSORBER WILL LOSE ITS GAS PRESSURE AND DAMPING.

HELPFUL HINTS

Like all low speed compression damping adjusters on all shock absorbers the range of adjustment is not linear. As you adjust the damping closer to maximum, each click of adjustment dials in more compression damping than the last click.

- If you are at a setting between minus 10 or 15 clicks, dial in 3 clicks of damping at a time.
- If you are at a setting between minus 5 or 9 clicks, dial in 2 clicks of damping at a time.
- If you are at a setting between 0 or minus 5 clicks, dial in 1 click of damping at a time

The low speed compression damping is of real benefit if you are racing or using the bike on Track Days. It is possible to increase the "feel" at the rear of the bike by giving the bike an opportunity to slide when exiting a corner. Increasing the low speed compression damping increases the tendency to slide. Sliding or drifting the bike also gives the tyre an easier time, giving better tyre wear and more tyre life.

If the back of the bike "yaws" whilst powering out of corners the rear of the bike is too soft and needs more low speed compression damping. Yawing is a small up and down motion under power. Occasionally the rider can not detect any 'yaw', but the tyre wear tells you that the bike is yawing. The tyre appears to have a "waved" effect around it. As the bike goes down it grips too much and the wear is torn or cut, then as the bike comes up it spins and the wear is smooth or polished.

NOTES

SETTING THE STATIC SAG AT THE REAR OF YOUR BIKE

PLEASE NOTE THAT THE PRELOAD ON YOUR MAXTON REAR SHOCK HAS BEEN BASE SET, BUT YOU SHOULD ALWAYS CHECK THE STATIC SAG BEFORE RIDING THE BIKE.

After you have fitted your Maxton unit to your bike, you need to check your static sag. The preload on the spring alters the static sag.

The Preload on the unit has been set approximately to give you the correct static sag. Every bikes weight is different, this is because people run different makes of exhaust, under tray, sub frames etc. It is important to check you static sag, even running a full tank of fuel can make difference. We recommend you set the static sag with a very low fuel tank.

To measure the static sag accurately you will need two people, one to hold the bike and one to take the ride height measurements.

1. Stand the bike on its wheels and get the first person to hold the bike from behind.
2. Push the back of the bike up and down (making the suspension work hard) 2 or 3 three times, let it return to find its own settling position.



FIG 8

3. The second person should now take a ride height figure with a tape measure. To do this measure from the centre of the rear wheel spindle to somewhere vertically above. See FIG 8. If it is difficult to find a reference point, stick a piece of masking tape on the seat unit above the wheel spindle and draw a line on the tape. See FIG 9.

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ADJUSTING THE PRELOAD

Most shock absorbers adjust the preload via two threaded rings. One ring retains the spring; the other is a locking ring holding the retaining ring in place. To adjust the preload you need two C-Spanners to lock the rings together. This can be very awkward.

On Maxton shock absorbers we have designed a unique preload adjuster that is one large ring. To stop the preload adjuster rotating, there are four stainless steel grub screws. In between the grub screw and the thread of the shock absorber body, there is a hard plastic ball. When you tighten the grub screw, the plastic ball presses against the thread and prevents the grub screw from damaging the thread.

The preload adjuster has large holes drilled around it, these holes are drives to turn the ring and adjust the preload. We supply a Tommy Bar to insert in the holes and adjust the preload.

IMPORTANT :

To adjust the preload you simply insert the Tommy Bar into the holes around the adjuster and drive the adjuster round. SEE FIG 8. You do not need to undo the grub screws as the plastic balls press against the thread not the grub screw. This in effect is very similar to a Nyloc nut. The adjuster feels quite stiff to turn, do not worry about this, you are not damaging the thread on the shock body. Every revolution on the preload adjuster changes the spring length by 2mm.



TO RECAP :

When adjusting the preload you do NOT have to undo the grub screws. Simply drive the adjuster round using the Tommy Bar supplied

NOTES



FOR ANY HELP OR INFORMATION ON SET UP OR ADJUSTING YOUR MAXTON DAMPER UNIT PLEASE
CONTACT US:

MAXTON SUSPENSION
LAUREL BANK
KINGSWOOD
FRODSHAM
CHESHIRE
WA6 6HX

TEL - 01928 740531

FAX - 01928 740635

EMAIL - info@maxtonsuspension.co.uk

WEBSITE - www.maxtonsuspension.co.uk