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Steve Metcalfe RC

Set-Up Series: No.9

Shock Positions

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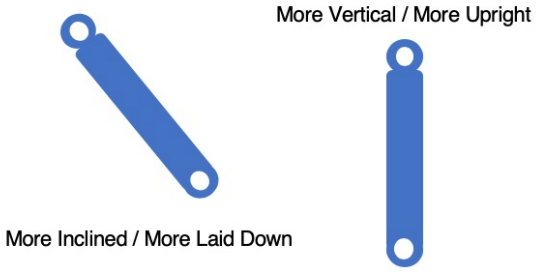
What is Shock Positions? Shock Positioning is the pitch or angle of the shock when in place on the cars shock mounts. Each shock will generally be mounted both at the top and the bottom.

The angle of the shock will determine the progressiveness and how much the shock actually compresses. The angle of the shock is determined by the lower and upper mounting points.

The terms I will use in this release are:

More Inclined / More Laid Down - which means there is a far greater angle (the top of the shock is more to the centre of the chassis where as the bottom of the shock is more towards the outer of the chassis)

More Vertical / More Upright - which means the two mounting points of the shock, upper and lower are closer together thus the shock is standing more vertical / upright.



! Quick Tip !

A car that is easier drive doesnt always mean it's faster!

Changing the angle of the shocks is quite a big change to the suspension geometry and should be changed with caution. The angle of the shock will affect the lateral grip (how much grip you will have outwardly before losing grip)

General Effects

More Inclined / More Laid Down

- Softer feel on both the spring and the damper
- Smoother overall and more lateral grip (side bite), the car is more progressive and not so direct.
- Easier to driver and feels as though the car has more grip
- Less initial traction but will generate more traction mid to exit of corner
- Less chance of grip roll
- Generally suited to tracks with higher grip as it will make the car more consistent and faster corner speed
- Improves mid corner steering

More Vertical / More Upright

- Harder feel on both the spring and the damper
- A harder more direct feel overall, less lateral grip. The car will change direction far quicker
- In high grip conditions a more upright position can cause tyres to over heat due to the downforce pressure being applied, in really high-grip conditions it could even cause grip roll

A more vertical positon can be good for low grip tracks due to downforce and wanting to find grip and a more direct car.

- Good for technical tracks due to quicker direction change

Front - More Inclined / More Laid Down

- More weight transfer towards the front of the car on corner entry thus more initial turn, however the effect will be more progressive and smoother
- Less steering overall
- Ideal for high speed corners
- Slower reactions

Front - More Vertical / More Upright

- Decreases weight transfer toward front of car on corner entry
- Car will have less off power steering but more on power
- Helps with mid-corner steering, especially in slow corners
- Assists in more forward traction
- More steering overall

Rear - More Inclined / More Laid Down

- More weight transferred to the rear when on power, thus less steering on power
- Turn better mid -exit of the corner, will finish the corner better
- Rotates easier in turn, thus improved steering during the turn
- Ideal for faster flowing tracks, helps with faster corner speeds

Rear - More Vertical / More Upright

- Less weight transferred to the rear whilst on-power
- Better on power steering
- Slower initial reaction during the turn which is ideal for tight tracks
- Improves initial acceleration
- Increases rear stability
- More forward traction

Remember, this is only a generalised overview if what could happen to your cars behaviour, each track, condition etc. can all make a difference. This at least gives you a starting point when it comes to setting up your shock positions.

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