

DIRT LATE MODEL - TUNING GUIDE

4-Link Tuning

To Tighten

<p>CORNER ENTRY (on throttle)</p> <ul style="list-style-type: none"> • Increase wedge • Increase compression LF shock • Soften RR spring¹ • Drop left bottom 4-link on chassis • Stiffen LF spring (banked track) 	<p>CORNER ENTRY (off throttle)</p> <ul style="list-style-type: none"> • Soften RF spring (can also loosen exit)³ • Stiffen LF spring • Decrease compression RF shock • Drop right bottom 4-link rod on chassis • Increase compression LR ahead shock • Decrease compression RR shock⁴ • Increase rebound 5th coil shock 	<p>MIDDLE CORNER (off throttle)</p> <ul style="list-style-type: none"> • Stiffen LF spring • Soften RF spring • Drop panhard on pinion / raise on LS frame • Decrease rebound LF shock • Increase compression LR ahead shock • Stiffen RR spring³ • Shorten RS wheelbase / lengthen LS 	<p>MIDDLE CORNER (on throttle)</p> <ul style="list-style-type: none"> • Increase wedge • Decrease rebound LF shock • Decrease rebound LR shock • Raise left top 4-link rod on chassis • Decrease rebound RR shock • Soften RR spring¹ 	<p>CORNER EXIT (on throttle)</p> <ul style="list-style-type: none"> • Increase wedge (on throttle) • Decrease rebound front shocks • Decrease rebound LR shock • Raise left top 4-link rod on chassis • Soften RR spring¹ • Drop right top 4-link rod on chassis
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To Loosen

<p>CORNER ENTRY (on throttle)</p> <ul style="list-style-type: none"> • Decrease wedge • Increase compression RF shock • Increase compression RR shock¹ • Stiffen RR spring² • Raise both right side 4-link rods on chassis 	<p>CORNER ENTRY (off throttle)</p> <ul style="list-style-type: none"> • Soften LF spring • Raise right bottom 4-link rod on chassis • Increase compression RF shock • Stiffen LR spring • Stiffen RF spring¹ (can also tighten exit) • Decrease rebound 5th coil shock • Stiffen 6th coil spring 	<p>MIDDLE CORNER (off throttle)</p> <ul style="list-style-type: none"> • Soften LF spring • Raise panhard on pinion / drop on LS frame • Increase rebound LF shock • Drop left top 4-link rod on birdcage & chassis • Decrease rebound 5th coil shock • Stiffen LR spring • Stiffen RF spring¹ 	<p>MIDDLE CORNER (on throttle)</p> <ul style="list-style-type: none"> • Decrease wedge • Drop left top 4-link rod on chassis • Increase rebound front shocks • Increase rebound RR shock² • Raise right top 4-link rod on chassis • Raise left bottom 4-link rod on chassis • Stiffen RR spring² 	<p>CORNER EXIT (on throttle)</p> <ul style="list-style-type: none"> • Decrease wedge (on throttle) • Increase rebound RF shock • Increase rebound LF shock • Increase compression RR shock¹ • Stiffen RR spring² • Raise right top 4-link rod on chassis • Raise left bottom 4-link rod on chassis
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1. Can also loosen off-throttle handling 2. Can also tighten off-throttle handling 3. Can also loosen on-throttle handling 4. Can also tighten on-throttle handling

Special Tuning Tips For LR Behind Applications

LR Shock Location:

A shock mounted ahead of the axle will provide more dampening than the same shock mounted behind the axle.

LR Spring Rate:

Soft springs increase LR hike-up and tend to stay loaded at full suspension rebound travel. Stiff springs decrease LR hike-up and tend to become unloaded at full suspension rebound travel. Generally speaking, springs that remain loaded provide more traction than unloaded springs.

- Hike-up promotes side bite and left rear drive off corners. Both effects tend to tighten handling but hike-up also promotes loose roll steer that tends to loosen handling.
- Excessive left top 4-link rod angle can bind the suspension and increase loose roll steer to the point of causing an overall loose condition.
- A cable mounted to the top of the LR axle tube to limit chassis hike keeps the amount of potential suspension travel constant and is advantageous. When a shock mounted to a birdcage is used to limit hike, the amount of potential suspension travel changes whenever any adjustments are made to the left side 4-link rods.

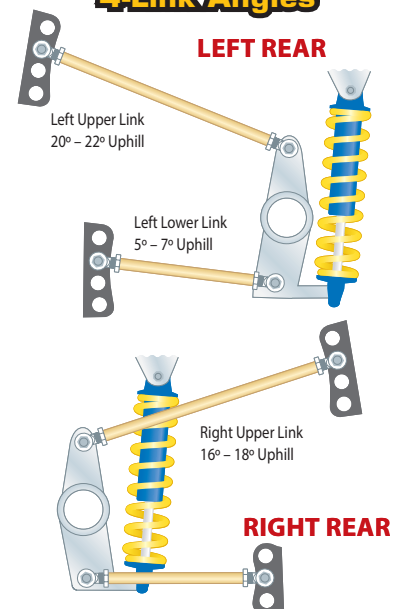
Gas Shock vs. Twin Tube (Non-Gas): Left Rear Ahead Shock:

- Gas LR ahead shock (AFCO part #3190CA) promotes chassis hike-up and slows hike-down.
- Use gas LR ahead shocks to improve corner entry stability and forward traction on slick and banked race tracks.
- Use a twin tube (non-gas) shock ahead of the axle on LR to avoid violent hike-up and down when traction is maximal (AFCO part #s 1394-0T / 1396-0T).
- Extreme LR compression control can cause corner entry looseness.
- For maximum on throttle traction, mount ahead shock on a clamp bracket (use with normal shock behind LR).
- Insufficient LR behind rebound control may allow chassis hike-up to become excessive and violent, resulting in a loss of traction.

OVERALL CHASSIS TUNING APPLIES TO ALL TYPES OF CHASSIS:

<p>To Loosen:</p> <ul style="list-style-type: none"> Increase stagger Lower ballast Decrease rear weight % 	<p>To Tighten:</p> <ul style="list-style-type: none"> Reduce stagger Raise ballast Increase rear weight %
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Suggested Baseline 4-Link Angles



DIRT LATE MODEL - TUNING GUIDE

Swing Arm Tuning

To Tighten

CORNER ENTRY

(on throttle)

- Increase wedge
- Stiffen LF spring (banked track)
- Increase compression LF shock
- Stiffen LR spring
- Soften RR spring¹
- Raise right trailing arm on chassis

CORNER ENTRY

(off throttle)

- Soften LR spring
- Stiffen LF spring
- Raise right trailing arm on chassis
- Decrease compression RF shock
- Increase compression LF shock
- Decrease compression RR shock
- Stiffen RR spring²

MIDDLE CORNER

(off throttle)

- Soften RF spring³
- Stiffen LF spring³
- Decrease compression RF shock
- Decrease rebound LF shock
- Decrease compression RR shock
- Shorten RS wheelbase / lengthen LS

MIDDLE CORNER

(on throttle)

- Increase wedge
- Soften RR spring¹
- Drop left trailing arm on chassis
- Decrease rebound LF shock
- Decrease rebound LR shock
- Decrease rebound RR shock
- Stiffen LR spring
- Move pull bar to left

CORNER EXIT

(on throttle)

- Increase wedge (on throttle)
- Soften RR spring¹
- Drop left trailing arm on chassis
- Decrease rebound front shocks
- Decrease rebound LR shock
- Decrease compression RR shock²
- Stiffen LR spring
- Move pull bar to left

To Loosen

CORNER ENTRY

(on throttle)

- Decrease wedge
- Increase compression RF shock
- Increase compression RR shock
- Soften LR spring
- Stiffen RR spring²

CORNER ENTRY

(off throttle)

- Stiffen RF spring⁴
- Soften LF spring
- Stiffen LR spring
- Increase compression RF shock
- Increase rebound LR shock

MIDDLE CORNER

(off throttle)

- Stiffen LR spring
- Increase rebound LF shock
- Increase wedge⁴
- Soften LF spring
- Increase compression RR shock
- Drop right trailing arm on chassis³

MIDDLE CORNER

(on throttle)

- Decrease wedge
- Increase rebound RF shock
- Raise left trailing arm on chassis
- Increase rebound LF shock
- Soften RF spring

CORNER EXIT

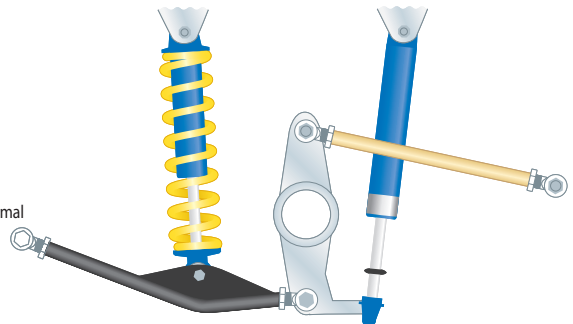
(on throttle)

- Decrease wedge (on throttle)
- Increase rebound RF shock
- Raise left trailing arm on chassis
- Increase rebound LF shock
- Increase compression RR shock¹
- Stiffen RR spring²

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Special Tuning Tips For Swing Arm / Z-Link Applications

- The addition of a shock mounted to the rear of the left birdcage can improve corner entry stability and enhance forward traction.
- Gas LR behind shock (AFCO part #3190CA) promotes chassis hike-up and slows hike-down.
- Use a twin tube (non-gas) shock behind the axle on LR to avoid violent hike-up and down when traction is maximal (AFCO part #s 1394-0T / 1396-0T).
- Use gas LR behind shock to improve corner entry stability and forward traction on slick and banked race tracks.
- Extreme LR compression control can cause corner entry looseness.
- Insufficient LR ahead rebound control may allow chassis hike-up to become excessive and violent, resulting in a loss of traction.



Double Right Rear Shock & Spring Setup:

To improve corner entry handling on slick race tracks, mount a 10" or 12" x 125 #/in spring with a take-up spring on a dummy shock to the back side of the right rear axle tube using a clamp bracket.

Angle rear shock / spring 3 to 5 degrees back at top and 10 to 12 degrees inboard at top. Try to align the front and rear lower shock mounts as closely as possible left to right. The rear shock's upper mount should not be lower than the forward shock's upper mount on the right rear.

Use a 175 #/in spring on the front of the birdcage. Adjust front and rear spring so that the rear spring will be loaded 5/8" to 3/4" at ride height. Soften front spring to tighten corner exit handling. Stiffen front spring to loosen corner exit handling.

If necessary, use a shock extension so that 3-1/2" to 4-1/2" of shock shaft is exposed at ride height (rear shock).

