

Motor Gearing

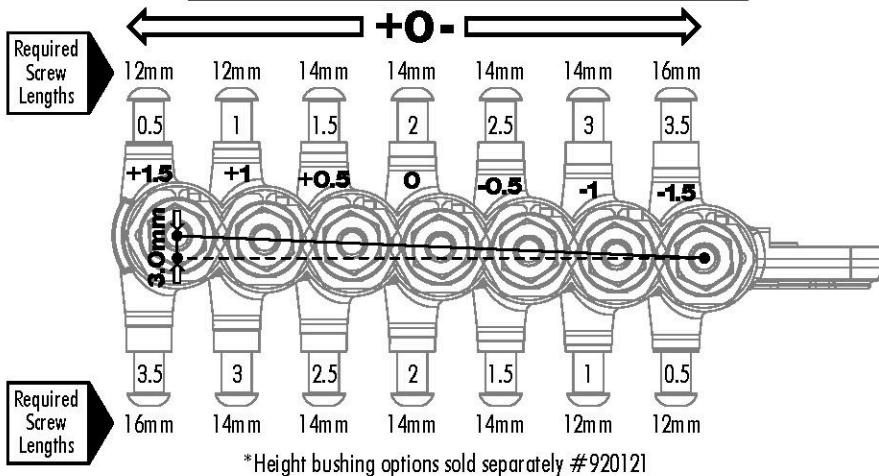
Proper gearing is essential to maximize your motor's performance. Use this gear chart as a starting point for selecting your setup. Keep in mind that both gearing and timing play a key role in finding your motor's optimal performance.

Motor	Pinion	Spur	FDR (Final Drive Ratio)
R1Wurks V21/HD/V30 21.5T	33	72	5.67:1
R1Wurks V21/HD/V30 17.5T	29	72	6.46:1
R1Wurks V21/HD/V30 13.5T	27	72	6.93:1
10.5T	24	78	8.45:1
9.5T	23	78	8.82:1
8.5T	22	78	9.22:1
7.5T	21	78	9.66:1
6.5T	20	78	10.14:1

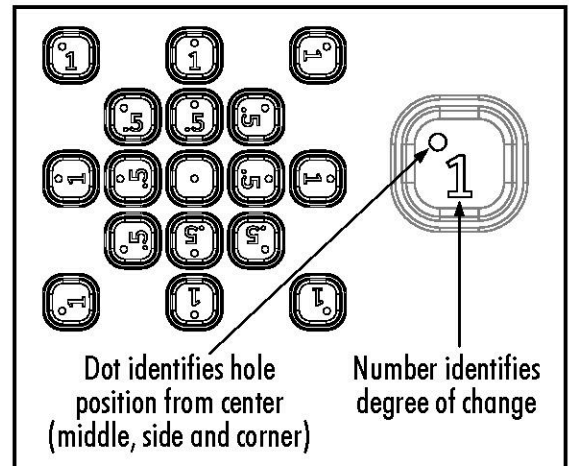
Test & Tune Gradually

- Begin with the recommended gearing listed in the chart.
- Run the car for about 5 minutes, then check the motor temperature immediately using an infrared thermometer.
 - Aim the thermometer at the motor windings or stator.
 - Always measure from the same spot each time for consistent readings.
- Adjust the pinion gear by one tooth at a time.
- Adjust motor timing gradually.
- Repeat this process until you achieve maximum speed without overheating.
- Ideal motor temp range after a 5 minute run: ~185-195°F.

Steering Hub Height Settings



Suspension Pill Setting Range



Pin Height / Roll Center Settings

		= +0.70mm
		= +0.35mm
		= 0mm
		= -0.35mm
		= -0.70mm

Arm pivot height is adjustable across five positions when the C and D block pills are aligned identically. A "plus" setting raises the roll center, while a "minus" setting lowers it.

Pin Width / Pivot Distance Settings

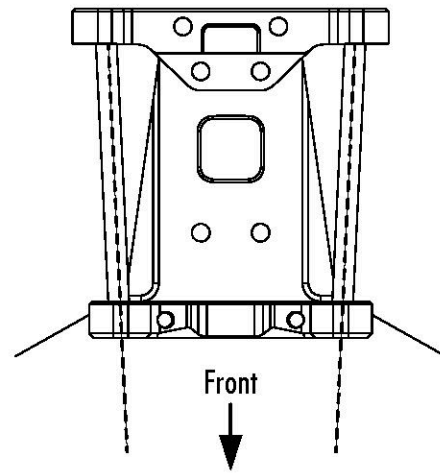
		= +1.40mm
		= +0.70mm
		= 0mm
		= -0.70mm
		= -1.40mm

Arm pivot locations can be adjusted to five positions, provided the C and D block pills are aligned in the same orientation. A "plus" setting increases the distance for a wider pivot, while a "minus" setting reduces the distance for a narrower pivot.

When making adjustments outside the standard range, please note that additional changes may be required to ensure proper CVA axle positioning in the drive cup, depending on droop settings.

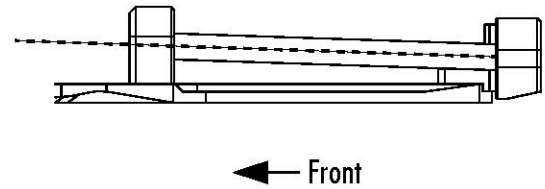
Toe Angle Settings

		3.00°
		4.00°
		5.00°
		2.00°
		3.00°
		4.00°
		1.00°
		2.00°
		3.00°

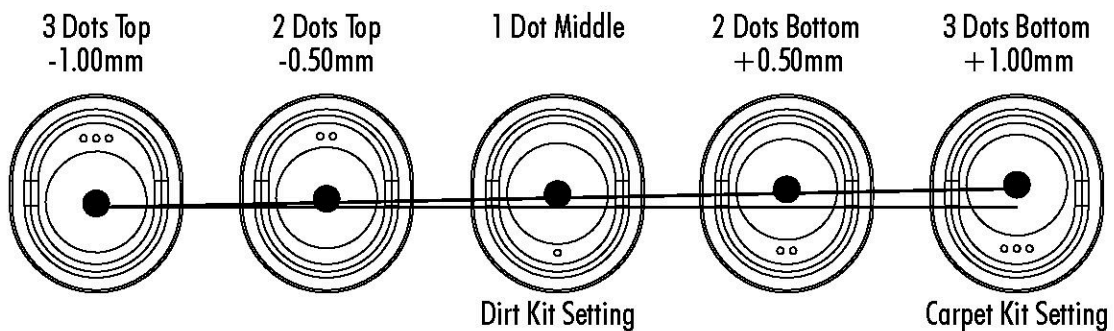


Anti-Squat Angle Settings

		2.00°
		1.00°
		0.00°
		3.00°
		2.00°
		1.00°
		4.00°
		3.00°
		2.00°

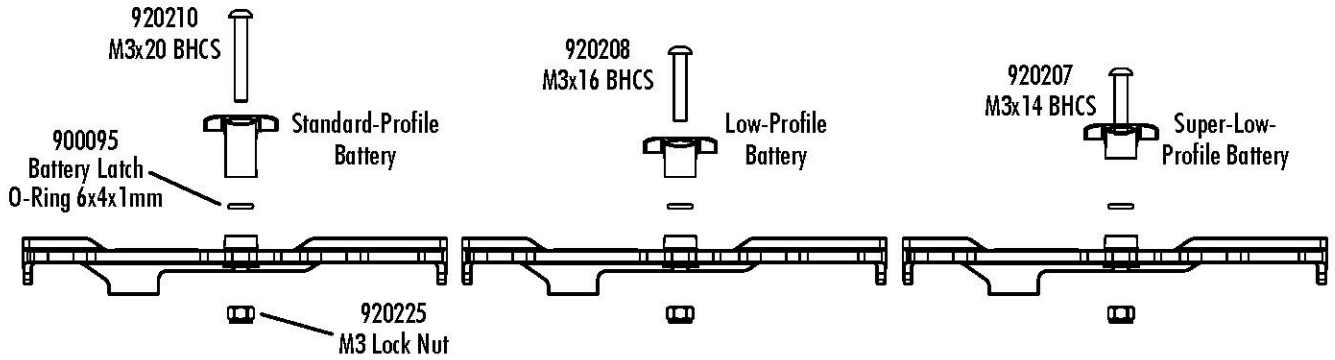


Diff Height Settings

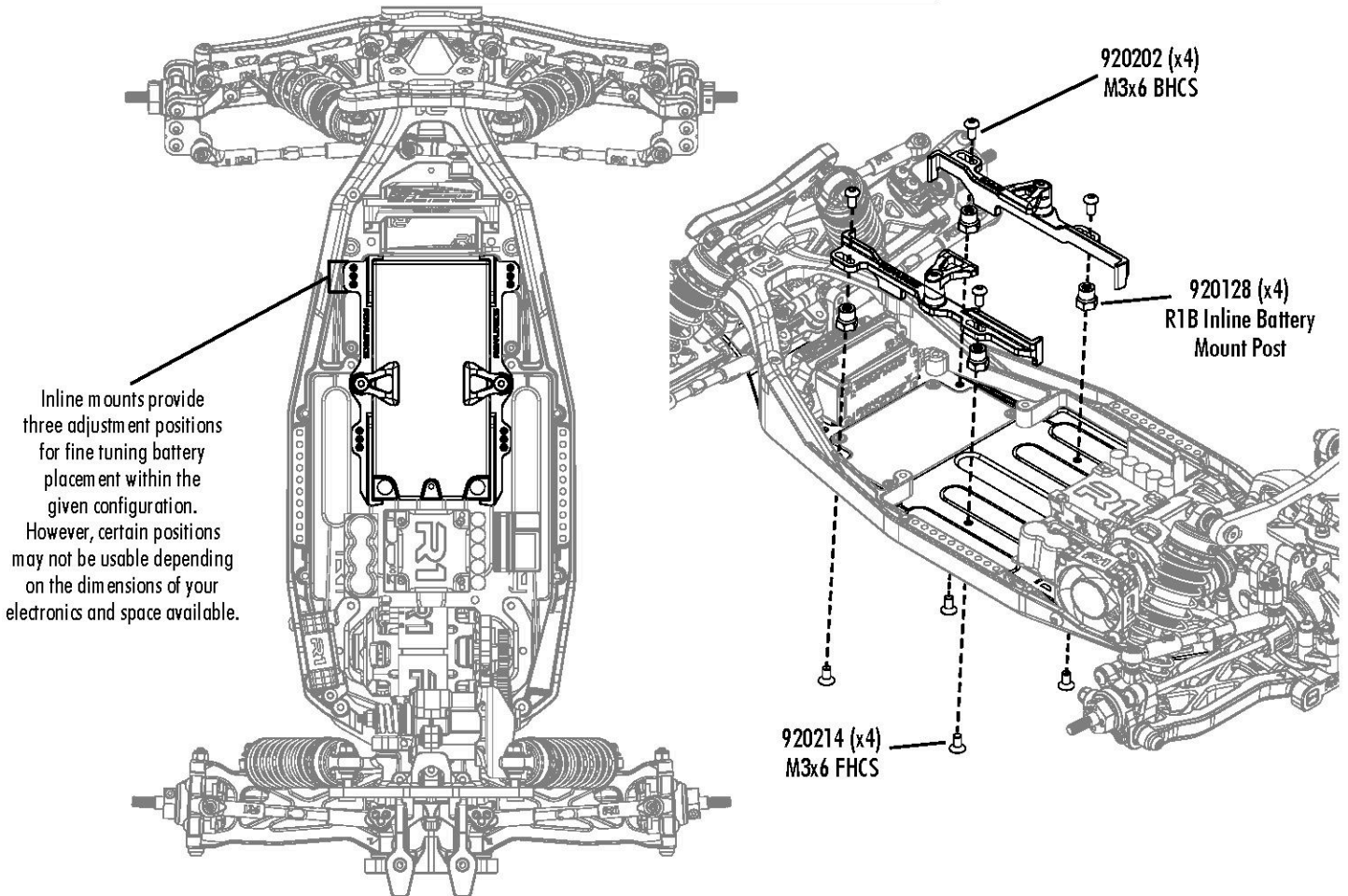


Optional Inline Battery Configuration

Choose the latch and corresponding screw according to the battery height you plan on using.

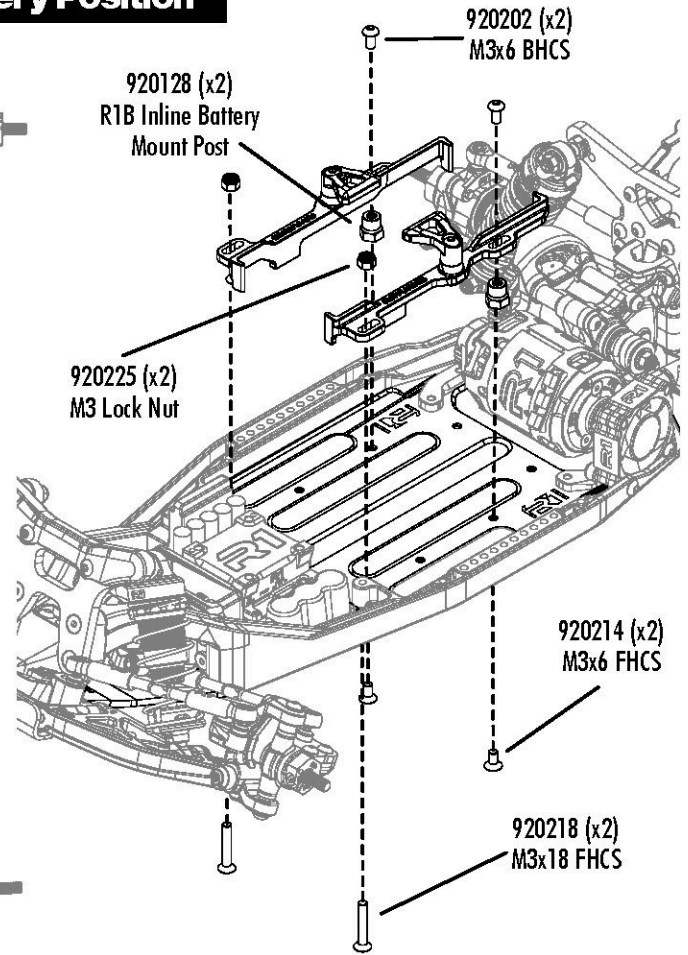
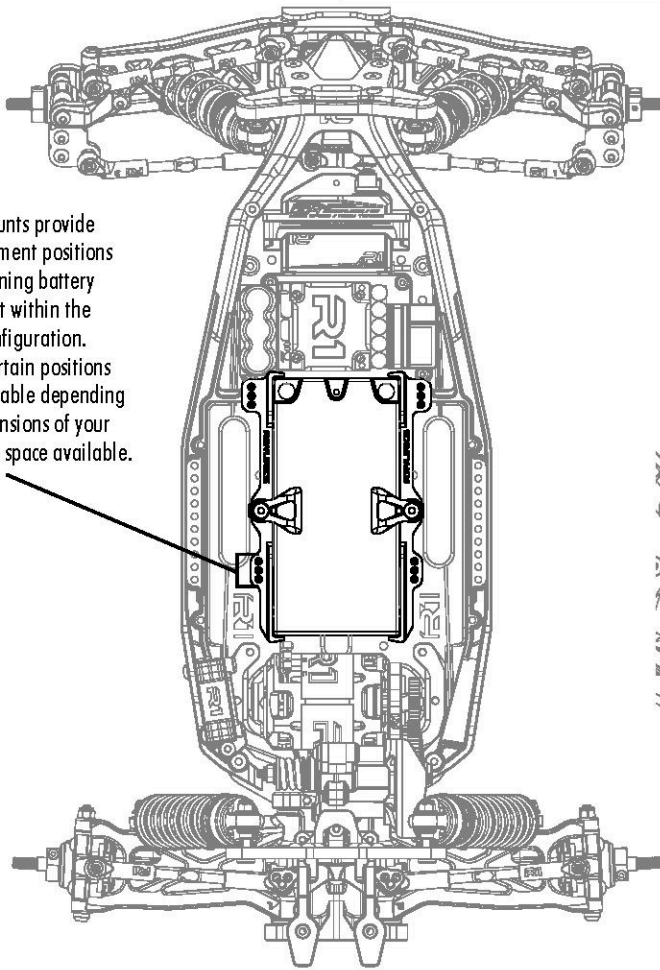


Inline Front Battery Position



Inline Rear Battery Position

Inline mounts provide three adjustment positions for fine tuning battery placement within the given configuration. However, certain positions may not be usable depending on the dimensions of your electronics and space available.



Kick-Up / Caster Settings

Chassis Kick-Up (DEG)	Suspension Block +/- DEG		Caster Pill (PLUS)	Total Kick-Up
22.5	PLUS	2.5	0	25
	PLUS	2.5	2	27
	PLUS	2.5	2.5	27.5
	PLUS	2.5	5	30
	MINUS	2.5	0	20
	MINUS	2.5	2	22
	MINUS	2.5	2.5	22.5
	MINUS	2.5	5	25
	0	0		22.5
	0	2		24.5
	0	2.5		25
	0	5		27.5

Chassis Kick-Up (DEG)	Suspension Block +/- DEG		Caster Pill (PLUS)	Total Kick-Up
22.5	PLUS	2.5	0	25
	PLUS	2.5	2	23
	PLUS	2.5	2.5	22.5
	PLUS	2.5	5	20
	MINUS	2.5	0	20
	MINUS	2.5	2	18
	MINUS	2.5	2.5	17.5
	MINUS	2.5	5	15
	0	0		22.5
	0	2		20.5
	0	2.5		20
	0	5		17.5