

### DIFFERENTIAL ADJUSTMENTS



#### Front Differential

Thinner front diff oil will increase off power steering however going too thin can cause the steering to become inconsistent and cause a lack of forward traction out of turns on power. Thicker front diff oil increases on power steering and add stability (slight push) into turns but if you go too thick it will decrease off power steering.

#### Center Differential

Thicker center diff oil mostly increases the power to the rear more than the front. Typically a balance is achievable to have the front and rear end of the vehicle powered the same, however sometimes you want the vehicle to drive from the front more than the rear and this is the case when you would want a thinner center diff oil to increase the drive of the front end of the vehicle.

#### Rear Differential

Thinner rear diff oil increases off power steering and rear traction however going too thin can cause the steering and traction to become inconsistent and grabby. Thicker rear diff oil decreases off power steering.

- Changing front diff oil affects overall steering response.
- Changing center diff oil affects the front-to-rear drive.
- Changing rear diff oil affects cornering traction and overall steering.

#### Front Diff Oil

##### Thinner Oil

- More Steering Entering Corners Off Power
- Less Traction Exiting Corners On Power

##### Thicker Oil

- More Traction Entering Corners Off Power
- More Steering Exiting Corners On Power

#### Center Diff Oil

##### Thinner Oil

- More Steering Off Power
- Better Suited to Rough Tracks
- Front Wheels Unload

##### Thicker Oil

- More Steering On Power
- Better Suited to Smooth Tracks
- Better Acceleration

#### Rear Diff Oil

##### Thinner Oil

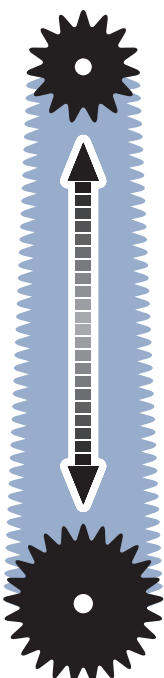
- More Corner Traction
- More Steering Entering Corners

##### Thicker Oil

- Less Corner Traction
- Less Wheelspin

### GEARING RECOMMENDATIONS

Finding the proper gearing can be easy if you follow the steps and recommendations below. Start with a proper tooth size as shown below for you particular situation and if you need more speed go up one tooth at a time. If you motor is getting too hot, this may not be an issue with the vehicle being over geared, even an undergeared electric motor can get hot. Finding the "sweet" spot for your particular situation is ideally what you want.



Vehicle	Motor	Small Track (50-100 ft Straight)	Medium Track (100-150 ft Straight)	Large Track (150-200 ft Straight)
<b>SCT410</b> (2 cell)	4000-4600kv	14 - 15 tooth	15 - 16 tooth	16 - 17 tooth
	4600-5400kv	13 - 14 tooth	14 - 15 tooth	15 - 16 tooth
<b>EB48</b> (4 cell)	1900-2050kv	15 - 16 tooth	16 - 17 tooth	17 - 18 tooth
	2050-2200kv	14 - 15 tooth	15 - 16 tooth	16 - 17 tooth
<b>ET48</b> (4 cell)	1800-2000kv	13 - 14 tooth	14 - 15 tooth	15 - 16 tooth
	2000-2200kv	12 - 13 tooth	13 - 14 tooth	14 - 15 tooth
<b>NB48</b>	.21	14 tooth	15 tooth	15 tooth
<b>NT48</b>	.21-.28	13 tooth	13 tooth	13 tooth