

# GEAR CHARTS

DTR RATIO	MID-SIDE PULLEY	
	26	25
Front DTR	2.05	1.97
Rear DTR	2.05	2.05
OVERDRIVE RATIO	1:1	1.04:1

### Gearing Tables

The following tables give the Final Drive Ratio (FDR) values for each gearing combination, when used with the different mid-side pulleys (26T and 25T).

Depending on the mid-side pulley being used, the FDR values will be different between the front and rear of the NT1:

- Rear DTR of the NT1 is permanently set to **2.05**.
- When using the **26T** mid-side pulley, both front and rear DTR ratios are **2.05**.  
The front and rear wheels rotate at the same speed.
- When using the **25T** mid-side pulley, the front DTR ratio becomes **1.97**, while the rear DTR ratio remains **2.05**.  
The front wheels rotate 4% faster than the rear wheels.

REAR + FRONT Final Drive Ratios for 26T Mid-Side Pulley (2.05)										
Front DTR ratio: 2.05 Rear DTR ratio: 2.05			Pinion Gear							
			1st gear				2nd gear			
			15	16	17	18	20	21	22	23
Spur Gear	1st gear	57	7.79	7.30	6.87	6.49				
		58	7.93	7.43	6.99	6.61				
		59	8.06	7.56	7.11	6.72				
		60	8.20	7.69	7.24	6.83				
	2nd gear	53					5.43	5.17	4.94	4.72
		54					5.54	5.27	5.03	4.81
		55					5.64	5.37	5.13	4.90

FRONT Final Drive Ratios for 25T Mid-Side Pulley (1.97)										
Front DTR ratio: 1.97			Pinion Gear							
			1st gear				2nd gear			
			15	16	17	18	20	21	22	23
Spur Gear	1st gear	57	7.49	7.02	6.61	6.24				
		58	7.62	7.14	6.72	6.35				
		59	7.75	7.26	6.84	6.46				
		60	7.88	7.39	6.95	6.57				
	2nd gear	53					5.22	4.97	4.75	4.54
		54					5.32	5.07	4.84	4.63
		55					5.42	5.16	4.93	4.71

## OVERDRIVE RATIO, ROLLOUT, AND TIRE SIZE

Overdrive ratio and rollout are affected by the diameters of the front and rear tires used.

### When using the 26T mid-side pulley:

If you use the 26T mid-size pulley, the ODR ratio is 1:1 (based on gearing ratios alone).

When you start racing the car with rear tires that have a larger diameter than the front (for example, a 2.0–2.5mm difference), the rear wheels will push the front wheels and the front wheels brake the car.

However, since rear tire wear is usually higher than front tire wear, after some running time the front and rear tire diameters will equalize and then the push will equalize as well.

### When using the 25T mid-side pulley:

If you use the 25T mid-size pulley, the ODR ratio is 1.04:1 (based on gearing ratios alone); the front wheels rotate 4% faster than the rear wheels.

When you start racing the car with rear tires that have a larger diameter than the front (for example, a 2.0–2.5mm difference), this tire size difference will neutralize the ODR and the car will be balanced with no push between the front & rear wheels.

However, since rear tire wear is usually higher than front tire wear, after some running time the front and rear tire diameters will equalize; the front wheels will start to pull, and the rear wheels will brake the car.

Please note that this situation varies depending on the type of track and the differences in wear characteristics of the front versus rear tires. It is important to always individually consider the best and optimal combination of gearing, and diameters of the front and rear tires.

# QUICK REFERENCE TABLE

Key Guide

Harder / Increase / Higher /  
Lengthen / Do not Use

Softer / Decrease / Lower /  
Shorten / Use

1

Order of importance  
(E.g., 1 is first thing to change)

		FRONT															REAR										
		Off-Throttle	On-Throttle	Downstops	Camber	Caster	Ride Height	Toe	Roll Center	Anti-Roll bar	Tires	Shock Springs	Shock Damping	Shock Position (upper)	One-Way Front Axle	Solid Front Axle	Front Differential	Downstops	Camber	Ride Height	Roll Center	Anti-Roll bar	Tires	Shock Springs	Shock Damping	Shock Position (upper)	Rear Differential
How to get rid of UNDERSTEER	Corner Entry			5	6	4	5	5	3	1	1	3	3	4	5	5	6	3	6	5	2	1	3	3	3	4	4
				2	6	3	5	8	2	1	3	4	3	4	5	5	6	7	5	5	2	1	1	3	3	4	4
	Mid Corner			5	6	4	5	8	3	1	1	3	5	4	5	5	6	7	6	5	2	1	3	3	5	4	4
				2	6	3	5	8	2	1	3	4	5	4	5	5	6	8	5	5	2	1	1	3	5	4	4
	Corner Exit			2	6	3	5	7	2	1	3	4	3	4	5	5	6	8	5	5	2	1	1	4	2	3	4
	Braking			6	6	4	5	7	4	2	4	4	5	4	3	3	4	3	4	5	2	1	1	3	3	3	
How to get rid of OVERSTEER	Corner Entry			5	6	4	5	5	3	1	1	3	3	4	5	5	6	3	6	5	2	1	3	3	3	4	4
				2	6	3	5	8	2	1	3	4	3	4	5	5	6	7	5	5	2	1	1	3	3	4	4
	Mid Corner			5	6	4	5	8	3	1	1	3	5	4	5	5	6	7	6	5	2	1	3	3	5	4	4
				2	6	3	5	8	2	1	3	4	5	4	5	5	6	8	5	5	2	1	1	3	5	4	4
	Corner Exit			2	6	3	5	7	2	1	3	4	3	4	5	5	6	8	5	5	2	1	1	4	2	3	4
	Braking			6	6	4	5	7	4	2	4	4	5	4	3	3	4	3	4	5	2	1	1	3	3	3	
How to get rid of TRACTION ROLL	Corner Entry				8	2	1		2	1	1	2	3	4	4	4	5	3	6	1	2	1	1	3	4	5	2
				6	8	2	1		2	1	1	3	4	5	4	4	5	5	6	1	2	1	1	2	3	4	2
	Mid Corner			6	8	2	1		2	1	1	2	5	5	4	4	5	5	6	1	2	1	1	2	5	5	5
	Corner Exit			6	8	2	1		2	1	1	3	4	5	4	4	5		6	1	2	1	1	2	3	4	2
	Braking				8	2	1		2	1	1	2	3	4	4	4	5	3	6	1	2	1	1	3	4	5	2
STRAIGHT LINE STABILITY To make Better				7	5	3	7	4	7	5	3	8	4	8	8	8	8		5	6	7	7	3	8	4	8	6
STEERING RESPONSE To make Faster					6	4	4	5	1	2	4	2	1	4						4	2	3	4	4	3	4	