

Music City Pro-Stock TransAm Gearing Rules

(2008 Summer Outdoor Series)

Minimum Gear Ratio Allowed

Gear Ratio = # of teeth on Spur Gear divided by the # of teeth on Pinion Gear

Car Make and Model	Int. Trans. Ratio	17.5 Brushless (Kv=2200)	27T Brushed (Kv=3300)	Page #'s
Corally Assassin (1-belt) or 4-cell (4.8v) Pan Car	1.00	3.44	5.16	2,3
Xray-T2 or Xray-FK05	1.70	3.12	4.68	4,5
Losi JRX-S & XLosi XX-S	1.83	2.90	4.35	6,7
Associated TC5 or Yokomo MR4-TC-BD or Corally RDX or Corally Assassin (2-belt)	2.00	2.65	4.16	8,9
HPI Pro-2 or HPI Sprint-1	2.10	2.53	3.79	10,11
Xray-T1 or Tamiya TA-04	2.13	2.50	3.74	12,13
Tamiya 415 & 415-MSX or Yokomo MR4-TC	2.20	2.41	3.62	14,15
HPI Pro3 or Tamiya 415-MSX-MRE or Tamiya TA05	2.25	2.36	3.54	16,17
Yokomo-LCG and MR4-TC-SD	2.35	2.26	3.38	18,19
HPI Sprint-2 or HPI-Pro4 or Hot Bodies Cyclone	2.44	2.17	3.26	20,21
Associated TC3 & TC4	2.50	2.12	3.18	22,23
Tamiya TT-01 & TB-Evo-1, Evo-2 or Evo-3	2.60	2.06	3.06	24,25

Example: 84-tooth spur divided by 28-tooth pinion = gear ratio of 3.00; too low to be used with a brushed 27T motor in any of the cars listed above. However, such a gear ratio would be acceptable when using a brushless 17.5 motor in most of the cars listed above (except the Xray-T2, Xray FK-05, Corally Assassin w/ 1 belt and any 4-cell Pan Car all of which require a gear ratio greater than 3.0).

Kv = # of RPM the motor produces per volt (as specified by the motor manufacturer)

Final Drive Ratio (FDR) = Gear Ratio * Transmission Ratio

MPH = Kv * Voltage / FDR / 128

Higher gear ratios produce lower top speeds; therefore, racers may elect to use smaller pinion gears and/or larger spur gears to slow the car. Drivers may not use smaller pinions and/or larger spur gears to reduce the gear ratio to any value less than that specified in the table above.

The maximum allowed speed is 24 mph. This is exactly equivalent to the speed produced when using the USVTA rule for 21.5 brushless motors, minimum Final Drive Ratio of 4.2, and a 7.4 volt 2-cell LiPo battery. If everyone in the Pro-Stock Division follows these rules, well-maintained cars should be able to achieve top speeds that are within ½ mph of one another. We will randomly spot check this with a radar gun on the longest straightaway before, during and after races.

Limited temporary exceptions may be made, at the Race Director's discretion, for cars with fixed gear ratios that cannot be easily changed. Drivers who prefer to run faster cars are encouraged to enter the **TransAm Unlimited Division** where there are no gearing restrictions. The following pages show the maximum pinion size allowed for the most common cars and spur sizes. If your car/motor/battery combination is not shown, we can calculate the correct value.

4-Cell (4.8 volt max.) Pan Car or Corally Assassin (1-belt) with Brushless 17.5 Motor
 (Maximum # of teeth on pinion gear for given # of teeth on spur gear)

Spur	Pinion	GearRatio	TranRatio	FDR	MPH
68	19	3.58	1.00	3.58	23.05
69	20	3.45	1.00	3.45	23.91
70	20	3.50	1.00	3.50	23.57
71	20	3.55	1.00	3.55	23.24
72	20	3.60	1.00	3.60	22.92
73	21	3.48	1.00	3.48	23.73
74	21	3.52	1.00	3.52	23.41
75	21	3.57	1.00	3.57	23.10
76	22	3.45	1.00	3.45	23.88
77	22	3.50	1.00	3.50	23.57
78	22	3.55	1.00	3.55	23.27
79	22	3.59	1.00	3.59	22.97
80	23	3.48	1.00	3.48	23.72
81	23	3.52	1.00	3.52	23.43
82	23	3.57	1.00	3.57	23.14
83	24	3.46	1.00	3.46	23.86
84	24	3.50	1.00	3.50	23.57
85	24	3.54	1.00	3.54	23.29
86	25	3.44	1.00	3.44	23.98
87	25	3.48	1.00	3.48	23.71
88	25	3.52	1.00	3.52	23.44
89	25	3.56	1.00	3.56	23.17
90	26	3.46	1.00	3.46	23.83
91	26	3.50	1.00	3.50	23.57
92	26	3.54	1.00	3.54	23.32
93	27	3.44	1.00	3.44	23.95
94	27	3.48	1.00	3.48	23.70
95	27	3.52	1.00	3.52	23.45
96	27	3.56	1.00	3.56	23.20
97	28	3.46	1.00	3.46	23.81
98	28	3.50	1.00	3.50	23.57
99	28	3.54	1.00	3.54	23.33
100	29	3.45	1.00	3.45	23.93
101	29	3.48	1.00	3.48	23.69
102	29	3.52	1.00	3.52	23.46
103	29	3.55	1.00	3.55	23.23
104	30	3.47	1.00	3.47	23.80
105	30	3.50	1.00	3.50	23.57
106	30	3.53	1.00	3.53	23.35
107	31	3.45	1.00	3.45	23.90
108	31	3.48	1.00	3.48	23.68
109	31	3.52	1.00	3.52	23.46
110	32	3.44	1.00	3.44	24.00
111	32	3.47	1.00	3.47	23.78
112	32	3.50	1.00	3.50	23.57

Note: table works for both 48-pitch and 64-pitch gears.
 Racers may install pinion gears with fewer teeth than the maximum shown on the chart.

4-Cell (4.8 volt max.) Pan Car Corally Assassin (1-belt) with Brushed 27T Motor
 (Maximum # of teeth on pinion gear for given # of teeth on spur gear)

Spur	Pinion	GearRatio	TranRatio	FDR	MPH
68	13	5.23	1.00	5.23	23.66
69	13	5.31	1.00	5.31	23.32
70	13	5.38	1.00	5.38	22.98
71	13	5.46	1.00	5.46	22.66
72	13	5.54	1.00	5.54	22.34
73	14	5.21	1.00	5.21	23.73
74	14	5.29	1.00	5.29	23.41
75	14	5.36	1.00	5.36	23.10
76	14	5.43	1.00	5.43	22.80
77	14	5.50	1.00	5.50	22.50
78	15	5.20	1.00	5.20	23.80
79	15	5.27	1.00	5.27	23.50
80	15	5.33	1.00	5.33	23.20
81	15	5.40	1.00	5.40	22.92
82	15	5.47	1.00	5.47	22.64
83	16	5.19	1.00	5.19	23.86
84	16	5.25	1.00	5.25	23.57
85	16	5.31	1.00	5.31	23.29
86	16	5.38	1.00	5.38	23.02
87	16	5.44	1.00	5.44	22.76
88	17	5.18	1.00	5.18	23.91
89	17	5.24	1.00	5.24	23.64
90	17	5.29	1.00	5.29	23.38
91	17	5.35	1.00	5.35	23.12
92	17	5.41	1.00	5.41	22.87
93	18	5.17	1.00	5.17	23.95
94	18	5.22	1.00	5.22	23.70
95	18	5.28	1.00	5.28	23.45
96	18	5.33	1.00	5.33	23.20
97	18	5.39	1.00	5.39	22.96
98	19	5.16	1.00	5.16	23.99
99	19	5.21	1.00	5.21	23.75
100	19	5.26	1.00	5.26	23.51
101	19	5.32	1.00	5.32	23.28
102	19	5.37	1.00	5.37	23.05
103	19	5.42	1.00	5.42	22.83
104	20	5.20	1.00	5.20	23.80
105	20	5.25	1.00	5.25	23.57
106	20	5.30	1.00	5.30	23.35
107	20	5.35	1.00	5.35	23.13
108	20	5.40	1.00	5.40	22.92
109	21	5.19	1.00	5.19	23.84
110	21	5.24	1.00	5.24	23.63
111	21	5.29	1.00	5.29	23.41
112	21	5.33	1.00	5.33	23.20

Note: table works for both 48-pitch and 64-pitch gears.
 Racers may install pinion gears with fewer teeth than the maximum shown on the chart.

Xray-T2 or Xray-FK05 with Brushed 27T Motor
 (Maximum # of teeth on pinion gear for given # of teeth on spur gear)

Spur	Pinion	GearRatio	TranRatio	FDR	MPH
68	14	4.86	1.70	8.26	23.10
69	14	4.93	1.70	8.38	22.77
70	14	5.00	1.70	8.50	22.44
71	15	4.73	1.70	8.05	23.71
72	15	4.80	1.70	8.16	23.38
73	15	4.87	1.70	8.27	23.06
74	15	4.93	1.70	8.39	22.75
75	16	4.69	1.70	7.97	23.94
76	16	4.75	1.70	8.08	23.63
77	16	4.81	1.70	8.18	23.32
78	16	4.88	1.70	8.29	23.02
79	16	4.94	1.70	8.39	22.73
80	17	4.71	1.70	8.00	23.85
81	17	4.76	1.70	8.10	23.55
82	17	4.82	1.70	8.20	23.27
83	17	4.88	1.70	8.30	22.99
84	17	4.94	1.70	8.40	22.71
85	18	4.72	1.70	8.03	23.77
86	18	4.78	1.70	8.12	23.49
87	18	4.83	1.70	8.22	23.22
88	18	4.89	1.70	8.31	22.95
89	19	4.68	1.70	7.96	23.96
90	19	4.74	1.70	8.05	23.69
91	19	4.79	1.70	8.14	23.43
92	19	4.84	1.70	8.23	23.18
93	19	4.89	1.70	8.32	22.93
94	20	4.70	1.70	7.99	23.88
95	20	4.75	1.70	8.08	23.63
96	20	4.80	1.70	8.16	23.38
97	20	4.85	1.70	8.25	23.14
98	20	4.90	1.70	8.33	22.90
99	21	4.71	1.70	8.01	23.81
100	21	4.76	1.70	8.10	23.57
101	21	4.81	1.70	8.18	23.33
102	21	4.86	1.70	8.26	23.10
103	22	4.68	1.70	7.96	23.97
104	22	4.73	1.70	8.04	23.74
105	22	4.77	1.70	8.11	23.51
106	22	4.82	1.70	8.19	23.29
107	22	4.86	1.70	8.27	23.07
108	23	4.70	1.70	7.98	23.90
109	23	4.74	1.70	8.06	23.68
110	23	4.78	1.70	8.13	23.47
111	23	4.83	1.70	8.20	23.25
112	23	4.87	1.70	8.28	23.05

Note: table works for both 48-pitch and 64-pitch gears.
 Racers may install pinion gears with fewer teeth than the maximum shown on the chart.

Xray-T2 or Xray-FK05 with Brushless 17.5 Motor

(Maximum # of teeth on pinion gear for given # of teeth on spur gear)

Spur	Pinion	GearRatio	TranRatio	FDR	MPH	
	68	21	3.24	1.70	5.50	23.10
	69	22	3.14	1.70	5.33	23.85
	70	22	3.18	1.70	5.41	23.51
	71	22	3.23	1.70	5.49	23.18
	72	23	3.13	1.70	5.32	23.90
	73	23	3.17	1.70	5.40	23.57
	74	23	3.22	1.70	5.47	23.25
	75	24	3.13	1.70	5.31	23.94
	76	24	3.17	1.70	5.38	23.63
	77	24	3.21	1.70	5.45	23.32
	78	25	3.12	1.70	5.30	23.98
	79	25	3.16	1.70	5.37	23.68
	80	25	3.20	1.70	5.44	23.38
	81	25	3.24	1.70	5.51	23.09
	82	26	3.15	1.70	5.36	23.72
	83	26	3.19	1.70	5.43	23.44
	84	26	3.23	1.70	5.49	23.16
	85	27	3.15	1.70	5.35	23.77
	86	27	3.19	1.70	5.41	23.49
	87	27	3.22	1.70	5.48	23.22
	88	28	3.14	1.70	5.34	23.81
	89	28	3.18	1.70	5.40	23.54
	90	28	3.21	1.70	5.46	23.28
	91	29	3.14	1.70	5.33	23.84
	92	29	3.17	1.70	5.39	23.58
	93	29	3.21	1.70	5.45	23.33
	94	30	3.13	1.70	5.33	23.88
	95	30	3.17	1.70	5.38	23.63
	96	30	3.20	1.70	5.44	23.38
	97	31	3.13	1.70	5.32	23.91
	98	31	3.16	1.70	5.37	23.67
	99	31	3.19	1.70	5.43	23.43
	100	32	3.13	1.70	5.31	23.94
	101	32	3.16	1.70	5.37	23.70
	102	32	3.19	1.70	5.42	23.47
	103	33	3.12	1.70	5.31	23.97
	104	33	3.15	1.70	5.36	23.74
	105	33	3.18	1.70	5.41	23.51
	106	34	3.12	1.70	5.30	24.00
	107	34	3.15	1.70	5.35	23.77
	108	34	3.18	1.70	5.40	23.55
	109	34	3.21	1.70	5.45	23.34
	110	35	3.14	1.70	5.34	23.81
	111	35	3.17	1.70	5.39	23.59
	112	35	3.20	1.70	5.44	23.38

Note: table works for both 48-pitch and 64-pitch gears.

Racers may install pinion gears with fewer teeth than the maximum shown on the chart.

Losi JRXS or XXX-S with Brushed 27T Motor

(Maximum # of teeth on pinion gear for given # of teeth on spur gear)

Spur	Pinion	GearRatio	TranRatio	FDR	MPH
68	15	4.53	1.83	8.30	23.00
69	15	4.60	1.83	8.42	22.66
70	16	4.38	1.83	8.01	23.83
71	16	4.44	1.83	8.12	23.49
72	16	4.50	1.83	8.24	23.17
73	16	4.56	1.83	8.35	22.85
74	17	4.35	1.83	7.97	23.95
75	17	4.41	1.83	8.07	23.63
76	17	4.47	1.83	8.18	23.32
77	17	4.53	1.83	8.29	23.02
78	17	4.59	1.83	8.40	22.72
79	18	4.39	1.83	8.03	23.75
80	18	4.44	1.83	8.13	23.46
81	18	4.50	1.83	8.24	23.17
82	18	4.56	1.83	8.34	22.88
83	19	4.37	1.83	7.99	23.86
84	19	4.42	1.83	8.09	23.58
85	19	4.47	1.83	8.19	23.30
86	19	4.53	1.83	8.28	23.03
87	20	4.35	1.83	7.96	23.97
88	20	4.40	1.83	8.05	23.69
89	20	4.45	1.83	8.14	23.43
90	20	4.50	1.83	8.24	23.17
91	20	4.55	1.83	8.33	22.91
92	21	4.38	1.83	8.02	23.80
93	21	4.43	1.83	8.10	23.54
94	21	4.48	1.83	8.19	23.29
95	21	4.52	1.83	8.28	23.05
96	22	4.36	1.83	7.99	23.89
97	22	4.41	1.83	8.07	23.64
98	22	4.45	1.83	8.15	23.40
99	22	4.50	1.83	8.24	23.17
100	23	4.35	1.83	7.96	23.98
101	23	4.39	1.83	8.04	23.74
102	23	4.43	1.83	8.12	23.51
103	23	4.48	1.83	8.20	23.28
104	23	4.52	1.83	8.27	23.06
105	24	4.38	1.83	8.01	23.83
106	24	4.42	1.83	8.08	23.60
107	24	4.46	1.83	8.16	23.38
108	24	4.50	1.83	8.24	23.17
109	25	4.36	1.83	7.98	23.91
110	25	4.40	1.83	8.05	23.69
111	25	4.44	1.83	8.13	23.48
112	25	4.48	1.83	8.20	23.27

Note: table works for both 48-pitch and 64-pitch gears.

Racers may install pinion gears with fewer teeth than the maximum shown on the chart.

Losi JRXS or XXX-S with Brushless 17.5 Motor
 (Maximum # of teeth on pinion gear for given # of teeth on spur gear)

Spur	Pinion	GearRatio	TranRatio	FDR	MPH
68	23	2.96	1.83	5.41	23.51
69	23	3.00	1.83	5.49	23.17
70	24	2.92	1.83	5.34	23.83
71	24	2.96	1.83	5.41	23.49
72	24	3.00	1.83	5.49	23.17
73	25	2.92	1.83	5.34	23.80
74	25	2.96	1.83	5.42	23.48
75	25	3.00	1.83	5.49	23.17
76	26	2.92	1.83	5.35	23.78
77	26	2.96	1.83	5.42	23.47
78	26	3.00	1.83	5.49	23.17
79	27	2.93	1.83	5.35	23.75
80	27	2.96	1.83	5.42	23.46
81	27	3.00	1.83	5.49	23.17
82	28	2.93	1.83	5.36	23.73
83	28	2.96	1.83	5.42	23.45
84	29	2.90	1.83	5.30	23.99
85	29	2.93	1.83	5.36	23.71
86	29	2.97	1.83	5.43	23.44
87	30	2.90	1.83	5.31	23.97
88	30	2.93	1.83	5.37	23.69
89	30	2.97	1.83	5.43	23.43
90	31	2.90	1.83	5.31	23.94
91	31	2.94	1.83	5.37	23.68
92	31	2.97	1.83	5.43	23.42
93	32	2.91	1.83	5.32	23.91
94	32	2.94	1.83	5.38	23.66
95	32	2.97	1.83	5.43	23.41
96	33	2.91	1.83	5.32	23.89
97	33	2.94	1.83	5.38	23.64
98	33	2.97	1.83	5.43	23.40
99	34	2.91	1.83	5.33	23.87
100	34	2.94	1.83	5.38	23.63
101	34	2.97	1.83	5.44	23.40
102	35	2.91	1.83	5.33	23.85
103	35	2.94	1.83	5.39	23.62
104	35	2.97	1.83	5.44	23.39
105	36	2.92	1.83	5.34	23.83
106	36	2.94	1.83	5.39	23.60
107	36	2.97	1.83	5.44	23.38
108	37	2.92	1.83	5.34	23.81
109	37	2.95	1.83	5.39	23.59
110	37	2.97	1.83	5.44	23.38
111	38	2.92	1.83	5.35	23.79
112	38	2.95	1.83	5.39	23.58

Note: table works for both 48-pitch and 64-pitch gears.
 Racers may install pinion gears with fewer teeth than the maximum shown on the chart.

**Associated TC-5 or Corally RDX or Corally Assassin (2-belt) or Yokomo MR4-TC BD
with Brushless 17.5 Motor**

Spur	Pinion	GearRatio	TranRatio	FDR	MPH	
	68	25	2.72	2.00	5.44	23.38
	69	26	2.65	2.00	5.31	23.96
	70	26	2.69	2.00	5.38	23.62
	71	26	2.73	2.00	5.46	23.29
	72	27	2.67	2.00	5.33	23.85
	73	27	2.70	2.00	5.41	23.52
	74	27	2.74	2.00	5.48	23.20
	75	28	2.68	2.00	5.36	23.74
	76	28	2.71	2.00	5.43	23.43
	77	29	2.66	2.00	5.31	23.95
	78	29	2.69	2.00	5.38	23.64
	79	29	2.72	2.00	5.45	23.34
	80	30	2.67	2.00	5.33	23.85
	81	30	2.70	2.00	5.40	23.55
	82	30	2.73	2.00	5.47	23.27
	83	31	2.68	2.00	5.35	23.75
	84	31	2.71	2.00	5.42	23.47
	85	32	2.66	2.00	5.31	23.94
	86	32	2.69	2.00	5.38	23.66
	87	32	2.72	2.00	5.44	23.39
	88	33	2.67	2.00	5.33	23.85
	89	33	2.70	2.00	5.39	23.58
	90	33	2.73	2.00	5.45	23.32
	91	34	2.68	2.00	5.35	23.76
	92	34	2.71	2.00	5.41	23.50
	93	35	2.66	2.00	5.31	23.93
	94	35	2.69	2.00	5.37	23.68
	95	35	2.71	2.00	5.43	23.43
	96	36	2.67	2.00	5.33	23.85
	97	36	2.69	2.00	5.39	23.60
	98	36	2.72	2.00	5.44	23.36
	99	37	2.68	2.00	5.35	23.77
	100	37	2.70	2.00	5.41	23.53
	101	38	2.66	2.00	5.32	23.93
	102	38	2.68	2.00	5.37	23.69
	103	38	2.71	2.00	5.42	23.46
	104	39	2.67	2.00	5.33	23.85
	105	39	2.69	2.00	5.38	23.62
	106	40	2.65	2.00	5.30	24.00
	107	40	2.68	2.00	5.35	23.77
	108	40	2.70	2.00	5.40	23.55
	109	41	2.66	2.00	5.32	23.92
	110	41	2.68	2.00	5.37	23.70
	111	41	2.71	2.00	5.41	23.49
	112	42	2.67	2.00	5.33	23.85

Note: table works for both 48-pitch and 64-pitch gears.

Racers may install pinion gears with fewer teeth than the maximum shown on the chart.

**Associated TC-5 or Corally RDX or Corally Assassin (2-belt) or Yokomo MR4-TC BD
with Brushed 27T Motor**

Spur	Pinion	GearRatio	TranRatio	FDR	MPH	
	68	17	4.00	2.00	8.00	23.85
	69	17	4.06	2.00	8.12	23.50
	70	17	4.12	2.00	8.24	23.17
	71	17	4.18	2.00	8.35	22.84
	72	18	4.00	2.00	8.00	23.85
	73	18	4.06	2.00	8.11	23.52
	74	18	4.11	2.00	8.22	23.20
	75	18	4.17	2.00	8.33	22.89
	76	19	4.00	2.00	8.00	23.85
	77	19	4.05	2.00	8.11	23.54
	78	19	4.11	2.00	8.21	23.24
	79	19	4.16	2.00	8.32	22.94
	80	20	4.00	2.00	8.00	23.85
	81	20	4.05	2.00	8.10	23.55
	82	20	4.10	2.00	8.20	23.27
	83	20	4.15	2.00	8.30	22.99
	84	21	4.00	2.00	8.00	23.85
	85	21	4.05	2.00	8.10	23.57
	86	21	4.10	2.00	8.19	23.29
	87	21	4.14	2.00	8.29	23.03
	88	22	4.00	2.00	8.00	23.85
	89	22	4.05	2.00	8.09	23.58
	90	22	4.09	2.00	8.18	23.32
	91	22	4.14	2.00	8.27	23.06
	92	23	4.00	2.00	8.00	23.85
	93	23	4.04	2.00	8.09	23.59
	94	23	4.09	2.00	8.17	23.34
	95	23	4.13	2.00	8.26	23.09
	96	24	4.00	2.00	8.00	23.85
	97	24	4.04	2.00	8.08	23.60
	98	24	4.08	2.00	8.17	23.36
	99	24	4.13	2.00	8.25	23.13
	100	25	4.00	2.00	8.00	23.85
	101	25	4.04	2.00	8.08	23.61
	102	25	4.08	2.00	8.16	23.38
	103	25	4.12	2.00	8.24	23.15
	104	26	4.00	2.00	8.00	23.85
	105	26	4.04	2.00	8.08	23.62
	106	26	4.08	2.00	8.15	23.40
	107	26	4.12	2.00	8.23	23.18
	108	27	4.00	2.00	8.00	23.85
	109	27	4.04	2.00	8.07	23.63
	110	27	4.07	2.00	8.15	23.41
	111	27	4.11	2.00	8.22	23.20
	112	28	4.00	2.00	8.00	23.85

Note: table works for both 48-pitch and 64-pitch gears.

Racers may install pinion gears with fewer teeth than the maximum shown on the chart.

HPI Pro-2 or HPI Sprint-1with Brushless 17.5 Motor

Spur	Pinion	GearRatio	TranRatio	FDR	MPH	
	68	26	2.62	2.10	5.49	23.16
	69	27	2.56	2.10	5.37	23.70
	70	27	2.59	2.10	5.44	23.36
	71	28	2.54	2.10	5.33	23.88
	72	28	2.57	2.10	5.40	23.55
	73	28	2.61	2.10	5.48	23.23
	74	29	2.55	2.10	5.36	23.74
	75	29	2.59	2.10	5.43	23.42
	76	30	2.53	2.10	5.32	23.91
	77	30	2.57	2.10	5.39	23.60
	78	30	2.60	2.10	5.46	23.29
	79	31	2.55	2.10	5.35	23.77
	80	31	2.58	2.10	5.42	23.47
	81	32	2.53	2.10	5.32	23.93
	82	32	2.56	2.10	5.38	23.64
	83	32	2.59	2.10	5.45	23.35
	84	33	2.55	2.10	5.35	23.79
	85	33	2.58	2.10	5.41	23.51
	86	34	2.53	2.10	5.31	23.94
	87	34	2.56	2.10	5.37	23.67
	88	34	2.59	2.10	5.44	23.40
	89	35	2.54	2.10	5.34	23.82
	90	35	2.57	2.10	5.40	23.55
	91	36	2.53	2.10	5.31	23.96
	92	36	2.56	2.10	5.37	23.70
	93	36	2.58	2.10	5.43	23.44
	94	37	2.54	2.10	5.34	23.84
	95	37	2.57	2.10	5.39	23.59
	96	38	2.53	2.10	5.31	23.97
	97	38	2.55	2.10	5.36	23.73
	98	38	2.58	2.10	5.42	23.48
	99	39	2.54	2.10	5.33	23.86
	100	39	2.56	2.10	5.38	23.62
	101	40	2.53	2.10	5.30	23.99
	102	40	2.55	2.10	5.36	23.75
	103	40	2.58	2.10	5.41	23.52
	104	41	2.54	2.10	5.33	23.88
	105	41	2.56	2.10	5.38	23.65
	106	42	2.52	2.10	5.30	24.00
	107	42	2.55	2.10	5.35	23.77
	108	42	2.57	2.10	5.40	23.55
	109	43	2.53	2.10	5.32	23.89
	110	43	2.56	2.10	5.37	23.68
	111	43	2.58	2.10	5.42	23.46
	112	44	2.55	2.10	5.35	23.79

Note: table works for both 48-pitch and 64-pitch gears.

Racers may install pinion gears with fewer teeth than the maximum shown on the chart.

HPI Pro-2 or HPI Sprint-1 with Brushed 27T Motor

Spur	Pinion	GearRatio	TranRatio	FDR	MPH
68	17	4.00	2.10	8.40	22.71
69	18	3.83	2.10	8.05	23.70
70	18	3.89	2.10	8.17	23.36
71	18	3.94	2.10	8.28	23.03
72	19	3.79	2.10	7.96	23.97
73	19	3.84	2.10	8.07	23.65
74	19	3.89	2.10	8.18	23.33
75	19	3.95	2.10	8.29	23.01
76	20	3.80	2.10	7.98	23.91
77	20	3.85	2.10	8.09	23.60
78	20	3.90	2.10	8.19	23.29
79	20	3.95	2.10	8.30	23.00
80	21	3.81	2.10	8.00	23.85
81	21	3.86	2.10	8.10	23.55
82	21	3.90	2.10	8.20	23.27
83	21	3.95	2.10	8.30	22.99
84	22	3.82	2.10	8.02	23.79
85	22	3.86	2.10	8.11	23.51
86	22	3.91	2.10	8.21	23.24
87	22	3.95	2.10	8.30	22.97
88	23	3.83	2.10	8.03	23.74
89	23	3.87	2.10	8.13	23.48
90	23	3.91	2.10	8.22	23.22
91	24	3.79	2.10	7.96	23.96
92	24	3.83	2.10	8.05	23.70
93	24	3.88	2.10	8.14	23.44
94	24	3.92	2.10	8.23	23.20
95	25	3.80	2.10	7.98	23.91
96	25	3.84	2.10	8.06	23.66
97	25	3.88	2.10	8.15	23.41
98	25	3.92	2.10	8.23	23.18
99	26	3.81	2.10	8.00	23.86
100	26	3.85	2.10	8.08	23.62
101	26	3.88	2.10	8.16	23.39
102	26	3.92	2.10	8.24	23.16
103	27	3.81	2.10	8.01	23.81
104	27	3.85	2.10	8.09	23.59
105	27	3.89	2.10	8.17	23.36
106	28	3.79	2.10	7.95	24.00
107	28	3.82	2.10	8.03	23.77
108	28	3.86	2.10	8.10	23.55
109	28	3.89	2.10	8.18	23.34
110	29	3.79	2.10	7.97	23.95
111	29	3.83	2.10	8.04	23.74
112	29	3.86	2.10	8.11	23.52

Note: table works for both 48-pitch and 64-pitch gears.

Racers may install pinion gears with fewer teeth than the maximum shown on the chart.

Xray-T1 or Tamiya-TA04 with Brushed 27T Motor
 (Maximum # of teeth on pinion gear for given # of teeth on spur gear)

Spur	Pinion	GearRatio	TranRatio	FDR	MPH
68	18	3.78	2.13	8.03	23.77
69	18	3.83	2.13	8.15	23.42
70	18	3.89	2.13	8.26	23.09
71	18	3.94	2.13	8.38	22.76
72	19	3.79	2.13	8.05	23.69
73	19	3.84	2.13	8.16	23.37
74	19	3.89	2.13	8.28	23.05
75	20	3.75	2.13	7.97	23.94
76	20	3.80	2.13	8.08	23.63
77	20	3.85	2.13	8.18	23.32
78	20	3.90	2.13	8.29	23.02
79	21	3.76	2.13	7.99	23.87
80	21	3.81	2.13	8.10	23.57
81	21	3.86	2.13	8.20	23.28
82	21	3.90	2.13	8.30	22.99
83	22	3.77	2.13	8.02	23.80
84	22	3.82	2.13	8.11	23.51
85	22	3.86	2.13	8.21	23.24
86	22	3.91	2.13	8.31	22.97
87	23	3.78	2.13	8.04	23.73
88	23	3.83	2.13	8.13	23.47
89	23	3.87	2.13	8.22	23.20
90	24	3.75	2.13	7.97	23.94
91	24	3.79	2.13	8.06	23.68
92	24	3.83	2.13	8.15	23.42
93	24	3.88	2.13	8.23	23.17
94	25	3.76	2.13	7.99	23.88
95	25	3.80	2.13	8.08	23.63
96	25	3.84	2.13	8.16	23.38
97	25	3.88	2.13	8.25	23.14
98	26	3.77	2.13	8.01	23.82
99	26	3.81	2.13	8.09	23.58
100	26	3.85	2.13	8.17	23.34
101	27	3.74	2.13	7.95	24.00
102	27	3.78	2.13	8.03	23.77
103	27	3.81	2.13	8.11	23.53
104	27	3.85	2.13	8.19	23.31
105	28	3.75	2.13	7.97	23.94
106	28	3.79	2.13	8.04	23.72
107	28	3.82	2.13	8.12	23.49
108	28	3.86	2.13	8.20	23.28
109	29	3.76	2.13	7.99	23.89
110	29	3.79	2.13	8.06	23.67
111	29	3.83	2.13	8.13	23.46
112	29	3.86	2.13	8.21	23.25

Note: table works for both 48-pitch and 64-pitch gears.
 Racers may install pinion gears with fewer teeth than the maximum shown on the chart.

Xray-T1 or or Tamiya-TA04 with Brushless 17.5 Motor
 (Maximum # of teeth on pinion gear for given # of teeth on spur gear)

Spur	Pinion	GearRatio	TranRatio	FDR	MPH
68	27	2.52	2.13	5.35	23.77
69	27	2.56	2.13	5.43	23.42
70	28	2.50	2.13	5.31	23.94
71	28	2.54	2.13	5.39	23.60
72	28	2.57	2.13	5.46	23.28
73	29	2.52	2.13	5.35	23.78
74	29	2.55	2.13	5.42	23.46
75	30	2.50	2.13	5.31	23.94
76	30	2.53	2.13	5.38	23.63
77	30	2.57	2.13	5.45	23.32
78	31	2.52	2.13	5.35	23.79
79	31	2.55	2.13	5.42	23.49
80	32	2.50	2.13	5.31	23.94
81	32	2.53	2.13	5.38	23.65
82	32	2.56	2.13	5.45	23.36
83	33	2.52	2.13	5.34	23.80
84	33	2.55	2.13	5.41	23.51
85	34	2.50	2.13	5.31	23.94
86	34	2.53	2.13	5.38	23.66
87	34	2.56	2.13	5.44	23.39
88	35	2.51	2.13	5.34	23.81
89	35	2.54	2.13	5.40	23.54
90	36	2.50	2.13	5.31	23.94
91	36	2.53	2.13	5.37	23.68
92	36	2.56	2.13	5.43	23.42
93	37	2.51	2.13	5.34	23.81
94	37	2.54	2.13	5.40	23.56
95	38	2.50	2.13	5.31	23.94
96	38	2.53	2.13	5.37	23.69
97	38	2.55	2.13	5.42	23.45
98	39	2.51	2.13	5.34	23.82
99	39	2.54	2.13	5.39	23.58
100	40	2.50	2.13	5.31	23.94
101	40	2.53	2.13	5.37	23.70
102	40	2.55	2.13	5.42	23.47
103	41	2.51	2.13	5.34	23.82
104	41	2.54	2.13	5.39	23.60
105	42	2.50	2.13	5.31	23.94
106	42	2.52	2.13	5.36	23.72
107	42	2.55	2.13	5.41	23.49
108	43	2.51	2.13	5.34	23.83
109	43	2.53	2.13	5.39	23.61
110	44	2.50	2.13	5.31	23.94
111	44	2.52	2.13	5.36	23.73
112	44	2.55	2.13	5.41	23.51

Note: table works for both 48-pitch and 64-pitch gears.
 Racers may install pinion gears with fewer teeth than the maximum shown on the chart.

Tamiya 415 or Tamiya 415-MSX or Yokomo MR4TC with Brushless 17.5 Motor

Spur	Pinion	GearRatio	TranRatio	FDR	MPH
68	28	2.43	2.20	5.34	23.81
69	28	2.46	2.20	5.42	23.46
70	29	2.41	2.20	5.31	23.95
71	29	2.45	2.20	5.39	23.61
72	29	2.48	2.20	5.46	23.29
73	30	2.43	2.20	5.35	23.76
74	30	2.47	2.20	5.43	23.44
75	31	2.42	2.20	5.32	23.90
76	31	2.45	2.20	5.39	23.58
77	31	2.48	2.20	5.46	23.28
78	32	2.44	2.20	5.36	23.72
79	32	2.47	2.20	5.43	23.42
80	33	2.42	2.20	5.33	23.85
81	33	2.45	2.20	5.40	23.55
82	34	2.41	2.20	5.31	23.97
83	34	2.44	2.20	5.37	23.68
84	34	2.47	2.20	5.44	23.40
85	35	2.43	2.20	5.34	23.81
86	35	2.46	2.20	5.41	23.53
87	36	2.42	2.20	5.32	23.92
88	36	2.44	2.20	5.38	23.65
89	36	2.47	2.20	5.44	23.38
90	37	2.43	2.20	5.35	23.77
91	37	2.46	2.20	5.41	23.51
92	38	2.42	2.20	5.33	23.88
93	38	2.45	2.20	5.38	23.62
94	39	2.41	2.20	5.30	23.99
95	39	2.44	2.20	5.36	23.73
96	39	2.46	2.20	5.42	23.49
97	40	2.43	2.20	5.34	23.84
98	40	2.45	2.20	5.39	23.60
99	41	2.41	2.20	5.31	23.94
100	41	2.44	2.20	5.37	23.70
101	41	2.46	2.20	5.42	23.47
102	42	2.43	2.20	5.34	23.81
103	42	2.45	2.20	5.40	23.57
104	43	2.42	2.20	5.32	23.90
105	43	2.44	2.20	5.37	23.68
106	44	2.41	2.20	5.30	24.00
107	44	2.43	2.20	5.35	23.77
108	44	2.45	2.20	5.40	23.55
109	45	2.42	2.20	5.33	23.87
110	45	2.44	2.20	5.38	23.65
111	46	2.41	2.20	5.31	23.96
112	46	2.43	2.20	5.36	23.74

Note: table works for both 48-pitch and 64-pitch gears.

Racers may install pinion gears with fewer teeth than the maximum shown on the chart.

Tamiya 415 or Tamiya 415-MSX or Yokomo MR4TC with Brushed 27T Motor

Spur	Pinion	GearRatio	TranRatio	FDR	MPH	
	68	18	3.78	2.20	8.31	22.95
	69	19	3.63	2.20	7.99	23.88
	70	19	3.68	2.20	8.11	23.54
	71	19	3.74	2.20	8.22	23.21
	72	19	3.79	2.20	8.34	22.88
	73	20	3.65	2.20	8.03	23.76
	74	20	3.70	2.20	8.14	23.44
	75	20	3.75	2.20	8.25	23.13
	76	21	3.62	2.20	7.96	23.96
	77	21	3.67	2.20	8.07	23.65
	78	21	3.71	2.20	8.17	23.35
	79	21	3.76	2.20	8.28	23.05
	80	22	3.64	2.20	8.00	23.85
	81	22	3.68	2.20	8.10	23.55
	82	22	3.73	2.20	8.20	23.27
	83	22	3.77	2.20	8.30	22.99
	84	23	3.65	2.20	8.03	23.74
	85	23	3.70	2.20	8.13	23.47
	86	23	3.74	2.20	8.23	23.19
	87	24	3.63	2.20	7.98	23.92
	88	24	3.67	2.20	8.07	23.65
	89	24	3.71	2.20	8.16	23.38
	90	24	3.75	2.20	8.25	23.13
	91	25	3.64	2.20	8.01	23.82
	92	25	3.68	2.20	8.10	23.56
	93	25	3.72	2.20	8.18	23.31
	94	26	3.62	2.20	7.95	23.99
	95	26	3.65	2.20	8.04	23.73
	96	26	3.69	2.20	8.12	23.49
	97	26	3.73	2.20	8.21	23.24
	98	27	3.63	2.20	7.99	23.89
	99	27	3.67	2.20	8.07	23.65
	100	27	3.70	2.20	8.15	23.41
	101	27	3.74	2.20	8.23	23.18
	102	28	3.64	2.20	8.01	23.81
	103	28	3.68	2.20	8.09	23.57
	104	28	3.71	2.20	8.17	23.35
	105	29	3.62	2.20	7.97	23.95
	106	29	3.66	2.20	8.04	23.72
	107	29	3.69	2.20	8.12	23.50
	108	29	3.72	2.20	8.19	23.29
	109	30	3.63	2.20	7.99	23.87
	110	30	3.67	2.20	8.07	23.65
	111	30	3.70	2.20	8.14	23.44
	112	30	3.73	2.20	8.21	23.23

Note: table works for both 48-pitch and 64-pitch gears.

Racers may install pinion gears with fewer teeth than the maximum shown on the chart.

HPI Pro3 or Tamiya 415-MSX-MRE or Tamiya-TA-05 with Brushless 17.5 Motor

Spur	Pinion	GearRatio	TranRatio	FDR	MPH	
	68	28	2.43	2.25	5.46	23.28
	69	29	2.38	2.25	5.35	23.76
	70	29	2.41	2.25	5.43	23.42
	71	30	2.37	2.25	5.33	23.88
	72	30	2.40	2.25	5.40	23.55
	73	30	2.43	2.25	5.48	23.23
	74	31	2.39	2.25	5.37	23.68
	75	31	2.42	2.25	5.44	23.36
	76	32	2.38	2.25	5.34	23.80
	77	32	2.41	2.25	5.41	23.49
	78	33	2.36	2.25	5.32	23.92
	79	33	2.39	2.25	5.39	23.61
	80	33	2.42	2.25	5.45	23.32
	81	34	2.38	2.25	5.36	23.73
	82	34	2.41	2.25	5.43	23.44
	83	35	2.37	2.25	5.34	23.84
	84	35	2.40	2.25	5.40	23.55
	85	36	2.36	2.25	5.31	23.94
	86	36	2.39	2.25	5.38	23.66
	87	36	2.42	2.25	5.44	23.39
	88	37	2.38	2.25	5.35	23.77
	89	37	2.41	2.25	5.41	23.50
	90	38	2.37	2.25	5.33	23.87
	91	38	2.39	2.25	5.39	23.61
	92	39	2.36	2.25	5.31	23.96
	93	39	2.38	2.25	5.37	23.71
	94	39	2.41	2.25	5.42	23.45
	95	40	2.38	2.25	5.34	23.80
	96	40	2.40	2.25	5.40	23.55
	97	41	2.37	2.25	5.32	23.89
	98	41	2.39	2.25	5.38	23.65
	99	42	2.36	2.25	5.30	23.98
	100	42	2.38	2.25	5.36	23.74
	101	42	2.40	2.25	5.41	23.51
	102	43	2.37	2.25	5.34	23.83
	103	43	2.40	2.25	5.39	23.60
	104	44	2.36	2.25	5.32	23.92
	105	44	2.39	2.25	5.37	23.69
	106	45	2.36	2.25	5.30	24.00
	107	45	2.38	2.25	5.35	23.77
	108	45	2.40	2.25	5.40	23.55
	109	46	2.37	2.25	5.33	23.86
	110	46	2.39	2.25	5.38	23.64
	111	47	2.36	2.25	5.31	23.94
	112	47	2.38	2.25	5.36	23.72

Note: table works for both 48-pitch and 64-pitch gears.

Racers may install pinion gears with fewer teeth than the maximum shown on the chart.

HPI Pro3 or Tamiya 415-MSX-MRE or Tamiya-TA-05 with Brushed 27T

Spur	Pinion	GearRatio	TranRatio	FDR	MPH	
	68	19	3.58	2.25	8.05	23.69
	69	19	3.63	2.25	8.17	23.35
	70	19	3.68	2.25	8.29	23.01
	71	20	3.55	2.25	7.99	23.88
	72	20	3.60	2.25	8.10	23.55
	73	20	3.65	2.25	8.21	23.23
	74	20	3.70	2.25	8.33	22.92
	75	21	3.57	2.25	8.04	23.74
	76	21	3.62	2.25	8.14	23.43
	77	21	3.67	2.25	8.25	23.13
	78	22	3.55	2.25	7.98	23.92
	79	22	3.59	2.25	8.08	23.61
	80	22	3.64	2.25	8.18	23.32
	81	22	3.68	2.25	8.28	23.03
	82	23	3.57	2.25	8.02	23.78
	83	23	3.61	2.25	8.12	23.50
	84	23	3.65	2.25	8.22	23.22
	85	24	3.54	2.25	7.97	23.94
	86	24	3.58	2.25	8.06	23.66
	87	24	3.63	2.25	8.16	23.39
	88	24	3.67	2.25	8.25	23.13
	89	25	3.56	2.25	8.01	23.82
	90	25	3.60	2.25	8.10	23.55
	91	25	3.64	2.25	8.19	23.29
	92	26	3.54	2.25	7.96	23.96
	93	26	3.58	2.25	8.05	23.71
	94	26	3.62	2.25	8.13	23.45
	95	26	3.65	2.25	8.22	23.21
	96	27	3.56	2.25	8.00	23.85
	97	27	3.59	2.25	8.08	23.60
	98	27	3.63	2.25	8.17	23.36
	99	28	3.54	2.25	7.96	23.98
	100	28	3.57	2.25	8.04	23.74
	101	28	3.61	2.25	8.12	23.51
	102	28	3.64	2.25	8.20	23.28
	103	29	3.55	2.25	7.99	23.87
	104	29	3.59	2.25	8.07	23.64
	105	29	3.62	2.25	8.15	23.42
	106	30	3.53	2.25	7.95	24.00
	107	30	3.57	2.25	8.03	23.77
	108	30	3.60	2.25	8.10	23.55
	109	30	3.63	2.25	8.18	23.34
	110	31	3.55	2.25	7.98	23.90
	111	31	3.58	2.25	8.06	23.68
	112	31	3.61	2.25	8.13	23.47

Note: table works for both 48-pitch and 64-pitch gears.

Racers may install pinion gears with fewer teeth than the maximum shown on the chart.

Yokomo LCG or MR4TC-SD with Brushed 27T Motor
 (Maximum # of teeth on pinion gear for given # of teeth on spur gear)

Spur	Pinion	GearRatio	TranRatio	FDR	MPH
68	20	3.40	2.35	7.99	23.88
69	20	3.45	2.35	8.11	23.53
70	20	3.50	2.35	8.23	23.20
71	20	3.55	2.35	8.34	22.87
72	21	3.43	2.35	8.06	23.68
73	21	3.48	2.35	8.17	23.35
74	21	3.52	2.35	8.28	23.04
75	22	3.41	2.35	8.01	23.81
76	22	3.45	2.35	8.12	23.50
77	22	3.50	2.35	8.23	23.20
78	23	3.39	2.35	7.97	23.94
79	23	3.43	2.35	8.07	23.64
80	23	3.48	2.35	8.17	23.34
81	23	3.52	2.35	8.28	23.05
82	24	3.42	2.35	8.03	23.76
83	24	3.46	2.35	8.13	23.47
84	24	3.50	2.35	8.23	23.20
85	25	3.40	2.35	7.99	23.88
86	25	3.44	2.35	8.08	23.60
87	25	3.48	2.35	8.18	23.33
88	26	3.38	2.35	7.95	23.99
89	26	3.42	2.35	8.04	23.72
90	26	3.46	2.35	8.13	23.45
91	26	3.50	2.35	8.23	23.20
92	27	3.41	2.35	8.01	23.83
93	27	3.44	2.35	8.09	23.57
94	27	3.48	2.35	8.18	23.32
95	28	3.39	2.35	7.97	23.93
96	28	3.43	2.35	8.06	23.68
97	28	3.46	2.35	8.14	23.43
98	28	3.50	2.35	8.23	23.20
99	29	3.41	2.35	8.02	23.78
100	29	3.45	2.35	8.10	23.54
101	29	3.48	2.35	8.18	23.31
102	30	3.40	2.35	7.99	23.88
103	30	3.43	2.35	8.07	23.65
104	30	3.47	2.35	8.15	23.42
105	31	3.39	2.35	7.96	23.97
106	31	3.42	2.35	8.04	23.74
107	31	3.45	2.35	8.11	23.52
108	31	3.48	2.35	8.19	23.30
109	32	3.41	2.35	8.00	23.83
110	32	3.44	2.35	8.08	23.62
111	32	3.47	2.35	8.15	23.40
112	33	3.39	2.35	7.98	23.92

Note: table works for both 48-pitch and 64-pitch gears.
 Racers may install pinion gears with fewer teeth than the maximum shown on the chart.

Yokomo LCG or MR4TC-SD with Brushless 17.5 Motor
 (Maximum # of teeth on pinion gear for given # of teeth on spur gear)

Spur	Pinion	GearRatio	TranRatio	FDR	MPH	
	68	30	2.27	2.35	5.33	23.88
	69	30	2.30	2.35	5.41	23.53
	70	31	2.26	2.35	5.31	23.97
	71	31	2.29	2.35	5.38	23.63
	72	31	2.32	2.35	5.46	23.30
	73	32	2.28	2.35	5.36	23.72
	74	32	2.31	2.35	5.43	23.40
	75	33	2.27	2.35	5.34	23.81
	76	33	2.30	2.35	5.41	23.50
	77	34	2.26	2.35	5.32	23.90
	78	34	2.29	2.35	5.39	23.59
	79	35	2.26	2.35	5.30	23.98
	80	35	2.29	2.35	5.37	23.68
	81	35	2.31	2.35	5.44	23.39
	82	36	2.28	2.35	5.35	23.76
	83	36	2.31	2.35	5.42	23.47
	84	37	2.27	2.35	5.34	23.84
	85	37	2.30	2.35	5.40	23.56
	86	38	2.26	2.35	5.32	23.91
	87	38	2.29	2.35	5.38	23.64
	88	39	2.26	2.35	5.30	23.99
	89	39	2.28	2.35	5.36	23.72
	90	39	2.31	2.35	5.42	23.45
	91	40	2.28	2.35	5.35	23.79
	92	40	2.30	2.35	5.41	23.53
	93	41	2.27	2.35	5.33	23.86
	94	41	2.29	2.35	5.39	23.61
	95	42	2.26	2.35	5.32	23.93
	96	42	2.29	2.35	5.37	23.68
	97	43	2.26	2.35	5.30	23.99
	98	43	2.28	2.35	5.36	23.75
	99	43	2.30	2.35	5.41	23.51
	100	44	2.27	2.35	5.34	23.81
	101	44	2.30	2.35	5.39	23.58
	102	45	2.27	2.35	5.33	23.88
	103	45	2.29	2.35	5.38	23.65
	104	46	2.26	2.35	5.31	23.94
	105	46	2.28	2.35	5.36	23.71
	106	47	2.26	2.35	5.30	24.00
	107	47	2.28	2.35	5.35	23.77
	108	47	2.30	2.35	5.40	23.55
	109	48	2.27	2.35	5.34	23.83
	110	48	2.29	2.35	5.39	23.62
	111	49	2.27	2.35	5.32	23.89
	112	49	2.29	2.35	5.37	23.68

Note: table works for both 48-pitch and 64-pitch gears.
 Racers may install pinion gears with fewer teeth than the maximum shown on the chart.

HPI Sprint-2 or HPI Pro4 or HotBodies Cyclone or Tamiya TB-Evo5 with Brushed 27T Motor

(Maximum # of teeth on pinion gear for given # of teeth on spur gear)

Spur	Pinion	GearRatio	TranRatio	FDR	MPH	
	68	20	3.40	2.44	8.30	23.00
	69	21	3.29	2.44	8.02	23.80
	70	21	3.33	2.44	8.13	23.46
	71	21	3.38	2.44	8.25	23.13
	72	22	3.27	2.44	7.99	23.89
	73	22	3.32	2.44	8.10	23.56
	74	22	3.36	2.44	8.21	23.25
	75	23	3.26	2.44	7.96	23.98
	76	23	3.30	2.44	8.06	23.66
	77	23	3.35	2.44	8.17	23.36
	78	23	3.39	2.44	8.27	23.06
	79	24	3.29	2.44	8.03	23.75
	80	24	3.33	2.44	8.13	23.46
	81	24	3.38	2.44	8.24	23.17
	82	25	3.28	2.44	8.00	23.84
	83	25	3.32	2.44	8.10	23.55
	84	25	3.36	2.44	8.20	23.27
	85	26	3.27	2.44	7.98	23.92
	86	26	3.31	2.44	8.07	23.64
	87	26	3.35	2.44	8.16	23.37
	88	27	3.26	2.44	7.95	23.99
	89	27	3.30	2.44	8.04	23.72
	90	27	3.33	2.44	8.13	23.46
	91	27	3.37	2.44	8.22	23.20
	92	28	3.29	2.44	8.02	23.80
	93	28	3.32	2.44	8.10	23.54
	94	28	3.36	2.44	8.19	23.29
	95	29	3.28	2.44	7.99	23.87
	96	29	3.31	2.44	8.08	23.62
	97	29	3.34	2.44	8.16	23.38
	98	30	3.27	2.44	7.97	23.94
	99	30	3.30	2.44	8.05	23.69
	100	30	3.33	2.44	8.13	23.46
	101	31	3.26	2.44	7.95	24.00
	102	31	3.29	2.44	8.03	23.76
	103	31	3.32	2.44	8.11	23.53
	104	31	3.35	2.44	8.19	23.31
	105	32	3.28	2.44	8.01	23.83
	106	32	3.31	2.44	8.08	23.60
	107	32	3.34	2.44	8.16	23.38
	108	33	3.27	2.44	7.99	23.89
	109	33	3.30	2.44	8.06	23.67
	110	33	3.33	2.44	8.13	23.46
	111	34	3.26	2.44	7.97	23.95
	112	34	3.29	2.44	8.04	23.74

Note: table works for both 48-pitch and 64-pitch gears.

Racers may install pinion gears with fewer teeth than the maximum shown on the chart.

HPI Sprint-2 or HPI Pro4 or HotBodies Cyclone or Tamiya TB-Evo 5 with Brushless 17.5 Motor

(Maximum # of teeth on pinion gear for given # of teeth on spur gear)

Spur	Pinion	GearRatio	TranRatio	FDR	MPH
68	31	2.19	2.44	5.35	23.76
69	31	2.23	2.44	5.43	23.42
70	32	2.19	2.44	5.34	23.83
71	32	2.22	2.44	5.41	23.49
72	33	2.18	2.44	5.32	23.89
73	33	2.21	2.44	5.40	23.56
74	34	2.18	2.44	5.31	23.95
75	34	2.21	2.44	5.38	23.63
76	34	2.24	2.44	5.45	23.32
77	35	2.20	2.44	5.37	23.69
78	35	2.23	2.44	5.44	23.39
79	36	2.19	2.44	5.35	23.75
80	36	2.22	2.44	5.42	23.46
81	37	2.19	2.44	5.34	23.81
82	37	2.22	2.44	5.41	23.52
83	38	2.18	2.44	5.33	23.86
84	38	2.21	2.44	5.39	23.58
85	39	2.18	2.44	5.32	23.92
86	39	2.21	2.44	5.38	23.64
87	40	2.18	2.44	5.31	23.97
88	40	2.20	2.44	5.37	23.69
89	40	2.23	2.44	5.43	23.43
90	41	2.20	2.44	5.36	23.75
91	41	2.22	2.44	5.42	23.49
92	42	2.19	2.44	5.34	23.80
93	42	2.21	2.44	5.40	23.54
94	43	2.19	2.44	5.33	23.84
95	43	2.21	2.44	5.39	23.59
96	44	2.18	2.44	5.32	23.89
97	44	2.20	2.44	5.38	23.64
98	45	2.18	2.44	5.31	23.94
99	45	2.20	2.44	5.37	23.69
100	46	2.17	2.44	5.30	23.98
101	46	2.20	2.44	5.36	23.74
102	46	2.22	2.44	5.41	23.51
103	47	2.19	2.44	5.35	23.79
104	47	2.21	2.44	5.40	23.56
105	48	2.19	2.44	5.34	23.83
106	48	2.21	2.44	5.39	23.60
107	49	2.18	2.44	5.33	23.87
108	49	2.20	2.44	5.38	23.65
109	50	2.18	2.44	5.32	23.91
110	50	2.20	2.44	5.37	23.69
111	51	2.18	2.44	5.31	23.95
112	51	2.20	2.44	5.36	23.74

Note: table works for both 48-pitch and 64-pitch gears.

Racers may install pinion gears with fewer teeth than the maximum shown on the chart.

Associated TC3 or TC4 with Brushed 27T Motor
 (Maximum # of teeth on pinion gear for given # of teeth on spur gear)

Spur	Pinion	GearRatio	TranRatio	FDR	MPH
68	21	3.24	2.50	8.10	23.57
69	21	3.29	2.50	8.21	23.23
70	22	3.18	2.50	7.95	23.98
71	22	3.23	2.50	8.07	23.65
72	22	3.27	2.50	8.18	23.32
73	22	3.32	2.50	8.30	23.00
74	23	3.22	2.50	8.04	23.72
75	23	3.26	2.50	8.15	23.40
76	23	3.30	2.50	8.26	23.09
77	24	3.21	2.50	8.02	23.79
78	24	3.25	2.50	8.13	23.48
79	24	3.29	2.50	8.23	23.18
80	25	3.20	2.50	8.00	23.85
81	25	3.24	2.50	8.10	23.55
82	25	3.28	2.50	8.20	23.27
83	26	3.19	2.50	7.98	23.91
84	26	3.23	2.50	8.08	23.62
85	26	3.27	2.50	8.17	23.34
86	27	3.19	2.50	7.96	23.96
87	27	3.22	2.50	8.06	23.68
88	27	3.26	2.50	8.15	23.41
89	27	3.30	2.50	8.24	23.15
90	28	3.21	2.50	8.04	23.74
91	28	3.25	2.50	8.13	23.48
92	28	3.29	2.50	8.21	23.23
93	29	3.21	2.50	8.02	23.80
94	29	3.24	2.50	8.10	23.54
95	29	3.28	2.50	8.19	23.30
96	30	3.20	2.50	8.00	23.85
97	30	3.23	2.50	8.08	23.60
98	30	3.27	2.50	8.17	23.36
99	31	3.19	2.50	7.98	23.90
100	31	3.23	2.50	8.06	23.66
101	31	3.26	2.50	8.15	23.42
102	32	3.19	2.50	7.97	23.94
103	32	3.22	2.50	8.05	23.71
104	32	3.25	2.50	8.13	23.48
105	33	3.18	2.50	7.95	23.98
106	33	3.21	2.50	8.03	23.76
107	33	3.24	2.50	8.11	23.54
108	33	3.27	2.50	8.18	23.32
109	34	3.21	2.50	8.01	23.80
110	34	3.24	2.50	8.09	23.59
111	34	3.26	2.50	8.16	23.38
112	35	3.20	2.50	8.00	23.85

Note: table works for both 48-pitch and 64-pitch gears.
 Racers may install pinion gears with fewer teeth than the maximum shown on the chart.

Associated TC3 or TC4 with Brushless 17.5 Motor
 (Maximum # of teeth on pinion gear for given # of teeth on spur gear)

Spur	Pinion	GearRatio	TranRatio	FDR	MPH
68	32	2.13	2.50	5.31	23.94
69	32	2.16	2.50	5.39	23.59
70	33	2.12	2.50	5.30	23.98
71	33	2.15	2.50	5.38	23.65
72	33	2.18	2.50	5.45	23.32
73	34	2.15	2.50	5.37	23.70
74	34	2.18	2.50	5.44	23.38
75	35	2.14	2.50	5.36	23.74
76	35	2.17	2.50	5.43	23.43
77	36	2.14	2.50	5.35	23.79
78	36	2.17	2.50	5.42	23.48
79	37	2.14	2.50	5.34	23.83
80	37	2.16	2.50	5.41	23.53
81	38	2.13	2.50	5.33	23.87
82	38	2.16	2.50	5.39	23.58
83	39	2.13	2.50	5.32	23.91
84	39	2.15	2.50	5.38	23.62
85	40	2.13	2.50	5.31	23.94
86	40	2.15	2.50	5.38	23.66
87	41	2.12	2.50	5.30	23.98
88	41	2.15	2.50	5.37	23.70
89	41	2.17	2.50	5.43	23.44
90	42	2.14	2.50	5.36	23.74
91	42	2.17	2.50	5.42	23.48
92	43	2.14	2.50	5.35	23.78
93	43	2.16	2.50	5.41	23.52
94	44	2.14	2.50	5.34	23.81
95	44	2.16	2.50	5.40	23.56
96	45	2.13	2.50	5.33	23.85
97	45	2.16	2.50	5.39	23.60
98	46	2.13	2.50	5.33	23.88
99	46	2.15	2.50	5.38	23.64
100	47	2.13	2.50	5.32	23.91
101	47	2.15	2.50	5.37	23.67
102	48	2.13	2.50	5.31	23.94
103	48	2.15	2.50	5.36	23.71
104	49	2.12	2.50	5.31	23.97
105	49	2.14	2.50	5.36	23.74
106	50	2.12	2.50	5.30	24.00
107	50	2.14	2.50	5.35	23.77
108	50	2.16	2.50	5.40	23.55
109	51	2.14	2.50	5.34	23.80
110	51	2.16	2.50	5.39	23.59
111	52	2.13	2.50	5.34	23.83
112	52	2.15	2.50	5.38	23.62

Note: table works for both 48-pitch and 64-pitch gears.
 Racers may install pinion gears with fewer teeth than the maximum shown on the chart.

Tamiya TT-01 or Tamiya TB Evo-1, Evo-2 or Evo-3 with Brushless 17.5 Motor

Spur	Pinion	GearRatio	TranRatio	FDR	MPH	
	68	33	2.06	2.60	5.36	23.57
	69	33	2.09	2.60	5.44	23.23
	70	34	2.06	2.60	5.35	23.98
	71	34	2.09	2.60	5.43	23.65
	72	35	2.06	2.60	5.35	23.32
	73	35	2.09	2.60	5.42	23.00
	74	36	2.06	2.60	5.34	23.72
	75	36	2.08	2.60	5.42	23.40
	76	37	2.05	2.60	5.34	23.09
	77	37	2.08	2.60	5.41	23.79
	78	38	2.05	2.60	5.34	23.48
	79	38	2.08	2.60	5.41	23.18
	80	39	2.05	2.60	5.33	23.85
	81	39	2.08	2.60	5.40	23.55
	82	40	2.05	2.60	5.33	23.27
	83	40	2.08	2.60	5.40	23.91
	84	41	2.05	2.60	5.33	23.62
	85	41	2.07	2.60	5.39	23.34
	86	42	2.05	2.60	5.32	23.96
	87	42	2.07	2.60	5.39	23.68
	88	43	2.05	2.60	5.32	23.41
	89	43	2.07	2.60	5.38	23.15
	90	44	2.05	2.60	5.32	23.74
	91	44	2.07	2.60	5.38	23.48
	92	45	2.04	2.60	5.32	23.23
	93	45	2.07	2.60	5.37	23.80
	94	46	2.04	2.60	5.31	23.54
	95	46	2.07	2.60	5.37	23.30
	96	47	2.04	2.60	5.31	23.85
	97	47	2.06	2.60	5.37	23.60
	98	48	2.04	2.60	5.31	23.36
	99	48	2.06	2.60	5.36	23.90
	100	49	2.04	2.60	5.31	23.66
	101	49	2.06	2.60	5.36	23.42
	102	50	2.04	2.60	5.30	23.94
	103	50	2.06	2.60	5.36	23.71
	104	51	2.04	2.60	5.30	23.48
	105	51	2.06	2.60	5.35	23.98
	106	52	2.04	2.60	5.30	23.76
	107	52	2.06	2.60	5.35	23.54
	108	52	2.08	2.60	5.40	23.32
	109	53	2.06	2.60	5.35	23.80
	110	53	2.08	2.60	5.40	23.59
	111	54	2.06	2.60	5.34	23.38
	112	54	2.07	2.60	5.39	23.85

Note: table works for both 48-pitch and 64-pitch gears.

Racers may install pinion gears with fewer teeth than the maximum shown on the chart.

Tamiya TT-01 or Tamiya TB Evo-1, Evo-2 or Evo-3 with Brushed 27T Motor

Spur	Pinion	GearRatio	TranRatio	FDR	MPH	
	68	22	3.09	2.60	8.04	23.74
	69	22	3.14	2.60	8.15	23.40
	70	22	3.18	2.60	8.27	23.06
	71	23	3.09	2.60	8.03	23.77
	72	23	3.13	2.60	8.14	23.44
	73	23	3.17	2.60	8.25	23.12
	74	24	3.08	2.60	8.02	23.80
	75	24	3.13	2.60	8.13	23.48
	76	24	3.17	2.60	8.23	23.17
	77	25	3.08	2.60	8.01	23.82
	78	25	3.12	2.60	8.11	23.52
	79	25	3.16	2.60	8.22	23.22
	80	26	3.08	2.60	8.00	23.85
	81	26	3.12	2.60	8.10	23.55
	82	26	3.15	2.60	8.20	23.27
	83	27	3.07	2.60	7.99	23.87
	84	27	3.11	2.60	8.09	23.59
	85	27	3.15	2.60	8.19	23.31
	86	28	3.07	2.60	7.99	23.89
	87	28	3.11	2.60	8.08	23.62
	88	28	3.14	2.60	8.17	23.35
	89	29	3.07	2.60	7.98	23.91
	90	29	3.10	2.60	8.07	23.64
	91	29	3.14	2.60	8.16	23.38
	92	30	3.07	2.60	7.97	23.93
	93	30	3.10	2.60	8.06	23.67
	94	30	3.13	2.60	8.15	23.42
	95	31	3.06	2.60	7.97	23.94
	96	31	3.10	2.60	8.05	23.69
	97	31	3.13	2.60	8.14	23.45
	98	32	3.06	2.60	7.96	23.96
	99	32	3.09	2.60	8.04	23.72
	100	32	3.13	2.60	8.13	23.48
	101	33	3.06	2.60	7.96	23.97
	102	33	3.09	2.60	8.04	23.74
	103	33	3.12	2.60	8.12	23.51
	104	34	3.06	2.60	7.95	23.99
	105	34	3.09	2.60	8.03	23.76
	106	34	3.12	2.60	8.11	23.54
	107	34	3.15	2.60	8.18	23.32
	108	35	3.09	2.60	8.02	23.78
	109	35	3.11	2.60	8.10	23.56
	110	35	3.14	2.60	8.17	23.35
	111	36	3.08	2.60	8.02	23.80
	112	36	3.11	2.60	8.09	23.59

Note: table works for both 48-pitch and 64-pitch gears.

Racers may install pinion gears with fewer teeth than the maximum shown on the chart.