

BUDGET

MODIFIED MOTORS



by STAFF

"BUDGET" is a relative term: what's in someone else's budget may not be in yours. When it comes to modified motors, however, "budget" refers to motors in the \$25 to \$50 range. All these motors are machine-wound, unlike the more expensive modified motors, which are hand-wound. In this class, there are two basic types of motor:

- those with bushings and no timing adjustment
- those with bearings and adjustable timing.

Bushing motors are for modelers who want to go fast for the price of a ROAR-legal, 27-turn, stock motor. These motors are treated like regular stock motors, as most have sealed end bells. Just bolt them in and go fast! These low-dollar land missiles have led many tracks to create an "Outlaw" or "Super" stock class, with the only limitation being a \$28 maximum retail price.

High speed at little investment doesn't come without sacrificing something. Generally, a 17-turn bushing motor won't go as fast—or last as long—as a full-fledged, \$80, ball-bearing, hand-wound, modified motor.

The next step up the ladder are motors that cost approximately \$50. Most of these budget modifieds have ball bearings and adjustable timing, and they're better balanced. Motors in this category are primarily intended for stock racers who want to experiment with modified motors but don't want to plunk down \$80. Some people find they aren't ready for—or don't like—running so fast; with these motors, they won't have spent as much money in their high-speed experiment.

These motors are also very popular with back-yard bashers and parking-lot prowlers who don't run their cars regularly.

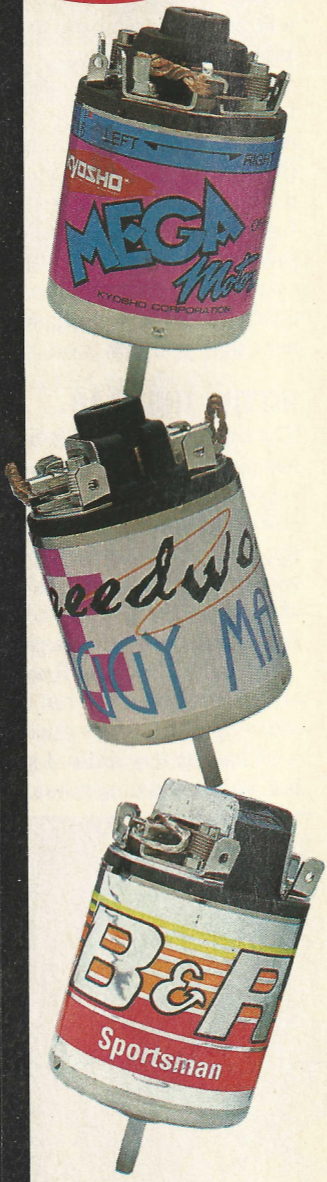
When they do take their cars for a spin, they want to go fast, and they know that ball bearings and adjustable timing are what the really fast motors have. For these part-time users, a \$50 retail price tag is easier to swallow.

The first company to produce motors for budget-minded racers was Trinity; its Speedworks line was released in the summer of '88. Because of their mild timing, the motors were more reliable than the hot, stock motors with lots of timing advancement, yet they were faster because they had fewer turns of wire on the armature. Although other manufacturers were skeptical at first, most have followed Trinity's lead by producing budget offerings of their own.

To help you select the motor that's right for you, we've put together a guide to the available budget motors. The charts match the type of track with the name and/or part number of the motor that the manufacturer recommends. At the bottom of each chart, a breakdown of each motor lists its name and part number, number of turns, whether it has bearings or bushings, whether the timing is fixed or adjustable, and its retail price.

Although one motor may be recommended for a particular track, most of these motors would be effective in different applications if changes were made to the car's gear ratio. Just remember that budget modifieds aren't really intended for hard-core racing: they won't stand up to the abuse that's dished out in highly competitive races.

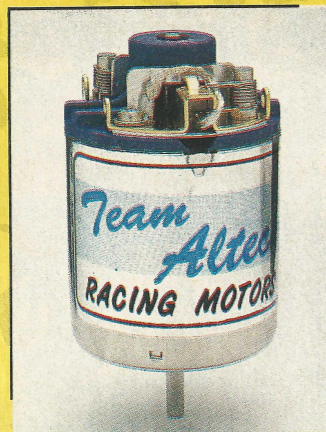
With all this in mind, we hope you'll find this guide helpful in introducing you to budget modified motors.



PHOTOS BY STEVE RONDI



ALTECH MARKETING



Name/ Part #	Turns	Bushings/ Bearings	Timing Adjust	Retail Price
Standard Series				
MT0827	21S	Bushings	Fixed	\$14.98
MT0824	24S	Bushings	Fixed	\$14.98
MT06527	27S	Bushings	Fixed	\$14.98
Racing Series				
R0821	21S	Bushings	Fixed	\$29.98
R08522	22S	Bushings	Fixed	\$29.98
RH26517	17D	Bearings	Adjustable	\$44.98
RH0918	18S	Bearings	Adjustable	\$44.98
RH25524	24D	Bearings	Adjustable	\$44.98

TRACK TYPE	NAME/PART #
OFF-ROAD 2WD	
High speed	MT0821, RH26517
Low speed	MT0824, RH0918
OFF-ROAD 4WD	
High speed	RH26517
Low speed	R0821, RH0918
MONSTER TRUCK	
2WD	MT0821, R08522
DIRT-OVAL 2WD	
Long	RH26517
Short	MT0821, RH25524
DIRT-OVAL 4WD	
Long	RH26517
Short	RH0918, R0821
CARPET OVAL	
Long	RH26517
Short	RH0918, R0821
PAVED OVAL	
Long	RH26517
Short	RH0918, R0821
ROAD COURSE	
High speed	MT0821, RH26517
Low speed	MT0824, MT06527, RH0918

Altech Marketing, P.O. Box 391, Edison, NJ 08810 (201) 248-8738

TRACK TYPE	NAME/PART #
OFF-ROAD 2WD	
High speed	AK 15/0920
Low speed	AK 19/0915
OFF-ROAD 4WD	
High speed	AK 13/0925
Low speed	AK 15/0920
MONSTER TRUCK	
2WD	AK 19/0915
DIRT-OVAL 2WD	
Long	AK 13/0925
Short	AK 15/0920
DIRT-OVAL 4WD	
Long	AK 13/0925
Short	AK 13/0925
CARPET OVAL	
Long	AK 13/0925
Short	AK 15/0920
PAVED OVAL	
Long	AK 13/0925
Short	AK 15/0920
ROAD COURSE	
High speed	AK 15/0920
Low speed	AK 19/0915



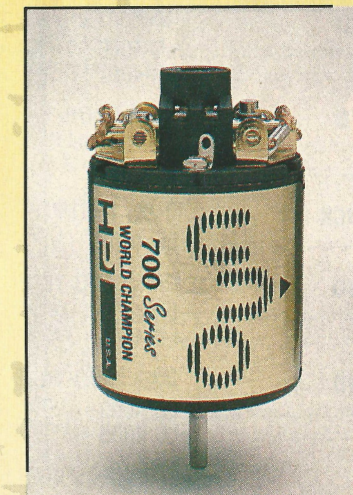
CAM RACING MOTORS

Name/ Part #	Turns	Bushings/ Bearings	Timing Adjust	Retail Price
Pro Stock				
Super Stock/0910	23S	Bushings	Fixed	\$28
Ultra Stock/0911	17S	Bushings	Fixed	\$28
Doseck's Ace Pilot Assault Series				
AK 19/0915	19D	Bearings	Adjustable	\$45
AK 15/0920	15D	Bearings	Adjustable	\$45
AK 13/0925	13D	Bearings	Adjustable	\$45

CAM Racing Motors, Inc, Rt 3 Box 680, Huntersville, NC 28078 (704)-875-9362

HOBBY PRODUCTS INTERNATIONAL

TRACK TYPE	NAME/PART #
OFF-ROAD 2WD	
High speed	Sports 15/M-1011; Club Racer 14/M-1021, 15/M-1022
Low speed	Sports 18/M-1012; Club Racer 18/M1023
OFF-ROAD 4WD	
High speed	Sports 15/M-1011; Club Racer 14/M-1021, 15/M-1022
Low speed	Sports 18/M-1012; Club Racer 18/M1023
MONSTER TRUCK	
2WD	Sports 18/M-1012; Club Racer 18/M1023
DIRT-OVAL 2WD	
Long	Sports 15/M-1011; Club Racer 14/M-1021, 15/M-1022
Short	Sports 15/M-1011; Club Racer 14/M-1021, 15/M-1022
DIRT-OVAL 4WD	
Long	Sports 15/M-1011; Club Racer 14/M-1021, 15/M-1022
Short	Sports 15/M-1011; Club Racer 14/M-1021, 15/M-1022
CARPET OVAL	
Long	Sports 15/M-1011; Club Racer 14/M-1021, 15/M-1022
Short	Sports 15/M-1011; Club Racer 14/M-1021, 15/M-1022
PAVED OVAL	
Long	Sports 15/M-1011; Club Racer 14/M-1021, 15/M-1022
Short	Sports 15/M-1011; Club Racer 14/M-1021, 15/M-1022
ROAD COURSE	
High speed	Sports 15/M-1011; Club Racer 14/M-1021, 15/M-1022
Low speed	Sports 18/M-1012; Club Racer 15/M-1022, 18/M1023



Name/ Part #	Turns	Bushings/ Bearings	Timing Adjust	Retail Price
UNO Sports				
Sports 15/M1011	15D	Bushings	Fixed	\$28
Sports 18/M1012	18D	Bushings	Fixed	\$28
UNO Club Racer				
Club Racer 14/M1021	14D	Bearings	Adjustable	\$45
Club Racer 15/M1022	15D	Bearings	Adjustable	\$45
Club Racer 18/M1023	18D	Bearings	Adjustable	\$45

Hobby Products International, 22600 C Lambert, Suite 904, El Toro, CA 92630 (714) 837-3250

TRACK TYPE	NAME/PART #
OFF-ROAD 2WD	
High speed	3215, 3017, 302
Low speed	3213, 3215, 3017
OFF-ROAD 4WD	
High speed	3213, 3017
Low speed	3213, 3215
MONSTER TRUCK	
2WD	3219, 3020
DIRT-OVAL 2WD	
Long	3213, 3215
Short	3213
DIRT-OVAL 4WD	
Long	3215, 3017
Short	3213, 3215
CARPET OVAL	
Long	3213, 3215
Short	3213
PAVED OVAL	
Long	3213, 3017
Short	3213, 3215
ROAD COURSE	
High speed	3213, 3017
Low speed	3213, 3215



B&R MOTOR WORKS

Name/ Part #	Turns	Bushings/ Bearings	Timing Adjust	Retail Price
Sportsman Motors				
3017	17S	Bushings	Fixed	\$28
3020	20S	Bushings	Fixed	\$28
3023	23S	Bushings	Fixed	\$28
3213	13D	Bearings	Adjustable	\$45
3215	15D	Bearings	Adjustable	\$45

B&R Motor Works, 28000 Tothill Drive, Santa Clarita, CA 91350 (805) 296-0457

KYOSHO



Name/ Part #	Turns	Bushings/ Bearings	Timing Adjust	Retail Price
Mega Motors Outlaw Stock				
/2246	22S	Bushings	Fixed	\$24.95
360/2477	22S	Bushings	Fixed	\$24.95
12x2/2471	12D	Bearings	Adjustable	\$39.95
14x2/2472	14D	Bearings	Adjustable	\$39.95
16x3/2473	16D	Bearings	Adjustable	\$39.95
18x2/2474	18D	Bearings	Adjustable	\$39.95
20x2/2475	20D	Bearings	Adjustable	\$39.95

TRACK TYPE	NAME/PART #
OFF-ROAD 2WD	
High speed	2473
Low speed	2474
OFF-ROAD 4WD	
High speed	2472
Low speed	2473
MONSTER TRUCK	
2WD	2477
DIRT-OVAL 2WD	
Long	2471
Short	2472
DIRT-OVAL 4WD	
Long	2471
Short	2472
CARPET OVAL	
Long	2472
Short	2473
PAVED OVAL	
Long	2471
Short	2472
ROAD COURSE	
High speed	2474
Low speed	2475

Kyosho/Great Planes Model Distributors, P.O. Box 4021, Champaign, IL 61820 (217) 398-3630

MODIFIED MOTORS



TRACK TYPE	NAME/PART #
OFF-ROAD 2WD	
High speed	LC-4005
Low speed	LC-4007
OFF-ROAD 4WD	
High speed	LC-4003
Low speed	LC-4007
MONSTER TRUCK	
2WD	LC-4007
DIRT-OVAL 2WD	
Long	LC-4003
Short	LC-4005
DIRT-OVAL 4WD	
Long	LC-4003
Short	LC-4005
CARPET OVAL	
Long	LC-4005
Short	LC-4006
PAVED OVAL	
Long	LC-4003
Short	LC-4005
ROAD COURSE	
High speed	LC-4005
Low speed	LC-4007



LC SIDEWINDER

Name/ Part #	Turns	Bushings/ Bearings	Timing Adjust	Retail Price
Machine Wind Modifieds				
LC-4006	17S	Bushings	Fixed	\$28
LC-4003	13D	Bearings	Adjustable	\$45
LC-4005	15D	Bearings	Adjustable	\$45
LC-4007	19D	Bearings	Adjustable	\$45

LC Sidewinder, 215 East Wall Street, Grapevine, TX 76051 (817) 481-6887

TRACK TYPE	NAME/PART #
OFF-ROAD 2WD	
High speed	EC017, EC015, EC019
Low speed	EC023, EC020, EC019
OFF-ROAD 4WD	
High speed	EC017, EC013
Low speed	EC017, EC015
MONSTER TRUCK	
2WD	EC023, EC019, EC020
DIRT-OVAL 2WD	
Long	EC013
Short	EC015
DIRT-OVAL 4WD	
Long	EC013
Short	EC013, EC015
CARPET OVAL	
Long	EC015, EC013
Short	EC015, EC013
PAVED OVAL	
Long	EC015, EC013
Short	EC015, EC013
ROAD COURSE	
High speed	EC015, EC013
Low speed	EC015, EC013

Paragon Racing Products, 690 Industrial Circle South, Shakopee, MN 53379 (612) 496-0091

PARMA INTERNATIONAL



Name/ Part #	Turns	Bushings/ Bearings	Timing Adjust	Retail Price
Cyclone II Ultra Stock				
14200	17S	Bushings	Fixed	\$25
Cyclone II Pro Modified				
14250	18D	Bushings	Adjustable	\$30
14251	16D	Bushings	Adjustable	\$30
Cyclone II Super Modified				
14300	17D	Bearings	Adjustable	\$45
14301	15D	Bearings	Adjustable	\$45
14302	13D	Bearings	Adjustable	\$45

Parma International, 13927 Progress Parkway, North Royalton, OH 44133 (216) 237-8650



PARAGON RACING PRODUCTS

Name/ Part #	Turns	Bushings/ Bearings	Timing Adjust	Retail Price
Eclipse				
EC017	17S	Bushings	Fixed	\$28
EC020	20S	Bushings	Fixed	\$28
EC023	23S	Bushings	Fixed	\$28
EC013	13D	Bearings	Adjustable	\$50
EC015	15D	Bearings	Adjustable	\$50
EC019	19D	Bearings	Adjustable	\$50

TRACK TYPE	NAME/PART #
OFF-ROAD 2WD	
High speed	14251, 14250
Low speed	14200
OFF-ROAD 4WD	
High speed	14302
Low speed	14301
MONSTER TRUCK	
2WD	14300
DIRT-OVAL 2WD	
Long	14302
Short	14302
DIRT-OVAL 4WD	
Long	14302
Short	14302
CARPET OVAL	
Long	14302
Short	14301
PAVED OVAL	
Long	14302
Short	14302
ROAD COURSE	
High speed	14251
Low speed	14300

QUARTER FLASH MOTORS

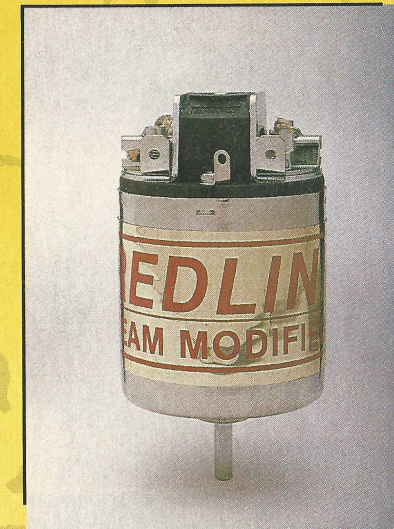


Name/Part #	Turns	Bushings/Bearings	Timing Adjust	Retail Price
Quick Silver Pro Stock				
202	17S	Bushings	Fixed	\$28
203	20S	Bushings	Fixed	\$28
Quick Silver Pro Modified				
151	15D	Bearings	Adjustable	\$45
152	19D	Bearings	Adjustable	\$45
153	13D	Bearings	Adjustable	\$45

TRACK TYPE	NAME/PART #
OFF-ROAD 2WD	
High speed	153
Low speed	203, 152
OFF-ROAD 4WD	
High speed	153
Low speed	151
MONSTER TRUCK	
2WD	202
DIRT-OVAL 2WD	
Long	153
Short	151
DIRT-OVAL 4WD	
Long	153
Short	151
CARPET OVAL	
Long	151
Short	202
PAVED OVAL	
Long	153
Short	151
ROAD COURSE	
High speed	202, 151
Low speed	203, 152

Quarter Flash Motors, 1143 North Winstel, Tuscon, AZ 85716 (602) 290-0833

TRACK TYPE	NAME/PART #
OFF-ROAD 2WD	
High speed	15D
Low speed	19D
OFF-ROAD 4WD	
High speed	15D
Low speed	19D
MONSTER TRUCK	
2WD	17S, 20S, 23S
DIRT-OVAL 2WD	
Long	15D
Short	15D, 13D
DIRT-OVAL 4WD	
Long	15D
Short	13D
CARPET OVAL	
Long	15D
Short	13D, 17S
PAVED OVAL	
Long	13D, 15D
Short	13D
ROAD COURSE	
High speed	15D, 17S
Low speed	15D



REDLINE MODIFIEDS

Name/Part #	Turns	Bushings/Bearings	Timing Adjust	Retail Price
Super Rev Modifieds				
17S	17S	Bushings	Fixed	\$28
20S	20S	Bushings	Fixed	\$28
23S	23S	Bushings	Fixed	\$28
13D	13D	Bearings	Adjustable	\$45
15D	15D	Bearings	Adjustable	\$45
19D	19D	Bearings	Adjustable	\$45

Redline Modifieds, 9700 County Highway, C-25, Belleview, FL 32620 (904) 347-5151

MODIFIED MOTORS



RACE PREP

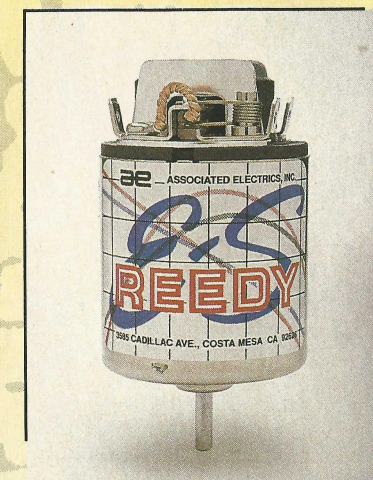


TRACK TYPE	NAME/PART #
OFF-ROAD 2WD	
High speed	RP-911-14D
Low speed	RP-911-17S
OFF-ROAD 4WD	
High speed	RP-911-14D
Low speed	RP-911-17S
MONSTER TRUCK	
2WD	RP-911-17S
DIRT-OVAL 2WD	
Long	RP-911-14D
Short	RP-911-17S
DIRT-OVAL 4WD	
Long	RP-911-14D
Short	RP-911-17S
CARPET OVAL	
Long	RP-911-14D
Short	RP-911-17S
PAVED OVAL	
Long	RP-911-14D
Short	RP-911-17S
ROAD COURSE	
Long	RP-911-14D
Short	RP-911-17S

Name/Part #	Turns	Bushings/Bearings	Timing Adjust	Retail Price
Machine Power				
RP-911-14D	14D	Bearings	Adjustable	\$42
RP-911-17S	15D	Bearings	Adjustable	\$42

Race Prep/AYK Racing USA, 20115 Nordhoff Street, Chatsworth, CA 91311 (818) 709-6800

REEDY MODIFIEDS



Name/Part #	Turns	Bushings/Bearings	Timing Adjust	Retail Price
Esprit Sport				
Sport 12/3509	23S	Bushings	Fixed	\$28
Sport 4/6506	17S	Bushings	Fixed	\$28
Sport 2/6507	20S	Bushings	Fixed	\$28
Esprit Ultimate				
Ultimate 2/6508	19D	Bearings	Adjustable	\$45
Ultimate 4/6509	15D	Bearings	Adjustable	\$45
Ultimate Oval/6510	13D	Bearings	Adjustable	\$45

TRACK TYPE	NAME/PART #
OFF-ROAD 2WD	
High speed	Sport 4/6506, Ultimate 4/6509
Low speed	Sport 4/6506, Ultimate 2/6508
OFF-ROAD 4WD	
High speed	Ultimate Oval/6510
Low speed	Ultimate 4/6509
MONSTER TRUCK	
2WD	Sport 2/6507, Ultimate 2/6508
DIRT-OVAL 2WD	
Long	Ultimate Oval/6510
Short	Sport 4/6506, Ultimate 4/6509
DIRT-OVAL 4WD	
Long	Ultimate Oval/6510
Short	Ultimate Oval/6510
CARPET OVAL	
Long	Ultimate Oval/6510
Short	Sport 4/6506, Ultimate 4/6509
PAVED OVAL	
Long	Sport 4/6506, Ultimate Oval/6510
Short	Sport 4/6506, Ultimate Oval/6510
ROAD COURSE	
High speed	Sport 4/6506, Ultimate Oval/6510
Low speed	Sport 4/6506, Ultimate 4/6509

Reedy Modifieds/Associated Electrics, 3585 Cadillac Avenue, Costa Mesa, CA 92626 (714) 850-9342

REVTECH

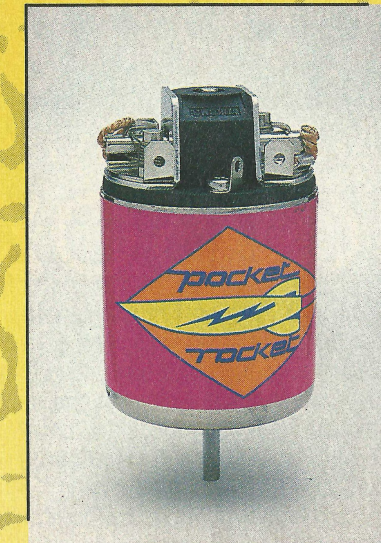


Name/ Part #	Turns	Bushings/ Bearings	Timing Adjust	Retail Price
Super Sport				
SS-17	17S	Bushings	Fixed	\$28
SS-20	20S	Bushings	Fixed	\$28
SS-23	23S	Bushings	Fixed	\$28
Ultra Sport				
US-13	13D	Bearings	Adjustable	\$45
US-15	15D	Bearings	Adjustable	\$45
US-19	19D	Bearings	Adjustable	\$45

TRACK TYPE	NAME/PART #
OFF-ROAD 2WD	
High speed	SS-23, US-19
Low speed	SS-20, US-15
OFF-ROAD 4WD	
High speed	SS-20, US-15
Low speed	SS-17, US-15, US-13
MONSTER TRUCK	
2WD	SS-23, SS-20, US-19
DIRT-OVAL 2WD	
Long	SS-17, US-15, US-13
Short	SS-17, US-15, US-13
DIRT-OVAL 4WD	
Long	SS-17, US-15, US-13
Short	SS-17, US-15, US-13
CARPET OVAL	
Long	SS-17, US-15, US-13
Short	SS-17, US-15, US-13
PAVED OVAL	
Long	SS-17, US-19, US-15
Short	SS-17, US-15, US-13
ROAD COURSE	
High speed	SS-20, SS-17, US-19, US-15
Low speed	SS-17, US-15, US-13

Revtech, 7401 White Lane, Bakersfield, CA 93309 (805) 836-9099

TRACK TYPE	NAME/PART #
OFF-ROAD 2WD	
High speed	3001, 3002, 3003, 3004
Low speed	3001, 3002, 3003, 3004
OFF-ROAD 4WD	
High speed	3001, 3002, 3003, 3004
Low speed	3001, 3002, 3003, 3004
MONSTER TRUCK	
2WD	3001, 3002, 3003, 3004
DIRT-OVAL 2WD	
Long	3001
Short	3003
DIRT-OVAL 4WD	
Long	3001
Short	3003
CARPET OVAL	
Long	3001
Short	3003
PAVED OVAL	
Long	3001
Short	3003
ROAD COURSE	
High speed	3001, 3003
Low speed	3001, 3002, 3003, 3004



TWISTER MOTORS

Name/ Part #	Turns	Bushings/ Bearings	Timing Adjust	Retail Price
Pocket Rockets				
3001	17S	Bushings	Fixed	\$28
3002	20S	Bushings	Fixed	\$28
3003	15D	Bearings	Adjustable	\$45
3004	19D	Bearings	Adjustable	\$45

Twister Motors, 657 East Arrow Highway, Glendora, CA 91740 (818) 914-6177

TRACK TYPE	NAME/PART #
OFF-ROAD 2WD	
High speed	Pole Position/0007
Low speed	350 2WD/003
OFF-ROAD 4WD	
High speed	Tony Neisinger Signature/0555
Low speed	427 4WD/0002
MONSTER TRUCK	
2WD	Monster Mash/0008
DIRT-OVAL 2WD	
Long	Monster Mash/0008
Short	350 2WD/0003
DIRT-OVAL 4WD	
Long	Tony Neisinger Signature/0555
Short	427 4WD/0002
CARPET OVAL	
Long	Tony Neisinger Signature/0555
Short	Pole Position 0007
PAVED OVAL	
Long	Tony Neisinger Signature/0555
Short	Pole Position/0007
ROAD COURSE	
High speed	Pole Position/0007
Low speed	Road Beast/0012



SPEEDWORKS

Name/ Part #	Turns	Bushings/ Bearings	Timing Adjust	Retail Price
Speedworks				
Buggy Master/0001	20D	Bushing	Fixed	\$30
Dirt Oval /0004	25S	Bushing	Fixed	\$25
Super Speedway/0005	23S	Bushing	Fixed	\$25
427 4WD/0002	16D	Bearing	Adjustable	\$39
350 2WD/0003	18D	Bearing	Adjustable	\$39
Pole Position/0007	15D	Bearing	Adjustable	\$39
Monster Mash/0008	16S	Bearing	Adjustable	\$39
Road Beast/0012	20D	Bearing	Adjustable	\$39
Neisinger Sig./0555	14Q	Bearing	Adjustable	\$39

Trinity Products, Inc., 1901 East Linden Avenue, #8, Linden, NJ 07036 (201) 862-1705

