

Quality axles, torsion bars, sway bars, and shocks for trucks, cars, and off-road vehicles.

2008

MASTERCATALOG

COMPLETEPARTSINFORMATIONANDAPPLICATIONGUIDE
RaceRunner™ SHOCKS BY SWAY-A-WAY Inc.

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To Our Valued Customers and Friends,

Thank you for taking the time to look through our brand new Sway-A-Way Suspension Components Catalog. Inside you will find updated technical and application information on the complete line of Sway-A-Way Suspension Components and accessories.

The nature of suspension products lends them to many varied applications. Thus, this catalog focuses on product, applications, and performance characteristics, and only in special cases the specific application. Proper selection, use, installation and maintenance may require prior suspension knowledge and familiarity with your particular performance requirements. Please feel free to utilize the technical sections of this catalog, our website, and our experienced sales staff to assure the best selection and use of Sway-A-Way Products.

Sway-A-Way has a long history of winning and success in the competitive off-road racing market. From our early days working with VW buggie's to today's powerful trophy trucks, sophisticated buggies and high-tech rock crawlers, Sway-A-Way offers cutting edge technology, and a wider scope of applications than ever before. Based on a heritage of hardcore racing, every Sway-A-Way product is designed and manufactured to uncompromised levels of excellence. For almost 40 years Sway-A-Way has been a leader in off-road suspension technology.

This catalog is divided into sections based on the type of product covered. Sections included torsion bars, axles, shocks, sway bars and more. In the back of this catalog is our Tech Room where you will find a wealth of technical information about Sway-A-Way products. Please be sure to visit our web site for more information about our products. The Tech Room you will find there is very advanced and offers on line calculators to help you set up your car for the best possible handling and performance.

SWAY-A-WAY: HORSE POWER FOR YOUR SUSPENSION

Thank you,

Brian Skipper President

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Section: 1 TRUCK & SUV





RCCERUININER SHOCKS

2.0"/2.5" COIL OVER SHOCKS

Sway-A-Wayoffers many bolt in performance coil-oversapplications for Ford, Nissan & Toyotatrucks & SUV's. These kits feature 2.0" & 2.5" diameter. coil-overshocks, 0-3" of adjustable lift, a "True Hydraulic full extension dampener", a 7/8" Nitro Steel shaft that is chip and rust resistant, brights il vercad miumplated cylinders and red anodized aluminum parts. Each coil-over utilizes 5/8" Com-10 Teflon lined steels pherical bearings and come Nitrogen charged to 200 psi ready to install in place of factory coil-overs. Shocks with black anodized aluminum parts will be available in the winter of 2008



TOYOTA SHOCK APPLICATIONS

2.0" and 2.5" Shocks

Size	Application	Year	Coil Rate	Part Number
2"	FJ Cruiser Rear	2007-2008 Rear (stock)	N/A	52000-108-14
2"	4-Runner Rear	2003-Current	N/A	52000-108-14
2"	FJ Cruiser Rear	2007-2008 Rear +1"	N/A	52000-108-14LT
2″	Tacoma Front	1996-2004	650lb	52000-108-5
2"	Tacoma Front*	1996-2004	650lb	52000-108-5LT
2″	Tundra Front	2000-2006	650lb	52000-108-6
2"	Tacoma Front	2005-Current	650lb	52000-108-20
2″	Tacoma Front*	2005-Current	650lb	52000-108-20LT
2"	Tacoma Rear, Stock	2005-Current	N/A	52000-108-12
2″	Tacoma Rear	2005-Current 1" longer	N/A	52000-108-13
2"	Tacoma, 5 Lug Rear	2005-Current, 5/8" Shaft	N/A	52000-108-15
2″	Tundra Rear	2007-2008	N/A	52000-108-16
2"	Sequoia Front	2000-Current	650lb	52000-108-10
2"	4-Runner Front	1996-2002	650lb	52000-108-9
2"	4-Runner Front	2003-Current	650lb	52000-108-11
2"	4-Runner Rear	2003-Current	N/A	52000-108-14
2.5"	FJ Cruiser Front	2007-2008	700lb	56000-108-4
2.5"	Sequoia	2000-Current	650lb	56000-108-10
2.5"	Tacoma Front	1996-2004	650lb	56000-108-5
2.5"	Tacoma Front*	1996-2004	650lb	56000-108-5LT
2.5"	Tacoma Front	2005-Current	650lb	56000-108-20
2.5"	Tacoma Front, 5 Lug Front	2005-Current	650lb	56000-108-21
2.5"	Tacoma Front, 5 Lug Remote	2005-Current	650lb	56000-108-23
2.5"	Tundra Front	2000-2006	650lb	56000-108-6
2.5"	Tundra Front	2007-2008	625 lb	56000-108-22
2.5"	Tundra Front*	2007-2008	625 lb	56000-108-22LT
2.5"	4-Runner Front	1996-2002	650lb	56000-108-9
2.5"	4-Runner Front	2003-2008	650 lb	56000-108-11



^{* -} Upper Control Arm Required

TOYOTA SUSPENSION KITS

Kit Includes 2.0" Front Shocks and 2.0" Rear Shocks

Year	Front Kit	Rear Kit	Complete Kits	Notes
1996-2004	101-5200-1	N/A	101-5200-1	N/A
1996-2004	101-5200-2	N/A	101-5200-2*	N/A
2005-2008	101-5200-3	102-0052-1	100-5252-1	no blocks
2005-2008	101-5200-3	102-0052-2	100-5252-2	1" blocks included
2005-2008	101-5200-4	102-0052-2	100-5252-4*	1" blocks included
2000-2006	101-5200-5	102-0052-7	100-5252-9	no blocks
2000-2006	101-5200-5	102-0052-8	100-5252-10	1" blocks included
1996-2002	101-5200-7	N/A	101-5200-7	N/A
2003-2008	101-5200-11	102-0052-3	100-5252-5	N/A
2003-2008	101-5200-11	102-0052-4	100-5252-6	rear springs incl
2000-2006	101-5200-9	N/A	101-5200-9	N/A
04-2008	101-5200-10	N/A	101-5200-10	N/A
	1996-2004 1996-2004 2005-2008 2005-2008 2005-2008 2000-2006 2000-2006 1996-2002 2003-2008 2003-2008 2000-2006	1996-2004 101-5200-1 1996-2004 101-5200-2 2005-2008 101-5200-3 2005-2008 101-5200-3 2005-2008 101-5200-4 2000-2006 101-5200-5 2000-2006 101-5200-7 2003-2008 101-5200-11 2003-2008 101-5200-11 2000-2006 101-5200-9	1996-2004 101-5200-1 N/A 1996-2004 101-5200-2 N/A 2005-2008 101-5200-3 102-0052-1 2005-2008 101-5200-3 102-0052-2 2005-2008 101-5200-4 102-0052-2 2000-2006 101-5200-5 102-0052-7 2000-2006 101-5200-5 102-0052-8 1996-2002 101-5200-7 N/A 2003-2008 101-5200-11 102-0052-3 2003-2008 101-5200-11 102-0052-4 2000-2006 101-5200-9 N/A	1996-2004 101-5200-1 N/A 101-5200-1 1996-2004 101-5200-2 N/A 101-5200-2* 2005-2008 101-5200-3 102-0052-1 100-5252-1 2005-2008 101-5200-3 102-0052-2 100-5252-2 2005-2008 101-5200-4 102-0052-2 100-5252-4* 2000-2006 101-5200-5 102-0052-7 100-5252-9 2000-2006 101-5200-5 102-0052-8 100-5252-10 1996-2002 101-5200-7 N/A 101-5200-7 2003-2008 101-5200-11 102-0052-3 100-5252-5 2003-2008 101-5200-11 102-0052-4 100-5252-6 2000-2006 101-5200-9 N/A 101-5200-9

^{* -} Upper Control Arm Required

TOYOTA 2.5"/2.0" SUSPENSION KITS

Kit Includes 2.5" Front Shocks and 2.0" Rear Shocks

Арр	Year	Front Kit	Rear Kit	Complete Kits	Notes
Tacoma	1996-2004	101-5600-1	N/A	Front Only	N/A
Tacoma	1996-2004	101-5600-2	N/A	Front Only	N/A
Tacoma	2005-2008	101-5600-3	102-0052-1	100-5652-1	no blocks
Tacoma	2005-2008	101-5600-3	102-0052-2	100-5652-2	1" blocks included
Tundra	2000-2006	101-5600-5	102-0052-7	100-5652-9	no blocks
Tundra	2000-2006	101-5600-5	102-0052-8	100-5652-10	1" blocks included
Tundra	2007-2008	101-5600-6	102-0052-9	100-5652-11	UCA Required
Tundra	2007-2008	101-5600-10	102-0052-9	100-5652-12	N/A
Tundra	2007-2008	101-5600-10	102-0052-10	100-5652-13	With Rear Shackle
Tundra	2007-2008	101-5600-10	102-0052-10	100-5652-14 With Re	ear Shackle, UCA Required
4Runner	1996-2002	101-5600-7	N/A	Front Only	N/A
4Runner	2003-2008	101-5600-11	102-0052-3	100-5652-5	N/A
4Runner	2003-2008	101-5600-11	102-0052-4	100-5652-6	rearspringsincluded
FJ Cruiser	2007-2008	101-5600-8	102-0052-5	100-5652-7	N/A
FJ Cruiser	2007-2008	101-5600-8	102-0052-6	100-5652-8	rearspringsincluded
Sequoia	2000-2006	101-5600-9	N/A	Front Only	N/A

^{*=} front shock for UCA UNI-Ball upper control arm (arm not included in kits)





FORD SHOCKS

Size	Application	Year	Coil Rate	Part Number
2 1/2"	F150 2x4 Front	2004-2008	700 lb	56000-1502
2 1/2"	F150 4x4 Front	2004-2008 Stock	700 lb	56000-1504
2 1/2"	F150 2x4 Front	2004-2008 For 6" Fabtech/Procomp Kits	700 lb	56000-1502-6*
2 1/2"	F150 4x4 Front	2004-2008 For 6" Fabtech/Procomp Kits	700 lb	56000-1504-6*
2 1/4"	F150 2wd Rear	2004-2008	N/A	57000-308-10
21/4"	F150 4wd Rear	2004-2008	N/A	57000-308-11
21/4"	F150 2/4wd Rear	2004-2008 For 6" Fabtech/Procomp Kits	N/A	57000-308-13*

^{*} Does not include drop brackets.

FORD SUSPENSION KITS

Application	Front Kit	Rear Kit	Complete F & R Kit
2004-2008 F150 2x4 Front	301-5600-1	302-0057-1	300-5657-1
2004-2008 F150 4x4 Front	301-5600-2	302-0057-2	300-5657-2
2004-2008 2 wd 6" Drop Bracket, Fabtech/Procomp Kit*	301-5600-3	302-0057-3	300-5657-3
2004-2008 4 wd 6" Drop Bracket, Fabtech/Procomp Kit*	301-5600-4	302-5700-4	300-5657-4

^{*} Does not include drop brackets.

NISSAN SHOCK APPLICATIONS

Size	Application	Year	Coil Rate	Part Number
2 1/2"	Titan 2&4wd	2004-2008	625 lb	56000-109-1
2 1/2"	Titan 2&4wd*	2004-2008	625 lb	56000-109-2
21/2"	Titan 2 & 4 wd Ext Version For 5" & 6" Drop Bracket Lift	2004-2008	625 lb	56000-109-6
2 1/4"	Titan Piggy Back 2wd & 4wd Rear	2004-2008	N/A	57000-308-12
2 1/4" * UCA	Titan Piggy Back 2wd & 4wd Rear, 1" Ext	2004-2008	N/A	57000-308-14

NISSAN SUSPENSION KITS

Application	Front Kit	Rear Kit	Complete F & R
2004-2008 Titan 2&4wd	201-5600-1	202-0057-1	200-5657-1
2004-2008 Titan 2&4wd*	201-5600-2	202-0057-1	200-5657-2*
2004-2008Titan 2&4wd, Fits 5"&6" Drop Bracket Kit	201-5600-2	202-0057-2	200-5657-3

^{*=} front shock for UNI-Ball upper control arm (arm not included in kits)

2" & 2 1/2" GMC/CHEVY SHOCK APPLICATIONS

Size	Application	Year	Coil Rate	Part Number
2 1/2"	Chevy 1500/Tahoe Front	2007-2008	650 lb	56000-108-25
2 1/4"	Chevy 1500/Tahoe Rear	2007-2008	N/A	57000-308-15

SHACKLE KITS

Application	Year	Part Number
Tundra, Rear 2" lift	07-Current	17-2100







2.25" SHOCKS

Sway-A-Way 2.25" Shocks are designed for lifted truck applications, and performance street vehicles. These shocks can be rebuilt and revalved by the owner and are available in remote reservoir, piggyback, and internal reservoir piston designs. The remote reservoir hose is braided stainless steel. The fixed piggyback shock is designed in straight and 90 degree versions for easy fit ment. Shock travel ranges from 6" to 16" in 2" increments. All 2.25" shocks come standard with smooth body bright silver cadmium plated cylinders and high strength 5/8" Nitro Steelshafts that are chip and rust resistant. These shocks come with high strength Com 10 Teflon lined steels pherical bearing sone achend with 304 stainless spacers. All aluminum parts are redanodized. Shocks with black ano dized aluminum parts will be available in the winter of 2008. Standard nitrogen pressure is 200 PSI for all 2.25 shocks. Spacers are 1.25 wide in the ends and use ½" bolts.

2.25" REMOTE RESERVOIR SHOCKS

Shock Travel	Extended Length	Compressed Length	Part Number
6"	18.90"	12.72″	57000-106
8"	22.90"	14.72″	57000-108
10"	26.90"	16.72"	57000-110
12"	31.57"	19.41″	57000-112
14"	35.57"	21.41"	57000-114
16"	40.57"	24.41"	57000-116

2.25" INTERNAL RESERVOIR SHOCKS

Shock Travel	Extended Length	Compressed Length	Part Number
6"	18.90"	12.72"	57000-206
8"	22.90"	14.72″	57000-208
10"	26.90"	16.72"	57000-210
12″	31.57"	19.41″	57000-212
14"	35.57"	21.41"	57000-214
16″	40.57"	24.41"	57000-216

2.25" FIXED STRAIGHT ON PIGGY BACK SHOCKS

Shock Travel	Extended Length	Compressed Length	Part Number
6"	18.90"	12.72"	57000-306
8"	22.90"	14.72″	57000-308
10"	26.90"	16.72"	57000-310
12"	31.57"	19.41"	57000-312
14"	35.57"	21.41"	57000-314
16"	40.57"	24.41"	57000-316

2.25" 90 DEGREE PIGGY BACK SHOCKS

Shock Travel	Extended Length	Compressed Length	Part Number
6"	18.90"	12.72"	57000-306-90
8"	22.90″	14.72"	57000-308-90
10"	26.90"	16.72"	57000-310-90
12″	31.57"	19.41″	57000-312-90
14"	35.57"	21.41"	57000-314-90
16"	40.57"	24.41"	57000-316-90

TRUCK TORSION BARS

Sway-A-Waytorsionbarsaredesignedspecificallyforlifted and lowered trucks and SUV's that demand superiors uspension performance. The barsare manufactured from aircraft alloysteel and have a 20%-30% increase in spring rate overstock bars. Sway-A-Waytorsion barseliminate hard bottoming when off roading or towing heavy loads, improve vehicle handling on the street, and provide a more consistent spring rate for better vehicle control.

DODGE TORSION BARS

Make & Model	Year	Diameter	Length	Part No.
Dodge PU/Raider 4WD	1982-1989	26mm	50 1/2"	1726
Dodge V6 4WD	1990-1997	26mm	53 13/16"	1736
Dodge 4x4/Raider	1990-1994	27.5mm	53 13/16"	1737

ISUZU TORSION BARS

Make & Model	Year	Diameter	Length	Part No.
LUV, Isuzu 2WD & 4WD	1972-1980	26mm	36 1/8"	1526
LUV, Isuzu 4WD	1981-1983	26mm	36 1/2"	1536
Isuzu 4WD Trooper	1984-1991	26mm	36 1/2"	1546
Isuzu 4WD Trooper	Nov. 86-June 89	25.5mm	39 5/16"	1548
4WDPickup/Trooper/Jacka- roo/Via Cross	1992-1999	31mm	47 3/4"	1549
Isuzu 4X4 PU/2X4 Amigo	July 89-1997	24mm	39 5/16"	1556
Isuzu 2X4 PU/4X4 Rodeo & Amigo	July 89-1997	27mm	39 5/16"	1566

MAZDA TRUCK TORSION BARS

Make & Model	Year	Diameter	Length	Part No.
Mazda 4WD	1987-1997	26mm	36 1/2"	1546

MITSUBISHI TRUCK TORSION BARS

Make & Model	Year	Diameter	Length	Part No.
Mitsubishi Montero 4WD	1982-1989	26mm	50 1/2"	1726
Mitsubishi Pickup 4WD	1990-1997	26mm	53 13/16"	1736
Mitsubishi Montero 4X4	1990-1994	27.5mm	53 13/16"	1737

NISSAN TRUCK TORSION BARS

Make & Model	Year	Diameter	Length	Part No.
Nissan Frontier	1986-1999	26mm	34 13/16"	1446
Nissan Hardbody 2WD	1986-1999	26mm	34 13/16"	1446
Nissan Hardbody 4WD	1986-1997	27.5mm	47 7/16"	1456
Nissan Pathfinder 4WD	1987-1997	27.5mm	48 7/16"	1458
NissanXterra/Frontier2W&4WDV6	1999-2004	26mm	34 1/8"	1447
Nissan Frontier 4Cyl.	Sept. 97-2004	24.5mm	34 13/16"	1448



TOYOTA TRUCK TORSION BARS

Make & Model	Year	Diameter	Length	Part No.
Toyota 2WD	84-95	25mm	35 1/8"	1636
Toyota T100 4WD	Up To 92	25.5mm	35 7/8"	1638
Toyota T100 2WD	92-97	25.5mm	34 3/4"	1639
Toyota 4WD/ 4-Runner	86-95	25mm	41 7/8"	1646
Toyota T100 4WD	93-97	25mm	41 7/8"	1646
Toyota Land Cruiser Diesel Application		32mm	47 5/8"	1660
ToyotaLandCruiser/FJ-100		31mm	47 3/4"	1661
Toyota2WDTorsionRaceBars	93-97	27.5mm	35 1/8"	31636
Toyota4WDRaceTorsionBars	86-95 / 93-97	27mm	41 7/8"	31646

GM/CHEVY TORSION BARS

Make & Model	Year	Diameter	Length	Part No.
Chevy/GMC 4WD PU	88-98	1.350	54"	1761
Chevy/GMCSuburban/Yu- kon XL	2WD 01-03 / 4WD 88-03	1.470	52"	1762
Chevy/GMC Tahoe/Yukon	2WD 01-03 / 4WD 88-03	1.470	54 1/16"	1763
Cadillac Escalade	99-Current	1.470	54 1/16"	1763
Hummer H2	03-Current	1.470	54 1/16"	1763
Chevy/GMC Heavy Duty 2500	03-Current	1.470	54 1/16"	1763
Hummer H3	05-Current	1.470	48 1/4"	1766





Section: 2

TROPHY KART & UTV'S





2.0"TROPHY KART COIL OVER SHOCKS

5/8" Shaft

Size	Application	Extended Length	CompressedLength	Coil Rate	Part Number
2"	Front Shock	19.04	13.03	100 Lb/In	52500-206-1
2"	Rear Shock	18.54	13.03	100 Lb/In	52500-206-2

UTV SHOCKS

5/8" Shaft



Size	Application	Year	Part Number
2"	Yamaha Rhino Stock Front Remote Reservoir, 6"Travel	2005-2008	52500-106-1
2"	Yamaha Rhino Stock Rear Remote Reservoir, 6"Travel	2005-2008	52500-106-2
2"	Yamaha Rhino Stock Front Piggy Back Reservoir	2005-2008	52500-306-1
2"	YamahaRhinoStockRearPiggyBack Reservoir	2005-2008	52500-306-2
2"	Yamaha Rhino LT Front Piggy Back Reservoir, 6″ Travel		52500-306-5
2"	Yamaha Rhino LT Rear Piggy Back Reservoir, 6″ Travel		52500-306-6
2"	KawasakiTeryxFrontStock,Internal Reservoir	2007-2008	52500-306-10
2"	KawasakiTeryxRearStock,Internal Reservoir	2007-2008	52500-306-11

UTV AXLES

Yamaha Rhino, Polaris RZR, and Kawasaki Teryx Axles

Length	Application	Spline	Standard	300M Racing	
22.313"	Rhino Front, +6", To Dec 06	19/23	2060-1	NA	
23.905"	Rhino Right Rear, +6", To Dec 06	18/19	2060-2	2060-2RACE	
22.530"	Rhino, Left Rear, +6", To Dec 06	18/19	2060-3	2060-3RACE	
21.56″	Rhino, Front, +5", Dec 06 Up	19/23	2060-4	NA	
22.87"	Rhino, Right Rear, +5", Dec 06 Up	18/19	2060-5	NA	
21.62"	Rhino, Left Rear, +5", Dec 06 Up	18/19	2060-6	NA	
19.50"	Rhino Front, +3", To Dec 06	19/23	2060-7	NA	
20.83	Rhino Right Rear, +3", To Dec 06	18/19	2060-8	NA	
19.59"	Rhino, Left Rear, +3", To Dec 06	18/19	2060-9	NA	1
22.25"	Polaris RZR Front, +6", All	20/20	2060-10	NA	
19.94"	Polaris RZR Rear, +6", All	19/19	2060-11	NA	
22.75"	Kawasaki Teryx Front, +6"	18/19	2060-12	2060-12RACE	
21.12"	Kawasaki Teryx Rear, +6"	23/28	2060-13	2060-13RACE	
22.53"	Rhino, Front, +6", Jan 2008 Up	19/24	2061-1	NA	
22.10"	Rhino, Front, +6", Jan 2008 Up	18/19	2061-2	NA	





Section: 3 RACING SHOCKS



2.0"SHOCKS

Sway-A-Way 2.0" Shocks are designed for applications including off-road buggies, long travels and cars, extreme rockcrawlers, trucks, prerunners and performances treet vehicles. These rebuild able and revalve ableshocks are available in remote reservoir, piggyback, emulsion, air shock and by pass designs. Both the piggyback and the bypass designs feature at opt hat allows it to swivel 360 degrees for easy fitment. By pass shocks are available in right and left hand designs. Shock travel ranges from 6" to 18" in 2" increments. All 2.0" shocks come standard with brights liver cadmium plated cylinders and high strength 7/8" Nitro Steel shafts that are chip and rust resistant. All 2.0 air shocks come with a tubular 13/8" Nitro Steel shaft. All shock cylinders except the air, and by pass shocks are threaded for both single & dual rate applications, and use standard 2.5" i. D. coil springs. Coil over kits can be added for coil spring applications. Shocks come standard with high strength Com 10 Teflon lined steel spherical bearing sone achend with 304 stainless spacers. All aluminum parts are red ano dized. Shocks with black ano dized aluminum parts will be available in the winter of 2008. Standard nitrogen pressure is 200 PSI for all shocks except the air shocks. Spacers are 1.25 wide in the ends and use 1/2" bolts.



2.0"REMOTE RESERVOIR SHOCKS

Shock Travel	Extended Length	Compressed Length	Part Number	
6"	18.90"	12.37"	52000-106	all.
8"	22.90"	14.37"	52000-108	
10"	26.9"	16.37"	52000-110	
12"	31.57"	19.05"	52000-112	
14"	35.57"	21.05"	52000-114	
16"	40.57"	24.05"	52000-116	
18"	44.57"	26.05"	52000-118	



Shock Travel	Extended Length	Compressed Length	Part Number	
6"	18.90″	12.37"	52000-406	
8"	22.90"	14.37"	52000-408	
10"	26.90"	16.37"	52000-410	
12"	31.57"	19.05"	52000-412	
14"	35.57"	21.05"	52000-414	
16″	40.57"	24.05"	52000-416	
18"	44.57"	26.05"	52000-418	

2.0"TOP MOUNT PIGGY BACK RESERVOIR SHOCKS

Shock Travel	Extended Length	Compressed Length	Part Number	
6"	18.90"	12.37"	52000-306	
8"	22.90"	14.37"	52000-308	
10"	26.09"	16.37"	52000-310	
12"	31.57"	19.05"	52000-312	
14"	35.57"	21.05"	52000-314	
16"	40.57"	24.05"	52000-316	
18"	44.57"	26.05"	52000-318	

2.0" REMOTE RESERVOIR BYPASS SHOCKS

Shock Travel	Extended Length	Compressed Length	Two Tube Part Number	Three Tube Part Number
8"	22.90"	14.37"	52000-208-2L	52000-208-3L
8"	22.90"	14.37"	52000-208-2R	52000-208-3R
10"	26.90"	16.37"	52000-210-2L	52000-210-3L
10"	26.90"	16.37"	52000-210-2R	52000-210-3R
12"	31.57"	19.05"	52000-212-2L	52000-212-3L
12"	31.57"	19.05"	52000-212-2R	52000-212-3R
14"	35.57"	21.05"	52000-214-2L	52000-214-3L
14"	35.57"	21.05"	52000-214-2R	52000-214-3R
16"	40.57"	24.05"	52000-216-2L	52000-216-3L
16"	40.57"	24.05"	52000-216-2R	52000-216-3R

2.0" PIGGY BACK BYPASS SHOCKS

Shock Travel	Extended Length	Compressed Length	Two Tube Part Number	Three Tube Part Number
8"	22.90"	14.37"	52000-308-2L	52000-308-3L
8"	22.90"	14.37"	52000-308-2R	52000-308-3R
10"	26.90"	16.37"	52000-310-2L	52000-310-3L
10"	26.90"	16.37"	52000-310-2R	52000-310-3R
12"	31.57"	19.05"	52000-312-2L	52000-312-3L
12"	31.57"	19.05"	52000-312-2R	52000-312-3R
14"	35.57"	21.05"	52000-314-2L	52000-314-3L
14"	35.57"	21.05"	52000-314-2R	52000-314-3R
16"	40.57"	24.05"	52000-316-2L	52000-316-3L
16"	40.57"	24.05"	52000-316-2R	52000-316-3R

2.0" AIR SHOCKS

1	Shock Travel	Extended Length	Compressed Length	Part Number	
	10"	26.94"	16.99″	52700-110	
	12"	30.94"	18.99"	52700-112	ti di
	14"	34.94"	20.99"	52700-114	
	16"	38.94"	22.99"	52700-116	
	18"	42.94"	24.99"	52700-118	

50-500psi, supports up to 1000lbs per corner

2.0" HYDRAULIC BUMP STOPS

 $2.0 {\it ''} hydraulic bumps tops greatly improve handling and help to eliminate suspension damage due to bottoming out. Bump Stops come standard in 2",4" {\it ''} & 6" travel, come with a 13/8" diameter tubular shaft, and incorporate a toughnylonend piece to soft en the blow when contacted by the suspension. Bump stops are adjustable internally (valving) and externally (nitrogen pressure) and come standard with smooth brights ilvercadmium plated cylinders and red anodized a luminum parts.$

2.0" HYDRAULIC BUMP STOPS

Shock Travel	Extended Length	Compressed Length	Part Number	
2"	10.57"	8.36"	52700-102	
4"	14.51"	10.30"	52700-104	
6"	18.83"	12.61"	52700-106	



2.5" SHOCKS

Sway-A-Way2.5" Shocks are designed for applications including off-road buggies, long travels and cars, trucks, prerunners, extremerock crawlers, and performances treet vehicles. These shocks can be rebuilt and revalved by the owner, and are available in remote reservoir, to pmount piggyback, bottom mount piggyback, emulsion, air shock and by pass designs. Both the piggyback and the by pass designs feature at op that allows it to swivels 360 degrees for easy fitment. By pass shocks are available in left and right hand designs. Shock travel ranges from 6" to 18" in 2" increments. All 2.5" shocks come standard with bright silver cadmium plated cylinders and high strength 7/8" Nitro Steels hafts that are chip and rust resistant. All 2.5 air shocks come with a tubular 15/8" Nitro Steels hafts. All shock cylinders except the air, bottom mount piggyback, and by pass shocks are threaded for both single & dual rate applications, and uses tandard 3" l.D. coils prings. Coilover kits can be added for coils pring applications. Shocks come standard with high strength Com 10 Teflon lined steels pherical bearings on each end with 304 stainless spacers. All alumin um parts are red ano dized. Shocks with black ano dized alumin um parts will be available in the winter of 2008. Standard nitrogen pressure is 200 PSI for all shocks except the air shocks. Spacers are 1.25 wide in the ends and use 1/2" bolts. Sway-A-Way's 2.5" By pass, Top Mount & Bottom Mount Piggyback Shock utilize an innovative design which allows the shock body to swivel 360 *for ease of installation. Taking the reservoir off the bottom of the cylinder provides that all of the oil must pass through the piston as ittravels in the cylinder. This provides for more control and better performance.

2.5" REMOTE RESERVOIR SHOCKS

Shock Travel	Extended Length	Compressed Length	Part Number	
6"	18.90″	12.37"	56000-106	
8"	22.90"	14.37"	56000-108	
10"	26.90"	16.37"	56000-110	
12"	31.57"	19.05"	56000-112	
14"	35.57"	21.05"	56000-114	
16″	40.57"	24.05"	56000-116	
18"	44.57"	26.05"	56000-118	

2.5" EMULSION SHOCKS

Shock Travel	Extended Length	Compressed Length	Part Number	
6"	18.90"	12.37"	56000-406	
8″	22.90"	14.37"	56000-408	
10"	26.90"	16.37"	56000-410	
12″	31.57"	19.05"	56000-412	
14"	35.57"	21.05"	56000-414	
16"	40.57"	24.05"	56000-416	
18"	44.57"	26.05"	56000-418	

2.5" TOP MOUNT PIGGY BACK SHOCKS

Shock Travel	Extended Length	Compressed Length	Part Number	
6"	18.90"	12.37"	56000-306	
8"	22.90"	14.37"	56000-308	
10"	26.90"	16.37"	56000-310	
12"	31.57"	19.05"	56000-312	
14"	35.57"	21.05"	56000-314	
16"	40.57"	24.05"	56000-316	
18"	44.57"	26.05"	56000-318	

2.5" BOTTOM MOUNT PIGGY BACK SHOCKS

Shock Tra	vel Extended Length	Compressed Length	Part Number	
8"	22.90"	14.37"	56000-708	
10"	26.90"	16.37"	56000-710	
12"	31.57"	19.05"	56000-712	
14"	35.57"	21.05"	56000-714	
16"	40.57"	24.05"	56000-716	
18"	44.57"	26.05"	56000-718	

2.5" REMOTE RESERVOIR BYPASS SHOCKS



,	Shock Travel	Extended Length	Compressed Length	Two Tube Part Number	Three Tube Part Number
	8"	22.90"	14.37"	56000-208-2L	56000-208-3L
	8"	22.90"	14.37"	56000-208-2R	56000-208-3R
	10"	26.90"	16.37"	56000-210-2L	56000-210-3L
	10"	26.90"	16.37"	56000-210-2R	56000-210-3R
1	12"	31.57"	19.05"	56000-212-2L	56000-212-3L
	12"	31.57"	19.05"	56000-212-2R	56000-212-3R
	14"	35.57"	21.05"	56000-214-2L	56000-214-3L
	14"	35.57"	21.05"	56000-214-2R	56000-214-3R
	16"	40.57"	24.05"	56000-216-2L	56000-216-3L
	16"	40.57"	24.05"	56000-216-2R	56000-216-3R
	18"	44.57	26.05	56000-218-2L	56000-218-3L
	18"	44.57	26.05	56000-218-2R	56000-218-3R

2.5" PIGGY BACK BYPASS SHOCKS



Shock Travel	Extended Length	Compressed Length	Two Tube Part Number	Three Tube Part Number
8"	22.90"	14.37"	56000-308-2L	56000-308-3L
8"	22.90"	14.37"	56000-308-2R	56000-308-3R
10"	26.90"	16.37"	56000-310-2L	56000-310-3L
10"	26.90"	16.37"	56000-310-2R	56000-310-3R
12"	31.57"	19.05"	56000-312-2L	56000-312-3L
12"	31.57"	19.05"	56000-312-2R	56000-312-3R
14"	35.57"	21.05"	56000-314-2L	56000-314-3L
14"	35.57"	21.05"	56000-314-2R	56000-314-3R
16"	40.57"	24.05"	56000-316-2L	56000-316-3L
16"	40.57"	24.05"	56000-316-2R	56000-316-3R
18"	44.57	26.05	56000-318-2L	56000-318-3L
18"	44.57	26.05	56000-318-2R	56000-318-3R

2.5" AIR SHOCKS

Shock Travel	Extended Length	Compressed Length	Part Number	
6"	18.97"	13.09"	56700-106	
10"	26.94"	16.99″	56700-110	
12"	30.94"	18.99"	56700-112	
14"	34.94"	20.99"	56700-114	
16"	38.94"	22.99"	56700-116	
18"	42.94"	24.99"	56700-118	

2.5" HYDRAULIC BUMPSTOPS

Shock Travel	Extended Length	Compressed Length	Part Number	
2"	10.37	8.37	56400-102	
3"	13.37	10.37	56400-103	
4"	14.37	10.37	56400-104	
4"	17.37	12.37	56400-105	
6"	18.37	12.37	56400-106	



3.0" SHOCKS

Sway-A-Way 3.0" Shocks are designed for racing and hard prerunning applications including off-road buggies, prerunners, desert and short course trucks. These rebuild able and revalve ableshocks are available in remote reservoir and by pass designs. The by pass design features at opt hat allows it to swivel 360 degrees for easy fitment. By pass shocks are available in right and left hand designs. Shock travel ranges from 8" to 18" in 2" increments. All 3.0" shocks comestand ard with bright silver cadmium plated cylinders and high strength 1"Nitro Steel shafts that are chip and rust resistant. All shock cylinders except for by pass designare threaded for both single & dual rate applications, and uses standard 35/8" i.D. coil springs. Coil over kits can be added for coil spring applications. Shocks comestand ard with high strength Com 12 Teffon lined steel spherical bearings on each end with 304 stainless spacers. All aluminum parts are red anodized. Standard nitrogen pressure is 200 PSI for all shocks. Spacers are 1.50 wide in the ends and use 1/2" bolts.

3.0" REMOTE RESERVOIR SHOCKS

Shock Travel	Extended Length	Compressed Length	Part Number	
8"	26.00"	17.25″	50000-108	
10″	30.00"	19.25″	50000-110	
12"	33.75"	21.25"	50000-112	
14"	38.62"	24.00"	50000-114	
16"	43.37"	26.75"	50000-116	
18″	48.00"	29.50"	50000-118	

3.0"THREE TUBE BYPASS SHOCKS

Shock Travel	Extended Length	Compressed Length	PartNumberRemoteResservoir	Part Number Piggy Back Reservoir
10"	30.00"	19.25"	50000-110-3L	50000-310-3L
10″	30.00"	19.25″	50000-110-3R	50000-310-3R
12"	33.75"	21.25"	50000-112-3L	50000-312-3L
12″	33.75"	2125″	50000-112-3R	50000-312-3R
14"	38.62"	24.00"	50000-114-3L	50000-314-3L
14″	38.62"	24.00"	50000-114-3R	50000-314-3R
16"	43.37"	26.75"	50000-116-3L	50000-316-3L
16″	43.37"	26.75″	50000-116-3R	50000-316-3R
18"	48.00"	29.50"	50000-118-3L	50000-318-3L
18″	48.00"	29.50"	50000-118-3R	50000-318-3R

3.0" RACE SERIES COMPETITION SHOCKS

Now available from Sway-A-Way, the original Kustershock design with internally threaded cylinders. Designed for short course and the desert, these shocks are designed with top caps and the seal caps that thread into the inside of the cylinder for maximum strength. 1" and 11/8" shafts are available for different applications.

3.0" REMOTE RESERVOIR SHOCKS (Race Series)

Shock Travel	Extended Length	Compressed Length	Race Series	Part Number, 1 1/8" Shaft
12"	34.00"	22.00"	50100-112	50200-112
14"	38.75"	24.75″	50100-114	50200-114
16"	43.50"	27.50"	50100-116	50200-116
18″	48.25"	30.25"	50100-118	50200-118

3.0"THREE TUBE BYPASS SHOCKS (Race Series)

Shock Travel	Extended Length	Compressed Length	Race Series	Part Number, PB Reservoir
10"	30.00"	20.00"	50100-110-3L	50100-310-3L
10"	30.00"	20.00"	50100-110-3R	50100-310-3R
12"	34.00"	22.00"	50100-112-3L	50100-312-3L
12″	34.00"	22.00"	50100-112-3R	50100-312-3R
14"	38.75"	24.75"	50100-114-3L	50100-314-3L
14"	38.75"	24.75"	50100-114-3R	50100-314-3R
16"	43.50"	27.50"	50100-116-3L	50100-316-3L
16″	43.50"	27.50"	50100-116-3R	50100-316-3R
18"	48.25"	30.25"	50100-118-3L	50100-318-3L
18"	48.25"	30.25"	50100-118-3R	50100-318-3R

4.0" SIX TUBE BYPASS SHOCKS

Hard core Sway-A-Way 4.0'' By pass Shocks are designed for the rear of Class 1 buggies and all around on off road racing trucks. These shocks are manufactured using an innovative design which allows the shock body to rotate 360 degrees for ease of installation and eliminates the need for left and right specific shocks. Remote reservoir and piggy back designs are available. These shocks feature Com-14 Teflon lined steels pherical bearings, industries first 11/4'' Nitro Steels haft that are chip and rustres is tant, and brights il vercad miumplated cylinders. Sway-A-Way 4.0'' By pass Shocks are custom built to order, which allows for specific placement of 4 compression tubes and 2 rebound tubes for position sensitive tuning and are ideal for Class 1, Class 8, Trophy Trucks & off-road buggies.

4.0" BYPASS SHOCKS (Race Series)

Extended Length	Compressed Length	Race Series	Part Number, PB Reservoir
38.625"	24.625"	59000-114-6	59000-314-6
43.375"	27.375"	59000-116-6	59000-316-6
48.00"	30.00"	59000-118-6	59000-318-6
52.625"	32.625"	59000-120-6	59000-320-6
54.250"	32.250"	59000-122-6	59000-322-6
	38.625" 43.375" 48.00" 52.625"	38.625" 24.625" 43.375" 27.375" 48.00" 30.00" 52.625" 32.625"	38.625" 24.625" 59000-114-6 43.375" 27.375" 59000-116-6 48.00" 30.00" 59000-118-6 52.625" 32.625" 59000-120-6

COIL OVER KITS

Swav-A-Way coil kits come in both single and dual rate applications, and are specifically designed for the shock line.

Size	Rate	Part Number
2.0"	SingleRate,ConeSpringSeat	52107-100
2.0"	DualRate,ConeSpringSeat	52107-101
2.0"	SingleRate,FlatSpringSeat	52107-102
2.0"	Dual Rate, Flat Spring Seat	52107-103
2.5"	SingleRate,ConeSpringSeat	56107-100
2.5"	DualRate,ConeSpringSeat	56107-101
2.5"	SingleRate,FlatSpringSeat	56107-102
2.5"	Dual Rate, Flat Spring Seat	56107-103
3.0"	SingleRate,FlatSpringSeat	50003-101
3.0"	Dual Rate, Flat Spring Seat	50003-201









COIL SPRINGS



RACING COIL SPRINGS

Sway-A-Waycoilspringsaremanufactured by Eibach Springs, the best in the business. These high performance coils are manufactured from the best alloy wire available on CNC coilers. Then, the coils are closed and ground flat one achend, preset for consistent ride height and rate, shot peened for increased endurance and painted with a powder coatpaint. All coils are designed to minimize weight and maximize spring travel resulting in the best performance possible. Sizes available include 2_",3", and 35/8" inside diameters in lengths from 6" to 22" in 2" increments. 2_" ID coils are used on all 2" shocks, 3" ID coils are used on all 3" shocks. In general, rates are offered in 25 Lb/In increments. Please go to our website for a complete listing of lengths and rates available.

COILS SPRING SIZES

Inside Diameter	Lengths	Rates, Lb/In	Part Numbers
2 _", For 2" Shocks	6", 8", 10", 12", 14", 16"	100 to 800	6/100 to 18/800
3", For 2 _" Shocks	8", 10", 12", 14", 16", 18"	100 to 800	8/100/3 to 18/800/3
3 5/8", For 3" Shocks	12", 14", 18", 20", 22", 24"	200 to 700	12/200/3625 to 24/700/3625

HYDRAULIC SHOCK OIL

Sway-A-Wayhasdevelopedanall-newhighperformanceracingshockfluid. Used to rebuild high performance coil-overshocks, the fluid is used exclusively in all Sway-A-Wayshocks. The High VI synthetic blend formula features excellent anti-stiction technology, promotes consistent dampening under extreme temperatures, and protects against foaming, seal swell, oxidation, corrosion, friction & wear.

Description	Size	Part Number
LongTravelSemiSynthetic	5 Gallon Bucket	50002-097
5 W Full Synthetic	5 Gallon Bucket	50002-098
7 W Semi Synthetic	5 Gallon Bucket	50002-102

SHOCK TOOLS

Sway-A-Waymanufacturesafulllineofshockrebuildingtoolssothattheusercanrebuildorrevalvetheirownshock.Includedarealuminumcylinderjaws, and shaft jaws and steel spanner wrenches to adjust ride height

Description	Part No.	
2.0", 2.5", 3.0" Spanner Wrench (3/8" holes)	50003-202	
3.0" Seal Head Wrench (threaded seal & res ends, ring type)	50005-101	
Shaft Jaws, 1" Shafts	50010-001	
Shaft Jaws, 7/8" Shafts	50010-002	
Shaft Jaws, 5/8" Shafts	50010-004	
Shaft Jaws, 1-1/8" Shafts	50010-009	
Shaft Jaws, 1-1/4" Shafts	50010-010	
Shaft Jaws, 1-3/8" Shafts	50010-005	
Shaft Jaws, 1-5/8" Shafts	50010-011	
Cylinder Jaws, 2.0" Cylinders	50010-006	
Cylinder Jaws, 2.25" Cylinders	50010-007	
Cylinder Jaws, 2.5" Cylinders	50010-008	







Section: 4

VW & Off Road Components



VW TORSION BARS

Sway-A-Waytorsionbarsareofferedinawidevarietyoflengthsanddiameterstoallowselectionoftherightspringrateforanygivenapplication. These torsionbarsaremanufactured in two grades of high quality aircraft alloysteel. The standard barssets come with a toughpowder coated finish. Standard torsion barsare recommended for recreational and high performance use. 300 MPre-Stressed torsion barsare suggested where maximum wheel travelisamust. 300 M torsion bars are not painted to allow for magna flux inspection.

VW TORSION BARS, STANDARD APPLICATIONS

Bar Diameter	1000 Series 21 3/4" PN	1100 Series 24 11/16" PN	1200 Series 26 9/16" PN
24mm	1024	1124	1224
25mm	1025	1125	1225
26mm	1026	1126	1226
27mm	1027	1127	1227
28mm	1028	1128	1228
29mm	1029	1129	1229
30mm	1030	1130	1230

VWTORSION BARS, 300M PRESTRESSED RACING APPLICATIONS

Bar Diameter	31100 Series 24 11/16" PN	31200 Series 26 9/16" PN	31300 Series 29 1/2" PN
23mm	31123	31223	N/A
24mm	31124	31224	N/A
25mm	31125	31225	31325
26mm	31126	31226	31326
27mm	31127	31227	31327
28mm	31128	31228	31328
29mm	31129	31229	31329
30mm	31130	31230	31330
Spe	ecial Order 300M Torsion Bar Set - Pre-S	tressed	31300

PORSCHE TORSION BARS

Sway-A-WaytorsionbarsareofferedinawidevarietyoflengthsanddiameterstoallowselectionoftherightspringrateforPorscheapplications. These torsion barsare manufactured to extremely tight tolerances and exacting heat treat conditions—the result being torsion bars with a more accurate springrate and greater durability. The torsion bars come powder coated red for a beautiful finish and long lasting durability.

PORSCHE 911 REAR TORSION BARS, 65-86

Description	Part No.
26mm Diameter 911 Rear Solid	1126
28mm Diameter 911 Rear Solid	1127
28mm Diameter 911 Rear Solid	1128
29mm Diameter 911 Rear Solid	1129
30mm Diameter 911 Rear Solid	1130
26mm Diameter 911 Rear Tubular	1126T
27mm Diameter911 Rear Tubular	1127T
28mm Diameter 911 Rear Tubular	1128T
29mm Diameter 911 Rear Tubular	1129T
30mm Diameter 911 Rear Tubular	1130T
31mm Diameter 911 Rear Tubular	1131T

PORSCHE 924/944 REAR TORSION BARS-ALL

Description	Part No.
26mm Diameter 924/944 Rear Solid	1226
27mm Diameter 924/944 Rear Solid	1227
28mm Diameter 924/944 Rear Solid	1228
29mm Diameter 924/944 Rear Solid	1229

PORSCHE 911 FRONT TORSION BARS, 65-86

Description	Part No.
21mm Diameter 911 Front Solid	1821
22mm Diameter 911 Front Solid	1822
23mm Diameter 911 Front Solid	1823
21mm Diameter 911 Front Tubular	1821T
22mm Diameter 911 Front Tubular	1822T
23mm Diameter 911 Front Tubular	1823T
	THE RESERVE OF THE PARTY OF THE

PORSCHE 914 FRONT TORSION BARS-ALL

Description	Part No.
21mm Diameter 914 Front Solid	1921
22mm Diameter 914 Front Solid	1922
23mm Diameter 914 Front Solid	1923
21mm Diameter 914 Front Tubular	1921T
22mm Diameter 914 Front Tubular	1922T
23mm Diameter 914 Front Tubular	1923T

VW TIE ROD END ADAPTER

The Rod End Adapter is made to replace standard ball joints with high quality Heim joints for more precise steering

Description	Part No.
Rod End Adapter	6240

VW LINK PIN SHIMS

Link Pin Shims are race proven for resisting wear and galling. Sets include 40 shims and are available for standard diameter and King Kong link pins.

Description	Part No.
Standard & Long Link Pin Shims	6223
King Kong Link Pin Shims	6256



VW LINK PIN BUSHINGS

Link Pin Bushings are made from a luminum silicon bronze for proven long lasting to ughness. These bushings will out last stock units on the street or racing.

Description	Part No.	
Standard Bushings, Std. Link Pins W/ Std. Arms	6210	
Kink Kong Bushings, Long King Kong Link Pins	6260	



PRE DRILLED CV BOLTS

For 930 CV joints, the sear emade from hollow Chromalloy bolts and are precision drilled to air craft specs. Each bolt has 6 holes per head to ensure easy and the search product of the search prodsafe wiring time after time. Sold in packs of 25.

ä	Description	Part No.
	020 CV/s /2/0" 24 x 2 25" Long Drillad For Cafaty Wire) Cat of 24 Palts	2451



VW HARDENED TRANSMISSION KEYS

VWTransmissionkeysfor3rdand4thgeararehardenedtohelppreventshearing.Stockkeystendtoshearunderhighloadscausinglossofbothgears.These keys fit 1961-1967 bug pinion shafts and most racing ring and pinion sets including bus.

Description	Part No.
Third and Forth Gear Transmission Keys	8020



$\begin{tabular}{ll} VW AND PORSCHE WHEEL STUDS AND NUTS \\ VWW heel studs and nuts are manufactured from top quality air craft alloy steel. Both the nuts and studs are cold headed, and all threads are rolled for the nuts and study are cold headed, and all threads are rolled for the nuts and study are cold headed, and all threads are rolled for the nuts and study are cold headed, and all threads are rolled for the nuts and study are cold headed, and all threads are rolled for the nuts and study are rolled for the nuts and study are rolled for the nuts are rolled for the n$

VWWheelstuds and nuts are manufactured from top quality aircraft alloy steel. Both the nuts and studs are cold headed, and all threads are rolled for maximum strength. Two of the studs, Part No. 8030 & 8040 have NASCAR type starting threads for perfect nutalignment and fast tire changes. Installation requires a hole drilled and reamed to .562" diameter. Sold individually. All threads are stock 14 mm-1.5 pitch.

Description	Part No.
Stud, 14mm x 1.5mm, 48mm Long With Nut Starter Lead	8030
Stud, 14mm x 1.5mm, 57mm Long With Nut Starter Lead	8040
Stud, 14mm x 1.5mm, 100mm Long, No Lead	8045
Stud, 14mm x 1.5mm, 49mm Long, No Lead	8049
Stud, 14mm x 1.5mm, 52mm Long, No Lead	8052
Stud, 14mm x 1.5mm, 54mm Long, No Lead	8054
Stud, 14mm x 1.5mm, 56mm Long, No Lead	8056
Stud, 14mm x 1.5mm, 65mm Long, No Lead	8065
Lug Nut, 14mm x 1.5mm	8050

Note: You must drill out the threads in a drum or rotor to 1/2" and ream holes To 9/16" with a 562" diameter reamer.

VW FRONT LEAF SPRING SETS

VW front torsion leaves are produced from a special spring steel custom made for Sway-A-Way. The grubscrewholes are drilled on a CNC mill for accurate center-to-center distances. The leaves are then heat treated, shot peened and oiled before packaging. They are available for both the link pin and ball joint front ends. See chart below for the different spring rates available. Note: The ball joint springs are used in conjunction with some of the stock leafs. Ball joint sets come with enough leafs to do one front end. Link Pinleafs prings et scome with two completes tacks of leafs to do one front end. Rate increases specified are over stock rates.

VW BALL JOINT AND LINK PIN SPRINGS

Sign	Part #	Axle Type	Model	Rate Increase	Length
	6001	1953-1965	5 Torsion Leaves-Stock Width, Link Pin Front Ends	+20%	37 3/8"
	6002	1966 UP	VW Ball Joint Front Ends, (Used with stock leafs)	+20%	37 3/8"
	6006	1953-1965	6 Torsion Leaves - Stock Width, Link Pin Front Ends	+13%	37 3/8"
	6007	1953-1965	7 Torsion Leaves - Stock Width, Link Pin Front Ends	+5%	37 3/8"
	6018	Widened Beams	Four stacks of 5 leaf springs, 183/16 '' on center. Racing beams.	+20%	19 3/16"



VW FRONT TORSION LEAF ADJUSTERS

Quality American made Front Leaf Spring Adjusters allow approximately 2" of adjust mente ither upor down on the front end (4" Total) The strong construction allows you to set your ride height where you want. Lower it for the CA buglook or raise it for extra ground clear ance for your Bajabug. These units are welded in, and are available for link in front ends. Racing adjusters designed with a larger 4130-spring disc and biggers ets crews are available for the link pin front ends. The property of the link pin front ends. The property of the link pin front ends are the property of the link pin front ends. The property of the prope

Description	Part No.
Beam Kit, Small Disc Link Pin	6311
King Kong Racing Adjuster	6330

VW REAR TORSION ADJUSTERS AND CENTERS

RearTorsion Adjusters are designed for a quirk and easy way to adjust the preload on the rear torsion bars. These units can be welded into a rear torsion housing or can be ordered with your new chassis. The removable adjusting arms are manufactured from alloysteel and heat treat for maximum strength. Adjust mentis as simple as turning as crew, one for each side allowing easy changes in ride height and cornering weights. These units are available in the strong standard design or the stronger King Kongracing version. Our 40-tooth torsion centeris designed for replacement of that worn outstock center or can be used in new custom car construction where adjustability is not needed. These products weld into place.





Description	Part No.
Standard Quick Adjuster	7000
40 Tooth Adjuster Arm For Part No. 7000 & 7015	7001
Torsion Center - 40 Tooth, 2" OD	7010
Stock Torsion Center Replacement - 40 Tooth VW - 2 1/4" OD	7010-1
Adjuster Screw Set of Two with Nuts, 5/8-18 Thread	7011
Wide Adjuster For Wide Chassis, After Market Housings	7015
Wide Kink Kong Adjuster, for 2 _" Housings	7020
44 Tooth Kink Kong Adjuster Arm For 7020	7021
40 Tooth Kink Kong Adjuster Arm For 7020	7023
Bearing Cup, A-Arm Cars	9044

SPRING PLATES VW & PORSCHE SPRING PLATES

VWSpringPlates are available for both the swing ax leand IRS rear suspension. Both are manufactured from high quality _"thickspring steel. The 4130 steel spring plate collars are precision welded into place and are available in several different lengths to allow use of different length torsion bars. Adjust able spring plates come with the inner and outer ure than ebushing sand can adjust ride height by about 2". Collar lengths specified are over all length. This helps to determine what length torsion bars are to be used. If you measure from the plate out to the end of the collar, add 1.7" to that measurement to get the collar length.

SpringPlatesaresoldinpairsandaremanufacturedintwodifferentgradesofsteel. The standard race proven spring plates come silver zinc finish for corrosion protection. For the racer, fully heat-treated and shot peened 4130-chromoly swing axle plates are manufactured.

VW IRS SPRING PLATES, 1969 UP

Description	Part No.
Standard IRS Set- 2.93" Collar Spring Plate, Used with 21 _ " Bars	4201
Standard IRS Set- 5.910" Collar Spring Plate, Used with 24 11/16" Bars	4202
Standard IRS Set- 7.810" Collar Spring Plate, Used with 26 9/16" Bars	4203
Adjustable IRS Set - 2.935" Collar, Used with 21 _" Bars	5201
Adjustable IRS Set - 5.910" Collar, Used with 24 11/16" Bars	5202
Adjustable IRS Set - 7.810" Collar, Used with 26 9/16" Bars	5203

VW SWING AXLE SPRING PLATES

Description	Part No.
Standard Swing Axle Set - 2.935" Collar, Used with 21 3/4" Bars	4101
Standard Swing Axle Set - 5.910" Collar, Used with 24 11/16" Bars	4102
Standard Swing Axle Set - 7.810" Collar, Used with 26 9/16" Bars	4103
Racing Swing Axle Set, 4130 Steel - 2.93" Collar, Used with 21 3/4" Bars	4501
Racing Swing Axle Set, 4130 Steel - 5.910" Collar, Used with 24 11/16" Bars	4502
Racing Swing Axle Set, 4130 Steel - 7.810" Collar, Used with 26 9/16" Bars	4503
Adjustable VW Swing Axle Bug (1961-1968), For 21 3/4" Bars	5101
Adjustable VW Swing Axle Bug (1961-1968), Square, Fastback (1965-1967), 24 11/16" Bars	5102
Adjustable VW Swing Axle Cars (All), For 26 9/16" Bars	5103



$\begin{picture}{ll} PORSCHE ADJUSTABLE SPRING PLATES \\ Porsche Spring Plates are sold in pairs and come complete with ure than ebushings. These race proven spring plates come with a goldzinc finish for corrosion and the proventies of the proven$

protection. The total adjustment rage is about 2".

Description	Part No.
Adjustable Porsche 911 Rear, 1969-1986, Long Wheel Base Cars	5501
Adjustable Porsche 911 Rear, 1965-1968, Short Wheel Base Cars	5502
Adjustable Porsche 911 Rear, 1987-1989	5505



VW SUSPENSION COMPONENTS VW SWING AXLE CAMBER STOP

The Sway-A-Way cambers top kit is designed to help prevent rear wheel tucking on swing axlebug sduring hard cornering. This unit bolt son to the bottom of the Sway-A-Way cambers top kit is designed to help prevent rear wheel tucking on swing axlebug sduring hard cornering. This unit bolt son to the bottom of the Sway-A-Way cambers top kit is designed to help prevent rear wheel tucking on swing axlebug sduring hard cornering. This unit bolt son to the bottom of the Sway-A-Way cambers to particular the sway-A-Way cambers the swaythe transmission and includes all hardware. Unlike other kits on the market, this one will not stiff enthes uspension and provides a smooth ride and improved the transmission and includes all hardware. Unlike other kits on the market, this one will not stiff enthes uspension and provides a smooth ride and improved the transmission and includes all hardware. Unlike other kits on the market, this one will not stiff enthes uspension and provides a smooth ride and improved the market, the same transmission and the market in the mahandling.

Description	Part No.
1961-1967 Swing Axle Bug	9130

SPRNG PLATE COLLARS

Spring Plate Collars are manufactured from alloysteel. Available in a variety of sizes and splines, the secollars are used for special spring plate and torsion bar and the second spring plate and to second spring plate and the secondinstallations.

Description	Spline	Part No.
VW Spring Plate Collar, 5.910" Long	44 Tooth VW, Outer End	5406
VW Spring Plate Collar, 7.810" Long	44 Tooth VW, Outer End	5407
VW Spring Plate Collar, 5.625" Long	44 Tooth VW, Outer End	5410

VW AXLE SPACER KITS

These kits are designed to replace the stock spacers in swing axle and IRS applications. They are made from heat-treated alloy steel to resist crushing which is a supplication of the state of the stcauses loose axle nuts.

Description	Part No.	
Swing Axles Spacers, All Swing Axle Transmissions	2201	
IRS Axle Spacers, All IRS Training Arms	2202	



PERFORMANCE DRIVE AXLES

Sway-A-Wayaxlesaredesigned with tough applications in mind. Available in 2 grades of high quality aircraft alloysteel, these axles are heat-treated and centerless ground for a smooth consistent finish. The end diameter has been maximized to get the most face contact possible, minimizing wear between the axle and CV. The spinelength has been increased to 2 _ "-3" to allow the CV to float on the axle. The 33 tooth spline fits the Type 1, Type 2, and the Type 3 CV's. The 28 tooth spline fits the 930 Porsche CV and the larger 33 tooth spline fits the 934.5 CV. The center part of the axle is sized to twist like a torsion bar under heavy loads absorbing a large portion of the shock transmitted from the wheel into the gearbox. Racing axles are made from 300 M.

VW/PORSCHE AXLE APPLICATIONS

Length	Application	Standard 33 Spline	Standard 28 Spline	300M Race Axles
15 5/8"	Conversion, IRS Bug Trans In Bug Chassis	2015	2415	N/A
16 1/4"	Replaces Stock Axles In Bug Chassis	2016	2416	N/A
16 3/4"	Racing Applications	2016-7	2416-7	32416-7
16 9/16"	Racing Applications (2 Splines)	N/A	N/A	32416
17 1/2"	Bus Trans With 3" Longer Trailing Arms	2017	2417	N/A
18 3/4"	Bug Trans, Stock Length Arms, 5 3/4" Rear Section	2017	2418	N/A
19 1/4"	Bus Trans, 3" Longer By 3" Wider Arms, Stock Rear	2019	2419	32419
20 1/4"	Custom Street and Off Road Applications	2020	2420	32420
21 3/8"	Custom Street and Off Road Applications	N/A	2421	32421
22"	Custom Street and Off Road Applications	N/A	2422	32422
22 1/2"	Custom Street and Off Road Applications	N/A	2422.5	N/A
23"	Custom Street and Off Road Applications	N/A	2423	32423
24"	Custom Street and Off Road Applications	N/A	2424	32424
25"	Custom Street and Off Road Applications	N/A	2425	32425
26"	Custom Street and Off Road Applications	N/A	2426	32426
27"	Custom Street and Off Road Applications	N/A	2427	32427
28"	Custom Street and Off Road Applications	N/A	2428	32428
29"	Custom Street and Off Road Applications	N/A	N/A	32429
29 1/2"	Custom Street and Off Road Applications	N/A	N/A	32429.5
Any	Special Order 33 Spline Axle Set	2300	N/A	32300
Any	Special Order 28 Spline Axle Set	N/A	2400	32400
Any	930 CV Custom Length With Bubble In Middle	N/A	N/A	32402
Any	Special Order Axle Set For Outboard Hubs With Bearing	N/A	N/A	32500
Any	Special Order Axle Set 30 Spline	N/A	N/A	32600
Any	Special Order Axle Set 33 Spline for 934.5 CV's	N/A	N/A	32700
Any	Special Order Axles Set For 934.5 CV's	N/A	N/A	32700-B
Any	Special Order Axle Set For 934.5 W/ Bearing Dome 33 Spline	N/A	N/A	32700-1
Any	Special Order Axle Set For 934.5W/Bearing Dome & Half Dome	N/A	N/A	32701
Any	Special Order Axle Set For 934.5 W/ 1/2 Dome Ends & Bubble	N/A	N/A	32702
27"	Axle Set, Racing 934.5, 33 Tooth Flat Ends	N/A	N/A	32727
28"	Axle Set, Racing 934.5, 33 Tooth Flat Ends	N/A	N/A	32728
29"	Axle Set, Racing 934.5, 33 Tooth Flat Ends	N/A	N/A	32729
Any	Circlip Set For 33 Spline VW Type 1 and 2 Axles	2410	N/A	N/A
Any	Circlip Set For 28 Tooth 930 Porsche Spline Axles	N/A	2411	N/A
Any	Circlip Set For 33 Spline 934.5 Porsche Axles	N/A	N/A	2409



VW SWING AXLE APPLICATIONS

These axless are crafted from forged air craft alloysteel, precision machined, heat treated and center less ground for a smooth finish. The middle diameter of these axles is not tapered like stock axles. Instead, the middle diameter is consistent all the way to the spline permitting the axle to twist under heavy loads, helping to prevent transaxle breakage. All splines are 12 teeth.

Spline Length	Description	Year/Model	Part No.
Short	Swing Axle Set, 26 11/16" Long	61-66 Bug/356	2260
Short	Swing Axle Set, 23 11/16" Long, 3" Shorter Than Stock	Drag Cars	2261
Short	Swing Axle Set, 21 11/16" Long, 5" Shorter Than Stock	Drag Cars	2262
Short	Swing Axle Set, 27 11/16" Long	1967 Bug	2265
Long	Swing Axle Set, 28 7/16" Long	1968 Bug & Type III	2270

SWAY BARS

VW SWAY BAR KITS

Swaybarkitsimprovetheoverallhandlingandstability of your vehicle. Constructed of high-grades pring steel, each baris precisely made on a CNC Bender. Some swaybarkits come complete with all necessary hardware, ure than ebushing sand instructions. Front VW swaybarkits are designed to provide extraneeded ground clearance for CA Bugs lowered more than 1".

Private label Sway bar manufacturing available in quantity orders

Model	Description	Year	Part No.
VW Bug, KarmannGhia	IRS Rear Kit With Bushings, 3/4"diameter.	1969 Up	9155
VW Bug	IRS Rear Bar Only, 3/4" diameter.	1969 Up	9156
VW Bug, Karmann Ghia	Ball Joint Front End Kit With Bushings, 3/4" diameter.	1967 Up	9162
VW Bug	Ball Joint Front End, Bar Only, 3/4" diameter.	1967 Up	9163
VW Bug, Karmann Ghia	Link Pin Front Kit With Bushings, 3/4" diameter.	1953-1965	9164
VW Bug	Ball Joint Front, Lowered Kit with Bushings, 3/4" diameter.	1966 & Up	9166
VW Bug	Ball Joint Front, Lowered, Bar Only, 3/4" diameter.	1966 & Up	9167
VW Bug	Link Pin Front, Lowered Kit With Bushings, 3/4" diameter.	1953-1965	9168
VW Bug	Link Pin Front Bar Only, 3/4" diameter.	1953-1965	9169
VW Bug	Super Beetle Front Kit With Bushings, 7/8" diameter.	1971-1972	9170
VW Bug	Super Beetle Front Bar Only, 7/8" diameter.	1971-1972	9171
VW Bug	Super Beetle Front, Lowered Kit With Bushings, 7/8" diameter.	1971-1972	9175
VW Bug	Super Beetle Front, Lowered Bar Only, 7/8" diameter.	1971-1973	9176
VW Bug	Super Beetle Front Kit With Bushings, 7/8" diameter.	1973 & Up	9180
VW Bug	Super Beetle Front, W/ Nuts, Bar Only, 7/8" diameter	1974 & Up	9181



OFF ROAD RACING SWAY BARS

Description	Spline	Length	Part Number
Racing Sway Bar, Custom Length / Diameter	1.33 x 31	Any	31304
Racing Sway Bar, Custom Length / Diameter	1 _"-35	Any	31305
Racing Sway Bar, 45" x 1.00" Diameter	1 _"-35	45"	4-4500-1000
Racing Sway Bar, 45" x 1.12" Diameter	1 _"-35	45"	4-4500-1125
Racing Sway Bar, 45" x 1.25" Diameter	1 _"-35	45"	4-4500-1250
Racing Sway Bar, 47 1/2" x 1.00" Diameter	1 _"-35	47 1/2"	4-4750-1000
Racing Sway Bar, 47 1/2" x 1.12" Diameter	1_"-35	47 1/2"	4-4750-1125
Racing Sway Bar, 47 1/2" x 1.25" Diameter	1 _"-35	47 1/2"	4-4750-1250
Racing Sway Bar, 49 1/2" x 1.00" Diameter	1 _"-35	49 1/2"	4-4950-1000
Racing Sway Bar, 49 1/2" x 1.12" Diameter	1 _"-35	49 1/2"	4-4950-1125
Racing Sway Bar, 49 1/2" x 1.25" Diameter	1_"-35	49 1/2"	4-4950-1250
Racing Sway Bar, 51" x 1.12" Diameter	1 _"-35	51"	4-5100-1125
Pre-Runner Sway Bar, 34", 1.00" Diameter	1"-48 Serration	34"	4-3400-100-1
Pre-Runner Sway Bar, 36", 1.00" Diameter	1"-48 Serration	36"	4-3600-100-1
Pre-Runner Sway Bar, 38", 1.00" Diameter	1"-48 Serration	38"	4-3800-100-1
Pre-Runner Sway Bar, 40", 1.00" Diameter	1"-48 Serration	40"	4-4000-100-1
Pre-Runner Sway Bar, 42", 1.00" Diameter	1"-48 Serration	42"	4-4200-100-1
Pre-Runner Sway Bar, 34", 1 1/4" Diameter	1 1/4"-48 Serration	34"	4-3400-125-2
Pre-Runner Sway Bar, 36", 1 1/4" Diameter	1 1/4"-48 Serration	36"	4-3600-125-2
Pre-Runner Sway Bar, 38", 1 1/4" Diameter	1 1/4"-48 Serration	38"	4-3800-125-2
Pre-Runner Sway Bar, 40", 1 1/4" Diameter	1 1/4"-48 Serration	40"	4-4000-125-2
Pre-Runner Sway Bar, 42", 1 1/4" Diameter	1 1/4"-48 Serration	42"	4-4200-125-2
Sway Bar Arm, 1"-48 x 18" Long Steel	1"-48 Serration	18"	4-117
Sway Bar Arm, 1 1/4"-48 x 18" Long Steel	1 1/4"-48 Serration	18"	4-118
Racing Sway bar Arm, 28" long Aluminum	1.33-31T	28"	4-111
Racing Sway bar Arm, 28" long Aluminum	1 _"-35	28"	4-113
	THE RESERVE OF THE PARTY OF THE		

SPLINED COLLARS

Splined Collars are manufactured from alloysteel. Available in a variety of sizes and splines, the secollars are used for specials way bar and secondary b

Description	Spline	Part No.
Splined Collar, 1.12" OD x 1.25" Long	3/4"-48 Serration	9046
Splined Collar, 1.37" OD x 1.25" Long	1"-48 Serration	9047
Splined Collar, 1.62" OD x 1.190" Long	1 1/4"-48 Serration	9048
Splined Collar, 1.62" OD x 1.25" Long	1 1/8"-48 Serration	9049
Splined Collar, 2.00" OD x 1.50" Long	1 1/2"-35 Tooth, 24/48 45 Degree	9050
Splined Collar, 2.50" OD x 1.37" Long	2"-47 Tooth, 24/48 30 Degree	9054





TECH ROOM VW TORSION BAR APPLICATION GUIDE

Sway-A-Waytorsion bars are offered in a wide variety of lengths and diameters to allow selection of the rights pring rate for any given application. These torsion bars are manufactured in two grades of high quality air craft alloy steel and come with a tough powder coated finish. Standard torsion bars are recommended for recreational and high performance use. 300 MPre-Stressed bars are suggested where maximum wheel travel is a must also with a suggested to resion bar preload angles are for VW bugs only.

Buggy Type	1000 Series 21 3/4"	1100 Series 24 11/16"	1200 Series 26 9/16"
Single Seat Buggy	23-25mm	24-26mm	24-27mm
Two Seat Buggy	24-27mm	24-27mm	25-28mm
Baja Bug	25-27mm	26-28mm	26-29mm
Street Bug	24-26mm	25-27mm	26-28mm

MAXIMUM ANGLE OF TWIST, STANDARD VW TORSION BARS

Bar Diameter	1000 Series 21 3/4"	1100 Series24 11/16"	1200 Series 26 9/16"
23mm	31.0*	36.7*	39.3*
24mm	29.7*	35.2*	37.6*
25mm	28.5*	33.7*	36.1*
26mm	27.5*	32.5*	34.8*
27mm	26.4*	31.3*	33.5*
28mm	25.5*	30.1*	32.2*
29mm	24.6*	29.1*	31.1*
30mm	23.8*	28.1*	30.1*

MAXIMUM ANGLE OF TWIST, 300M RACING VW TORSION BARS

Bar Diameter	31100 Series 24 11/16"	31200 Series 26 9/16"	31300 Series 29 1/2"
23mm	41.4*	47.7*	51.7*
24mm	39.6*	45.6*	49.5*
25mm	38.0*	43.8*	47.5*
26mm	36.5*	42.1*	45.7*
27mm	35.2*	40.6*	44.0*
28mm	34.0*	39.2*	42.5*
29mm	32.8*	37.8*	41.0*
30mm	31.7*	36.5*	39.6*



VW TORSION BAR SPRING RATES, IN/LB PER DEGREE OF TWIST

	Bar Diameter	1000 Series 21 3/4"	1100 Series24 11/16"	1200 Series 26 9/16"
	20mm	401	339	317
	21mm	488	413	385
	22mm	588	497	464
	23mm	702	593	554
	24mm	832	703	657
	25mm	979	828	773
	26mm	1145	968	904
	27mm	1333	1126	1052
	28mm	1651	1303	1217
	29mm	1774	1499	1400
Page A	30mm	2031	1716	1603

VW TORSION BAR PRELOAD ANGLES

Bar Diameter	1000 Series 21 3/4"	1100 Series24 11/16"	1200 Series 26 9/16"
20mm	N/A	N/A	N/A
21mm	N/A	N/A	N/A
22mm	16.52deg	19.07deg	20.17deg
23mm	13.83deg	15.96deg	17.33deg
24mm	11.67deg	13.46deg	14.62deg
25mm	9.91deg	11.44deg	12.42deg
26mm	8.47deg	9.78deg	10.61deg
27mm	7.28deg	8.41deg	9.13deg
28mm	6.30deg	7.27deg	7.89deg
29mm	5.47deg	6.32deg	6.86deg
30mm	4.78deg	5.52deg	5.99deg

Note: Angles are approximate and based on the use of stock length trailing arms.











RCCERUININER SHOCKS













RCCERUININER SHOCKS











ROCERUININER SHOCKS





SUSPENSION WORKSHEET

SPRINGSELECTION. This worksheet will help you to select the correct springs for your vehicle. Please keep in mind that the formulas are approximations and are meant only to assist you in getting the corrects pring rate. Many factors affecting these calculations can change the end results. You may not get it right the first time, but when these formulas are followed, you should be close. Try to be as accurate as possible in getting your numbers. The old adage, "garbage in, garbage out" applies here.

WHEEL RATE (WR) is the actual rate of the spring acting on the tire. This value often is not the same rate as the SPRING RATE (C) of the coil spring used. The spring rate depends on where the spring is mounted and the specific suspension geometry being used. WHEEL RATE (WR) and spring rate are measured in pounds per inch of travel. See step 1 to determine the WHEEL RATE (WR).

STEP 1: WHEEL RATE

WR Wheel Rate (lbs/in) WT Total Wheel Travel (in) SW Sprung Weight of corner (lbs)	$WR = \frac{SW}{(0.4)(WT)}$
--	-----------------------------

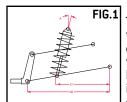
RIDEHEIGHT (RH) is the percent of total wheel travel used to support the vehicle. This may include preload of the spring. In general, this number is 30% to 50% of total wheel travel. RIDE HEIGHT (RH) is expressed as a fraction of total wheel travel. If you have 10 inches of travel and you want your ride height to be at 5 inches, then your RH factor would be 50%.

In order to determine WHEEL RATE (WR), you must know the vehicles SPRUNGWEIGHT (SW), and the WHEELTRAVEL (WT). Please note that the SPRUNG WEIGHT (SW) is not the same as corner weight because the corner weight includes the UNSPRUNGWEIGHT. Once you have found the WHEEL RATE (WR), you can calculate the SPRING RATE (C) that will be needed. You will need to know the suspension configuration (i.e.a-arm, I-beam, or four links). See figures 1-3.

The SPRUNGWEIGHT (SW) is the weight that each coil spring is supporting (i.e. the corner weight less unsprung weight). Unsprungweight is the weight of the wheel, hub, upright, brakes and/orl-beam and about half the weight of the shock/springl "A-arm" assembly. For the rear suspension of a truck, the unsprungweight is the tires, wheels, brakes and the whole rear end and half the weight of the shock/spring and trailing arm.

STEP 2: MOTION RATIO

A-arm MR d1 d2	Suspension- (See fig. 1) Motion Ratio Distance from lower spring mount to lower A-arm pivot (in) Length of lower arm from inner pivot to outer ball joint (in)	$MR = \left(\frac{d1}{d2}\right)^2$
I-Beam MR d3	Notion Ratio Motion Ratio Distance form lower spring mount to l-Beam pivot (in) Distance from wheel mounting flange to l-Beam pivot (in)	$MR = \left(\frac{d3}{d4}\right)^2$
Four Li MR d5 d6	ink Rear Suspension- (See fig. 3) Motion Ratio Distance from lower spring mount to frame pivot (in) Length of trailing arm, bearing to bearing (in)	$MR = \left(\frac{d5}{d6}\right)^2$
	<u>Correction Factor</u> Angle Correction Factor Spring angle from vertical (degrees)	ACF= cosine(A)



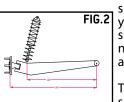


FIG.3

The MOTION RATIO (MR) is a ratio that is used to account for the differentsuspension geometrys and themechanicalleverageon the spring. In almost all cases, the MOTION RATIO is less than I. In general, if there is a choice, aim for the highest ratio permitted by the wheel travel desired, and suspension geometry. This will give youthelowest spring rate possible. Coil springs with high rates are generally not available, have less coil travel, and are heavier. See Step 2.

The ANGLECORRECTION FACTOR (ACF) should also be considered when mounting shocks with coils. This angle can also increase the spring rate needed to do the job and should be kept to a minimum. This angle is the angle between the direction the suspension is going at ride height and the angle that the shock is mounted. Most often the angle that the shock is mounted off of vertical can be used.

STEP 3: SPRING RATE

C WR MR	Spring Rate (lbs./in) Wheel Rate (lbs./in) Motion Ratio	$C = \frac{WR}{(MR)(ACF)}$
ACF	Angle Correction Factor	

The SPRING RATE (C) is the spring rate of the spring itself. It is measured in pounds per inch of deflection. A spring of 100lbs/inwillhavealoadof100poundsonascalewhencompressed 1 inch, 200 pounds at 2 inches and so on. Coilsprings can be checked with a scale and a press in this way. In general, coil springs will have a free travel of a bout 40-50% of the free length. This will depend on rate, coil diameter and free length of the coil. Higher spring rates have larger wire sizes and less free travel. See step 3.

Generally, off-road suspensions will use Dual Rate spring configurations. Our Dual Rate configuration utilizes two springs: a Main Spring and a Tender spring.

The Main Spring (CM) is the bottom spring that covers the shaft of the shock. The Main Spring should have a higher spring rate and a longer length than the Tender Spring. The rate of the Main Spring will be the Secondary Rate.

The Tender Spring (CT) is the top spring that covers the body of the shock. The Tender Spring should have a lower spring rate and a shorter length than the Main Spring.

A Dual Rate spring configuration will have a Primary Rate that is a combination of the Main Spring and Tender Spring (see Step 4 below). When the Tender Spring coil binds or hits the stopper, the Secondary Rate will take effect.

Calculating Primary Rate given Main and Tender Rates C Primary rate (lbs./in)(from step 3 above) CM Spring rate of Main Spring (lbs./in) CT Spring rate of Tender Spring (lbs./in)	C = <u>CM x CT</u> CM + CT
Calculating Main Rate given and Primary and Tender Rates C Primary rate (lbs./in)(from step 3 above) CM Spring rate of Main Spring (lbs./in) CT Spring rate of Tender Spring (lbs./in)	CM = CT x C CT - C
Calculating Tender Rate given Primary and Main Rates C Primary rate (lbs./in)(from step 3 above) CM Spring rate of Main Spring (lbs./in) CT Spring rate of Tender Spring (lbs./in) to bearing (in)	CT =

GENERAL WARRANTY INFORMATION

Sway-A-Way Limited Warranty: Sway-A-Way, Inc. warranties all of its assemblies and materials for one year from date of purchase. All Sway-A-Way, Inc. items purchased from Sway-A-Way, Inc. or any of its distributors and dealers will be covered. If within the warranty period the product fails due to material or assembly malfunction, we will either replace or repair it. Any misuse of Sway-A-Way, Inc. products will immediately void the warranty, and Sway-A-Way, Inc. reserves the right to limit the warranty on all racing applications.

Sway-A-WayReturnPolicy: Anymaterial or assembly malfunction must be returned directly to point of purchase for review. If found defective by the reseller, such reseller shall forward the malfunctioning item(s) to Sway-A-Way, Inc., for further review. If Sway AWay, Inc. determines that the item has malfunctioned, it will provide labor and replacement parts at no cost to the customer. If Sway-A-Way, Inc. finds no malfunction with the item, Sway-A-Way, Inc. will either repair, at owners cost, or return un-repaired item to owner(s) at owners discretion.

Disclaimer of Warranty: Purchasers recognize and understand that racing parts and equipment, such as shocks, springs, bump stops, etc. and all parts, inventory and services manufactured and/or sold by Sway-A-Way Inc. are exposed to many and varied conditions due to the manner in which they are installed and used. Purchasers and Sway-A-Way Inc. consciously desire to make their own bargain, irrespective of any court decision and purchasers agree upon good faith and inconsideration for being allowed to purchase from Sway-A-Way Inc. said parts or services. Purchasers expressly acknowledge and understand that Sway-A-Way Inc. does not make any affirmation of factor promise to purchaser, which relates to said parts, inventory, or services that becomes part of the bars of the bargain between Sway-A-Way Inc. and purchasers. Nor does Sway-A-Way Inc. make, or cause to be made, as part of the basis of the bargain with purchasers, any description or affirmation of fact concerning any sample or model of racing parts, and equipment inventory or service.

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