

# BILSTEIN®

## OFF-ROAD SHOCKS

LIFTED TRUCKS • JEEPS • SUVs  
RACING • ROCK • SAND



Bilstein Gas Pressure Shock Absorbers  
ThyssenKrupp Bilstein of America





# BILSTEIN® *OFF-ROAD SHOCKS*



*Bobby Ferro &  
Johnny Johnson*



*Doug & Don  
Robertson*



*Malcolm Smith  
& Bud Feldkamp*



*Bob Gordon*

## SETTING THE PACE FOR OVER 40 YEARS

BILSTEIN introduced the very first monotube gas pressure shock absorber to the extremely challenging world of off-road racing. It didn't take long for Baja racers to recognize the superior performance that this new technology provided and the wins started stacking up. In fact, some of off-road racing's most renowned drivers have won on BILSTEIN shocks.

After 40 years of evolving monotube shock technology, the winning tradition continues, not only in Baja, but throughout the entire world of off-road racing. Every BILSTEIN off-road shock featured in this catalog is a true monotube high pressure gas shock: no emulsion, no foam cells, just performance. From the revolutionary BILSTEIN Black Hawk® 9300 Series for professional off-road racing, to shocks for your lifted truck or SUV, and the new 5160 Series stock location remote reservoir shocks; count on BILSTEIN to deliver the terrain taming performance you're looking for. After all, we've been the leader since the very beginning.

Official Shocks of

**SCORE**  
INTERNATIONAL  
OFF-ROAD RACING





Armin Schwarz &  
Mark Christensen

Ivan Stewart

## LIFTED TRUCK & SUV DIRECT FIT SHOCKS

5100 Series, 5100 Series Adjustable Leveling and 5160 Series Remote Reservoir. These shocks are intended for use on stock factory shock mounting locations for lifted truck and SUV applications.

Product Overview . . . . .Pages 4-7

Applications . . . . .Pages 8-13

## OFF-ROAD CUSTOM FIT SHOCKS

5125 Series, 5150 Series, 5165 Series, 6100 Series, 7100 Series Schrader Valve, and 7100 Series Remote Reservoir. These shocks are offered in a variety of lengths and valvings for use on modified or specialty vehicle applications.

Product Overview . . . . .Pages 14-15

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## PROFESSIONAL OFF-ROAD RACING SHOCKS

9100 Series Smooth Body, 9100 Series Coilover, 9100 Rock Crawler, 9100 Series Bypass, Black Hawk® 9300 Series and Bump Stops. These shocks provide the ultimate in performance and tunability for hard-core off-road race vehicles.

Product Overview . . . . .Pages 20-24

Applications . . . . .Pages 25-26



## THE ADVANTAGE OF BILSTEIN'S MONOTUBE DESIGN

Heat is one of the major detriments to the performance and longevity of any shock absorber. Conventional twin tube designed shocks trap the heat within the shock body and do not let it adequately dissipate, making them prone to heat build-up, fade and eventual failure.

By contrast, BILSTEIN's technically superior, monotube

high gas pressure charged design allows the excessive heat from the oil to transfer to the outer surface of the shock body and dissipate more efficiently. The dividing piston also permits the oil to expand as heat builds, preventing aeration (foaming) and viscosity loss. This allows the shock to maintain full damping characteristics as temperatures rise.

### One Piece Aluminum Rod Guide & Seal

Keeps dirt out and maintains a nearly friction-free surface for longer life.

### Hard Chrome Piston Rod

Features a super finished hard chrome plated surface with a maximum peak-to-valley measurement of .0002mm.

### Massive Self-Adjusting Digressive Piston

Instantly reacts and adjusts for any condition...smooth road, rough road or no road. Provides maximum vehicle body motion control while maintaining superior comfort.

### BILSTEIN's Industry Leading Monotube Design

Provides superior tube strength while maximizing heat dissipation and shock life.

### High Pressure Nitrogen Gas & "Floating" Dividing Piston

Nitrogen gas maintains constant pressure against the low mass "floating" dividing piston and column of hydraulic oil, eliminating the possibility of oil foaming and performance loss.



Non-pressurized shock, foaming



Gas pressure shock, no foaming

### Pressure Differentials

Shock oils contain roughly 10% gas molecules. The compression and rebound strokes of the shock piston in the oil column cause pressure differentials. When the piston rod is forced quickly into the shock tube, the pressure increases in front of the piston and decreases behind it.

These pressure differentials release gas molecules from the oil column which forms small bubbles (foaming). The foaming can become so excessive that damping force is severely reduced. The shock becomes unresponsive with a corresponding loss of vehicle control.

In a monotube gas pressure shock absorber, the nitrogen separated from the oil by a dividing piston keeps the oil column under pressure at all times to prevent the release of gas molecules. This enables the shock to deliver consistent performance under all driving conditions.



BILSTEIN PISTON

TWIN TUBE PISTON

### Monotube VS. Twin Tube Shock Design

The photo on the left dramatically illustrates the size difference between the working piston inside a BILSTEIN monotube shock and one found in a typical "twin tube" shock.

BILSTEIN's piston has 228% larger surface area than the average conventional twin tube piston offering greater sensitivity and superior vehicle control.



Large Flow Digressive Piston

Compression Valving Disks

Teflon (PTFE) Piston Band

Rebound Valving Disks

### BILSTEIN's Digressive Working Piston Assembly

The piston head design allows independent tuning of the compression and rebound damping forces to provide optimum ride comfort and performance without compromise. It features fewer parts than most conventional twin tube and so called "road sensing" shock designs. This simple, yet exceptionally functional digressive design contributes to the extreme durability and long life of BILSTEIN shocks.

## 5100 Series

### Monotube Gas Pressure Shocks for Lifted Trucks & SUVs

- Specifically designed and manufactured for lifted pickups and SUVs
- Monotube design for cooler, more efficient operation and longer life
- 46mm piston diameter provides superior handling and performance
- Patented digressive valving instantly reacts to changing surface conditions for maximum comfort and control on or off-road
- Split compression and rebound valving tuned for each specific application
- Available for 2"-6" suspension lifts
- Limited lifetime warranty

### O.E. Certified Shock Mounts

Extremely durable and long lasting vulcanized neoprene rubber with vehicle specific sleeves or cast crossbar



Vulcanized Neoprene Bushings



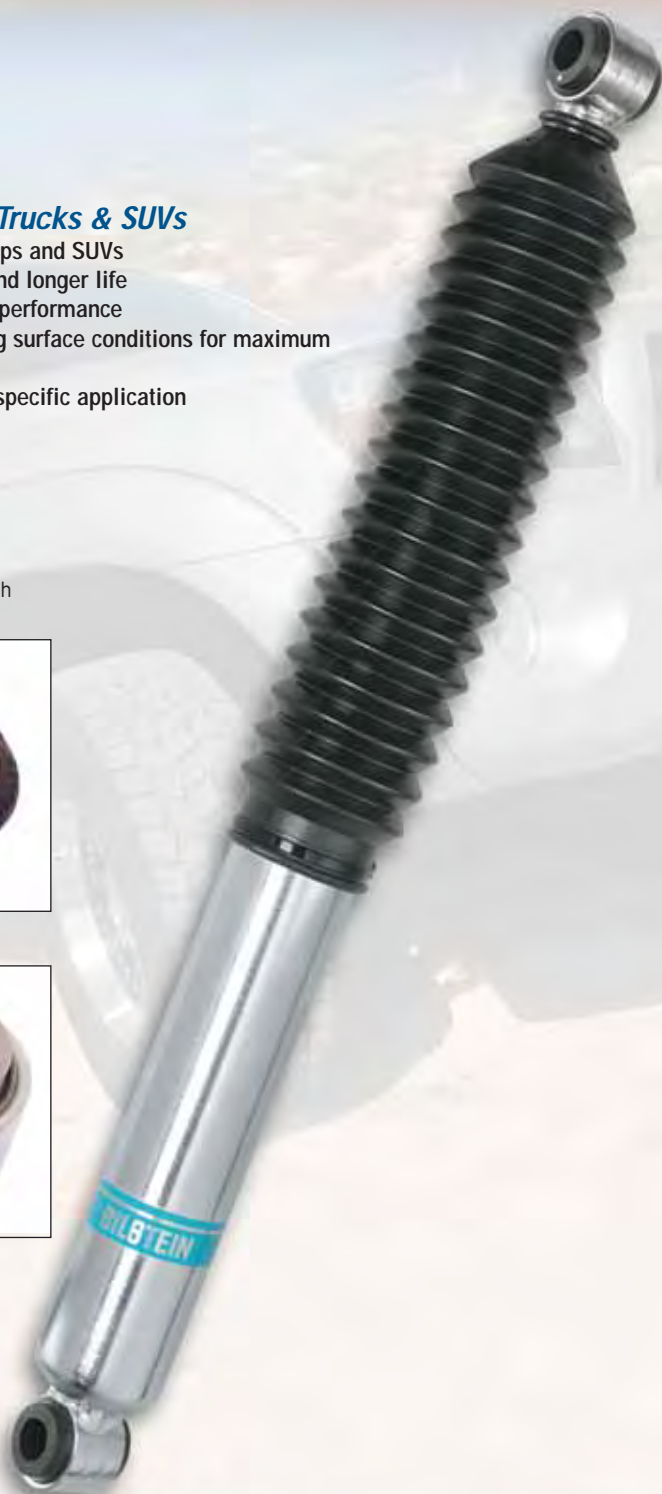
Eye Mount



Crossbar Mount



Large Eye Mount



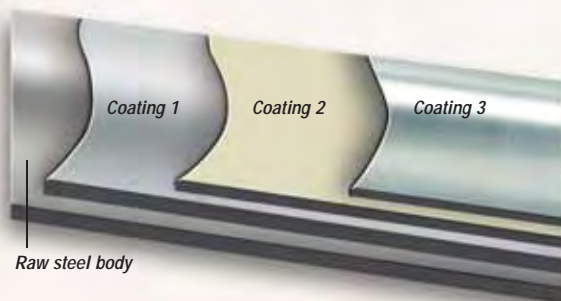
### BILSTEIN Triple-C Technology®

BILSTEIN's triple coating process on 5100, 5125, 5160 and 5165 Series shocks provides a long lasting, great looking high luster finish.

**Coating 1:** The special zinc alloy ensures excellent adhesion to the base material and is the base for sustained corrosion protection.

**Coating 2:** The middle coating transforms the zinc layer into a sealed homogenous smooth surface.

**Coating 3:** The top coat is the final step providing the high luster finish as well as additional, long-term protection against mechanical wear and corrosion. Over 600 hours DIN 50021 SS salt spray test.





# BILSTEIN OFF-ROAD SHOCKS

## 5100 Series

### Height Adjustable Leveling Shocks

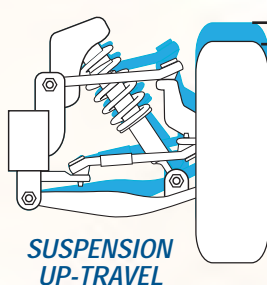
- Designed for front coilover style pickup suspensions
- Multiple snap-ring grooves allow different spring seat positions providing 0" to 2.75" of front end lift, depending on application
- Utilizes the vehicle's stock front coil springs
- An extremely affordable and practical alternative to coil spring spacers, with the benefit of BILSTEIN's superior monotube design
- Increases suspension travel
- Limited lifetime warranty

BILSTEIN's multiple position spring seat locator is O.E. certified by the vehicle manufacturer



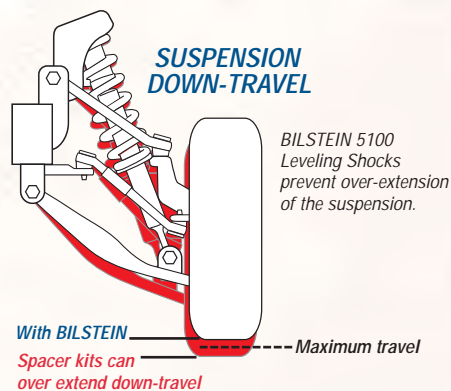
BILSTEIN 5100 Series Leveling Shocks offer multiple spring seat positions for ride height adjustment ranging from stock height up to 2.75", depending on the application.

**BILSTEIN 5100 Series Leveling Shocks account for the shortcomings found in spacer kits:**



Full stock suspension up-travel is maintained with the BILSTEIN 5100 Leveling Shock installed.

Up-travel is restricted when the shock assembly bottoms out with the Strut Extension spacer installed.



Strut Extension spacers can create over extended down-travel causing possible ball joint, CV joint or driveline component damage.

Download and read the complete story on the advantages of BILSTEIN 5100 Leveling Shocks at:  
[http://www.bilsteinUS.com/fileadmin/user\\_upload/user\\_upload\\_us/pdfs/Bil\\_LevShks\\_WebArticle.pdf](http://www.bilsteinUS.com/fileadmin/user_upload/user_upload_us/pdfs/Bil_LevShks_WebArticle.pdf)





DIRECT FIT



*BILSTEIN 5160 Series shocks not only provide exceptional performance, they also allow for increased wheel travel*



*Special swivel banjo fittings allow for 360° of rotation*

*Shown with optional billet aluminum reservoir mounting clamp (sold separately, Part No. 11-176015)*



*Frame mount kit*



*Some applications require the reservoir to be mounted to the frame of the vehicle*

## 5160 Series

### Stock Location Remote Reservoir Shocks

- Designed to easily install in the stock shock mounting location on pickups and SUVs – *no cutting or welding required*
- BILSTEIN's industry leading monotube design
- Unique digressive valving system instantly produces full damping capability
- Remote reservoir dramatically increases shock oil capacity for even greater heat dissipation and damping sensitivity
- Reservoir mounting configuration designed specifically for each vehicle application – *no welding required*
- For increased wheel travel and more shaft movement, the "floating" dividing piston is located in the reservoir
- BILSTEIN's exclusive Triple-C Technology® finish provides easy care and lasting great looks
- Includes reservoir mounting kit and detailed instructions (*does not include optional billet aluminum mounting clamp*)

5160 Rebuild Kit: B4-KT0-Z009A01

Billet Aluminum Reservoir Mounting Clamp: 11-176015

## 5100 SERIES, 5100 ADJUSTABLE & 5160 SERIES APPLICATIONS

Make / Model	Year	RAISED HEIGHT		Front Part #	Shock Series	Notes	Rear Part #	Shock Series	Notes
		Front	Rear						
CHEVROLET / GMC TRUCKS & SPORT UTILITY VEHICLES									
4WD Pickups (Lifted Suspension)									
K1500	07-11	0-1.75"	0-1"	24-186940	5100 Adjustable		24-186957	5100 Series	
K1500 Utilizing Front Stock Length Shock w/ Lift Spacer	07-11	6"	4"	24-186940	5100 Adjustable		24-186636	5100 Series	2
K1500 (Includes 2007 Classic model with torsion bars)	99-06	0-2.5"	0-1"	24-186643	5100 Series		24-186742	5100 Series	
	5160	0-2.5"	0-1"	25-176407	5160 Series		25-176414	5160 Series	
		4"	2"	24-185950	5100 Series		24-191203	5100 Series	2
	5160	4"	2"	25-177411	5160 Series		25-176414	5160 Series	2
		6"	4"	24-185950	5100 Series		24-186636	5100 Series	2
	5160	6"	4"	25-177411	5160 Series		25-177428	5160 Series	2
Fabtech double front				33-186566	5100 Series	10			
Superlift double front				33-185590	5100 Series	10			
	88-98	4-6"	2-4"	33-061399	5100 Series		24-067379	5100 Series	2
K2500HD / K3500HD	11	0-1.5"	0-1"	24-196451	5100 Series		24-196468	5100 Series	
	5160	0-1.5"	0-2"	25-196474	5160 Series		25-196481	5160 Series	
K1500HD / K2500 / K2500HD / K3500 / K3500HD	99-10	0-2.5"	0-1"	24-186735	5100 Series		24-186742	5100 Series	
	5160	0-2.5"	0-2"	25-187618	5160 Series		25-187625	5160 Series	
		4"	2"	24-187183	5100 Series		24-191203	5100 Series	
	5160	4"	0-2"	25-187687	5160 Series		25-187625	5160 Series	2
		6"	4"	24-187183	5100 Series		24-186636	5100 Series	
	5160	6"	4"	25-187687	5160 Series		25-187694	5160 Series	2
Steering Stabilizer				33-174525	5100 Series				
K2500 / K3500	88-98	4-6"	2-4"	33-061399	5100 Series		24-067379	5100 Series	2
K10 / K20	69-87	2-2.5"	2-2.5"	33-185590	5100 Series	2	33-186542	5100 Series	2
		3-4"	3-4"	24-187077	5100 Series	2	24-187084	5100 Series	2
		6"	6"	33-185552	5100 Series	2	33-185569	5100 Series	2
K30	69-87	2-2.5"	2-2.5"	33-185590	5100 Series	2	33-104652	5100 Series	2
		3-4"	3-4"	24-187077	5100 Series	2	33-185569	5100 Series	2
		6"	6"	33-185552	5100 Series	2	33-185576	5100 Series	2
4WD Sport Utility Vehicles (Lifted Suspension)									
Tahoe / Avalanche / Suburban 1500 / Yukon / Yukon XL 1500	07-11	0-1.75"	0-1"	24-186940	5100 Adjustable		24-187237	5100 Series	2
	5160		0-1"				25-177893	5160 Series	
Tahoe / Avalanche / Suburban 1500 / Yukon / Yukon XL 1500	00-06	0-2.5"	0-1"	24-186643	5100 Series		24-187237	5100 Series	
	5160	0-2.5"	0-1"	25-176407	5160 Series		25-177893	5160 Series	2
		4"	3"	24-185950	5100 Series		24-185783	5100 Series	2
	5160	4"	3"	25-177411	5160 Series		25-187625	5160 Series	2
		6"	5"	24-185950	5100 Series		In Development		
	5160	6"	5"	25-177411	5160 Series		25-187601	5160 Series	2
w/ Rear Stock Shock Relocation Bracket		6"	5"	24-185950	5100 Series		24-187237	5100 Series	
w/ Rear Stock Shock Relocation Bracket	5160	4-6"	5"	25-177411	5160 Series		25-177893	5160 Series	
Tahoe / Yukon 4dr	95-99	4-6"	2-4"	33-061399	5100 Series		24-185615	5100 Series	2
Blazer / Tahoe / Yukon 2dr	92-99	4-6"	2-4"	33-061399	5100 Series		24-067379	5100 Series	2
Suburban 2500 / Yukon XL 2500	00-11	2"	0-1"	24-186735	5100 Series		24-185783	5100 Series	
	5160	0-2.5"	0-1"	25-187618	5160 Series		25-187625	5160 Series	
Steering Stabilizer				33-174525	5100 Series				
Suburban 1500 / 2500	92-99	4-6"	2-4"	33-061399	5100 Series		24-067379	5100 Series	2
Suburban / Blazer / Jimmy	73-91	2-2.5"	2-2.5"	33-185590	5100 Series	2	33-186542	5100 Series	2
		3-4"	3-4"	24-187077	5100 Series	2	24-187084	5100 Series	2
		6"	6"	33-185552	5100 Series	2	33-185569	5100 Series	2





## 5100 SERIES, 5100 ADJUSTABLE & 5160 SERIES APPLICATIONS

Make / Model	Year	RAISED HEIGHT		Front Part #	Shock Series	Notes	Rear Part #	Shock Series	Notes
		Front	Rear						
2WD Pickups (Lifted Suspension)									
C1500	07-11	1.75"	0-1"	24-186940	5100 Adjustable		24-186957	5100 Series	
C1500 Utilizing Front Stock Length									
Shock w/ Lift Spacer	07-11	6"	4"	24-186940	5100 Adjustable		24-186636	5100 Series	2
C1500 2WD w/ A-Arm & Coil Lift	99-06	3"	0-1"	24-185400	5100 Series		24-029032	4600 Series	
C1500 2WD w/ A-Arm, Coil & Lift Spindle		6"	4"	24-185400	5100 Series		24-191203	5100 Series	2
C1500 2WD w/ Cross Member Kit		6-7"	5"	24-151627	5100 Series		24-191203	5100 Series	2
C1500 2WD w/ A-Arm & Coil Lift	88-98	3"	0-1"	24-062107	5100 Series	3	24-016988	4600 Series	
C1500 2WD w/ A-Arm, Coil & Lift Spindle		6"	3"	24-062107	5100 Series	3	24-067379	5100 Series	2
C2500HD / C3500HD	11	0-1.5"	0-1"	24-196451	5100 Series		24-196468	5100 Series	
5160		0-1.5"	0-2"	25-196474	5160 Series		25-196481	5160 Series	
C1500HD / C2500 / C2500HD /	99-10	0-2.5"	0-1"	24-186735	5100 Series		24-186742	5100 Series	
K3500 / K3500HD	5160	0-2.5"	0-2"	25-187618	5160 Series		25-187625	5160 Series	
		4"	2"	24-187183	5100 Series		24-191203	5100 Series	2
5160		4"	0-2"	25-187687	5160 Series		25-187625	5160 Series	2
		6"	4"	24-187183	5100 Series		24-186636	5100 Series	
5160		6"	4"	25-187687	5160 Series		25-187694	5160 Series	
Steering Stabilizer				33-174525	5100 Series				
2WD Sport Utility Vehicles (Lifted Suspension)									
Tahoe / Avalanche / Suburban 1500 /									
Yukon / Yukon XL 1500	07-11	1.75"	0-1"	24-186940	5100 Adjustable		24-187237	5100 Series	
5160			0-1"				25-177893	5160 Series	
Tahoe / Avalanche 1500 / Suburban 1500 /									
Yukon / Yukon XL 1500	00-06	0-2.5"	0-1"	24-186643	5100 Series		24-187237	5100 Series	2
5160		0-2.5"	0-1"	25-176407	5160 Series		25-177893	5160 Series	2
Crossmember Kit		4"	3"	24-185950	5100 Series		24-185783	5100 Series	2
Crossmember Kit 5160		4"	3"	25-177411	5160 Series		25-187625	5160 Series	2
Crossmember Kit		6"	5"	24-185950	5100 Series		In Development		
Crossmember Kit 5160		6"	5"	25-177411	5160 Series		25-187601	5160 Series	2
Crossmember Kit w/ Rear Stock									
Shock Relocation Bracket		4-6"	5"	24-185950	5100 Series		24-187237	5100 Series	
Crossmember Kit w/ Stock Shock									
Relocation Bracket 5160		4-6"	5"	25-177411	5160 Series		25-177893	5160 Series	
Tahoe / Suburban 1500 / Yukon									
w/ A-Arm	92-99	3"	0-1"	24-062107	5100 Series	3	24-016988	4600 Series	
Tahoe / Suburban 1500 Yukon									
w/ A-Arm & Lift Spindle	92-99	6"	4-5"	24-062107	5100 Series	3	24-067379	5100 Series	2
Suburban 2500 / Yukon XL 2500 /									
Avalanche 2500	00-11	0-2.5"	0-1"	24-186735	5100 Series		24-185783	5100 Series	
5160		0-2.5"	0-1"	25-187618	5160 Series		25-187625	5160 Series	
Steering Stabilizer				33-174525	5100 Series				
DODGE / RAM TRUCKS									
4WD Pickups (Lifted Suspension)									
Ram 1500 Excludes MegaCab	09-11	0-2.75"	0-1"	24-187367	5100 Adjustable		24-187374	5100 Series	
	06-08	0-2"	0-1"	24-186988	5100 Adjustable		24-185783	5100 Series	
	94-01	3"	0-1"	24-185776	5100 Series	2	24-185783	5100 Series	2
		5-6"	4"	24-066464	5100 Series	2	24-191203	5100 Series	2
Ram 2500 / 3500 / 1500 MegaCab	03-11	0-2.5"	0-1.5"	24-185776	5100 Series		24-191203	5100 Series	
5160		0-3"	0-2"	25-187595	5160 Series		25-187601	5160 Series	
		4"	2"	24-066464	5100 Series	2	24-186636	5100 Series	2
		6"	3-4"	24-187213	5100 Series	2	33-187228	5100 Series	2
Steering Stabilizer	03-07			24-164870	5100 Series				
Steering Stabilizer	07-10			33-170794	5100 Series				
	94-02	0-2.5"	0-1"	24-185776	5100 Series		24-185783	5100 Series	
5160		0-3"	0-2"	25-187595	5160 Series		25-187601	5160 Series	
		4"	2"	24-066464	5100 Series	2	24-191203	5100 Series	2
		6"	3-4"	24-187213	5100 Series	2	33-187228	5100 Series	2



## 5100 SERIES, 5100 ADJUSTABLE & 5160 SERIES APPLICATIONS

Make / Model	Year	RAISED HEIGHT		Front Part #	Shock Series	Notes	Rear Part #	Shock Series	Notes	
		Front	Rear							
FORD TRUCKS & SPORT UTILITY VEHICLES										
4WD Pickups (Lifted Suspension)										
F150	Auxiliary	09-11	0-2"	0-1"	24-187497	5100 Adjustable	33-187501	5100 Series		
		04-08	0-2"	0-2"	24-122986	5100 Adjustable	33-186009	5100 Series		
		97-03	4"	0-2"	F4-BE5-6138-H0	4600 Series	2	24-185141	4600 Series	
		80-96	4"	2"	24-185523	5100 Series	2	24-185530	5100 Series	2
			4"		24-186513	5100 Series	2			
			6"	4"	24-065283	5100 Series	2	24-065276	5100 Series	2
F250 / F350	BTS	05-11	0-2"	0"	24-186018	5100 Series	24-186025	5100 Series		
			2"	0"	SE5-C765-H0	BTS Kit	2	24-186025	5100 Series	
		5160	0-2.5"	0-2"	25-187779	5160 Series		25-187786	5160 Series	
	5160	4-6"	4"	25-177435	5160 Series	2	25-177442	5160 Series	2	
	Steering Stabilizer		4"	2"	24-185776	5100 Series		24-062466	5100 Series	2
			6"	4"	24-186681	5100 Series	2	24-062466	5100 Series	2
05-07				33-170862	5100 Series					
F250 / F350	Double Shock Front Steering Stabilizer	08-11			24-196284	5100 Series				
		99-04	2-2.5"	0-1"	33-187297	5100 Series	2	24-186025	5100 Series	2
		5160	0-3"	0-2"	25-188387	5160 Series		25-188394	5160 Series	
			4-6"	2-4"	33-185545	5100 Series		24-062466	5100 Series	2
		5160	4-6"	2-4"	25-188363	5160 Series	2	25-188370	5160 Series	2
			4-6"		33-104645	5100 Series				
Ranger		83-97	4-5"	0-1"	24-185493	5100 Series	2	24-185509	5100 Series	2
			6"	2-3"	24-185684	5100 Series	2	24-065276	5100 Series	2
4WD Sport Utility Vehicles (Lifted Suspension)										
Excursion	Double Shock Front Steering Stabilizer	00-05	2-2.5"	0-2"	33-187297	5100 Series	24-185479	4600 Series		
			4-6"	3-5"	33-185545	5100 Series	33-151656	5100 Series	2	
			4-6"		33-104645	5100 Series				
					24-158848	5100 Series				
Bronco	Auxiliary	80-96	4"	2-4"	24-185523	5100 Series	2	24-185530	5100 Series	2
			4"		24-186513	5100 Series	2			
			6"	2-4"	24-065283	5100 Series	2	24-185530	5100 Series	2
		67-77	2-4"	2-4"	24-065283	5100 Series	2	33-186542	5100 Series	2
Explorer		90-94	4"		24-185493	5100 Series	2			
Bronco II		83-90	4"	4"	24-185493	5100 Series	2	24-185509	5100 Series	2
2WD Pickups (Lifted Suspension)										
F-150	09-11	0-2.5"	0"	24-187466	5100 Adjustable		33-187471	5100 Series		
	04-08	0-2"	0"	24-186698	5100 Adjustable		24-186704	5100 Series		
F-150 w/ A-Arm	97-03	3"	0-1"	24-185400	5100 Series		24-024792	4600 Series		
F-150 w/ A-Arm & Lift Spindle	97-03	6"	4-5"	24-185400	5100 Series		24-185417	5100 Series	2	
F-150 w/ Crossmember Kit	97-03	6"	4-5"	24-151627	5100 Series		24-185417	5100 Series		
F-150	85-96	4"	2-4"	24-185523	5100 Series	2	24-185530	5100 Series	2	
		6"	2-4"	24-065283	5100 Series	2	24-185530	5100 Series	2	
F250 w/ Stock Radius Arms	99-04	4"	0-1"	24-185523	5100 Series	2	24-065276	5100 Series	2	
		6"	3-4"	24-065283	5100 Series	2	24-062466	5100 Series	2	
F250	80-98	4"	2"	24-185523	5100 Series	2	24-185530	5100 Series	2	
		6"	3-4"	24-065283	5100 Series	2	24-065276	5100 Series	2	
Ranger w/ A-Arm	98-11	3"	0-1"	24-187107	5100 Series		24-185288	4600 Series		
Ranger w/ A-Arm & Lift Spindle	98-11	6"	4"	24-187107	5100 Series		24-185509	5100 Series	2	
	83-97	4-5"	0-1"	24-185493	5100 Series	2	24-185288	4600 Series	2	
		4-5"	1-3"	24-185493	5100 Series	2	24-185509	5100 Series	2	
		6"	4-6"	24-185684	5100 Series	2	24-065276	5100 Series	2	
2WD Sport Utility Vehicles (Lifted Suspension)										
Expedition w/ Upper A-Arm	97-02	3"	0-1"	24-185400	5100 Series		24-185202	4600 Series		
Expedition w/ Upper A-Arm & Lift Spindle		6"	3"	24-185400	5100 Series		24-185530	5100 Series	2	





## 5100 SERIES, 5100 ADJUSTABLE & 5160 SERIES APPLICATIONS

Make / Model	Year	RAISED HEIGHT		Front Part #	Shock Series	Notes	Rear Part #	Shock Series	Notes
		Front	Rear						
2WD Sport Utility Vehicles (Lifted Suspension) <i>continued</i>									
Excursion w/ Stock Radius Arms	00-05	4"		24-185523	5100 Series	2			
Steering Stabilizer				24-158930	5100 Series				
Explorer w/ Lift Spindle	95-03	3"	1-2"	24-021319	4600 Series		24-184779	4600 Series	2
Explorer	90-94	4"	2"	24-185493	5100 Series	2			
Bronco II	83-90	4"	4"	24-185493	5100 Series	2	24-185509	5100 Series	2
HUMMER SPORT UTILITY VEHICLES									
4WD Sport Utility Vehicles (Lifted Suspension)									
Hummer H2 w/ Torsion Keys	03-09	0-2.5"	0-1"	24-186735	5100 Series		24-185912	4600 Series	16
5160		0-2.5"	0-2"	25-187618	5160 Series		25-187625	5160 Series	
Hummer H2	03-09	6"	5"	24-187206	5100 Series		33-187228	5100 Series	
Hummer H3 w/ Torsion Keys	06-10	0-2.5"	0-1"	24-186643	5100 Series		24-185615	5100 Series	
5160		0-2.5"	0-1"	25-176407	5160 Series				
JEEP TRUCKS & SPORT UTILITY VEHICLES									
4WD / 2WD Sport Utility Vehicles (Lifted Suspension)									
Wrangler JK	07-11	1.5-3"	2"	24-146708	5100 Series	2,13	24-146715	5100 Series	2,13
5160		1.5-3"	2"	25-187656	5160 Series	2,13	25-187663	5160 Series	2,13
Wrangler JK Short Arm		3.5-5"	4"	24-186995	5100 Series	2	33-186887	5100 Series	2
Wrangler JK Short Arm	5160	3.5-5"	4"	25-187632	5160 Series	2	25-187649	5160 Series	2
Wrangler JK Long Arm		3.5-5"	4"	24-186872	5100 Series	2	33-186887	5100 Series	2
Wrangler JK Long Arm	5160	3.5-5"	4"	25-187632	5160 Series	2	25-187649	5160 Series	2
Steering Stabilizer				24-158428	5100 Series				
Wrangler TJ	96-06	0-2"	0-2"	24-186810	5100 Series		24-186827	5100 Series	
5160		0-2.5"	0-2.5"	25-193138	5160 Series		25-193145	5160 Series	
Wrangler TJ Short Arm		3"	3"	24-185257	5100 Series	2	24-185264	5100 Series	2
Wrangler TJ Short Arm	5160	3"	3"	25-193114	5160 Series	2	25-193145	5160 Series	
Wrangler TJ Short Arm		4"	4"	24-188180	5100 Series	2	33-185514	5100 Series	2
Wrangler TJ Short Arm	5160	3.5-4.5"	3.5-4.5"	25-193114	5160 Series	2	25-193121	5160 Series	2
Wrangler TJ Long Arm		4"	4"	24-185929	5100 Series	2	33-185934	5100 Series	2
Wrangler TJ Long Arm		4.5"	4.5"	24-187190	5100 Series	2	33-185934	5100 Series	2
Wrangler TJ Long Arm	5160	3.5-4.5"	3.5-4.5"	25-194012	5160 Series	2	25-193121	5160 Series	2
Wrangler TJ Long Arm		5-6"	4-6"	24-185943	5100 Series	2	33-185934	5100 Series	2
Wrangler TJ Long Arm	5160	5-6"	4-6"	25-187809	5160 Series	2	25-187793	5160 Series	2
Wrangler YJ	86-95	3-4"	3-4"	24-064576	5100 Series	2	24-185660	5100 Series	2
		Springover		24-185653	5100 Series	2	24-064583	5100 Series	2
Cherokee XJ	84-01	2-3"	2-3"	24-185622	5100 Series	2	24-185639	5100 Series	2
		3.5-4"	3.5-4"	24-188197	5100 Series	2	33-066868	5100 Series	2
5160		4"	4"	25-187670	5160 Series	2	25-187816	5160 Series	2
		5-6"	5-6"	24-185943	5100 Series	2	33-151663	5100 Series	2
Grand Cherokee WJ	99-04	1.5-2"	1.5-2"	24-185622	5100 Series	2	33-151649	5100 Series	2
		3-4"	3-4"	24-188197	5100 Series	2	33-151632	5100 Series	2
Grand Cherokee ZJ	93-98	1.5-2"	1.5-2"	24-185622	5100 Series	2	33-151670	5100 Series	2
Grand Cherokee ZJ	93-98	3"	3"	24-186216	5100 Series	2	24-186223	5100 Series	2
		4"	4"	24-188197	5100 Series	2	24-186223	5100 Series	2
		6"	6"	24-185943	5100 Series	2	33-151618	5100 Series	2
Grand Wagoneer / Cherokee SJ	76-92	3-4"	3-4"	33-186542	5100 Series	2	33-186542	5100 Series	2
CJ (CJ5 / CJ7)	76-86	2-2.5"	2-2.5"	AK1066	4600 Series	2	24-011006	4600 Series	2
		3-4"	3-4"	33-185606	5100 Series	2	33-186542	5100 Series	2
	55-75	2-2.5"	2-2.5"	33-185606	5100 Series	2	33-186542	5100 Series	2
		3-4"	3-4"	33-186542	5100 Series	2	33-186542	5100 Series	2
4WD Pickups (Lifted Suspension)									
J10 / J20	74-88	3-4"	3-4"	33-186542	5100 Series	2	33-186542	5100 Series	2



## 5100 SERIES, 5100 ADJUSTABLE & 5160 SERIES APPLICATIONS

Make / Model	Year	RAISED HEIGHT		Front Part #	Shock Series	Notes	Rear Part #	Shock Series	Notes
		Front	Rear						
NISSAN TRUCKS & SPORT UTILITY VEHICLES									
4WD Pickups (Lifted Suspension)									
Titan	04-11	0-2"	0"	24-186759	5100 Adjustable		24-186766	5100 Series	
Frontier	05-11	0-2"	0"	24-187053	5100 Adjustable		24-187152	5100 Series	
	98-04	3"	1-2"	24-187824	4600 Series		24-021289	4600 Series	
4WD Sport Utility Vehicles (Lifted Suspension)									
Xterra	05-11	0-2"	0"	24-187053	5100 Adjustable		24-187169	5100 Series	
	99-04	3"	1-2"	24-187824	4600 Series		24-184908	4600 Series	11
2WD Pickups (Lifted Suspension)									
Titan	04-11	0-2"	0"	24-186759	5100 Adjustable		24-186773	5100 Series	
Frontier	05-11	0-2"	0"	24-187053	5100 Adjustable		24-187152	5100 Series	
2WD Sport Utility Vehicles (Lifted Suspension)									
Xterra	05-11	0-2"	0"	24-187053	5100 Adjustable		24-187060	5100 Series	
	99-04	3"	1-2"	24-187824	4600 Series		24-184908	4600 Series	11
SUZUKI TRUCKS									
4WD Pickups (Lifted Suspension)									
Equator	09-11	0-2"	0"	24-187053	5100 Adjustable		24-187152	5100 Series	
2WD Pickups (Lifted Suspension)									
Equator	09-11	0-2"	0"	24-187053	5100 Adjustable		24-187152	5100 Series	
TOYOTA TRUCKS & SPORT UTILITY VEHICLES									
4WD Pickups (Lifted Suspension)									
Tundra	07-11	0.875-2.5"	0-1"	24-186964	5100 Adjustable		24-186971	5100 Series	
Tundra									
BTS Kit (Excludes Double Cab)	99-06	0-2"	0-1"	BTS-7514	BTS Kit		24-100144	5100 Series	
Tundra	99-06	0-2"	0-1"	24-188265	5100 Adjustable		24-100144	5100 Series	
Tacoma	05-11	0-2.5"	0-1"	24-186711	5100 Adjustable		24-186728	5100 Series	
	5160		0-1"				25-177343	5160 Series	
Pick-up	86-95	3-4"	3-4"	24-185745	5100 Series		24-185752	5100 Series	2
4WD / 2WD Sport Utility Vehicles (Lifted Suspension)									
Sequoia	08-11	0-2.5"	0-1"	24-187275	5100 Adjustable		33-187280	5100 Series	
	01-07	0-2.5"	0-1"	24-188265	5100 Adjustable		24-185813	4600 Series	
4-Runner	10-11	0-2.5"	0-2"	24-196499	5100 Adjustable		33-187174	5100 Series	
	5160		0-2.5"				25-177909	5160 Series	
4-Runner	03-09	0-2.5"	0-2"	24-186711	5100 Adjustable		33-187174	5100 Series	
	5160		0-2.5"				25-177909	5160 Series	
4-Runner	90-95	3-4"	3-4"	24-185745	5100 Series				
	86-89	3-4"	3-4"	24-185745	5100 Series		24-185752	5100 Series	
FJ Cruiser	10-11	0-2.5"	0-2"	24-196499	5100 Adjustable		33-187174	5100 Series	
	5160		0-2.5"				25-177909	5160 Series	
FJ Cruiser	07-09	0-2.5"	0-2"	24-186711	5100 Adjustable		33-187174	5100 Series	
	5160		0-2.5"				25-177909	5160 Series	
Landcruiser	60-82	2"	2"	33-062518	5100 Series	2	33-185606	5100 Series	2
		4"	4"	33-185606	5100 Series	2	33-185552	5100 Series	2
2WD Pickups (Lifted Suspension)									
Tundra	07-11	0.875-2.5"	0-1"	24-186964	5100 Adjustable		24-186971	5100 Series	
Tundra									
BTS Kit (Excludes Double Cab)	99-06	0-2"	0-1"	BTS-7514	BTS Kit		24-100144	5100 Series	
Tundra	99-06	0-2"	0-1"	24-188265	5100 Adjustable		24-100144	5100 Series	
Tacoma Prerunner	05-11	0-2.5"	0-1"	24-186711	5100 Adjustable		24-186728	5100 Series	
	5160		0-1"				25-177343	5160 Series	

### NOTES:

- (2) Compression bump stop on chassis may need to be modified to prevent damage to the shock absorber.
- (3) Shocks are banded compressed to aid installation.
- (10) Do not use stock shock in conjunction with dual shock setup.
- (11) Will not work with stock swaybar. Shock body is too large and will interfere.
- (13) Must use wheel spacers or offset aftermarket wheels.
- (16) Zinc plated blue boot 4600 Series.

Due to the variances among lift kit manufacturers, it is the responsibility of the installer/end-user to confirm that the above shock applications are dimensionally correct. For any questions please call the BILSTEIN Off-Road Department @ 1-800-537-1085 (U.S.A.).





## 5100 SERIES & 5160 SERIES COLLAPSED AND EXTENDED LENGTHS

DIRECT FIT

Part Number	COL	EXT
24-062107	10.04	15.43
24-062466	20.28	32.01
24-064576	16.97	28.44
24-065276	17.01	28.01
24-065283	13.27	21.52
24-065412	14.63	23.68
24-066464	16.34	27.32
24-067379	17.28	28.29
24-100144	13.84	22.40
24-122986	16.34	21.89
24-146708	14.98	24.63
24-146715	15.39	26.38
24-151627	13.27	21.50
24-158428	13.19	20.01
24-158848	14.96	23.03
24-158930	13.39	21.06
24-164870	15.12	23.54
24-174534	13.11	20.62
24-185257	14.88	24.00
24-185264	14.63	23.07
24-185400	11.30	17.58
24-185417	16.38	27.32
24-185493	12.17	18.98
24-185509	16.14	26.16
24-185523	12.17	18.98
24-185530	16.14	26.16
24-185615	16.18	26.20
24-185622	13.58	22.09
24-185639	13.68	21.85
24-185653	16.97	28.44
24-185660	14.63	23.68
24-185684	12.87	20.49
24-185745	11.67	17.95
24-185752	16.00	25.63
24-185776	14.88	24.37
24-185783	16.16	26.14
24-185929	14.98	24.63
24-185943	16.97	28.44
24-185950	14.15	21.38
24-186018	13.59	21.42
24-186025	18.04	29.70
24-186216	14.88	23.70
24-186223	15.48	24.59
24-186513	13.27	21.52
24-186520	12.34	18.23
24-186636	18.17	29.92
24-186643	12.54	16.30
24-186681	16.33	26.61
24-186698	15.37	20.83
24-186704	15.31	24.94
24-186711	17.03	22.56
24-186728	14.02	22.94
24-186735	11.30	15.76
24-186742	16.14	26.15
24-186759	11.18	15.43

Part Number	COL	EXT
24-186766	15.79	25.00
24-186773	14.96	23.76
24-186810	13.06	21.18
24-186827	12.81	20.08
24-186872	16.41	27.56
24-186940	12.95	18.48
24-186957	16.53	25.39
24-186964	17.77	24.21
24-186971	15.33	24.80
24-186988	15.18	21.26
24-186995	16.41	27.56
24-187053	10.55	15.26
24-187060	12.81	20.06
24-187077	13.66	21.62
24-187084	16.14	26.15
24-187107	10.15	15.43
24-187152	13.84	21.65
24-187169	13.54	20.87
24-187183	13.52	21.46
24-187190	16.51	26.50
24-187206	13.52	21.46
24-187213	19.57	30.31
24-187237	15.55	24.33
24-187275	17.77	24.21
24-187367	15.12	21.40
24-187374	16.75	26.73
24-187466	16.22	21.91
24-187497	16.93	21.83
24-188180	14.98	24.63
24-188197	14.98	24.61
24-188265	13.23	18.68
24-191203	16.95	27.36
24-196451	14.13	18.70
24-196468	16.41	26.77
24-196499	17.57	22.48
25-176407	12.83	16.30
25-176414	16.14	27.17
25-177343	13.84	23.23
25-177411	13.96	21.38
25-177428	18.27	31.38
25-177435	15.59	26.61
25-177442	20.28	34.39
25-177497	11.77	19.19
25-177893	14.82	24.43
25-187595	15.20	25.96
25-187601	16.54	28.09
25-187618	10.79	16.24
25-187625	16.14	27.17
25-187632	15.91	27.46
25-187649	16.12	27.42
25-187656	14.53	24.70
25-187663	14.95	25.00
25-187670	14.44	24.49
25-187687	13.48	22.48
25-187694	18.25	31.46

Part Number	COL	EXT
25-187779	13.58	22.34
25-187786	18.03	31.24
25-187793	14.87	24.92
25-187809	16.44	28.39
25-187816	14.87	24.92
25-188363	15.96	26.99
25-188370	20.28	34.39
25-188387	14.33	23.72
25-188394	18.03	31.24
25-193114	14.50	24.70
25-193121	14.94	25.00
25-193138	13.10	21.86
25-193145	13.42	21.96
25-194012	15.35	26.30
25-196474	13.89	18.62
25-196481	16.53	28.00
33-061399	14.37	22.78
33-062501	20.75	34.90
33-062518	12.07	18.50
33-066868	14.88	23.84
33-104645	15.91	25.89
33-104652	17.01	28.00
33-151618	15.91	25.93
33-151632	15.91	25.93
33-151649	15.12	24.35
33-151656	20.28	32.01
33-151663	15.91	25.93
33-151670	14.13	22.58
33-170794	14.72	23.64
33-170862	18.11	27.56
33-174525	12.83	20.08
33-176840	13.66	21.65
33-176857	13.66	21.65
33-185514	15.41	25.00
33-185545	15.96	26.02
33-185552	15.91	25.93
33-185569	17.91	29.70
33-185576	20.75	34.90
33-185590	13.66	21.63
33-185606	14.13	22.58
33-185934	15.41	25.00
33-186009	16.69	27.11
33-186504	11.77	18.46
33-186542	15.12	24.31
33-186559	17.01	28.00
33-186566	11.12	16.46
33-186887	16.96	27.36
33-187174	14.91	23.50
33-187228	20.37	31.93
33-187280	13.71	19.29
33-187297	14.44	23.23
33-187471	17.07	28.03
33-187501	17.68	28.90
F4-BE5-6138-H0	11.81	18.74
F4-BE5-A827-T6	11.12	16.46



## 5125 Series

- Same great features as the 5100 Series shocks
- Available in a selection of various lengths and valvings for use on modified or specialty vehicle applications

## 5165 Series

### Remote Reservoir Shocks

- Same great features as the 5160 Series shocks
- Available in a selection of various lengths and valvings for use on modified or specialty vehicle applications

5165 Rebuild Kit: B4-KT0-Z009A01

5165 Billet Aluminum Reservoir Clamp: 11-176015

5165 Reservoir Frame Mount Kit: B4-KT2-Z009A01

## 5150 Series

### CrossFlow Reservoir Shocks

- Race inspired fixed CrossFlow reservoir
- Adjustable shock mount allows unlimited reservoir positioning
- Advanced design split valving
- Huge 46mm working piston
- Maintenance free design
- Valving available for single or multiple shock applications
- Platinum powdercoat finish
- Available in 6.5" - 14" travel



5150 Stem Mount  
Conversion: 192228





## 6100 Series

- Self-adjusting deflective disc valving
- Factory rebuildable
- Independent rebound & compression tuning
- 14mm piston rod
- 1/2" heim ends
- High flow piston reduces harshness
- Standard 8" thru 14" travel lengths
- Coilover 5" thru 10" travel lengths
- Available in standard body and coilover

7100 Series  
Schrader Valve  
shock

7100 Series  
Remote Reservoir  
shock

## 7100 Series

- Self-adjusting deflective disc valving
- Multiple valvings available
- 5" - 14" travel lengths
- 46mm diameter shock body
- Independent rebound & compression tuning
- High flow piston reduces harshness
- 1/2" heim ends
- Easily customer rebuildable
- True high pressure gas shock, *no emulsion*

7100 Rebuild Kit: B4-KT0-Y019A00

### 7100 SERIES TECHNICAL SPECIFICATIONS

Body: 46mm seamless tube

Rod: 14mm centerless ground, case hardened, chromed and super polished

Seal: Aluminum 1 piece rod guide

Piston: 46mm BILSTEIN racing piston

Valving: Self-adjusting deflective disc independent rebound & compression

Oil: BILSTEIN fade resistant high temperature racing oil

Reservoir: 46mm seamless tube

Hose: Aeroquip -5 stainless braided hose

Finish: Electroless nickel with clear powdercoat

CUSTOM FIT



## 5125 Series

Part Number	Description	Travel	Col. Length	Ext. Length	Mounting Upper	Mounting Lower	Sleeves	Boot	Valving	Shaft Dia.
33-186566	5" 5125 Off-Road	5.33"	11.12"	16.45"	EB1*	EB1*	1/2"	No	223/90	14mm
33-062518	6.5" 5125 Off-Road	6.63"	12.03"	18.5"	EB1*	EB1*	1/2"	Yes	255/70	14mm
33-186504	6.65" 5125 Off-Road	6.65"	11.77"	18.42"	Stem	EB1	1/2"	Yes	366/240	14mm
24-185684	7.6" 5125 Off-Road	7.62"	12.83"	20.45"	Stem	EB1*	1/2"	Yes	224/100	14mm
33-185590	8" 5125 Off-Road	8.13"	13.58"	21.54"	EB1*	EB1*	1/2"	Yes	255/70	14mm
24-065283	8.2" 5125 Off-Road	8.23"	13.27"	21.50"	Stem	EB1*	1/2"	Yes	298/94	14mm
33-185606	8.5" 5125 Off-Road	8.6"	14.06"	22.5"	EB1*	EB1*	1/2"	Yes	255/70	14mm
33-186542	9" 5125 Off-Road	9.24"	15.11"	24.35"	EB1*	EB1*	1/2"	Yes	255/70	14mm
33-185842	10" 5125 Off-Road	10.17"	15.91"	25.93"	EB1*	EB1*	1/2"	Yes	175/60	14mm
33-185552	10" 5125 Off-Road	10.17"	15.91"	25.93"	EB1*	EB1*	1/2"	Yes	255/70	14mm
33-186559	11" 5125 Off-Road	11.0"	17.0"	28.01"	EB1*	EB1*	1/2"	Yes	175/60	14mm
33-104652	11" 5125 Off-Road	11.0"	17.0"	28.01"	EB1*	EB1*	1/2"	Yes	255/70	14mm
33-185569	12" 5125 Off-Road	11.94"	17.91"	29.7"	EB1*	EB1*	1/2"	Yes	255/70	14mm
33-185576	14" 5125 Off-Road	14.3"	20.75"	34.9"	EB1*	EB1*	1/2"	No	255/70	14mm
33-062501	14" 5125 Off-Road	14.3"	20.75"	34.9"	EB1*	EB1*	1/2"	No	298/36	14mm

\* 5/8" I.D. hourglass bushings

## 5150 Series

Part Number	Description	Travel	Col. Length	Ext. Length	Mounting Upper	Mounting Lower	Sleeves	Boot	Valving	Shaft Dia.
25-186284	6.5" 5150 Crossflow	6.48"	12.3"	18.78"	EB1*	EB1*	1/2"	No	255/70	14mm
25-186291	8.5" 5150 Crossflow	8.33"	14.17"	22.5"	EB1*	EB1*	1/2"	No	255/70	14mm
25-101966	10" 5150 Crossflow	10.02"	15.89"	25.91"	EB1*	EB1*	1/2"	No	175/60	14mm
25-186307	10" 5150 Crossflow	10.02"	15.89"	25.91"	EB1*	EB1*	1/2"	No	255/70	14mm
25-186314	11" 5150 Crossflow	11.5"	16.5"	27.99"	EB1*	EB1*	1/2"	No	175/60	14mm
25-186277	12" 5150 Crossflow	11.93"	17.78"	29.7"	EB1*	EB1*	1/2"	No	175/60	14mm
25-101874	12" 5150 Crossflow	11.93"	17.78"	29.7"	EB1*	EB1*	1/2"	No	255/70	14mm
25-187588	14" 5150 Crossflow	14.53"	20.37"	34.9"	EB1*	EB1*	1/2"	No	175/60	14mm
25-188349	14" 5150 Crossflow	14.53"	20.37"	34.9"	EB1*	EB1*	1/2"	No	255/70	14mm
192228	Stem adapter									

\* 5/8" I.D. hourglass bushings

## 5165 Series

Part Number	Description	Travel	Col. Length	Ext. Length	Mounting Upper	Mounting Lower	Sleeves	Boot	Valving	Shaft Dia.
25-187878	6.3" 5165 Reservoir	6.3"	11.0"	17.3"	EB1*	EB1*	1/2"	No	360/80	14mm
25-177497	7.4" 5165 Reservoir	7.4"	11.8"	19.2"	Stem	EB1*	1/2"/12mm	No	366/240	14mm
25-187861	7.5" 5165 Reservoir	7.5"	12.3"	19.8"	EB1*	EB1*	1/2"	No	170/60	14mm
25-187885	7.5" 5165 Reservoir	7.5"	12.3"	19.8"	EB1*	EB1*	1/2"	No	255/70	14mm
25-177480	8.4" 5165 Reservoir	8.4"	12.8"	21.2"	Stem	EB1*	1/2"/12mm	No	366/240	14mm
25-176223	8.8" 5165 Reservoir	8.8"	13.6"	22.4"	EB1*	EB1*	1/2"	No	170/60	14mm
25-176230	8.8" 5165 Reservoir	8.8"	13.6"	22.4"	EB1*	EB1*	1/2"	No	255/70	14mm

\* 5/8" I.D. hourglass bushings



## 5165 Series *(continued)*

Part Number	Description	Travel	Col. Length	Ext. Length	Mounting Upper	Mounting Lower	Sleeves	Boot	Valving	Shaft Dia.
25-177473	8.8" 5165 Reservoir	8.8"	13.2"	22"	Stem	EB1*	1/2"/12mm	No	366/240	14mm
25-176124	9.4" 5165 Reservoir	9.4"	14.2"	23.6"	EB1*	EB1*	1/2"	No	170/60	14mm
25-176117	9.4" 5165 Reservoir	9.4"	14.2"	23.6"	EB1*	EB1*	1/2"	No	255/70	14mm
25-176100	9.4" 5165 Reservoir	9.4"	14.2"	23.6"	EB1*	EB1*	1/2"	No	360/80	14mm
25-177510	9.8" 5165 Reservoir	9.8"	14.6"	24.4"	EB1*	EB1*	1/2"	No	255/70	14mm
25-177503	9.8" 5165 Reservoir	9.8"	14.6"	24.4"	EB1*	EB1*	1/2"	No	360/80	14mm
25-187700	11.3" 5165 Reservoir	11.3"	16.1"	27.4"	EB1*	EB1*	1/2"	No	170/60	14mm
25-187717	11.3" 5165 Reservoir	11.3"	16.1"	27.4"	EB1*	EB1*	1/2"	No	255/70	14mm
25-187724	11.3" 5165 Reservoir	11.3"	16.1"	27.4"	EB1*	EB1*	1/2"	No	360/80	14mm
25-175783	11.6" 5165 Reservoir	11.6"	16.9"	28.5"	EB1*	EB1*	1/2"	No	255/70	14mm
25-187731	13.1" 5165 Reservoir	13.1"	17.9"	31.0"	EB1*	EB1*	1/2"	No	170/60	14mm
25-187748	13.1" 5165 Reservoir	13.1"	17.9"	31.0"	EB1*	EB1*	1/2"	No	255/70	14mm
25-187755	14.2" 5165 Reservoir	14.2"	20.7"	34.9"	EB1*	EB1*	1/2"	No	170/60	14mm
25-187762	14.2" 5165 Reservoir	14.2"	20.7"	34.9"	EB1*	EB1*	1/2"	No	255/70	14mm

\* 5/8" I.D. hourglass bushings

## 6100 Series

Part Number	Travel	Description	Valving	Reservoir	Ext. Length.	Col. Length	Shaft Dia.	Finish
<b>8" Travel</b>								
F4-B46-0349-H1	8	Standard Body	275/78	N	22.05	13.82	14mm	Yellow
F4-B46-0359-H1	8	Standard Body	180/75	N	22.05	13.82	14mm	Yellow
<b>10" Travel</b>								
F4-B46-0360-H1	10	Standard Body	275/78	N	25.82	15.79	14mm	Yellow
F4-B46-1361-H1	10	Standard Body	180/75	N	25.82	15.79	14mm	Yellow
F4-B46-1362-H1	10	Standard Body	170/60	N	25.82	15.79	14mm	Yellow
<b>12" Travel</b>								
F4-B46-0350-H1	12	Standard Body	360/80	N	31.1	19.37	14mm	Yellow
F4-B46-1351-H1	12	Standard Body	275/78	N	31.1	19.37	14mm	Yellow
F4-B46-1353-H1	12	Standard Body	170/60	N	31.1	19.37	14mm	Yellow
<b>14" Travel</b>								
F4-B46-1072-H1	14	Standard Body	150/50	N	34.8	20.75	14mm	Yellow
<b>Coilover</b>		<b>Supplied with 2 1/2" single rate spring hardware</b>						
F4-B46-1103-H1†	10	Coilover w/Hrdwr	255/100	N	26.65	17.44	14mm	Plated
B46-0206W	8	Coilover w/Hrdwr	Custom	N	22.25	14	14mm	Plated
B46-0205OR	6	Coilover w/Hrdwr	Custom	N	18.25	12	14mm	Plated
B46-0204OR	5	Coilover w/Hrdwr	Custom	N	16.25	11.25	14mm	Plated
<b>VW Off-Road / Class 9 / Class 11</b>								
24-000338	5.02	VW Off-Road	330/130	N	15.43	10.41	11mm	Yellow
F4-B46-0930-H5	5.36	Class 11 Rear	345/135	N	16.22	10.86	14mm	Plated
F4-BOA-0000304	6.65	Class 9/Class 11 Front	220/115	N	18.58	11.93	14mm	Yellow
B46-0493VW	6.9	Ball Joint Front cut & turned	265/70	N	18.6	11.7	11mm	Yellow

Note: B46-0493VW is supplied with rubber bushing lower mounting

(†) Light weight shock recommended for front buggy applications only



## 7100 Series

Part Number	Travel	Description	Valving	Reservoir	Extended Length	Collapsed Length
<b>8" Travel</b>						
AK7108R01	8	Reservoir Shock	150/50	Y	22.29	14.06
AK7108S01	8	Non Reservoir Shock	150/50	N	22.29	14.06
AK7108R02	8	Reservoir Shock	170/60	Y	22.29	14.06
AK7108S02	8	Non Reservoir Shock	170/60	N	22.29	14.06
B46-0359R	8	Reservoir Shock	180/75	Y	22.29	14.06
B46-0359S	8	Non Reservoir Shock	180/75	N	22.29	14.06
AK7108R04	8	Reservoir Shock	255/70	Y	22.29	14.06
AK7108S04	8	Non Reservoir Shock	255/70	N	22.29	14.06
AK7108R05	8	Reservoir Shock	275/78	Y	22.29	14.06
B46-0349S	8	Non Reservoir Shock	275/78	N	22.29	14.06
AK7108R06	8	Reservoir Shock	360/80	Y	22.29	14.06
AK7108S06	8	Non Reservoir Shock	360/80	N	22.29	14.06
AK7108R99	8	Reservoir Shock	Custom	Y	22.29	14.06
AK7108S99	8	Non Reservoir Shock	Custom	N	22.29	14.06
<b>10" Travel</b>						
AK7110R01	10	Reservoir Shock	150/50	Y	25.77	16.1
AK7110S01	10	Non Reservoir Shock	150/50	N	25.77	16.1
AK7110SB01	10	Reservoir Short Body	150/50	Y	24.31	14.21
B46-1362R	10	Reservoir Shock	170/60	Y	25.77	16.1
B46-1362S	10	Non Reservoir Shock	170/60	N	25.77	16.1
AK7110SBA	10	Reservoir Short Body	170/60	Y	24.31	14.21
B46-1361R	10	Reservoir Shock	180/75	Y	25.77	16.1
B46-1361S	10	Non Reservoir Shock	180/75	N	25.77	16.1
AK7110SB03	10	Reservoir Short Body	180/75	Y	24.31	14.21
AK7110R04	10	Reservoir Shock	255/70	Y	25.77	16.1
AK7110S04	10	Non Reservoir Shock	255/70	N	25.77	16.1
AK7110SB	10	Reservoir Short Body	255/70	Y	24.31	14.21
B46-0360R	10	Reservoir Shock	275/78	Y	25.77	16.1
B46-0360S	10	Non Reservoir Shock	275/78	N	25.77	16.1
AK7110SB05	10	Reservoir Short Body	275/78	Y	24.31	14.21
AK7110R	10	Reservoir Shock	360/80	Y	25.77	16.1
AK7110S06	10	Non Reservoir Shock	360/80	N	25.77	16.1
AK7110SB06	10	Reservoir Short Body	360/80	Y	24.31	14.21
AK7110R99	10	Reservoir Shock	custom	Y	25.77	16.1
AK7110S99	10	Non Reservoir Shock	custom	N	25.77	16.1
AK7110SB99	10	Reservoir Short Body	custom	Y	24.31	14.21
<b>12" Travel</b>						
AK7112R01	12	Reservoir Shock	150/50	Y	31.1	19.53
AK7112S01	12	Non Reservoir Shock	150/50	N	31.1	19.53
AK7112SB01	12	Reservoir Short Body	150/50	Y	27.68	16.1
B46-1353R	12	Reservoir Shock	170/60	Y	31.1	19.53
B46-1353S	12	Non Reservoir Shock	170/60	N	31.1	19.53
AK7112SBA	12	Reservoir Short Body	170/60	Y	27.68	16.1
AK7112R03	12	Reservoir Shock	180/75	Y	31.1	19.53





## 7100 Series *(continued)*

Part Number	Travel	Description	Valving	Reservoir	Extended Length	Collapsed Length
<b>12" Travel</b>						
AK7112S03	12	Non Reservoir Shock	180/75	N	31.1	19.53
AK7112SB03	12	Reservoir Short Body	180/75	Y	27.68	16.1
AK7112R04	12	Reservoir Shock	255/70	Y	31.1	19.53
AK7112S04	12	Non Reservoir Shock	255/70	N	31.1	19.53
AK7112SBB	12	Reservoir Short Body	255/70	Y	27.68	16.1
B46-1351R	12	Reservoir Shock	275/78	Y	31.1	19.53
B46-1351S	12	Non Reservoir Shock	275/78	N	31.1	19.53
AK7112SBA	12	Reservoir Short Body	275/78	Y	27.68	16.1
B46-0350R	12	Reservoir Shock	360/80	Y	31.1	19.53
B46-0350S	12	Non Reservoir Shock	360/80	N	31.1	19.53
AK7112SB06	12	Reservoir Short Body	360/80	Y	27.68	16.1
AK7112R99	12	Reservoir Shock	custom	Y	31.1	19.53
AK7112S99	12	Non Reservoir Shock	custom	N	31.1	19.53
AK7112SB99	12	Reservoir Short Body	custom	Y	27.68	16.1
<b>14" Travel</b>						
AK7114R01	14	Reservoir Shock	150/50	Y	35.22	20.83
AK7114S01	14	Non Reservoir Shock	150/50	N	35.22	20.83
AK7114SB01	14	Reservoir Short Body	150/50	Y	33.84	19.53
AK7114RA	14	Reservoir Shock	170/60	Y	35.22	20.83
AK7114SA	14	Non Reservoir Shock	170/60	N	35.22	20.83
AK7114SBA	14	Reservoir Short Body	170/60	Y	33.84	19.53
AK7114R03	14	Reservoir Shock	180/75	Y	35.22	20.83
AK7114S03	14	Non Reservoir Shock	180/75	N	35.22	20.83
AK7114SB03	14	Reservoir Short Body	180/75	Y	33.84	19.53
AK7114R04	14	Reservoir Shock	255/70	Y	35.22	20.83
AK7114S04	14	Non Reservoir Shock	255/70	N	35.22	20.83
AK7114SB	14	Reservoir Short Body	255/70	Y	33.84	19.53
AK7114R05	14	Reservoir Shock	275/78	Y	35.22	20.83
AK7114S05	14	Non Reservoir Shock	275/78	N	35.22	20.83
AK7114SB05	14	Reservoir Short Body	275/78	Y	33.84	19.53
AK7114R06	14	Reservoir Shock	360/80	Y	35.22	20.83
AK7114S	14	Non Reservoir Shock	360/80	N	35.22	20.83
AK7114SB06	14	Reservoir Short Body	360/80	Y	33.84	19.53
AK7114R99	14	Reservoir Shock	custom	Y	35.22	20.83
AK7114S99	14	Non Reservoir Shock	custom	N	35.22	20.83
AK7114SB99	14	Reservoir Short Body	custom	Y	33.84	19.53
<b>VW Off-Road</b>						
B46-0930R	5.36	Rear Swing Axle or IRS	345/135*	Y	16.04	10.81
B46-0930S	5.36	Rear Swing Axle or IRS	345/135*	N	16.04	10.81
B46-1085R	6.65	Front Beam**	220/115*	Y	18.46	11.83
B46-1085S	6.65	Front Beam**	220/115*	N	18.46	11.83

\* *Optional Valving*    \*\* *Ball joint front beam, cut & turned*

Download the 7100 Series shocks rebuild guide at:

[http://www.bilsteinUS.com/fileadmin/user\\_upload/user\\_upload\\_us/pdfs/7100\\_Rebuild.pdf](http://www.bilsteinUS.com/fileadmin/user_upload/user_upload_us/pdfs/7100_Rebuild.pdf)

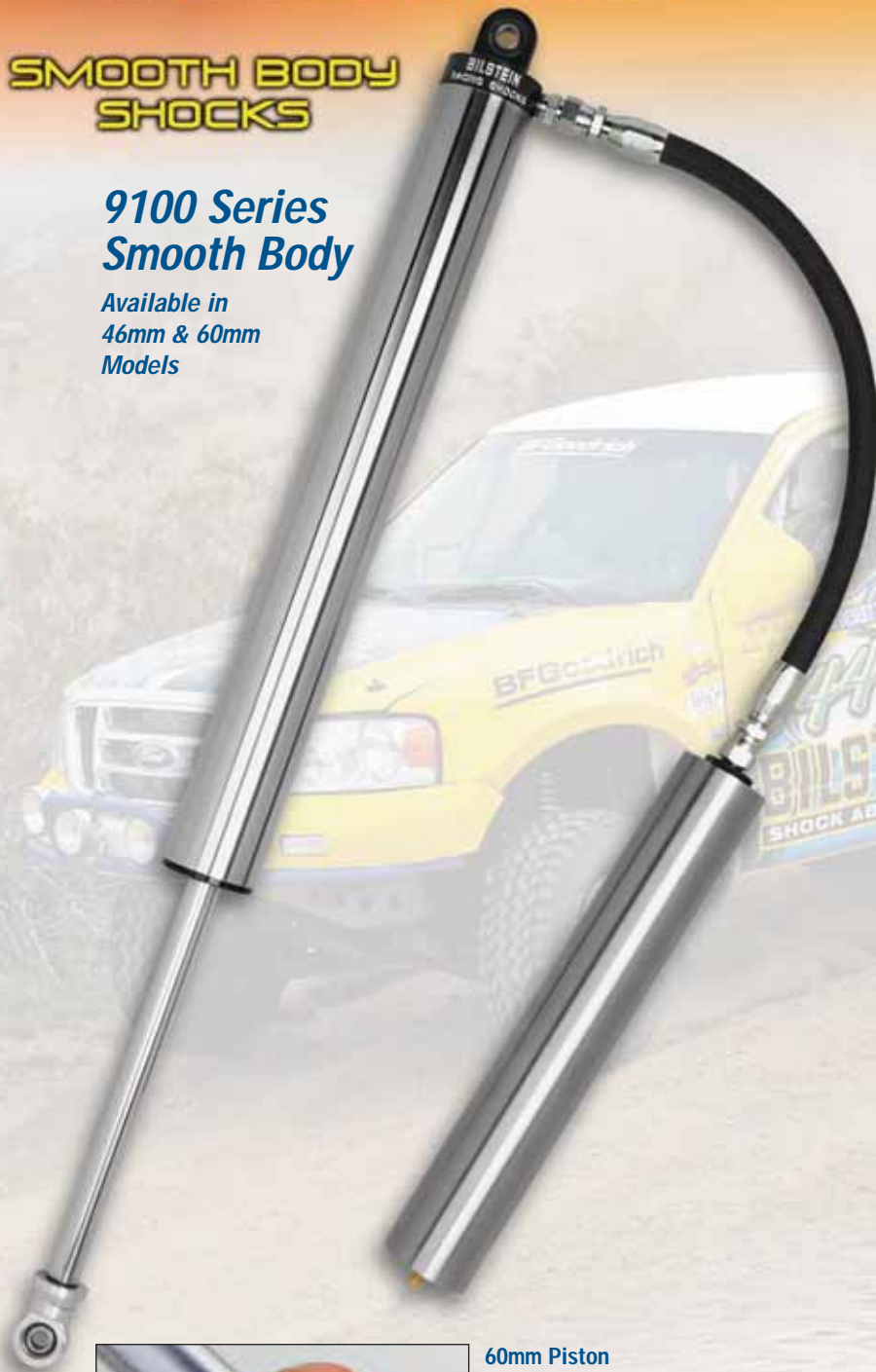


# BILSTEIN OFF-ROAD SHOCKS

## SMOOTH BODY SHOCKS

### 9100 Series Smooth Body

Available in  
46mm & 60mm  
Models



BILSTEIN off-road racing shocks are a direct embodiment of the knowledge and experience developed over 40 years of racing in Baja. Our goal is simple - put BILSTEIN equipped race vehicles into the winner's circle! With BILSTEIN off-road racing shocks, you can be confident in knowing that the highest levels of quality and expertise exist throughout the design of the ultimate shock. Every component of a 9100 and 9300 Series Shock is comprised of aerospace-class materials and engineered to the tightest tolerances. Each shock is hand assembled by a skilled professional in our Poway, California, off road technical department, ensuring an unmatched attention to every detail. With BILSTEIN 9100 and 9300 Series Off Road Racing Shocks, you can expect both the long service life and ultimate performance that BILSTEIN is world famous for.



#### 60mm Piston

The all new 60mm piston for the 9100 Series is machined from 7075 aluminum and is hard anodized for extreme wear resistance. The 1" tall piston offers excellent lateral support, while the 60mm outside diameter valving surface allows for maximum tunability. The piston is encompassed by an O-ring backed wear band, creating a truer seal between the inner walls of the shock and the outer surface of the piston. Upon sudden impact, this design helps to eliminate "blow by" (the process of high pressure forcing oil to flow around the sides of the piston, rather than through it) which increases the overall damping capacity of the shock.



#### 9100 Series Rod Guide

The redesigned 9100 Series rod guide, located at the base of the shock body, utilizes a unique 3-seal design to increase durability and extend the life of the shock. The wiper seal prevents dirt and other contaminants from entering the body of the shock. The main cup seal works at all levels of compression and rebound activity. The high pressure seal is designed to activate and provide extra control to the piston rod during sudden impact resulting in internal pressure spikes. Each seal is constructed from the highest quality material to ensure the shock oil stays where it should - inside the shock! The overall lateral stability of the 9100 Series rod guide is further increased by its 30mm DP4 bearing.





RACING

## COILOVER SHOCKS

### 9100 Series Coilover

Available in  
46mm & 60mm  
Models

### 9100 Series Rock Crawler

The 9100 Series Rock Crawler bridges the gap between the full race and the recreational application. Utilizing a Baja proven 46mm 9100 Series damper, the shock is mated with a purpose-built, light weight 60mm x 12" remote reservoir. This shock utilizes BILSTEIN's unique digressive valving, which provides superior body motion control.  
*(Spring hardware kit sold separately)*

#### 9100 SERIES TECHNICAL SPECIFICATIONS

**Body:** 60mm or 46mm seamless tube available in Smooth Body, Threaded Body, or Bypass

**Piston Rod:** 22mm centerless ground, case hardened, chromed and super polished

**Rod Guide:** 2 PC aluminum CNC machined with air bleed valve

**Seal:** Rebuildable, cup seal, high pressure seal and wiper

**Piston:** 60mm: 7075 aluminum with O-ring tension wear band

46mm: U37 linear or digressive with check valve

**Oil:** BILSTEIN fade resistant high temperature racing oil

*(Optional synthetic oil available)*

**Reservoir:** Standard: 60mm x 15"

Rockcrawler: 60mm x 12"

**Hose:** Aeroquip -8 high pressure hose

**Rod Ends:** 1/2" Teflon® Uniball with steel machined eye ring

*(Optional 3/4" Teflon® Uniball with machined aluminum eye ring)*

**Top Cap:** 7075 T6 machined aluminum and hard anodized

**Finish:** Electroless nickel

**Bypass Adjuster:** Chromoly metering check valve with stainless adjuster  
*(Optional Black Hawk incremental flow metering valve with titanium check valve)*

**Bypass Tubes:** Available in 5/8" or optional 7/8" dia.

**Coilover Hardware:** 3" I.D., includes lock ring, spring seat, crossovers locking and Delron slider

**Jounce Stop:** Closed cellular foam



# BILSTEIN OFF-ROAD SHOCKS

## BYPASS SHOCKS

### 9100 Series Bypass

Available in  
46mm & 60mm  
Models

Also available  
with piggyback  
reservoir, heat sink  
and Black Hawk®  
style metering  
valves.



#### Optional Reservoir Heat Sink

A specialized heat sink is available on any 60mm reservoir. In real-world shock tuning tests, its utilization has shown a drop in shock temperature on average of about 20 to 30 degrees.

BILSTEIN 9100 Series 60mm Bypass shocks are position sensitive, adjustable, offering 6 zones of damping control and 4 external adjusters; 2 rebound and 2 compression. Utilizing an externally adjustable bypass shock is the easiest and most effective way to tune your off-road suspension for the ultimate performance. If you're looking for the best... *this is the best!*

Also available in 46mm, 2-tube models.



#### 9100 Series Bypass Adjuster

9100 Series bypass shocks utilize a high flow metering check valve that allows for independent tuning of rebound and compression. The check valves are controlled by a threaded adjuster that is very simple and easy to use. Rebound and compression is fine-tuned by rotating the threaded adjuster in either direction: clockwise to increase damping, and counter clockwise to decrease damping. The redesigned bypass adjuster is machined from chromoly and features stainless steel components, effectively increasing resistance to damage from both external impact and corrosion.

#### Optional 3/4" Rod Ends

Optional 3/4" Teflon® Uniball with machined aluminum eye ring are available on any 60mm 9100 Series shocks.





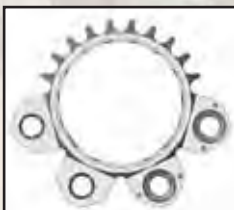
## Black Hawk® 9300 Series Radial Bypass Shocks

The Black Hawk® 9300 Series is the ultimate in off-road race shock technology. Its Radial Bypass Damping design provides a superior level of performance and tuning capability. It's big and bold with a unmistakable hard anodized finish.



### Remote Reservoir

- 4-1/2" dia. x 12" 6061-T6 aluminum reservoir housing
- Anti-cavitation valve (ACV) (U.S. Patent 7628259) and larger reservoir diameter reduces the required gas pressure, lowering the piston rod pressure and giving the vehicle greater damping control



### Shock Body (U.S. Patent 7191877)

- Rapid heat dissipating, one piece extruded 6061 aluminum construction featuring Radial Bypass Damping™ (RBD) technology
- Approximately 30% faster cooling efficiency than steel and up to 100° lower peak operating temperatures
- Stronger and 10%-25% lighter than similar welded steel bypass shock bodies without the distortion from welding



### Shock Piston & Rod

- 3" O.D. 6061-T6 aluminum, type III hard anodized piston with high-flow ports and 1" tall low friction bronze backed wear band with O-ring seal
- 1-1/8" O.D. hard-chromium plated piston rod



### Incremental Bypass Flow Metering Valve™ (IFMV) (U.S. Patent 7325660)

- Extremely accurate, incremental flow adjustment within a sealed mechanism for extreme resistance to dirt contamination
- Easily adjustable color-coded Rebound (red) and Bump (blue) IFMV adjusters with an internal detent feature providing prominent "clicks" to each of the 9 settings
- High impact, titanium check valve piston providing excellent wear characteristics



# BILSTEIN OFF-ROAD SHOCKS

## 60MM ACV - ANTI CAVITATION VALVE



The new 60mm ACV (Anti-Cavitation Valve) is a stationary piston which can be optionally located at the port

of the remote reservoir attached to 9100 and 9300 Series Shock Absorbers. The ACV is designed to exponentially increase the internal pressure on the shock oil as the velocity of the shaft stroke increases. By virtually eliminating the possibility of shock fade due to cavitation, the shock is able to reach higher levels of operating performance.

Additionally, the 60mm ACV allows for a much broader range of

damping, offering a more comfortable ride while maintaining a superior level of control. The ability to adjust the valving of both the main piston and the ACV allows for a limitless number of achievable combinations for low and high speed performance. Proper tuning of this system greatly reduces the event of hard bottoming at full compression.

The ACV is primarily recommended for *front application* coilover and smooth body shock absorbers. If you are interested in this added feature, please consult the BILSTEIN Off-Road Racing Department for proper tuning specifications.

## BUMP STOPS

BILSTEIN's new generation bumpstops feature extremely durable Delrin® strike pads. The Delrin® pads are simple to replace and offer a cost effective alternative to aluminum tips, plus they can be retrofitted to earlier model bumpstops. The new BILSTEIN bumpstops are available in 2", 3" and 4" travel models.

BILSTEIN original 4" bumpstops with aluminum tip are also available.

- Thick-walled Monotube design
- Seamless steel & electroless nickel finished body
- Universal frame bracket fitment (2" O.D.)
- 1-1/4" hardened chrome steel shaft
- Nitrogen adjustable spring rate capability

Bump Stop Rebuild Kit: B4-KT0-Y001A00



## Bump Stops

Part #	Travel	Description	Valving	Extended	Collapsed
F4-BOA-0000586	4	Bump Stop w/ Aluminum Tip	Standard	13.2	9.42
F4-BE5-G724-M0	4	Bump Stop w/ Delrin® Tip	Standard	13.2	9.42
F4-BE5-G723-M0	3	Bump Stop w/ Delrin® Tip	Standard	12.2	9.42
F4-BE5-G722-M0	2	Bump Stop w/ Delrin® Tip	Standard	11.2	9.42





## Black Hawk® 9300 Series

### Black Hawk® 9300 Series

Travel	Extended Length	Collapsed Length	Part #
18	46.75"	28.75"	AK9318BY
16	42.75"	26.75"	AK9316BY
14	38.75"	24.75"	AK9314BY
12	34.75"	22.75"	AK9312BY

Measured in inches from center of bearings (eye-to-eye)

Optional Rod Ends Plus 1", 2", or 3"

Mount width w/spacers 1.875"

### 9300 Coilover

Travel	Extended Length	Collapsed Length	Part #
17	45.08"	28.68"	AK9217CL
14	40.81"	27.81"	AK9214CL
12	35.61"	24.21"	AK9212CL

Measured in inches from center of bearings (eye-to-eye)

Optional Rod Ends Plus 1", 2", or 3"

Mount width w/spacers 1.875"

9300 coil hardware available for 3" & 3-5/8" I.D. coils

Download the complete technical manual for Black Hawk® shocks at:  
[http://www.bilsteinUS.com/fileadmin/user\\_upload/user\\_upload\\_us/pdfs/BlackHawk9300SeriesTechnicalManual-March06.pdf](http://www.bilsteinUS.com/fileadmin/user_upload/user_upload_us/pdfs/BlackHawk9300SeriesTechnicalManual-March06.pdf)



## 9100 Series

### 60MM

Part Number	Travel	Description	Valving	Reservoir	Ext. Length	Col. Length
<b>10" Travel Weld Top</b>						
F4-BOA-0000395	10	60mm Weld Top Smooth Body	custom	Y	26.65	16.87
F4-BOA-0000880	10	60mm Weld Top Coilover W/ Spring Hardware	custom	Y	26.65	17.62
B60-9010BY	10	60mm Weld Top 4-Tube External Bypass	custom	Y	26.65	16.87
<b>10" Travel Screw Top</b>						
F4-BOA-0000399	10	60mm Smooth Body	custom	Y	29.5	19.73
F4-BOA-0000400	10	60mm Coilover W/ Spring Hardware	custom	Y	29.5	20.48
B60-9110BYST	10	60mm 4-Tube External Bypass	custom	Y	29.5	19.73
<b>12" Travel Screw Top</b>						
F4-BOA-0000356	12	60mm Smooth Body	custom	Y	33.85	21.72
F4-BOA-0000357	12	60mm Coilover W/ Spring Hardware	custom	Y	33.85	22.46
B60-9113BYST	12	60mm 4-Tube External Bypass	custom	Y	33.85	21.72
<b>14" Travel Screw Top</b>						
F4-BOA-0000354	14	60mm Smooth Body	custom	Y	38.87	24.73
F4-BOA-0000355	14	60mm Coilover W/ Spring Hardware	custom	Y	38.87	25.48
B60-9115BYST	14	60mm 4-Tube External Bypass	custom	Y	38.87	24.73
<b>17" Travel Screw Top</b>						
F4-BOA-0000352	17	60mm Smooth Body	custom	Y	43.36	26.22
F4-BOA-0000353	17	60mm Coilover W/ Spring Hardware	custom	Y	43.36	26.98
B60-9118BYST	17	60mm 4-Tube External Bypass	custom	Y	43.36	26.22

continued on next page



## 9100 Series (continued)

### 46MM

Part Number	Travel	Description	Valving	Reservoir	Ext. Length	Col. Length
<b>10" Travel Screw Top</b>						
F4-BOA-0000387	10	46mm Smooth Body	custom	Y	29.5	19.73
F4-BOA-0000388	10	46mm Coilover W/ Spring Hardware	custom	Y	29.5	20.48
B46-9110BYST	10	46mm 2-Tube External Bypass	custom	Y	29.5	19.73
<b>12" Travel Screw Top</b>						
F4-BOA-0000389	12	46mm Smooth Body	custom	Y	33.85	21.72
F4-BOA-0000390	12	46mm Coilover W/ Spring Hardware	custom	Y	33.85	22.46
B4-BOA-0000XXX	12	46mm 2-Tube External Bypass	custom	Y	33.85	21.72
<b>14" Travel Screw Top</b>						
F4-BOA-0000391	14	46mm Smooth Body	custom	Y	38.87	24.73
F4-BOA-0000392	14	46mm Coilover W/ Spring Hardware	custom	Y	38.87	25.48
B46-9115BYST	14	46mm 2-Tube External Bypass	custom	Y	38.87	24.73
<b>17" Travel Screw Top</b>						
F4-BOA-0000393	17	46mm Smooth Body	custom	Y	43.36	26.22
F4-BOA-0000394	17	46mm Coilover W/ Spring Hardware	custom	Y	43.36	26.98
B46-9118BYST	17	46mm 2-Tube External Bypass	custom	Y	43.36	26.22

## 9100 Series Rock Crawler

Part Number	Travel	Description	Valving	Reservoir	Ext. Length	Col. Length	Shaft Dia.
B46-9113RCS	12.14	12" Travel 46mm Threaded Body	digressive	2.5"x 12"	33.85	21.72	22mm
B46-9115RCS	14.14	14" Travel 46mm Threaded Body	digressive	2.5"x 12"	38.87	24.73	22mm
B46-9118RCS	17.14	17" Travel 46mm Threaded Body	digressive	2.5"x 12"	43.36	26.22	22mm

### Digressive Competition Valving

BILSTEIN Rock Crawler shocks now come standard with our Digressive "Rebound Check Valve" Piston. Designed specifically for rock crawling competition, this valving will greatly enhance vehicle stability while reducing impact harshness. Utilizing the digressive valving, wheel hop, front to rear/side to side weight transfer, erratic spring unloads, and sway will greatly be reduced.

Suffix:                      Digressive Front (10)                      Digressive Rear (11)

### 9100 Service Kits

Part Number	Description
B4-KT0-Y004A00	9100 Series 60mm Seal Kit
B4-KT0-Y005A00	9100 Series 46mm Seal Kit
B4-KT0-Y010A00	9100 Series Bypass Adjuster Spring & External Seal Kit
B4-KT0-Y012A00	1/2" Heim Kit (2 Uniballs & 2 Clips)
B4-KT0-Y013A00	15mm Heim Kit (2 Uniballs & 2 Clips)
B4-KT0-Y014A00	9100 Series 46mm Piston Band
B4-KT0-Y015A00	9100 Series 60mm Piston Band
B4-KT0-Y016A00	46mm Piston Band
B4-KT0-Y018A00	9100 Series 60mm Dividing Piston

All kits include components to repair one shock



Shown: B4-KT0-Y004A00

Download the complete replacement parts listing for 9100 Series shocks at:  
[http://www.bilsteinUS.com/fileadmin/user\\_upload/user\\_upload\\_us/pdfs/9100parts-0608.pdf](http://www.bilsteinUS.com/fileadmin/user_upload/user_upload_us/pdfs/9100parts-0608.pdf)





## Servicing Your Shocks (9100 / 7100 / 5165 / 5160 Series) – Use Nitrogen Only!

All shocks with a reservoir or schrader valve should be serviced on a regular basis. Failure to service your shock will reduce the life span and damage the shock absorber.

Nitrogen can be serviced through a fill valve located on the shock body (schrader shock) or at the end of the reservoir (reservoir shock).

**Tip:** If the suspension begins to feel soft, you may need to increase nitrogen pressure. A BILSTEIN Gas Filling Tool (part#193000) is available. Please contact your BILSTEIN dealer for more details. Nitrogen bottles typically can be purchased at any welding supply dealer.

*Do not attempt to repair or rebuild any shock if you are not qualified to do so.*

*9100 Series are delivered with no nitrogen pressure. The shock must be serviced prior to use. Proper fill level ranges from 180-250 PSI.*

## Installation

### 9300 / 9100 / 7100 / 6100 / 5150 / 5125 / 5165

This product is not intended for use on any OEM applications, and may not directly fit in standard mounting locations. *The user is responsible for determining the suitability of this product.*

**Incorrect installation can lead to the failure of this product. Below are a few tips:**

- This shock cannot be used as a compression limiter. Failure of the shock and/or mounts will result.
- A limit strap is strongly recommended on any high-speed application where suspension oscillations to "full droop" are a common occurrence.
- The 9300, 9100, 7100, and 6100 Series supplied with (4) heim spacers, which must be placed on both sides of the spherical bearing (top and bottom). The purpose of these spacers is to allow the spherical bearing to articulate as the shock cycles through its travel. It is very important that the heim spacers do not contact the end loop during operation. It is very important that the end loops do not contact any part of the mount brackets, etc., during operation. Any interference with the free movement of the bearings may result in a bent or broken piston rod.
- It is very important to cycle the suspension to full "bump" and full "droop" before operating the vehicle with this product. *Failure can occur if the shock body comes in contact with the chassis, tire and wheel, or suspension of the vehicle.*

### 5100 / 5160 Series

5100 and 5160 Series may only be used for specific applications. Due to the variations in lift kit manufacturers' systems, it is the responsibility of the installer/end user to confirm that the shocks are dimensionally correct. All lift kits require lowered bump stops to compensate for longer shocks mounted into the OEM location. BILSTEIN will not be liable for damage caused by a compression impact.

## Shock Repair (9300 / 9100 / 7100 / 5165 / 5160 Series)

The 9100, 7100, 5165, and 5160 Series are fully owner or factory rebuildable. Any component can be purchased through your BILSTEIN dealer or direct from BILSTEIN. A rebuild sheet is available upon request for 7100 Series. For a complete parts listing please refer to our website [www.bilsteinUS.com](http://www.bilsteinUS.com). For 9300 Series, please contact BILSTEIN Off-Road Department direct at 1-800-537-1085 for parts, service or technical questions.

## Revalving (9300 / 9100 / 7100 / 6100 / 5165 / 5160 / 5125 / 5100 Series)

Internal adjustments can be made to the dampening forces in rebound and compression, independently. 9100 / 7100 / 5165 / 5160 can be revalved by the end-user or factory direct through BILSTEIN. 6100 / 5125 / 5100 can only be revalved factory direct. For more information please contact the BILSTEIN Off-Road Department at 1-800-537-1085.

## Nickel Plated Finish (9100 Series)

9100 Series are coated with an electroless nickel finish. This finish must be serviced in order to maintain its luster. Particularly in moist climates, a protective coating, such as wax or lubricating oil, should be applied to prevent tarnishing. This finish is not covered by warranty.

## Zinc Plated Finish (5165 / 5160 / 5125 / 5100 Series)

5165 / 5160 / 5125 / 5100 Series feature a BILSTEIN Triple C zinc plated finish. This finish must be serviced in order to maintain its luster. Particularly in moist climates, a protective coating, such as wax or lubricating oil, should be applied to prevent tarnishing. This finish is not covered by warranty.

## Limited 90 Day Warranty (9300 / 9100 / 7100 / 6100 / 5165 / 5160 / 5150 / 5125 Series)

BILSTEIN warrants to the original retail purchaser that, for a period of ninety (90) days from the date of purchase, this product shall be free from defects in material and workmanship. Any implied warranty of merchantability, fitness or fitness for particular purpose, except as may be prohibited by applicable law, is likewise limited in duration to ninety (90) days from the date of original retail purchase. Some States do not allow limitations on how long an implied warranty lasts so the above limitation may not apply to you.

This warranty is non-transferable and does not cover normal wear and tear or any other loss, liability or damage resulting from improper alteration, disassembly, handling, installation, service, repair or use of this product. Should this product fail as a result of a defect in materials or workmanship within the warranty period, contact BILSTEIN's Customer Service Department by telephone at 1-800-537-1085, or in writing at ThyssenKrupp BILSTEIN of America 14102 Stowe Drive, Poway, California, 92064, for repair or replacement at Manufacturer's option.

Repair or replacement as provided by this warranty is customer's sole and exclusive remedy in the event of a product failure. Manufacturer shall not be liable for any incidental, consequential or other damages resulting from the disassembly, handling, installation, service, repair or use of this product. Some States do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights which vary from State to State.



# BILSTEIN *OFF-ROAD SHOCKS*



**BILSTEIN OFF ROAD RACING DEPARTMENT**  
**PHONE: 1-800-537-1085 • FAX: 1-858-386-5905**  
**[www.bilsteinUS.com](http://www.bilsteinUS.com)**

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