SAFETY

- Never heat, cut, weld or drill into shock absorbers as components are under high pressure.
- These shock absorbers should only be installed by qualified and components persons.
- Always use suitable and relevant safety equipment and always follow safe & relevant workshop practices.
- If raising the vehicle off the ground, always ensure the vehicle is jacked safely and vehicle support stands are used before getting under the vehicle.
- Never loosen or remove the strut top cap from an assembled coil over strut if the coil is not held in position with a spring compressor. The stored spring energy can be rapidly released and cause serious injury.
- Take extreme care when assembling coil over strut type struts. This should only be performed by qualified and component persons using.

INSTALLATION OF DOBINSONS MONOTUBE SHOCK ABSORBERS

It is the installers responsibility to ensure correct fitment of the shock absorbers.

It is extremely important to take note of the original shock absorbers as they are removed. Some shock absorbers have offset bushings and it is important that the replacement shock absorbers are in the correct orientation. It is also important to take note of the parts as they are removed from the struts so that the new strut is assembled in the same way as the original.

In most cases Dobinsons Springs and Suspension will provide new mounting bushes. These should be used where supplied. The IMS series shock absorber body will mount in the original vehicle mounts on the vehicle.

Please ensure all parts received are correct and of acceptable condition before installation. If any product is suspected to be faulty or incorrect for your application, please contact your place of purchase.

Monotube shock absorbers can work in either up or down direction and in most cases will mount with the shock body to the top (excluding coil over strut types).

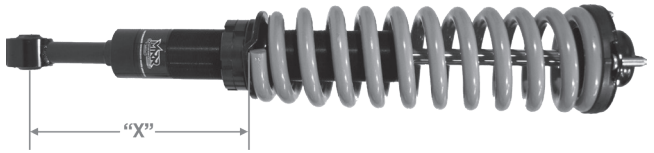
Pre Installation Checks

If you come across any worn or broken original components, ensure these are replaced. Do not attempt to re-use or repair as this may cause additional stress on other components. It is also important to check the mounting pins for rust which may cause premature bush wear.

Installation Notes/Assembly Notes

Ensure When fitting coil over strut type shock absorbers it is important to first set the spring seat height. This measurement is taken from the centre of the lower bush to the lowest part of the top side of the spring seat as per the diagram at top to right. **Do not** use a rattle type or impact type gun to do up the top nut on the shaft of a strut when assembling a strut with a strut cap. This may cause the inner nut to come loose.

DOBINSONS 4X4 MONOTUBE SHOCK ABSORBERS



The measurement listed in the table below is the correct measurement to suit Dobinsons springs and the original springs to provide the correct lift height as per the listing in the Dobinsons Catalogue. This measurement **must not be exceeded** as this may cause the coil spring to bind and will cause serious damage to the shock absorber, the spring and also the vehicle. A minimum of 50mm of downward wheel travel must always be maintained.

Vehicle	Lift Height	Part Number	"X" mm	"X" Inches	Max seat height mm*
BYD Shark	2" / 50mm	IMS08-50580	180	7.06	H+C = 187
Dodge Ram 1500 DS. For 2" and 3" lift install 55x20.5x15mm thick nylon spacer on top of bump stop. Do not use 20 x 12 x 15mm steel spacer	2" / 50mm 3" / 75mm	IMS16-60302 IMS16-60302	184 197	7.22 7.72	H+C = 204
Dodge Ram 1500 DT. For 2" and 3" lift install 55x20.5x30mm thick nylon spacer on top of bump stop. install 20 x 12 x 15mm steel spacer to top of dustcover	2" / 50mm 3" / 75mm	IMS16-60302 IMS16-60302	212 225	8.32 8.83	H+C = 227
GM GMC Colorado/Canyon USA MODELS ONLY	2" / 50mm	IMS09-60380	200	7.85	H+C = 230
GM GMC Silverado 1500 2019 on	2" / 50mm	IMS09-60178	234	9.21	H+C = 250
GWM Cannon Alpha (non hybrid)	2" / 50mm	IMS20-50702	232	9.11	H+C = 237
GWM Cannon Alpha (hybrid models)	2" / 50mm	IMS20-50702	218 Rh 221 Lh	8.56 Rh 8.68 Lh	H+C = 237
GWM Tank 300	2" / 50mm	IMS20-50702	227 Rh 237 Lh	8.91 Rh 9.30 Lh	H+C = 250
GWM Tank 500	2" / 50mm	IMS20-50702	225 Rh 235 Lh	8.83 Rh 9.23 Lh	H+C = 250
Ford Bronco 2021 On Front	2" / 50mm	IMS19-50098	243	9.54	H+C = 280
Ford Bronco 2021 On Rear	2" / 50mm	IMS19-50099	195	7.66	H+C = 225
Ford Ranger/Everest PX / Mazda BT50 10/11 to 06/18	2" / 50mm	IMS19-50092	190	7.48	H=190
*Dobinsons use taller coils for 3" lift	3" / 75mm	IMS19-50092	190	7.48	C=220

Continued over page .....

Ford Ranger PX3/Everest 07/18 - 22 with Bump stop on shock	2" / 50mm	IMS19-50094	167	6.55	H=175
*Dobinsons use taller coils for 3" lift	3" / 75mm	IMS19-50094	167	6.55	C=180
Ford Ranger PX3/Everest 07/18 - 22 with Bump stop on shock - USA MODELS ONLY	2" / 50mm	IMS19-50096	186	7.3	H=193
*Dobinsons use taller coils for 3" lift	3" / 75mm	IMS19-50096	186	7.3	C=196
Ford Ranger Next Gen RA/PU 2022 On	2" / 50mm	IMS19-50108	186	7.3	H+C = 240
	3" / 75mm	IMS19-50108	199	7.81	
Ford F-150 2014 On	2.3" / 60mm	IMS19-50240	195	7.66	H+C = 215
Isuzu D-max / MUX / Holden/Chev Colorado RG / Colorado 7 2012 on - *Check original seat height and match original as some 2018 on models have changed	2" / 50mm	IMS21-50470	190/195*	7.48/7.65*	H+C = 197
	3" / 75mm	IMS21-50472	195	7.65	
*Dobinsons use taller coils for 3" lift					
Isuzu D-max / MUX & Mazda BT-50 mid 2020 On	2" / 50mm	IMS21-50470	195	7.65	H+C = 197
*Dobinsons use taller coils for 3" lift	3" / 75mm	IMS21-50472	195	7.65	
Jeep WK2 2011 - 2015	2" / 50mm	IMS29-50732	540	21.25	H+C = 540
Jeep WK2 2015 on with sway bar bracket on lower shock clevis	2" / 50mm	IMS29-50742 LH / RH	540	21.25	H+C = 540
Kia Tasman	2" / 50mm	IMS31-60310	95	3.76	H+C = 120
Mitsubishi Pajero 2000 on NM, NP, NS, NT, NW	2" / 50mm	IMS43-50783	244	9.61	H=244
					C=260
Mitsubishi Triton ML/MN/MQ/MR 10/2006 on	2" / 50mm	IMS43-50800	215	8.44	H=215
					C=246
Mitsubishi Triton MV	2" / 50mm	IMS43-50806	200	7.85	H+C = 230
Install additional spacer to top of dust cover for 3"	3" / 75mm	IMS43-50806	213	8.36	
Nissan Navara (Frontier USA) D40 & D41 & D23 & NP300 / X-Terra N50	2" / 50mm	IMS45-50642	106	4.17	H+C = 123
	3" / 75mm	IMS45-50648	106	4.17	
Install additional spacer to top of dust cover for 3" when using with Dobinsons or other long travel UCA's – do not use with Blackhawk UCA's					
*Dobinsons use taller coils for 3" lift					
Nissan Navara D40 STX550 V6 models only	2" / 50mm	IMS45-50642	93	3.65	H+C = 135
Install additional spacer to top of dust cover for 3" when using with Dobinsons or other long travel UCA's – do not use with Blackhawk UCA's	3" / 75mm	IMS45-50648	106	4.17	
Nissan Patrol Y62	2" / 50mm	IMS45-60110	130	5.11	H=130
					C=175

Toyota 4 Runner 3rd Gen	2" / 50mm	IMS59-50222	164	6.45	H+C = 177
Toyota 4 Runner 4th Gen	2" / 50mm	IMS59-50221	213	8.38	H+C = 226
Install additional spacer to top of dust cover for 3"	3" / 75mm	IMS59-50220	226	8.89	
Toyota 4 Runner 5th Gen	2" / 50mm	IMS59-50700	213	8.38	H=233
Install additional spacer to top of dust cover for 3"	3" / 75mm	IMS59-50700	226	8.89	C=240
Toyota 4 Runner 6th Gen	2" / 50mm	IMS59-60660	237	9.3	H+C = 267
Install additional spacer to top of dust cover for 3"	3" / 75mm	IMS59-60660	250	9.82	
Toyota Tacoma 1st Gen / Tundra 1st Gen /	2" / 50mm	IMS59-50222	164	6.45	H+C = 177
Sequoia 2001 – 2007 / Prado 90 & 95 Series					
Toyota Tacoma 2nd Gen / FJ Cruiser/ Lexus GX470	2" / 50mm	IMS59-50220	213	8.38	H+C = 227
Toyota Tacoma 3rd Gen / Prado 120 Series /	2" / 50mm	IMS59-50220	213	8.38	H+C = 227
Lexus GX 470/ FJ Cruiser 2006-11/2010	3" / 75mm	IMS59-50220	226	8.89	
Install additional spacer to top of dust cover for 3"					
Toyota Tacoma 4th Gen	2" / 50mm	IMS59-60490	238	9.31	H=251
Install additional spacer to top of dust cover for 3"	3" / 75mm	IMS59-60490	251	9.83	C=258
Toyota Tundra 2nd gen 2007 - 2021	2.5" / 65mm	IMS59-60710	262	10.3	H+C = 270
*Dobinsons use taller coils for 3" lift	3" / 75mm	IMS59-60710	262	10.3	
Toyota Tundra 3rd gen 12/2021on / Sequoia 2023 on	2" / 50mm	IMS59-60446	175	6.89	H+C = 189
*Dobinsons use taller coils for 3" lift	3" / 75mm	IMS59-60446	175	6.89	
Toyota Prado 150 series /FJ Cruiser 2010on	2" / 50mm	IMS59-50700	213	8.38	H+C = 226
*Dobinsons use taller coils for 3" lift	3" / 75mm	IMS59-50574	213	8.38	
Toyota Prado 250 Series	2" / 50mm	IMS59-60660	237	9.3	H+C = 267
Install additional spacer to top of dust cover for 3"	3" / 75mm	IMS59-60660	250	9.82	
Toyota Hilux Vigo / Fortuner 2005 – 2015	2" / 50mm	IMS59-50220	226	8.89	H=227
Install additional spacer to top of dust cover for 3"	3" / 75mm	IMS59-50220	226	8.89	C=240
Toyota Hilux Revo N80/N90/Fortuner 2015 on	2" / 50mm	IMS59-50700	226	8.89	H=233
*Measured to aluminum seat	3" / 75mm	IMS59-50700	226	8.89	C=240
Toyota Hilux ROGUE WIDE BODY 2022-2025	2" / 50mm	IMS59-50460	250	9.81	H+C = 263
	3" / 75mm	IMS59-50460	263	10.32	
Toyota Landcruiser 200 series	2" / 50mm	IMS59-60688	222	8.74	H+C = 229
*Dobinsons use taller coils for 3" lift	3" / 75mm	IMS59-60688	229	9	

Toyota Landcruiser 300 series *Dobinsons use taller coils for 3" lift	2" / 50mm 3" / 75mm	IMS59-60440 IMS59-60440	237 237	9.3 9.3	H=244 C=267
Volkswagon Amarok 2010-2020	2" / 50mm	IMS63-50010	318	12.51	H=320 C=340
Volkswagon Amarok 2020on	2" / 50mm 3" / 75mm	IMS19-50108 IMS19-50108	186 199	7.3 7.81	H+C = 240

***For Max seat heights C = cold wound coils (part numbers end in "C" or "N") as well as OEM coils and H= Hot wound coils, H+C = Hot and could wound coils.**

Where coil spring part numbers are used that are not listed in Dobinsons 4x4 catalogue please contact Dobinsons

If the customer requires the spring seat to exceed the measurement above please contact your local Dobinsons dealer before proceeding. Adjusting the spring seat 1 complete turn will adjust the spring height 1.5mm (approx 1/16”), however as most of the vehicles above use independent style suspension the amount adjusted on the spring will infact double at the wheel due to the suspension motion ratio i.e. one rotation on the spring seat will provide approximately 3mm (1/8”) difference at the wheel.

It is extremely important to also orientate the step in the spring seat so that when it is re-fitted to the vehicle it is the same position as the original. This is especially important on Toyota vehicles due to swaybar clearance.

Ensure that when mounting the shock absorber and the external reservoir that there is sufficient clearance to all parts of the shock absorber, spring seat, the reservoir and the hose and fittings. There must be clearance through the complete range of suspension travel and through the complete range of tyre movement left to right at full lock. This may require fitting the shock absorber and reservoir to the vehicle without the springs, temporarily re-fitting the tyre and cycling the suspension and tyre through there full range of movement. Ensure the hose fittings are not vulnerable to damage where possible and cannot be pinched. Also ensure that there is sufficient hose length through full suspension travel where required. See over page for reservoir mounting guidelines

All bushes must be tightened at ride height (excluding upper strut bushes/nuts) as Dobinsons shock absorbers utilize a natural rubber bushing which operates as a torsional bush and therefore must be tightened at ride height to prevent immediate failure.

Never grease rubber bushes.Fitting raised suspension to the vehicle can apply increased stress on some drive-line components such as CV joints and may cause accelerated wear.

Bump Stops

All Dobinsons Monotube Remote Reservoir shock absorbers that are suited for standard up to 50mm (2”) lift will not require extension of the bump stop. All Dobinsons Monotube Remote Reservoir shock absorbers that have been designed to suit a lift of 3” and above will require the installer to check if bump stop extensions are required as in most cases they will need to be extended. The compressed length of the shock absorber should be checked and then the suspension with the springs removed lowered into its bottomed positioned with the bump stops touching. The measurement between mounting points must be checked, and a further 20mm (3/4”) taken from this measurement to allow for bump stop crush. This measurement must then be checked against the closed shock absorber length and the bump stops extended the suitable amount if required to ensure the shock absorber will not bottom which will immediately damage the shock absorber and void warranty.

Special Note: It is very common for the lower section of the bump stop to be broken off and missing from the front of Nissan Patrols/Safaris Y60/GQ and Y61/GU models.

Suspension & Driveline Alignment

In addition to extending bump stops, for all lifts that exceed 50mm (2”) the relevant suspension alignment parts must be used to ensure correct operation. This includes but is not limited to adjustable control arms, adjustable panhard rods, adjustable leading and trailing arms, adjustable sway bar links, drop boxes, castor and camber alignment bushes and products.

General Notes and Care

All Dobinsons shock absorbers are designed as a maintenance free shock absorber. It is recommended though that each time the vehicle is cleaned, mud and debris is removed from the shock absorbers especially around the seal area in the end of the shock absorber body. Do not use harsh chemicals to clean the shock absorbers, use soapy water and rinse. The suspension mounting bolts, nuts and other fixings should be inspected after 500klms and at regular intervals to ensure they are tight.

DOBINSONS 4X4 MONOTUBE SHOCK ABSORBERS

Warranty

Dobinsons Spring & Suspension at its sole discretion will repair or replace any products supplied by them that are found to be defective in either materials or workmanship providing that Dobinsons Spring & Suspension are actually notified in writing from the Client of the alleged defect within two years (2 years) from date of invoice. Any claim not made within this period shall conclusively be deemed waived by the Client. Repair or replacement is pre-conditioned on the examination of the goods which on instructions from Dobinsons Spring & Suspension on, should be returned for further inspection to Dobinsons Spring & Suspension or to an Approved Importer.

Dobinsons Spring & Suspension products are designed for normal use and are in no way, covered under warranty should the vehicle be used in any form of extreme sports, competition racing or produce lift of 50mm or more. It is the responsibility of the fitter, to ensure that the customer or the owner of the vehicle is aware of the warranty conditions under which the products have been sold.

Dobinsons Spring and Suspension warrants the original buyer only. The warranty period is 2 years/unlimited KM’s from the original date of purchase and cannot be transfered.

Dobinsons Spring and Suspension will not warrant shock absorbers that have been found to be damaged due to “bottoming” of the shock absorber.

All warranty claims must be submitted via the original purchasing store or chain, unless otherwise arranged. Proof of original purchase must be presented if required by Dobinsons Springs and Suspension.

Faulty products may be required to be returned to Dobinsons Spring and Suspension for investigation or repair. Dobinsons Springs and Suspension is not responsible for postage or removal costs involved.

Dobinsons Spring & Suspension will not pay for costs incurred in forwarding or returning goods or removal and replacing of parts. This warranty does not cover and Dobinsons Spring & Suspension makes no warranty with respect to; (1) any merchandise that is abused, misused, misapplied, neglected or altered; or that is improperly or incorrectly installed or maintained or used; or that is subjected to abnormal conditions of use, temperature, moisture, dirt or corrosive matter; ; (2) Goods no longer required by Client; (3) Goods incorrectly chosen by Client; (4) Goods modified or altered by client; and (5) any merchandise, materials, parts or other components supplied by someone other than Dobinsons Spring & Suspension

Upon purchase Dobinsons Spring and Suspension require you to go on line and fill out the warranty information form which has the original buyer and invoice number etc so you can claim a warrant later on. To do this go to www.dobinsonsprings.com/warranty

Dobinsons Spring & Suspension shall not be liable for any expenses incurred by Client in order to remedy any defect in its product. Dobinsons Spring & Suspension shall not be liable for any consequential, special, indirect or contingent damage or expense arising Directly or Indirectly from any defect in its products or from use of any products.

Client agrees to indemnify and hold Dobinsons Spring & Suspension harmless from and against any loss, injury or damage, to person or property, that extends beyond the warranties set forth above, whether the claims against Dobinsons Spring & Suspension or the damages are incidental or consequential.

Installation of aftermarket items to your vehicle may adversely affect, void or violate the Manufacturers terms of warranty on your vehicle. Review the terms of your vehicle warranty prior to purchase and/or installation of any aftermarket part or accessory.

Dobinsons Spring & Suspension does not make any representations or warranties of any kind as to suitability or fitness for a particular vehicle or purpose. Dobinsons Spring & Suspension shall not be responsible or liable for direct or indirect damages as a result of the purchase and/or installation of these aftermarket products.