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Installation Instructions

Part # 11360297 - 1973-1987 C10 Air Suspension System

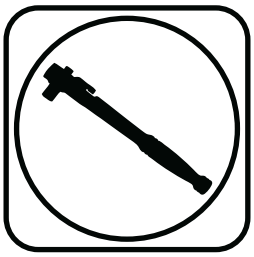
Front Components:

11361499	Front Lower StrongArm
11363699	Front Upper StrongArm
11360910	Front CoolRide & Shock Kit
11369300	Front Spindles and Caliper Brackets
11369120	Front Sway Bar

Rear Components:

11367199	Rear 4Link Kit
21150801	Rear Shockwaves

Recommended Tools



73-87 C-10 Air Suspension
Installation Instructions

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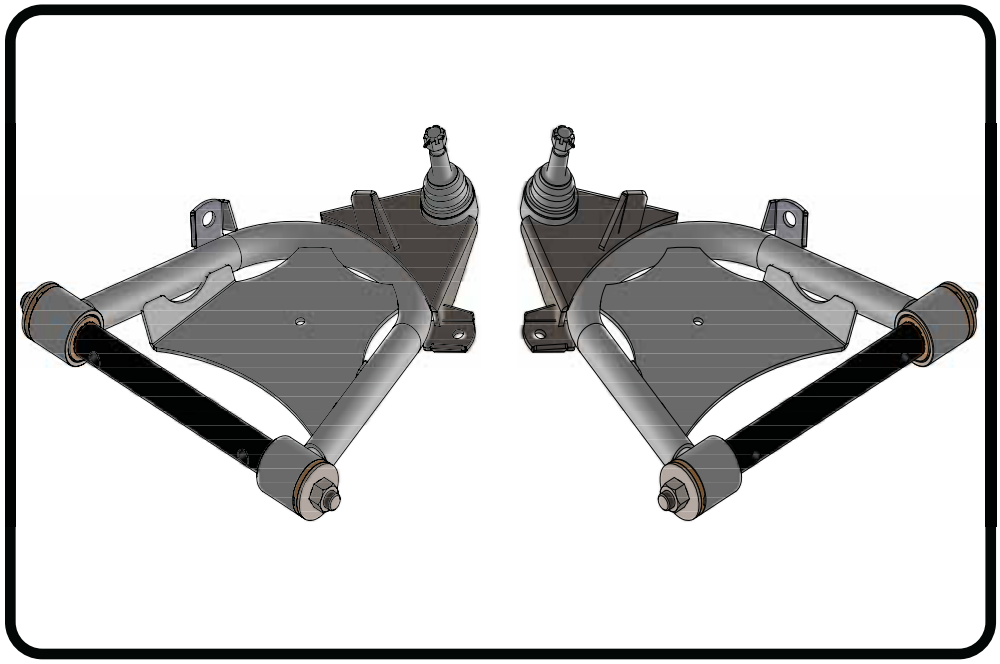
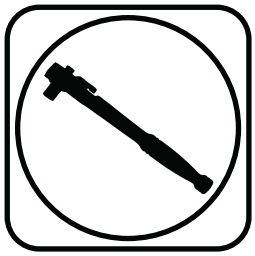
Installation Instructions

C10 CoolRide StrongArms

Part # 11341499(63-70)/11351499(71-87)



Recommended Tools



C-10 CoolRide Lower StrongArms

Installation Instructions

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Note: These control arms were designed for use with the RideTech bolt-on shock kit & MuscleBar swaybar. The factory shocks and sway bar will not work.

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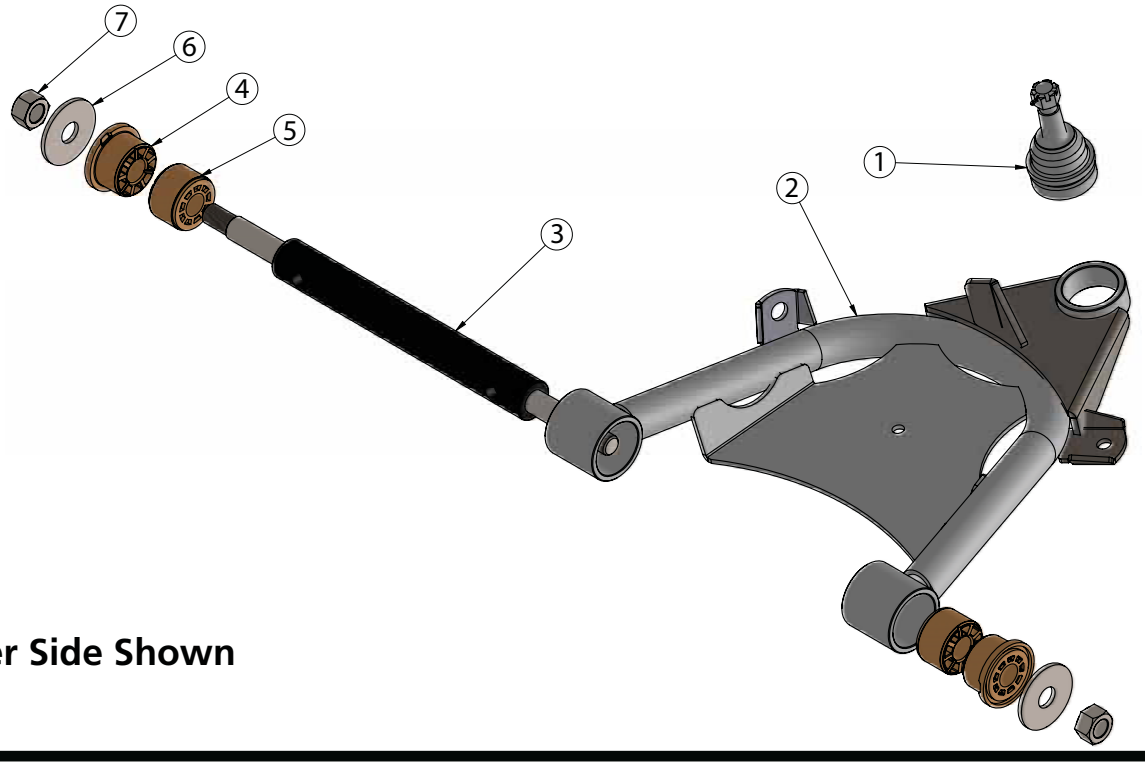
Lower Control Arm Components .....In the box

Item #	Part Number	Description	QTY
1	90000912/90000909	(63-70/73-87) - Lower Balljoint Assembly	2
2	90003152	Driver Lower Control Arm **(Shown)**	1
2	90003153	Passenger Lower Control Arm	1
3	90002430	Lower Control Arm Shaft	2
4	70010755	Control Arm Bushing - 2.5" OD Ledge	4
5	70011465	Control Arm Bushing - No Ledge	4
6	99753001	3/4" USS Flat Washer	4
7	99752005	3/4"-16 Top Lock Nut	4



Driver Side Shown

Getting Started.....

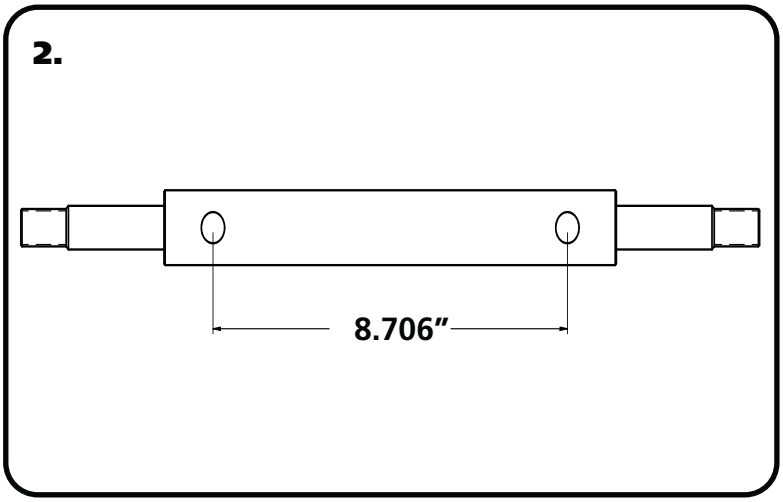
Note: The 63-87 C-10's have similar control arms through the years, but the balljoints used were different. The year breaks are as follows: 63-70, 71-72, 73-87. Be sure to use the correct balljoint for the year of spindle you are using.

Balljoints:	Ridetech#	Proforged#	Ridetech#	Proforged#
63-70:	Upper-90000911	101-10037	Lower-90000912	101-10036
71-72:	Upper-90000902	101-10044	Lower-90000909	101-10040
73-87:	Upper-90000910	101-10046	Lower-90000909	101-10040

Installing Lower Control Arm

1. The lower control arm is installed using the factory U-bolts and nuts. The lower control arm is located by a pin that is in the center of the front u-bolt cradle. This pin will go into the hole in the control arm shaft to help locate the control arm. Torque the u-bolt nuts to 45 ft-lbs.

NOTE: We have ran across some trucks where the rear pin is the locator pin. It will locate the control arm correctly too.



2. The Lower Cross Shaft has 2 different locating Hole patterns. These StrongArms use the 8.706”” center to center locating holes. The Pin in the Cross Shaft Saddle that was pointed out in **Image 2**, will locate into these Holes. Use the OEM Hardware to attach the Lower making sure the Locating Pin is in the 8.706” center to center Holes.

3. Image 3 is an example of the lower bolted to the crossmember. Install 3/4” ID Washer on to each end of the cross shaft against the bushing. Then install the 3/4”-16 lock nut. Snug the nut up against the washer. You want the suspension move freely through its travel.

4. The final step is to reinstall the spindle onto the truck. Slide the ball joint pins into the spindle and install the castle nut on each one. Torque the ball joint nuts and install cotter pins in each one.

Ball Joint nut Torque Specs:
Lower: Torque to 90 ftlbs and then tighten nut to align cotter pin hole not to exceeding 130 ftlbs.

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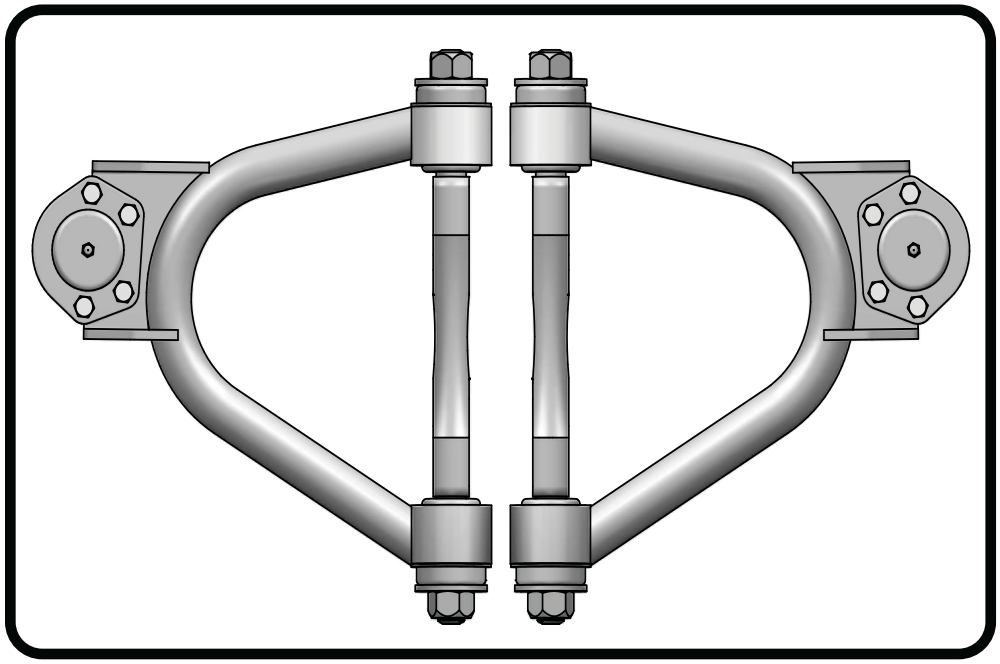
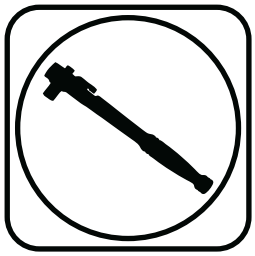
Installation Instructions

C10 CoolRide StrongArms

Part # 11343699(63-70)**/11353699**(71-72)**/11363699**(73-87)



Recommended Tools



C-10 CoolRide Upper StrongArms

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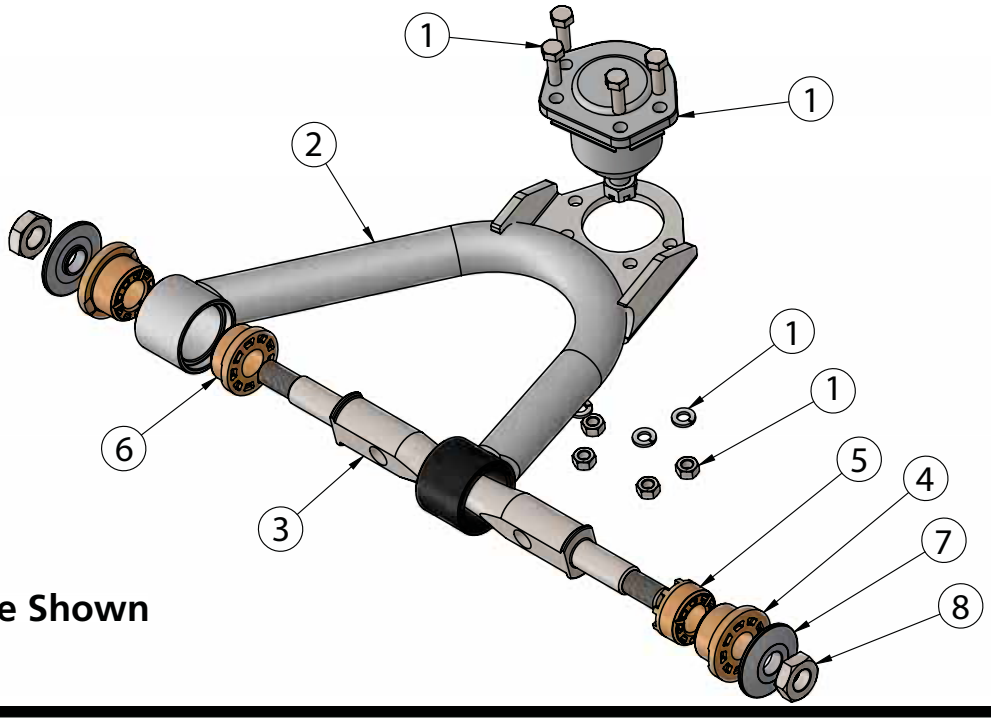
Installation Instructions

Upper Control Arm Components .....In the box

Item #	Part Number	Description	QTY
1	90000911/90000902/90000910	(63-70/71-72/73-87) - Upper Balljoint Assembly	2
2	90003150	Driver Upper Control Arm **(Shown)**	1
2	90003151	Passenger Upper Control Arm	1
3	90003154	Upper Control Arm Shaft	2
4	70010759	Control Arm Bushing - 2.0" OD Ledge	4
5	70010827	Control Arm Bushing - 1.75" OD Ledge	2
6	70010826	Control Arm Bushing - No Ledge	2
7	90002737	Aluminum Control Arm Bushing Washer	4
8	99622005	5/8"-18 Top Lock Nut	4



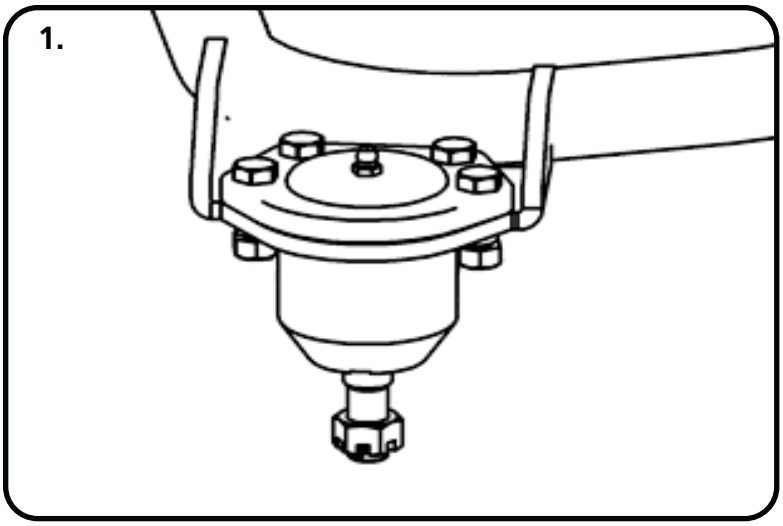
Driver Side Shown

Getting Started.....

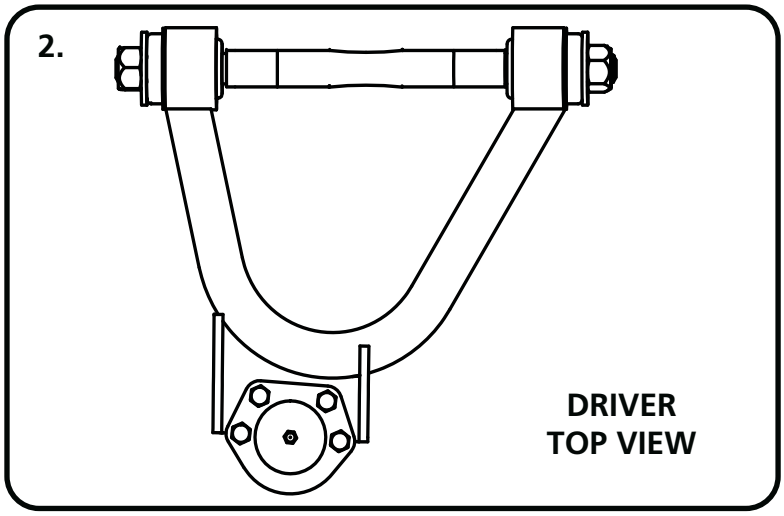
Note: The 63-87 C-10's have similar control arms through the years, but the balljoints used were different. The year breaks are as follows: 63-70, 71-72, 73-87. Be sure to use the correct balljoint for the year of spindle you are using.

Balljoints:	Ridetech#	Proforged#	Ridetech#	Proforged#
63-70:	Upper-90000911	101-10037	Lower-90000912	101-10036
71-72:	Upper-90000902	101-10044	Lower-90000909	101-10040
73-87:	Upper-90000910	101-10046	Lower-90000909	101-10040

Installation



1. Install the ball joints into the upper control arm with the hardware supplied with the ball joint. The upper ball joint goes in from the top side of the control arm. The gussets on the balljoint plate point up. Torque the hardware to 20 ftlbs.



2. Diagram "2" shows the Driver Upper Control Arm. This is looking at the control arm from the top.

3. Remove the OEM upper control arms from the truck. Fasten the control arms to frame using the stock hardware. Reuse the alignment shims; however the truck must be realigned after installation. Torque the nuts to 70 ft-lbs. **When assembling the Control Arms tighten the cross shaft nuts enough to create drag on the delrin bushings, the arm should still move through its travel by hand.**

Ball Joint nut Torque Specs:
Upper: Torque to 50 ftlbs and then tighten nut to align cotter pin hole not exceeding 90 ftlbs.

4. Grease the upper ball joints.

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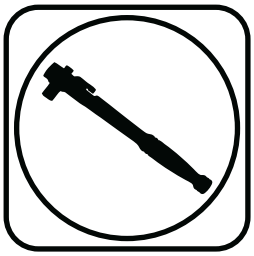
Installation Instructions

Part # 11360910

1973-1987 C10/C15 FRONT CoolRide for StrongArms w/ HQ Series Shocks

Recommended Tools



1973-1987 C10/C15 Front CoolRide Air Spring Kit

Installation Instructions

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THIS COOLRIDE KIT IS DESIGNED TO BE USED WITH RIDETECH STRONGARMS.

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CoolRide Kit Components .....In the box

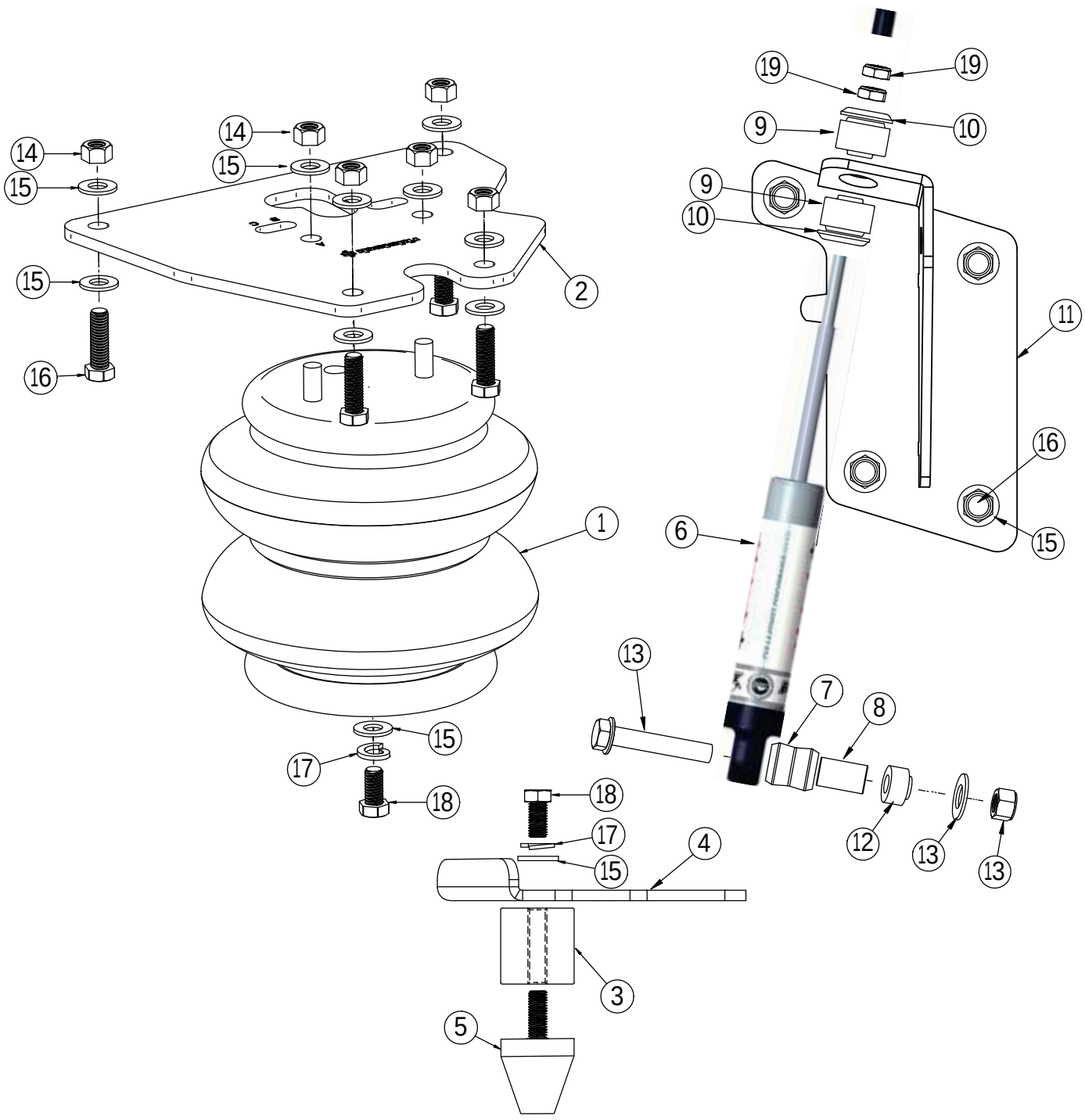
Item #	Part Number	Description	QTY
1	90006873	8" Diameter Air Spring	2
2	90000060	Upper Air Spring Plate	2
3	90000472	Aluminum Bumpstop Extension	2
4	90000726	Bump Stop Plate - Driver	1
4	90000727	Bump Stop Plate - Passenger (Not Shown)	1
5	90001083	Medium Bumpstop	2
6	986-10-042	4.75" Stroke HQ Series Shock	2
7	70011138	3/4" ID Shock Bushing	2
8	90002102	1/2" ID x 1.312" Shock Sleeve	2
9	70011140	Shock Stem Bushings	4
10	70011141	Shock Stem Bushing Washers	4
11	90002303	Upper Shock Bracket - Driver	1
11	90002304	Upper Shock Bracket - Passenger (Not Shown)	1
12	90000471	Aluminum Shock Spacer	2
13	90001619	Lower Shock Bolt Kit	2
	85000020	5/64" Hex Wrench - Adjuster Knob Set Screw	1

CoolRide Hardware.....In the box

Item #	Part Number	Description	QTY
	UPPER AIR SPRING MOUNTING		
14	99372002	3/8-16 Nylok Nut	12
15	99373003	3/8 SAE Flat Washer	20
16	99371004	3/8-16 X 1 1/4" Hex Bolt	8
	LOWER AIR SPRING		
15	99373003	3/8 SAE Flat Washer	2
17	99373005	3/8 Split Lock Washer	2
18	99371001	3/8-16 X 3/4" Hex Bolt	2

Item #	Part Number	Description	QTY
	STEERING STOP		
15	99373003	3/8" SAE Flat Washer	2
17	99373005	3/8 Split Lock Washer	2
18	99371001	3/8"-16 X 3/4" Hex Bolt	2
	SHOCK MOUNTING		
14	99372002	3/8-16 Nylok Nut	8
15	99373003	3/8 SAE Flat Washer	16
16	99371004	3/8-16 X 1 1/4" Hex Bolt	8
19	99372006	3/8"-24 Thin Jam Nut	4

CoolRide Kit Components .....In the box



Getting Started.....

THIS KIT IS DESIGNED TO BE USED WITH RIDETECH STRONGARMS. INSTALL THE SHOCK KIT IN CONJUNCTION WITH THIS COOLRIDE KIT.

1. Raise and support truck at a safe, comfortable working height. Let the front suspension hang freely

2. Remove coil spring and shock absorber. Refer to factory service manual for proper disassembly procedure.

3. Apply thread sealant to the air fitting and screw it into the top of the air spring.

Installing CoolRide

4. Hold the upper plate to the cross member as shown in the picture to the left and clamp to frame. Using the plate as a template drill 4 holes in the cross member.

5. Apply thread sealant to the air fitting and thread into the air spring. Remove the upper plate from the frame and place onto the studs on the top of the air spring. The holes are lettered; slide the plate to position B moving the air spring to the rear of the vehicle. Secure with 3/8" flat washers and 3/8"-16 nyloc nuts Torque the nuts 15-20 ft-lbs. Route airline. Attach the air spring assembly to the frame using 3/8" x 1 ¼" bolts, Nylok nuts and flat washers supplied. Bolt the frame hardware to 23 ft-lbs.

Installing CoolRide

Note: It is acceptable to let the suspension bottom on the air spring. However, if your tire hits the inner fender well before the air spring bottoms out, this bump stop must be installed.

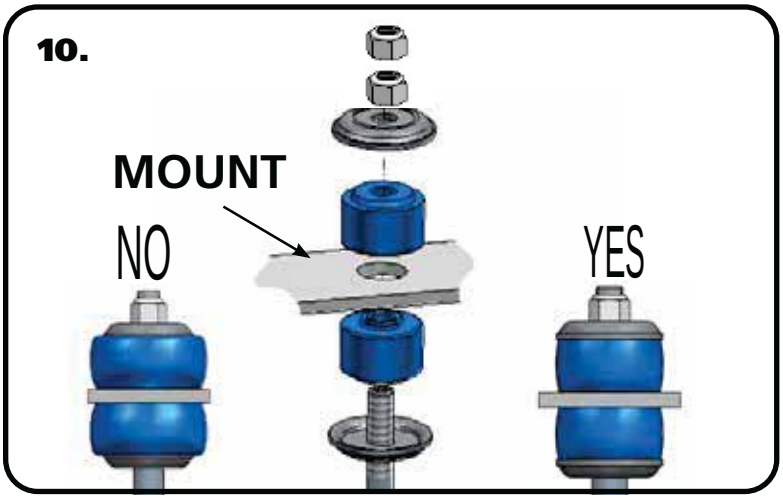
6. The bump stop plate will bolt to the outer two holes of the upper air spring plate. It will hang over the front side of the cross member. It is acceptable to trim the bump stop to achieve maximum drop without the tire rubbing the inner fender well. Torque the 3/8" hardware to 23 ft-lbs.

7. Bolt the bump stop spacer to the plate using a 3/8"-16 x 3/4" bolt, 3/8" split lock washer, & 3/8" flat washer. Torque to 12 ft-lbs. Thread the bump stop into the end of the spacer.

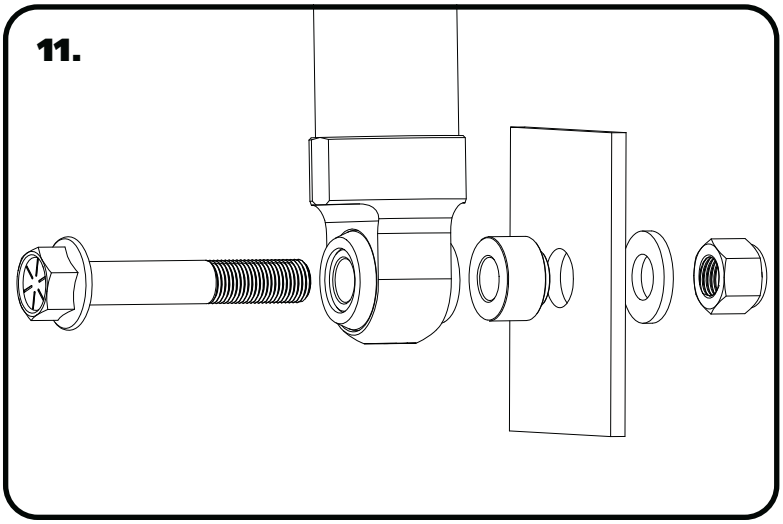
8. Fasten the air spring to the lower control arm using a 3/8" x 3/4" bolt, lock washer and flat washer. Torque the bolts to 23 ft-lbs.

Installing Shock

9. Place the new upper shock mount against the frame, the tab in the front of the bracket will slide into the factory shock stud hole. Position the bracket so that the bottom of the bracket is parallel to the bottom of the frame. Using the bracket as a template, mark an drill four 3/8" holes in the frame rail. Secure the bracket to the frame using four 3/8" x 1 ¼" bolts, Nylok nuts and flat washers. Torque the hardware to 23 ft-lbs.



10. After the shock mounts are installed, install the Ridetech shock. Remove the adjuster knob by loosening the set screw using the supplied Hex Key. Install a Bushing Support Washer on to the shock shaft followed by a Shock Stem Bushing. Insert the assembly through the factory shock hole in the frame. With the shock stud sticking through the frame, install a Shock Stem Bushing on to the shock stud followed with a Bushing Support Washer. Install a 3/8"-24 Thin Jam nut onto the threads and tighten to 35 in-lbs. The Bushing should be tight, but not to the point that the bushing is bulging past the Support Washer. Install the 2nd 3/8-24 Thin Jam nut and tighten it against the first nut. Reinstall the Adjuster Knob, align the set screw with the FLAT side of the adjuster shaft that is sticking out of the top of the shock shaft.



11. Insert the ½"-20 x 3" flanged head shock bolt through the lower shock eye and then place the aluminum spacer onto the stud. The step on the spacer will go into the arm. Slide the stud through the tab on the lower arm and secure w/ nut and washer. Torque to 75 ft-lbs.

Make sure that the air spring cannot rub on anything at anytime. This will result in air spring failure and is a not a warrantable situation.

Ride height on this air spring is approximately 5" tall, but may vary to driver preference.

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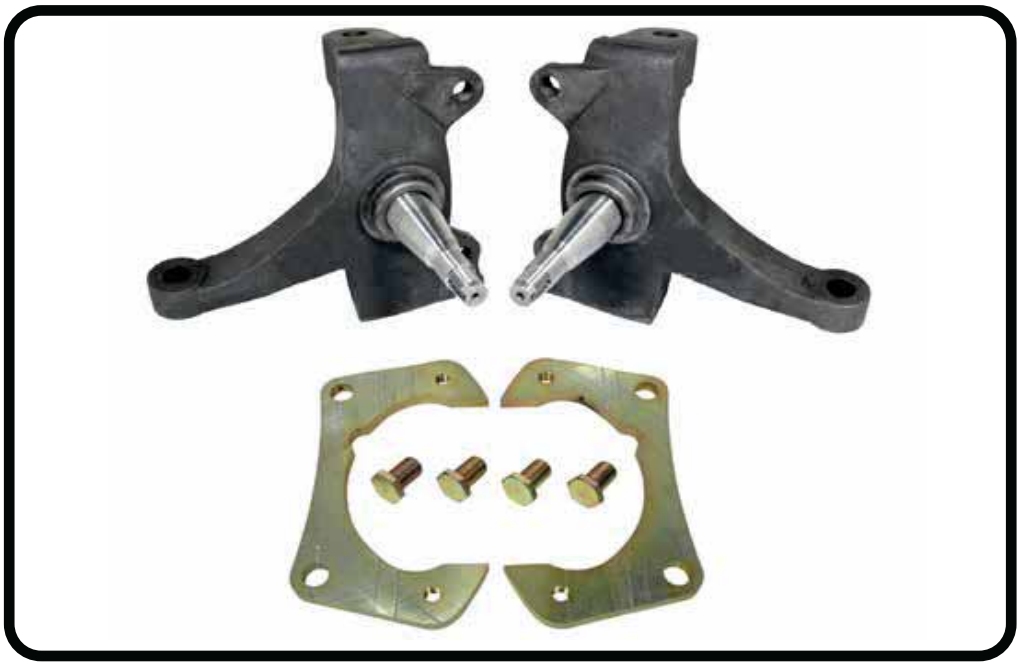
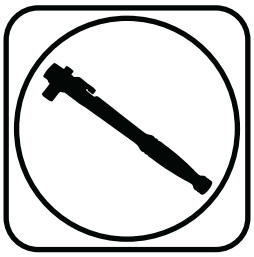
Installation Instructions

Part # 11369300 - C10 Drop Spindles



Recommended Tools



Major Components .....In the box

1	11369301	Pair of drop spindles
1	90001926	Pair of caliper brackets

Installation

Balljoint nut Torque Specs:
Upper: Torque to 50 ft llbs and then tighten nut to align cotter pin hole not exceeding 90ft lbs.
Lower: Torque to 90 ft lbs and then tighten nut to align cotter pin hole not to exceeding 130 ft lbs.

Note: These spindles are setup for 1973-1987 HD Rotor and Caliper. The HD Rotor is 1 1/4" wide.

Spindle Installation

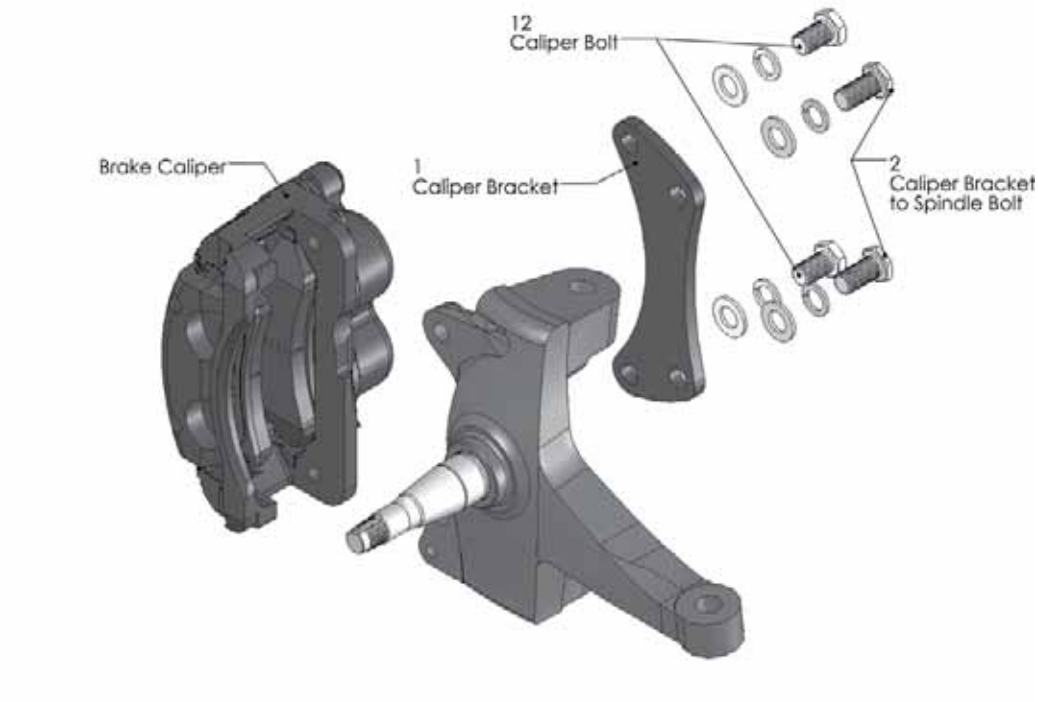
Notes:

This spindle will not work with drum brakes.

A 7/16-14 bolt can be threaded into the spindle and used as an adjustable steering stop.

Instructions:

1. Remove the outer tie rods from the original spindles.
2. Trucks that are reusing existing 1973-1987 heavy half ton 1-1/4" thick rotors and calipers will need to remove the disc brake assemblies from the spindles. Trucks that are not reusing the existing brakes need to disconnect the brake hose from the brake line.
3. Remove the upper and lower ball joints from the spindle.
4. Remove the old spindles.



5. Install the new drop spindles onto the upper and lower ball joints.
6. Install the outer tie rods into the new spindles.
7. Install the caliper brackets. The supplied calper brackets are designed to utilize 1973-87 heavy half ton 1-1/4" thick rotors and calipers. The brackets will mount to the inboard side of the spindle.
8. Pack the wheel bearings with grease. Install the inner bearings and the grease seal. Install the rotor/hub assembly. Install the outer wheel bearing, washer and spindle nut. Adjust the wheel bearings as follows:

a. Tighten the nut only slightly (no more than 12lb/ft.) spin the rotor in a forward direction to ensure the bearings are fully seated.

b. Check that the spindle nut is still tight. If not repeat step a.

c. Loosen the spindle nut until it is just loose.

d. Hand tighten the spindle nut and install the cotter pin. Do not use a wrench! If necessary loosen the nut too the first position the cotter pin can be installed into.

9. Install the caliper assemblies. The bleed screws will be towards the top.
10. If using new calipers connect the brake hose to the calipers and the frame. Bleed the brakes. Check for leeks.
11. Check that the rotor can turn freely and that the brakes do not drag.
12. Have the truck professionally aligned.

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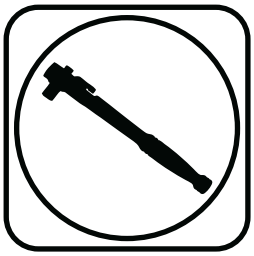
Installation Instructions

Part # 11369120 - 1963-1987 C10 Front Sway Bar

Recommended Tools



1963-1987 C-10 Front Sway Bar
Installation Instructions

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Hardware Torque Specifications

3/8”-16..... 30 ftlbs

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Major Components .....In the box

Part #	Description	QTY
90001246	Front Sway Bar	1
90002926	End Link Kit - **SHORT** - ***Stock Control Arms***	1
90001346	Bushing Strap	2
70015016	Lined Sway Bar Bushing	2
90002591	Frame Mount	2
90002593	Control Arm Mounts	2
90002932	End Link Kit - **LONG** - ***Ridetech Tubular Control Arms***	2

HARDWARE KIT.....99010089

QTY	Part #	Description
FRAME MOUNT		
4	99371005	3/8"-16 x 1 1/4" Hex Bolt
8	99373002	3/8" Flat Washer
4	99372001	3/8"-16 Nylok Nut
BUSHING STRAP		
4	99371005	3/8"-16 x 1 1/4" Hex Bolt
8	99373002	3/8" Flat Washer

QTY	Part #	Description
BUSHING STRAP continued		
4	99372001	3/8"-16 Nylok Nut
CONTROL ARM MOUNT		
4	99371005	3/8"-16 x 1 1/4" Hex Bolt
8	99373002	3/8" Flat Washer
4	99372001	3/8"-16 Nylok Nut

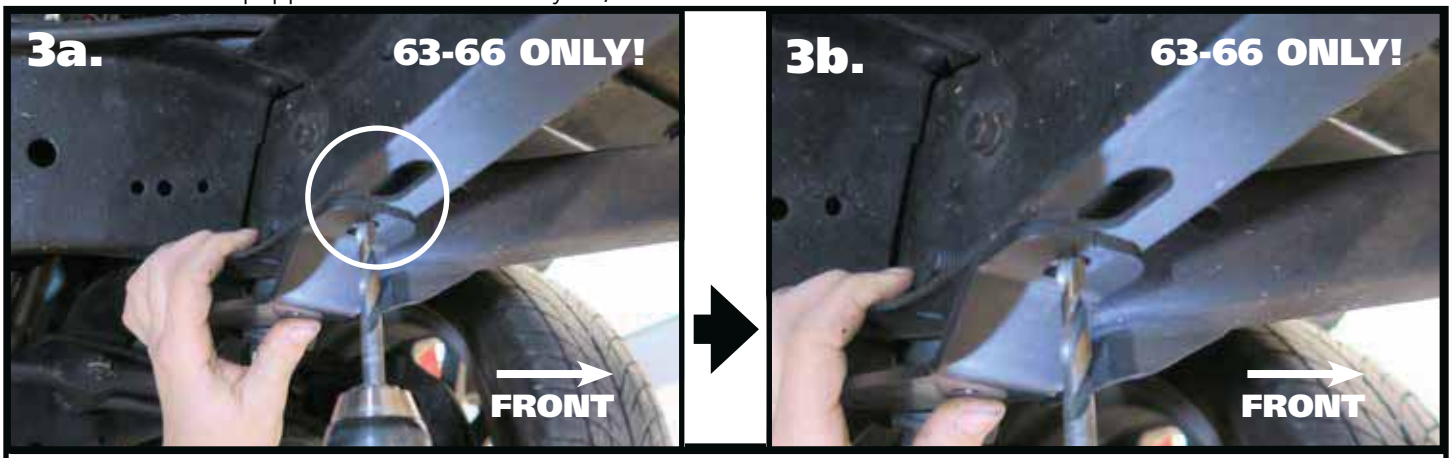
Getting Started.....

This sway bar kit utilizes a anti-friction lining in the sway bar bushing. The lining allows the sway bar to move freely and quietly in the bushing. No lubrication is required.

This sway bar will fit 63-66, 67-72 & 73-87, but the installation varies between the 3 eras. Be sure that you are reading the instructions for the correct era of truck.

1. Jack the vehicle up to a safe working height and support with jack stands. Make sure the jack stands are stable before working under the truck.

2. If the truck is equipped with a stock swaybar, remove it.



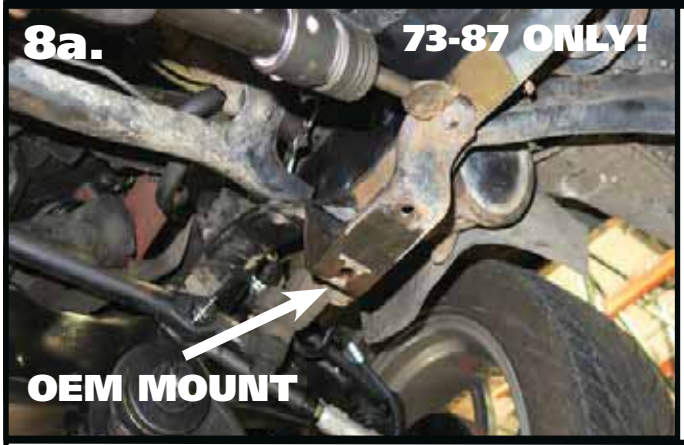
63-66 ONLY! 3a & 3b. The mounting holes for the frame mount will need to be drilled. The frame mount will attach to the frame with the ANGLED END FORWARD. The front edge of the frame mount will be aligned with the rear edge of the slot in the frame that is forward of the cross member. Hold the frame mount on the center on the frame with the front edge lined up with the rear edge of the slot. Use the frame mount as a template to mark the holes to be drilled. Drill the holes using a 3/8" drill bit. Attach the bracket using a 3/8"-16 x 1 1/4" bolt, 3/8"-16 nylok nut and a 3/8" flat washer on top and bottom. The same hardware setup is used in each hole. Repeat on the other side and torque hardware. **SKIP TO STEP 9.**

4. Remove the rivet from the bottom of the frame rail. This can be done by cutting the rivet head off and driving it out or by drilling it out. This cross member is located in front of the suspension cross member.

5. Attach the rear hole of the frame mounting bracket to the frame using the rivet hole. The end of the frame bracket with the angled bends goes forward. Attach the bracket using a 3/8"-16 x 1 1/4" bolt, 3/8"-16 Nylok nut and a 3/8" Flat Washer on top and bottom.

6. With the rear hardware installed, line up the bracket parallel with the frame rail. Use the front hole as a guide to drill a 3/8" hole in the frame.

7. Attach the front of the bracket using a 3/8"-16 x 1 1/4" bolt, 3/8"-16 Nylok nut and a 3/8" Flat Washer on top and bottom. Repeat on the other side and tighten hardware. **SKIP TO STEP 9.**



73-87 ONLY! 8a & 8b. If your truck is equipped with an OEM sway bar, the OEM mount will need to be removed to install the Ridetech sway bar. This is done by removing the rivets. The rivets can be removed by chiseling the heads off and driving them out or by drilling the rivets out. The new frame fount bolts directly in place of the old mount. If your truck doesn't have a sway bar, the mounting holes will still be in the frame. The sway bar fount attaches to the frame using the holes from the OEM mount. The end of the frame bracket with the angled bends goes forward. Attach the bracket using a 3/8"-16 x 1 1/4" bolt, 3/8"-16 nylok nut and a 3/8" flat washer on top and bottom. The same hardware setup is used in each hole. Repeat on the other side and torque hardware.

9. Open the sway bar bushing at the split and slide it **OVER** the swasy bar. Do this for both bushings.

10. Next, slip the bushing straps over the sway bar bushings.

11a & 11b. This kit requires a bracket to be installed on the control arm for the sway bar linkage. The bracket needs to be positioned with the inside edge 8 1/4" from the CONTROL ARM BUSHING and the ears pointing DOWN. Hold the end of the tape measure against the outer edge of the control arm bushing and make a mark on the control arm at 8 1/4". Hold the bracket on the control arm with the ears pointing DOWN and against the lip of the control arm. Use the bracket to mark and drill the mounting holes to 3/8". Install a 3/8" flat washer on (2) 3/8"-16 x 1 1/4" hex bolts and insert them into the holes. Install a 3/8" flat washer and 3/8"-16 nylok nut on each Bolt. Repeat on the other side and torque hardware.

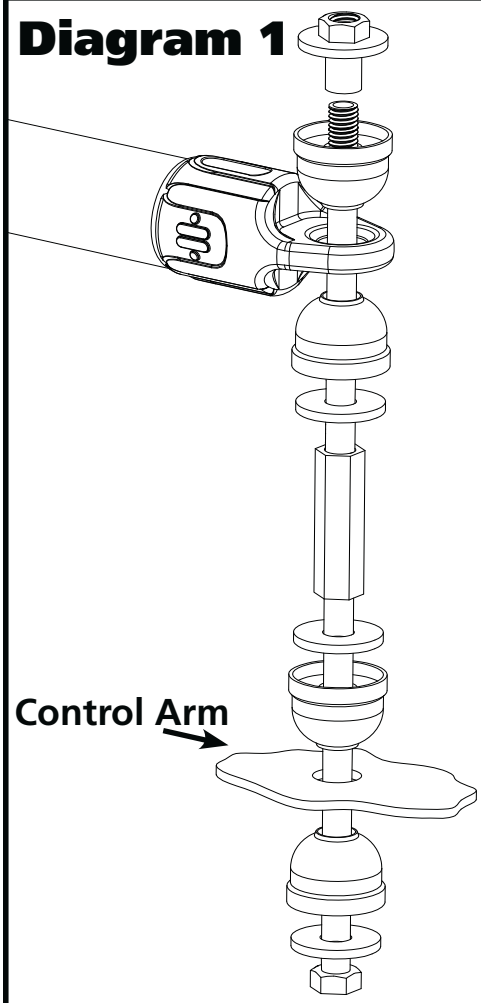
12a & 12b. Hold the sway bar into position on the truck with the sway bar arms below the tie rods. Align the holes in the bushing straps with the holes in the frame brackets. Install a 3/8" flat washer on (4) 3/8"-16 x 1 1/4" hex bolts and insert them into the holes. Install a 3/8" flat washer and 3/8"-16 Nylok Nut on each bolt. Center the bar in the bushings before snugging up the hardware. Do **NOT** completely tighten the hardware. It will be left partially loose until the end links are installed.

13a & 13b. This kit includes 2 different lengths of end links. The SHORT end links are used for STOCK control arms. The LONG end links are used on STRONGARM installations.

13a. STOCK CONTROL ARMS Install the SHORT end links using **Diagram 1** as a reference. Install both end links before tightening the end link hardware. Tighten the end link barrel nut until it is flush with the end of the bolt, and then tighten it 2-3 more complete rounds.

13a. RIDETECH TUBULAR CONTROL ARMS Install the LONG end links using **Diagram 1** as a reference. Install both end links before tightening the end link hardware. Tighten the end link barrel nut until it is flush with the end of the bolt, and then tighten it 2-3 more complete rounds.

Diagram 1



Tighten the end link barrel nut until it is flush with the end of the bolt, and then tighten it 2-3 more complete rounds.

9. Torque the sway bar mounting hardware to 30 ftlbs.

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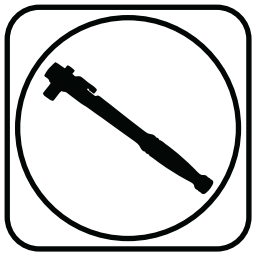
Installation Instructions

Part # 11367199 - 1973-1987 C10 Rear 4Link

Recommended Tools



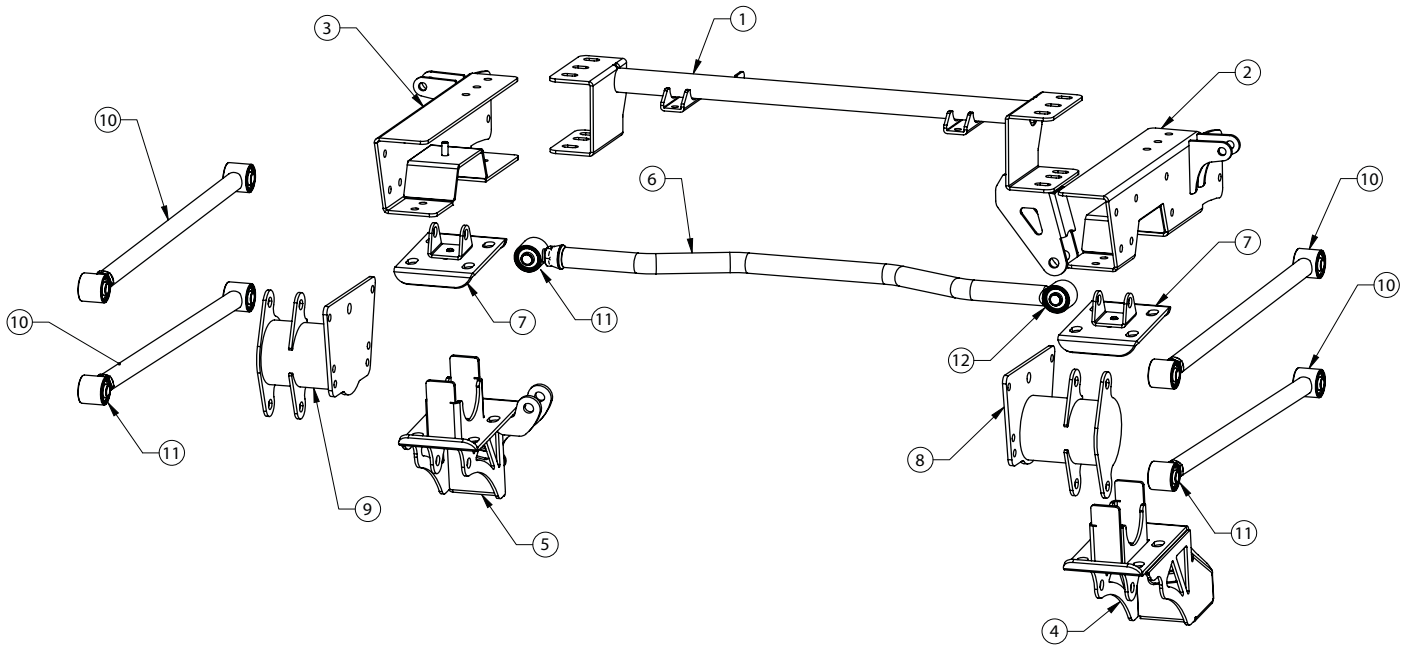
1973-1987 C-10 Rear 4Link
Installation Instructions

Table of contents

Major Components .....In the box

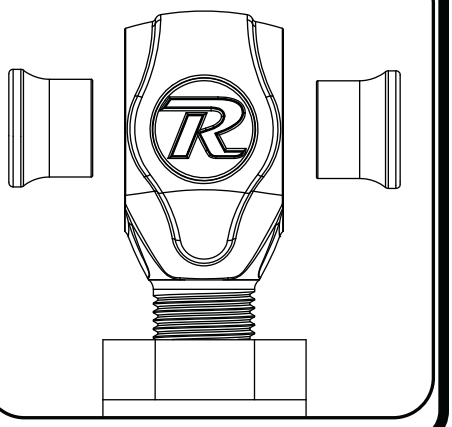
Item #	Part #	Description	QTY
1	90000668	Upper Crossmember	1
2	90000670	Driver C-Notch	1
3	90000671	Passenger C-Notch	1
4	90002746	Driver Lower Axle Bracket	1
5	90002748	Passenger Lower Axle Bracket	1
6	90000952	Panhard Bar - Set to 33 1/2"	1
7	90000673	Upper Axle Bracket	2
8	90000666	4Link Frame Mount - Driver	1
9	90000667	4Link Frame Mount - Passenger	1
10	90002824	4Link Bars - Set to 26 1/2"	4
11	90001318	R-Joint Rod End	5
12	90001086	Panhard Bushings - Pressed into Panhard Bar Frame End	2
	70013882	Panhard R-Joint Spacers - .625" ID x .740" Long	2
	90002895	Panhard Bushing Inner Sleeve - pressed into 90001086	1
	70013334	4Link Bar R-Joint Spacer .625" ID x .620" Long	16
	70013495	U-Bolt - 5/8-18 x 3.13 x 5.5 (Not Shown)	4
	99752004	3/4"-16 Jam Nut - Installed on Bars	5
	70013322	Short Bumpstops with Hardware	2
R-Joint Components - (Installed in bar ends)			
	70013279	Retaining Ring	4
	70013280	Wavo Wave Spring	4
	70013275	R-Joint Center Ball	4
	70013276	R-Joint Composite Center Ball Cage	4

Major Components .....In the box



R-JOINT SPACER INSTALLATION

Install the Spacers by inserting the SMALL side of the SPACER into the Center Pivot Ball. Push them in until they bottom out and stop.



Hardware List .....In the box (Kit# 99010014)

The Hardware Kit contains bags to help aid in selecting the correct hardware for the component being installed. The hardware list shows how the hardware is bagged.

QTY	Part Number	Description
4LINK BARS		
8	99621004	5/8"x 3" SAE Gr. 8 Bolt
8	99622006	5/8" SAE Nylok Jam Nut
16	99623001	5/8" SAE Flat Washer
PANHARD BAR		
2	99621018	5/8"x 3 1/4" SAE Gr. 8 Bolt
2	99622006	5/8" SAE Nylok Jam Nut
4	99623001	5/8" SAE Flat Washer
FRONT 4LINK BAR MOUNT		
12	99431002	7/16" x 1 1/4" USS Bolt
24	99433002	7/16" SAE Flat Washer
12	99432001	7/16" USS Nylok Nut
AXLE BRACKET TO AXLE		
8	99622001	5/8" SAE Nylok Nut
16	99623001	5/8" SAE Flat Washer
"C" NOTCH MOUNTING - SIDE & FRONT LOWER		
24	99431002	7/16" x 1 1/4" USS Bolt
24	99432001	7/16" USS Nylok Nut
48	99433002	7/16" SAE Flat Washer

QTY	Part Number	Description
"C" NOTCH MOUNTING - REAR TOP & BOTTOM		
12	99431008	7/16" x 1 1/2" USS Bolt
12	99432001	7/16" USS Nylok Nut
24	99433002	7/16" SAE Flat Washer
BRAKE LINE BRACKET		
1	99311002	5/16" x 1 1/4" USS Bolt
1	99312003	5/16" USS Nylok Nut
2	99313002	5/16" SAE Flat Washer
SHOCK MOUNTING		
4	99501050	1/2" x 2 1/2" USS Bolt Gr. 8
4	99502009	1/2" USS Nylok Nut Gr. 8
8	99503012	1/2" SAE Flat Washer Gr. 8
BUMP STOP		
2	99373003	3/8" SAE Flat Washer
2	99372002	3/8"-16 Nylok Nut

Hardware Notes

The Hardware Kit contains bags to help aid in selecting the correct hardware for the component being installed. The hardware list shows how the hardware is bagged, but care must be taken to make sure you are installing the correct length bolts in the correct location. The kit contains (8) 5/8"-18 x 3" bolts for the 4 link bars and (2) 5/8-18 x 3 1/4" bolts for the panhard bar. These bolts are very close in length and very easily mistaken for each other. If you are unsure of which one you have in your hand, use a tape measure to verify. Hex bolts are measured by measuring from the BOTTOM of the hex to the end of the threads. The hex area of the bolt is NOT part of the bolt length.

Disassembly

Congratulations on your purchase of the Ridetech Rear 4Link System. This system has been designed to give your truck excellent handling along with a lifetime of enjoyment. Some of the key features of this system: C-notches to give your suspension the travel it needs at the lowered height, 4Link setup to replace the leaf spring, this provides better control of the rear axle, long panhard bar to reduce the side-to-side movement of the differential, and the biggest feature of all, it allows the use of Shockwaves or CoilOvers.

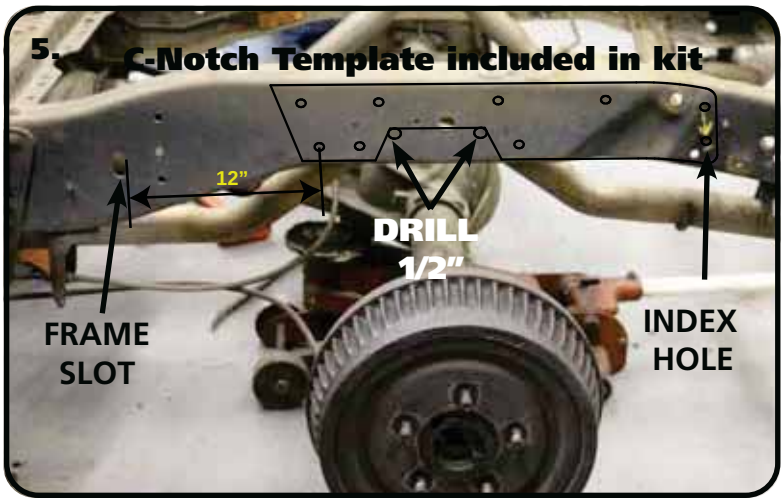
Note: These system is designed for use with the Ridetech Shockwaves or CoilOvers and the MuscleBar swaybar. **The factory shocks and springs or the factory sway bar will not fit this 4Link.**

1. Raise the vehicle to a safe and comfortable working height and support it by the frame. You will need to be able to move the rear differential up and down. Let the rear suspension hang freely.

2. **Remove the bed.**

3. Raise the axle a couple inches and support it so that it cannot rotate. Remove the leaf springs and shock absorbers. Refer to the factory service manual for proper disassembly procedures.

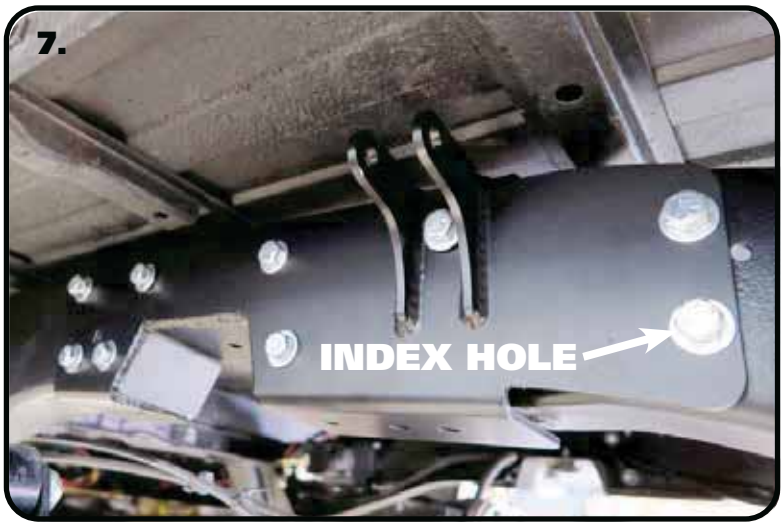
4. The Brake Line Bracket will need to be removed from the passenger side frame rail. This will require separating the steel line from the rubber line at the bracket. There is a provision for the brake line in the upper bridge of the 4 link kit. Cap the line off to help prevent the brake fluid from draining out of the line. Remove the bracket by removing the rivets. We like to used a die grinder to cut a "+" in the head of the rivet. We then knock the head off with a hammer and chisel or an air chisel. With the head removed, knock the rivet out of the bracket and frame.



5. To allow maximum drop on this truck the frame must be notched. The template for the notch will locate off of the index hole shown below. Use the supplied "C" Notch template to mark out the frame for cutting. Before cutting out the frame, support the frame in front of and behind the "C" Notch area. We suggest doing one side at a time. The "C"Notch template has an arrow pointing to the front of the truck. Use the "Index Hole" in the back side of the template to help locate the Template. FOR TRUCKS THAT DO NOT HAVE THE INDEX HOLE, THE CENTER OF THE FRONT LOWER MOUNTING BOLT IS 12" FROM THE BACK EDGE OF THE FRAME SLOT.

"C" Notch Installation

6. Use the supplied Template to mark the cut lines on the frame, then drill out the two corners with a ½" drill bit. This will give the cut a round edge and eliminate the possibility for stress fractures. Then cut the notch with a saw-z-all, cutoff wheel or plasma cutter. Grind all edges smooth.



7. Slide the C-Notch in place making sure the "Index Hole" is aligned. If it doesn't align, you may need to trim the C-Notch opening you cut in the frame. Once you have the C-Notch fitting properly, use it for a template to drill the attaching holes in the frame. Drill the holes in the side of the frame and also the top and bottom of the frame. Use a 7/16" drill bit to drill these. You will have to drill out the "Index Hole" to 7/16" too. Install a 7/16" Flat Washer onto (12) 7/16"-14 x 1 1/4" bolts. Insert the bolts/washers into the drilled holes leaving the bolts out of the rear 3 holes on the top and bottom of the C-Notch. Install a 7/16" Washer and 7/16" Nylok Nut on each of the bolts sticking through the frame and tighten to 50 ftlbs. Repeat steps 5-7 on other side.

8. Install the bumpstops into the "C" Notches using a 3/8" nut and flat washer. Tighten the hardware enough to hold the bumpstop in place.

Upper Cross Member Installation

9. After both C-Notches have been installed, the Upper Cross Member can be installed. The Cross Member is located using the rear 3 holes in the top and bottom of each C-Notch. The Panhard bar mount is located on the driver's side of the Cross Member. The Cross Member attaches underneath the Frame on the top, and underneath the C-Notch on the bottom. Install a 7/16" Flat Washer on (12) 7/16" x 1 1/2" Hex Bolts and insert them into each of the (12) holes. Install all of the bolts with the Nylok Nuts inside the frame. Install a 7/16" Flat Washer & 7/16" Nylok Nut on each of the (12) Bolts and tighten to 50 ftlbs.

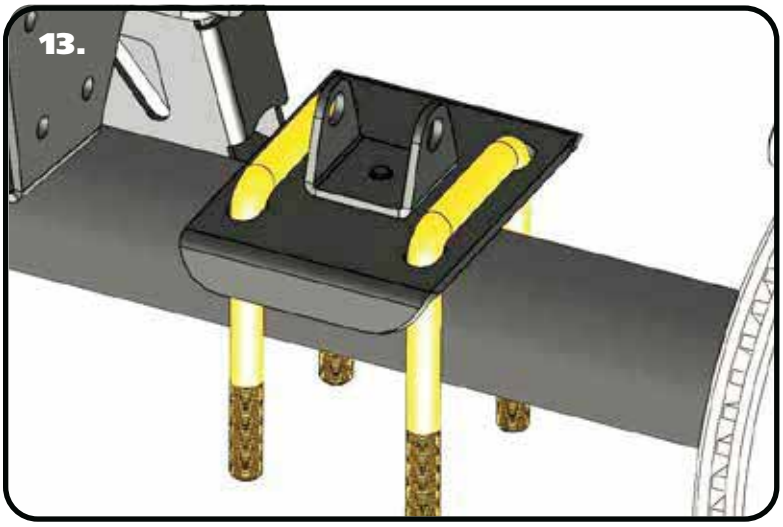
10. Attach the rubber brake line to the Upper Cross Member using the OEM clip. You may have to tweak the steel brake line to reposition it to thread into the rubber brake line. Thread the steel brake line into the rubber brake line and tighten.

YOU WILL NEED TO BLEED THE REAR BRAKES BEFORE DRIVING THE TRUCK!!

11. The OEM front leaf spring mounts will need to be removed from the frame rail. This can be done by either drilling the rivets out or removing the rivet heads and driving them out. We remove the rivet heads by cutting a "+" in the head with a die grinder then we cut the head off with a hammer and chisel or with an air chisel. Once the head is removed, the rivet can be driven out with a hammer and punch. After removing the frame mounts, drill the rivet holes with a 7/16" drill bit.

Frame Mount & Axle Mount Installation

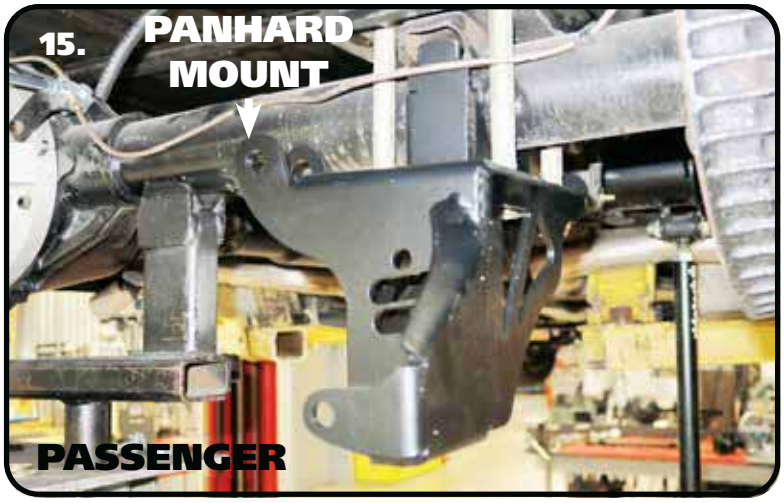
12. The Bar Mounts bolt in place of the OEM front leaf spring mount. There is a Driver and Passenger Mount. **Image 12** shows the Driver Mount. The Tabs are to the FRONT of tube. Install a 7/16" Flat Washer on (6) 7/16" x 1 1/4" Bolts. Hold the Mount in place and insert the bolts/washer through the mount and frame. Install a 7/16" Flat Washer and 7/16" Nylok Nut on each bolt sticking through the frame and tighten to 50 ftlbs. Repeat on the other side.



13. The Kit includes 2 Upper Bar Mounts that are the same. Each one sits on a leaf spring pad with the center pin indexed into the center hole of the leaf spring pad. Sit an Upper Bar Mount on top of the axle with the locating pin into the center hole of the leaf spring pad. Install a 5/8" Square U-bolts through each pair of side holes in the Upper Bar Mount with the threads pointing down. The U-bolts will run parallel to the frame.

14. The Kit includes a Driver and Passenger Lower Axle Mount; the two are different. The Passenger Mount has the Panhard bar mount built into it. Image 13 shows the Driver Mount. Hold the Mount up in place against the bottom of the axle tube. The tabs will nest against the bottom of the leaf spring pad. Make sure the u-bolts drop through the holes in the Lower Mount. Install a 5/8" Flat Washer followed by a 5/8" Nylok Nut on each leg of the U-Bolts. Tighten the Nuts evenly until the Lower Mount is tight against the tube and leaf spring pad. Then torque the Nuts to 60 ftlbs in a crisscross fashion.

Installing Lower Axle Mount & 4Link Bars



15. Repeat the above step on the Passenger Lower Mount. Torque the hardware to 60 ftlbs in a crisscross fashion.

16. This Kit contains (4) 4Link bars that are the same. **Insert the .620" Long R-Joint Spacers into the Center Pivot Ball of the R-Joints in the bars as shown on Page 3**. Each Bar is attached with a **5/8" x 3" Bolt**, 5/8" Nylok Jam Nut, & (2) 5/8" Flat Washers. Install a 5/8" Flat Washer on each of the **5/8" x 3" Bolts**. Attach the front of the bars to the frame mounts first. Do this by holding the Bar in position and insert the 5/8" Bolt/Washer through the Mount and Bar End. Install a 5/8" Flat Washer followed by a 5/8"Nylok Jam Nut on the threads of the bolt. Install all of the Bars before tightening the Hardware.

17. Attach the rear of the Bars to the Axle Mounts. The upper bar gets installed in the Upper Axle Bracket, the lower bar gets installed in the Lower Axle Bracket. Each Bar is attached using (1) **5/8" X 3" Bolt**, (2) 5/8" Flat Washer & (1) 5/8" Nylok Jam Nut. Install a 5/8" Washer on each Bolt before inserting them through the Bar/Bracket. Install a 2nd 5/8" Flat Washer on the threads of the bolt that are sticking out of the bracket followed by a 5/8" Nylok Nut. Tighten the hardware enough to eliminate any gaps.

Installing Panhard Bar and Shockwaves/Coilovers

18. Install the Panhard bar into the frame bracket. The Panhard Bar is a bent bar, it is bent to clear the center section of the rear differential. The bar needs to be mounted with the BEND to the REAR and the Rubber Bushing in the Frame Mount, this will help it clear the differential cover. The Panhard bar is attached using (1) **5/8" x 3 1/4" bolt**, (1) 5/8" Nylok Jam Nut & (2) 5/8" Flat Washers. Tighten the hardware enough to eliminate any gaps.

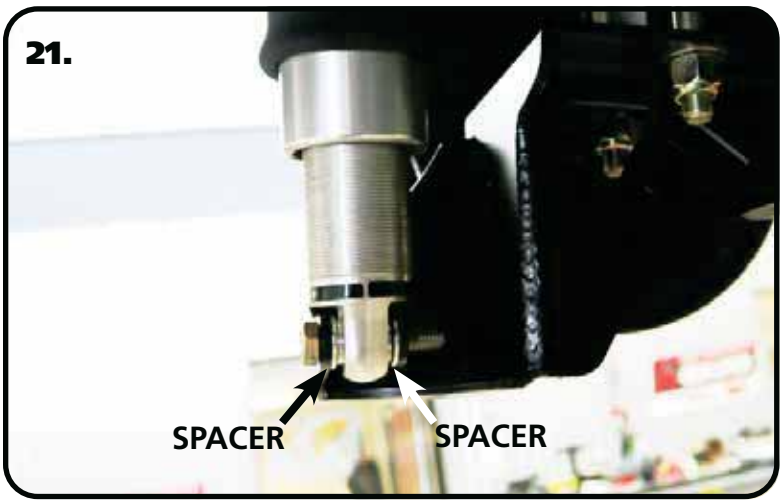
Note: The panhard bar is set at 33 1/2" before it is shipped, but may need adjusted to center the axle at ride height.

19. Install the .740" Long R-Joint Spacers into the Center Pivot Ball of the R-Joint in the Panhard Bar. Install the other end of the Panhard bar into the mount on the Passenger Lower Axle Mount. The Panhard bar is attached using (1) **5/8" x 3 1/4" bolt**, (1) 5/8" Nylok Jam Nut & (2) 5/8" Flat Washers. Tighten the hardware enough to eliminate any gaps.

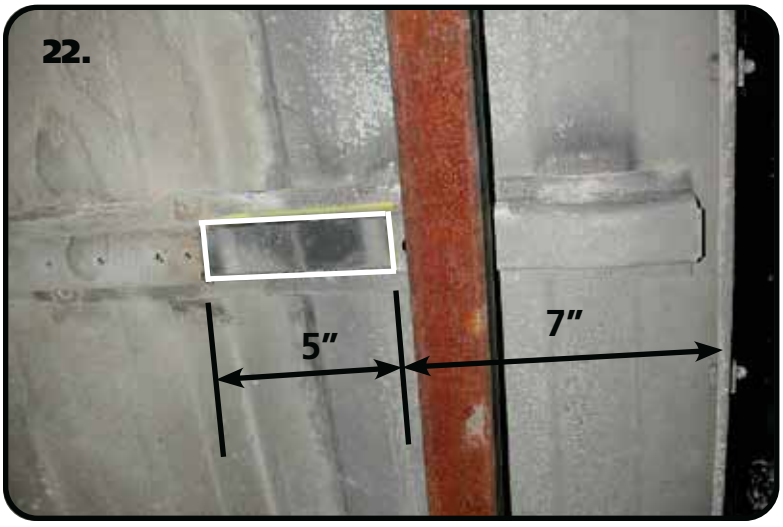
20. Insert a Spacer into each side of the upper Shockwave/CoilOver bearing. Slide the assembly into the upper shock mount. If your shock has an adjuster knob, position it so that the knob points toward the outside of the truck. Line up the hole in the spacers with the hole in the upper shock mount and insert 1/2" x 2 1/2" bolt and 1/2" Nylok nut with a 1/2" SAE Flat Washer on each side of the mount.

Note: If installing Shockwaves and you want to locate the air fitting in a different location, the air spring assembly can be rotated on the shock by grabbing the shock and air spring assembly by hand and spinning the shock in the air spring assembly.

Finishing



21. Insert a Spacer into each side of the lower Shockwave/CoilOver bearing. Slide the shock, with the spacers installed, into the mount on the Lower Axle Mount. You may need to jack the rearend up to line up the holes in the bushings with the 1/2" hole in the shock mounts and hold it in place while you install the 1/2" x 2 1/2" Bolt and 1/2" Nylok Nut with a 1/2" SAE Flat Washer on each side of the mount. Tighten the upper and lower shock bolts to 75 ftlbs.



22. To allow clearance for the C-Notch, a section of the bed floor brace that is above the axle must be removed. This section is approximately 5" wide and about 7" from the fender well.

23. Tighten all fasteners. If you are going to install the Ridetech MuscleBar, now is a good time to do it. Reinstall the bed and set the truck back on the ground.

24. Set ride height on the truck. The ride height of the Shockwave/CoilOver is approximately 14 1/2". If you are using Shockwaves, this is done by changing the air pressure in the Shockwaves. If you are using CoilOvers, the ride height is done by using the adjuster nut for the coil spring. The coil spring on the CoilOver will have some preload in the spring to get ride height, this is normal.

25. Measure to make sure the axle is centered at ride height. We prefer to measure between the frame and wheel. Make sure you are measuring the truck in the same location on both sides. If the measurements are off more than 1/16", adjust the Panhard Bar to center the differential.

BLEED THE REAR BRAKES!!!

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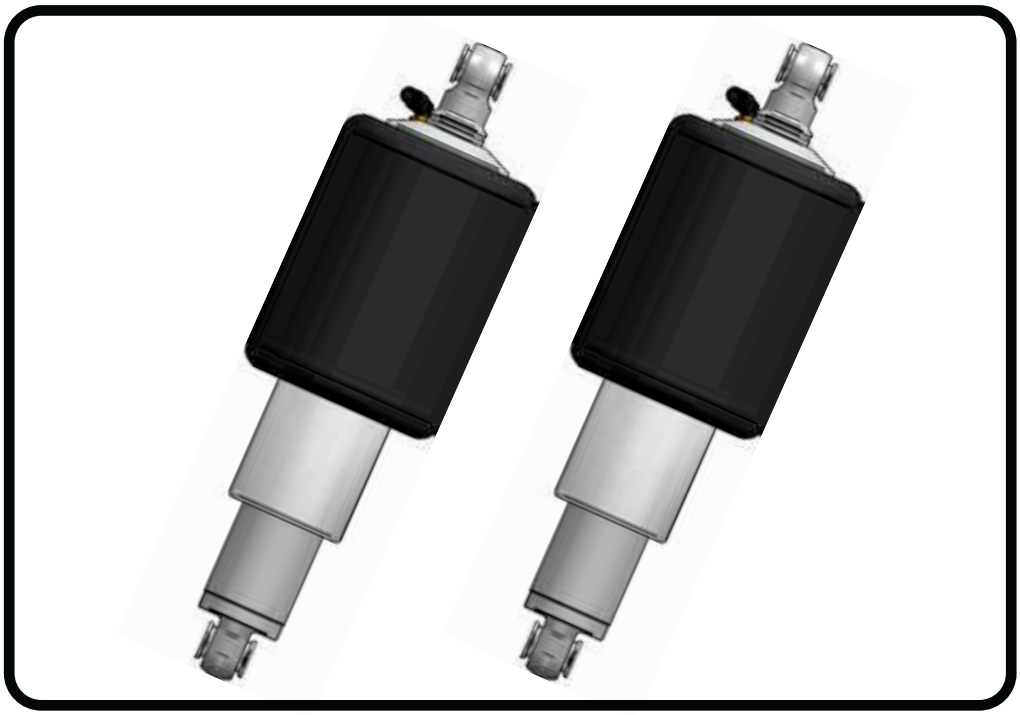
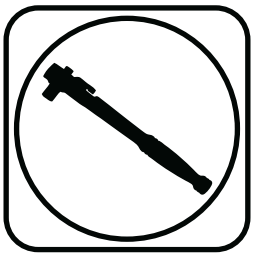
Installation Instructions

Part # 21150801 - 5.2” Stroke HQ Series Shockwave



Recommended Tools



8000 Series Bellow, Eye/Eye 5.2” Shock

Installation Instructions

Table of contents

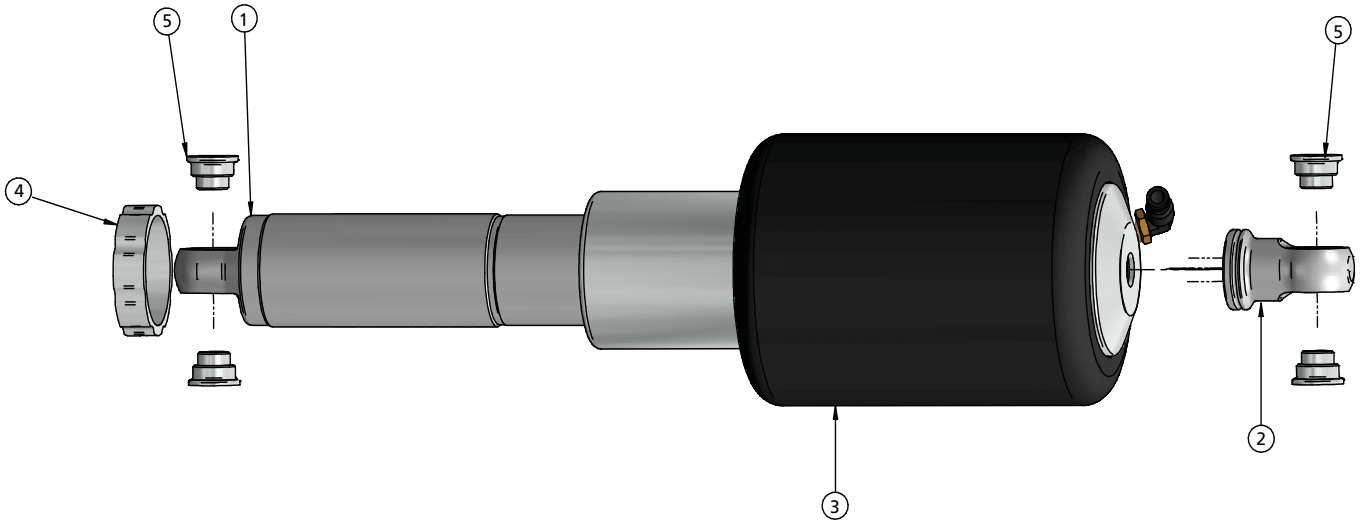
ShockWave Dimensions:

Center of bearing to Center of bearing:

Compressed:	11.85”
Ride Height:	14.60”
Extended:	16.42”

Major Components .....In the box

Item #	Part #	Description	QTY
1	982-10-805	5.2" Stroke HQ Series Shock	2
2	815-05-022-KIT	1.7" Shock Eyelet	2
3	24090899	8000 Series, 5" Diameter AirSpring	2
4	234-00-153	AirSpring Locking Ring (Installed on Shock)	2
5	90002043	1/2" ID Shock Bearing Spacers	8
	90001994	5/8" ID Bearing (installed in shock and eyelet)	4
	90001995	Bearing Snap Ring (installed in shock and eyelet)	8



Notes and Care of your Shockwaves

NOTES:
You can clock the airfitting location on the ShockWave by turning the AirSpring assembly of the shock.

When cutting the airline, use a razor blade. The cut needs to be a clean cut and square for the airline to seal properly.

The Locking ring on the shock is NOT adjustable. These rings are set at the factory to optimize the AirSpring stroke with the shock stroke.

The care and feeding of your new ShockWaves

1. Although the ShockWave has an internal bumpstop, **DO NOT DRIVE THE VEHICLE DEFLATED RESTING ON THIS BUMPSTOP. DAMAGE WILL RESULT**. The internal bumpstop will be damaged, the shock bushings will be damaged, and the vehicle shock mounting points may be damaged to the point of failure. This is a non warrantable situation.

2. Do not drive the vehicle overinflated or "topped out". Over a period of time the shock valving will be damaged, possibly to the point of failure. This is a non warrantable situation! If you need to raise your vehicle higher that the ShockWave allows, you will need a longer unit.

3. The ShockWave is designed to give a great ride quality and to raise and lower the vehicle. **IT IS NOT MADE TO HOP OR JUMP!** If you want to hop or jump, hydraulics are a better choice. This abuse will result in bent piston rods, broken shock mounts, and destroyed bushings. This is a non warrantable situation.

4. Do not let the ShockWave bellows rub on anything. Failure will result. This is a non warrantable situation.

5. The ShockWave product has been field tested on numerous vehicles as well as subjected to many different stress tests to ensure that there are no leakage or durability problems. Failures have been nearly nonexistent unless abused as described above. If the Shockwave units are installed properly and are not abused, they will last many, many years. ShockWave units that are returned with broken mounts, bent piston rods, destroyed bumpstops or bushings, or abrasions on the bellows will not be warrantied.

Shock Adjustment

Shock Adjustment 101- Single Adjustable

Rebound Adjustment:
How to adjust your new shocks.
The rebound adjustment knob is located on the top of the shock absorber protruding from the eyelet.
You must first begin at the ZERO setting, then set the shock to a medium setting of 12.

-Begin with the shocks adjusted to the ZERO rebound position (full stiff). Do this by rotating the rebound adjuster knob clockwise until it stops.

-Now turn the rebound adjuster knob counter clock wise 12 clicks. This sets the shock at 12. (settings 21-24 are typically too soft for street use).

Take the vehicle for a test drive.

-if you are satisfied with the ride quality, do not do anything, you are set!

-if the ride quality is too soft increase the damping effect by rotating the rebound knob clock wise 3 clicks.

Take the vehicle for another test drive.

-if the vehicle is too soft increase the damping effect by rotating the rebound knob clock wise 3 additional clicks.

-If the vehicle is too stiff rotate the rebound adjustment knob counter clock wise 2 clicks and you are set!

Take the vehicle for another test drive and repeat the above steps until the ride quality is satisfactory.

Note:
One end of the vehicle will likely reach the desired setting before the other end. If this happens stop adjusting the satisfied end and keep adjusting the unsatisfied end until the overall ride quality is satisfactory.