



**Part # 11360297**  
**73-87 C-10 Air Suspension**

**Front Components:**

1	11330999	Front CoolRide Kit
1	11360601	Front Shock Kit – HQ Series
1	11361499	Front Lower StrongArms
1	11363699	Front Upper StrongArms
1	11369300	Drop Spindles
1	11369100	Front MuscleBar

**Rear Components:**

1	11367199	Rear AirBar- Bolt-on 4 Link
1	21150801	Rear ShockWave – HQ Series



**Part # 11330999**  
**63-87 C10 Front CoolRide**  
**Kit**  
For Use w/ Lower StrongArms

**Components:**

2	90006873	Front air springs – 224c
2	90000060	Upper air spring plate
2	90001083	Medium bump stop – 1.5" tall
2	90000472	Aluminum bump stop extension
1	90000726	Driver side bump stop plate
1	90000727	Passenger side bump stop plate

**Hardware:**

8	99371004	3/8" x 1 1/4" USS bolt	Upper air spring plate to frame
4	99371001	3/8" x 3/4" USS bolt	Air spring to lower control arm/ bump stop
4	99373005	3/8" lock washer	Air spring to lower control arm/ bump stop
12	99372002	3/8" nyloc nuts	
24	99373003	3/8" flat washers	

# COOL RiDE<sup>®</sup>

by Air Ride Technologies

## Installation Instructions



1. 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 four 3/8" holes in the cross member.



2. Apply thread sealant to the air fitting and thread into the air spring.

3. 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 C** moving the air spring to the front of the vehicle. Secure with 3/8" flat washers and Nylok nuts.

**Note:** Airline must be routed at this time.



**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.

4. 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.

5. The break line bracket may need to be tweaked to clear the hose.



6. Fasten the air spring to the lower control arm using a 3/8" x 3/4" bolt, lock washer and flat washer.

7. Check air spring clearance through full suspension travel. **Allowing the air spring to rub will result in failure and is not a warrantable situation.**

8. Ride height on this air spring is approximately 5" tall. The shock absorber should be at about 50-60% travel at this point. Depending on vehicle weight this will usually occur around 80-100 psi.



**Part # 113606a01**  
**73-87 C-10 HQ Series Front Shock**  
**Kit**

For use w/ Lower StrongArms

**Shock:**

2	22849999	HQ Smooth Body Shock Cartridge
2	70011138	3/4" ID Shock Bushing
2	90002103	5/8" ID Inner Sleeve

**Components:**

4	70011140	Stem Bushings
4	70011141	Stem Washers
1	90002303	Driver side upper shock mount
1	90002304	Passenger side upper shock mount
2	90000471	Aluminum shock spacer
2	90001619	Shock stud

**Hardware:**

8	99371004	3/8" x 1 1/4" USS bolt	Upper shock mount
8	99372002	3/8" USS Nylok nut	Upper shock mount
16	99373003	3/8" SAE flat washer	Upper shock mount
4	99372006	3/8"- 24 Thin Jam Nut	Upper Shock Stud



## Installation Instructions



1. 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 and drill four 3/8" holes in the frame rail. Secure the bracket to the frame using four 3/8" x 1 1/4" bolts, Nylok nuts and flat washers.



2. Attach the shock to the upper mount. See diagram on following page.



3. Attach the shock to the lower control arm using the cantilever pin supplied. See diagram on following page.

# ridetech

**Part # 11361499**  
**73-87 C-10 Front Lower**  
**StrongArms**  
For Use w/ CoolRide

**Components:**

1	90000502	Driver side lower arm
1	90000503	Passenger side lower arm
1	90000909	Lower ball joint
2	90000521	Cross shaft
2	90000471	Shock T Spacer
4	90000915	Lower control arm bushing
4	99753001	Washer, 3/4" (B) x 2 1/2" (D) x 1/8" (T), Zinc Plated
4	99752005	3/4" SAE lock nut

# STRONG ARMS™

by Air Ride Technologies

## Installation Instructions

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

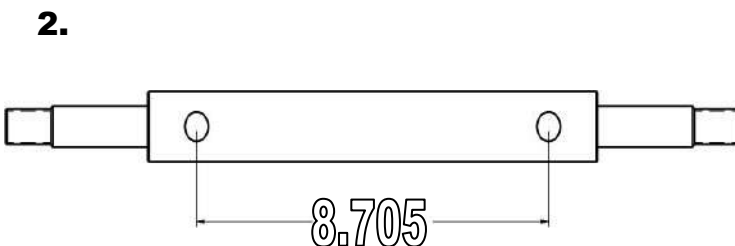
**Note:** These Strong Arms are used on trucks of model years 1963-1987. Throughout these years 3 different ball joints used; some are very similar. Be sure to use the correct ball joint for the year spindle you are using.



1. Bolt the lower Strong Arm to the frame using the OEM fasteners. The supplied cross shaft has 2 sets of holes. This CoolRide control arm uses the set of holes that are **8.705"** center to center. **Image 2** illustrates the holes used. Make sure to align the dowel in the frame with one of the holes in the cross shaft that is **8.705"** apart.

2. Slide the boot over the ball joint then fasten the lower ball joint to the spindle using the new castle nut and cotter pin supplied.

3. Fasten the air spring to the lower control arm using a 3/8" x 3/4" bolt supplied w/ the CoolRide kit.



4. Thread the grease zerk into the ball joint and grease.

5. With the suspension at **mid travel**, the cross shaft nuts can be tightened.

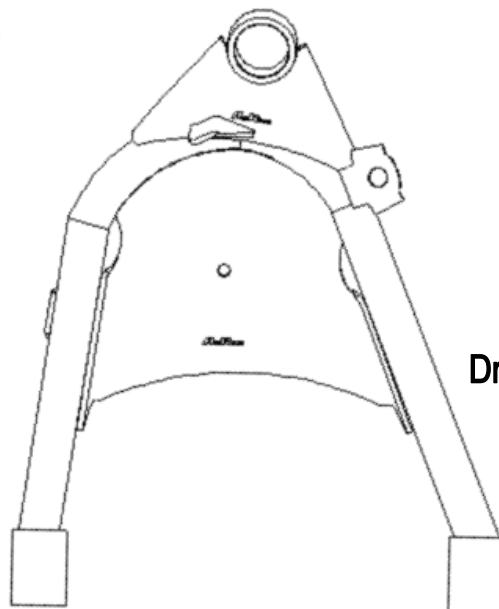
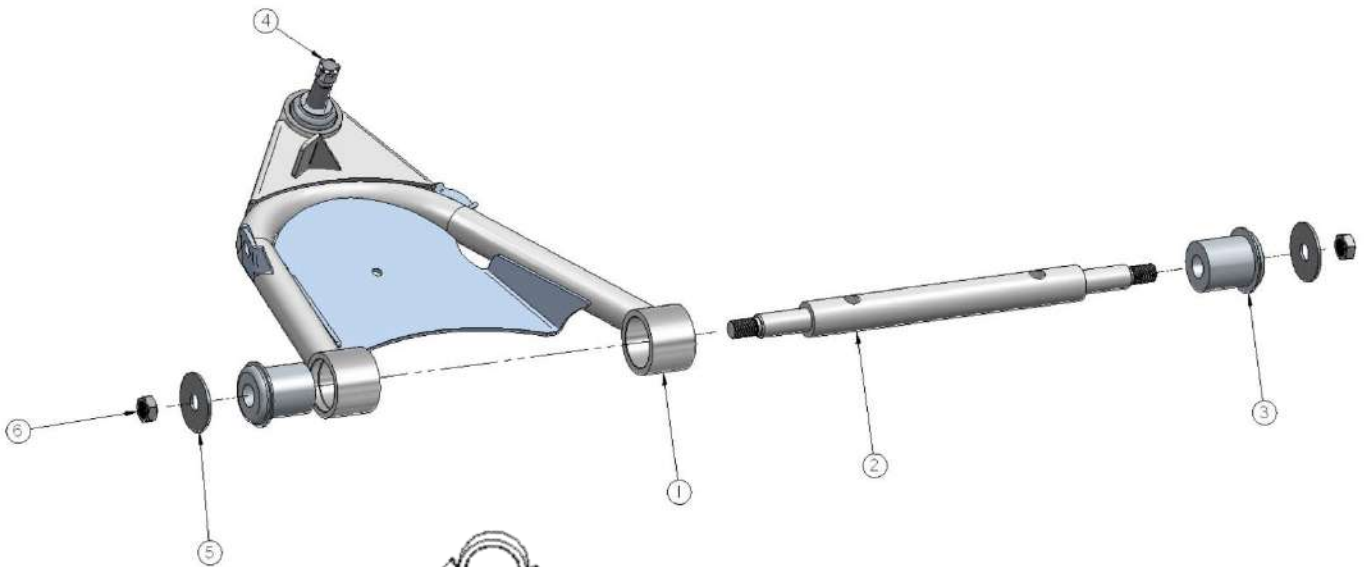
6. The truck must be realigned after installation.



# STRONG ARMS™

by Air Ride Technologies

Item #	Description	Qty.
1.	Driver side arm	1
2.	Cross shaft	1
3.	Ball joint	1
4.	Ball joint	1
5.	Large washer	2
6.	$\frac{3}{4}$ "-16 jam nut	2



Driver Side - Top View



**Part #11363699**  
**73-87 C-10 Front Upper StrongArms**

**Components:**

		Driver side upper arm	
		Passenger side upper arm	
1	90000508	Cross shaft	
1	90000509	Cross shaft kit – 2 bushings per kit	
2	90000721	Ball joint (includes boot, grease fitting, castle nut & cotter pin)	
2	90000920		
2	90000910		

**Hardware:**

4	99753002	3/4" flat washer (2" diameter)	Cross shaft
4	99752005	3/4"-16 locking nut	Cross shaft

**Installation Instructions**

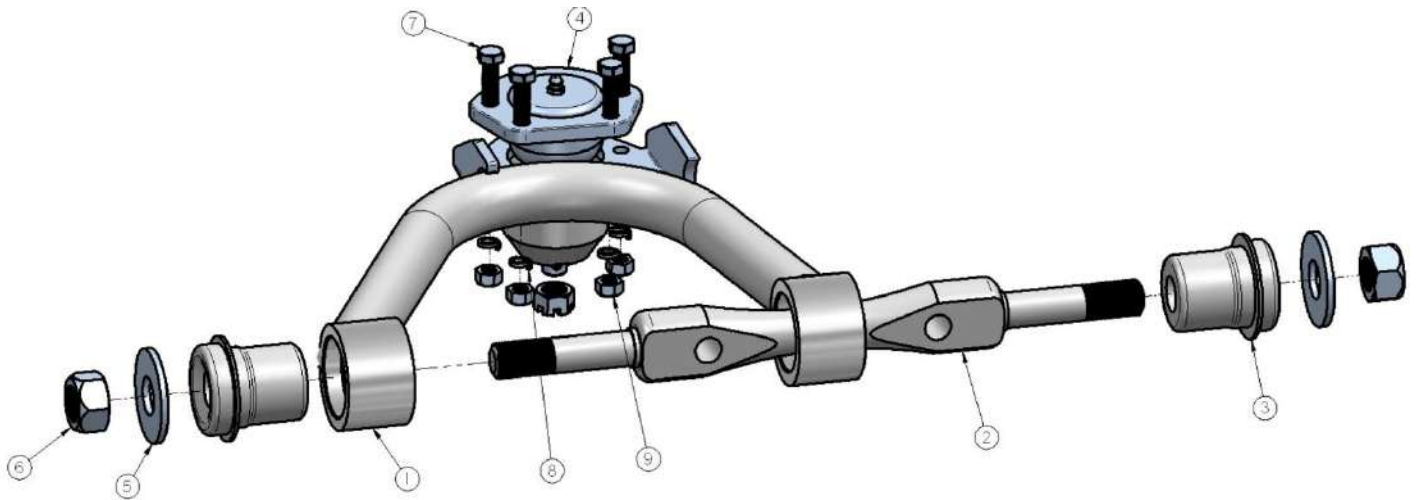


1. Drop the ball joint down through the upper control arm plate. Fasten to the arm w/ the hardware supplied.
2. Fasten control arm to frame using the stock hardware. Reuse the alignment shims; however the truck must be realigned after installation.
3. Slide the ball joint boot over the stud, then insert stud through spindle. Secure w/ new castle nut and cotter pin supplied.
4. **With the suspension at mid travel**, the upper cross shaft nuts can be tightened.
5. Install Zerk fitting and grease ball joint.

# STRONG ARMS™

by Air Ride Technologies

Item #	Description	Qty.
1.	Passenger side arm	1
1.	Driver side arm	1
2.	Cross shaft	2
3.	Cross shaft bushing	4
4.	Ball joint	2
5.	3/4" x 2" flat washer	4
6.	3/4"-16 locking nut	4
7.	5/16"-24 x 1" hex bolt	8
8.	5/16" lock washer	8
9.	5/16"-24 hex nut	8





### Part # 11369300 - 1973-1987 C10 HD Drop Spindles



#### Recommended Tools



#### Major Components .....In the box

- |   |          |                             |
|---|----------|-----------------------------|
| 1 | 11369301 | Pair of 73-87 drop spindles |
| 1 | 90001926 | Pair of caliper brackets    |

### Installation

#### Balljoint nut Torque Specs:

Upper: Torque to 50 ft lbs 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 exceeding 130 ft lbs.

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



### Spindle Installation

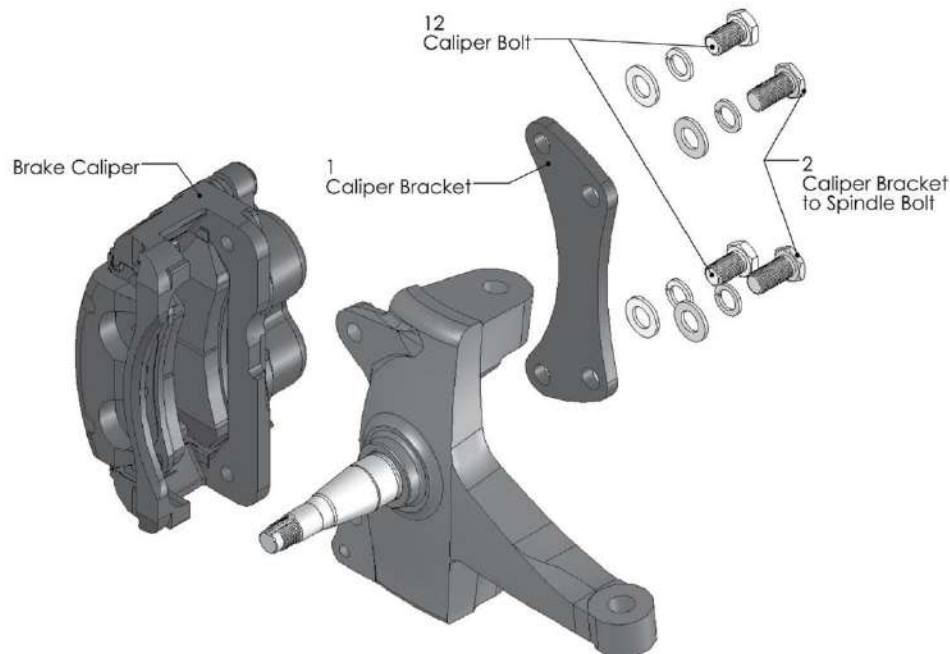
#### Notes:

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. If reusing existing 1973-87 heavy half ton 1-1/4" thick rotors and calipers, kit #6087DBK (sold separately) will be required. If using CPP big brake kit, brackets will be included with kit. 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 leaks.
11. Check that the rotor can turn freely and that the brakes do not drag.
12. Have the truck professionally aligned.



### Part # 11369100 - 1973-1987 C10 Front MuscleBar



#### Recommended Tools



## 1973-1987 C-10 Front MuscleBar Installation Instructions

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Page 3.....	MuscleBar Installation
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THIS MUSCLEBAR IS DESIGNED TO BE USED WITH RIDETECH STRONGARMS.



### Major Components .....In the box

Part #	Description	QTY
90002768	Front SwayBar	1
	12 mm PosiLink Assemblies (99125001, 90000922, & 90000921)	2
70013130	Delrin Sway Bar Bushing Liner	2
90002513	Bushing Strap	2
70012913	SwayBar Bushing	2
90002591	SwayBar Mounting Bracket	2

#### HARDWARE KIT #99010050

Part #	Description	Usage	QTY
	<b>SWAY BAR TO FRAME HARDWARE</b>		
99371004	3/8"-16 x 1 1/4" Hex Bolt	Frame & Control Arm Mount	8
99372002	3/8"-16 Nylok Nut	Frame & Control Arm Mount	8
99373003	3/8" SAE Flat Washer	Frame & Control Arm Mount	16
	<b>POSILINK HARDWARE</b>		
99122001	12mm Nylok Nut	PosiLink to Control Arm & MuscleBar	4
99433002	7/16" SAE Flat Washer	PosiLink to Control Arm & MuscleBar	8

### Getting Started.....

**Install all Front Suspension Components before installing the SwayBar.**

If your truck is equipped with an OEM Swaybar, remove it and the Frame Mount to prepare for the MuscleBar installation. The rivets on the frame mount will need to be removed to remove the mount.

This SwayBar kit utilizes a Delrin Liner in the SwayBar Bushing. The Delrin Liner allows the Swaybar to move freely and quietly in the Bushing. The Delrin is self-lubricating, no lubrication is required.



**1.** Some trucks are equipped with a OEM swaybar. If your truck has one, the OEM mount will need to be removed to install the MuscleBar. 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 Mount 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.



### MuscleBar Installation



2. The MuscleBar Mount 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 tighten hardware.



3. The Delrin Liner is split on one side to ease installation. We found it easier to install by opening up the Liner enough to slide it onto the end of the SwayBar, then sliding it into position. It will open up and slide over the curves in the Bar. Install a Liner on each side of the SwayBar in the approximate location they will need to be when installing the SwayBar on the Truck.

**Note:** The Delrin is self-lubricating, no lubricant is needed.



4. Open up the Poly SwayBar Bushings and install them over the Delrin Sleeves.





### MuscleBar Installation



5. Install Bushing Straps Over the Poly SwayBar Bushings.



6. Hold the SwayBar into position on the truck with the SwayBar 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.



7. Attach the PosiLinks to the MuscleBar and StrongArm using a 7/16" SAE Flat washer on each side of the arm on the MuscleBar and each side of the bracket on the StrongArm. The 90 degree PosiLink needs to be installed with the **THREADS POINTING IN TOWARD THE FRAME**. Install 12mm Nylok nut on each posilink and tighten down. Torque to 50 ftlbs.

8. Tighten the bolts attaching the bushings bracket to the frame. After installation, be sure that the Musclebar will go through the entire suspension travel without contacting anything.



### Part # 11367199 - 1973-1987 C10 Rear 4Link



#### Recommended Tools



## 1973-1987 C-10 Rear 4Link Installation Instructions

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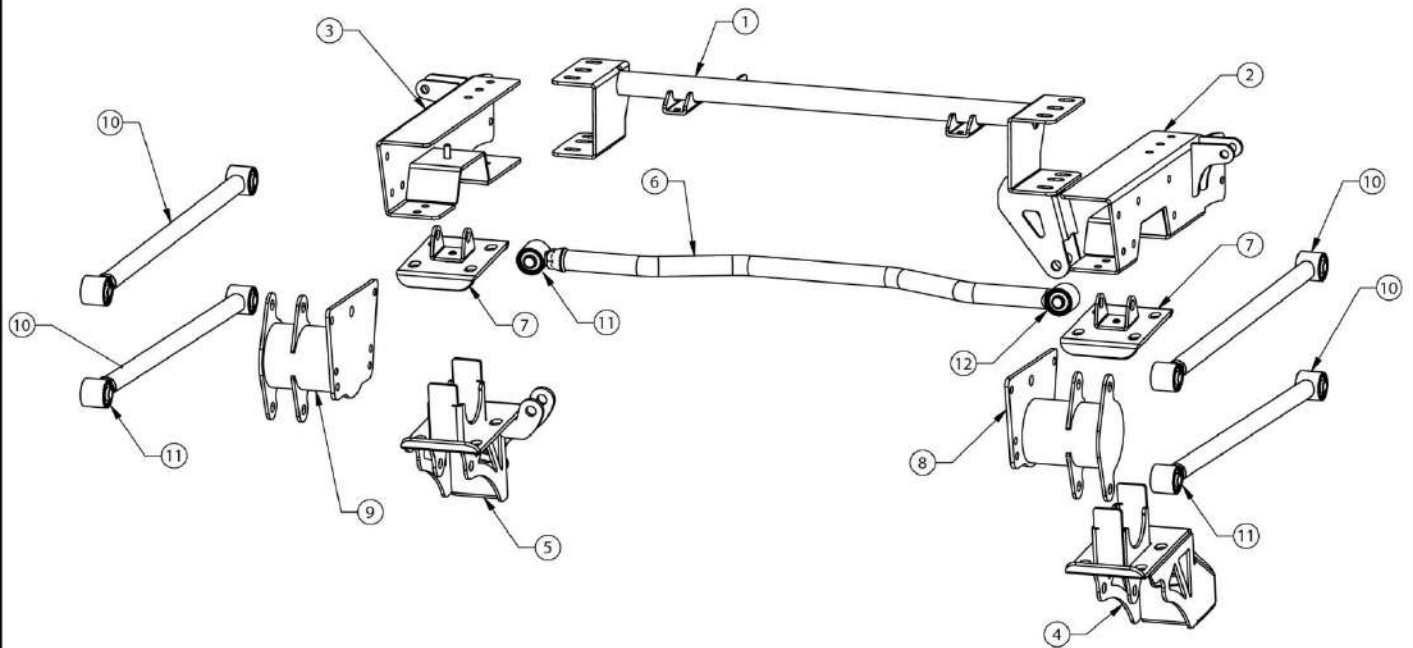


### Major Components .....In the box

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	70013364	R-Joint Rod End	5
	70013882	Panhard R-Joint Spacers - .625" ID x .740" Long	2
12	90001086	Panhard Bushings - Pressed into Panhard Bar Frame End	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
	90002043	Shockwave/Coilover Spacers (Not Shown) .500" ID	8
	99752004	3/4"-16 Jam Nut - Installed on Bars	5
	70013322	Short Bumpstops with Hardware	2
<b>R-Joint Components - (Installed in bar ends)</b>			
	70013279	Retaining Ring	9
	70013280	Wavo Wave Spring	9
	70013275	R-Joint Center Ball	9
	70013276	R-Joint Composite Center Ball Cage	9

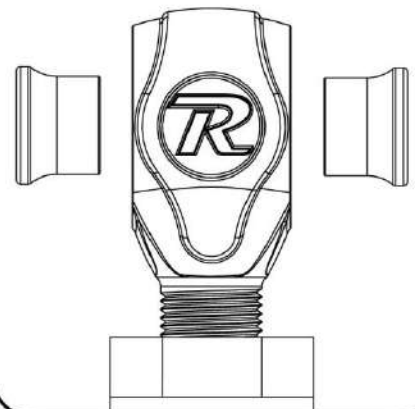


### Major Components .....In the box



#### **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	USAGE
<b>4LINK BARS &amp; PANHARD BAR</b>			
8	99621004	5/8" x 3" SAE Gr. 8 Bolt	4Link Bars
2	99621018	5/8" x 3 1/4" SAE Gr. 8 Bolt	Panhard Bar
10	99622006	5/8" SAE Nylok Jam Nut	4Link Bars & Panhard Bar
20	99623001	5/8" SAE Flat Washer	4Link Bars & Panhard Bar
<b>FRONT 4LINK BAR MOUNT</b>			
12	99431002	7/16" x 1 1/4" USS Bolt	Front 4Link Bar Mount to Frame
24	99433002	7/16" SAE Flat Washer	Front 4Link Bar Mount to Frame
12	99432001	7/16" USS Nylok Nut	Front 4Link Bar Mount to Frame
<b>AXLE BRACKET TO AXLE</b>			
8	99622001	5/8" SAE Nylok Nut	Axle Bracket to Axle
16	99623001	5/8" SAE Flat Washer	Axle Bracket to Axle
<b>"C" NOTCH MOUNTING - SIDE &amp; FRONT LOWER</b>			
24	99431002	7/16" x 1 1/4" USS Bolt	"C" Notch to Frame - Side & Front Lower
24	99432001	7/16" USS Nylok Nut	"C" Notch to Frame - Side & Front Lower
48	99433002	7/16" SAE Flat Washer	"C" Notch to Frame - Side & Front Lower
<b>BRAKE LINE BRACKET</b>			
12	99431008	7/16" x 1 1/2" USS Bolt	"C" Notch to Frame - Rear Top & Bottom
12	99432001	7/16" USS Nylok Nut	"C" Notch to Frame - Rear Top & Bottom
24	99433002	7/16" SAE Flat Washer	"C" Notch to Frame - Rear Top & Bottom
<b>BRAKE LINE BRACKET</b>			
1	99311002	5/16" x 1 1/4" USS Bolt	Brake Line Bracket
1	99312003	5/16" USS Nylok Nut	Brake Line Bracket
2	99313002	5/16" SAE Flat Washer	Brake Line Bracket
<b>SHOCK MOUNTING</b>			
4	99501050	1/2" x 2 1/2" USS Bolt Gr. 8	Shocks to Mounts
4	99502009	1/2" USS Nylok Nut Gr. 8	Shocks to Mounts
8	99503012	1/2" SAE Flat Washer Gr. 8	Shocks to Mounts



### 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:** This 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.**

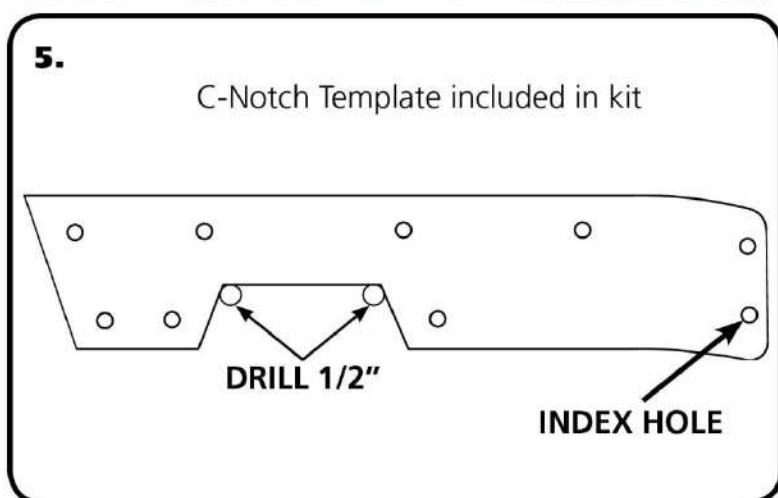
1. Raise the vehicle to a safe and comfortable working height and support it by the frame. You will need to be able to move the rear differential up and down. Let the rear suspension hang freely.

#### 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 use 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.



### "C" Notch Installation



6. Use the supplied Template to mark the cut lines on the frame, then drill out the two corners with a 1/2" 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.

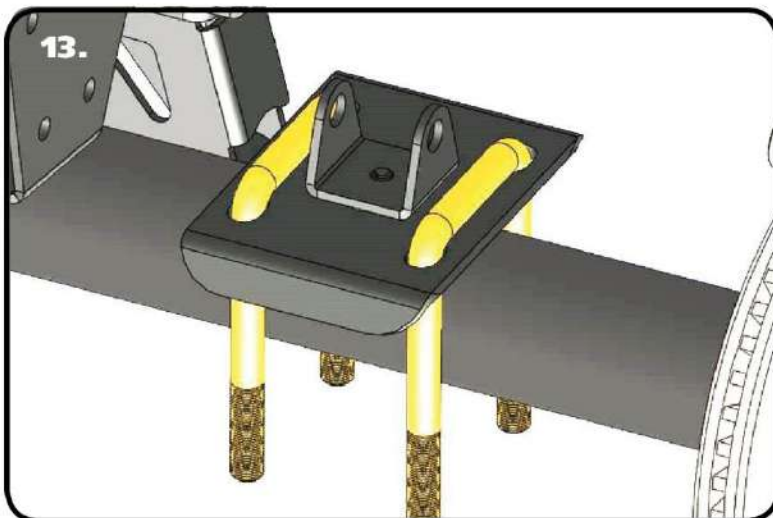




### Frame Mount & Axle Mount Installation



**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.

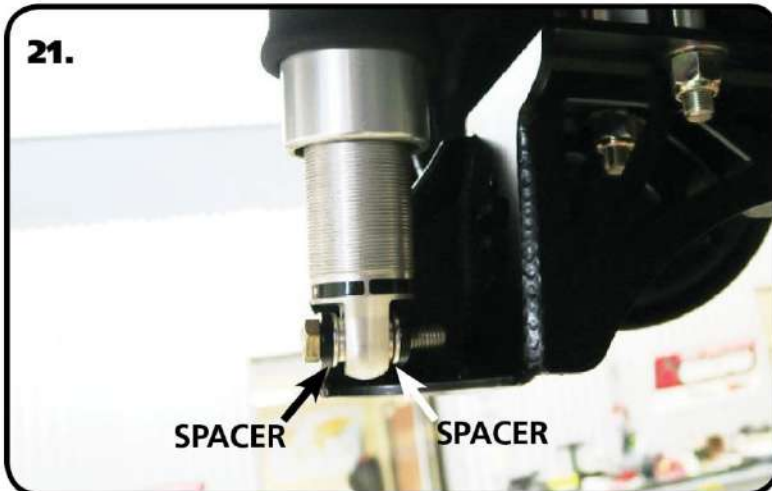


**20.** Insert a Spacer into each side of the upper Shockwave/CoilOver bearing. Slide the assembly into the upper shock mount. If your shock has an adjuster knob, position it so that the knob points toward the outside of the truck. Line up the hole in the spacers with the hole in the upper shock mount 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.

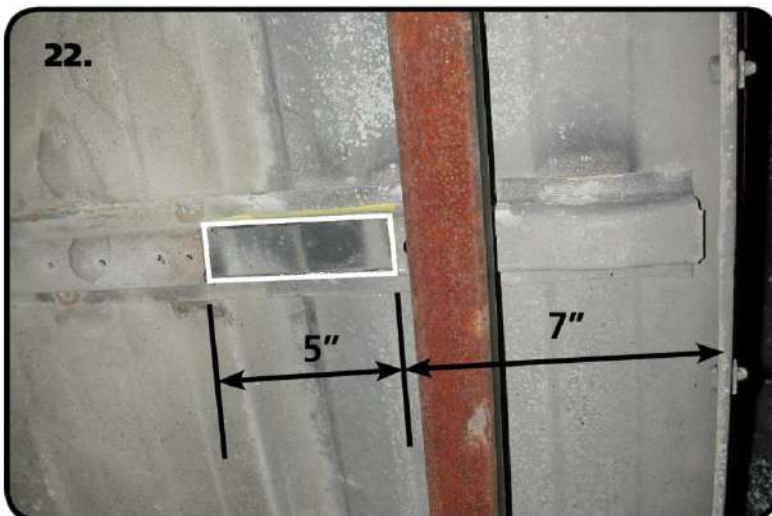
**Note:** If installing Shockwaves and you want to locate the air fitting in a different location, the air spring assembly can be rotated on the shock by grabbing the shock and air spring assembly by hand and spinning the shock in the air spring assembly.



### 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.

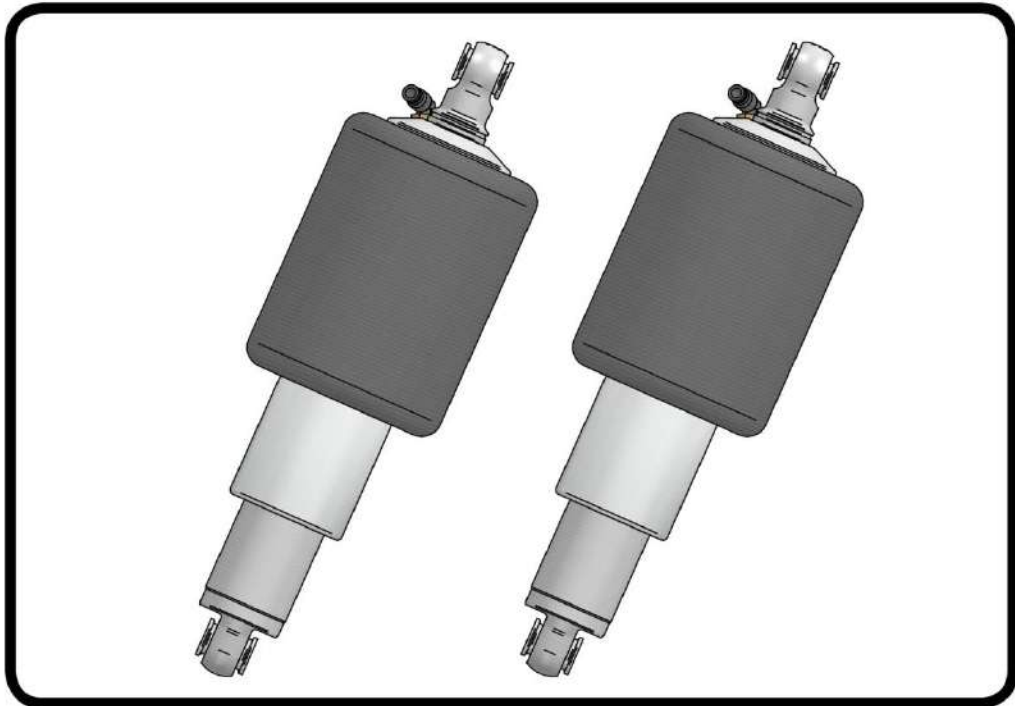
**24.** Set ride height on the truck. The ride height of the Shockwave/CoilOver is approximately 14 1/2". If you are using Shockwaves, this is done by changing the air pressure in the Shockwaves. If you are using CoilOvers, the ride height is done by using the adjuster nut for the coil spring. The coil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



### Part # 21150801 - 5.2" Stroke HQ Series Shockwave



#### Recommended Tools



## 8000 Series Bellow, Eye/Eye 5.2" Shock Installation Instructions

#### Table of contents

- Page 2..... Included components
- Page 3..... Notes and Care of Your Shockwave
- Page 4..... Shock Adjustment

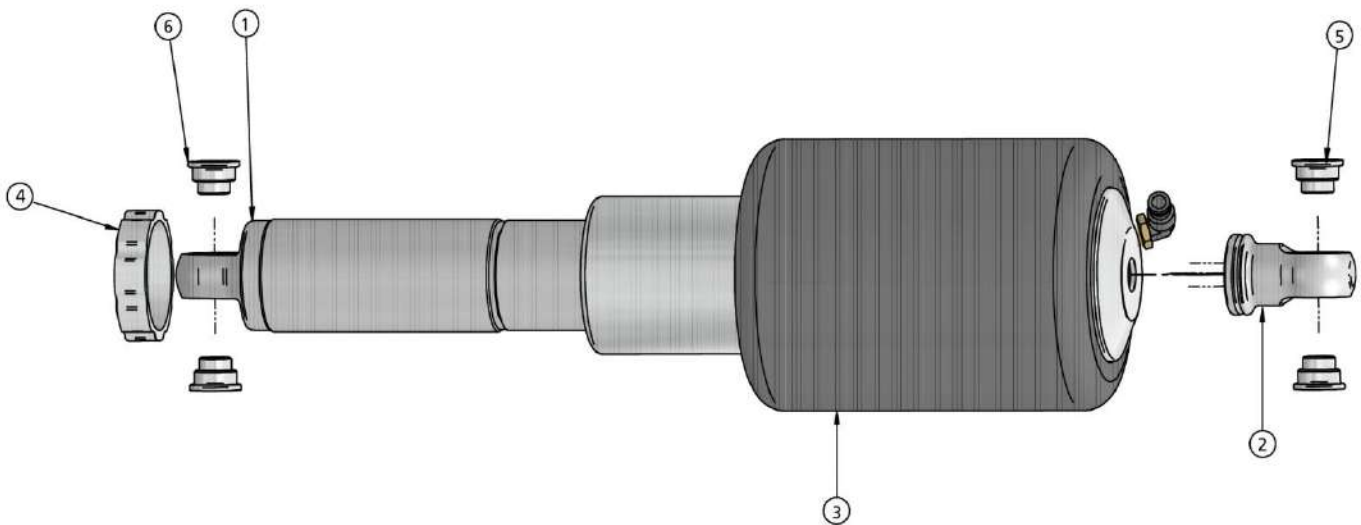
#### ShockWave Dimensions:

- 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	24159999	5.2" Stroke HQ Series Shock	2
2	90002024	Shock Eyelet	2
3	24090899	8000 Series, 5" Diameter AirSpring	2
4	70008193	AirSpring Locking Ring (Installed on Shock)	2
5	90002044	Spacer kit - 1/2" ID and 5/8" ID	4
	90001994	5/8" ID Bearing (installed in shock and eyelet)	4
	90001995	Bearing Snap Ring (installed in shock and eyelet)	8



**WARNING: ATTEMPTING TO REMOVE THE AIR FITTING WILL DAMAGE IT AND VOID THE WARRANTY.**



## Installation Instructions



### Notes and Care of your Shockwaves

#### NOTES:

**WARNING: ATTEMPTING TO REMOVE THE AIR FITTING WILL DAMAGE IT AND VOID THE WARRANTY.**

You can clock the airfitting location on the ShockWave by turning the AirSpring assembly of the shock. Make sure the fitting doesn't contact the frame.

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 than 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 soft setting of 20.



-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 20 clicks. This sets the shock at 20. (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. **CONTINUE ON NEXT PAGE.**

##### 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.**