

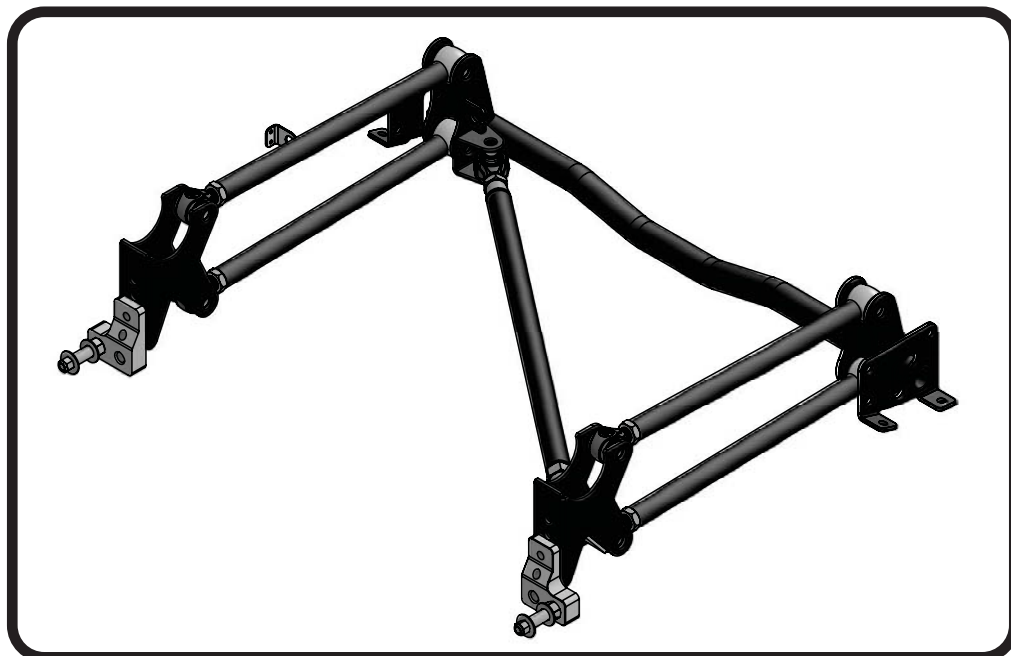


Installation Instructions

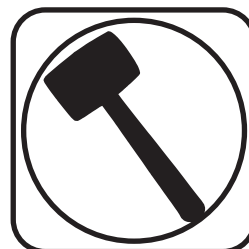
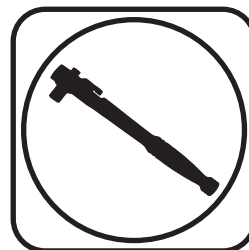


11027199 or 11037199

1955-1957 GM "B" Body Rear R-Joint Bolt-in 4 Link



Recommended Tools



1955-1957 GM "B" Body Rear Bolt-in 4-Link Installation Instructions

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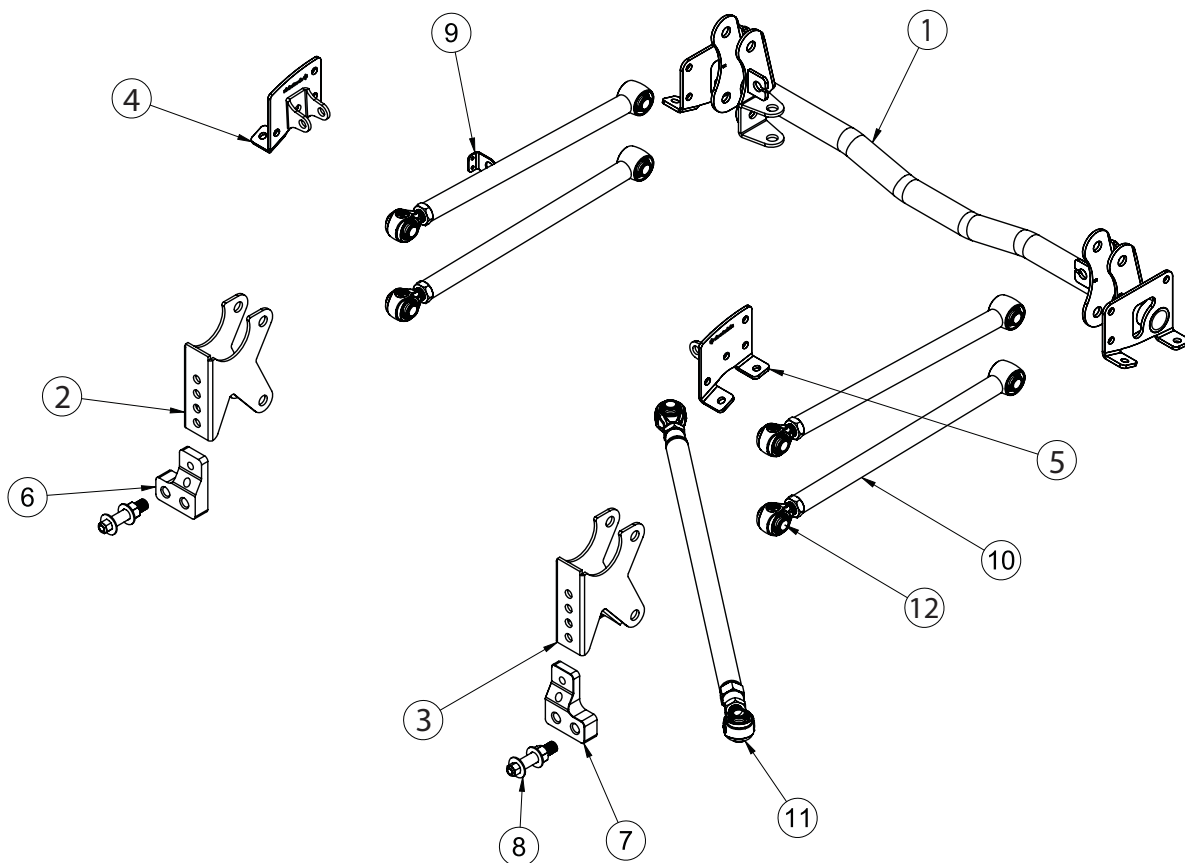
Major ComponentsIn the box

Item #	Part #	Description	QTY
1	90000556 or 90000557	One Piece Frame Front Cross Member (33.688") or Two Piece Frame Front Cross Member (35.125")	1 or 1
2	90000160	Lower Axle Bracket - Driver	1
3	90000558	Lower Axle Bracket w/Diagonal Bracket - Passenger	1
4	90000554	Upper Shock Mount - Driver	1
5	90000555	Upper Shock Mont - Passenger	1
6	90000550	Lower Shock Mount - Driver	1
7	90000551	Lower Shock Mount - Passenger	1
8	70002825	Lower Shock Stud	2
9	90000266	Brake Line Tab	1
10	90001432	Parallel Bars - 18.500" center to center	4
11	90002853	Diagonal Bar - 30.250" center to center	1
12	70013334	R-Joint Spacers	20
	90002067	Lower Shock Spacers	4
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
	90001318	RH R-Joint Threaded Housing End (installed in bars)	5
	90001319	LH R-Joint Threaded Housing End (installed in bars)	1
	99752004	RH 3/4"-16 Jam Nut (installed on bar ends)	5
	99752006	LH 3/4"-16 Jam Nut (installed on bar ends)	1

New R-Joints will be quite stiff (75-90 in/lbs breakaway torque) until they "break in" after a few miles of use. After the break in period they will move much more freely. Because the composite bearing race contains self lubricating ingredients, no additional lubrication is needed or desired. Any additional lubrication will only serve to attract more dirt and debris to the R-Joint and actually shorten its life.



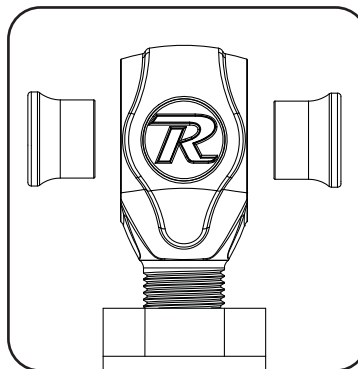
Major ComponentsIn the box



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.

ALL R-JOINTS



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Hardware ListIn the box (Kit# 99010019)

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	QTY	Part Number	Description
FRONT CROSS MEMBER MOUNTING			UPPER SHOCK MOUNTING		
10	99373007	3/8"-16 x 1" Thread Forming	10	99373007	3/8"-16 x 1" Thread Forming
10	99373005	3/8" Lock Washer	10	99373005	3/8" Lock Washer
4 LINK BARS			2	99501026	1/2"-13 X 2 1/4" Hex Bolt
8	99621020	5/8"-11 X 2 3/4" Hex Bolt	2	99502007	1/2"-13 Nylok Jam Nut
2	99621017	5/8"-11 x 3" Hex Bolt	SHOCK STUD		
10	99622008	5/8"-11 Nylok Jam Nut	2	99432002	7/16"-20 Nylok Nut
LOWER SHOCK MOUNT			2	99433002	7/16" SAE Flat Washer
4	99501020	1/2"-20 X 3/4" Hex Bolt	2	99623004	5/8" SAE Flat Washer
BRAKE LINE BRACKET					
2	99101009	#10 x 3/4" Tek Screw			

Getting Started.....

Congratulations on your purchase of the Ridetech Rear 4-link System. This system has been designed to give your Tri-5 excellent handling along with a lifetime of enjoyment. This kit replaces the Leaf Springs, this allows the 4-Link to locate the rearend and the CoilOvers/ShockWaves to support the car. This allows each to be optimized for the best performance.

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

This kit requires welding of the axle mounts to the differential. The front cross member and shocks mounts can also be welded in if you prefer.

1. Raise the vehicle to a safe and comfortable working height. Use jack stands to support the vehicle with the suspension hanging freely. You will need a method of raising and lowering the differential.
2. Support the axle and remove the leaf springs, shocks, bump stops, pinion snubber and tail pipes. Refer to the factory service manual for proper disassembly procedures.



Frame Rail Variations

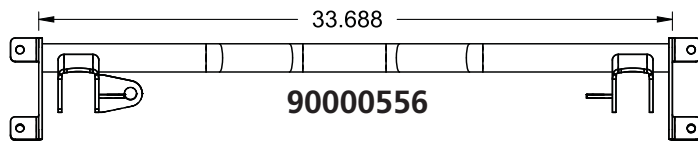
1 Piece Frame - Kit 11027199



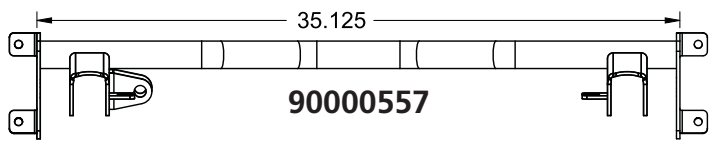
2 Piece Frame - Kit 11037199



1 Piece Frame Crossmember

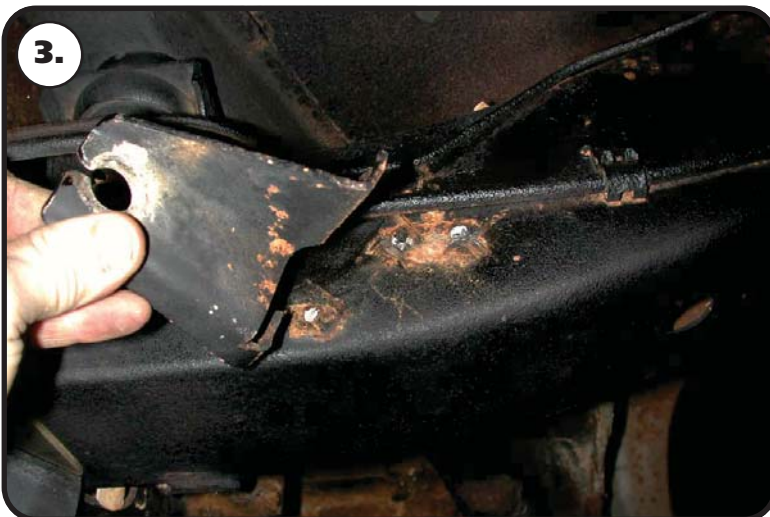


2 Piece Frame Crossmember



Note: The 55-57 Chevy has 2 different frame variations. The 2 piece frame has a weld seam along the bottom. 1 piece frame has no weld seam. If your car has a 1 piece frame, you need kit 11027199. If your car has a 2 piece frame, you need kit 11037199. The only difference between the 2 kits is the front crossmember. Each frame has a different measurement in the area the front crossmember bolts up. The 1 piece frame is 33 11/16", 2 piece frame is 35 1/8".

Cradle Installation



3. The parking brake brackets will be in the way of the 4 link and must be removed. Loosen the parking brake adjustment nut and remove the cable from the frame bracket. The tack weld can be broke loose with a hammer and chisel. Grind the remains of the weld smooth.



Cradle Installation



4. The rear brake line bracket on the passenger side frame rail must also be removed.



5. The front cross member will butt up against the body mount.



6. Use a couple clamps to secure the crossmember between the frame rails. Slide it forward to the edge of the body mounts. Drill the holes with a 5/16" bit and thread the 3/8" x 1" self-tapping bolts in one at a time.

Do not over tighten the self-tapping bolts; they can be stripped.



Upper Shock Mount Installation & Positioning Axle



7. The location of the upper Shockwave mount is determined by measuring from the front edge of the bracket to rear edge of the large hole in the bottom of the frame. The location of the large locating hole varies between the 1 piece frame and 2 piece frame. Use the correct measurement from below to locate your shock mount.

1 piece frame = 20 1/4"

2 piece frame = 14 1/2"



8. Use a clamp to hold the bracket against the inside of the frame and drill the holes with a 5/16" bit. Thread a 3/8" x 1" self-tapping bolt into the frame after drilling each hole.

Note there is a driver and passenger side bracket and are stamped accordingly. When using the correct bracket the Shockwave will perpendicular with the ground.



9. Pinion angle must be set at ride height. At ride height there should be 4 1/2" between the axle and frame. One trick to help maintain these setting while welding in the axle bracket is to tack weld a 4 1/2" long spacer between the axle and frame. **Refer to Page 8 for pinion angle setting.** After setting the pinion angle, make sure the axle is centered. This can be done by measuring from the axle flange in to the frame rail.



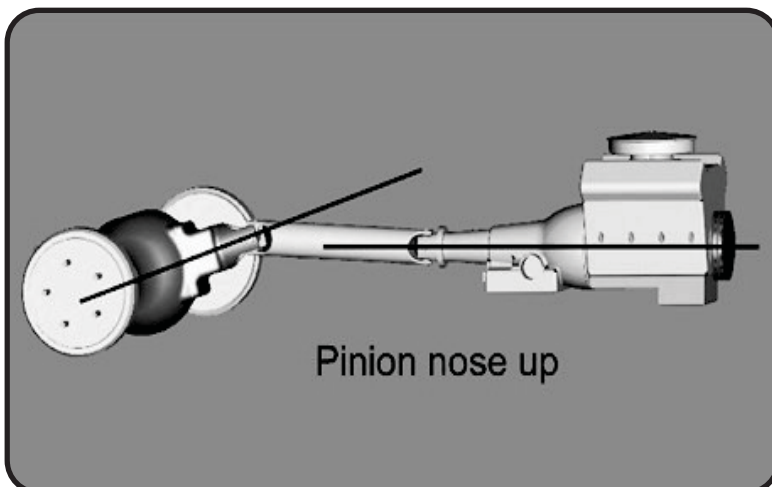
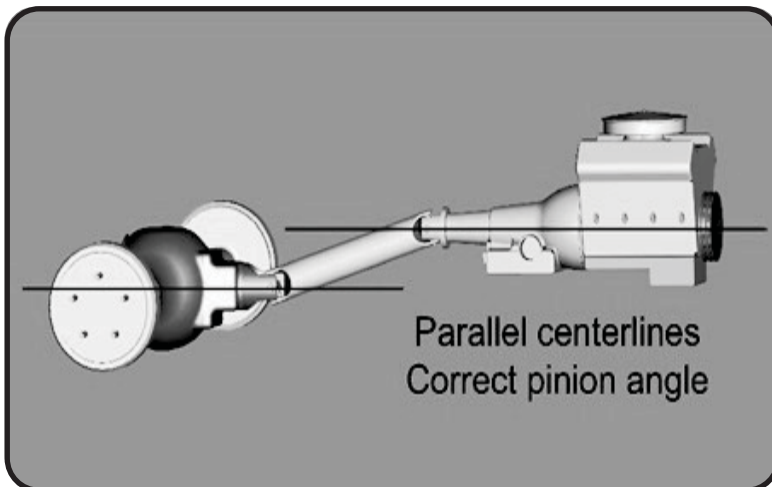
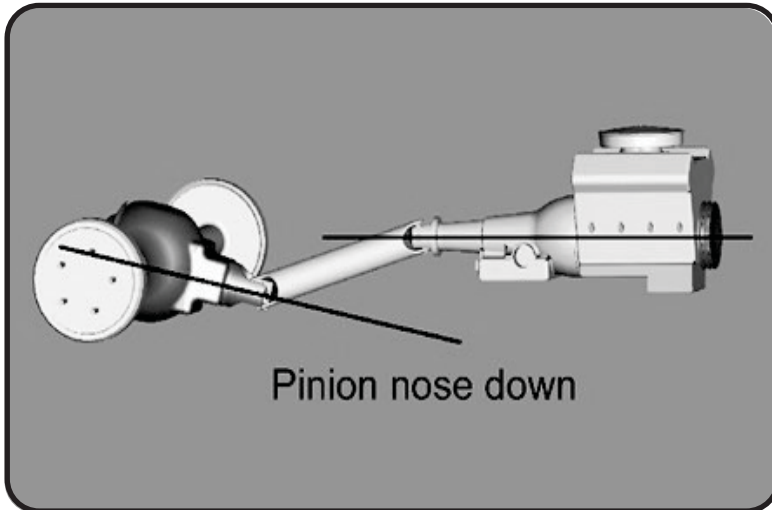
Setting Pinion Angle

How do you set the pinion angle? On a single-piece shaft you want to set it up where a line drawn through the center of the engine crankshaft or output shaft of the transmission and a line drawn through the center of the pinion are parallel to each other but not the same line.

Your transmission angle should be around 3 degrees down in the rear. If it is more or less than 3 degrees, you might want to consider changing it. Too little angle on the transmission reduces the amount of oil getting to the rear bushing. Too much transmission angle will increase the working angles of the u-joints which will increase the wear. With the transmission at 3 degrees down in the rear, you will want to set the pinion 3 degrees up in the front.

A simple way to do this is to place a digital angle finder or dial level on the front face of the lower engine pulley or harmonic balancer. This will give you a reading that is 90 degrees to the crank or output shaft unless you have real problems with your balancer. At the other end, you can place the same level or angle finder against the front face of the pinion yoke that is also at 90 degrees to the centerline. If you rotate the yoke up or down so both angles match, you have perfect alignment.

Road testing will tell you if you have it right. If you accelerate and you get or increase a vibration, then the pinion yoke is too HIGH. Rotate it downward in small increments of a degree or two until the problem goes away. If you get or increase a vibration when decelerating, then the pinion yoke is too LOW. Rotate it upward to correct it.

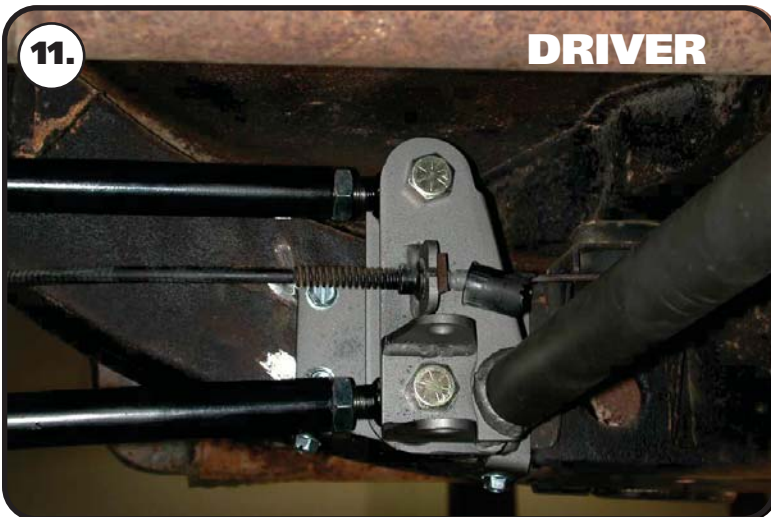




Emergency Brake Cable & Bar Installation



10. Reattach the emergency brake cables to the mounts built into the front cross member.



11. Insert the R-Joint spacers into the R-joint with the small OD inserted into the R-Joint center pivot. Install the 4 link bars into the crossmember. Use the 5/8" x 2 3/4" bolts and nyloks supplied in the mounting holes that don't have a diagonal bar mount. The holes that have a diagonal link bar mount use a 5/8" x 3" bolt and nylok. Tighten the bolts/nuts enough to eliminate any gaps. Check the length of the bars; they should be 18 1/2" center to center.



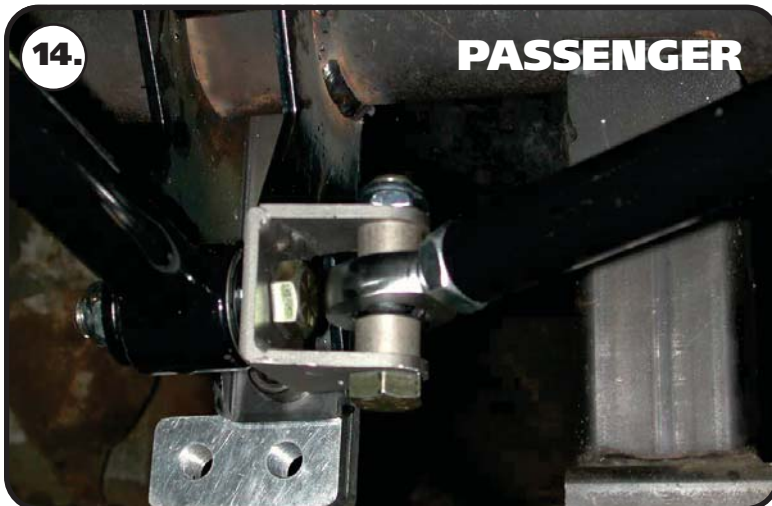
12. There is a driver and passenger side bracket. ***The passenger side bracket has the diagonal link bracket welded to it.*** Insert the R-Joint spacers into the R-joint with the small OD inserted into the R-Joint center pivot. Install the 4 link bars into the axle mounts. Use the 5/8" x 2 3/4" bolts and nyloks supplied in the mounting holes that don't have a diagonal bar mount. The holes that have a diagonal link bar mount use a 5/8" x 3" bolt and nylok. Tighten the bolts/nuts enough to eliminate any gaps.



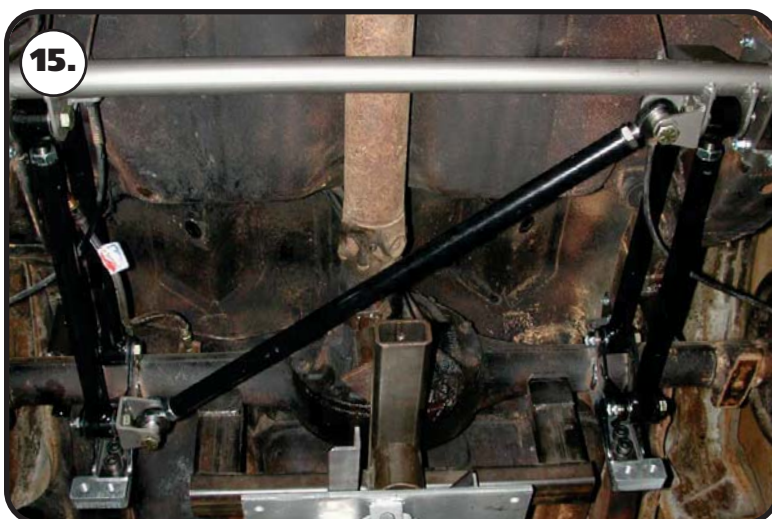
Installing Diagonal Bar & Attaching Axle Mounts



13. Insert the R-Joint spacers into the R-joint with the small OD inserted into the R-Joint center pivot. Bolt the diagonal link into the mount on the cross member using a 5/8" x 2 3/4" bolt and nylok. It should measure 30 1/4" center to center. Tighten the bolts/nuts enough to eliminate any gaps.



14. Insert the R-Joint spacers into the R-joint with the small OD inserted into the R-Joint center pivot. Bolt the diagonal link into the mount on the passenger axle mount using a 5/8" x 2 3/4" bolt and nylok. Tighten the bolts/nuts enough to eliminate any gaps.



15. Swing the axle bracket up to the axle. These brackets must be centered and aligned with the crossmember mounts before welding. The brackets should be 31 5/8" apart on the outside measurement. Then just center it between the axle flanges. You can use a large hose clamp to hold these in place temporarily.

Tack weld the bracket to the axle. Double-check axle center, bracket alignment, and pinion angle. Remove the bars to avoid frying the bushings. Then finish welding the bracket 1" at a time in different spots to avoid warping the axle.



Lower Shock Mounts & Shockwaves/Coilovers Install



16. Bolt the lower Shockwave mount to the axle bracket using (2) 1/2"-20" x 3/4" hex head bolts. The mount offsets the lower shock stud to the outside of the car. Attach the mount to the **2 BOTTOM** holes of the axle mount. Torque the bolts to 75 ft-lbs.

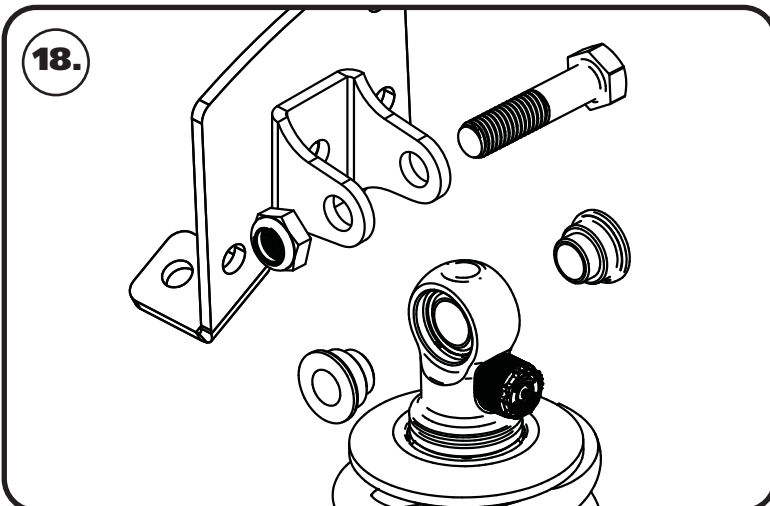
Image 16 shows the Passenger side.



17. Installing the shock stud into the outer hole of the lower mount. Install a 5/8" flat washer onto the 5/8"-18 threads of the shock stud. Apply Red Loctite to the 5/8" threads of the stud. Thread the shock stud into the threaded hole of the lower mount. Repeat on both sides and torque the shock stud to 65-75 ft-lbs.

Image 17 shows the Passenger side.

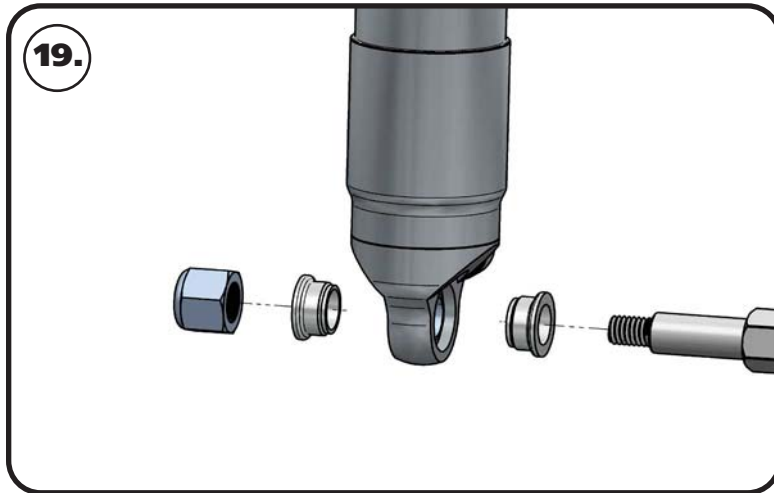
Remove the Spacer from between the Axle and Frame.



18. Install a 1/2" ID 90002043 spacer on each side of the upper Coilover/ShockWave. Slide the assembly into the upper crossmember from the bottom side. Position the adjuster knob so that the knob points toward the center of the car. Line up the hole in the spacers with the hole in the upper shock bridge and insert 1/2"-13 x 2 1/4" bolt and install 1/2"-13 thin nylok nut. Torque to 21 ft-lbs.



Installing Shockwaves/Coilovers



19. Install a 5/8" ID 90002067 spacer (**Small side towards shock body**) onto the lower Shock Stud. Slide the bottom of the Shock onto the Stud. Install a second 5/8" ID 90002067 Spacer onto the Stud (**small side towards shock**). You may need to jack the rearend up to Slide the Shock onto the Stud. Install the 7/16" Flat washer and 7/16" Nylok nut. Tighten the upper and lower shock bolts. Torque the Upper Bolt to 55 ftlbs and the Lower Nut to 40 ftlbs. The designed ride height of the CoilOver/ Shockwave is 12 1/2" center to center.

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 air spring assembly by hand and spinning it on the shock.