

Part # 11370298 88-98 C-1500 Air Suspension System

Front Components:

1 11370501 HQ Series Front Shock Kit w/ Mounts 1 11373699 Front Upper StrongArms 1 11371499 Front Lower StrongArms 1 11379100 Front MuscleBar	1	11370999	Front CoolRide Kit for Stock StrongArms
1 11371499 Front Lower StrongArms	1	11370501	HQ Series Front Shock Kit w/ Mounts
ŭ	1	11373699	Front Upper StrongArms
1 11379100 Front MuscleBar	1	11371499	Front Lower StrongArms
	1	11379100	Front MuscleBar

Rear Components:

1	11376799	Rear AirBar
1	11370801	HQ Series Rear Shocks
1	11379102	Rear MuscleBar



Part # 11370999 88-98 C-1500 Front CoolRide For Use w/ Lower StrongArms

Components:

2	90006873	224c air springs
2	90000024	Upper air spring cup (Tall)
2	90001083	Medium bump stop

Hardware:

2	99435002	7/16" x 8" stud	Upper cup to frame
2	99432001	7/16" USS Nyloc nut	Upper cup to frame
2	99433002	7/16" SAE flat washer	Upper cup to frame
2	99371001	3/8 x 3/4 USS bolt	Air spring to lower bracket
4	99372002	3/8" USS Nyloc nut	Air spring to upper cup
6	99373003	3/8" SAE flat washer	Air spring mounting
2	99373005	3/8" lock washer	Air spring to lower cup



*** Must Use RideTech Front Shock Kit ***



1. Apply thread sealant to the air fitting and screw it into the air spring.
Assemble the upper cup bracket to the air spring, using 3/8" Nylok nuts and flat washers. Thread the 8" stud into nut welded to the bottom of the cup.



2. Place the assembly up into the upper coil spring pocket; the stud will go though the factory shock hole. Fasten with a 7/16" Nylok nut and flat washer.

Note: The airline must also be routed at this time.

3. Fasten the bottom of the air spring to the lower StrongArm using a 3/8" x 3/4" bolt, lock washer and flat washer.



- 4. Make sure the air spring does not rub on anything through full suspension travel. This will damage the air spring and is not a warrantable situation. Although it is acceptable to allow it to touch the lower control arm when fully deflated.
- 5. The final step is to have the vehicle realigned. You will want to have this done at ride height. Ride height is determined by air spring height. This spring should be approximately 4 3/4" tall, which should occur around 85-100 psi. This will vary to driver preference and vehicle weight.



Part # 11370501 88-98 C-1500 Front HQ Series Shock Kit

For Use w/ CoolRide

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	90000437	Drivers Side upper shock bracket
1	90000438	Passengers Side upper shock bracket
2	90000471	Aluminum shock spacer
2	90001619	Shock stud

Hardware:

6	99371004	3/8" x 1-1/4" USS bolt	Upper shock mount to frame
6	99372002	3/8" USS Nylok nut	Shock mounting
12	99373003	3/8" SAE flat washer	Shock mounting
4	99372006	3/8"- 24 Thin Jam Nut	Upper Shock Stud





1. The large hole in the bracket will align with large hole in the frame. Using the bracket as a template, drill the remaining holes in the frame. Use 3/8" x 1 1/4" bolts, Nylok nuts and washers to secure the bracket. The inside of the frame can be accessed from the coil spring pocket to install the nuts.

Note: This bracket must be mounted BEFORE installing the air spring.



- 2. Drill a 5/8" hole in the rear leg of the lower control arm approximately 8 ½" from the mounting bolt. This can be moved slightly to achieve maximum tire clearance. Check tire clearance lock to lock. If using Strong Arms there is a tab for the shock.
- 3. Attach the shock to the upper mount as shown in the picture.
- 4. Push the shock stud through the lower shock eye and aluminum spacer. Then through control arm and fasten with supplied nut.

This picture is shown with the optional StrongArm installed.



Part # 11373699 88-98 C1500 Front Upper StrongArms

1	90000433	Driver side upper arm
1	90000434	Passenger side upper arm
2	90000900	Ball joint (include boot, grease fitting, castle nut & cotter pin)
8	70010759	Delrin bushings half
4	90001097	Inner bushing sleeve

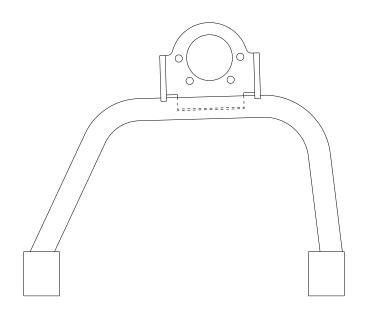




- 1. After removing the factory upper control arm, clean the bushing mounting surfaces on the frame.
- 2. Drop ball joint down through upper arm. Fasten w/ the hardware supplied.
- 3. Bolt the arm to the frame using the factory camber bolts.

Note: The truck must be realigned before driving.

88-98 C1500 Driver Side Upper Strong Arms

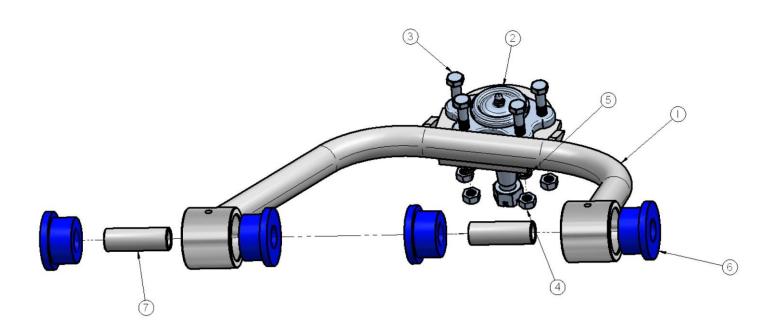


- 4. Slide the rubber boot over the ball joint stud, the push the stud through the spindle, secure w/ the new castle nut and cotter pin.
- 5. Secure the brake line and ABS harness to the upper control arm. Allow enough slack for full suspension travel.

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Item #	Description	Qty.
1.	Passenger side arm	1
1.	Driver side arm	1
2.	Ball joint	2
3.	5/16"-24 x 1.5" hex bolt	8
4.	5/16"-24 hex nut	8
5.	5/16" lock washer	8
6.	Delrin bushing half	8
7.	Inner bushing sleeve	4





Part # 11371499 88-98 C1500 Front Lower StrongArms

For Use w/ CoolRide

1	90000439	Driver side lower arm
1	90000440	Passenger side lower arm
2	90000897	Ball joints
8	70010759	Delrin bushing half
2	90000198	Inner bushing sleeve – 3" long
1	90000199	Inner bushing sleeve – 3.5" long





- 1. After removing the factory lower control arm, clean the bushing mounting surfaces on the frame.
- 2. Fasten the lower arm to the frame using the factory hardware.

Note: On some trucks the frame brackets may be pinched and will need to be spread back apart to allow bushing to slide in.

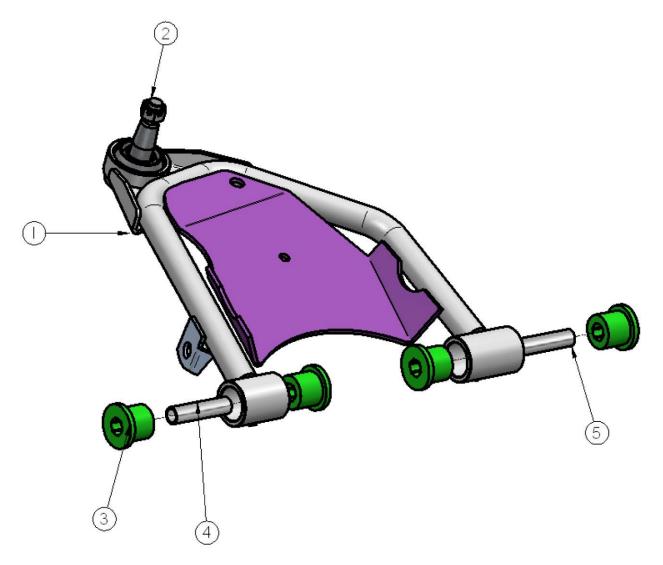


- 3. Slide the ball joint boot over the stud, then push the stud up through the spindle. Secure w/ the new castle nut and cotter pin supplied.
- 4. Attach to the air spring & shock to the lower arm using the hardware supplied w/ those kits.
- 5. Screw the Zerk fitting into the ball joint and grease.



88-98 C-1500 CoolRide <u>Driver</u> Side StrongArm

Item #	Description	Qty.
1.	Driver side arm	1
2.	Ball joint	1
3.	Delrin bushing half	4
4.	Inner bushing sleeve – 3"	1
5.	Inner bushing sleeve – 3.5"	1
6.	Grease fitting	2





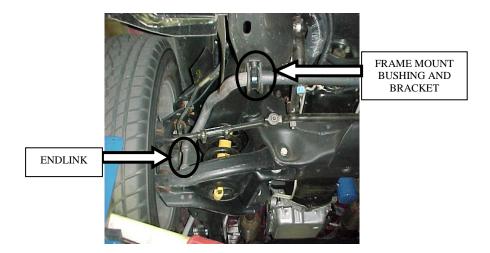
Part # 11379100

88-98 C-1500 Front MuscleBar

1	90001762	Sway	bar

- 1 90001763 Hardware Kit (Includes the following)
 - 1 End Link Set
 - 8 End link bushing
 - 2 End link spacer
 - 2 End link bolts
 - 2 End link nuts
 - 8 Washer
 - 2 1 7/16" Frame bushing
 - 2 Frame bracket
 - 1 Grease pack

FRONT SWAY BAR REMOVAL



- 1. Remove end links from each side of the vehicle.
- 2. Support the stock sway bar and remove the brackets that attach the bar to the frame.
- 3. Remove the bar.
- 4. Spread a light coat of supplied grease onto the frame mount bushings I.D. and install on the bar with the slit side of the bushing facing to the front. Install the brackets over the bushings.
- 5. Attach the front sway bar brackets and bar. Torque to 20ft. lbs.

Install the supplied end links. Torque to 13ft. lbs.



Part # 11376799 88-98 C1500 AirBar

2	90009100	Air spring
2	90001617	Shock stud
2	90000119	Mounting plate – air spring to lower arm
2	90001082	Short bump stop
1	90000190	Carrier bearing spacer
1	90000494	Panhard bar axle mount (with stud pressed in)
1	90000487	P/H bar stud (pressed into 90000494)
2	90000967	Upper bars – TW 19.75" (c-c 21.50")
2	90001036	Lower bar – WW 32.25"
1	90000964	Panhard bar – TW 19.25" (c-c 21.00")
3	90001584	Rod end
4	90001085	Poly bushing half
2	90001094	Inner sleeve for lower bar
8	90001942	Rubber bushings pressed into bar ends
1	90000485	Front upper bar frame bracket
1	90000486	Front upper bar frame bracket
1	90000488	C-Notch – Driver side
1	90000489	C-Notch – Passenger side
1	90000491	Upper bridge assembly
1	90000492	Lower bridge assembly
2	90000493	Upper axle bracket
1	90000490	Brake line bracket
1	99010013	Hardware kit (see following page)



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C-notch, Upper bridge, & upper bar mount

Panhard bar axle mount & brake line bracket

Panhard bar axle mount

Brake Line Bracket

Brake Line Bracket

Panhard bar to bracket

Panhard bar to bracket

Air Spring to mounts

Air Spring to mounts

		7 11 3 7 11
44	1/2 USS Nyloc Nuts	C-notch, Upper bridge, & upper bar mount
88	½ SAE Flat washers	C-notch, Upper bridge, & upper bar mount
8	5/8 x 6 ½ SAE Gr.8 Bolts	Lower Bridge
8	5/8 SAE Gr. 8 Nyloc Nuts	Lower Bridge
16	5/8 SAE Gr. 8 Flat washers	Lower Bridge
7	5/8 x 2 3/4 SAE Gr. 8 Bolts	Bar to bracket
7	5/8 SAE Gr.8 Thin Nyloc nuts	Bar to bracket
2	3/8 x 2 1/2 USS Bolts	Carrier bearing bracket
2	3/8 USS Nyloc nuts	Carrier bearing bracket
8	3/8 SAE Flat washers	Carrier bearing bracket & Air Spring to mounts
2	1/2 x 2 1/2 USS bolts	Lower Shock mount
2	½ USS nyloc nuts	Lower Shock mount
3	5/16 x 2 USS Bolts	Panhard bar axle mount

Hardware Kit: Part # 99010013

½ x 1 ½ USS bolt

5/16 SAE Flat washers

5/16 Lock washers

5/16 x 1 1/4 USS Bolt

5/16 USS nyloc nut

7/16 USS Nyloc nut

3/8 x 1 USS Bolts

3/8 Lock washers

½ x 1 ½ Fender Washer

44

5

3

1

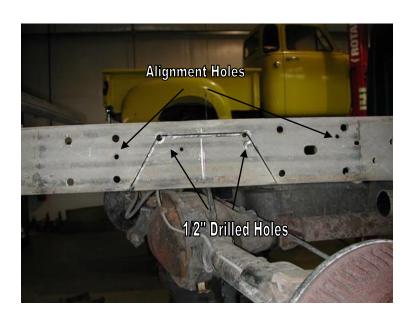
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- 1. Raise vehicle to a safe and comfortable working height supported by jack stand. Let the suspension hang freely.
- 2. Remove bed mount bolts, gas filler neck, and all electrical wires. Safely lift bed from frame.
- 3. Remove the leaf springs and shocks while supporting axle.
- 4. The exhaust will need to be removed from the muffler rearward. The exhaust can either be rerouted when installation is complete or a turndown may be installed.

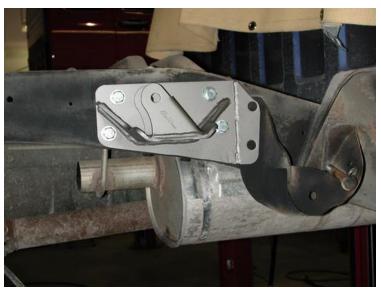


- 5. Hold the C-notch template up to the frame. It will index off two small holes in the frame, one in front of the notch and one behind. Scribe the cutout in the frame.
- 6. Drill one 1/2" hole in each of the top corners of the notch as shown. This will give a round corner instead of a sharp corner to reduce stress points and eliminate the possibility of a fracture.



7. SUPPORT THE REAR PORTION OF THE FRAME BEFORE CUTTING!

- 8. Cut the notch out with a sawzall or plasma cutter. Watch for the fuel tank and any wires or hoses.
- 9. Slide notch onto frame and align with index holes. Drill holes in frame and fasten with 1/2" x 1-1/2" bolts nylocs and washers.
- 10. Place bump stop through the hole in the center of the notch and fasten with supplied nyloc and washer.



- 11. Align upper bar frame bracket with the rivets in the leaf spring hanger. Drill one hole and fasten with 1/2" x 1-1/2" bolts, washers, and nylocs. Then drill remaining holes and tighten all bolts.
- 12. Watch for brake lines, fuel lines, and wiring harness.



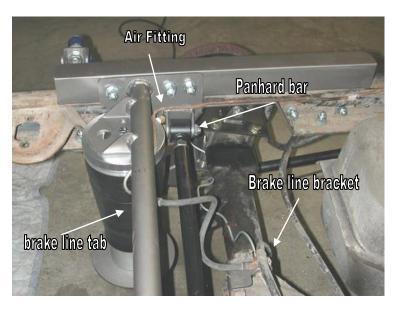
- 13. Clamp the lower bridge to the axle using the upper frame brackets and 5/8" x 6 1/2" bolts supplied. It will be clocked with the leaf spring alignment pin hole and the Allen head bolt in the upper axle bracket.
- 14. Attach the lower bar (the longer one) to the bridge and frame bracket. Use 5/8" x 2 3/4" bolt supplied for upper bar and factory bolt for lower bar.



15. The upper bar will attach to the upper axle bracket and to the frame bracket. It will use 5/8" x 2 3/4" bolts on both ends.



- 16. Fasten the shock stud to the notch and then slide shock onto stud.
- 17. The shock will attach to the lower bridge using a 1/2" x 2 1/2" bolt and nyloc.



- 18. Bolt in the upper bridge between the frame rails attaching to the C notch. Use 1/2" x 1 1/2" bolts supplied.
- 19. Apply a tread sealant to the air fitting and tighten to snug in air spring. Place lower plate onto lower bridge then air spring and secure with 3/8" x 1" bolt. The air spring will attach to the upper bridge also using a 3/8" x 1" bolt.
- 20. The brake flex line will attach to the hard line with the tab on the upper bridge



- 21. Remove 3 bolts from the axle cover and attach panhard bar mount as shown. Use the 5/16" x 2" bolts that are supplied.
- 22. Attach the brake line bracket to the axle cover as shown. Bolt brake lines to bracket.
- 23. Slide panhard bar on stud and secure with nut and washer. The other end of the panhard bar will attach to the upper bridge.



24. Install carrier bearing spacer between carrier bearing housing and cross member. Secure with 3/8" x 2 1/2" bolts.



25. The brace on the bottom side of the bed will need to be removed for C notch and axle clearance. This is best done with a cutoff wheel. Double check clearance with axle and notch when fully deflated.



- 26. Set the bed back on the frame and reassemble. After tightening bolts check axle, C-notch, and wheel clearance. Note that the axle will shift slightly from side to side through suspension travel. Also check brake lines, vent tube, and airlines for proper slack.
- 27. Make sure nothing can touch the air spring at any time through full suspension travel.
- 28. This air spring should be approximately 10.5" tall at ride height.



Part # 11360801 73-87 Chevy C10 Rear HQ Series Shock Kit

For Use with AirBar

Shock:

2	22969999	HQ Smooth Body Shock Cartridge
4	70011138	3/4" ID Shock Bushing
4	90002103	5/8" ID Shock Sleeve



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Part # 11379102 88-98 C-1500 Rear MuscleBar

1 90001764 Rear Sway b

- 1 90001765 Hardware Kit (includes the following)
 - 2 7/8" Sway bar bushing
 - 2 Sway bar axle clamp
 - 2 Axle bracket
 - 2 End link w/ hardware
 - 2 Frame mount w/ hardware
 - 2 3" U-bolt
 - 1 Grease pack

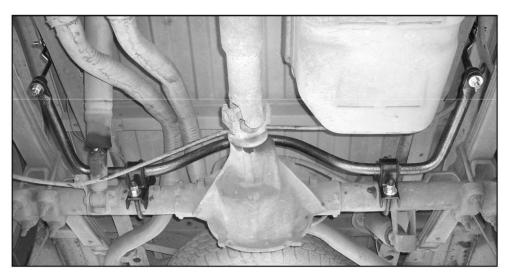


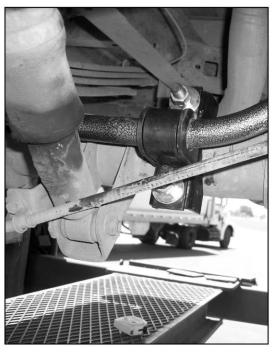
Rear Sway Bar Installation

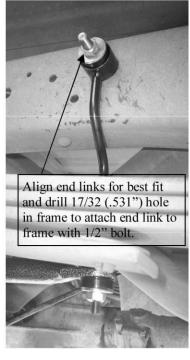
INSTALLATION INSTRUCTIONS

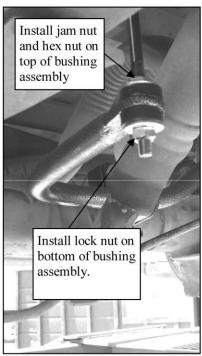
1988-98 C/K 1500-2500-3500 Single Wheel Rear Stabilizer Bar

Thank you for purchasing a quality Hellwig Product.









5/30/2008



TORQUE TABLE

Bolt Size 3/8"—25 ft lbs * Bolt Size 7/16"—35 ft lbs * Bolt Size 1/2"—55 ft lbs

SAFETY: BEFORE BEGINNING INSTALLATION BE SURE TO SET THE PARKING BRAKE AND CHOCK THE WHEELS.

NOTE: TO EASE INSTALLATION AND PROPERLY ADJUST THE BAR, THE WEIGHT OF THE VEHICLE MUST BE ON THE SUSPENSION AS IF DRIVING DOWN THE ROAD. DO NOT RAISE THE VEHICLE BY THE FRAME.

- 1. Lubricate the D-bushings and place them onto the straight areas of the bar on each side of the center hump as shown in the photos.
- 2. Position sway bar on axle as shown in photos and locate the position on the axle tubes to mount the ubolts. Be sure to put the U-Bolts Under Any Brake Lines, Wires or Hoses on the Axle to Avoid Any Possible Damage.
- 3. Place saddle brackets onto the U-Bolts on the axle tubes. Place the U-Plates over the D shaped bushings on the bar and attach the sway bar to the U-Bolts and saddle brackets with the flat washers and locknuts provided. LEAVE LOOSE AT THIS TIME to allow for adjustment later.
- 4. Assemble end links by installing the hourglass bushing and then the spacer into the loop of the end link. Lubricate bushing and spacer before assembly.
- 5. Assemble bushings, washers and nuts on end link as shown in photos. The lock nut is installed on the bottom of the end link bushing assembly. Adjust jam nut and hex nut on upper portion of end link to raise or lower assembly to align arms of sway bar to be as parallel with ground as possible.
- 6. Tighten lock nut on bottom of end link until bushings begin to bulge slightly. Tighten jam nut against upper hex nut to lock adjustment.
- 7. Align end links for best fit as shown in photos so that end links are perpendicular to the sway bar and the arms of the sway bar are parallel with the ground. When satisfied with the location and alignment of the end links, mark location of holes for the end links on frame rail.
- 8. Drill a 17/32 (.531) hole in the frame at marked locations. **BEFORE DRILLING ANY HOLES IN THE** RAIL—RELOCATE AND/OR PROTECT FUEL TANK AND ANY WIRES, FUEL, OR BRAKE LINES THAT MAY INTERFERE WITH THE DRILL BIT OR SWAY BAR INSTALLATION.
- 9. Attach end links to hole in frame rail using the 1/2" X 2-1/2" bolt, washers and 1/2" locknut. Install bolt through end link with a flat washer mounted to the inside of the frame rail and the outside of the bushing. Tighten to 60 ft-lb.
- 10. Adjust sway bar on axle so that there is at least 1/2" clearance between the bar and the axle. Ensure adequate clearance between the sway bar and all shock absorbers, brake lines, hoses, cables and electrical connections. When all clearances are confirmed, tighten U-bolts to 30-35 ft-lb. Double nut and tighten.
- 11. Bounce vehicle and check for clearance on all undercarriage components. Recheck installation, look for clearance on gas lines, exhaust pipes, brake lines, wiring, etc.
- 12. Drive vehicle for a few miles, then recheck for position and tightness, readjust and retorque as needed. Then recheck periodically thereafter.