ridetech : Installation Instructions



Part # 11362699 - 1973-1987 C10 StrongArms



Recommended Tools





1973-1987 C-10 StrongArms Installation Instructions

Table of contents

- Page2.......Included componentsPage3.......Upper Control Arm ComponentsPage4.......Lower Control Arm ComponentsPage5.......Hardware List and Getting StartedPage6.......Installing Upper Control Arm MountPage7Installing Upper Control Arm Mount
- Page 7...... Installing Upper Control Arm Mount and Upper Arm
- Page 8..... Caster Explained
- Page 9..... Offset Upper Cross Shaft
- Page10..... Installing Upper and Lower Control Arm
- Page11..... Installing CoilOver Assembly
- Page12..... Finishing and Alignment
- Page13..... Crossmember Trimming Template







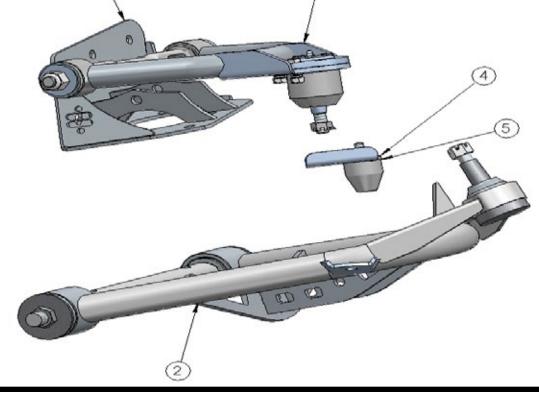


Major ComponentsIn the box

(3

ltem #	Part #	Description	
1	90002388	Driver Upper Control Arm	1
1	90002389	Passenger Upper Control Arm (Not Shown)	
2	90002384	Driver Lower Control Arm	1
2	90002385	Passenger Lower Control Arm (Not Shown)	1
3	90002386	Driver Upper Control Arm Mount	1
3	90002387	Passenger Upper Control Arm Mount (Not Shown)	1
4	90000726	Driver Bumpstop Plate	1
4	90000727	Passenger Bumpstop Plate (Not Shown)	1
5	90001083	Bumpstop	2
	90002062	Coilover Spacers (Not Shown)	8

Driver Side Shown

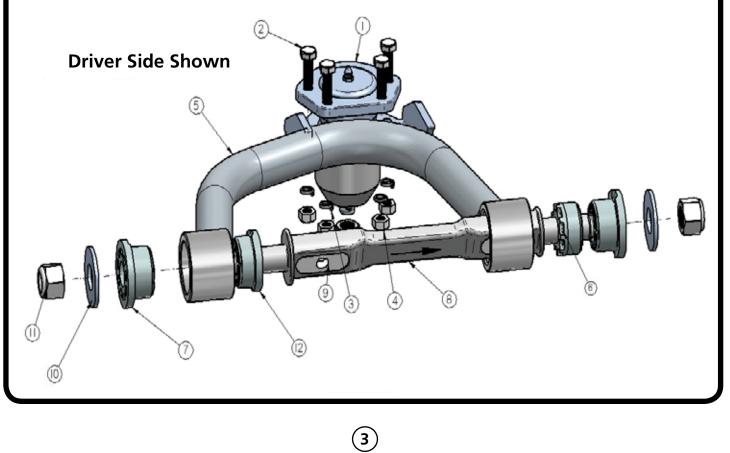






Upper Control Arm ComponentsIn the box

ltem #	Part Number	Description	QTY
1	90000910 Kit	Upper Balljoint Assembly	2
2	90000910 Kit	5/16"-24 x 1"Hex Head Bolt	8
3	90000910 Kit	5/16" Lockwasher	
4	90000910 Kit	5/16"-24 Hex Nut	8
5	90002388	Driver Upper Control Arm (Shown)	1
5	90002389	Passenger Upper Control Arm	1
6	70010826	Inner Delrin Bushing - No Ledge	2
7	70010759	Outer Delrin Bushing	4
8	90000914	Caster Adjustable Upper Control Arm Shaft	2
9	70010882	Caster Slug	4
10	90002737	Delrin Bushing T-Washer	4
11	99622005	5/8 - 18 Locknut (included with 90000914)	4
12	70010827	Inner Delrin Bushing - with Ledge	2

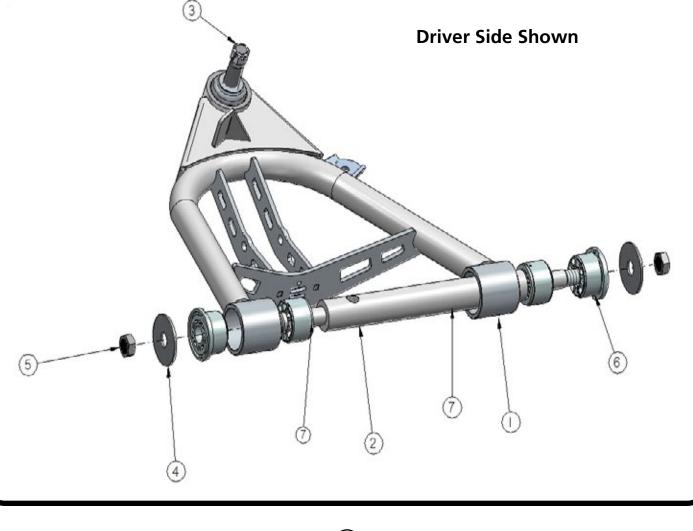






Lower Control Arm ComponentsIn the box

ltem #	Part Number	Description	
1	90002384	Driver Lower Control Arm (Shown)	1
1	90002385	Passenger Lower Control Arm	1
2	90002430	Lower Control Arm Cross Shaft	2
3	90000909	Lower Balljoint Assembly	2
4	99753001	Flatwasher	4
5	99752005	3/4"-16 Hex Nut	4
6	70010755	Outer Delrin Bushing - with Ledge	4
7	70011465	Inner Delrin Bushing - no Ledge	4







Hardware ListIn the box

QTY	Part Number	Description	
16	99431002	7/16"-14x1 1/4" Hex Bolt	Upper Control Arm Mount
4	99431003	7/16"-14x3" Hex Bolt	Upper Control Arm to Mount
32	99433002	7/16" SAE Flat Washer	Upper Mount to Frame/Control Arm to Mount
20	99432001	7/16"-14 Nylok Nut	Upper Mount to Frame
4	99433004	7/16" USS Flat Washer	Control Arm to Mount
4	99501024	1/2"-13x3 1/4" Hex Bolt	Coilover to Arm and Upper Mount
4	99502001	1/2"-13 Nylok Nut	Coilover to Arm and Upper Mount
4	99371006	3/8"-16x1 1/2" Hex Bolt	Bumpstop Mount to Frame
4	99372001	3/8"-16 Nylok Nut	Bumpstop Mount to Frame
8	99373003	3/8" SAE Flatwasher	Bumpstop Mount to Frame

Getting Started.....

Congratulations on your purchase of the Ridetech Strongarm System. These arms have been designed to give your truck excellent handling along with a lifetime of enjoyment. Some of the key features of these StrongArms: Balljoint angles have been optimized for the lowered ride height, Delrin bushings are used for no bushing deflection along with providing free suspension movement through the entire travel. The Delrin bushings are made from a material that is self lubricating so no grease zerks are needed. Upper caster adjustable crossshaft is designed to allow you to run maximum caster angles with minimal shims.

Note: These control arms are designed for use with the Ridetech CoilOvers and the MuscleBar swaybar. **The factory shocks and springs or the factory sway bar will not fit these arms.**

Note: The arms in this kit are designed to be used with 73-87 C-10 Spindles. 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:

63-70:	Upper-90000911
71-72:	Upper-90000902
73-87:	Upper-90000910

Lower-90000912 Lower-90000909 Lower-90000909

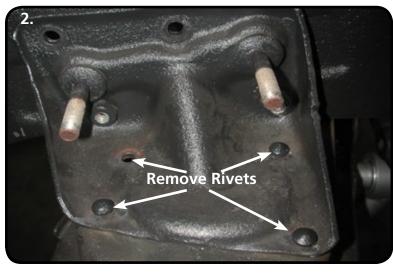
Installation

1. Remove the entire front suspension from the truck leaving the tie rods connected to the center draglink. Refer to the factory service manual for disassembly procedure. Your original spindle will be reused with this setup, set them to the side for the time being. The original U-bolts for the lower control arms will be reused to fasten your new StrongArms to the frame.





Installing Upper Control Arm Mount



2. The factory upper control arm mount will need to be removed from the frame. There are 4 bolts attaching it to the frame rail with 4 rivets attaching it to the crossmember. There are several methods that can be used to remove the rivets from the crossmember. One way is to cut a "+" in the head of the rivet and chisel the 4 pieces of the head off the rivet, then knock the rivet out of the frame with a hammer and punch.



3. The top side of the crossmember will also need trimmed for clearance. A TEMPLATE IS PROVIDED ON PAGE 13. Cut out the holes in the template and place on top of the crossmember. Trace the template onto the crossmember and cut out the center portion. Your mark should look similar to the one pictured.

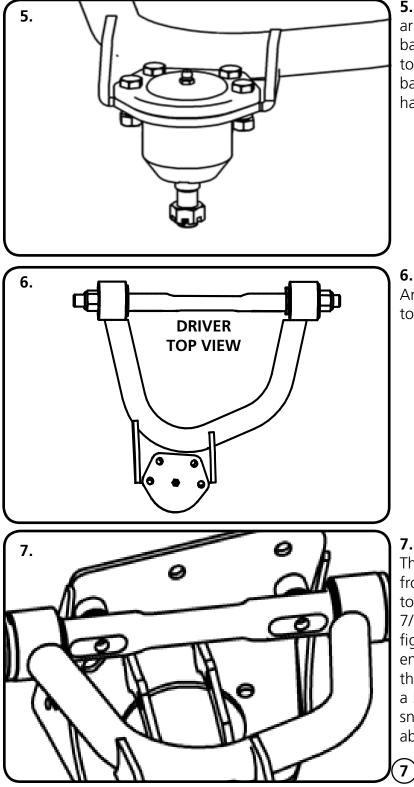


4. Before installing the mount, install the 7/16" \times 3" bolts into the upper mount from the back side with the threads pointing towards the wheel side of the bracket. Set the upper control arm mount into position on the frame. The upper brackets are marked D & P for driver & passenger. The brackets get bolted to the frame with 7/16" \times 1 1/4" hex bolts and Nylok nuts. The bracket also gets a 7/16" washer under the bolt and under the nut. Do to variances in the frames it may be necessary to drill out the front lower hole. Torque the 7/16" hardware to 50 ftlbs.





Installing Upper Control Arm Mount and Control Arm



5. Install the balljoints into the upper control arm with the hardware supplied with the balljoint. The upper balljoint goes in from the top side of the control arm. The gussets on the balljoint plate point up. Torque the mounting hardware to 29 ftlbs.

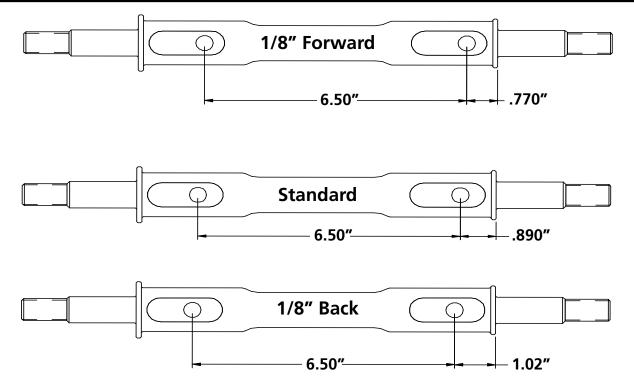
6. Diagram "6" shows the Driver Upper Control Arm. This is looking at the control arm from the top.

7. Install the caster slugs into the cross shaft. The long side of the caster slug goes to the front of the truck. The cross shaft is attached to the truck using a 7/16" USS Flat Washer & 7/16" Nylok Nut. The drivers side is shown in figure 8. Slide an Aluminum T-washer on each end of the shaft up against the bushing with the FLAT side Toward the locknut. Now install a 5/18"-18 locknut on the shaft. This nut gets snugged up. You want the suspension to be able to move freely.





Caster Explained



These StrongArms come equipped with a changeable caster slug setup. This allows you to add or remove caster from the front suspension, if desired. The caster slugs that come supplied in the kit are setup to provide approximately 5 degrees of caster. The caster slugs allow you to add or remove caster without having to use a stack of shims. If more or less caster is desired, optional slugs can be purchased from Ridetech or your Ridetech dealer.

Caster Explained:

8

To understand caster you need to picture an imaginary line that runs through the upper balljoint and extends through the lower balljoint. From the side view the imaginary line will tilt forward or backward. The tilting of this imaginary line is defined as caster.

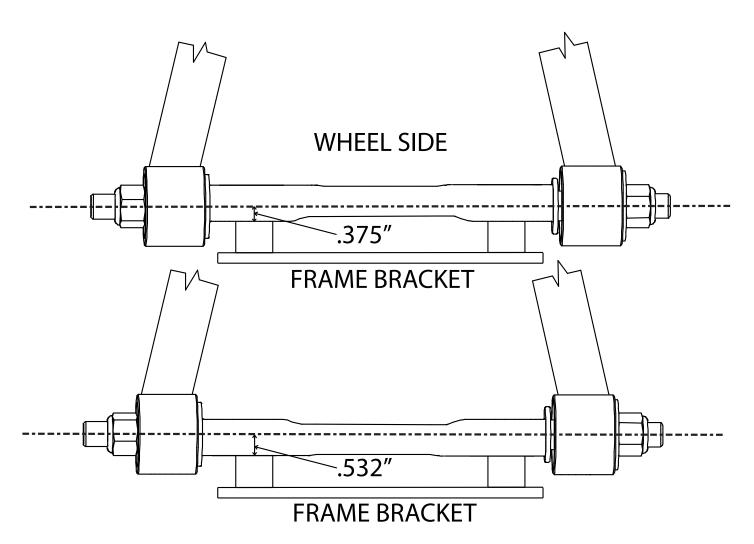
Caster is measured in degrees by using a caster gauge. If the imaginary line described above tilts towards the back of the vehicle at the top, then you have positive caster. If the imaginary line tilts forward then you have negative caster.

Positive caster provides the directional stability in your vehicle. Too much positive caster will make the steering effort difficult. Power steering will allow you to run more positive caster. Negative caster requires less steering effort but will cause the vehicle to wander down the highway





Offset Upper Control Arm Shaft



The cross shaft that is used in the upper control arms is offset. The offset combined with the caster slug option allows you to achieve the alignment setting you desire with minimal shims. To change the direction the lcon faces simply spin the cross shaft in the control arm.

If you are after a **Street Alignment** bolt the upper control arm to the frame mount with the arm offset to the outside of the truck. The Ridetech Icon will be facing the wheel.

If a more aggressive **Track or Autocross** alignment is desired, bolt the control arm to the frame bracket with the arm offset to the inside of the truck. The Ridetech Icon will be facing the frame rail.



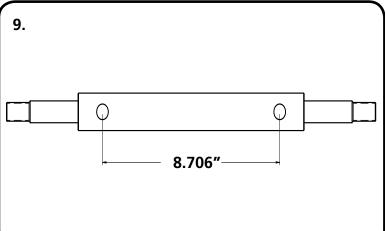


Installing Upper and Lower Control Arm



8. 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.

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



9. 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 8**, 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.

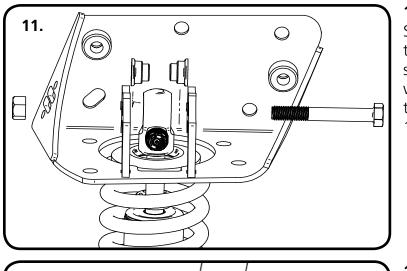


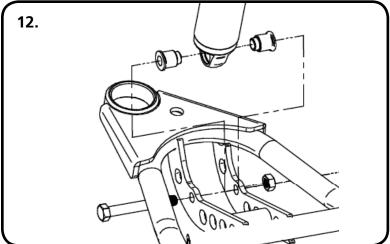
10. Image 10 is an example of the lower bolted to the crossmember. Install 3/4" ID Washer on to each end of the crossshaft against the bushing. Then install the 3/4"-16 lock nut. Snug the nut up against the washer. You want the suspension move freely through its travel.





Installing CoilOver Assembly





11. Install a spacer on each side of the upper Shockwave/Coilover. Slide the assembly into the upper mount from the bottom side. If your shock has an adjuster knob position it to the wheel side of the mount. Line up the hole in the spacers with the hole in the strap and insert 1/2" x 3 1/4" bolt and install 1/2" Nylok nut.

12. Install a spacer on each side of the lower Shockwave/Coilover. Slide the shock with the spacers installed into the lower control arm. Raise the arm up to line up the holes in the bushing with the 1/2" hole in the control arm straps and hold it in place while you install the 1/2" x 3 1/4" bolt and 1/2" Nylok nut. Tighten the upper and lower shock bolts to 75 fltbs.



13. Depending on your wheel size, you may need an external bumpstop to keep the tire from hitting the inner fender. The bump stop plate attaches to the wheel side of the crossmember. The bent tab goes against the back side of the crossmember with the holes as far out as you can drill them. Use the mount as a template to drill the holes and attach mount with the remaining 3/8 x 1 1/2" bolts washers and Nylok. After mounting the plate, you can attach the bumpstop. Torque the 3/8" hardware to 30 ftlbs.





Finishing & Alignment

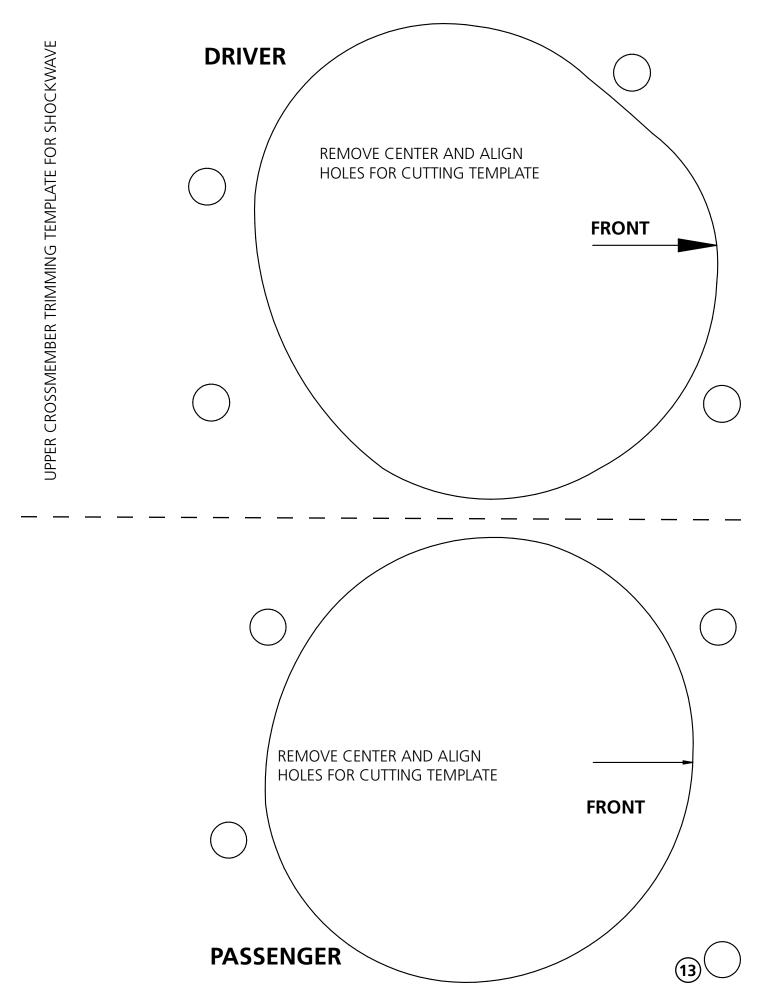
14. The final step is to reinstall the spindle onto the truck. Slide the balljoint pins into the spindle and install the castle nut on each one. Torque the balljoint nuts and install cotter pins in each one.

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.

Suggested Alignment Specs:

Camber:Street:-.5 degreesCaster:Street:+3.0 to + 5.0 degreesToe:Street:1/16" to 1/8" toe in



Learn more about performance suspension parts we have.