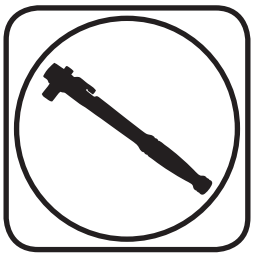
ridetech

Installation Instructions

Part # 11510302- 2006-2013 C6 Z06 Corvette TQ Track Package

Recommended Tools



Kit Components:

11519501	Delrin Control Arm Bushing Kit
11519300	Track 1 Modular Spindles (Front & Rear)
11510311	TQ CoilOver Kit
11519120	Front SwayBar
11519122	Rear SwayBar

2006-2013 C6 Z06 TQ Track Package

Installation Instructions

Table of contents

Pages 2-8..... Delrin Bushing Kit
Pages 9-14..... Track 1 Spindles (Front & Rear)
Pages 15-28..... CoilOvers
Pages 29-31..... Front SwayBar
Pages 32-34..... Rear SwayBar

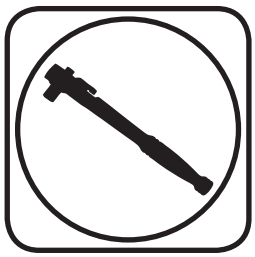
The Delrin Bushings and Spindle should be installed in conjuntion with each other. Remove the traverse leaf spring while the spindles and control arms are removed from the car. Install the swaybars after the bushings, spindles, and coilovers have been installed.

ridetech

Installation Instructions

Part # 11519501 - 06-13 C6 Z06 Corvette Delrin Bushing Kit

Recommended Tools



2006-2013 C6 Z06 Delrin Control Arm Bushing Kit

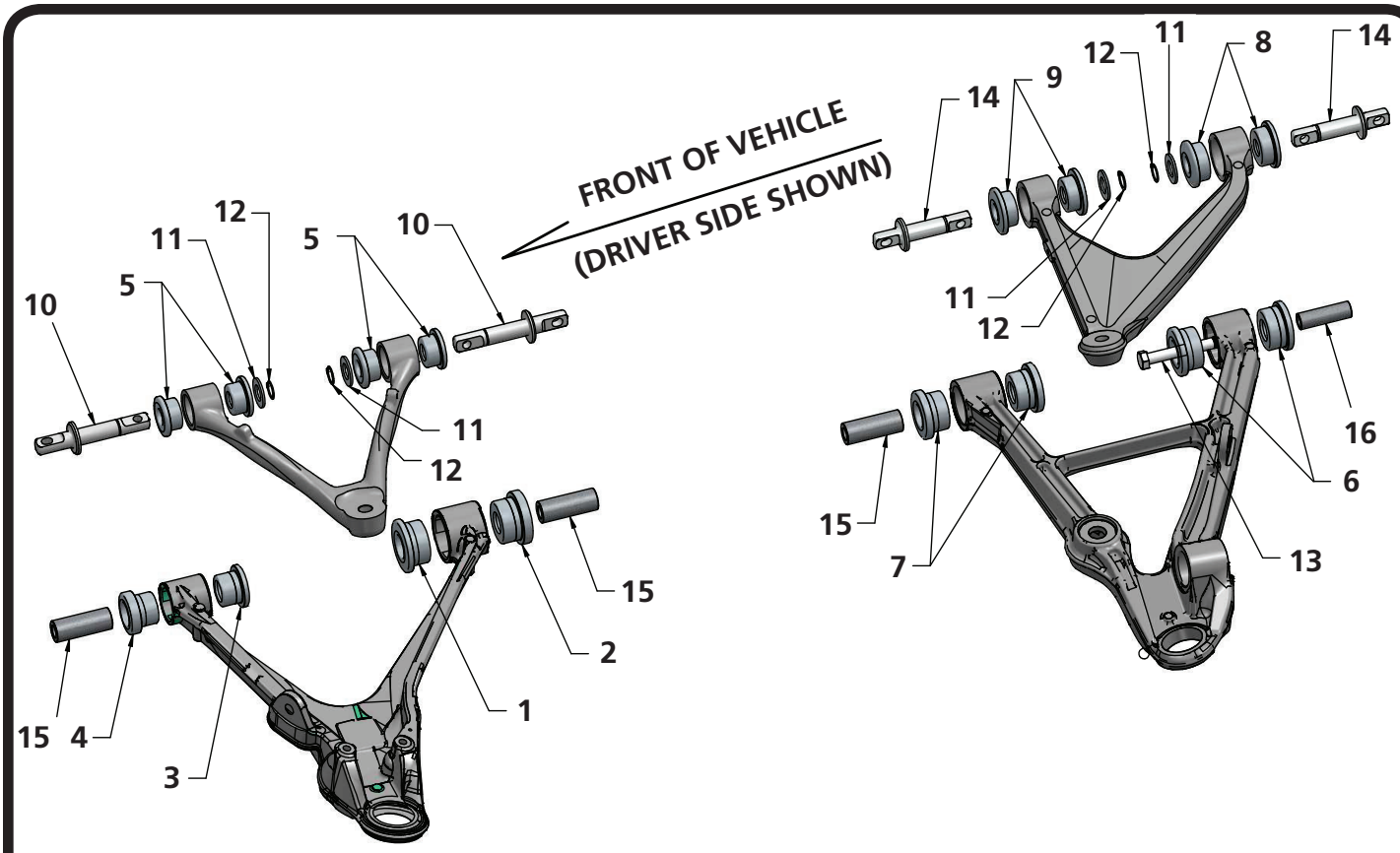
Installation Instructions

Table of contents

Page 3..... Included components
Page 4..... Bushing Dimensions
Page 5..... Disassembly and Front Upper
Page 6..... Front Upper Bushing Installation
Page 7..... Front Lower
Page 8..... The Finish

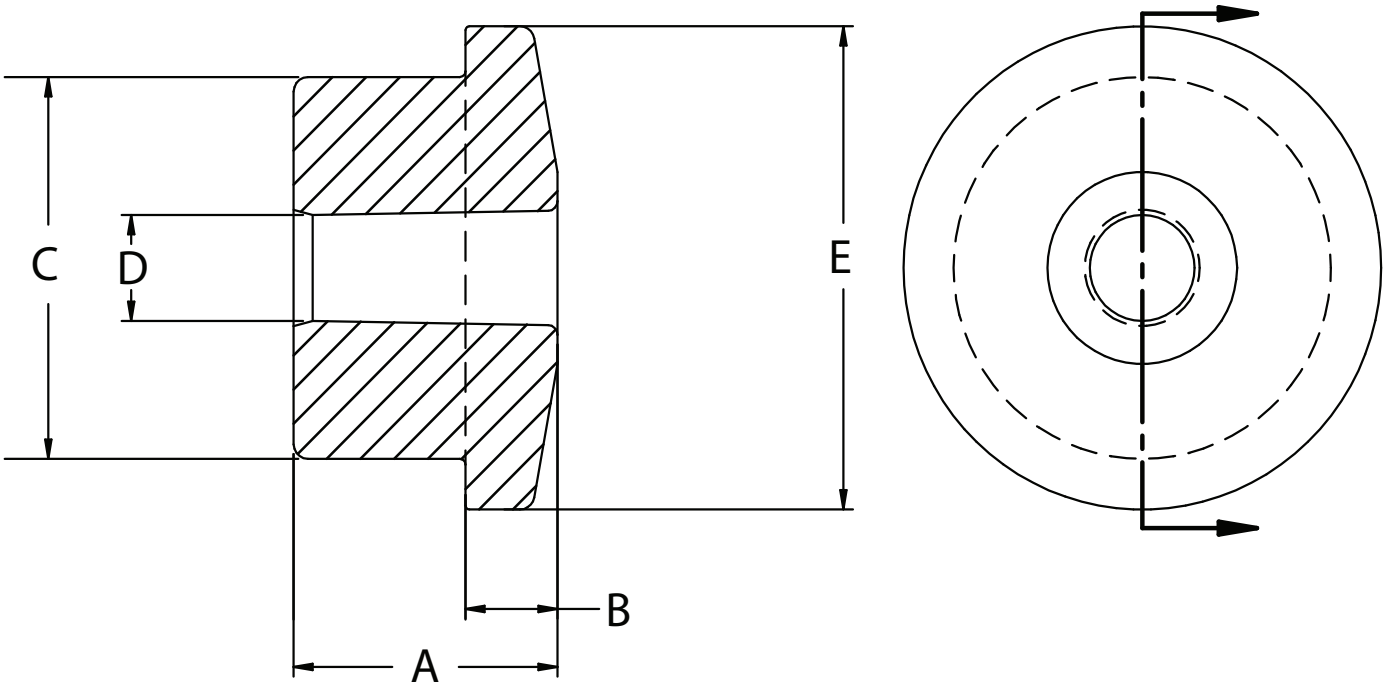
www.ridetech.com

Included Components .....In the box



Item #	Part #	Description	QTY
1	70012110	Front Lower Control Arm Large Inner Bushing	2
2	70012111	Front Lower Control Arm Large Outer Bushing	2
3	70012112	Front Lower Control Arm Small Inner Bushing	2
4	70012113	Front Lower Control Arm Small Outer Bushing	2
5	70012114	Front Upper Control Arm Bushing	8
6	70012115	Rear Lower Control Arm Bushing; Large	4
7	70012116	Rear Lower Control Arm Bushing; Small	4
8	70012197	Rear Upper Control Arm Bushing; Large	4
9	70012198	Rear Upper Control Arm Bushing; Small	4
10	90002125	Front Upper Trunnion **(Long)**	4
11	99753006	3/4" I.D. Washer	8
12	90001634	3/4" Snap Ring	8
13	99501034	1/2"-13 x 4 1/2" Hex Bolt, Flat Washer, & Nylok Nut	2
14	90002200	Rear Upper Trunnion **(Short)**	4
15	90002544	Inner Sleeve; 1.00" OD x .562" ID x 2.717" OAL	6
16	90002545	Inner Sleeve; 1.00" OD x .500" ID x 2.480" OAL	2

Bushing Dimensions



Bushing Dimensions

Item #	Part #	A	B	C	D	E
1	70012110	1.271	.371	1.975	1.00	2.500
2	70012111	1.381	.481	1.975	1.00	2.500
3	70012112	1.252	.315	1.464	1.00	1.950
4	70012113	1.454	.516	1.464	1.00	1.950
5	70012114	.900	.250	1.418	.746	1.850
6	70012115	1.162	.337	1.895	.750	2.250
7	70012116	1.275	.400	1.777	.750	2.250
8	70012197	.895	.295	1.737	.746	2.142
9	70012198	.895	.295	1.580	.746	2.142

Inner Sleeve Dimensions

Item #	Part #	OD	ID	Over All Length
15	90002544	1.00"	.562"	2.717"
16	90002545	1.00"	.500"	2.480"

ridetech

Installation Instructions

Disassembly

Congratulations on your purchase of the Ridetech C5/C6 Control Arm Delrin Bushing Kit. This kit has been designed to help improve your Corvette's handling along with providing a lifetime of enjoyment. The Delrin Bushing Kit will improve your Cars handling characteristics by eliminating the deflection at the bushing.

1. We recommend doing one Control Arm at a time to simplify installation of the bushings.

A Bench Vise is needed for the removal and installation of the Bushings.

2. Raise the vehicle and support it by the frame or rear crossmember, allowing the suspension to hang freely.

3. With the Wheels and Tires removed, disconnect the Shocks, Springs, and Sway Bar Linkage from the Lower Control Arms, retaining the hardware.

4. Support the Rotor Assembly when removing any of the Control Arms to prevent unnecessary strain on the Brake Lines and ABS Sensor Wires.

Ridetech sells a Tool, part number 85000006, to aid in the removal of the bushings.

Front & Rear Upper Trunnion & Bushing Removal

5. With the Rotor and Hub supported, remove the Upper Control Arm by , first removing the balljoint nut and using a balljoint separator to release the balljoint from the Control Arm.

6. Next, remove the (4) bolts attaching the Trunnion to the car. Mark any shims that may be behind the Trunnion. You will need to put these back in the same location when reinstalling the Control arm.

7. With the end of the Trunnion clamped in a Bench Vise, use a twisting motion to remove the Trunnion and Bushing assembly from the Control Arm. Do this for both Trunnions.

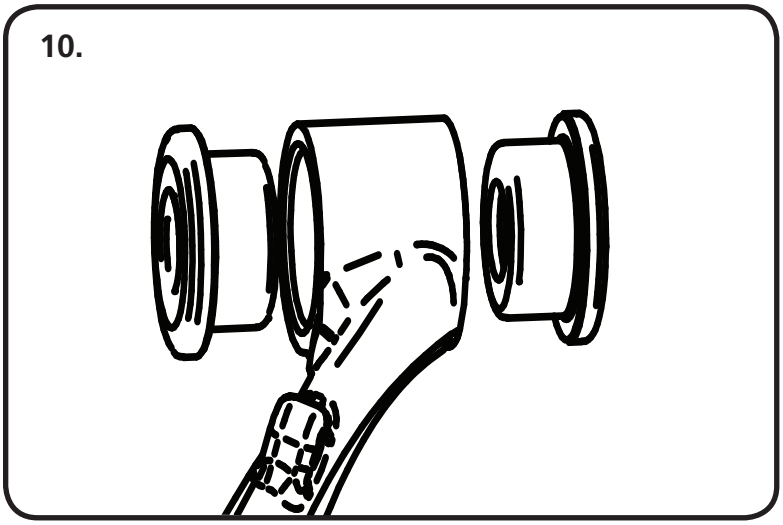
Note: The use of Penetrating Oil can help with the removal of the Trunnion and Bushing.

8. Once the Bushing Assembly is removed from the arm, prep the bushing opening by cleaning it to remove any debris that may be left in the opening.

9. Use the Illustration on Page 2 & 3 to determine the parts needed for the Delrin Bushing & Trunnion installation in the upper arms. To do (1) Arm, you will need (4) Upper Control Arm Bushings[5]Front, [8 & 9]Rear. You will also need (2) Trunnions[10 Long]Front, [13 Short]Rear, (2) 3/4" ID Washers[11], and (2) Snap Rings[12].

Front Upper Bushing Installation

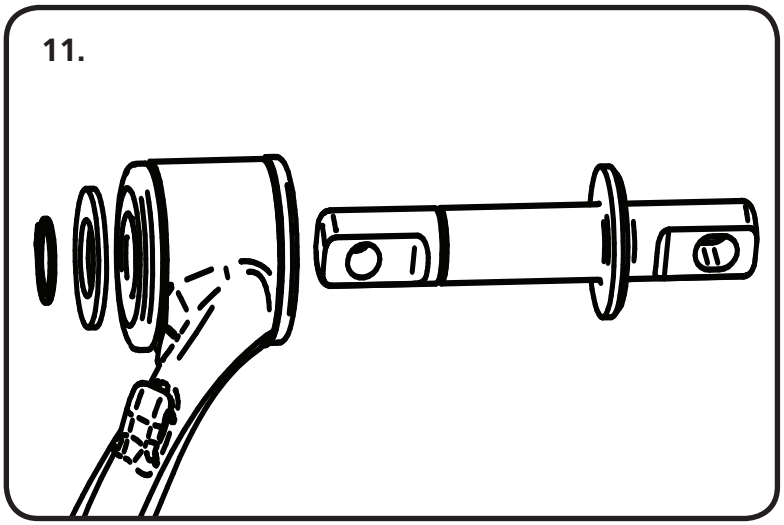
10.



10. Press a set of bushings into each opening of the upper control arm. A bench vise can be used to do this.

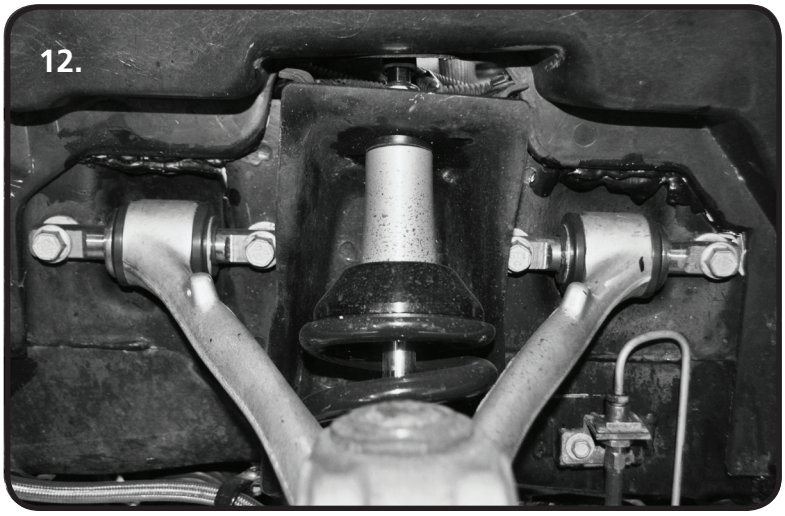
Note: Front Upper Uses all the same bushings

11.



11. Install a Trunnion into each set of Bushings installed in the Control Arm. The Trunnions are inserted with the Shoulder to the outside of the Control Arm. Install a 3/4" Washer followed by a Snap Ring on each Trunnion.

12.



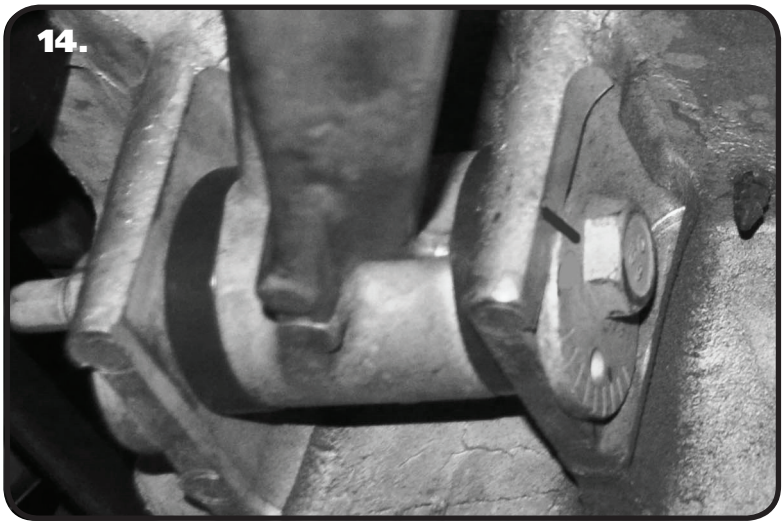
12. Reinstall the Control Arm on the car with any shims back into their previous location. Tighten all Fasteners.

Control Arm Mounting Bolts Torque Spec:
48 ftlbs

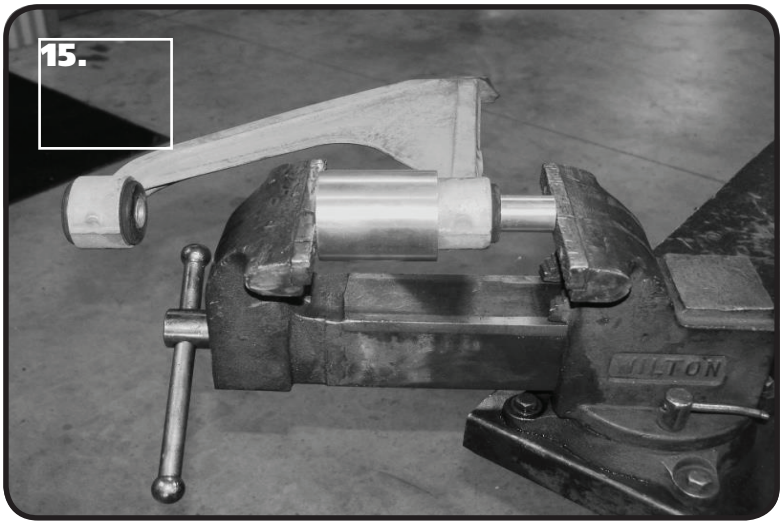
Repeat on other side.

Front Lower

13. With the upper reattached, it is time to do the Lower Control Arm. Ridetech sells tool 85000006 to aid in removal of the bushings. The Tool is 2-sided with a large opening for the Lower Bushings and the opposite side being smaller for the Rear Upper Bushings. It comes with a Mandrel to insert into the center sleeve for pushing the Bushings out of the Control Arm.

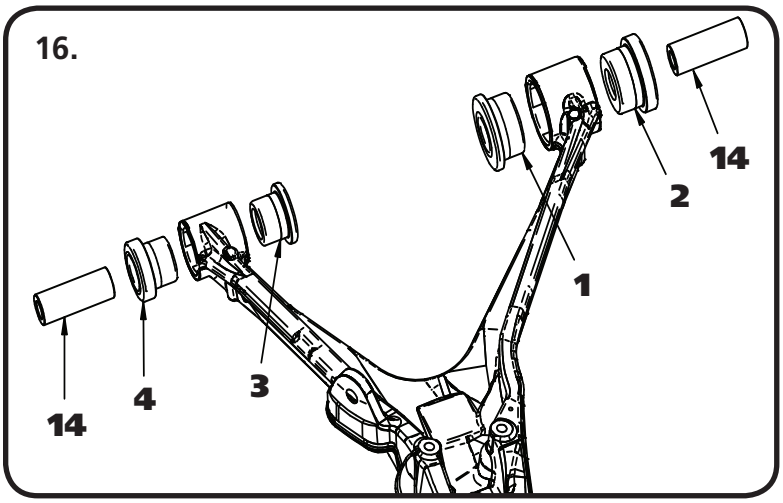


14. Before removing the Lower Control Arms, **use a Marker or something similar to mark the Lower Control Arm Eccentrics**. The marks will get the Alignment close, but Ridetech recommends getting the alignment checked after the install is completed.



15. Remove the Lower Control Arm. Using the Ridetech tool (with large side over bushing) and a Bench Vise, push out the original Bushings. Clean out the opening of any debris that may have been left behind.

Finishing



16. Using the Diagrams on Page 2 & 3, Insert the correct Bushings in the correct locations using a Bench Vise to push them in. Push the Bushings in followed by the correct Inner Sleeve. The Front Lower uses Bushing 1, 2, 3, 4, and Inner Sleeve 14

Reinstall Arm and repeat for other side. Align the marks that were put on the Eccentric in Step 14 and tighten the Hardware.

17. Repeat Steps 13-16 on the remainder of the Control Arms and Bushings using the Diagrams on Page 2 & 3 for Bushing Location. Install 1/2" x 4 1/2" Bolt, washers and Nylok Nut in the Rear Bushing of the Rear Lower Control Arm. **Be sure to mark the Eccentrics and Bolt location**. The simplest way to do the install is to do one arm at a time.

Torque Specs:

Front Lower Control Arm Cam Nuts - 125 ftlbs
Rear Upper Control Arm Mounting Bolts - 81 ftlbs
Rear Lower Control Arm, Front Cam Nut - 107 ftlbs
Rear Lower Control Arm, Rear Cam Nut - 70 ftlbs WAIT UNTIL REAR SWAYBAR INSTALL

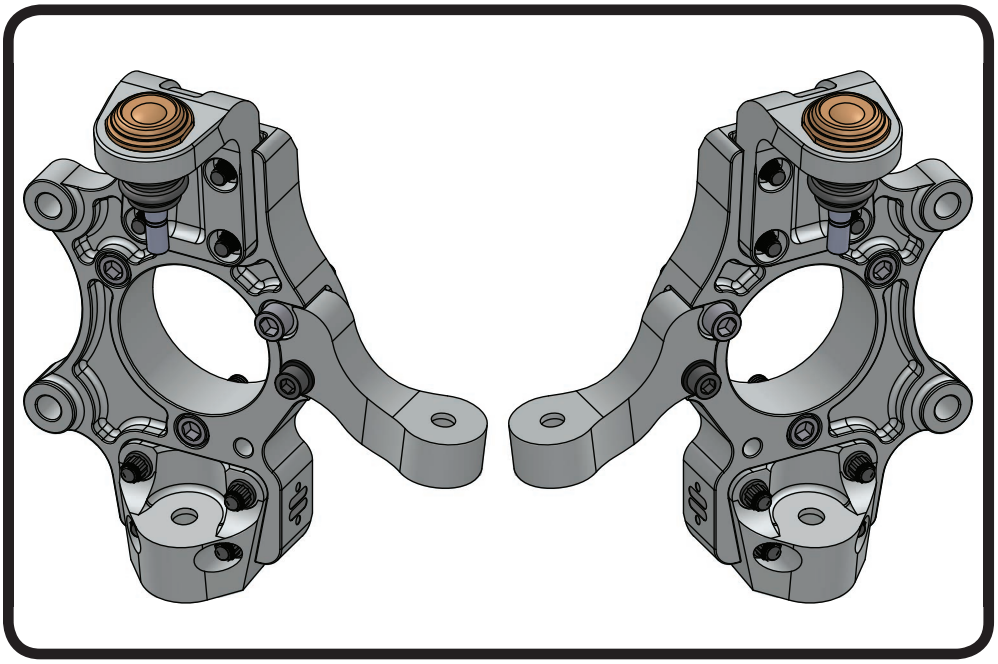
18. Reattach the Springs and install the NEW Smooth Body Shocks and SwayBars.

19. After installing all Bushings, it is recommended to get the Corvette Alignment checked.

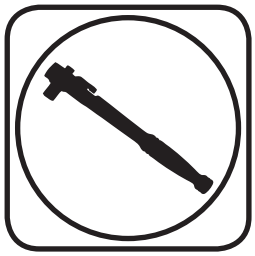
ridetech

Installation Instructions

Part # 11519300 - C5/C6 Modular Spindle Kit - Extra Camber



Recommended Tools



C5/C6 Modular Track1 Spindle Kit

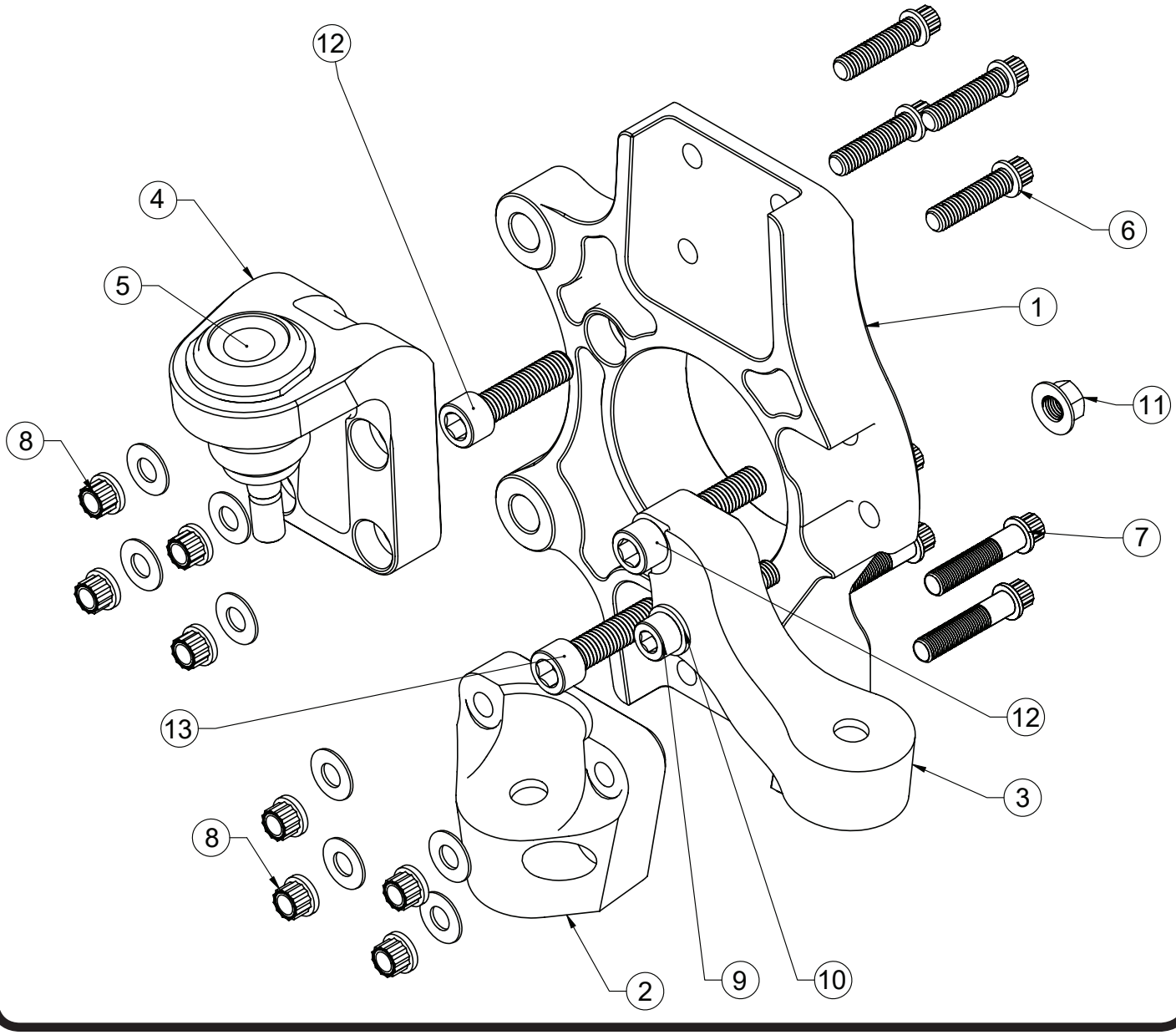
Installation Instructions

Table of contents

Page 10..... Included Components
Page 11..... Hardware and Getting Started
Page 12..... Disassembly & Hub Installation
Page 13..... Rear Only - Emergency Brake Cable Mount
Page 14..... Assembly and Alignment

Major Components .....In the box

Item #	Part #	Description	QTY
1	90003101	Spindle Main Body (LF & RR)	1
1	90003102	Spindle Main Body (RF & LR) - Not Shown	1
2	90003103	Lower Ball Joint Mount	2
3	90003104	Steering Arm (LF & RR)	1
3	90003105	Steering Arm (RF & LR) - Not Shown	1
4	90003106	Upper Ball Joint Mount	2
5	70014132	Upper Ball Joint - installed in mount	2



Hardware

Item #	QTY	Part Number	Description	
6	8	99371064	3/8"-16 x 1.50 Hex Bolt	Upper Ball Joint Mounts to Body
7	8	99371063	3/8"-16 x 1.75 Hex Bolt	Lower Ball Joint Mounts to Body
8	16	99372013	3/8"-16 Flange Nuts	Ball Joint Mounts to Body
9	2	99111010	M10-1.5 x 55mm SHCS	Steering ARM (FRONT ONLY)
10	2	99113002	M10 Flat Washer	Steering Arm (FRONT ONLY)
11	2	99112004	M10-1.5 Flange Nut	Steering Arm (FRONT ONLY)
12	2	99121011	M12-1.75 x 55 SHCS	Hub Mounting Bolt
13	4	99121007	M12-1.75 x 45 SHCS	Hub Mounting Bolt

Getting Started.....

Congratulations on your purchase of the Ridetech Modular Spindle. This Spindle has been designed to give your Corvette excellent handling along with a lifetime of enjoyment. Some of the key features of the Ridetech Modular Spindle:

1. Lowers the car by raising the bearing hub position by 1".
- **a.** Increased handling performance by allowing the suspension to operate at its optimum ride height.
- **b.** Allows more shock and spring travel on both OEM leaf spring AND coilover equipped cars
- **c.** Lower center of gravity.
- **d.** Improved looks.
- **e.** 1 Degree of extra Negative Camber with an Shim Option(11519350) for stock camber settings.

2. Compatible with OEM hubs, brakes, ball joints and tie rods. Also compatible with C7 bearing hubs on front.

3. Compatible with OEM rear parking brake assembly.

4. Modular design allows up to 1 degree extra camber over factory spindles by offsetting the upper ball joint mount. [optional shim kit available to retain OEM camber position, part number 11519350]

5. Extreme Duty ARP hardware is used to attach ball joint mounts and steering arms. Compatible with OEM hub and parking brake hardware.

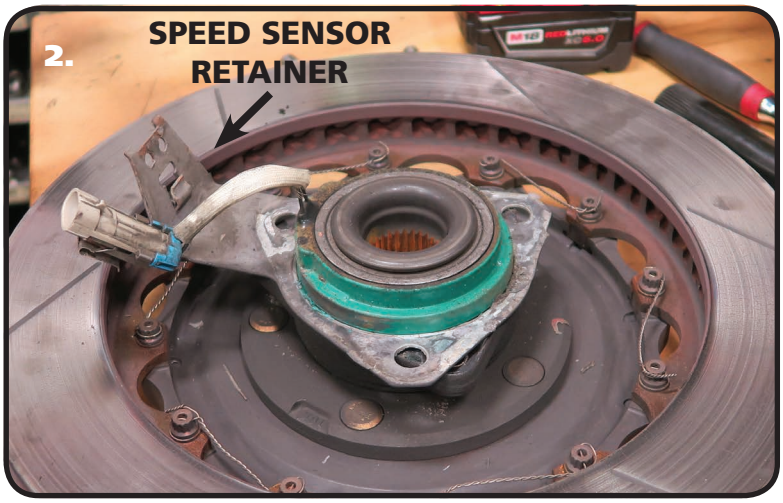
This Spindle Kit can be used on Front or Rear.

If using on the rear, you will need to attach your Emergency Brake Cable Brackets to the Spindle.

Disassembly

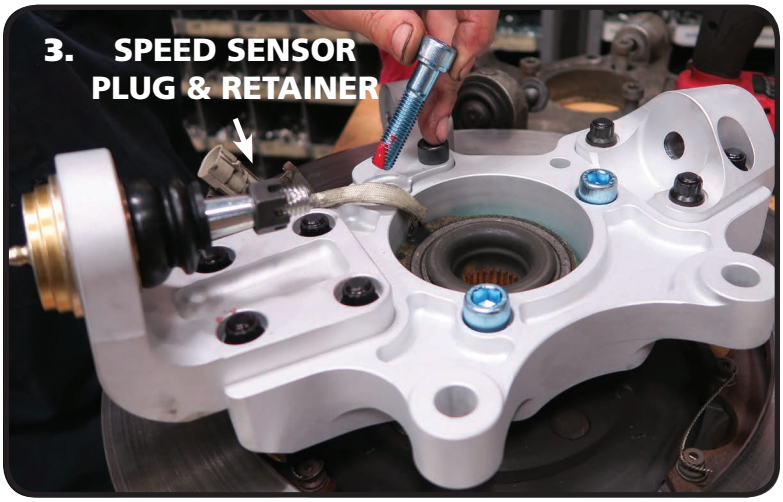
1. The Disassembly for the Front or Rear is similar, the steps that very are noted "REAR ONLY".

- **a. Remove the Caliper by disconnecting the caliper bracket from the spindle**
- **b. Remove the Rotor**
- **c. REAR ONLY - Remove the Axle Nut**
- **d. Disconnect the Speed Sensor at the plug on the spindle**
- **e. Disconnect the Tie Rod**
- **f. Disconnect the Upper & Lower Ball Joints - We recommend using a ball joint separator to avoid damage to the spindle**
- **g. Remove the Speed Sensor Plug from the bracket on the spindle**
- **g. REAR ONLY - Remove the Emergency Brake Cable Bracket**
- **h. Remove the Hub Bearings**



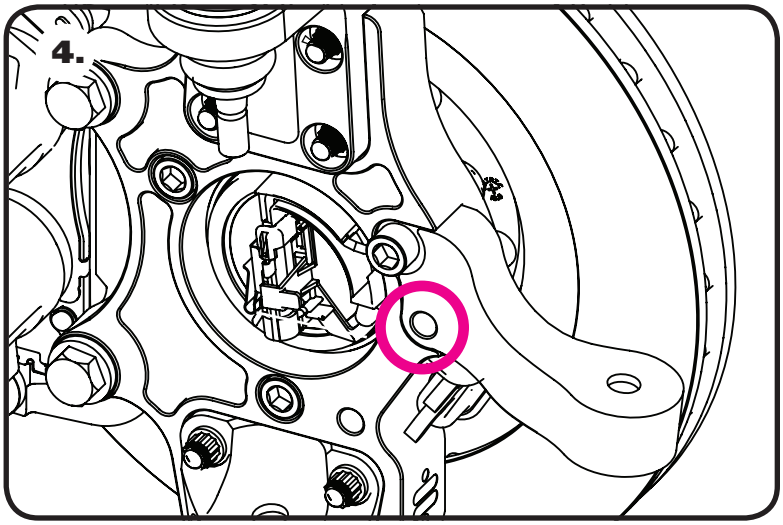
2. Even if you purchased new Hub Bearings, the existing Speed Sensor Plug Retainer will need to be reused. The Plug Retainer is positioned between the spindle and hub bearing. To get to it, the Hub Bearings will need to be disassembled from the OEM spindle. Remove the (3) Bolts attaching the hub to the spindle.

Hub Installation

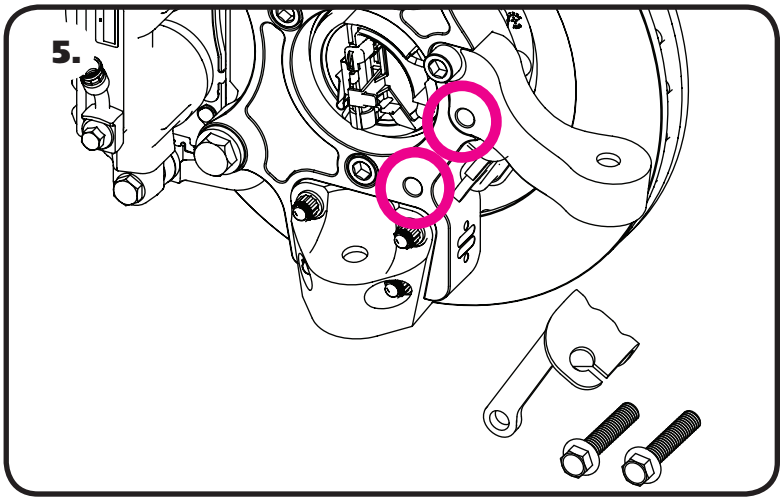


3. Line up the Speed Sensor Wire with the Tab on the Wire Retainer along with the mounting holes. **You may need to clearance the speed sensor bracket to clear the steering arm nut.** The Speed Sensor is positioned above the steering arm. Slide the spindle onto the hub bearing lining up the holes in the spindle with the threaded holes of the hub assembly. Make sure the speed sensor mount and wire are positioned above the steering arm. The kit includes new Hardware to attach the hub assembly. The Hub is attached to the spindle using (2) M12-1.75 x 45 SHCS & (1) M12-1.75 x 55 SHCS, the longer of the 3 is used in the steering arm hole. Apply RED Loctite to each of the mounting bolts. Insert them into the correct holes and Torque to 99 ftlbs.

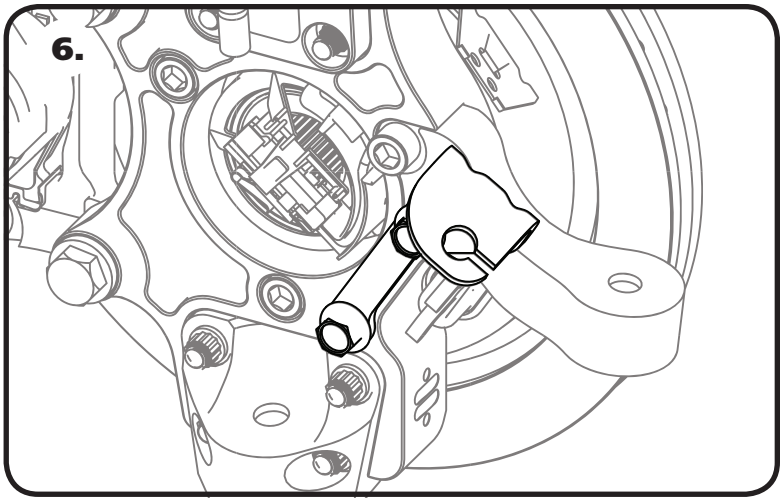
REAR ONLY - Attaching Emergency Brake Cable Mount



4. REAR ONLY- The Rear will require the Emergency Brake Cable Mount to be attached to the Ridetech Modular Spindle. Remove the Mount from the OEM Spindle. Remove the **BOTTOM** Bolt from the Steering Arm of the new spindle. The Hole is circled in **Image 4**.



5. The OEM Cable Mount will align with the (2) holes circled in **Image 5**. Use **Images 5 & 6** to aid in the installation of the mount.



6. Attach the Cable Mount to the Spindle using the OEM Hardware. Apply RED Loctite to the threads of the bolts before installing. Install the Bolts while holding the Mount in position. Torque the Bolts to 40 ftlbs.

Reassembly and Torque Specifications

1. The Assembly is in reverse of the Disassembly.

- **a. Attach the Spindle to the Upper and Lower Ball Joints - make sure the steering arm is pointing the correct direction to verify it is on the correct side. If you are installing the spindles on the Rear, feed the Axle into the hub as you install the spindle on the ball joints.**
- **b. REAR ONLY - Install the Axle Nut**
- **c. Attach the Tie Rod**
- **d. Reconnect the Speed Sensor**
- **e. Reinstall the Rotors and Calipers**
- **f. REAR ONLY - Reattach the Emergency Brake Cables**

Reassembly and Torque Specifications

- **Lower Control Arm Ball Joint Stud: 1st Pass 22 ftlbs 2nd Pass +180 degrees**
- **Upper Control Arm Ball Joint Stud: 1st Pass 15 ftlbs 2nd Pass +250 degrees**
- **Outer Tie Rod Stud: 1st Pass 15 fltbs 2nd Pass 160 degrees 3rd Pass 33 ftlbs**
- **Drive Axle Spindle Nut: 118 ftlbs**
- **Caliper Mounting Bracket Bolt: 125 ftlbs**
- **Ball Joint Mounts to Spindle: 45 ftlbs using RED Loctite**
- **Emergency Brake Cable Mount: 40 ftlbs using RED Loctite**

Track Alignment Specifications

Suggested Alignment Specs:

FRONT

Camber: -2.9°
Caster: +7.4°
Toe: -.08" per side

REAR

Camber: -1.4°
Toe: +.07" per side

Howe Ball Joint Maintenance

Maintenance

Grease after every 300 to 400 laps with low friction grease. We use Citgo MP Lithoplex 3 or Red Line CV2. Unlike conventional ball joints, a Howe ball joint will only accept grease until it is full (typically, one pump or less is required). Once the grease passages are full they will not vent, the pressure from the grease gun can make it difficult to remove the gun from the zerk. To relieve the pressure work the ball stud around to vent grease onto the ball, if the ball joint is on the vehicle, bounce the suspension for the same result. Disassemble annually or every 2000 laps to adjust the lash.

Adjusting the Lash

Lash can be set with the a-frame attached to the car if the spring is unloaded and the ball joint taper is free from the spindle. If you choose to remove the ball joint from the a-frame, gently clamp the housing by the flat sides in a vise to disassemble.

Disassembly

1) Using a pair of snap ring pliers remove the retainer ring and then the hex retainer plate.
2) Turn adjuster cap counterclockwise to remove, use a 3/4" socket or wrench if necessary.
3) Clean moving parts to inspect for excessive wear. Replace any parts that are worn or damaged. The ball stud is concentric and should be checked for straightness. Install the ball stud upside down in the housing and spin the stud against the side of the housing with your fingers. If the ball stud is bent, you will see it wobble.

Assembly

1) Install the housing into the a-frame or gently clamp the housing by the flats into a vise.
2) Install the ball stud into the housing without grease.
3) Apply a small amount of light lubricant to the threads of the cap, install and tighten until it contacts the top of the ball.
4) Set the lash on the ball by loosening the cap 1/8 turn.
5) Place the hex retainer plate on, adjust the cap slightly as needed, so the retainer locks the cap in place. Install the retainer ring using snap ring pliers.
6) Using a grease gun, grease and rotate the ball stud by hand until the grease is visible on the bottom of the ball.

ridetech

Installation Instructions

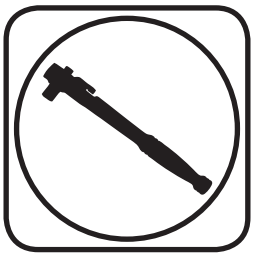
Part # 11510311 - 1998-2013 C5/C6 Level 3 CoilOver System

Front Components:
11513111 Front Coilovers

Rear Components:
11516111 Rear Coilover Instructions

Miscellaneous Components:
85000000 Spanner Wrench

Recommended Tools



1998-2013 C5/C6 Level 3 Coilover
Installation Instructions

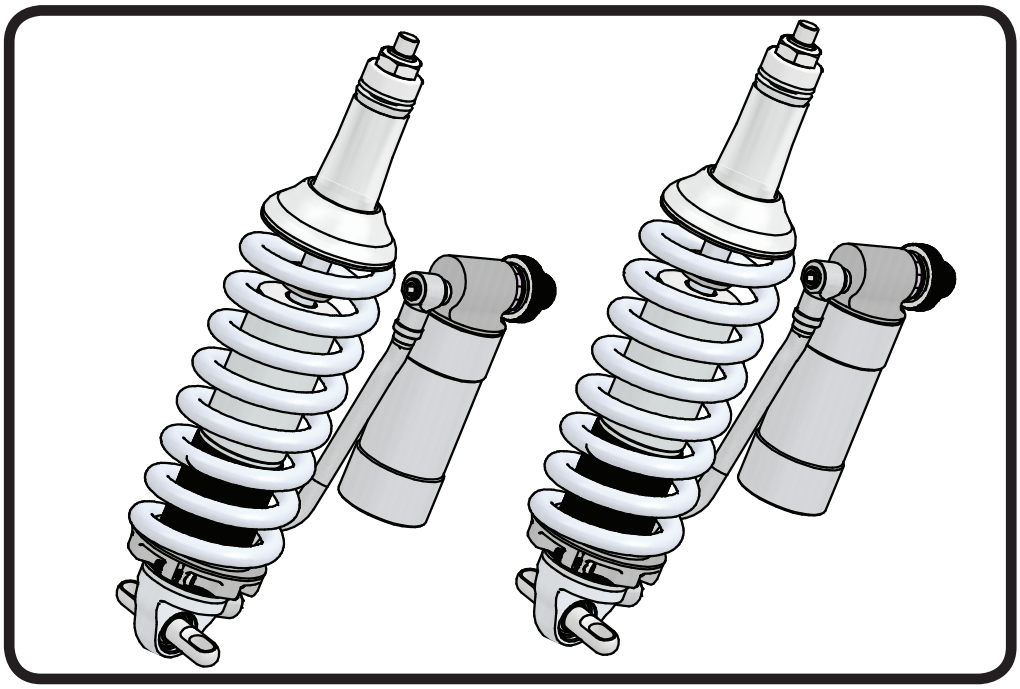
Table of contents

Pages 16-20..... Front CoilOvers
Pages 21-28..... Rear Coilovers

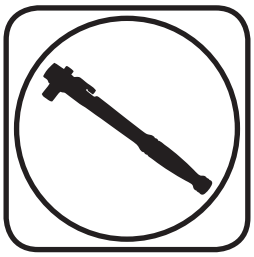
ridetech

Installation Instructions

Part # 11513111 - 1998-2013 C5/C6 TQ Front CoilOvers



Recommended Tools



1998-2013 C5/C6 TQ Series Front CoilOvers

Installation Instructions

Table of contents

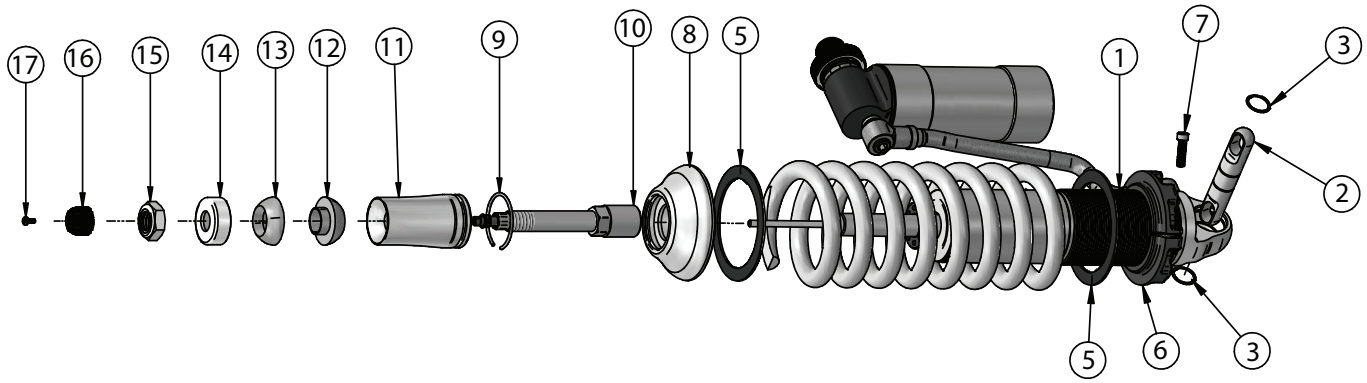
Page 17..... Included components
Page 18..... Getting Started and Disassembly
Page 19..... CoilOver Assembly
Page 20..... CoilOver Installation

This kit is Designed to replace the Factory Shocks and Traverse Leaf Spring Setup

www.ridetech.com

Major Components .....In the box

Item #	Part #	Description	QTY
1	24249999	4.1" Stroke TQ Series Shock	2
2	90002060	Wide Trunnion	2
3	90001980	Trunnion Snap Ring	4
4	59080700	Coilspring 8" 700lb	2
5	70010828	Delrin Spring Washer	4
6	90002222(kit)	Lower Spring Adjuster Nut (90002222 kit)	2
7	90002222(kit)	Adjuster Nut Locking Screw (90002222 kit)	2
8	90002070	Upper CoilSpring Retaining Plate	2
9	90002222(kit)	CoilSpring Plate Retaining Ring	2
10	90009993(kit)	3.75" Stud Adjuster Assembly	2
11	90001286	3.25" Stud Top Base	2
12	90001904	Delrin Ball Lower Half	2
13	90001903	Delrin Ball Top Half	2
14	90001287	Delrin Ball Upper Cap	2
15	99562003	9/16-18" Nylok Nut	2
16	90009993(kit)	Shock Adjuster Knob	2
17	90009993(kit)	Adjuster Knob Retaining Screw	2
	90001994	5/8" ID Bearing (installed in shock body)	2
	90001995	Bearing Snap Ring (installed in shock body)	4
	90002221	Reservoir Clamps (Not Shown)	4
	99050000	Reservoir Socket Head Cap Screws (Not Shown)	12



Getting Started and Disassembly

Congratulations on your purchase of the Ridetech C5/C6 CoilOver System. This system has been designed to give your Corvette excellent handling along with a lifetime of enjoyment. The CoilOver System provides flexibility that can not be achieved with Leaf Springs. The CoilOver System will give you the flexibility of adjusting your ride height along with numerous spring options to dial in your ride quality to your personal preference.

This CoilOver System is Designed to replace the factory Shock and Leaf Springs.

1. The front OEM Shocks and Leaf Spring will need to be removed from the front of the car.

2. Raise the vehicle and support it by the frame allowing the suspension to hang freely.

3. Remove the shocks from both sides retaining the hardware.

4. Unbolt the brake caliper from the drives side and hang it on the frame using a zip tie or piece of wire **(DO NOT LET IT HANG BY THE BRAKE HOSE).**

5. Place a jack under the Driver lower control arm to support it. Unbolt the upper control arm from the frame by removing the (4) bolts attaching it. **IF THERE ARE ANY SHIMS BEHIND THE UPPER CONTROL ARM TRUNNION, MARK THEM SO THAT YOU CAN PUT THEM BACK IN THE SAME POSITION WHEN REASSEMBLING.**

6. Remove the (4) bolts that attach the Leaf Spring to the car.

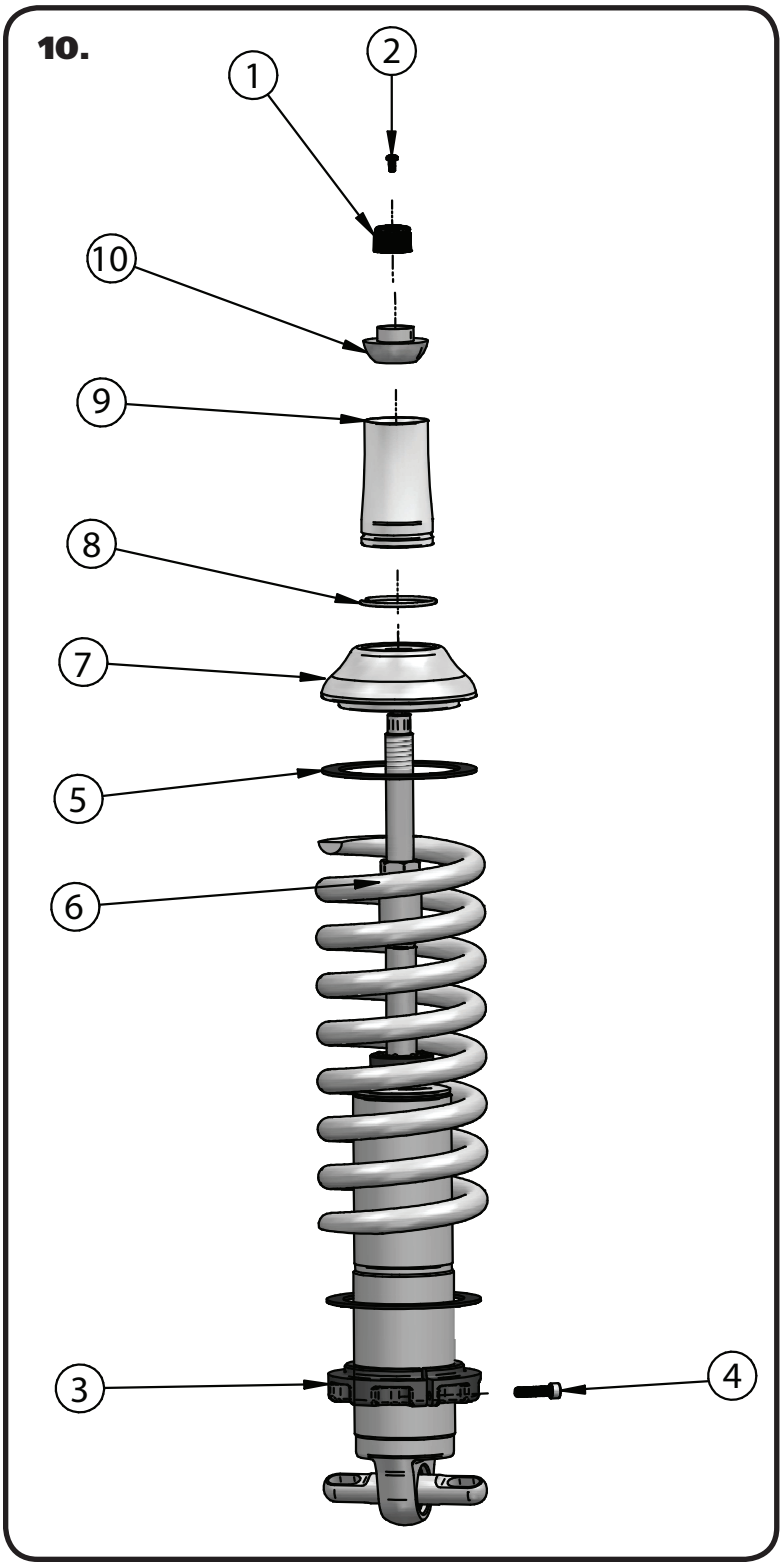
7. Slide the spring out the Drivers side of the car. It will be necessary to lower the driver control arm using the jack that it is supporting it to get the spring out of the car.

8. Reattach the upper Control Arm putting any shims that were installed back in their correct position.

9. With the Shocks and Leaf Springs removed and the upper Control Arm and Caliper reattached you are ready to start assembling the CoilOvers and instal them in your Corvette.

To get Started refer to the page 4 on how to assemble the CoilOver

CoilOver Assembly



10. To Assemble the CoilOver you need to:

a. Remove Screw (2) from center of Adjustment Knob (1) and remove Adjustment Knob.

b. Remove Nylok Nut, Delrin Upper Cap, Delrin Upper and Lower Balls, along with the base from the Coliover stud.

c. Thread Adjuster Nut (3) onto the CoilOver body. Once it is threaded on the shock body, lightly thread in the locking screw (4) into the Adjuster Nut.

d. Install a Delrin Spring Washer (5) onto the Adjuster Nut.

e. Slide the CoilSpring (6) onto the CoilOver.

f. Install another Delrin Spring Washer (5) on top of the CoilSpring.

g. Install the Upper CoilSpring Plate (7) onto the CoilSpring.

h. Install the CoilSpring Retaining Ring (8) onto the Stud Top Base (9). It fits into the groove in the base.

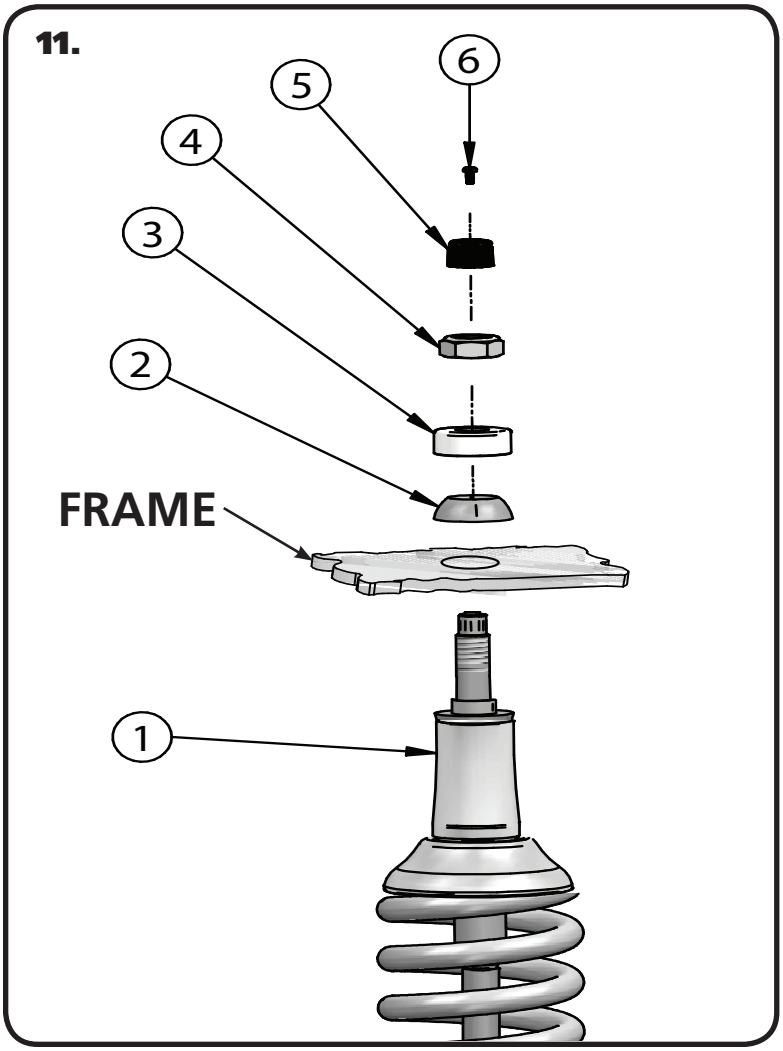
i. Slide the Stud Top Base onto the shock until it bottoms out on the stud. It may be necessary to thread the Adjuster Nut down the shock body (to lower the spring) if the base will not slide all the way down onto the stud.

k. Slide the Lower Delrin Ball (10) (it has the collar sticking up around the center hole) on to the Stud Top.

Repeat on second CoilOver.

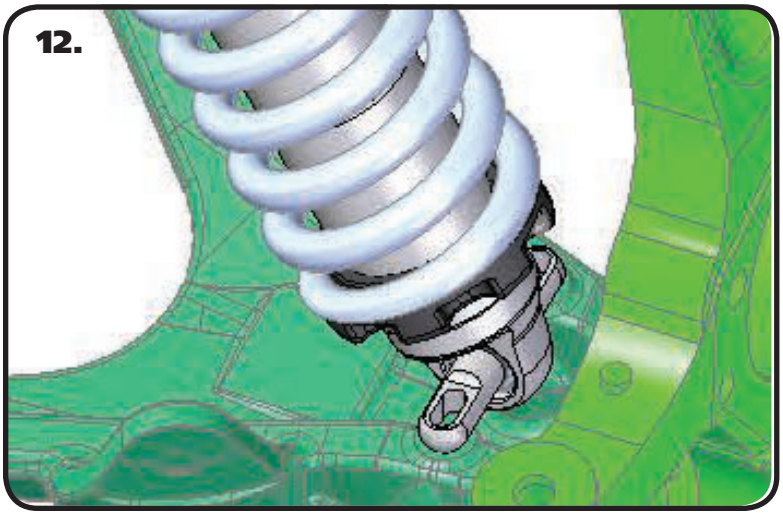
CoilOver Installation

11.



11. With the CoilOver(1) assembled, it is time to bolt them into the car. Insert to CoilOver Stud Top through the factory hole in the frame. Install the Upper Delrin Ball(2) onto the shock stud with the flat side facing the frame. Next, Install the Delrin Ball cap (3) onto the shock stud with the Concave side facing the Upper Delrin ball. Install the Nylok Nut(3) onto the shock stud and lightly tighten. The needs to be some resistance on the ball but not tight enough that it will not rotate freely. Reinstall the adjuster knob(5) using the screw (6) that was removed during step 10.

12.

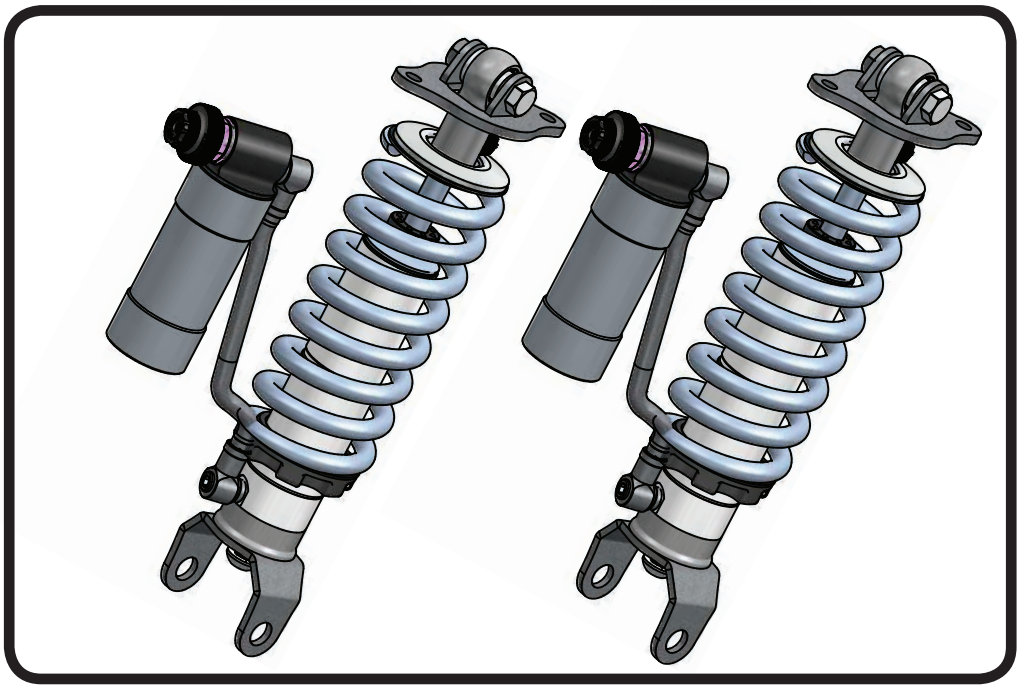


12. Attach the CoilOver Trunnion to the OEM Control arm using the OEM hardware. Tighten the lower Coilspring Adjusting nut until the Coilspring is sitting snuggly on the CoilOver. Using the Spanner wrench add another 1/2" of preload in the spring by threading the adjuster nut up the Shock Body. Be sure that the locking screw is lightly tightened in the adjuster nut. Once you have preloaded tighten the locking screw. It may be necessary to add more preload, this will be determined once the car is setting on the ground.

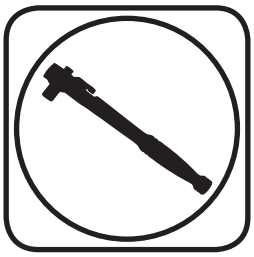
ridetech

Installation Instructions

Part # 11516111 - 1998-2013 C5/C6 TQ Rear CoilOvers



Recommended Tools



1998-2013 C5/C6 TQ Series Rear CoilOvers

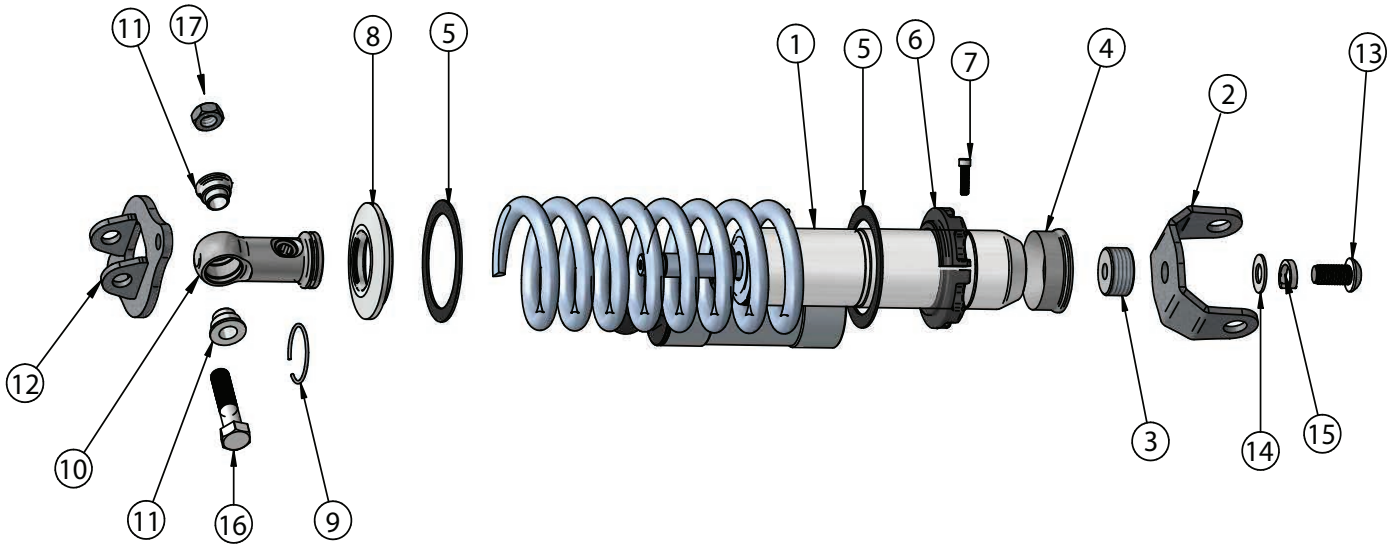
Installation Instructions

Table of contents

Page 22..... Included components
Page 23..... Hardware List and Getting Started
Page 24..... CoilOver Assembly and Installation
Page 25..... Upper Mount Assembly and Installation
Page 26..... CoilSpring and Shock Adjustment
Page 27&28... Shock Adjustment

Major Components .....In the box

Item #	Part #	Description	QTY
1	24639999	3.6" Stroke HQ Series Shock	2
2	70011446	Lower Shock Mount (Attached to Shock)	2
3	90002397	Adapter Puck (Attached to Shock)	2
4	90002636	Adapter Ring (Attached to Shock)	2
5	70010828	Delrin Spring Washer	4
6	90002222(kit)	Lower Spring Adjuster Nut (90002222 kit)	2
7	90002222(kit)	Adjuster Nut Locking Screw (90002222 kit)	2
8	90002222(kit)	Upper CoilSpring Retaining Plate	2
9	90002222(kit)	CoilSpring Plate Retaining Ring	2
10	90002026	Upper Shock Eyelet	2
11	90002043	Upper Eyelet Bearing Spacers	2
12	90002584	Upper Shock Mount Assembly - Driver	1
12	90002585	Upper Shock Mount Assembly - Passenger	1
	90001994	5/8" ID Bearing (installed in shock eyelet)	2
	90001995	Bearing Snap Ring (installed in shock eyelet)	4
	90002221	Reservoir Clamps (Not Shown)	4
	99050000	Reservoir Socket Head Cap Screws (Not Shown)	12
	59070600	7" 600lb CoilSpring	2



Hardware List .....In the box

QTY	Part Number	Description	
2	99501042	1/2:-13 x 1" Button Head	Lower Shock Mount to Shock (13)
2	99503006	1/2" SAE Flatwasher	Lower Shock Mount to Shock (14)
2	99503008	1/2" Split Lock Washer	Lower Shock Mount to Shock (15)
2	99501041	1/2"-20 x 2" Hex Bolt	Upper Shock To Mount (16)
2	99502016	1/2"-20 Nylok Nut	Upper Shock to Mount (17)

Getting Started.....

Congratulations on your purchase of the Ridetech C5/C6 CoilOver System. This system has been designed to give your Corvette excellent handling along with a lifetime of enjoyment. The CoilOver System provides flexibility that can not be achieved with Leaf Springs. The CoilOver System will give you the flexibility of adjusting your ride height along with numerous spring options to dial in your ride quality to your personal preference.

This CoilOver System is Designed to replace the factory Shock and Leaf Springs.

1. The front OEM Shocks and Leaf Spring will need to be removed from the front of the car.

2. Raise the vehicle and support it by the frame or rear crossmember allowing the suspension to hang freely.

3. Remove the shocks from both sides retaining the hardware.

4. Relieve all the tension on the springs. Place a 21 mm wrench on the top nut on one of the spring adjuster bolts, and then use an 18mm socket wrench on the head of the bolt to loosen it. Do this step on both sides.

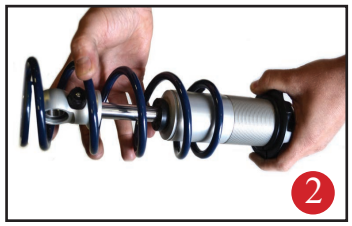
5. With the tension relieved from the spring, remove the (4) bolts that hold the spring retaining straps and remove the spring from the car

6. With the Shocks and Leaf Springs removed you are ready to start assembling the CoilOvers and install them in your Corvette.

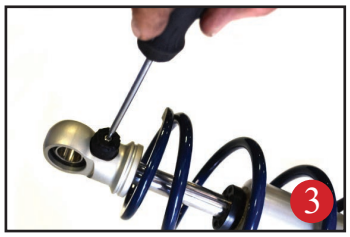
To get Started refer to the page 4 on how to assemble the CoilOver

CoilOver Assembly

First using the supplied lower adjuster nut(90002222) thread the nut onto the shock from the top side as seen in figure 1



Next install delrin washers then coil spring over the top of the shock as seen in figure 2

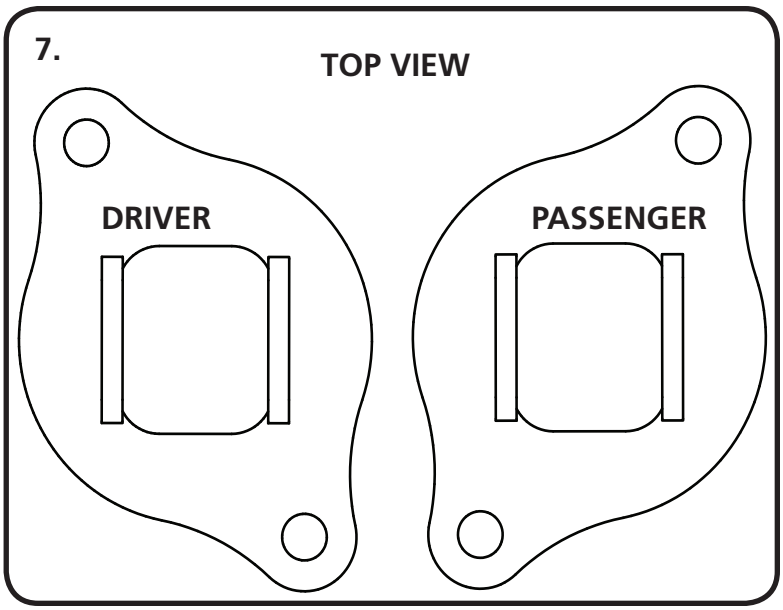


Before the upper spring mount can be installed screw the adjuster knob on the upper eye mount to the firmest setting (clockwise) as seen in figure 3. and remove knob.

Slide the Derlin washer over the spring, Next slide the upper spring mount (90002222) over eyelet as seen in figure 4.

Install upper spring mount retainer clip (90002057) into the groove on the upper eyelet as seen in figure 5. Then reinstall adjuster to complete assembly.

CoilOver Installation

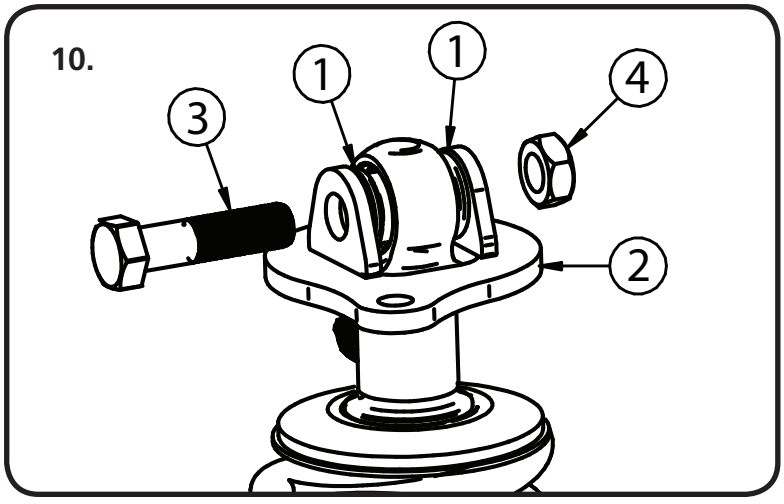


7. New Upper Mounts are included to replace the OEM mounts. The Upper Mount will be replaced with mounts included in the Shock Kit. When these mounts are installed correctly, the Upper Mounting Bolt will be PARALLEL with the Lower Mounting Bolt.

Upper Mount Fitting and Installation

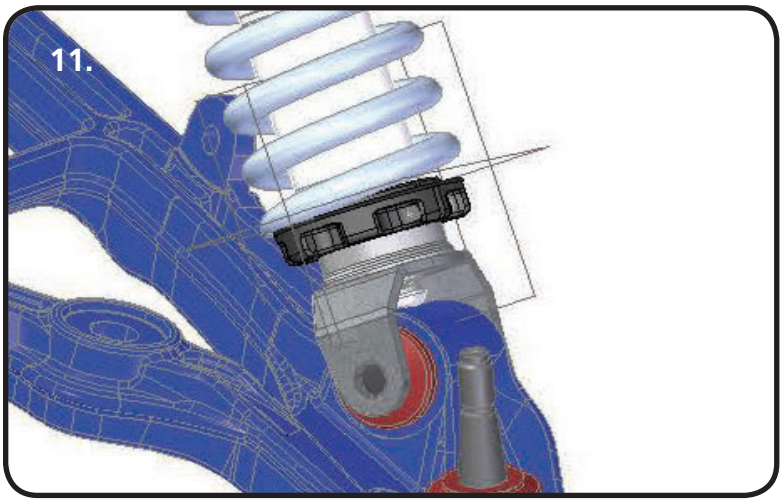
8. Insert the 1/2" x 2" Bolt through the holes in the tabs of the Upper Mount. Test fit the Upper Mount to see if any clearancing is necessary. The Mount needs to sit tight against the OEM shock mount with the mounting holes aligned. You may have to clearance the hole for the bolt to fit through it.

9. Clearance the hole if the Mount doesn't sit correctly.



10. With the CoilOver assembled insert the upper spacers(1) into the upper shock bearings. With the spacers installed insert the CoilOver assembly into the upper shock mount(2). Align the holes in the bracket with the hole in the Shock spacers and insert the 1/2" Bolt(3) and secure with the 1/2" Nylok Nut(4). Once the Mounts are assembled on the CoilOvers, install the assembly into the car making sure they are on the correct sides. The attaching bolt should run front parallel with the lower shock mount.

Attaching Lower



11. Attach the lower CoilOver mount to the OEM Shock Mount on the Lower Control Arm using the factory hardware. It may be necessary to raise the lower control arm up to align the CoilOver with the OEM Mount. Tighten the lower Coilspring Adjusting nut until the Coilspring is sitting snuggly on the CoilOver. Using the Spanner wrench add another 1/2" of preload in the spring by threading the adjuster nut up the Shock Body. Be sure that the locking screw is lightly tightened in the adjuster nut. Once you have preloaded tighten the locking screw. It may be necessary to add more preload, this will be determined once the car is setting on the ground.

CoilSpring Adjusting

Ride Height

We have designed most cars to have a ride height of about 1 1/2" lower than factory. To achieve the best ride quality & handling, the shock absorber needs to be at 40-60% overall travel when the car is at ride height. This will ensure that the shock will not bottom out or top out over even the largest bumps. Measuring the shock can be difficult, especially on some front suspensions. Measuring overall wheel travel is just as effective and can be much easier. Most cars will have 4-6" of overall wheel travel. One easy way to determine where you are at in wheel travel is to take a measurement from the fender lip (center of the wheel) to the ground. Then lift the car by the frame until the wheel is just touching the ground, re-measure. This will indicate how far you are from full extension of the shock. A minimum of 1.5" of extension travel (at the wheel) is needed to ensure that the shock does not top out. If you are more than 3" from full extension of the shock then you are in danger of bottoming out the shock absorber.

Adjusting Spring Height

When assembling the CoilOver, screw the spring retainer tight up to the spring (0 preload). After entire weight of car is on the wheels, jounce the suspension and roll the car forward and backward to alleviate suspension bind.

- If the car is too high w/ 0 preload then a smaller rate spring is required. Although threading the spring retainer down would lower the car, this could allow the spring to fall out of its seat when lifting the car by the frame.

- If the car is too low w/ 0 preload, then preload can then be added by threading the spring retainer up to achieve ride height. On 2.6" - 4" stroke shocks, up to 1.5" of preload is acceptable. On 5-7" stroke shocks, up to 2.5" of preload is acceptable. If more preload is needed to achieve ride height a stiffer spring rate is required. Too much preload may lead to coil bind, causing ride quality to suffer.

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.

Shock adjustment 101- **Triple Adjustable**

Triple Adjustable:
Step One: High Speed Compression

-High speed compression adjustments are used in both street driving and track tuning.

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

-Now turn the high speed compression adjuster knob counter clock wise 20 clicks. This sets the shock at 20. (settings 21-24 are typically too soft for street use. For typical street driving the high speed compression adjuster will remain at setting 20.

Shock Adjustment

Step Two: Low Speed Compression

Low speed compression adjustment is what is typically felt during street driving.

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

-Now turn the low speed compression 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 low speed compression 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 low speed compression knob clock wise 3 additional clicks.

-If the vehicle is too stiff rotate the low speed compression 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.

Step 3:

Adjust rebound according to Single Adjustable instructions.

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.

STILL HAVE QUESTIONS?

Tech line hours

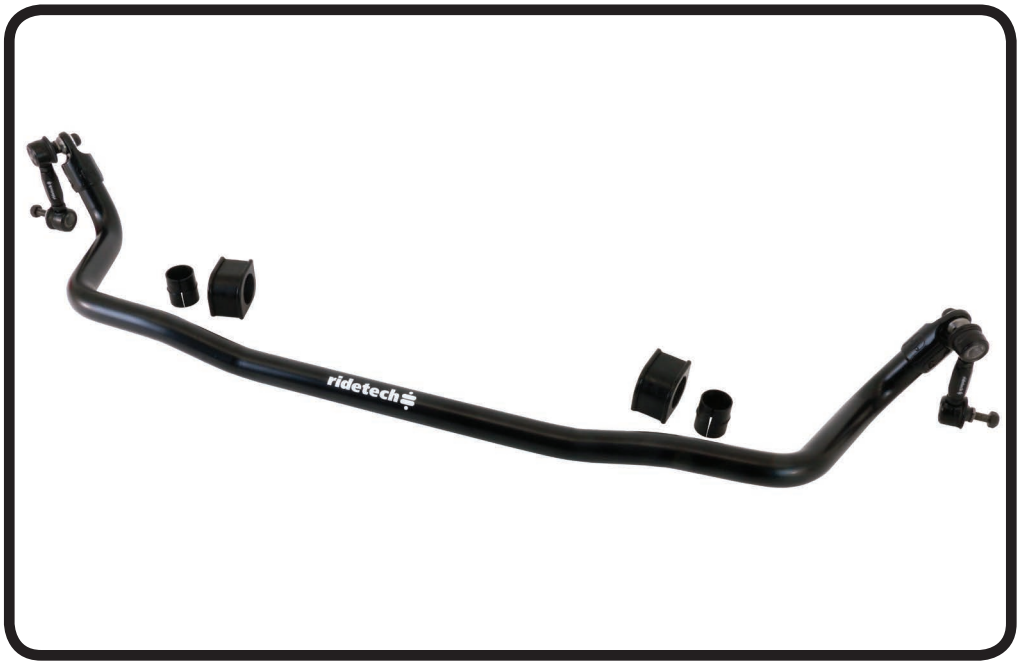
Monday - Friday

8AM - 6PM (EST) 812-482-2932

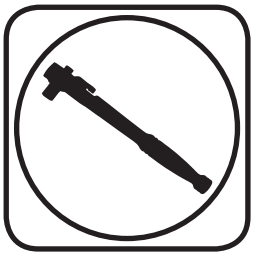
ridetech

Installation Instructions

Part # 11519120 - 1997-2013 C5/C6 Front SwayBar



Recommended Tools



1997-2013 C5/C6 Front SwayBar
Installation Instructions

Table of contents

Page 30..... Included Components and Hardware List
Page 31..... SwayBar Installation

Hardware Torque Specifications
Bushing Strap .....43 ftlbs
End Link Nuts..... 53 ftlbs

www.ridetech.com

812-482-2932

Major Components .....In the box

Part #	Description	QTY
90001231	Front SwayBar	1
70012394	Delrin Sway Bar Bushing Liner	2
70014280	SwayBar Bushing	2
90001265	12mm End Link Adapter Bushing - Thin	2
90001264	End Link Adapter Spacer - Thick	2

END LINK ASSEMBLY

Part #	Description	QTY
90002573	12mm 90 Degree End Link	4
90001263	End Link Spacer	2

Getting Started.....

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.

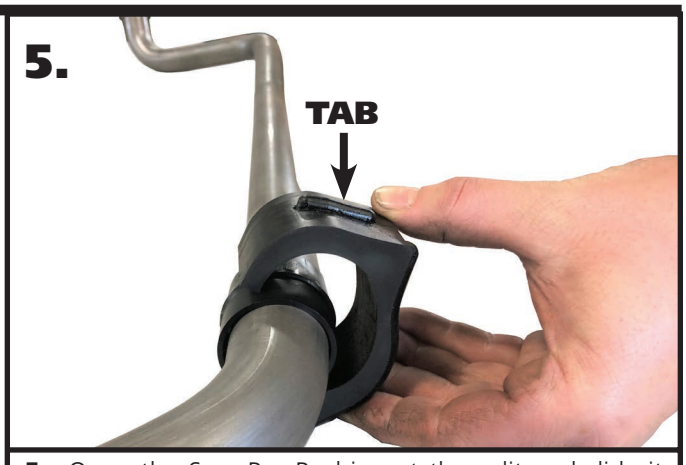
NOTE: THIS KIT UTILIZES THE OEM BUSHING STRAPS AND MOUNTING HARDWARE.

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 car.

2. Remove the stock sway bar.

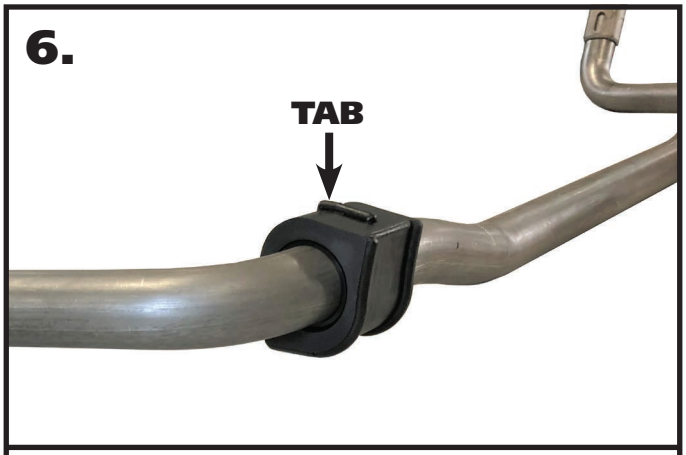
3. Remove the OEM end links.

4. Open the Delrin Liner at the split and slip it over the SwayBar. Position it in the area that the bushing will ride based on the location of the stock swaybar. Do this on both ends of the swaybar.



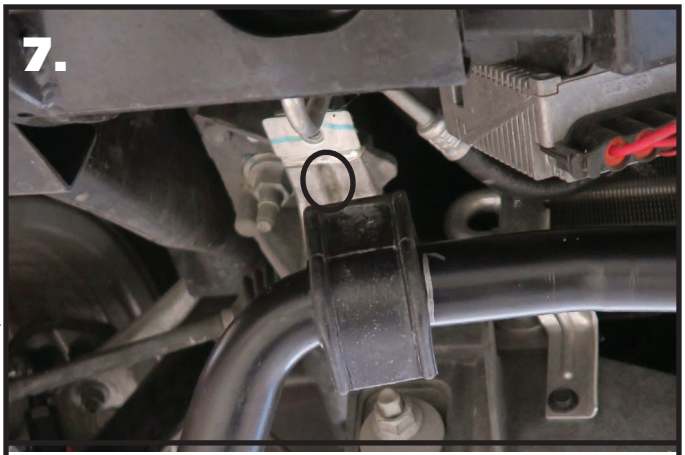
5. Open the SwayBar Bushing at the split and slide it **OVER** the Delrin Liner. The Bushing needs to installed with the TAB upward and the radius to the rear. Do this on both Delrin Liners. **Images 5 & 6** illustrate the correct positioning of the bushings.

6.



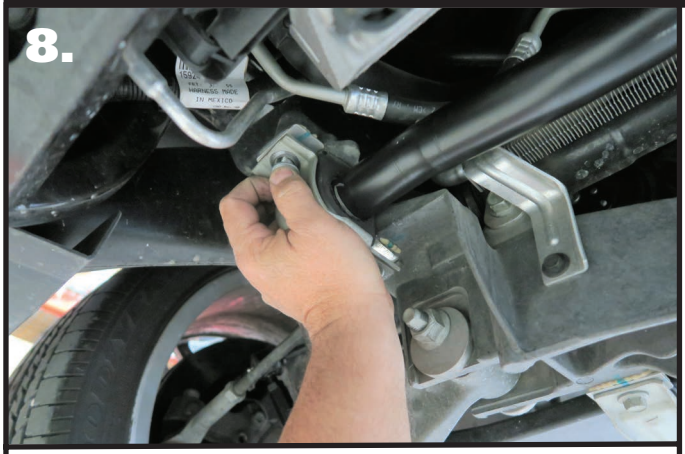
6. Image 6 illustrates the proper positioning of the swaybar bushing.

7.



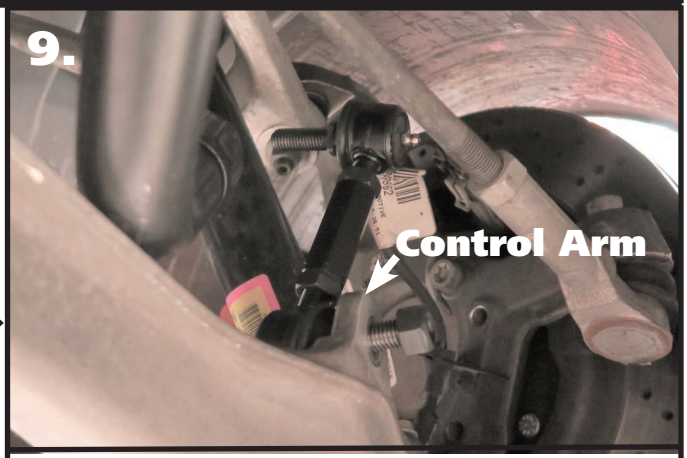
7. Slide the SwayBar into position on the car with the SwayBar arms below the tie rods. The TAB of the bushing will nest into a SLOT in the cradle.

8.



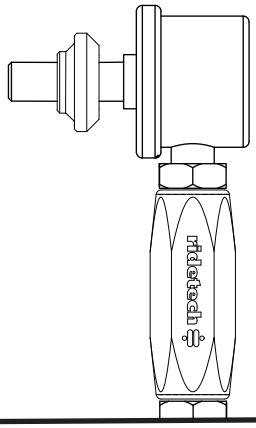
8. While holding the swaybar in position, reinstall the OEM bushing straps using the OEM hardware. Leave the hardware loose until the linkage is attached to the swaybar.

9.



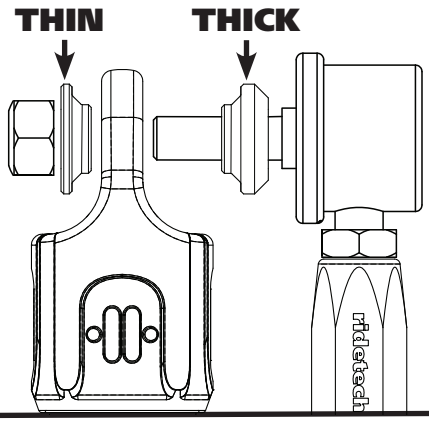
9. Attach the Linkage to the lower control arm with the threads pointing forward. It will attach to the OEM swaybar tab on the lower control arm. Torque the hardware.

10.



10. Slide the THICK T-bushing onto the stud of the loose end link. Use **Image 10** as a reference for proper direction of the t-bushing. The end links are supplied with the jam nuts, you will need to tighten the jam nuts once the end links are are installed. They can be adjusted to ensure zero preload on the bar.

11.

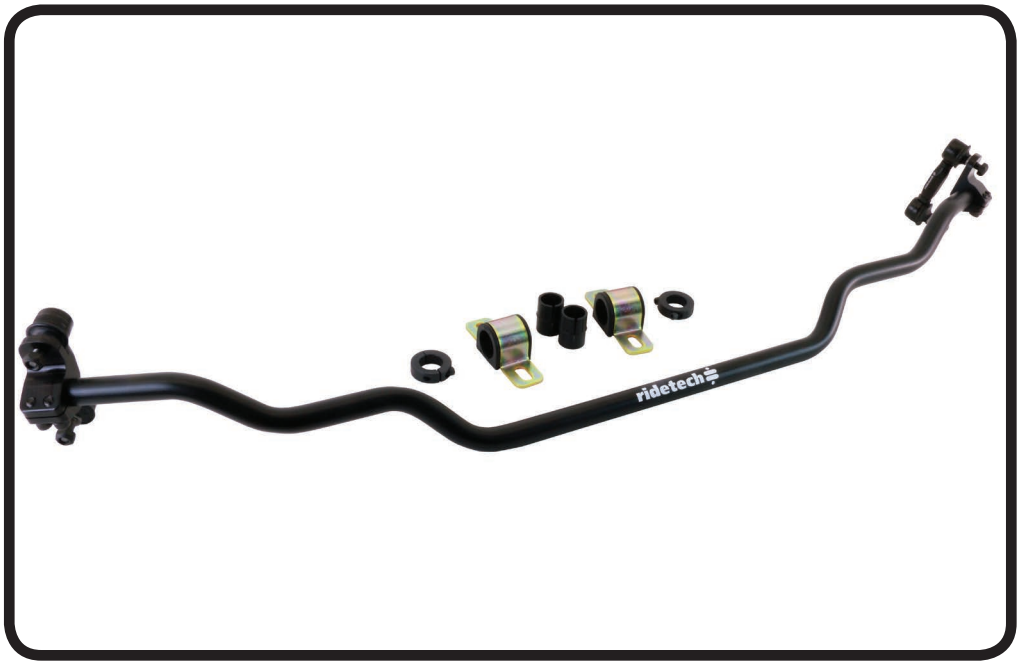


11. Insert the T-bushing/End link into the end of the swaybar. Install the THIN T-bushing onto the threads of the end link that are sticking through the swaybar end. Install the Nut supplied on the end link and torque the nuts. Torque the bushing strap hardware and tighten the end link jam nuts.

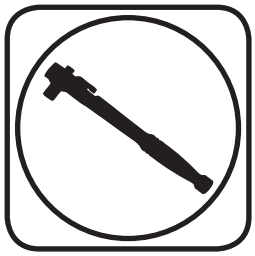
ridetech

Installation Instructions

Part # 11519122 - 1997-2013 C5/C6 Rear SwayBar



Recommended Tools



1997-2013 C5/C6 Rear SwayBar
Installation Instructions

Table of contents

Page 33..... Included Components and Hardware List
Page 34..... SwayBar Installation

Hardware Torque Specifications

Upper Bushing Strap	49 ftlbs
Lower Bushing Strap	70 ftlbs
End Link Nuts.....	53 ftlbs
Clamp On Ends.....	35 ftlbs

www.ridetech.com

Major Components .....In the box

Part #	Description	QTY
90001232	Rear SwayBar	1
70012496	Delrin Sway Bar Bushing Liner	2
90002539	SwayBar Bushing	2
90001250	SwayBar Bushing Strap	2
90001266	Clamp On End	2
70014301	Clamp Collars	2

END LINK ASSEMBLY

Part #	Description	QTY
90002573	12mm 90 Degree End Link	4
90001263	End Link Spacer	2

HARDWARE

Part #	Description	QTY
99371054	3/8"-16 x 7/8" Socket Head Cap Screw	4
90002276	Antisieze	1

Getting Started.....

This SwayBar is adjustable to help tune the handling of your Corvette. You can adjust it by loosening the Clamp On End and sliding it in or out on the bar. With the Clamp On End slide out even with the end, the bar rates at 400 lbs. With the Clamp on end slid in 3" from the end, it rates at 775 lbs. It changes approximately 125 lbs each inch slid in from the ends. The position is going to vary depending other suspension components installed and driving style. It is safest to start with the clamp on mount even with the end and tune from there.

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.

NOTE: THIS KIT UTILIZES THE OEM BUSHING STRAP MOUNTING HARDWARE.

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 car.

2. Remove the stock sway bar.

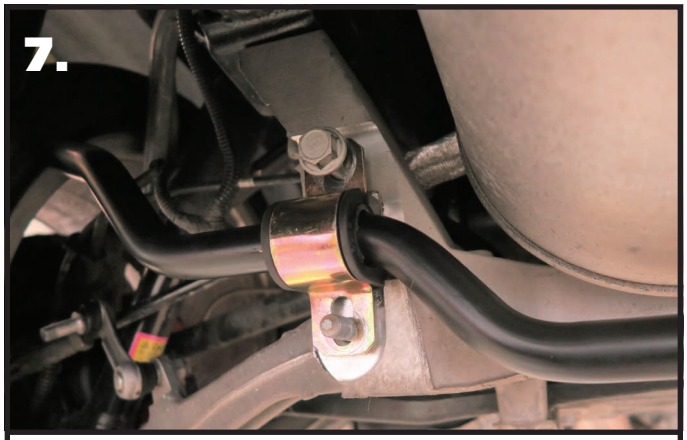
3. Remove the OEM end links.

4. Install the Delrin Liner by sliding it over the end of the bar into position. Position it in the area that the bushing will ride based on the location of the stock swaybar. Do this on both ends of the swaybar.

5. Open the SwayBar Bushing at the split and slide it **OVER** the Delrin Liner. Do this on both Delrin Liners.

6. Slip the Bushing Straps over the SwayBar Bushings.

Note: Our Optional Billet Mount is shown in the pictures.



7. Insert the swaybar into position with the center bending down and the ends going forward. Use the OEM hardware to hold the swaybar in place. Center the bar side to side before tightening the hardware. Torque the lower nut to 70 ftlbs, torque the upper bolt to 49 ftlbs.

8. Install the locking rings on the outside of each bushing assembly. Use a hex key to take the locking ring apart. Reassemble it on the bar positioned next to the outside of the bushing assembly. Push the locking ring up against the bushing assembly and tighten.

9. Apply Antisieze to the (4) 3/8"-16 x 7/8" Socket Head Cap Screws, thread them into the Clamp-On Ends. Install a clamp-on end on each end of the bar. The End Link mounting hole should be mounted to the outside of the bar and pointing up. Start with the mount flush with the end of the bar. Do not tighten the mount at this time.

10. Install the End Links using **Image 10** as a reference. Install both end links before tightening the end link hardware. Tighten the end link nuts to 53 ftlbs.

11. Sit the car on the ground to tighten the clamp on mounts. With the car on the ground, position the clamp ends so that the end link studs are parallel with each other. Torque the clamp ends evenly to 35 ftlbs. Retorque the clamp ends anytime you do a rate adjustment.