# ridetech ÷ Installation Instructions



#### Part # 85000009 - Control Arm Bushing Removal/Installation Tool



#### **Recommended Tools**





## Control Arm Bushing Removal/Installation Tool Installation Instructions

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

Part #	Description	QTY
90002558	Inner Control Arm Support	1
90002559	2.375" ID Sleeve	1
90002560	1.875" ID x 1" Long Sleeve	1
90002561	1.875" ID x 1.5" Long Sleeve	1
90002562	1.875" ID x 1.875" Long Sleeve	1
90002563	1.325" OD Washer	1
90002564	1.625" OD Washer	1
90002565	1.865" OD Washer	1
90002566	2.625" OD Washer	2
90002567	Cross Shaft Tab, Removal (SHORT)	2
90002568	Cross Shaft Tab, Install (LONG)	2
70012561	Aluminum Spacer Sleeve	1
99375012	3/8"-24 x 3" Threaded Stud	1
99372010	3/8"-24 Hex Nut	2
99373002	3/8" Flat Washer	1
99311014	5/16"-18 x 1 3/4" Hex Bolt	1
99311026	5/16"-18 x 2 1/4" Hex Bolt	1
99622009	5/8"-18 Hex Nut	1
99623010	5/8" Flat Washer	1
99505003	1/2"-10 x 8" ACME Threaded Rod	1
99502013	1/2"-10 ACME Hex Nut	2
99503003	1/2" Flat Washer	1

### Getting Started.....

This kit is designed to aid in the removal of the OEM bushings and installation of the Delrin StreetGrip bushings. This guide will show you how the kit is to be used. It is important to not get the bushings crooked on installation.

The kit contains several different size washers, it is important to use the correct OD washer for your bushing. Select the largest washer that will still fit through the bushing hole on the control arm.

**1.** The components you will need to remove the lower control arm bushings are: 2.375" ID Sleeve, 2.625" OD Washer, Inner Control Arm Support Handle, 1/2"-10 x 8" Threaded Rod, 1/2" Flatwasher, (2)1/2"-10 Hex Nuts, Aluminum Spacer Sleeve, and the correct OD Washer for the bushing you are pushing out. To determine the correct OD Washer, compare it to the OD of the OEM bushing where it is pressed into the control arm. It should be smaller than the OD of the OEM bushing.







#### Lower Control Arm Bushing Removal







**2.** Start by sticking the Inner arm support in the arm with the "C" shape cradling the bushing. This support keeps the control arm from deforming while removing and installing the bushings.

3. Install a 1/2"-10 Hex Nut on one end of the1/2"-10 x 8" threaded rod. Insert the nut/ threaded rod assembly into the 2.625" OD washer. Position the 2.375" Sleeve over the bushing. Insert the threaded rod/washer setup through the 2.375" sleeve, inserting it into the bushing with the hex of the threaded rod out. Place the correct diameter washer onto the threaded rod that is sticking out of the other side of the bushing. Install a 1/2" Flatwasher onto the threaded rod followed by a 1/2"-10 hex nut. Thread the nut down until all parts are snug. Be sure the 2.375" sleeve is around the flange of the bushing and not on top of it anywhere. Also, make sure the 2.625" washer is center on the 2.375" sleeve.

**4.** Using a wrench on each hex, tighten the nut. The bushing should start pushing out of the arm. Tighten the nut, pushing the bushing out, until the washer is just through the inner surface of the control arm. Loosen the nut, removing the nut/ flatwasher and pushing washer.





#### **Lower Control Arm Bushing Removal**



**5.** Slide the Aluminum Spacer Sleeve onto the Threaded Rod followed by the Pushing Washer, Flat Washer and Hex Nut. Run the nut down snug, making sure the 2.625" washer is centered on the 2.375" Sleeve. Using wrenches, tighten the Hex Nut to push the bushing out of the control arm.

Repeat the previous steps until you have all of the bushings removed. USE THE INNER SUP-PORT ON EACH BUSHING & BE SURE TO SELECT THE CORRECT OD WASHER.

#### **Lower Control Arm Bushing Installation**

**6.** Select the correct bushings to install in the control arm. Compare them to the OEM bushings to help select the correct bushings. Each Bushing Assembly will consist of; Bushing Shell, Delrin Bushing, & Inner Sleeve.

**7.** The components you will need to install the lower control arm bushings are: 2.375" ID Sleeve, 2.625" OD Washer, Inner Control Arm Support Handle, 1/2"-10 x 8" Threaded Rod Assembly, 1/2" Flatwasher, (2)1/2"-10 Hex Nuts, and the correct OD Washer for the bushing you are pushing in. To determine the correct OD Washer, it should be, at least, as large as the flange on the bushing you are installing.

**8.** Push the outer shell, of the lower control arm bushing, into the hole of the control arm. You can, generally, push it partially in. Insert the Inner Support into the control arm, cradling the bushing shell.



**9.** The 2.375" Sleeve/2.625" Washer will be placed against the control on the inner side that the bushing will be pushed into. **IT IS VERY IMPORTANT THAT THE NO EDGE OF THE 2.375" SLEEVE GETS OVER THE BUSH-ING HOLE, IN THE CONTROL ARM, WHILE INSTALLING THE BUSHING SHELL.** This can cause the bushing shell to crash into the bushing as you are installing it. Insert the 1/2"-10 x 8" Threaded Rod into the 2.625" Washer and through the bushing sleeve.





#### **Lower Control Arm Bushing Installation**



**10.** Slide a Washer onto the Threaded Rod that is at least as large as the OD of the Bushing Sleeve Flange, follow that with a 1/2" Flat Washer and 1/2"-10 Hex Nut. Little tighten the 1/2" Nut. Center the assemble on the bushing shell. Using 2 wrenches, tighten the 1/2" Nut. Tightening the Nut will push the bushing shell into the control arm. MAKE SURE THE BUSHING IS GOING IN STRAIGHT AS YOU TIGHTEN THE NUT. Tighten the Nut until the flange of the shell bottoms out against the control arm. Remove the pieces used to push the shell in.

**11.** Start the correct delrin bushing into the shell by hand. Tap it the rest of the way in with a hammer. The assembly used to push the shell in can also be used. Bottom the bushing flange against the flange of the shell.

**12.** Start the correct inner sleeve into the delrin bushing. You can tap it in some with a hammer. Be careful to not distort the edge of the bushing with the hammer.





#### **Lower Control Arm Bushing Installation**



**13.** Use the 2.375" Sleeve, 2.625" Washer, 1/2" Threaded Rod, Large Washer, 1/2" Flat Washer, 1/2" Hex Nut, used to push the shell into the arm, to finish pushing the inner sleeve into the delrin bushing. Tighten the nut until the sleeve is all the way in the bushing.

Repeat steps 6-13 on the remaining bushings. USE THE INNER SUPPORT ON EACH BUSH-ING & ON EACH STEP. TAKE YOUR TIME TO MAKE SURE THE BUSHING SHELLS ARE GOING IN STRAIGHT.

#### **Upper Control Arm Bushing Removal**

This kit is designed to aid in the removal of the OEM bushings and installation of the Delrin StreetGrip bushings. This guide will show you how the kit was designed to be used. It is important to not get the bushings crooked on installation.

**14.** The components you will need to remove the upper control arm bushings are: 2.25" ID Sleeve, 2.625" OD Washer, 3/8"-24 x 3" Threaded Rod, 3/8" Flatwasher, 3/8"-24 Hex Nut, (2) Cross Shaft Tabs (SHORT), 5/16"-18 x 1 3/4" Hex Bolt, and 5/16"-18 Hex Nut.

**15.** Remove the OEM bushing hardware, DO NOT DISCARD.



**16.** Bolt the Short Cross Shaft Tabs to the cross shaft using 5/16"-18 x 1 3/4" Hex Bolt & Hex Nut. The Tabs will be bolted to the cross shaft using the cross shaft mounting holes. Place a Tab on each side of the cross shaft with the flat side against the control arm bushing. Tighten the 5/16" bolt/nut with the flats squarely against the bushing.





#### **Upper Control Arm Bushing Removal**





**17.** Insert the 3/8"-24 x 3" threaded rod into the 2.625" OD washer. Position the 2.25" Sleeve over the bushing. Insert the threaded rod/washer setup through the 2.25" sleeve threading the rod into the end of the cross shaft. Thread it in until it stops. Install a 3/8" Flatwasher onto the threaded rod followed by a 3/8"-24 Hex nut. Thread the nut down until all parts are snug. **Be sure the 2.25" sleeve is around the flange of the bushing and not on top of it anywhere.** 

**18.** Tighten the 3/8"-24 Nut down, pushing the bushing out of the control arm. It may be necessary to loosen the assembly and turn the cross shaft in the bushing if the bushing would happen to start pushing out crooked. Tighten the nut until the tabs bottom out or push the bushing out. If the tabs bottom out before the bushing is completely out, you should be able to tap it out with a hammer.

Repeat for the remainder of the bushings.

## **Upper Control Arm Bushing Installation**

**19.** Select the correct bushings to install in the control arm. Compare them to the OEM bushings to help select the correct bushings. Each Bushing Assembly will consist of; Bushing Shell, Delrin Bushing, & Inner Sleeve.

**20.** The components you will need to install the upper control arm bushings are: 3/8"-24 x 3" Threaded Rod, 3/8" Flatwasher, 3/8"-24 Hex Nut, (2) Cross Shaft Tabs (SHORT), (2) Cross Shaft Tabs (LONG) 5/16"-18 x 2 1/4" Hex Bolt, and 5/16"-18 Hex Nut, & Large Washer. The OD of the Large Washer should be approximately as large as the OD of the flange of the bushing shell you are pressing in.







#### **Upper Control Arm Bushing Installation**





**21.** Bolt the Long & Short Cross Shaft Tabs to the cross shaft using 5/16"-18 x 2 1/4" Hex Bolt & Hex Nut. The Tabs will be bolted to the cross shaft using the cross shaft mounting holes with a SHORT & LONG Tab on each side of the cross shaft. The SHORT Tab will be against the cross shaft with a LONG Tab on the outside of it. Use Diagram "21" & "22" as a reference. The FLAT SIDE of the LONG Tab will go against the control arm. Tighten the 5/16" bolt/nut with the flats of the LONG tab squarely against the control arm.

22. Insert the correct bushing shell into the control arm by hand. It will go into the control arm some. Thread the 3/8"-24 threaded rod into the end of the cross shaft, bottoming it out. Slide a Large OD washer onto the Threaded Rod followed by a 3/8" Flat Washer & Hex Nut. BE SURE THE TABS DO NOT GET OVER ANY OF THE BUSHING OPENING OF THE **CONTROL ARM.** Snug the Hex Nut down keeping the assembly centered. Slowly tighten the Hex Nut, pushing the bushing shell into the control arm. Take your time and make sure the bushing goes in squarely. Tighten the nut until the shell bottoms out against the control arm. Remove the nut and Large Washer along with the Threaded Rod.

**23.** Start the correct bushing and sleeve by hand.





### **Upper Control Arm Bushing Installation**



**24.** Lightly tap the bushing/sleeve into the bushing shell. There will probably be a little gap left. The OEM Hardware will be used to push the bushings in the remainder of the way.

Repeat Steps 19-24 on the remainder of the bushings.

**25.** With all of the bushings and cross shafts installed, install the OEM hardware and tighten it down pushing the bushings in the remainder of the way.