

4. Install the spherical bearing into the driver side pivot housing and secure it with the Spriolox. Slide the weld clevis over the tab on the pivot housing, insert the 3/8 flat head screw from the top down, followed by the aircraft washer and locknut. Slide the pivot housing assembly over the 5/8 stud on the bottom of the strut so the weld clevis is toward the front of the chassis followed by the high misalignment washer and castle nut.

5. Position the strut at the correct front end setting using the camber, caster, and toe it settings below. You can use a piece of tube off the chassis to hold the strut in place.

Alignment specs: 0 degrees camber, 6 to 10 degrees of positive caster, and 1/32 to 1/8 inch toe in.

6. The control arm rod ends and bolts are in Part Number 6192 or 6193. Two rod ends will be used on each side of the car to complete the control arms. Thread the 1/2-20 jam nuts onto the rod ends so there is 7/8 inch of thread showing past the jam nut. Thread the rod ends and jam nut into the tube adapters in the control arm kit.

7. Insert the rod ends into the frame brackets with a misalignment bushing on each side of the rod ends; use the bolts and lock nuts in the 6192 or 6193 to fasten them.

8. Insert one of the 1" x .058-4130 tubes over the boss on the pivot housing. Run the tube toward the rod end and tube adapter so it is along the tube adapter. Mark the length of tube so it will completely slide over the tube adapter where the OD is turned down. Mark the other one using the same procedure.

IMPORTANT NOTE: *Under no circumstance should you weld on the control arm, even just tacking, while it is assembled. You will arc the strut bearing and rod end bearings, which will damage them beyond repair.*

9. Cut the tubes to length and slide them over the tube adapters and pivot housing boss. Recheck your suspension setting to make sure everything is correct. You can adjust the rod ends to make any minor adjustments. Once everything is checked, remove the tubes, pivot housing, and tube adapters so they can be welded. Mark them so you know which tubes go with the correct adapters, etc.

10. Start by drilling a 3/16" hole 3/8 of an inch from the end through both walls of the 1" x .058 tubes. These holes will be rosset welded. Remove the spherical bearing from the pivot housing before welding it to the tubes. After the control arm is welded and painted, reinstall the spherical bearing and Spriolox retaining ring. Put a small amount of red Loctite™ in the pivot housing bore to secure the spherical bearing housing.

11. Assemble the tubes, pivot housing, and tube adapters. Weld the OD of the tube joints first and then rosset weld the holes you previously drilled closed. Once the parts are cool, use a 1/2-20 NF tap to chase the threads in the tube adapters before threading the rod ends into them.

12. Remove the rod ends from the chassis brackets. Apply a small amount of anti-seize to the rod ends before assembling the control arms. This completes the driver side control arm. Use the same procedure on the passenger side control arm.

13. Assembly both struts, and controls arms on the chassis. Move the strut spindle through its full travel to make sure nothing binds up.

14. You will need to install strut tie rods (Part Number 6194), and a rack & pinion to check the bump steer before final welding the chassis tabs.

Revision Date: June 05, 2008



6191

CONTROL ARM FOR VARISTRUT

<u>ITEM</u>	<u>QTY</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	899-052-205	Pivot housing driver side
2	1	899-052-206	Pivot housing passenger side
3	2	A16.058-012.000	Steel tube 1" x .058 – 4130 x 12" long
4	2	A16.058-018.000	Steel tube 1" x .058 – 4130 x 18" long
5	4	1125	Tube adapter .880 x 1/2-20 right
6	2	1126-0.880	Weld eye .88 x 3/8 hole
7	2	3101-038-24C	Locknut 3/8-24
8	2	3109-038-S-2-Y	Aircraft washer 3/8
9	2	3105-038F1.50B	Flat head screw 3/8-24 x 1-1/2
10	2	3679	Spriolox 1.442 OD x .043 thick x .095 wall
11	2	899-029-63-1.20	Spherical bearing .625 bore x .1200 length

This strut lower control arm kit is designed for use with VariStrut #901212 or #901222.

1. Before you can install the upper strut mounts, you must determine what strut mount width you need for your tires to clear your fenders. Due to the many different front wheel and tire combinations, you should do the following calculations for your vehicle, even if it is listed in the chart on your chassis instructions.

Step 1: Determine the outside front tire width that you need. Measure the width between the front fenders. You will need 4 to 5 inches of clearance from the outside sidewall of the tire to the inner front fender lip. If you choose 4" of clearance, subtract 8 inches from the inner fender width. If you need 5" of clearance, subtract 10 inches from the inner fender width. This will equal the outside tire width.

Step 2: To determine the hub width, you need to know how much wider the outside of the tire is than the front hub. Put a yardstick across the outside sidewall of the tire and measure through the center to the side of the wheel that bolts to the hub. When the wheel is bolted on, it is this much wider than the hub. Multiply this by 2 and subtract this amount from the outside tire width you calculated in step one. This will be the required hub width.

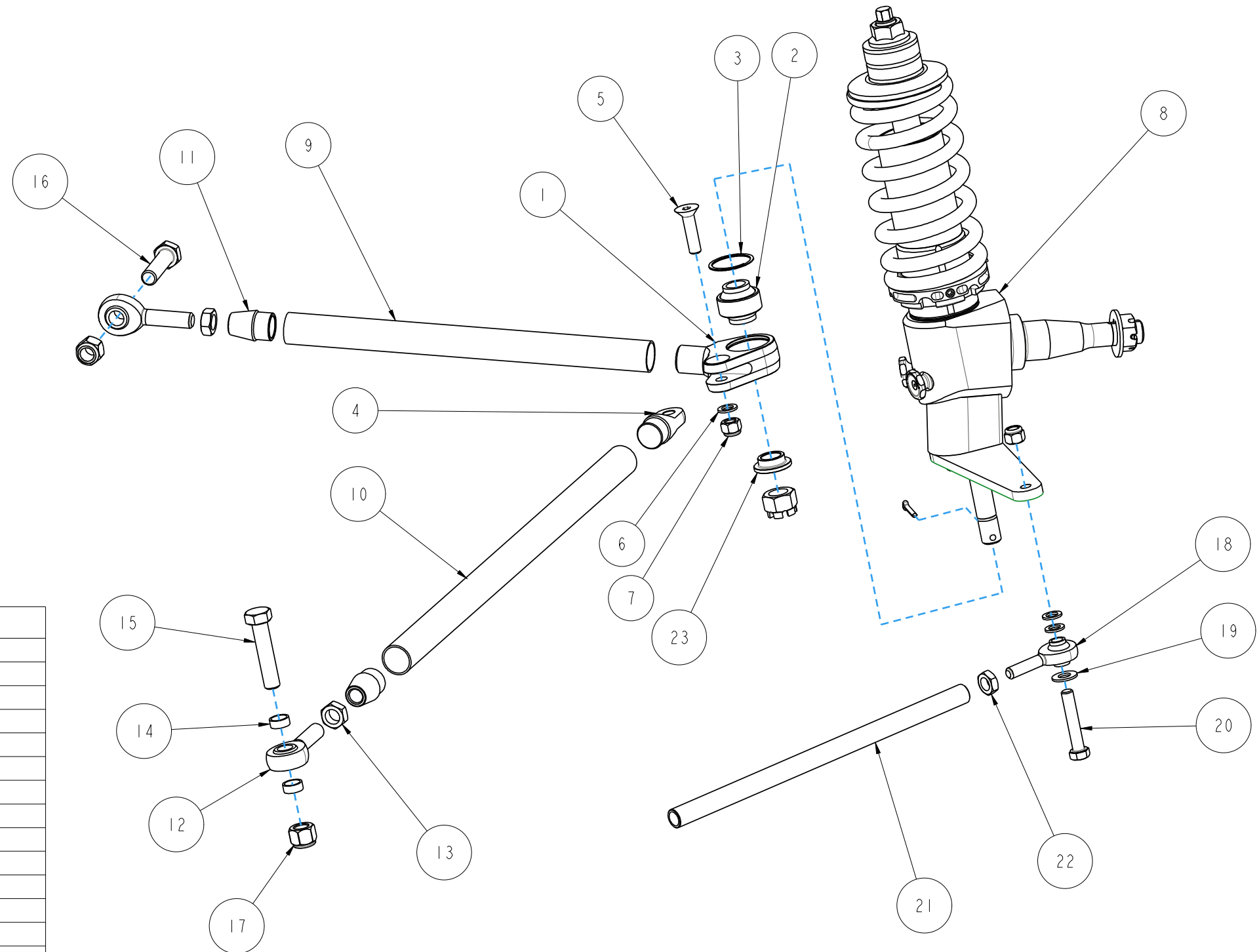
Step 3: Subtract 11-1/2 inches from the hub width to find the top strut mount width. Write your top mount width on the Assembly Drawing.

Put a line on both sides of the new front frame rails, which will represent the front spindle centerline. All of your brackets will locate off of this line.

2. Install the forward struts with their upper strut mounts. Also install the forward and rear control arm mounts. Check the assembly drawing for their locations and angles. The angle of the brackets is determined by the angle of the control arm leading into them. Only tack weld the lower control arm brackets at this time.

Install the rack and pinion mounts and crossmember per the assembly drawing. If you have an eye mount strut, the 1/2-inch bolts and misalignment bushings are used to attach the top of the strut to the strut mounts on your chassis. For the stud mount strut, install it in the upper strut cup or plate using the hardware included with the strut.

3. Wrap a piece of wire around the strut below the spring seat and up to the forward strut of the chassis so that the strut spindle is at the ride height position shown on your drawing.



ITEM	QTY	PART NO.	DESCRIPTION
1	1	899-052-205	PIVOT HOUSING DRIVER, STRUT CONTROL ARM, INTEGRAL SPINDLE STRUT
2	1	899-029-63-1.20	SPHERICAL BEARING HINIOT .856 OD x .625 BORE, 1.200 LENGTH
3	1	3679	RETAINING RING, DOUBLE TURN 1.442 OD x .043 THICK x .095 RADIAL WALL
4	1	1126	WELD EYE .880 TUBE ID x .375 WIDE x 3/8 HOLE
5	1	3471	FLAT HEAD SCREW 3/8-24 x 1.500
6	3	3217	AIRCRAFT WASHER, 3/8 x .062 THICK
7	2	3209	LOCKNUT 3/8-24 NYLON INSERT PLATED
8	1	883H400-CC0D	STRUT, INTEGRAL SPINDLE (GM) 4.00 TRAVEL, STUD MOUNT, Q2
9	1	A16.058-012.000	TUBE Ø1 x .058 4130 x 12
10	1	A16.058-018.000	TUBE Ø1 x .058 4130 x 18
11	2	1125	TUBE ADAPTER .88 x 1/2-20 RIGHT
12	2	3330	ROD END 1/2 x 1/2 RT 4130 TEFLON JMX8T
13	2	3206	1/2-20 HEX JAM NUT PLATED
14	2	1000	MISALIGNMENT BUSHING Ø1/2 BORE x .250
15	1	3100	BOLT, 1/2-20 x 2 1/4 HEX CAP SCREW, GRADE 8, PLATED
16	1	3102	BOLT, 1/2-20 x 2 HEX CAP SCREW, GRADE 8, PLATED
17	2	3200	LOCKNUT 1/2-20 NYLON INSERT PLATED
18	1	3386	ROD END 3/8 4340 RT MALE HRSMX6T
19	1	3253	WASHER, 3/8 STAINLESS, .812 OD x .406 ID x 1/16 THICK
20	1	3128	BOLT, 3/8-24 x 2 HEX CAP SCREW, GRADE 8, PLATED
21	1	1001	TIE ROD TUBE PINTO RACK AND PINION
22	1	3204	7/16-20 HEX JAM NUT PLATED
23	1	899-052-204	PIVOT SPACER LOWER STRUT PIVOT

DESCRIPTION	CONTROL ARM AND TIE ROD, VARISTRUT	
<i>Chris Alston's</i> CHASSISWORKS INC. 8661 YOUNGER CREEK DRIVE SACRAMENTO, CA 95828 (916) 388-0288 FAX 388-0295	PART NO.	6191 & 6194
	6/28/04	DWG: 916191