

READ ALL INSTRUCTIONS COMPLETELY AND THOROUGHLY UNDERSTAND THEM BEFORE DOING ANYTHING.  
CALL CHASSISWORKS TECH SUPPORT (916) 388-0288 IF YOU NEED ASSISTANCE.

# INSTALLATION GUIDE



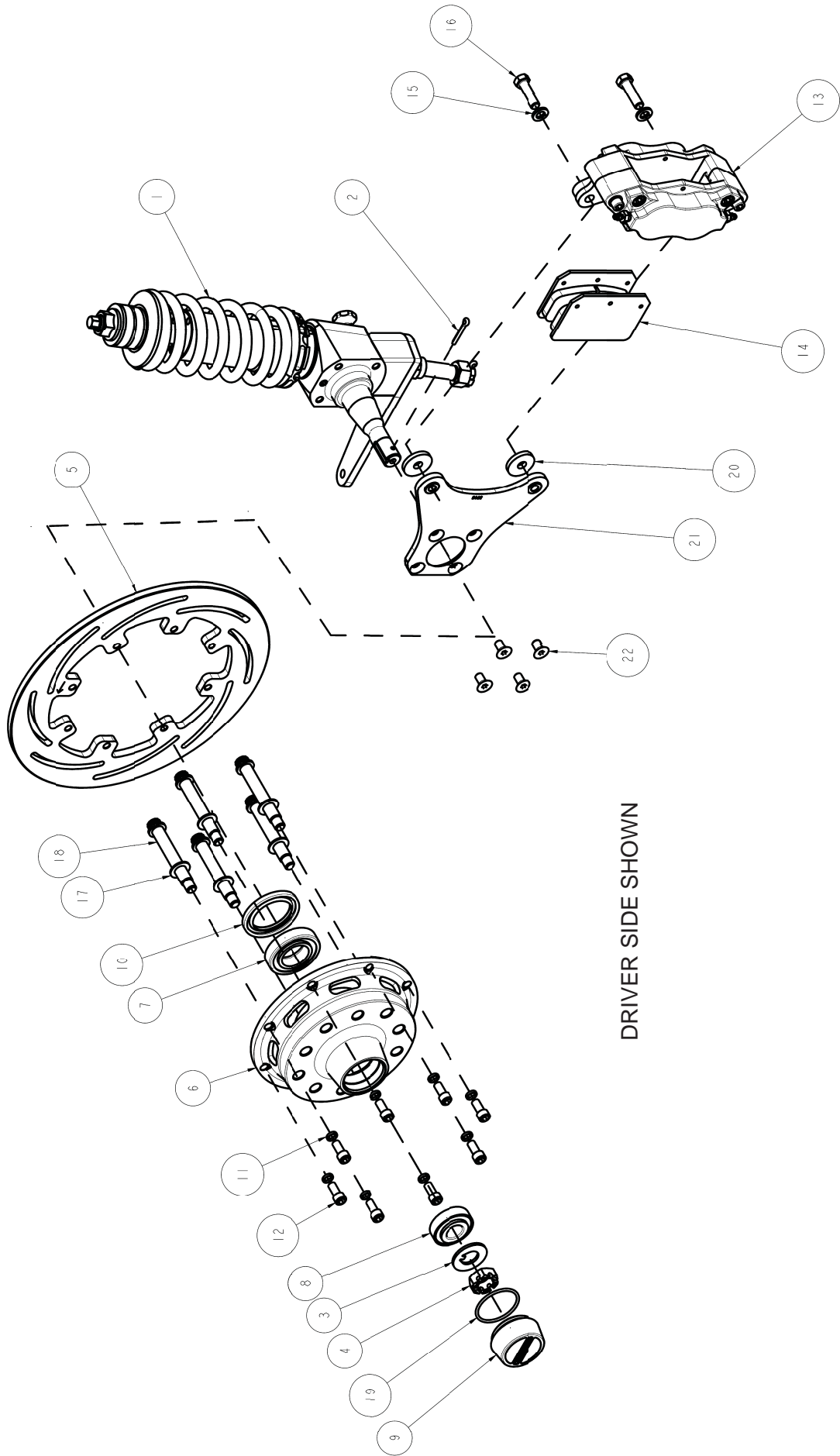
## 8366

**11-3/4" x .35" Slotted Rotor Brake Kit for Chassisworks  
Drag Race VariStrut Integral Spindle Struts**



**Description:** 11-3/4" slotted rotor, 4-piston caliper front brake kit for integral spindle VariStrut

**Includes:** Slotted 11-3/4" x .35" rotor, billet-aluminum hub, 4-piston caliper, brake pads, and aircraft grade mounting hardware.



ITEM	QTY	PART NO.	DESCRIPTION
1	1	883H400-CC0D	STRUT, INTEGRAL SPINDLE (GM) 4.00 TRAVEL, STUD MOUNT, Q2
2	2	3617	COTTER PIN, 5/32x1
3	1	2019	SPINDLE WASHER □□□ 1/2 x □□□ 3/4 .105 THICK, .180 x .110 KEY TANG
4	1	3630	SPINDLE NUT, 3/4-20 CASTLE STYLE
5	1	1510	ROTOR, .38 x 11.75 8 ON 6.875 BC, SLOTTED
6	1	1313	HUB WITH HAT, CHASSISWORKS SPINDLE, PLAIN
7	1	3375-3376	TIMKEN BEARING, CUP=LM67010, CONE=LM67048
8	1	3377-3378	TIMKEN BEARING, CUP=LM11910, CONE=LM11949
9	1	1306	FRONT HUB CAP
10	1	3650	GREASE SEAL 2.500 x 1.75 x .250
11	8	3241	HIGH COLLAR LOCKWASHER, 5/16 INCH 18-8 STAINLESS
12	8	3450	SOCKET HEAD ALLEN 5/16-18 x 3/4
13	1	WW 120-1051 LH	DYNALITE 11 .38 WIDE CALIPER, LEFT HAND, 1.75 PIST. DIA.
14	2	WW 15D-4331K	WILWOOD POLYMATRIX BRAKE PAD
15	2	3224	LOCKWASHER 3/8 MEDIUM, PLATED
16	2	3141	BOLT, 3/8-24 x 1 3/8 HEX CAP
17	5	3229	AIRCRAFT WASHER 1/2 x .062 THICK
18	5	3447	12 POINT BOLT 1/2-20 x 3
19	1	3537	O-RING, HUB CAP 1.943 x 1.737 x .103
20	2	2169	SPACER WASHER 1.25 x .500 x .180 THICK
21	1	3715	CALIPER BRACKET ASSY, MD STRUT MOUNT
22	4	3462	SOCKET FLAT HEAD COUNTERSUNK, 5/16-18 x .625

DESCRIPTION		<b>M/D VARISTRUT BRAKES, 2 PISTON BILLET CALIPER, 11.75 x .35 ROTOR</b>	
PART NO.		<b>8366</b>	
<b>Chris Alston's CHASSISWORKS INC.</b> 8661 YOUNGER CREEK DRIVE SACRAMENTO, CA 95828 (916) 388-0288 FAX 388-0295		3/15/04	DWG: 918366

# PARTS LIST

## 8366 - 11-3/4" x .35" 4-Piston Brake Kit for Chassisworks Drag Race Integral Spindle VariStrut

1	3904	Rotor set
1	3910	Hub set, billet-aluminum, medium-duty
1	3917	Caliper bracket set
2	WW 120-6818	Wilwood Forged Dynalite 4-piston caliper
1	WW 150-8850K	Brake pads, Wilwood Polymatrix (set of 4)

### 3904 - Rotor Set

2	1510	11-3/4" x .35" slotted rotor
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### 3910 - Hub Set

2	3376	Bearing cone, 1.25" ID inner bearing
2	3378	Bearing cone, .75" ID outer bearing
2	3650	Grease seal, 2.50 x 1.75 x .25"
2	3759	Hub assembly, medium-duty

### 3917 - Caliper Bracket Set

2	3715	Caliper mounting bracket, 4-piston caliper
4	3103-038F1.38C	Socket head cap screw, 3/8-24 x 1-3/8", clear zinc
8	3105-031C0.63U	Flat head cap screw, 5/16-18 x 5/8"
4	3108-038L-C	Lock washer, 3/8" regular, clear zinc
4	3157-038S-S	Flat washer, 3/8", stainless steel

# INSTRUCTIONS

1. The 11-3/4 x .35" slotted rotors are directional. There is an arrow on the rotor. The arrow points to the front of the car when the rotor is at 12 o'clock. If you have the solid rotors the driver and passenger sides are the same. These brakes require at least a 15" diameter wheel; however, even some 15" wheels may not clear. Verify you have at least 1/4" of wheel clearance from all brake components.
2. The billet aluminum hubs have threaded-stud-mounting holes for both 4-1/2 and 4-3/4" bolt circles. Choose the bolt circle that matches your wheels and chase the threads with a 1/2-20 tap. After chasing the threads, it is a good idea to blow them out with an air hose making sure no debris remains in the holes.
3. Slide a 1/2 aircraft washer over the 1/2-20 x 3" 12-point wheel stud, add a drop of Loctite™ to the threads, up near the head and insert the studs through the proper series of holes. Insert all the wheel studs and tighten them from the backside of the assembly.
4. Set the rotor on the backside of the billet hub. Line up the bolt circles on the hub with those on the rotor. Place a 5/16 high collar lockwasher over the 5/16-18 x 7/8" socket head Allen. Add a drop of Loctite™ to the threads and insert the studs through the hub into the rotor. Insert all eight studs and tighten from the front side of the assembly. You're ready to install the inner wheel bearing and seal.

5. The bearing races are pressed in the billet hub from the factory. You must pack the wheel bearing before installing it. Use a wheel-bearing packer to do this. If you do not have one available, hand packing the bearing is okay. If you are unsure how to pack the bearing, refer to an auto repair manual for assistance.
6. After the bearing is packed, drop it in the bearing race. The inner wheel bearing seal is then positioned on the hub. Place the hub on a wood surface before installing the seal.
7. Using a hammer and seal installer, drive the seal into the hub making sure it's fully seated.
8. Install the caliper bracket. Slide the caliper bracket over the spindle so the caliper will be behind the axle centerline and the part number on the bracket is toward you. Install the four 5/16-18 x 5/8 flat head screws through the caliper bracket and into the spindle. Use Loctite™ to secure them in place. Torque to 210 in/lb (17-1/2 ft/lb) before installing the hub assembly. Make sure the caliper bracket fits flat on the spindle face.
9. With the inner bearing and seal in place, slide the hub and rotor assembly onto the correct spindle (remember, the slotted rotors are directional).
10. Pack the outer wheel bearing as you did the inner one. Slide the bearing into the race.
11. Slide the washer, provided with your strut over the spindle shaft and install the castle nut.
12. To fully seat the bearings, tighten the castle nut to 12 ft. lbs. while turning the rotor assembly forward by hand. This will remove any grease that could cause excessive wheel bearing play. Back off the castle nut to the "just loose" position and then hand tighten. There will be .001 to .005 inches of endplay when the wheel bearings are properly adjusted.
13. After the wheel bearings are tight, insert the cotter pin through the castle nut and the hole in the end of the spindle shaft. Do not tighten the castle nut when aligning the cotter pin, only loosen it. Fold the cotter pin legs to secure the castle nut.
14. Apply anti-seize to the threads of the screw-on dust cap. Screw the dust cap onto the hub. It only needs to be hand tightened, the o-ring inside will keep it from coming loose.
15. Install the Wilwood brake calipers and pads. Start by inserting the brake pads into the caliper, one on each side of the rotor slot with the metal backing toward the pistons.
16. Slide the caliper with the pads installed over the rotor and the caliper bracket. Place the spacer washer #2169 between the caliper and the caliper bracket. Use the 3/8-24 x 1-3/8 hex cap screws, lockwashers, and flat washers provided in your brake kit to mount the calipers. The lock washer goes against the head of the fastener.
17. Tighten the mounting bolts. Rotate the rotor assembly slowly to check for any clearance problems between the rotor and the caliper. Make sure the rotor does not drag on the brake pads. The caliper can be shimmed where it attaches to the caliper bracket to adjust the pad clearance in relation to the rotor.
18. Finally, bolt your wheel and tire on the hub and check again to be sure there is at least 1/4" clearance between the caliper and the wheel. There are differences in wheel manufacturer's tolerances. Make sure your wheel turns freely and does not rub on the caliper.

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