

Strange

ULTRA FOUR PISTON CALIPER INSTRUCTIONS

KIT #
B5040, B5042, B5044, B5045,
B5046, B5048

APPLICATIONS
Pro Carbon Brake kits

IMPORTANT NOTES:

- Carbon brake pads (L4050H, L4050HS, L4050H1 & L4050H2) minimum thickness is 0.200”.
- Carbon 10” rotor (C1780) minimum thickness is 0.250”.
- Carbon 11” rotor (C1790) minimum thickness is 0.300”.
- Strange Ultra Four Piston Brake Caliper o-ring rebuild kit is available under part # B2607 (sold per caliper).
- See page 3 for carbon brake pad guide, Strange accessories, and brake fluid comparison.
- Read all carbon notes on page 3 before testing the brakes.

BEFORE YOU BEGIN INSTALLATION:

Strange Engineering calipers are designed for DRAG RACING ONLY!

B5040 Ultra brake caliper are pre-installed with flanged sleeves and bushing spacers. (See Figure #3)

B5040 Ultra brake calipers use B5000X (3/8-24 x 1.27”) caliper mounting bolt.

B5042 Ultra brake caliper are pre-installed with flanged sleeves only. (See Figure #4)

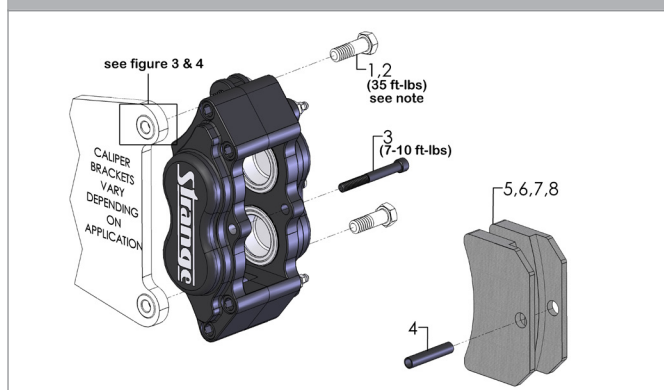
B5042 Ultra brake calipers use B5000Z (3/8-24 x 1.187”) caliper mounting bolt.

Read these instructions thoroughly and save for future reference.

If after reading these installation instructions, you have any questions or comments, please do not hesitate to call us.

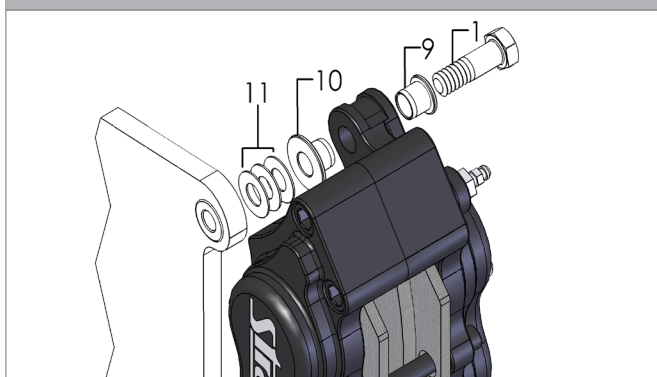
B5044 & B5045 ULTRA BRAKE CALIPER KITS & CARBON BRAKE PADS			
ITEM#	PART#	QTY	DESCRIPTION
1	B5000X	4	3/8-24 x 1.27” Caliper Mounting Bolt
5	L4050HS	4	Soft Carbon Brake Pad (only with B5044)
6	L4050H	4	Carbon Brake Pad (only with B5045)
11	B1301H	16	3/8” I.D. x 0.025” Thick Caliper Shims
—	B5040	2	Ultra Four Piston Brake Caliper w/ Two Piece Pistons
B5046 & B5048 ULTRA BRAKE CALIPER KITS & SLOTTED CARBON BRAKE PADS			
ITEM#	PART#	QTY	DESCRIPTION
2	B5000Z	4	3/8-24 x 1.187” Caliper Mounting Bolt
6	L4050H	4	Carbon Brake Pad (only with B5048)
7	L4050H1	2	Left Outboard/ Right Inboard Slotted Carbon Brake Pad (only with B5046)
8	L4050H2	2	Left Inboard/ Right Outboard Slotted Carbon Brake Pad (only with B5046)
—	B5042	2	Ultra Four Piston Brake Caliper w/ Two Piece Pistons
B5040 & B5042 ULTRA FOUR PISTON BRAKE CALIPER w/TWO PIECE PISTONS (Quantity is listed for both driver and passenger calipers)			
ITEM#	PART#	QTY	DESCRIPTION
3	B5040E	2	1/4-20 x 2.25” Bridge Bolt
4	B5040D	2	1.620” Bridge Bolt Tube
9	B5040H	4	Short Flanged Washer Sleeve (pre-installed only with B5040)
10	B5040G	4	Flanged Bushing Spacer (pre-installed only with B5040)
12	S3402L	4	Long Flanged Washer Sleeve (pre-installed only with B5042)
13	B5040F	8	3/8-16 x 1.75” Caliper Bolt
14	B5040B	2	Four Piston Brake Caliper Outboard Half
16	B5040C	8	1.75” Two Piece Piston
18	B5040A	2	Four Piston Brake Caliper Inboard Half
19	P2365F	4	1/8” NPT Bleeder Assembly
20	P2316	2	1/8” NPT x #3AN Fitting
O-RINGS (Quantity is listed for both driver and passenger calipers) (O-ring rebuild kit is available as part # B2607 and sold per charge)			
15	B5000T	8	0.125” Wide Square Piston O-Ring
17	B5002F	4	O-Ring Crossover Port

FIGURE # 1: CALIPER MOUNTING & BRAKE PREPERATION



Note: Use B5000X(1) mounting bolt with B5040 brake caliper
Use B5000Z(2) mounting bolt with B5042 brake caliper

FIGURE # 3: B5040H(9) SLEEVE & B5040G(10) SPACER



Note: Caliper shims(11) may not be required. Use necessary amount of shims to position the brake caliper as close as possible to the center of the brake rotor

FIGURE # 2: SLOTTED CARBON PAD ORIENTATION

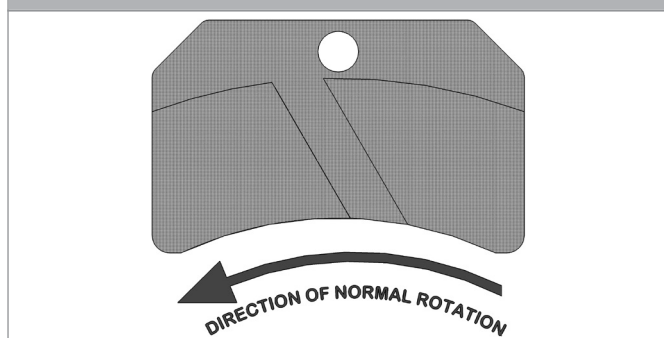
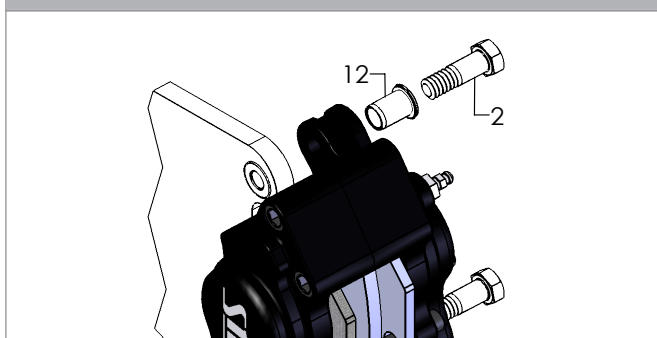


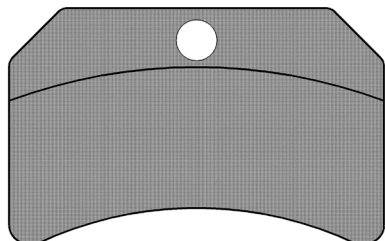
FIGURE # 4: S3402L (12) LONG WASHER SLEEVE



Installation Instructions

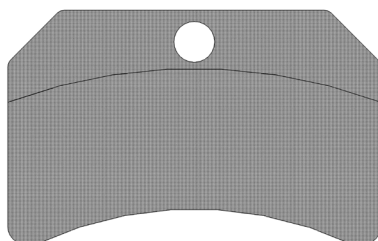
- Mount the caliper onto the caliper bracket using the caliper mounting bolts (1/2) provided and torque to 35ft-lbs. (Figure #1)
Notes: Ensure the caliper ear has the correct flanged washer sleeves or flanged bushing spacer as according to Figure #3 and #4.
B5040 Ultra calipers have short flanged washer sleeves on the inboard side of each caliper ear and flanged bushing spacers on the outboard.
B5040 Ultra calipers use B5000X (3/8-24 x 1.27") caliper mounting bolt.
B5040 Ultra calipers may require caliper shims (11) to position the brake caliper to the center of the brake rotor.
B5042 Ultra calipers have a single long flanged washer sleeve on the inboard side of each caliper ear.
B5042 Ultra calipers use B5000Z (3/8-24 x 1.187") caliper mounting bolts.
- Unscrew the caliper bridge bolt (3) and slide the bridge bolt and bridge bolt tube (4) out of the caliper assembly.
- Slide the bridge bolt tube (4) through the brake pads (5/6/7/8). Then slide the brake pads and bridge bolt into the caliper assembly.
Notes: If installing slotted carbon brake pads (7,8) ensure correct orientation according to figure #2.
- Align bridge bolt (3) with the bridge bolt tube (4) and begin to screw in by hand. Torque bridge bolt 7-10 ft-lbs. **DO NOT OVER-TIGHTEN**
- Install the brake lines. The inlet on the inboard half of the caliper is tapped for a 1/8"-27 NPT x -3AN fitting.
- Bleed the brake caliper. Use DOT 4 or 5.1 brake fluid **ONLY**. (See second page for additional information on brake fluids.)
Notes: During the caliper bleeding procedure, the caliper should be positioned vertically so the bleeder assembly is as close to the highest point as possible. This is best accomplished if the caliper bracket can be temporarily rotated.
- After initial installation of this caliper kit, ensure that there is adequate clearance between all braking and chassis components by moving the wheels all the way up and down throughout the length of their travel. Additionally, make sure that the brake lines are not interfering with the wheel travel or subject to binding or kinking. Operate the vehicle in a cautious manner until you determine that the brakes are functioning properly. Periodically check and re-torque all bolts.

CARBON BRAKE PADS L4050H



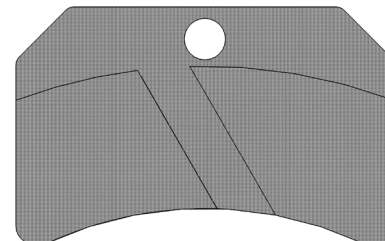
- Carbon friction material
- Solid pad design
- Rotors & Pads wear at equal rates

SOFT CARBON BRAKE PADS L4050HS



- Soft carbon friction material
- Solid pad design
- Pads wear at a quicker rate
- Rotors wear at a slower rate
- Reduced rotor taper

SLOTTED CARBON BRAKE PADS L4050H 1/2



- Carbon friction material
- Slotted pad design allows brake dust to escape
- Rotors & pads wear at equal rates

Important Notes Regarding Carbon Brakes

- All Strange carbon pads are designed to withstand intense heat.
- Keep carbon away from all chemicals
- Contaminated carbon must be baked for 8 hours at 500°F (Bake carbon only! Remove aluminum hat and hardware)
- It's recommended to initially "tow" or apply brakes several times before reaching the starting line to get the feel for carbon at low speeds.
- A few 1/2 or 3/4 passes are recommended to become aware of how carbon brakes perform at higher M.P.H.
- "Drag" the brakes to create rotor and pad heat to better hold the vehicle at the starting line.
- The hotter the carbon rotors become, the more effective braking becomes. Carbon stops vehicles far better at the "top end" and will not "hold" as well at the starting line compared to steel brakes.

Strange Accessories (Contact Strange for ordering information)		
PART#	DESCRIPTION	Figure #5: Strange Brake Pressure Gauge
P2360	Strange Engineering Brake Pressure Gauge	
B3366	External pressure (residual) valve male/female (2 lbs.)	
B3367	External pressure (residual) valve male/female (10 lbs.)	
B3369	Adjustable proportioning valve	

Brake Fluid Breakdown (DOT 4 or 5.1 recommended with this kit)				
	ADVANTAGES	DISADVANTAGES	Dry Boiling Point(°F)	Wet Boiling Point(°F)
DOT 3	Inexpensive easy to find, mixes w/ DOT 4 & DOT 5.1	Lowest boiling point, absorbs water readily, eats paint	400	285
*DOT 4	Higher boiling point, absorbs water less readily than DOT 3	Absorbs water, eats paint	445	310
DOT 5	Does not eat paint, high boiling point	Does not mix with water (water settles and causes corrosion.) Difficult to bleed	500	355
*DOT 5.1	High boiling point, mixes with DOT 3 & DOT 4	More expensive, absorbs water, eats paint	527	365

Note: It is recommended to use DOT 4, DOT 5.1, or a high performance glycol based brake fluid for the braking temperatures experienced during drag racing. When changing to a different brake fluid, completely flush the system in order to experience the benefits of a higher temperature rated fluid. DOT 5 (silicone based) brake fluid is not recommended for racing applications for several reasons. It does not mix with other fluids requiring a complete system rebuild, it is slightly compressible giving soft pedal/handle, and it does not absorb water. Since it will not absorb water, when moisture enters the system and settles to the lowest point which in most cases is the brake calipers. At braking temperatures moisture easily boils causing a loss or lack of pedal handle