



Strange



EVOLUTION 4-PISTON FRONT BRAKE KIT INSTRUCTIONS

KIT #
B4184WCE - for Mopar
applications

APPLICATIONS
2009-2012 Challenger

Evolution Rotors

- Dynamic Drive Mount (DDM) system secures the rotor and allows for rotor thermal expansion
- DDM system design is secured by an internal Spirolox, eliminating heavy bolts and hardware
- Unique Aero Slot design reduces rotating weight and promotes even heat dissipation

Before you begin installation:

-Strange Engineering brake kits are designed for DRAG RACING ONLY!

-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.

Notes:

- Instructions are for "lighter weight" spindles only. An indication of a "heavy weight" spindle is a 12mm caliper bracket bolt.
- Brake fittings do not come pre-installed, it will need a layer of Teflon sealer applied to the thread (Figure# 2 for torque specs)
- B2798AS have a 0.355" start out thickness and minimal thickness of 0.312".

KIT CONTENTS

ITEM#	PART#	QTY	DESCRIPTION
1	B4154E	2	Hub Cap
2	S3520F	2	Buna O-Ring
3	B4152G	2	Spindle Nut
4	B2798AS	2	Evolution S Rotor
5	B2794B	2	2-Piece rotor adapter
6	B2794D	2	Spirolock
7	B4152B	2	Front Hub
8	A1028B	10	1/2" Washer
9	A1028A	10	1/2"-20 x 2-1/2" Wheel Stud
10	B4152I	2	Outer Bearing Sleeve
11	B4152C	2	Hub Bearing
12	B4152H	2	Inner Bearing Sleeve
13	B4152D	2	Retainer Ring
14	B4184E	2	M12 x 1.75 x 55mm Caliper Bracket Bolt
15	B4184AL/B4184AR	1 each	Caliper Mount Bracket
16	B1301E	4	3/8"-24 Press Nut
17	B1301H	16	3/8" I.D. x .025" Thick Caliper Shim
18	B1301J	4	3/8" I.D. x 1/16" Flat Washer
19	B5000Y	4	3/8"-24 x 1-1/8" Caliper Bolt
20	B4184B	2	Caliper Bracket Spacer
21	B4152F	2	M12 x 1.75 Nylon lock Nut
22	B1900	2	Billet Caliper
23	B5010	4	DRM-35 metallic 4-piston brake pad
24	P2316	2	-1/8 NPT x #3AN Brake Line Fitting

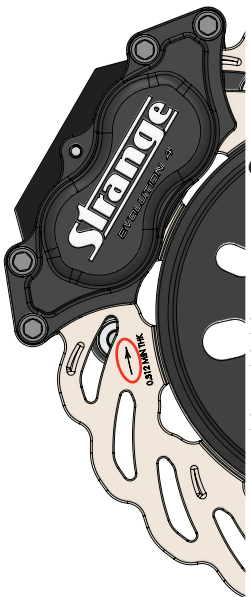
WARNING - RACING IS HAZARDOUS - STRANGE BRAKES ARE FOR LEGAL DRAG RACING ONLY

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Installation instructions

Figure # 1



1. Raise and support front of vehicle on a level surface using suitable equipment.
2. Remove the stock wheel, brake lines, caliper, rotor, spindle nut, hub, and dust shield.
3. Clean the spindle and inspect suspension components for damage. Repair as needed.
4. Slide the caliper mounting bracket (15) over the spindle with the heads of the press nuts (16) facing out board. Only the top caliper bracket hole is utilized.
5. Slide the caliper bracket bolt (14) through the caliper bracket (15) while inserting the caliper bracket spacer (20) between the caliper bracket (15) and the top caliper bracket hole.
6. Install the nylon lock nut (21) and tighten the caliper bracket bolt (14) to 50 ft-lbs.
7. Install wheel studs (9) in the front hub (7) with 1/2" washers (8). Use BLUE Loc-tite® on the studs (9). Torque all studs (9) to 65 ft-lbs.
8. Slide the front hub (7) with the pre-installed hub bearing (11) and sleeves (10,12) onto the spindle.
9. Install the spindle nut (3) and torque to approximately 200 ft-lbs.
10. Install the hub cap (1) with the O-ring (2).
11. Slide the rotor (4,5,6,) over the wheel studs flush to the face of the hub (7).
Note: Evolution rotors mount with the arrow pointing in the direction of normal rotation (See Figure #1)
12. Attach the caliper (22) to the caliper mounting bracket (15) using the caliper bolt (19) with **red loctite**, flat washer (18), and shims (17). The arrow on the caliper must face the normal rotation of the rotor/wheel. Torque caliper bolts to 35 ft-lbs.
Notes: The number of shims (17) installed will vary because not all spindles are exactly identical. Therefore, determine the proper amount of shims by positioning the caliper as closely as possible to the center of the rotor. Also, the passenger and driver side do not necessarily use the same amount of shims.
13. Connect the hydraulic lines to the calipers. Calipers are tapped to 1/8"-27 NPT and supplied with -3AN fittings. Use proper adapters to connect them to existing lines or use new -3AN braided steel line (teflon lined). Bleed the calipers with DOT 4 or DOT 5.1 brake fluid ONLY .

14. A proper break in procedure is required to avoid brake fade and uneven rotor deposits from the pads. It consists of 8-10 brake applications increasing in harshness while allowing the brakes to cool slightly in between; do not keep the brakes applied between stops. After the last stop the brakes should be allowed to cool completely.
Notes: After the initial installation of this kit, ensure that there is adequate clearance between all braking and chassis components by turning the wheels all the way left to right and moving them all the way up and down throughout the length of the wheel (suspension) 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. Routinely check and re-torque all bolts.

FIGURE # 2: Exploded B4184WCE Assembly View

Item#	Torque spec (ft-lbs)
3	200
9	65
14	50
19*	35
24	25

*Must apply red loctite

