

**Disclaimer:**

These parts are intended for race use only. The parts are not certified for use on public roads, and as such may not be legal for highway use. Wilhelm Raceworks LLC is not liable for any damage directly or indirectly related to the use or mis-use of these components.

**Parts List:****Rotor Hats:**

2x .41" offset front rotor hats  
2x .86" offset rear rotor hats.  
16x 5/16-24 x 1" socket head cap screws  
16x 5/16-24 x 1.25" socket head cap screws  
32x 5/16-24 self-locking "jet nuts"

**Main Caliper Brackets:**

2x front caliper brackets  
2x rear caliper brackets  
8x M12x1.25 25mm bolts  
8x M12 lock washers  
8x 7/16-20 x 1.5" bolts  
8x 7/16 washers  
1x front brake line kit  
1x rear brake line kit

**Parking Caliper Brackets:**

2x parking caliper brackets  
2x parking brake cable  
4x M6x1.0 16mm socket head cap screws  
4x M6 washers  
4x 3/8-24 5/8" bolts  
4x 3/8 washers  
4x zip ties  
2x snap in plastic grommets  
4x springs

**Additional parts required:**

2x Wilwood FSL calipers for front  
2x Wilwood FSL calipers for rear  
2x Wilwood MC4 mechanical calipers  
2x 12.19" x 1.25" rotors with 8x7.00" bolt pattern  
2x 12.19" x .81 rotors with 8x7.00" bolt pattern  
2x Brake pad set for Wilwood FSL calipers  
Medium strength (blue) loctite.

Recommended part numbers for these items can be found at [www.wilhelmraceworks.com](http://www.wilhelmraceworks.com).

## Installation instructions:

A Toyota Factory Service Manual may be helpful to have on hand to reference during the installation process. **I recommend a few drops of medium strength (blue) loctite on ALL caliper / caliper bracket mounting bolts.**

### Rotor Hats:

1. Install rotors to rotor hats using the 5/16 socket head cap screws and self-locking “jet nuts”. Thicker hats and longer bolts go with the thinner rotors for the rear, thinner hats and shorter bolts with thicker rotors for the front. **Torque to 18ft-lb.**
2. **For subsequent rotor replacements the self-locking nuts can be re used as long as they cannot be run on by hand.**

### Calipers / Brackets:

1. Remove existing brake calipers, rotors, and brackets.
2. Install caliper inlet fitting to caliper using teflon tape or thread sealant.
3. Install caliper bracket as shown below. New 12mm bolts and lock washers are provided, or the stock bolts can be re-used if they are in good condition. Front brackets have full-round spacer bosses, rears bracket bosses are D-shaped to clear mounting ears on the knuckle. Spacer bosses should point in toward the car. **Torque to 50ft-lb.**
4. Install parking caliper bracket using M6 bolts/washers. Offset should point in toward the car as shown below. **Torque to 12ft-lb (144in-lb).**



5. Install rotors and temporarily hold in place with a couple of lug nuts.
6. Install calipers using 7/16 bolts and flat washers. **Torque to 50ft-lb.**
7. Install parking caliper using 3/8 bolts and washers. **Torque to 25ft-lb.**
8. The four springs may be installed on the parking caliper slide pins (between the pads). This is not required, but it helps to reduce rattles and other noises from the parking calipers.

9. Remove stock parking brake cables. Snap plastic grommets into cross member as shown below. Install new cables using, following the stock routing forward of the engine bay. Secure to the strut rod with supplied zip ties. Brake cable routes under the axle and up into the parking caliper.



#### **Brake Lines:**

1. Install brackets to rear brake lines using included clips as shown below.



2. Install brake lines. Secure using supplied E-clips and re-used stock brake line clips.
3. Bleed brakes and inspect for leaks.