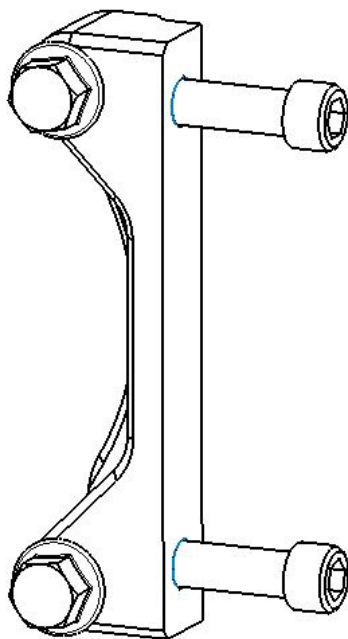
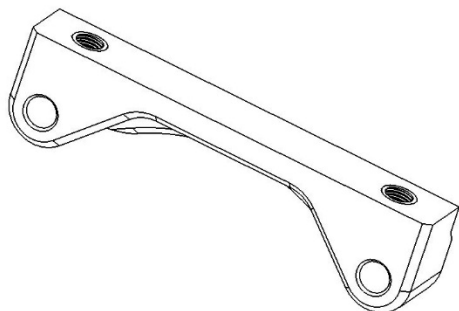
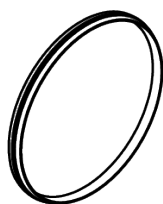




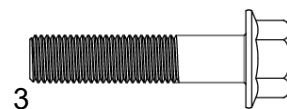
No.	Description	Quantity
1	Caliper adapter bracket	2
2	Centring ring	2
3	M12 x 1.25 x 55mm flange bolt	4
4	M12 x 1.25 flange nut	4
5	M12 60mm socket head bolt	4
6	Brake hose adapter	2
7	Copper sealing washer	4



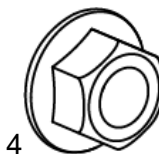
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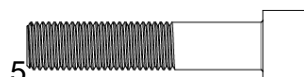
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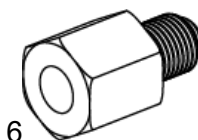
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5



6

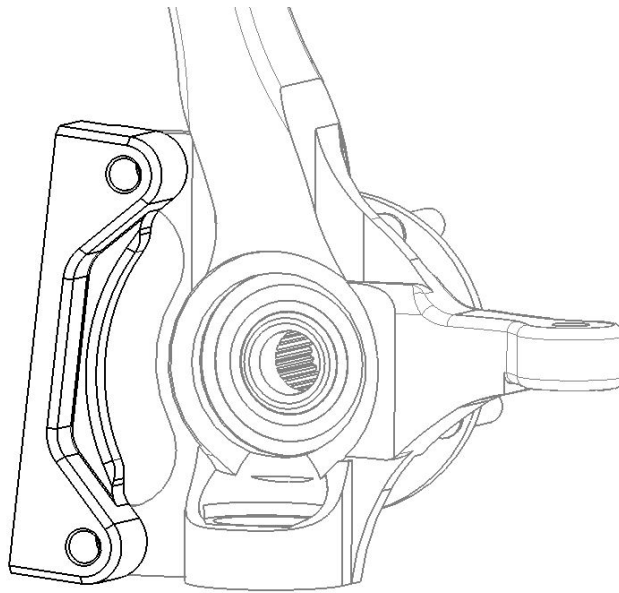


7

Note: Parts required but not included in kit: 1 pair Porsche Boxster 986 base model front calipers, casting number 986.351.422 and 986.351.421 with pads. 1 pair R53 Mini Cooper S JCW discs, 294mm diameter.

1. Raise the vehicle, and support on jack stands. Remove wheels.
2. Remove the front calipers by removing 2 x M12 bolts (17mm head), and M10 banjo bolt fitting on brake hose. Plug or clamp brake hose end to limit loss of brake fluid. Remove the brake discs, removing the retaining screws with an impact driver if necessary.
3. Prepare the Porsche caliper for fitting to the car: Remove the bleed screws x 4, and the bridge hoses x 2 which pass between caliper halves. **The bridge hoses must be fitted to the opposite ends of the brake caliper, and the hose from the left caliper used on the right side caliper and vice versa. Calipers must be fitted to the same side of the vehicle as when fitted to the original Porsche.** Refit the bleed screws. Tighten all caliper fittings to 10Nm (7lbft).
4. Remove the pad retaining pins and springs from the Porsche calipers and remove the pads if fitted. Push the caliper pistons back into the body of the calliper. Install the adapter fitting to the inlet on the back side of the caliper, torque to 10Nm (7lbft).
5. Ensure the inboard surface of the caliper mount tabs on the knuckle are clean and free of rust or damage, use a wire wheel to remove any excessive rust if necessary as a clean flat surface is essential for the bracket to mate against.
6. Install the caliper adapter brackets to the knuckles by bolting with the provided M12 x 55mm flange bolts and locking nuts. The head of the bolt should be on the outboard side, and the nut on the inboard side.

The bracket mounts to the inboard face of the caliper mount tabs on the knuckle.



Torque the bracket mounting fasteners to 108Nm (80 lb.ft) using an 18mm socket and 17mm spanner.

7. The caliper mounting tabs on the knuckle may require a small amount of material ground away from their tips to clear the caliper, an angle grinder with flap disc works well for this. Approx 1.5mm thickness of material max. should need to be removed. Grind tips of mounting tabs as needed, and check that the caliper fits without interfering with the knuckle by installing the caliper, 60mm bolts, and tightening the bolts snug, then checking that caliper is sitting flat on adapter bracket and not contacting the knuckle.
8. Install the 2x centring rings in the Mini discs, by placing the disc on a flat firm surface and tapping the ring into place with a soft faced hammer, or other soft item to prevent deforming the aluminium. The rings must be installed from the outboard side of the disc.

Install the Mini brake discs on the hubs. The Mini discs do not have disc retaining screws and will be somewhat loose until the calliper and pads are in place and wheel fitted.

9. Install the Porsche calipers to the adapter brackets, using 2 x M12 x 60mm socket head bolts. Torque the caliper mounting bolts to 85Nm (63 lb.ft). Fit the banjo fitting of the brake hoses to the adapter fitting on the caliper, using 2 new copper sealing washers per side, torque to 30Nm (22 lb.ft) while holding the adapter fitting with a spanner to prevent excessive tightening of that fitting.

The banjo bolts may need to be shortened slightly by grinding a small amount of material from the bolt end. The bolt should be between 20 and 22mm (13/16" – 7/8") in length to provide correct thread engagement in the adapter.

10. Install the brake pads, pad retaining spring, pin, and circlip which retains the pin. Bleed the brakes following the procedure in the workshop manual for your vehicle, the inner side of the caliper should be bled first in each case.
11. Check that there is no interference between the centring rings and the back of your wheel or spacer as applicable. In some cases you may need to grind or file down a small amount of material from the ring, to prevent it contacting your wheel.
12. Check that there is no contact of the brake hose with any suspension part or wheel through the full range of steering lock. Push the brake pedal a handful of times to ensure pistons are extended to put pads in contact with discs before driving. Bed the brake pads per the manufacturer's recommendation.

Note: These components are intended for race use only, and will require regular inspection and maintenance. Honed will not be held responsible for any misuse of these components.

Example Images



Figure 1: Front Right Caliper Orientation. Caliper Part Numbers to Bottom. Left side will have caliper part numbers on the top side