

MGB REAR BRAKE KIT Bolt-on wheels Tube axle

FITTING INSTRUCTIONS

• Frontline's rear disc brake kit replaces the rear drum brakes and original handbrake operating mechanism. This is a safety critical part of the car and the kit should be fitted by a competent mechanic.

Note: Frontline recommends that you check the condition of your wheel bearings and half shaft centralising cone and, if necessary, replace them during the fitment of this kit.

- 1. Remove the entire braking system from both sides of the axle. This includes removing the half shafts to take off the brake back plates. Remove the brake pipes but leave the 3-way T-piece on the axle. Remove the handbrake cable and related handbrake mechanism on the rear axle.
- 2. Rebuild the axle with the half shafts, bearing spacers, bearings and retainers; centralising cone and rear hub retainer in accordance with the workshop manual, but without the brake back plates, using the new hub retainer bolts provided. Do not refit the hubs at this time.
- 3. Offer the handed brake caliper mounting plate to the inside of the axle bearing housing with the spacer part of the bracket outermost (See fig 1). The caliper mounting holes should locate forward from the axle and above the leaf spring (or between the trailing arms if you have the 5-link suspension fitted). **Note:** Ensure that the mounting surface for the bracket is thoroughly cleaned to obtain correct location.



Fig 1



Fig 2

- 4. Bolt each mounting bracket in place using three of the 2.25" bolts and nuts supplied. Use the final 2" bolt & nut supplied for the fourth hub bearing carrier bolt hole, as normal.
- 5. Refit the wheel hub back onto the half shaft in accordance with the workshop manual.
- 6. Locate the brake disc over the wheel studs. Hold firmly in place using 2 wheel nuts to ensure that the disc is in the correct position (Fig 2).
- 7. Locate the brake caliper over the disc and offer it up to the caliper mounting holes in the mounting plate (Fig 3). **Note:** If fitting with a 5-link suspension, loosely position the lower 7/16" bolt into the brake caliper prior to positioning over the disc to avoid interference with the 5-link bracket.



Fig 3



Fig 5

- 8. The caliper should be located centrally over the disc with the bleed nipples at the top. Axles can vary but if the caliper does not locate evenly over the disc first check the mounting bracket is seated correctly against the axle as any dirt or rust here will cause the bracket to sit to one side or unevenly. Shim spacer washers can be used if necessary but should not be required. When you have obtained the correct spacing, fit the bolts and tighten using a good quality Loctite on the threads and torque to 45 lb/ft.
- 9. Fit the brake pads into the calipers and secure with the pins and spring clips provided.
- 10. Remove the wheel nuts used to locate the brake disc.
- 11. Locate the new braided hoses onto the calipers using the banjo bolts and washers supplied. **Note:** The shorter hose is for the R/H caliper. Do not tighten the banjo bolts until you are certain the routing of the hose is correct (Fig 4 and 5) (**Note:** Braided hoses must never be twisted or kinked. If this happens obtain replacements.)

- 12. Route the hoses behind the axle and onto the 3-way T-piece. **Note:** If you have 5-link rear suspension, the route for the R/H hose is under the axle and it will be a snug fit against the 5-link bracket (Fig 4).
- 13. When you are satisfied that the hoses are routed correctly, without any fouling of moving parts or any kinks or strain, secure them to the axle with cable ties.
- 14. You can now bleed the brakes as normal. These calipers have two bleed nipples on each caliper. The outermost one should be bled first.
- 15. Check that all fixings are secure and that there are no fluid leaks with the brake system pressurised.

Handbrake cable fitting

The handbrake cables are routed behind and over the axle, to the right side of the transmission tunnel, using a new mounting bracket and handbrake lever bracket.

- 1. Remove any remaining handbrake lever mechanisms except the handbrake lever itself.
- 2. Remove the original handbrake lever cable bracket, located on the inside of the transmission tunnel at the end of the handbrake lever. Replace the original bracket with the new stainless steel one provided (Fig 7), using the original nuts. The bracket has a location slot to provide the correct positioning.
- 3. Locate the handbrake to body bracket onto the bottom of the right hand rear side of the transmission tunnel (Fig 6). Drill and bolt the bracket into place using the bolts supplied. **Note:** The drill will protrude into the car so ensure any trim or seating near this area is removed before drilling.
 - 4. Locate the left hand cable into the top hole and the right hand cable into the bottom hole of the body bracket with one nut either side of the bracket (Fig 6)





- 5. Locate the eyelet ends of each cable onto the handbrake lever cable bracket, one either side, using the clevis pin, split pin and washers provided.
- 6. Pass the cables loosely over the rear axle and bring them round to the calipers. Locate the outer cables into the calipers then locate the clevis ends of the inner cables over the caliper handbrake levers and secure using the clevis pins and spring clips provided.
- 7. Adjust each cable equally so that they have approximately the same tension but are not operating the handbrake pads.
- 8. Ensure cables cannot come into contact with the propshaft. Cable ties are supplied to locate the cables to the axle case.
- 9. Now adjust the handbrake pad position. On each caliper there are two M4 grub screws. You will need a ball end Allen key to adjust these. Adjust the screw in or out so the small round handbrake pad lines up parallel to the disc but not in contact with it. To get this absolutely correct you will also need to adjust the cables where they mount to the handbrake to body bracket.
- 10. Test your handbrake and readjust if required. You may need to repeat this after a short while to take up any stretch in the cable.

Make sure that all fixings are secure. Frontline cannot take any responsibility for incorrect fitment of any components.

Testing your brakes: Do this with care

- Follow normal bedding in procedure. On first test the brakes will not perform to their optimum level.
- After initial testing check that all the fittings are tight and that there is no fluid leak.
- Before road testing the car, make sure that the braking is positive and the car stops in a straight line.
- If you have any questions consult a competent mechanic or Frontline Developments technical department.



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- 3. Offer the handed brake caliper mounting plate to the inside of the axle bearing housing with the spacer part of the bracket outermost (See fig 1). The caliper mounting holes should locate forward from the axle and above the leaf spring (or between the trailing arms if you have the 5-link suspension fitted). **Note:** Ensure that the mounting surface for the bracket is thoroughly cleaned to obtain correct location.



Fig 1



Fig 2

- 4. Bolt each mounting bracket in place using three of the 2.25" bolts and nuts supplied. Use the final 2" bolt & nut supplied for the fourth hub bearing carrier bolt hole, as normal.
- 5. Refit the wheel hub back onto the half shaft in accordance with the workshop manual.
- 6. Locate the brake disc over the wheel studs. Hold firmly in place using 2 wheel nuts to ensure that the disc is in the correct position (Fig 2).
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Fig 3



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- 8. The caliper should be located centrally over the disc with the bleed nipples at the top. Axles can vary but if the caliper does not locate evenly over the disc first check the mounting bracket is seated correctly against the axle as any dirt or rust here will cause the bracket to sit to one side or unevenly. Shim spacer washers can be used if necessary but should not be required. When you have obtained the correct spacing, fit the bolts and tighten using a good quality Loctite on the threads and torque to 45 lb/ft.
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- 3. Locate the handbrake to body bracket onto the bottom of the right hand rear side of the transmission tunnel (Fig 6). Drill and bolt the bracket into place using the bolts supplied. **Note:** The drill will protrude into the car so ensure any trim or seating near this area is removed before drilling.
 - 4. Locate the left hand cable into the top hole and the right hand cable into the bottom hole of the body bracket with one nut either side of the bracket (Fig 6)





- 5. Locate the eyelet ends of each cable onto the handbrake lever cable bracket, one either side, using the clevis pin, split pin and washers provided.
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- 7. Adjust each cable equally so that they have approximately the same tension but are not operating the handbrake pads.
- 8. Ensure cables cannot come into contact with the propshaft. Cable ties are supplied to locate the cables to the axle case.
- 9. Now adjust the handbrake pad position. On each caliper there are two M4 grub screws. You will need a ball end Allen key to adjust these. Adjust the screw in or out so the small round handbrake pad lines up parallel to the disc but not in contact with it. To get this absolutely correct you will also need to adjust the cables where they mount to the handbrake to body bracket.
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