

BRAKE PAD FITMENT INSTRUCTIONS



Your Easy Guide To Brake Pad Replacement

TOOLS:

You will require:

- a 7mm Allen key, (6mm for VW) - It is not necessary to buy Allen keys to fit pads into fixed calipers,
- Paint Brush,
- Torque wrench,
- Piston Return Device - 3.9314-4900.3 - Please note that this tool cannot be used on any caliper with a handbrake mechanism or for calipers where pistons retract electronically,
- Alcohol or spirits,
- ATE Plastilube.

PREPARATION:

Brake maintenance should only be done by a qualified Technician! Working on brakes means working on life & limb items. Your own safety & those of others are in your hands! Please handle all brake components carefully. Remember, cleanliness is absolutely vital in all brake maintenance & service operations. New pads in sets of 4 must be fitted if: Any one pad is worn down to 2mm of pad material, if pads are unevenly worn or if pads are contaminated with grease or brake fluid. Chock the rear wheels & loosen the wheel nuts on both front wheels. Jack up 1 front wheel & remove it. Note: Pads should slide easily into the caliper. Make sure to buy the correct pad for your vehicle. Assemble parts in reverse order of removal. Check dust cover and caliper for damage. Replace dust covers if damaged. Replace disc if it is worn to a taper. Check discs for wear. Worn discs can cause noise. Don't skim discs below the minimum thickness specs. as stipulated by the disc manufacturer or owner's manual. Push piston back. Do not use any sharp objects like screwdrivers. Do not push against the disc. We recommend using the tool -: 3.9314-4900.3 or a specialised tool.

Floating Caliper

Retract the piston a small amount by pulling the housing assembly outwards. Carefully unclip the wear indicator for re-use. Remove one or both guide pin bolts, depending on application and swing out or remove housing assembly. Note the position of any shims and carefully remove the pads from the housing assembly. Fully retract the piston by sustained axial force on the piston face (use of a special tool is recommended). Clean all parts, including the anchor remaining on the knuckle, gently with alcohol or special purpose brake cleaner & examine for wear or damage. Pay special attention to the guide pins which must slide freely and be properly lubricated with special high temperature brake grease. We recommend ATE Plastilube. Using good condition or new shims fit the new pads to the anchor & swing down or refit the housing assembly in position, making sure the pad springs are not sticking out of the viewing aperture. Whilst pressing the housing assembly down against the spring pressure, insert & tighten the guide pin bolts. Fit & route wear indicator & pump brake pedal to position piston. Check condition of brake fluid by testing the boiling point. If the brake fluid is below the "Min." mark on the reservoir after all components have been fitted, check the hydraulic system to ensure there are no leaks & that it is in good condition. After refitting wheels, do a very careful road test.

Fixed Caliper

Remove pad retainer pins with suitable punch of 4mm diameter. Remove anti-rattle spring. Pull out worn pads. Clean pad guide. Use a soft nylon paint brush, and alcohol or clean spirits. Do not use a wire brush or emery paper. Check position of piston, (not applicable to calipers without piston collar recess), 20 degree angle of cutaway. We recommend the following tools -: 03.9314-1700.1 - for piston diam.: 35- 38mm, 03.9314-0900.1 - for piston diam.: 42 - 48mm, 03.9314-0600.1 - for piston diam.: 52 - 57mm, & 03.9314-5300.1 - for piston diam.: 60mm. Pistons with collar recess: Use only pads with recess in backing plate. Otherwise pads could cause squeal. Assemble parts in reverse order of removal.

Fist Caliper

Loosen retaining pin using 7mm Allen key. Remove housing spring clip on outside of caliper. Lift complete housing off brake anchor. Remove pads. Push piston back, using the tool -: 3.9314-4900.3 for this purpose. Fit outer pad on wheel side of anchor (remaining on vehicle). Fit pad with clip into piston. Fit housing & tighten retaining pins by hand before torqueing. Use torque of 25Nm. Refit spring clip. Avoid overflowing of the brake fluid reservoir. Operate brake pedal after refitment of pads to each wheel and repeat after all pads are replaced.

Easy Maintenance Guide

PROBLEM

SOLUTION NO.

Uneven pad wear	1, 2, 3, 10, 11, 12
Wedge shaped pad wear	3, 4, 6, 7, 8, 10, 11, 12
Seized pads	2, 11
Pads rub against disc – no Free play, brakes overheat	2, 6, 10, 11, 12, 14
Brakes pull to one side	1, 2, 3, 5, 11
Brakes squeal or judder	1, 2, 3, 5, 11
Brake pedal travel too great	7, 8, 9, 12, 13, 15
Piston seized in caliper bores	2, 8, 11, 12
No braking effect	13
Pulsing of brake pedal when braking	7, 8, 9
Poor braking performance Under wet conditions	1, 10

SOLUTION NO.

1. Check for correct type of pad
 2. Clean out pad guide surfaces: check for corrosion, check dust caps for damage ++
 3. Check position of piston recess with 20 degree – template
 4. Replace pads +++
 5. Grease or oil on brake pads (damage to seals!)
 6. Renew cross-leaf spring
 7. Adjust wheel bearing play
 8. Disc & caliper mountings out of line or loose
 9. Check disc run-out & thickness tolerance
 10. Check if disc is worn or badly distorted
 11. Remove corrosion traces from cylinder bores
 12. Check auto adjustment and/or main piston seal for "roll-back" effect
 13. Check for fluid leakage in brake system
 14. Master cylinder recuperation ports blocked preventing the line pressure from falling to zero, Incorrect master cylinder push rod free play, Preventing the piston from fully returning , can block the recuperation port.
- ++ Grind the pads with rough emery paper on a flat plate & skim the disc if needed
- +++ Pads can also cause various noises under extreme working conditions

GOOD ADVICE

For improved braking performance it is recommended to fit the ATE brake pad & disc combination. They have been designed for cost effective braking & your safety in mind.

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Enquiries: (011) 898 – 1800, or mail us : marketing@ate.co.za



Please recycle steel parts and cardboard container

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