

SOME ADVICE ON BRAKE CALIPER FAULT DIAGNOSIS PLUS SOME INSTALLATION TIPS

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In this article I will try to provide the readership of PMM with a step-by-step process for the technician to follow when dealing with vehicles where a brake warning light has appeared illuminated on the dashboard. This often leads to the brake calipers wrongly being replaced when this is actually not the real cause of the vehicle fault

There are four common braking faults – worn brake pads, worn brake discs, brake fluid levels and sensors. Only when all of these alternative braking conditions have been checked should the technician make the decision that the brake caliper is faulty and should be replaced. This prevents expensive labour and material costs as well as wasted ramp time due to the wrong diagnosis of the cause of the actual fault.

FOUR ESSENTIAL CHECKS PRIOR TO CHANGING THE CALIPER

Are the brake pads worn?

Do a check for excessive wear and tear and then replace the pads if necessary.

Are the brake discs worn?

Check these for excessive wear, scouring or damage and again replace the discs if necessary.

Has there been loss of brake fluid?

First, check the fluid levels and, if the fluid level is low, investigate the reason for the loss of the fluid. Check for leaks at the reservoir and at the brake cylinder. If either is damaged, repair it or replace it if necessary. Also then check the caliper itself for evidence of brake fluid leakage, torn seals, corroded pistons or broken bleed screws. If any of these are evident then replace the caliper.

Is the brake warning light still illuminated?

This is the time to check that the sensors are working correctly.

SOME BRAKE CALIPER INSTALLATION TIPS

I am now going to provide PMM readers with some visual installation tips for both conventional and Electric Park Brake (EPB) calipers. I suggest that you always follow these important steps as failure to do so can be detrimental to the braking system and its performance.

Conventional calipers

Always follow the manufacturer's instructions and use the VMs recommended brake fluid. Always completely flush the system and never mix old fluid with new. To obtain the best results always replace the calipers in pairs, as performance will decline over time.

Always take care not to over-tighten or cross thread the bleed nipple on installation. If the screw is snapped while bleeding the system, the caliper must be replaced.

ELECTRIC PARK BRAKE (EPB) calipers

There are two types of EPB calipers. With external motor simply follow the installation tips for conventional calipers.

However with the failure of an EPB with an integral motor here are some specific installation tips. Always replace the complete unit – both motor and caliper. Always take care on removal not to damage the motor casing using exceptional force. Always use a suitable OBD II diagnostic tool when changing these calipers. Finally always take care when removing the plug connector, lifting the plastic fastener before attempting to remove the plug.

Remy Automotive is one of the largest brake caliper suppliers in Europe and a leader in the UK caliper market. All Remy brake calipers are manufactured to the highest quality standards under ISO 9001:2008 quality management system – essential on this safety critical product – and come with a 24-month warranty. In line with all Remy products, continuous research and development work ensures the most extensive product range is covered, offering full UK car parc coverage. We are fully confident that Remy remanufactured calipers are as good as the OE equivalent.