



Technical Bulletin.

The Electronic Parking Brake Module: Range Rover Sport and Land Rover Discovery.

The Electronic Parking Brake Module, also known as the EPB actuator, is fitted to the Range Rover Sport from 2005 onwards and the Land Rover Discovery 3 & 4. Whilst generally reliable we wish to draw your attention to the following installation procedure.

If the parking brake will not release, or appears not to have released when moving off, a loud screeching noise may be heard from the rear of the vehicle. This combined with a parking sensor flashing on the dashboard could indicate the EPB module has failed.

The parking brake can be released manually: in the Discovery 3 and 4 by removing the small rectangular plastic cover situated just behind the parking brake lever. On the Range Rover Sport the EPB lever needs to be removed by unscrewing 2 screws. Inside the console there is a wire cable loop, pulling this will release the parking brake.

WARNING: if the vehicle is driven with the handbrake applied, this will cause damage to the rear braking system.

The most common causes of the EPB failure are, the parking brake shoes may be corroded, worn or incorrectly adjusted. This can cause the small teeth inside the unit to break or the small adjuster nut to over tighten and jam at the extent of its travel.

When changing the Parking Brake module/actuator, we strongly advise changing the rear brake discs, pads and shoes.

If the vehicle has had new shoes or rear discs fitted or has been mud wading for more than 50 miles it is imperative that the shoes are checked and adjusted correctly. Failure to do this will cause excessive lining wear and/or noise and heat. As a result the internal components of the EPB actuator may over-travel and as a result become jammed, causing the rear brakes to lock on. This is not the fault of the brake shoes! The parking brake shoes must be adjuster correctly.

How to check the parking brake shoes.

- *Raise and support the vehicle.*
- *Using a suitable diagnostic tool, drive the parking brake to the mounting position.*
- *Remove the EPB 30 Amp fuse from the Battery Junction Box*
- *Remove the rear wheels, brake calipers and brake discs*
- *Inspect the general condition of the parking brake shoes, springs and back plate.*
- *The linings should be a minimum of 2.0 mm thick. If there is evidence that the shoes or other components have been damaged due to heat build-up then fit new shoes*
- *Remove any build-up of dust from the drum and drum / shoe interface. Clean the friction surface of the brake shoes and remove any metal flakes from the shoe lining.*
- *Remove any build-up of corrosion from the back plate and brake shoe support platforms. These should be smooth and clean.*
- *Lubricate the backing plate brake shoe support platforms using the Apec Brake Grease.*

Continued

- *We are aware that the shoe hold down clips can become over-stressed during fitting / maintenance. Care should be taken not to over-compress the hold down clips during fitting, after fitting, or during any other maintenance, always check that the parking brake shoes are being held against the brake back plate. When fitting new shoes, always use the new hold down clips provided. If re-fitting used shoes, and there is any doubt about the integrity of the hold down clips, fit new clips.*
- *Install the brake discs and brake calipers*

How to adjust the parking brake shoes

- *Raise and support the vehicle.*
- *Remove the wheels and tires.*
- *Using a suitable diagnostic tool, drive the parking brake to the mounting position.*
- *Align the access hole with the indicators located on the back plate*
- *Locate the parking brake shoe adjuster.*
- *Remove the access plug.*
- *Use a flat blade screwdriver as a lever to displace the parking brake shoes.*
- ***NOTE:** The movement of the parking brake shoe will be small and may not be felt when levering.*
- *Failure to displace the parking brake shoes, will result in incorrect clearance when carrying out the adjustment step.*
- *Now, using the screwdriver rotate the brake shoe adjuster to extend it until the brake disc is locked hand tight. However, do not apply excessive force on the brake shoe adjuster. Failure to follow this instruction may result in damage to the parking brake system.*
- *The following steps sets the running clearance for the parking brake shoes.*
- *Using a suitable marker, mark the position of the brake shoe adjuster.*
- *The parking brake adjuster must then be rotated back EXACTLY one full revolution (10 clicks), until the mark is again visible.*
- *The wedge adjuster must be correctly seated to make sure the parking brake cable is correctly adjusted.*
- *Loosen the wedge adjuster Allen screw half a turn.*
- *Tap the brake disc lightly with a soft faced mallet, around the parking brake shoe location within the brake disc.*
- *Tighten the wedge adjuster Allen screw to 6 Nm (5 lb.ft).*
- *Install the access plug.*
- *Repeat the above procedures for the other side.*
- *Take the vehicle out of the mounting position by operating the parking brake twice or via the diagnostic tool.*
- *It is now vital to carry out the parking brake shoe bedding-in procedure.*

The Bedding in procedure

- *You need to bed in the EPB shoes either when you have changed the EPB, shoes or you have changed the rear discs.*
- *With the Engine running, press the brake pedal fully on and off 3 times. On the third press, hold the brake pedal down.*
- *With the brake pedal still in the down position, pull the EPB switch upwards 4 times and then downwards 3 times. This must be completed within 10 seconds.*
- *Your dash display will then show 'Park Brake Bedding Cycle Active' or something similar. If it hasn't, then release the brake pedal and try again.*
- *You need to ensure that you are on a clear piece of road or land as this procedure needs to be completed 10 times.*
- *Drive at least 19mph and maximum of 29mph and then apply the EPB switch until you stop. You then need to wait for 60 seconds or drive for 1 mile (to allow the brakes to cool down before repeating the process. If you stop the engine or you drive over 30 MPH, the bedding in process will be cancelled. At the end of the 10th time, the bedding in mode will automatically finish.*

To prevent the same failure happening to the new parts, we recommend that the parking brake shoes are adjusted at every service. We also recommend stripping down and cleaned the rear brakes thoroughly every two years.

NB: These Notes are for guidance only. For further reference, a Landrover technical bulletin can be found upon searching the internet for 'LTB00079v6' or by using www.landrovertchinfo.com