FOOT BRAKE

WARNING

Do not rest your foot on the brake pedal while travelling as this may overheat the brakes, reduce their efficiency and cause excessive wear.

Never allow the vehicle to freewheel with the engine turned off as braking assistance will not be available. The pedal brakes will still function, but more pressure will be required to operate them.

If the Red brake warning indicator should illuminate while the vehicle is in motion, bring the vehicle to a halt as quickly as traffic conditions and safety allow and seek qualified assistance before continuing. See Warning Indicators, 85.

Never place a non-approved floor matting or any other obstructions under the brake pedal. This restricts pedal travel and braking efficiency.

The hydraulic braking system operates through dual circuits. If one circuit should fail, the other will continue to function.

In these circumstances, exercise extreme caution and be aware that increased brake pedal travel, greater pedal pressure, and longer stopping distances will be experienced.

Servo assistance

The braking system is servo assisted, but only when the engine is running. Without this assistance greater braking effort is necessary to safely control the vehicle, resulting in longer stopping distances. Always observe the following precautions:

- Always take particular care when being towed with the engine turned off.
- If the engine should stop for any reason while the vehicle is in motion, bring the vehicle to a halt as quickly as traffic conditions safely allow and do not pump the brake pedal, as the braking system may lose any remaining assistance available.

Wet conditions

Driving through water or even very heavy rain may adversely affect braking efficiency. Always dry the braking surfaces by intermittent light application of the brakes, first ensuring that you are at a safe distance from other road users.

Brake pads

Brake pads require a period of bedding in. For the first 800 km (500 miles), you should avoid situations where heavy braking is required.

Remember, regular servicing is vital to ensure that the brake pads are examined for wear and changed periodically to ensure long term safety and optimum performance.

ANTI-LOCK BRAKING SYSTEM (ABS)

WARNING

ABS cannot overcome the physical limitations of stopping the vehicle in too short a distance, cornering at too high a speed, or the danger of aquaplaning, i.e. where a layer of water prevents adequate contact between the tyres and the road surface.

The fact that a vehicle is fitted with ABS must never tempt the driver into taking risks that could affect his/her safety or that of other road users. In all cases, it remains the driver's responsibility to drive within normal safety margins, having due consideration for prevailing weather and traffic conditions.

The driver should always take account of the surface to be travelled over and the fact that brake pedal reactions will be different to those experienced on a non-ABS vehicle.

The anti-lock brake system (ABS) helps the driver to maintain full steering and directional stability during emergency braking, by preventing the road wheels from locking and skidding. ABS constantly monitors the speed of each road wheel and varies brake pressure to each, according to the available grip. ABS optimises the tyre-to-road adhesion under maximum braking.

When ABS is activated, you will feel a pulsating effect on the brake pedal. This is normal and you must **maintain maximum pressure** on the brake pedal.

No matter how hard you brake, dependent on road conditions, you should be able to continue steering the vehicle as normal.

ABS will enable you to steer around obstacles during emergency braking. ABS will not eliminate dangers inherent when;

- driving too close to the vehicle in front of you.
- aquaplaning.
- cornering with excessive speed.
- negotiating poor road surfaces.

Precautions:

- Do not pump the brake pedal at any time; this will interrupt operation of the system and may increase the stopping distance.
- Never place additional floor matting or any other obstruction under the brake pedal. This restricts pedal travel and may impair brake efficiency.

Warning indicator



If a fault is detected in the ABS, the ABS warning indicator will illuminate. Drive with care if the ABS warning indicator illuminates or remains on after the bulb check cycle. The brake system will continue to function normally, but without ABS braking.

WARNING

If the ABS warning indicator illuminates when driving, avoid heavy braking. Seek qualified assistance as soon as possible. Failure to follow this instruction may lead to personal injury or loss of vehicle control.

Off-road driving

While anti-lock braking will operate in off-road driving conditions, on certain surfaces total reliance on the system may be unwise. It cannot reliably compensate for driver error or inexperience on difficult off-road surfaces.

Note the following:

- On soft or deep surfaces such as powdery snow, sand or gravel, and on extremely rough ground, the braking distance required by the anti-lock braking system may be greater than for normal braking, even though improved steering would be experienced. This is because the natural action of locked wheels on soft surfaces is to build up a wedge of surface material in front which assists the wheels to stop.
- If the vehicle is stopped on a very steep slope where little traction is available, it may slide with the wheels locked because there is no wheel rotation to provide a signal to the ABS. To counteract this, briefly release the brakes to permit some wheel movement, then re-apply the brakes to allow ABS to gain control.
- Before driving off-road, read and thoroughly understand the **Off-road driving** section of this handbook.

Cornering Brake Control (CBC)

Cornering brake control (CBC) is an advanced form of ABS, which maintains vehicle stability and steering control during braking whilst cornering or changing lanes at speed.

Emergency Brake Assist (EBA)

If the brake pedal is depressed rapidly, EBA automatically boosts the braking force to a maximum and thus helps to stop the vehicle. Also, if the driver brakes more slowly, but with sufficient brake pressure to activate ABS on both front wheels, the system automatically increases the braking force so that all four wheels are in ABS control, optimising the performance of the ABS system.

Pressure should be maintained on the brake pedal during the entire brake application. If the brake pedal is released, EBA will cease operation.

A fault with the EBA system is indicated by illumination of the amber brake warning indicator. See **Warning Indicators, 85**.

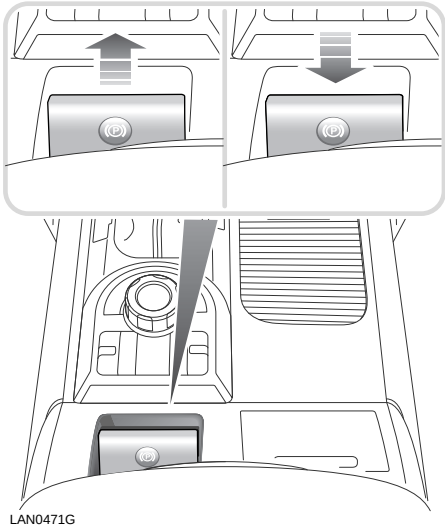
Electronic Brake Distribution (EBD)

Your vehicle is equipped with Electronic Brake Distribution (EBD), which balances the distribution of braking forces between front and rear axles to maintain maximum braking efficiency under all vehicle loading conditions.

For example; under light loads EBD applies less effort to the rear brakes to maintain vehicle stability, conversely allowing full braking effort to the rear wheels when the vehicle is towing or is heavily laden.

A fault with the EBD system is indicated by illumination of the red brake warning indicator. See **Warning Indicators, 85**. If this illuminates while the vehicle is being driven, gently stop the vehicle as soon as safety permit and seek qualified assistance.

ELECTRONIC PARKING BRAKE (EPB)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Applying the EPB manually

With the vehicle stationary, pull up the lever (1) and release it. The lever will return to the neutral position, the indicator light in the switch and the red EPB warning indicator in the instrument pack will illuminate.

It is important to confirm that the red warning indicator is continuously illuminated (not flashing). This indicates that the EPB has been correctly applied.

If the lever is operated while the vehicle is travelling at less than 3 km/h (2 mph), the vehicle will be brought to a stop abruptly. The stop lamps will not illuminate.

If the system detects a fault with the EPB, the warning indicator will illuminate yellow and the message **PARKBRAKE FAULT** will appear in the message centre. If a fault is detected while EPB is operated, the warning indicator will flash red or illuminate yellow. Also the message **PARKBRAKE FAULT. SYSTEM NOT FUNCTIONAL** will appear in the message centre. The indicator will continue to be illuminated for at least ten seconds after the starter switch has been turned off.

WARNING

The EPB operates on the rear wheels of the vehicle and hence secure parking of the vehicle is dependent on being on a hard and stable surface.

Do not rely on the EPB to operate effectively if the vehicle has been subjected to immersion in mud and water.

Do not rely on the EPB system to hold the vehicle stationary if the yellow EPB warning indicator is illuminated and/or the red warning indicator is flashing. Seek qualified assistance urgently.

Dynamic operation

In an emergency, the parking brake can be applied dynamically, i.e. with the vehicle travelling at more than 3 km/h (2 mph). Pulling up on the lever and holding it up gives a reduction in speed. The brake warning indicator will illuminate accompanied by a harsh sound and **CAUTION! PARK BRAKE APPLIED** appears on the main message centre. The stop lamps will illuminate.

Releasing or depressing the lever will cancel the EPB application.

The EPB should not be used regularly to decelerate the vehicle or to bring it to a standstill; this facility is intended for emergency use only.

Caution: Driving the vehicle with the parking brake applied (other than in the emergency situation described above) or repeated use of the parking brake to decelerate the vehicle may cause serious damage to the brake system.

Releasing the EPB manually

To disengage the EPB, the starter switch must be in the second position. Apply pressure to the foot brake while pressing down on the EPB lever.

It is not possible to manually release the EPB without pressing the foot brake.

If the EPB cannot be released manually, seek qualified assistance immediately.

Releasing the EPB automatically

If the vehicle is stationary with the EPB applied and the transmission in **D** or **R**, pressing the accelerator will release the EPB and allow the vehicle to move off.

With the transmission in CommandShift™ mode, automatic release is available in **1**st and **2**nd gears in High range and in **1**st, **2**nd and **3**rd, in Low range.

To delay the automatic release feature, hold the lever in the applied position, then at the desired point, release it.

In the event of a fault, **PARK BRAKE FAULT. AUTO RELEASE NOT FUNCTIONAL** will appear in the message centre. In this event, release the EPB manually.

Under most conditions the EPB system will release seamlessly as the accelerator is applied, allowing the vehicle to move forward. However, release times may be extended for an initial time period at the start of a journey when changing into gear from **P** or **N**. This is normal and is to allow for the extended gear engagement times that may occur under certain circumstances.

The EPB system will also reduce the system load (depending on gradient) to assist a smooth drive away. If the reduction in system load causes the vehicle to move, the full load will be automatically re-applied to the parking brake. To override the load reducing feature of the EPB, apply the parking brake after selecting a gear.

If the vehicle is used in severe off-road conditions, such as wading, deep mud, etc., additional maintenance and adjustment of the parking brake will be required. Consult your Land Rover Dealer/Authorised Repairer.

Fault management

If a fault is diagnosed by the system when the starter switch is on but the parking brake is not in use, the yellow EPB warning indicator will flash and the message **PARK BRAKE FAULT** will be displayed in the main message centre.

Note: *Under some transmission fault conditions, the parking brake may not function or may not operate automatically.*