Hill descent control (HDC)

PRINCIPLE OF OPERATION

Hill Descent Control (HDC) operates in conjunction with the anti-lock braking system to provide greater control in off-road situations particularly when descending severe gradients.

During a hill descent, if engine braking is insufficient to control the vehicle speed, HDC automatically operates the brakes to slow the vehicle and maintain a speed relative to the selected gear range and the accelerator pedal position.

In vehicles with manual transmission, HDC should only be used in first and reverse gears in high range and all gears in low range. Once the vehicle is moving, the clutch pedal should be fully released.

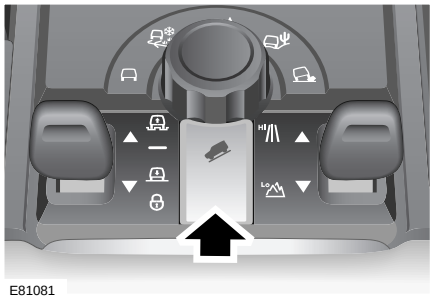
In vehicles with automatic transmission, HDC should only be used in **D**, **R** and CommandShift **1** in high range and in **D**, **R** and all CommandShift gears in low range. When in **D**, the vehicle will automatically select the most appropriate gear.

Note: *If Terrain Response is fitted, some of its program and range combinations will activate or deactivate HDC automatically.*

USING HDC

WARNING

Do not attempt a steep decent if HDC is inoperative or warning messages are displayed.



Press and release the button (arrowed) to select HDC.



The green HDC indicator lamp illuminates. To deselect, press and release again. The indicator lamp will flash if all operating conditions are not met (vehicle in neutral, clutch pedal pressed, vehicle speed above HDC operating range).

You can select HDC at speeds below 80 km/h (50 mph), but full HDC function is not active until the vehicle speed falls below 50 km/h (30 mph).

If the vehicle speed exceeds 80 km/h (50 mph), HDC will deselect and the green HDC indicator will extinguish.

If HDC is selected and the vehicle speed rises above 50 km/h (30 mph) in high range, HDC function is suspended and the green HDC indicator will flash. A message will also appear in the message centre.

If HDC is deselected when HDC is operating, the system fades out, allowing the vehicle to gradually increase speed.

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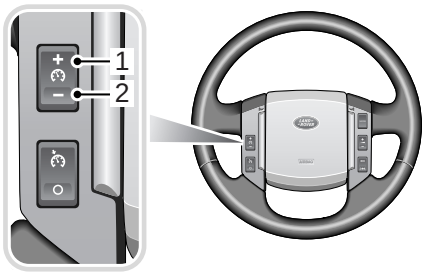
In low range, HDC controls the vehicle speed more aggressively. Use low range when descending steep slopes.

When driving off-road, you can select HDC permanently to ensure that control is maintained. ABS and traction control are still operational.

Note: *HDC is automatically deselected if the starter switch is turned off for more than six hours.*

With HDC selected, gear changes can be performed in the normal way.

Hill Descent Control in action



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While HDC is controlling the vehicle speed, descent speeds can be varied using the steering-wheel-mounted cruise control switches. To reduce the descent speed, press and hold switch **2**. Release the switch when the desired speed is reached.

To increase the descent speed, press and hold switch **1**. Release the switch when the desired speed is reached.

Alternatively, you can adjust the descent speed by tapping switch **1** or **2**. Each tap of the switch will adjust the descent speed by approximately 0.5 km/h (0.3 mph).

If you depress the brake pedal when HDC is active, HDC is overridden and the brakes will perform as normal (a pulsation might be felt through the brake pedal). If the brake pedal is then released, HDC will start operating at the reduced speed.

Note: *Each gear has a pre-defined minimum descent speed.*

*The descent speed will only increase if the gradient is sufficiently steep to cause the vehicle to accelerate as the braking effect is reduced. On a shallow slope, pressing switch **1** may result in no speed increase.*

Hill Descent Control (HDC) faults

Faults in the HDC system may be displayed by the amber warning lamp or via the message centre, if available.

If an HDC fault occurs, HDC will fade-out and then deselect, or deselect immediately (depending on the type of fault and whether or not HDC is in operation). The indicator will extinguish and the message **SYSTEM NOT AVAILABLE** will appear in the message centre or the HDC fault amber indicator will illuminate. Consult your Land Rover Dealer/Authorised Repairer as soon as possible.



The HDC amber indicator is fitted to models that have no message centre and it has two functions.

1. Illuminates continuously if there is a fault in the HDC system. If a fault is detected while the system is active, HDC will fade out. Do not attempt a steep descent when HDC is unavailable, alternatively use a very low gear and/or the foot brake.
2. Flashes if the brake temperatures reach a pre-determined limit. HDC will fades out and then becomes temporarily inactive. HDC will not be available until the brakes reach an acceptable temperature.

Hill descent control (HDC)

Note: *HDC fade-out gradually decreases the HDC function with the effect that the rate of hill descent will increase. HDC will be disabled completely once the descent is complete.*

Messages

The following table lists the messages relating to Hill Descent Control (HDC) that could appear in the message centre. Some messages will not apply to your vehicle and will therefore not appear.

Message	Meaning	What to do?
HDC FAULT SYSTEM NOT AVAILABLE	Hill Descent Control system fault.	Drive with care and do not attempt to descend steep slopes. Seek qualified assistance immediately.
HDC NOT AVAILABLE IN THIS GEAR	HDC not operative because of incorrect gear selection. HDC is fully functional in 1st and Reverse gears in manual transmissions and **1**, **R** and **D** in automatic in High range. It operates in all gears in Low range.	Select correct gear if HDC is required. In Low range, HDC operates in all gears for manual and automatic transmissions.
HDC NOT AVAILABLE SPEED TOO HIGH	HDC unavailable, speed threshold exceeded. Maximum HDC operating speed is 50 km/h (30 mph), maximum speed for HDC selection is 80 km/h (50 mph).	Reduce vehicle speed.
HDC TEMPORARILY NOT AVAILABLE SYSTEM COOLING	HDC switched off while brake system is cooling.	Wait until message disappears before descending steep slopes.