

Automatic Transmission

USING AUTOMATIC TRANSMISSION

Starting

Caution: Vehicles must not be push or tow started.

The engine can only be started with the selector lever in the **P** (Park) or **N** (Neutral) positions.

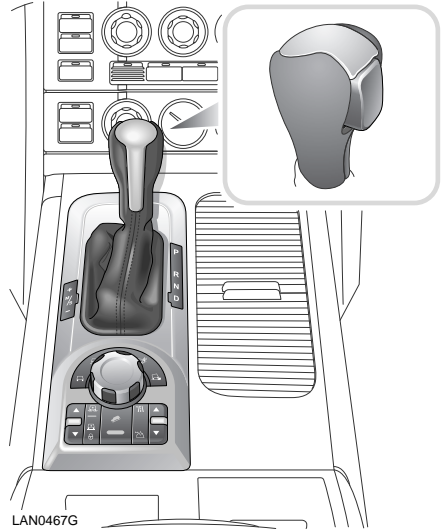
- Always apply the parking brake and foot brake before starting the engine.
- Keep the brakes applied while moving the selector lever into a drive position (the selector lever cannot be moved from the **P** position unless the foot brake is applied).

Note: If pressure is applied to the selector lever before the foot brake is applied, any gear selected may not be available irrespective of the lever position. In this situation, remove pressure from the selector lever, ensure that the foot brake is applied and select the required gear.

- Do not rev the engine or allow it to run above normal idle speed while selecting **D** or **R**, or while the vehicle is stationary with any gear selected.
- Always keep the brakes applied until you are ready to move off - remember, once a drive gear has been selected an automatic transmissioned vehicle may creep forward (or backward if reverse is selected).
- Do not allow the vehicle to remain stationary for any length of time with a drive gear selected and the engine running (always select **N** if the engine is to idle for a prolonged period).

Note: The gear selector must be in the **P** position before the starter key can be removed.

Note: For maximum air conditioning performance while stationary, select **P** or **N**.



Selector lever positions

Caution: Do not select P or R if the vehicle is moving.

Do not select a forward drive gear when the vehicle is moving backwards.

Do not select reverse gear when the vehicle is moving forwards.

Select P and turn the starter switch off before leaving the vehicle.

Do not leave children unattended in the vehicle.

An illuminated indicator on the selector panel and a number or letter on the gear selector display in the instrument panel, identify the selected gear position.

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P - Park: This position locks the transmission and should be selected before switching the engine off. To avoid transmission damage, ensure the vehicle is completely stationary with the parking brake applied, before selecting **P**.

The selector release button must be pressed before moving the selector lever into **P**.

Press the selector release button and foot brake to move the selector lever out of **P**.

Note: *The selector lever will not be released from **P**, unless the starter switch is in the second position.*

R - Reverse: Before selecting **R**, ensure the vehicle is stationary, with the brakes applied. Press the selector release button in order to move the selector lever into **R**.

N - Neutral: Select neutral when the vehicle is stationary and the engine is required to idle for a brief period (at traffic lights, for example). In **N**, the transmission is not locked, so the parking brake must be applied whenever **N** is selected.

If the vehicle remains stationary, the selector lever becomes locked in **N** and it is then necessary to depress the brake pedal in order to release the selector lever.

Press the selector release button and foot brake to move from **N** to **R** or **D**.

D - Drive: Select for all normal driving; full automatic gear changing occurs on all six forward gears, according to road speed and accelerator position.

Kick-down in automatic mode

To provide rapid acceleration for overtaking, push the accelerator pedal to the full extent of its travel (this is known as kick-down), a click will be felt through the accelerator pedal. Up to a certain speed, this will cause an immediate downshift to the lowest appropriate gear, followed by rapid acceleration. Once the pedal is relaxed, normal gear change speeds will resume (dependent upon road speed and accelerator pedal position).

Note: *Moderate accelerator pressure may also result in a downshift in the transmission, depending on vehicle speed.*

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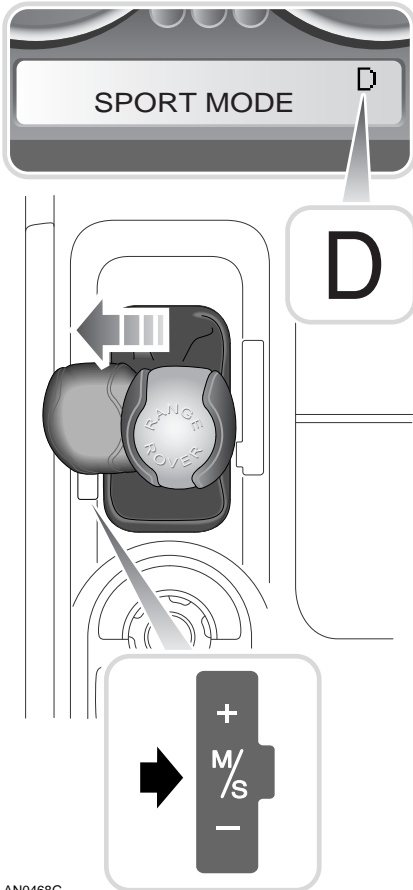
Sport mode

In Sport mode, full automatic progression through the gear ratios is retained and the transmission will stay in the lower gears for longer. This improves mid-range performance with downshifts occurring more readily.

To select Sport mode, move the gear lever from the **D** position towards the left hand side of the vehicle (see illustration). The LED in the selector display to the side of the selector lever (arrowed in inset) illuminates and **SPORT MODE** is displayed in the main message centre for 6 seconds.

Sport mode can be deselected at any time, by returning the lever to the **D** position.

To return to Sport mode after CommandShift has been selected, move the selector lever across into the automatic mode **D** position, then move it back across into Sport mode.

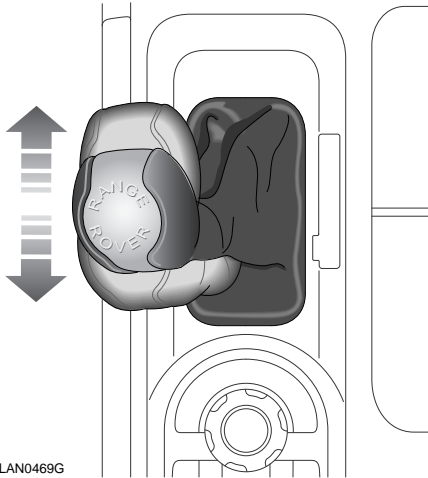


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CommandShift™ GEAR SELECTION

CommandShift gear selection can be used as an alternative to fully automatic transmission and is particularly effective when rapid acceleration or engine braking are required.



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There are six gears, all of which are selected sequentially by a single forward or rearward movement of the gear selector lever, as follows:

1. With **D** (Drive) selected, move the gear selector from the **D** position towards the left hand side of the vehicle (this is exactly the same as selecting Sport mode). **SPORT MODE** is displayed in the main message centre for 6 seconds.
2. The transmission then automatically selects the ratio most appropriate to the vehicle's road speed and accelerator depression.

3. A single forward (+) movement of the selector lever will change the transmission to a higher gear, while rearward (-) movement of the lever will change down to a lower gear (when available). The selected gear will be indicated in the digital display in the instrument panel (see inset).

Note: The transmission will automatically change to a higher gear if engine speed is increased beyond a certain level.

4. To deselect CommandShift, move the selector lever sideways, back to the **D** position. Automatic gear changing will then resume.

Note: In CommandShift, kick-down is still available for increased acceleration. See **Kick-down in automatic mode, 161**.

Note: When Terrain Response is selected, the transmission will automatically enter CommandShift mode if the lever is moved into Sport/CommandShift while any Special Program is selected.

Using CommandShift in High range

If manual mode is selected in High range, 1st gear must be selected to move off from stationary. Normal sequential gear changing can be utilised once the vehicle is moving.

Using CommandShift in Low range

If manual mode is selected in Low range, the vehicle can move off from stationary in 1st, 2nd or 3rd gear - this is particularly useful to improve traction when driving off-road.

Kick-down in manual CommandShift mode:

When in CommandShift, kick-down overrides the manual gear selection, to provide increased acceleration.

In High range, with CommandShift selected, kick-down will cause a downshift to the lowest gear possible for the current vehicle speed.

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ELECTRONICALLY SELECTED AUTOMATIC MODES

In automatic or Sport mode (not available in CommandShift), the transmission control system will electronically adjust gear change points to suit a variety of driving conditions.

Note: *The electronic modes described below are selected automatically by the transmission control unit. They cannot be selected by the driver.*

Hill ascent, trailer and high altitude mode

A suitable gear change pattern is selected to retain lower gears for longer. This is to counter momentum loss caused by more frequent gear changing during hill ascent or when towing. This gear change pattern is also selected at high altitudes to combat reduced engine torque.

Hill descent mode

When in CommandShift mode, with the optimum gear for engine braking selected, the selector lever can then be moved across to the **D** position. The transmission will retain the previously selected manual gear until the descent is completed, then the transmission will automatically change to **D**.

High coolant temperature mode

In high ambient temperatures during extreme load conditions, it is possible for the engine and the gearbox to overheat. At a certain temperature, the transmission will select a gear change pattern designed to aid the cooling process, while enabling the gearbox to continue performing normally in high temperatures.

Note: *When Terrain Response is used, automatic transmission change points/patterns will change, depending on which mode has been selected.*

Limp home mode

Should the transmission develop a fault, F is displayed in the gear position display and only limited gears are available. See immediate assistance from your Land Rover Dealer/ Authorised Repairer.