

## AUTOMATIC TRANSMISSION

### CAUTIONS

- ❗ Never select the Park (**P**) position whilst the vehicle is in motion. Doing so may cause serious damage to the transmission.
- ❗ Never select the Reverse (**R**) position whilst the vehicle is in forward motion. Doing so may cause serious damage to the transmission.
- ❗ Never select a forward gear whilst the vehicle is in rearward motion. Doing so may cause serious damage to the transmission.
- ❗ 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.
- ❗ Do not allow the vehicle to remain stationary for any length of time, with a gear selected and the engine running. Always select **P** or **N** if the engine is to idle for a prolonged period.

The transmission system is designed to operate in two distinct modes, conventional automatic and Jaguar Sequential Shift.

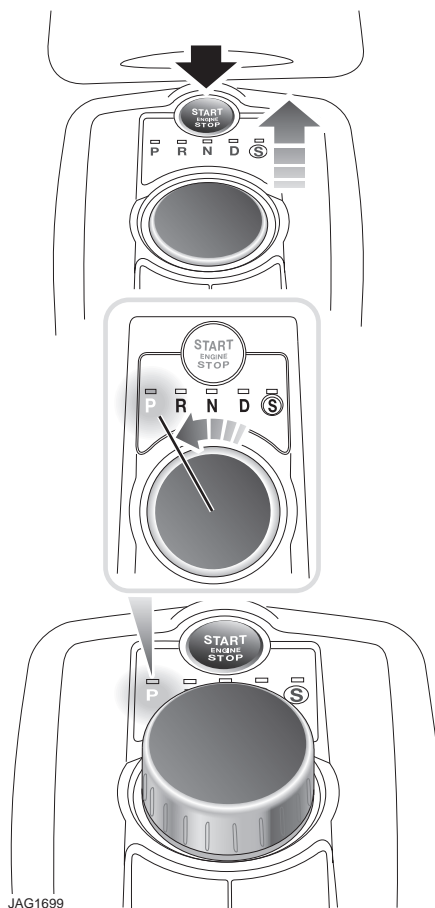
The automatic modes are accessed by the gear selector:

- **D** - Drive - automatic shifting.
- **S** - Sport - sport automatic shifting.

The Jaguar Sequential Shift mode enables sequential manual gear selection in **D** (temporary) and **S** (permanent) modes, via the steering wheel mounted paddles.

**Note:** In addition to the standard shift patterns available in **D** and **S**, the transmission will adapt to differing conditions by modifying shift points, based upon vehicle sensor information for road gradient, cornering, braking pressure and driving style.

## JaguarDrive selector



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The JaguarDrive selector elevates out of the centre console when the engine is started, in readiness for gear selection. Press the brake pedal, then rotate the control to select the chosen gear (**P**, **R**, **N** or **D**). To select **S** (Sport), rotate the control to **D**, then press down on the control and rotate to select **S**.

**P** should be selected before switching off the engine. However, it is possible to switch the engine off with **R**, **D** or **S** selected - the selector will automatically select **P**, while retracting into the centre console.

**Note:** *If the engine is switched off with **N** selected, the system will wait for 10 minutes before selecting **P**. This procedure is to allow the vehicle to be conveyed through a car wash only and should not be used for vehicle recovery purposes.*

### Selector positions

**P** - Park: Use when parked. In this position the transmission is locked, do not attempt to select **P** if the vehicle is moving.

**Note:** ***P** will be selected automatically when the engine is switched off.*

**R** - Reverse: Do not select if the vehicle is moving forward.

**N** - Neutral: Disconnects drive to the wheels. Use the parking brake when stopping temporarily with **N** selected.


**D** - Drive: Gear changing is automatic for all six forward gears. The shift points are determined by accelerator pedal position and road speed, to provide the best balance of performance, refinement and fuel economy, for the large majority of driving conditions.

**S** - Sport: Gear changing is automatic for all six forward gears, with modified gear shift points to maximise the vehicle response in demanding driving conditions. This mode is not suitable for town or highway cruising.

**Note:** *Both **D** and **S** positions also offer additional features, which are listed under **Automatic mode** and **Sport mode**, later in this section.*

### Stationary vehicle

#### CAUTION

 It is **not** recommended to leave the selector in the **D** or **S** positions for any length of time while the vehicle is stationary.

When the vehicle is stationary for a short period of time (e.g. in stop-start traffic), the selector may be left in **D** or **S**. When stopping for extended periods, either select **P** or apply the parking brake and select **N**.

### Selector interlock

The transmission is equipped with an interlock, to prevent inadvertent selection of a drive gear (**D**, **S** or **R**) from the **P** or **N** positions. To release the interlock to select a drive gear, press the brake pedal while making the selection.

Ensure the required driving range has selected prior to releasing the brake pedal. The range indicator (**R**, **D** or **S**) on the selector and message centre displays, will illuminate continuously to confirm selection.

**Note:** *If the brake pedal is released too early during selector rotation from **P** or **N** to a driving range (**R**, **D** or **S**), then the selected range will **not** be engaged. The selected range will **flash** on the selector and message centre displays.*

*To obtain the selected range, press the brake pedal, select **P** or **N** and reselect the required range, ensuring the brake pedal is depressed.*

If **N** is selected for less than 2 seconds (e.g. when moving the selector between **R** and **D**), the interlock will not activate and the brake pedal will not need to be pressed.

**Note:** *The interlock is deactivated when the vehicle is travelling at more than 5 km/h (3 mph).*

## If the selector fails to elevate

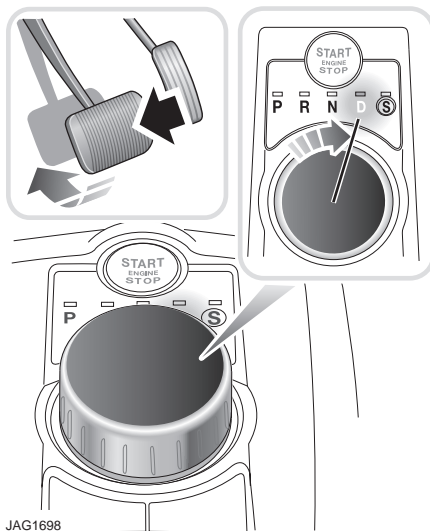
If the JaguarDrive selector is obstructed when the engine is started, it may be prevented from elevating out of the centre console. If this occurs, turn off the ignition, ensure that the selector is not obstructed and then start the engine. The selector should elevate as normal.

If the selector still fails to elevate, even if there is no obstruction, a fault in the system is indicated. The selector can still be used in the lowered position, but be aware that it will not automatically select **P** when the engine is switched off, so **P** should be selected manually. The fault should be rectified by a Dealer/Authorised Repairer at the earliest opportunity.

## Starting

In the unlikely event that the selector did not rotate back to **P** when the vehicle was previously switched off, and the selector has remained in **R**, **D** or **S**, it will not be possible to start the engine. The vehicle will go to ignition on. The selected range will flash and the selector will now be unlocked, to allow the driver to select **P** and start the engine.

## Automatic mode



To select Drive (**D**) when the vehicle is stationary:-

1. Apply the foot brake.
2. Rotate the gear selector to **D**.

When in **D** the transmission will automatically select the most appropriate gear for the current driving conditions.

**Note:** When a gear is selected the vehicle may begin to move as soon as the foot brake is released.

## Kick-down

When **D** is selected and the accelerator pedal is depressed fully, the transmission will downshift to the lowest appropriate gear. Once the accelerator pedal is returned to a normal driving position, the transmission will up-shift to the highest appropriate gear.

**Note:** Kick-down operation will vary according to road speed, current gear in use and accelerator movement.

## Fast off

Activated when rapidly lifting off the accelerator pedal and takes account of road gradient. This feature inhibits up-shifts, enhancing performance.

**Note:** If Sport mode is selected, driver type recognition will vary the activation of this feature according to driving style.

## Shift adapt under braking

Under braking, the transmission will vary the down-shift point in proportion to braking effort and road gradient. This feature works in conjunction with the positive torque function, resulting in a smoother down-shift.

**Note:** If Sport mode is selected, driver type recognition will vary the activation of this feature according to driving style.

## Corner recognition

Inhibits up-shifts during cornering, to provide improved vehicle balance.

**Note:** If Sport mode is selected, driver type recognition will vary the activation of this feature according to driving style.

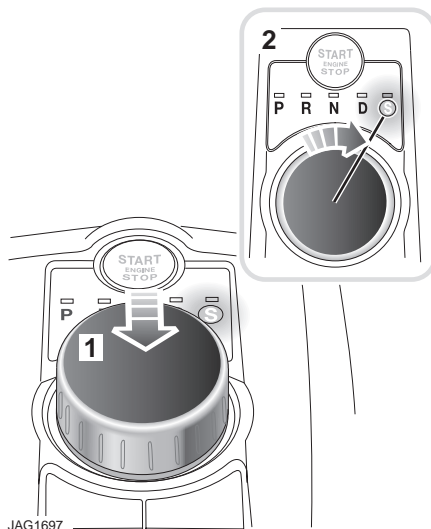
## Road gradient recognition

When the vehicle is being driven on an uphill gradient, the transmission adapts the shift pattern to make better use of engine power.

When driving on a long downhill gradient, the transmission may automatically select a lower gear, to increase engine braking. Selecting Sport mode (S) will increase the tendency of the transmission to select a lower gear in these conditions, further increasing engine braking.

**Note:** It is also possible to manually select a lower gear to increase engine braking via use of the shift paddles.

## Sport mode



To select Sport mode:

1. With **D** selected, push down on the selector.
2. Rotate from **D** to **S**.

### CAUTION



It is **not** recommended to push the selector down in the **P**, **R** or **N** positions.

**Note:** When Sport mode is selected **SPORT** will be displayed in the message centre, and the selector indicator will illuminate.

Sport mode enhances the responsiveness of the transmission, to provide a sporting feel to driving the vehicle. Sport mode is recommended for overtaking manoeuvres and for when rapid progress is desired.

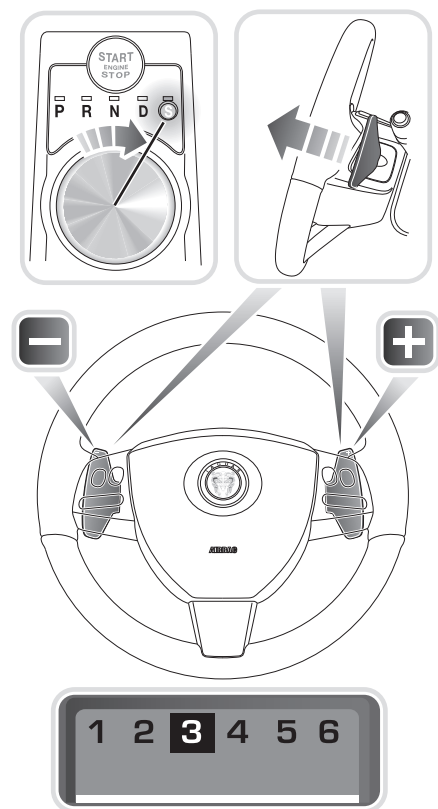
To return to automatic mode move the selector lever back to the **D** position. The **D** on the selector display will illuminate to confirm that automatic mode has been selected.

# Transmission

## Driver type recognition

In Sport mode, the transmission monitors driving style and in combination with sensors in the vehicle, varies the shift schedule, fast-off, corner recognition and shift adapt under braking functions, according to the driving style.

## Manual mode - Jaguar Sequential Shift



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Shifts in the Jaguar Sequential Shift manual mode are made using the steering wheel mounted shift paddles and are optimised to provide a rapid response to gear shift requests.

Up-shift requests (+) are optimised for performance via the short shift function, resulting in firmer feeling shifts than in automatic mode. Down-shift requests (-) utilise a throttle blip during the shift, resulting in improved shift feel.

The Jaguar Sequential Shift manual mode can be accessed either temporarily, or permanently.

**Temporary manual gear selection:** When the gear selector is in the **D** position, manual mode may be directly accessed by the single action of operating the steering wheel mounted shift paddles.

This convenience feature allows immediate but temporary use of the shift paddles when the gear selector is in **D**.

If continued use of manual mode is required, the gear selector may be subsequently moved to the **S** position to enter permanent manual mode in the currently selected gear.

If the gear selector remains in the **D** position, temporary manual mode will be held whilst the driver is accelerating, decelerating, cornering or continuing to request shifts via the paddles.

The transmission will revert to automatic operation after a short period of driving at steady speed; alternatively the shift-up (+) paddle may be held for a short period (approximately one second) to return directly to automatic operation in **D**.

**Permanent manual gear selection:** Select the **S** position, permanent manual mode is then accessed by the operation of the steering wheel mounted shift paddles.

The message centre will highlight the currently selected gear.

**Note:** *When the transmission is set to permanent manual mode (i.e. using the paddles to change gear while in Sport mode) and Dynamic mode is selected, transmission up-shifts are fully controlled by the driver. This means that the transmission will not change up a gear automatically, even when the vehicle's rev limit is reached. When the rev limit is reached, the gear position indicator in the message centre will glow amber, to indicate that the next gear should be selected.*

To exit from the **Jaguar Sequential Shift** permanent manual mode, either pull and hold the shift-up paddle for approximately one second (to return directly to automatic operation in **S**), or rotate the gear selector to the **D** position. The transmission will revert to the **D** automatic shift mode.

## Manual operation

To shift-up, briefly pull the shift-up (+) paddle on the right-hand side of the steering wheel towards you.

To shift-down, briefly pull the shift-down paddle (-) on the left-hand side of the steering wheel towards you.

The message centre display will change to highlight the requested gear.

**Note:** *The transmission will inhibit up-shifts and down-shifts if the requested shift would result in an engine speed outside the normal operating range of the engine. If this occurs, the message centre will briefly display the requested gear selection, but will return to displaying the current gear.*

The **Jaguar Sequential Shift** mode also has the following features:

**Kick-down:** Operation of kick-down in **Jaguar Sequential Shift** mode will override the currently selected gear. The lowest available gear will be selected for maximum acceleration and will be highlighted in the message centre display. Subsequent manual shifts may then be selected as usual.

**Positive torque:** Provides throttle blips on down-shifts, improving shift feel and response.

**Shift assist:** The transmission will automatically up-shift at the engine speed redline in **Jaguar Sequential Shift** mode, as if commanded manually.

The transmission will automatically down-shift, when the engine speed drops too low for the currently selected gear.

When the vehicle approaches, or comes to rest, second gear is automatically selected.

Subsequent pull-aways will occur in second gear, unless the accelerator pedal demand is high or a down-shift is manually selected, in which case, first gear will be selected.

In all cases the message centre will display the current gear.

**Note:** *During sustained braking, if a down-shift is selected at a speed which would result in the engine speed exceeding its normal operating range, the gear change will be indicated in the message centre, but the down-shift will be delayed until the vehicle speed has reduced sufficiently for the gear selection to be made, without causing the engine speed to exceed its normal operating range.*

# Transmission

## Limp-home mode

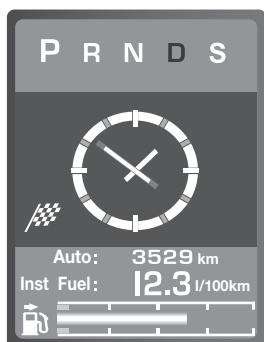
**Note:** The driver should be aware that the vehicle's performance will be reduced and must take this into account when driving. Also the use of the **Jaguar Sequential Shift** paddles will be disabled. In this event, seek qualified assistance as soon as possible.

In the unlikely event of an electrical or mechanical failure, transmission operation will be limited. The vehicle gear selector ranges **P**, **R**, **N**, **D** and **S** may still be used to enable the vehicle to be driven to a safe area.

Some faults will cause the selector to be locked in position until the ignition is switched off. If the selected range flashes, it signifies that the driver request cannot be engaged. Re-select **N** and repeat the attempt.

If the transmission is still unable to select the requested gear, contact your Dealer/Authorised Repairer.

## Message centre display



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The message centre will confirm the JaguarDrive selector position (selected gear) which will then be highlighted at the top of the message centre display.

If manual mode is selected, the numbers **1** to **6** appear at the top of the display, with the currently selected gear highlighted.

**Note:** With the transmission set to permanent manual mode and Dynamic mode selected, when the rev limit is reached, the gear position indicator in the message centre will glow amber, to indicate that the next gear should be selected.

The message centre may also display the following messages with associated warning indicators:

**ENGINE SYSTEMS FAULT (Red)**

**RESTRICTED PERFORMANCE (Red or Amber)**

**GEARBOX FAULT (Amber)**

If any of these messages are displayed it is likely that loss of power or driveability will be experienced. Seek qualified assistance as soon as possible.