ADAPTIVE CRUISE CONTROL OVERVIEW

The Adaptive Cruise Control (ACC) system is designed to aid the driver to maintain a gap from the vehicle ahead or a set road speed if there is no slower vehicle ahead.

ACC is not a collision warning or avoidance system. Additionally, ACC will not react to:

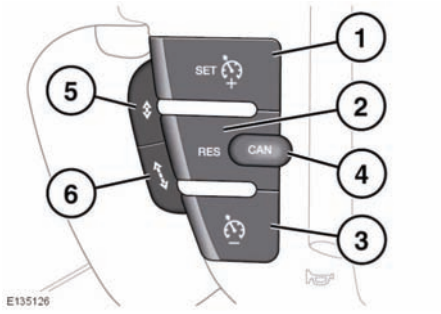
- **Stationary or slow moving vehicles below 10 km/h (6 mph).**
- **Pedestrians or objects in the roadway.**
- **Oncoming vehicles in the same lane.**

The ACC system uses a radar sensor, which projects a beam directly forward of the vehicle to detect objects ahead.

The radar sensor is mounted behind the lower grille, to provide a clear view forward for the radar beam.

- Only use ACC when conditions are favourable (i.e. main roads with free flowing traffic).
- Do not use in poor visibility, specifically fog, heavy rain, spray or snow.
- Do not use on icy or slippery roads.
- It is the drivers responsibility to stay alert, drive safely and be in control of the vehicle at all times.
- Keep the front of the vehicle free from dirt, metal badges or objects, including vehicle front protectors, which may prevent the sensor from operating.
- Do not use ACC when entering or leaving a motorway.

USING ACC



1. **SET+**: Press to increase or set the speed.
2. Press to resume the set speed.
3. Press to decrease the set speed.
4. **CAN**: Cancels, but retains the set speed in memory.
5. Press to decrease the gap.
6. Press to increase the gap.

The system is operated by controls mounted on the steering wheel. The driver can also intervene at any time by use of the brake or accelerator pedals.

Setting the vehicle speed, activating, and deactivating ACC, is done in the same way as when using cruise control.

ENTERING FOLLOW MODE

When in follow mode, the vehicle will not decelerate automatically to a stop, nor will the vehicle always decelerate quickly enough to avoid a collision.

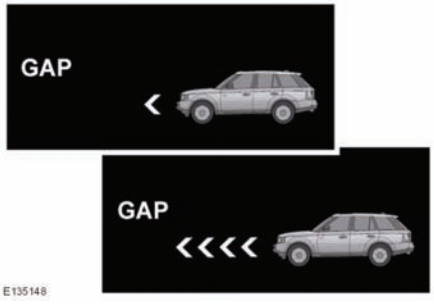
Note: *Follow mode is an integral function of ACC. You cannot disengage follow mode and still use cruise control to maintain your speed.*

Once a set speed has been selected, the driver can release the accelerator and the set road speed will be maintained.

When a vehicle ahead enters the same lane or a slower vehicle is ahead in the same lane, the vehicle speed will be adjusted automatically until the gap to the vehicle ahead corresponds to the default gap setting (gap level 3). The vehicle is now in **follow mode**.



The amber warning lamp in the instrument panel will be illuminated.



The message centre will display the gap set.

The vehicle will then maintain the constant time gap to the vehicle ahead until:

- The vehicle ahead accelerates to a speed above the set speed.
- The vehicle ahead moves out of lane or out of view.
- A new gap distance is set.

If necessary, the vehicle brakes will be automatically applied to slow the vehicle to maintain the gap to the vehicle in front.

The maximum braking which is applied by the ACC system is limited and can be overridden by the driver applying the brakes, if required.

Note: *Driver braking will cancel ACC.*

If the ACC system predicts that its maximum braking level will not be sufficient, then an audible warning will sound while the ACC continues to brake. **DRIVER INTERVENE** will be displayed on the message centre. The driver should take immediate action.

When in follow mode, the vehicle will automatically return to the set speed when the road ahead is clear, for instance when:

- The vehicle in front accelerates or changes lane.
- The driver changes lane to either side or enters an exit lane.

The driver should intervene if appropriate.

CHANGING THE FOLLOW MODE SET GAP

Four gap settings are available. The selected gap setting is displayed on the message centre when the gap adjustment buttons are operated.

Each gap level is indicated by an additional chevron in front of the vehicle icon in the message centre. After the ignition is switched on, the default gap (gap level 3) will be automatically selected ready for ACC operation.

Note: *It is the driver's responsibility to select a gap appropriate to the driving conditions.*

OVERRIDING THE SPEED AND FOLLOW MODE

Whenever the driver is overriding the ACC by depressing the accelerator pedal, the ACC will not automatically apply the brakes to maintain separation from any vehicle ahead.

The set speed and gap can be overridden by pressing the accelerator pedal when cruising at constant speed or in follow mode. If the vehicle is in follow mode, the warning lamp will go out when the ACC is overridden by the driver using the accelerator and **CRUISE OVERRIDE** will be

displayed on the message centre. When the accelerator is released the ACC function will operate again and vehicle speed will decrease to the set speed, or a lower speed if follow mode is active.

AUTOMATIC LOW SPEED SWITCH-OFF

If the speed of the vehicle decreases below 30 km/h (18 mph), the ACC system will be automatically switched off and the warning lamp will go out.

If the brakes were being applied by the ACC system, they will be slowly released.

This will be accompanied by an audible warning, and **DRIVER INTERVENE** will be displayed on the message centre. The driver must take control.

ACC AUTO OFF

ACC will disengage, but not clear the memory when:

- The **CANCEL** button is pressed.
- The brake pedal is pressed.
- Neutral (**N**) is selected.
- Dynamic Stability Control (DSC) activates.
- Electronic Traction Control (ETC) activates.
- Hill Descent Control (HDC) is selected.

ACC will disengage, and clear the memory when:

- The ignition system is switched off
- Maximum vehicle speed is reached
- A fault occurs in the ACC system.

RESUMING THE SPEED AND FOLLOW MODE

RESUME should only be used if the driver is aware of the set speed and intends to return to it.

By pressing the **RESUME** button after ACC has been cancelled (e.g. after braking), the ACC will become active again provided that the set speed memory has not been erased. The original set speed will be resumed (unless a vehicle ahead causes the follow mode to become active) and the set speed will be displayed in the message centre for 4 seconds.

HINTS ON DRIVING WITH ACC

The system acts by regulating the speed of the vehicle, using engine control and the brakes. Gear changes may occur in response to deceleration or acceleration whilst in ACC.

ACC is not a collision avoidance system. However, during some situations the system may provide the driver with an indication that intervention is required.

An audible alarm will sound, accompanied by the message **DRIVER INTERVENE** if the ACC detects:

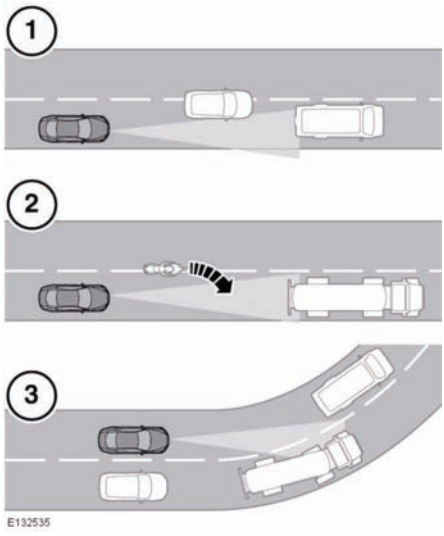
- A failure has occurred while the system is active.
- That using maximum ACC braking only is not sufficient.

Note: *ACC operates when the gear selector lever is in position* ***D****.*

Note: *When engaged, the accelerator pedal rests in the raised position. Fully release the pedal to allow normal ACC operation.*

Note: *When braking is applied by the ACC, the vehicle brake lamps will be switched on.*

DETECTION BEAM ISSUES



Detection issues can occur:

1. When driving on a different line to the vehicle in front.
2. When a vehicle edges into your lane. The vehicle will only be detected once it has moved fully into your lane.
3. There may be issues with the detection of vehicles in front when going into and coming out of a bend.

In these cases ACC may brake late or unexpectedly. The driver should stay alert and intervene if necessary.

ACC MALFUNCTION

If a fault occurs during operation of the system in cruise or follow modes, the ACC system will switch off and cannot be used until the fault is cleared. The message **DRIVER INTERVENE** appears briefly and is then replaced by the message **CRUISE NOT AVAILABLE**.

If failure of the ACC or any related system occurs at any other time, the message **CRUISE NOT AVAILABLE** will be displayed. It will not be possible to activate the ACC system in any mode.

Accumulations of dirt, snow or ice on the sensor or cover may inhibit ACC operation. Fitting of a vehicle front protector or metallised badges may also affect ACC operation.

If this occurs in ACC cruise /follow mode, the audible alarm sounds and the message **DRIVER INTERVENE** displays briefly. The message **ACC SENSOR BLOCKED** will then be displayed.

Note: *The same messages may also be displayed while driving on open roads with few objects for the radar to detect.*

Clearing the obstruction allows the system to return to normal operation. If the obstruction is present when ACC is inactive (e.g. on initial starting or with the ACC system switched off), the message **ACC SENSOR BLOCKED** will be displayed.

Tyres other than those recommended for your vehicle, may have different sizes. This can affect the correct operation of the ACC.

FORWARD ALERT FUNCTION

Limited detection and warning of objects ahead, is provided during ACC operation by the ACC **DRIVER INTERVENE** warning. The forward alert feature additionally provides warnings when ACC is not engaged; if a vehicle is detected close ahead, then the warning tone and **FORWARD ALERT** message will be issued. The brakes will not be applied.



The warning lamp in the instrument panel illuminates when forward alert is switched on.

The sensitivity of the warning can only be adjusted with ACC disengaged. Adjust as follows:

- Press the gap decrease button to display and then decrease the sensitivity of the alert.
- Press the gap increase button to display and then increase the sensitivity of the alert.

FWD ALERT <----> is displayed in the message centre.

ADVANCED EMERGENCY BRAKE ASSIST

The system may not react to slow moving vehicles and will not react to stationary vehicles or vehicles travelling in the opposite direction.

Warnings may not appear if the distance to the vehicle ahead is very small or if steering wheel or pedal movements are large (e.g. to avoid a collision).

The system utilises the same radar sensor as ACC and Forward alert - the same limitations of performance apply.

Advanced emergency brake assist is available at speeds above approximately 7 km/h (5 mph) and improves braking response during emergency braking, when a moving vehicle is detected close ahead.

If the risk of collision increases after the **FORWARD ALERT** warning is displayed, advanced emergency brake assist is activated. The brakes are automatically applied gently in preparation for rapid braking (this may be noticeable). If the brake pedal is then pressed quickly, full braking is implemented, even if only light pressure is applied to the pedal. See **87, EMERGENCY BRAKE ASSIST (EBA)**.

Note: *Braking performance will only be improved if the driver applies the brakes.*

Advanced emergency brake assist will function even if Forward Alert and ACC are switched off. If there is a fault with the system, **FORWARD ALERT UNAVAILABLE** is displayed in the message centre. The vehicle can still be driven and the braking system will still operate, but without advanced emergency brake assistance. Seek qualified assistance to have the fault rectified.