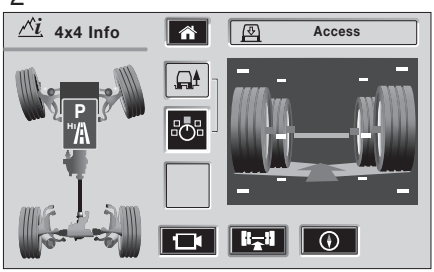
## ACCESSING 4 x 4 Info

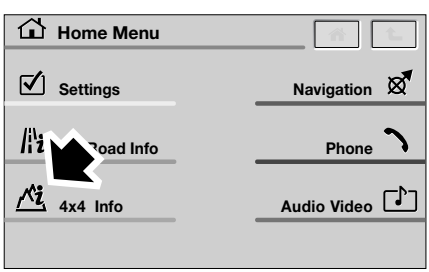
1

2



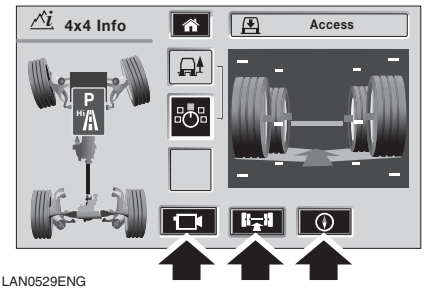

LAN0526ENG

The 4 x 4 Info screen can be accessed by pressing the 4 x 4 Info button (1) on the touch screen surround. The screen will display whichever view was last used (2).




ICE1787 ENG

Another method of accessing the 4 x 4 Info screen is by touching the **4 x 4 Info** icon on the Home Menu.




LAN0529ENG

From the 4 x 4 Info screen, VentureCam, Chassis, and Compass information can be accessed.

These features allow the user to monitor data hosted on the 4 x 4 Info display. An amber halo around the selected mode icon will indicate the current display view.

# Land Rover VentureCam

## INTRODUCTION

The Land Rover VentureCam system consists of one or more VentureCams, a docking station, an antenna and a touch screen. Land Rover VentureCam is a wireless real time motion camera, that transmits in colour.

Up to 16 VentureCam units can be linked to the system. These mini cameras are a form of close circuit television viewed through the touch screen in either full screen or reduced screen mode. You can view all cameras linked by using the scroll soft keys on the touch screen.

The camera mounts can be attached to any suitable surface and the camera transmissions viewed whenever the vehicle is within 30 metres (approximately 100 feet) distance.

This gives the user a wide variety of possible locations where the VentureCam units can be used.

The Land Rover VentureCam will receive other video signals on the 2.45GHz frequency.

This is an open band frequency so if, for example, you have a home security camera, you may be able to select and view its signal by selecting the channel it is broadcasting on.

***Note:*** *Land Rover VentureCam uses the same frequencies as some TV, WiFi and Bluetooth® devices. If interference with the image is observed, re-selecting the VentureCam will select a quieter channel.*

*Please note that for this reason, the operation of a Land Rover integrated Bluetooth® phone system is inhibited when the Land Rover VentureCam system is active.*

*Land Rover have no control over the operation or format of security cameras and therefore cannot guarantee their operation.*

The VentureCam is charged in a docking station in the upper glovebox. VentureCam can also be used as a torch.

When the VentureCam is docked again a green halo around the LAND ROVER button flashes momentarily to indicate that a good electrical connection has been established.


H5342

The touch screen allows you to control the VentureCams, selecting which one to view and to determine if the batteries are charged.

# Land Rover VentureCam

To remove a VentureCam from the docking station, push it lightly towards the facia. This releases the latching mechanism allowing the unit to be removed from the housing.

LAN0684ENG

***Note:*** *Some markets have a speed restriction of 16 km/h (10 mph) when displaying motion images on a screen within the drivers vision. In these markets, exceeding this speed will turn the VentureCam off.*

**WARNING**

**VentureCam is only to be used as a driving aid. It must not be used in a way that could distract the driver.**

**Take care when manoeuvring.**

**Always obey traffic regulations.**

**VentureCam must not be left loose in the vehicle. It must be docked in the docking station or stowed securely when not in use. In the event of an accident, unsecured items become flying missiles, capable of causing serious injury.**

**Do not place objects other than a Land Rover VentureCam into the docking station.**

**Do not allow the red torch illumination to face towards oncoming traffic when used on public roads.**

**Always mount a VentureCam out of the reach of children or animals.**

**If using VentureCam to reverse, care should be taken to ascertain left and right.**

***Note:*** *If using your Land Rover VentureCam as an aid to reversing a trailer, the range may be reduced if the trailer is between your vehicle and the VentureCam. Therefore take this into account when selecting a suitable location for a VentureCam.*

## LAND ROVER VENTURECAM UNIT

The camera is of a robust construction and is able to operate up to 30 metres (98 ft) away from the vehicle, but this will depend on the prevailing conditions. Environment and buildings may have an effect.

The VentureCam unit has a LAND ROVER button that allows you to select the function you require. The functions are marked graphically on the unit itself. Each press of the button takes you to the next function.

- When the unit is off, a single press of the button switches the camera function on.
- Pressing the button a second time turns the torch on torch and turns the camera off.
- A further press turns the unit off.

When you select camera mode, the halo around the LAND ROVER button illuminates and begins to flash, to indicate that the camera is awaiting a command from the touch screen.


H5342

***Note:*** *The range of the Land Rover VentureCam will be reduced if it is held in the hand. We therefore only recommend supporting it in the holster provided.*

***Note:*** *The torch can also be operated from within the vehicle using the torch soft key on the touch screen.*

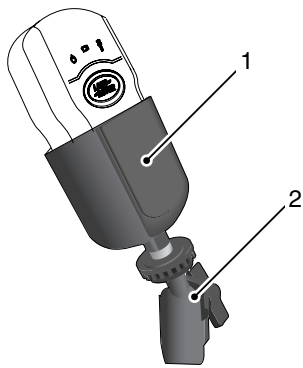
## MOUNTING A LAND ROVER VENTURECAM

Each Land Rover VentureCam unit is supplied with a flexible mounting system allowing you to attach it to a suitable surface.

**Caution: The suction mount is designed for off road use and should only be fixed to a suitable exterior surface.**

The Land Rover VentureCam mount comes in two parts:

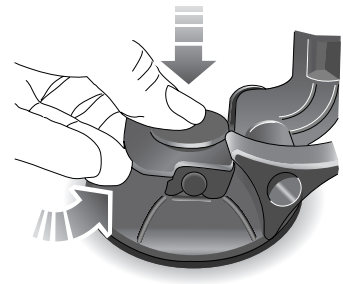
1. VentureCam holster.
2. Suction mount.




H5752

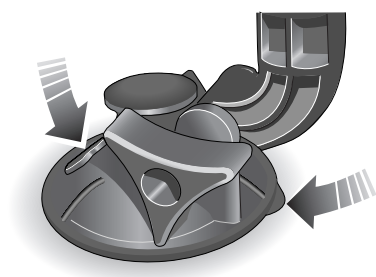
The holster is secured into the suction mount using a screw fixing similar to a wide range of camera accessories.

With the suction control lever lowered, apply the mount to clean glass or clean, flat body work, press the suction button and pull the lever up. Ensure a good fix is made before installing and using the VentureCam.



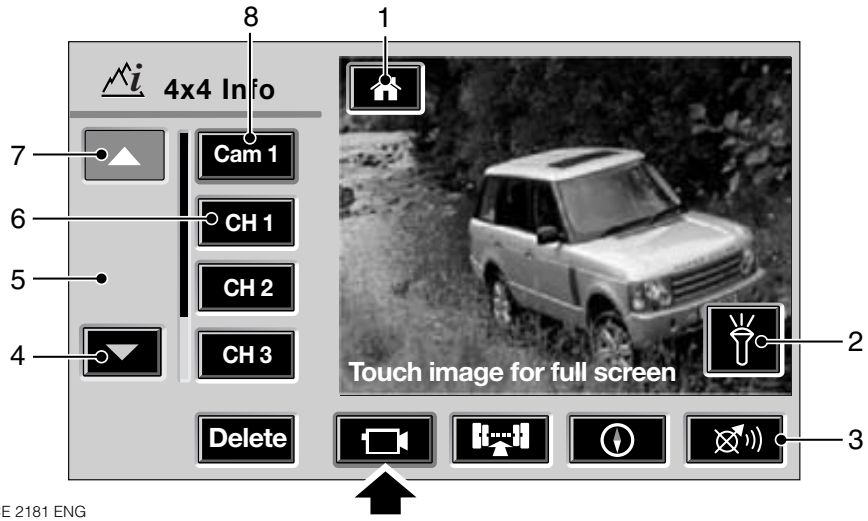
H5753

To release the mount, first take the VentureCam out of the holster. Hold the mount, lower the operating lever and lift the clear plastic tab on the perimeter of the suction pad to release the suction.



H5754

## LAND ROVER VENTURECAM CONTROLS




ICE 2181 ENG

Pressing the VentureCam soft key (arrowed in illustration) displays the camera and channel selection list as illustrated above.

Selections available from the touch screen:

1. Home menu
2. Torch
3. Navigation repeat - only appears when a navigation route is active. Press to hear the last issued navigation command.
4. Scroll down - press to scroll down through available VentureCams and channels.
5. Display area
6. Channel selection
7. Scroll up - press to scroll down through available VentureCams and channels.
8. Camera selection

***Note:*** *If a soft key control is greyed out, the function is not currently available for selection.*

***Note:*** *When a soft key is pressed, a green halo appears briefly around the soft key to confirm selection. The halo then turns to amber, indicating that the selected function is active.*


ICE2040 ENG

Pressing the VentureCam soft key (arrowed) again, will change the graphic in the display view area (5). A chassis map view will be displayed.

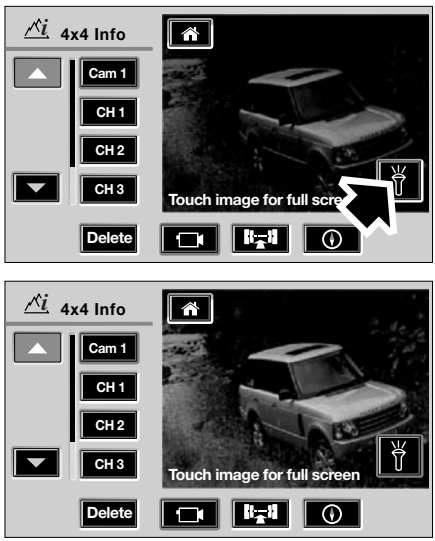
### Selecting available VentureCams and Channels

Use the scroll soft keys (3 and 6) to scroll up or down through the list of available VentureCams (Cam 1, Cam 2 etc.) and channels (CH 1, CH 2 etc.) until the desired choice is visible. Press the soft key representing the desired choice to select. The display will change to show the image from the selected source.

If there is a problem with the selected source, a warning message will be displayed on-screen. Follow any instructions given and/or select an alternative source.

### Using the torch

In addition to operating the torch using the selection button on the Land Rover VentureCam unit, it can be operated from within the vehicle, using the soft key (arrowed) that appears on the touch screen whilst viewing a VentureCam image.




ICE1834 ENG

When the torch is turned on, an amber halo appears around the torch soft key. Press the soft key again to turn the torch off.

## FULL SCREEN DISPLAY MODE

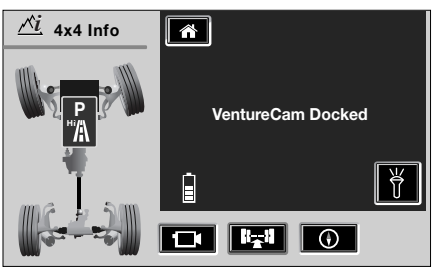
In VentureCam mode, touching the screen area containing the VentureCam or channel image, will display a full screen view.

To return to the control display mode, touch the screen again.

## LAND ROVER VENTURECAM BATTERY

Land Rover VentureCam is fitted with a re-chargeable battery, that should give approximately 3 hours of continual video transmission. Alternatively, the VentureCam can be used as a torch and will last approximately 4 hours before a re-charge is required. Re-charging VentureCam takes approximately 1 hour from a fully discharged to a fully charged state.

***Note:*** *The starter switch needs to be in position* ***II*** *to allow charging to start.*




ICE1829 ENG

When docked, the VentureCam will go into a charging state. Charge level indicators will be displayed to indicate the battery state of charge, along with the display “VentureCam docked”

There are 3 charging stages which are as follows:

**Recovery** - One segment indicates that the VentureCam battery is virtually discharged (or may be very hot/cold). The battery is being gently charged to ensure a full battery recovery and subsequently, may stay in this mode for some time.

**Fast charge** - A rising row of segments indicates a fast charge, that will deliver a full charge in a minimum period.

**Charged** - A complete row of segments indicates a charged battery. Land Rover recommend you leave the VentureCam in the docking station when charged, this helps maintain the battery optimum charge level.

**Care of your Land Rover VentureCam**

If VentureCam becomes muddy or covered in road dirt, wipe it with a damp cloth to clean the camera window and to ensure reliable battery charging.

If you have 2 or more VentureCams, cycle them through the docking station, so that each one gets a top-up charge every few weeks.

Avoid high temperatures, DO NOT store VentureCam in the sun.

**Caution: VentureCam batteries, like all others, should be disposed of responsibly and in accordance with local authority regulations.**

## STORING A LAND ROVER VENTURECAM UNIT TO MEMORY

Users may access up to 16 Land Rover VentureCams through the touch screen. In order to manage multiple units, each VentureCam required for transmitting must be saved to memory.

To store a VentureCam to the vehicle system memory, the unit must be in the docking station. This can be done whilst in any display view. Docking a VentureCam that has not been saved to the vehicle will display a pop up screen. Selecting **OK** will save the VentureCam to the first available VentureCam position.


ICE1831 ENG

Selecting **Cancel** will clear the pop up window and return the user to the previously selected background. If you press the **Cancel** soft key accidentally, the docked VentureCam will have to be removed, then re-docked, before it can be stored to the memory.

Selecting **OK** saves the VentureCam to memory and displays another pop up window, giving the user the option to **Use now** or **Close** the window.


ICE1832 ENG

Selecting **Use now** will take the user to the 4 x 4 Info area, with VentureCam selected and showing the docked VentureCam display view.

Selecting **Close** will clear the pop up window and return the user to the previously selected background.

***Note:*** *If 16 VentureCams have been saved to the vehicle and a new VentureCam is docked, the VentureCam will only charge and the Learn Camera pop up window will not be presented until a VentureCam is deleted, see* ***DELETING A LAND ROVER VENTURECAM UNIT FROM MEMORY, 88****.*

*The new one will have to be re-inserted into the docking station, before it can be stored in the memory.*

## DELETING A LAND ROVER VENTURECAM UNIT FROM MEMORY

To delete a VentureCam from memory, use the scroll soft keys to select the required VentureCam, then press the **Delete** soft key. A pop up window will be displayed.

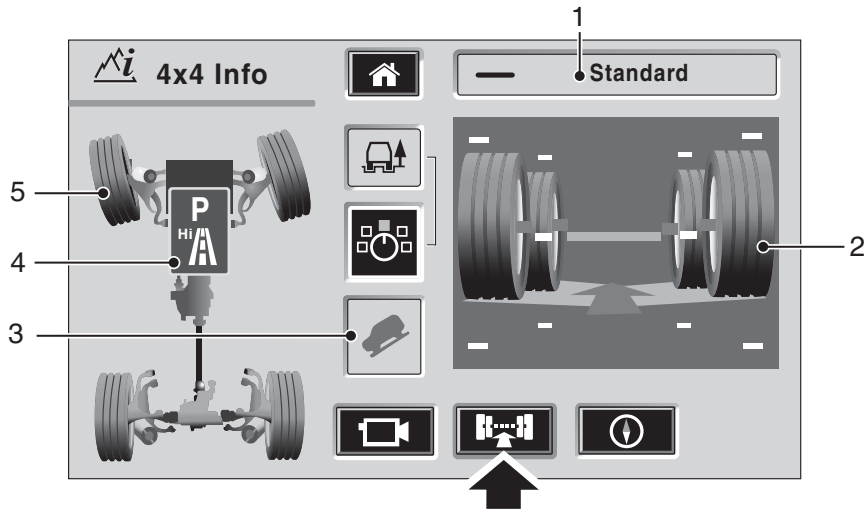

ICE1833 ENG

Selecting **OK** removes that VentureCam from the list.

Selecting **Cancel** will clear the pop up window and return the user to the VentureCam list display view.

## CHASSIS VIEW

### Chassis view controls




LAN0520ENG

1. Suspension status.
2. Wheel displacement status.
3. Hill Descent Control status.
4. Gearbox status.
5. Steering angle status.

**Selecting chassis view**

To access Chassis View, press the Chassis soft key (arrowed).

This feature allows the user to monitor data hosted on the 4x4 Info display. The user has no control over any of these features. An amber halo around the selected soft key will indicate the current display view.

## SUSPENSION INFORMATION

The air suspension has three suspension heights:

- Off Road
- Standard
- Access

In any of these states, the suspension status window in the top right of the display indicates the current suspension setting.

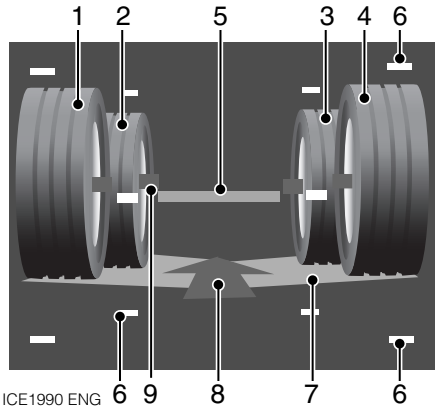
The setting is also displayed graphically in the wheel displacement window.

The display contains a representation of the four road wheels, along with several other graphical elements. These graphical elements move in direct response to actual wheel height changes.

The vertical position of each road wheel graphic is determined by data from height sensors.

Beneath the wheel graphics are shapes that represent the area of contact of the wheels with the ground.

Effectively there are two separate contact areas; one representing the left side and the other representing the right side of the vehicle. Movement of either of the left wheels will transform the shape of the left side contact area, but have no effect on the right side. Likewise, movement of the right wheels will transform the shape on the right side, with no effect on the left.



ICE1990 ENG

These graphical elements represent the following:

**1.** Left rear wheel.

**2.** Left front wheel.

**3.** Right front wheel.

**4.** Right rear wheel.

**5.** Nominal vehicle body height.

**6.** Limit markers indicates extremes of travel.

**7.** Contact area with the ground.

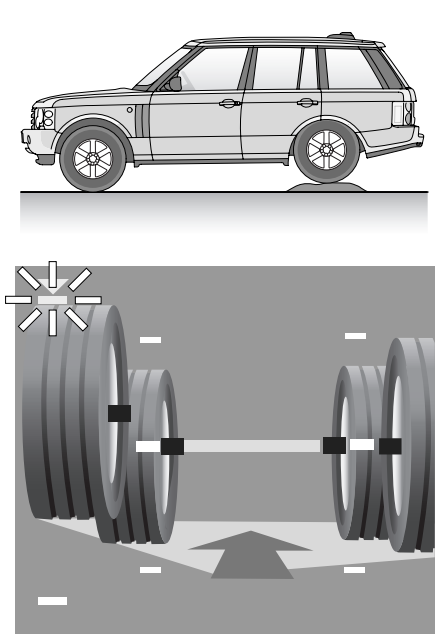
**8.** Direction of travel.

**9.** Wheel centre line.

***Note:*** *Although the front and rear wheels appear to be at different heights, they are only presented this way to give a sense of perspective.*

# Chassis View

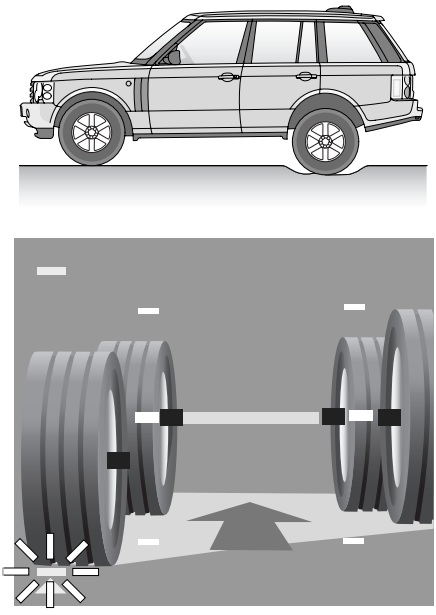
For example, if the left rear wheel travels over a rock, the wheel is pushed up into the vehicle body. Data from the wheel height sensor is represented by moving the vertical position of the left rear wheel graphic up the screen. In addition, the contact area moves to maintain contact with the left rear wheel.



ICE1996 ENG

When the left rear wheel reaches the extreme of its travel, the upper limit marker will flash amber. The top of the left rear wheel lines up with the upper limit marker when the wheel is at the upper extreme of its travel, this is more likely to occur when driving off road rather than normal driving conditions.

In the reverse situation, where the left rear wheel has reached the lower extreme of its travel the lower travel limit marker will flash amber. In addition, the appropriate corner of the contact area is shown in it's lowest position as shown in the illustration.

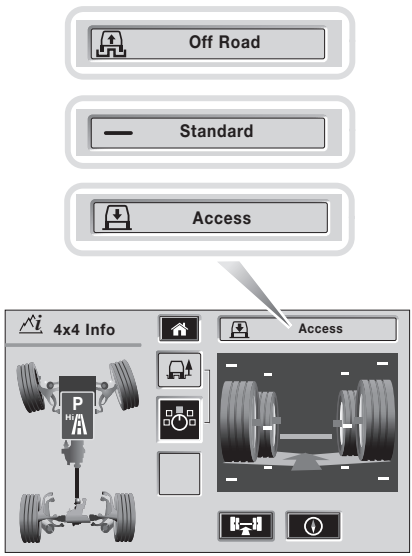


ICE1997 ENG

***Note:*** *The examples represent the left rear wheel however all other wheels follow the same sequence given similar circumstances.*

## STANDARD SUSPENSION HEIGHT

Under normal circumstances and general road use it is recommended that the user sets the suspension height to standard.




LAN0530ENG

For explanation purposes the vehicle is shown at access height. In this position the display shows the wheels close to the upper limit markers and the green centre marker (nominal vehicle body height) lower than the wheels centre lines, indicating that the body is lower than standard height. Coupled with this, the suspension status is displayed above the main graphic.

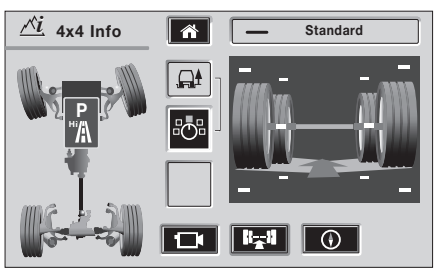
To raise the suspension from access height to standard height refer to the **Air Suspension** section of the Owners Handbook.

Immediately this height change commences, the display shows the text message Raising and replaces the access height graphic with the standard height graphic. In addition, an arrow is displayed indicating the direction of travel of the vehicle. During a height change, the arrow head will flash on and off.

The wheel height graphical display will progressively change, showing the changing relationship between the individual wheels and the vehicle body.

### Standard height reached

When standard height is reached the arrow icon disappears and the current vehicle height is displayed.

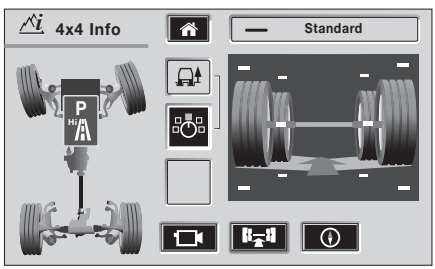



LAN0521ENG

## OFF-ROAD SUSPENSION HEIGHT

When the vehicle is set to the off-road ride height, the air springs are extended to push the wheels further away from the chassis. This lifts the vehicle body by a controlled distance, giving a greater ground clearance for off road driving.

***Note:*** *Vehicles will maintain a set ride height under all loading conditions up to the design loading limit. The suspension system will compensate for the increased load by increasing the air pressure in the system.*




LAN0521ENG

For explanation purposes the vehicle is shown at standard height. In this position the display shows the wheels centralised to the upper/ lower limit markers and the green centre marker (nominal vehicle body height) indicating that the body is at standard height. Coupled with this, the suspension status is displayed above the main graphic.

To raise the suspension from standard height to off road height refer to the **Air Suspension** section of the Owners Handbook.

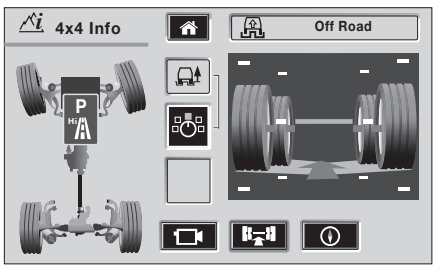
Immediately this height change commences, the display shows the text message Raising and replaces the standard height graphic with the off road height graphic.

In addition, an arrow is displayed indicating the direction of travel of the vehicle. During a height change, the arrow head will flash on and off.

The wheel height graphical display will progressively change, showing the changing relationship between the individual wheels and the vehicle body.

### Off-road height reached

When off-road height is reached, the arrow icon disappears and the current vehicle height is displayed.

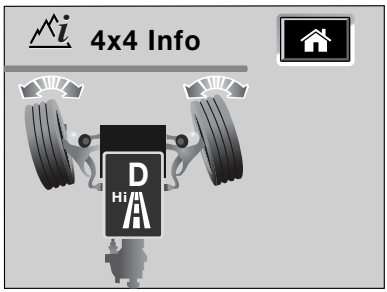



LAN0522ENG

***Note:*** *Selecting the Access suspension setting or any other lowering sequence follows the same logical concept as the raising sequence.*

***Note:*** *A change to the vehicle suspension height may also be made automatically by the selection of some Terrain Response modes. If this happens, the displays will change in exactly the same way as if the user had operated the suspension switch control.*

## STEERING ANGLE DATA



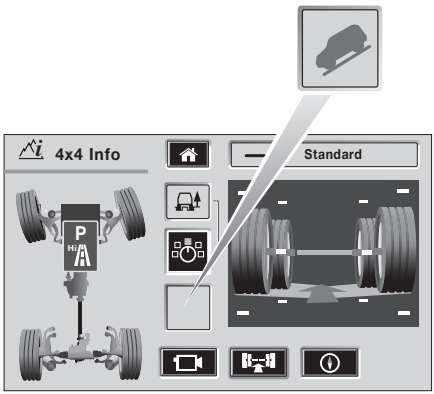

ICE2182 ENG

The steering angle data changes with movements of the steering wheel. The graphic represents the data by rotating the front road wheels in the plan view.

The maximum orientation of the wheel graphics is 30 degrees from the straight ahead position indicating full lock.

## HILL DESCENT CONTROL (HDC)

When Hill Descent Control (HDC) is selected the icon will be displayed continuously.



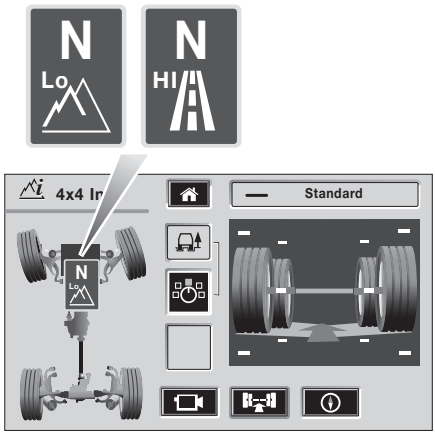

LAN0523ENG

When HDC is selected, but there is a condition that inhibits the activation of HDC (such as wrong gear selection), the HDC icon on the 4 x 4 Info screen will flash on and off.

For more detailed information on Hill Descent Control, see **Hill Descent Control** in the Owners Handbook.

## TRANSFER GEARBOX DATA

The transfer gearbox High and Low range is represented graphically on the chassis map graphic.




LAN0524ENG

For more detailed information on Transfer Gearbox use, see **Transfer Gearbox** in the Owners Handbook.

When a range selection is performed, the appropriate graphic will be displayed in the chassis map.


LOW range display.


HIGH range display.

In addition to the operational states of the transfer gearbox, the vehicle can be set in a neutral tow mode, see **Towing the Vehicle** in the Owner's Handbook.

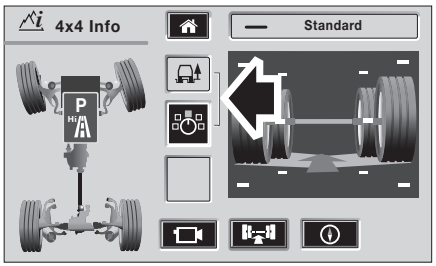
If the 4 x 4 Info display view is active when neutral mode is selected, the display will show a white N character in place of the range icons.

### Gear selection data


The display also indicates the current transmission selection (**P**, **R**, **D** or **N**). For example, if reverse gear is selected, then **R** is displayed on the gearbox data icon.

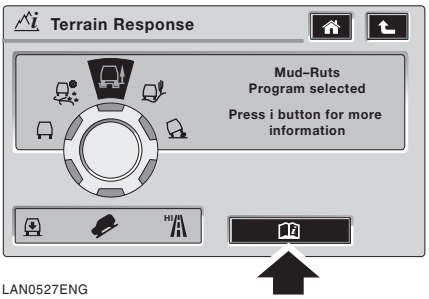
## TERRAIN RESPONSE

The Terrain Response system has a choice of operational modes, selected by the rotary switch situated on the centre console. For more detailed information on Terrain Response use, see Terrain Response in the Owner's Handbook.




LAN0537ENG

The appropriate icon for the selected Terrain Response mode will be displayed in the central display. Below the mode icon, a representation of the Terrain Response switch position is displayed. Touch the switch icon to access the Terrain Response screen.




LAN0527ENG

The Terrain Response screen displays a graphical representation of the Terrain Response switch, along with descriptions of the selected mode. Touch the book icon to access further information about the selected mode.

The Terrain Response system has 5 operational modes.

General mode.

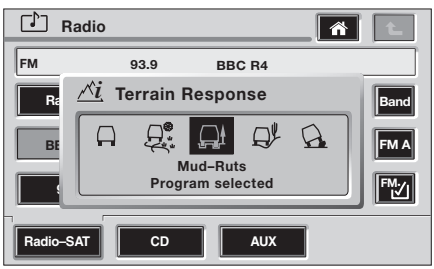
Grass/Gravel/Snow mode.

Mud/Ruts mode.

Sand mode.

Rock Crawl mode.

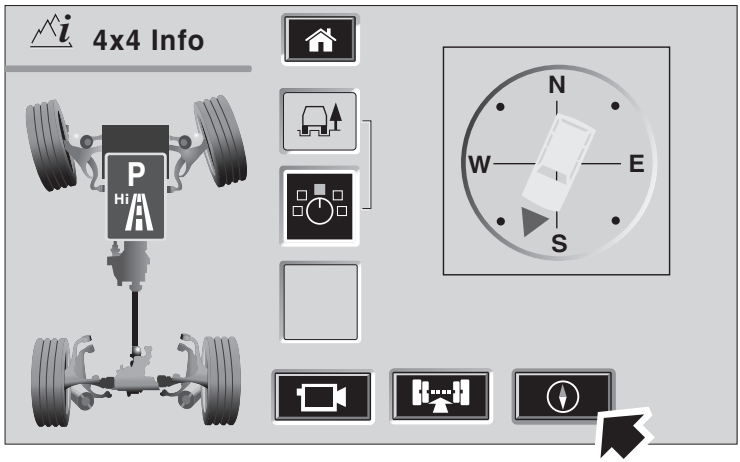
If the screen is viewing another mode (e.g. radio, CD, TV) when Terrain Response is activated, a pop-up screen will be displayed to indicate the selected Terrain Response mode. This pop-up screen will disappear after two seconds.




LAN0528ENG

## COMPASS VIEW

**Compass view controls**




LAN0525ENG

***Note:*** *Compass will only be displayed when navigation is in off road mode.*

Press the Compass soft key (arrowed) to display the compass screen.

The amber halo around the compass soft key indicates the current display view.

The compass screen displays a graphic indicating the heading of the vehicle against the compass points. If the North-up display mode is active in the navigation system, the compass points are fixed and the vehicle pointer will rotate to indicate the vehicle heading.

If the Heading up display mode is active in the navigation system, then the vehicle pointer will be fixed vertically on the display and the compass points will rotate to indicate the vehicle heading. For more detailed information on selecting the vehicle heading, see **Screen Displays** in your Navigation System Handbook.