THE NAVIGATION SYSTEM

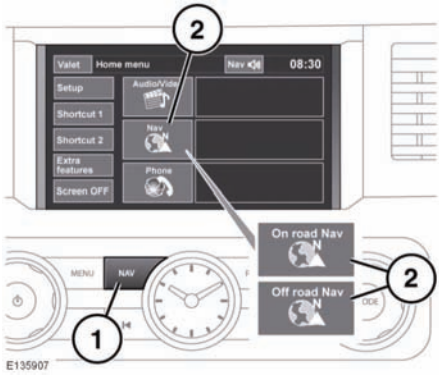
Navigation instruction is by map and turn information displayed on the touch screen and can be complemented by voice guidance if required. A detailed intersection map is also displayed in the instrument panel. The system uses signals from Global Positioning System (GPS) satellites combined with information from vehicle sensors and from data stored on the hard drive, to establish the true vehicle position.

Note: *Mapping data loaded on the hard drive is relevant to the market in which the vehicle is first sold and will provide guidance and information only for that area. Your local Dealer will have details of software updates.*

Using this combination of data sources the vehicle navigation computer enables you to plan and follow a route map to your desired destination.

The touch screen is used to control navigation via menus, text screens and map displays.

USING THE NAVIGATION SYSTEM



1. **NAV** shortcut button.
2. **NAV** soft key.

Note: *On vehicles with off-road navigation, the soft key includes* **On road** *or* **Off road**, *to show the current Navigation mode.*

From the Home menu, touch the **NAV** soft key. Alternatively, press the **NAV** shortcut button on the facia. A caution screen will be displayed.

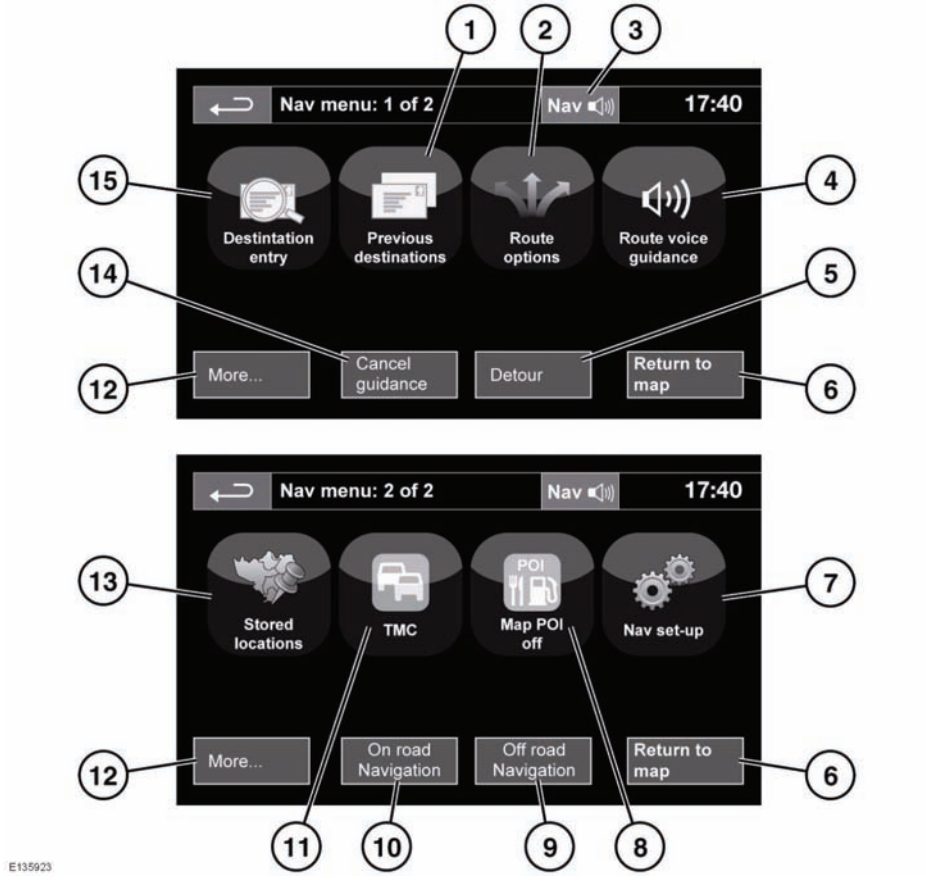
If the navigation screen language has not been set, now is the time to set it. Select **Language**, make a selection and confirm it by touching the **OK** soft key. You will be returned to the **CAUTION** screen.

After touching the **Agree** soft key, the touch screen will display the **Nav menu** (which is the navigation system Main menu and covered over two screens) or the screen that was in use when you last switched off the system.

Note: *After approximately 12 seconds, the menu soft keys will disappear and display the map information only. This will show current vehicle position. Touch the* **Nav menu** *soft key to display the Main menu screen.*

At this point, the first time user should set up personal preferences in the **Nav set-up** area. These settings are applied whenever navigation is used.

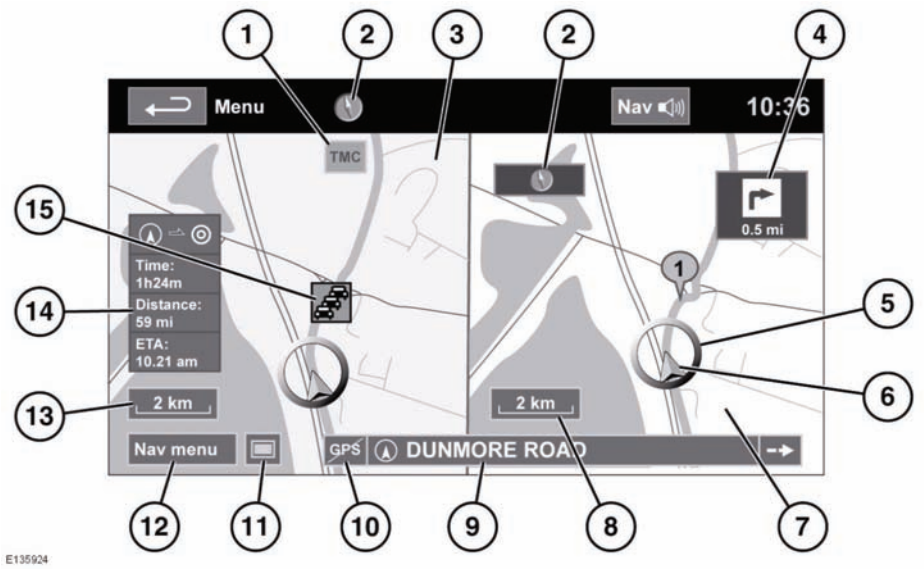
MAIN MENU



1. **Previous destinations**: Displays previous destinations entered.
2. **Route options**: Allows selection of various options for the route.
3. When a destination is set, the Range Rover logo is replaced by a soft key which enables the last voice instruction to be repeated.
4. **Route voice guidance**: Allows the voice guidance messages to be turned off for the current journey. The soft key is highlighted while voice guidance is enabled.
5. **Detour**: Allows a detour from the current route.
6. **Return to map**: Advances to the main map screen.
7. **Nav set-up**: Settings for the navigation system.

8. **Map POI off**: Turns the POI (Point Of Interest) icons on the map on/off.
9. **Off road Navigation**: Changes the system to Off road navigation mode.
10. **On road Navigation**: Changes the system to On road navigation mode.
11. **TMC** (Traffic Message Channel): Not used for entering a destination but, when enabled, will provide data about road conditions and any events that may affect the journey.
12. **More**...: Displays the other Nav menu screen.
13. **Stored locations**: Manages the stored locations.
14. **Stop guidance**: Cancels current route guidance.
15. **Destination entry**: Provides a choice of options for entering a destination.

MAP SPLIT SCREEN



1. TMC (Traffic Message Channel) information.
2. Small compass display which always indicates North.
3. Normal screen.
4. Next direction display.
5. Current vehicle position.
6. Vehicle direction arrow.
7. Split screen.
8. Split screen scale/zoom setting.
9. Current street location.
10. No GPS signal.
11. Screen mode selection.
12. Navigation menu.
13. Normal screen scale/zoom setting.
14. Distance/time to destination.
15. TMC event (traffic congestion).

SCREEN MODES

Touch the screen mode selection button to view a series of icons, each depicting a different screen mode (as detailed below). Touch the relevant icon to select the desired screen mode.



Full screen view.



Split screen view. A more detailed view of the local area and road system is displayed on the right.



Shows the next junction in the right half screen.



This view is only available when travelling on a motorway. It displays automatically to show remaining exits along your route.



Shows list of forthcoming junctions and turn directions on the right half screen.

SEARCH AREA

The navigation map database is divided into countries, or areas of countries, called search areas. When setting a route, the destination (or waypoint) entered must be in the currently selected search area.

Before attempting to set a destination or waypoint, set the correct search area as follows:

1. Select **Destination entry** from the main navigation menu.
2. Select page 2 of **Destination entry** then select **Search country**.
3. Scroll through the list and select the 3 letter code that corresponds to the desired destination area.
4. Select **OK**. The destination entry menu is shown and the information window shows the currently selected search area.

SETTING A DESTINATION

After touching **Agree**, the initial map screen is displayed, now select **Nav Menu**.

From the Navigation Menu, select **Destination entry**.

Select **Address** from the **Destination** screen and input the town name.

Once sufficient letters have been entered, touch **List** to display all the possible towns.

If necessary, use the scroll arrows to the left of the list to search up or down. Select the town you require.

Now enter the road name. Once sufficient letters have been entered, touch **List** to display all the possible roads.

Select the road you require.

Enter the house number of the address (if known) then touch **OK** to confirm.

If the house number is not known, press **OK** - the mid-point of the road is then used as the destination.

The map screen showing the route settings and destination details is displayed.

OFF-ROAD NAVIGATION

The system can be switched between On-road and Off-road navigation by pressing the fascia **NAV** button twice, from anywhere in the system, then selecting **On road** or **Off road** as required. Alternatively, the navigation mode can be selected from page 2 of the Main menu. The Navigation soft key on the Touch screen Home menu displays **On road NAV** or **Off road NAV**, whichever is the current Navigation mode.

Off-road navigation maps are similar to the on-road maps but have additional features and information, such as a large compass display, heading, altitude, latitude and longitude etc.

When switching to off-road navigation mode during on-road guidance, the current highlighted route will be removed from the map and on-road guidance will be suspended.

Way points and destination icons will remain displayed. The destination is marked with a double circle.

When exiting off-road guidance, the system recalculates the route and reverts to on-road guidance.

Note: *TMC is not available in off-road navigation mode.*

START GUIDANCE

After touching **Destination**, the system will calculate the route.

There is now a choice to select **3 Routes**, **Change route** or **Go**. Select **Go** to start navigation guidance.

Touch **3 Routes** to display a choice of three different route options on the map.

The roads on the map are drawn in three different colours to highlight each route. EcoRoute helps you find the most fuel efficient route available. A display of three leaves indicates the most fuel efficient route.

Select route **1**, **2** or **3** by touching the respective box displayed on the right side of the map.

Touch **Change Route** followed by **Route preferences.** to change the route settings. If a destination is already set, touch **Waypoint** to add a waypoint in the journey if required.

When you have made your selection, if any, touch **Go**.

Note: *As you approach a junction, in addition to the voice guidance, an inset on the map will display an enlarged view of the junction.*

Note: *The next turn on the route is displayed in the message centre.*

EASY ROUTE

In **Route options**, **Easy Route** can be turned **On** or **Off**.

When **On** is selected, **Easy Route** changes the calculation parameters of **Route 3** in order to reduce:

- Junctions.
- Turns.
- Turns that cross traffic.
- The priority of minor roads.
- Complex junctions and manoeuvres.

LEARN ROUTE

In **Route options**, **Learn Route** can be turned **On** or **Off**.

When **On** is selected, if you make the same deviation from the proposed route three times, then the system will memorize the deviation and offer that as the normal route from then on. Select **Reset all routes** to delete any learnt routes and return to the default settings.

VOICE GUIDANCE

To turn voice guidance on or off but maintain route guidance, proceed as follows:

1. Touch **Nav menu** on the map menu screen.
2. Touch the **Route voice guidance** soft key. The soft key will be highlighted when voice guidance messages are enabled.

CANCEL ROUTE GUIDANCE

To stop route guidance, proceed as follows:.

1. Touch **Nav menu** on the map menu screen.
2. Touch the **Cancel guidance** soft key.

QUICK POI SELECTION

Touch the Map screen to display the POI button. Touch the **POI** (Point of interest) button. The screen shows six suggested categories, five of which can be selected as quick points of interest.

Note: *The POI icons will not be shown if the map zoom level is greater than 1 km (½ mile).*

Select a Quick POI category, or select **More** to see further POIs. Touch **OK** to confirm a selection.

The map screen with the POI icon(s) is displayed. Select the five POIs you wish to see when the Quick POIs are displayed.

RESTORE SYSTEM DEFAULTS

If you have made any changes to the system's default settings, use this menu to restore the original settings.

MEMORY POINTS

From the navigation menu, select **Stored locations**. This enables you to manage destinations such as, place of work, home, favourite restaurant or areas to avoid.

From the **Stored destinations** menu you can save up to 400 memory points or add your home address.

Select **Favourites** to add a stored location.

Select **Add**, **Edit** or **Delete** to view and manage the stored locations list.

Select **Add** to store a memory point.

MEMORY POINT DETAILS

From the **Stored locations** menu, select **Favourites**, then either **Add**, **Edit** or **Delete**.

Select **Info** to display the details of the selected memory point.

The details include Icon, Name, Position and Tel.

The telephone number can be called by touching the telephone button if a telephone is connected.

POSTCODE

Not all countries have this facility. Enter the postcode of your waypoint or destination from the keypad. The postcode must be entered precisely, including any spaces or punctuation.

When the postcode has been entered touch **OK**.

EMERGENCY

Not all countries have this facility. Touch **Emergency** on the **Destination entry** screen to display a list of local police stations, hospitals or Land Rover Dealerships.

Press **Name** to display the list in alphabetical order or **Distance** to display the list in order of proximity to the current vehicle location.

Touch the name of the facility to set it as a destination or waypoint.

MAP

After selecting map, the local area map is displayed. Drag the circle to the area for your destination or waypoint, zooming in if required.

This location can be stored as a destination or waypoint.

COORDINATES

If you know the coordinates of your destination they can be entered from this screen. The full latitude must be entered first before the longitude coordinates can be entered.

When the coordinates have been entered, touch **OK**.

If the coordinates entered are not contained within the area covered by the available maps, a message will be shown. This can also occur if the incorrect coordinates have been entered.

RECALLING A PREVIOUS DESTINATION

After selecting **Previous destinations** from the menu, the screen shows a list of stored previous destinations. Select your destination by touching the bar. The details will be displayed for confirmation.

Note: *In some markets, list scrolling is not active whilst driving for legislative reasons. Only the items shown at the top of the list can be selected.*

MOTORWAY

After selecting **Motorway** from the menu, enter the road name or number, then select an entrance or exit. All of the entrance or exit junctions for the chosen road are displayed.

The map showing the selected motorway and the selected exit junction is displayed.

The destination has now been set and the route is calculated.

POINTS OF INTEREST (POI)

After selecting **Points of interest** from the menu, touch **Name** to input the POI name, for example, **Petrol** to display fuel stations on the map, or touch **List** for a list of POIs.

Alternatively, choose **All categories** to see all categories of POI and make your selection.

Use the scroll arrows to change pages.

Some POIs are sub-categorised, e.g. selecting **Community** will be further divided into:

- Community Centre.
- Exhibition Centre.
- Hospital.
- Park & Recreation.
- Town Hall

Note: *If entering a POI name results in too many matches being listed, try entering the town name first. If you do not know the name of the POI you want, try selecting a POI category.*

Note: *POI icons can only be displayed up to the 1 km (½ mile) zoom level.*

Once the POI has been selected the route is determined. Touch **Change route** to change the route settings, or touch **OK** to start the route calculation.

DEALER LOCATIONS

Details of Land Rover Dealers are held on the Navigation System hard drive as a points of interest (POI) category. Certain Dealers may be located in areas that are not fully mapped on the hard drive. If a route is set to one of these Dealers, guidance may only be possible to the nearest town centre; in this case a warning message will be displayed.

Note: *If Land Rover Dealers (or certain other categories, such as airports) are selected, they will be displayed across all search areas.*

ENTRY BY TOWN

If a town name is entered first, the points of interest listed will be restricted to that town.

1. From the Input POI Name screen, touch **Town**.
2. Enter the town name required.
3. Touch **List** to display the list of possible towns.
4. Select the town required.

   The Input POI screen is displayed again.
5. Enter the POI name required.

CATEGORIES AND SUB-CATEGORIES

The POI database is divided into a number of categories. Each main category is further divided into a number of sub-categories.

The first entry in the list of Restaurant sub-categories, is **ALL**. This selects all of the Restaurant sub-categories.

To narrow the search, touch the **Town** button. This will display the alpha keyboard to allow the desired town name to be entered.

LIST SOFT KEY

The **List** button can be used when the characters entered reduce the possible entries to a small enough number.

You can also select **List** (when active) without entering a POI name. All the relevant points of interest will be displayed, e.g. in a selected town or category.

ALL SOFTKEY

The **All** button shows a list of all POI categories.

LOCAL POI SEARCH

This selects the points of interest in all categories within 32 kilometres (20 miles) of the vehicle.

- Touch the **All Local POIs** button.

RDS-TMC OVERVIEW

Radio Data System-Traffic Message Channel (RDS-TMC) is a feature that announces traffic hold-ups on your route as broadcast by radio stations that transmit TMC information.

Touch the **TMC** button on the Navigation Menu to access the TMC menu.

TMC events ahead on route can be displayed by touching the **Events ahead** soft key. TMC can be set to display on the map for all events, for major events or can be switched off. During route calculation. it can be set to avoid TMC events along the route.

RDS-TMC DISPLAY

When a TMC signal is received the icon in the top left of the screen will appear green. If a TMC signal is not being received, the icon will be shown with a bar through it.

The system will inform the driver of any reported roadworks, narrow road, contraflow, accidents, slippery road, diversion, information, parking information, congestion or other hazard.

The driver is informed of a traffic event as follows:

- A TMC Event icon shown on the map at the location of the event.
- Text can be displayed showing the details of each occurrence which can be selected either by touching the screen icon or from the traffic information list.
- Dynamic route guidance, which calculates an alternative route when the system receives the traffic event warning affecting the route currently set in the navigation system.
- Traffic event list shows all events sorted by road name/ distance on your selected route in a straight line or along your actual route.

The information regarding the hold-up is maintained and updated even if the vehicle crosses into another country.

RDS-TMC ICONS

Any traffic event (broadcast on TMC) in your area, will be displayed as a warning icon on the map and an alert may be displayed as a message giving the road number(s) and between which junctions the hold-up or event occurs.

This data is stored in the system for up to 30 minutes.

The colour of the TMC icon changes in order to show the type and priority of a TMC event. The background colour of the icon returns to normal when there is no longer an event or hold-up, or if any re-route instructions are calculated.

The TMC Event icons appear on the navigation map display to indicate the location and nature of a TMC event.

TMC Event icons will appear on the map, even if the event does not occur on your route.

LEVEL 1 TMC EVENT ICONS


Incident (Red star)


Moving Tailback Ahead (Red arrow)


Moving Tailback Both Carriageways (Red double arrow)


Slow Traffic Ahead (Yellow arrow)


Slow Traffic Both Carriageways (Yellow double arrow)


Information (Yellow circle)


Incident (Yellow star)


Stationary Traffic Ahead (Red arrow pointing on line)


Stationary Traffic Both Carriageways (Red double arrow pointing on line)

Note: *Single arrow icons indicate that the traffic event affects traffic travelling in the direction of the arrow. Double arrows indicate that both directions are affected.*

LEVEL 2 TMC EVENT ICONS


Other Hazard (Yellow)


Roadworks (Pink)


Narrow Road (Pink)


Contraflow (Pink)


Accidents (Pink)


Slippery Road (Yellow)


Diversion (Yellow)



Parking Information (Grey)


Information (Grey)


Congestion (Red)

USING TMC

Dynamic route guidance will calculate an alternative route to avoid a traffic event when the system receives an event warning. The system calculates a new route for all sections. However, if any way points are set, the system calculates for the next way point. If the event on route is serious (closed road) or if the new route is shorter than the current one and the current one was not recalculated within the last 5 minutes, then a message to confirm the new route will be displayed. This pop-up message will be displayed for 10 minutes and if the new route is not rejected, then the vehicle will follow the new route.

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EUROPEAN DECLARATION OF CONFORMITY

CE

Hereby, DENSO CORPORATION declares that this DN-NS-019 is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.