



CARiN II - Navigation System

CARiN II - Navigatie - systeem

CARiN II - Système de navigation

CARiN II - Navigationssystem

CARiN II - Sistema di navigazione

CARiN II - Sistema de navegación

CARiN II - Sistema de navegação





RANGE ROVER

Navigation System
Système de navigation
Navigationssystem
Sistema di navigazione



As part of Land Rover environmental policy, this publication is printed on paper made from chlorine free pulp.



CARiN Navigation System

The CARiN Navigation system fitted to your vehicle has been chosen to add to your motoring enjoyment.

Whether you use your vehicle for business and rely on the latest traffic information to help you to reach your destination on time or drive purely for pleasure, we want you to make full use of all the advantages the system can afford you. Ensure that you take time to read the instructions in this manual and to use it to its utmost capabilities.

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WARNINGS

-  **The usage of the navigation system does NOT exempt the driver from his responsibilities. Pay attention to the local traffic regulations. Watching the road is more important than watching the screen.**
-  **If the current traffic situation and the advice or the navigation system is in contradiction, traffic regulations always have priority over advice given by the system.**
-  **We recommend you to change system settings or enter new destinations only when the car is not moving or let it be done by your passenger.**
-  **To avoid faulty operation or interference of the system do not cover the GPS aerial.**
-  **CD's are constantly being updated and mapping may not be as detailed as expected in some areas. If you encounter difficulties in identifying a minor road use the nearest main road name.**

GENERAL INFORMATION

NOTE: After transport of the car by a car train or a car ferry the navigation system may need some minutes for exact repositioning.

NOTE: After the car battery has been disconnected, the system may need up to 15 minutes for exact repositioning. The car has to be situated outdoors and the system has to be switched on to receive the GPS satellites.

NOTE: The system is fully operational even without valid GPS data, but the accuracy of positioning may decrease.

NOTE: As soon as sufficient GPS data is received the colour of the satellite icon in the GPS window changes from red to green.

NOTE: On motorways the distance indicators of the system for exits are different from those on the motorway signs. The motorway signs refer to the distance to the beginning of the exit, whereas the system refers to the end of the exit. This is the point where you have to turn.

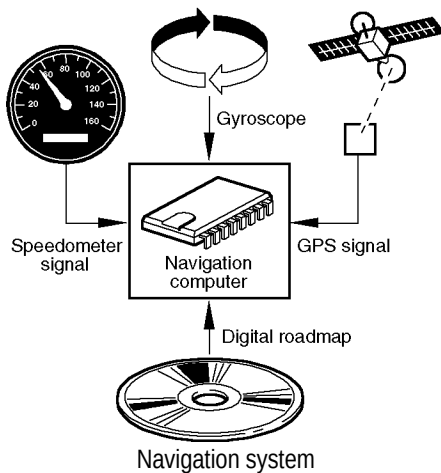
NOTE: When using the **Rotary Switch** for selecting any of the navigation items, the switch must always be pressed to confirm selection.

THE NAVIGATION SYSTEM

The **Navigation System** is a powerful tool in assisting the driver. By automating route planning and guidance you can concentrate on the essential things in today's growing traffic - especially in congested areas.

Complicated and time-consuming planning with conventional city and road maps is no longer required. You simply enter the destination before driving off and activate **Guidance** and the system does the rest.

Guidance advice is given in both a visual and acoustical way. Three controls and a simple menu structure ensure ease of operation.



Determination of the vehicle position

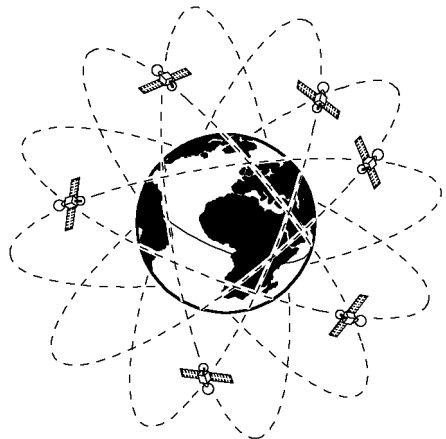
The sensors that are integrated into the system measure the movement of the vehicle. The distance driven is recorded by an electronic signal from the speedometer and the rotary movements of bends by the gyroscope (a rotary measurement system).

The information from these sensors is, however, not always exact as the values can be affected by the skidding of the wheels, varying tyre pressure due to changes in temperature, etc.

By comparing these signals with the digitised map it is possible to correct any inaccuracies produced by the sensors and to determine the position of the vehicle quite precisely. In order to correct the data, a signal from the GPS satellites is required for a period of several minutes.

GPS (Global Positioning System)

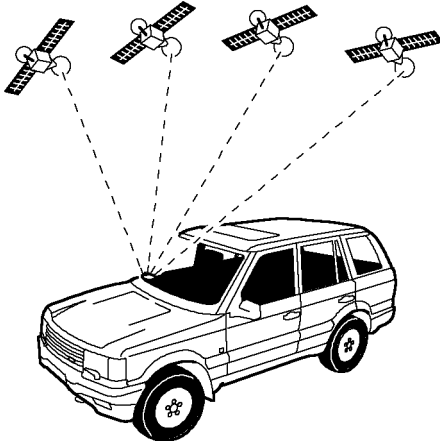
The GPS is based on the reception of signals from a total of 24 GPS satellites at a height of 21000 km (13050 miles). The GPS receiver can handle up to 8 satellite signals simultaneously. This allows an accuracy of about 30 M (98 ft.) to 100 M (328 ft.) which is further improved by the other sensors.



Global Positioning System

CARiN Navigation System

To determine the position with sufficient accuracy, signals from at least 4 satellites must be received.



Receiving signals

When the vehicle is parked for long period of time, the satellites will move on during this period due to earth rotation. Therefore, when the ignition is turned on again it can take a few minutes before the system can pick up enough satellites and evaluate the signals being received.

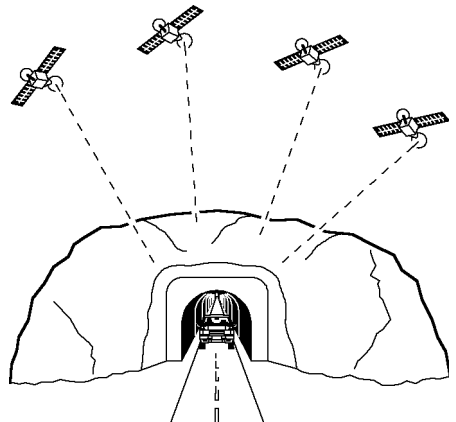
NOTE: You can recognise when reception is acceptable, the satellite symbol turns to green in the display. If the reception is not acceptable, the satellite symbol remains red.

When starting up, CARiN may tell you, **You are now leaving the digitised area.** The monitored map will then show the vehicle in a position off the road. If there are other roads in this position, it may send inappropriate messages, meaning that it supposes the vehicle is on one of the other roads.

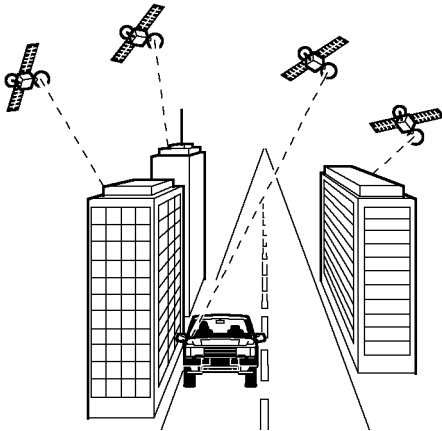
NOTE: When the vehicle has been at standing still for a long period of time, the system may be temporarily inhibited. It will operate reliably again once the GPS reception is at an acceptable level.

Limited GPS Reception

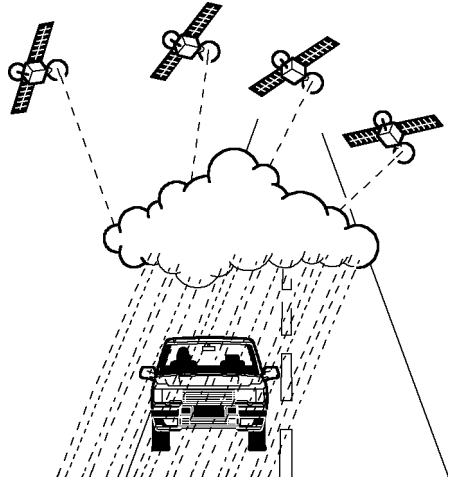
GPS disturbance may also occur if the reception is interrupted or interference occurs over a distance of several miles. Reception may be interrupted or interference can occurs as follows:



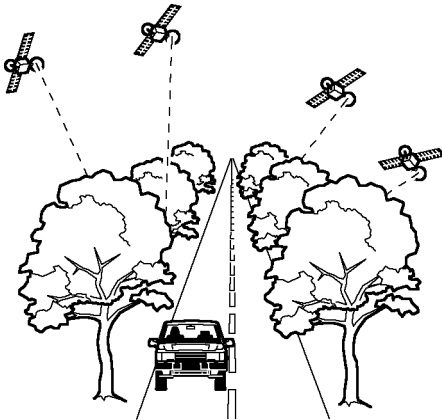
In multi-storey car parks, garages, in tunnels and under bridges



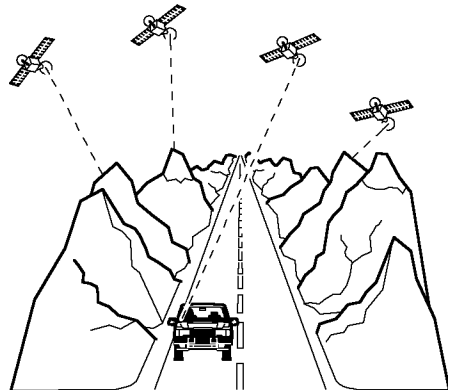
In between high buildings.



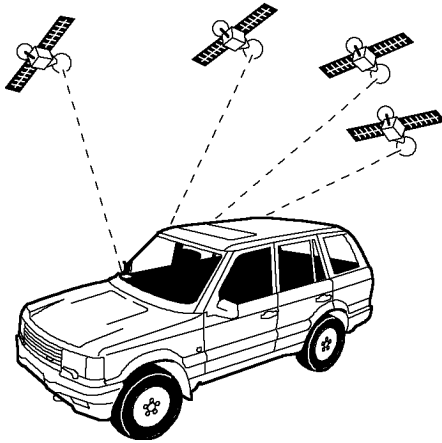
During heavy rain showers and thunderstorms.



In forests or tree-lined avenues.



In valleys and in mountainous regions.



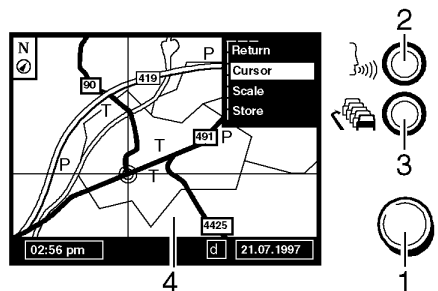
Unfavourable satellite alignment

Unfavourable satellite alignment in conjunction with the incorrect positioning of the GPS antenna may give bad signal reception over longer periods.

If the GPS antenna has been properly installed, GPS reception should be available for about 95 % of driving time. If regular interference in reception occurs, incorrect mounting of the GPS antenna may be the cause. If this is the case, we recommend you to contact your nearest Land Rover dealer.

However, the navigation computer is able to compensate for reception problems over a period of a few minutes without functional interference.

CONTROLS AND DISPLAY



Controls and display

1. **Rotary switch** - Use the switch to select items from the menu. **ROTATE** the switch to select items, **PRESS** the switch once to accept the item selected.
2. **Repeat Button** - Press the button to repeat the last spoken instruction during guidance.
3. **Re-route Button** - Press the button and the system automatically plans a new route.
4. **Display Screen** - The display screen is automatically switched on (ignition key position II).

SYSTEM OPERATION

The system operates through the ignition switch. The display first shows a **Safety Instruction** on use of the system. After pressing the rotary switch the **Main Menu** appears. Some seconds later the system is initialised and you can select the navigation functions (options in highlighted letters).

NOTE: If the navigation system is switched off in stand-by mode it restarts in stand-by mode when the ignition is switched on again.

To activate the system, press the rotary switch.

MENU SCREEN

The navigation system menus are based on the following screen layout:



Menu screen

1. **Information window**
2. **Menu title**
3. **Country code of the inserted CD map**
4. **Destination address** - (See Destination Input, page 7).
5. **Input window**
6. **Menu options** - Highlighted options can be selected.

NOTE: Options, which are currently not available, are skipped automatically.

7. **Status line** - The following information is displayed to the left or right of the status line:

Clock

Date

Estimated time of arrival (for example "★9:28")

Remaining travel time (for example "→★0:46h")

Further information that is always displayed by the system are as follows:



Hour glass (system is calculating: for example during route planning)



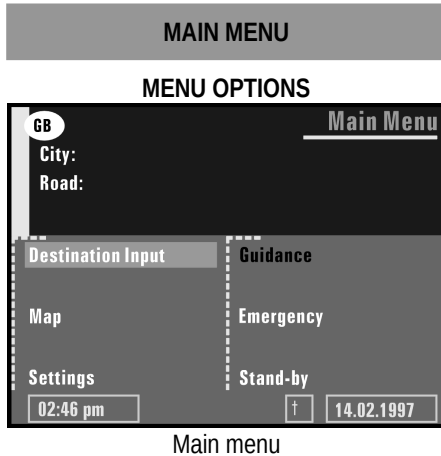
Audible information (Voice messages) disabled:



Route planning criterion.

8. **Cursor** - Move the cursor with the rotary switch and press to accept selection.

NOTE: For further information on configuration of the status line, see System Settings, page 23.



Main menu

NOTE: Move the cursor (highlighted field) with the rotary switch and press to accept selection.

NOTE: The cursor automatically skips options which are not available (for example, if you did not specify a destination address).

You can select the following menu options in the Main Menu.

Destination input - This option enters the Destination Input menu. Select this option to enter the city, road, junction or the special facility of the destination you want to travel to. (See page 8).

Map - This option offers you a map with the area around the current car position.

Settings - This option enters the System Settings menu. Select this option to set your own preferences. (See page 23)

Guidance - This option enters the guidance screen and activates the guidance function (only if a destination address is entered. (See page 15).

Emergency - This option enters the Emergency menu to show you the current car position and the country-specific emergency phone number (See page 17).

Stand-by - This option switches off the display screen and the acoustic guidance advice. The navigation functions of the system remain switched on.

Press the rotary switch to return to normal operation.

NOTE: By selecting **MENU** on the display and pressing the rotary switch you can directly call up the Main Menu from any other menu.



Select **Destination input** from the Main Menu and the relevant menu is presented. You can then enter the destination address in three different ways:

1. Letter-by-letter using a typewriter;
2. A list of data entries from the systems database (on the CD-ROM);
3. Input using a map and crosshairs.

The following options are available:

City: To enter the country and city name of the destination address.

NOTE: Only if more than one country is available on the CD-ROM. The country code of the selected country or the country available on the CD is shown in the upper left corner of the screen.

Road - To enter the road name (optional).

Junction - To enter a junction for more precise distinction selection (optional).

Delete destination - To delete the last entered destination address.

Guidance - To go to the **Guidance menu** and to activate guidance.

NOTE: To select the **Guidance** option you first have to enter at least a city name as destination address.

Info on dest. - To get a list of facilities (special locations) related to the entered destination stored in the database (e.g. **AIRPORTS, HOTELS, RESTAURANTS, FILLING STATIONS**, etc.).

Info on car pos. - To get a list of facilities (special locations) related to the current car position.

Destination map - To enter a destination by means of a map.

Destination store - To store destination addresses in a private database or to recall the last used destination addresses. In addition you can specify via points (intermediate stops) referring to the entered destination address.

Return: To return to the Main Menu.

HOW TO ENTER THE DESTINATION ADDRESS



Destination input – City

City: If you like to be guided only to the city border, you simply have to enter the city name:

1. Select **Destination Input** in the Main Menu and confirm the selection.
2. Select **City** and enter the city name by use of the typewriter.

NOTE: To delete a character previously entered, select **Delete** with the rotary switch and press to confirm.

3. Select **OK** and confirm by pressing the Rotary switch.
4. Select **Guidance** from the Destination Input menu to enter the guidance screen.
5. You will hear **“You have arrived”** when reaching the city limits.

NOTE: If you use the typewriter the previously entered characters are compared with all database entries. You can only select valid characters (highlighted) now. If there is a unique entry in the database, the system completes the name automatically.

NOTE: If there is more than one database entry with the same name, the cursor is automatically placed on **List**. Select the desired entry from the list. If the number of data entries is very large, setting up the list may take a few seconds.

NOTE: If a city name, road name or facility name you entered are not unique in the database, the navigation system presents you a list of all identical entries distinguished by additional information. If for example a road name is not unique in the entered city, a list of all district names referring to this road is presented.

NOTE: If more than one country is available in the database you may specify the destination country by selecting the option **Cntry**. Select the desired country from the list and confirm your choice.



Destination input – Road

Road: If you want to be guided to a certain road or location, you have to enter a road name in addition to the city name.

1. Select **Road** from the Destination Input menu.
2. Enter the name of the road that you want. Follow the procedure described above.
3. Confirm your entry with **OK**.
4. Select Guidance.
5. You will hear **You have arrived** when reaching the specified road.

NOTE: If in the database house numbers are available for the entered road, you can specify a destination address more precisely by entering the desired house number using the typewriter. Single house numbers are not recognised, they are incorporated within a block of house numbers and they are digitised.

Junction: The navigation system offers you the possibility to specify your destination more precisely by entering a junction. To enter a junction, proceed as follows:

1. Enter a city name and a road name as described above.
2. Select **Junction** from the Destination Input menu.
3. Enter the junction you want to be guided to by means of the typewriter or select an entry from the list.

NOTE: If there are only a few database entries, the list is presented immediately.

4. Select **Guidance** and press the rotary switch.
5. You will hear **You have arrived** when reaching the specified junction.

Destination input from database entries

You can also enter destination addresses (**city**, **road** and then **junction**) by selecting database entries. For that purpose the list display is used.

Proceed as follows:

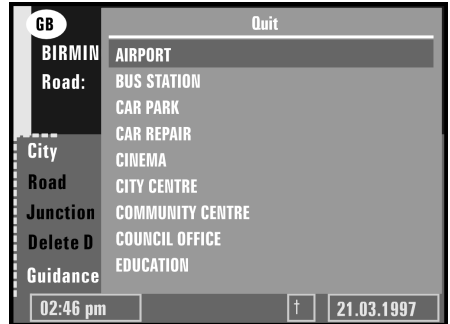
1. Select **City**, **Road** or **Junction** from the Destination Input menu.
2. Enter the initial letters of the desired **city**, **street** and then **junction** with the typewriter. Without entering an initial letter the list starts with the first database entry.
3. Select **List** from the typewriter window.

NOTE: A list of entries beginning with the characters already entered is displayed.

4. Select the desired list entry and confirm by pressing the rotary switch.

NOTE: To abort the data entry select **Quit** from the list and confirm by pressing the rotary switch.

ENTERING A DESTINATION BY SELECTING A SPECIAL FACILITY



Destination input – Special facility

You can also specify your destination by selecting a special facility stored in the database. This could be for example airports, hotels, filling stations or car garages etc.

NOTE: Special facilities are displayed as icons in the destination map (explanations of symbols are at the end of this publication).

NOTE: The number of displayed facilities depends on the map scale and on the availability of these facilities in the database.

FACILITIES RELATED TO THE DESTINATION CITY

If you want to display a list of facilities related to your destination address, at least enter the name of the city in the Destination Input menu.

1. Select **Info on dest.** from the Destination Input menu. A list of categories specifying the special facilities is presented.
2. For small cities and villages usually only the **CITY CENTRE** option is available.
3. If you choose this option, you will be guided to the centre of the city or village.
4. Select the desired category (for example **PETROL STATION, HOTEL, RESTAURANT**, etc.)

NOTE: If a larger number of facilities are available in the database, the typewriter is shown.

5. Enter the name of the desired facility or select **List**.
6. Select the desired facility from the list.
7. Confirm your choice with **OK** and then select **Guidance** and press the rotary switch

You will hear **You have arrived** when reaching the specified facility.

FACILITIES OF NATIONAL IMPORTANCE

If you are searching for facilities of national importance (for example **AIRPORT, FERRY**, etc.), you first have to delete a destination city previously entered.

1. If a destination city is already entered, delete this destination by selecting **Delete dest.** in the Destination Input menu.
2. Select **Info on dest.** from the Destination Input menu.

NOTE: A list of categories specifying the special facilities is presented.

3. Select the desired category (for example **AIRPORT, FERRY**, etc.)
4. Proceed as described previously.

FACILITIES LOCATED AROUND THE CURRENT CAR POSITION

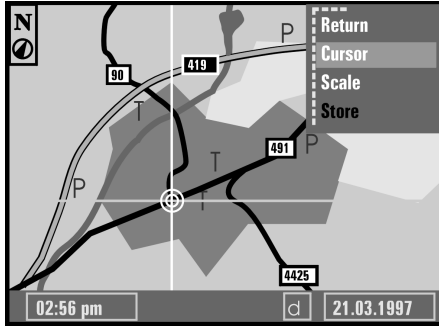
You can also specify a destination address by selecting a special facility from the *Info on car pos.* option.

1. Select **Info on car pos.** from the Destination Input menu.

NOTE: A list of categories specifying the special facilities located around the current car position is presented.

2. Select the desired category.
3. Proceed as described previously.

DESTINATION INPUT BY MAP



Destination input - Map

If you do not know a road name or a special location in the city you want to travel to, or if you want to specify the destination more precisely, you can enter the target by means of a map. Destination input by map is only possible when the car speed does not exceed 30 km/h (20 mph).

1. Select **Destination map** from the Destination Input menu and confirm your selection.
2. A map with the area around the specified destination address, or a map with the area around the current car position (if no destination was entered before) is presented.
3. Pressing the rotary switch opens a menu in the upper right corner of the screen that offers you the following functions:

Cursor - To allow movement of the horizontal and vertical line of the crosshair.

Scale - To change the map scale.

Store - To store the selection as the new destination address.

4. Activate the crosshair cursors by selecting **Cursor**, the horizontal cursor is highlighted.
5. Move the horizontal line with the rotary switch to the desired position.
6. Press the rotary switch and the vertical cursor is highlighted.
7. Move the vertical line with the rotary switch to the desired position and then press the switch.
8. To store the selected location as the destination address press the rotary switch and then select **Store** from the menu.
9. Storing a destination address from the destination map is only possible with map scales 100 m (125 yd), 200 m (250 yd), 500 m (450 yd) and 1 km (1100 yd).

NOTE: *If you move one of the crosshair lines to the edge of the screen, the map is automatically shifted.*

Return - Return to Destination Input menu.

HINT: First select a large map scale for a coarse specification of the destination. Then choose a smaller scale for exact determination and storage of your destination.

STAGES ON THE WAY TO THE DESTINATION

On the way to the destination address it is possible to go for additional ***via points*** (***stages***). For more information (see **VIA POINTS**, page 21)

GUIDANCE

GUIDANCE SCREEN

If you entered a valid destination and you selected Guidance in the Main Menu or the Destination Input Menu, the **guidance screen** appears.



The guidance screen offers the following information:

1. **Current car position** - Road name, city name and village name if stored in the database.
2. **Visual guidance advice** - Diagram of the next junction or turning. In addition direction changes are announced by voice messages.
3. **GPS reception status** - As soon as valid positional data is received by the GPS, the colour of the satellite icon changes from red to green.
4. **Turn into street** – The road you have to turn into next.
5. **Distances to the next direction change** - The measuring units are

dependent on the system settings. (See **System Settings**, page 23)

6. **Options menu** – Menu (for Main Menu) or Map (for route map) or Via point (for display of the next via point, if entered).
7. **Target direction arrow** - Shows the airline direction to the selected destination.
8. **Distance to the destination** - Real driving distance as soon as a route is planned. The measuring units are dependent on the system settings. (See **System Settings**, page 23).
9. **Status line**

VOICE MESSAGES

As soon as you activate the guidance function the system will give you acoustic guidance advice in addition to the diagrams in the guidance screen.

Example - You are approx. 200 m (220 yd) away from the junction where you have to turn right. The system at first gives you the advice **In 200 metres turn right**. In the guidance screen you see a preliminary guidance advice (diagram) with the driving direction and 200 m for the distance to the turning point.

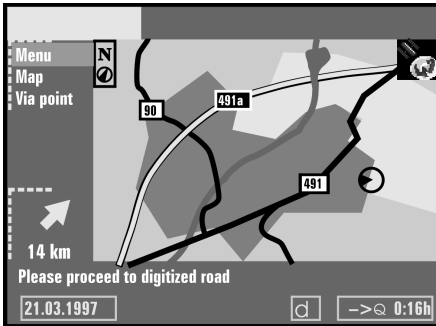
Approximately 50 m (55 yd) away from the junction you hear **Turn right**. At the same time the diagram changes. A simplified plotting of the junction is shown.

NOTE: If you did not hear one of the voice messages you can repeat the current guidance advice by pressing the **repeat button** to the right of the screen (see **Controls and Display** - page 5) as long as it is valid.

AUTOMATIC RE-ROUTING

If you don't wish to follow the guidance advice, missed the advice or it is not possible to follow the route due to roadworks, traffic jams or hazards, the system automatically plans a new route within a few seconds

GUIDANCE IN PARTLY DIGITISED AREAS

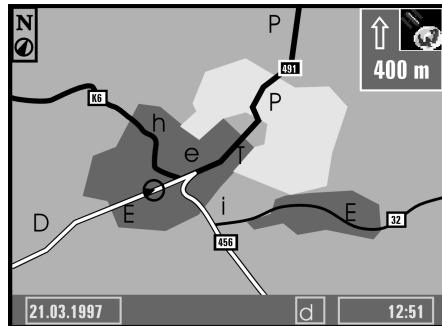


Partly digitised map

In rural areas and smaller cities not every road is stored on the CD-ROM. When you leave a digitised road, the system automatically switches from the guidance screen to a map display, 500 m (550 yd) scale. **No route planning is possible.** Drive in direction of a displayed (digitised) road.

The map shows the current car position and the driving direction as a black icon (circle with directional arrow). As soon as you reach a digitised road the system switches back to **guidance** and plans a new route.

GUIDANCE WITH ROUTE MAP



Route map

If you choose the option **Map** in the guidance screen, the route map appears on the display. The car position is shown as a circle with a directional arrow. The planned route is shown white.

In addition a simplified plotting of guidance advice and the distance to the next advice are shown in the upper right corner of the screen.

Press the rotary switch to open a menu with the following options:

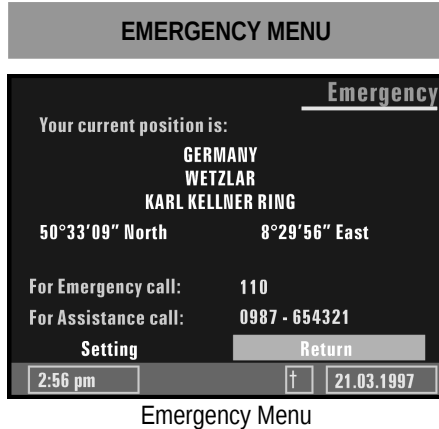
Return - Back to the guidance screen.

Scale - Changes the scale of the map.

Positioning - Selects the orientation of the map (Northwards or Steer dir.*).

* If the map is displayed in Steer dir. mode only, the scale of the map is 100 m, 200 m, 500 m or 1 km.

NOTE: After approximately 3 seconds the menu is automatically closed, if you do not press the rotary switch.



Emergency Menu

Select **Emergency** from the Main menu to enter the Emergency menu. The menu shows you the following information:

- The current car position with country, city, road and the longitude and latitude position determined by the received GPS data.
- The country-specific emergency phone number.
- A user-programmable Assistance phone number.

The Emergency function determines the car position with an accuracy of approx. 30 m.(33 yd).

NOTE: The country, city and street name are

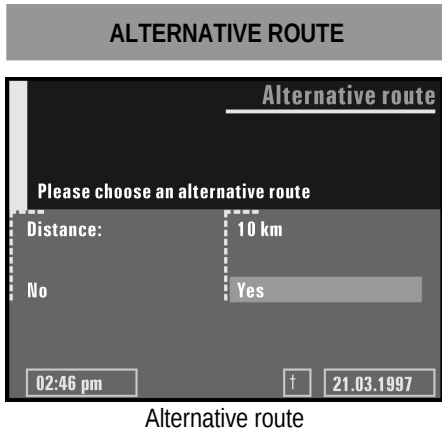
only displayed if you travel within the boundaries of the CD-ROM currently loaded. If no CD or the incorrect CD is loaded, only your current longitude and latitude coordinates will be displayed, as long as the Global Positioning System is operating properly.

NOTE: The country-specific Emergency phone number is only displayed, if you travel within the boundaries of the currently loaded CD-ROM.

STORING AN ASSISTANCE NUMBER

You can store a telephone number in the Emergency menu, for example the number of a breakdown service, automobile club, etc.

1. From the Emergency menu select **Setting**. The typewriter window is opened.
2. Enter the telephone number you want to store for assistance.
3. Select OK from the typewriter window to confirm your entry.
4. The stored number appears in the Emergency menu.
5. To leave the Emergency menu, select **Return** and press the **rotary switch**.



You can have the navigation system calculate an alternative route during guidance for an adjustable distance.

Use this function for example to get around traffic jams or if you don't agree with the suggested route plan.

The alternative route is calculated from the current car position for the selected distance.

1. Briefly press the **Reroute button** located on the right of the screen (see Controls and display – page 5).
2. The Alternative route menu is shown, select Yes.
3. If you agree with the displayed distance, simply confirm by pressing the rotary switch. Otherwise move the cursor on the distance data and confirm by pressing the rotary switch. Select the desired minimum distance between 1

and 10 km (1 and 6 miles) for the alternative route you want to be planned by the navigation system.

4. Confirm the selected distance by pressing the rotary switch.
5. Confirm the procedure by selecting the option Yes and pressing the rotary switch.
6. Within a few seconds an alternative route is calculated for the chosen distance.
7. If you don't want an alternative route, cancel the procedure by selecting No and pressing the rotary switch

NOTE: The navigation system also plans a new route automatically when leaving the advised route.

NOTE: Simply leave the advised route to bypass traffic jams or to drive a route of your choice. The system will automatically calculate a new route within a few seconds.

DESTINATION STORE

GB

Name:

City:

Road:

Store address

Load address

Prev. destinations

Via point input

List via point

Name

Delete address

Delete last dest.

Delete via point

Quit

02:46 pm

↑

21.03.1997

Destination store

The navigation system allows you to store 30 destination addresses in a personal address book. Therefore the system has a non-volatile memory. This is useful for addresses you frequently use.

Select **Destination store** from the Destination Input menu and confirm your selection.

The destination store menu is shown. The following menu options are available:

Store address - To store a destination address in the personal address book.

Load address - To recall a destination address previously stored in the personal address book.

Prev. destinations - To reload one of the 10 destinations last used for guidance into the Destination Input screen.

Via point input - To enter via points you want to pass on the way to your destination.

List via point - To show the list of stored via points (max. 25).

Name - To enter a name for the destination address (consisting of max. 10 characters).

Delete address - To delete an entry from the personal address book.

Del. prev. dest. - To delete the 10 destination addresses last entered.

Delete via point: To delete an entry from the list of via points.

Quit: To leave the destination store menu.

CONTENTS OF AN ADDRESS BOOK ENTRY

You can store the following data in an address book entry:

Name - A name for the destination address consisting of a maximum of 10 characters (optional).

City - The name of the city.

Road - The name of the road (optional).

Junction - A junction to specify your destination more precisely (optional). or a special facility from **Info on dest.** or **Info on car pos.** (optional).

Note: The minimum number of entries is 30 for the personal address book. The number of entries can increase to 100 dependent on the amount of information stored (e.g. with or without the optional information).

Note: If no address is stored in the address book, the **Load address** option can not be selected.

Note: If the memory is full, the **Store address** option in the **Address book** menu can no longer be selected.

HOW TO STORE AN ADDRESS IN THE PERSONAL ADDRESS BOOK

If you have not entered a destination address yet:

1. Enter the desired data (city, road, junction or special facility) of the desired destination in the **Destination Input** menu.
2. Select **Destination store** from the Destination Input menu.
3. If you like you can enter a name for the destination address. Select **Name** and enter any character string of max. 10 characters. Confirm your entry by pressing the rotary switch.
4. The entered name is now shown as the new menu title.
5. Select **Store address** and confirm by pressing the rotary switch.

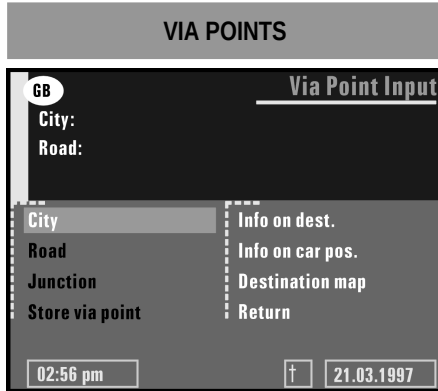
6. Now the address is stored in the address book. The menu title now changes back to **Name**.

LOAD ADDRESSES FROM THE ADDRESS BOOK

1. Select **Load address** from the destination store menu.

NOTE: The list of addresses already stored in the address book is shown.

2. Select the desired address from the list with the rotary switch and confirm by pressing the switch.
3. The selected address is registered as the new destination address.



Via points

If you like to pass further via points on the way to your destination address, you can store these via points in the **destination store**. The system then calculates the route so that the **via points** are passed in the order they are stored. As soon as a valid destination address is entered, you can store via points for this particular destination.

STORING VIA POINTS

Select **Via point** input from the destination store menu. The Via Point Input menu is displayed with the following options:

City - To enter the country and city name of the via point.

Road - To enter the road name.

NOTE: You can do without entering a road name if you only want to travel through the desired city.

Junction - To enter a junction for more precise distinction selection (optional).

Store via point - To store the entered via point in the memory.

Info on dest. - To get a list of facilities related to the entered via point.

Info on car pos. - To get a list of facilities related to the current car position.

Destination map - To enter a via point by means of a map.

Return - To return to the destination store menu.

1. Enter the data (city, road, junction or special facility) of the desired via point.
2. Select Store via point and confirm by pressing the rotary switch.
3. The system returns to the destination store menu.

NOTE: The maximum number of via points is limited to 25.

NOTE: The via points are reached in the order of entry.

NOTE: You can enter new via points at any time on the way to your destination address.

NOTE: When you have passed a certain via point, it is deleted from the list of via points.

NOTE: If you delete a destination address, the system asks you if you also like to delete the list of via points. If you answer No, the stored via points are used for the new destination address.

LIST VIA POINTS

If you like to select List via points proceed as follows:

1. Select **List via point** in the destination store menu.
2. A list of via points for the current destination address is shown.
3. To return to the destination store menu select **Quit** from the list.

DELETE VIA POINTS

If you like to delete via points already entered proceed as follows:

1. Select **Delete via point** from the destination store menu.
2. The list of entered via points is shown.
3. Select the **via point** to delete with the rotary switch and confirm by pressing the switch.

To avoid deleting via points by mistake the system will ask are you sure you want to proceed.

If the answer is **“Yes”**, the selected via point is deleted from the list.

To delete all via points without deleting the current destination address proceed as follows:

1. Store the current destination address in the address book.

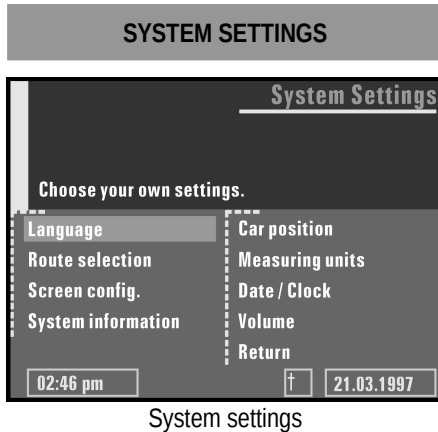
NOTE: If the current destination address is in the address book, skip point 1.

2. Select **Delete destination** from the Destination Input menu.
3. Confirm the security check **Delete via points?** with Yes.
4. All via points and the destination address are deleted.
5. Load the last used destination address with **Load address** from the destination store menu.

BYPASSING VIA POINTS

During guidance you can decide whether you want to reach the next via point or to bypass it. If you want to bypass the next via point proceed as follows:

1. Select **Via point** from the guidance screen and confirm by pressing the rotary switch.
2. The menu **Next via point** is shown.
3. If you select **“No”** from the menu, the displayed via point is bypassed and deleted from the list of via points.



To adjust the system to suit the individual a lot of the settings can be modified as follows:

Select **Settings** from the Main Menu, the System Settings menu is shown, with the following options:

LANGUAGE

The following languages are currently available on a separate language CD:

- British English
- American English
- French
- German
- Dutch
- Italian
- Spanish

To select the language, proceed as follows:

1. Select **Language** from the **System Settings** menu and follow the instructions.

ROUTE SELECTION

There are four options, which affect route planning. These are as follows:

- **Optimised for travel time** (good compromise for any situation)
- **Optimised for travel distance** (recommended for routes within a city)
- **As much as possible along main roads** (recommended, if travelling on main roads is preferred)
- **As little as possible along main roads** (recommended, if travelling on main roads is not preferred)

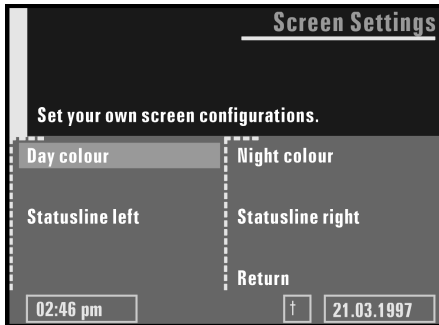
The selected option is shown as an icon in the status line of the display.

SCREEN SETTINGS

NOTE: Screen settings allow adjustment to the screen configuration, selection of a variety of colour combinations and the information shown in the status line of the screen.

Select **Screen config.** from the System settings menu, the **Screen Settings** menu is shown offering you the following options:

Day colour - Select one out of six colour combinations for the daytime display. The selected colour is active when the headlights are turned off.



Screen settings

Status line left - Select the kind of information shown in the lower left corner of the screen:

1. **None** - Status line left switched off.
2. **Clock** - Time display.
3. **Date** - Date display.
4. **Remaining travel time** – Calculated time remaining until you arrive at the next via point or destination address (if no via points were entered) .
5. **Estimated time of arrival** – Calculated time of arrival at the next via point or destination.

Night colour - Select one out of six colour combinations for the night-time display. The selected colour is active when the headlights are turned on.

Status line right: - Select the kind of information shown in the lower right corner of the screen. See **Status line left** for available options.

Return - Return to the **Main Menu**.

SYSTEM INFORMATION

The System Information menu offers the following options:

Diagnosis - To analyse soft- and hardware problems (code protected).

Configuration - Information on soft- and hardware versions of the system (for service purposes).

Default settings - To reset all user specific settings (status line, screen colours, etc.) to their factory settings.

Return - Return to the Main Menu.

WARNING



An authorised service centre for service purposes should only perform the Diagnosis option.

CAR POSITION

The **Car Position Input** menu allows you to enter a new car position manually (for example for demo purposes).

MEASURING UNITS

To select the appropriate measurement units for distances being display. The following measurement units are available:

Metric - The display is in kilometres and metres.

Imperial – The display is in miles and yards;

US – The display is in miles, tenths of miles and feet.

DATE/CLOCK

The Date/Clock menu allows you to set the time and date format as well as the time zone.

Time format - Select between 12 or 24 hour format .

Set time zone - Adjust the difference between local time and Universal Time Co-ordinated (time received by the system via GPS) with the rotary switch6.

	Standard Time	Daylight Saving
Central European Time	+1.0	+ 2.0
Greenwich Mean Time,	+ 0.0	+ 1.0

Date format - Select between day/month/year and month/day/year.

Return - Return to the **Main Menu**.

VOLUME

If you select **Volume** the Volume Control menu with the following options is shown:

SDVC curve - Select one of the SDVC curves for Speed Dependent Volume Control. This is to compensate for the surrounding noise by increasing the volume level depending on the car speed. Find a suitable level by trying out the different curves.

Voice off / on - To activate / deactivate the acoustical guidance advice. The  icon appears in the status line if the voice option is set to off.

Volume - To adjust the volume level of acoustical advice. Place the cursor on option **Volume** and confirm by pressing the rotary switch. A volume slider is shown. Adjust the desired volume by turning the rotary switch. Press the rotary switch again to store this setting.

Return - To return to the Main Menu.

CD INFORMATION

The Navigation System is based on a database stored in a special format on a CD. It is recommended always to use the latest update of this CD.

If you travel to different countries or you wish to have more detailed information on a special area, ask your dealer for the suitable CD

CARiN Navigation System

- Only use the correct type of CD. The Navigation System will only work properly with the correct CDs.
- The Navigation System CD player does not play any other type of CDs (i.e. Audio CDs).
- Always store the CDs in their protective cases.
- The CDs are exclusively designed for use with the Navigation system and they are only readable by the Navigation System.

MAINTENANCE

When cleaning the display do not use lighter fluid, methyl alcohol or other solvents, only use a damp cloth.

TROUBLESHOOTING

There may be times when you suspect that your Navigation System is not functioning as you expect it to. Before calling for service please read the operating instructions and check the following list. You may find that an apparent malfunction can easily be rectified.

SYMPTOMS	POSSIBLE CAUSE / REMEDY
System does not start,, screen is dark	• Switch on the ignition. • Ignition already switched on; system is in stand-by mode - Press the Rotary switch
After some time of normal operation, the system switches off.	• At extreme high or low temperatures the built-in protection circuit switches off the system automatically. • Operation of the system is resumed as soon as the temperature returns to a normal level
System reacts very slowly or calculations take a long time.	• You are in a very densely digitized area. The navigation system has to read large amounts of data from the CD-ROM
Guidance option can not be selected from the Main Menu	• Make sure that you entered a destination address
System plans no route although a destination was entered.	• Car is not on a digitised road. Drive in the direction of a digitised (displayed) road.

SYMPTOMS	POSSIBLE CAUSE / REMEDY
No destination address input is possible by map.	Destination input by map is only possible when the car speed does not exceed 30 km/h.
Guidance advice not audible.	- Make sure that Voice is set to on in the System Settings menu (🔊 icon is not in the display). - Make sure that the Volume is not set to minimum in the System Settings menu.
Some of the items shown in the instruction manual are not visible in the status line.	Activate/deactivate the desired items with options Status line left and Status line right in the System Settings menu
Only Stand-by can be selected in the Main Menu after switching on the ignition	Wait a few seconds until the system has booted (options appear in highlighted letters).
Storing address is not possible in map display mode.	Decrease map scale value to 100 m, 200 m, 500 m or 1 km
Colour of the satellite icon on the GPS logo is constantly red.	- Make sure any objects do not cover the GPS aerial. - Drive into the clear, if you are in a garage, a car park or a tunnel.
Display shows NO CD or WRONG CD	Make sure that an appropriate CD is inserted with the label side facing up in the CD player
CD is ejected unintentionally.	- The CD might be dirty. - Try to clean the CD with a special CD cleaning fluid.
Current time in the status line is wrong.	Adjust the time zone in the Systems Settings menu, option Date / Clock.
Not possible to store address in the address book.	- Address book is full. - Delete one or more entries no longer required

SYMPTOMS	POSSIBLE CAUSE / REMEDY
Entered relocation junction is not accepted during car position input.	• Not all junctions, you can enter with the typewriter are suitable for relocation. • Select a junction displayed in the list.
Guidance is not precise	• An inaccuracy of max. 30 m is in the limit. If you frequently discover greater inaccuracy, contact an authorised service
Displayed car position does not correspond with actual car position.	• Bad GPS reception for a long periods. When sufficient GPS reception is resumed the position is connected automatically. • If necessary wait a few minutes.
Guidance advice does not correspond with actual traffic situation.	• It is possible that the car position calculated by the navigation system is wrong at the moment.
	• The routing may be changed and does not correspond with the information stored on the CD.

If you cant find a solution to any problem you may encounter, contact an authorised Land Rover dealer.

GLOSSARY

CD-ROM - COMPACT DISC WITH CD-I FORMAT.

A CD which contains data readable only by the Navigation System CD player. Digitised road maps, city maps and a database of facilities of special interest (for example parking, hotels, restaurants, filling stations etc.) are stored on the CD.

GPS (GLOBAL POSITIONING SYSTEM)

A system for determining the exact position, by receiving signals from several earth orbiting satellites, of the vehicle. To calculate a precise position at least four satellite signals have to be received simultaneously. The satellite icon is displayed in green as long as sufficient GPS data is received.

GYRO

The sensor used for calculating the exact position of the car. The gyro is located in the **Navigation Computer** and monitors the change in the cars direction.

NAVIGATION COMPUTER

The Navigation Computer compares the data on the CD with the signals coming from the sensors and from the GPS receiver then calculates the exact position of the car. Also the navigation computer takes care of route planning and guidance.

SDVC (SPEED DEPENDENT VOLUME CONTROL)

For compensation of engine, wind and rolling noise the voice volume is increased dependent on the car speed. The Navigation System controls volume of the voice. The volume can be adjusted by selecting several SDVC curves.

SCREEN ICONS

In the map display, different screen icons are shown depending on the amount of data base entries and depending on which category of special location that has been selected in the destination input menu. These icons have the following meaning:

Icon Meaning



Airport



Amusement Park



Auto teller machine



Automobile club



Bank



Bus station



Car park



Car repair



Chemist



Church



Cinema



City centre



Civic centre



Clinic



Council offices



Court house



Destination



Education



Embassy



Entertainment



Ferry



Fire station



Golf course



Hire car company



Hospital



Hotel



Industrial estate



Library



Marina



Military base



Monument



Museum



Park



Park & Ride



Petrol station



Police



Post office



Railway station



Restaurant



Services



Shopping centre



Sports centre



Theatre



Tourist attraction



Tourist information