## Technical Note 3729A

### Navigation Assistance

**CARMINAT and INFO TRAFIC**

*"High-end"*

<table>
<thead>
<tr>
<th>Model</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clio II</td>
<td>2002</td>
</tr>
<tr>
<td>Mégane II</td>
<td>2003</td>
</tr>
<tr>
<td>Scénic II</td>
<td>2002</td>
</tr>
<tr>
<td>Laguna X</td>
<td>2003</td>
</tr>
<tr>
<td>Avantime D</td>
<td>2004</td>
</tr>
<tr>
<td>Trafic XL</td>
<td>2005</td>
</tr>
<tr>
<td>Mégane II</td>
<td>2004</td>
</tr>
<tr>
<td>Scénic II</td>
<td>2004</td>
</tr>
<tr>
<td>Vel Satis B</td>
<td>2004</td>
</tr>
<tr>
<td>Espace IV</td>
<td>2004</td>
</tr>
</tbody>
</table>

This note cancels and replaces Technical Note 3543A

*FEBRUARY 2003*  

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<td>Relocation</td>
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<td>83C-60</td>
</tr>
<tr>
<td>Fault finding log</td>
<td>83C-87</td>
</tr>
</tbody>
</table>
The CARMINAT system comprises a screen and a voice synthesiser to provide guidance for the driver. This system can:

- find a specific location, such as:
  - a road, street or avenue,
  - a hotel,
  - public services,
  - a garage or petrol station,
  - etc.
- select guidance modes in order to:
  - optimise journey time,
  - select the shortest distance,
  - plan a route travelling on main roads,
  - or take the scenic route,
  - avoid tolls.
- store addresses in the address book.
- display road maps of:
  - the present location,
  - or the destination,
- display trip or arrival time (see Screen).
- receive written or spoken messages from the traffic information system.

The Carminat system uses the Vehicle speed signal provided by the ABS computer to calculate the distance travelled along with the Reversing signal. A special multiplex network for the "Carminat" function connects the navigation computer, Central Communications Unit and screen, Central Display Unit and radio (depending on the vehicle's equipment).

This system uses the following to function:

- a Central Communication Unit (UCC),
- a keyboard (integrated/not integrated into the Central Communication Unit),
- an electronic navigation computer comprising acceleration sensors (gyroscope) and the navigation CD-ROM reader,
- a satellite link (satellite aerial) allowing the vehicle to be located,
- a screen to display written data and maps,
- a speaker for giving voice instructions,
- a CD ROM with the maps of the country the vehicle is delivered to,
- an FM aerial for traffic information messages.
- a Central Display Unit (Mégane II).

NOTE:
- If the vehicle ignition was switched off, it may take the navigation system a few minutes to determine its exact position (see the Relocation section).
- If the vehicle battery has been disconnected, the system may need up to 20 minutes to calculate its exact location. The vehicle must therefore be outdoors (with the system running) to pick up the satellite signals with the satellite aerial.
- The system can also operate without valid satellite data. Under these circumstances, there may be a loss of precision in pinpointing exact locations.
- Once the exact position has been located by the satellite system, the on-screen satellite symbol turns from red to green.
- When travelling on the motorway, the distance data provided by the system to indicate exits will differ from the information on the signs. This is because motorway signs calculate distance from the start of the motorway exit, while the CARMINAT system calculates from the end of the exit.

WARNING
With this type of navigation system, it is absolutely essential to wait for the system to shut down completely (approximately 1 minute) before disconnecting the battery.

Note:
For information on operating the system and descriptions of the various menus, see the system user's manual.
ON-BOARD TELEMATICS SYSTEM
Operating principle

BASIC PRINCIPLES OF THE TRAFFIC INFORMATION SERVICE
In conjunction with navigation, the system uses information on traffic conditions:

- **TMC**: Traffic Message Channel.

The system uses:
- the navigation computer which receives, locates and recognises the information received,
- the TMC locators on the cartographic CD-ROM,
- the information collected and disseminated (by public authorities) in RDS - TMC format (communications protocol).

Traffic information terminal processing reminder:

- **Red** = no traffic information available in this geographic area or poor reception,
- **Black** = no traffic information locators on the CD-ROM,
- **Green** = the system is locked onto a frequency that can supply traffic information.

The term **TMC** is replaced by the name of the service operator that the system has locked onto (if the operator uses a name).

The system can display in either text or pictogram form. It suggests a detour if a fault is located on the proposed itinerary.

- **Green** = disruption with detour,
- **Red** = disruption without a detour,
- **Red (full)** = very serious disruption within a 31-mile (50-km) radius.

IMPORTANT
RENAULT is not responsible for the information collection and dissemination services in Europe, which are still in development.

Note: To work, the Navigation CD-ROM software version must be higher than 2000-1.
EXAMPLES OF TRAFFIC INFORMATION PICTOGRAMS

1. Accident
2. Traffic jam
3. Slippery conditions
4. Strong winds
5. Slow traffic
6. Fog
7. Road works
8. Danger
9. Parking possible
10. Bad weather
11. Slow traffic
12. Traffic problems in both directions
13. Road partially closed or narrowed
14. Vehicle travelling in the opposite direction
15. Restricted speed
16. Vehicle breakdown
### Operating principle

(1) The France/Germany/Italy border zones are available on the "Switzerland/Osterreich" CD-ROM.

(2) The TMC locator tables enable drivers to receive traffic information if it is broadcast in the country concerned (more specifically, they enable the broadcast events to be located on the map).

<table>
<thead>
<tr>
<th>Country</th>
<th>Country Code</th>
<th>Available</th>
<th>Broadcast</th>
<th>Coverage</th>
<th>Version</th>
</tr>
</thead>
<tbody>
<tr>
<td>France</td>
<td>FR</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>2000-1</td>
</tr>
<tr>
<td>Germany</td>
<td>DE</td>
<td>yes (100%)</td>
<td>yes (100%)</td>
<td>yes (100%)</td>
<td>1999-1</td>
</tr>
<tr>
<td>Great Britain</td>
<td>UK/Irish Republic</td>
<td>yes (100%)</td>
<td>yes (100%)</td>
<td>yes (100%)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Ireland</td>
<td></td>
<td>start</td>
<td>yes</td>
<td>Not applicable</td>
<td></td>
</tr>
<tr>
<td>Switzerland</td>
<td>CH</td>
<td>yes (100%)</td>
<td>yes (100%)</td>
<td>Fall/Winter 2001</td>
<td></td>
</tr>
<tr>
<td>Austria</td>
<td>AT</td>
<td>yes (100%)</td>
<td>yes (100%)</td>
<td>yes (100%)</td>
<td>Fall/Winter 2001</td>
</tr>
<tr>
<td>Holland</td>
<td>NL</td>
<td>yes (100%)</td>
<td>yes (100%)</td>
<td>yes (100%)</td>
<td>1999-1</td>
</tr>
<tr>
<td>Spain</td>
<td>ES</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>Fall/Winter 2001</td>
</tr>
<tr>
<td>Italy</td>
<td>IT</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>2000-1</td>
</tr>
<tr>
<td>Belgium</td>
<td>BE</td>
<td>yes</td>
<td>yes</td>
<td>yes (100%)</td>
<td>1999-1</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>LU</td>
<td>yes</td>
<td>yes</td>
<td>yes (100%)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Portugal</td>
<td>PT</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Sweden</td>
<td>SE</td>
<td>yes</td>
<td>yes</td>
<td>yes (100%)</td>
<td>Spring/Summer 2002</td>
</tr>
<tr>
<td>Denmark</td>
<td>DK</td>
<td>yes</td>
<td>yes</td>
<td>yes (100%)</td>
<td>Spring/Summer 2002</td>
</tr>
<tr>
<td>Finland</td>
<td>FI</td>
<td>no</td>
<td>no</td>
<td>start (Helsinki, Tampere)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Norway</td>
<td>NO</td>
<td>no</td>
<td>no</td>
<td>Akershus and ∅</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>CZ</td>
<td>no</td>
<td>no</td>
<td>start (Prague + main roads)</td>
<td>2003-A + (Brno, Plzen, Ostrava, Karlovy Vary)</td>
</tr>
<tr>
<td>Slovakia</td>
<td>SK</td>
<td>no</td>
<td>no</td>
<td>start (Bratislava and main roads)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Poland</td>
<td>PL</td>
<td>no</td>
<td>no</td>
<td>no</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Hungary</td>
<td>HU</td>
<td>no</td>
<td>no</td>
<td>no</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>
ON-BOARD TELEMATICS SYSTEM
Description of the system

1. Central Communications Unit
2. Keyboard
3. Carminat computer (CD-ROM reader)
4. Screen
5. Seat belt information (for display)
6. External temperature information (for display)
7. Radio
8. Voice synthesiser speaker
9. Steering wheel radio control
10. Radio aerial
11. Radio connection (mute)
12. Vehicle's multiplex connection
13. Satellite aerial
ON-BOARD TELEMATICS SYSTEM

Description of the system

(1) "NAV5 Languages All Versions CD" compatible.

(2) Software upgrade using the "NAV5 Languages All Versions CD".

WARNING

When replacing a navigation system component, it is essential to check that the software is compatible with the navigation CD-ROM reader, the Central Communications Unit, and the languages CD-ROM.

<table>
<thead>
<tr>
<th>System software version</th>
<th>Central Communications Unit version read from menus</th>
<th>Navigation CD-ROM reader version read from menus</th>
<th>Languages CD-ROM Application Notes on Changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 &quot;A&quot; SECOND LABEL 2.4</td>
<td>nav: 0182</td>
<td>csb: 1.80 or 1.82 2.5 (1) 03/2001</td>
<td>G new traffic information messages</td>
</tr>
<tr>
<td>2 TER</td>
<td>nav: 0196</td>
<td>csb: 1.80 or 1.82 2.5 (1) 01/2003</td>
<td>G alternative route suggestion G new rotary knob functions</td>
</tr>
<tr>
<td>3 3.63</td>
<td>nav: 0304</td>
<td>csb: 3.00 3.0 (1) 01/2002</td>
<td>G new traffic information messages</td>
</tr>
<tr>
<td>3 &quot;A&quot; SECOND LABEL 3.67</td>
<td>nav: 0350</td>
<td>csb: 3.00 or 3.01 3.5 --</td>
<td>3 TER - never used - - - 04/2003</td>
</tr>
<tr>
<td>3 QUATTRO (2) 3.67</td>
<td>nav: 0376</td>
<td>csb: 3.00 or 3.01 All versions CD-ROM 01/2003</td>
<td>G new traffic information messages</td>
</tr>
<tr>
<td>4 4.51</td>
<td>nav: 0434</td>
<td>csb: 4.31 or 4.32 4.0 (1) 10/2002</td>
<td>G screen watch</td>
</tr>
<tr>
<td>4 BIS (2) 4.60</td>
<td>nav: 0457</td>
<td>csb: 4.31 or 4.32 All versions CD-ROM 02/2003</td>
<td>G new traffic information messages</td>
</tr>
<tr>
<td>4 TER</td>
<td></td>
<td></td>
<td>G restricted access</td>
</tr>
</tbody>
</table>
Depending on the vehicle, the Central Communications Unit may have a keyboard.

The Central Communication Unit can:
- adjust the clock,
- act as a go-between for the vehicle's multiplex network and the Carminat system network,
- use multiplex data (depending on the vehicle),
- select commands with the radio knob or keyboard (depending on the vehicle equipment),
- control braking conditions, and the vehicle and system configurations,
- control the screen display (with the navigation CD-ROM reader),
- receive written or spoken messages from the traffic information system (via the aerial),
- manage voice synthesiser and navigation messages,
- transfer data from the radio for display.
### ON-BOARD TELEMATICS SYSTEM
#### Central Communications Unit

#### CONNECTIONS

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<thead>
<tr>
<th>Track</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Not used</td>
</tr>
<tr>
<td>2</td>
<td>Not used</td>
</tr>
<tr>
<td>3</td>
<td>Not used</td>
</tr>
<tr>
<td>4</td>
<td>Not used</td>
</tr>
<tr>
<td>5</td>
<td>Not used</td>
</tr>
<tr>
<td>6</td>
<td>Not used</td>
</tr>
<tr>
<td>7</td>
<td>Not used</td>
</tr>
<tr>
<td>8</td>
<td>Not used</td>
</tr>
<tr>
<td>9</td>
<td>Not used</td>
</tr>
<tr>
<td>10</td>
<td>Radio control satellite</td>
</tr>
<tr>
<td>11</td>
<td>Radio control satellite</td>
</tr>
<tr>
<td>12</td>
<td>Radio control satellite</td>
</tr>
<tr>
<td>13</td>
<td>Radio control satellite</td>
</tr>
<tr>
<td>14</td>
<td>Not used</td>
</tr>
<tr>
<td>15</td>
<td>Aerial amplifier output</td>
</tr>
<tr>
<td>16</td>
<td>Multiplex connection (multimedia)</td>
</tr>
<tr>
<td>17</td>
<td>Multiplex connection (multimedia)</td>
</tr>
<tr>
<td>18</td>
<td>Multiplex connection (multimedia)</td>
</tr>
<tr>
<td>19</td>
<td>Multiplex connection (multimedia)</td>
</tr>
<tr>
<td>20</td>
<td>Computer on-off output</td>
</tr>
<tr>
<td>21</td>
<td>Computer audio link</td>
</tr>
<tr>
<td>22</td>
<td>Computer audio link</td>
</tr>
<tr>
<td>23</td>
<td>Not used</td>
</tr>
<tr>
<td>24</td>
<td>Not used</td>
</tr>
<tr>
<td>25</td>
<td>Not used</td>
</tr>
<tr>
<td>26</td>
<td>Not used</td>
</tr>
<tr>
<td>27</td>
<td>Not used</td>
</tr>
<tr>
<td>28</td>
<td>Not used</td>
</tr>
<tr>
<td>29</td>
<td>Seat belt warning light + lighting</td>
</tr>
<tr>
<td>30</td>
<td>Radio display (low-end)</td>
</tr>
<tr>
<td>31</td>
<td>Radio ON/OFF</td>
</tr>
<tr>
<td>32</td>
<td>Radio display (low-end)</td>
</tr>
<tr>
<td>33</td>
<td>Radio display (low-end)</td>
</tr>
<tr>
<td>34</td>
<td>Radio display (low-end)</td>
</tr>
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### Track Description

<table>
<thead>
<tr>
<th>Track</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>+ lighting</td>
</tr>
<tr>
<td>2</td>
<td>Push-button</td>
</tr>
<tr>
<td>3</td>
<td>Push-button</td>
</tr>
<tr>
<td>4</td>
<td>Keyboard earth</td>
</tr>
<tr>
<td>5</td>
<td>Confirmation switch</td>
</tr>
<tr>
<td>6</td>
<td>Right rotary knob</td>
</tr>
<tr>
<td>7</td>
<td>+ rotary knob</td>
</tr>
<tr>
<td>8</td>
<td>Rotary knob earth</td>
</tr>
<tr>
<td>9</td>
<td>Keyboard earth</td>
</tr>
<tr>
<td>10</td>
<td>Push-button</td>
</tr>
<tr>
<td>11</td>
<td>Push-button</td>
</tr>
<tr>
<td>12</td>
<td>Multiplex connection (vehicle)</td>
</tr>
<tr>
<td>13</td>
<td>Voice synthesiser computer</td>
</tr>
<tr>
<td>14</td>
<td>Voice synthesiser computer</td>
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<tr>
<td>15</td>
<td>Not used</td>
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<td>16</td>
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</tr>
<tr>
<td>29</td>
<td>Not used</td>
</tr>
<tr>
<td>30</td>
<td>Not used</td>
</tr>
</tbody>
</table>
ON-BOARD TELEMATICS SYSTEM
Central Communications Unit

REMOVAL

The Central Communication Unit is located underneath the front right-hand seat. Move the seat as far back as possible. Remove the rear mounting bolt on the support and raise the rear section. Disconnect the connectors and remove the assembly. Remove the Central Communications Unit using the radio removal tools (Ms. 1373).

REFITTING

Position the Central Communications Unit in its mounting. Connect the connectors. Insert the front mounting guides into their housings. Position the mounting and the mounting bolts. Initialise the system (refer to the Initialisation section).

CLIO II
WARNING
Wait until the system has shut down completely (1 minute) before disconnecting the battery.

Note: It is not necessary to remove the seat.
REMOVAL

The Central Communication Unit is located in the luggage compartment, above the CD ROM reader, behind the cover.

Special notes on the Mégane

Remove the cover mounting bolts (1).

Remove the cover.

Remove the Central Communications Unit using the radio removal tools (Ms. 1373).

Special notes on the Scénic and Scénic II

The Central Communication Unit is located underneath the front right-hand seat.

REFITTING

Initialise the system (refer to the Initialisation section).

MEGANE - SCÉNIC - SCÉNIC II

WARNING

Wait until the system has shut down completely (1 minute) before disconnecting the battery.

Note:

It is not necessary to remove the seat.
ON-BOARD TELEMATICS SYSTEM

Central Communications Unit

REMOVAL

The Central Communications Unit is installed in the dashboard. It incorporates the keyboard. Remove the Central Communications Unit using the radio removal tools (Ms. 1373).

REFITTING

Connect the connectors. Insert the guides into their positions. Position the Central Communications Unit in its mounting. Initialise the system (refer to the Initialisation section).

MEGANE II

WARNING

Wait until the system has shut down completely (1 minute) before disconnecting the battery.
The Central Communication Unit is removed with the radio removal tools (Ms. 1373).

After refitting, initialise the system (refer to the Initialisation section).

**Special notes on the Laguna II**
The Central Communication Unit is located above the radio or CD ROM reader.

**Special notes on the Trafic II**
The Central Communication Unit is located above the radio.

**Special notes on the Avantime**
The Central Communication Unit is located at the front of the dashboard above the CD changer.

**WARNING**
Wait until the system has shut down completely (1 minute) before disconnecting the battery.
ON-BOARD TELEMATICS SYSTEM
Central Communications Unit

REMOVAL
The Central Communication Unit is located behind the cover, under the radio or CD changer. Removal is carried out using tool MS. 1373.

REFITTING
Initialise the system (refer to the Initialisation section).

VEL SATIS
WARNING
Wait until the system has shut down completely (1 minute) before disconnecting the battery.
Removal

The Central Communications Unit is located in the front left glovebox.
Removal is carried out using tool Ms. 1373.

Refitting

Initialise the system (refer to the Initialisation section).
The keyboard may be integrated into the Central Communication Unit or independent, depending on the vehicle.

It comprises:

- A rotary knob (A) for:
  - Navigating the various menus,
  - Confirming,
- A navigation cell (B) for:
  - Scrolling through the menu in manual mode,
  - Select options in the different menus,
- A menu button (M) (depending on the vehicle) for returning to the main menu,
- A button (I) for replaying voice messages,
- A button (C) for turning off voice messages,
- Buttons (+) and (-) which increase and reduce the volume of audio messages.
ON-BOARD TELEMATICS SYSTEM
Keyboard

The independent keyboard is connected to the Central
Communication Unit by a special
12-track
connector.

CONNECTION

Special notes on Clio II, Scénic II and Espace IV

The keyboard is clipped below the screen.
It is necessary to remove the upper section of the
dashboard and the screen to reach the connector.

ESPACE IV - CLIO II - MEGANE - SCENIC - SCENIC II

Note:
Only the feeds and earths can be checked.

Track Description

<table>
<thead>
<tr>
<th>Track</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Rotary knob at left</td>
</tr>
<tr>
<td>2</td>
<td>+ Lighting</td>
</tr>
<tr>
<td>3</td>
<td>Push-button</td>
</tr>
<tr>
<td>4</td>
<td>Push-button</td>
</tr>
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<td>5</td>
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<td>6</td>
<td>Confirmation switch</td>
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<tr>
<td>7</td>
<td>Rotary knob at right</td>
</tr>
<tr>
<td>8</td>
<td>+ rotary knob</td>
</tr>
<tr>
<td>9</td>
<td>Rotary knob earth</td>
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<td>11</td>
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Track Description

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<td>B2</td>
<td>Rotary knob</td>
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<td>B3</td>
<td>Rotary knob</td>
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<td>B4</td>
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<tr>
<td>B6</td>
<td>Not used</td>
</tr>
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<td>Not used</td>
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<td>Not used</td>
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<tr>
<td>B9</td>
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</table>
The navigation CD-ROM reader works by using sensors that detect vehicular motion. The car's tachometric (or ABS) sensor calculates the distance travelled while the gyroscope registers turns. By making comparisons with the digital map (on the CD-ROM), the system corrects inaccuracies (tyre pressure and wear, temperature etc.) to pinpoint the vehicle's location.

The system will be programmed in French by default after the navigation CD-ROM reader has been replaced. To change language, see Language Settings.

IMPORTANT
If the battery has been disconnected or the navigation computer replaced, relocation of the vehicle is automatic (refer to the Relocation section).

WARNING
When the navigation CD-ROM reader is replaced, the addresses stored in the old unit cannot be recovered.

Note:
– With the ignition off, the CD-ROM player lights up automatically when the eject button is pressed and will remain lit for about 1 minute (if the ignition is not switched back on).
– The player lights up automatically when the ignition is turned on.
– After the ignition is turned off, it remains lit for approximately 1 minute, during which time the battery must not be disconnected.
– The navigation CD-ROM readers differ, depending on whether installed horizontally or vertically.
### CONNECTIONS

<table>
<thead>
<tr>
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</thead>
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<td>3</td>
<td>Central Communication Unit Audio Link</td>
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</tr>
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<td>Computer on-off Input</td>
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<td>7</td>
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<td>Central Communication Unit Audio Link</td>
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### VIDEO SIGNALS

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</tr>
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<td>10</td>
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<td>Screen On/Off</td>
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<tr>
<td>14</td>
<td>Not used</td>
</tr>
<tr>
<td>15</td>
<td>+ Before Ignition</td>
</tr>
<tr>
<td>16</td>
<td>+ Before Ignition</td>
</tr>
</tbody>
</table>

### ON-BOARD TELEMATICS SYSTEM

*Navigation CD-ROM reader*
ON-BOARD TELEMATICS SYSTEM
Navigation CD-ROM reader

REMOVAL - REFITTING

After refitting, initialise the system (refer to the Initialisation section).

Special notes for Clio II
The navigation CD-ROM reader is in the luggage compartment (left side).
It is removed with the radio removal tools (Ms. 1373).

Special notes on the Trafic II
The navigation CD-ROM reader is in the lower section of the dashboard.
It is removed with the radio removal tools (Ms. 1373).

WARNING
Wait until the system has shut down completely (1 minute) before disconnecting the battery.

WARNING
The satellite aerial wire is very fragile. Do not bend or trap it.
ON-BOARD TELEMATICS SYSTEM
Navigation CD-ROM reader

REMOVAL
The navigation CD-ROM reader is under the Central Communications Unit below the right front seat.

Move the seat as far back as possible.
Remove the compartment mounting bolts and unclip it.
Pull the assembly forwards and disconnect the connectors.

Remove:
– both support mounting bolts on the casing.
– the computer using tools No. 1373.

REFITTING
Proceed in the reverse order to removal.
After refitting, initialise the system (refer to the Initialisation section).

WARNING
Wait until the system has shut down completely (1 minute) before disconnecting the battery.

Note:
It is not necessary to remove the seat.

WARNING
The satellite aerial wire is very fragile. Do not bend or trap it.
REMOVAL

The navigation CD-ROM reader is located in the luggage compartment, next to the amplifier, behind the cover.

Remove the cover clipped to the carpet.

Remove the CD-ROM reader with the radio removal tools (Ms. 1373).

Disconnect the connectors and remove the assembly.

REFITTING

Insert the guides into their positions.

Connect the connectors.

Place the navigation CD-ROM reader in its mounting.

Initialise the system (refer to the Initialisation section).

MEGANE II

WARNING

Wait until the system has shut down completely (1 minute) before disconnecting the battery.

WARNING

The satellite aerial wire is very fragile. Do not bend or trap it.
ON-BOARD TELEMATICS SYSTEM
Navigation CD-ROM reader

REMOVAL

Remove:
– the glove compartment cover secured by a screw,
– the computer support mounting bolts.

Disconnect the navigation CD-ROM reader connectors and lower the unit.

DETACH the support from the computer using the radio removal tools (Ms. 1373).

REFITTING

Proceed in the reverse order to removal.

After refitting, initialise the system (refer to the Initialisation section).

LAGUNA II

WARNING
Wait until the system has completely shut down (1 minute) before disconnecting the battery.

WARNING
The satellite aerial wire is very fragile. Do not bend or trap it.
After refitting, initialise the system (refer to the Initialisation section).

**Special notes on the Mégane**

The navigation CD-ROM reader is in the luggage compartment (left side). It is removed with the radio removal tools (Ms. 1373).

**Special notes on the Avantime**

The navigation CD-ROM reader is located in the glovebox (passenger's side). It is removed with the radio removal tools (Ms. 1373).

**Special notes on the Scénic II**

The navigation CD-ROM reader is located underneath the right front seat. It is removed with the radio removal tools (Ms. 1373).

**WARNING**

Wait until the system has completely shut down (1 minute) before disconnecting the battery.

**WARNING**

The satellite aerial wire is very fragile. Do not bend or trap it.

Note: It is not necessary to remove the seat.
ON-BOARD TELEMATICS SYSTEM
Navigation CD-ROM reader

REMOVAL
The navigation CD-ROM reader is located in the glovebox. Removal is carried out using tool No. 1373.

REFITTING
Initialise the system (refer to the Initialisation section).

WARNING
Wait until the system has completely shut down (1 minute) before disconnecting the battery.
REMOVAL

The navigation CD-ROM reader is located in the glovebox.
Removal is carried out using tool Ms. 1373.

REFITTING

Initialise the system (refer to the Initialisation section).
The screen can display:
– the various menus,
– the destination direction,
– the distance from the destination,
– the journey maps,
– the distance remaining until the next change of direction,
– the road maps,
– etc.

It lights up a few seconds after +accessories is switched on or the radio is switched on and displays the security message.

It goes out approximately 45 seconds after the ignition is switched off.

1. Time
2. External temperature
3. Traffic Information message pictogram
4. Time of arrival or journey remaining (can be configured)
5. Guidance mode pictogram
6. Disc present pictogram
7. Satellite reception quality pictogram
8. Radio display (depending on the vehicle)
9. Tyre pressure monitor and opening elements (depending on the vehicle)

Special notes on the radio (depending on the vehicle)
If the vehicle is fitted with an original radio, the display will appear on the screen bar (radio on only).
When the radio is being adjusted, the radio display fills the screen (for greater visibility) in list or preset mode.

Special notes on the clock
The clock is connected to the satellite link (GPS). The reference time is adjusted manually via the Clock menu, but the satellite connection allows precise adjustment.

Note:
– The screen colour and brightness can be adjusted using the Screen configuration menu:
  – daytime blue or dark blue (side lights).
  – night time blue or dark blue (side lights on).

Note:
If the radio information does not appear on screen, refer to the "Initialisation" section.

WARNING
Do not use cleaning products to clean the screen. It should be wiped with a soft, dry cloth or a damp cloth.
<table>
<thead>
<tr>
<th>Model</th>
<th>Tyre Pressure Monitoring System</th>
<th>Tyre Pressure Monitoring System Warning</th>
<th>Tyre Pressure Monitoring System Heating Element</th>
<th>Tyre Pressure Monitoring System Location</th>
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<td>Mégane</td>
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<td>X</td>
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<td>X</td>
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<td>Laguna II</td>
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<td>X</td>
<td>X</td>
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</tr>
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<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Track</td>
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<td>-------</td>
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</tr>
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<td>1</td>
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<td>- Video signal</td>
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<td></td>
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<td>4</td>
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<td>Green video signal</td>
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<td>6</td>
<td>Blue video signal</td>
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<td>9</td>
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</tr>
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<td>11</td>
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</tr>
<tr>
<td>12</td>
<td>Screen on/off</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>+ Before ignition</td>
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</tr>
<tr>
<td></td>
<td>Earth screen</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
With the ignition switched off and the steering column in a low setting:

- Unclip and disconnect the control keyboard (1).

Remove:
- the steering wheel casing mounting bolts,
- the steering wheel upper cowling,
- the bolts.

Remove:
- the trim strips,
- the dashboard mounting bolts.

Remove:
- the upper section of the dashboard,
- the screen and its mounting.
With the ignition switched off, position the steering column to a low setting.

Unclip the CARMINAT speaker support (1) and the control keyboard (2).

Remove:
- the speaker grilles,
- the upper section of the dashboard,
- the screen mounting bolts (3).

Disconnect the screen and the keyboard. Separate the screen from its mounting by removing the screws (4).
With the ignition off, remove:

- the Central Communication Unit using the Ms. 1373 tools.

Remove:

- the screen mounting bolts.

Pull out the screen to unclip it from the dashboard.

Swivel the screen, taking care not to scratch the dashboard.

Open the protective housing.

Disconnect the connector by pressing on the bolt.

Separate the screen from its mounting by removing the screws.
Removing the navigation screen requires removing the instrument panel.

Disconnect the battery.

Unclip the trim (1) with the tool (Car. 1597).

Unclip the instrument panel rim (2).

Remove the mounting bolts (3).

Remove the instrument panel.

Remove the screen mounting bolts (4).

Remove the screen.
Removal - Refitting

With the ignition off, remove:
- the two covers either side of the screen,
- the mounting bolts (1),
- the underside of the screen by unclipping it (2).

Disconnect the connection with the computer.

Remove the screen mounting bolts to detach it from the support.

LAGUNA II
The screen and the Central Display Unit are in one piece.

Unclip the upper section (A) of the dashboard.

Disconnect the sunlight sensor (B).

Remove the four screws (C).

Disconnect the connectors.

REFITTING
Proceed in the reverse order to removal.
Initialise the system (refer to the Initialisation section).

MEGANE II
<table>
<thead>
<tr>
<th>Track</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
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</tr>
<tr>
<td>2</td>
<td>Not used</td>
</tr>
<tr>
<td>3</td>
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<td>Multimedia multiplex link to Central Communications Unit</td>
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<td>On/off input to Central Communications Unit</td>
</tr>
<tr>
<td>19</td>
<td>On/off input to screen</td>
</tr>
</tbody>
</table>

Note: The screen connections are the same as in other vehicles.
REMOVAL

Open the glovebox and remove the mounting bolts (A) from the dashboard panel.

Pull out the assembly to the whole length of the wire so that it can be put back.

Remove the mounting screws (B).

Disconnect the connector.

Remove the screen mounting bolts (C).

REFITTING

It is essential to respect the position of the screws according to their length.

AVANTIME
ON-BOARD TELEMATICS SYSTEM
Screen

REMOVAL - REFITTING

The instrument panel must be removed to remove the screen.

Remove:
– the upper instrument panel trim clipped to the dashboard,
– the lower instrument panel trim clipped to the dashboard,
– the instrument panel mounting bolts,
– the screen mounting bolts on the instrument panel.

VEL SATIS
Using the manufacturers' tools, remove the cover.

With a screwdriver, remove the clips (A) on each side of the screen.

Disconnect the connectors (F).

Remove the two screen mounting screws (D).

Take out the screen mounting.
ON-BOARD TELEMATICS SYSTEM

Screen

Note: The screen mounting has a switch (B) that turns off the display when the dashboard cover is closed.
The satellite aerial picks up satellite signals so that the electronic navigation computer (CD-ROM player) can locate the position of the vehicle. When the satellite reception is good, a green pictogram is displayed on screen. When the satellite reception is poor (caused by going through a tunnel or along a street surrounded by tall buildings, etc.), a red pictogram is displayed on screen.

Note: Relocation is automatic once the battery has been reconnected or the navigation computer has been replaced: drive the vehicle to an outdoor open area with the ignition off and wait a few minutes. When the satellite reception is good, a green pictogram is displayed on screen.

WARNING
The satellite aerial wire is very fragile. Do not bend or trap it.

Note: The satellite aerial is also used for the hands-free phone. Some vehicles are fitted with a dual band aerial.
ON-BOARD TELEMATICS SYSTEM

AERIAL

REMOVAL - REFITTING

The aerial is fitted on the roof. The headlining and boot lining (right-hand side) must be partially removed to remove the aerial.

Remove:
– the mounting bolts on the rear parcel shelf (3),
– the parcel shelf support,
– the linings (1) and (2).

Disconnect the aerial wires.

Remove:
– the headlining (partially),
– the mounting nut, then remove the aerial.

CLIO II

WARNING

The satellite aerial wire is very fragile. Do not bend or trap it.

Note:
The satellite aerial incorporates the radio aerial and the telephone aerial (dual band).
REMOVAL - REFITTING

The aerial is fitted on the roof. The headlining must be partially removed to remove the aerial.

WARNING

The satellite aerial wire is very fragile. Do not bend or trap it.
ON-BOARD TELEMATICS SYSTEM

REMOVAL - REFITTING

Special notes on the Mégane

The aerial (1) is located underneath the rear parcel shelf support (left-hand side). Removing it requires removing the CD-ROM reader with the tool (Ms. 1373) as well as its mounting.

Special notes on the Scénic

The aerial is located on the plenum chamber plate, underneath the engine cover. Remove:

- the windscreen wiper arms,
- the plenum chamber half-grilles.

Disconnect the wire and detach the aerial.

WARNING

The satellite aerial wire is very fragile. Do not bend or trap it.

83C-44
ON-BOARD TELEMATICS SYSTEM

REMOVAL - REFITTING

The aerial is fitted on the roof. Removing it requires part of the head lining to be removed (see Bodywork section).

Remove the marker nut (D) and disconnect connectors (E) and (F).

Note: The satellite aerial incorporates the radio aerial, the amplifier and the telephone aerial (dual band).
First-generation cars are fitted with a satellite aerial and a mono-band telephone. These aerials have been replaced by dual-band satellite and telephone aerials.

### Special Notes on the Laguna II

First-generation Laguna II's are fitted with a satellite aerial and a mono-band telephone. These aerials have been replaced by dual-band satellite and telephone aerials. They are visible on the rear section of the roof.

#### MONO-BAND AERIAL

1. Remove the upper tailgate lining.
2. Disconnect the aerial connectors (B).
3. Remove the mounting nuts (C) and then the satellite aerial (A).

#### DUAL BAND AERIAL

The aerial is fitted on the roof. The headlining and rear right-hand quarter panel must be partially removed to remove the aerial.
The aerial is fitted on the roof. Removing it requires partial removal of the headlining and rear right quarter trim (see Bodywork manual).

The aerial wire is connected to the switch plate (e.g. Vel Satis).

VEL SATIS - ESPACE IV
ON-BOARD TELEMATICS SYSTEM

REMOVAL

Lock the airbag computer using a fault finding tool.

Disconnect the battery.

Remove:
- the driver's seat,
- the central keyboard.

Remove the soundproofing material on the central keyboard tunnel,
Cut the carpet in the middle of the central keyboard in front of the gear lever,
Disconnect the satellite aerial wire at the threaded union.

Detach the carpet and soundproofing (driver's side),
Remove the satellite aerial sensor (A) from its housing by sliding it towards the centre of the roof.

REFITTING

Slide the satellite aerial into its housing.
Reposition the aerial wire along its original route and reconnect it.
Refit:
- the soundproofing,
- the carpet,
- the door seal,
- the central keyboard soundproofing material,
- the driver's seat.
Reconnect the battery.
Unlock the airbag computer and carry out fault finding.
The navigation system can use:

- a special speaker,
- the voice synthesiser speaker (the Central Communication Unit regulates the messages from the voice synthesiser),
- a radio speaker.

**Special notes on the Mégane and Scénic**

The special system speaker is located beneath the upper section of the dashboard.

**Special notes for Clio II**

The special system speaker is located beneath the heating control panel. The central keyboard compartment needs to be removed to access the speaker.

**Special notes on the Laguna II and Vel Satis**

The speaker is positioned in place of the voice synthesiser speaker.
Special notes on the Trafic II

The speaker used for the navigation system is the front right-hand radio speaker.

Special notes on the Avantime

The special system speaker (A) is positioned near to the central keyboard light.

Special notes on the Mégane II

The special system speaker (A) is located beneath the upper section of the dashboard.

Special notes on the Scénic II

To remove the speaker, remove the lower trim from the dashboard.

Note: To remove it, unclip the upper section of the instrument panel (see Workshop Repair Manual 364).
Special notes on the Espace IV
Vehicle with voice synthesiser.
The navigation speaker (1) is the same as the voice synthesiser one if the vehicle is equipped with both features. Messages are controlled by the Central Communications Unit.

Vehicle without voice synthesiser.
The navigation speaker (1) is under the dashboard on the driver's side.
ON-BOARD TELEMATICS SYSTEM

Initialisation

This procedure must be followed every time a part is replaced.

1 Switch off the ignition,
2 Wait until the system completely shuts down (about 1 minute).
3 Switch the radio on,
4 Switch on the ignition (wait approximately 20 seconds),
5 Press the buttons simultaneously (see table).
6 Read the vehicle part number (refer to the table).
7 Carry out the steering wheel control test,
8 The satellite aerial connection (connected / not connected to GPS) appears on the screen,
9 Ignore radio aerial and telephone tests,
10 Exit setting using the rotary switch,
11 Switch off the ignition (1 minute).

WARNING
If the vehicle is fitted with a radio, it must be switched on during initialisation. If it is not, the steering wheel radio control will not function and the screen will not display radio data.

Note:
If the configuration does not correspond to the vehicle, check the vehicle wiring (multiplex lines) and the part numbers of the components.

Vehicles Keys
Clio II:
Trafic II
Mégane and Scénic
Mégane II
Scénic II
Laguna II
Vel Satis
Avantime
Espace IV

System configurations
Vehicles without radio
Entry level radio
Top of the range radio

Clio II:
Trafic II
Mégane and Scénic
Mégane II
Scénic II
Laguna II
Vel Satis
Avantime
Espace IV
Upgrading the navigation CD-ROM reader software takes about 5 minutes. If the CD-ROM is ejected during installation, carefully clean it, then reinsert it into the reader. The system will restart automatically.

1. Switch on the ignition without starting the engine.
2. Select OK on the Navigation system welcome screen.
3. Select Navigation from the main menu.
4. Eject the map CD-ROM by pressing the Eject button on the front of the CD-ROM reader. See the Navigation Assistance Technical Note for the location of the parts.
5. Insert the CD-ROM labelled Languages CD - Nav5 All Versions.
6. Once the CD-ROM has been detected (which takes a few seconds), the system asks: “Install software?”
7. Select Yes if the current version displayed and new version differ.
8. A wait message is then displayed for about 15 seconds before the screen goes black.
9. After about 10 seconds, the system indicates it will update the software (“The installation program will update your system”).
10. Wait approximately 2 minutes. A progress bar appears. It enables you to track the progress of the software upgrade.
11. Once the upgrade is finished, the system automatically ejects the “Languages CD - Nav5 All Versions”.
12. The system then reboots with a message: “The system will reboot now.”
13. The screen goes black and the RENAULT logo appears.
14. Next the system displays the “Navigation” menu.
15. The system upgrade is now completed. Insert the map CD-ROM into the reader.

WARNING
Do not switch off the ignition during this operation or the navigation system will become unusable.

Note: If both versions are identical, select No: the system already has the new software. The system then automatically ejects the Languages CD - Nav5 All Versions. Insert the map CD-ROM into the reader.

Note: The “Languages CD - Nav5 All Versions” must be used instead of the old one to install new languages into the system.
The system will be programmed in French by default after the navigation computer has been replaced. You must carry out these two operations to change the language:

1. Change menus language
   - With the ignition switched on, press the eject button to remove the electronic navigation computer cartographic CD-ROM.
   - The screen will display the message “No CD in reader.”
   - Confirm OK by pressing the rotary knob.
   - Select the Language menu.

2. Change voice messages
   - With the ignition switched on, press the eject button to remove the electronic navigation computer cartographic CD-ROM.
   - The screen will display the message “No CD in reader.”
   - Confirm OK by pressing the rotary knob.
   - Select the *Configurations* menu then Language.
   - Select other language.
   - The system prompts you to insert the language CD-ROM.
   - Insert the CD-ROM, and then press the rotary knob to confirm.
   - Select the language to be replaced (language 1 or 2) by turning the knob.
   - Use the rotary knob to select the language to load from the list of available languages stored on the CD-ROM and then confirm load.
   - Wait a few seconds. The screen will turn black and then white and display a message in black and red with a horizontal bar to show the loading time remaining.
   - When loading is complete, the language CD-ROM is ejected from the reader and OK is displayed on screen.
   - Continue with voice message changing procedure.

Note: If the desired language does not appear in the menu, do the following:
<table>
<thead>
<tr>
<th>Country</th>
<th>Language Available in the User Interface</th>
<th>Language Available in the Manual</th>
</tr>
</thead>
<tbody>
<tr>
<td>France</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Germany</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>English (GB)</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>English (USA)</td>
<td>yes</td>
<td>NO</td>
</tr>
<tr>
<td>Dutch</td>
<td>yes</td>
<td>(except system menus) NO</td>
</tr>
<tr>
<td>Spanish</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Italian</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Swedish</td>
<td>yes</td>
<td>(except system menus) NO</td>
</tr>
<tr>
<td>Danish</td>
<td>yes</td>
<td>(except system menus) NO</td>
</tr>
<tr>
<td>Portuguese</td>
<td>NO</td>
<td>NO</td>
</tr>
<tr>
<td>Czech</td>
<td>NO</td>
<td>NO</td>
</tr>
<tr>
<td>Slovak</td>
<td>NO</td>
<td>NO</td>
</tr>
</tbody>
</table>
The vehicle has to be relocated after the electronic navigation computer has been replaced or the battery disconnected.

Drive the vehicle to an open area outdoors and wait for a few minutes with the ignition switched on. When the satellite reception is good, a green pictogram (1) is displayed on screen.

If the vehicle is not correctly located on the map, drive the vehicle to along various main roads on the mapped routes (0.6 to 1.8 miles (1 to 3 km) necessary).

Note: The localisation operation may take up to 20 minutes maximum.
ON-BOARD TELEMETICS SYSTEM

Navigation menus

Welcome message

Navigation Adjustments
- Language
- Monitor

– guidance
– map
– address book
– monitor
– emergency
– configuration

Change voice messages

Clock System

Adjusting the set time
(Expert mode)

Code: 4112

System test
- Configuration
- Central Communications

Unit type
- Software version
- Date of manufacture

– 12 NC
– checksum

Keyboard Test
- Bus Test
  - CAN V
  - CAN M
  - IIC

* depending on the version

Satellite keyboard

83C-57

RDS/TMC
- Vehicle

- Frequency
- Reception level
- RDS quality:

– Speed
– + after ignition feed
– + ACC
– Tyre pressure
– Battery voltage
– Seat belt
– + light
– Reverse gear
– External temperature
ON-BOARD TELEMATICS SYSTEM

Welcome message

Language

Navigation modes

Screen configuration

Traffic information

System information

Units

Changing the menu language

– day colour
– state line
– card colour
– night colour
– brightness
– S D V C
– voice messages
– volume

Fault finding configuration

Speed correction

Pre-adjustments

– series number
– product model
– software version
– week of manufacture
– year of manufacture
– CBS software version

GPS data

– sensor status
– longitude
– latitude
– geographical height
– number of satellites
– tachograph pulse
– internal temperature
– battery
– injection button
– steering

– usable simulation
– unusable simulation

83C-58
### ON-BOARD TELEMATICS SYSTEM

#### Customer complaints

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<td>2</td>
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<td>16</td>
<td>POOR SATELLITE RECEPTION (CHART 16)</td>
</tr>
<tr>
<td>17</td>
<td>NO RADIO DATA ON THE INSTRUMENT PANEL (OR RADIO DATA NOT REFRESHED) (CHART 17)</td>
</tr>
<tr>
<td>18</td>
<td>TIME AND TEMPERATURE DATA ON INSTRUMENT PANEL AND NAVIGATION SCREEN NOT THE SAME (CHART 18)</td>
</tr>
<tr>
<td>19</td>
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</tr>
</tbody>
</table>
CHART 1  System does not open

Check whether the screen opens manually. Press the "ON/OFF" button in front of the screen.

Does the screen open?

no

Switch on the lights. Check that the indicator lights on the keys in front of the screen light up.

Do the indicator lights come on?

yes

Switch off the ignition for 1 minute. Switch on the ignition and, without pressing the "eject" button, check that the CD-ROM drive indicator light comes on.

Does the indicator light come on?

no

It is a mechanical fault or an end-stop programming fault. Disconnect and reconnect the battery. If the problem persists, replace the Central Display Unit after obtaining authorization from Techline.

Check the Central Display Unit power supply (tracks 1 and 9) and earth (track 7).

Check the power supply (ignition off = 0 V; ignition on = 12 V):

- to the Central Communications Unit on track 7,
- to the navigation CD-ROM reader on track 6,
- to the Central Display Unit on tracks 17 et 18.
ON-BOARD TELEMATICS SYSTEM

"Top of the Range" navigation system: Fault finding charts

MEGANE II

CHART 1
(continued)

Check whether the screen opens automatically. Press the "ON/OFF" button to close the screen, or press on the rotary knob.

No Does the screen open?

Yes

Check the multiplex link (multimedia):
- between the Central Communications Unit and the Central Display Unit,
- between the Central Display Unit and the navigation CD-ROM reader.

Refer to the "Wiring diagrams" Technical Note.

Yes Are the connections correct?

No

Activate the screen display several times. The problem may be due to a hard point in the Central Display Unit. If the problem persists, replace the Central Display Unit after obtaining authorization from Techline.

Repair the wiring. Check the other navigation system functions.
ON-BOARD TELEMATICS SYSTEM

“Top of the Range” navigation system: Fault finding charts

CHART 2 Incorrect screen angle or screen freezes

Incorrect screen angle or screen freezes.

Press the screen "ON/OFF" button.

Disconnect and reconnect the battery to reset the Central Display Unit and reprogram the end stops.

Press the screen "ON/OFF" button.

If the problem persists, replace the Central Display Unit after obtaining authorization from Techline.
“Top of the Range” navigation system: Fault finding charts

CHART 3  Screen stays black (not lit up)

1. Turn the ignition on and switch on the lighting.
   - Does the Central Communications Unit light up?
     - Yes: Continue.
     - No: See below.

2. Check the power fuse and wiring (see the "Wiring Diagrams Technical Note").
   - Did it pass the tests?
     - Yes: Continue.
     - No: See below.

3. Check the green connector on the navigation CD-ROM reader:
   - – + 12 V feed (track 1),
   - – the earth (track 9).
   - Did it pass the tests?
     - Yes: Replace the navigation CD-ROM reader after obtaining authorisation from Techline.
     - No: See below.

4. Check the green connector on the Central Communications Unit:
   - – + 12 V feed (track 10),
   - + accessories feed (track 9),
   - – the earth (track 12).
   - Did it pass the tests?
     - Yes: Replace the Central Communications Unit after obtaining authorisation from Techline.
     - No: See below.

5. Switch the ignition off for more than 1 minute, then press the eject button.
   - Does the red light come on?
     - Yes: Check the navigation CD-ROM reader’s power supply.
     - No: See below.

6. Check the CD-ROM drive:
   - Does it pass the tests?
     - Yes: Continue.
     - No: See below.
ON-BOARD TELEMATICS SYSTEM
"Top of the Range" navigation system: Fault finding charts

---

CHART 3 (continued)

1. Check the connection between the Central Communications Unit and the navigation CD-ROM reader.

2. Switch the ignition off for more than 1 minute, then switch it on again. The navigation CD-ROM reader's red light should come on.

   a. Does the red light come on?
      - no
        - Check the wiring between the Central Communications Unit, Central Display Unit, and navigation CD-ROM reader.
        - If the wiring is okay, replace the navigation CD-ROM reader after obtaining authorisation from Techline.
      - yes
        - Continue with the next step.

3. Check the navigation CD-ROM reader's power supply (track 6) on the Central Communications Unit grey connector (track 7):
   - ignition off = 0 V,
   - ignition on = 12 V

   a. Did it pass the tests?
      - yes
        - Continue with the next step.
      - no
        - Check the wiring between the Central Communications Unit and the navigation CD-ROM reader.

4. Check the connection between the navigation CD-ROM reader and the screen:
   - 12 V feed (tracks 15 and 16)
   - earth (tracks 2 and 9)
   - alarm feed (track 12) (on = 12 V - off = 0 V).

   a. Did it pass the tests?
      - yes
        - Check the wiring between the Central Communications Unit and the navigation CD-ROM reader.
      - no
        - Replace the Central Display Unit after obtaining authorisation from Techline.
CHART 4

Screen blank or freeze on RENAULT logo

1. Switch on the ignition, check if the keyboard flashes.
   - Is the keyboard flashing?
     - Yes: The vehicle has a problem with an incompatible Central Communications Unit and navigation CD-ROM reader. Check the part numbers in the Spare Parts Catalogue (contact Techline).
     - No: The system has not been configured. Initialise the system (refer to the Initialisation section).
   - No: Does the screen display the configurations?
     - Yes: Turn off the system (1 minute). The problem disappears. Check the overall operation of the system.
     - No: Check the multimedia multiplex connections between the Central Communications Unit, Central Display Unit, radio amp/tuner and navigation CD-ROM reader.
MEGANE II

CHART 5 The display on the screen stays fixed

The on screen display is frozen (on a road map or other screen).

1. Turn off the ignition and wait until the system shuts down completely (at least 1 minute). Switch on the ignition again.

   a. Has the fault disappeared?

      i. yes

      ii. no

2. Given the system's complexity and numerous functions, it may lock up from time to time. If the fault is still present, contact your Techline.

   a. Check the multiplex link between the Central Communications Unit (tracks 3 and 4) and the Central Display Unit (tracks 15 and 16).

      i. Did it pass the tests?

         a. yes

         b. no

3. Check the multiplex link between the CD-ROM reader (tracks 9 and 18) and the Central Display Unit (tracks 15 and 16).

   a. Did it pass the tests?

      i. yes

      ii. no

4. Replace the navigation CD-ROM reader after obtaining authorisation from Techline.

   a. Replace the navigation CD-ROM reader

   b. Repair.
Chart 5 The display on the screen stays fixed

1. The on-screen display is frozen (on a road map or other screen).
   - Turn off the ignition and wait until the system shuts down completely (at least 1 minute). Switch on the ignition again.

   - Has the fault disappeared?
     - No
     - Given the system's complexity and numerous functions, it may lock up from time to time. If the fault is still present, contact your Techline.

   - Test the multiplex link between the Central Communication Unit & new line (tracks 3 and 4) and the CD-ROM reader (tracks 9 and 18).

   - Did it pass the tests?
     - No
     - Replace the navigation CD-ROM reader after obtaining authorisation from Techline.

   - Repair.
ON-BOARD TELEMATICS SYSTEM

"Top of the Range" navigation system: Fault finding charts

CHART 6
The screen displays "configuration error"

Turn off the ignition and wait until the system shuts down completely (about 1 minute). With the radio on, initialise the system (see Initialisation).

Does the configuration number match the vehicle?

no

Given the system's complexity and numerous functions, it may lock up from time to time. If the fault is still present, contact your Techline.

The fault is not linked to the navigation system. Carry out a fault finding procedure on the vehicle (multiplex network test) using a diagnostic tool.
ON-BOARD TELEMATICS SYSTEM

"Top of the Range" navigation system: Fault finding charts

CHART 1
No radio display on the Carminat screen or the screen display is frozen ("Entry Level" radio)

1. Check that the radio is being supplied and emits sound. If not, see the "Low-end radio" Technical Note.
   - Yes
   - No

2. Is the navigation welcome message displayed?
   - Yes
     - When the radio is switched on, carry out the setting procedure. Check the configuration number (see the "Initialisation" section).
       - Yes
       - No
         - The problem disappears.
           - Exit from the initialisation procedure and switch off the system. Check the overall operation of the system.
         - No

3. The screen is black or backlit, see the pertinent fault finding chart.
CHART 7 (continued)

With the radio switched on, run a self-test procedure on the Central Communications Unit to check the "IIC BUS".

- does the self-test procedure display "BUS IIC: OK"?
  - yes
  - no does the voltage vary?
    - yes
      - replace the Central Communications Unit after obtaining authorisation from Techline.
    - no test the continuity of the wiring between the radio and the Central Communications Unit. If the wiring is okay, replace the radio after obtaining authorisation from Techline. See the "Low-end radio" Technical Note.
  - no
    - does the wiring look okay?
      - yes
        - run a self-test on the Central Communications Unit.
      - no does the radio display "IIC BUS: OK"?
        - yes
          - re-examine the wiring and replace if necessary.
        - no replace the radio after obtaining authorisation from Techline.

CHART 1

No radio display on the Carminat screen or the screen display is frozen ("Top of the Range" radio)

1. Make sure the radio is receiving power and emits sounds; if not, see the "High-end radio" Technical Note.
2. When the radio is switched on, carry out the setting procedure. Check the configuration number (see the "Initialisation" section).
   - Is the configuration okay?
     - Yes: The problem disappears. Exit the initialisation procedure and turn off the system for at least 1 minute. Check the overall operation of the system.
     - No: Does the voltage vary?
       - Yes: Replace the Central Communications Unit after obtaining authorisation from Techline. Check the continuity of the wiring between the amp/tuner and the Central Communications Unit, Central Display Unit, and navigation CD-ROM reader. If the wiring is okay, replace the amp/tuner after obtaining authorisation from Techline (see the "High-end radio" Technical Note).
       - No: Does the wiring vary?
         - Yes: Replace the Central Communications Unit after obtaining authorisation from Techline.
         - No: Replace the wiring between the amp/tuner and the Central Communications Unit, Central Display Unit, and navigation CD-ROM reader.
ON-BOARD TELEMATICS SYSTEM

“Top of the Range” navigation system Fault finding chart

CHART 8 Wrong time displayed (see the Screen section for how to confirm the problem).

1. The time displayed is wrong...
   - Is the icon green?
     - No: Move the vehicle outside in a good reception area and check the satellite reception. The satellite icon must be green at the bottom of the screen.
     - Yes: Use the menus to set the time, move the vehicle outdoors and turn on the system. Wait a few seconds. If the time is wrong, replace the navigation CD-ROM reader after obtaining authorisation from Techline.

See the fault finding chart on “Poor satellite reception”
No time displayed (see the Screen section for how to solve the problem).

CHART 9

1. No time displayed
   - Time not set
     - Yes
     - No
       - No clock display.
         - With the radio on, initialise the system (refer to the Initialisation section).
         - Check the configuration numbers.
           - Does the configuration number match the vehicle?
             - Yes
             - No
               - Is it in place?
                 - Yes
                 - No
                   - Replace the navigation CD-ROM reader after obtaining authorisation from Techline.
                   - The fault is not linked to the navigation system. Check the vehicle configurations (instrument panel, etc.).
                   - Replace the Central Communications Unit after obtaining authorisation from Techline.
         - On-screen, check the location of the time display (empty rectangle or dashes).
           - Does the configuration number match the vehicle?
             - Yes
             - No
               - Is it in place?
                 - Yes
                 - No
                   - Replace the Central Communications Unit after obtaining authorisation from Techline.
No tyre pressure system display (see Screen section for how to confirm the problem).

The tyre pressure system symbol is not displayed on the screen. Turn off the ignition and wait until the system shuts down completely (1 minute). Switch the ignition back on:

- Is the fault still present?
  - Yes
  - Run a system self-diagnostic procedure to check that the "CAN V BUS" is working.
  - No
    - Does the self-test display "CAN V: OK"?
      - Yes
        - Check the tyre pressure monitoring system is functioning correctly using the diagnostic tool.
        - Carry out a multiplex network test with the diagnostic tool.
      - No
        - Is the multiplex network okay?
          - Yes
            - Check that the system is working properly using the diagnostic tool.
            - If the problem persists, replace the Central Communications Unit after obtaining authorization from Techline.
          - No
            - The fault is not linked to the navigation system. Check the vehicle wiring. Refer to the "Wiring diagrams" Technical Note.
"Top of the Range" navigation system: Fault finding charts

CHART 11
Tyre pressure monitor data displayed on a vehicle not equipped with it

Tyre pressure monitoring system data displayed on a vehicle without that feature
(see the Screen section for how to confirm the problem).

With the radio on, initialise the system and check the configuration numbers (see Initialisation).

Does the configuration number match the vehicle?

yes

no

The fault is not linked to the navigation system. Check the vehicle configurations (instrument panel, etc.).

Check the software compatibility of the parts and the part numbers.
ON-BOARD TELEMATICS SYSTEM

“Top of the Range” navigation system: Fault finding charts

CHART 12

No opener symbol displayed. See Screen section for how to confirm the problem.

1. The opening element symbol display does not appear on the screen. Turn off the ignition and wait until the system shuts down completely (1 minute). Switch on the ignition again.

   Is the fault still present?

   Yes

   Run a system self-diagnostic procedure to check that the “CAN V BUS” is working.

   No

   Does the self-diagnostic procedure display CAN V: OK?

   Yes

   Check that the system is working properly using the diagnostic tool.

   No

   Is the multiplex network okay?

   Yes

   Check that the system is working properly using the diagnostic tool.

   If the problem persists, replace the Central Communications Unit after obtaining authorization from Techline.

   No

   The fault is not linked to the navigation system. Check the vehicle wiring. Refer to the “Wiring diagrams” Technical Note.
On-board Telematics System

"Top of the Range" navigation system: Fault finding charts

Chart 13

No seat-belt indicator displayed (see the Screen section for how to confirm the problem).

The seat belt warning light display is not working. Carry out a self-test procedure on the Central Communication Unit to check the condition of the "Seat belt" input (wait about 5 seconds for each change of state).

Test the voltage on the grey connector of the Central Communications Unit (track 24):
- seat belt buckled = 12 V,
- seat belt unbuckled = 0 V.

Does the voltage vary?
- yes
- no

Replace the Central Communications Unit after obtaining authorisation from Techline.

The problem is not associated with the navigation system.
Check the vehicle wiring (refer to the "Wiring Diagrams" Technical Note).
ON-BOARD TELEMATICS SYSTEM
"Top of the Range" navigation system Fault finding charts

CHART 14 No voice messages

1. Check whether the voice-synthesiser off icon at the bottom of the screen is off (see Screen section).

   no
   Is it no unlit
   yes
   Press the '+' and '-' button on the keyboard several times.
   Press the C button.
   The pictogram should go out.

   no
   Is it no unlit
   yes
   In the Volume menu, change the voice messages parameter. The pictogram should go out.

   no
   Is it no unlit
   yes
   If the vehicle is fitted with a separate keyboard, carry out a self-diagnostic procedure.
   If the keyboard is built-in, replace the Central Communications Unit after obtaining authorisation from Techline.

   yes
   Does the keyboard work?
   no
   Replace the keyboard after obtaining authorisation from Techline.

   no
   Does the system work?
   yes
   Replace the Central Communications Unit after obtaining authorisation from Techline.

   no
   Replace the CD-ROM reader after obtaining authorisation from Techline.
CHART 14 (continued)

Do you hear the message louder?

no

Replace the navigation speaker with another (e.g. vehicle tweeter) and press the '+' and '-' button.

no

Do you hear the message "louder" and "lower" message?

yes

Replace the navigation speaker.

no

Restart guidance in the mapped area.

Does the voice synthesiser work?

no

The vehicle was in an unmapped area.

If the vehicle is fitted with the voice synthesizer option, check if it works.

no

Does the vehicle's voice synthesiser work?

yes

Check the wiring between the Central Communications Unit and the navigation CD-ROM reader. If the wiring is okay, replace the navigation CD-ROM reader after obtaining authorisation from Techline.

no

Check the wiring between the Central Communications Unit and the voice synthesiser speaker. If everything is okay, replace the Central Communications Unit after obtaining authorisation from Techline. If the problem persists, change the CD-ROM reader.

no

Check the wiring between the Central Communications Unit and the navigation CD-ROM reader. If the wiring is okay, replace the navigation Central Communications Unit after obtaining authorisation from Techline. If the problem persists, replace the navigation CD-ROM reader.
No traffic info message on the screen

1. The traffic information function works with the radio aerial. The "TMC" icon (which can be replaced by the name of the traffic info broadcaster) must be green for the system to process the traffic info. Before conducting the test, take the vehicle outdoors to an open area. Leave the vehicle outside for a few minutes for the broadcast reception to stabilise.

2. What color is the TMC icon?
   - Green: Yes
   - Red: No

3. Does the vehicle have short or screen-printed aerial?
   - Yes: Check the aerial amplifier feed via the Central Communications Unit (track 2, grey connector):
     - System on: 12 V
     - System off: 0 V
   - No: Is the voltage correct?
     - Yes: Check the vehicle wiring. If the wiring is okay, replace the Central Communications Unit after obtaining authorisation from Techline.
     - No: No TMC events transmitted by the broadcaster. Contact Techline for additional information. The system is working properly.

4. The map CD-ROM lacks the TMC Locator Table function. If a version of the map CD-ROM with a locator table appears, suggest the customer acquire the latest version CD-ROM. The system is working properly.
Check:
– the aerial connections to the Central Communications Unit, to the aerial base and the cut-off plate,
– the bent or clamped wires,
– tightening of the aerial base,
– wiring continuity and insulation.

Are they OK?

no

yes

Replace the radio aerial after obtaining authorisation from Techline.
"Top of the Range" navigation system: Fault finding charts

CHART 16 Poor satellite reception

With the radio on, initialise it (refer to the Initialisation section). The initialisation procedure includes a satellite reception aerial test.

no Does the screen display GPS aerial connected?

yes Exit the initialisation procedure and turn off the system for about 1 minute. The fault is caused by geographical disturbance The relocation procedure can last up to about 20 minutes outdoors in an open area. The pictogram should be green.

no Are they OK?

yes Using a multimeter, check the cut-off plate voltage (computer side). The voltage between core and body should be > 4.5 V.

no Is the voltage correct?

no Repair.

Replace the satellite aerial after obtaining authorisation from Techline.
Using a multimeter, check the computer aerial output voltage. The voltage between core and body should be > 4.5 V.

Is the voltage correct?

- yes
- no

Replace the aerial wire after obtaining authorisation from Techline.

Replace the navigation CD-ROM reader after obtaining authorisation from Techline.
"Top of the Range" navigation system: Fault finding charts

CHART 11

No radio display on the instrument panel or radio data on the instrument panel not refreshed

- Open the navigation screen and check the display of radio data on the Carminat screen. Change stations and adjust the volume to make sure the display is not frozen.

- Does the screen display radio data?
  - If yes, check the instrument panel for faulty radio information display. Check:
    - the multiplex links (multimedia) between the instrument panel and the navigation system (Central Communications Unit or navigation CD-ROM reader),
    - the "ON/OFF EXT" connection between the Central Communications Unit and the instrument panel. Refer to the "Wiring diagrams" Technical Note.
  - If no, are the measurements correct?
    - If yes, replace the instrument panel after receiving authorisation from your Techline.
    - If no, check the vehicle wiring. The fault is not linked to the navigation system.
MEGANE II

CHART 18 Time and temperature data displayed on instrument panel and navigation screen not the same

Difference between the time or temperature displayed on the navigation screen and the instrument panel: open the navigation screen and check the radio data displayed on the Carminat screen. Check that the time and temperature are displayed on the navigation screen.

Are they displayed?
no
Are they displayed?
yes
Reminder: when there is a loss of communication between the navigation system and the instrument panel, the time and the temperature are managed independently by each system. Therefore the difference is small.

Check the multiplex link (multimedia) between the instrument panel and the navigation system (Central Communications Unit or CD-ROM reader).

Is there a difference in the data?
no
Replace the instrument panel after receiving authorisation from your Techline.

Refer to the relevant fault finding chart.

Check the vehicle wiring. The fault is not linked to the navigation system.
The vehicle jumps around the map during guidance, the system calculates very frequently or the guidance is incorrect.

- Make sure the "simulation" option is switched off.
- In the menus, select "simulation unusable".
- Turn off the system, then test functioning.

If the problem persists, check the part numbers (horizontal instead of vertical CD-ROM reader) and the version of the map CD-ROM.
### List of monitored parts:

- Computer

### Fault Finding Log

**System:** Navigation

<table>
<thead>
<tr>
<th>Date</th>
<th>Sheet completed by</th>
<th>VIN</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Customer complaint</th>
</tr>
</thead>
<tbody>
<tr>
<td>1164 Reception fault</td>
</tr>
<tr>
<td>1161 Problem with opening or closing the screen</td>
</tr>
<tr>
<td>1158 Guidance voice message fault</td>
</tr>
<tr>
<td>1163 Sound fault on a speaker</td>
</tr>
<tr>
<td>1160 Faulty control on radio front panel</td>
</tr>
<tr>
<td>1157 Satellite reception problem (GPS)</td>
</tr>
<tr>
<td>1162 Problem playing the CD-ROM (single disc)</td>
</tr>
<tr>
<td>1159 Display fault</td>
</tr>
<tr>
<td>1156 Navigation guidance fault</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Other Your comments</th>
</tr>
</thead>
</table>

### Conditions under which the customer complaint occurs |

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>Low temperature</td>
</tr>
<tr>
<td>Regular</td>
<td>Ambient heat</td>
</tr>
<tr>
<td>Intermittent</td>
<td>Very great heat</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>In town</td>
</tr>
<tr>
<td>In the country</td>
</tr>
<tr>
<td>In mountainous regions</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Other Your comments</th>
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</table>

### Documentation used in fault finding

<table>
<thead>
<tr>
<th>Fault finding procedure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of fault finding manual: Workshop</td>
</tr>
<tr>
<td>Technical Note</td>
</tr>
<tr>
<td>Assisted fault finding</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Wiring diagram used</th>
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</thead>
<tbody>
<tr>
<td>Wiring Diagram</td>
</tr>
<tr>
<td>Technical Note</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Other documentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title and/or part no.: FD 98</td>
</tr>
</tbody>
</table>

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Description:

- Have the navigation system been fitted in factory?
- Have you checked the supplies?
- Have you checked the earths?
- Have you checked the component connections (radio navigation unit, Central Communications Unit, CD-ROM drive, display or screen)?
- Have you checked the aerial amplifier connections to the "printed circuit"?
- Have you checked the satellite reception aerial connections?

Your comments:

FD 98