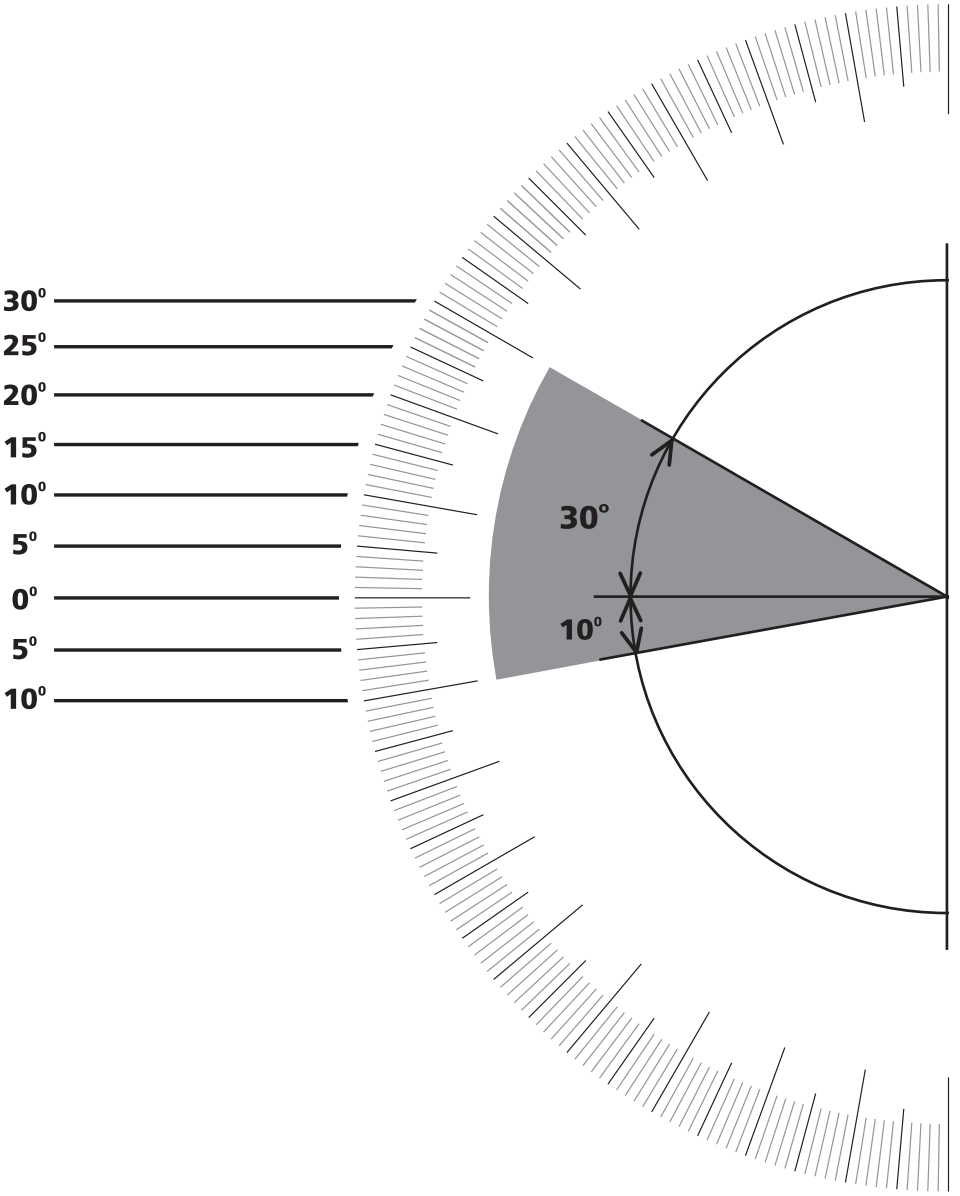
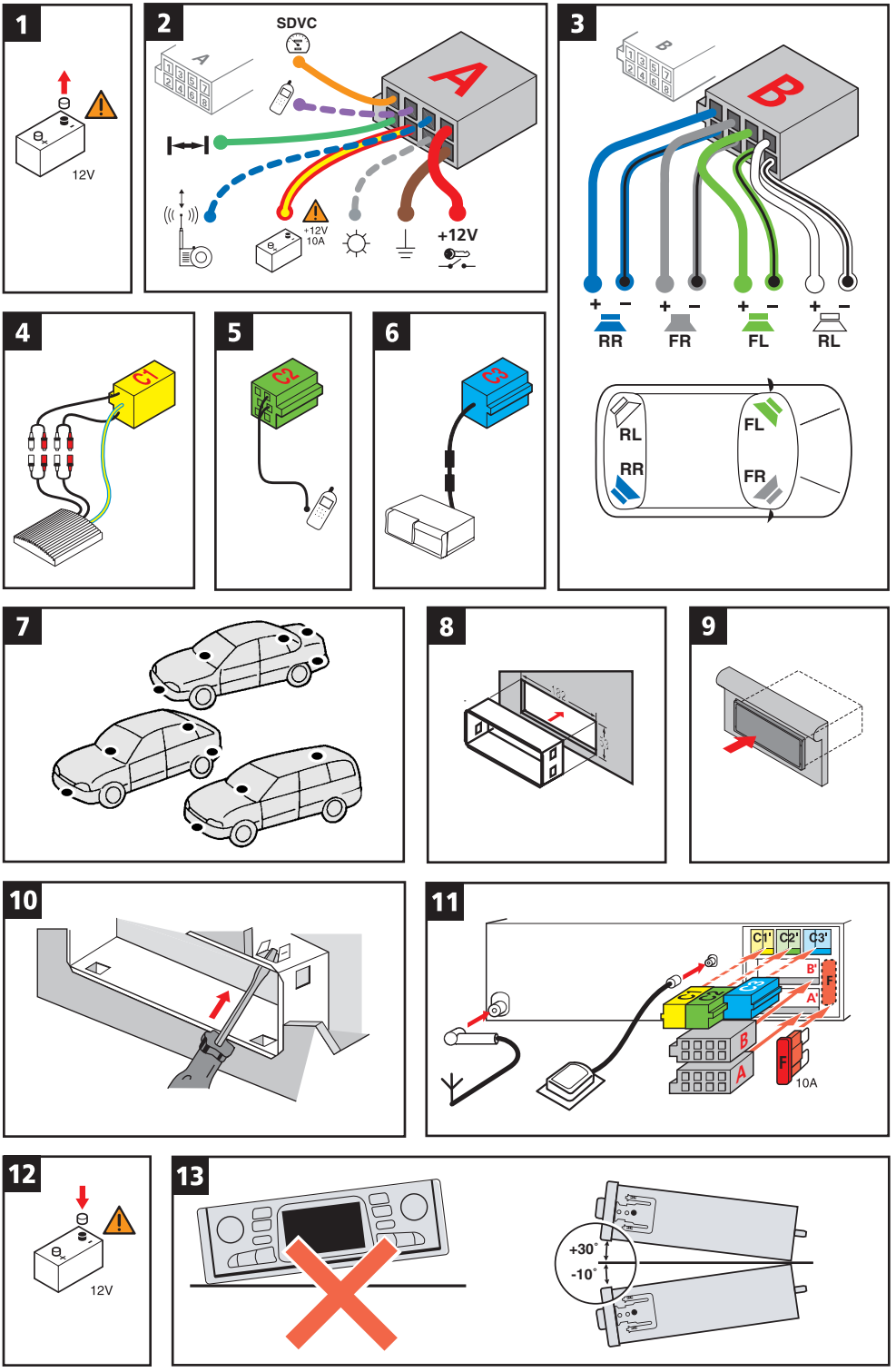
MS 4100

User manual
Mode d'emploi
Bedienungsanleitung
Gebruiksaanwijzing
Istruzioni d'uso

English
Français
Deutsch
Nederlands
Italiano


30°
25°
20°
15°
10°
5°
0°
5°
10°
30°
10°


1
12V
2
SDVC
A
+12V
10A
+12V
3
B
RR
FR
FL
RL
4
C1
5
C2
6
C3
7
8
9
10
11
C1'
C2'
C3'
B'
A'
F
10A
12
12V
13
+30°
-10°

Attention!

Only use this system when it is safe to do so. It is more important to keep your eyes on the road and your hands on the wheel.

Due to constantly changing traffic conditions, we unfortunately cannot guarantee 100 % precision under all circumstances.

Attention !

N'utilisez le système que si vous ne mettez pas en danger votre vie ou celle des autres usagers de la route. Il est plus important de surveiller le trafic routier et d'avoir les mains sur le volant que de lire les informations apparaissant sur l'écran.

Étant donné que le sens de circulation a pu être changé entre temps, nous ne pouvons pas vous garantir une exactitude à 100 % des indications données.

Achtung!

Benutzen Sie das System nur, wenn die Sicherheit es zuläßt. Es ist wichtiger, auf den Verkehr zu achten und die Hände am Lenkrad zu lassen.

Aufgrund sich ständig ändernder Verkehrsführungen kann leider keine 100 %ige Genauigkeit unter allen Umständen gewährleistet werden.

Belangrijk!

Gebruik het systeem uitsluitend, als de veiligheid het toelaat. Het is belangrijker om op het verkeer te letten en de handen aan het stuur te houden.

Op grond van voortdurend veranderende verkeerssituaties kan helaas geen 100 % nauwkeurigheid onder alle omstandigheden worden gegarandeerd.

Attenzione!

Usare questo sistema solo se il traffico lo ammette. E´ importante tenere d´occhio la strada e le mani sul volante.

A causa dei cambiamenti continui della viabilità non si può garantire una precisione assoluta in tutte le circostanze.

►

CONTENTS

IMPORTANT INFORMATION

⚠ **Only trained specialists may install the unit.**

⚠ **Observe the automotive industry quality standards.**

⚠ **Fire hazard! When drilling, care must be taken not to damage hidden cable harnesses, the fuel tank and fuel lines.**

⚠ **Never drill into supporting or safety-relevant chassis parts.**

⚠ **Install only in vehicles with 12 V on-board voltage and negative earth to the body. Risk of malfunction, damage and vehicle fire if installed in unsuitable vehicles (e. g. heavy goods vehicles, busses).**

⚠ **High voltages are present inside the unit. Therefore, in order to prevent the danger of an electric shock, never open the housing.**

Connection in vehicles equipped with standard ISO connectors

The navigation radio may be installed without major preparation in vehicles equipped with ISO standard connectors. Some signals may have to be connected to ISO connector A (refer to "Connection overview ISO chamber A").

For vehicles with different connection requirements, ask your dealer for special cables for a problem-free installation (refer to the attached overview of connector cables).

Connection in vehicles without standard ISO connectors

If no adapter cables are available for your vehicle, connect the navigation radio as described in "Electrical connections".

Taking safety precautions, Fig. 1

⚠ **Before starting work, disconnect the earth cable from the vehicle battery's negative terminal in order to prevent short circuits. For this purpose, follow the vehicle manufacturer's safety instructions (alarm system, airbag, immobiliser, etc.).**

Make electrical connections

Route all cables with care. For the cabling, refer to the connection illustration on the cover pages and the following table.

Do not cut off non-assigned cables. Instead, wrap them up and fix them to one side. They may be necessary for retrofitting additional functions.

Connection overview, ISO chamber A, Fig. 2:

Pin	Cable colour	Connection
A1	Orange	Input speedometer signal / SDVC
A2	Green	Switch input reversing signal (reversing light plus)
A3	Purple	Switch input telephone mute function
A4	Red	+ 12 V permanent positive; terminal 30
A5	Blue	Switch output for automatic antenna / relay motor antenna
A6	Grey	Switch input pilot light
A7	Purple	+12 V ignition positive; terminal 15 (without switch-off on starting engine)
A8	Brown	Battery negative; terminal 31

⚠ **Only connect electrical signals to suitable connecting points in the vehicle.**

⚠ **If connection is made directly to the battery, protect the positive lead (red lead) with a 10 A fuse close to the battery (max. distance 10 to 15 cm).**

■ Speedometer signal (A1):

Connect orange lead A1 to the vehicle speedometer signal. Refer to the vehicle-specific data sheets for location and connection details (available on CD-ROM).

Note: Many vehicles are equipped with a speedometer signal on one of the radio connectors. For further information contact your vehicle dealer or our hotline.

⚠ **Never collect the speedometer signal from the ABS control!**

■ Reversing signal (A2):

Connect green lead A2 to a suitable point of the reversing signal lead (positive lead of reversing lamp).

■ Telephone mute function (A3), optional:

Connect purple lead A3 to the mute function output of the car phone or the hands-free unit. When the telephone is in use, the radio is muted or the telephone conversation is amplified via the car loudspeakers. See also “Green connector C2” on the following page.

■ 12 V permanent positive (A4):

Connect yellow/red lead to a suitable connector with 12 V permanent positive.

⚠ **This connection should be rated for a current of at least 10 amps.**

■ Electronic antenna / motor antenna (A5), optional:

Connect blue lead A5 to the supply lead of an electronic antenna or to the control lead of a motor antenna.

⚠ **Do not use this connection to supply the antenna motor.**

■ Pilot lighting (A6), optional:

Connect grey cable A6 to a suitable connector of the low-beam positive lead.

When the low beam is switched on, the illumination around the two turn buttons is switched on, even if the radio is switched off.

■ 12 V ignition positive (A7):

Connect red lead A7 to a suitable 12 V circuit switched through the ignition.

Connection overview ISO chamber B (loudspeakers), Fig. 3:

Pin	Cable colour	Connection to loudspeaker
B1	Blue	+ Rear right (RR+)
B2	Blue/black	- Rear right (RR-)
B3	Grey	+ Front right (FR+)
B4	Grey/black	- Front right (FR-)
B5	Green	+ Front left (FL+)
B6	Green/black	- Front left (FL-)
B7	White	+ Rear left (RL+)
B8	White/black	- Rear left (RL-)

⚠ **Use only loudspeakers of 4 Ohms impedance.**

⚠ **Do not connect the loudspeakers to earth.**

⚠ **Do not connect the booster/amplifier directly to the loudspeaker outputs.**

⚠ **Do not connect loudspeakers via an external fader.**

Connections ISO chamber C, Fig. 4 - 6

Yellow connector C1 (line-out):

An amplifier with additional loudspeakers can be connected to the unit via this connector.

- Connect the "FRONT" lead to the front left (white) and front right (red) channel of the amplifier.
- Connect the "REAR" lead to the rear left (white) and rear right (red) channel of the amplifier.
- Connect the blue/yellow lead to the remote control (REMOTE) of the amplifier.

Green connector C2 (telephone input, adapter cable accessories):

Connect the loudspeaker output of the mobile phone or hands-free unit to the yellow connector at the end of cable C2. For information about setting the telephone attributes, refer to "INITIALISATION" ➠ Page 39.

Blue connector C3 (CD changer):

You can connect a CD changer (CH0400, CH0600 or CH1000) with digital output to the unit. For further information refer to the installation instructions for the CD changer.

Installing the GPS antenna, Fig. 7

The GPS antenna may be installed in the passenger compartment, for example on the dashboard or the rear shelf. The antenna needs to have unrestricted "visual contact" to the sky.

- Clean the mounting surface and attach the antenna with the double-sided adhesive tape.
- Vehicles with metallised windows should have the antenna installed on the boot lid, on the roof or in the plastic bumper.

Note: To guarantee the functioning of the antenna, maintain a minimum distance of 10 cm to any metal parts (window frame, etc.) during installation.

Install installation bracket, Fig. 8 - 10

The navigation radio can be installed into a vehicle's DIN radio slot using the installation bracket provided.

Note before installing, Fig. 13

- The radio must be installed horizontally. Deviations of - 10 to + 30 degrees can be set in the "Mounting angle" menu (see "Initial operation"). Larger deviations may result in malfunctions.
- A rigid connection to the vehicle body is a prerequisite for correct functioning of the system.

Insert the installation bracket into the DIN slot and bend the appropriate metal tabs inwards using a screwdriver. Take care not to damage any hidden parts in the dashboard.

Mounting the radio, Fig. 11

1. Connect the GPS antenna connector to the GPS antenna socket on the back of the unit.
2. Insert antenna plug E into antenna socket. If necessary, use antenna adapter EA6257/00. Use hook (J) on the back of the unit for secure attachment.
3. Insert ISO plug A (power supply) into the radio ISO socket A'.
4. Insert ISO plug B (loudspeakers) into the radio ISO socket B'.

   If extensions are to be connected to the unit (optional):
5. Remove the dust cover from ISO socket C'.
6. Push all chamber C connectors together and plug them into the radio ISO socket C'. Push the green connector C2 between the yellow connector C1 and the blue connector C3. At least one of these connectors is required for C2 to engage into the socket.
   Yellow plug C1: Left chamber of ISO socket C1'.
   Green connector C2: Centre chamber of ISO socket C2'.
   Blue plug C3: Right chamber of ISO socket C3'.
7. Push the unit into the mounting frame until it engages.

Note: Always securely install the radio before connecting to the power supply. Otherwise the gyro sensor may be calibrated incorrectly.

Initial operation, Fig. 12

1. Reconnect the battery.
2. Restore complete functioning of the electrical system (clock, on-board computer, alarm system, airbag, immobiliser, etc.).
3. Switch on the ignition.
4. Insert the map CD in the radio.
5. Park the vehicle outdoors to ensure unimpeded GPS reception.
6. Switch on the ignition and the radio.
7. Press the **NAV** button and confirm the user information by pressing the **PUSH – TURN** button.
   The main menu appears. The navigation radio will now initialise.
   After connection of the power supply, the integrated GPS receiver requires approximately 2 to 10 minutes until GPS reception is satisfactory.

■ Setting the mounting angle

In order to ensure perfect functioning of the system, the navigation radio must be set to the actual installation angle in the instrument panel. The angle scale on the inner cover can be used to determine the mounting angle in degrees.

1. In navigation mode:
   Select the option "Mounting angle" in the "Settings" menu.
2. Depending upon the installation, set the angle to between -10 and +30 degrees. The system does not differentiate between negative and positive angles. Thus, even for a mounting angle of, e.g. -10 degrees, set a value of "10" in the menu.

■ Loudspeaker test

To check the correct connection of the loudspeakers the function "Loudspeaker Test" in the "INITIALISATION" menu can be performed. ➽ Page 39.

■ Setting the clock and the time zone

To ensure that the correct time is always displayed, select the option "GPS" in the "INITIALISATION" menu under "Clock settings" and set the time zone for your location. ➽ Page 39.

Checking the vehicle functions

⚠ **Check the safety-relevant vehicle functions only when the car is stationary or at moving at low speed. Only perform check in an open area.**

Brake system, alarm system, lights, immobiliser, speedometer, on-board computer, clock.

■ Checking GPS reception

Enter a destination and select "Guidance". Call up info screen i3, "System info", and check the number of satellites. For a sufficiently exact location determination the number should be between 4 and 8.

■ Calibrating the system

For automatic calibration, perform a short test drive (approx. 10 minutes) on digitised roads. Change direction several times.

Drive through several intersections and monitor the current vehicle position on info screen i1 "Car position". Once the displayed position agrees with the actual car position, calibration is complete.

Hotline

Hotlines are available in many countries to handle queries about the VDO Dayton multimedia systems:

GB 0121 344 5400

AUS 1 800 335 282 Toll Free or (03) 94503166

Subject to technical modifications and errors.

Notes on the Operation Guide

The following reading aids are used to simplify this Operation Guide:

☞ requests you to do something.

shows the unit's reaction.

– identifies a list.

⚠ **Safety instructions and warnings contain important information for the safe use of the unit. Failure to observe this information may result in a risk of damage or injury. Therefore, please observe this information with particular care.**

WARNING: Important information for safe operation

⚠ **The use of the navigation radio by no means relieves the driver of his/her responsibilities. The highway code must always be observed. Always observe the current traffic situation.**

⚠ **The applicable traffic laws and the prevailing traffic situation always take precedence over the instructions issued by the navigation system if they should contradict one another.**

⚠ **For traffic safety reasons, use the navigation system menus only before starting a journey or when the vehicle is stationary.**

⚠ **In certain areas, one-way streets, turn off and entry prohibitions (e.g. pedestrian zones) are not recorded. The navigation system issues a warning in such areas. Pay particular attention to one-way streets, turn off and entry restrictions.**

Class 1 laser product

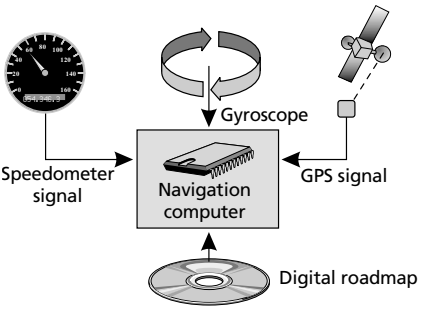
CAUTION: Any inappropriate use of the device may expose the user to invisible laser rays which exceed the limits for Class 1 laser products.

How does the navigation system work?

The VDO Dayton Navigation Radio is a high-performance tool for assisting the driver in everyday traffic. With automatic route planning and directional guidance you can concentrate on the essentials on today's increasingly congested roads – especially in urban areas. Complicated and time-consuming planning with conventional road and city maps is no longer required. Simply enter the destination before beginning your journey, activate "Guidance" and the VDO Dayton Navigation Radio does everything else for you.

The VDO Dayton Navigation Radio provides you with visual and acoustic driving information. The system is easy to operate with few control elements and a clearly structured menu.

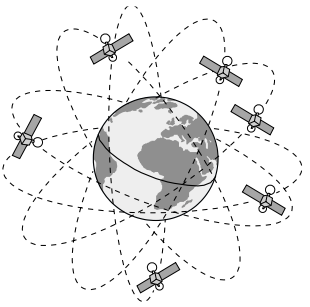
Determination of vehicle position



The position and movements of the vehicle are recorded by the navigation system's sensors. The distance travelled is determined by an electronic speedometer signal, rotary motion in curves is detected by the gyroscope (inertial compass). However, the information provided by these sensors is not always precise. The sensor values change as a result of wheel slip, changes in the tyre pressure due to temperature variations, etc. It is possible to correct sensor inaccuracies over a certain period of time (several minutes) by comparing the signals with the digital map. However, the signal provided by the GPS satellites is required in order to correct the data over a longer period of time.

GPS (Global Positioning System)

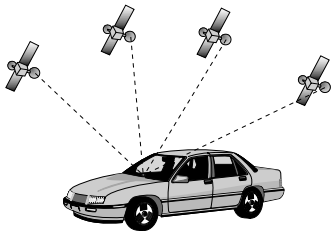
The GPS system is based on the reception of navigation signals from 27 GPS satellites which orbit the earth at an altitude of 21,000 km in approximately 12 hours. The signals from at least 4 satellites are needed for three-dimensional positioning, i.e. determination by latitude, longitude and altitude. The achievable accuracy lies within 30 m to 100 m. If the signals of only three satellites can be received, only two-dimensional positioning is possible without determination of the altitude. The accuracy of the calculated position is thus diminished. Altogether, the integrated GPS receiver can receive the signals of up to 8 satellites at the same time.



Important notes on the function of your navigation radio

In principle, the system is functional with poor GPS reception, although the accuracy of the positioning may be impaired by poor or interrupted GPS reception or errors can occur in the determination of the position, which result in incorrect position reporting.

Start-up characteristics



If the vehicle is parked for longer periods of time, the satellites continue their orbit. After the ignition is turned on, it may take several minutes until the navigation system receives signals from sufficient satellites for evaluation.

During the start-up sequence, it is possible that the navigation system will report: "You are leaving the digitised area". The navigation system assumes that the vehicle is located outside a digitised area. If other roads exist in this area, the navigation system may issue incorrect messages. The navigation system assumes that the vehicle is located on another road.

Thus the function of the system may be temporarily impaired after a vehicle has been stationary for a longer period of time. The navigation system will operate reliably as soon as GPS reception is again adequate.

Comments

After transport of the vehicle by train or ferry, the navigation system may require a few minutes for exact positioning.

After disconnecting the vehicle battery, up to 15 minutes may be required for exact positioning. For this, the vehicle must be outdoors and the system must be switched on in order to receive transmissions from the GPS satellites.

Limited GPS reception

Interruptions or disturbances of GPS reception while driving for several kilometres, may cause impaired function. No or faulty GPS reception may occur:

- between tall buildings
- in car parks, tunnels or under bridges
- in forests or on tree-lined roads
- during rainstorms and thunderstorms
- in the event of unfavourable satellite constellations in conjunction with the GPS antenna installation position (in this case reception may be disrupted over a longer period of time)
- in alpine valleys.

The system is capable of functioning, even with poor GPS reception, but the accuracy of the positioning may be limited.

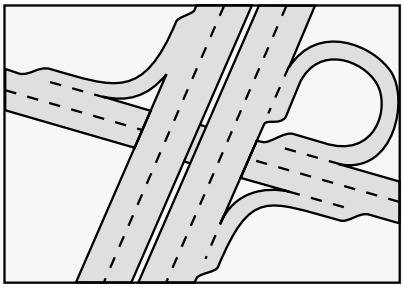
Sufficient GPS reception should be available for about 95% of travel time with a properly installed GPS antenna. Unfavourable positioning of the GPS antenna may account for more frequent disruptions to reception. If this should be the case, contact the workshop responsible for installation of your VDO Dayton device. The navigation system can compensate for GPS reception problems for several minutes or kilometres without functional impairment.

In order to avoid interference or malfunctioning of the system, the GPS antenna must not be covered by any objects.

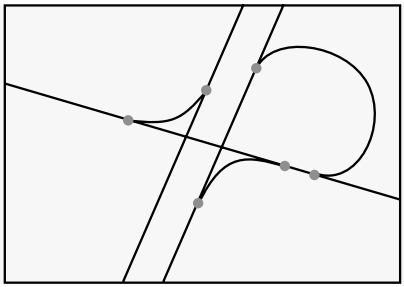
Stickers on the vehicle windscreen near the GPS antenna may also interfere with reception.

The digital road map

To be able to plan a route to a destination address, the navigation system not only requires the current position of the vehicle but also a digital road map containing the destination address itself and the roads leading to the destination address. This digital road map is on the map CD which you insert into the navigation computer.



Real road network



Digital line model

The road system is stored on the map CD as a line model, i.e. even large junctions have only one focal point that is approached by all roads in point-to-point fashion. Thus the navigation system indicates the distance to the turn-off point as the distance to the centre of the junction. This is why the distances indicated on main road signs may not agree with those of the navigation system. The road signs indicate the distance to the beginning of the exit.

Areas with limited road information

In some areas, not all of the information on a road is available on the map CD. Thus, for example, turn-off prohibitions, information on the direction of travel in a one-way street or prohibited entry into a pedestrian zone may be missing. The navigation system will display a warning if you drive into such an area. Local traffic laws always take precedence over navigation system instructions. Always observe the road signs and motor vehicle traffic regulations.

Topicality of the map CD

Roughly 10 - 15% of the road system characteristics change each year. Due to these constantly changing traffic conditions (construction of new roads, traffic calming, etc.) we cannot guarantee that the digital road map will be in 100 % agreement with existing traffic conditions. We recommend that you always use the most current version of the map CD for navigation.

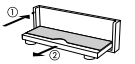
The system has the following safety functions to prevent theft:

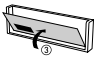
Removable operating panel

Take the removable operating panel with you, whenever you leave the vehicle. Keep the panel in its protective case. Always replace the operating panel before driving off. When the front is opened, acoustic signals will sound (independent of the presence of the removable operating panel).

Removing the operating panel

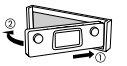
1. Open the front by pressing the release button.
2. Pull the operating panel from its metal bracket.
3. Push the metal bracket back up.





Re-inserting control panel

1. Insert the operating panel with the right or the left side first.
2. Push the operating panel until it snaps into place.



To ensure a good connection between the device and the operating panel we recommend that you clean the contacts occasionally with a cotton swab.

Switchable warning display

If the vehicle ignition is switched off and the operating panel was removed, a red warning light blinks.
You can turn off the blinking alert. For further information see “INITIALISATION,” option “Warning light.” ➽ page 39.

Safety sticker

☞ Affix the safety stickers provided to the vehicle windows.

CAUTION:

⚠ **For reasons of safety please ensure that the removable operating panel is always flipped up (closed) when driving.**

RDS (Radio Data System)

Many FM stations transmit RDS information. The VDO navigation radio evaluates the RDS telegram and offers the following advantages:

- Display of station name (PS),
- Station selection by program type (PTY),
- Automatic re-setting of best alternative frequency (AF),
- Traffic announcements (TA),
- News (NEWS),
- TMC Traffic announcements (for dynamic navigation).

Notes on audio CDs

You can play 12 cm audio CDs on your CD player. The use of 8 cm CDs (with or without adapter) and of CDs with irregular shapes is not recommended.

Notes on map CDs

The VDO Dayton navigation system is based on a database that is contained, in a special format, on a CD. We recommend that you always use the most current edition of these map CDs.

Your authorised VDO Dayton dealer will provide you with ordering and pricing information on map CDs for other countries or regions.

Comments:

Only use original VDO Dayton map CDs. VDO Dayton map CDs are specifically developed for the VDO Dayton navigation system and can only be read by that system.

If the last entered destination is not or only partially contained on the new map CD, the address or the not available parts will be erased.

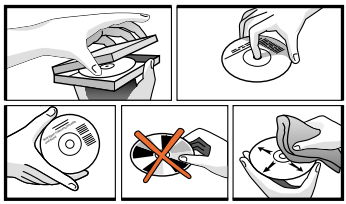
Handling CDs

Avoid leaving fingerprints on the CD when removing it.

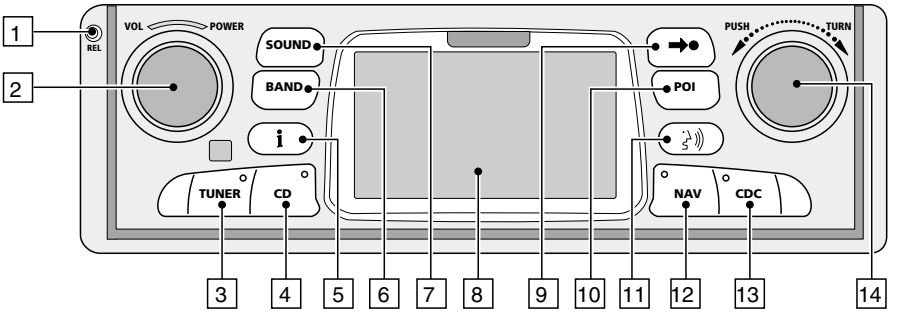
Always store map and audio CDs in their protective covers.

Always ensure that CDs are clean and dry before inserting.

Protect CDs from heat and direct sunlight.



Control elements



1 **REL** . . . . . Release button for removable control panel

2 **VOL – POWER** . Press: Switching on / off
Turn: Set volume

3 **TUNER** . . . . . Radio mode. ➽ Page 33
In radio mode: Opens the "RADIO" menu.

4 **CD** . . . . . CD player mode. ➽ Page 36
In CD player mode: Opens the "CD" menu.

5 ***i*** . . . . . Opens the "INFORMATION" menu. ➽ Page 28.

6 **BAND** . . . . . Opens the "BAND SELECTION" menu (in radio mode). ➽ Page 32

7 **SOUND** . . . . . Opens the "SOUND" menu. ➽ Page 30

8 . . . . . Display

9 ➡● . . . . . Opens the list of addresses stored in the address book. ➽ Page 58.

10 **POI** . . . . . Opens the "Info on car pos." menu. ➽ Page 45.

11 . . . . . Play back current guidance direction and (if available) the current TMC message. ➽ Pages 49, 50.

12 **NAV** . . . . . Opens the Navigation menu. ➽ Page 26.

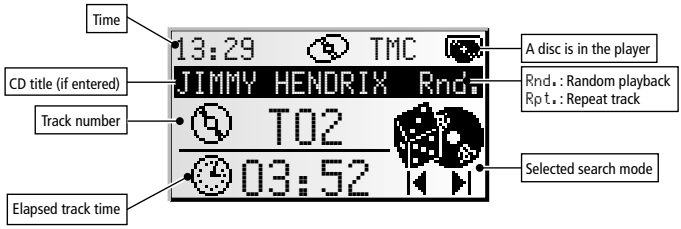
13 **CDC** . . . . . CD changer mode. ➽ Page 38
In CD changer mode: Opens the "CHANGER" menu.

14 **PUSH – TURN** . Turn: Moves the cursor in the menus.
Press: Confirms a selection in the menus.
For radio, CD player and CD changer: Switch search mode type.

Displays

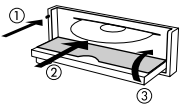
In radio mode:

In CD player mode:



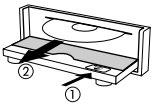
In CD changer mode:

Inserting a CD



1. Open the front panel.
2. Insert the CD into the drive (printed side up).
   For audio CDs, playback starts automatically.
3. Close the front panel.

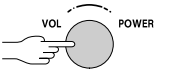
Removing a CD



1. Press the eject button to open the front panel.
2. Carefully remove the CD and close the front panel.

Switching on / off

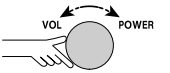
☞ Press the **VOL – POWER** knob to switch the unit on or off.



Volume

⚠ **When setting the volume, please make sure that traffic noises (horns, sirens, emergency vehicles, etc.) are still audible.**

☞ Turn the **VOL – POWER** knob to set the volume.

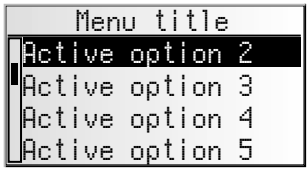


Note: The volume can be reduced quickly by rapidly turning the **VOL – POWER** knob anti-clockwise (MUTE).

Menu operation

Cursor

The currently selected line or field on the screen is designated as the cursor. The cursor is identified by an inverse field (white letters on black background).



☞ Move the cursor by turning the **PUSH – TURN** button.

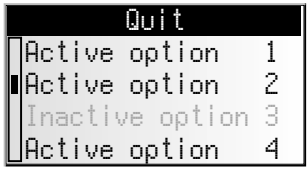
☞ Confirm your selection by pressing the **PUSH – TURN** button.

💻 To confirm, the cursor will be displayed briefly as a frame around the selected field.

Currently non-available options appear grey.

Scroll bar

All menus display a scroll bar on the left side of the screen. It shows the part of the menu in which to find the cursor.



☞ Move the cursor to a menu entry at the top or bottom of the screen by turning the **PUSH – TURN** button.

☞ Turn the **PUSH – TURN** button further in the same direction.

💻 The screen automatically displays the next menu items.

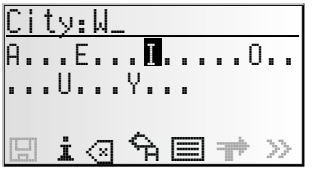
In all menus except the main menu, the menu title changes to the option "Return" or " QUIT", when you move the cursor to the top of the screen.

☞ Confirm "Return" or "QUIT" by pressing the **PUSH – TURN** button, in order to quit the menu,

or

☞ turn the **PUSH – TURN** button further anti-clockwise, in order to move further upwards in the menu.

Entering letters



Characters are entered by selecting letters from a list. In the following, this type of entering will simply be called “typewriter”.

☞ Move the cursor to the desired letter by turning the **PUSH – TURN** button.

☞ Confirm your selection by pressing the **PUSH – TURN** button.

Non-selectable letters are displayed as dots and will be passed over automatically by the cursor.

Options for entering characters

The line at the bottom of the display displays command symbols which allow you to perform the following functions:

: Save an address in the personal address book.

: Jump to menu “Special dest.”. See page 45.

: Delete the character entered last.

: Cancel entry of address and return to destination entry menu.

: Display a list of database items.

: End of destination input and automatic start of guidance.

: Accept the data entries and go to the next input step.

OK : Accept the data entries (e. g. when entering CD tracks).

Depending on information already entered, one or more options may not be selectable (grey).

Intelligent ‘typewriter”

When you enter names of cities and roads or special destinations, the system compares the character string already entered with all database entries on the map CD.

Once you select a character, you will notice that only certain letters remain displayed. The navigation system automatically completes entries if only one possible entry is left.

Different input methods

The database allows you to enter the different parts of compound city or road names in varying sequence.

Thus, you may begin entering “Frankfurt am Main” by inputting “MAIN” or “AM.”

Entering special characters

The typewriter provides the space and the period and, depending upon the language selected, certain country-specific accented characters.

For “ß,” enter “ss”. The system will the automatically recognise the “ß”, if there is an entry containing an “ß”.

Normal and expert modes

With its radio, CD and CD changer modes, the unit offers two possible methods for selecting the functions. You can choose between the "Expert" and the "Common" modes.

The "Expert" mode reduces the number of operator steps when selecting search functions. Instead of four buttons you need only use two to activate a function.

Choosing the user mode

☞ Press the **SOUND** button.

☞ Select option "Initialisation".

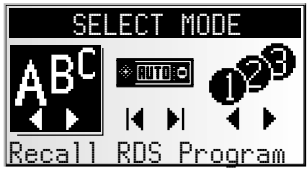
☞ Select "User:" from the "Initialisation" menu.

☞ Select either "COMMON" or "EXPERT".

We will use the search function in radio mode to illustrate the difference between the common and the expert mode:

Activating functions in common mode:

1. Press the **PUSH – TURN** button, in order to call up the "SELECT MODE" menu.



2. Turn the **PUSH – TURN** button, in order to select the search mode.

3. Press the **PUSH – TURN** button, in order to confirm the selection.

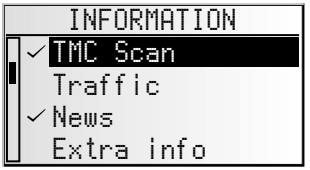
4. Turn the **PUSH – TURN** button, in order to start the selected search.

Activating functions in expert mode:

1. Press the **PUSH – TURN** button once or several times in order to select the search mode.

2. Turn the **PUSH – TURN** button, in order to start the selected search.

The "INFORMATION" menu



The "INFORMATION" menu allows you to configure the type and amount of information the unit will receive via the radio data system (RDS).

☞ Press the *i* button.

💻 The "INFORMATION" menu is displayed.

The following options are available:

TMC Scan (Traffic Message Channel)

If you activate this function, the automatic search will only look for stations transmitting TMC information. TMC data are used in navigation mode for dynamic guidance. An increasing number of RDS stations transmit these TMC data. See also "Behaviour of TMC and TA" on the following page.

TMC is not yet available in all countries.

Traffic programme (TA)

Activate this function if you wish to hear traffic announcements (TA). Using the RDS-EON function, the unit can also receive the traffic announcements of other stations. See also "Behaviour of TMC and TA" on the following page.

News (NEWS)

Activate this function, if you wish to listen to news, e. g. even when a CD is playing or when the unit is set to mute. Using the RDS-EON function, the unit can also receive the news from other stations.

News broadcasts may be interrupted by traffic announcements.

The "News" function is not yet available in all countries.

Extra info

Display of information on the selected station:

- recall number (if the station was stored),
- station name (for RDS stations),
- frequency,
- program type (PTY, if the station transmits the PTY ID) and
- the selected sound type for radio mode.

Ann. Level

Set the volume difference for traffic announcements, news and alerts to the current volume setting.

Guid. Level

Setting the NAV volume controls the volume of announcements (in navigation made); it can be set from 0 to 7. 0 is for the lowest volume, 7 for the highest.

Behaviour of TMC and TA

You have a choice between the TMC Scan and the traffic announcement (TA) functions. You cannot select both functions simultaneously. If you switch on TMC Scan, you ensure that the radio will only search for stations transmitting TMC data during the automatic search. The data relevant for your route will be used for the guidance; in case of traffic obstructions, a detour will be suggested.

If you do not need guidance or are listening to an audio CD, yet you do not wish to go without current traffic announcements, switch on the traffic programme function. In that case the radio will play the traffic announcements even if it is in CD or CD changer mode or muted.

Depending on the selected function and the station, the radio display will show the TA or TMC status:

Station transmitting …		**Displayed message … with setting in the "INFORMATION" menu:**		
		Traffic announcements on	**TMC Scan on**	**Both off**
no TA	no TMC	TA	TMC	No display
no TA	TMC	TA	**TMC**	TMC
TA	no TMC	**TA**	TMC	TA
TA	TMC	**TA**	**TMC**	TMC

The ‘SOUND”menu

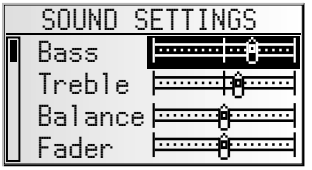
In the “SOUND” menu, you can set your navigation radio’s sound and several other sound reproduction parameters to your own preferences.

☞ Press the **SOUND** button.

💻 The “SOUND” menu is displayed.

The following options are available:

Sound settings



☞ Select the desired option by turning the **PUSH – TURN** button.

☞ Press the **PUSH – TURN** button in order to activate the setting.

☞ Move the slide control to the desired setting by turning the **PUSH – TURN** button.

☞ Press the **PUSH – TURN** button in order to store the setting.

– Bass: Setting the bass (low tones).
– Treble: Setting the treble (high tones).
– Balance: Setting of volume balance
left right.
– Fader: Setting the volume distribution rear <–> front.
Slide control left: rear
Slide control right: front

Bass and treble setting are adjusted separately for each sound source.

Loudness

☞ Activate this function to increase low and high tones at low volume settings.

Sound Style

☞ Select one of the pre-set tone types.

☞ Select “User”, to retain your own bass and treble settings.
For each sound source, the tone type is stored separately.

GALA (speed-dependent volume increase)

☞ Choose a setting for the speed-dependent increase of the volume.

☞ Select OFF to deactivate the function or 1 ... 5 to choose the desired volume increase.
1 is the lowest, 5 the highest volume increase.

Sound Setup

Setting one of the following functions:

- `Sound Reset`: Reset the sound setting to the factory-set values and switch off loudness.
- `Leveller`: Activate this function to equalise volume differences between the various sound sources.
- `Loud Low`: Set the enhancement of low tones at loudness.
- `Loud High`: Set the enhancement of high tones at loudness.
- `Bass Freq`: Select the transitional frequency for the low tones.
- `Treb Freq`: Select the transitional frequency for the high tones.

Initialisation

See “INITIALISATION” ➽ Page 39.

Radio

Listening to radio

If the unit is not yet in radio mode:

☞ Press the **TUNER** button.

Select waveband

In radio mode:

☞ Press the **BAND** button.

☞ Select the desired waveband and press the **PUSH – TURN** button to confirm.

Setting stations

Stations can be set or sought in various manners

(Example user mode "Expert"):

1. Press the **PUSH – TURN** button once or several times in order to select the search mode.
2. Turn the **PUSH – TURN** button, in order to start the selected search.

Recall RDS stations by name (only for FM)

The stations are sorted alphabetically.

If you hear an error message:

Refresh the station name list by activating "RDS Memo." ➽ next page.

Automatic search

The radio searches for stations with strong signals.

If "Traffic Programme" is activated, the radio will search only for stations from which traffic announcements can be received.

Tuning to a stored station

Select one of the stations already stored manually or using autostore.

Setting frequency manually

(if "Manual tuning" is activated. ➽ next page.)

After 50 seconds or after the selection of another tuning method, the radio will switch back to automatic frequency tuning.

The ‘RADIO”menu

In radio mode:

☞ Press the **TUNER** button.

The “RADIO“ menu is displayed.

The following functions are available:

RDS Memo (only on FM)

Searches for all currently available RDS stations and stores them in alphabetic order.

☞ Activate this function to refresh the RDS Memo.

Refreshing the RDS Memo may require up to 30 seconds.

Autostore

☞ Activate this function to automatically store up to 10 FM/AM stations with strong signals on the FM AS or AM AS waveband.

Storing Preset

☞ Select the “Store Preset” function to add the currently selected station to the station list. The storage function can store up to 30 stations.

This function is not available for the autostore wavebands FM AS and AM AS.

Recall Program (only on FM)

☞ Select a station from the alphabetically sorted stations list (RDS Memo).

Recall Preset

☞ Select a previously stored station from the station list.

Manual tuning

☞ Activate this function to set a frequency manually, for example, if the desired station cannot be set using the automatic search function.

RDS Memo Dyn.

When you are listening to a CD or when the radio is muted, it performs an automatic search across the complete waveband range every 15 minutes and refreshes the RDS Memo.

☞ Activate this function in order to always have a current list of receivable RDS stations.

“TMC” will be switched off automatically when you activate “RDS Memo Dyn.”. “RDS Memo Dyn.” will be switched off automatically when you switch on TMC.

Scan FREQ/PRST (Preview stations)

☞ Activate this function in order to briefly play stations within the desired waveband.

☞ Press the **PUSH – TURN** button to cancel the scanning process and to listen to a station of your choice.

The scan type (storage or waveband scan) can be set in the “Radio Setup” menu.

➽ next page.

Extra info

Display of information on the selected station:

– recall number (if the station was stored),
– station name (for RDS stations),
– frequency,
– program type (PTY, if the station transmits the PTY ID) and
– the selected sound type for radio mode.

AF Retuning (only on FM)

☞ Activate this function to achieve the best possible reception of the selected station.
The radio continuously checks a series of alternate frequencies (AF) for the selected station and automatically chooses the best frequency.

☞ Deactivate this function only if you can hear brief interruptions of transmission or if the unit automatically switches to an undesired station.

PTY Search (only on FM)

This function allows you to search for stations of the desired programme type.

☞ Select the desired programme type from the list.

☞ Press the **PUSH – TURN** button in order to start the PTY search.

PTY is not supported by all RDS-stations and is not available in all countries.

Radio Setup

☞ Set one of the following functions.

– `Search Level`: Setting the search level
Select "`LO`" if you want automatic waveband tuning to only search for local stations (strong signals).
Select "`DX`" to also search for distant stations.
– `Tuner Grid`: Select "`EUR`" or "`USA`" depending on which continent you are currently in.
– `Scan Type`: Select "`FREQ`" if all receivable stations on the current waveband are to be scanned during station scan.
Select "`PRST`" if only stored stations are to be scanned.

⚠ **If you change the tuner grid, all station memories and the stations in RDS Memo will be deleted!**

Initialisation

See "INITIALISATION" ➽ Page 39.

CD player

You can play 12 cm audio CDs on your CD player.

⚠ **We strongly recommend playing only 12 cm CDs. Please do not use 8 cm CDs (neither with nor without adapter).**

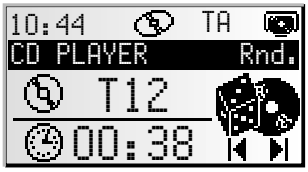
⚠ **On no account must unusually-shaped CDs be inserted into the player. If you ignore these recommendations, you risk damaging your unit.**

CD playback

If the unit is not yet in CD mode:

☞ Press the **CD** button.

Playback of the inserted CD will be continued at the spot last played.



Selecting a function

Select one of the following CD player functions
(Example: user mode "Expert"):

1. Press the **PUSH – TURN** button once or several times in order to select the desired function.
2. Turn the **PUSH – TURN** button, in order to execute the selected function.

Selecting a specific title (previous/next)

If the **PUSH – TURN** button is turned one detent position anti-clockwise after the first 10 seconds of a track, the CD player jumps to the beginning of the current track.

Fast forward/backward search

Press the **PUSH – TURN** button in order to stop the fast search. When this function is executed, you will hear the CD at increased speed.

Random play of tracks

The tracks on the inserted CD will be played in random order.

The "CD" menu

In CD player mode:

☞ Press the **CD** button.

💻 The "CD" menu is displayed.

The following functions are available:

Scan

☞ Activate this function to briefly scan all tracks on the inserted CD.

☞ Press the **PUSH – TURN** button in order to cancel the scanning process and to listen to the track of your choice.

Repeat Track

☞ Activate this function to repeat the current track.

☞ Select "Repeat Track" again to deactivate the function.

CD Title

☞ Assign a name with up to 13 characters to the CD currently playing. The CD will be recognised automatically upon insertion, and the CD player will display the CD name.

Up to 50 CD names can be stored automatically in the name memory. Once memory is full, you will have to first select a name to be deleted before you can enter a new name.

Extra info

Displaying information on the current CD:

– CD name (if available),
– total number of tracks,
– total duration and
– the selected sound type for CD mode.

CD Setup

☞ Set one of the following functions.

– Compression: If activated, this function will reduce the volume for loud sections and increase it for quieter sections.
– Comp Rate: Select the degree of loudness decrease/increase when compression is switched on.

Initialisation

See "INITIALISATION" ➽ Page 39.

CD changer

A VDO Dayton CD changer CH0400 (4 CDs), CH0600 (6 CDs) or CH1000 (10 CDs) can be connected to the navigation radio.

⚠ **We strongly recommend only playing 12 cm CDs. Please do not use 8 cm CDs (neither with nor without adapter).**

⚠ **On no account must unusually-shaped CDs be inserted into the player. If you ignore these recommendations, you risk damaging your unit.**

⚠ **Do not load navigation CDs into the CD changer.**

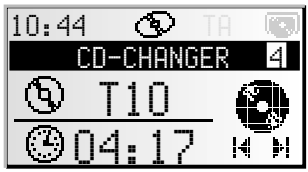
CD changer playback

If the unit is not yet in CD changer mode:

☞ Press the **CDC** button.

Playback of the last played CD resumes.

If you changed or removed the CD magazine in the meantime, playback will begin with the first CD in the magazine.



Selecting a function

Select one of the following CD changer functions

(Example: user mode "Expert"):

1. Press the **PUSH – TURN** button once or several times in order to select the desired function.
2. Turn the **PUSH – TURN** button, in order to execute the selected function.

Selecting a CD

Choose one of the CDs in the CD magazine.

Selecting a specific title (previous/next)

If the **PUSH – TURN** button is turned one detent position anti-clockwise after the first 10 seconds of a track, the CD player jumps to the beginning of the current track.

Fast forward/backward search

Press the **PUSH – TURN** button in order to stop the fast search. When this function is executed, you will hear the CD at increased speed.

The "CD CHANGER" menu

In CD player mode:

☞ Press the **CDC** button.

💻 The "CD CHANGER" menu is displayed.

The following functions are available:

Scan

☞ Activate this function to briefly scan all tracks on the currently selected CD.

☞ Press the **PUSH – TURN** button in order to cancel the scanning process and to listen to the track of your choice.

Random

☞ Activate this function to listen to the tracks on the currently selected CD in random order.

Repeat Track

☞ Activate this function to repeat the current track.

☞ Select "Repeat Track" again to deactivate the function.

Select CD

☞ Select the desired CD from the list.

CD name

☞ Assign a name with up to 13 characters to the CD currently playing. The CD will be recognised automatically by the CD changer, and the CD changer will display the CD name.

Up to 50 CD names can be stored automatically in the name memory. Once memory is full, you will have to first select a name to be deleted before you can enter a new name.

CD Changer Setup

☞ Set one of the following functions.

– Compression: If activated, this function will reduce the volume for loud sections and increase it for quieter sections.

– Comp Rate: Select the degree of loudness decrease/increase. This function is only available with compression activated.

– CD Access: Select if you want to choose the CD in the menu "Select CD" by number or by name.

Extra info

Displaying information on the currently selected CD:

– Number of the selected CD (in magazine),

– CD name (if available),

– total number of tracks,

– total duration and

– the selected sound type for CD changer mode.

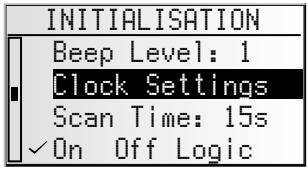
Initialisation

See "INITIALISATION" ➽ Page 39.

The "INITIALISATION" menu

☞ Select "INITIALISATION" in one of the following menus: "RADIO," "INFORMATION," "CD" or "CD CHANGER".

The "INITIALISATION" menu is displayed.



The "INITIALISATION" menu allows you to adjust the navigation radio to your needs.

The following functions are available:

Telephone

☞ Adapt your unit's telephone input to your car phone:

– NONE: No car phone is connected to the unit.
– MUTE: Playback on the current source is automatically interrupted when your car phone is in use. For this purpose, the car phone's muting signal must be connected to the device (see installation instructions).
– IN: Playback on the current source is automatically interrupted and the incoming call is played through the car loudspeakers.

For this purpose, the car phone's muting signal must be connected to the device (see installation instructions).

Tel Signal

☞ Adapt your unit's telephone input to the muting signal of your car phone:

– 0 V: Muting signal "active low." Radio switches to mute at 0 V.
– 12 V: Muting signal "active high". Radio switches to mute at 12 V.

Tel Vol.

☞ Adapt the car phone's volume to the navigation radio's telephone input.

The volume adjustment can be set to between –30 and +30.

Beep Type

☞ Select a confirmation/alert sound. You have the choice between 4 different sounds.

Beep Level

☞ Set a level between 1 and 5 for the confirmation/alert sound.

Clock Settings

Setting the time, the time format and the time zone:

– Clock: Choose between RDS and GPS.
With GPS, the time of day is received from the Global Positioning System in UTC.
With RDS, the time of day is synchronised with the RDS data of the currently received RDS station (the time signal transmitted by the RDS stations may be incorrect).
– Clock Format: Select either 12 or 24 hour format.
– Summer time (only for GPS clock): Activate this function if your region observes summer time (+1 hour).
– Timezone (only for GPS clock): Set the time difference to UTC (equivalent to Greenwich Mean Time London).

Scan Time

Setting for the scan time for frequency, storage or track scanning.

☞ Choose 5, 10 or 15 seconds.

On / Off Logic

☞ Activate this function to limit the operation of the device to one hour after the ignition key is removed.

Warning light

If this function is activated, the red warning light will blink when the operating panel and the ignition key are removed.

Contrast

Setting the display contrast.

☞ Set the optimal contrast for your angle of view between 0 and 31.

User

Setting the user mode for radio, CD and CD changer.

☞ Select either "COMMON" or "EXPERT".

Icons

☞ Choose either "STATIC" (immovable) or "ANIMATED" (moving) symbols for operation of the radio or another sound source.

Loudspeaker Test

☞ Activate this function to control the loudspeaker connections and positions.
You will hear several consecutive confirmation tones in turn from one of the four loudspeakers.

☞ Switch the unit off to terminate the loudspeaker test.

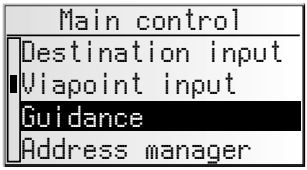
Navigation

A VDO Dayton map CD must be inserted into the unit's CD player in order to be able to use the navigation function of your navigation radio.

If the unit is not yet in navigation mode:

☞ Press the **NAV** button.

The navigation main menu is displayed.



The following items are available in the main menu:

Destination input

Opens the "Destination Input" menu. Here, a destination address can be entered for guidance in one of several ways. See page 42.

Viapoint input

Opens the "Viapoint input" menu. Here via points (stops) can be entered on your way to the destination address. See page 47.

Guidance

This option provides access to the guidance screen where the guidance function can be activated. Additionally, access to various information screens such as current car position, on-board computer, or traffic information is available. See page 49.

Address manager

Opens the "Address manager" menu. The address manager enables management of frequently used addresses for destinations and via points. See page 58.

Emergency

Opens the "Emergency" menu. Here, information on the current car position and geographic position (GPS position) is obtained. See page 60.

Stand-by

With this option, the navigation display and the audible information can be switched off. The system's navigation functions remain active in the background.

☞ Press the **NAV** button in order to quit the stand-by mode.

Settings

Opens the "System settings" menu. In this menu, many navigation settings can be customised. See page 61.

Games

Pass the time with one of the available games.
(For your safety, of course, only when the vehicle is stationary.)

Destination input

Destinations may be entered in several ways:

- Entering city, road and number or crossroads by means of the "typewriter." See the following page.
- Loading an address stored in the personal address book. See page 58.
- Recall one of the last 10 addresses used for guidance.
- Selecting a specific destination (e. g. hotel, petrol station, train station) from the database on the map CD. See page 45.
- Entering the geographic co-ordinates (GSP position) directly, e. g. when the destination is not on a digitised street. See page 46.

Destination entry menu

☞ In the main menu, select "Destination input".

💻 The "Destination input" menu appears.

In the destination input menu, the following choices are available:

New address

Input country, city, road, number or crossroads or special facility.

Load address

Loading an address stored in the address book.

☞ Press the ➡● button to display the list of entries stored in the address book.

Last destinations

Load one of the last 10 addresses used for guidance.

Info on car position

Loading a special facility in the vicinity of the current car position (depending on the loaded map CD, hotels, restaurants, petrol stations, rest stops, garages, etc. may be available for this purpose).

GPS co-ordinates

Entering a destination by means of GPS co-ordinates (geographic latitude and longitude).

Entering a new address

An entry assistant will help you enter a new address. It will lead you step by step through all the necessary entries such as country, city, road, house number or cross-roads and desired routing criterion.

1st Step: Country

☞ Select "New address" in the destination input menu.

💻 The list of countries stored on the current map CD appears.
The country selected during the last address input is already marked, the cursor is positioned on "≫".

☞ Confirm or use the ▤ symbol to select the desired country from the list.

This option will be skipped if only one country is stored on the current map CD.

2nd Step: City

💻 The display automatically shows "City:" and the typewriter window, the name of the last destination city is already displayed.

☞ If you want to enter a destination address in the city shown, simply select "≫".

or:

☞ Enter a new city name via the "typewriter".

or:

☞ Select the ▤ symbol and choose an entry in the database.

If several database entries have the same name, the cursor is automatically placed onto the ▤ symbol. Select the desired entry type from the list.

If there is a large number of possible entries, it may take several seconds to build the list.

☞ Confirm your selection with "≫".

3rd Step: Road

💻 The entry assistant automatically jumps to the input menu "Road:".

☞ Enter the name of the street using the "typewriter" or select a name from the list using ▤.

4th Step: House number or junction

If house numbers are available for a selected road, they can be entered with a separate input menu. If no house numbers are available, the system automatically jumps to the "Junction" input menu.

If no junction is available, this step will be skipped.

After confirming the road name with "≫", the input menu for the house number or junction appears.

☞ Enter the desired house number or junction.

Within the database, certain ranges of house numbers are combined, the entered house number being in such a range.

In such a case, the navigation system will lead you to the entered house number range.

5th Step: Route selection

Once all data for the destination has been entered, the desired criterion for route planning must still be selected.

☞ Choose from one of the four following criteria:

– Fastest: Fastest route preferred
– Shortest: Shortest route preferred
– Main roads: Motorways are preferred for route planning
– No main roads: Avoid motorways for route planning

Additionally you can activate the option "No toll roads". Wherever possible, toll roads will be avoided.
If this option is activated, route planning may take longer.

Once the route criteria are selected, the system jumps to the guidance screen and begins planning the route. Within only a few seconds you will begin to receive guidance information.

Directly to guidance

While using the entry assistant, you can, at any time, jump to guidance, e.g. if certain information on the destination address is unavailable (house number, crossroads) or if you wish to be guided to the city or town limits only. In that case, proceed as follows:

☞ Enter at least the name of a city as described earlier.

☞ After the input, select the ⇉ symbol in the lower line of the input menu.

The guidance screen appears.

The route is being planned.

For further information about guidance, see the chapter "GUIDANCE" on page 49.

Special destinations

You may also input the destination address by selecting special facilities stored in the database. These include e.g.:

- airports,
- hotels,
- petrol station,
- car repair garages
- car parks, etc.

Depending upon the information already entered in the destination input screen, a list of general interest facilities appears which are is present on the current map CD.

If you inserted a map CD with travel guide information (e.g. Varta, Michelin, etc.) you can call up several details for many of the facilities stored on the map CD. Refer to section "Map CDs with travel guide information" on page 64.

Special facilities of national importance

☞ Choose "New address" and use the input assistant to select the desired country.

☞ Then, select the i symbol in the lower line of the input menu.

💻 A list of the categories of points of national interest is shown.

☞ Select the desired category (e.g. AIRPORT, FERRY…).

💻 If more than five facilities are stored for the selected category, the "typewriter" will be displayed.

For up to five stored facilities, the list will appear immediately.

☞ Enter the name of the desired facility or select the ☰ symbol for the list display.

☞ Confirm your input using "»" or select an entry from the list.

Special facilities in connection with the destination

☞ Choose "New address" and use the input assistant to enter the desired country and the name of the desired destination.

☞ Then, select the i symbol in the lower line of the input menu.

💻 A list of categories of special facilities is shown.

For smaller towns, only the option "CITY CENTRE" may be available. If you select this option, the navigation system will guide you to the city centre.

☞ Select the desired category (e.g. HOTEL, PETROL STATION…).

💻 If more than five facilities are stored for the selected category, the "typewriter" will be displayed.

For up to five stored facilities, the list will appear immediately.

☞ Enter the name of the desired facility or select the ☰ symbol for the list display.

☞ Confirm the input using "»" or select an entry from the list.

Special facilities in the vicinity of the current car position

You may also set a destination address by selecting a special facility in the vicinity of the current vehicle location.

☞ Press the **POI** button,

or:

☞ select "Info on car pos." in the destination input menu.

💻 A list of categories of special facilities is shown.

☞ Select the desired category.

💻 A list of facilities pertaining to the selected category, located in the vicinity of the current vehicle location, appears. Additionally, distance and direction to the facilities are shown.

☞ Proceed as described on the previous page.

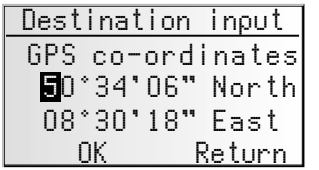
Note:

You will always see a list of facilities from "Info on car pos.", even if there is no facility from the selected category directly at the car position.

The facilities list is sorted by distance to the car position, i. e. the facility closest to the car position will be first in the list.

Destination input via GPS co-ordinates

If you know the GPS co-ordinates of a destination, you may enter them directly.



☞ In the main menu, select "Destination input"

☞ In the "Destination input" menu, select "GPS co-ordinates".

💻 The GPS co-ordinates input menu appears.

☞ Mark the desired co-ordinate using the cursor. Then confirm by pressing the **PUSH – TURN** button.

☞ Next, set the desired values for degrees, minutes and seconds. Confirm the destination input with "OK".

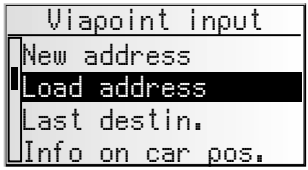
💻 The navigation system compares the GPS co-ordinates you entered with the data on the current map CD and plans the route.

Notes:

If the destination is beyond the digitised roads, the system will guide you along digitised roads as far as possible. The system will then display the linear direction and the distance to the destination.

If the GPS co-ordinates you entered should be outside the limits of the current map CD, the system will display an error message.

Viapoint input



If you wish to visit other locations on route to the entered destination address, these can be stored as via points. The navigation system then plans the route to include the via points in the given sequence before the destination address is reached.

When you reach a via point, you will hear "You have arrived." The navigation system will immediately begin to plan the route to the next via point or the final destination.

In the address manager or on information screen i2, you can delete via points you have not reached yet or which you do not wish to visit any longer. See page 52 or 58.

☞ In the main menu, select "Viapoint input."

The "Viapoint input" menu appears.

In the "Viapoint input" menu, you have the follow-ing options:

New address

Input country, city, road, number or crossroads or special facility as via point.

Load address

Loading an address stored in the address book as a via point.

Last destinations

Recall one of the 10 addresses last used for guidance to load as a via point.

Info on car position

Loading a special facility in the vicinity of the current car position.

GPS co-ordinates

Entering a destination by means of GPS co-ordinates (geographic latitude and longitude).

The input of a via point is identical to the input of a destination address.

Delete via points not reached

Via point which you have not reached or which are no longer desirable to you must be deleted from the via point list so that the navigation system may plan the route to the next via point or to the final destination. If a not reached via point is not deleted, the system will continue to try and guide you to this via point.

Via points can be deleted in the address manager or on information screen i2, "Destination," see page 58 and page 52.

Notes:

The maximum number of stored via points is 25.

The via points are targeted in the order in which they are entered.

For guidance to the via points, the system automatically uses the route planning criterion for the final destination.

It is possible to enter new via points en route to the final destination at any time.

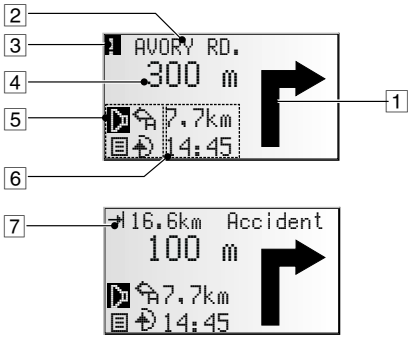
Once a via point has been passed, it is deleted from the list.

If you enter a new destination you will be asked whether you also wish to delete the via point list. If you answer "No", the remaining via points will be retained for the new destination address.

Guidance screen

The guidance screen appears as soon as you activate the guidance.

The guidance screen displays the following information:



1 Guidance information: A graphic display of the next crossroads or junction. In addition, directional changes are announced with audible messages.

2 Road into which to turn at the next announcement.

3 You are in an area with incomplete map information.

4 Distance to the next change in direction*.

5 Option field. Position the cursor on the desired symbol and confirm:
- : Repeat current audible message
- : Road list display (segments of the planned route)
- : Return to the main menu
- : To menu "Alternative route". See page 57.

6 Status field. Display of the following possible information:
– Remaining driving distance
– Remaining travel time
– Estimated time of arrival
– Current time
You can configure the status field in the "System settings" menu. See page 62.

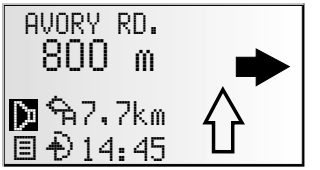
7 As soon as any traffic obstructions reported by TMC pertain to the planned route, a brief message appears, indicating the distance to the nearest obstruction and its type.

* Units displayed are dependent upon the system configuration. Refer to page 61, chapter "System settings."

Audible messages

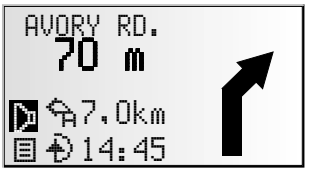
As soon as you have activated guidance, the navigation radio will give you audible driving directions - in addition to the symbols in the guidance screens. Commonly, the directive to turn into another road consists of two voice messages:

an early warning



and

the instruction to turn



Repeating voice message

Did you miss the last guidance message or didn't you fully understand it?

☞ Press the 🔊 button.

or:

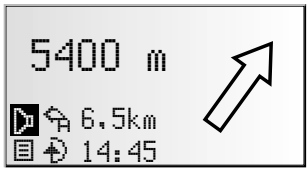
☞ Move the cursor to the ▷ symbol and press the **PUSH – TURN** button.

💻 You will hear the current guidance message.

Did you ignore the last message?

If you did not follow the last guidance message or if you were not able to follow it due to traffic conditions (construction, etc.), the system will, within a few seconds, plan a new route from your current car position to your destination.

On longer route segments without junctions or crossroads, an arrow following the course of the road is displayed.



Guidance beyond digitised roads

If you leave a digitised road, the arrow pointing to the nearest digitised road will appear automatically.

☞ If that is the case, continue in the direction of the arrow until you reach a digitised road.

As soon as you return to a digitised road, you will receive destination guidance again.

Areas with limited road information

In some areas, not all of the information on a road is available on the map CD. Thus, for example, turn-off prohibitions, information on the direction of travel in a one-way street or prohibited entry into a pedestrian zone may be missing. The navigation radio will display a warning if you drive into such an area. Local traffic laws always take precedence over navigation system instructions.

At the top left of the guidance screen, you will see the **!** symbol, as long as you are in an area with limited road information.

⚠ **Always observe the road signs and motor vehicle traffic regulations.**

Road list display

As soon as a route is planned, this option is available on the guidance screen.

☞ Confirm "☰" on the guidance screen.

💻 The list of segments of the planned route displays.

☞ You can scroll through the list by turning the **PUSH – TURN** button.

☞ Select "Return" to quit the road list.

Information screens

During guidance, you can call up several information screens:

☞ Turn the **PUSH – TURN** button in order to call up the desired information screen.

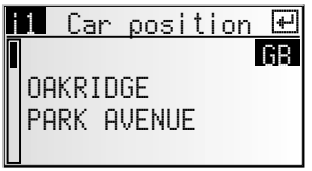
If the ↵ symbol appears on the display, further functions are available by pressing the **PUSH – TURN** button.

The following information screens are available:

i1 Car position

Display of current vehicle location with country code, city, road, and, if available, house number.

If you are located beyond a digitised road, the screen will display the GPS position (geographic longitude and latitude).

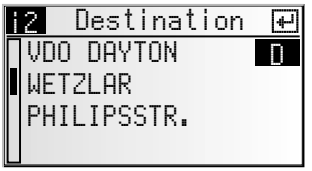


Store current location

☞ Press the **PUSH – TURN** button in order to store the current location as address in the address book.

i2 Destination

Display of current destination address with Name (if entered), country code, city, road, and crossroads.

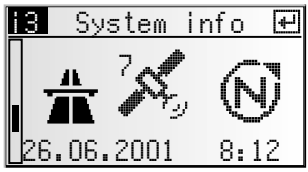


Displaying/deleting via points:

If via points were entered for the current destination:

☞ Press the **PUSH – TURN** button in order to display the list of via points and in order to delete via points.

i3 System info



Display of the following information:

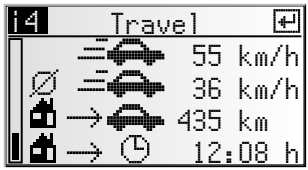
1. Route planning criterion selected:
   - ⏲: Fastest
   - ⊢⊣: Shortest
   - 🛣: Main roads
   - 🛣: No main roads
2. GPS reception status:
   Displays the number of GPS satellites received.
   With an unobstructed view of the sky, up to 8 satellites may be displayed.
3. Current driving direction (compass). The arrow always points north.
4. Date and time

Change route planning criterion:

☞ Press the **PUSH – TURN** button in order to open the list of available route criteria.

☞ Select the desired criterion for the route selection.

i4 Travel



Info screen "Travel" displays the following information:

- Current speed
- Average speed
- Distance travelled
- Time travelled

Resetting values:

☞ Press the **PUSH – TURN** button.

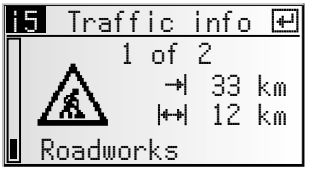
☞ Confirm the deletion with "Yes".

☞ All values on info screen "Travel" are reset to 0.

Speed warning:

You can enter a speed above which an alarm will sound. To set the speed limit, see "Speed" on page 61.

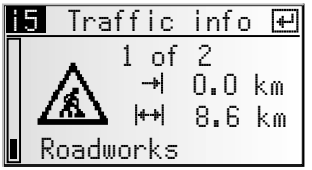
i5 Traffic information



Information screen i5 is only available if the radio is receiving a station transmitting traffic information and if one or more traffic obstructions are reported on your route.

The following information is displayed:

– Number and count of available i5 information screens (traffic obstructions);
– Distance to the traffic obstruction;
– Length of the traffic obstruction;
– Type of obstruction (i. e. road works, traffic jam, closed road).



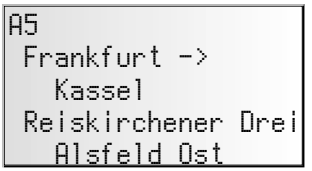
As soon as you are within the traffic obstruction area:

– The remaining distance to the end of the obstruction;
– Type of obstruction.

Detailed display of traffic obstruction:

☞ Press the **PUSH – TURN** button in order to display details of the selected traffic problem.

☞ Press the **PUSH – TURN** button again in order to return to information screen i5.



Dynamic guidance with TMC

With RDS TMC (Traffic Message Channel), the current traffic situation is taken into account when planning the route to your destination. You will be informed, for example, of accidents, congestion or construction sites as soon as such a traffic situation occurs.

If you approach the traffic obstruction, the automatic detour option is activated and the navigation system will plan, if desired, an alternate route.

TMC has not yet been introduced in all countries and is not supported by all RDS stations.

In order to use dynamic guidance with TMC, a TMC-compatible map CD must be inserted. We recommend always using the newest version of the map CDs.

Audible TMC traffic messages

When TMC messages are available for your planned route, they will also be announced as voice messages.

Repeating TCM message

☞ Press the 🔊 button.

or:

☞ On the guidance screen, move the cursor to the ▷ symbol and press the **PUSH – TURN** button.

💻 You will hear the current destination guidance message and the most recent TMC message.

TMC traffic information on the guidance screen

If a traffic obstruction occurs ahead of you on the planned route, you will see information about the obstruction on the top line of the guidance screen.

First, you will see the type and the distance to the obstruction. You can call up details about the traffic obstruction with info screen i5 “Traffic info.”

As you approach the traffic obstruction, the detour option is activated. You will hear an audible signal and the cursor will jump automatically to the top line of the guidance screen.

Bypassing a traffic obstruction

When you approach the last exit before reaching a traffic obstruction, the navigation system will alert you and offer you the option of planning a detour route.

As soon as a traffic obstruction is detected on your route and the detour option is displayed on the guidance screen:

☞ Confirm the detour option in the top line of the guidance screen.

The detour menu is displayed.

☞ Confirm "Plan a detour?" with "Yes", if you desire a detour around the traffic obstruction.

Within a few seconds, the navigation system plans a new route.

☞ Select "No", if you do not wish to plan a detour.

Selecting TMC information

You can choose the type of traffic instruction to be taken into account for guidance.

☞ In the main menu, select "Settings".

☞ Select "Traffic info".

☞ Select "Message selection" in the "Traffic info" menu.

☞ Select the categories to be included.

Urgent danger warnings cannot be switched off.

For further information about the menu "Traffic info," see page 62.

Alternative route

During guidance, you can cause the navigation system to plan an alternative route. Use this function if you want to avoid e.g. traffic jams or if you wish to plan an alternative route.

The alternative route will be calculated for a selectable distance from the current car position.

To plan an alternate route, the following conditions must be met:

- a route must have been planned, and
- the system must be in destination guidance screen mode.

☞ Move the cursor to the ⊕ symbol and confirm by pressing the **PUSH – TURN** button.

☞ If you agree with the displayed distance, confirm with "OK".

💻 The display shows the guidance screen again.
The system is planning an alternative route for the entered distance.

Cancel procedure

☞ Move the cursor to "Return" and confirm by pressing the **PUSH – TURN** button.

Change distance

If you desire a distance different from the one displayed, proceed as follows:

☞ Position the cursor on the displayed distance.

☞ Press the **PUSH – TURN** button.

☞ Change the displayed distance in the range 1 ... 10 km by turning the **PUSH – TURN** button.

☞ Press the **PUSH – TURN** button again.

☞ Confirm with "OK".

💻 The display shows the guidance screen again.
The system is planning an alternative route for the entered distance.

Address manager

The navigation radio offers the opportunity of storing at least 30 destination addresses in a personal address book.

☞ Select "Address manager" in the main menu and confirm the selection.

💻 The address manager is displayed.

The following options are available:

Storing addresses in the address book

If you have not yet entered a destination address:

☞ Enter the data of the desired destination address (city, road, crossroads or special facility) into the destination menu.

☞ In the main menu, select the option "Address manager".

☞ Next, select "Store address".

💻 The name input menu appears.

☞ Using the "typewriter," enter any string of up to 15 characters as the name for the address. Complete the input with "≫".

If you do not wish to enter a name, select "≫" directly.

💻 The address is now stored in the address book.

Deleting addresses

Addresses that are no longer needed should be deleted from the address book to ensure sufficient space for new addresses.

☞ Select "Delete address" in the address manager.

💻 A list of the destination addresses stored in the address book is displayed.

☞ Select an address to be deleted from the list and confirm your selection.

💻 The selected address is deleted from the address book.

Deleting via points

If via points for the current destination were input, you can display the via point list and delete via points.

☞ Select "Delete via points" in the address manager.

💻 A list of the stored via points appears.

☞ Select a via point to be deleted from the list and confirm your selection.

💻 The selected via point is deleted.

Via points can also be deleted from information screen "i2 Destination," see page 52.

Store car position

Would you like to store a favourite restaurant in the destination memory? You can store your current car position as follows:

☞ Select "Store current loc." in the address manager.

💻 The name input menu appears.

☞ Enter a name or cancel the name input with ↩.

💻 The current vehicle location is stored as an address.

You can also store the car position on information screen "i1 Car position", see page 52.

Deleting list of last destinations

☞ Select "Delete last dest." in the address manager.

💻 The list of destinations last used for guidance is displayed.

Comments:

30 entries is the guaranteed minimum of entries for the address book. This total can be up to 200, depending on the data entered (e.g. with or without a name, etc.)

If there is no address in the address book, option "Delete address" cannot be selected.

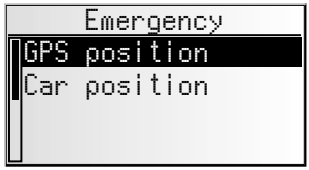
If no via points were entered for the current destination, option "Delete via points" cannot be selected.

Once the address book is full, options "Store address" and "Store current loc." are no longer selectable.

Emergency menu

☞ In the main menu, select "Emergency".

💻 The "Emergency" menu is displayed.



In the "Emergency" menu, you have the following options:

GPS position

Display of the current geographic vehicle location as calculated by the Global Positioning System. Longitude, altitude and elevation above sea level (provided adequate GPS reception is available) will be displayed.

Car position

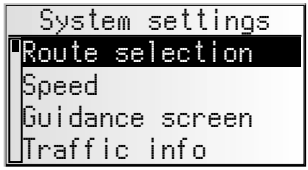
Display of current vehicle location with country code, city and street. This option is only available if you are on a digitised road.

System settings

To customise the navigation functions to your own needs, you can change several settings.

☞ In the main menu, select "Settings".

💻 The "System settings" menu is displayed.



The following information screens are available:

Route selection

☞ Select the preferred criterion:

– Fastest ◷: Fastest route preferred
– Shortest ⇹: Shortest route preferred
– Main roads ⛪: Motorways are preferred for route planning
– No main roads ⛪: Avoid motorways for route planning

The symbol for the selected road type is displayed on information screen i3 (System info).

In addition, you can bypass toll roads when planning your route:

☞ Activate option "No toll roads," if you wish to avoid toll roads as much as possible.

💻 A check mark appears in front of the option.

If no toll-free roads are available, toll roads will be included for planning the route.

Note: If this option is activated, route planning may take longer than the time needed with this function deactivated. Therefore this option should only be activated if needed.

Speed

In the "Speed" menu, you can configure the following settings:

Speed correction

☞ Place the cursor on the value after "Correction".

☞ Press the **PUSH – TURN** button.

☞ Set the desired speed correction.

☞ Press the **PUSH – TURN** button again in order to store this setting.

Speed limit

☞ Position the cursor on the value after "Limit:".

☞ Press the **PUSH – TURN** button.

☞ Set the desired speed.

☞ Press the **PUSH – TURN** button again in order to store this setting.

Activating/deactivating speed warning:

☞ Place the cursor on the option after "Warning sound".

☞ Press the **PUSH – TURN** button in order to select between "On" and "Off".

☞ Press the **PUSH – TURN** button again in order to store this setting.

If speed warning is activated, each surpassing of the set speed limit triggers a warning sound and a warning appears on the screen.

Guidance screen

☞ Choose among the following settings displayed in the status field of the guidance screen.

– Remain. distance (on/off)
and one of the following time displays:

– Time of arrival

– Remain. time

– Current time

– No time display

Traffic info

The "Traffic info" menu offers the following options:

Message selection

☞ Select which type of traffic obstruction should be taken into account (e. g. traffic jam, closed roads, no parking, poor visibility, etc.)

Urgent danger warnings cannot be switched off.

Dynamic guidance

☞ Choose whether TMC traffic information should be taken into account for guidance (dynamic guidance on/off).

If this function is set to off, no traffic obstructions will be displayed or included in guidance.

Language

☞ Choose one of the two languages loaded in the system,

or:

☞ Select "Other language" to replace one of the two loaded languages with another language from the system software CD (included).

☞ Select the language to be replaced.

💻 You will be prompted to insert the software CD.

☞ Insert the VDO Dayton system software CD in the CD player of the radio.

☞ Follow the system instructions for loading other languages.

Measuring units

☞ Choose between the following units of measurement for distance:

– Metric: Display in kilometres and metres.

– Anglo: Display in miles and yards.

– American: Display in miles, half and quarter miles and feet.

Default settings

Select this option in order to reset all user-defined settings to their default values. All entries in the address book will remain stored.

Mounting angle

To set the navigation computer to the mounting angle of the radio in the dashboard (gyro-sensor compensation). This adjustment need only be made once after the installation of the radio. See “Setting the installation angle”, ➽ page 13.

Service

For diagnosing hardware and software problems (code-protected).

The option “Service” is exclusively reserved for service work on the navigation radio performed by an authorised service company.

System information

The “Systeminformation” menu displays information about the software and hardware version (for service purposes).

Map CDs with travel guide information

Map CDs with travel guide information for specific destinations are identified by the ℹ symbol displayed on the screen. If you insert such a map CD, you will receive additional information about many of the stored destinations.

For example, when choosing a hotel, you will find information about room prices and you can call up the telephone number for reservations.

☞ Select the desired facility with one of the options in the "Special dest." menu.

☞ Press the **PUSH – TURN** button in order to access the details display of the travel guide information.

☞ Press the **PUSH – TURN** button in order to scroll through the travel guide information of the selected facility.

Integrate the selected facility into guidance

☞ Move the cursor to the address of the facility.

☞ Press the **PUSH – TURN** button.

☞ Next, select "Activate".

💻 The selected facility is integrated into guidance.

If you do not wish to store the selected facility as a destination address, select "Return".

💻 On the screen, the list of special destinations reappears.

Loading software updates

In order to extend the range of functions, you can load software updates from a system software CD, if available for your system:

☞ Switch on the radio.

☞ Open the front and remove the CD if still inserted.

☞ Insert the software update CD into the CD player.

☞ A security check appears. Confirm the check with "Yes," if you want to overwrite the existing system software.

💻 The new operating software is now loaded automatically. The loading progress is indicated by a bar.

⚠ **On no account must the radio be switched off during the loading procedure, even if no displays appear on the monitor for a while.**

💻 Once loading is complete, you will be prompted to remove the software update CD.

☞ Please confirm the completion of the loading procedure with "OK".

💻 The system is subsequently re-started with the new operating software.

Troubleshooting

In rare instances, your navigation radio may not function the way you expect it to. Before calling for service please read the operating instructions and go through the following check list; it may be possible to easily remedy an apparent malfunction.

Symptoms	Possible cause / remedy
General	
Navigation radio not functioning. No display.	• Check the fuse (unit and vehicle) and the connections (see installation instructions).
Audio or map CD rejected by the device.	The CD may be dirty. • Clean the CD with a special CD cleaning fluid.
"Please insert CD" or "Please insert correct CD" is displayed.	• Check that a suitable CD is inserted with the label side facing upwards in the CD player.
System switches off the sound during driving or display shows "PHONE IN/MUTE".	Speedometer signal connected to the wrong pin of the power supply connector. • See pin setting ISO chamber A in the installation instructions.
The removable part of the device feels warm.	No error. The device always generates some heat.
The display shows "Temperature too high" and the volume is lowered.	An integrated safety circuit prevents the temperature in the device from exceeding a certain value. • Allow the device to cool (set lower volume) and wait until "Temperature too high" disappears from the display.
Radio	
Poor radio reception.	• Check if the antenna is completely extended and correctly connected. • Verify that the supply power negative pole (brown lead) is correctly connected to earth (vehicle chassis).
(The display shows the frequency instead of the station name.)	The device is set to a station that does not transmit RDS signals or the transmitter is too weak.
The desired station cannot be set with automatic search.	The desired station is too weak. • Set desired station manually (manual tuning).
	• Check if the antenna is completely extended and correctly connected.
	"Traffic programme" or "TMC" is switched on. The radio only tunes to stations with traffic news or TMC information. • If necessary, switch off the "Traffic programme" or "TMC".
	Tuner standard (tuner grid) wrongly set (EUR / USA). • Check the option "Tuner Grid" in the "Radio" menu.
The display shows "Tune to next TA station" and a warning tone sounds.	"Traffic programme" is switched on, the selected station, however, is too weak or does not transmit traffic announcements (TA). • Deactivate the "Traffic programme" function or set another station.
CD player / CD changer	
Distorted sound / skips during CD play.	Player cannot read CD. CD is damaged or soiled.
CD player does not work.	In cold weather conditions, condensation may occur on the laser. • Wait approximately 5 minutes until the condensation evaporates.
No sound during CD play.	Some CDs contain multimedia data which are not recognised by the device. • Select the next track until music is heard.
Navigation	
System reacts very slowly to entries or requires a long time for calculation.	You are in a very densely digitised area. The system requires more time to read large data quantities.
"Stand-by" is the only option selectable from the main menu.	• Wait for several seconds until the navigation computer is operational (options will be displayed in normal font).
The number of satellites displayed on info screen i3 "System info" is 0.	• Ensure that the GPS antenna is not covered by any objects. • Move the vehicle outdoors if you are in a garage, a car park or a tunnel.
Guidance information not audible.	• Check if the volume is set to zero.
Address cannot be stored in the address book.	Address book is full. • Delete one or more entries that are no longer required.
Guidance is not accurate.	An inaccuracy of approx. 30 m is within the tolerance limits. • Please contact an authorised dealer if greater inaccuracies occur repeatedly.
	The displayed distance to the turning point is calculated to the centre of the junction (especially for extended junctions and main road exits).

Symptoms	Possible cause / remedy
Displayed position does not correspond to actual vehicle position.	Bad GPS reception for an extended period (e.g. as a result of poor reception conditions). When adequate GPS reception returns, the position is corrected automatically. • If necessary, wait a few minutes.
Directions do not correspond to the actual traffic conditions.	It is possible that the car position calculated by the navigation system is incorrect at this instant.
	The routing may have been changed and does not correspond with the information stored on the map CD.
The time displayed on info screen i3 "System info" is incorrect.	• Set the correct time zone in the "INITIALISATION – CLOCK SETTINGS" menu.
	The RDS time signal transmitted by the selected station is incorrect. • In the "INITIALISATION – CLOCK SETTINGS" menu, set "GPS".
Estimated time of arrival displayed on the guidance screen is incorrect.	• Check the time zone in the "INITIALISATION - CLOCK SETTINGS" menu (if GPS clock is set).
During guidance, no traffic information is displayed, even though the selected radio station is transmitting TMC data.	The current map CD does not support TMC. • Insert a map CD that supports TMC (identifiable by its TMC logo).

If you cannot find a solution to any problem that may occur, contact an authorised VDO Dayton service agent or call our Customer Helpdesk:

(GB) 0121 344 5400

(AUS) 1 800 335 282 Toll Free or (03) 94503166

Subject to technical modifications and errors.

New functions MO 4130:

■ **New guidance screen:**
Route direction arrow and early warning simultaneously, at a glance.

■ **Improved acoustic guidance:**
Numerical prompt for main roads and road junctions.

■ **Advanced TMC:**
Traffic information on the current location, destination and the planned route with detail display.

■ **Preview of alternative route:**
Display of diversion and travel time change due to alternative route, with the option of rejecting the suggested alternative route.

■ **Simplified entry of country during destination input**

New functions in detail

Guidance screen

On longer route segments without junctions or crossroads, a route direction arrow indicating the course of the road is displayed. In addition, a reduced diagram of the next turn-off prompt appears on the left, above the route direction arrow.

Thus, the driver is always warned in advance of the next change of direction.

Shortly before the change of direction, the detailed turn-off prompt appears, as usual.

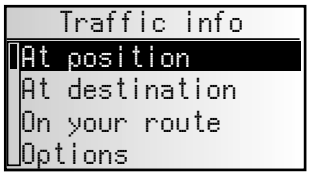
Improved acoustic guidance information

In many countries, “speaking” road signs are available for main road slip roads (e.g.: “Take exit number 7 to follow the B 429”).

Traffic information

In the main menu, the traffic information option is now available. Here, the traffic conditions received via RDS-TMC are displayed in three categories:

- At the current location,
- at the destination, and
- on the planned route.



As usual during guidance, the navigation system displays the road obstructions on the planned route (on info screen i5).

Furthermore, depending upon the currently received RDS-TMC station, all available traffic information within a radius of approx. 400 km of the current location and of the input destination, can be viewed in detail (e.g. type of road obstruction, driving direction, traffic jam length, etc.).

Operation:

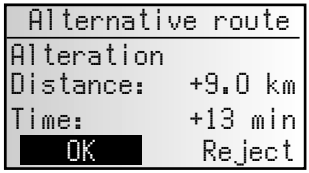
☞ In the main menu, select “Traffic info”.

☞ Select “At position”, “At destination” or “On your route”.

☞ Confirm the desired traffic announcement in the list, in order to view details of the traffic announcement.

Alternative route

In planning an alternative route, it is now possible to view the details (diversion, time delay / saving) of the planned alternative route, before they are accepted or rejected.



Destination input

When entering a new destination, the destination country must no longer always be selected from the country list. The navigation system registers the last selected country and proceeds immediately to the city input window.

If a different country is desired to that displayed in the menu bar of the input window, simply move the cursor to the country code and confirm.

The destination country can now be selected from the list in the usual way.

3111 115 3410.2 11/2001 ri

1471534102