



## Navigation System

Operation guide

**harman/kardon®**



## Warning

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### Danger of accident

- Do not program the navigation unit while driving.
  - ▷ Destinations should only be entered when the vehicle is stationary.
  - ▷ Use of the navigation unit is only advised if the traffic conditions are suitable and you are absolutely sure that its use presents no risk, distraction or inconvenience to you, your passengers or other road users.
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## Warning

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### Danger of accident

- Do not ignore traffic laws.
  - ▷ The requirements of the traffic laws take precedence over instructions you may receive from the navigation unit. It is possible that you may receive inaccurate or incorrect instructions due to changes in traffic routes, e.g. due to road construction or deviating data. Therefore, you must always observe the actual road signs and traffic regulations.
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## Warning

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### Danger of accident

- Do not misuse the unit.
  - ▷ The navigation system serves solely as an aid to navigation. In particular, the navigation system must not be used as an orientation aid at times of poor visibility. The volume of the radio and the navigation system should be adjusted so that noises external to the vehicle are still audible.
  - ▷ Turn the unit off immediately if a serious malfunction occurs.
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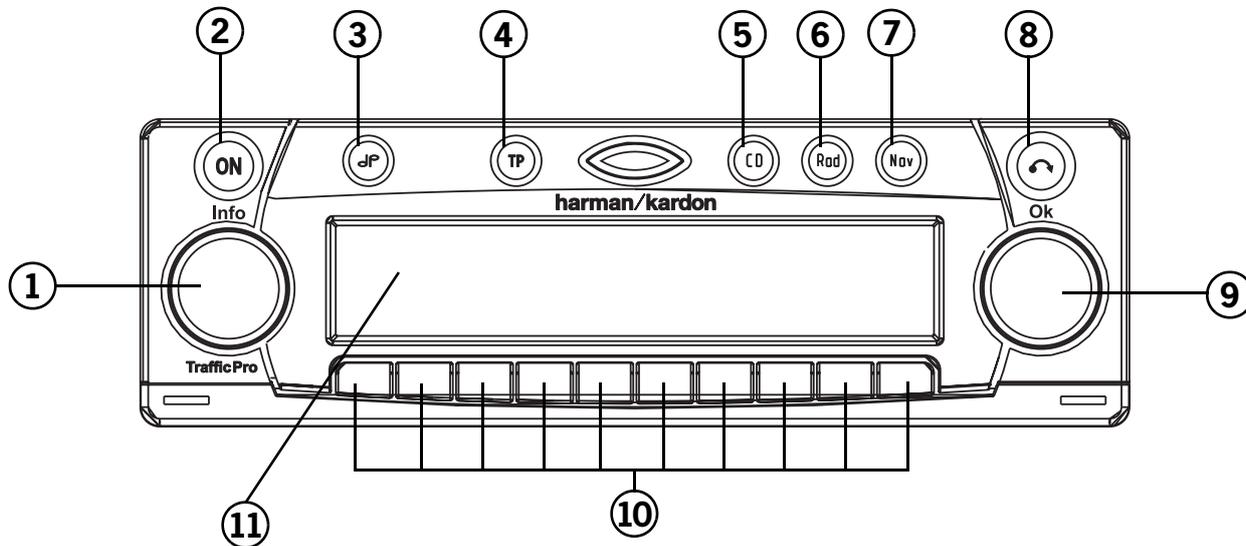
## Table of contents

<b>1. Keyboard Overview</b> .....	<b>4</b>		
<b>2. Anti-theft device</b> .....	<b>5</b>		
2.1. Entering the Code Number. ....	5		
2.2. Removing the detachable faceplate .....	5		
2.3. Inserting portable panel .....	6		
<b>3. General Operation</b> .....	<b>7</b>		
3.1. Switching On/Off .....	7		
3.2. Adjusting the volume .....	7		
3.3. Activating the Tone Menu .....	7		
3.3.1. Adjusting the bass. ....	7		
3.3.2. Setting the treble .....	7		
3.3.3. Fader .....	7		
3.3.4. Setting the balance .....	8		
3.3.5. Linear setting .....	8		
3.3.6. Switching loudness on / off .....	8		
3.3.7. Setting the subwoofer level .....	8		
<b>4. Using Navigation</b> .....	<b>9</b>		
4.1. General instructions .....	10		
4.2. Confirm Warning .....	10		
4.3. Selecting Navigation .....	10		
4.4. Main Navigation Menu .....	11		
4.5. Entering a Destination .....	11		
4.5.1. Entering the Destination .....	12		
4.5.2. Entering a street for the destination .....	13		
4.5.3. Entering the Destination City/Town Center .....	14		
4.6. Route Menu .....	15		
4.6.1. Entering street number for destination street .....	15		
4.6.2. Selecting intersection for destination street .....	16		
4.6.3. Selecting the route settings .....	16		
4.6.4. Storing specified destination in destination memory .....	16		
4.6.5. Deleting stored destinations .....	17		
4.6.6. Destination memory full .....	17		
4.7. Route guidance calculation .....	17		
4.7.1. Recalculating route .....	17		
4.8. Stopover .....	18		
4.8.1. Entering a stopover .....	18		
4.8.2. Starting route guidance to stopover .....	18		
4.8.3. Deleting a stopover .....	18		
4.8.4. Stopover reached .....	18		
4.9. Traffic jam .....	19		
4.9.1. Entering length of traffic jam .....	19		
4.9.2. Cancel guidance around traffic jam .....	19		
4.10. Canceling route guidance .....	19		
4.11. Notes on route guidance .....	20		
4.12. Information during route guidance .....	21		
4.12.1. Displaying route settings .....	22		
4.12.2. Requesting current time .....	22		
4.12.3. Requesting trip duration and miles traveled .....	22		
4.12.4. Requesting current position .....	22		
4.12.5. Requesting road list .....	23		
4.13. Destination memory .....	23		
4.14. P.O.I. ....	23		
4.15. System settings .....	25		
4.15.1. Setting time .....	26		
4.15.2. Storing location .....	26		
4.15.3. Requesting location .....	26		
4.15.4. Setting the language .....	27		
4.15.5. Animations .....	27		
4.15.6. Switching announcement of the estimated time of arrival on /off .....	27		
4.15.7. Selecting the units .....	28		
<b>5. Radio Mode</b> .....	<b>29</b>		
5.1. Switching to radio mode .....	29		
5.2. Switch on radio menu mode .....	29		
5.3. Selecting the FM waveband .....	29		
5.4. Selecting the AM waveband .....	29		
5.5. Setting options for station selection .....	29		
5.5.1. Dynamic auto store (FM-DAS) .....	29		
5.5.2. Station search FM - DAS .....	30		
5.5.3. AM transmitter search .....	30		
5.5.4. Scan search .....	30		
5.5.5. Program type selection (PTY) .....	30		
5.5.6. Switching PTY display on / off .....	31		
5.5.7. Recalling/storing FM stations .....	31		
5.5.8. Recalling/Storing AM station .....	31		
5.5.9. AM autostore .....	31		
5.5.10. Manual FM tuning .....	31		
5.5.11. Manual AM tuning .....	32		
5.6. Regionalization .....	32		
5.6.1. Switching regionalization on/off .....	32		
5.6.2. Switching frequency display on / off .....	32		
5.7. Switching radio text display on / off .....	33		
5.8. Traffic Program (TP) .....	33		
5.8.1. Activating/Quitting the TP Menu .....	33		
5.8.2. Setting automatic tracking .....	34		
5.8.3. Deactivating the TP .....	34		
5.8.4. Switching Mute on/off .....	34		
5.8.5. Interrupting TP announcements .....	34		
5.8.6. TP announcement volume .....	35		

## Table of contents

5.9. Telephone Muting .....	35	<b>9. Service Menu .....</b>	<b>44</b>
<b>6. CD mode .....</b>	<b>36</b>	9.1. Requesting /Quitting the Service Menu . . . .	44
6.1. Inserting / Ejecting CDs .....	36	9.2. Triggering a Reset .....	44
6.2. Skipping to the next/previous track.....	37	<b>10. General instructions .....</b>	<b>45</b>
6.3. Scan search .....	37	<b>11. Technical Data .....</b>	<b>46</b>
6.4. Fast Forward / Rewind .....	37	<b>NOTICE.....</b>	<b>47</b>
6.5. Random Play .....	37		
6.6. Repeating a track .....	37		
6.7. Number of tracks and total playing time . . .	38		
6.8. Temperature Protection Circuit.....	38		
<b>7. CD Changer Mode.....</b>	<b>39</b>		
7.1. Playing CDs .....	39		
7.2. Naming a CD.....	40		
7.3. CD Filter Function .....	40		
<b>8. User menu.....</b>	<b>41</b>		
8.1. Requesting/quitting user menu .....	41		
8.1.1. GAL (Gal) setting .....	41		
8.1.2. Telephone mute characteristics (Tel).....	41		
8.1.3. Display setting (Lcd) .....	41		
8.1.4. Flashing diode (LED) setting.....	42		
8.1.5. Setting reception optimization (M/S) . . . .	42		
8.1.6. Setting navigation announcements (Nav) .....	42		
8.1.7. AUX input (Aux).....	43		
8.1.8. Compass display .....	43		
8.1.9. Signal tone volume .....	43		

## 1. Keyboard Overview



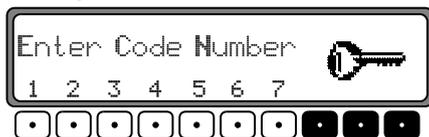
- ① Left control knob ● (Info)
- ② On / off switch (ON)
- ③ Tone key (T)
- ④ Traffic program key (TP)
- ⑤ Select CD mode (CD)
- ⑥ Select radio mode (Rad)

- ⑦ Select navigation mode (Nav)
- ⑧ CD eject key (eject symbol)
- ⑨ Right control knob ● (OK)
- ⑩ Multifunction keys
- ⑪ Display

## 2. Anti-theft device

### 2.1. Entering the Code Number

If the car radio is disconnected from the power supply, it will be theft-protected upon reconnection. After turning on with the **ON** key, the display shows the following text: Enter Code Number.



Use the multifunction keys 1 - 7, to enter the five-digit code number.

Enter the code number using the multifunction keys. The unit automatically turns itself on once the fifth digit is entered and if all other digits were entered correctly.

#### Note

It is essential that the CODE CARD be kept in a safe place outside the vehicle. This will prevent unauthorized use. The provided stickers should be attached to the inside of the vehicle windshield/windows.

If an incorrect code number is entered, the prompt **CODE** will be displayed once again. If an incorrect code number is entered three times in a row, the unit will display **WAIT**, and it will be blocked for approximately 60 minutes.



Three further incorrect entries block the unit for an additional 60 minutes.

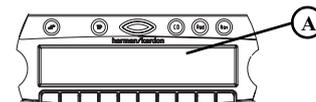
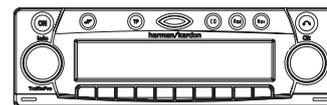
#### Note

The blocking time will elapse only while the unit is turned on.

### 2.2. Removing the detachable faceplate

As an effective anti-theft device, the detachable faceplate (A) may be removed from the unit. Press **CD** briefly (CD remains in the unit). The display folds forwards.

The portable component can then be removed by pulling it forward and away from the unit.



The volume is limited to a certain level after the display is folded down. After 20 seconds, a tone indicates that the control component is folded down. The unit then switches itself off.



### Warning

#### Danger of accident

- ▷ Do not remove detachable faceplate while driving for safety reasons!

**Note**

After removal, please insert the detachable faceplate in the accompanying protective cover.

Do not touch the metal contacts on the detachable faceplate or on the radio.

**2.3. Inserting portable panel**

Insert the detachable faceplate into the lower left catch and then engage it in the lower right catch. Then fold up the detachable faceplate and engage it in the upper catches.

The detachable faceplate can also be placed flat against the unit and pushed into place.

To ensure proper operation, ensure that the detachable faceplate is firmly engaged in all four catches.

If a new detachable faceplate or one from another unit is used, the code number must be entered as described above to activate the unit.

### 3. General Operation

#### 3.1. Switching On/Off

Press the **ON** key.

Additional options for switching on / off: Ignition.

To turn the unit on through the ignition key, the unit must have been switched off via the ignition. After switching off the ignition, the unit can be prevented from switching off by pressing **ON** within 3 seconds.

#### Note

With the ignition off, the unit can be turned on using the **ON** key. However, the unit turns itself off automatically after 1 hour.

#### 3.2. Adjusting the volume

Turn the left control knob **⦿**. The volume increases or decreases.



### Warning

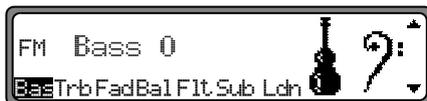
#### Danger of Accidents – Health Warning

- Excessive volume poses dangers and risks.
- ▷ Adjust the volume to a level that will allow you to still hear traffic noises (horns, sirens, etc.).

#### 3.3. Activating the Tone Menu

Press **Ⓜ**. This activates the tone menu.

The following parameters may be adjusted: Bas (Bass), Trb (Treble), Fad (Fader), Bal (Balance), Flt (linear setting) Sub (Subwoofer) and Ldn (Loudness).



Settings for the bass, treble, fader, balance and loudness are saved separately for wavebands AM, SW, FM, for traffic reports, navigation messages, for telephone, CD and CDC use.

#### Adjusting the bass

Press **Ⓜ** followed by the multifunction key **Bas**.



Set the desired bass level using the right control knob **⦿**.

#### Setting the treble

Press **Ⓜ** followed by the multifunction key **Trb**.



Set the desired treble level using the right control knob **⦿**.

#### Fader

Press **Ⓜ** followed by the multifunction key **Fad**.



Use the right control knob **⦿** to set the desired fader setting.

### Setting the balance

Press **F** followed by the multifunction key **Bal**.



Set the desired balance level using the right control knob **◀▶**.

### Linear setting

Briefly press **F**.



Press multifunction key **Fit**, briefly- Tone flat will appear. By pressing the multifunction key **Fit** again you can set the tone for the currently selected signal source (e.g. FM) to an average value.

### Switching loudness on / off

When Loudness is enabled, bass and treble frequencies will be boosted at low listening levels.

Press **F** followed by the multifunction key **Ldn**.



Use the multifunction key **Ldn** to select loudness On (ON) or loudness Off (OFF).

For wave bands AM and SW, Loudness is turned off.

### Setting the subwoofer level

Press **F** followed by the multifunction key **Sub**.



Use the right rotary control **◀▶** to set the desired subwoofer volume level.

### Note

The subwoofer output is a full-range, non fading output

## 4. Using Navigation

### What is navigation?

The term "navigation" (lat. navigare = to travel by sea) is generally understood to mean the determination of a vehicle's location, the determination of its direction and its distance from the desired destination and the required route. Stars, prominent landmarks, compasses and satellites etc. are used as navigation tools.

TrafficPro uses a comparison of its sensor system with the data of a digital map and the help of the GPS (Global Positioning System) receiver to determine location. It determines the direction and distance from the destination by means of a digital street map, a navigation computer and sensors. A speedometer and reverse signal are also used to calculate the route.

For safety reasons, route guidance is provided predominantly in spoken form, supported by a direction indicator on the display.

### Safety Instructions

- All traffic rules must be observed at all times.
- Observation of traffic signs and local traffic regulations must always take precedence over instructions given by TrafficPro.
- Traffic guidance is restricted to passenger vehicles. Special driving recommendations and regulations for other vehicles (e.g. commercial vehicles) are not included.
- Destinations may only be entered when the vehicle is stationary.

### Navigation CD

Your TrafficPro is shipped with two navigation CDs. One CD contains data for the western half of the USA and the other contains data for the eastern half of the USA.



Data for North Dakota, South Dakota, Nebraska, Kansas, Oklahoma, and Texas are contained on both CDs (the striped area on the illustration).

The navigation CDs contain a digitized street map. Highways, state and county roads, as well as local streets are detailed in this street map. Larger cities and communities are mapped in detail. For smaller towns and communities, the regional and unclassified roads or through-roads and the town centers are included.

One-way streets, pedestrian zones, no-turn intersections and other traffic regulations are taken into account as much as possible. There may be discrepancies between the data on the navigation CD and the actual local situation, due to continuous changes to road systems and traffic regulations.

## 4.1. General instructions

- Radio or CD operation continues in navigation mode.

The distance to the next message and estimated time of arrival are shown on the right side of the display.

- When route guidance is active, press **Rad** to enter radio mode. Press **CD** to switch to CD mode. The Navigation menu automatically displays when navigation announcements are given.
- When entering the address, only those letters, digits and symbols needed to make a coherent address are displayed.

The entries are automatically completed.

Spaces (e.g. as in New York) must be entered using the underscore character (  ).

Letters, numbers and symbols can be selected by pressing the multifunction keys **1** to **9**. Select the individual symbols by pressing the appropriate multifunction keys repeatedly.

You can also use the right control knob **➡** for your selection. This mode of selection will be used in the remainder of this guide.

- **Nav** quits the current menu and displays the previous menu.
- The system recalculates the route if a deviation is made.
- Press the left control knob **⬅** to hear the current navigation announcement.
- During a navigation announcement, you can adjust the volume with the left control knob **⬅** and the tone by pressing the **🔊** key (see also page 9).

- Briefly press the left control knob **⬅** to request additional information during route guidance, or the current position when route guidance is not active. See “Information during route guidance” on page 21.
- You can interrupt the current navigation announcement by pressing the left control knob **⬅**.
- If you press and hold the left control knob **⬅** for more than 2 seconds during a navigation message, the navigation audio messages are deactivated and route guidance will only be shown on the display. Briefly press the left control knob **⬅** to reactivate the navigation audio announcements.
- The scroll marks **⬆** and **⬇** indicate a selection list through which you can scroll using the right control knob **➡**. You can select the entry displayed in bold type by pressing the right control knob **➡**.

## 4.2. Confirm Warning

Before you can use the navigation system, a warning appears.



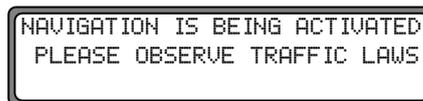
When you confirm the receipt of this warning you state that you have read and understood the user guide and that you are aware of the dangers associated with the use of this navigational equipment.

Press the right control knob **➡** to confirm the selection.

## 4.3. Selecting Navigation

Press **Nav**.

If necessary, confirm the warning as described above.



Next, the main navigation menu appears.

**Note:**

When starting navigation mode for the first time, you must load the navigation CD.

If calibration of the navigation system is not yet completed, the system will prompt you to take a drive for calibration (see Installation Guide).

Navigation mode requires the navigation CD containing the data for the destination.

When you enter a destination, the navigation CD is required. During route calculation, the prompt **CD** will flash on the display. Once calculation is completed, the prompt **CD** will disappear, you can remove the navigation CD and insert an audio CD.

## 4.4. Main Navigation Menu



Select  
**DESTINATION**,  
**DEST. MEMORY**,  
**P.O.I.**,  
**LAST DESTINATIONS**,

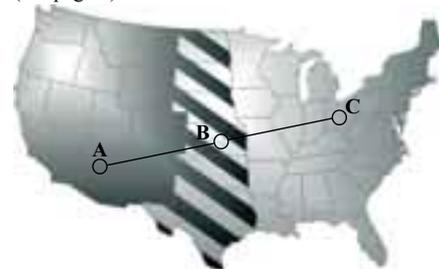
by turning the right control knob **➡**, and confirm by pressing the control knob.

- **DESTINATION**  
 Accesses the destination entry menu.  
 See “Entering a Destination” on page 11.
- **DEST. MEMORY**  
 Contains previously stored destinations.  
 See “Destination memory” on page 23.
- **P.O.I.**  
 Menu for selecting regional and interregional destinations of special interest and local points of interest. Points of interest include gas stations, airports or hospitals, for example. See “P.O.I.” on page 23.
- **LAST DESTINATIONS**  
 A list of the last 50 destinations is displayed. Select your destination with the right control knob **➡**. Before you confirm your selection with the right control knob **➡**, you may request destination informa-

tion by pressing the left control knob **⬅**. Stopovers are not saved as final destinations.

## 4.5. Entering a Destination

In the Main Navigation Menu, select **DESTINATION** with the right control knob **➡** and press it to confirm. The navigation data for the USA is stored on two CDs (see page 9).



When you calculate a route from a place contained on the USA West CD (**A**) to a destination stored on the USA East CD (**B**), you need to enter a useful destination in one of the following states: North Dakota, South Dakota, Nebraska, Kansas, Oklahoma or Texas. Once you have reached this intermediary destination, or once you reach one of the aforementioned states, you may switch CDs and enter your final destination (**C**).

**Note:**

If you switch navigation CDs you will see a display similar to this:



Using the right control knob , select EXECUTE UPDATE and press the control knob to confirm. The system checks the radio and navigation software and loads all data required for navigation. The display shows a progress bar. When switching CDs, the ignition should be on and the vehicle should be stationary. After a short time the system restarts the navigation software and you need to confirm the warning message (see "Confirm Warning" on page 10).

**Entering the Destination**

The name of the town of the last destination entered is displayed.

If you wish to select a destination within the displayed location, immediately select STREET (Street) or CENTER.

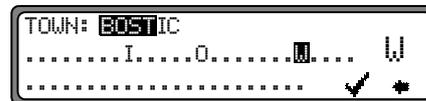
If your destination lies in another town, press the right control knob  to enter the name of the town where the new destination is located.



Select the letters one by one with right control knob  and press it to confirm. The selected letter appears enlarged on the right side of the display.

Use multifunction key  to delete the last confirmed letter.

If necessary, delete the complete entry by pressing multifunction key  for more than 2 seconds.



Entered letters are displayed inversely. To speed up selection, the display shows the name of the location most similar to the letters you have entered so far. Also, the unit offers only letters for your selection that make sense in completing the location name. If all other possibilities are eliminated, the unit completes the place name automatically.

To accept the entry, press and hold the right control knob  for more than 2 seconds or select the small check mark  and briefly press the right control knob .

If the complete place-name was previously entered or was automatically completed, the program moves either to the place-differentiation list or to the entry of road or center.

If the desired location offers no streets or only the center for selection, the program switches directly to the route menu.

If an incomplete location entry was confirmed, the location selection list appears.



The location name most similar to the entry appears in bold type in the location selection list.

The scroll marks indicate that more places are available in an alphabetically sorted list.

Make your selection by turning the right control knob and press the knob to confirm. (See “General instructions” on page 10.)

If the entry is unique, the program switches to street or center entry. If the desired city/town offers no streets or only the center for selection, the program switches directly to the route menu.

The location differentiation list is displayed if the selection is ambiguous.



Select the required state name using the right control knob and press it to confirm.

The program switches to street or center entry. If the desired location offers no streets or only the center for selection, the program switches directly to the route menu.

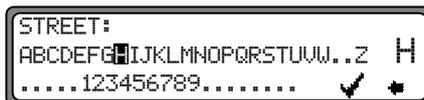
### Entering a street for the destination

#### Note:

Geographic designators (N, S, etc.) always follow the street names (e.g. E. Carson St. will be displayed as CARSON ST E).



Select STREET with the right control knob and press the control to confirm.



Select the letters one by one with right control knob and press the control to confirm. The selected letter appears enlarged at the right of the display.

Use multifunction key to delete the last confirmed letter.

If necessary, delete the complete entry by pressing multifunction key for more than 2 seconds.



Entered letters are displayed inversely. To help, the street name most similar to the entry so far is displayed. Also, the unit offers only letters for your selection that make sense in completing the location name.

If no other entries are available, the unit completes the street name.

To accept the entry, press and hold the right control knob for more than 2 seconds or select the small check mark and briefly press the right control knob.

If the complete road-name was previously entered or was automatically completed, the program switches either to the road differentiation list or to the route menu.

If an incomplete location entry was confirmed, the street selection list is displayed.



The street name most similar to the entry appears in bold type in the street selection list.

The scroll marks indicate that more streets are available in an alphabetically sorted list.

Select the street by turning the right control knob and press the control to confirm.

If the entry is unique, the program switches to the route menu.

The street differentiation list appears if the selection is ambiguous.



Select the desired street with the right control knob and press it to confirm.

The program switches to the route menu.

### Entering the Destination City/Town Center



Select CENTER with the right control knob and press the control to confirm.

If the place you chose only has one center, the program switches immediately to the route menu. If there are fewer than 10 centers, the center list is displayed.



Select the center by turning the right control knob and press the control to confirm.

If there are more than 9 centers, the program switches to center entry.



Select the letters one by one with right control knob and press the control to confirm. The selected letter appears enlarged at the right of the display.

Use multifunction key  to delete the last confirmed letter.

If necessary, delete the complete entry by pressing multifunction key  for more than 2 seconds.



Entered letters are displayed inversely. For your help, the system displays the center name most similar to the entry so far. Also, the unit offers only letters for your selection that make sense in completing the location name. If no other entries are available, the unit completes the name of the center.

To accept the entry, press and hold the right control knob for more than 2 seconds or select the small check mark and briefly press the right control knob.

If the complete center name was previously entered or was automatically completed, the program will switch to the route menu.

The program switches to the list of centers if your selection is ambiguous.



The center name most similar to the entry appears in bold type in the center list.

The scroll mark indicates that more centers are available in an alphabetically sorted list.

Select the center by turning the right control knob  and press the control to confirm.

The program moves to the route menu.

#### Note:

If you press the right control knob  for longer than 2 seconds without previously entering a letter, the list of the possible location centers will immediately appear.

## 4.6. Route Menu



Select

SAVE DESTINATION,  
START-FAST R., (START-SHORT R.)  
HOUSE NO. :,  
INTERSECTION  
ROUTE SETTINGS

by turning the right control knob , and confirm by pressing the control.

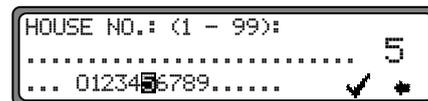
- **SAVE DESTINATION**  
accesses the input menu for the destination memory (Page 16).
- **START-FAST R.** or **START-SHORT R.**  
begins route guidance. Simultaneously, a prompt appears indicating the currently selected route option (-SHORT R. for a short route and -FAST R. for a fast route).
- **HOUSE NO. :**  
Here, you can enter the house number for the specified destination street.  
This function is only available if the information is stored on the navigation CD.
- **INTERSECTION**  
An intersecting street may also be defined as the destination here.  
This function is only available if the information is

stored on the navigation CD.

- **ROUTE SETTINGS**  
Select specifications such as fast route, short route, freeway, ferries and toll roads here.

#### Entering street number for destination street

Select **HOUSE NO. :** in the route menu with the right control knob , and press the knob to confirm.



Using the right control knob , enter the street number for the destination street and press for more than 2 seconds to confirm the entry. To confirm, you may also select the small check mark , then briefly press the right control knob .

Due to system characteristics, route guidance is only available into the specified street number range displayed in parentheses in the illustration above.



Select **START-** to start route guidance.  
Select **SAVE DESTINATION** to jump to the destination memory menu.

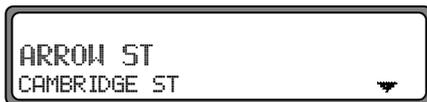
Select **ROUTE SETTINGS** to choose the route settings.

Choose by turning the right control knob  and press the knob to confirm the selection.

### Selecting intersection for destination street

If the house number is not available on the digitized map, you may enter a nearby intersection for guidance.

In the route menu, use the right control knob  to select **INTERSECTION**, then press the control to confirm.



Select the intersection for the destination street by turning the right control knob  and press the control to confirm.



Select **START-** to start route guidance.

Select **SAVE DESTINATION** to jump to the destination memory menu.

Select **ROUTE SETTINGS** to change the route settings.

Choose by turning the right control knob  and press the knob to confirm the selection.

### Selecting the route settings

Select **ROUTE SETTINGS** in the route menu with the right control knob  and press the knob to confirm.



- **FAST ROUTE**  
If selected, the program calculates the shortest possible journey time.
- **SHORT ROUTE**  
If selected, the program calculates the shortest possible distance.

#### Note:

The setting “**SHORT ROUTE**” is often recommended for larger cities or metropolitan areas.

- **RESTRICTIONS**  
Provides options for avoiding highways, ferries or toll roads.



Make your selection by turning the right control knob, and change any settings by pressing the right

control knob .

Press the control for more than 2 seconds to accept all settings and quit the menu.

#### Note:

It is possible that routes without the use of interstate highways may not be calculable. In this case, you will receive a message.

### Storing specified destination in destination memory

It is not absolutely necessary to store a destination in the destination memory for route guidance. However, it saves repeated manual entry if the destination is required again at a later date.

Select **SAVE DESTINATION** in the Route Entry menu and press the right control knob  to confirm.



Any name of your choice consisting of up to 14 characters may be entered for the specified destination and then automatically stored in the destination memory after pressing the right control knob  for more than 2 seconds. See “Destination memory” on page 23.

To store, you may also select the small check mark  and briefly press the right control knob .

If you do not wish to enter a name of your choice, press and hold the right control knob  for more than 2 seconds to store the previously entered destination in the destination memory.

The last destination entered can be filed at any position by turning the right control knob . The memory position is confirmed by briefly pressing the right control knob .

A total of 50 destinations can be saved.



For final storage in the destination memory, either start route guidance or switch the program to new destination entry by selecting **NEW DESTINATION**.

### Deleting stored destinations

Select destination memory (see page 23).



Select the destination to be deleted using the right control knob  and press **DEL**.

### Destination memory full



Occurs, when the destination memory is full.

Select either **DELETE** by pressing the right control knob  to jump to the destination memory to delete a destination or **BACK** by pressing the  button to cancel saving.

## 4.7. Route guidance calculation



The message "Calculating route" indicates that the distance is being calculated. This may take several seconds.

After the first route guidance announcement, the prompt **CD** will continue to flash on the display until the route is completely calculated. When a distant destination is entered, it is recommended that you wait until **CD** has stopped flashing before departing.

### Recalculating route.

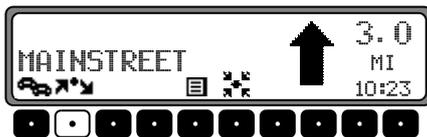


If the current route is not followed due to road blocks, detours, unintentionally driving in the wrong direction or failing to observe the recommendations, the system immediately calculates a new route. During this re-calculation, the display shows **NEW ROUTE**.

## 4.8. Stopover

If, on your way to your destination you must make a stopover (e.g. find a gas station), this function will allow you to navigate to a stopover while route guidance is active.

### Entering a stopover



Press multifunction key .

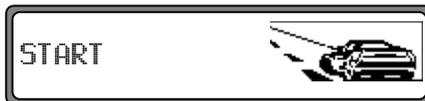


Using the right control knob , make a selection and press the control to confirm.

- **DEST. MEMORY**  
(see page 23) Selecting a stopover from the destination memory.
- **DESTINATION**  
(see page 11) allows the entry of a stopover with the precise specification of the address.

- **P.O.I.**  
(see page 23) enables the selection of special destinations as stopovers via **LOCAL AREA**, **NEARBY DESTINATION** and **TOWN**, e.g. gas stations or airports.
- **LAST DESTINATIONS**  
Selecting a stopover from the “Last Destination” memory.

### Starting route guidance to stopover



To start route guidance to the stopover, press the right control knob .

The route is calculated and route guidance begins.

#### Note:

During route guidance to a stopover,  is displayed inversely.

### Deleting a stopover



Press multifunction key .



To delete the stopover, press the right control knob  within 8 seconds.

### Stopover reached



After the message **YOU HAVE REACHED YOUR STOPOVER**, route guidance to the main destination begins automatically.  
After this message you need to insert the navigation CD.

## 4.9. Traffic jam

This function allows you to block route sections ahead from the nearest junction and to calculate a detour route when a traffic jam or road block is directly ahead.

### Entering length of traffic jam



Press multifunction key .



Use the right control knob  to select your estimate of the length of the traffic jam and press the control to confirm.

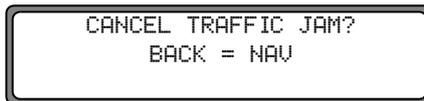


The display shows  inversely and the unit recalculates the route.

### Cancel guidance around traffic jam



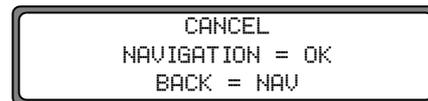
Press multifunction key .



To delete guidance around a traffic jam, press the right control knob  within 8 seconds.

## 4.10. Canceling route guidance

Press .



Route guidance is canceled by pressing the right control knob  within 8 seconds.

Otherwise, route guidance continues.

## 4.11. Notes on route guidance

After entering the destination (address), the system calculates the route and announces:

"We may begin now", if you are located on a road contained on the digital map. If you are in a parking lot, garage or another location not detailed on the map, OFF ROAD will appear on the right side of the display and route guidance will begin when you reach the nearest road detailed on the digitized map.

You will receive navigation recommendations by voice messages and screen displays.

Press the left control knob  to have the current recommendation repeated.

If the route to be traveled is not clear, e.g. at an intersection where a change in direction is not specified, the travel direction can be displayed by pressing the right control knob .



Please follow the direction indicated by the arrow. The display appears for 8 seconds after the right control knob  is pressed.

## Warning

### Danger of accident

- Do not ignore traffic laws.
- ▷ If a driving recommendation contradicts the applicable traffic laws, the laws will always take precedence!

For clarification, the following contains some examples of possible driving recommendations:

- "Please make a U-turn if possible."



You are driving in the wrong direction and should turn around at the earliest opportunity.

- "Please take a right in 300 yards."



The arrow  points to the next street into which you should turn.

The progress bar on the right shows the distance and the black part decreases as you approach the intersection.

- "Please follow the road."



This display tells you that you should follow the course of the road on which you are currently traveling.

- "Prepare to turn left" or "Move into left-hand lane."



This recommendation prepares you for the next turn to be taken.

However, "move into the left-hand lane" does not mean that you should compromise safety by doing so immediately!

### Note:

At intersections and roundabouts, only the ends of the roads to be passed are displayed.

- "Please leave the roundabout at the third exit on the right."



This display shows you which exit (marked with the arrow) you must take at the roundabout.

- "Now drive straight ahead."



At this point, you must drive straight ahead.

- "Please follow the arrows."



This display tells you that you are on a non-digitized street (e.g. parking lot, garage) that is not included in the digital street map. The arrow indicates the direction of the destination as the crow flies.

- "Keep right after 2 Miles."



Keeping to the right means that the road will fork and you should follow the indicated direction.

- "You have reached your destination."



The specified destination has been reached and route guidance is terminated.

## 4.12. Information during route guidance



Press the left control knob

The destination, the distance and the estimated time of arrival are displayed.



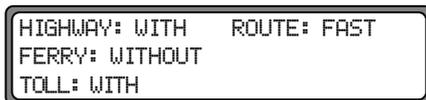
If a stopover was specified, the stopover, the distance and the estimated time of arrival are displayed. The main destination can be displayed with multifunction key .

To return to route guidance, press the left control knob again or wait for 8 seconds.

### Displaying route settings



During route guidance, press the left control knob . Press multifunction key .



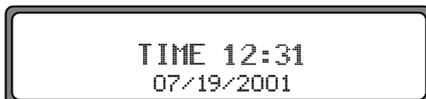
The route settings are displayed.

After 8 seconds, the system returns to the route guidance display.

### Requesting current time



During route guidance, press the left control knob . Press multifunction key .



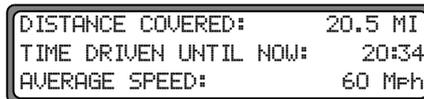
Current time and current date are displayed. After 8 seconds, the system returns to the route guidance display.

### Requesting trip duration and miles traveled

During route guidance, press the left control knob .



Press multifunction key .



The trip duration, miles traveled and the average speed are displayed. Press the right control knob  or  to return to the route guidance display.

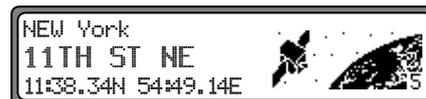
The information for trip duration, miles traveled and average speed can also be requested after your trip as previously described, provided that the destination flag waves once the destination is reached.

### Requesting current position

During route guidance, the current position can be requested.



Press multifunction key .



The current position with street name (if available), degrees of longitude and latitude and the number of satellites received are displayed.

Pressing the right control knob  will return you to the route guidance display.

#### Note:

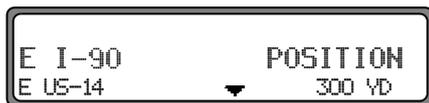
The current position can be requested even when route guidance is not active; just press the left control knob .

## Requesting road list

During route guidance, the planned route list can be requested.



Press multifunction key .



The current road and the road names up to the destination are displayed. Scroll through the route list by turning the right control knob .

Press the right control knob  to return you to the route guidance display.

### Note:

After entering the destination, it will take a short time (depending the distance from the destination) until the route list is compiled.

If the vehicle is "off road" at the moment of destination entry, the route list cannot be created until a stored road is reached.

## 4.13. Destination memory

In the Main Navigation Menu, select **DEST. MEMORY** with the right control knob  and press the control to confirm.



The destination memory contains personally saved destinations.

Once saved, there is no need to manually enter the destination.



Select the destination using the right control knob  and press the knob to confirm.

Then start route guidance.

## 4.14. P.O.I.

Menu for selecting points of interest from a predetermined list. Points of interest include gas stations, airports or hospitals, for example.



Using the right control knob , select **P.O. I.** in the main Navigation menu or in the stopover selection menu and press the control to confirm.



Use the right control knob  to make a selection and confirm.

- Points of interest **LOCAL AREA** / **NEARBY DESTINATION**

You can select points of interest within the current surroundings of the vehicle or points of interest near the destination.



Use the right control knob  to select a category and press the control to confirm.

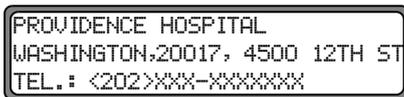


A maximum of 20 destinations is listed according to proximity. The mileage indication relates to the direct distance (as the crow flies) between the point of interest and the current location.

The arrows following the distance information indicate the distance as the crow flies to the respective point of interest (e.g.  point of interest lies in the direction of travel,  point of interest lies opposite the direction of travel). When traveling on a limited-access highway, it is best to choose a POI located in the direction of travel.

Select the desired destination with the right control knob .

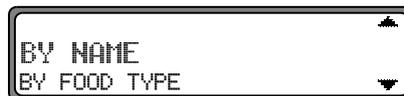
Pressing the left control knob  to list information about the selected destination (e.g. a hospital).



Confirm the selection with the right control knob . The system jumps to the route menu.

#### Note:

If you select category RESTAURANT, another menu appears.

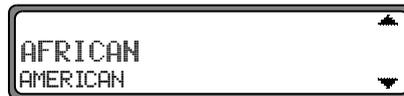


If you select BY NAME, all available restaurants will be displayed in a list. If there are more than 9 items in the list, you will be prompted to enter text.



Enter the restaurant and confirm. Confirm the point of interest in the list by pressing the right control knob .

Select BY FOOD TYPE to display a list with the different ethnic foods (i.e. Chinese).



Select the desired category with the right control knob .

The display shows only the restaurants belonging to this category.

#### • Points of interest TOWN

You may select any point of interest in the locations contained on the navigation CD.



Use the right control knob  to select the town name and press the control to confirm.

Then select the town from the town selection list with the right control knob  and press again to confirm.



The points of interest for the selected town are displayed.

Use the right control knob  to select a category and press the control to confirm.

A list with points of interest is displayed or, if the list contains more than 9 entries, you will be prompted to enter text.



Enter the point of interest and confirm. Confirm the point of interest in the list by pressing the right control knob .

The system jumps to the route menu.

**Note:**

A list of possible points of interest displays immediately when you press the right control knob  for more than 2 seconds without having selected any letters.

- Point of interest NATIONWIDE

Definite special point of interest categories are shown and may be selected.



Use the right control knob  to select a category and press the control to confirm.

A list with points of interest is displayed or, if the list contains more than 9 entries, you will be prompted to enter text.



Enter the point of interest and confirm. Confirm the point of interest in the list by pressing the right control knob .

The system jumps to the route menu.

**Note:**

A list of possible points of interest displays immediately when you press the right control knob  for more than 2 seconds without having selected any letters.

## 4.15. System settings

Press, in the Main Navigation Menu, . The system settings menu is called up.



Select

TIME,  
SAVE POSITION,  
\*LANGUAGE,  
ANIMATION,  
MEASURING UNIT,  
ANNOUNCEMENT ETA

by turning the right control knob , and confirm by pressing the control.

- TIME  
The system's internal clock can be set to the local time.
- SAVE POSITION  
The current position can be saved and saved in the destination memory.
- \*LANGUAGE  
Language setting for the navigation system.
- ANIMATION  
The Animation display can be turned on or off.

- **MEASURING UNIT**

The unit display can be set from meters to yards.

- **ANNOUNCEMENT ETA**

Announcement of the estimated time of arrival can be turned on or off.

### Setting time

In order to achieve correct navigation on routes with time-sensitive guidance and to calculate the estimated time of arrival, it is necessary to set the GMT time transmitted from satellites to the current time zone.



Set and confirm **TIME** in the System Settings menu.



Use the multifunction key **24H** to change the time display from the 24-hour to the 12-hour display.



Use the multifunction keys **+** or **-** and the

time is changed in half-hour intervals.

Press the right control knob **OK** or multifunction key **OK** to apply the time setting.

The program jumps back to the System Settings menu.

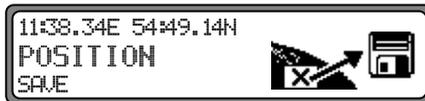
#### Note:

The calculated time of arrival is based on the time zone where the trip originated

### Storing location



Set and confirm **SAVE POSITION** in the System Settings menu.



The display shows the current coordinates (degrees of longitude and latitude) for the position.

Re-confirm by pressing the right control knob **OK**.



Enter the name of the position.

Press the right control knob **OK** for more than 2 seconds to confirm the name entered. To confirm, you may also mark the small check mark **✓** and briefly press the right control knob **OK**.

The destination memory is automatically requested (see page 23).

Select the desired position in the destination memory with the right control knob **OK** and press to confirm.

### Requesting location

Request destination memory (see page 23) and select the destination using the right control knob **OK**.

If the position is outside a digitized area, the driver is guided along the digitized route nearest to the destination. You will hear the announcement "Your destination is nearby." Follow the direction arrows to reach the destination.

## Setting the language



Set and confirm \*LANGUAGE in the System Settings menu.



Select the language with the right control knob . The language selection is applied when the control is pressed, and the language is installed.

You can choose a male or a female voice for certain languages.



Select the voice with the right control knob . The voice is applied and installed by pressing the control. The system returns to the system settings menu after installation is confirmed.

## Note:

In every language, menu entry \*LANGUAGE is preceded by an asterisk (\*). This way you can always recognize which entry in the System Settings menu means language. This may be of use if, e. g. an unknown language was set.

## Animations



Set and confirm ANIMATION in the System Settings menu.



You can select between animations ON and OFF by briefly pressing the right control knob . Press and hold the right control knob to accept the setting.

The system returns to the system settings menu.

## Switching announcement of the estimated time of arrival on /off



Set and confirm ANNOUNCEMENT ETA in the System Settings menu.

ETA stands for Estimated Time of Arrival.



You can select between ETA announcement ON and OFF by briefly pressing the right control knob . Press and hold the right control knob to apply the setting.

The system returns to the system settings menu.

## Selecting the units



Set and confirm MEASURING UNIT in the System Settings menu.



Select the units using the right control knob .  
The units are applied by pressing the control.

The system returns to the system settings menu.

### Note:

METRIC is for calculation in meters and kilometers.

IMPERIAL is for calculation in yards and miles.

## 5. Radio Mode

### Note:

If you live in an area where RDS/RBDS broadcast is unavailable, you may enable FM and AM manual tuning which will display radio frequencies rather than station type and call letters according to the procedures titled “Manual FM tuning” on page 31 and “Manual AM tuning” on page 32.

### 5.1. Switching to radio mode

Press **Rad**.

The last selected waveband is recalled.

### 5.2. Switch on radio menu mode.

Once you are in radio mode, press **Rad** again to access the menu.



The radio menu mode is activated and displayed. The unit switches back to radio mode if no key is pressed within the next 8 seconds.

### 5.3. Selecting the FM waveband

In radio menu mode, press **Fm**.



The last selected station and tuning mode are displayed.

By pressing repeatedly, you can choose between the following tuner modes:

- DAS Seek Qual. (see page 45)
- DAS Seek Name (see page 45)
- Stations RDS (see page 45)
- Stations Fix (see page 45)

### 5.4. Selecting the AM waveband

In radio menu mode, press **Am**.



The last station received is selected.

### 5.5. Setting options for station selection

The desired station can be selected via dynamic autostore (FM), autostore (AM), station search, scan search, manual tuning, and preset keys.

#### Dynamic auto store (FM-DAS)

In radio menu mode, press **Fm** repeatedly, until DAS Seek Qual. or DAS Seek Name is displayed.



In FM DAS mode, abbreviated names for the receivable stations are displayed above the multifunction keys depending on the settings. In the DAS Seek Qual. mode, stations are arranged in descending signal strength order; in DAS Seek Name mode, they are arranged alphabetically.



Set the desired station by pressing the key directly below the station designation.



Multifunction key **→** indicates that the key can be pressed to display and select additional stations.

If station names are being misused to transmit advertising or messages, this station is indicated with L-1...L-Z (L = Local) instead of the abbreviated station name. This prevents constant switching in the lower display line. When a station is selected, it is identified by a star (i.e. L\*1).

The first time the unit is operated, or when power supply was interrupted it may take the radio some time to evaluate the station signals. The display will appear incrementally as the evaluation progresses.

### Station search FM - DAS

Turn the right control knob **⦿** left or right. The radio displays the receivable and identified stations in descending/ascending order.

### AM transmitter search

Turn the right control knob **⦿** to the left/right in desired waveband. The radio searches for reception frequencies in descending or ascending order, respectively, of frequency.

### Scan search

On the desired waveband (FM, AM) press the right control knob **⦿**, **SC** will be displayed.



An automatic station search begins. The first run is performed on an insensitive level, stopping only at strong stations; all further runs at more sensitive level capturing weaker stations to fill any remaining preset locations. Receivable stations can be heard for 8 seconds. Press the right control knob **⦿** to stop the search at a certain station.

### Note:

With FM DAS, Scan Search is conducted in alphabetical order.

### Program type selection (PTY)

In radio menu mode, press **PTY**.



Then, using multifunction key **PTY** select the desired PTY (see page 45).

### Note:

Only the currently available PTYs may be selected.

If a PTY is selected in FM DAS mode, only the stations with this particular PTY can be selected.

If you select **NO** PTY in FM-DAS mode, all stations will once again be displayed.

### Switching PTY display on / off

Select radio menu mode.



Use multifunction key **Dis** to select either PTY (PTY display on) or **Frequency** (PTY display off).

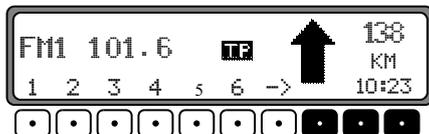
### Recalling/storing FM stations

In radio menu mode, use multifunction key **Fm** to select the **Stations RDS** or **Stations Fix** mode.

- **Stations RDS** (see page 45)
- **Stations Fix** (see page 45)

**Storing:** 12 frequencies or programs can be stored per waveband.

In order to store the desired station or program, tune to the station then press and hold multifunction key **1 - 6** or **7 - 12** until you hear a signal tone.



To access memory locations 7 - 12, press multifunction key **->**.

**Recall:** Momentarily press multifunction key **1 - 6** or **7 - 12**. The stored station is recalled.

### Recalling/Storing AM station

**To store:** Up to 12 stations can be stored on the station keys. Tune the desired station and press and hold the multifunction key until you hear a signal tone.

To access memory locations 7 - 12, press multifunction key **->**.



**Recall:** Momentarily press multifunction key **1 - 6** or **7 - 12**. The stored station is recalled.

### AM autostore

In the desired waveband, press **Rad**.



Press multifunction key **As** repeatedly until **Autostore on** appears.

Press multifunction key **As** until **Seek Autostore** appears.

The 6 stations with the strongest signal will be stored on the station keys in the order of their signal quality. In order to quit the autostore function, use multifunction key **As** to turn off the autostore function (**Autostore off**). The radio returns to the station preset mode.

### Manual FM tuning

In radio menu mode, use multifunction button **Fm** to select the **Stations Fix** mode.



Press multifunction key **Man** twice.

Next, turn the right control knob **⦿**.

Tuning will be in increments of 100 kHz.

The display will show that manual tuning is currently active with **MAN**. If the right control knob  is not turned within a short time, **MAN** will disappear from the display and manual tuning is turned off.

### Manual AM tuning

In the AM waveband, press **Rad.**



Press multifunction key **Man** twice.  
Then turn the right control knob .

The display will show that manual tuning is currently active with **MAN**. If the right control knob  is not turned within a short time, **MAN** will disappear from the display and manual tuning is turned off.

## 5.6. Regionalization

The RBDS/RDS diversity function is independent of region. Under these conditions, the RBDS/RDS diversity function may switch among various regional programs with different broadcast contents. If this should be the case, directly select the special regional sub-program.

If several regional programs are transmitted by one station, this can only be realized when the station is selected.

Stations with additional regional programs are indicated with a star (i.e. 4\*).



Upon selection of one of these stations (e.g. 4\*), all receivable regional sub-programs for this station will be displayed.

Then select the desired regional sub-program (e.g. **Ka**).



If, despite the RBDS/RDS diversity function, the reception of a regional sub-program is inferior, bear in mind that regional sub-programs are transmitted for the most part over only a few frequencies. Therefore, the unit has fewer frequencies with stronger signals to switch to.

### Switching regionalization on/off

Select radio menu mode.



Use multifunction key **Res** to turn regionalization on (ON) or off (OFF).

### Switching frequency display on / off

Select radio menu mode.



Use multifunction key **Dis** to select Frequency (Frequency display on) or PTY (Frequency display off).

## 5.7. Switching radio text display on / off

Select FM radio menu mode. Use multifunction key **Txt** to switch on radio text.

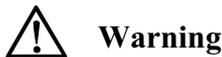


The car radio filters information from the data transmitted by the station and displays as radio text.

Radio text cannot be displayed unless the selected station transmits radio text.

Unfavorable reception conditions, including interference, can garble or even block a radio text display.

In order to quit the radio text mode, press **Rad**.



### Warning

#### Danger of accident

- Do not read Radio text while driving.
- ▷ Please read the radio text only when the vehicle is stationary.
- ▷ As the radio text contents change constantly and may distract the driver, radio text should only be read when the vehicle is not in motion.

## 5.8. Traffic Program (TP)

If an RBDS/RDS diversity station transmits TP announcements, it is possible to have CD, CDC, and AM operation interrupted so that the transmitted TP announcements can be played. Moreover, you can listen to one FM station while receiving TP announcements transmitted by another FM station.

There are two ways to select a TP transmitter:

- **automatic tracking**
- **direct programming**

**Automatic tracking** always uses the current FM station as TP-transmitter. If the selected FM station has poor signal quality or cannot function as a TP transmitter, the unit applies specified criteria to search for a new TP transmitter.

**Direct programming** makes it possible to have a TP transmitter different from the current FM station. For example, one FM station and TP announcements transmitted by another FM station can be received simultaneously.

If reception from the programmed TP transmitter is poor, the unit switches to automatic tracking until the programmed TP transmitter is receivable.

If an RBDS/RDS station is equipped with traffic programming, this is indicated by TP in the display.

An inverse **TP** appears on the display to indicate that the TP is active.

### Activating/Quitting the TP Menu

**Activating:** Press the **TP** key (not during a traffic announcement).

Press multifunction key **TP**.



**Quitting:** Press **TP**, otherwise the TP menu will be automatically be terminated after 8 seconds without actuation.

## Setting automatic tracking

In all modes and wavebands, automatic tracking can be activated by pressing **TP** for more than 2 seconds.

To activate automatic tracking in the TP menu, press multifunction key **TP** repeatedly until **TP on** appears.



### Note:

If a TP transmitter was already programmed directly, it will once again be selected as the TP transmitter.

## Selecting / Deleting Direct Programming

Activate the TP menu.

**Selecting:** Press multifunction key **Sta**.



Use the right control knob **⬤** to select the desired TP transmitter. After a short delay without actuation, the selected transmitter is applied.

**Deleting:** Press multifunction key **Sta**.



Select **Autoselect** with the right control knob **⬤** and press the control to confirm. After a short delay and without actuation, direct programming is deleted.

Quit the TP menu.

## Deactivating the TP

In all modes and wavebands, TP can be turned on or off by pressing **TP** for more than 2 seconds. The display changes from the inverse symbol to TP.

To deactivate TP in the TP menu, press multifunction key **TP** repeatedly until **TP off** appears.



TP is deactivated after returning to the normal display.

## Switching Mute on/off

After selecting a TP transmitter, the mute function can be activated by briefly pressing **TP**.



Thereafter, only traffic announcements and navigation announcements will be passed through. After pressing **TP** again, muting is canceled.

## Interrupting TP announcements

During a TP announcement, briefly press **TP**.

The current announcement is interrupted and the system will automatically return to the previously selected mode.

## TP announcement volume

Activate the TP menu. Press multifunction key **Vol**



You can select four different settings (0 - 3) with the right control knob . This means that the volume can be raised to a fixed value according to the setting.

- Setting 0 - no increase
- Setting 1 - slight increase
- Setting 2 - strong increase
- Setting 3 - strong increase



## Warning

### Danger of accident

- Too high a volume poses dangers and risks.
- ▷ Adjust the volume to a level that will allow you to still hear traffic noises (horns, sirens, etc.).

## 5.9. Telephone Muting

The telephone characteristics can be set in the user menu (Page 41) if a telephone system is installed in the vehicle and the mute function lead for the car telephone is connected to the car radio.

If **mute** is selected, the radio is muted when a call is received.

If **audio signal** is selected, the telephone call is connected through the radio unit when a call is received (ignition must be on).

However, this is only possible if, in addition to the telephone, a hands-free unit with loudspeaker output is installed and connected to the radio. In both cases **PHONE** will be displayed.



## 6. CD mode



### Warning

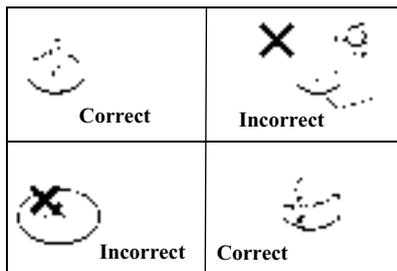
#### Danger of accident

- to the eyes caused by invisible laser rays when the unit cover is opened or damaged.
- ▷ Do not remove the unit covers and do not use the unit if the covers are damaged.
- ▷ The CD laser optics are a Class 1 laser product. There are no user-serviceable components in the unit. For safety reasons, any maintenance work must be performed exclusively by qualified service personnel.

### Instructions for the Compact Disc (CD)

Sound interruptions may occur if the CD is soiled. In order to ensure the highest tone quality, please note the following:

- Always touch the CD at the edges only. Keep the disc clean and never touch the surface.
- Never stick anything on the CD.
- Protect the CDs against direct sunlight and from heat sources such as heaters etc.
- Before playing the CD, you should clean it with a special, commercially available cleaning cloth, wiping from the center outwards. Solvents such as petrol, thinners or other commercially available cleaners and anti-static sprays must not be used.



## 6.1. Inserting / Ejecting CDs

Press and hold ; the faceplate folds down and the CD slot becomes visible. Insert the disc into the CD slot with the printed side upwards. The CD is automatically drawn into the player and the unit begins to play the disc from the first track. Fold the faceplate up again.

Once the last track is played, the unit will start playing the CD again from the first track.

If there is already a CD in the slot, press . If the CD changer was the last selected unit, use the multifunction key to switch to CD operation.



To eject a CD, press and hold ; the display folds down and the CD is ejected. Remove the CD. Then fold the display up again.



### Warning

#### Danger of accident

- ▷ Do not open detachable faceplate while driving for safety reasons.

**Note**

When the unit is turned off, the CD will not be ejected, but will remain in the CD slot.

**6.2. Skipping to the next/previous track**

Press multifunction key **>|** (next) or **<|** (back).



Press the multifunction keys repeatedly to skip several tracks forward or reverse. The unit switches to the first track once the last track is finished. Analogously, it switches from the first track to the last track.

If a title has been playing for more than 10 seconds when the skip key is pressed, the unit will skip back to the beginning of the current track.

**6.3. Scan search**

Press the right control knob **⦿**, and **SC** will appear in the display.



All following CD tracks are played for 10 seconds each. Press the right control knob **⦿** again to terminate the scan search.

**6.4. Fast Forward / Rewind**

By pressing the multifunction key **>|** (audible) fast forward is activated; conversely, by pressing the multifunction key **<|** (audible) fast rewind is activated.



Fast forward / rewind terminates when you release the multifunction key.

**6.5. Random Play**

Press the multifunction key **Rnd** to activate the random generator. The tracks on the current CD are then played in random order. The prompt **Rnd** is displayed inversely.



If you press the multifunction key **Rnd** again, the random play function is deactivated.

**6.6. Repeating a track**

Press the multifunction key **Rpt** to turn on the track repeat function. The prompt **RPT** is displayed inversely.



If you press the multifunction key **RPT** again, the track repeat function is switched off.

## 6.7. Number of tracks and total playing time

In CD mode, press **CD**. Press the multifunction key **Trk** to briefly display the elapsed time for the tracks already played.



Press the multifunction key **Ttl** to briefly display the number of tracks and the total playing time of the current CD.

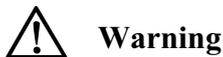
## 6.8. Temperature Protection Circuit

A temperature protection circuit in this unit protects the laser diode against overheating.

When the protection circuit is activated, **TEMP** is displayed for 8 seconds and the unit switches back to radio mode.

The single CD operation can be restarted after a short cool-down phase. However, if the temperature is still too high, the unit again switches back to the previously selected signal source.

## 7. CD Changer Mode



### Warning

#### Danger of accident

- to the eyes caused by invisible laser rays when the unit cover is opened or damaged.
- ▷ Do not remove the unit covers and do not use the unit if the covers are damaged.
- ▷ The CD changer is a Class 1 laser product. There are no user-serviceable components in the unit. For safety reasons, any maintenance work must be performed exclusively by qualified service personnel.

### Operational readiness of CD changer

If a CD changer is connected to the car radio, it is ready for operation when loaded with a CD magazine containing CDs. Close the sliding door after loading. All further control is performed from the car radio control panel.

#### CD Magazine - Loading / Unloading

To remove the CD magazine, open the sliding door on the changer and press the eject key. The magazine is ejected and can be removed. When inserting CDs into the magazine, please note the instructions printed on the magazine.

#### Note

Incorrectly inserted CDs will not be played.

#### Note

To allow for the fastest possible changing of CDs, the magazine should be loaded in order, beginning with Compartment 1.

## 7.1. Playing CDs

Press **CD**. If the unit was last set to CD changer operation or if there is no CD (or navigation CD) in the CD drive, the CD changer menu is now active.

If CD operation was last selected, use multifunction key **CD** to switch to CD changer operation.

The CD is played from the last track played when it was previously turned off.

Stored CDs can be selected by turning the right control knob **⦿**. During the selection time the display shows **Loading CD X**. Then, the display shows the magazine compartment number or the name of the CD and the number of the current track on the selected CD.



If no CD is loaded in the selected magazine compartment (i.e. Compartment 2), **NO CD 2** will briefly appear on the display.

Once the last track of a CD is played, the next CD will automatically be selected and played.

For further operation see refer to CD Mode (Page 36):

- "CD mode" on page 36
- "Skipping to the next/previous track" on page 37
- "Scan search" on page 37
- "Fast Forward / Rewind" on page 37
- "Number of tracks and total playing time" on page 38
- "Random Play" on page 37

## 7.2. Naming a CD

In CD changer mode, press **CD**. Then press **Nam**.



To enter a name or change an existing name, press the multifunction key **Edit**.



Using the multifunction keys **<-** and **->** select

the desired position (inverse editing symbol).



Using the right control knob **⬇**, select the desired letter and press the control to confirm.

Press the right control knob **⬇** to move to the next position.

A maximum of 8 characters can be entered.

Once you exit the CDC menu, the name is saved.

To delete an existing name, press **Nam**.

Use the right control knob **⬇**, to select the name to be deleted.



You can now delete the name by pressing the **Del** multifunction key.

## 7.3. CD Filter Function

In CD changer mode, press **CD**. Then press the multifunction key **Fil**.



The individual titles of the current CD can be selected using the right control knob **⬇**. It is then possible to select between **Play** (track not filtered) and **Skip** (track filtered out) by pressing the right control knob **⬇**.

In order to switch the filter function on or off, repeatedly press the multifunction button **Fil**. The filter function is switched on (**Fil on**) or off (**No Fil**).

### Note

The filter function can only be activated when the selected CD is named.

## 8. User menu

### 8.1. Requesting/quitting user menu

After requesting the user menu, the following basic settings can be selected on two planes according to your personal preference.

First plane:

- Gal - Speed dependent volume control (GAL)
- Tel - Telephone characteristics
- Lcd - Adjusting display
- Led - Adjusting flashing diode
- M/S - Adjusting reception optimization
- Nav - Adjusting navigation announcements

Second plane:

- Aux - aux input setting
- Comp - compass display setting
- Bev - Adjusting signal tone volume

The user menu is requested by pressing the **F** key for more than 2 seconds.



In order to access the second plane of the user menu, press the **->** multifunction key. Press the **F** key again to quit the user menu.

### GAL (Gal) setting

The GAL is a car radio control circuit, which automatically adjusts the car radio volume to the vehicle speed. This compensates for the driving noise produced at higher speeds.

Request the user menu. Press multifunction key **Gal**. With the right control knob **0**, select either **0** or **+15**.



With the GAL settings, the beginning of volume adjustment can be specified according to vehicle speed. The setting is stored automatically.

Explanation:

- **0** - No volume increase
- **+1** - Volume adjustment is initiated at low speed
- **+15** - Volume adjustment is initiated at higher speed

### Telephone mute characteristics (Tel)

If the vehicle has a telephone system with hands-free unit, the call can be heard through the car audio system. Thus, there is no need for the usually required additional speaker. However, the signal cables (AF - telephone input and ground - telephone input) must be connected to the car radio (see page 46).

For selection, request user menu. Press multifunction key **Tel** to select audio signal or mute.



- **mute** - Telephone mute setting
- **audio signal** - Route call through radio

### Display setting (Lcd)

The display setting allows you to select from three different display versions.

- **Negative Display Setting (negative)**
- **Positive Display Setting (Positive)**
- **Automatic Display Setting (automatic)** – the display setting will be positive or negative depending upon the vehicle illumination.

For selection, request the user menu. Press multifunction key **Lcd** to select **negative**, **Positive** or **automatic**.



The setting is stored automatically.

### Flashing diode (LED) setting

The flashing of the LED (flashes when unit is off) can be turned on or off using this function.

Request the user menu. Press multifunction key **Led** to select either **blinking** (LED on) or **off** (LED off).



The setting is stored automatically.

### Setting reception optimization (M/S)

You can choose from two different reception optimization settings to suppress reception-dependent interference and reflections.

Request the user menu. Press multifunction key **M/S** to make your selection from **Stereo**, **Mono** and **Auto**.



- **Auto**: Setting for normal operation - i.e., the system switches from stereo to mono and back depending upon reception level (provides the optimum setting for almost all reception areas).
- **Stereo**: Setting for exceptional reception conditions - i.e. the unit is constantly set to stereo.
- **Mono**: Setting for reception conditions in which reflections constantly occur - i.e., the unit is set constantly to mono.

The setting is effective immediately and is also retained after power is turned off.

### Setting navigation announcements (Nav)

With this function you can select how to hear navigation announcements.

- **only**: The current audio source is turned off and only the navigation announcements can be heard.
- **mixed** - The volume of the current audio source is lowered. The navigation announcement is set to the same volume as the current audio source but is still adjustable within a range of +/-6 dB. If the audio source volume is then changed, the navigation announcement volume is adjusted accordingly.
- **independ** - The current audio source and the navigation announcements can be set to different levels.

For selection, request the user menu. Press multifunction key **Nav** to make your selection from **only**, **mixed** and **independ**.



The setting is stored automatically.

### AUX input (Aux)

This can be used to switch on the CD changer AF connections if no CD changer is connected. An external unit (Discman, Walkman, etc.) can then be connected.

For selection, request user menu. By pressing the multifunction key **->** request the second plane of the user menu. Using the multifunction button **AUX** select either **AUX mode on** (on) or **Aux mode off** (off).



The setting is stored automatically.

In CD mode, press the **AUX** multifunction button in order to select AUX mode.

### Compass display

If route guidance is not active, it is possible to display a compass on the right side of the display.

For selection, request user menu. By pressing the multifunction key **->** request the second plane of the user menu. Using the multifunction key **CMP** select either **show COMPASS** (compass is displayed) or **hide COMPASS** (compass is not displayed). If the compass display is switched off, 9 multifunction buttons are assigned transmitter abbreviations in FM - DAS mode (route guidance not active).

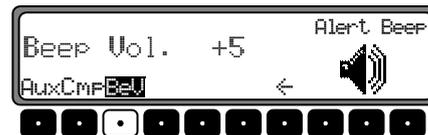


The setting is stored automatically.

### Signal tone volume

The volume of signal tones (e.g. storage confirmation) can be set using this function.

For selection, request user menu. By pressing the multifunction key **->** request the second plane of the user menu. Press multifunction key **BeU**. With the right control knob **⦿**, select either **0** (Low) or **+5** (Loud).



The setting is stored automatically.

## 9. Service Menu

### 9.1. Requesting /Quitting the Service Menu

The following information can be called up in the Service menu.

- Model-No. :- Display of the model number
- Serial-No. :- Display of the serial number
- Changet Reset- Reset for CDC (if present).  
For Reset, press multifunction button **Res**.
- GAL - Display of the current GAL adjustment
- Radio Software - Display of radio software status
- Radio Bolo - Display of radio Bolo status
- Navi Rom - Display of Navi Rom/Lib status
- Navi Flash - Display of Navi Flash status
- RTC Value - Display of RTC value

In order to select the service menu, press **Nav** and multifunction key 10 simultaneously in radio mode.



Use multifunction keys **Nxt** and **Prv** or turn the right control knob **●** to select the individual items.

To quit the service menu, press **End**.

### 9.2. Triggering a Reset

If a malfunction of the unit should occur that renders the unit inoperable or if the unit is defective in any other way, trigger a restart of the internal unit software (reset) with the following key combination:

In order to trigger a reset, press multifunction key **1** or **3** and **TP** simultaneously.

The navigation CD must be inserted after a reset of the unit software.

## 10. General instructions

### RBDS SYSTEM

This car radio is capable of receiving RBDS signals (RBDS = Radio Broadcast Data System) on the VHF band. RBDS is a technology for transmitting inaudible additional information in the VHF broadcasting range. This means that the station broadcasts information which can be evaluated by the car radio.

#### DAS Seek Qual. level

On level **DAS Seek Qual.**, all receivable and identifiable RBDS programs are stored in a list sorted according to signal strength. The dynamic autostore, search and scan search functions use this list.

#### DAS Seek Name level

On level **DAS Seek Name**, all receivable and identifiable RDS programs are stored in a list sorted alphabetically by name. The dynamic autostore, search and scan search functions use this list.

### RBDS Stations level

On level **Stations RDS** only identified RBDS stations can be saved. The unit constantly switches to the best receivable transmission frequency for the station. During the search for **Stations RDS** the unit will stop only at identifiable stations.

#### Stations Fix Level

At the level **Stations Fix** frequencies can be assigned to the station keys. There is no RBDS evaluation. The search function on **Stations Fix** is equivalent to manual FM tuning (Page 31).

#### PTY (Program Type)

Specific types of programs, such as sports, pop music, classical music etc., can be selected using the PTY function.

The PTY is transmitted by the RBDS station, provided this function is installed at the broadcaster. You can display the selected transmitter's program type or perform a search for a specific PTY transmitter.

Examples of program types:

NEWS	News service
SOFT	Easy Listening
INFORM	Information programs
NOSTALGA	Nostalgia
SPORTS	sports news

JAZZ	Jazz
TALK	Talk
CLASSICL	Classical
ROCK	Rock
R&B	R&B
CLS ROCK	Classic rock
SOFT R&B	Soft R&B
ADLT HIT	Adult contemporary
LANGUAGE	Language
SOFT RCK	Soft rock
REL MUSC	Religious music
TOP 40	Top 40
REL TALK	Religious talk
COUNTRY	Country
PERSNLTY	Personality
OLDIES	Oldies
PUBLIC	Public
WEATHER	Weather forecast
PTY 24-28	not specified

## 11. Technical Data

### Wavebands:

FM 87.9 MHz - 107.9 MHz

AM 530 kHz - 1700 kHz

### Frequency range:

20 Hz - 20 kHz for CD operations

30 Hz - 15 kHz for FM

50 Hz - 2.5 kHz for AM

### Output:

4 x 18 Watt

### Line cross section:

0.75 mm<sup>2</sup> min.

### Loudspeaker impedance:

min. 4  $\Omega$

### Line out:

4 x analog Line Out (Va max 3Veff at 10 k $\Omega$ )

### GAL:

Speed dependent volume control; the adjustment is performed in 8 to 19 steps of 1.25 dB, dependent on current setting.

### Antenna:

Impedance 50  $\Omega$

### AF telephone input:

Max. input voltage 8 V (if interference occurs, a commercially available 1 : 1 transmitter should be connected into the signal cable).

### AUX input:

16 k $\Omega$  input impedance, max. input voltage 1.7 Veff

### Telephone Mute:

Low active level < 2 Volt

### Supply voltage:

12 Volt

### Playable CDs:

Only CDs which comply with DIN EN 60908 can be used.

8 cm CDs with adapter are not recommended.

