



User Guide

TRAFFICPRO II™

Ford Motor Company

Web Page

For online specifications, features, installation procedures, frequently asked questions, and information on CD database upgrades, please visit our website at www.trafficpro2.com.

Hotline

If the web page does not provide the assistance you need or you would prefer to talk with someone in person, please call the Traffic Pro II Hotline at 1-800-422-8027.

Ford Motor Company Accessories Limited Warranty

Ford Motor Company will repair or replace any properly dealer-installed Ford or Mercury accessory found to be defective in factory-supplied materials or workmanship during the warranty period, as well as any component damaged by the defective accessory. The accessory will be warranted for whichever provides you the greatest benefit:

- 12 months or 12,000 miles/20,000km (whichever occurs first), or
- The remainder of your 3-year/36,000 mile New Vehicle LimitedWarranty.

CD Compatibility

In order not to void warranty, please only play 4 ¾" audio CDs that do not have homemade labels.





Warning - Danger of Accident

Do Not Program the Navigation Unit While Driving

Destinations should be entered only while the vehicle is stationary.

Use of the navigation unit is advised only if 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.

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, such as road construction or detours. Therefore, you must always observe the actual road signs and traffic regulations.

Do Not Misuse the Unit

The navigation system serves solely as an aid to navigation. The navigation system must not be used as an orientation aid in times of poor visibility. The volume of the radio and the navigation system should be adjusted so that external noises to the vehicle are still audible.

Turn the unit off immediately if a serious malfunction occurs.

Table of Contents

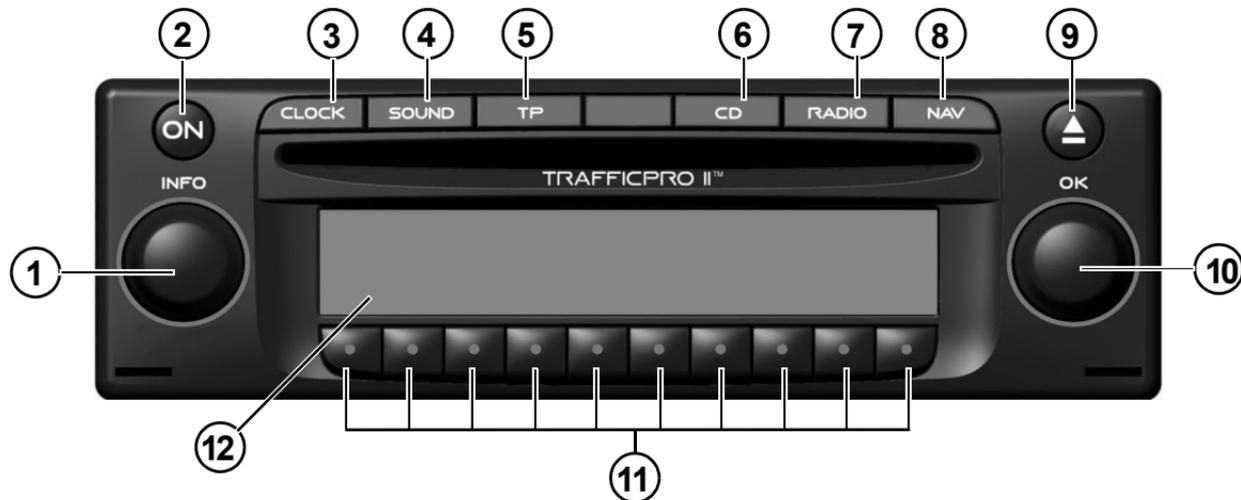
Unit Overview	5	Entering a Town/City/County Center for the Destination	19
Anti-Theft Device	6	Destination Memory	20
General Operation	7	Deleting a Destination from the Destination Memory	21
Turning the Navigation Unit On and Off	7	Destination Memory Full	21
Adjusting Volume	7	Last Destinations	21
Activate Sound Menu	7	Deleting a Destination from Last Destination Memory	21
Bass	8	P.O.I. (Points of Interest)	22
Treble	8	P.O.I - Local Area or Near Destination	22
Fader	8	P.O.I - Town/City/County	23
Balance	8	P.O.I - Nationwide	24
Linear Setting	9	Route Menu	25
Subwoofer Volume	9	Entering a House Number	25
Loudness	9	Selecting an Intersection	26
Navigation	10	Selecting the Route Settings	27
What is Navigation?	10	Saving a Destination	28
Safety Instructions	10	Route Guidance Calculation	29
Navigation CDs	10	Recalculating Route	29
General Information	11	Stopover	30
Confirm Warning	13	Entering a Stopover	30
Selecting Navigation	13	Starting Route Guidance to a Stopover	30
Main Navigation Menu	14	Deleting a Stopover	31
Destination	14	Arriving at a Stopover	31
Entering a Country for the Destination	15		
Entering a Town for the Destination	16		
Entering a Street for the Destination	17		

Table of Contents

Traffic Jam	31	Time Zone Increment/Decrement	46
Entering the Length of a Traffic Jam	31	Offsetting the Clock	46
Cancel Traffic Jam	32	Radio Mode	47
Canceling Route Guidance	33	Switching to Radio Mode	47
Notes on Route Guidance	33	Selecting the FM Waveband	47
Information During Route Guidance	36	Channel Selection for FM Operation	47
Requesting Trip Duration and Miles		Station Search	48
Traveled	36	Scan Search	48
Displaying Route Settings	36	Manual FM Tuning	48
Destination Information with Stopover	37	Storing/Recalling FM Stations	49
Requesting Current Position	37	Dynamic Autostore (FM-DAS)	49
Requesting Route List	38	FM Mode Options	50
System Settings	39	Program Type Selection (PTY)	50
Save Position	39	Switching PTY/Frequency/Clock Display	51
Language	40	Switching Regionalization On/Off	51
Female/Male Voice	41	Regionalization	51
Animation	41	Switching Radio Text On/Off	52
Measuring System	42	Selecting AM Waveband	53
Announcement ETA	42	AM Autostore	53
Clock Operation	43	Manual AM Tuning	54
Displaying the Current Time	43	Storing/Recalling AM Stations	54
Time Setup Menu	43	Traffic Program (TP)	55
12/24 Hour Mode	44	Automatic Tracking	55
Daylight Savings Time	44	Direct Programming	55
Time Zone Selection	45	Activating/Quitting the TP Menu	55

Table of Contents

Setting Automatic Tracking	56	Display Setting	67
Selecting/Deleting Direct Programming	56	Flashing Security Led	67
Switching Mute On/Off	57	Reception Optimization (M/S)	68
Interrupting TP Announcements	57	Navigation Announcement Mode	68
TP Announcement Volume	57	AUX Input (Auxiliary)	69
Telephone Operation	58	Display Compass	70
CD Operation	59	Beep Volume (BeV)	70
Instructions for Compact Discs (CDs)	59	Service Menu	71
Inserting/Ejecting CDs	59	Request/Quit Service Menu	71
Playing an Audio CD	60	System Calibration	72
Track Skip - Forwards/Backwards	60	Calibrate the System	73
Scan Search	60	Triggering Reset	73
Fast Forward/Rewind	61	Connection Instructions	74
Random Play	61	General Information	76
Track Repeat	61	RBDS System	76
Time Mode Selection	62	Stations Fix Level	76
Temperature Protection Circuit	62	RBDS Stations Level	76
Selecting AUX Audio	62	DAS Seek Qual. Level	76
CD Changer Operation	63	DAS Seek Name Level	76
Loading/Ejecting the CD Magazine	63	PTY (Program Type)	77
Playing CDs	63	Technical Data	78
User Menu	65	Regulatory Notice	79
Requesting/Quitting User Menu	65		
GAL Setting	66		
Telephone Mute Characteristics	66		



① Left knob ● (Volume/Info)

② On/Off button **ON**

③ Clock button **CLOCK**

④ Tone button **SOUND**

⑤ Traffic Program button **TP**

⑥ CD selection button **CD**

⑦ RADIO selection button **RADIO**

⑧ Navigation selection button **NAV**

⑨ CD Eject button **▲**

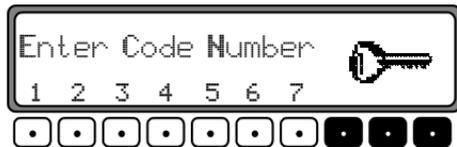
⑩ Right knob ● (Selection/OK)

⑪ Multifunction keys **xxx** (xxx = key label)

⑫ Display

Anti-Theft Device

Your system is equipped with an anti-theft device. It prevents unauthorized use of the navigation unit if it is disconnected from the battery. The unit will display “Enter Code Number” when it is turned on after the battery is connected.



When this screen appears, enter the five-digit code number from the CODE CARD that came with the unit, using multifunction keys 1 through 7.

Example: Code number 15372

The unit enters normal operation once all 5 digits have been entered correctly.

NOTE: It is important to store the CODE CARD in a safe place outside of the vehicle to prevent unauthorized use if the vehicle or unit is stolen.

You will need to re-enter the security code number any time the battery is disconnected from the vehicle. Be careful not to dispose of the CODE CARD.

If an incorrect code number is entered, “Enter Code Number” will be displayed again. “Code wait” will be displayed after three failed attempts to enter the code number correctly. The unit will remain locked for 10 minutes following the failed attempts.



Three further incorrect entries will lock the unit for an additional 10 minutes.

NOTE: The waiting time will elapse only while the unit is turned on.

Turning the Navigation Unit On and Off

Press the **ON** button to manually turn the unit on or off. The unit can also be turned on and off using the vehicle's ignition. The unit will turn off approximately 5 seconds after the vehicle ignition is turned off.

The unit can be kept on by pressing the **ON** button within 5 seconds of turning off the ignition. If the unit is turned off using the ignition, it will turn on automatically when the ignition is turned back on. The unit will remain off if it is turned off using the **ON** button until the **ON** button is pressed again.

NOTE: The unit can also be turned on while the vehicle's ignition is off by pressing the **ON** button. The unit will shut off automatically after 1 hour in this condition.

Adjusting Volume

Increase or decrease volume by turning the left knob . The volume level can be seen on the display while changing the volume.

There are different volume levels for audio programs and navigation announcements so both must be set to the

desired levels. Set the navigation announcement volume by turning the left knob  while a navigation announcement is playing. You can initiate an announcement if route guidance is active by pressing the left knob .

Activate Sound Menu

Select the sound menu by pressing the **SOUND** button for less than 2 seconds. The following adjustments can be made in the sound menu: Bass (Bas), Treble (Trb), Fade (Fad), Balance (Bal), Linear Setting (Flt), Subwoofer (Sub) and Loudness (Ldn).

Bass and treble settings for the FM, AM, CD, CD changer/AUX input, navigation announcements and telephone operation are stored separately. Fade, balance, subwoofer, and loudness are common across all audio modes.

Once the desired changes are made, press the **SOUND** button again to return to normal operation. If the **SOUND** button is not pressed, the unit will return to normal operation after 10 seconds.

General Operation

Bass



To adjust the bass, press the **SOUND** button. Adjust the bass to the desired level by turning the right knob . The display will show which audio mode is being changed (AM, FM, CD, etc.). **Bas** is the default so the multifunction key will only need to be pressed if you have selected another audio setting first.

Treble



To adjust the treble, press the **SOUND** button. Then press the **Trb** multifunction key and adjust the treble to the desired level by turning the right knob .

The left part of the display will show which audio mode is being changed (AM, FM, CD, etc.).

Fader



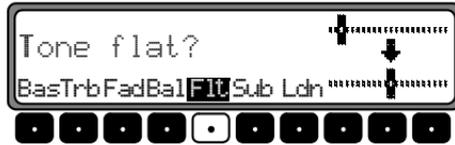
To adjust the fader between speakers, press the **SOUND** button. Then press the **Fad** multifunction key and adjust the fader setting to the desired level by turning the right knob .

Balance



To adjust the balance between speakers, press the **SOUND** button. Then press the **Bal** multifunction key and adjust the balance to the desired level by turning the right knob .

Linear Setting



To reset the tone setting, press the **SOUND** button. Then press the **Flt** multifunction key.

“Tone flat?” will be displayed. By pressing the **Flt** multifunction key again, the tone adjustments bass and treble, for the current signal source, such as FM, will be reset to mid-level (zero).

Subwoofer Volume



To adjust the subwoofer volume, press the **SOUND** button. Then press the **Sub** multifunction key.

Adjust the subwoofer level by turning the right knob . (This setting only applies to systems equipped with a subwoofer.)

Loudness



To adjust the loudness, press the **SOUND** button. Then press the **Ldn** multifunction key.

Select Loudness ON or Loudness OFF by pressing the **Ldn** multifunction key. Loudness is automatically turned off in AM radio mode.

Navigation

What is Navigation?

The GPS antenna receives latitude and longitude signals from GPS satellites orbiting the earth. These signals give the navigation system an indication of the vehicle location. The covered distance is measured by an electronic signal related to the vehicle speed. A built-in gyro sensor measures the vehicle rate of change of steering angle. The navigation system uses all of these signals to determine the current vehicle position relative to the digitized map stored on the navigation CDs.

The navigation system then determines the route to the selected destination and provides instructions as the vehicle moves toward the destination. For safety reasons, route guidance is predominantly in spoken form, supported by a direction indicator on the display.

Safety Instructions

- Do not enter navigation instructions while the vehicle is moving. The distraction may cause an accident.
- Observation of traffic signs and local traffic regulations must always takes priority.

- Traffic guidance is restricted to passenger vehicles. Special driving recommendations and regulations for other vehicles, such as commercial vehicles, are not included.

Navigation CDs

The navigation unit is provided with two navigation CDs. One CD contains data for the western half of the USA and some of the major cities in Hawaii and Canada (Western USA Navigation CD) and the other CD contains data for the eastern half of the USA and some of the major cities in Canada (Eastern USA Navigation CD). Data for North Dakota, South Dakota, Nebraska, Kansas, Oklahoma and Texas are contained on both CDs to allow for an uninterrupted crossing between the two regions. See the striped area on the map below.



The navigation CDs contain digitized street maps. Highways, state and county roads, as well as local streets, are detailed in this map. Many of the streets have the ability to route to individual house numbers and addresses. Larger cities and communities are covered. Regional and unclassified roads or through-roads and town centers are included for smaller towns and communities. The CDs also contain P.O.I.s (Points of Interests) which include gas stations, airports, restaurants, hospitals, etc.

One-way streets, pedestrian zones, no-turn intersections and other traffic regulations are covered where possible. There may be discrepancies between the data on the navigation CDs and the actual local situation, due to continuous changes to the road systems and traffic regulations. You must follow the posted regulations even if they contradict the navigation announcements in all cases.

General Information

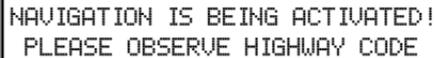
- In navigation mode, the radio, CD, CD changer, phone and auxiliary audio operations continue. Audio navigation announcements will not be heard during a phone call while phone audio is routed to the radio speakers.
- The distance to the next directional announcement and estimated time of arrival will be shown on the right side of the display.
- Press the **RADIO** button to select radio mode once route guidance is active. Press the **CD** button repeatedly to toggle between CD and CD changer/AUX audio mode once route guidance is active.
- The route guidance display is automatically shown when directional announcements are given.
- Enter addresses with the right knob . The display shows only those letters, numbers and symbols that can be used to make a valid address. Entries are automatically completed. An empty space, such as in New York, must be entered with an underscore (_).

Navigation

- The multifunction keys **1** through **10** may also be used to select letters, numbers and symbols. Select individual symbols by pressing the appropriate multifunction keys under the desired symbol repeatedly until that symbol appears on the display.
- Press the **NAV** button to quit the current menu and return to the previous menu.
- The system recalculates a route if a change is made.
- Repeat the current navigation announcement by pressing the left knob .
- Adjust the navigation announcement volume by turning the left knob  during a navigation announcement. Adjust the tone settings by pressing the **SOUND** button during the announcement (see page 7 for more information).
- Press the left knob  to request additional information during route guidance, or the current position when route guidance is not active (see page 36 for more information). If the right knob  is pressed during route guidance, WAY ROUTE is displayed (see Notes on Route Guidance page 33).
- Press the left knob  to interrupt the current navigation announcement.
- Turn off announcements by pressing the left knob  for more than 2 seconds during a navigation announcement. Route guidance will only then be shown on the display. Turn the navigation announcements on by pressing the left knob  again.
- The scroll marks  and  indicate a selection list through which you can scroll by turning the right knob . Select the highlighted entry by pressing the right knob .
- The confirmation beep will not be heard if the optional checkmark  is used, when available, to confirm selection.
- The navigation unit will prompt you to insert the navigation CD as needed, such as when programming destinations, when deviating significantly from a programmed route, etc. Please insert the navigation CD to maintain proper route guidance when prompted. The navigation CD may be replaced with an audio CD once the route information is loaded. The CD indicator on the display will no longer be displayed.

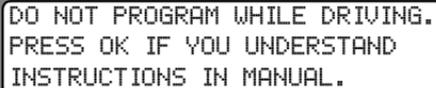
Confirm Warning

A warning message will appear each time you turn your radio on after selecting navigation operation. This message indicates that the navigation system is still initializing.



NAVIGATION IS BEING ACTIVATED!
PLEASE OBSERVE HIGHWAY CODE

The above message will go away after a short time and will be replaced by the warning message shown below. The message will appear each time you select navigation after starting the vehicle.



DO NOT PROGRAM WHILE DRIVING.
PRESS OK IF YOU UNDERSTAND
INSTRUCTIONS IN MANUAL.

When you confirm the receipt of the warning, you state that you have read and understood this user guide and that you are aware of the dangers associated with the use of this navigation equipment. The navigation system will not operate until this prompt is confirmed. Press the right knob  to confirm the selection.

Selecting Navigation

Press the  button. If necessary, confirm the warning as described previously.

Next, the main navigation menu appears.

NOTE: When starting navigation mode for the first time, you must load the navigation CD. The system will prompt you to take a drive for calibration of the navigation system if calibration has not been completed. If this occurs, see System Calibration on page 72.

The navigation mode requires the navigation CD containing the data for the destination.  will flash on the display during route calculation while transferring data from the CD to the navigation system.  will disappear. Once the route calculation has been completed, you may remove the navigation CD and insert an audio CD.

Navigation

Main Navigation Menu



Select one of the following by turning the right knob  and pressing it to confirm.

- **DESTINATION:** Enter a destination using data from the navigation CD.
- **DEST. MEMORY:** Select a destination from your list of saved destinations, up to 50 (see page 20).
- **P.O.I.:** Enter a destination from the Points of Interest information on the navigation CD. Points of Interest include gas stations, airports, restaurants, hospitals, etc. (see page 22).
- **LAST DESTINATIONS:** Choose from a list of your last 50 destinations (see page 21).

For more information on these features, refer to them in this section.

Destination

Select **DESTINATION** from the main navigation menu by turning the right knob  and pressing it to confirm.

The navigation data is stored on two CDs: Western USA and Eastern USA. In most cases, the starting and ending locations are contained on one of the two CDs. If you are taking a cross-country trip, for example, from A to C on the regional map, you must enter an interim destination in one of the states in the striped region B. Once you have reached this interim destination, or you reach one of the states in the striped region, you may switch CDs and enter your final destination (see page 10 for more information).



NOTE: When you switch navigation CDs between East and West, you may see a display similar to this:



Select EXECUTE UPDATE by pressing the right knob . The system will check the radio and navigation software and will load all data required for navigation. When switching CDs, the ignition should be on and the vehicle should be parked. After a short time, the system will restart the navigation software and you will need to confirm the warning message again (see page 13 for more information).

NOTE: You can not use last destination or destination memory locations which were stored with the Eastern USA Navigation CD while using the Western USA Navigation CD and vice versa.

Entering a Country for the Destination



Select the country by turning the right knob  and pressing it to confirm.



To change countries, turn the right knob  and press it to confirm.

NOTE: The default is USA. You will only need to change the country if traveling from the USA to Canada or from Canada to USA. A route between Hawaii and the USA is not possible. (Hawaii can only be selected if your vehicle is located in Hawaii.)

Navigation

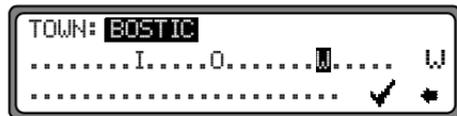
Entering a Town for the Destination



Select the highlighted town by pressing the right knob  to enter a new destination town. Select STREET or CENTER by turning the right knob  to select a street or center of town, within the highlighted town, and pressing it to confirm.



Enter the name of the town highlighting the letters one by one, by turning the right knob  and pressing it to confirm. The selected letter will appear enlarged on the right side of the display and will be added to the highlighted town name on the top row of the display.



The display will show the name of the location most similar to the letters entered to speed up selection. It will show only letters for the selection that make sense in completing the location name. The unit will complete the location name automatically if all other possibilities are eliminated.

Delete the last confirmed letter by pressing the  multifunction key. Delete the complete entry by pressing and holding the  multifunction key until the confirmation beep is heard.

Accept the entry by pressing and holding the right knob  until the confirmation beep is heard. You may also select the checkmark  by turning the right knob  and pressing it to confirm. The town list will be displayed if the entry is not complete when the right knob is pressed.



Select the desired town by turning the right knob  and pressing it to confirm.

The state list will be displayed if the selected town exists in more than one state.



Select the state where the desired town is located by turning the right knob  and pressing it to confirm.

The unit will then display the street entry menu or the center menu (see page 19). The route menu will be displayed if there are no digitized streets and there is only a single town center that appears in the map (see page 25).

The town list includes towns, cities and counties. The state list includes states and counties if a town name is used more than once in a state.

Entering a Street for the Destination

NOTE: Enter the street name first before entering a geographic designator (N, S, etc.). For example, E. Carson St. would be entered as CARSON ST E.



Select STREET by pressing the right knob .



Select the letters one by one by turning the right knob  and pressing it to confirm. The selected letter will appear enlarged on the right side of the display and will be added to the highlighted street name on the top row of the display.

Delete the last confirmed letter by pressing the  multifunction key. Delete the complete entry by pressing and holding the  multifunction key until the confirmation beep is heard.

Navigation



The display will show the name of the location most similar to the letters entered to speed up selection. It will show only letters for the selection that will make sense in completing the location name. The unit will complete the location name automatically if all other possibilities are eliminated.

Accept the entry by pressing and holding the right knob  until the confirmation beep is heard. You may also select the checkmark  by turning the right knob  and pressing it to confirm. The street list will be displayed if the entry is not complete when the confirmation is accepted.



Select the desired street by turning the right knob  and pressing it to confirm. If the entry is unique, the unit will switch to the route menu.

If the entry is unclear, the street distinguishing list is shown.



Select the desired region around the street by turning the right knob  and pressing it to confirm. The unit will switch to the route menu.

Entering a Town/City/County Center for the Destination



Select CENTER by turning the right knob  and pressing it to confirm.

The unit will switch to the route menu if the place you chose only has one center. The center list will be displayed if there are fewer than 10 centers.



Select the center name by turning the right knob  and pressing it to confirm.

The unit will switch to center entry mode if there are more than 9 centers.



Select the letters one by one by turning the right knob  and pressing it to confirm. The selected letter will appear enlarged on the right side of the display and will be added to the highlighted center name on the top row of the display.

Press the  multifunction key to delete the last confirmed letter. Delete the complete entry by pressing and holding the  multifunction key until the confirmation beep is heard.



The display will show the name of the center most similar to the letters entered to speed up selection.

Navigation

It will show only letters for the selection that make sense in completing the location name. The unit will complete the location name automatically if all other possibilities are eliminated.

Accept the entry by pressing and holding the right knob  until the confirmation beep is heard. You may also select the checkmark  by turning the right knob  and pressing it to confirm. The center list will be displayed if the entry is not complete when the confirmation is accepted.



Select the desired town center by turning the right knob  and pressing it to confirm. If the entry is unique, the unit will switch to the route menu.

Destination Memory

The destination memory is used to store locations you will likely use more than once. The unit can store up to 50 selections which can be used either as destinations or as stopovers.

Select DEST. MEMORY from the main navigation menu by turning the right knob  and pressing it to confirm.



Select the desired destination by turning the right knob  and pressing it to confirm.



Once the destination is selected, route guidance can start as described in this user guide.

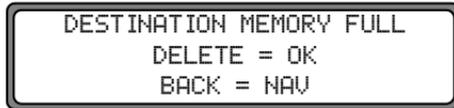
Deleting a Destination from the Destination Memory

Select destination memory as described previously.



Select the destination to be deleted by turning the right knob  and pressing the **DEL** multifunction key.

Destination Memory Full



This message will appear when trying to save data and the destination memory is full.

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

Last Destinations

Select a destination from the list of prior destinations that were stored previously (up to the last 50 locations) by selecting **LAST DESTINATIONS** from the main navigation menu with the right knob . Turn the right knob  to scroll through the last destinations.

Destination information is available if you press the left knob  before you confirm your selection with the right knob .

NOTE: Stopovers are not stored as last destinations.

Deleting a Destination from Last Destination Memory

To delete all entries in the last destination memory list, press and hold the **DEL** multifunction key until the confirmation sound is heard.

Navigation

P.O.I. (Points of Interest)

Select P.O.I. from the main navigation menu or the stopover selection menu by turning the right knob  and pressing it to confirm.



P.O.I.s include gas stations, airports, hospitals, restaurants, etc. P.O.I.s are stored on the navigation CD.

P.O.I.s can be displayed based on the geographic region you select as shown below.



Select the geographic region by turning the right knob  and pressing it to confirm.

- LOCAL AREA: selects P.O.I.s around the current location
- NEAR DESTINATION: selects P.O.I.s for stopovers near the selected destination

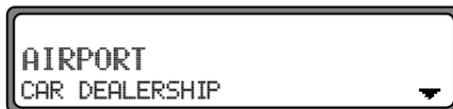


Select TOWN/COUNTRY as a region by turning the right knob  and pressing it to confirm.

- COUNTRY: selects the country for your destination
- TOWN: selects the P.O.I.s in the selected town and country
- NATIONWIDE: selects P.O.I.s around the entire navigation CD

P.O.I. - Local Area or Near Destination

Select P.O.I.s within the current surroundings of the vehicle or near your destination as a stopover by turning and pressing the right knob .





A maximum of 20 destinations are listed according to proximity. The straight-line distance from the current location to the P.O.I. will be shown for each entry. The arrows following the distance information indicate the direction to the respective point of interest (e.g. + P.O.I. lies in the direction of travel, or - P.O.I. lies in the opposite direction).

Select the desired P.O.I. with the right knob  and press it to confirm.

Destination information is available if you press the left knob  before you confirm your selection with the right knob .



Confirm selection with the right knob  to select the route menu.

P.O.I. - Town/City/County

You may select a P.O.I. from any location on the navigation CD. Select TOWN by turning the right knob  and pressing it to confirm.

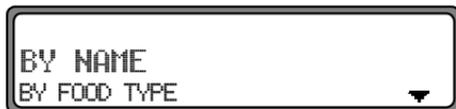


Enter the town name by turning the right knob  and pressing to confirm each letter.

As before, you can press and hold the right knob  prior to finishing spelling the name to select the town/city/county name from a list. Once the spelling or selection is complete, press the right knob  to confirm. Follow the instructions listed under P.O.I. - Local Area Near Destination for the local area as described previously (see page 22 for more information). In this case, only those P.O.I.s in the specified town will be displayed.

NOTE: If you select RESTAURANT, another menu appears when you press the right knob . This feature is only available when choosing P.O.I. by TOWN.

Navigation



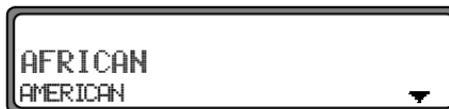
If you select BY NAME, all available restaurants in the specified area will be displayed in a list. If there are more than 9 items in the list, you will be prompted to start spelling the restaurant name (similar to entering a town or street name, see page 16 for more information).



Enter the restaurant name using the right knob  and pressing it to confirm.

NOTE: A list of possible P.O.I.s will display when you press the right knob  until the confirmation beep is heard, without having selected any letters.

If you select BY FOOD TYPE, turn the right knob  to select and press it to confirm which food type you desire.



Once confirmed, the navigation unit will list restaurants in the selected category.

P.O.I. - Nationwide

Special P.O.I. categories are shown for nationwide selection, such as airports, amusement parks, highway access, ski resort or tourist sites.

Follow the instructions listed under P.O.I. - Local Area Near Destination for the local area as described previously (see page 22 for more information). Only the nationwide P.O.I.s on the navigation CD in use will be displayed.



Turn the right knob  to select a category and press it to confirm.

Route Menu



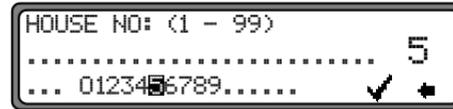
Select one of the following to select a route and preferences for route guidance by turning the right knob  and pressing it to confirm.

- HOUSE NO.
- INTERSECTION
- ROUTE SETTINGS
- SAVE DESTINATION
- START-FAST R. or START-SHORT R.

For more information on these features, refer to them next in this section.

Entering a House Number

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



Enter the house number one number at a time by turning the right knob  and pressing it to confirm. The selected number will appear enlarged on the right side of the display and will be added to the highlighted number on the top row of the display.

To delete the last confirmed letter, press the  multifunction key. Delete the complete entry by pressing and holding the  multifunction key for more than 2 seconds until the confirmation beep is heard.

House number selection is available only in the range specified in parenthesis (1-99 in the example above). You will be prompted to re-enter the number if it is not on the digital map. If the address is not available, or you can not enter a nearby address, select a nearby intersection to get close to your destination.

Navigation

You can start route guidance once the right knob  has been pressed.



Select one of the following by turning the right knob  and pressing it to confirm.

- **SAVE DESTINATION:** Store the entered destination by a name of your choice (or no name). The selection is saved in the destination memory when you confirm the selection (see page 20).
- **ROUTE SETTINGS:** Modify the route type when you confirm this selection.
- **START-FAST R. or START-SHORT R.:** Activate route guidance to the entered destination with consideration of the route settings when you confirm this selection.

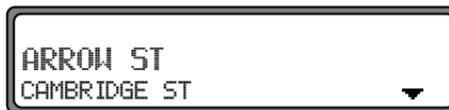
For more information on these features, refer to them in this section.

Selecting an Intersection

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

NOTE: If you do not enter an intersection, the navigation system will take you to the nearest entry point on the selected road.

Select INTERSECTION in the route menu with the right knob  and press it to confirm.



Select the intersecting street by turning the right knob  and pressing it to confirm.

Only the streets that intersect the entered destination will appear in the list.

You can start route guidance once the right knob  has been pressed.



Select one of the following by turning the right knob  and pressing it to confirm.

- **START-FAST R. or START-SHORT R.:** Activate route guidance to the entered destination with consideration of the route settings when you confirm this selection.
- **SAVE DESTINATION:** Store the entered destination by a name of your choice (or no name). The selection is saved in the destination memory when you confirm the selection (see page 20).
- **ROUTE SETTINGS:** Modify the route type when you confirm this selection.

For more information on these features, refer to them in this section.

Selecting the Route Settings

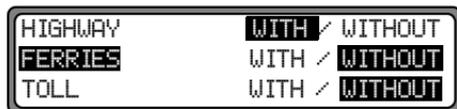
Select ROUTE SETTINGS in the route menu with the right knob  and press it to confirm selection.



- **FAST ROUTE:** Select FAST ROUTE using the right knob  to obtain the shortest possible time to your destination.
- **SHORT ROUTE:** Select SHORT ROUTE using the right knob  to obtain the shortest possible distance to your destination.
NOTE: SHORT ROUTE is preferred for short distances in metropolitan areas.
- **RESTRICTIONS:** Select RESTRICTIONS using the right knob  to modify the restrictions you want applied to your route including avoiding highways, ferries, or toll roads.

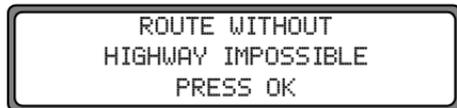
NOTE: These settings are stored in memory and won't change, even if the ignition is turned off and on.

Navigation



Select the item you wish to change by turning the right knob . Change the selection by pressing the right knob . Press the right knob  until confirmation beep is heard to accept all the settings and quit the menu.

NOTE: It is possible that routes without the use of interstate highways may not be calculable. If this happens, you will receive a message.



Saving a Destination

Select SAVE DESTINATION in the route menu by turning the right knob  and pressing it to confirm.



Enter any name of your choice consisting of up to 20 characters for the specified destination. The name and location are stored in the destination memory by pressing the right knob  until the confirmation beep is heard.

The destination can also be stored by selecting the checkmark  and pressing the right knob  (see page 20).

NOTE: You can store the destination in the destination memory without a name by pressing and holding the right knob  for more than 2 seconds. You will hear a beep confirming your entry.

The last destination entered can be saved at any position in the destination memory by turning the right knob  to select the desired location prior to confirming the selection. Confirm the memory position by pressing the right knob . The default location is at the beginning of the destination memory list.

A total of 50 destinations can be saved.



To complete storing a destination in destination memory, either start route guidance or enter a new destination by selecting NEW DESTINATION.

Route Guidance Calculation



The message CALC ROUTE will be displayed when route guidance is started. It indicates that the route is being calculated, which may take several seconds. The  indicator on the display will continue to blink until all the data required to generate the route has been loaded from the navigation CD.

Recalculating Route



The navigation unit will re-calculate the route if the current route is not followed due to road blocks, diversions, unintentionally driving in the wrong direction or failing to observe the recommendations. NEW ROUTE is displayed while the unit is recalculating the route.

Navigation

Stopover

Stopover offers the possibility of programming a stopover destination during an active route guidance.

Entering a Stopover



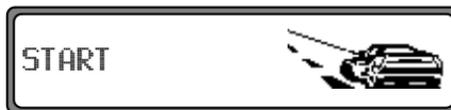
Press the  multifunction key to enter a stopover.



Using the right knob , make a selection and press to confirm. The following selections can be used as a stopover:

- DESTINATION
- P.O.I.
- LAST DESTINATIONS
- DEST. MEMORY

Starting Route Guidance to a Stopover

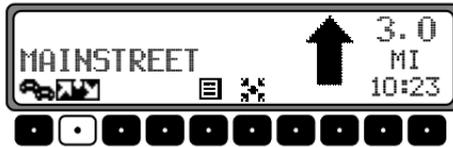


Start route guidance to the stopover by pressing the right knob . The route will be calculated and route guidance will begin.

The stopover  will appear inverted in the display and the route will be recalculated once the selection is confirmed.

NOTE: Stopovers are not stored in the last destination memory.

Deleting a Stopover

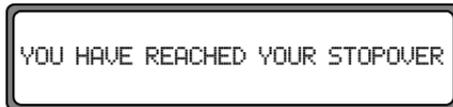


Press the  multifunction key to delete a stopover.



Confirm deletion of a stopover by pressing the right knob  within 8 seconds. The navigation system will then recalculate the route. You can leave this menu by pressing the  button.

Arriving at a Stopover



When you reach the stopover, the unit will announce and display YOU HAVE REACHED YOUR STOPOVER.

Route guidance to the main destination is started automatically. Press the right knob  to clear the display or simply let it time out. You may need to insert the navigation CD after the stopover is reached. In that case, you will be prompted to insert the navigation CD.

Traffic Jam

Traffic jam is used to calculate an alternate route when the traffic conditions on the selected route are not favorable for driving (e.g. a traffic jam or road block).

Entering the Length of a Traffic Jam



Press the  multifunction key.

Navigation



Set the length of the section to be avoided by turning the right knob  and pressing it to confirm. You can cancel this process by pressing the **NAV** button to abort the traffic jam function prior to confirming your selection.

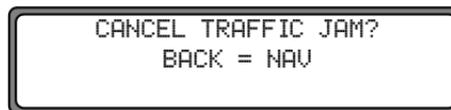


The traffic jam  symbol will appear inverted in the display and the route is recalculated once the selection is confirmed.

Cancel Traffic Jam



Press the  multifunction key.



Cancel traffic jam by pressing the right knob  within 8 seconds. The navigation system will then recalculate the route. As with other navigation menus, you can quit this action by pressing the **NAV** button.

Canceling Route Guidance

Press the **NAV** button from the route guidance display.



Select either DELETE by pressing the right knob  to cancel route guidance or BACK by pressing the **NAV** button to continue route guidance.

Notes on Route Guidance

After starting route guidance, the system calculates the route and announces: “We can start now.”

You will receive navigation recommendations by voice messages and screen displays. You can hear the last driving recommendation by pressing the left knob .

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



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

 **Warning - Danger of Accident.**

DO NOT IGNORE TRAFFIC LAWS.

If a driving recommendation contradicts the traffic laws, the laws ALWAYS take precedence!

Navigation

For clarification, this section contains a selection of 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 turn right in 200 yards.”



The arrow points in the direction you should turn. The progress bar on the right illustrates the distance. The dark area decreases as you approach the intersection.

- “Please follow the road.”



You should continue driving on the current road for the distance shown.

- “Prepare to turn left” or “Move into left-hand lane.”

NOTE: Keep left doesn't mean to use HOV lanes or express lanes.



You should note that there is an upcoming turn and prepare to make any lane changes needed to safely make the turn. As always, road safety must be observed when making a lane change.

NOTE: At intersections and traffic circles, only the ends of the roads to be passed are displayed.

- “Please take the third turn on the right.”



This arrow shows you which exit you should take from a traffic circle.

- “Now go straight on.”



This arrow indicates you should drive straight ahead.

- “Please follow the arrows in the display.”



This display tells you that you are currently in an area, such as a parking lot, garage, etc., that is not contained on the digital street map. The arrow indicates the actual geographic direction of the destination, without considering the street map.

- “Keep right in 2 miles.”



“Keep right” means that the street 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.

Navigation

Information During Route Guidance

Press the left knob  during route guidance.



The system will repeat the the last announcement and will announce estimated time of arrival. The display will show destination and distance.

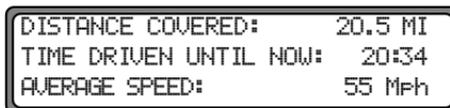
NOTE: You can switch the announcement on and off using the system settings menu (see page 42).

Requesting Trip Duration and Miles Traveled

Press the left knob  during route guidance.



Select trip information by pressing the  multifunction key within 8 seconds.



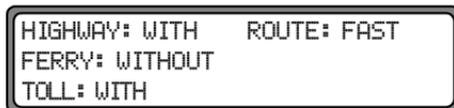
The trip duration, miles traveled and the average speed will be displayed. Press the right knob  or the  button to return to the route guidance display.

Displaying Route Settings

Press the left knob  during route guidance.



Select route setting by pressing the  multifunction key within 8 seconds.



The route settings will be displayed. Press the left knob  again to return to normal route guidance. Alternately, the system will timeout after 8 seconds.

Destination Information with Stopover

Press the left knob  during route guidance.



The system will repeat the the last announcement and will announce estimated time of arrival of the stopover. The display will show the stopover destination and distance.

NOTE: You can switch the announcement on and off using the system settings menu (see page 42).

Press the  multifunction key to view the main destination information.



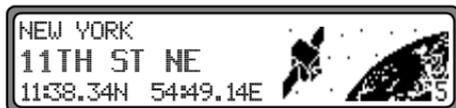
Return to route guidance by pressing the left knob  again or wait for 8 seconds.

Requesting Current Position



Press the  multifunction key to select current position.

Navigation



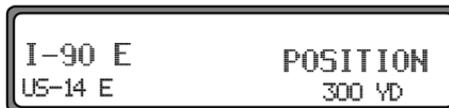
The current position with street name, if it is available, degrees of latitude and longitude and the number of satellites received will be displayed. Press the right knob  to return to the route guidance display.

NOTE: The current position can be requested even when route guidance is not active by pressing the left knob .

Requesting Route List



Press the  multifunction key to select the recommended route list.



The current road and the road names up to the destination will be displayed. Scroll through the route list by turning the right knob . Press the right knob  to return to the route guidance display.

NOTE: It will take a short time before the route list is compiled, after entering the destination. The time depends on the distance to the destination.

System Settings

Press the **NAV** button in the main navigation menu to request the system settings menu.



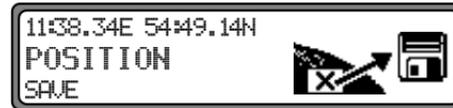
Using the right knob , make a selection and press to confirm. The following selections are available under this menu:

- **SAVE POSITION:** Save the current position in the destination memory.
- ***LANGUAGE:** Set the language for the system.
- **ANIMATION:** Activate/de-activate the display animation.
- **MEASURING SYSTEM:** Set the measurement system to either US Standard (miles/yards) or Metric (kilometers/meters).
- **ANNOUNCEMENT ETA:** Activate/de-activate announcement of the expected time of arrival (ETA).

Save Position



Select **SAVE POSITION** in the system settings menu by turning the right knob  and pressing it to confirm.



The display will show the coordinates (degrees of latitude and longitude) for the current position. Confirm by pressing the right knob  and the following display will appear.



Enter the name for the current position (e.g. HOME) using the right knob  to spell the name (see page 25 for more information).

Navigation

Press the right knob  until the confirmation beep is heard to confirm the name entered. Entry can also be confirmed by the selecting the checkmark  and pressing the right knob .

The destination memory is then called up automatically. Select the desired position in the destination memory by turning the right knob  and pressing it to confirm (see page 20 for more information).

Language



Select *LANGUAGE in the system settings menu by turning the right knob  and pressing to confirm. The "*" is provided to indicate which selection is language, even if you do not understand the language that is currently selected.



The following languages are available:

- ENGLISH GB
- ENGLISH US
- ESPANOL
- FRANCAIS

Select the language using the right knob . The language selection will be applied when the right knob  is pressed. The language will be installed.

NOTE: If you select ENGLISH GB (for Great Britain/ United Kingdom), the displays will be slightly different than indicated in this manual. Example: Traffic circles will be called roundabouts.

Female/Male Voice

You can choose either a male or a female voice.



Select the voice by turning the right knob  and pressing it to confirm. Once confirmed, the voice is installed.



After the installation, you will be prompted to confirm.



Confirm the voice selection by pressing the right knob .

Animation



Select ANIMATION in the system settings menu by turning the right knob  and pressing to confirm.



You can select between animations ON or OFF by pressing the right knob . Accept the settings by pressing and holding the right knob  until the confirmation beep is heard.

Navigation

Measuring System



Select MEASURING SYSTEM in the system settings menu by turning the right knob  and pressing to confirm.



Select the measuring unit using the right knob . Press and hold the right knob  to apply the selection and return to the system settings menu.

NOTE: US STANDARD is for calculation in yards and miles. METRIC is for calculation in meters and kilometers.

Announcement ETA



Select ANNOUNCEMENT ETA in the system settings menu by turning the right knob  and pressing to confirm.

NOTE: ETA stands for estimated time of arrival.



You can select between ETA announcement ON or OFF by pressing the right knob . Press and hold the right knob  to apply the selection and return to the system settings menu.

NOTE: The calculated ETA is based on the time zone where the trip originated unless you manually change the time zone during the trip.

The clock on the navigation unit receives its time from the GPS receiver in the radio. This time is known as Coordinated Universal Time (UTC), which is colloquially “Greenwich Mean Time (GMT).” You must choose your local time zone in order to display the current local time by setting the clock.

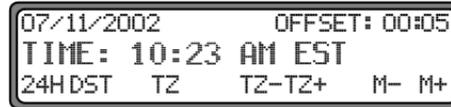
Displaying the Current Time

Display the time by pressing the **CLOCK** button. The current time will remain in the display until another function, such as the radio, is pressed. The selected time zone will be displayed (e.g. EST for Eastern Standard Time). The current route guidance information, or compass if route guidance is not active, will appear in the right side of the display.



Time Setup Menu

Display the time setup menu by pressing the **SET** multifunction key.



The current date will appear in the upper left corner of the display. Any offset from the received time (e.g. 00:05 if the clock is set 5 minutes fast) will appear in the upper right corner.

The current time, including offset, will appear in the middle in the selected format (12 or 24 hour) along with the current time zone (e.g. EST).

Clock Operation

12/24 Hour Mode

Select 12 hour versus 24 hour time mode using the left most multifunction key (**12H** if the current selection is 24 hour mode or **24H** if the current selection is 12 hour mode). The label for the left most multifunction key and the time display will update when you press the key. Save the selection by pressing the right knob .



Daylight Savings Time

Select Daylight Saving Time by pressing the **DST** multifunction key. The time zone indicator will toggle between standard time and daylight savings time (e.g. EST and EDT) and time will be offset by one hour (based on standard or daylight time). Save the selection by pressing the right knob .



Time Zone Selection

Select the time zone menu by pressing the **TZ** multifunction key.



The time zone list will be displayed. Select the desired time zone from the list by turning the right knob  and press it to confirm.



The following time zones are available:

- NEWFOUNDLAND (NST, NDT)
- ATLANTIC (AST, ADT)
- EASTERN (EST, EDT)
- CENTRAL (CST, CDT)
- MOUNTAIN (MST, MDT)
- PACIFIC (PST, PDT)
- ALASKA (AST, ADT)
- HAWAII (HST)
- SAMOA (SST)

When you select a time zone from the list above, the navigation unit will automatically adjust local time from Coordinated Universal Time (UTC) to the selected time zone. If you have selected standard time, the display will show the left three characters from the parentheses in the list above. If you have selected daylight savings time, the display will show the right three characters from the parentheses in the list above.

Clock Operation

Time Zone Increment/Decrement

Time zone increment/decrement is provided to facilitate driving through time zones during the course of a trip.



For example, when traveling from Detroit, MI to Chicago, IL you pass from Eastern Time to Central Time. When you pass into the new time zone going west, press the **TZ-** multifunction key. As seen in the example below, the time is decreased by one hour for Chicago time and the display is updated from EST to CST. When returning to Detroit, simply press the **TZ+** multifunction key to return to Eastern time.



Once you select the new time zone, press the right knob  to confirm the new setting.

Offsetting the Clock

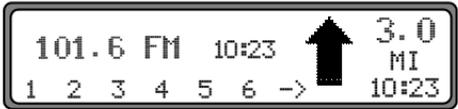
For those who desire to set the clock fast, the time can be set forward using the **M-** and **M+** multifunction keys. When there is an offset, the upper right corner of the display will show how many minutes of offset (5 minutes in the example below). This offset is maintained when changing time zones. An offset is not shown if the offset is set to zero.



Increase the offset one minute by pressing the **M+** multifunction key. Press the key repeatedly until you have set the desired number of minutes (up to 59 minutes). If you accidentally set the time too fast, decrease the offset by repeatedly pressing the **M-** multifunction key until the desired offset is displayed. Once you set the offset, press the right knob  to confirm the new setting.

Switching to Radio Mode

Press the **RADIO** button to select radio mode from navigation mode or CD/Aux mode. The last selected waveband will be recalled. The display will show the desired data (frequency, station call letters, time, etc.) for the last selection.



All changes with radio mode are done through the radio menu mode. Press the **RADIO** button again to select radio menu mode.



Selecting the FM Waveband

Press the **RADIO** button to select radio menu mode. Press the **Fm** multifunction key if the unit is currently on the AM waveband. Once you have selected the FM waveband, the display will show FM to indicate that you are in FM mode along with the operational level for FM.



Select the operational level for FM by repeatedly pressing the **Fm** multifunction key. Selection can be made between Stations Fix, Stations RDS, DAS Seek Qual., and DAS Seek Name. (See page 76 for descriptions of each of the operational levels.)

Once you have made your selection, press the **RADIO** button to return to radio mode. The unit will time out and return to radio mode after 8 seconds without pressing a key. The display will show the desired data (frequency, station call letters, time, etc.) upon returning to radio mode.

Channel Selection for FM Operation

The desired station can be selected through station search, scan search, manual tuning, storing/recalling stations or dynamic autostore.

Radio Mode

Station Search

Turn the right knob  left or right. The radio will display the receivable and identified radio stations in descending/ascending order.

Scan Search

Press the right knob  on the desired waveband to start the station search. **SC** will be displayed while the radio is scanning. In the example below, the unit is set to Stations RDS with the FM frequency shown in the middle of the display.



The first run is performed on an insensitive level with all further runs on a sensitive level. Receivable stations can be heard for 8 seconds. Press the right knob  to stop the search on the received station.

NOTE: With FM DAS, scan search is conducted in alphabetical order.

If you live in an area where RDS/RBDS broadcast is not available, you may enable FM manual tuning which will display radio frequencies rather than station type and call letters according to the procedures under Manual FM Tuning described next.

Manual FM Tuning

Press the **RADIO** button to select radio menu mode. Press the **Fm** multifunction key repeatedly until Stations Fix is displayed.



Press the **Man** multifunction key twice. Next, turn the right knob . Tuning will take place in increments of 200 kHz.

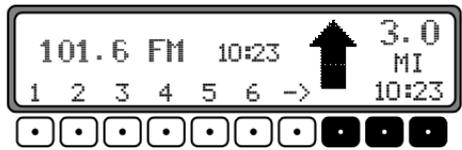
The display will show that manual tuning is currently active by replacing the PTY/Frequency/Clock display with MAN. If the right knob  is not turned within a short time, MAN will disappear from the display and the manual tuning will be turned off.

Storing/Recalling FM Stations

Press the **RADIO** button to select radio menu mode.
Press the **Fm** multifunction key repeatedly until Stations RDS or Stations Fix is displayed. (See page 76 for descriptions of stations fix and stations RDS.)

Storing an FM Station

Up to 12 stations or programs can be stored. In order to store the desired station or program, press one of multifunction keys **1** through **6** or **7** through **12** until you hear the confirmation beep. You can access multifunction keys **7** through **12** by pressing the **->** multifunction key.



Recalling an FM station

Press one of the multifunction keys **1** through **6** or **7** through **12** for a brief moment. The stored station will be recalled.

Dynamic Autostore (FM-DAS)

Press the **RADIO** button to select radio menu mode.
Press the **Fm** multifunction key repeatedly until DAS Seek Qual. or DAS Seek Name is displayed.



In the FM DAS mode, the receivable stations are displayed above the multifunction keys depending on the settings.



The unit is set to display the radio frequency in the above example.

Set the desired station by pressing the key directly below the abbreviated call station designation. If the selected station broadcasts several programs/regional programs, a submenu is automatically displayed for you to select the desired program.

Radio Mode



If a program was previously selected that belongs to the particular transmitter chain, the last stored program entry will be automatically selected.

The **→** multifunction key indicates that additional stations can be displayed and selected by pressing this key.

If stations names are being misused to send advertisements or messages, this station is indicated with L1, L2, etc. This prevents constant switching in the lower display line. When a station is selected, it is identified by a star such as L*1.

The first time the unit is operated, or if the battery had been disconnected, it may take the radio some time to evaluate the station signals. The display will appear incrementally as the evaluation progresses.

FM Mode Options

There are options which control the display as well as radio operation during FM radio operation. Most of these options apply to stations which transmit RBDS/RDS signalling.

Program Type Selection (PTY)



Press the **RADIO** button to select radio menu mode. Press the **Pty** multifunction key and then press it repeatedly to select the desired PTY (see page 77 for more information).

NOTE: PTY is only available in FM-DAS mode and only those PTYs that are currently available can be selected. If there are no PTYs available, the display will show NO PTY.

Once you have made a selection, press the **RADIO** button to return to radio mode. The unit will time out and return to radio mode after 8 seconds without pressing a key or a button.

Switching PTY/Frequency/Clock Display

Press the **RADIO** button to select radio menu mode.
Press the **Dis** multifunction key to select PTY, Frequency, or Clock display.



This controls what will be seen in the radio display. When PTY is selected, PTY will be displayed if available. If PTY is not available, the time will be displayed.

When Frequency is selected, the FM station frequency will be displayed. If no RBDS data is available, the station frequency will be shown on the left part of the display and the time will be shown in the center of the display.

When Clock is selected, the time will be shown in the middle of the display while the station call letters or frequency is shown on the left part of the display.

Switching Regionalization On/Off

Press the **RADIO** button to select radio menu mode.



Switch regionalization on or off by repeatedly pressing the **Res** multifunction key.

Regionalization

The RBDS/RDS diversity function is independent of region. Under these conditions, the RDBS/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 an asterisk.

Radio Mode



Upon selection of one of these station, all receivable regional sub-programs for this station will be displayed.

Select the desired regional sub-program by pressing the appropriate multifunction key, such as **Ka**.



If, despite the RBDS/RDS diversity function, the reception quality of a regional sub-program is poor, understand 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 Radio Text On/Off

Press the **RADIO** button to select radio menu mode. Select the radio text mode by pressing the **Text** multifunction key.



The radio filters information from the data transmitted by the station and displays it in the form of radio text. Radio text cannot be displayed unless the selected station transmits radio text. If the station does not transmit radio text, the display will show “Waiting for Radiotext...” To exit the radio text level, press the **RADIO** button.

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

⚠ Warning - Danger of Accident.
DO NOT READ RADIO TEXT WHILE DRIVING!

Please read the radio text only while the vehicle is parked. Radio text contents change constantly and may distract the driver.

Selecting the AM Waveband

Press the **RADIO** button to select radio menu mode. Press the **Am** multifunction key if the unit is currently on the FM waveband. Once you have selected the AM waveband, the display will show that you are in AM mode and will allow you to select your mode of operation (autostore on/off and/or manual tuning).



Once you have made your selection, press the **RADIO** button to return to radio mode. The unit will time out and return to radio mode after 8 seconds without pressing a button. The display will show the desired data (frequency, time, etc.) upon returning to radio mode.

Channel selection works in similar ways as the FM mode. The station search and scan search are done exactly like the FM mode described previously in this section.

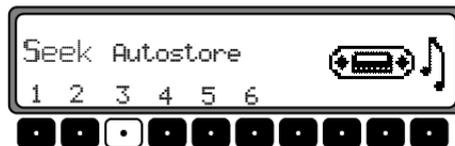
The following sections describe AM autostore, manual AM tuning and storing/recalling AM stations.

AM Autostore

Press the **RADIO** button to select radio menu mode. Press the **Am** multifunction key if the unit is currently on the FM waveband.



Press the **As** multifunction key until Autostore on appears. Press and hold the **As** multifunction key until Seek Autostore appears to activate autostore seek.



The 6 best received stations will be stored under the multifunction keys in the order of their reception quality.

In order to quit the autostore memory level, select radio menu mode as described above and press the **As** multifunction key until Autostore Off appears. The unit will display AM Autostore when pressing the **Am**

Radio Mode

multifunction key indicating that autostore is turned on. Pressing the **Am** multifunction key again while autostore is enable will cause autostore to turn off.

NOTE: The radio will not allow you to manually store stations while autostore is turned on.

Manual AM Tuning

Press the **RADIO** button to select radio menu mode. Press the **Am** multifunction key to select AM, unless it is already displayed.



Press the **Man** multifunction key twice. Next, turn the right knob . Tuning will take place in increments of 10 kHz.

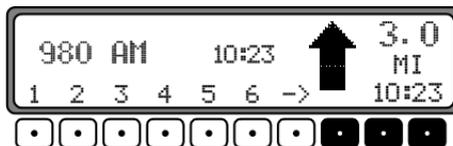
The display will show that manual tuning is currently active by replacing the clock display with MAN. If the right knob  is not turned within a short time, MAN will disappear from the display and the manual tuning will be turned off.

Storing/Recalling AM Stations

Press the **RADIO** button to select radio menu mode. Press the **Am** multifunction key if the unit is not in AM mode.

Storing an AM station

Up to 12 stations or programs can be stored. In order to store the desired station or program, press one of the multifunction keys **1** through **6** or **7** through **12** until you hear the confirmation beep. You can access **7** through **12** multifunction keys by pressing the **->** multifunction key.



Recalling an AM station

Press one of the multifunction keys **1** through **6** or **7** through **12** for a brief moment. The stored station will be recalled.

Traffic Program (TP)

If an RDBS/RDS diversity station transmits TP announcements, it is possible to have CD, CDC/AUX, AM operation interrupted so that the transmitted TP announcements can be played. You can listen to one FM station while receiving TP announcements from another FM station.

There are two ways to select a TP transmitter: automatic tracking and direct programming.

Automatic Tracking

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

Direct Programming

Direct programming makes it possible to have a TP station different from the current FM station. In this case, one FM station will be used for audio and another is used at the same time for TP announcements. If the 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 transmitter is equipped with a traffic program, this is indicated on the display by TP.

An inverted **TP** appears on the display to indicate that the traffic program is active.

Activating/Quitting the TP Menu

Activating

Press the **TP** button. Traffic announcements may not be transmitted.



Press the **TP** multifunction key to activate TP.

Quitting

Press the **TP** button, or the TP menu will automatically disappear after 8 seconds if no further operations are performed.

Radio Mode

Setting Automatic Tracking

In all modes and wavebands, automatic tracking can be activated by pressing and holding the **TP** button for more than 2 seconds. TP can also be switched on/off in the TP menu. Select TP on using the menu by repeatedly pressing the **TP** multifunction key until TP on appears in the display.



Turn TP off using the TP Menu by repeatedly pressing the **TP** multifunction key until TP off appears.



TP is switched off after returning to normal display.

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

Selecting/Deleting Direct Programming

Press the **TP** button to select the TP menu.

Selecting

Press the **Sta** multifunction key.



Select the desired TP station by turning the right knob  and press it to confirm. After a short delay, the selected station is accepted without further action needed.

Deleting

Press the **Sta** multifunction key.



Select Autoselect with the right knob  and press it to confirm deletion of direct programming. Direct programming will be deleted after a short delay without

further action needed. Quit the TP menu by pressing the **TP** button.

Switching Mute On/Off

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



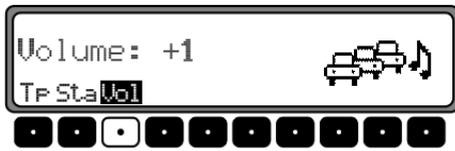
Thereafter, only traffic announcements and navigation announcements will be passed through. The mute function can be cancelled by pressing the **TP** button again.

Interrupting TP Announcements

Press the **TP** button during an announcement. The current announcement will be interrupted and the system will automatically be returned to the previously selected mode.

TP Announcement Volume

Press the **TP** button to select the TP menu. Press the **Vol** multifunction key to program the traffic announcement volume.



You can select four different settings (0 - 3) with the right 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: Medium increase
- Setting 3: Strong increase

 Warning - Danger of Accident

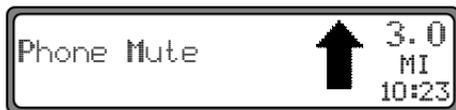
TOO HIGH A VOLUME POSES DANGER AND RISK.

Adjust the volume to a level that will allow you to still hear traffic noises (horns, sirens, etc.).

Telephone Operation

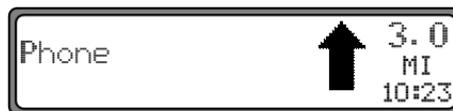
You can automatically control your radio during a cellular call if the cellular telephone is properly connected to the radio. Select the desired operation from the user menu (see page 66 for more information).

The radio will be muted when a call is active if Mute is selected from the user menu. The display will show the information below. Audio CDs in the internal player will be paused during the phone call and they will restart after the call.



While the vehicle ignition is on, the call will be connected through the radio unit if Audio signal is selected from the user menu.

The display will show the information below. Internal CD operation is identical to the phone mute operation.



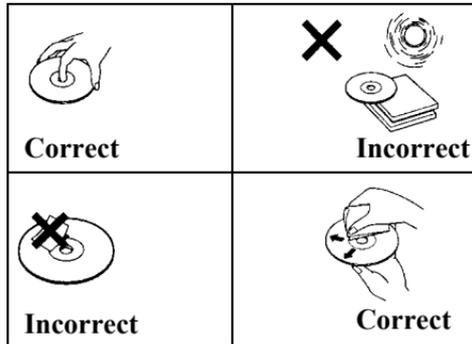
The above operation requires that the cellular phone control and audio, for audio signal, be properly connected to the radio.

NOTE: Navigation announcement cannot be heard while phone audio is heard on the radio speakers.

Instructions for Compact Discs (CDs)

Sound interruptions may occur if the CD is dirty. To ensure optimum sound quality, please do the following:

- Handle the CD only by the edges. Never touch the playing surface and be sure to keep it clean.
- Protect the CD from strong sunlight and heat sources such as heaters, etc.
- Clean the CD before playing with a commercially available cleaning cloth, wiping from the center outwards. Never use solvents such as alcohol, thinners or other commercially available cleaners and anti-static sprays.
- Never stick anything to the CD.



Inserting/Ejecting CDs

Inserting a CD

Insert the disc into the CD slot with the printed side upwards. The unit will pull in the CD automatically and will begin to play the first track on the CD.



Ejecting a CD

Press the  button to eject a CD. Remove the CD once it has been ejected.

NOTE: The CD will not be ejected when the unit is switched off, but will remain in the CD slot.

CD Operation

Playing an Audio CD

Press the **CD** button to select CD mode if the navigation unit is in radio mode or navigation mode. Press the **CD** button to select the single CD unit if the optional CD changer is playing.

The CD player will return to the first track on the CD when it reaches the end of the last track on the disc. The unit will display elapsed time for 10 seconds and then restore the time of day, unless elapsed time is the selected time mode, when new tracks start.

Track Skip - Forwards/Backwards

Press the skip forward **>|** or skip backward **|<** multifunction key to skip tracks.



By pressing one of these keys repeatedly, several tracks can be skipped over in forward or reverse directions.

Once the last track has been reached in the forward direction, the unit will switch back to the first track. If the first track has been reached in the backward direction, the unit will switch from the first track to the last track.

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

Scan Search

Activate the scan search function by pressing right knob **⦿**. **SC** will appear in the display.



CD tracks will play for 10 seconds each. Stop the scan search function by pressing the right knob **⦿** again.

Fast Forward/Rewind

Activate the fast forward function by pressing the **>|** multifunction key. Activate the fast rewind function by pressing the **|<** multifunction key. The audio continues to be heard while going through the track at an accelerated speed in this mode.



Stop the fast forward/rewind by releasing the multifunction key.

Random Play

Activate the random play function by pressing the **Rnd** multifunction key. The tracks from the current CD will be played in random order. The multifunction key label Rnd will be displayed inverted when activated.



Stop the random play function by pressing the **Rnd** multifunction key again.

Track Repeat

Activate the track repeat function by pressing the **Rpt** multifunction key. The track currently playing will be repeated as long as this mode is active. The multifunction key label Rpt will be displayed inverted when activated.



Stop the track repeat function by pressing the **Rpt** multifunction key again.

CD Operation

Time Mode Selection

Select elapsed time or time of day by pressing the **TME** multifunction key. The display will show the current track time when elapsed time is selected. It will show the clock when time of day is selected. Elapsed time will show for 10 seconds any time the CD track changes.



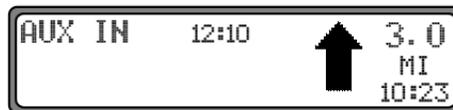
Temperature Protection Circuit

The unit is equipped with a temperature protection circuit to protect the laser diode from excessive heat. Temp will appear for 8 seconds and the unit will be switched back to the radio or other audio source upon activation of the temperature protection circuit.

Single CD operation or CD changer operation can be used again after a cool down period. The unit will once again switch back to radio or another audio source if the temperature is still too high.

Selecting AUX Audio

Auxiliary audio, such as a portable DVD player, can be played through the navigation radio system if there is no CD changer connected to the system. Press the **CD** button until the AUX In display appears to listen to an auxiliary source, which has been properly connected to the navigation unit. Press the **CD** button again to return to an audio CD. Aux mode must be properly set up in the user menu (see page 69 for more information).



The CD changer will be ready for operation as soon as the filled CD magazine is loaded, if a CD changer is connected to the navigation unit. Close the sliding tray after loading the magazine to protect the system from dust. Further operation is performed using the front panel controls.

Loading/Ejecting the CD Magazine

To remove the CD magazine, open the sliding cover on the changer and press the eject button on the changer. The magazine will be ejected and can be removed.

When inserting CDs in the magazine, please note the imprint on the magazine so you insert the CDs correctly. To allow for the fastest possible change of CDs, the magazine should be loaded successively, beginning with tray 1.

NOTE: Incorrectly inserted CDs will not be played. The display will show “Bad CD #” to indicate which CD is not working properly.

Playing CDs

Press the **CD** button. The unit will be in CD changer mode if CD changer operation was last selected or if there is no audio CD in the CD player.

Select CD changer operation from CD operation by pressing the **CD** button. The last CD played will be played from the position at which it was left before the unit was switched off. Loaded CDs can be selected by turning the right knob .



The next CD # will appear on the display and the next CD tray will be selected if no CD is loaded in a selected magazine tray.

CD Changer Operation

The next CD will automatically be selected and played after the last track of a CD has been played. The CD changer will cycle back to the first CD in the magazine after the last track of the last CD in the magazine has played.

Refer to the CD instructions earlier in this section for complete CD player operation instructions.

NOTE: The CD function Rpt is not available when using the CD changer.

The radio will display “Mech. Err.” if there is a mechanical problem. Check the CD magazine to make sure it is properly loaded. If the problem persists, the CD changer may require service.

Requesting/Quitting User Menu

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

First Level

- Gal: Speed dependent volume control (GAL)
- Tel: Telephone characteristics
- Lcd: LCD display characteristic
- Led: Security LED
- M/S: Reception optimization
- Nav: Navigation announcement mode

Second Level

- Aux: AUX input behavior
- Cmp: Compass Display
- BeV: Beep tone volume

The user menu is requested by pressing the **SOUND** button for more than 2 seconds.



The second level of the user menu is requested by pressing the **->** multifunction key from the first level.

The first level can then be requested using the **<-** multifunction key.

Press the **SOUND** button again to quit the user menu.

User Menu

GAL Setting

GAL is a radio control circuit that will automatically adjust the volume based on the vehicle speed. This compensates for the driving noise produced at higher speeds. With GAL, the beginning of volume adjustment can be specified according to vehicle speed.

Request the user menu and press the **Gal** multifunction key. With the right knob  select a number between 0 and +7. The setting will be stored automatically.



The following is the list of available selections:

- 0: No volume increase
- +1: Volume increase will begin at low vehicle speed
- +7: Volume increase will begin at higher vehicle speed

Telephone Mute Characteristics

If you have a telephone system with a hands-free unit connected to the navigation unit, calls can be conducted through the radio system. Thus, there is no need for an additional speaker required for handsfree telephone systems. However, the signal cables (AF – telephone input, ground – telephone input and telephone mute) must be connected to the radio (see pages 74-75).

To select, request the user menu and press the **Tel** multifunction key, to select either audio signal or mute.



- Mute: Mutes radio audio during phone calls
- Audio Signal: Route phone audio to speakers during phone calls

Display Setting

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

- Negativ: Negative display setting
- Positiv: Positive display setting
- Automatic: Automatic display setting (The display setting will be positive or negative based on the vehicle headlamp selection.)

To select a setting, request the user menu and press the **Lcd** multifunction key to select negativ, positiv, or automatic. Automatic is controlled using the headlamp input. The setting will be stored automatically.



Flashing Security Led

The flashing of the LED can be turned on or off with this function. The LED will flash when the unit is off.

NOTE: Since there is a security LED elsewhere in the vehicle, the LED is normally off.

Request the user menu and press the **Led** multifunction key to select either blinking (Led: on) or off (Led: off). The setting will be stored automatically.



User Menu

Reception Optimization (M/S)

You can select between three different reception optimization settings to suppress reception-dependent interference and reflections.

Request the user menu and press the **M/S** multifunction key to select Stereo, Mono or Auto.



- Auto: Normal operation (The system will switch from stereo to mono and back depending upon reception level. It will provide the optimum setting for almost all reception area).
- Stereo: Exceptional reception conditions (The unit will be constantly set to stereo.)
- Mono: Reception conditions in which reflections constantly occur (The unit will be constantly set to mono.)

The setting is stored automatically.

Navigation Announcement Mode

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

- only: The audio source being listened to will be turned off during announcement and the navigation announcements will be heard with no background sound. The volume level for navigation announcement is completely independent of the volume level for normal audio.
- mixed: The volume of the current audio source will be lowered. The navigation announcement will be set to the same volume as the current audio source but still adjustable within a range of +/-6 dB. If the audio source volume is then changed, the navigation announcement volume will be adjusted accordingly.

- independent: The current audio source and the navigation announcements can be set to different levels. Both the current audio source and the navigation announcement will be heard simultaneously at their selected volumes.

To select, request the user menu and press the **Nav** multifunction key to make your selection.



The setting will be stored automatically.

AUX Input (Auxiliary)

The auxiliary input can be used when no CD changer is connected to the navigation unit. The audio source must be properly connect to the AF connections on the rear of the radio in order to listen to the audio on the speaker system (see pages 74-75 connection instructions). The navigation unit can then be programmed to allow you to listen to the external audio source.

To select, request the user menu and press the **->** multifunction key to request the second level of the user menu. Press the **Aux** multifunction key to select either AUX Mode on or AUX Mode off.



The setting will be stored automatically.

When AUX Mode is on, the CD function can be used to select auxiliary audio (see page 62).

User Menu

Display Compass

A compass can be shown on the right side of the display when the route guidance is not active.

To select, request the user menu. Press the  multifunction key to request the second level of the user menu. Press the  multifunction key to select either show compass or hide compass.

If the compass display is switched off and route guidance is not currently active, radio station abbreviations can be assigned to 9 multifunction keys in FM - DAS mode.



The setting will be stored automatically.

Beep Volume (BeV)

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

To select, request the user menu and press the  multifunction key to request the second level of the user menu. Press the  multifunction key. With the right knob  select either 0 (Low) or +5 (Loud).



The setting will be stored automatically.

Request/Quit Service Menu

The service menu allows the service technician to view radio characteristics. The following information can be called up in the service menu.

- Model-No.: Displays model number
- Serial-No.: Displays serial number
- Changer Reset: Function not implemented
- GAL: Displays current GAL adjustment
- CD: Serial Number
- Radio Software: Displays Radio software version
- Radio Bolo: Displays radio Bolo version
- Navi Rom: Displays Navi Rom/Lib version
- Navi Flash: Displays Navi Flash version
- RTC Value: Displays RTC value

Select the service menu by pressing the **NAV** button and multifunction key 10 at the same time during radio mode.



Select individual items by pressing the **Nxt** or **Prv** multifunction keys. You may also use the right knob  to view items.

To exit the service menu, press the **End** multifunction key

Service Menu

System Calibration

If the calibration has been accidentally erased, the system will prompt you to calibrate the vehicle. The following screen will appear when this occurs.



NOTE: Insert the navigation CD if requested by the system.

Next, select a language with the right knob  and press it to confirm your selection (see page 40 for more information).

Press the right knob  again to confirm the language confirmation.

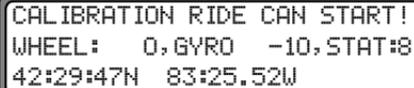


Then, confirm the warning message indicating that you have read and understood this user's guide.



You must press the right knob  to confirm receipt of this message before continuing with this procedure.

Calibrate the System



```
CALIBRATION RIDE CAN START!  
WHEEL: 0, GYRO -10, STAT:8  
42:29:47N 83:25.52W
```

The system will calibrate automatically as you drive your vehicle. When calibration is complete, the main navigation menu or destination menu will appear on the display.

NOTE: The vehicle should be in an area without obstructions for better satellite reception.

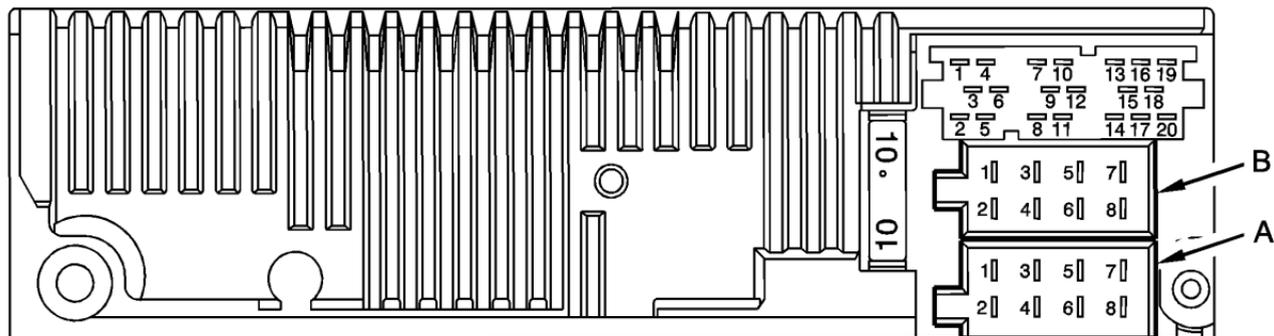
If the system does not calibrate, see your dealer.

Triggering 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) by pressing the first multifunction key, the third multifunction key and the **TP** button at the same time.

The navigation CD must be inserted after the reset of the unit software to reconfigure the navigation operation.

Connection Instructions



Warning! Battery (+) and ignition (+) must always be connected separately to prevent increased power consumption when the unit is switched off. Connection socket A is not the same for all vehicle types. Therefore, always measure voltages before installation.

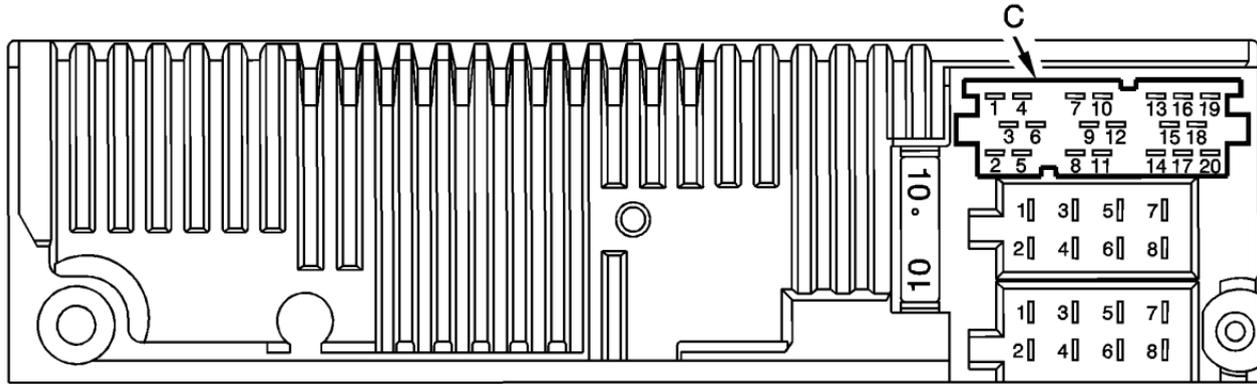
Socket A

- 1 Speed Signal (GAL)
- 2 Reversing lamp signal
- 3 Telephone mute/clearing function
- 4 Battery (+) - 12 V unswitched positive line
- 5 Control output (12 V sw) for power antenna/amplifier
- 6 Illumination (headlamp on/off signal)
- 7 Ignition (+) - 12 V switched positive signal
- 8 Ground (-)

Socket B

- 1 Loudspeaker right rear +
- 2 Loudspeaker right rear -
- 3 Loudspeaker right front +
- 4 Loudspeaker right front -
- 5 Loudspeaker left front +
- 6 Loudspeaker left front -
- 7 Loudspeaker left rear +
- 8 Loudspeaker left rear -

Connection Instructions



Socket C

- | | | | |
|----|--|----|---|
| 1 | Line Out left rear | 11 | ACP B - for CD Changer |
| 2 | Line Out right rear | 12 | Reserved |
| 3 | AF Ground | 13 | AF -Telephone audio input (+) |
| 4 | Line Out left front | 14 | AF - Telephone audio input (-) - Ground |
| 5 | Line Out right front | 15 | Service Bus - TXD |
| 6 | Subwoofer Line Out | 16 | Service Bus - RXD |
| 7 | Control output (12V sw) for CD changer | 17 | Battery (+) 12 V unswitched |
| 8 | Battery (+) - 12 V unswitched for CD changer | 18 | AF - CD audio ground (Aux In Ground) |
| 9 | Ground (-) - for CD changer | 19 | AF - CD left audio in (Aux In Left) |
| 10 | ACP A - for CD changer | 20 | AF - CD right audio in (Aux In Right) |

General Information

RBDS System

This radio is capable of receiving RBDS signals (RBDS = Radio Broadcast Data System) in the VHF range (FM band). RBDS is a technology for transmitting inaudible information in the VHF broadcasting range. This means that the station broadcast information which can be evaluated by the car radio (e.g. station call letters, song titles, etc.).

Stations Fix Level

On level Stations Fix, frequencies can be assigned to the station multifunction keys. There is no RBDS evaluation. The search on Stations Fix is equivalent to manual FM tuning (see page 48).

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 search for Stations RDS, the unit will stop only at identifiable stations.

DAS Seek Qual. Level

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

DAS Seek Name Level

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

PTY (Program Type)

Specific types of programs can be selected using the PTY function. The PTY is transmitted by the RBDS station, provided this function is installed at the station transmitter. You can display the selected transmitter's program type or perform a search for a specific PTY transmission.

The following lists some of the program types:

NEWS	News
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	R&B

ADLT HIT	Adult contemporary
LANGUAGE	Language
SOFT ROCK	Soft rock
REL MUSIC	Religious music
TOP 40	Top 40
REL TALK	Religious Talk
COUNTRY	Country
PERSONLTY	Personality
OLDIES	Oldies
PUBLIC	Public
WEATHER	Weather forecast
PTY 24 - PTY 28	Not specified

Technical Data

Wavebands:	FM 87.9 MHz - 108 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
Audio Output power:	4 x 18 Watt
Line cross section:	min. 0.75 mm ²
Loudspeaker impedance:	min. 4 Ω
Line out:	4 x analog Line Out (V _a max 3V _{eff} at 10 kΩ)
GAL:	In order to utilize the GAL, a square wave voltage with a mass-related amplitude of +4 V - +12 V must come from the electronic tachometer of the vehicle. Volume increase takes places in 7 increments of 2.5 dB each.
Antenna:	Impedance 50 Ω
AF-Telephone input:	Max. input voltage of 8 V (if interference occurs, a commercially available 1: 1 transmitter should be connected to the signal lead).
Telephone Mute:	Low active level < 2 Volt
AUX Input:	16 KΩ Input resistance, max. input voltage 1.7 V _{eff}
Supply voltage:	12 Volt
CD Connection:	CD Changers supporting the ACP bus must be used.

Dear Listener,

In conformance with current US guidelines, anyone may operate this radio receiver.

This unit conforms to the current valid US or harmonized national regulations. The designation is your guarantee that the unit conforms to the applicable specifications concerning electromagnetic compatibility. Interference caused by your unit affecting other electrical/electronic devices, as well as interfering influences on your unit from other electrical/electronic devices, are largely prevented.

Current valid designations are:

- This device complies with part 15 of the FCC rules.
Operation is subject to the condition that this device does not cause harmful interference.
- This product complies with DHHS rules 21 CFR subchapter J applicable to the date of manufacture.

