NAVIGATION SYSTEM

Preparation
See page 4 for specific information.

Immediate Use
See page 4 for specific information.

If Necessary
See page 5 for specific information.

Before Use

Getting Started

Routing

Editing

If Necessary

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Before Use

Accessories

Please contact an Authorized Mazda Dealer if you are missing the following.

- Owner's Manual

CAUTION:
ALWAYS OPERATE THIS PRODUCT CORRECTLY AS INSTRUCTED.
DO NOT OPEN COVERS AND DO NOT REPAIR YOURSELF. REFER SERVICING TO QUALIFIED PERSONNEL.

MEMO

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Safety Information

■ Read this owner's manual for your Navigation System carefully before using the system.
It contains instructions about how to use the system in a safe and effective manner.
Mazda assumes no responsibility for any problems resulting from failure to observe the instructions given in this manual.

■ This manual uses pictographs to show you how to use the product safely and to alert you to potential dangers resulting from improper connections and operation. The meanings of the pictographs are explained below. It is important that you fully understand the pictographs and explanations in order to use this manual and the system properly.

Warning	**Warning**	The presence of this warning symbol in the text is intended to alert you to the importance of heeding the operation instructions. Failure to heed the instructions may result in severe injury or death.

Warnings

■ **Do not keep your eyes fixed on the monitor screen or operate the system while driving.**
Do not change the settings and destination locations while driving. Minimize the time spent viewing the monitor screen and listening to the voice guidance while driving. Operating the system will distract the driver from looking ahead of the vehicle and can cause accidents. Always stop the vehicle in a safe location and use the parking brake before operating the system.

■ **Always obey local traffic regulations.**
Your guided route may include roads that are not open to vehicles or are closed due to traffic regulations. Comply with the local traffic regulations and take another route.

■ **Do not use the unit when it is out of order.**
If the unit is out of order (no image, no sound) or in an abnormal state (has foreign matter in it, is exposed to water, is smoking, or smells), turn it off immediately and consult an Authorized dealer, we recommend an Authorized Mazda Dealer. Using the unit in an out-of-order condition may lead to accidents, fires, or electric shocks.

■ **Use the proper power supply.**
This product is designed for operation with a negative grounded 12 V DC battery system.

■ **Do not disassemble.**
Do not disassemble the product or attempt to repair it yourself. If the product needs to be repaired, take it to an Authorized dealer, we recommend an Authorized Mazda Dealer.

Caution	The presence of this caution symbol in the text is intended to alert you to the importance of heeding the operation instructions. Failure to heed the instructions may result in injury or material damage.

Cautions

- **Do not use the product where it is exposed to water, moisture, or dust.**
  Exposure to water, moisture, or dust may lead to smoke, fire, or other damage to the unit. Make especially sure that the unit does not get wet in car washes or on rainy days.
- **Keep the voice guidance volume at an appropriate level.**
  Keep the volume level low enough to be aware of road and traffic conditions while driving.
- **Protect the insertion slot for the SD card which contains the navigation map data.**
  Do not insert any foreign object into the installation slot.
- **This navigation system is designed exclusively for use in automobiles.**
  This navigation system should only be installed in an automobile. Do not install it in a ship, aircraft, or any other vehicles except an automobile. Do not use it detached from the vehicle.

Operation is subject to the following two conditions;
(1) This device may not cause interference, and
(2) This device must accept any interference,
including interference that may cause undesired operation of the device.

Introduction

Safe Product Use

■ **Extremely low or high temperatures may interfere with normal operation.**
The inside of the vehicle can become very hot or cold when it is parked for extended periods in direct sunlight or in cold places with the engine turned off. The navigation system may not operate normally under such circumstances. Turn off the navigation system until the inside of the vehicle has cooled down or warmed up. If the system does not operate thereafter, consult an Authorized Dealer, we recommend an Authorized Mazda Dealer.

Navigation System

This navigation system utilizes GPS* satellite signals, a speed sensor and gyrosensor to track and display your vehicle's current position, and to guide you from your starting point to your destination along a calculated route.

* : GPS (Global Positioning System) is a position detecting system utilizing the signals from GPS satellites deployed by the U.S. Defense Department.

Screens

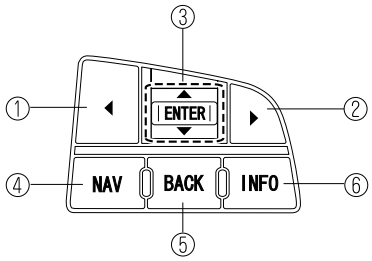
Screens displayed in this manual may differ from those on the actual display.

LCD (Liquid Crystal Display)

Direct sunlight or other outside light sources make it difficult to view the images on the display. For moonroof-equipped vehicles, close the sunshade to better view the display.

Names and Functions

Steering Switch
The navigation system can be operated by pressing the steering switches.



① Left switch: Pressing the switch while the selection cursor is displayed moves the selection cursor to the left.
Pressing the switch while the map scroll cursor is displayed scrolls the Map screen to the left.
Pressing the switch while in map mode switches the screen in the order of Map, Compass, and Course List screens. To switch back to the Map screen, press the switch on the Course List screen.

② Right switch: Pressing the switch while the selection cursor is displayed moves the selection cursor to the right.
Pressing the switch while the map scroll cursor is displayed scrolls the Map screen to the right.
Pressing the switch while in map mode switches the screen in the order of Map, Course list, and Compass screens. To switch back to the Map screen, press the switch on the Compass screen.

Note
The Course List screen is displayed only when the destination is set and the vehicle is on route.

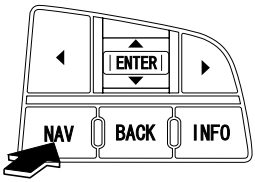
③ Enter switch:	**Press the Enter switch.** Press the Enter switch to select the desired item. The navigation menu is displayed by pressing the Enter switch while the Map screen is displayed. **Press the Enter switch up or down.** To move the selection cursor up or down, press the Enter switch up or down while the selection cursor is displayed. Pressing the Enter switch up or down while the map scroll cursor is displayed scrolls the Map screen up or down. Press the Enter switch up or down while the Map screen is displayed to zoom in/out of the Map screen.
④ Navi switch:	Used to switch to the navigation mode. Pressing the switch while the Navigation Menu screen or Map Scroll screen is displayed switches the display to the Map screen. Pressing the switch after the voice guidance has finished repeats the voice guidance. (☞ page 43)
⑤ BACK switch:	Used to undo the previous screen operation.
⑥ INFO switch:	Used to switch to the multi information display.

Activation

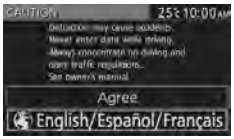
Activating the Navigation System

The following operation procedure is for activating the navigation system.

1 **With the ignition switched to ACC or ON, press the Navi switch on the steering switch.**



2 **After a moment, the CAUTION screen is displayed.**



- If you are in agreement with the CAUTION statement, Press the Enter switch up or down to set the cursor to Agree*1. Press the Enter switch to switch to the Map screen*2.
- To change the language, set the cursor to English/Español/Français*1. Press the Enter switch to switch the screen to LANGUAGE SELECTION*2. (☞ page 12)

*1 :Press the Enter switch up or down.
*2 :Press the Enter switch.

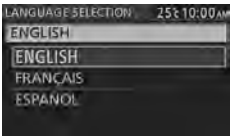
Notes

- While on the Map screen, Press the Enter switch up or down to change the map scale.
- If no operation is performed for 5 seconds while the CAUTION screen is displayed, the system switches to the Map screen.

Setting the Language

The language can be changed using the Language setting displayed in the upper part of the screen.

Before activating the navigation system



Select the desired language from the list. Press the Enter switch to switch the screen to CAUTION.
(☞ page 11)

After activating the navigation system

1. Press the INFO switch to display the SETTINGS screen.
2. Select PREFERENCES and press the Enter switch.
3. Select SELECT LANGUAGE and press the Enter switch.
4. Select the desired language from the list.

Setting the Clock, Ambient Temperature Display and Other Settings

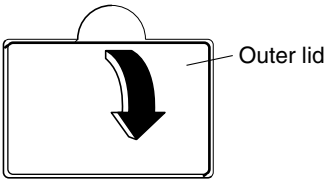
■ **The following feature settings are possible, refer to the "Multi Information Display" in the owner's manual.**

- Clock: Constant display of time.
- Ambient Temperature Display: Constant display of ambient temperature.
- Settings: Used to change the multi information display settings. (Distance unit, Display language)

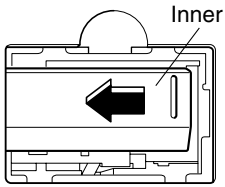
Upgrading the Map Information Version

The map information version can be upgraded. If you require the latest SD card of the Navigation Map data, consult an Expert Dealer, we recommend an Authorized Mazda Dealer.

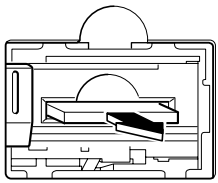
1 With the ignition switched to ACC OFF, insert a finger into the depression above the lid housing the SD card of the Navigation Map data (next to the navigation display), and open it.



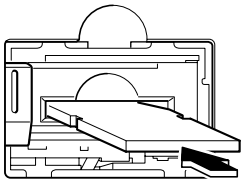
2 **Slide the notch of the inner lid sideways with your finger to open the inner lid.**



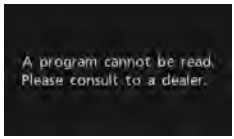
3 **The SD card of the Navigation Map data will be visible. Press in the currently inserted SD card of the Navigation Map data with a finger. After pressing in the SD card, it will eject partially. Grab the card with your fingers to pull it out.**



4 **Insert the new SD card of the Navigation Map data all the way in and close all the lids.**



If this screen is displayed, verify that the inner lid is not open. If this screen is displayed even though the inner lid is closed, consult an Authorized Mazda Dealer.



Caution

If the inner lid is closed while the SD card of the Navigation Map data is not inserted all the way, the card could be damaged.

Notes

- After inserting the SD card of the Navigation Map data, firmly close all of the lids.
- If the inner lid is not firmly closed, the navigation system will not function.

Menu

Navigation Menu Screen

The menu is displayed by pressing the Enter switch while the Map screen is displayed.

Set Destination (☞ page 22)
Find Local POI (☞ page 32)
Browse Map & Mark (☞ page 40)
Cancel/Edit Route (☞ page 34)
Navigation Setup (☞ page 15)

Navigation Set Up

●You can alter the map display conditions, the route guidance conditions and show the system information.

Warning

■ **Stop your vehicle before performing the following operations.**
Do not change the settings and destination locations while driving. Minimize the time spent viewing the monitor screen and listening to the voice guidance while driving. Operating the system will distract the driver from looking ahead of the vehicle and may cause an accident.
Always stop the vehicle in a safe location and set the parking brake before operating the system.

Before Steps Navigation Menu → Select Navigation Setup

Open the [Navigation Setup]

■ Auto Zoom

The Auto Zoom function automatically switches the map scale depending on the distance between the next guidance point and the current position.
Used to switch the Auto Zoom function.

■ Map Color

Used to switch the map mode.

Day: To switch to the daytime screen.
Night: To switch to the nighttime screen.
Auto: The screen switches between daytime and nighttime displays in conjunction with the on/off of the vehicle's exterior lights.

■ Map Direction

Used to switch the map direction.

North Up: Geographic north is up.
Head Up: The direction you are heading is up.

■ Show POI Icons

Used to display the selected POI icons on the Map screen.

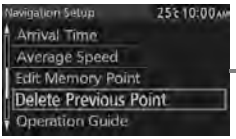
■ Guidance Volume

Used to adjust the guidance volume.

Also adjustable using the audio volume knob during transmission of the voice guidance.

Navigation Set Up

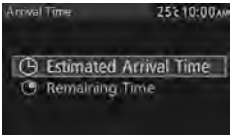
Open the [Navigation Setup]



■ Arrival Time

The time which is displayed until reaching the destination or a way point can be set as an estimated arrival time or the remaining time.

Select to display the estimated arrival time, or to display the remaining time.



■ Average Speed

Set the average speed for each road to be driven.
(This function sets the standard speed (average vehicle speed for each route) used for calculating the estimated arrival time when calculating the route time.)

■ Edit Memory Point

Used to edit the memory point or Home setting.
(☞ page 36, 38)

■ Delete Previous Point

Used to delete the previously set destination.

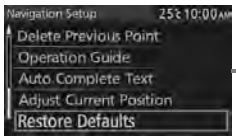
■ Operation Guide

Used to switch the operating guide display.

Operation Guide

Navigation Set Up

Open the [Navigation Setup]



■ Auto Complete Text

When entering text, the system displays possible candidates of words which may match the one you are trying to input. If the system narrows down the candidate to one, the word is automatically displayed.
Used to switch the auto complete text.

■ Adjust Current Position

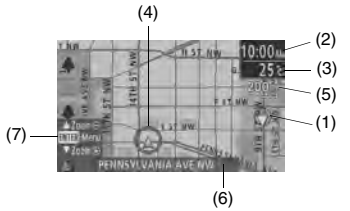
Used to adjust the vehicle position if it deviates from the Map screen.

■ Restore Defaults

Restores the default settings.

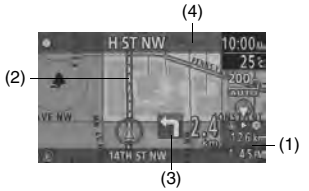
Screen Names and Functions

Screens Before Setting Route



(1) Map Orientation
(☞ page 15)
(2) Clock
(3) Temperature
Displays the ambient temperature.
(4) Vehicle marker
Shows the current position and direction of your vehicle.
(5) Scale display
Displays the scale of the map.
(6) Current Road Name
Shows the name of the road you are currently driving on.
(7) Operation Guide
Displays the operational guidance.
(☞ page 16)

Screens During Route Guidance



(1) The traveled distance to the destination and the estimated arrival time/remaining travel time
Displays the remaining time to the destination.
Estimated arrival time to the destination or the estimated remaining driving time can be displayed by selecting either of them. (☞ page 16)
(2) Route display
Shows the provided route as a thick blue line.
(3) Turn Arrow display
Shows the direction to turn at the next junction and the distance to the junction.
(4) Next Guided Street Name display

Adjusting the Map Scale

The screen map can be scaled to 14 different sizes.

1 Press the Enter switch up or down while the Map screen is displayed to zoom in or out of the Map screen.

Screen Adjustments

■ Brightness/Contrast

Brightness and contrast of the navigation screen can be adjusted.

1. Press the INFO switch to display the SETTINGS screen.
2. Select PREFERENCES and press the Enter switch.
3. Select SCREEN ADJUSTMENT and press the Enter switch.
4. Select BRIGHTNESS/CONTRAST and press the Enter switch.
5. Select BRIGHTNESS or CONTRAST using the left or right switch.
6. Adjust the tone by pressing the Enter switch up or down.
7. After setting, press the Enter switch to finish the setting.

■ Daytime/Night screen

When the headlights are on, daytime mode can also be selected (if a brighter screen is needed at night). This selection can only be done when the headlights are on.

- The screen can be returned to the daytime screen while the headlights or running lights are on by pushing the dashboard illumination knob. You will hear a beep sound and the illumination dimmer will be canceled. With each press of the dashboard illumination knob, the dashboard illumination will change from dim to full bright and back to dim again.

Character Entry

Street Name, City Name, and Other Input

Select the first several characters on the screen. (Step 1)

1. Press the Enter switch up or down, select the letter, and press the Enter switch. Pressing the Enter switch with the cursor set to Del erases one letter.
2. Set the cursor to Done and press the Enter switch. The Area names, Point names, City names, or Street names which include the letters currently input are displayed.

Del : The input character can be deleted.

Done : The list appears.

Character : You can change the type of text.

Select your target in the list. (Step 2)

The name list including the input spelling is displayed.

- If a desired name is not in the list, go back to Step 1, and try fewer characters.

- Examples

Street: CANAL

Enter by selecting characters:

C A

Street: MAIN STREET

Enter by selecting characters:

M A

Street: 52ND

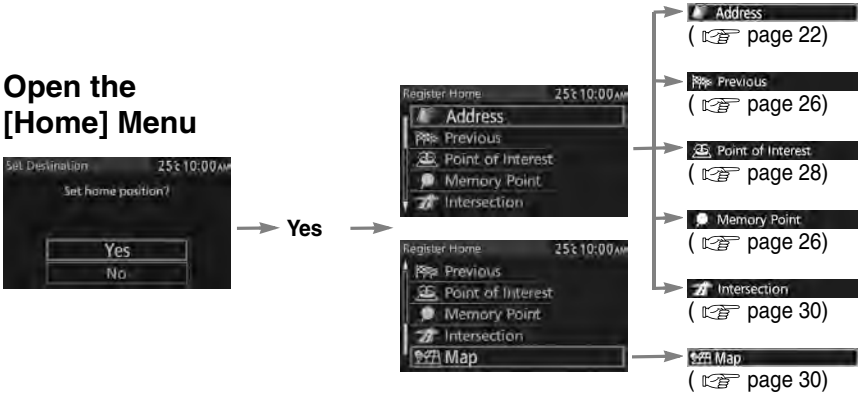
Enter by selecting characters:

5 2

Register Home

Before Steps Navigation Menu → Select Set Destination → Select Home

Open the [Home] Menu



Note

The Home registration screen is not displayed if home registration is already finished.

Set Destination

●You can set the destination using various methods provided by the system.

Before Steps Navigation Menu → Select Set Destination

Search Area

Open the [Address] Menu

→ **Select** Search Area →

Warnings

- **Do not keep your eyes fixed on the monitor screen or operate the system while driving.** Do not change the settings and destination locations while driving. Minimize the time spent viewing the monitor screen and listening to the voice guidance while driving. Operating the system will distract the driver from looking ahead of the vehicle and may cause an accident. Always stop the vehicle in a safe location before operating the system.
- Route searches with the navigation system can include roads that you cannot drive on and roads that you are prohibited from driving on due to traffic regulations. Please comply with the traffic regulations.

→ Select Address

Select the desired Search Area

- AL : ALABAMA
- AK : ALASKA
- AB : ALBERTA
- AZ : ARIZONA
- AR : ARKANSAS
- BC : BRITISH COLUMBIA
- CA : CALIFORNIA
- CO : COLORADO
- CT : CONNECTICUT
- DE : DELAWARE
- FL : FLORIDA
- GA : GEORGIA
- HI : HAWAII
- ID : IDAHO
- IL : ILLINOIS
- IN : INDIANA
- IA : IOWA
- KS : KANSAS
- KY : KENTUCKY
- LA : LOUISIANA
- ME : MAINE
- MB : MANITOBA
- MD : MARYLAND
- MA : MASSACHUSETTS
- MI : MICHIGAN
- MN : MINNESOTA
- MS : MISSISSIPPI
- MO : MISSOURI
- MT : MONTANA
- NE : NEBRASKA
- NV : NEVADA
- NB : NEW BRUNSWICK
- NH : NEW HAMPSHIRE
- NJ : NEW JERSEY
- NM : NEW MEXICO
- NY : NEW YORK
- NL : NEWFOUNDLAND AND LABRADOR
- NC : NORTH CAROLINA
- ND : NORTH DAKOTA
- NT : NORTHWEST TERRITORIES
- NS : NOVA SCOTIA
- NU : NUNAVUT
- OH : OHIO
- OK : OKLAHOMA
- ON : ONTARIO
- OR : OREGON
- PA : PENNSYLVANIA
- PE : PRINCE EDWARD ISLAND
- PR : PUERTO RICO
- QC : QUEBEC
- RI : RHODE ISLAND
- SK : SASKATCHEWAN
- SC : SOUTH CAROLINA
- SD : SOUTH DAKOTA
- TN : TENNESSEE
- TX : TEXAS
- UT : UTAH
- VT : VERMONT
- VI : VIRGIN ISLANDS OF THE U.S
- VA : VIRGINIA
- WA : WASHINGTON
- DC : WASHINGTON, D.C.
- WV : WEST VIRGINIA
- WI : WISCONSIN
- WY : WYOMING
- YT : YUKON

● For Character Entry, please refer to page 20.

Set Destination

Input City Name

Open the [Address] Menu

Select

Input the city name.

Select the city name from the list.

Input the street name.

Select the street name from the list.

Input the House Number.

Select Start

Notes

- Once the destination is set, **Add to** or **Replace** is displayed for the following destination settings.
- To add to the destinations, select **Add to** and follow the same procedure as that of the first destination setting.
- To re-set the destinations, select **Replace** and follow the same procedure as that of the first destination setting.
- The number of points which can be set as destinations are limited to two.

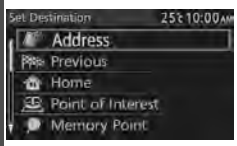
● For Character Entry, please refer to page 20.

Set Destination

Before Steps Navigation Menu → Select Set Destination

Previous

Open the [Set Destination] Menu



Select

Previous

The previously set destinations are displayed.

Select the desired Memory Point.

Name: Displays the list in alphabetical order.
Date: Displays the list in registration/edit date order.

Home

Select

Home

A home address is already registered in the Destination setting.

A home address is not registered in the Destination setting yet.
(☞ page 21)

Memory Point

Select

Memory Point

Registered memory points and registered Home can be set in the Destination setting.

Select the desired Memory Point.

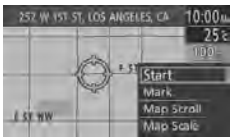
Name: Displays the list in alphabetical order.
Date: Displays the list in registration/edit date order.
Icon: Displays the list of the registered location icons.

Select Start

Notes

- Once the destination is set, **Add to** or **Replace** is displayed for the following destination settings.
- To add to the destinations, select **Add to** and follow the same procedure as that of the first destination setting.
- To re-set the destinations, select **Replace** and follow the same procedure as that of the first destination setting.
- The number of points which can be set as destinations are limited to two.

Select Start



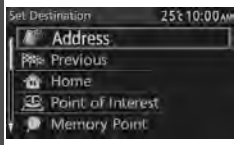
Select Start

● For Character Entry, please refer to page 20.

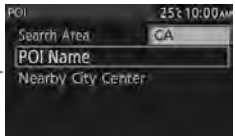
Set Destination

Point of Interest (POI)

Open the [Set Destination] Menu



Select



Search Area
(☞ page 22)

POI Name

Input the POI name.

Nearby City Center

Input the City name.

The desired POI can be searched by inputting the information. Input city name and Category to narrow down the range of the scope. Selection of Search can start search even with the city name or Category name not input.

Input the city name and category name.

Select
Search

Select the category from the list.

Select the POI from the list.

Select
Start

Notes

- Once the destination is set, **Add to** or **Replace** is displayed for the following destination settings.
- To add to the destinations, select **Add to** and follow the same procedure as that of the first destination setting.
- To re-set the destinations, select **Replace** and follow the same procedure as that of the first destination setting.
- When entering the POI name, the list can be displayed if the applicable places total five or less.

● For Character Entry, please refer to page 20.

Set Destination

Intersection

Open the [Set Destination] Menu

Select

Intersection

Select

Search Area

(☞ page 22)

Map

Select

Map

Input the 1st Street name.

Select the Street from the list.

Input the 2nd Street name. → **Select the Street from the list.** → **Input the City name.** → **Select the city from the list.** → **Select**

Notes

- Once the destination is set, **Add to** or **Replace** is displayed for the following destination settings.
- To add to the destinations, select **Add to** and follow the same procedure as that of the first destination setting.
- To re-set the destinations, select **Replace** and follow the same procedure as that of the first destination setting.
- The number of points which can be set as destinations are limited to two.

Browse Map & Mark
(☞ page 40)

Notes

- Once the destination is set, **Add to** or **Replace** is displayed for the following destination settings.
- To add to the destinations, select **Add to** and follow the same procedure as that of the first destination setting.
- To re-set the destinations, select **Replace** and follow the same procedure as that of the first destination setting.
- The number of points which can be set as destinations are limited to two.

● For Character Entry, please refer to page 20.

Find Local POI

●The POI around current location or destination can be searched.

Before Steps Navigation Menu → Select Find Local POI

Open the [Find Local POI] Menu

Select the search point.

Select the category from the list.

Pressing the left or right switch changes the order of the POI for each category.

→ **Select the POI from the list.** → **Select**

Start

Dist.: POIs around the current location and destination are displayed in order from the POI closest to the current location.
Name: POI are displayed in alphabetical order.
On Route: Displays the list of the icons along the route to the destination.

● For Character Entry, please refer to page 20.

Cancel/Edit Route

●You can cancel the guidance to the destination, and for editing the destination setting.

Before Steps Navigation Menu → Select Cancel/Edit Route

Cancel Guidance

Change Route (Delete Destination, Reorder Destinations, Start from adjacent road)

Route Preferences

Open the [Cancel/ Edit Route] Menu

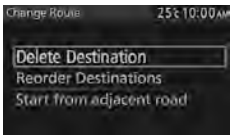
Select

Cancel Guidance

Used to cancel guidance.

Select

Change Route



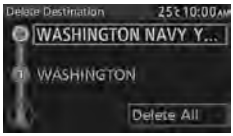
Select

Route Preferences

Preferential parameters used for route estimation can be set.
Parameters to be set: Freeway, Restricted Road, Ferry, Toll Road, Int'l Border Crossing.

Select Delete Destination

Used to delete the destination.



Select the deletion point.

Yes

Select Delete All

Yes

Note

Not displayed if there is only one destination.

Select Reorder Destinations

Used to change the destination.

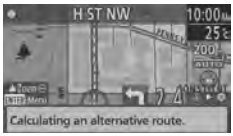
Yes

Note

Not displayed if there is only one destination.

Select Start from adjacent road

A separate route to the destination can be searched.



Select the item using the left or right switch. → **Select** Prefer **or** Avoid → **Select** Done

● For Character Entry, please refer to page 20.

Edit Memory Point

●Registers, edits and deletes the Memory Point.

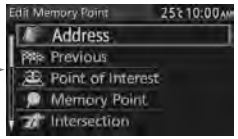
Before Steps Navigation Menu → Select Navigation Setup

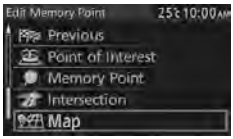
Add

Open the [Memory Point] Menu

Select Add

The memory point can be added.





→

Edit

Select Edit

The memory point can be edited.

→ **Select the point from the list.** →

Name:Displays the list in alphabetical order.
Date: Displays the list in registration/edit date order.
Icon: Displays the list of the registered location icons.

Delete

Select Delete

The memory point can be deleted.

→ **Select the point from the list.** →

Name:Displays the list in alphabetical order.
Date: Displays the list in registration/edit date order.
Icon: Displays the list of the registered location icons.

Delete All

Select Delete All

The memory point can be deleted completely.

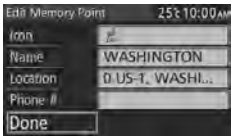
→ **Yes**

Editing

→ Select Edit Memory Point → Select Memory Point

Select the point.

→ **Select** Set



Select the item to be edited.

- Icon
  The memory point icon can be edited.
- Name
  The name of memory point can be edited.
- Location
  The location of memory point can be edited.
- Phone #
  The phone number of memory point can be edited.

→ **Press** Done **when editing is finished.** → **Select** Done **to switch to the Map screen.**

→ **Yes**

● For Character Entry, please refer to page 20.

Edit Home

●Registers, edits and deletes the Home location. (Deletion or editing of the home location can be done only when the home location is registered.)

Before Steps Navigation Menu → Select Navigation Setup

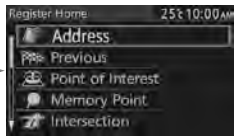
Register

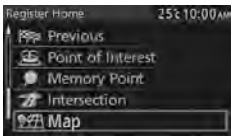
Open the [Home] Menu

Select

Register

The home location can be registered.





Delete

Select

Delete

The registered home location can be deleted.

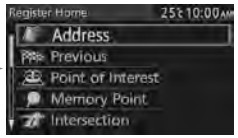
→ **Yes**

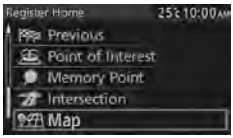
Edit Location

Select

Edit Location

The registered home location can be edited.





→ Select Edit Memory Point → Select Home

Select the point.

Select

Set

Select the desired location using the cursor and press the Enter switch.

Select the point.

Select

Set

● For Character Entry, please refer to page 20.

Browse Map & Mark

●You can set the destination browsing around the current position, and memory point registration.

Before Steps Navigation Menu → Select Browse Map & Mark

Browse Map & Mark

Open the [Browse Map & Mark] Menu

Select the desired place using the cursor and press the Enter switch.
Start: Sets the destination and starts the guidance.
Mark: Registers the center position of the map screen to the memory point while in the browse map mode or the Map scroll mode.
Map Scroll: Switches to the map scroll screen.
Map Scale: Switches to the map scale screen.

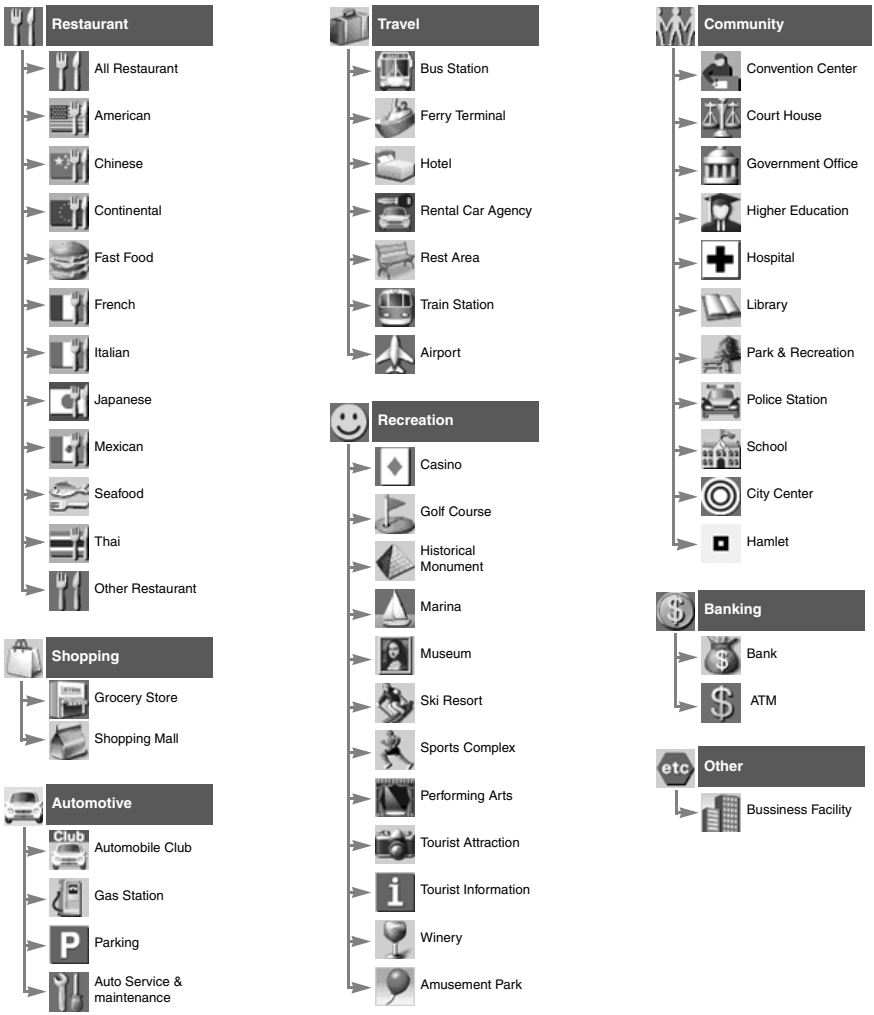
Note

Once the destination is set, **Add to** or **Replace** is displayed for the following destination settings.

POI Icons on Maps

POI (Point of Interest) Icons

The following are POI icons shown on maps.



MEMO

Precautions/System Performance

Voice Guidance

Warnings

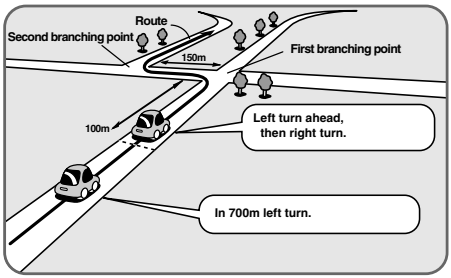
- The navigation system is just a support system for the driver. The driver should always pay attention to the traffic situation to safely make decisions. You may be unable at times to arrive at your destination due to out-of-date information on a map disc. You should be especially careful when selecting an urgent destination such as a hospital or a police station.
- Your route may sometimes include roads that are not open to vehicles or are closed due to traffic regulations. Please comply with the local traffic regulations.
- Do not change the settings and destination locations while driving. Minimize the time spent viewing the monitor screen and listening to the voice guidance while driving. Operating the system will distract the driver from looking ahead of the vehicle and may cause an accident. Always stop the vehicle in a safe location and use the parking brake before operating the system.

Voice guidance has the following functions:

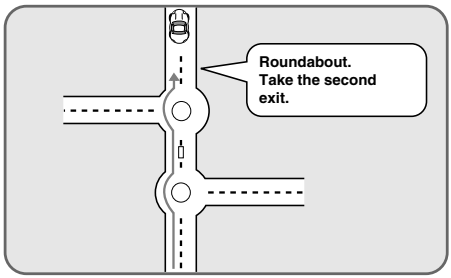
■ Intersection guidance.

- The system voice announces the distance to an upcoming turn and the turning direction.
  ➡ This guidance function is automatic. Therefore, you do not have to set it, and it cannot be disabled.

- The system vocally announces the distance to an upcoming highway branching point or junction.



When two intersections are close together, the voice guidance may be late.

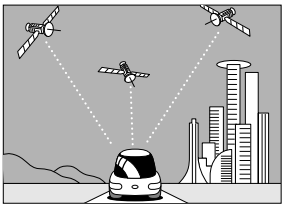


When two roundabouts are close together, the voice guidance for the second one may be late.

Repeating Voice Guidance

Pressing the Navi switch in the steering switches repeats the guidance if the voice guidance has been missed.

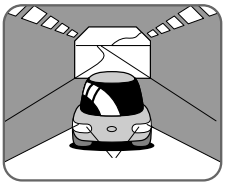
GPS

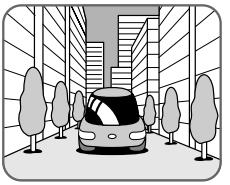


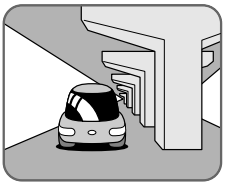
GPS is a position detecting system utilizing the signals from GPS satellites deployed by the U.S. Department of Defense. The Mobile Navigation System uses input from three or more satellites and calculates the vehicle position based on the principle of triangulation.
The positioning accuracy of the system corresponds to the error display of the GPS which is from about 30 to 200 meters.

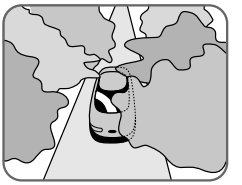
- If you are using the system for the first time, or if you have not used it for some time, it takes about 5 minutes (or about 2 minutes in open areas) to calculate your vehicle's position.

■ GPS signal reception is poor in the following places.


In tunnels.


Among high-rise buildings.


Under elevated roads.

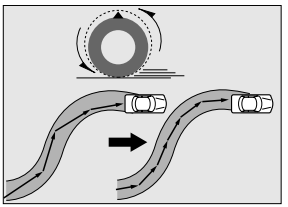

In wooded areas.

- The GPS satellites are controlled by the U.S. Defense Department, which may intentionally lower positioning accuracy. In such cases, there may be vehicle position deviations.
- There may be vehicle position deviations for some time until GPS signals are received after switching on the ignition.

Map Matching

This function compares your vehicle's tracking data with the road data on the map disc, applies dead reckoning to determine the road you are driving on, and displays your vehicle on that road on the map.

- Intelligent map matching addresses the following problems to achieve high accuracy in vehicle positioning.



Position Correction for Elevated Roads.
Position accuracy is improved by detecting if the vehicle is running on or under an elevated road.

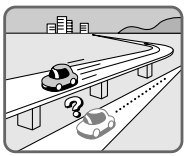
Position Correction for Parking Garages.
Position accuracy is improved by detecting if the vehicle is driving in an elevated or underground parking garage.

High-precision Gyrosensor.
A gyro detects turns with an accuracy of 0.05° per second. Combined with a speed sensor, it enables the system to display the current vehicle position even where GPS signals may be blocked.

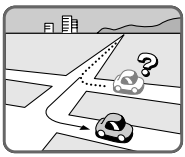
- Using a spare tire in place of the regular one may cause vehicle position deviations.
- Any difference between the direction which your vehicle actually travels and that shown on the map is automatically eliminated by azimuth correction.

Positioning Accuracy

In the following situations, your vehicle position may not be displayed correctly on the map. But, as you keep driving, your vehicle position will be automatically corrected utilizing map matching and GPS data.

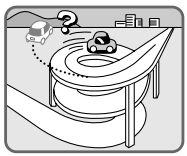


Running on an elevated road.

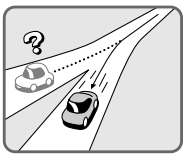


Making a turn after driving on a long straight road.

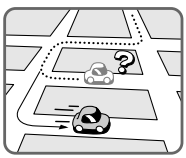
Running on a steep mountain road.



Running on a spiral road.

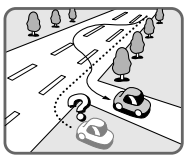


Entering an intersection where a road branches off at a small angle.

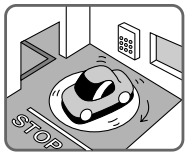


Running on gridiron layout of roads.

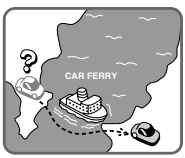
Running on a slippery road with tire chains.



Snaking on a wide road.



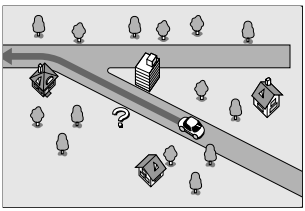
When your vehicle is on a turntable with the ignition switched off.



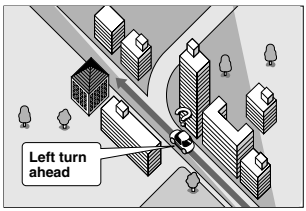
After getting off a ferryboat or vehicle train.

Route Guide

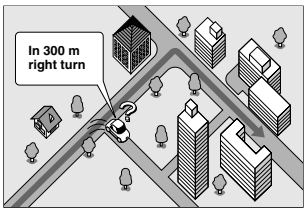
Although you may encounter the following problems in route guide, there is nothing wrong with the system.



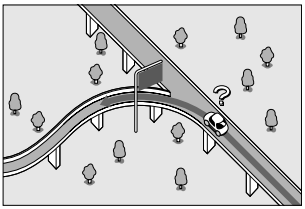
For certain intersection shapes, the upcoming turn or the name of the intersection may not be announced.



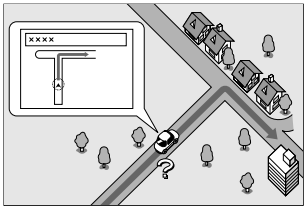
For certain intersection shapes, you may be prompted to turn right or left when you should actually stay on the same road.



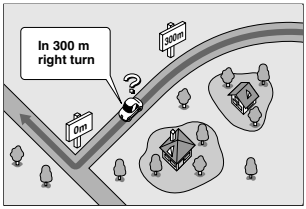
Voice guidance for the planned route may continue even after you have deviated from that route such as having turned too early.



Some points where the road divides on highways or toll roads may not be displayed or announced.



The Intersection Zoom Map may not always agree with the actual shape of the intersection.



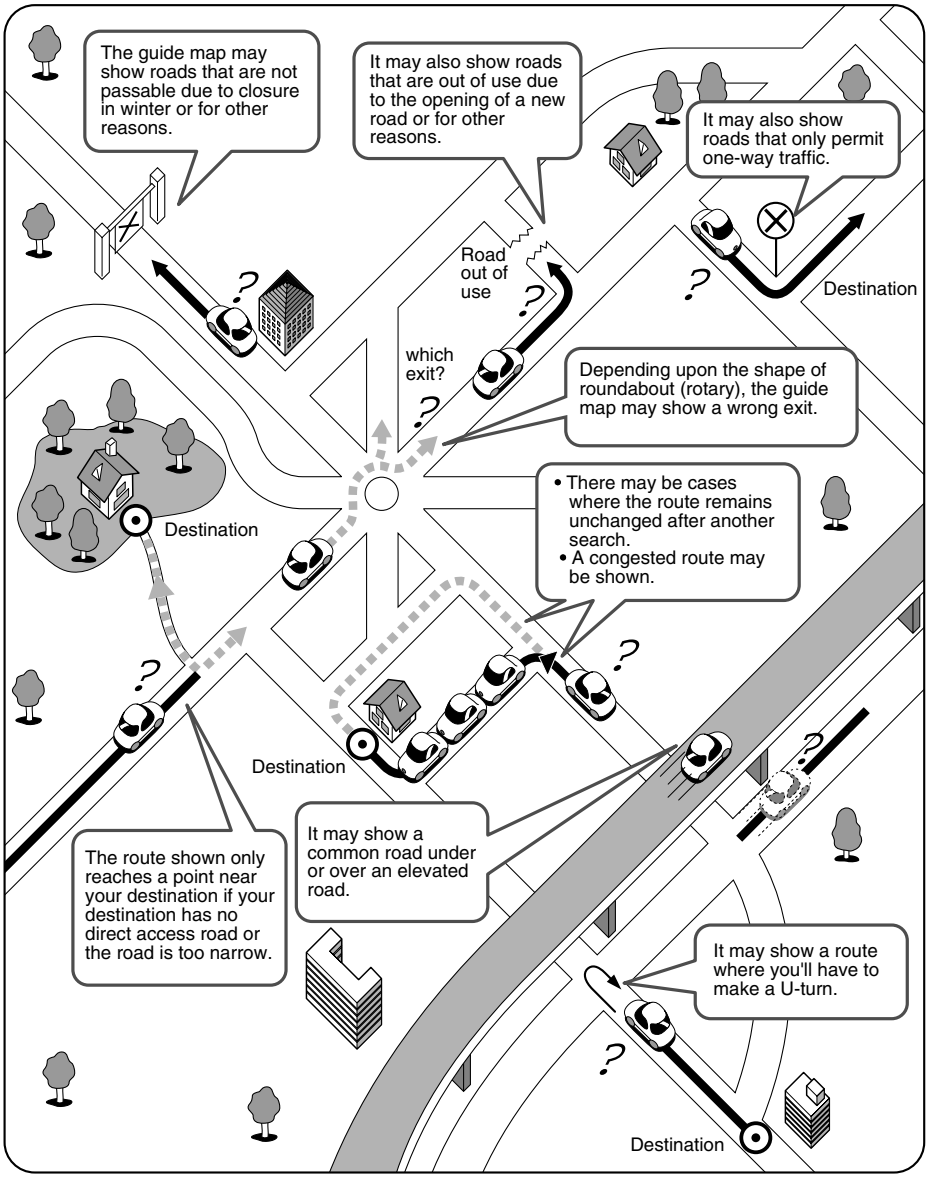
The announced distance to an upcoming turn may differ slightly from reality.

Warning

The navigation system is just a support system for the driver. The driver should always pay attention to the traffic situation to safely make decisions. You may be unable to arrive at your destination due to out-of-date information on a map disc. You should be especially careful when selecting an urgent destination such as a hospital or a police station.

Route Search

Although you may encounter the following problems in a route search, there is nothing wrong with the system.



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