

# Owner's Manual

ADD-ON NAVIGATION SYSTEM

# AVIC-U250

For details on software updates,  
visit [www.naviextras.com](http://www.naviextras.com).

## Thank you for buying this Pioneer product.

Please read through these instructions so you will know how to operate your model properly. *After you have finished reading the instructions, keep this document in a safe place for future reference.*



### Important

The screens shown in the examples may differ from actual screens, which may be changed without notice.

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## Precaution

- This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
- Information to User  
Alteration or modifications carried out without appropriate authorization may invalidate the user's right to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

### WARNING

Handling the cord on this product or cords associated with accessories sold with the product may expose you to chemicals listed on proposi-

tion 65 known to the State of California and other governmental entities to cause cancer and birth defect or other reproductive harm. ***Wash hands after handling.***

## The Safety of Your Ears is in Your Hands

Get the most out of your equipment by playing it at a safe level—a level that lets the sound come through clearly without annoying blaring or distortion and, most importantly, without affecting your sensitive hearing. Sound can be deceiving. Over time, your hearing “comfort level” adapts to higher volumes of sound, so what sounds “normal” can actually be loud and harmful to your hearing. Guard against this by setting your equipment at a safe level BEFORE your hearing adapts. 

### ESTABLISH A SAFE LEVEL:

- Set your volume control at a low setting.
- Slowly increase the sound until you can hear it comfortably and clearly, without distortion.
- Once you have established a comfortable sound level, set the dial and leave it there. 

### BE SURE TO OBSERVE THE FOLLOWING GUIDELINES:

- Do not turn up the volume so high that you can't hear what's around you.
- Use caution or temporarily discontinue use in potentially hazardous situations.
- Do not use headphones while operating a motorized vehicle; the use of headphones may create a traffic hazard and is illegal in many areas. 

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  - ➔ For details, refer to *More menu* on page 62. ■

## Important safety information



- Do not attempt to install or service your navigation system by yourself. Installation or servicing of the navigation system by persons without training and experience in electronic equipment and automotive accessories may be dangerous and could expose you to the risk of electric shock or other hazards.
- If liquid or foreign matter should get inside this navigation system, park your vehicle to safe place and turn the ignition switch off (ACC OFF) immediately and consult your dealer or the nearest authorized Pioneer Service Station. Do not use the navigation system in this condition because doing so may result in a fire, electric shock, or other failure.
- If you notice smoke, a strange noise or odor from the navigation system, or any other abnormal signs on the LCD screen, turn off the power immediately and consult your dealer or the nearest authorized Pioneer Service Station. Using this navigation system in this condition may result in permanent damage to the system.
- Do not disassemble or modify this navigation system, as there are high-voltage components inside which may cause an electric shock. Be sure to consult your dealer or the nearest authorized Pioneer Service Station for internal inspection, adjustments or repairs.
- Do not allow this product to come into contact with liquids. Electrical shock could result. Also, damage to the product, smoke, and overheating could result from contact with liquids.

## Introduction

### CAUTION

When a route is calculated, the route and voice guidance for the route are automatically set. Also, for day or time traffic regulations, only information about traffic regulations applicable at the time when the route was calculated is considered. One-way streets and street closures may not be taken into consideration. For example, if a street is open during the morning only, but you arrive later, it would be against the traffic regulations so you cannot drive along the set route. When driving, please follow the actual traffic signs. Also, the system may not know some traffic regulations.

Before using your navigation system, be sure to read and fully understand the following safety information:

- Read the entire manual before operating this navigation system.
- This navigation system may in certain circumstances display inaccurate position of your vehicle, the distance of objects shown on the screen, and compass directions. In addition, the system has certain limitations, including the inability to identify one-way streets, temporary traffic restrictions and potentially unsafe driving areas. Please exercise your own judgment in the light of actual driving conditions.
- The navigation features of your navigation system (and rear view camera option if purchased) are intended solely as an aid to you in the operation of your vehicle. It is not a substitute for your attentiveness, judgment, and care when driving.
- Certain country and government laws may prohibit or restrict the placement and use of this system in your vehicle. Please comply with all applicable laws and regulations regarding the use, installation and operation of your navigation system.
- Do not operate this navigation system (or the rear view camera option if purchased) if doing so will divert your attention in any way from the safe operation of your vehicle.

Always observe safe driving rules and follow all existing traffic regulations. If you experience difficulty in operating the system or reading the display, park your vehicle in a safe location and apply the parking brake before making the necessary adjustments.

- Never allow others to use the system unless they have read and understood the operating instructions.
- Never use this navigation system to route to hospitals, police stations or similar facilities in an emergency. Stop using any functions relating to the hands-free phoning and please call the appropriate emergency number.
- Route and guidance information displayed by this equipment is for reference purposes only. It may not accurately reflect the latest permissible routes, road conditions, one way streets, road closures, or traffic restrictions.
- Traffic restrictions and advisories currently in force should always take precedence over guidance given by the navigation system. Always obey current traffic restrictions, even if the navigation system provides contrary advice.
- Failure to set correct information about the local time may result in the navigation system providing improper routing and guidance instructions.
- Never set the volume of your navigation system so high that you cannot hear outside traffic and emergency vehicles.
- To promote safety, certain functions are disabled unless the vehicle is stopped and/or the parking brake is applied.
- The data encoded in the built-in memory is the intellectual property of the provider, and the provider is responsible for such content.
- Keep this manual handy as a reference for operating procedures and safety information.
- Pay close attention to all warnings in this manual and follow the instructions carefully.

Failure to follow the warnings and cautions as described in this manual and on the product itself and/or failure to use this product properly may result in serious injury or death.

- Please remember to wear your seat belt at all times while operating your vehicle. If you are in an accident, your injuries can be considerably more severe if your seat belt is not properly buckled.
- Never use headphones while driving.

### Fuel cost management

These calculations are based only on the information that you provide and not on any data from the vehicle. The fuel mileage displayed is only a reference value, and does not guarantee the fuel mileage displayed can be obtained.

### Traffic information

- Pioneer does not bear responsibility for the accuracy of the information transmitted.
- Pioneer does not bear responsibility for changes to information services provided by broadcasting stations or by related companies, such as cancellation of services or changing to pay-services. Also, we do not accept return of the product for this reason.

### Speed limit indication

The speed limit is based on the map database. The speed limit in the database may not match the actual speed limit of the current road. This is not a definite value. Be sure to drive according to the actual speed limit. 

## Additional safety information

### Parking brake interlock

This navigation system receives the status of the parking brake from the connected AV receiver.



#### WARNING

**Do not take any steps to tamper with or disable the parking brake interlock system which is in place for your protection. Tampering with or disabling the parking brake interlock system could result in serious injury or death.**

Certain functions (such as certain touch panel key operations) offered by this product could be dangerous (possibly resulting in serious injury or death) and/or unlawful if used while driving. To prevent such functions from being used while the vehicle is in motion, there is an interlock system that senses when the parking brake is set. If you attempt to use the functions described above while driving, they will become disabled until you stop the vehicle in a safe place, and (1) apply the parking brake, (2) release the parking brake, and then (3) apply the parking brake again. Please keep the brake pedal pushed down before releasing the parking brake.

- When applying the parking brake in order to enable other functions offered by the navigation system, park your vehicle in a safe place, and keep the brake pedal pushed down before releasing the parking brake if the vehicle is parked on a hill or otherwise might move when releasing the parking brake.

## Introduction

### To avoid battery exhaustion

Be sure to run the vehicle engine while using this product. Using this product without running the engine can drain the battery.



#### WARNING

Do not install this product in a vehicle that does not have an ACC wire or circuitry available.

### Handling the SD card slot

The SD memory card and SDHC memory card are collectively referred to as the "SD memory card".



#### CAUTION

- Keep the SD memory card out of the reach of small children to prevent them from accidentally swallowing it.
- Ejecting an SD memory card during data transfer can damage the SD memory card. Be sure to eject the SD memory card by the procedure described in this manual.
- To prevent data loss and damage to the storage device, never remove it from this navigation system while data is being transferred.
- If data loss or corruption occurs on the storage device for any reason, it is usually not possible to recover the data. Pioneer accepts no liability for damages, costs or expenses arising from data loss or corruption.
- Never insert or eject an SD memory card while driving.
- Do not insert anything other than SD memory cards. 

### Visit our website

Visit us at the following site:

<http://www.pioneerelectronics.com>

In Canada

<http://www.pioneerelectronics.ca>

- 1 Register your product.
- 2 Receive updates on the latest products and technologies.
- 3 Download owner's manuals, order product catalogs, research new products, and much more.
- 4 Receive notices of software upgrades and software updates.

**The names of private corporations, products and other entities described in this product are the registered trademarks or trademarks of their respective firms.**

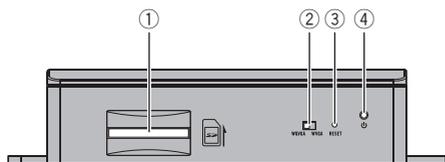


## Notes before using the system

### In case of trouble

Should the navigation system fail to operate properly, contact your dealer or nearest authorized Pioneer Service Station.

## Checking part names and functions



### ① SD card slot

- ❑ An SD memory card is used only to upgrade the software of this product.
- ❑ For details of software upgrades, refer to the information on our website.

### ② Video output selector switch

The switch is used to change the resolution of video output to the AV receiver.

- When the switch is set to the left, WQVGA video is output.
- When the switch is set to the right, WVGA video is output.

### ③ Reset button

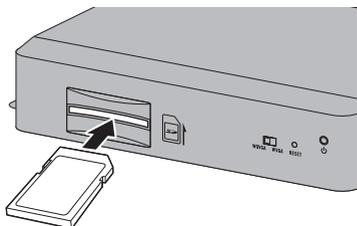
- ➡ For details, refer to *Resetting the microprocessor* on this page.

### ④ Power indicator

## Inserting an SD memory card

- ❑ Compatibility with all SD memory cards is not guaranteed.

### 1 Insert an SD memory card into the SD card slot.



### 2 Gently press the card in against the spring latch until it stops, then release.

The card will lock firmly into place inside the SD card slot.

## Resetting the microprocessor



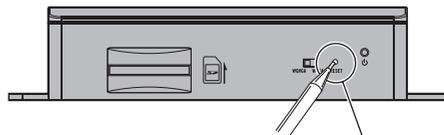
### CAUTION

Please refer to the related section before clearing.

The microprocessor should be reset under the following conditions:

- Prior to using this product for the first time after installation.
- If the product fails to operate properly.
- When adding/removing additional products that connect to the navigation system.
- If your vehicle position is shown on the map with a significant positioning error.

### ● Press the reset button on this product with a pointed object such as the tip of a pen.



Reset button



## Before you start

### On first-time startup

When you use the navigation system for the first time, an initial setup process starts automatically. Follow the steps below.

#### 1 Start the engine to boot up the system.

#### 2 Wait approximately 10 seconds, and then press the MODE button of the AV receiver.

After a short pause, the navigation splash screen appears.

#### 3 Set the video output selector switch according to your AV receiver.

- If the screen remains black after pressing the **MODE** button of the AV receiver, set the switch to the other side.
- ➔ For details, refer to *Checking part names and functions* on the previous page.

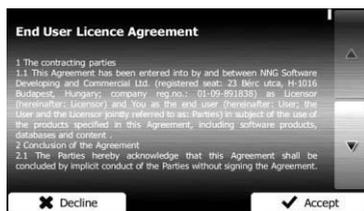
#### 4 Select the language that you want to use on the screen, then touch [Done].



- Later you can change it in "**Regional**" settings.
- ➔ For details, refer to *Customizing the regional settings* on page 60.

The navigation system will restart and the "**End User Licence Agreement**" screen is displayed.

#### 5 Read the terms carefully, checking its details, and then touch [Accept] if you agree to the conditions.



The configuration wizard starts.

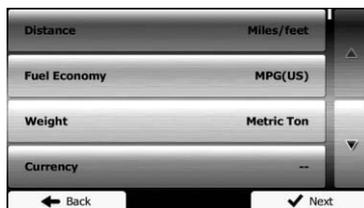
#### 6 Touch [Next] to continue.

#### 7 Select the language that you want to use for voice guidance messages, then touch [Next].



- Later you can change it in "**Sound and Warnings**" settings.
- ➔ For details, refer to *Setting the volume and the guidance voice for navigation system* on page 54.

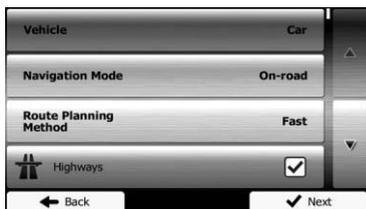
#### 8 If needed, modify the time format and unit settings, then touch [Next].



- Later you can change it in "**Regional**" settings.
- ➔ For details, refer to *Customizing the regional settings* on page 60.

## Before you start

### 9 If needed, modify the default route planning options, then touch [Next].



- ❑ Later you can change them in “**Route Settings**”.
- ➔ For details, refer to *Modifying the route calculation conditions* on page 42.
- ❑ You can restart the configuration wizard later from the “**Settings**” menu.
- ➔ For details, refer to *Starting the configuration wizard* on page 60.

### 10 Touch [Finish].

The initial setup is now complete. After touching [Finish], the “**Navigation Menu**” screen appears and you can start using the navigation system.



wait (approximately 10 seconds) after restart before pressing the **MODE** button. 

## Regular startup

### 1 Start the engine to boot up the system.

### 2 Press the **MODE** button of the AV receiver.

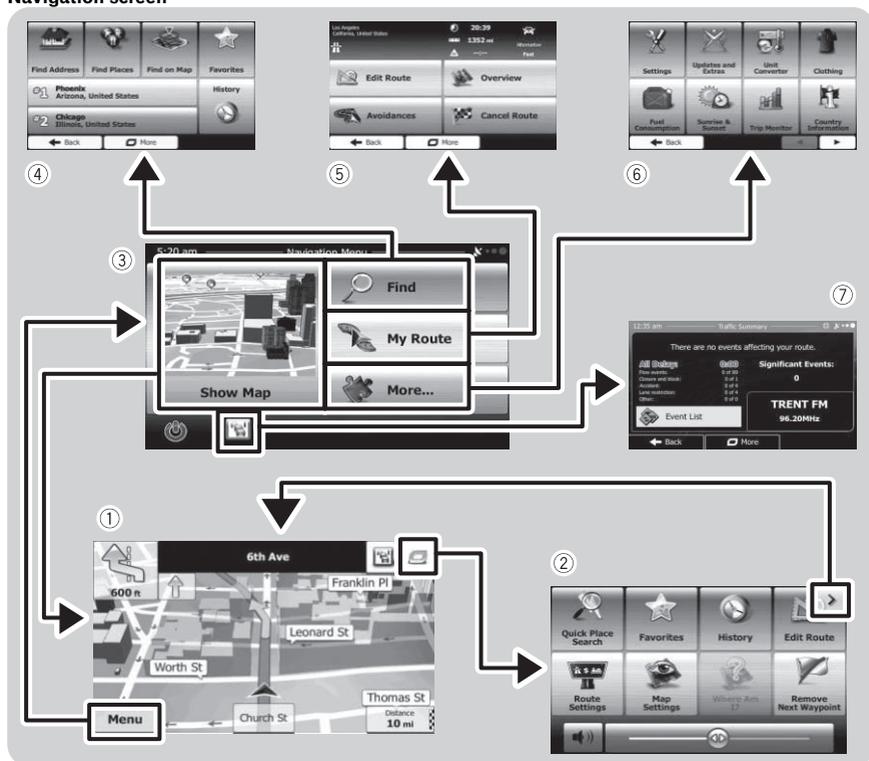
After a short pause, the navigation screen appears.

- ❑ The display will turn off if you press the **MODE** button of the AV receiver immediately after the navigation system restarts, so

# How to use the navigation menu screens

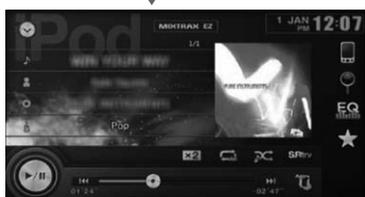
## Screen switching overview

### Navigation screen



**MODE**

Press the **MODE** button of the AV receiver.



AV receiver screen (e.g. AVH-X5500BHS)



## What you can do on each menu

### ① Map screen

Touch **[Show Map]** on the "Navigation Menu" screen.

### ② Quick menu

Registering your favorite menu items in shortcuts allows you to quickly jump to the registered menu screen by a simple touch on the quick menu screen. The master volume slider at the bottom of the screen adjusts the sound volume of the device. All sounds of this system are affected.

You can customize the menu options.

➔ For details, refer to *Customizing the quick menu* on page 55.

### ③ "Navigation Menu" screen

Touch **[Menu]** on the map screen to display the "Navigation Menu" screen.

This is the starting menu to access the desired screens and operate the various functions.

### ④ "Find" menu

You can search for your destination on this menu.

Other features include useful functions to support your navigation.

### ⑤ "My Route" menu

You can display your route information on the map. You can also perform route-related actions such as editing or canceling your route on this menu.

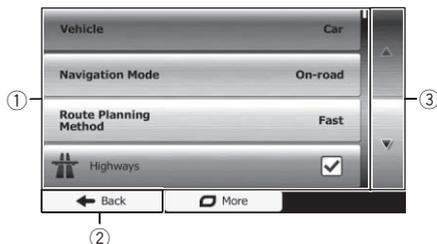
### ⑥ "More..." menu

You can customize the way the navigation system works, to simulate demo routes or to run some additional applications.

### ⑦ Traffic summary screen

You can check the summary of traffic events on the set route.

## Operating list screens (e.g. route settings screen)



### ① Listed items

Touching an item on the list allows you to narrow down the options and proceed to the next operation.

### ② Back

The previous screen returns. Touching and holding **[Back]** returns to the map screen.

③ Touching ▼ or ▲ on the right of screen allows you to see the next or previous page.

## Operating the on-screen keyboard



### ① Text box

Displays the characters that are entered.

### ② Keyboard

Touch the keys to enter the characters.

To enter a space, touch  at the bottom center of the screen.

## How to use the navigation menu screens

- When entering text, the first character appears in upper case while the rest of the text is in lower case. Touch  to enter an upper case letter or touch twice to turn on Caps Lock. Touch again and lower case letters return.
- ③ **Back**  
The previous screen returns. Touching and holding **[Back]** returns to the map screen.
- ④ **More**  
Touching **[More]** switches to another keyboard layout, for example from an English keyboard to a Greek keyboard.
- ⑤ **Results**  
Touch to finalize the keyboard entry (open the list of search results).  
If the desired name does not show up, the names that match the string appear in a list after entering a couple of characters (to open the list of results before it appears automatically, touch **[Results]**).
- ⑥ **123**  
Touch to switch to a keyboard offering numeric and symbol characters.
- ⑦   
Touch to correct your entry on the keyboard.  
Touching and holding  deletes several characters or the entire input string.
- ⑧   
Touch to finalize the keyboard entry (accept the suggested search result). □

## Monitoring the GPS reception quality

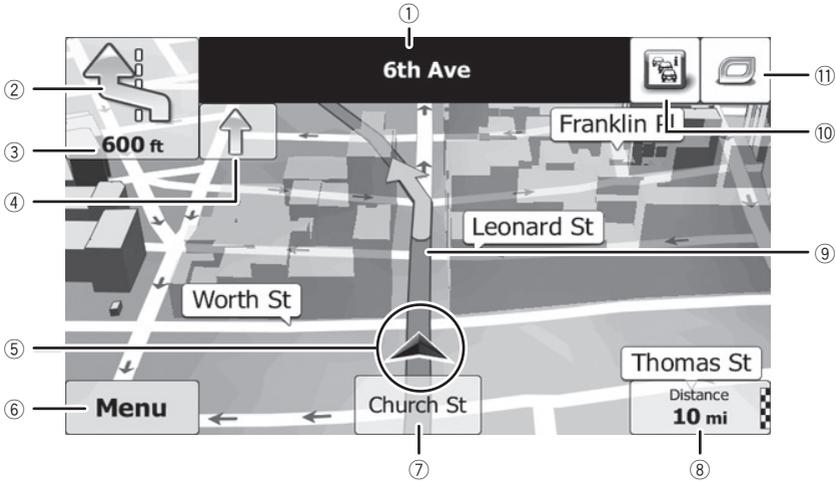
In the top right corner, the GPS reception quality icon shows the current accuracy of the position information.

Indicator	Meaning
	GPS navigation possible
	Insufficient GPS navigation
	GPS navigation not possible
	No connection to GPS receiver



Most of the information provided by your navigation system can be seen on the map. You need to become familiar with how information appears on the map.

## How to read the map screen



❑ Information with an asterisk (\*) appears only when the route is set.

❑ Depending on the conditions and settings, some items may not be displayed.

① **Name of the street to be used (or next guidance point)\***

Shows information about the next guidance point (maneuver) and the next street or the next city.

② **Next guidance point (maneuver)\***

When you approach the next maneuver, this appears in orange. Both the type of the event (turn, traffic circle, exiting freeway, etc.) and its distance from the current position are displayed. A smaller icon shows the type of the second next maneuver if it is near the first one.

➔ For details, refer to *Frequently shown route events* on the next page.

③ **Distance to the next guidance point (maneuver)\***

Shows the distance to the next maneuver.

④ **Second maneuver arrow\***

Shows the turning direction after next guidance point and the distance to there.

⑤ **Current position**

Indicates the current location of your vehicle. The apex of the triangular mark indicates your orientation and the display moves automatically as you drive.

❑ The exact location of the arrow mark depends on the vehicle type used for route calculation and the navigation mode.

➔ For details, refer to *Changing the vehicle used* on page 42.

⑥ **Menu key**

Touch [Menu] to return to the "Navigation Menu" screen.

➔ For details, refer to *What you can do on each menu* on page 20.

⑦ **Street name (or city name) that your vehicle is traveling along**

⑧ **Data field**

## How to use the map

Touching this field displays route information during navigation. By default, only one data field is displayed. Touch this field to see all data fields.

➔ For details, refer to *Browsing the data field* on page 25.

### ⑨ Current route\*

The route currently set is highlighted in color on the map.

➔ For details of the POI icons, refer to *Customizing the map screen settings* on page 57.

### ⑩ Traffic information

The recommended route is not always the same between two points. Whenever suitable data exists, traffic information can be taken into account in the route calculation.

### ⑪ Quick menu

Touching this key causes the quick menu to appear.

➔ For details, refer to *Quick menu* on page 20.

## Frequently shown route events

Icon	Description
	Turn left.
	Turn right.
	Turn back.
	Bear right.
	Turn sharp left.

Icon	Description
	Keep left.
	Continue straight in the intersection.
	Go left on the traffic circle, 3rd exit (next maneuver).
	Enter traffic circle (second next maneuver).
	Enter freeway.
	Exit freeway.
	Board ferry.
	Leave ferry.
	Approaching a waypoint.
	Approaching the destination.



## Seeing the current position on the map

### 1 Display the "Navigation Menu" screen.

➔ For details of the operations, refer to *Screen switching overview* on page 19.

## 2 Touch [Show Map] on the “Navigation Menu” screen.

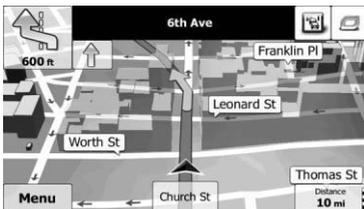
The map screen appears showing the current position (a blue arrow by default), recommended route (an orange line) and surrounding map area.

- ❑ The arrow mark appears in blue by default. You can change this icon.
- ➔ For details of the POI icons, refer to *Customizing the map screen settings* on page 57.

When there is no GPS position, the arrow mark is transparent. It shows your last known position. The more green dots you see in a satellite symbol in the top left corner, the closer you are to get the valid GPS position.



When GPS position is available, the arrow mark is displayed in full color, now showing your current position.



## Checking the detailed information about the current position

You can get the detailed information about the current position (or about the last known position if GPS reception is not available) from the “Where Am I?” screen. You can also search for useful Points Of Interest (POI) nearby on the screen. Follow the steps below to open the “Where Am I?” screen.



### 1 Display the map screen.

- ➔ For details of the operations, refer to *Screen switching overview* on page 19.

### 2 If the current street is displayed below the arrow mark (current position), touch it to open the “Where Am I?” screen.

- Touch  in the top right corner of the screen to open the quick menu screen, then touch [Where Am I?].

The screen provides the following information:

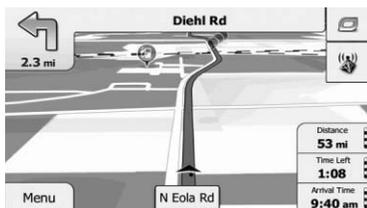
- Latitude and longitude (coordinate of the current position in WGS84 format)
- Altitude (elevation information coming from the GPS receiver – often inaccurate)
- House number on the left
- House number on the right
- Position information (current or last known)/time left since it was last updated
- Address details of the current position (when available)
  - ❑ To save the current position as a “Favorites” destination, touch [More].
    - ➔ For details, refer to *Storing a location in “Favorites”* on page 50.
- ❑ You can also search for assistance near your current position.
- ➔ For details, refer to *Searching for a nearby POI* on page 35. 

## How to use the map

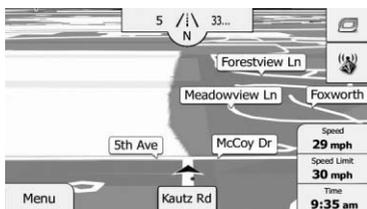
### Browsing the data field

The data fields are different when you are navigating the current route and when you have no specified destination (the orange line is not displayed). The data field provides the following information.

- When the route is set:  
Distance to final destination, time needed to reach the final destination and estimated arrival time



- When the route is not set:  
Current speed, speed limit of the current road and current time



- The estimated time of arrival is an ideal value calculated based on the value set for **"Max. Speed"** and the actual driving speed. The estimated time of arrival is only a reference value, and does not guarantee arrival at that time.
  - ➔ For details, refer to *Setting the vehicle parameters* on page 43.
- You can change the value by touching and holding any of the fields.

### Display during freeway driving

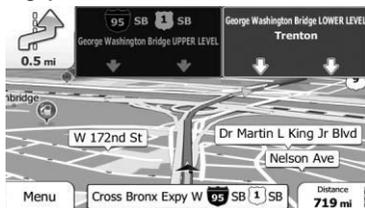
In certain locations of the freeway, lane information is available, indicating the recommended lane to be in to easily maneuver the next guidance.

#### Lane information



While driving on the freeway, freeway exit numbers and freeway signs may be displayed in the vicinity of interchanges and exits. If you are approaching a complex intersection and the needed information exists, the map is replaced with a 3D view of the junction.

#### Signposts



#### Junction view



- If the data for these items is not contained in the map data, the information is not available even if there are signs on the actual road.

An icon showing a gas station or a restaurant will appear on the map during you are driving on freeways. Touch the icon to open the details of the next few exits or service stations.

#### Freeway exit services



- ❑ You can add any of them as a waypoint to your route.
- ➔ For details, refer to *Setting a route using the “My Route” menu* on page 40.
- ❑ If you want to display other types of POIs for the exits, you can change the icons in **“Visual Guidance Settings”**.
- ➔ For details, refer to *Setting the visual guidance* on page 58.

## Operating the map screen

### Changing the scale of the map

You can change how much of the map is displayed on the screen with street names and other text displayed in the same font size.

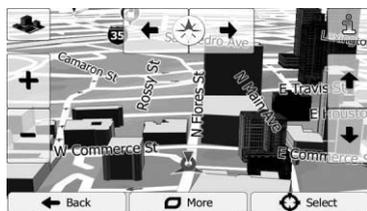
#### 1 Display the map screen.

- ➔ For details of the operations, refer to *Screen switching overview* on page 19.

#### 2 Touch anywhere on the map during navigation.

The map stops following the current position and control keys appear.

#### 3 Touch **+** or **-** to change the map scale.



- ❑ Map scaling has a limit in 3D map view mode. If you zoom out further, the map switches to 2D view mode.
- ➔ For details, refer to *Switching the map between 2D and 3D* on the next page.

#### 4 Touch **[Back]** to move the map back to follow the current GPS position.

## Smart Zoom

Your navigation system features “Smart Zoom” that works in two ways:

- When the route is set:
  - When approaching a turn, it will zoom in and raise the view angle to let you easily recognize your maneuver at the next junction. If the next turn is at a distance, it will zoom out and lower the view angle to be flat so you can see the road in front of you.
- When the route is not set:
  - “Smart Zoom” will zoom in if you drive slowly and zoom out when you drive at high speed.

## Switching the map orientation

You can switch how the map shows your vehicle’s direction between “Heading up” and “North up”.

- Heading up:
  - The map display always shows the vehicle’s direction as proceeding toward the top of the screen.
- North up:
  - The map display always has north at the top of the screen.

## How to use the map

- ❑ The map orientation is fixed at “Heading up” when the 3D map screen is displayed.

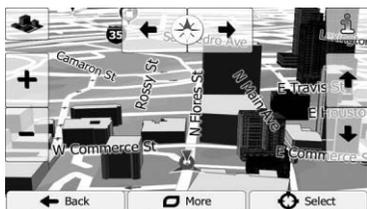
### 1 Display the map screen.

- ➔ For details of the operations, refer to *Screen switching overview* on page 19.

### 2 Touch anywhere on the map during navigation.

The map stops following the current position and control keys appear.

### 3 Touch to switch the map orientation.



Each time you touch the key changes the setting.

### 4 Touch [Back] to move the map back to follow the current GPS position.

## Changing the view angle of the map

You can change the view angle of the map horizontally or vertically.

- ❑ You can change the vertical view angle of the map in 3D mode only.

- ➔ For details, refer to *Switching the map between 2D and 3D* on this page.

### 1 Display the map screen.

- ➔ For details of the operations, refer to *Screen switching overview* on page 19.

### 2 Touch anywhere on the map during navigation.

The map stops following the current position and control keys appear.

### 3 Touch to tilt up/down or to rotate left/right.

- ❑ Touching the key once modifies the view in large steps and touching and holding the key modifies it continuously and smoothly.

### 4 Touch [Back] to move the map back to follow the current GPS position.

## Switching the map between 2D and 3D

### 1 Display the map screen.

- ➔ For details of the operations, refer to *Screen switching overview* on page 19.

### 2 Touch anywhere on the map during navigation.

The map stops following the current position and control keys appear.

### 3 Touch or to switch between 2D and 3D view modes.



Each time you touch the key changes the setting.

- ❑ When the 2D map screen is selected,  is displayed.
- ❑ When the 3D map screen is selected,  is displayed.

### 4 Touch [Back] to move the map back to follow the current GPS position.

## Scrolling the map to the position you want to see

### 1 Display the map screen.

- ➔ For details of the operations, refer to *Screen switching overview* on page 19.

### 2 Touch and drag the map in the desired direction to scroll.

- ❑ Positioning the cursor to the desired location results in a brief information overview about the location being displayed at the top of the screen, with street name and other information for this location being shown.
- ❑ The scrolling increment depends on your dragging length.

### 3 Touch [Back] to move the map back to follow the current GPS position.

## Viewing information about a specified location

An icon appears at registered places such as “Favorites” entries and places where there is a POI icon or traffic information icon. Place the cursor over the icon to view detailed information.

### 1 Scroll the map and move the scroll cursor to the icon you want to view.

### 2 Touch to see the details of the selected location.

### 3 Touch the item that you want to check the detailed information.

- Touch [Back] to return to the map.
  - ➔ For details of the POI icons, refer to *Customizing the map screen settings* on page 57.
  - ➔ For details of the traffic information icons, refer to *Setting the traffic information* on page 56. 

## Searching for and selecting a location

### **! WARNING**

Do not take any steps to tamper with or disable the parking brake interlock system which is in place for your protection. Tampering with or disabling the parking brake interlock system could result in serious injury or death.

### **! CAUTION**

For safety reasons, these route-setting functions are not available while your vehicle is in motion. To enable these functions, you must stop in a safe place and put on the parking brake before setting your route.

- ❑ Some information regarding traffic regulations depends on the time when the route calculation is performed. Thus, the information may not correspond with a certain traffic regulation when your vehicle actually passes through the location in question. Also, the information on the traffic regulations provided will be for a passenger vehicle, and not for a truck or other delivery vehicles. Always follow the actual traffic regulations when driving.

## Searching for a location by address

The most frequently used function is “**Find Address**”, in which the address is specified and the location is searched.

- ❑ Depending on the search results, some steps may be skipped.

### 1 Touch [Menu] on the map screen.

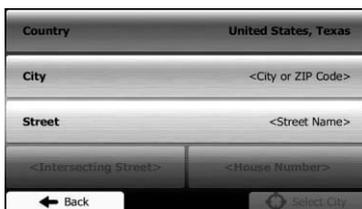
The “**Navigation Menu**” screen appears.

- ➔ For details of the operations, refer to *Screen switching overview* on page 19.

### 2 Touch [Find], then [Find Address].

### 3 Touch [Country], enter the first few letters of the country or state on the keyboard and then select one country or state from the list of results.

- ❑ By default, your navigation system proposes the country and state where you are. If no changes are required, skip steps 3.
- ❑ If you select a country without a state, you can search for a city in all its states.



### 4 Touch [City] and enter the name of the city on the keyboard.



### 5 Touch [Street] and enter the street name on the keyboard.



### 6 Touch [House Number] and enter the house number on the keyboard.

- ❑ To enter letters, touch [QWERTY].

### 7 When the entry is complete, touch [Done].



- If the entered house number cannot be found, the midpoint of the street is selected as the destination.

The searched location appears on the map screen.

- ➔ For the subsequent operations, refer to *Setting a route to your destination* on page 39. □

## Searching for a location by entering the midpoint of a street

You can also navigate to the midpoint of a street if the house number is not available.

### 1 Touch [Menu] on the map screen.

The “Navigation Menu” screen appears.

- ➔ For details of the operations, refer to *Screen switching overview* on page 19.

### 2 Touch [Find], then [Find Address].

### 3 If necessary, modify the country.

- ➔ For details of the operations, refer to *Searching for a location by address* on the previous page.

### 4 Touch [Street] and enter the street name on the keyboard.



### 5 Touch [Select Street].

The map screen appears with the selected point in the middle. The midpoint of the street is selected as the destination.

- ➔ For the subsequent operations, refer to *Setting a route to your destination* on page 39. □

## Searching for a location by entering the city center

You can search for a location by entering the city center.

### 1 Touch [Menu] on the map screen.

The “Navigation Menu” screen appears.

- ➔ For details of the operations, refer to *Screen switching overview* on page 19.

### 2 Touch [Find], then [Find Address].

### 3 If necessary, modify the country.

- ➔ For details of the operations, refer to *Searching for a location by address* on the previous page.

## Searching for and selecting a location

- 4 Touch [City] and enter the name of the city on the keyboard.



- 5 Touch [Select City].

The map screen appears with the selected point in the middle. The center of the displayed city becomes the destination of the route.

- For the subsequent operations, refer to *Setting a route to your destination* on page 39. 

## Finding the location by specifying the ZIP code

If you know the ZIP code of the location that you want to find, you can use it to find the location.

- Depending on the search results, some steps may be skipped.

- 1 Touch [Menu] on the map screen.

The "Navigation Menu" screen appears.

- For details of the operations, refer to *Screen switching overview* on page 19.

- 2 Touch [Find], then [Find Address].

- 3 If necessary, modify the country.

- For details of the operations, refer to *Searching for a location by address* on page 29.

- 4 Touch [City] and enter the name of the city using its ZIP code.



- To open the numeric keypad, touch **123**.

- 5 Touch [Street] and enter the street name on the keyboard.



- 6 Touch [House Number] and enter the house number on the keyboard.

- To enter letters, touch **QWERTY**.

- 7 When the entry is complete, touch [Done].

- If the entered house number cannot be found, the midpoint of the street is selected as the destination.



The searched location appears on the map screen.

- For the subsequent operations, refer to *Setting a route to your destination* on page 39. 

## Searching for Points of Interest (POI)

Information of various facilities (Points Of Interest – POI), such as gas stations, parking lots or restaurants, is available. You can search for a POI by using the “Quick Search” feature, or by selecting the category (or entering the POI name).

### Searching for POIs using “Quick Search”

You can quickly find a favorite place by its name. The search is always carried out along the recommended route if it exists or around your current position if no destination is set.

#### 1 Touch [Menu] on the map screen.

The “Navigation Menu” screen appears.

- For details of the operations, refer to *Screen switching overview* on page 19.

#### 2 Touch [Find], then [Find Places].

#### 3 Touch [Quick Search Along Route].



A keyboard screen appears. Start entering the name of the place.

#### 4 After entering a few letters, touch [Results].



The list of places opens with names containing the entered character sequence.

#### 5 Scroll the list and touch the place you want.



A full screen map appears with the selected point in the middle. The name and address of the place is displayed at the top of the screen.

- For the subsequent operations, refer to *Setting a route to your destination* on page 39.

- To see the details of the selected place, touch .

Touching [Back] returns to the map screen.

- The places in the list are ordered by their distance from the current or last known position, from the destination or by the length of the necessary detour. To change the order, follow the steps below:

Touch [More], then touch one of the list items.

### Searching for POIs using preset categories

The preset search allows you to quickly find the most frequently selected types of POIs.

#### 1 Touch [Menu] on the map screen.

The “Navigation Menu” screen appears.

- For details of the operations, refer to *Screen switching overview* on page 19.

#### 2 Touch [Find], then [Find Places].

The preset search categories are as follows.

- Gas Station Along Route
- Parking At My Destination
- Restaurant Along Route
- Accommodation At My Destination

## Searching for and selecting a location

- ❑ When the route is set and any of the above search categories are selected, the category search will occur along the route.
- ❑ When a route has not been set and any of the above search categories are selected, the category search will occur around your current position.
- ❑ When the current position is not available (no GPS signal) and any of the above search categories are selected, the category search will occur around your last known position.

### 3 Touch the POI you want.



The searched location appears on the map screen.

- ➔ For the subsequent operations, refer to *Setting a route to your destination* on page 39.

## Searching for POIs by categories

You can search for POIs by their categories and subcategories.

### 1 Touch [Menu] on the map screen.

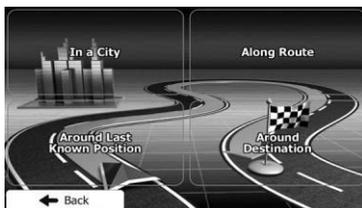
The “**Navigation Menu**” screen appears.

- ➔ For details of the operations, refer to *Screen switching overview* on page 19.

### 2 Touch [Find], then [Find Places].

### 3 Touch [Custom Search].

### 4 Select the area around which the POIs should be searched for.



- **In a City:**  
Searches for a place within a selected city. (The result list will be ordered by the distance from the center of the selected city.)
  - **Around Last Known Position:**  
Searches around the current position or if it is not available, around the last known position. (The result list will be ordered by the distance from this position.)
  - **Around Destination:**  
Searches for a place around the destination of the current route. (The result list will be ordered by the distance from the destination.)
  - **Along Route:**  
Searches along the current route, and not around a given point. This is useful when you search for a later stopover that results in a minimal detour only, such as searching for upcoming gas stations or restaurants. (The result list will be ordered by the length of the necessary detour.)
- ❑ If you have selected [**In a City**], select the city to search in.



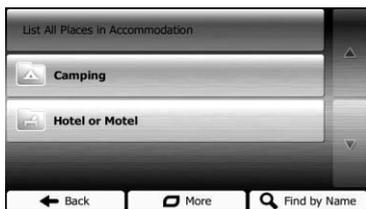
## Searching for and selecting a location

5 Select one of the main place categories (e.g. Accommodation) or touch [List All Places].



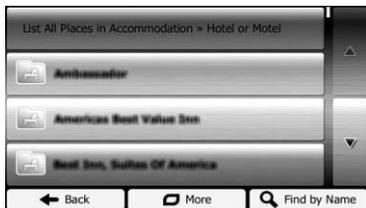
The screen appears showing all places around the selected location or along the route.

6 Select one of the sub place categories (e.g. Hotel or Motel) or touch [List All Places in Accommodation].



The screen appears showing all places in the selected main category around the selected location or along the route. Sometimes the list of brands in the selected place subcategory appears.

7 Select one brand or touch [List All Places in Accommodation >> Hotel or Motel].



The screen appears showing all places in the selected subcategory around the selected location or along the route.

Finally, the results appear in a list.



8 Touch the POI you want.

The searched location appears on the map screen.

- For the subsequent operations, refer to *Setting a route to your destination* on page 39.

## Searching for a POI directly from the name of the facilities

You can search for POIs by their names.

1 Touch [Menu] on the map screen.

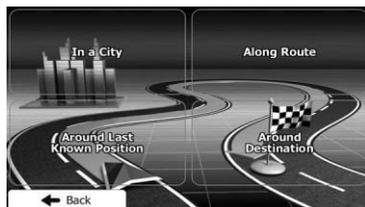
The "Navigation Menu" screen appears.

- For details of the operations, refer to *Screen switching overview* on page 19.

2 Touch [Find], then [Find Places].

3 Touch [Custom Search].

4 Select the area around which the POIs should be searched for.

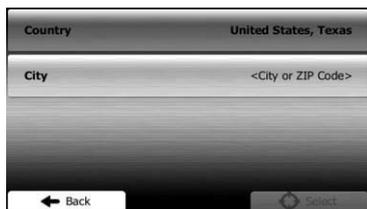


- **In a City:**  
Searches for a place within a selected city. (The result list will be ordered by the distance from the center of the selected city.)
- **Around Last Known Position:**

## Searching for and selecting a location

Searches around the current position or if it is not available, around the last known position. (The result list will be ordered by the distance from this position.)

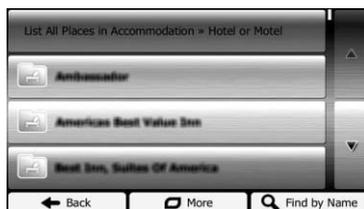
- **Around Destination:**  
Searches for a place around the destination of the current route. (The result list will be ordered by the distance from the destination.)
  - **Along Route:**  
Searches along the current route, and not around a given point. This is useful when you search for a later stopover that results in a minimal detour only, such as searching for upcoming gas stations or restaurants. (The result list will be ordered by the length of the necessary detour.)
- If you have selected [In a City], select the city to search in.



**5 Select one of the main place categories (e.g. Accommodation) to search in, or touch [Find by Name] to search among all places.**

**6 Select one of the place subcategories (e.g. Hotel or Motel) to search in, or touch [Find by Name] to search in the selected place category.**

**7 Touch [Find by Name] if you have not done it before.**



**8 Using the keyboard, start entering the name of the place.**



**9 After entering a few letters, touch [Results].**

The screen appears showing the list of places with names containing the entered character sequence.

**10 Touch the POI you want.**

The searched location appears on the map screen.

- For the subsequent operations, refer to *Setting a route to your destination* on page 39.

## Searching for a nearby POI

You can search for POIs in your surroundings.

**1 Display the map screen.**

- For details of the operations, refer to *Screen switching overview* on page 19.

**2 Touch  on the map screen.**

- For details, refer to *Customizing the quick menu* on page 55.

### 3 Touch [Where Am I?], then [Help Nearby].



The following preset search categories appear, all for searching around the current position (or around the last known position if the current position is not available).

- **Car Repair Around Here:**  
Car repair and roadside assistance services
- **Health Around Here:**  
Medical and emergency services
- **Police Around Here:**  
Police stations
- **Gas Station Around Here:**  
Gas stations

### 4 Touch the desired quick search key.

#### 5 Touch the POI you want.

The searched location appears on the map screen.

- ➔ For the subsequent operations, refer to *Setting a route to your destination* on page 39.

## Selecting a location by using “Find on Map”

### 1 Touch [Menu] on the map screen.

The “Navigation Menu” screen appears.

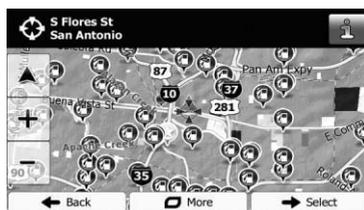
- ➔ For details of the operations, refer to *Screen switching overview* on page 19.

### 2 Touch [Find] on the “Navigation Menu” screen.

### 3 Touch [Find on Map].



### 4 Move and scale the map to locate your destination.



### 5 Touch [Select].

The selected location appears on the map screen.

- ➔ For details, refer to *Setting a route to your destination* on page 39.
- You can also select a map location as the destination by scrolling the map.
- ➔ For details, refer to *Searching for a location by scrolling the map* on page 38.
- ➔ For details, refer to *Modifying the route calculation conditions* on page 42.

## Selecting destination from “Favorites”

Storing locations you visit frequently saves time and effort.

Selecting an item from the list provides an easy way to specify the position.

- This function is not available if no locations have been registered in “Favorites”.
- ➔ For details, refer to *Storing a location in “Favorites”* on page 50.

## Searching for and selecting a location

### 1 Touch [Menu] on the map screen.

The “Navigation Menu” screen appears.

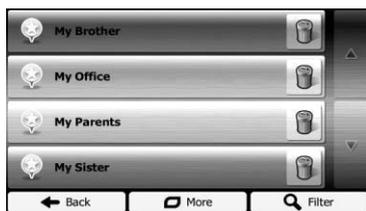
- For details of the operations, refer to *Screen switching overview* on page 19.

### 2 Touch [Find] on the “Navigation Menu” screen.

### 3 Touch [Favorites].



The list of “Favorites” destinations appears.



### 4 Touch the entry you want.

The searched location appears on the map screen.

- For the subsequent operations, refer to *Setting a route to your destination* on page 39.
- ☐ To see more of the list, browse down or touch [Filter] to enter a few letters from the name of the “Favorites” destination. ☐

## Selecting a location you searched for recently

The places that you have set as destination or waypoint in the past are automatically stored in “History”.

## Smart History

Two of the most recently set destinations are shown in the “History” field for easier access.

### 1 Touch [Menu] on the map screen.

The “Navigation Menu” screen appears.

- For details of the operations, refer to *Screen switching overview* on page 19.

### 2 Touch [Find] on the “Navigation Menu” screen.

### 3 Touch [1] or [2] in the “History” field.

The searched location appears on the map screen.

- For the subsequent operations, refer to *Setting a route to your destination* on page 39.

## History

Three most likely destinations are displayed on the first page of the list while the rest of the destinations are ordered by time they were last selected.

### 1 Touch [Menu] on the map screen.

The “Navigation Menu” screen appears.

- For details of the operations, refer to *Screen switching overview* on page 19.

### 2 Touch [Find] on the “Navigation Menu” screen.

### 3 Touch [History].

The list of recent destinations appears.



### 4 Touch the entry you want.

The searched location appears on the map screen.

- For the subsequent operations, refer to *Setting a route to your destination* on the next page.

## Searching for a location by coordinates

Entering a latitude and longitude pinpoints the location.

### 1 Touch [Menu] on the map screen.

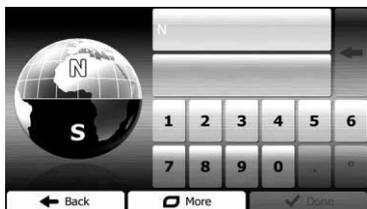
The “**Navigation Menu**” screen appears.

- For details of the operations, refer to *Screen switching overview* on page 19.

### 2 Touch [Find] on the “Navigation Menu” screen.

### 3 Touch [More], then touch [Coordinate].

### 4 Enter the latitude and longitude values.



- You can enter the latitude and longitude values in any of the following formats: Decimal degrees; degrees and decimal minutes; or degrees, minutes and decimal seconds.
- When entering the coordinate in UTM format, touch [More], then [UTM].



### 5 When finished, touch [Done].

The searched location appears on the map screen.

- For the subsequent operations, refer to *Setting a route to your destination* on the next page.

## Searching for a location by scrolling the map

Specifying a location after scrolling the map enables you to set the position as destination, waypoint.

### 1 Display the map screen.

- For details of the operations, refer to *Screen switching overview* on page 19.

### 2 Touch and drag the screen to scroll the map to the position you want.

### 3 Touch the location that you want to select as your destination.

The cursor appears.

### 4 Touch [Select].

The selected location appears on the map screen.

- For the subsequent operations, refer to *Setting a route to your destination* on the next page.
- You can also select a map location as the destination using the “**Find on Map**” feature.
- For details, refer to *Selecting a location by using “Find on Map”* on page 36.

## After the location is decided

### Setting a route to your destination

You can set a route to your destination by using either a searched location or the “My Route” menu.

### Setting a route using a searched location

#### 1 Search for a location.

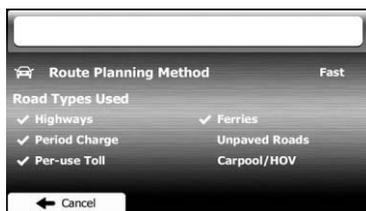
- For details, refer to *Searching for and selecting a location* on page 29.

The map screen appears with the selected point in the middle.

#### 2 Touch [Go] to confirm the destination.

After a short summary of the route parameters, the map appears showing the entire route. The route is automatically calculated.

- If you have already set the route to the destination, [Next] will appear. Touch [Next] and select the way to modify the current route.
- For details, refer to *Selecting a new destination when a route is already set* on page 46.



#### 3 Touch [Go!].

Your navigation system starts the route guidance.

- Touch [More] to modify route parameters.

### Checking route alternatives when planning the route

You can select from different route alternatives or change the route planning method after you have selected a new destination.

#### 1 Search for a location.

- For details, refer to *Searching for and selecting a location* on page 29.

The map screen appears with the selected point in the middle.

#### 2 Touch [Go] to confirm the destination.

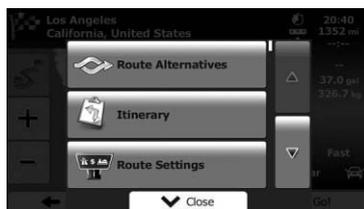
After a short summary of the route parameters, the map appears showing the entire route. The route is automatically calculated.

- If you have already set the route to the destination, [Next] will appear. Touch [Next] and select the way to modify the current route.

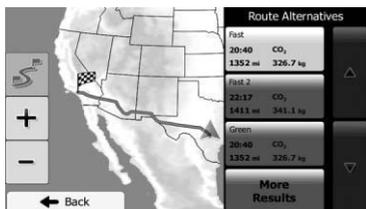
#### 3 Touch [More].



#### 4 Touch [Route Alternatives].



5 Touch any of the alternatives to see it on the map.



If you cannot find a good alternative, touch **[More Results]** and scroll down for routes with different routing methods.

6 Select one of the alternatives and touch **[Back]**.



The previous screen returns. The navigation system calculates the route. The orange line now shows the new recommended route.

## Setting a route using the “My Route” menu

1 Touch **[Menu]** on the map screen.

The “Navigation Menu” screen appears.

- ➔ For details of the operations, refer to *Screen switching overview* on page 19.

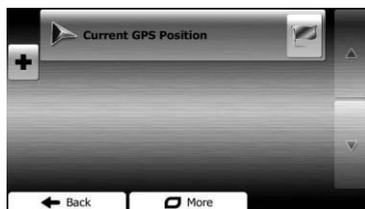
2 Touch **[My Route]** on the “Navigation Menu” screen.

3 Touch **[Create Route]**.



- ☐ The start point of the route, normally it is the current GPS position, is displayed.

4 Touch **[+]**.



- ☐ When the “Create Route” option is not displayed, touch **[More]** to open a list with more options.

5 Select the destination you want to set.

You can select the destination of the route the same way as described in the previous sections.

- ➔ For details, refer to *Selecting a location you searched for recently* on page 37.

When the new destination is selected, the list returns.



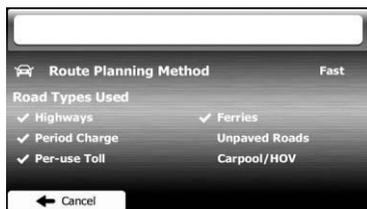
- ☐ To add more destinations, touch **[+]** where you want to insert the new point in the list, and repeat the above steps.

## After the location is decided

### 6 Touch [Go] to confirm the destination.

After a short summary of the route parameters, the map appears showing the entire route. The route is automatically calculated.

- ❑ If you have already set the route to the destination, **[Next]** will appear. Touch **[Next]** and select the way to modify the current route.
- ➡ For details, refer to *Selecting a new destination when a route is already set* on page 46.



### 7 Touch [Go!].

Your navigation system starts the route guidance. ❑

## Displaying the route overview

### 1 Touch [Menu] on the map screen.

The "Navigation Menu" screen appears.

- For details of the operations, refer to *Screen switching overview* on page 19.

### 2 Touch [My Route] on the "Navigation Menu" screen.

### 3 Touch [Overview].

The current route is displayed in its full length on the map together with additional information and controls. 

## Checking route parameters and accessing route related functions

You can check different parameters of the route recommended by the navigation system.

### 1 Touch [Menu] on the map screen.

The "Navigation Menu" screen appears.

- For details of the operations, refer to *Screen switching overview* on page 19.

### 2 Touch [My Route] on the "Navigation Menu" screen.

The following information is displayed on this screen:



- ① Name and/or address of the destination
- ② Warning icons (if any). They provide extra information about your route (e.g. unpaved roads or toll roads to be taken).
- ③ Total time of the route
- ④ Total length of the route

- ⑤ The symbol of the vehicle type used in route calculation
  - ⑥ Route planning method (e.g. **Fast**)
  - ⑦ Estimated delay calculated from traffic events on your route
- The following options are available.
    - For details, refer to *Registering and editing locations* on page 50.
  - **Edit Route:**  
Touch this key to add or remove destinations or change their sequence. You can also set a route start point other than your current location. This can be useful to plan and save a future map.
  - **Overview:**  
Touch this key to display the entire route on the map.
  - **Avoidances:**  
Touch this key to bypass a part of the route.
  - **Cancel Route:**  
Touch this key to delete the current route.
  - **More:**  
Touch this key to open a list with more options like selecting from route alternatives, changing route parameters, simulating the route, saving the current route or loading a previously saved route.
  - **Back:**  
Touch this key to return to the "Navigation Menu" screen. 

## Modifying the route calculation conditions

You can modify the conditions for route calculation and recalculate the current route.

## Changing the vehicle used

You can set the type of vehicle you will use to navigate the route. Based upon this setting, some of the road types can be excluded from the route, or some of the restrictions may not be taken into account in route calculation.

## Checking and modifying the current route

### 1 Touch [Menu] on the map screen.

The "Navigation Menu" screen appears.

- For details of the operations, refer to *Screen switching overview* on page 19.

### 2 Touch [More...], then [Settings].

### 3 Touch [Route Settings].



### 4 Touch [Vehicle], then touch the vehicle type you use.



You can select from the following vehicle types:

- **Default Car:**

Maneuver restrictions and directional constraints are taken into account when planning a route.

Roads are used only if access for cars is allowed.

Private roads and resident-only roads are used only if they are inevitable to reach the destination.

Walkways are excluded from routes.

- **Default Bus:**

Maneuver restrictions and directional constraints are taken into account when planning a route.

Roads are used only if access for buses is allowed.

Private roads, resident-only roads and walkways are excluded from routes.

- **Default Taxi:**

Maneuver restrictions and directional constraints are taken into account when planning a route.

Roads are used only if access for taxis is allowed.

Private roads, resident-only roads and walkways are excluded from routes.

This system calculates the route optimized for the new vehicle type. The orange line now shows the new recommended route.

## Setting the vehicle parameters

You can edit the parameters of the vehicle profile.

### 1 Touch [Menu] on the map screen.

The "Navigation Menu" screen appears.

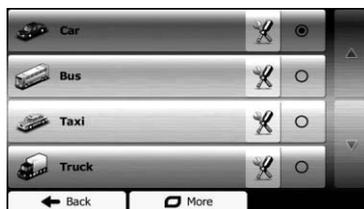
- For details of the operations, refer to *Screen switching overview* on page 19.

### 2 Touch [More...], then [Settings].

### 3 Touch [Route Settings].

### 4 Touch [Vehicle].

### 5 Touch next to the vehicle profile that you want to modify.



## 6 Scroll the list and touch any of the lines to change the parameters.



- **Name:**  
Touch this key to rename the profile.
- **Fuel Consumption in Cities:**  
Enter the average consumption of your vehicle when used in built-up areas. The unit for consumption can be set in “Regional” settings.
- **Fuel Consumption on Highways:**  
Enter the average consumption of your vehicle when used on freeways. The unit for consumption can be set in “Regional” settings.
- **Engine Type:**  
Select the engine and fuel type of your vehicle. This helps in estimating the CO<sub>2</sub> emission.
- **Fuel Price:**  
Enter the average fuel price for travel cost calculation. The currency can be set in “Regional” settings.
- **Max. Speed:**  
Set the maximum speed you travel with the vehicle.
- **Use Extended Settings:**  
Check this box to enable more settings for the following parameters.
  - **Length:**  
Set the total length of the vehicle.
  - **Width:**  
Set the width of the vehicle.
  - **Height:**  
Set the height of the vehicle.
  - **Trailer:**  
Set if there is a trailer attached to the vehicle.
  - **Maximum Allowed Weight:**

Set the maximum allowed weight of the vehicle.

- **Actual Weight:**  
Set the actual weight of the vehicle.
- **Freight:**  
Select one or more hazard types if the vehicle carries dangerous material.

You can also set the following option:

- **Confirm Parameters for Each Route Planning:**  
When enabled, the list of vehicle parameters always appears before route calculation. This helps you quickly adjust the parameters when some of them (actual weight, for instance) often change.

## 7 When finished modifying an existing vehicle profile, touch [Back].

The settings are completed.

- While this profile is selected, the parameters of your vehicle are taken into account when planning routes.

## Setting the route calculation

These settings determine how routes will be calculated. Select the type of vehicle you are driving, the road types used in route planning, and the route planning method.

### 1 Touch [Menu] on the map screen.

The “Navigation Menu” screen appears.

- ➔ For details of the operations, refer to *Screen switching overview* on page 19.

### 2 Touch [More...], then [Settings].

### 3 Touch [Route Settings].

### 4 Touch the setting item.

- **Navigation Mode:**  
On-road navigation creates a turn by turn itinerary using the road network on the map. Switch to off-road navigation to navigate between destinations in a straight line.
- **Route Planning Method:**

## Checking and modifying the current route

The route calculation can be optimized for different situations and vehicle types by changing the planning method.

- **Fast:**  
Calculates a route with the shortest travel time to your destination as a priority.
- **Green:**  
Calculates a quick but fuel efficient route based on the fuel consumption data given in Route settings. Travel cost and CO<sub>2</sub> emission calculations are estimations only. They cannot take elevations, curves and traffic conditions into account.
- **Short:**  
Calculates a route with the shortest distance to your destination as a priority. Usually practical for pedestrians, cyclists or slow vehicles. Searching for a short route regardless of the speed, this route type is rarely practical for normal vehicles.
- **Easy:**  
Results in a route with fewer turns and no difficult maneuvers. With this option, you can make this system to take, for example, the freeway instead of a series of smaller roads or streets.

### Changing road types used

To recalculate the current route with different road type preferences, follow the steps below.

- ☐ To let the route fit your needs, you can also set which road types are to be considered for or to be excluded from the route if possible. Excluding a road type is a preference. It does not necessarily mean total prohibition.
- ☐ If your destination can only be accessed using some of the excluded road types, they will be used but only as much as necessary. In this case a warning icon will be shown on the route parameter, and the part of the route not matching your preference will be displayed in a different color on the map.

- ➔ For details, refer to *Checking route parameters and accessing route related functions* on page 42.

#### 1 Touch [Menu] on the map screen.

The “Navigation Menu” screen appears.

- ➔ For details of the operations, refer to *Screen switching overview* on page 19.

#### 2 Touch [More...], then [Settings].

#### 3 Touch [Route Settings].

#### 4 Touch any of the listed road types.



If needed, scroll the list for all road types. The following options can be set for route calculation:

- **Highways:**  
Set whether to avoid freeways when you are driving a slow car or you are towing another vehicle.
- **Period Charge:**  
Set whether to include toll roads with restricted time access where you can purchase a pass or vignette to use the road for a longer period of time. This option can be enabled or disabled separately from toll roads.
- **Per-use Toll:**  
Set whether to include toll roads where there is a per-use charge. The navigation system includes toll roads by default.
- **Ferries:**  
Set whether to include ferries. The navigation system includes ferries by default.
- **Carpool/HOV:**  
Sets whether to include the carpool or HOV lanes. The navigation system excludes carpool or HOV by default.

- Carpool or HOV lanes can be used if a given number of passengers are traveling in the vehicle.

- **Unpaved Roads:**

Set whether to include unpaved roads. The navigation system excludes unpaved roads by default.

- **Calculate Green Alternative:**

If the selected routing method is not "Green", you can have your route compared to the best green alternative on the screen when confirming the route. If this alternative is much better than the selected method, you can quickly switch to "Green" mode.

## 5 Touch [Back] to confirm the changes.

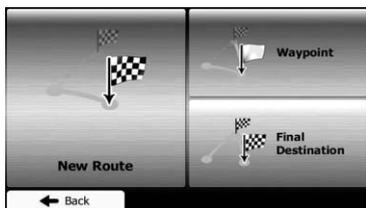
The navigation system recalculates the route. The orange line now shows the new recommended route. □

## Modifying the route

When navigation is already started, there are several ways to modify the current route. The following sections describe some of those options.

### Selecting a new destination when a route is already set

If you already have a recommended route and you select a new destination, the navigation system will ask you whether to start a new route, add a new waypoint to the route or append the newly selected destination at the end of the current route.



- **New Route:**

Touch this key to plan a new route to the newly selected location. The previous destination and waypoint(s) are deleted.

- **Waypoint:**

Touch this key to add the newly selected location as a waypoint to your route. The other destinations of the route remain intact.

- The new waypoint is placed among destinations to keep the route optimal. To decide where a waypoint to appear, use the "Edit Route" menu.

- **Final Destination:**

Touch this key to append the newly selected destination at the end of the route. The other destinations of the route remain intact. The previous final destination is now the last waypoint.

## Setting a new starting position for the route

For normal navigation, all routes are planned from the current position. In order to check future routes, simulate them or see their length in time and distance, you can turn off the GPS receiver. Then you can set the starting point of the route to a different location than the current GPS position.

### 1 Touch [Menu] on the map screen.

The "Navigation Menu" screen appears.

- For details of the operations, refer to *Screen switching overview* on page 19.

### 2 Touch [My Route] on the "Navigation Menu" screen.

## Checking and modifying the current route

- 3 Touch [Edit Route] when you already have a route.



- 4 Touch  on the first line (normally the current GPS position) and confirm your action on the warning message screen.



- 5 Touch [Set Start Point].



- 6 Select the start point of the route the same way as you select a destination.



- 7 Touch [Set Start].

- 8 Select [Go] when the new start point is set.

The map screen returns with a transparent arrow mark (showing that there is no GPS reception). If the current route already existed, it is now recalculated starting from the selected location.



- Touch [Turn on GPS].

Normal navigation returns.

- For details, refer to *Seeing the current position on the map* on page 23. 

## Editing the list of destinations

You can edit the route by modifying the list of destinations. You can add or remove destinations, modify the start position or reorder the list.

- 1 Touch [Menu] on the map screen.

The "Navigation Menu" screen appears.

- For details of the operations, refer to *Screen switching overview* on page 19.

- 2 Touch [My Route] on the "Navigation Menu" screen.

- 3 Touch [Edit Route] when you already have a route.



-  Touch this key to add a new destination.
-  Touch this key to delete a destination.
-  Touch this key to modify the start point of the route.
- **More:** Touch this key to reorder the list. You can do it manually or you can let this system optimize the route for you. 

## Canceling the current route guidance

If you no longer need to travel to your destination, follow the steps below to cancel the route guidance. You can cancel it from either the “**Navigation Menu**” screen or the map screen.

### 1 Touch [Menu] on the map screen.

The “**Navigation Menu**” screen appears.

- For details of the operations, refer to *Screen switching overview* on page 19.

### 2 Touch [My Route] on the “Navigation Menu” screen.

### 3 Touch [Cancel Route].

The current route is deleted with all its waypoints. 

## Checking route alternatives for the current route

To recalculate the current route with a different route planning method, you can modify the settings for the route calculation (refer to *Checking and modifying the current route* on page 42). There is another way to do this and to compare different route alternatives with the same route planning method.

### 1 Touch [Menu] on the map screen.

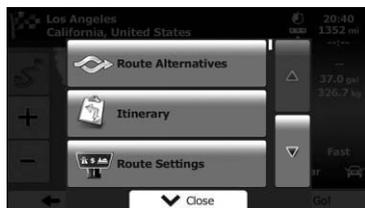
The “**Navigation Menu**” screen appears.

- For details of the operations, refer to *Screen switching overview* on page 19.

### 2 Touch [My Route] on the “Navigation Menu” screen.

### 3 Touch [More].

### 4 Touch [Route Alternatives].



### 5 Touch any of the alternatives to see it on the map.



If you cannot find a good alternative, touch **[More Results]** and scroll down for routes with different routing methods.

### 6 Select one of the alternatives and touch [Back].



The map screen returns. The navigation system recalculates the route. The orange line now shows the new recommended route. 

## Checking and modifying the current route

### Watching the simulation of the route

You can run a simulated navigation that demonstrates the current route. Follow the steps below.

#### 1 Touch [Menu] on the map screen.

The “**Navigation Menu**” screen appears.

- For details of the operations, refer to *Screen switching overview* on page 19.

#### 2 Touch [My Route] on the “Navigation Menu” screen.

#### 3 Touch [More].



#### 4 Scroll down the list and touch [Simulate Navigation].



The simulation starts from the starting point of the route, and using a realistic speed, it leads you through the whole recommended route.



- During simulation, you can use the following control keys (they disappear after a few seconds but you can open them again by touching the map).

- : Jumps to the previous guidance point (maneuver).
- : Pauses the simulation.
- : Jumps to the next guidance point (maneuver).
- : Increases the speed of the simulation to four, eight or 16 times faster. Touching the key again returns to the normal speed.

- Touch [Back].

The simulation stops.

### Navigating in off-road mode

You can switch your navigation to off-road mode. The off-road mode navigates between destinations in a straight line regardless of the road network and traffic regulations.

#### CAUTION

Do not follow the route suggestions if they suggest an illegal route or would put you in an unsafe situation. This feature is not a replacement for attentiveness or proper preparation. Navigate in off-road mode at your own risk as weather, trail/route conditions, and other factors may affect your safety while navigating.

#### 1 Touch [More...], then [Settings].

#### 2 Touch [Route Settings].

#### 3 Touch [Navigation Mode], then select [Off-road].

## Storing a location in “Favorites”

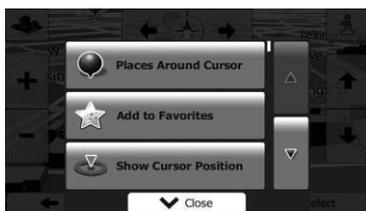
Storing your favorite locations as **“Favorites”** provides you with the opportunity to save the time and effort of re-entering this information. **“Favorites”** can include your home location, favorite places, destinations you have already registered and any location on the map.

### 1 Select a destination.

- For details, refer to *Searching for and selecting a location* on page 29.

### 2 When the map screen appears with the selected location in the middle, touch [More].

### 3 Touch [Add to Favorites].



To change the name, use the keyboard. Touch **123** to enter numbers or symbols.

### 4 Touch [Done].



The location is saved as a new **“Favorites”** destination.

## Saving a location as an alert point

Alert points are preloaded in your navigation system. You can also download more from our website, or save any map location as an alert point (a speed camera or a railway crossing, for example).

- This feature can warn you when you approach one of these points. The following alert types are available:
  - **Audio and Visual:** A sound beeps or announces the type of the alert.
  - **Visual:** The type of the alert point, its distance and the related speed limit appear on the map.
- For details, refer to *Setting the volume and the guidance voice for navigation system* on page 54.

### 1 Touch [Menu] on the map screen.

The **“Navigation Menu”** screen appears.

- For details of the operations, refer to *Screen switching overview* on page 19.

### 2 Touch [More...], then [Settings].

### 3 Touch [Sound and Warnings].

### 4 Touch [Alert Point Settings].

### 5 Touch [Alert Point Warnings], then [Turn On].

### 6 Scroll the map and select a location.

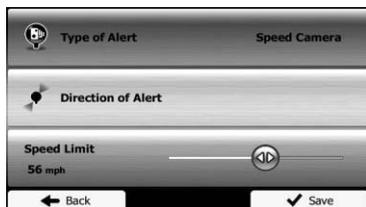
The cursor appears at the selected point.

### 7 Touch [More].

### 8 Scroll down the list and touch [Add Alert Point].

## Registering and editing locations

### 9 Set the necessary parameters.



- **Type of Alert:**  
Set the type of alert point.
- **Direction of Alert:**  
Set the direction from which you expect the alert.
- **Speed Limit:**  
Set the speed limit for this alert point (if applicable).

### 10 Touch [Save].

The location is saved as a new alert point.

- The warning for road safety cameras (like speed cameras) is disabled when you are in certain countries where road safety camera warning is prohibited. However, you are fully responsible for ensuring that this feature is legal in the country where you intend to use it.

## Editing an alert point

You can edit a previously saved alert point (a speed camera or a railway crossing, for example).

### 1 Scroll the map and select the alert point to edit.

The cursor appears around the alert point.

### 2 Touch [More].

### 3 Scroll down the list and touch [Edit Alert Point].



### 4 Modify the necessary parameters.



- **Type of Alert:**  
Modify the type of alert point.
- **Direction of Alert:**  
Modify the direction from which you expect the alert.
- **Speed Limit:**  
Modify the speed limit for this alert point (if applicable).

### 5 Touch [Save].

The changes are saved to the alert point.

- The warning for road safety cameras (like speed cameras) is disabled when you are in certain countries where road safety camera warning is prohibited. However, you are fully responsible for ensuring that this feature is legal in the country where you intend to use it.

## Checking historical traffic information

When this feature is enabled on the “**Traffic**” settings menu, the navigation system can take the traffic information into account when planning a route. For settings, follow the steps below.

### 1 Touch [Menu] on the map screen.

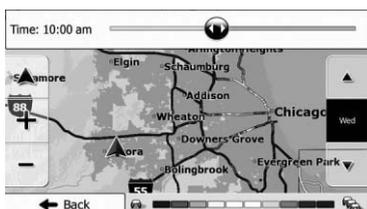
The “**Navigation Menu**” screen appears.

- For details of the operations, refer to *Screen switching overview* on page 19.

### 2 Touch [More...].

### 3 Touch [Settings], then [Traffic].

### 4 Touch [Historical Traffic] and enable the historical traffic data.



- When the traffic data is available, a 2D map is displayed with road segments colored by the density of the traffic in the given period.
- You can modify the day of week and the time of day to see the desired period.
- You can disable this feature on public holidays, for example, in order not to take into account normal weekday traffic congestion.

## Receiving real-time traffic information (TMC)

Traffic Message Channel (TMC) can provide you with the real-time status of the traffic. Your device contains the TMC receiver that is needed to receive traffic incidents (the receiver

is enabled by default). If you need to enable the TMC receiver, follow the steps below.

### 1 Touch [Menu] on the map screen.

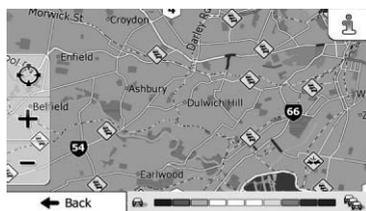
The “**Navigation Menu**” screen appears.

- For details of the operations, refer to *Screen switching overview* on page 19.

### 2 Touch [More...].

### 3 Touch [Settings], then [Traffic].

### 4 Touch [Traffic Receiver] and enable the receiver.



- When traffic information that may affect your route is received, this system will warn you that it is recalculating the route, and navigation will continue with a new route that is optimal considering the most up-to-date traffic conditions.

To fine-tune this calculation, you can set the minimum delay that can trigger a route recalculation, or you can instruct the software to have you confirm the new recommended route before it takes effect. You can set these in “**Traffic**” settings.

- For details of the traffic information icons, refer to *Setting the traffic information* on page 56.
- When the traffic data is available, a 2D map is displayed with road segments colored by the severity of traffic incidents. Touch the event type icon at the road segment and then touch  to get information about the traffic incident.
- TMC is not a global service. It may not be available in your country or region. Ask your local dealer for coverage details.

## Using traffic information

### Checking the traffic incidents on the map

You can check the details of traffic incidents on the map.

- ❑ Road segments affected by traffic incidents are displayed with an alternate color on the map, and small symbols above the road show the nature of the incident.
- ❑ A special icon  appears to show you whether traffic incidents are received. The icon shows the status of the traffic receiver when there are no traffic incidents on your route, otherwise it shows the type of the next traffic incident on your route.

#### 1 Touch .

#### 2 Touch [Event List].

The list of traffic incidents appears.

#### 3 Touch any of the list items to see its details, and to display the affected road segment on the map.

If there are traffic incidents on the recommended route that this system has not bypassed, the  icon will open the list of significant traffic incidents to let you quickly check them. .

## Displaying the settings screen

### 1 Touch [Menu] on the map screen.

The "Navigation Menu" screen appears.

- For details of the operations, refer to *Screen switching overview* on page 19.

### 2 Touch [More...].

### 3 Touch [Settings].

### 4 Touch the setting item.



## Setting the volume and the guidance voice for navigation system

You can adjust the sound volume, mute your device or change the voice guidance language.

### 1 Display the settings screen.

- For details of the operations, refer to *Displaying the settings screen* on this page.

### 2 Touch [Sound and Warnings].

### 3 Touch the setting item.

- **Volume:**  
You can adjust the volume of the following sounds in this system. If you touch this key, a new screen appears where you can set the following sound types and their controls.
  - **Voice:** These controls affect the volume of the guidance sounds (verbal instructions).

- **Ding:** Turn off the attention tone preceding verbal instructions or adjust its volume.
- **Alert Beeps:** These controls affect the volume of the non verbal alert sounds (beeps).
- **Key:** Key sounds provide audible confirmation of either pressing hardware keys or touching the touch panel screen. These controls affect key sounds.

### • Voice Language:

Displays the current voice guidance profile. If you touch this key, you can select a new profile from the list of available languages and speakers. Touch any of these to hear a sample voice prompt. Just touch **[Back]** when you have selected the new spoken language.

Different voice profiles are capable of different levels of service:

- **Natural Voice:** These prerecorded sounds can only tell you basic information about turns and distances.
- **TTS Voice:** These computed voices can tell you complex instructions. They can tell you the street names or read out the messages for you.
- **Advanced Settings:**  
You can set this system to read the street names in a foreign country, use road numbers in your language or announces the maneuver only.  
You can also decide whether you want an announcement for distance maneuvers or it is enough to receive the information when the turn is near.
- **Verbosity Level:**  
You can set the verbosity of the voice instructions: how much information is given and how often the prompts occur.
- **Speed Warning Settings:**  
This system is able to warn you if you exceed the current limit. This information may not be available for your region (ask your local dealer), or may not be fully correct for all roads in the map.

## Customizing preferences

The maximum speed set in the vehicle profile is also used for this warning. This system alerts you if you exceed the preset value even if the legal speed limit is higher. This setting lets you decide whether you wish to receive visible and/or audible warnings.

Adjust the slider to set the relative speed above which the application initiates the warning.

The following alert types are available:

- **Audio and Visual:** you receive a verbal warning when you exceed the speed limit with the given percentage.
- **Visual:** the current speed limit is shown on the map when you exceed it.

If you prefer to see the speed limit sign on the map all the time (normally it is shown only if your speed exceeds it), you can set it here.

- **Alert Point Settings:**

This feature allows you to receive a warning when approaching a Road Safety Camera or other alert points like school zones or railroad crossings. You must ensure on your own liability that using this feature is legal in the country where you intend to use it.

You can set the alert for the different alert point categories individually. The following alert types are available:

- **Audio and Visual:** beeps can be played (natural voice) or the type of the alert can be announced (TTS) while you are approaching one of these points, and an extra alert can warn you if you exceed the given speed limit while approaching.
- **Visual:** the type of the alert point, its distance and the related speed limit appear on the map screen while you are approaching one of these cameras.

For some of the alert points, the enforced or expected speed limit is available. For these points, the audio alert can be different if you are below or above the given speed limit.

- **When approaching:** The audio alert is always played when approaching one of these alert points. In order to draw your attention, the alert is different when you exceed the speed limit.
- **Only when speeding:** The audio alert is only played when you exceed the given speed limit.
- **Warning Sign Alerts:** Maps may contain driver alert information. Touch this key to turn on or off these warnings and to set the distance from the hazard to receive the warning at. These can be set individually for the different warning types.

## Customizing the quick menu

You can customize the items of the quick menu.

### 1 Display the settings screen.

- ☞ For details of the operations, refer to *Displaying the settings screen* on the previous page.

### 2 Touch [Customize Quick Menu].

### 3 Touch the key from the list that you want to set.

- **Favorites:** Displays the list of your favorite destinations.
- **Overview:** Displays a 2D map scaled and positioned to show the entire route.
- **Quick Place Search:** This function lets you search for a place along your route or around your current location if there is no route calculated.
- **Map Settings:** Displays the map related settings.
- **Visual Guidance Settings:** Displays the settings related to route information on the map screen.
- **Traffic:** Displays the traffic information.

- **Avoid:**  
Touching this key lets you bypass parts of the recommended route.
- **Cancel Route:**  
Cancels the route and stops navigation. The key is replaced with the next one if waypoints are given.
- **Remove Next Waypoint:**  
Skips the next waypoint from the route.
- **Trip Monitor:**  
Displays the “**Trip Monitor**” where you can manage your trip logs and track logs that you previously saved.
- **Where Am I?:**  
Displays a special screen with information about the current position and a key to search for nearby emergency or roadside assistance services.
- **Create Route/Edit Route:**  
Displays the screen for creating a route to the destination or editing the current route.
- **Itinerary:**  
Displays the list of maneuvers (the itinerary).
- **Vehicle Profile:**  
Displays the parameters of the selected vehicle profile.
- **Save Route:**  
With this function you can save the active route for later use.
- **Load Route:**  
With this function you can replace the active route with a previously saved route.
- **History:**  
Displays the destinations history list. You can select one of your previous destinations.
- **Route Settings:**  
Displays the route related settings.
- **Find Places:**  
With this function you can search for Points of Interest in various different ways.
- **Simulate Navigation:**  
Displays the map screen and starts simulating the active route.
- **GPS Info:**

Displays the GPS information screen with satellite position and signal strength information. 

## Setting the traffic information

The recommended route is not always the same between two points. Whenever suitable data exists, traffic information can be taken into account in the route calculation.

### 1 Display the settings screen.

- For details of the operations, refer to *Displaying the settings screen* on page 54.

### 2 Touch [Traffic].

### 3 Touch the setting item.

- **Historical Traffic:**  
You can switch to enable or disable historical traffic data and traffic patterns by touching this key. This locally stored information can be very useful in normal circumstances but for example on public holidays it may be better to turn off in order not to take into account normal weekday traffic congestion.
- **Traffic Receiver:**  
You can set to enable or disable the TMC receiver that can receive real-time traffic information. The following items (Detour, and Event types) are all related to the TMC function and are available only if the receiver is enabled.
- **Detour:**  
This setting determines how this system uses the received real-time traffic information in route calculation. When calculating a new route, or when recalculation becomes necessary based on the received traffic events, this system avoids traffic events if it makes sense.  
You can also set the minimum delay that triggers route recalculation, and you can instruct the application if you want to confirm every recalculation.
- **Event Types:**

## Customizing preferences

Touch this key to open the list of traffic event types, and select which events to take into account in route calculation. 

### Setting the user profiles

If more drivers use this navigation system, their settings can be remembered by using one of the user profiles.

#### 1 Display the settings screen.

- ➔ For details of the operations, refer to *Displaying the settings screen* on page 54.

#### 2 Touch [User Profiles].

#### 3 Touch the key on the right of new profile that you want to set.

- Rename the profiles so that all users know which profile to use and switch between profiles by touching its name.
- If you select a new profile, this system restarts so that the new settings can take effect. 

### Customizing the map screen settings

You can fine-tune the appearance of the map screen.

Adjust the map view to your needs, choose suitable color themes from the list for both daytime and night use, change the blue arrow to a 3D car model, show or hide 3D buildings, turn track logging on or off, and manage your place visibility settings (which places to show on the map).

#### 1 Display the settings screen.

- ➔ For details of the operations, refer to *Displaying the settings screen* on page 54.

#### 2 Touch [Map Settings].

The "Map Settings" screen appears.

#### 3 Touch the setting item.

You can see the effect when you change a setting.

- **View Mode:**  
Switch the map view between a 3D perspective view and a 2D topdown view.
- **Viewpoint:**  
Adjust the basic zoom and tilt levels to your needs. Three levels are available.
- **Automatic Overview:**  
When selected, the map zooms out to show an overview of the surrounding area if the next route event (maneuver) is far. When you get close to the event, the normal map view returns.
- **Colors:**  
Switch between daytime and night color modes or let the software switch between the two modes automatically a few minutes before sunrise and a few minutes after sunset.
- **Day Map Color:**  
Select the color scheme used in daytime mode.
- **Night Map Color:**  
Select the color scheme used in night mode.
- **3D Vehicle Gallery:**  
Replace the default position marker to one of the 3D vehicle models.  
You can select separate icons for different vehicle types selected for route planning. Separate icons can be used for car, pedestrian and the other vehicles.
- **Landmarks:**  
Show or suppress 3D landmarks, 3D artistic or block representations of prominent or well-known objects.
- **Buildings:**  
Show or suppress 3D city models, 3D artistic or block representation of full city building data containing actual building size and position on the map.
- **3D Terrain:**  
Show or suppress the 3D elevation of the surrounding terrain.

- **Track Logs:**

Turn on or off track log saving, that is, saving the sequence of the locations your journey goes through.

- **Place Markers:**

Select which places to show on the map while navigating. Too many places make the map crowded so it is a good idea to keep as few of them on the map as possible. For this, you have the possibility to save different place visibility settings. You have the following possibilities:

- Touch the checkbox to show or hide the place category.
- Touch the name of the place category to open the list of its subcategories.
- Touch **[More]** to save the current place visibility set or to load a previously saved one. Here you can also revert to the default visibility settings.

## Setting the visual guidance

Adjust how this system helps you navigate with different kinds of route related information on the map screen.

### 1 Display the settings screen.

- For details of the operations, refer to *Displaying the settings screen* on page 54.

### 2 Touch [Visual Guidance Settings].

### 3 Touch the setting item.

- **Data Fields:**

The data fields in the corner of the map screen can be customized. Touch this key and select the values you want to see. The values can be different when you navigate a route from when you are just cruising without a given destination. You can select general trip data like your current speed or the altitude, or route data related to your final destination or the next waypoint on your route.

- **Offer Freeway Services:**

You may need a gas station or a restaurant during your journey. This feature displays a new key on the map when you are driving on freeways. Touch this key to open a panel with the details of the next few exits or service stations. Touch any of them to display it on the map and add it as a waypoint to your route if needed.

- **Facility Types:**

Select the service types displayed for the freeway exists. Choose from the POI categories.

- **Signposts:**

Whenever adequate information is available, lane information similar to the real ones on road signs above the road is displayed at the top of the map. You can turn this feature on or off.

- **Junction View:**

## Customizing preferences

If you are approaching a freeway exit or a complex intersection and the needed information exists, the map is replaced with a 3D view of the junction. You can turn this feature on or let the map be displayed for the whole route.

- **Tunnel View:**

When entering tunnels, the surface roads and buildings can be distracting. This feature shows a generic picture of a tunnel instead of the map. A top-down overview of the tunnel and remaining distance are also displayed.

- **Route Progress Bar:**

Turn on the route progress bar to see your route as a straight line on the left side of the map. The blue arrow represents your current position and moves up as you travel. Waypoints and traffic events are also displayed on the line.

- **Offer Congestion Detour on Highways:**

When you slow down while driving on a freeway, there is a chance that you are in a traffic congestion so this system offers you a detour using the next exit. The message shows you distance of the exit and the difference in distance and estimated time compared to the original route. You can choose from one of the following options:

- Touch [**Dismiss**] or just ignore the message if you want to keep the original route.
- Touch [**Preview**] to see the overview of the original route and the detour to make the decision. You can accept the detour as offered or increase the by-passed freeway segment before accepting.
- Turn to the suggested new direction and the route will be automatically recalculated.

- **Offer Real-time Route Alternatives:**

Alternative routes can be suggested when driving on normal roads. This system will select a different turn in the upcoming intersection and offers you a different route

for the next section of the route. But you cannot modify the offered detour.

- **Offer Parking Around Destination:**

Parking at the destination may not be easy in city areas. As you approach the destination, this system can offer parking category places near your destination. Touch this key to open a top-down map with the destination and the offered parking places. Select one and modify the route accordingly.

- **Offer Hints Upon Detour:**

If you leave the recommended route and suddenly exit the freeway, this system offers different alternatives near the exit like gas stations or restaurants. Also, if there are avoidable parts of the original route ahead (like a tunnel, a toll road or a ferry), you will find them in the list in case you want to by-pass them with the help of this system.

## Customizing the display settings

Display related settings include menu animations and the brightness of the display.

- 1 **Display the settings screen.**

- For details of the operations, refer to *Displaying the settings screen* on page 54.

- 2 **Touch [Display].**

- 3 **Touch the setting item.**

- **Menu Animations:**

When animation is turned on, keys on menus and keyboard screens appear in an animated way. Screen transitions are also animated.

## Customizing the regional settings

These settings allow you to customize this system for your local language, measurement units, time and date settings and formats, as well as to choose the time zone.

### 1 Display the settings screen.

- ➔ For details of the operations, refer to *Displaying the settings screen* on page 54.

### 2 Touch [Regional].

### 3 Touch the setting item.

- **Program Language:**  
This key displays the current written language of the user interface. By touching the key, you can select a new language from the list of available languages. This system will restart if you change this setting.
- **Units and Formats:**  
You can set the distance units to be used by this system. This system may not support all the listed units in some voice guidance languages.  
Select between 12 and 24 hours time display and the various international date display formats.  
You can also set other country specific units used to display different values in this system.
- **Time Zone:**  
By default, time zone is taken from the map information and adjusted by your current location. Here you can set time zone and daylight saving time manually.

## Setting the Trip Monitor

Trip logs contain useful information about your trips. Trip logs can be saved manually when you reach your destination or you can turn on the automatic saving here. You can access these logs in the "Trip Monitor". "Trip

Monitor" is available from the "More..." menu.

### 1 Display the settings screen.

- ➔ For details of the operations, refer to *Displaying the settings screen* on page 54.

### 2 Touch [Trip Monitor].

### 3 Touch [More], then touch [Trip Monitor Settings].

### 4 Touch the setting item.

- **Enable Auto-Saving:**  
Trip monitor can record statistical data of your trips. If you need these logs later, you can let this system save them automatically for you.
- **Trip Database Size:**  
You cannot select this. This line shows the current size of the trip database, the sum of all trip and track logs saved.
- **Save Track Log:**  
Track logs, the sequence of the positions given by the GPS receiver, can be saved together with trip logs. They can later be displayed on the map. You can let this system save the track log whenever it saves a trip.

## Starting the configuration wizard

Modify the basic software parameters set during the initial setup process.

- ➔ For details, refer to *On first-time startup* on page 17.

### 1 Display the settings screen.

- ➔ For details of the operations, refer to *Displaying the settings screen* on page 54.

### 2 Touch [Start Configuration Wizard].

## Customizing preferences

### 3 Select the language that you want to use for voice guidance messages, then touch [Next].

- ❑ Later you can change it in "Sound and Warnings" settings.
- ➔ For details, refer to *Setting the volume and the guidance voice for navigation system* on page 54.

### 4 If needed, modify the time format and unit settings, then touch [Next].

- ❑ Later you can change it in "Regional" settings.
- ➔ For details, refer to *Customizing the regional settings* on the previous page.

### 5 If needed, modify the default route planning options, then touch [Next].

- ❑ Later you can change them in "Route Settings".
- ➔ For details, refer to *Setting the route calculation* on page 44.

## Resetting to the default settings

Delete all saved data and reset all settings to their factory defaults.

### 1 Display the settings screen.

- ➔ For details of the operations, refer to *Displaying the settings screen* on page 54.

### 2 Touch [Reset to Defaults].



## More menu

The “**More...**” menu provides you with various options and additional applications.

### 1 Touch [Menu] on the map screen.

The “**Navigation Menu**” screen appears.

- ➔ For details of the operations, refer to *Screen switching overview* on page 19.

### 2 Touch [More...].

### 3 Touch the desired menu item.

- **Settings:**  
You can configure the program settings, and modify the behavior of the software, fine-tune route planning options, change the look of the map screen, turn on or off warnings, or restart the configuration wizard, etc.
- **Updates and Extras:**  
Visit [www.naviextras.com](http://www.naviextras.com) to get additional content, such as new maps or 3D landmarks and useful applications.
- **Unit Converter:**  
Access travel applications: the unit converter helps you convert between various different international units for temperature, speed, area or pressure, etc.
- **Clothing:**  
Access travel applications: the clothing size converter helps you convert between various different international size units for men’s or women’s cloth types and shoes.
- **Fuel Consumption:**  
The Fuel consumption monitor helps you keep track of the consumption of your car even if you do not use navigation for all your journeys. Set the initial odometer value and then record the distance taken and fuel filled in whenever you fill your car. You can also set reminders for regular car maintenance.
- **Sunrise & Sunset:**  
Touch this key to see the sunlit and dark areas of the world. Your current location and route points are marked on the map. Touch [Details] to see the exact sunrise and

sunset times for all your route points (your current location, all waypoints and the final destination).

- **Trip Monitor:**  
If you save your trip logs when you arrive at some of your destinations or let this system automatically save the trip logs for you, those logs are all listed here. Touch one of the trips to see the trip statistics, speed and altitude profile. If track log has also been saved, you can display it on the map with the selected color. Track logs can be exported to GPX files for later use.
- **Country Information:**  
Select a country from the list and see useful driving information about the selected country. Information may include speed limits on different road types, the maximum blood alcohol level and any compulsory equipment you need to show when stopped by the police.
- **Calculator:**  
The scientific calculator helps you in all your calculation needs. Touch [MODE] for additional functions and use the memory to save your results.
- **Help:**  
Run the Demo to watch sample route simulations to see how navigation works. The “**About**” section provides you with product information. Read the software and database end user license agreement, or check the map and other contents of the application. You can also access program usage statistics.

## Installation

### Important safeguards



#### WARNING

Pioneer does not recommend that you install your navigation system yourself. This product is designed for professional installation only. We recommend that only authorized Pioneer service personnel, who have special training and experience in mobile electronics, set up and install this product. **NEVER SERVICE THIS PRODUCT YOURSELF.** Installing or servicing this product and its connecting cables may expose you to the risk of electric shock or other hazards, and can cause damage to the navigation system that is not covered by warranty.

- Read this manual fully and carefully before installing your navigation system.
- As with any accessory in your vehicle's interior, the navigation system should not divert your attention from the safe operation of your vehicle as it may result in serious injury or death. If you experience difficulty in operating the system or reading the display, please make adjustments while safely parked. 

### Precautions before connecting the system



#### WARNING

Do not take any steps to tamper with or disable the parking brake interlock system which is in place for your protection. Tampering with or disabling the parking brake interlock system could result in serious injury or death.



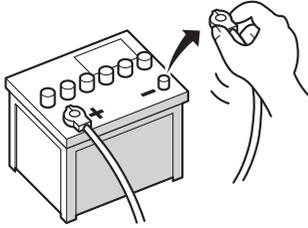
#### CAUTION

- If you decide to perform the installation yourself, and have special training and experience in the mobile electronics installations, please carefully follow all of the steps in the installation manual.

- Secure all wiring with cable clamps or electrical tape. Do not allow any bare wiring to remain exposed.
- Do not directly connect the yellow lead of this product to the vehicle battery. If the lead is directly connected to the battery, engine vibration may eventually cause the insulation to fail at the point where the wire passes from the passenger compartment into the engine compartment. If the yellow lead's insulation tears as a result of contact with metal parts, short-circuiting can occur, resulting in considerable danger.
- It is extremely dangerous to allow cables to become wound around the steering column or shift lever. Be sure to install this product, its cables, and wiring away in such so that they will not obstruct or hinder driving.
- Make sure that the cables and wires will not interfere with or become caught in any of the vehicle's moving parts, especially the steering wheel, shift lever, parking brake, sliding seat tracks, doors, or any of the vehicle's controls.
- Do not route wires where they will be exposed to high temperatures. If the insulation heats up, wires may become damaged, resulting in a short circuit or malfunction and permanent damage to the product.
- Do not cut the GPS antenna cable to shorten it or use an extension to make it longer. Altering the antenna cable could result in a short circuit or malfunction.
- Do not shorten any leads. If you do, the protection circuit (fuse holder, fuse resistor or filter, etc.) may fail to work properly.
- Never feed power to other electronic products by cutting the insulation of the power supply lead of the navigation system and tapping into the lead. The current capacity of the lead will be exceeded, causing overheating. 

## Before installing this product

- Use this unit with a 12-volt battery and negative grounding only. Failure to do so may result in a fire or malfunction.
- To avoid shorts in the electrical system, be sure to disconnect the (-) battery cable before installation.



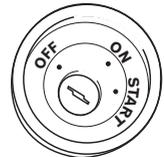
## To prevent damage

### **!** WARNING

- **The black lead is ground. Please ground this lead separately from the ground of high-current products such as power amps. Do not ground more than one product together with the ground from another product. For example, you must separately ground any amp unit away from the ground of this navigation system. Connecting grounds together can cause a fire and/or damage the products if their grounds became detached.**
- **When replacing the fuse, be sure to only use a fuse of the rating prescribed on this product.**
  - When disconnecting a connector, pull the connector itself. Do not pull the lead, as you may pull it out of the connector.
  - This product cannot be installed in a vehicle without ACC (accessory) position on the ignition switch.



ACC position



No ACC position

- To avoid short-circuiting, cover the disconnected lead with insulating tape. It is especially important to insulate all unused speaker leads, which if left uncovered may cause a short circuit.
- Attach the connectors of the same color to the corresponding colored port, i.e., blue connector to the blue port, black to black, etc. ■

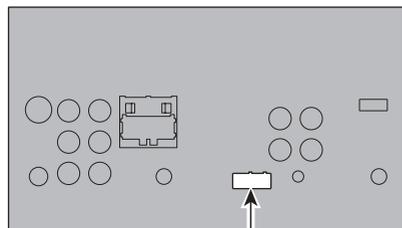
## Precautions before installation



### CAUTION

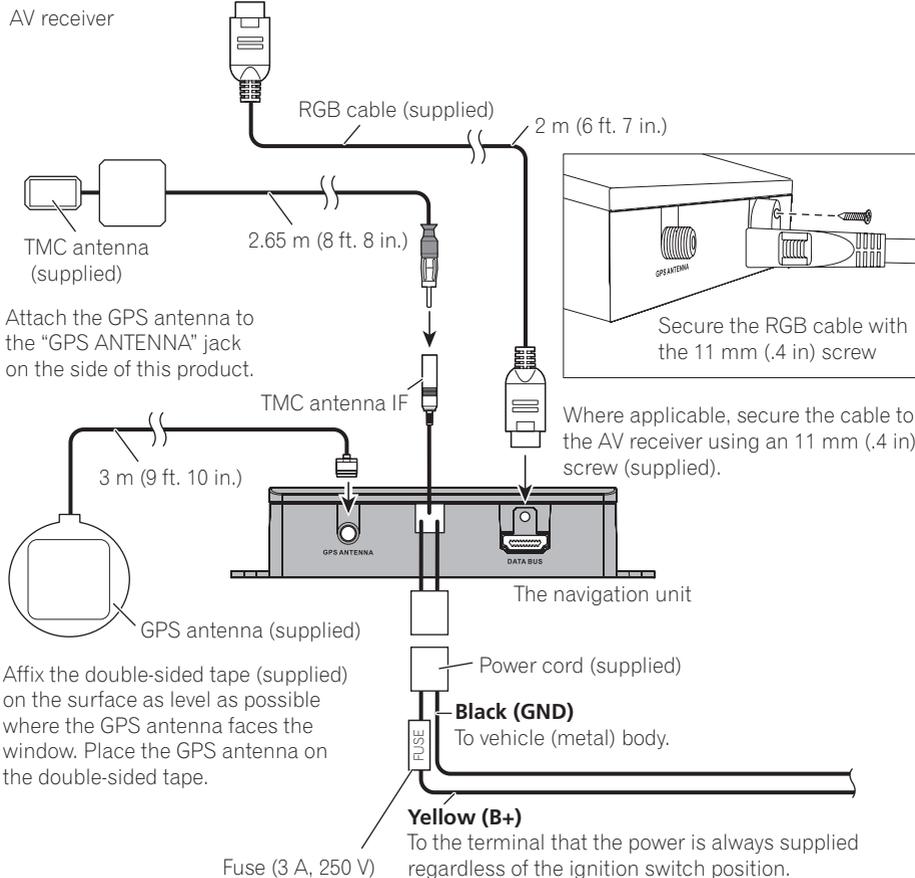
- Never install this product in places where, or in a manner that:
    - Could injure the driver or passengers if the vehicle stops suddenly.
    - May interfere with the driver's operation of the vehicle, such as on the floor in front of the driver's seat, or close to the steering wheel or shift lever.
  - Make sure there is nothing behind the dashboard or paneling when drilling holes in them. Be careful not to damage fuel lines, brake lines, electronic components, communication wires or power cables.
  - When using screws, do not allow them to come into contact with any electrical lead. Vibration may damage wires or insulation, leading to a short circuit or other damage to the vehicle.
  - To ensure proper installation, be sure to use the supplied parts in the manner specified. If any parts are not supplied with this product, use compatible parts in the manner specified after you have the parts' compatibility checked by your dealer. If parts other than supplied or compatible ones are used, they may damage internal parts of this product or they may work loose and the product may become detached.
  - It is extremely dangerous to allow cables to become wound around the steering column or shift lever. Be sure to install this product, its cables, and wiring away in such so that they will not obstruct or hinder driving.
  - Make sure that leads cannot get caught in a door or the sliding mechanism of a seat, resulting in a short circuit.
  - Please confirm the proper function of your vehicle's other equipment after installation of the navigation system.
- Install the navigation system between the driver's seat and front passenger seat so that it will not be hit by the driver or passenger if the vehicle stops quickly.
  - Never install the navigation system in front of or next to the place in the dashboard, door, or pillar from which one of your vehicle's airbags would deploy. Please refer to your vehicle's owner's manual for reference to the deployment area of the frontal airbags.
  - Failure to follow all of these precautions may result in serious injury or death.

## Connecting the system



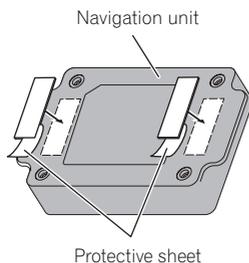
AV receiver

Insert one end of the RGB cable into the "DATA BUS" slot on the side of this product and secure it with an 11 mm (.4 in) screw (supplied). Connect the other end of the cable to RGB IN input on the back of your Pioneer AV receiver.



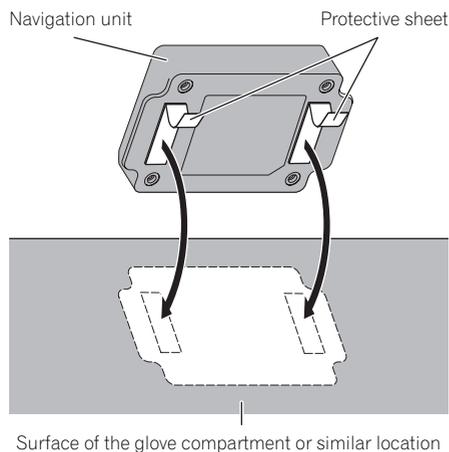
## Installing with the hook and loop fastener

- 1 Thoroughly wipe off both surfaces before affixing the hook and loop fastener.
- 2 Peel off the protective sheet and attach the hook and loop fastener.



- 3 Decide on the installation position.

- 4 Peel off the other protective sheet and install the navigation unit on the surface of the glove compartment or similar location.



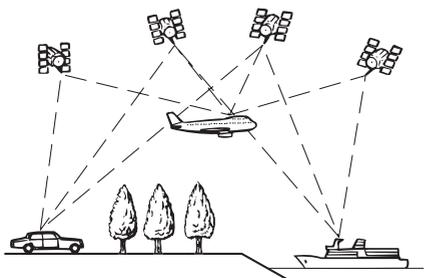
## Appendix

### Positioning technology

#### Positioning by GPS

The Global Positioning System (GPS) uses a network of satellites orbiting the Earth. Each of the satellites, which orbit at a height of 68 900 000 feet (21 000 km), continually broadcasts radio signals giving time and position information. This ensures that signals from at least three can be picked up from any open area on the ground's surface.

The accuracy of the GPS information depends on how good the reception is. When the signals are strong and reception is good, GPS can determine latitude, longitude and altitude for accurate positioning in three dimensions. But if signal quality is poor, only two dimensions, latitude and longitude, can be obtained and positioning errors are somewhat greater.



#### Handling large errors

Positioning errors are kept to a minimum by combining GPS, dead reckoning and map matching. However, in some situations, these functions may not work properly, and the error may become bigger.

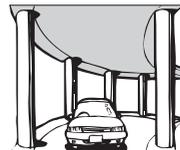
#### When positioning by GPS is impossible

- GPS positioning is disabled if signals cannot be received from more than two GPS satellites.

- In some driving conditions, signals from GPS satellites may not reach your vehicle. In this case, it is impossible for the system to use GPS positioning.



**In tunnels or enclosed parking garages**



**Under elevated roads or similar structures**



**When driving among high buildings**



**When driving through a dense forest or tall trees**

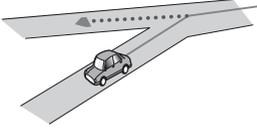
- If a car phone or cellular phone is used near the GPS antenna, GPS reception may be lost temporarily.
- Do not cover the GPS antenna with spray paint or car wax, because this may block the reception of GPS signals. Snow buildup can also degrade the signals, so keep the antenna clear.
- ❑ If a GPS signal has not been received for a long time, your vehicle's actual position and the current position mark on the map may diverge considerably or may not be updated. In such case, once GPS reception is restored, accuracy will be recovered.

#### Conditions likely to cause noticeable positioning errors

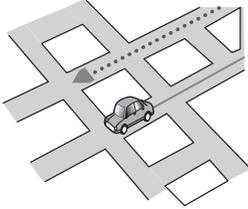
For various reasons, such as the state of the road you are traveling on and the reception status of the GPS signal, the actual position of your vehicle may differ from the position displayed on the map screen.

# Appendix

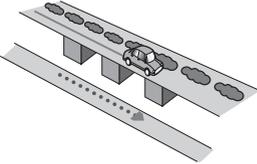
- If you make a slight turn.



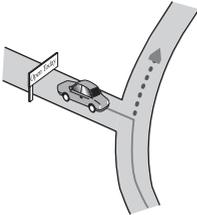
- If there is a parallel road.



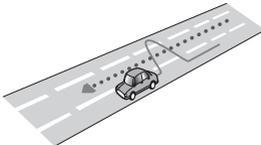
- If there is another road very nearby, such as in the case of an elevated freeway.



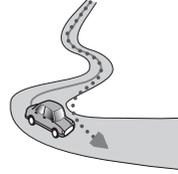
- If you take a recently opened road that is not on the map.



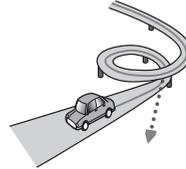
- If you drive in zigzags.



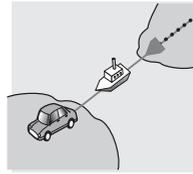
- If the road has a series of hairpin bends.



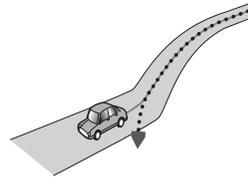
- If there is a loop or similar road configuration.



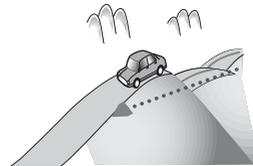
- If you take a ferry.



- If you are driving on a long, straight road or a gently curving road.

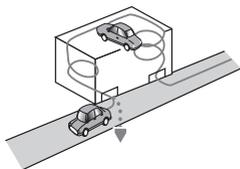


- If you are on a steep mountain road with many height changes.

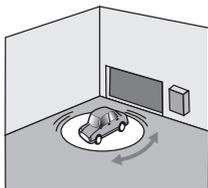


# Appendix

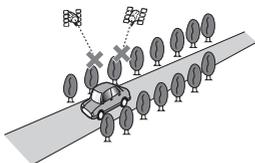
- If you enter or exit a multi-storey parking lot or similar structure using a spiral ramp.



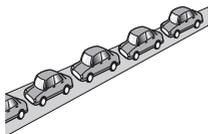
- If your vehicle is turned on a turntable or similar structure.



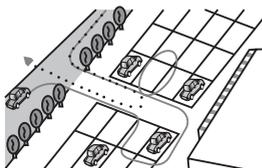
- If trees or other obstacles block the GPS signals for a considerable period.



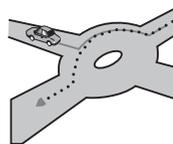
- If you drive very slowly, or in a start-and-stop manner, as in a traffic congestion.



- If you join the road after driving around a large parking lot.



- When you drive around a traffic circle.



- When starting driving immediately after starting the engine. ■

## Route setting information

### Route search specifications

Your navigation system sets a route to your destination by applying certain built-in rules to the map data. This section provides some useful information about how a route is set.

### CAUTION

When a route is calculated, the route and voice guidance for the route are automatically set. Also, for day or time traffic regulations, only information about traffic regulations applicable at the time when the route was calculated is considered. One-way streets and street closures may not be taken into consideration. For example, if a street is open during the morning only, but you arrive later, it would be against the traffic regulations so you cannot drive along the set route. When driving, please follow the actual traffic signs. Also, the system may not know some traffic regulations.

- The calculated route is one example of the route to your destination decided by the navigation system while taking the type of streets or traffic regulations into account. It is not necessarily an optimum route. (In some cases, you may not be able to set the streets you want to take. If you need to take a certain street, set a waypoint on that street.)

## Appendix

- If the destination is too far, there may be instances where the route cannot be set. (If you want to set a long-distance route going across several areas, set waypoints along the way.)
- During voice guidance, turns and intersections from the freeway are announced. However, if you pass intersections, turns, and other guidance points in rapid succession, some may delay or not be announced.
- It is possible that guidance may direct you off a freeway and then back on again.
- In some cases, the route may require you to travel in the opposite direction to your current heading. In such cases, you are instructed to turn around, so please turn around safely by following the actual traffic rules.
- In some cases, a route may begin on the opposite side of a railway or river from your actual current location. If this happens, drive towards your destination for a while, and try route calculation again.
- When there is a traffic congestion ahead, a detour route may not be suggested if driving through the traffic congestion would still be better than taking the detour.
- There may be instances when the starting point, the waypoint and the destination point are not on the highlighted route.
- The number of traffic circle exits displayed on the screen may differ from the actual number of roads.

### Route highlighting

- Once set, the route is highlighted in bright color on the map.
- The immediate vicinity of your starting point and destination may not be highlighted, and neither will areas with particularly complex road layouts. Consequently, the route may appear to be cut off on the display, but voice guidance will continue.

### Auto reroute function

- If you deviate from the set route, the system will re-calculate the route from that point so that you remain on track to the destination.
- This function may not work under certain conditions.

### SD and SDHC logo



SD Logo is a trademark of SD-3C, LLC.



SDHC Logo is a trademark of SD-3C, LLC.

# Appendix

## Display information

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# Appendix

## Glossary

### Current location

The present location of your vehicle; your current location is shown on the map by a blue triangle mark (default).

### Destination

A location you choose as the end point of your journey.

### Favorites

A frequently visited location (such as your workplace or a relative's home) that you can register to allow easy routing.

### GPS

Global Positioning System. A network of satellites that provides navigation signals for a variety of purposes.

### Guidance mode

The mode in which guidance is given as you drive to your destination; the system automatically switches to this mode as soon as a route has been set.

### Guidance point

These are important landmarks along your route, generally intersections. The next guidance point along your route is indicated on the map by the flag icon.

### Point Of Interest (POI)

Any of a range of locations stored in the data, such as railway stations, shops, restaurants, and amusement parks.

### RDS-TMC

A communication system for informing drivers of the latest traffic information using FM multiplex broadcast. Information such as traffic congestion or accidents can be checked on the display.

### Route setting

The process of determining the ideal route to a specific location; route setting is done auto-

matically by the system when you specify a destination.

### Set route

The route marked out by the system to your destination. It is highlighted in bright color on the map.

### Track log

Your navigation system logs routes that you already passed through if the track logger is activated. This recorded route is called a "track log". It is handy when you want to check a route traveled or if returning along a complex route.

### Voice guidance

The giving of directions by navigation voice while in guidance.

### Waypoint

A location that you choose to visit before your destination; a journey can be built up from multiple waypoints and the destination. 

# Appendix

## Specifications

### General

Rated power source .....	14.4 V DC (allowable voltage range: 12.0 V to 14.4 V DC)
Grounding system .....	Negative type
Maximum current consumption .....	0.21 A
Dimensions (W × H × D): .....	134 mm × 29 mm × 84 mm (5-1/4 in. × 1-1/8 in. × 3-1/4 in.)
Weight .....	140 g (0.31 lbs)

### GPS receiver

System .....	L1, C/Acode GPS
Reception system .....	32 tracking/32 acquisition- channel system
Reception frequency .....	1 575.42 MHz
Sensitivity .....	-157.5 dBm (typ)
Position update frequency .....	Approx. once per second

### GPS antenna

Antenna .....	Micro strip flat antenna/ right-handed helical polariza- tion
Antenna cable .....	3.0 m (9.84 ft.)
Dimensions (W × H × D) ...	50.6 mm × 15.5 mm × 50.6 mm (1.99 in. × 0.61 in. × 1.99 in.)
Weight .....	85 g (0.19 lbs)

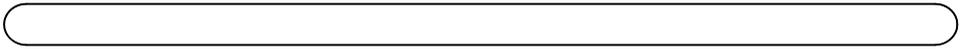
### SD

Compatible physical format .....	Version 2.00
Max memory capacity .....	32 GB
File system .....	FAT16, FAT32



### Note

Specifications and design are subject to possible modifications without notice due to improvements. ■



*Register your product at*

**<http://www.pioneerelectronics.com>**

*in Canada* **<http://www.pioneerelectronics.ca>**

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**PIONEER ELECTRONICS OF CANADA, INC.**

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TEL: 1-877-283-5901  
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