ECLIPSE®

by FUJITSU TEN

AVN2454

6.5" Wide TFT Touch-Panel Display
CD/DVD Multi-Source Receiver with DVD NAVIGATION

OWNER'S MANUAL / Navigation

We appreciate your purchase of this product.
Please read through this manual for correct operation.
We suggest that after reading it you keep this manual in a safe place for future reference.

NAVIGATION SYSTEM

The navigation system uses maps and vocal instructions to guide you while you are driving. However, depending on accuracy of that guidance, there may be times when inappropriate advice is given. When driving along the route set by the navigation system, make sure to follow the actual traffic regulations at all times (such as one-way streets and other road conditions).

Warnings and caution signs, illustrated below, are posted throughout this manual as well as on the AVN2454. They show safe and correct ways to handle the product so as to prevent personal injury to you and others and avoid damage to property.
Before reading through the manual, take time to read through and learn the important information listed in this section.

Cautions for use

Make sure your positioning is stable prior to starting your journey

•Start driving only after the GPS mark appears. Starting to drive with improper positioning may lead to vehicle positioning errors.

While driving, some minor streets will disappear

For safety reasons, minor streets will not be displayed on the map while driving. (Unless actually driving on a minor street.)

*The images appearing on the screen may differ from those shown in this manual depending on the type of map DVD-ROM used and when it was created.

This sign indicates a situation in which incorrect handling through disregard of a sign might result in death or serious personal injury.

This sign indicates a situation in which incorrect handling through disregard of a sign might result in personal injury or may result solely in damage to property.

The symbol shown below indicates that you should know about the information in order to carefully follow it or you should remember the information for its helpfulness.

A point it will be helpful to remember.
A point you should know about.

* Please read all materials such as manuals and warranties that have come with the product. Fujitsu Ten will not be responsible for unsatisfactory product performance due to failure to follow these instructions.
* Changes to product specifications may result in differences between content of the manual and features of the product.

Please use care in handling the manual. Forcefully spreading or pulling on pages may result in their falling out of the binding. Use the manual carefully.

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The Index by Topic simplifies searches for explanations about individual features. When confused by an operation, use the Index by Topic to search for information about the operation.

1. How to view this manual

Section title

A title is assigned for each section.

Item title

A number and title is assigned for each item.

2. Set a destination and search for a route

Operation title

A title is assigned for each operation purpose.

Setting a destination

One-touch setting

A destination can be set in the map presently displayed.

Detailed operation title

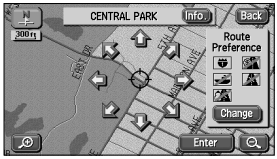
A title is assigned for each detailed operation purpose.

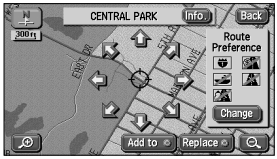
1 Touch the map.

2 Touch **Enter**.

3 Touch **Enter**.

- A ◎ symbol will appear for the destination point on the ✖ position and a route search will begin.
- Touch ⌂ to move the map.
- If a destination is already set, touch **Replace** to delete the set destination and set a new one.
- Touch **Add to** to add a destination. It will be added as the next destination after the present location.





Operation procedure

Describes the operation. Proceed with the operation as per the numerical order.

ATTENTION If a map with a reduction scale wider than 0.5 miles is displayed, switch to a 0.5 mile reduction scale.

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Attention

Additional points regarding the operations are given here.

Section side heading

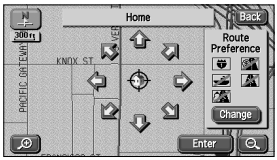
Only the section side heading will appear in dark letters.

Set from a registered point

1 Press **DEST**.

2 Touch or special memory points **1** to **5**.

- Your home or the special memory point will appear as the symbol and the route search will begin.
- If a destination is already set, touch **Replace** to delete the set destination and set a new one.
- Touch **Add to** to add a destination. (See **"Adding a destination"** on P75, **5** to **6**)



Set using a map retrieval method

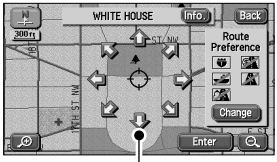
1 Press **DEST**.

2 Select the map retrieval method and the map corresponding to the point to be set as the destination will appear.

- See P44 and 60, **"Map retrieval method"**, **"Performing operations on a retrieved map"**.

3 Touch **Enter**.

- A symbol will appear for the destination point on the position and a route search will begin.



Go to the next page 65

Operation screen

A screen showing the operation will appear.

Go to the next page

The operation procedures are continued on the next page.

2. Features

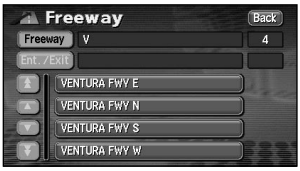
Several search methods to choose from (P44)

Search using a POI name (P49)

When the name of the POI is known, enter it to initiate a search. It is also possible to search by entering only a part of the name.

Search using a freeway exit/entrance (P58)

A search can be initiated using the name of a freeway or an exit/entrance.



Search using latitude/longitude coordinates (P59)

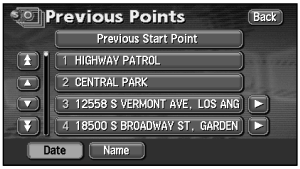
A map can be displayed by directly entering the latitude and longitude coordinates.

Emergency search (P55)

In the event of an emergency, a search can be initiated for the nearest police station or hospital.

Search using the destination archive (P56)

A map can be retrieved using entries previously set in the destination archive.



Search using a registered point (P55)

A map can be retrieved using your home or a point registered in the memory.

Registering a desired point in the memory (P100)

Your home or a geographical point you want to indicate on a map can be registered in the memory. Also, when initiating a route search, points through which you want to make a detour can also be registered in advance.

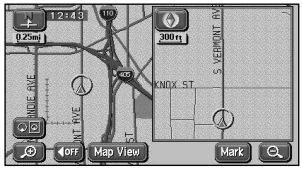
POI icon display (P35)

Various types of POIs can be displayed on a map using icons.

Diverse screen displays (P26,84)

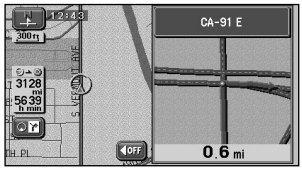
Double screen display

The screen can be divided into two parts.



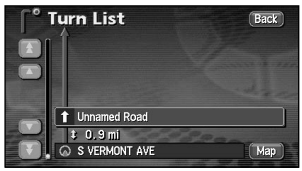
Enlarged intersection display

While route guidance is in progress, an enlarged illustration of the area around an intersection where turn is to be made (junction) is displayed when approaching that intersection.



List display

A list is displayed of all the distances up to intersections and turning directions prior to reaching the destination.



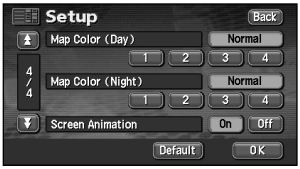
2. Features

3-route simultaneous display (P73)

When initiating a route search, three routes (Quick 1, Quick 2 and Short) can be searched for simultaneously.

The map display color can be switched (P22)

Four map display colors can be selected for the daytime and nighttime screen display respectively.



System upgrade (P126)

Back monitor

When the optional back monitor is installed, the rear image can be appeared on the monitor screen.

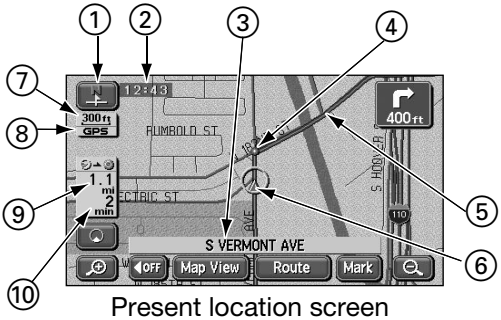
MEMO

3. GPS navigation system

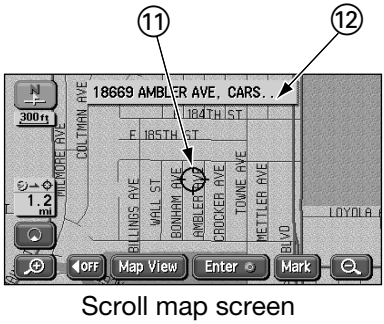
By setting your destination, the device will automatically perform a route search and guide you through the route using screen displays and voice announcements.

How to view the navigation screen

The navigation map display consists of a present location screen and a scrolled map screen.



Present location screen



Scroll map screen

① Orientation mark (, when the bearing is pointing upwards)

The map orientation is indicated.

•See P31 for how to switch the map direction (north up or bearing up).

② Clock display

The present time is indicated.

•See P22 for information concerning this indication.

③ Name display

The following indications will appear while route guidance is in progress. (Only geographical points represented as data in the map disk)

•Names of junction and non-junction intersections.

•Names of roads taken.

•Names of interchange exits.

④ Instruction points

While route guidance is in progress, instruction points will appear for intersections where guidance data (lane display, intersection names, intersection guidance screens) is displayed.

•See P84 for information concerning intersection guidance.

⑤ Route display

When setting your destination, the route all the way to that point is displayed.

•Route guidance will occur only when the present location appears on a dark blue line ( ).

⑥ Vehicle position mark

The present location and the vehicle direction are displayed.

⑦ Scale display

The reduction scale of the map being displayed is indicated.

The length of the ⌊‾‾⌋ appearing in the screen above represents 150ft.

⑧ GPS mark GPS

This mark will appear when utilizing the absolute positioning data from the GPS satellite.

•See the next page for information concerning this mark's display. There may be misalignments depending on the satellite conditions.

⑨ Distance remaining display

The distance from the present location to the destination is indicated.

•While route guidance is in progress, the distance calculated from the route now being taken to the destination is indicated.

•When deviating from the set route, the distance to the destination in a straight line is indicated.

•See P93 for information on how to switch the remaining distance display.

⑩ Required time display/destination direction mark

The following marks appear depending on the situation.

Required time display

While route guidance is in progress, the required time up to the destination is indicated.

•See P86 for information concerning the required time.

Destination direction mark

When deviating from the set route, the direction towards the destination is displayed.

⑪ Cursor mark

This mark is indicated on the map retrieved by a search or by scrolling.

To scroll, simply touch the map (on a spot other than the touch switches on the screen).

⑫ Cursor position name display

The name of the cursor position on the map is displayed (approx. 6 seconds).

Except for some parts describing certain functions, this manual uses normal north-up map screen illustrations to describe the device's functions.
"Map touched" appears signifying that the map was directly touched (on spots other than touch switches).

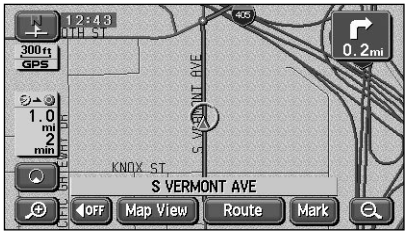
4. GPS

Global Positioning System (GPS): a system developed and operated by the United States Government that pinpoints your present location by utilizing latitudinal and longitudinal data received from at least 4 satellites (sometimes only 3 are used).

Situations when GPS signal reception is impossible

The following are situations when the GPS signal cannot be received.

- When the GPS signal is obstructed while driving through building clusters, tunnels or on overpasses
- When the signal is obstructed because of having placed an object near or on the GPS antenna
- When the GPS satellite is not sending any signals to the earth (signal emission may be halted due to modifications or repairs conducted by the U.S. Tracking Control Center, the organization responsible for controlling GPS signals)
- When a digitally formatted cellular telephone unit is brought near the GPS antenna



Screen with GPS signal reception in progress

ATTENTION

Handling the GPS antenna

- Consult a specialist at the store of purchase for how to install the GPS antenna.
- Do not apply paint or wax onto the GPS antenna. Otherwise, signal reception sensitivity may be diminished or signal reception may be rendered impossible.
- Do not pull on the cord when uninstalling or moving the GPS antenna. Otherwise, short circuits or disconnections may result.
- See P134 for information concerning GPS signal accuracy and errors. See P152 for definitions of the terminology employed.

MEMO

1. MENU screen and list screens

MENU SCREEN

1 Press **MENU** to display the MENU screen.

2 The following operations can be performed from the MENU screen.

Touch the desired item's touch switch to activate.

Item (touch switch)	Function	Page
Suspend guidance/Resume guidance*1	Stopping or restarting route guidance	83
Volume	Setting the volume	25
	Setting the automatic highway volume switch	25
My places	Registering/correcting/deleting the geographical data for your home	101,103,104
	Registering/correcting/deleting memory geographical points*2	105,109,118
	Registering/correcting/deleting detour memory geographical points	119,121
Setup	Setting the navigation system corrections	130
	Switching the kilometer/mile display	23
	Setting the estimated arrival time	86
	Setting the automatic repeat search	98
	Switching the time zone	23
	Setting the automatic voice guidance	91
	Setting the guidance when in each mode	92
	Setting the seasonal restriction message display	71
	Setting the automatic intersection enlargement diagram display	85
	Setting the street name display while scrolling	28
	Setting the switch display	29
	Switching the clock display	22
	Setting the type of POIs in the vicinity retrieved while driving	42
	Switching the map display color	22
	Deleting from the destination archive	123
Map DVD	Map DVD-ROM data display	133

*1 Colors inverted if the destination is not set.

*2 Including registering/correcting/deleting special memory geographical points.

How to switch the list screens

▲ or ▼ switch display

Touch the ▲ or ▼ switch to move the list one item at a time.

Page switch display

Touch the ⏫ or ⏬ switch to move the list one page at a time.

POI switch display

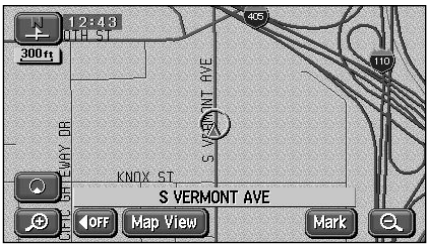
Touch either **Restaurant**, **Shopping**, **Automotive**, **Travel**, **Recreation**, **Community**, **Banking** or **Other** to move the list one POI at a time.

The touch switch color is inverted for POIs without corresponding lists. They cannot be operated even if touched.

2. Adjusting the screen and setting the sound

Screen adjustment

To make the screen easier to view, it can be switched from "daytime display" to "nighttime display" by turning the vehicle lights (headlights, taillights, license plate lights) ON or OFF.
(Default status) Lights turned OFF---daytime display
Lights turned ON---nighttime display



Daytime display
(when lights are turned OFF)

Nighttime display
(when lights are turned ON)

How to display the image quality adjustment screen

1. Press **DISP** to display the image quality adjustment screen.
2. After completing the adjustment, touch **ENTER** or wait at least 20 seconds and the adjustment will be automatically set and the display will return to the original screen.

Image quality adjustment screen

Contrast/Brightness

1 Contrast
Touch **+** to increase, touch **-** to decrease.

2 Brightness
Touch **+** to increase, touch **-** to increase.

How to switch to daytime display when the lights are ON

1 Every time **DAY** is touched, the screen toggles between daytime and nighttime display.

When in daytime display, the touch switches appear green.

How to turn the screen OFF

1 Touch **OFF**.

To make the screen reappear, press **NAVI**.

ATTENTION

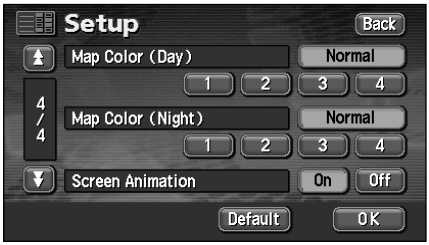
- Even with the screen turned OFF, the GPS present location positioning continues to function.
- Both the daytime display screen and the nighttime display screen can be adjusted independently.

2. Adjusting the screen and setting the sound

Switching the map display color

The map display color (a 5 color selection) can be switched for both the daytime and nighttime displays independently.

1. Touch **Setup** in the MENU screen.
2. Touch **Normal**, **1**, **2**, **3** or **4** for both Map Color (Day) and Map Color (Night) respectively.
   Selected touch switches turn green.
3. Touch **OK**.



Switching the clock display

The present time display appearing on the map screen can be switched.

1. Touch **Setup** in the MENU screen.
2. Touch **On** or **Off** for Clock Indication.
   Selected touch switches turn green.
3. Touch **OK**.

ATTENTION

- Touch **Default** in the SETUP screen to return all items to the default settings.
- The present time displayed is automatically adjusted using GPS signals. (You cannot adjust the time yourself.)

Switching km and miles display

Km and miles display on the map screen can be switched.

1 Touch **Setup** in the MENU screen.

2 Touch **Km** or **miles** for Distance.

Selected touch switches turn green.

3 Touch **OK**.

Switching the Time Zone

The time zone for every region in the U.S. can be switched.

Switching the Time Zone

1 Touch **Setup** in the MENU screen.

2 Touch **Change** for Time Zone.

3 Touch either **NORMAL**, **1**, **2**, **3** or **4**.

Selected touch switches turn green.

4 Touch **OK**.

ATTENTION

Touch **Default** in the Setup screen to return all items to the default settings.
The present time displayed is automatically adjusted using GPS signals. (You cannot adjust the time yourself.)

2. Adjusting the screen and setting the sound

Setting the Daylight Saving Time

1 Touch **Setup** in the MENU screen.

2 Touch **Change** for Adjust Time Zone.

3 Touch **On** or **Off** for Daylight Saving Time.

4 Touch **OK**.

ATTENTION

- Touch **Default** in the SETUP screen to return all items to the default settings.
- Press **On** to gain the clock display 1 hour ahead.
  Press **Off** to return the clock display to the previous setting.
- The present time displayed is automatically adjusted using GPS signals. (You cannot adjust the time yourself.)

Setting the volume

Set the volume of the navigation system.

Adjust the volume

1 Touch **Volume** in the MENU screen.

2 Touch either **1**, **2**, **3**, **4**, **5**, **6** or **7**.

Selected touch switches turn green.
Touch **Off** to turn OFF the volume. When the volume is OFF, touch any of the volume switches to turn the volume back ON.

3 Touch **OK**.

Set the automatic highway volume switch function

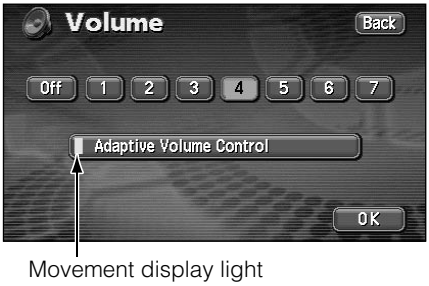
When driving at high speeds, the set volume can be automatically raised one level.
Either automatic switch ON (automatically raise) or OFF (not raised) can be selected.

1 Touch **Volume** in the MENU screen.

2 Touch **Adaptive Volume Control**.

When turned ON, the movement display light turns yellow.

3 Touch **OK**.



Movement display light

ATTENTION

When exceeding 50mph(80km/h), the volume automatically increases one level and goes back down to its original level when the speed goes down passed 43mph(70km/h).

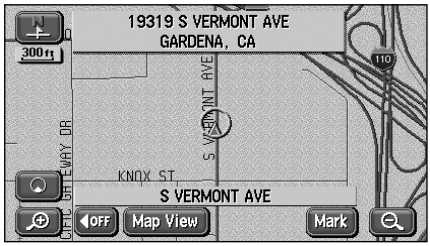
3. Map displays

Present location display

The present location screen appears when switching the engine to ACC or ON.

- The present location of your vehicle is displayed on the map.
- When the menu screen or any other map screen besides the present location map screen is displayed, press NAVI to return to the present location screen.
- When driving, the road displays are restricted. (Minor roads, etc. are not displayed.) However, minor roads are displayed while driving when necessary.

1 Press **NAVI** in the present location screen to make all the geographical names near the present location appear.



ATTENTION

Immediately after having installed the device, or after having reconnected the battery terminal, the ▲ vehicle position mark may differ from the actual present location (misalignment of the ▲ vehicle position mark).
Continue driving and, in a moment, the present location will be automatically corrected using the map matching and GPS data. (Depending on the case, this may take several minutes.) If signals from the GPS are not utilized and the present location is left uncorrected, park the vehicle in a safe place and correct the present location. (See P130)

Moving the map (one-touch scroll)

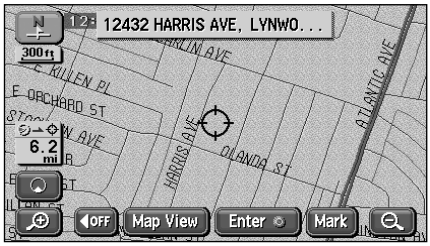
When a map is displayed, touching the map directly (anywhere except the touch switches) makes the point scroll to the center of the display. The street name around the scrolled point may appear.

Moving the map

1 Touch the map (anywhere except the touch switches).

- On the bottom left of the map, the distance in a direct line from the present location is displayed.
- Touch continuously around the center of the screen and the map will move slowly.
- Touch continuously near the edge of the screen and the map will move quickly.

While scrolling



Scrolling stopped

ATTENTION

- For safety reasons, the map can be moved only up to a predetermined distance while driving.
- The map orientation can be switched while driving.
  *For a scrolled map, you can only switch from "Bearing up" to "North up". (Switching from "North up" to "Bearing up" impossible)
- Move the map with one-touch scroll and the map will freeze into position and will not move even if moving the present location. Press **NAVI** to return to the original status (moving map).

3. Map displays

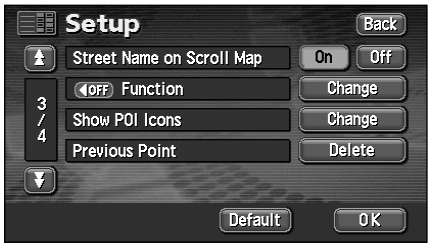
Setting the Street Name display while scrolling

You can select between setting the Street Name display ON (display) or OFF (not display) while scrolling.

1 Touch **Setup** on the MENU screen.

2 Touch **On** or **Off** for Street Name on Scroll Map.
- Selected touch switches turn green.

3 Touch **OK**.

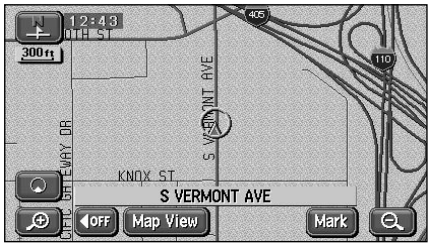


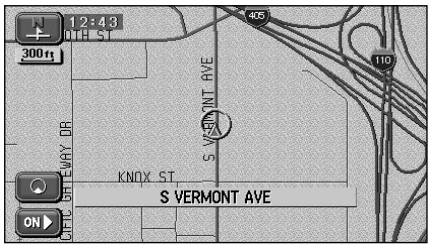
Switching the touch switch (command) display

When a map is displayed, the number of touch switches displayed on the screen can be reduced.

Switching the touch switch display

1 Touch **OFF**.
- If the touch switches are not displayed, this operation cannot be performed via a touch switch. First display the touch switches onto the screen and then proceed.
- If the touch switches are not displayed, touch **ON** to make them appear on the screen.





ATTENTION

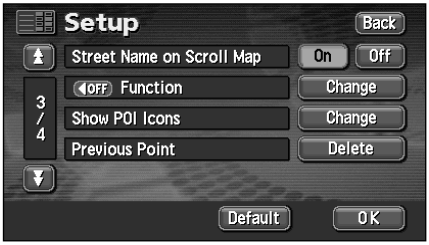
Touch **Default** in the SETUP screen to return all items to their default settings.

Setting touch switches to display or not display

Switches can be set to appear or not appear on the map screen.

1 Touch **Setup** on the MENU screen.

2 Touch **Change** for **OFF** Function.



3 Touch the touch switches desired for non-display.

- Touch **OFF** on the map screen and the touch switches selected here will not appear.

4 Touch **OK**.

ATTENTION

- Touch **Default** on the switch display setting screen to return the switch display setting to default status.
- Touch **Default** in the SETUP screen to return all items to their default settings.
- To display all touch switches, touch the inverted touch switches. **OFF** or **ON** are not displayed.
- Only operable touch switches can be set. The map reduction scale display/non-display cannot be switched. For details on the clock display, see P22.

3. Map displays

Switching the map reduction scale

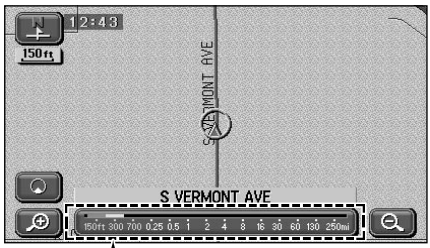
The map reduction scale (map range) can be switched to any desired setting from 40,960,000:1 to 2,500:1. Also, if the destination is set, you can switch to the reduction scale showing the entire route to the next destination with one touch.

Touch switch	Reduction scale	Scale display	Touch switch	Reduction scale	Scale display
⊕ ↑	1/0.005 million	150ft	↓ ⊖	1/0.64 million	4mi
	1/0.01 million	300ft		1/1.28 million	8mi
	1/0.02 million	700ft		1/2.56 million	16mi
	1/0.04 million	0.25mi		1/5.12 million	30mi
	1/0.08 million	0.5mi		1/10.24 million	60mi
	1/0.16 million	1mi		1/20.48 million	130mi
	1/0.32 million	2mi		1/40.96 million	250mi

Switching to the desired reduction scale

1 To widen the map's range, touch ⊖. To shrink it down, touch ⊕.

- Every time the touch switch is touched, the scale goes up/down one level at a time.
- After having touched ⊖ or ⊕, touch a number on the scale bar to switch to the reduction scale represented by that number.
- Touch continuously on ⊖ or ⊕ for at least 1 second to switch the scale with no increments (free zoom).
- The reduction scale switched to will be indicated with a yellow mark (▭).



Scale bar

ATTENTION

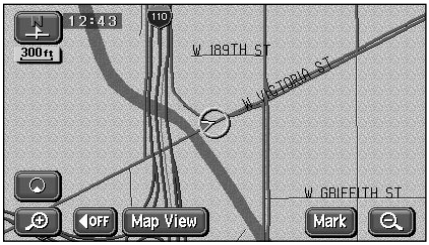
- The ⊖ switch will disappear when setting to the maximum range (250 mile scale diagram).
- For safety reasons, the scale cannot be free zoomed while driving.

Switching the map orientation

The orientation of the map being displayed can be switched.

•North up display

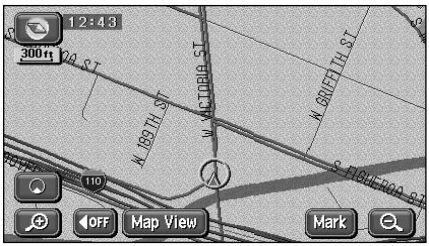
The map appears with north pointing up at all times regardless of the vehicle's heading. (The maps appearing in this manual are shown in north up display form.)



North up display

•Heading up display (indicates north)

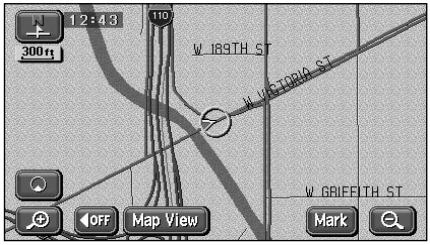
The map appears with the heading of the vehicle pointing up at all times.



Heading up display

Switching the map orientation

1 Touch either or to switch to either north up or heading up display.



ATTENTION

When in heading up display, maps retrieved by setting the destination and all-route display screens are shown with north up. However, when returning to the present location screen, the display will switch back to heading up.

3. Map displays

Switching to double screen display

When a map is displayed, the screen can be divided into two parts as shown below.

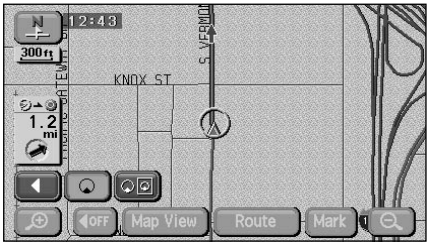
Ex.) Two maps can be displayed with; different reduction scale screens, North up and Heading up screens, POI display ON and OFF screens.

Switching to double screen display

1 Touch when a map is displayed on the screen.

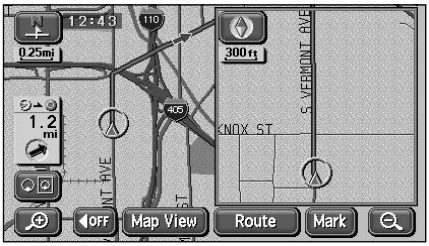
2 Touch

The screen on the left can be operated the same way as when only one screen is displayed.



Operating the screen on the right

1 Touch the map shown in the screen on the right.

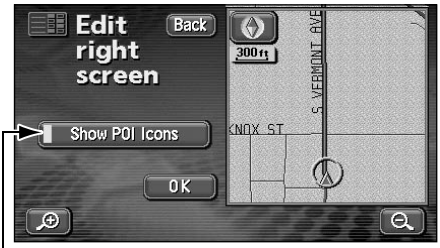


2 Touch any touch switch.

If turned ON, the movement display light will appear yellow.

3 Touch **Back** to return to the double screen map display.

- Touch ⊕ or ⊖ to switch the map reduction scale.
- Touch 🧭 or 🧭 to switch the map orientation.



Movement display light

ATTENTION

- When in double screen display, only the map appearing on the left screen can be moved with one-touch scroll.
- Maps retrieved by the destination setting screen or all-route display screen will appear as one screen. When returning to the present location screen, the double screen form will reappear.

3. Map displays

POI vicinity display

When a POI vicinity is displayed in the screen on the left, you can switch it either ON (display) or OFF (not display) to appear on the right screen.
Please refer to the POIs can be displayed on the next page.

1 Show POI Icons : ON
Touch **Show POI Icons**.

The actuation right is lit and turns "Show POI Icons" to ON.

2 Show POI Icons : OFF
Touch **Show POI Icons** while the Actuation right is lit.

The actuation right is off and turns "Show POI Icons" to OFF.

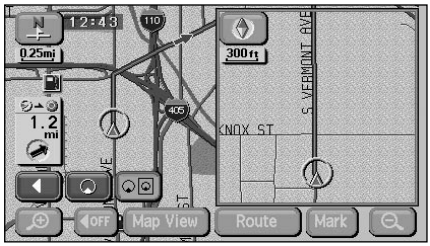
Movement display light

Canceling the double screen display

1 Touch if a map is displayed.

2 Touch .

Selected touch switches turn green and the monitor returns to single screen display.



ATTENTION

- When a POI vicinity is displayed, the settings in the screen on the left and right are the same. However, POIs not displayed on the left screen cannot be shown on the right screen.
- If re-displaying the double screen, the reduction scale for the maps shown will be the same as the previous double screen display scales.

POI display

POI landmarks can be displayed on the map.

POI display types

Restaurant	All Restaurant
	American
	Chinese
	Continental
	Fast Food
	French
	Italian
	Japanese
	Mexican
	Other Restaurants
	SeaFood
	Thai
Shopping	Convenience Store
	Department Store
	Grocery Store
	Home and Garden
	Other Retail Stores
	Pharmacy
	Shopping Mall
	Specialty Food Store
Automotive	Auto Club
	Car Wash
	Gas Station
	Other Automotive Stores
	Parking
	Service & Maintenance
Travel	Airport
	Bus Station
	Campground
	Ferry Terminal
	Hotel
	Rental Car Agency
	Rest Area
	Train Station
Recreation	Amusement Park
	Botanical/Zoological Gardens
	Casino
	Cinema
	Golf Course
	Historical Monuments
	Horse Racing
	Marina
	Museum
	National and State Parks
	Ski Resort
	Speedway
	Sports Complex
	Theater
	Tourist Attraction
	Tourist Infomation
	Video Rental
	Winery
Community	City Center
	Convention Center
	Court House
	Government Offices
	Higher Education
	Hospital
	Library
	Parks
	Police Station
	Post Office
	School
Banking	ATM
	Bank
	Other Financial Services
Other	Beauty and Barber Shops
	Coffee House
	Dry Cleaning
	Health and Fitness Club
	Ice Cream Parlor
	Other Business Facilties

3. Map displays

ATTENTION

- A map with a scale diagram more detailed than 1 mile can be displayed. (Excluding all route display screens.)
- POI landmarks can only be displayed within a 20 mile radius from the ⌂ or ⌖ mark. (Up to 200 landmarks.)
- Move the ⌂ or ⌖ mark to switch the POI landmark displays.

Display landmarks by a simple operation while driving

1 If a map is displayed, touch **Map View**.

2 Touch **Show POI Icon**.

3 Touch the POI to be displayed (**Gas Station**, **ATM**, **Parks**, **Grocery Store**, **Restaurant**, **Hotel**).

- The POI landmark touched will appear.
- Touch MORE to display POIs other than the above switches. Also, multiple POI landmarks (5 types) can be displayed simultaneously.

Delete a POI landmark

1 If a map is displayed, touch **Map View**.

2 Touch **Show POI Icon**.

3 Touch **POI Off**

3. Map displays

Displaying multiple types

POI landmarks other than those shown in the touch switches can be displayed. Also, multiple POI landmarks (5 types) can be displayed.

1 If a map is displayed, touch **Map View**.

2 Touch **Show POI Icon**.

3 Touch **More**.

4 Touch the POI names to be displayed.

- Up to 5 POI landmarks can be displayed simultaneously.
- When selecting **List All Categories** for each type of POI, many more POI landmarks can be displayed.
- If having made an error, touch **Delete** to cancel one POI landmark at a time.
- Touch an already selected POI to cancel that POI.

5 Touch **OK**.

6 Touch **Back**.

The selected POI landmark is displayed.

Search for POI vicinity

Names of POIs close to the ⌂ or ⊕ mark on the map or their distance in a strait line and direction from the ⌂ or ⊕ mark can be displayed.

1 If POI landmarks are displayed on the map, touch **Map View**.

2 Touch **Show POI Icon**.

3 Touch **Local POI List**.

A list of the selected POIs appears.

4 Touch the POI names to be displayed.

- A map with the selected POI in the center is displayed with the POI name and its distance in a straight line to the present location is displayed.
- If the ⌂ mark is displayed, POIs ahead of it are shown with a ↑ mark (arrow pointing upwards). (Position viewable from the vehicle directional heading.)
- If a destination is set, a list of POIs along the route can be displayed. See **"Displaying a list of POIs along the set route"** on the next page.

Go to the next page

3. Map displays

ATTENTION

- Only landmarks within a 20 mile radius of the or mark can be searched for. (Maximum 200 items.)
- POI landmarks can be listed in the order of proximity to the or mark or by POI icon category.

Distance order display

- Touch **Dist.** to change the listing order to proximity to the or mark.

Category order display

- Touch **Icon** to change to a POI icon category listing order.

Name order display

- Touch **Name** to change the name listing order.

Displaying a list of POIs along the set route

If a destination has been set, a list of POIs whose distance and direction correspond to the set route. (The distances shown represent distances left to travel to the POIs.)

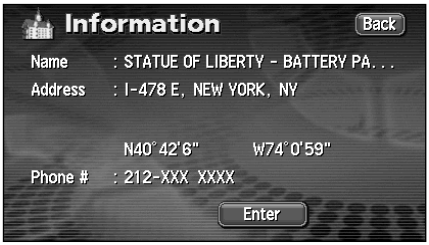
1 Touch **On Route**.

- If a list displaying POIs along the set route is shown, the movement display light appears yellow.
- Touch the POI name to display a map with that POI in the center, its name and the distance to that POI from the present location.

Displaying POI information

1 Touch the POI landmark to display its name and distance from the present location.

2 If **Info.** is displayed, touch **Info.** to display a description of that POI.



ATTENTION

- If a route is not displayed on the map shown on the screen, a list of POIs along the set route cannot be displayed.
- There may not be a description available for some POIs.

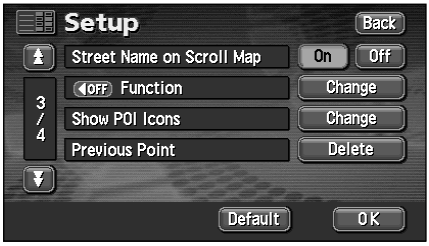
3. Map displays

Setting the type of POI vicinity to be retrieved while driving

The 6 items appearing in the POI vicinity menu screen (**Gas Station** , **ATM** , **Parks** , **Grocery Store** , **Restaurant** , **Hotel**) can be set at random.
This POI vicinity menu can be displayed even while driving and POI landmarks can be displayed on the map screen.

1 Touch **Setup** on the MENU screen.

2 Touch **Change** for Show POI Icons.



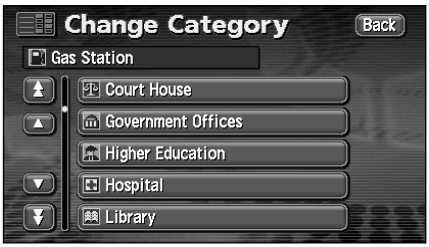
3 Touch the POI type to be changed.

4 Touch the POI type to be displayed.

ATTENTION

- Touch **Default** in screen **2** to return all items to their default settings.
- Touch **Default** in screen **3** to return the POI vicinity retrieved while driving to its default setting.

5 Touch the name of the POI to be displayed.

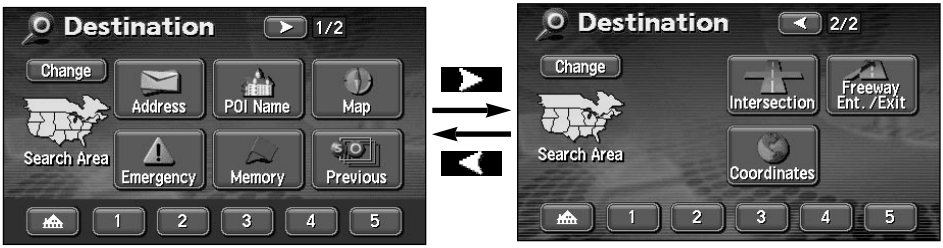


6 Touch **OK**.

4. How to retrieve maps

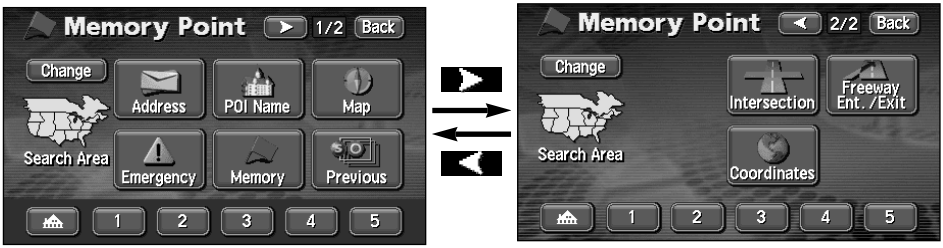
When setting or adding a destination, setting stores or registering your home, memory points, special memory points or detour memory points, maps corresponding to these setting and registration points can be retrieved using various methods. For procedures on how to select a map retrieval method, see the corresponding page for each item below.

When setting a destination



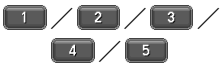
Setting a destination (P64)
Adding a destination (P75)

When registering a memory point



Registering your home (P101)
Registering memory points (P105)
Registering special memory points (P115)
Registering detour memory points (P119)

The screens above are examples of screens when setting a destination and when registering a memory point. Touch the map retrieval method on the displayed MENU screen to select an item.

Item (touch switch)	Function
	By entering an address, the map corresponding to that point (or area) can be displayed. (See P47)
	By entering the name of a POI, the map corresponding to that POI's vicinity of can be displayed. Also, enter the name of an address to display the map of that area. (See P49)
	The map displayed on the screen before having opened the MENU screen can be returned.
	Police stations, hospitals are displayed in the order of proximity to the present location. (See P55)
	The map of the vicinity of a memory point can be displayed. (See P55) [Only for when memory points are registered. For information concerning memory points, see P100.]
	The map of the vicinity of a previously set destination can be displayed. (See P56) [Only for when an entry in the destination archive is registered. For information concerning the destination archive, see P123.]
	Intersections can be displayed by entering the names of two roads that cross each other. (See P56)
	A map can be displayed by indicating a freeway entrance/exit. (See P58)
	A map can be displayed by entering latitude and longitude coordinates. (See P59)
	<When setting a destination> A route search is started for a registered geographical point. [Only when each respective point is registered.] <When registering a memory point> The map for a registered point can be displayed. [Only when each respective point is registered.] Registering your home (See P101) Registering 1 to 5 special memory points (See P115)
Vicinity of special memory point 	

4. How to retrieve maps

Changing the search area

This navigation system divides the U.S. and Canada into 11 block areas. For any search method employed, the system will conduct a search in the area you are occupying unless the search area has been changed. To conduct a search in another area, first set the search area prior to beginning the search.

1 Touch **Change**.

2 Touch the area where a search is to be initiated.

For a list of the areas, see the figure on the right.

3 Touch **OK**.

US1
Idaho
Oregon
Washington

US2
California
Nevada

US3
Arizona
Colorado
Montana
New Mexico
Utah
Wyoming

US4
Iowa
Kansas
Minnesota
Missouri
North Dakota
South Dakota

US5
Oklahoma
Texas

US6
Illinois
Indiana
Kentucky
Michigan
Ohio
Wisconsin

US7
Arkansas
Alabama
Louisiana
Mississippi
Tennessee

US8
Connecticut
Massachusetts
Maine
New Hampshire
New Jersey
New York
Rhode Island
Vermont

US9
Washington,D.C.
Delaware
Maryland
New Jersey
Pennsylvania
West Virginia

US10
Florida
Georgia
North Carolina
South Carolina

CAN
All provinces and regions in Canada included in this switch.

Retrieving a map using an address

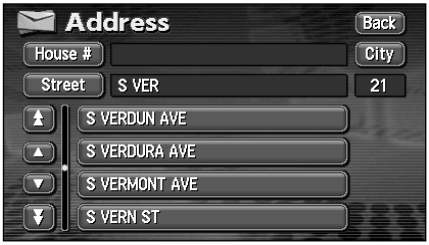
If the address is known, its corresponding map can be retrieved by selecting that address.

1 Touch **Street** and enter one number at a time.

- If having made a mistake, touch ◀ to delete one letter at a time.
- Lettered touch switches with no corresponding search result will appear inverted. Input is not enabled even if touching them.

2 Touch **List**.

3 Touch the street name to be displayed.



4 Touch the city name to be displayed.

Go to the next page

4. How to retrieve maps

5 Touch **House #** and enter one number at a time.

- If having made a mistake, touch ◀ to delete one letter at a time.

6 Touch **OK**.

- The map searched for by entering an address is displayed.
- If there is an address that corresponds with the entered house number, the map of the vicinity of that address will be displayed.
- If there is no address corresponding to the entered house number, a diagram of the vicinity of the corresponding street will appear.

Retrieving a map using a POI name

A map can be retrieved by entering a partial POI name or by narrowing down from a list of several POI types, regions, street or city names, etc. Also, a map can be retrieved by entering the name of an address. When the number of candidates is low, a map can be selected directly from the list screen.

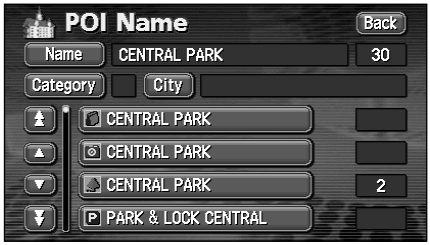
1 Enter the POI name (or address) by touching one letter at a time.

- Up to 24 letters can be entered.
- If having made a mistake, touch ◀ to delete one letter at a time.
- Lettered touch switches with no corresponding search result will appear inverted. Input is not enabled even if touching them.

2 Touch **List**.

A POI list screen containing names searched for from the entered letters is displayed.

3 Touch the name of the POI to be displayed.



- If the number of candidates is high, narrow them down by selecting from **City** or **Category**.
- When indicating the area of the POI to be displayed in the POI list screen, touch **City** and then touch **Nearest 5cities** or **Input City Name**. When indicating the POI type, touch **Category**.

ATTENTION

If entering less than 4 search candidates, the list screen will automatically be displayed.

4. How to retrieve maps

If narrowing down candidates per area

When narrowing down candidates from the nearest 5 cities

1 Touch **City** on the list screen.

2 Touch **Nearest 5cities**.

3 Touch the name of the city when the desired POI is located.

4 Touch the name of the POI to be displayed.

- Touch NAME to return to screen 1 shown on the previous page for "Retrieving a map using a POI name".
- Touch CATEGORY to indicate the type of POI to be displayed on the POI list screen. (See the next page.)

When narrowing down the list by entering a city name

1 Touch **City** on the POI list screen.

2 Touch **Input City Name**.

3 Touch one letter at a time to enter the city name.

- Up to 24 letters can be entered.
- If having made a mistake, touch ◀ to delete one letter at a time.
- Lettered touch switches with no corresponding search result will appear inverted. Input is not enabled for them even if touching them.
- Every time a letter is touched, the number of POI names searched for is indicated.

4 Touch **List**.

A POI list screen containing names searched for from the entered letters is displayed.

5 Touch the name of the POI to be displayed.

- Touch **Name** to return to screen **1** shown on the previous page for **"Retrieving a map using a POI name"**.
- Touch **Category** to indicate the type of POI to be displayed on the POI list screen. (See the next page.)

ATTENTION

- This constitutes a setting for one area.
- If selecting areas, this constitutes a setting for either **Nearest 5cities** or **Input City Name**. Also, the **Nearest 5cities** and **Input City Name** are effectuated for the last area set.
- If there is no corresponding POI in the set area, a list will not appear. Set a different area.
- Touch **Any City** to display a POI list screen containing search results for all the cities in that area.

4. How to retrieve maps

When narrowing down the list by POI type

This is one way to narrow down the list of POI types. This is convenient when knowing what type of POI is the destination. Narrow down a long list of candidates using **City** and start a search after having eliminated items from the list.

1 Touch **Category** on the POI list screen.

2 Touch the POI type to be displayed.

Touch **List All Categories** to return to the POI list screen (P50, **3**).

•POI type indication screen

3 Touch the POI name to be displayed.

- Touch **Name** to return to screen **1** on P50, **"Retrieving a map using a POI name"**.
- Touch **City** to indicate the POI area to be displayed on the POI list screen. (See previous page)

ATTENTION

- POI type selection is set for 1 type. After setting in **Category**, **City** can also be set.
- If there is no corresponding POI for the set type, no list will appear. Set a different type.
- Depending on the POI, the displayed geographical point is not always the actual location of that POI but can be a representation of the address of that location.

POI types

Restaurant	All Restaurant
	American
	Chinese
	Continental
	Fast Food
	French
	Italian
	Japanese
	Mexican
	Other Restaurants
	Sea Food
	Thai
Shopping	Convenience Store
	Department Store
	Grocery Store
	Home and Garden
	Other Retail Stores
	Pharmacy
	Shopping Mall
	Specialty Food Store
Automotive	Auto Club
	Car Wash
	Gas Station
	Other Automotive Stores
	Parking
	Service & Maintenance
Travel	Airport
	Bus Station
	Campground
	Ferry Terminal
	Hotel
	Rental Car Agency
	Rest Area
	Train Station
Recreation	Amusement Park
	Botanical/Zoological Gardens
	Casino
	Cinema
	Golf Course
	Historical Monuments
	Horse Racing
	Marina
	Museum
	National and State Parks
	Ski Resort
	Speedway
	Sports Complex
	Theater
	Tourist Attraction
	Tourist Infomation
	Video Rental
	Winery
Community	City Center
	Convention Center
	Court House
	Government Offices
	Higher Education
	Hospital
	Library
	Parks
	Police Station
	Post Office
	School
Banking	ATM
	Bank
	Other Financial Services
Other	Beauty and Barber Shops
	Coffee House
	Dry Cleaning
	Health and Fitness Club
	Ice Cream Parlor
	Other Business Facilties

4. How to retrieve maps

ATTENTION

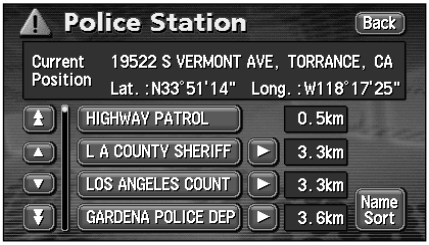
- Depending on the POI, the displayed geographical point is not always the actual location of that POI. The following cases may result in a search based on data that differs from general publications.
- Facilities such as art museums in department stores and amusement parks may be located in areas that differ from their customer service centers. Entering the telephone number of such facilities will display the map for the location of their customer service centers.
- The address appearing in maps may contain the geographic name of a neighboring area. Also, the address may only appear in part or may be abbreviated.

Retrieving a map in the event of an emergency

In the event of a traffic accident, a problem with your vehicle or other emergency, a map for the nearest police station, hospital can be retrieved. Switch to this mode and the address and longitudinal/latitudinal coordinates of the present location will be indicated on the upper part of the screen.

1 Touch **Police Station** or **Hospital**.

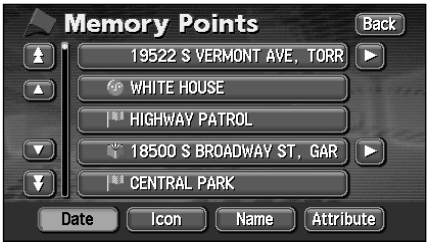
2 Touch the POI to be displayed from the list.



Retrieving a map using a memory point

If at least a few memory points are registered in the device in advance (see P105, **"Registering memory points "**), a map can be retrieved using one of these points.

1 Touch the memory point to be displayed from the list.



4. How to retrieve maps

Retrieving a map using the archive

Up to 100 latest previously set destinations are automatically recorded and a map for the same point can be easily retrieved.

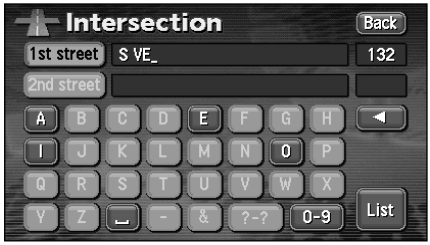
1 Touch the destination archive to be displayed from the list.

Retrieving a map using an intersection name

An intersection can be retrieved from 2 intersecting streets.

1 Enter the Street Name by touching on the letters on the screen one letter at a time.

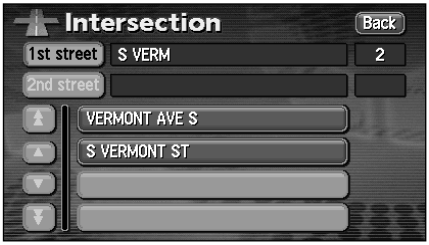
- Up to 24 letters can be entered.
- If having made a mistake, touch ◀ to delete one letter at a time.
- Lettered touch switches with no corresponding search result will appear inverted. Input is not enabled for them even if touching them.
- Every time a letter is touched, the number of POI names being searched for appears.



ATTENTION

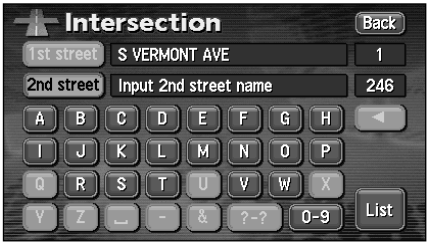
- Your home and special memory points are not recorded in the destination archive.
- See P123, **"Deleting entries from the destination archive"**, for information concerning the deletion of entries in the destination archive.

2 Touch Street Name from the list.



3 Enter one more Street Name in the same manner.

- Up to 24 letters can be entered.
- If having made a mistake, touch ◀ to delete one letter at a time.
- Lettered touch switches with no corresponding search result will appear inverted. Input is not enabled for them even if touching them.
- Every time a letter is touched, the number of POI names being searched for appears.



4 Touch the Street Name from the list.

- The map retrieved from the entered street names appears.

4. How to retrieve maps

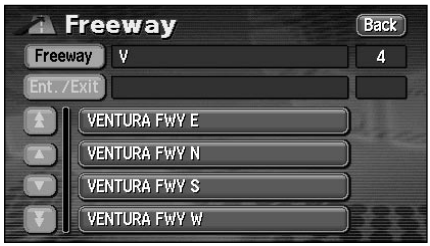
Retrieving a map using a freeway exit/entrance name

A map can be retrieved using the name of a freeway or an exit/entrance.

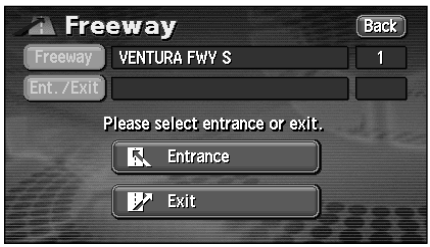
1 Enter the freeway name one letter at a time by touching the switches on the screen.

- UP to 24 letters can be entered.
- If having made a mistake, touch ◀ to delete one letter at a time.
- A letter touch switch for which there are no searchable items will appear inverted and cannot be used for entry even if touched.
- The number of POI names searched for appears for each letter touched.

2 Touch the freeway name to be displayed.

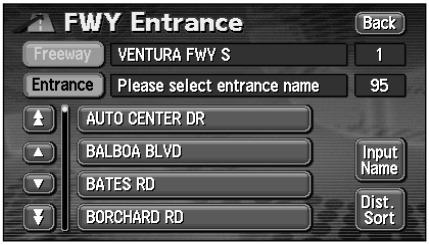


3 Touch either **Entrance** or **Exit** to specify the freeway entrance or exit.



4 Touch the entrance or exit name to be displayed form the list.

- Touch **Input Name** to enter the entrance or exit name directly.
- Touch **Dist. Sort** to sort the entries in order of the distance from the present location.



Retrieving a map using the latitude / longitude

A map can be retrieved using the latitude/longitude.

1 Enter the number by touching the switches on the screen one number at a time.

- If having made a mistake, touch ◀ to delete one number at a time.

2 Touch **OK**.

- The map retrieved from the entered latitude and longitude appears.

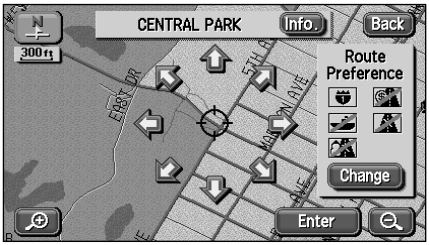
5. Performing operations on a retrieved map

When retrieving a map using a POI name, a telephone number or address or from Emergency, either a map with a pinpoint search result or without a pinpoint search result (vicinity) will be displayed. A further search can be made from the map retrieved.

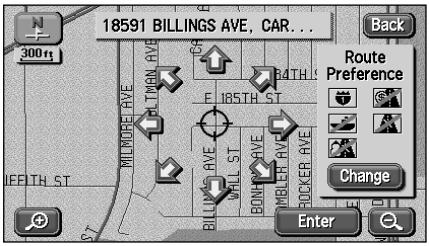
Performing operations on a displayed map

The following conditions are necessary to display a map from a pinpoint

① When entering a POI name in **"Retrieving a map using a POI name"**
② When **"Retrieving a map in the event of an emergency"**
③ When **"Retrieving a map using an intersection name"**
④ When a corresponding POL is made available when **"Retrieving a map using a freeway exit/entrance name"**



•When a search is made using a pinpoint



•When a search cannot be made using a pinpoint

The following operations are enabled on a retrieved map.

■Changing the position

Scroll to change the position.

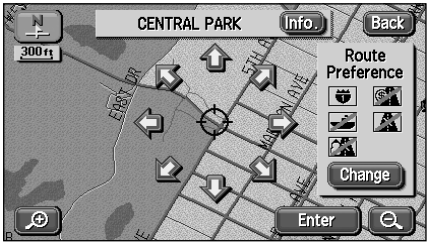
■Displaying POI data

The POI data displayed as per the conditions described in steps ① to ④ above is shown.

Displaying POI data

1 Touch **Info.**.

The data for the POI is displayed.



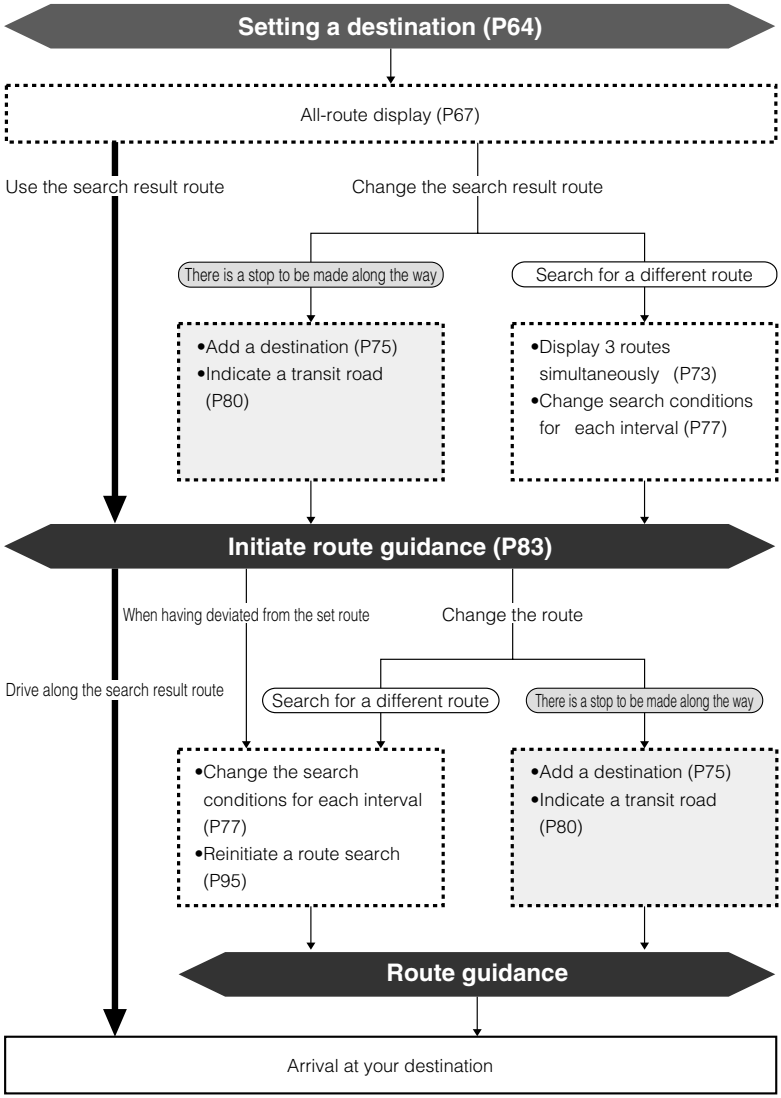
ATTENTION

- Only when retrieving a map using methods ① to ④ above can the POI data be displayed.
- Some POIs may not display any corresponding data.

MEMO

1. Setting the destination and searching for a route

The following is a flow chart describing the procedure for a route search initiated after setting the destination (or adding a destination) and setting the route search conditions to guide you to your destination.



Route guidance begins after setting your destination. The destination is set as per the following methods:

- One-touch setting
- Set using a registered point (your home, special memory point)
- Set using the map retrieval method

Item	Setting method
One-touch setting	Scroll the map and touch **Enter** to set the destination.
Set from a registered point	Set your home as the destination only if your home is registered. This cannot be used if your home is not registered. (See P101, **"Registering your home"**)
	Set an already registered special memory point (up to 5 points) as the destination. This cannot be used if there are no special memory points registered. (See P115, **"Registering a special memory point"**)
Set using a map retrieval method	Search using a map retrieval method to set a destination. (See P44, **"How to retrieve maps"**)

Set the destination to automatically start a recommended route search.
When adding a destination or a route other than the recommended route or setting a transit road, proceed after the route search is complete.

ATTENTION

- When setting the destination, use a detailed map with a reduction scale of under 0.5 miles.
- Geographical points on maps representing set destinations are automatically registered (up to 100 points) and can be used to retrieve a map when setting a destination. When exceeding 100 points, the oldest entry is deleted every time a new one is entered. Unnecessary points can be deleted. (See P123, **"Deleting entries from the destination archive"**)

2. Set a destination and search for a route

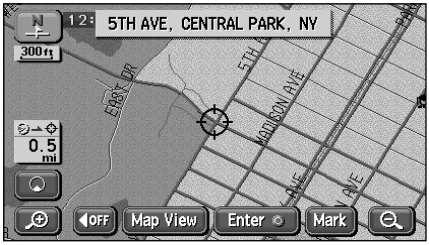
Setting a destination

One-touch setting

A destination can be set in the map presently displayed.

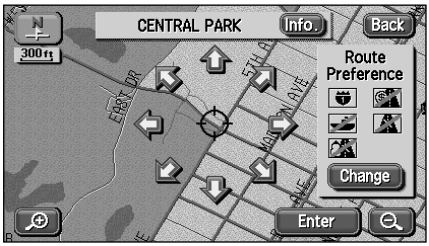
1 Touch the map.

2 Touch **Enter**.



3 Touch **Enter**.

- A symbol will appear for the destination point on the position and a route search will begin.
- Touch to move the map.
- If a destination is already set, touch **Replace** to delete the set destination and set a new one.
- Touch **Add to** to add a destination. It will be added as the next destination after the present location.



ATTENTION

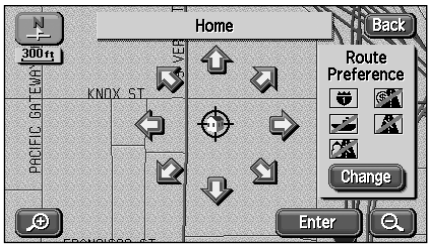
If a map with a reduction scale wider than 0.5 miles is displayed, switch to a 0.5 mile reduction scale.

Set from a registered point

1 Press **DEST**.

2 Touch 🏠 or special memory points **1** to **5**.

- Your home or the special memory point will appear as the ◎ symbol and the route search will begin.
- If a destination is already set, touch **Replace** to delete the set destination and set a new one.
- Touch **Add to** to add a destination. (See **"Adding a destination"** on P75, **5** to **6**)



Set using a map retrieval method

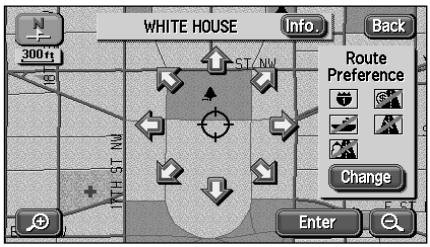
1 Press **DEST**.

2 Select the map retrieval method and the map corresponding to the point to be set as the destination will appear.

- See P44 and 60, **"Map retrieval method"**, **"Performing operations on a retrieved map"**.

3 Touch **Enter**.

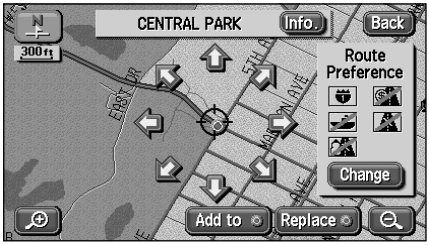
- A ◎ symbol will appear for the destination point on the ✛ position and a route search will begin.



2. Set a destination and search for a route

•If a destination is already set, touch **Replace** to delete the set destination and set a new one.

•Touch **Add** to add a destination. (See **"Adding a destination"** on P75, **5** to **6**)



Route search

Set a destination and a route search will automatically start.

•A route search will continue even if switching to other screens.

•The route will not appear if the distance to the destination is too short.

•When a route search is complete, an all-route display (all routes from the present location to the destination) screen will appear.

ATTENTION

•If the destination is on a freeway or in an inaccessible area, the following screen will appear. Touch the item corresponding to the situation.

•Touch **Yes** to set the destination on the highway.

•Touch **No** to set the destination on another road.

•If the destination is inaccessible or if there is a river, railroad or other obstruction in its vicinity, the following screen may be displayed.

•Touch **No** to set that point as the destination.

•Touch **Yes** to move the destination.

•If a route search is conducted on a freeway or toll road interchange (IC), the search result route may start from a nearby local road. In such a case, reinitiate a route search (see P95).

All-route display

When the route search is complete, an all-route display screen appears.

•Press **NAVI** after the all-route appears, or do not operate the device for at least 3 seconds after you start driving, and route guidance will automatically begin.

Route displays

The routes will be displayed in the following 3 colors.

•Blue

The route when only one destination is set or the present segment up to the first destination set in case of multiple destinations appears blue.

•Purple

All segments other than the present segment up to the next destination when multiple destinations are set.

•Orange

Seasonally restricted segment display (P70).

•Route search complete screen (all-route)

2. Set a destination and search for a route

All-route display and touch switches

On the all-route screen, routes from the present location to the destination, the estimated arrival time and distance are indicated. Also, the search result routes can be changed and the guidance data can be displayed.Data up to the final destination is displayed.

■Items displayed

Data up to the final destination is displayed.

① Distance on toll roads

The distance on all toll roads is displayed.

② Distance on freeways

The distance on all freeways is displayed.

③ Distance

The total distance on all roads including toll roads, freeways, local streets to the destination (when multiple destinations are set, the final destination) are displayed.

④ Required time/distance remaining

The required time and the distance to the destination for the route presently taken are displayed.

■**Touch switches**

The following operations are enabled using the touch switches appearing on the all-route display screen.

❶ **3Routes**

Different routes are displayed to enable a selection. (See P73)

❷ **Route**

The route change screen is shown to enable the modification of the search conditions. Also, indicating an additional transit route to the destination is possible. (See P75, 77, 80)

❸ **Guide**

Route guidance can be initiated. (See P83) After route guidance is started, the display returns to the present location screen.

❹ Required time/remaining distance

When 2 or more destinations are set, every time the required time/distance remaining is touched, you can switch displays to the next destination. (See P93) If deviating from the road after route guidance has started, the distance to the destination in a straight line is indicated.

ATTENTION

- The search result route is a reference route to the vicinity of the destination. In no way is it the shortest, fastest or least congested route.
- The required time is calculated from the average vehicle speed (see P87) and may have a slight deviation depending on the driving conditions.
- In the following situations, 3 routes cannot be displayed.
  - When 2 or more destinations are set
  - When a transit road is indicated
  - After route guidance has started
- An all-route diagram can be displayed even after route guidance has started. (See P92)

2. Set a destination and search for a route

Display or bypass a restricted segment

Bypassing a restricted segment

Bypass using the all-route display screen

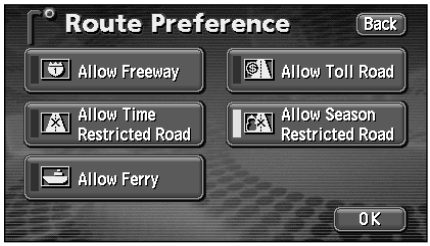
1 Touch **Route** in the all route display screen.

2 Touch **Route Preference**.

3 Touch **Allow Season Restricted Road**.

- If searching for a route that passes through a restricted segment, an indicator will light up.

4 Touch **OK** to start the route search.



Bypass using the present location screen

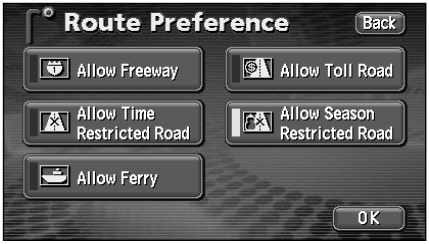
1 Touch **Route** if a map is displayed.

2 Touch **Route Preference**.

3 Touch **Allow Season Restricted Road**.

- If searching for a route that passes through a restricted segment, an indicator will light up.

4 Touch **OK** to start the route search



Set the restriction message display

The message appearing if a search result route has a restricted segment can be turned ON (display) or OFF (not display).

1 Touch **Setup** on the MENU screen.

2 Touch either **On** or **Off** for Notify Traffic Restriction.

- Selected touch switches turn green.

3 Touch **OK**.

ATTENTION

Touch **Default** in the SETUP screen to return all items to their default settings.

2. Set a destination and search for a route

Display route data (guided road information)

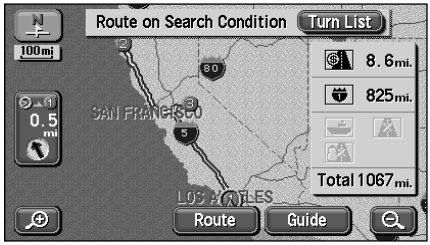
The divided route data to the destination by its entrances/exits of interchanges (IC), transit roads, national roads or local streets can be displayed. The map at the departure or destination area can also be displayed.

1 Touch **Map View** in the present location screen.

2 Touch **Route Overview**.

3 Touch **Turn List**.

- Route data is divided at entrances/exits of interchanges (IC), junctions (JCT) and at the turning points of each destination, transit and other roads.
- The road name and distance appear for each piece of divided route data.
- Touch **Map** at the departure or destination area to display a map of each set point.



ATTENTION

- Touch **Map View** during route guidance and touch **Route Overview** to display the corresponding route data.
- If the present location is on the route, the vehicle position mark will appear in the route data screen.
- If the present location is not on the route (if having deviated from the route), data will be displayed from the point the route is displayed.

3-route simultaneous display (3-route search function)

Set the destination and a recommended route will be searched for resulting in an all-route display from the present location to the destination. Other than the recommended route ("Quick 1"), "Quick 2" and "Short" routes will also be displayed to enable a selection.

1 Touch **3 Routes** in the all-route display screen.

- 3 routes will be displayed in different colors along with the distance and required time.

2 Touch the route name.

- The selected route is displayed and the all-route display screen is shown.

ATTENTION

- In the following situations, 3 routes will not appear simultaneously.
  - When 2 or more destinations are set
  - When transit points (transit roads) are indicated
  - After route guidance has started
- See P95, **"Reinitiate a route search"**, for the characteristics of each of the 3 routes.
- The required time is calculated from the average vehicle speed (see P87) and may have a slight deviation depending on the driving conditions.

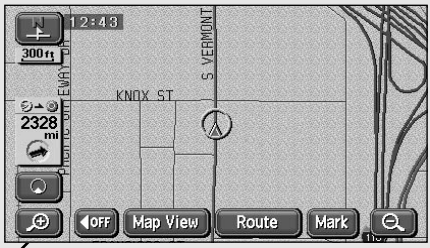
3. Changing the search result route

After a route search is complete, the route can be changed by adding a destination or transit road. The following are methods for changing the route.

•Touch **Route** on the all-route display screen or the present location screen (during route guidance) to display the route modification screen.
The route modification method is set on the route modification screen.

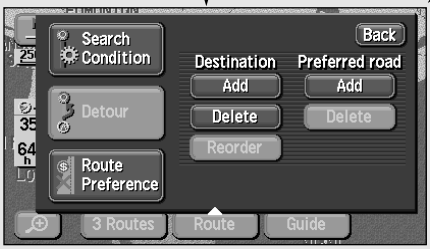
All-route display screen

Present location screen



Route

Route



Route modification screen

•Add a destination ····· Next page
•Change search conditions per segment ····· P77
•Switch the order of destinations ····· P78
•Delete a destination ····· P79
•Indicate a transit road ····· P80
•Cancel the transit road indication ····· P81

ATTENTION

The operations described here cannot be performed if a destination is not set.

Adding a destination

After having set a destination, more destinations can be added.

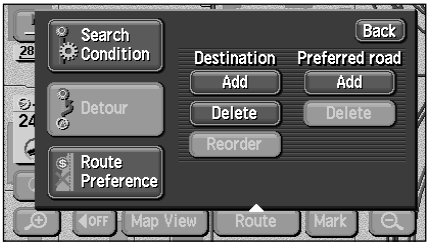
In the following situations, set an additional destination.

- When setting a transit point between the present location and set destination
- When changing the set destination into a transit point and setting a new destination

Using the same method as setting a destination, touch **Add to** to add a destination. (See P64, **"One-touch setting"**, P65, **"Set from a registered point"**, or P65, **"Set using a map retrieval method"**)

1 Touch **Route**.

2 Touch **Add** for Destination.



3 Select the map retrieval method and display the map on which a destination is to be set.

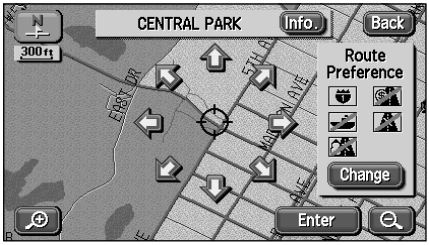
- See P44 and 60, **"How to retrieve maps"** and **"Performing operations on a retrieved map"**.

ATTENTION

- The destination can be set using a detailed map with a reduction scale smaller than 1 mile.
- Geographical points on maps representing set destinations are automatically registered (up to 100 points) and can be used to retrieve a map when setting a destination. When exceeding 100 points, the oldest entry is deleted every time a new one is entered. Unnecessary points can be deleted. (See P123, **"Deleting entries from the destination archive"**)
- When adding a destination with a transit road (see P80 and 81) indicated, that transit road indication may be cancelled depending on that geographical point.
- When 2 or more destinations are set, **Reorder** appears.

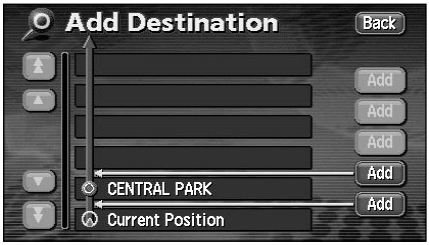
3. Changing the search result route

4 Touch **Enter**.



- A destination point in the form of the ⊕ symbol will appear in the ◎ position.
- Up to a maximum of 5 destinations can be set.
- When 5 destinations are already set, delete a destination and proceed. (For information concerning deletion of a destination, see P79, **"Deleting a destination"**.)

5 Touch **Add** in the segment to be set.



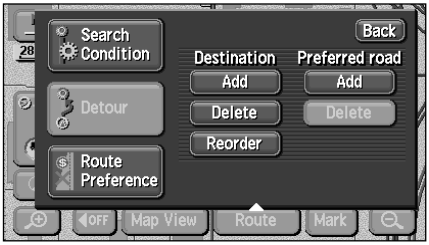
6 When a transit road is indicated, a cancellation screen may appear.

- Touch **Yes** to cancel the transit road indication and initiate a route search.
- Touch **No** to set the destination without canceling the indication.
- Touch **Back** to return to the original screen.

•After having set the destination, the following operations are enabled from this screen:

Change search conditions per segment — Below
Switch the order of destinations — P78
Delete a destination — P79
Indicate a transit road — P80
Cancel the transit road indication — P81

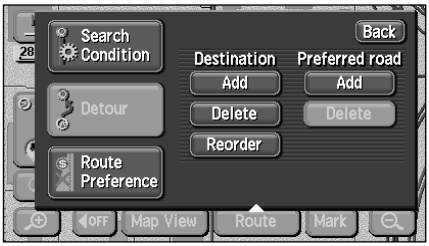
•When adding more destinations, touch **Add** and the screen in step **3** on P75 will appear. Repeat steps **3** to **6**.



Changing the search conditions

The search conditions per segment can be changed and a search reinitiated.

1 Touch **Serch Condition** in the route modification screen.



2 Touch the search conditions (for each route) per individual segment.

3 Touch **OK**.

•The route search is started.

ATTENTION

•For search condition characteristics, see P95, **"Reinitiating a route search"**.
•If there is only one destination, **Other Route** will appear.

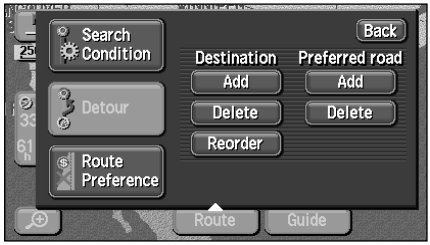
3. Changing the search result route

Switching the destination order

The setting order of multiple destinations can be switched and a search reinitiated.

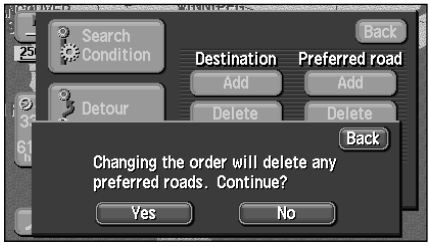
1 Touch **Route**.

2 Touch **Reorder**.



3 When a transit road is indicated, a cancellation screen may appear.

- Touch **Yes** to cancel.
- Touch **No** to return to the original screen.



4 Touch the name of the destinations in order starting with the next destination.

- A new order will appear on the right of the selected destination names.
- If having made a mistake, touch **Cancel** to delete the destination name order selected.

5 Touch **OK**.

- When the new destination name order is determined, the route modification screen will appear automatically after about 3 seconds without having to touch **OK**.
- Without touching all the destination names, touch only the destination you want to change the order of and touch **OK**. That selection will move to the top of the destination order.

ATTENTION

If changing the destination order with a transit road indicated (see P80), that transit road indication may be cancelled.

Deleting a destination

Multiple set destinations can be deleted.

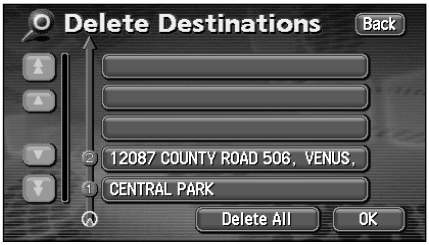
1 Touch **Route**.

2 Touch **Delete** for the destinations or transit points.

- If only one destination is set, the screen in **4** will appear.

3 Touch the destination name to be cancelled.

- Touch **Delete All** to delete all the destinations.

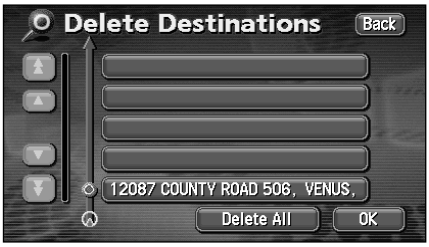


4 Touch **Yes**.

- A route search is started and the all-route display screen appears.
- Touch **No** to return to the original screen.
- When all destinations are deleted and only one point is set, the present location screen appears.

5 Touch **OK**.

- A route search is initiated and an all-route display screen appears.



ATTENTION

When all destinations are deleted, route guidance cannot be restarted. Setting a destination is necessary to activate route guidance.

3. Changing the search result route

Indicating a transit road

1 Touch **Route**.

2 Touch **Add** for Preferred Road.

3 The map will move to the position of the indicated transit road.

4 Touch **Enter**.

5 Touch **Next** to select a transit road.

- To indicate the road displayed, touch **Enter**.

6 Touch **OK** and the transit road will be indicated with a ◆ symbol.

- If only one destination is set and there are no interchanges or transit roads indicated, the screen in **8** will appear.

7 If 2 or more destinations are set or if a transit road is indicated, touch **Add** in the segment to be indicated.

ATTENTION

- **Delete** will appear if there is a transit road already indicated.
- If a map with a scale larger than 0.5 miles appears, switch to a map with a scale less than 0.5 miles.

8 A route search is started.

Canceling a transit road indication

1 Touch **Route**.

2 Touch **Delete** for Preferred Road.

•If only one point is set, the screen in **4** will appear.

3 Touch the road name to be cancelled.

Indicated transit roads appear with a ◆ symbol.

•Touch **Delete All** to cancel all transit roads.

4 Touch **Yes**.

•Touch **No** to return to the original screen.

5 Touch **OK** to initiate a route search.

4. Starting, pausing and restarting route guidance

Starting route guidance

When the route search is complete, the all-route display screen appears. Touch **Guide** on the all-route display screen to start the route guidance. Route guidance can be paused and restarted.

1 Touch **Guide** on the all-route display screen.

- Route guidance is started.
- After the all-route display screen appears, press **NAVI** to start guidance or wait at least 3 seconds without operating any switches and guidance will start automatically.

Pausing and restarting route guidance

1 Touch **Suspend Guidance** on the MENU screen.

- Destinations will not be deleted even if pausing route guidance.
- To restart route guidance, touch **Resume Guidance** on the menu screen again.

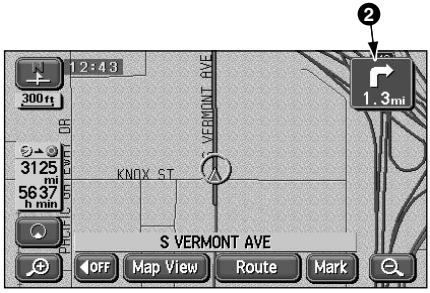
5. Route guidance

When the route search is complete, guidance for the desired route can be started.
Drive towards your destination and the device will guide you along the route all the way to that destination.

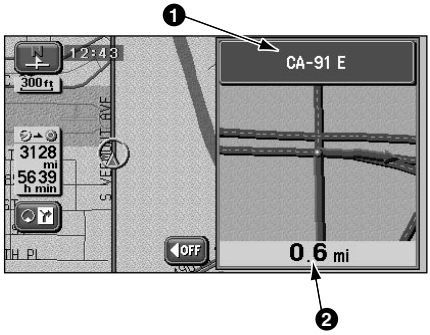
Intersection guidance

When approaching an intersection with a guidance point displayed on the present location screen (if the present location is located on the route) while route guidance is in progress, intersection guidance and voice guidance is performed. Also, when approaching a junction intersection (within about a mile), an enlarged intersection display screen will automatically appear.

A non-junction intersection



A junction intersection (enlarged guidance screen for an intersection)



❶ Intersection name display

Names of transit points or junction intersections appear.

❷ Remaining distance display

The distance up to the intersection is indicated.

ATTENTION

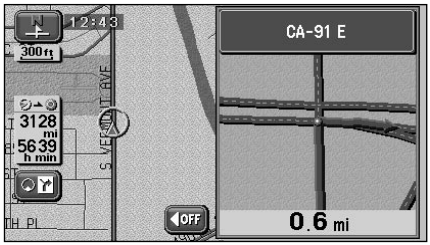
- Enlarged intersection display screens will appear only if they are set to appear. (See the next page)
- Lane displays and names will not appear for intersections about which there is no data in the map disk.
- The intersection name indicated may differ from the actual intersection.
- In the following situations, intersection guidance is not performed:
  - Immediately after route guidance is started
  - In the vicinity of the destination
- Intersection guidance may be early or late.
- When approaching a junction intersection, an enlarged intersection display screen will appear.
- When an enlarged intersection display screen is displayed, the intersection name will be displayed for the junction intersection. There is no intersection guidance prior to junction intersections.
- Immediately before a turn is to be made, a chime will sound. However, the chime will not sound if the volume is set to **OFF**.

Cancel the intersection guidance screen

Cancel using OFF

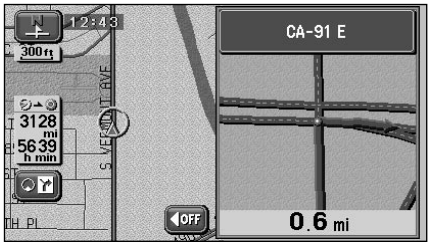
1 Touch **OFF**.

•Press **NAVI** to redisplay the intersection guidance screen.



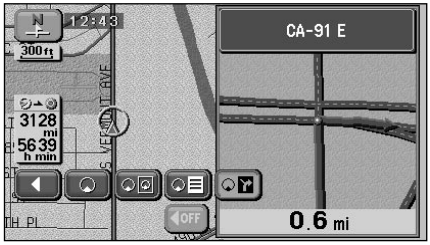
Cancel using

1 Touch .



2 Touch to display the normal map.

•Touch again on the screen to display the intersection guidance screen.



ATTENTION

Touch **Default** on the SETUP screen to return all items to their default settings.

5. Route guidance

Set the intersection guidance screen

Select either to have the intersection guidance screen turned ON (display) or OFF (not display).

1 Touch **Setup** in the MENU screen.

2 Touch **On** or **Off** for Intersection Guidance.

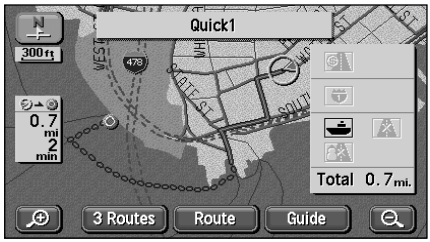
Selected touch switches turn green.

3 Touch **OK**.

Ferry crossing guidance

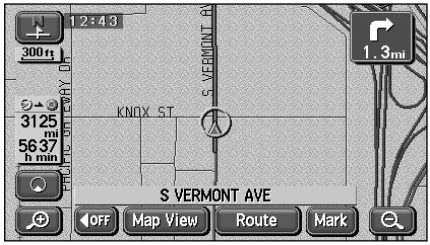
Ferry crossings are shown with a dotted line.

- Voice guidance occurs up to the ferry terminal.
- After having finished the ferry crossing, start driving and route guidance will resume in a moment.



Displaying the required time

The required time can be indicated on the left of the map appearing on the present location screen (if the present location is on the set route) while route guidance is in progress. If 2 or more destinations are set, touch the required time/distance remaining display touch switch to indicate the required time/distance remaining for each destination.



•Required time display

ATTENTION

The required time include the ferry ride hours.

Setting the average speed

The following times are calculated based on the set average vehicle speed.
- Required time on the present location screen (P15)
- All route display screen required time (P68)
- Required times for the segments list (simultaneous 3 route display) (P73)

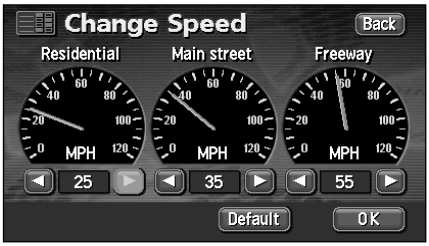
1 Touch **Setup** on the MENU screen.

2 Touch **Set Speed** for the Estimated Travel Time.

3 Set the speed for each road.

Touch ▶ to raise the speed, touch ◀ to lower it.(Each press raises or lowers 5mph.)

4 Touch **OK**.



ATTENTION

- The required time is calculated using the average speed of your vehicle. There may be a slight variation depending on the driving conditions.
- When deviating from the set route, the destination direction mark will appear.
- When reaching the maximum speed (75mph freeway, 55mph main streets, 25mph residential), the ▶ switch inverts. When reaching the minimum speed (5mph), the ◀ switch inverts. These switches cannot be operated even if touched.
- Touch **Default** on the Change Speed screen to return to its default settings (Freeway;55mph / Main street; 35mph / Residential; 25mph).

5. Route guidance

Highway junction guidance

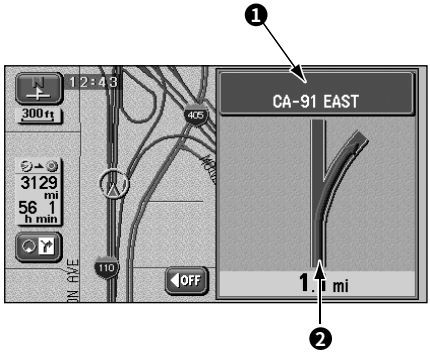
When driving on a highway with the present location screen displayed (if the present location is on the set route) while route guidance is in progress and a junction point approaches [interchange exits/entrances (IC), junctions (JCT)], the highway junction guidance screen will appear.

❶ Junction point name display

The interchange exit/entrance name (IC) or the junction (JCT) direction name is displayed.

❷ Distance remaining display

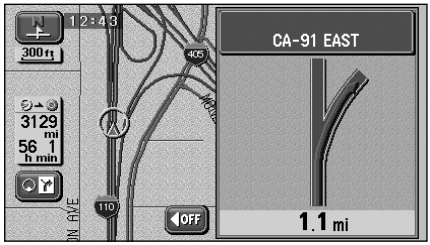
The distance up to the junction point is displayed. The number decreases.



Canceling the highway junction guidance screen

1 Touch **OFF**.

Press **NAVI** to redisplay the highway junction guidance screen.

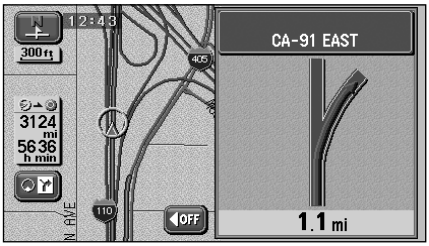


ATTENTION

- No highway junction guidance display will occur for junction points that do not have corresponding data in the map disk. Also, the junction point name may not be displayed even if the highway junction guidance screen is displayed.
- The junction point name displayed may differ from the actual junction name.
- In the following situations, highway junction guidance occurs:
  - Immediately after route guidance starts
  - In the vicinity of the destination
- The highway junction guidance screen may be early or late.
- When approaching the next junction point, the highway junction guidance screen will continue to be displayed.

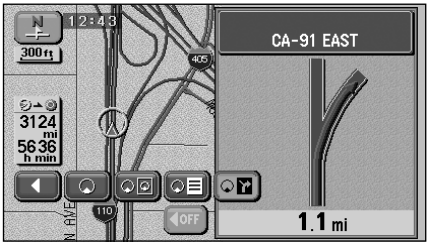
Switching the highway junction guidance screen

1 Touch if the highway junction guidance screen is displayed.



2 Touch the touch switches to be switched.

- Touch to display the map screen. Or, touch to display the turn list screen.
- To redisplay the highway pattern screen, touch and .



5. Route guidance

Voice guidance

If approaching an intersection, junction point, transit point, interchange (ramp) exit/entrance, junction (JCT) or destination while route guidance is in progress, a voice will announce the remaining distance to those points and up to 10 turning directions. Voice guidance is performed in PCM voice (human voice)

1 Press **NAVI** to activate voice guidance as per the distance up to the junction intersection.

•Example of voice guidance while route guidance is in progress

•Intersection voice guidance (just guidance)

While route guidance is in progress, a chime will sound prior to a junction point.

Example of voice guidance:

In ○○ miles(km), ○○ turn

•Highway junction voice guidance

While driving on a highway, junctions are shown as an enlarged display and the direction is announced vocally.

Example of voice guidance:

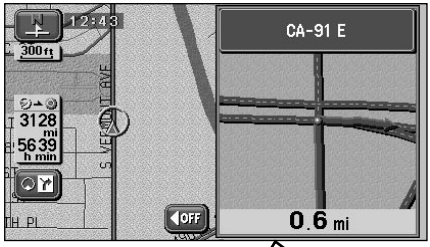
In ○○ miles(km), the exit ○○,

•Example of voice guidance when arriving at the destination

Example of voice guidance:

You have arrived at your destination.

Your route guidance is now finished.



In six tenths of a mile, right turn.

ATTENTION

•Use the voice guidance only as a reference.

•After a voice guidance such as "Left turn in about 700m", drive for a moment and press **NAVI** to change the announcement as per the approaching distance (ex.: Left turn in about 600m (500m), etc.)

•The intersection voice guidance is activated by turning **On** the Auto Voice Guidance. (See the next page)

Setting the voice guidance

The voice guidance while route guidance is in progress can be turned ON (announce) or OFF (not announce).

1 Touch **Setup** on the MENU screen.

2 Touch **On** or **Off** for Auto Voice Guidance.

- Selected touch switches turn green.

3 Touch **OK**.

ATTENTION

- The voice guidance examples mentioned above are the most common to be announced and may differ depending on the way the roads along your route are connected.
- If your vehicle position is not precisely specified, voice guidance may not occur or, in some cases, may be delayed or announce an erroneous instruction.
- The voice guidance volume may be adjusted (see P25). However, selecting **Off** will disable voice guidance.
- Touch **Default** on the SETUP screen to return all items to their default settings.

6. Performing operations on the guided route

Guidance in another mode

The route guidance continues (no vocal guidance output) even if switching to another mode (showing a screen other than the navigation screen). The voice guidance can be made to output even if switching to another mode.

Setting the guidance when in another mode

1 Touch **Setup** on the MENU screen.

2 Touch **On** or **Off** for Voice Guidance in All Modes.

- Selected touch switches turn green.

3 Touch **OK**.

Redisplaying the all-route display

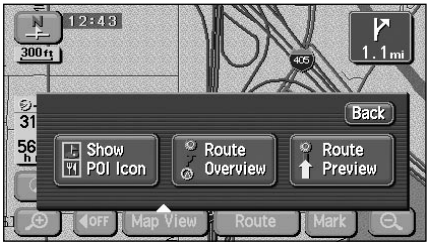
The all-route display from the departure point to the destination can be shown.

1 Touch **Map View** to display the map.

2 Touch **Route Overview**.

- The all-route display screen appears.
- For details pertaining to the all-route display screen, see P68, **"All-route display and touch switches"**.

  Touch **Back** to display the present location screen.



ATTENTION

Touch **Default** on the SETUP screen to return all items to their default settings.

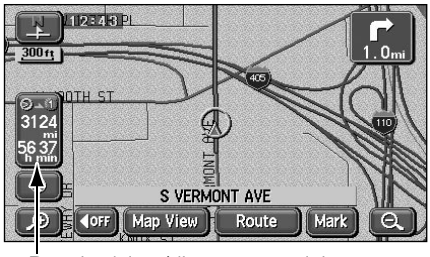
Switching the required time/ distance remaining display

If 2 or more destinations are set on the present location screen (if the present location is along the set route) while route guidance is in progress, the required time/ distance remaining can be switched.

1 Touch the required time/distance remaining.

If 2 or more destinations are set, the required time/distance remaining for each destination appears.

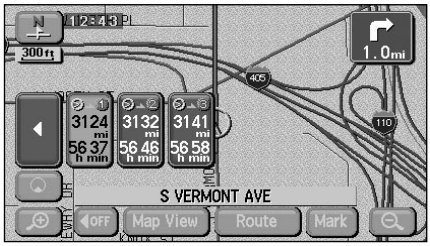
•Switching is impossible if having deviated from the set route.



Required time/distance remaining

2 Touch the distance remaining display up to the destination desired.

•When the required time is indicated, it can be switched according to the destination.



6. Performing operations on the guided route

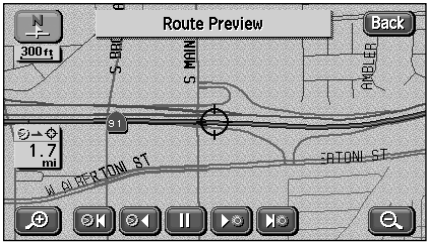
On-route scroll

The map can be moved automatically along the set route to the destination or to the departure point on the screen showing the guided route.

Start on-route scroll

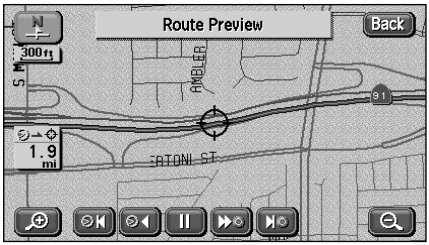
1 Touch **Route Preview** on the display modification screen.

2 Touch the scroll touch switches (▶⚙, ⚙◀, ▶|⚙, ⚙|◀)



On-route scroll screen operations

- Touch ⏸ to pause map scrolling.
- Press **NAVI** to stop the on-route scroll.
- Touch ▶▶⚙ or ⚙◀◀ to move the map quickly.



ATTENTION

- If there is no route displayed on the map, on-route scroll is impossible.
- For a double screen display, on-route scrolling will cancel the display. Press **NAVI** to return the display.
- If scrolling up to the next destination:
  - Use the ▶⚙ switch to move the map up to the next destination.
  - Use the ⚙◀ switch to move the map back to the departure point (previous destination).
  - Use the ▶|⚙ switch to display the next destination map.
  - Use the ⚙|◀ switch to display the departure point map (previous destination).
- The on-route scroll may stop depending on the map displayed.

7. Reinitiating a route search

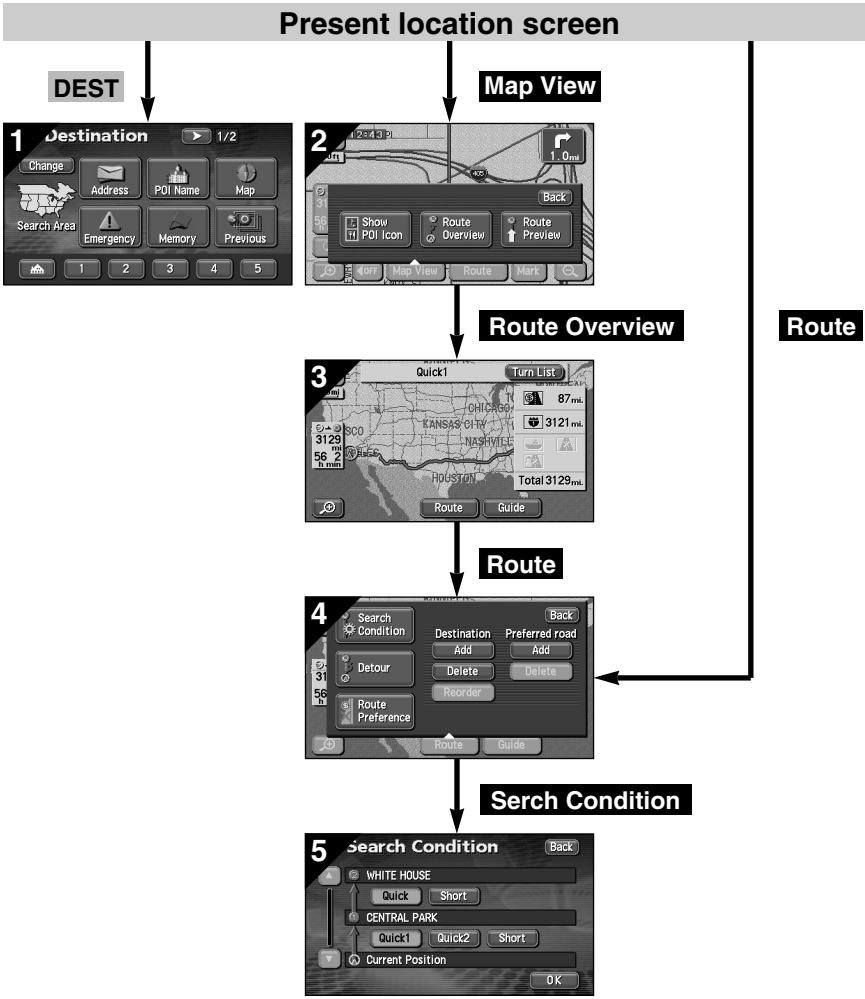
Reinitiating a route search

While route guidance is in progress, additional destinations can be set, search conditions can be changed and a route search can be reinitiated.

To change the route, use either the "Change method using **Route** " or the "Change method using **DEST** ".

A route search can be reinitiated from the following screens.

•See the next page for information concerning the touch switches appearing on each screen.



7. Reinitiating a route search

Screen No.	Touch switch	Function	Page
1	**Map retrieval method**	Retrieves the destination map Sets/adds a destination	44
2	**Route Overview**	Shows the all-route display	67
3	**Route**	Displays the route modification screen	74
4	**Destination, Transit destination** **Add** · **Delete** **Reorder**	Adds, switches the order or deletes destinations	75 78 79
	Transit point (transit road indication) **Add** · **Delete**	Indicates, corrects or deletes transit roads	80 81
	Search Condition	Displays the search condition setting screen	77
5	**Search conditions**	Sets the search conditions for each segment	77

Search conditions	Function
Quick 1	A common route from the present location to the next destination* is searched for.
Quick 2	A route prioritizing toll roads from the present location to the next destination* is searched for.
Short	A route with the shortest distance from the present location to the next destination* is searched for.

*When a transit road is indicated between the present location and the next destination, a route is searched for between the present location and the indicated transit road.

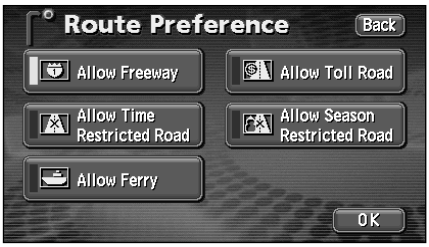
Reinitiating a route search

1 Touch **Route** on the present location screen while route guidance is in progress.

2 Touch **Route Preference**.

3 Touch the item for which a search is to be reinitiated.

- A route search is reinitiated.



ATTENTION

- Because of the shape of the road, a route search may not be reinitiated and the same route may result from the reinitialized search due to a change in the search conditions.
- If having deviated far from the set route, a route to return you to the original route is not searched for. Rather, a new route search for the set destination (interchange, transit road) is initiated.
- If driving under an elevated road or along parallel local roads and a route search is initiated, the search result route may take you along elevated toll roads and parallel toll roads.

7. Reinitiating a route search

Automatic reroute search

If having deviated from the road, a route search may be initiated automatically (vicinity search or all-route search). The search result route may differ as per the conditions under which the set route was deviated.

- Vicinity search: a route search returning you to the original route is initiated
- All-route search: a route search is initiated under selected conditions between the present location to the destination*

*If a transit road is indicated between the present location and the destination, a route search is initiated for the segment between the present location and the indicated transit road.

Setting the automatic reroute search

The automatic reroute search function can be turned ON (enable) or OFF (disable).

1. Touch **Setup** on the MENU screen.
2. Touch **On** or **Off** for Auto Reroute.
   - Selected touch switches turn green.
3. Touch **OK**.

ATTENTION

- If having deviated from the set route while route guidance is in progress, the automatic reroute search is activated when the device determines that you are driving on a guidable road.
- Touch **Default** on the SETUP screen to return all items to their default settings.

MEMO

1. What is point registration

A geographical point can be stored on a map by registering it as a memory point (including your home and special memory points). Also, register a detour memory point so that a detour will be made through that point when initiating a route search. Registering your home, memory points and special memory points enables you to retrieve them on a map or when conducting a route search. Use these points effectively.
Correct or delete them if having made a mistake when registering.

Memory Points

Up to 106 memory points can be registered on a map (including 1 home and 5 special memory points). Icons, Name entries, Positions, Telephone numbers can be set up on all the memory points. As an advanced function, using four types marks, the following functions are available;

①Memory point with voice alarm
·····setting that announces when approaching a point (3 types)
②Memory point with voice alarm and direction
·····setting that restricts direction and announces when approaching a memory point (1 type)

Home

Only one registration can be made for your home. A home mark is displayed on the map. Also, a route returning you home can be searched for with one-touch. **Registering this point first is recommended.**

Special memory points

Up to 5 special memory points can be registered and allocated to touch switches to facilitate a search for geographical points. Also, a name and telephone number can be set for each point. A route can be searched for with one touch when a destination is set.

Areas to avoid

Up to 10 detour memory points can be registered with a name and detour range settable for each point.

ATTENTION

The symbol allocated to a detour memory point cannot be changed.

2. Registering, correcting or deleting a memory point

Registering, correcting or deleting your home

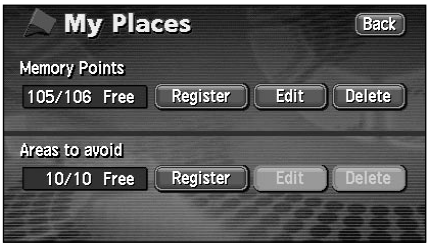
One point on the map can be registered as your home.

Register your home to enable a route search to your home from the destination setting screen with one operation. (See P44)

Registering your home

1 Touch **My Places** on the MENU screen.

2 Touch **Register** for Memory Points.

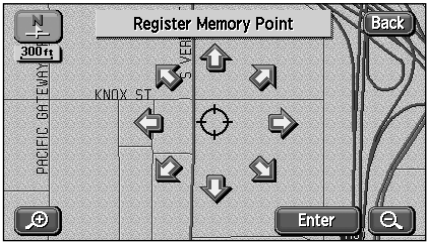


3 Select the map retrieval method and the map on which your home is to be registered will appear.

- See P44 and 60, **"Map retrieval method"** and **"Performing operations on a retrieved map"**.

4 Touch **Enter**.

- Touch ⌂ to move the map.

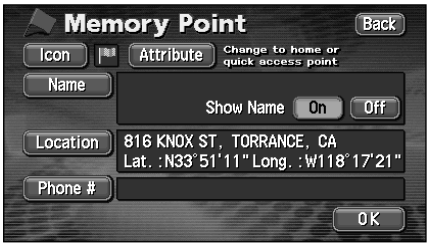


ATTENTION

- Registration enabled on a detailed map with a reduction scale less than 1 mile.
- **Edit** and **Delete** can be operated only if a memory point is already registered.

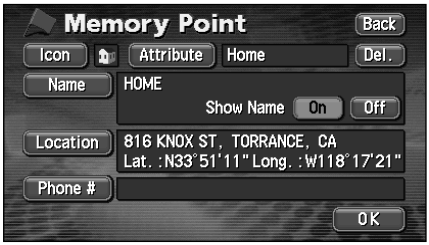
2. Registering, correcting or deleting a memory point

5 Touch **Attribute**.



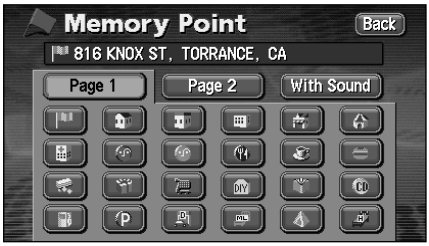
6 Touch **Not Registered** for your home.

7 Touch **Icon**.



8 Touch the mark to be registered on the map.

- Touch **Page 2** and **With Sound** to select a different mark. (See P107)



ATTENTION

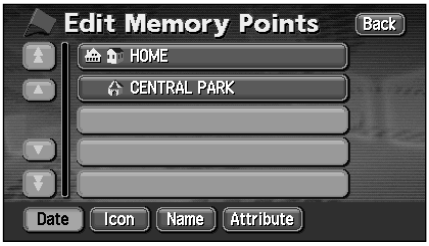
If your home is already registered, touch it to display the home cancellation screen.

Correcting your home

1 Touch **My places** on the MENU screen.

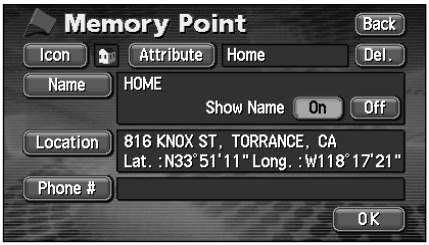
2 Touch **Edit** for Memory Points.

3 Touch .



4 Touch the touch switch for the item to be corrected or entered.

- Touch **Del.** to cancel your home.
- This correction and entry method is the same as for memory points.
  - Mark (P110)
  - Name entry (P112)
  - Name display on a map (P113)
  - Position (P109)
  - Telephone number (P111)



5 Touch **OK**.

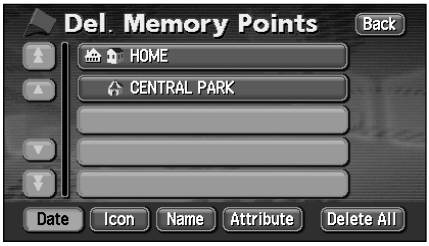
2. Registering, correcting or deleting a memory point

Deleting your home

1 Touch **My places** on the MENU screen.

2 Touch **Delete** for Memory Points.

3 Touch .



4 Touch **Yes**.

- Touch **No** to return to the original screen.

ATTENTION

Registration is enabled on a detailed map with a reduction scale less than 1 mile.

Registering memory points

Up to 106 memory points (landmarks) can be registered on a map (including 1 home and 5 special memory points). (If registering more than 106 points, first delete unnecessary memory points and proceed.)

Registering memory points enables the following:

- Symbol and name displays on the map
- An alarm that announces when approaching a point
- Maps corresponding to memory points can be retrieved when setting a destination (see P55)

One-touch registration

Memory points can be registered on a map presently displayed.

1 Touch the position on the map where the memory point is to be registered.

- It is not necessary to scroll the map when registering the present location.

2 Touch **Mark**.

- The memory point will be displayed with a symbol on the ◯ or ⚑ position.

ATTENTION

- Registering is enabled on a detailed map with a reduction scale less than 1 mile (excluding for one-touch registration).
- Depending on the location, the address displayed for the memory point may include a name of a neighboring area.
- A registered memory point may display a neighboring name or address.

2. Registering, correcting or deleting a memory point

Registering a far away point

1 Touch **My places** on the MENU screen.

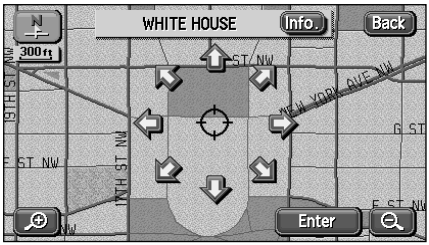
2 Touch **Register** for Memory Points.

3 Select a map retrieval method to display the map on which the memory point is to be registered.

•See P44 and 60, **"Map retrieval method"** and **"Performing operations on a retrieved map"**.

4 Touch **Enter**.

•Touch ⇧ to move the map.



ATTENTION

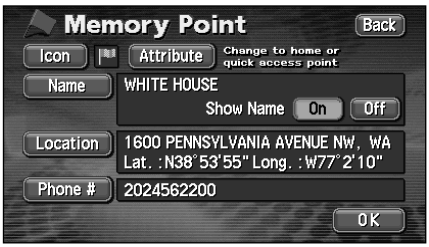
•When a memory point is not registered, **Edit** and **Delete** are toned down and will be inoperable even if touched.

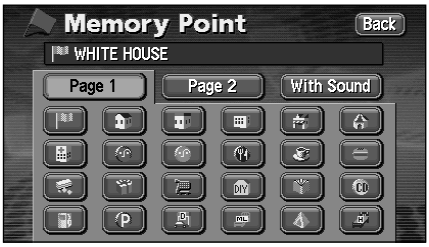
•Depending on the location of the registered point and the map retrieval method, the name and telephone number may be entered simultaneously.

•Touch ⌂ to move the map.

•Touch **Icon** to display the selected mark in the position.

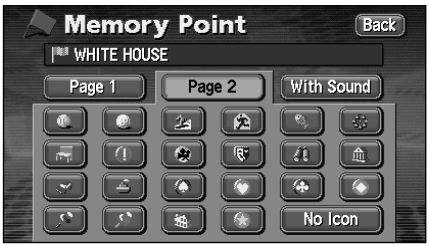
•Touch **Page 1**, **Page 2** or **With Sound** (see the next page) for the memory point **Icon** to change the type of symbol.





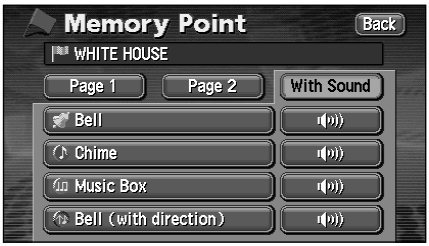
•Page1

•Touch **No Icon** to not display the registered memory point symbol on the map.



•Page2

•Selecting a symbol with sound will enable an alarm to sound when about 500m from the memory point.

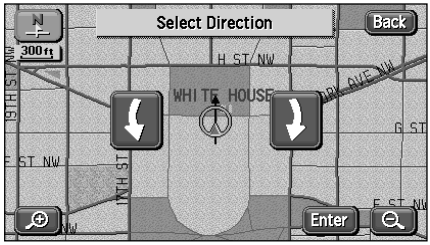


•With Sound

2. Registering, correcting or deleting a memory point

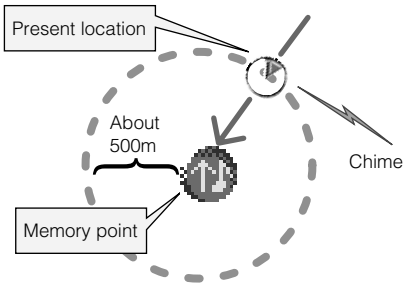
5 Touch **Bell (With direction)**.

- Set the direction.
- To move the direction counterclockwise, touch . To move it clockwise, touch .
- The memory point will be displayed with .

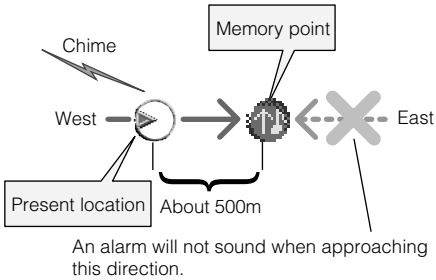


6 Touch **Enter**.

<With sound>



<With direction>



<When setting with direction>

- Touch **Bell (With direction)** to enable an alarm to sound only when approaching a memory point within about 500m from the set direction.

  For example, when driving on a road running East-West, you can set an alarm to sound when approaching a memory point from the west and not sound when approaching it from the east.

ATTENTION

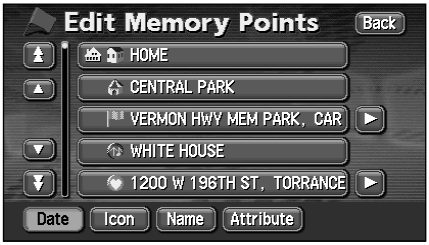
- When selecting a symbol **With Sound**, an alarm is enabled.
- Touch to hear each of the sounds.

Correcting the position of a memory point

1 Touch **My Places** on the MENU screen.

2 Touch **Edit** for Memory Points.

3 Touch the memory point to be corrected.



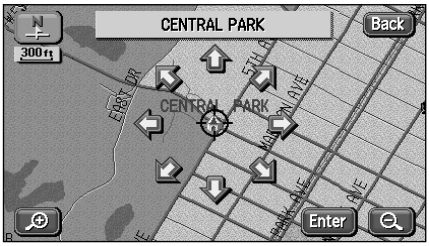
4 Touch **Location**.

- A map will appear.

5 Touch ⌂ to move the map to the position on which the memory point is to be corrected.

6 Touch **Enter**.

- The mark displayed in **4** appears in the ⊕ position.
- Correct the position and the name of the position displayed in **4** is also corrected.



7 Touch **OK**.

ATTENTION

Registration is enabled on a detailed map with a reduction scale of less than 1 mile.

2. Registering, correcting or deleting a memory point

Changing the symbol of the memory point

1 Touch **My Places** on the MENU screen.

2 Touch **Edit** for Memory Points.

3 Touch the memory point to be changed.

4 Touch **Icon**.

5 Touch the symbol to be changed.

- Touch **Page 2** or **With Sound** to select a different mark. (See P107)

6 Touch **OK**.

ATTENTION

The items in memory point list can be sorted by the Date, Icons, Names or Attributes.

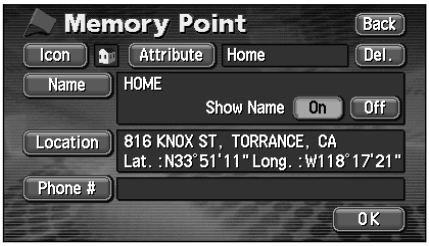
Enter a telephone number for a memory point

1 Touch **My Places** on the MENU screen.

2 Touch **Edit** for Memory Points.

3 Touch the memory point to be entered.

4 Touch **Phone #**.



5 Enter one number at a time by touching the switches on the screen.

- Enter the telephone number starting with the area code.
- If having made a mistake (or if the phone number is already entered), touch ◀ to delete one number at a time.

6 Touch **OK**.

ATTENTION

- Up to 10 digits can be entered.
- Depending on the registered point, there may be a telephone number already entered for it.

2. Registering, correcting or deleting a memory point

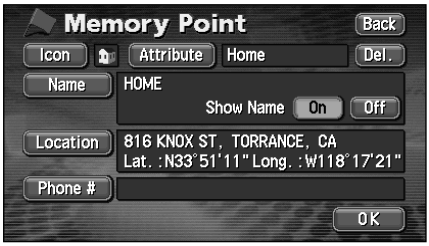
Entering the name of a memory point

1 Touch **My Places** on the MENU screen.

2 Touch **Edit** for Memory Points.

3 Touch the memory point to be entered.

4 Touch **Name**.



5 Enter one letter at a time by touching the switches on the screen.

- If having made a mistake (or if the name is already entered), touch ◀ to delete one letter at a time.

6 Touch **OK**.

ATTENTION

Depending on the registered point, there may be a name already entered for it.

Displaying the name of a memory point

The name of the memory point entered can be displayed.

1. Touch **My Places** on the MENU screen.
2. Touch **Edit** for Memory Points.
3. Touch the memory point to be displayed.

4. Touch **On** or **Off** for Show Name.
   - Selected touch switches turn green.
5. Touch **OK**.

ATTENTION

The name can be displayed on a detailed map with a reduction scale less than 1 mile.

2. Registering, correcting or deleting a memory point

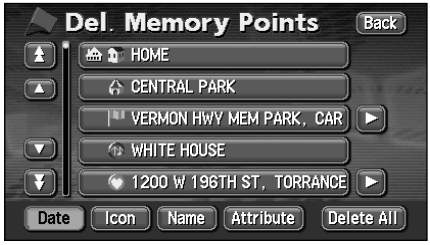
Deleting a memory point

1 Touch **My Places** on the MENU screen.

2 Touch **Delete** for Memory Points.

3 Touch the memory point to be deleted.

- To delete all the memory points, touch **Delete All**.



4 Touch **Yes**.

- Touch **No** to return to the original screen.

3. Registering, correcting or deleting a special memory point

Up to 5 special memory points can be registered on one map.
A special memory point is different from other memory points in that, when registered, they can be retrieved with one-touch from the screen appearing when retrieving a map. Also, when setting a destination, a route search can be initiated with one-touch from the destination setting screen. (See P65)

Registering a special memory point

1 Touch **My Places** on the MENU screen.

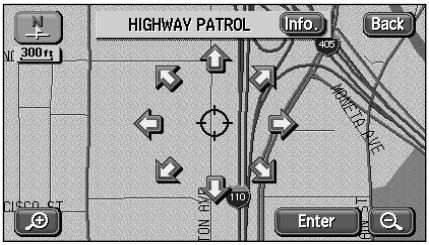
2 Touch **Register** for Memory Points.

3 Select a map retrieval method and the map corresponding to the special memory point to be registered appears.

- See P44 and 60, **"Map retrieval method"** and **"Performing operations on a retrieved map"**.

4 Touch **Enter**.

- If ⇧ is displayed, touch it to move the map.
- The special memory point will appear on the ⊕ position.



5 Touch **Attribute**.

3. Registering, correcting or deleting a special memory point

6 Touch **Not Registered** for the special memory point.

7 Touch **OK**.

ATTENTION

- Registration is enabled on a detailed map with a reduction scale less than 1 mile.
- The address for the special memory point may appear with a neighboring area name depending on the location of the point.
- A neighboring name or address will be displayed for the registered special memory point.
- Depending on the location of the registration and the map retrieval method, the name and telephone number may be entered simultaneously.
- **Edit** and **Delete** will appear only when a memory point is already registered.
- Select an already registered telephone number and touch it to display a deletion screen for the special memory point corresponding to that selected telephone number.

Correcting a special memory point

1 Touch **My Places** on the MENU screen.

2 Touch **Edit** for Memory Points.

3 Touch the special memory point to be corrected/entered.

4 Touch the touch switch for the item to be corrected/entered.

- The correcting/entering method is the same as for memory points.
  - Mark (P110)
  - Name entry (P112)
  - Name display on the map (P113)
  - Position (P109)
  - Telephone number (P111)

5 Touch **OK**.

3. Registering, correcting or deleting a special memory point

Deleting a special memory point

1 Touch **My Places** on the MENU screen.

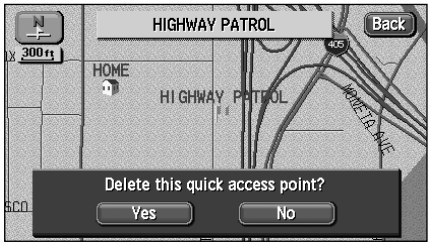
2 Touch **Delete** for Memory Points.

3 Touch the special memory point to be deleted.

- To delete all special memory points, touch **Delete All**.

4 Touch **Yes**.

- Touch **No** to return to the original screen.



4. Registering, correcting or deleting detour memory points

Registering detour memory points

Up to 10 detour memory points can be registered. (If registering more than 10 points, first delete unnecessary detour memory points and proceed.) By registering detour memory points, you can search for a route that takes you through the registered area when conducting a route search. This function is convenient when knowing what roads are blocked due to construction or accidents or congested.

1 Touch **My Places** on the MENU screen.

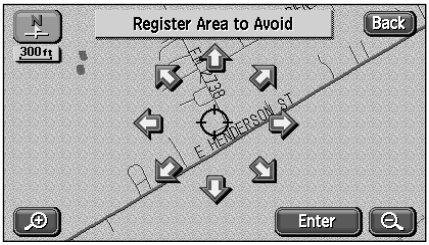
2 Touch **Register** for Area to Avoid.

3 Select the map retrieval method to display the map on which a detour memory point is to be registered.

- See P44 and 60, **"Map retrieval methods"** and **"Performing operations on a retrieved map"**

4 Touch **Enter**.

- Touch ⇧ to move the map.



ATTENTION

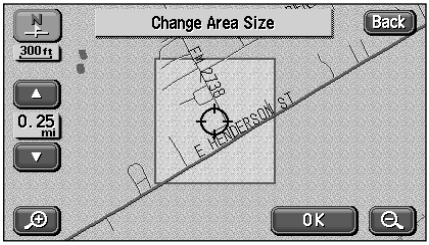
- **Edit** and **Delete** only appear when a detour memory point is already registered.
- The route may take you through a detour depending on the position of the set destination or the present location.

Go to the next page

4. Registering, correcting or deleting detour memory points

5 Touch ▲ or ▼ to set the area to be detoured.

- To widen the area, touch ▲, to narrow the area, touch ▼.
- When reaching the maximum or minimum permissible area, the ▲ or ▼ switches invert and are inoperable even if touched.



6 Touch **OK**.

- The detour memory point will appear on the ⊕ position with a ✕ mark (smallest point) or a □ mark (area).

7 Touch **OK**.

ATTENTION

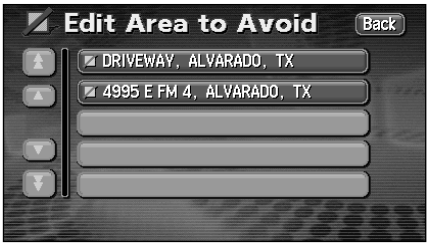
- The following 10 values represent settable sizes for detour areas:
  Point, 150ft, 300ft, 700ft., 1/4 mile, 1/2 mile, 1 mile, 2 miles, 4 miles, 8 miles
- A neighboring name or address will appear for the registered detour memory point.
- The address appearing for the detour memory point may differ depending on the location or the registration method.
- The name can be entered simultaneously depending on the location of the registration and the map retrieval method.

Correcting a detour memory point

1 Touch **My Places** on the MENU screen.

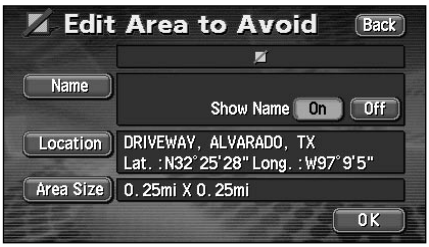
2 Touch **Edit** for Area to Avoid.

3 Touch the Area to Avoid to correct/enter.



4 Touch the touch switch for the item to be corrected/entered.

- The correction/entry method is the same as for memory points.
  - Name entry (P112)
  - Position (P109)
  - Touch **Area Size** to change the detour area. (P119)



5 Touch **OK**.

4. Registering, correcting or deleting detour memory points

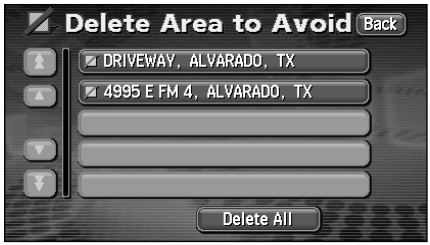
Deleting a detour memory point

1 Touch **My Places** on the MENU screen.

2 Touch **Delete** for Area to Avoid.

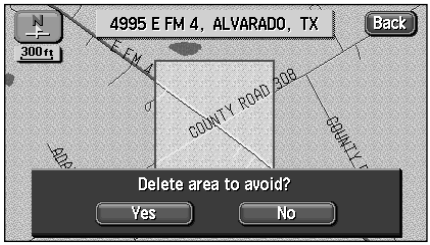
3 Touch the Area to Avoid to be deleted.

- To delete all special memory points, touch **Delete All**.



4 Touch **Yes**.

- Touch **No** to return to the original screen.



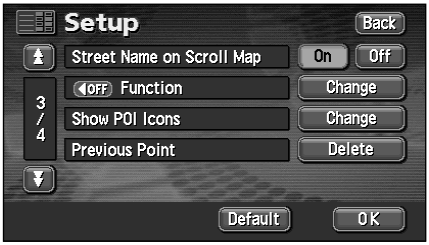
5. Destination archive

Deleting entries from the destination archive

Points on a map set as destinations are automatically recorded and can serve to retrieve a map when setting a destination (maximum 100 destinations). When exceeding 100 destinations, the oldest entry will be automatically deleted with every new entry. Unnecessary destinations can also be deleted.

1 Touch **Setup** on the MENU screen.

2 Touch **Delete** for Previous Point.

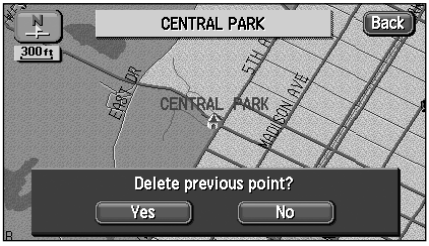


3 Touch the point name to be deleted.

- To delete all destination archive items, touch **Delete All**.

4 Touch **Yes**.

- Touch **No** to return to the original screen.



1. Information screen

The information function contains **"SETTING"**. The "Back monitor" function can be operated by installing the optional items.

Information screen

1 Press **INFO** to display the INFORMATION screen.

2 Touch the touch switch to select the item.

- The following functions are possible from the information screen.

Display order/item (touch switch)		Function	Page
1	Settings	Settings for the background, beep, etc.	OWNER'S MANUAL/Audio
2	Back monitor	Displays the back monitor	126

MEMO

1. Back monitor function

When the optional back monitor is installed, the rear image can be appeared on the monitor screen.

- Do not place too much confidence in the back monitor.
- Please use the back monitor as a back up means to check for obstructions behind the vehicle.
- Raindrops or other natural phenomena may blur the camera's image.
- Do not backup your vehicle looking only at the monitor. Use the rearview mirror and both side mirrors to check for any obstruction behind or around your vehicle.
- Do not use the back monitor in the following situations:
  - On frozen, slippery or snowbound roads
  - With the trunk opened
  - When using tire chains or a spare tire
  - On a slope or any uneven road
- When the display is cold, the image may trail and be darker than usual rendering checking difficult. Make sure your surroundings are safe with your own eyes before driving your vehicle.

ATTENTION

- The actual position and distance of people or objects may vary depending on the features of the camera lens.
- Do not expose the camera to strong shocks such as hitting it or knocking it onto other objects. The back monitor may not function properly if the position of the camera or its mounting angle is incorrect.
- The camera is waterproof. Do not uninstall, dismantle or reconfigure the unit. Otherwise, the back monitor may not function properly.
- If strongly rubbing the camera cover or using a hard brush or abrasive to clean it, the camera may get scratched adversely affecting the image quality.
- The camera cover is made of plastic. Do not apply an organic solvent, body wax, oil remover, glass coating, etc. If having applied any of the above, wipe it off immediately.
- Pouring hot water on the back monitor to deice it in cold weather can lead to a drastic change in temperature that may render normal operation impossible.
- The back monitor may not operate normally if the camera is damaged as a result of having hit the unit. Immediately bring it to the store of purchase for an inspection.
- Do not leave it in direct sunlight for long periods of time. Otherwise, a printed image phenomenon may result.
- The figure is merely an example. The range appearing on the monitor screen varies depending on the vehicle model.
- The instant the vehicle is put in reverse, part of the monitor will appear white then gradually stabilize.
- A white vertical band will appear when struck by light from the sun, headlights or any other strong light beam source (Smear effect).
- After having used the unit for a long time, white scratches and vertical lines may appear due to a rise in temperature depending on the features of the CCD.
- The 50Hz power source range fluorescent light may cause flickering in the screen. This is not a malfunction.
- Because the back monitor uses a special lens, the image and distance appearing on the screen differs from the actual image and distance.

1. Back monitor function

Back monitor image

Displaying the rear image

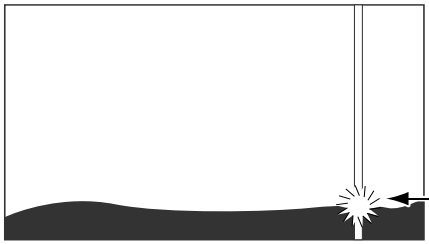
1 Touch **CAMERA SCREEN** on the INFORMATION screen.

- The rear image appears on the monitor screen.
- Touch **CAMERA SCREEN** again to return to the normal screen.

ATTENTION

- The range of the image may vary depending on the vehicle and the road conditions.
- There is a limit to the range of the camera. Objects near the ends of the bumper and under the bumper cannot appear.
- The rear image color may vary from the actual objects.
- The image brightness and contrast can be adjusted. (See P20, "Adjusting the screen")
- Depending on the vehicle, the back guideline may appear misaligned on the left and right. This is not a malfunction.
- In the following situations, the screen may be difficult to view but does not constitute a malfunction.
  - In a dark area (such as at night)
  - The temperature near the camera is high or low
  - Raindrops are on the camera lens or the humidity is high (when raining)
  - A foreign object is near the camera (such as mud)
  - When the sun or a beam from headlights strikes the camera lens directly
- When a high-luminance point strikes the camera (such as the reflection of the sun's rays on the chassis), a Smear effect* typical of CCD cameras may occur.

<Screen condition>



*Smear effect: A phenomenon where a vertical line appears from a high-luminance point striking the camera (such as the reflection of the sun's rays on the chassis).

MEMO

1. Situations when a correction is necessary

A correction is necessary in the following situations:

•When changing a tire...perform an automatic correction (distance correction)

Also, a correction can also be made in the following situations.

•When the vehicle position mark appears in a location different from the actual present location (the vehicle position mark is misaligned), the vehicle position mark position and direction can be corrected. (Present location correction)

•When the progression of the vehicle position mark on the map and the actual progression of the vehicle while driving...the vehicle position mark progression can be corrected. (Distance correction)

However, even if the vehicle position mark on the map is misaligned, continue driving for a moment and the present location will be automatically corrected using map matching and GPS data. (Depending on the situation, this may take several minutes.)

In the event the device does not use GPS data and the present location is not automatically corrected, park the vehicle in a safe area and perform present location correction.

Present location correction

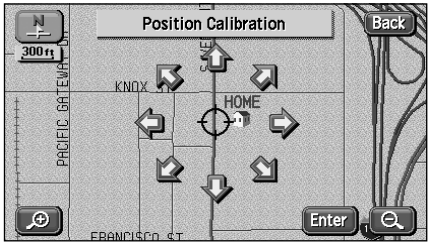
1 Touch **Setup** on the MENU screen.

2 Touch **Adjust** for Calibration.

3 Touch **Position/Direction**.

4 Touch ⇧ to move the actual position of the present location on the map.

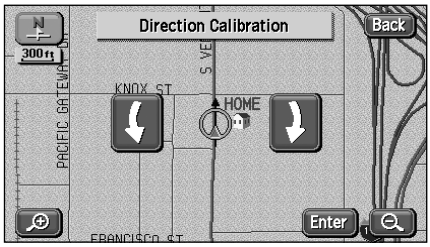
5 Touch **Enter**.



6 Set the direction.

- Touch ↓ to turn the direction counterclockwise and ↓ to turn it clockwise.

7 Touch **Enter**.



ATTENTION

- Correction can be made on a detailed map with a reduction scale of less than 1 mile.

1. Situations when a correction is necessary

Correcting the distance

1 Touch **Setup** on the MENU screen.

2 Touch **Adjust** for CALIBRATION.

3 Touch **Tire Change**.

- Automatic correction is performed.
- The touch switch turns green during automatic correction.
- Using GPS data, the correction will automatically be completed after driving a moment and the touch switch will turn back to blue.

ATTENTION

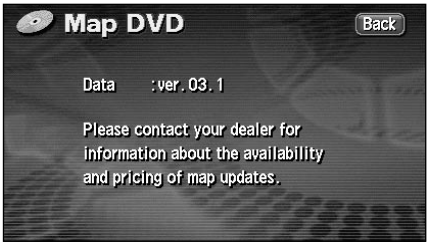
- The device performs automatic distance correction (automatic correction) using GPS and vehicle speed signals. This may be delayed in the event of a sharp deviation that overwhelms the automatic correction function (changing a tire, being towed by another vehicle, etc.)
  In such a case, drive about 10km along a road indicated by favorable GPS signal reception conditions.
- If correction is impossible, have the device inspected at the store of purchase.
- During automatic correction, the vehicle position may be misaligned.
- Even if the automatic correction is complete, because the distance correction has a learning function, there may be variations in the progression of the vehicle position mark depending on the driving conditions.

2. Map DVD-ROM data

The information in the database stored on the map DVD-ROM can be viewed.
The figure below is merely an example. The displays may vary depending on the type of map DVD-ROM and when it was made.

Map DVD-ROM data display

1 Touch **Map DVD** on the MENU screen.



3. Accuracy and error

Positioning accuracy

The GPS is a very accurate satellite controlled by the U.S. Department of Defense. Errors may result due to the occurrence of a multipath caused by reflections off buildings or other structures.

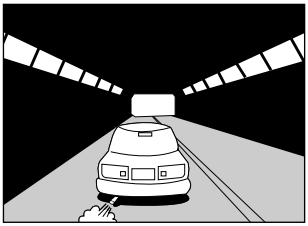
GPS signal quality and reception conditions

Any obstruction coming between the satellite and the GPS antenna will disrupt signal reception from the satellite. Also, 3 or more signals must be received simultaneously to enable positioning. When driving along locations such as those shown below, GPS positioning is not possible.

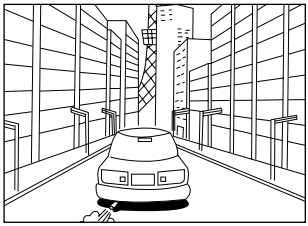
In addition, obstructions placed on or near the GPS antenna (such as a load) will disrupt signals from the satellite.

- Because the GPS satellite orbits the earth, signal reception conditions may vary depending on the position of the satellite even if driving in the same area. Signals from a satellite orbiting near the horizon are more likely to be obstructed.
- The GPS satellite is controlled by the U.S. Department of Defense and can be deliberately made to lose positioning accuracy.

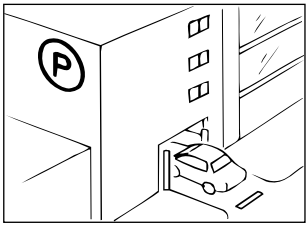
Underground, in a tunnel or in an indoor parking structure

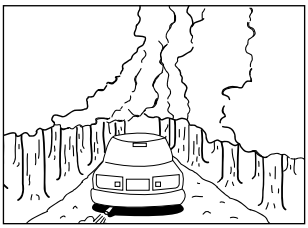


Surrounded by obstructions such as tall buildings

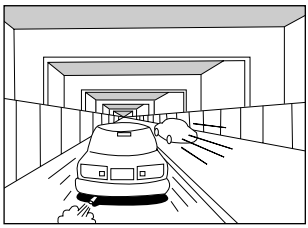


In a building

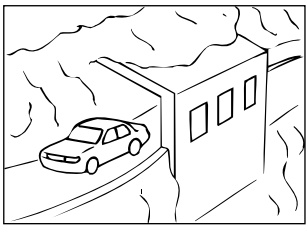




Densely wooded areas



Under an elevated road



On a cliffside road or at a cavern opening

ATTENTION

Under the following conditions, make sure to install the GPS antenna in the position indicated in the instruction manual for your vehicle model.

- If the noise emitted from another electrical device diminishes signal reception.
- If this device may represent an obstruction to the proper operation of airbags.
- If the satellite signal received from the side or rear of the vehicle is diminished because of a windshield pillar or roof panel.

3. Accuracy and error

Present location display error

In order to find the exact position of the present location, this device uses compiled data from the GPS satellite, vehicle speed sensor and vibration gyro sensor. Because each of these contains a margin of error, the present location indicated may not coincide with your actual positioning.

If the indication is different from the actual positioning, the present location displayed can be corrected. Park the vehicle in a safe place first before proceeding.

Error due to having changed a tire

The device calculates the distance traveled by the vehicle using a speed sensor (in proportion to the tire rotation). The following situations would result in a significant error that may render proper present location positioning impossible.

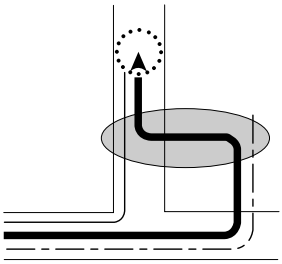
- When using a sub-standard tire
- When driving on a snow covered, gravel road or any slippery road
- When the tire air pressure is incorrect
- When using new tires (the distance correction coefficient setting can be changed and adjusted)

Correcting the map matching vehicle position sensor

Map matching is a system that compares present location positioning data from the GPS and other sources with information concerning all the roads driven on until now in order to correct the present location onto the most appropriate road. This device corrects the present location data compiled from a combination of independent navigation and satellite navigation and matches it with the shape of the road.

However, there may be instances when the present location error cannot be avoided and the position indicated on the map does not coincide with your actual positioning even after a correction using map matching.

Also, driving along a road whose actual shape differs from the map data may result in a vehicle position mark misalignment.



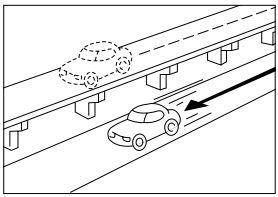
Actual path taken

Path taken as per sensor data

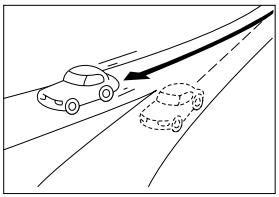
Screen display, correction by map matching

Present location display, route guidance accuracy

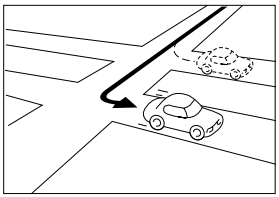
The following situations are not malfunctions but merely some examples where inaccurate present location positioning and/or route guidance occurs depending on the road and driving conditions.



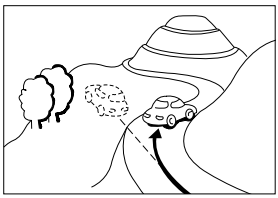
The present location appears on a road running parallel to the road taken.



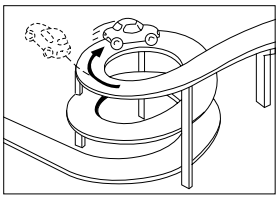
When turning on a road forking into two roads making a "Y" shape, the present location appears on the other road.



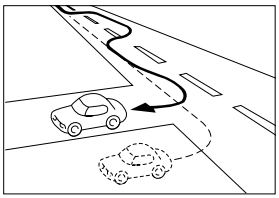
When making a turn, the present location appears on the road just before or after the road turned on.



The present location appears misaligned when driving on steep roads.

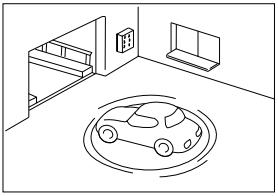


The present location appears misaligned when driving on a continuous curve in the same direction.

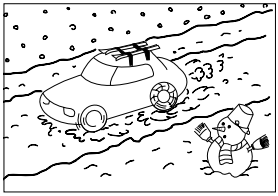


The present location appears misaligned when meandering such as changing lanes.

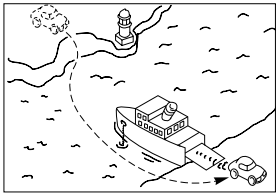
3. Accuracy and error



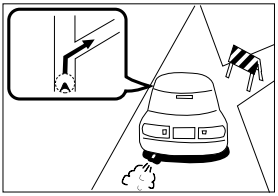
The present location appears misaligned when the vehicle is rotated on a parking structure turntable with the ACC turned OFF.



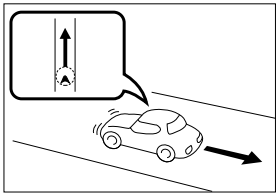
The present location appears misaligned when driving on a snowbound or slippery road or when using tire chains.



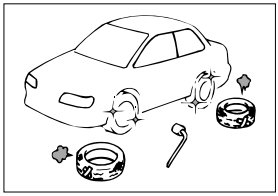
When the vehicle is moved by ferry or a means other than being driven, the GPS positioning will indicate a present location on the spot where the vehicle was prior to being moved.



When route guidance indicates a road that is actually blocked off (regular traffic prohibited).



The present location appears misaligned when turning back.

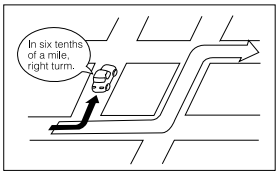


When having changed a tire(s), the vehicle position mark may be misaligned.

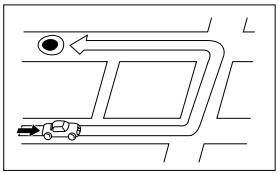
Road and geographic name data

The roads and geographic names are subject to change after the compilation of the map database and may differ from the actual roads and names.

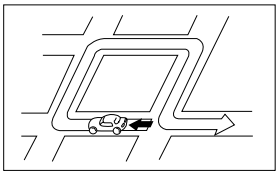
Route guidance



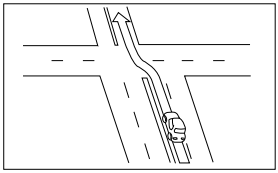
When having turned on an intersection that is not part of the route guidance, there may be an error in the voice guidance instructions.



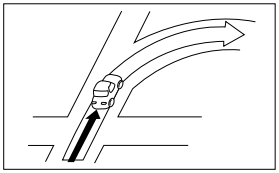
When searching for a route, the route provided may include a detour.



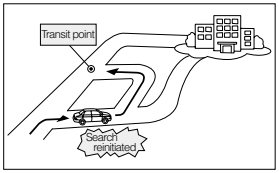
The route guidance may instruct a U-turn.



When driving on a straight road, the route guidance may instruct you to go straight (in cases where the shape of intersections is difficult to determine).

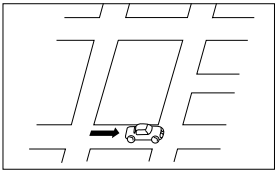


No route guidance may occur even if turning at an intersection.

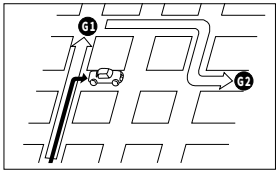


When driving towards the destination without passing through a transit point, the device may reinitiate a route search and provide a new route that takes you towards that transit point.

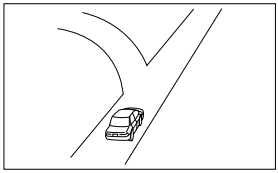
3. Accuracy and error



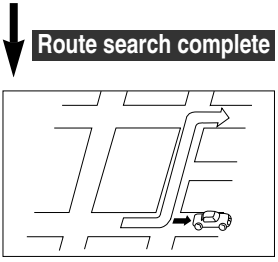
When searching for a route, the route display may not appear in time for the next turn.

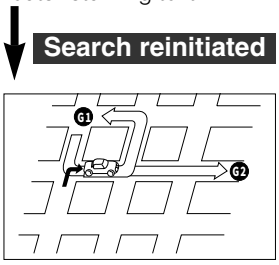


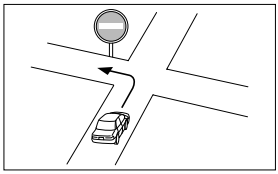
In case of multiple destinations, when having bypassed the next destination, a route search is reinitiated to provide a route returning to it.



While providing guidance on where you are headed, several geographical names may be indicated.







Drive following the actual traffic regulations

- The time it takes the device to reinitiate a route search while driving on a highway may be lengthy.
- The present location mark may be misaligned when having changed a tire.
- When correcting the present location mark manually and then driving under conditions where the positioning is not corrected, the position will not be properly indicated.
- The route may not change even if reinitiating a search.
- If having set a present location, destination or transit point on a remote island or in an area where there are no guidable roads, the device may not search for a route.
- The device may not search for a route if the present location and the destination are in close proximity.
- The route guidance will not necessarily recommend toll roads even if having selected to prioritize toll roads in the search conditions.
  Similarly, even if having selected not to prioritize toll roads, a route using toll roads may be displayed.
  (The "Prioritize/Do not prioritize toll roads" setting enables the prioritization of either toll roads or local roads when a selection of one is made possible.)

MEMO

1. Facts to keep in mind when operating

What to do when messages are displayed

When the following messages appear, check the situation referring to the corresponding cause and remedy.

Messages related to general navigation

Message	Cause	Remedy
Check GPS antenna	The GPS antenna is not connected properly.	Connect the GPS antenna properly.
Check speed pulse	The device is not properly connected to the vehicle speed sensor.	Connect the vehicle speed sensor properly.
No DVD. Please insert map DVD.	The map disk is not inserted.	Insert the map disk.
Unable to read data. Check if map DVD is correct.	A disk other than the map disk is inserted.	Remove the inserted disk and insert the correct map disk.
Unable to read DVD correctly. Check if the DVD is damaged or dirty.	The data cannot be read due to scratches and/or dirt on the map disk.	Check whether there are any scratches and/or dirt on the map disk and contact the store of purchase.
DVD check in process.	The device is now reading the map disk data.	Wait until a map is displayed on the screen.
Unable to read data. Temperature is too high.	The DVD player temperature is high.	Wait until the temperature has fallen.
Unable to scroll map while driving. Please use after stopping.	You attempted to scroll the map while driving.	Stop the vehicle first and then proceed to scroll the map.
Too many characters were input.	Letter entry count for memory point names beyond capacity.	Decrease the letter entry count and reenter.

Message	Cause	Remedy
No previous points registered.	There are no previously set destinations.	Register a destination in the archive and proceed. (Setting a destination registers it in the archives.)
Home is not registered. Register in menu Memory Point.	Your home is not registered as a memory point.	Register your home as a memory point and proceed. (See P101)
No quick access point registered. Register in menu Memory Point.	A special memory is not registered for the memory point.	Register a special memory for the memory point and proceed. (See P115)
No roads possible for guidance near current position. Please refer to map.	There are no roads where route guidance is possible in the vicinity of the present location.	Refer to a map and proceed.
No roads possible for guidance near current position and destination. Please refer to map.	There are no roads where route guidance is possible in the vicinity of the present location and destination.	Refer to a map and proceed.
No roads possible for guidance near destination. Please refer to map.	There are no roads where route guidance is possible in the vicinity of the destination.	Refer to a map and proceed.
Seasonal traffic restricted roads on this route.	The system searched for a route that included a seasonally restricted segment.	If changing to a route that bypasses the seasonally restricted segment is desired, bypass the restricted segment after changing the route. (See P70)
Destination too far. Please change to a point within 5000 km in a straight line.	The set destination is too far.	Set the destination within a 5,000 km distance in straight line.

1. Facts to keep in mind when operating

Message	Cause	Remedy
2 preferred roads have been set. Perform operation again after deleting them.	You attempted to set 3 or more transit road indications when changing the route.	Up to 2 transit roads can be indicated. Delete unnecessary transit roads before adding a new one.
No roads possible for guidance nearby. Perform operation again after moving.	There are no roads available to serve as transit roads when indicating one for a route change.	Move the map and indicate a transit road among the roads in the vicinity.
Unable to save additional points. Please delete some points.	You attempted to set more than 5 destinations.	Up to 5 destinations can be set. Delete unnecessary destinations and proceed with adding new ones. (See P79)
Unable to search for new route. Previous route will be displayed.	A new route could not be found when reinitiating a route search.	Route guidance will proceed using the present route. (Drive referring to the route guidance.)
Destination is nearby. Please check the map.	You attempted to set the destination in a nearby location.	The destination is nearby. Refer to the map and continue driving.
No corresponding POI nearby.	There is no corresponding POI found nearby for the POI search in the vicinity.	Search for the POI in another area.
No corresponding POI on route.	There is no corresponding POI found nearby for the POI search along the route.	Search for the POI in another area.
Position cannot be specified in this scale. Switching to more detailed map.	You attempted to set/register a destination/memory point on a map with a reduction scale of more than 0.5 miles.	Set/register a destination/memory point on a more detailed map (with a reduction scale of less than 0.5 miles).
The destination is surrounded by the water. Change destination?	There is a river or other body of water between the destination and the nearest road.	Touch **Yes**, move the map and set a destination near the road. Touch **No** to set the destination on the position displayed.

Message	Cause	Remedy
No memory point registered. Register in menu Memory Point.	You attempted to retrieve a map using a memory point when there is none registered.	Register a memory point and proceed. (See P105)
Unable to register additional points. Perform operation again after deleting unnecessary points.	You attempted to register a memory point when there are 106 points already registered.	Delete unnecessary memory points and proceed to register a new one. (See P114)

1. Facts to keep in mind when operating

Prior to assuming that a malfunction has occurred

Making small errors when operating this device may lead to the assumption that a malfunction has occurred. Before going to that conclusion, check the device referring to the table below.

If the problem is not solved even after performing the prescribed remedy, have the device inspected at the store of purchase.

Items related to general navigation functions

Symptom	Consideration	Remedy
The map does not move even when driving.	Is the display showing a screen other than the present location screen?	Display the present location screen. (See P26)
The vehicle position mark does not appear.	Is the display showing a screen other than the present location screen?	Display the present location screen. (See P26)
The GPS mark does not appear.	Is the device in a situation where GPS data cannot be utilized?	Move the vehicle to an area free of obstructions or remove the object placed on the GPS antenna.
Voice guidance not outputted.	Is the "Voice Guidance" item for set up set to **Off**?	Touch **On** for "Voice Guidance" in set up.
	Is the guidance paused?	If the route guidance is paused, resume guidance. (See P83)
	Is the guidance volume turned down (voice OFF)?	Turn up the volume. (See P25)

Symptom	Consideration	Remedy
Small blemishes or luminescent spots on the monitor screen	This phenomenon is characteristic of liquid crystal panels. The liquid crystal panel is make with high-tech precision and has 99.99% or more effective imaging. However, there may be 0.01% image loss or lights continuously turned on.	This does not represent a malfunction. Continue using the device as usual.
For a moment after turning the engine switch ON, there is an irregular display on the screen.	In cold weather, the liquid crystal panel's backlight features may emit light unevenly.	This condition stops in a few minutes as the backlight warms up.
The screen is difficult to view.	Are the contrast and brightness correctly adjusted?	Adjust the contrast and brightness. (See P20)
The vehicle position mark appears on a spot different from the actual present location. (The vehicle position mark is misaligned.)	The vehicle position mark may be misaligned depending on the satellite conditions or vehicle conditions (where and how the vehicle is driven). Also, the vehicle position mark may be misaligned if driving on a newly constructed road or on a road with a shape that differs from the shape recorded in the map data.	Continue driving for a moment and the device will use GPS data and map matching to correct the present location automatically. (In some cases, this may take up to several minutes.) If the GPS data is not used and the present location is not automatically corrected, stop the vehicle in a safe area and correct the present location. (See P130)

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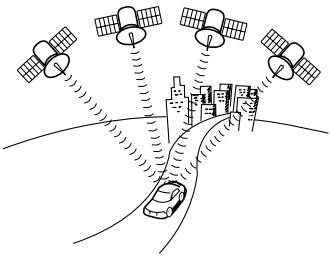
3. Explaining the terms

In order to use this device effectively, please keep the following definitions in mind.

GPS(Global Positioning System)

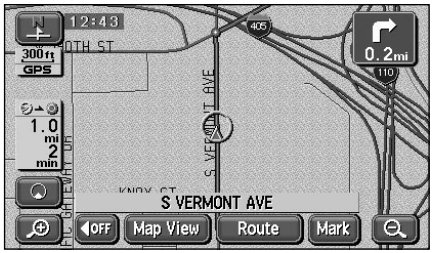


The GPS is a system that uses signals received from a satellite in a maximum orbit of approximately 21,000km above the earth to indicate your present position (latitude, longitude, altitude). These satellites were launched into space by the U.S. Department of Defense to be used for military purposes. This system was released for public utility.

Independent navigation

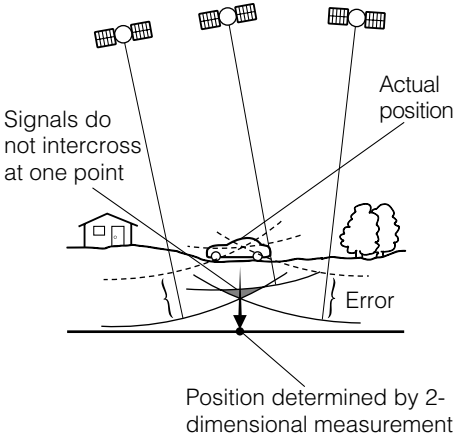
This technology uses data from a vehicle speed sensor and vibration gyro sensor to track the path followed by your vehicle in order to pinpoint your present location.
The present location of your vehicle can be pinpointed even in tunnels and under elevated roads.

Positioning



Signals are received from 3 or more GPS satellites to pinpoint the present location of your vehicle. The device will display a GPS mark on the upper left part of the present location screen when it is receiving signals from 3 or more satellites and positioning is rendered possible. (The GPS mark is not displayed on the setting or registration screens.)

2- and 3-dimensional positioning



The GPS calculates your position using a 3-point measurement principle.

Signals received from one satellite are used determine the distance from that satellite to your vehicle. Signals received from 3 satellites can pinpoint your present location.

However, there exists a margin of error in the GPS satellite and navigation unit resulting in 2-dimensional positioning using latitudinal and longitudinal coordinates if signals from only 3 satellites can be received. In such a case, accuracy is low.

Also, when receiving signals from 4 or more satellites, 3-dimensional positioning is effectuated using the latitude, longitude and altitude of your vehicle. 3-dimensional positioning is more accurate than 2-dimensional positioning and the vehicle position display error margin is reduced.

Vibration gyro sensor

This sensor electronically detects in which direction your vehicle turned. This sensor plays a very important role in the independent navigation function of this device.

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4. Subject index

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"Start route guidance" P83

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MEMO

This device complies with part 15 of the FCC Rules. Operation is subject to the condition that this device does not cause harmful interference.

CUSTOMER NOTICE

Please retain this booklet and write in the serial number of your AVN2454 for identification. The serial number is labeled or stamped on the chassis.

Serial No. _____

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