



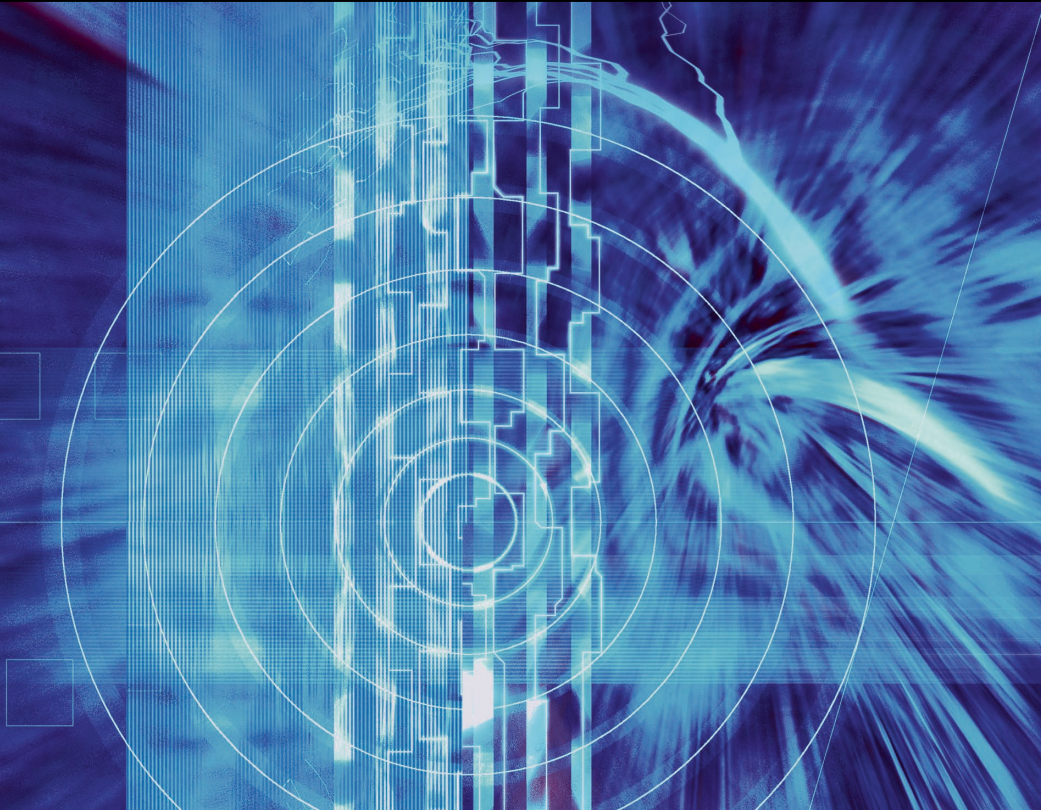
# ECLIPSE®

by FUJITSU TEN

## AVN2454

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

### Reference Guide



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.

# 1 For the safe usage of this device

The symbols described below are found in this instruction manual as well as on the device itself to insure its proper and safe usage and to prevent injury or damage to property. Make sure you understand the meaning of these symbols before reading the rest of this manual.



Warning

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



Caution

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 following symbols will precede information useful for preventing damage to the device as well as for its smooth operation.



ADVICE

Follow this advice to prevent malfunctions or damage to the device. Perform the indicated action in the event of a malfunction.



ATTENTION

Useful information for smooth operation  
Facts to keep in mind when operating

- Make sure to read all instruction manuals and warranty certificates included with this device.  
This company will bear no responsibility in the event of damage caused by ignoring the indications appearing in these documents.
- Please acknowledge that the content in this manual may not conform to the actual functions of the device due to changes in its specifications.

## **Please handle this manual with care.**

Applying unnecessary force when opening this manual or turning the pages may result in pages falling out and losing their order. Please handle with care.

## 2 Safety precautions



Warning

- This device was made for vehicles equipped with a 12V battery. Do not use in a large truck, cold area vehicle or any other vehicle that uses a 24V battery. Otherwise, fires may result.
- Make sure to follow the actual traffic regulations when driving even during route guidance.  
Driving your vehicle while only following route guidance instructions may lead to traffic violations and cause accidents.
- Do not modify this system for use other than that specified herein. Also, do not deviate from the installation procedures described herein; Eclipse will not be held liable for damages including, but not limited to serious injury, death or property damage resulting from installations that enable unintended operation.
- You should never register geographical points or perform memory settings while driving the vehicle. This will distract you from the road and cause accidents. Park the vehicle in a safe area before operating the device.
- Make sure to park the vehicle in a safe place and set the side brake before watching DVDs or videos. For safety reasons, only the sound of DVDs or videos will be emitted while the vehicle is in motion.
- Do not insert foreign objects into the disc insert slot. This may cause fires or shocks.
- Do not disassemble or rebuild this product. Doing so may cause an accident, fire or electrical shock.
- Do not pour water or insert foreign objects into the device. This may cause smoke emissions, fires or shocks.
- Do not operate the product in a malfunctioning condition, for instance, when the audio does not play. Doing so may result in an accident, fire or electrical shock.
- When it is necessary to replace the fuse, always use a fuse of the correct rating (number of amperes). Use of fuses with higher amperage ratings may cause a fire.
- If an abnormal situation occurs, such as foreign matter entering or liquid splashing on the product, or smoke or a strange odor emitting from the unit, shut off the product immediately and consult the dealer from whom you purchased it. Continued operation may cause an accident, fire or electrical shock.
- Do not touch the antenna wire or the device itself whenever you hear thunder. There is a danger of electrocution due to lightning.
- Do not park your vehicle in an unauthorized area to operate the device.

## Safety precautions



Caution

- This device can be used when the engine switch is either at ON or ACC, however, to avoid depleting the battery, operate it with the engine running.
- This product must be operated only as on-board equipment, or it may cause electrical shock or injury.
- Play the audio at a moderate volume level that permits you to hear sounds from outside the car. Driving without being able to hear outside sounds may result in an accident.
- Check the volume prior to turning the device ON. If the volume is turned up when turning the switch ON, a loud sound will emit which may damage your hearing.
- Do not put your fingers into the disc insert slot. Otherwise, injury may result.
- Exercise caution as to avoid getting your fingers caught when closing the display or adjusting its angle. Otherwise, injury may result.
- Do not touch heated parts of the device. Otherwise, burns may result.
- For safety reasons when moving the device, have a specialist at the store of purchase reinstall for you. Specialized techniques are necessary to uninstall or install the device.
- Do not use the device in the event it emits a distorted sound or other such abnormality. Otherwise, fires may result.
- The device's liquid crystal display is equipped with a fluorescent tube. Check your local rules and regulations regarding its proper disposal.
- Using the device at extremely high or low temperatures may lead to improper operation and malfunctions. Lower your windows in order to bring down the temperature before using the device especially during the hot summer months.
- Letting water or metal objects go into the device or exposing it to strong shocks may cause malfunctions. Exercise caution.
- Take note of the following when ejecting a disc or setting the display tilt position:
  - <For vehicles with an automatic transmission>
    - When removing each disc, switch to Neutral in the event of interference when in Park and proceed. (For a column automatic transmission, perform this operation when in either Park or Neutral.)
    - When setting the tilt, make sure there is no interference generated from your hand or other obstructions when setting when either in Park, Reverse or Neutral. (If there is interference when in Drive, do not set the tilt.)
  - <For vehicles with a manual transmission>
    - When removing each disc, if interference is generated when in 1st, 3rd, 5th or Reverse gear, switch to Neutral and proceed. However, do not perform this operation while driving.
    - When setting the tilt, make sure there is no interference generated from your hand or other obstructions when either in 1st, 3rd, 5th or Reverse gear. (Do not set the tilt if there is interference.)



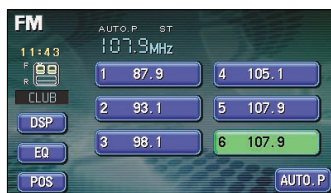
- Inoperable switches will fade and be disabled while driving. Touching inoperable switches while driving will display a message on the screen prohibiting operation.
- If exposing the device to strong vibrations due to rough driving, the device may not be able to read the data stored on the disc rendering normal operation impossible. Reduce the vibration level and normal operation will resume in a moment.
- Condensation may accumulate on the lens, which functions to read CDs and DVDs, immediately after turning ON the heater in cold temperatures. Wait about 1 hour for the condensation to evaporate and the device will operate normally. Contact the store of purchase if normal operation does not resume after several hours.
- If using this device immediately after having purchased it or after having stored it disconnected from the vehicle battery, the present location may not be accurately displayed. Wait a moment and the GPS positioning will correct the displayed position.
- Please acknowledge that no compensation will be awarded for data lost as a result of a malfunction, improper operation or a defect.

### 3 When using for the first time

#### Loading the program into the device

After purchasing the device and using it for the first time, load the map disc program into the device.

##### 1 Turn the engine ON.

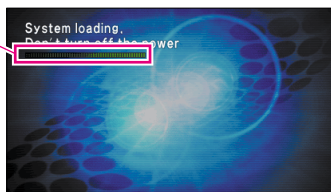


- Screen after turning the power ON (approx. 10 seconds)

##### 2 Insert the map disc.

- The device will start reading the program.
- A progress bar will appear as the program is being read.

Progress bar



- Program reading in progress screen (approx. 70 seconds)

- A screen signifying that the program reading is complete will appear.



- Program reading complete screen (approx. 10 seconds)



Cautions

While program loading is in progress, do not turn the engine OFF or operate any other switch.

### 3 Select the language

- Touch **I Agree** to use English.
- Touch **Français** and then **I Agree** use French.
- A map screen appears.



- Map screen

### 4 Wait approx. 30 seconds.



### 5 Turn the engine OFF.

### 6 Turn the engine ON and start the device.



Advice

- The same operation is necessary when starting the device for the first time after having replaced the vehicle battery or fuses.
- When inserting the map disc for the first time after having cut the power from the vehicle battery, a screen will appear with the following message: "Reading map disc. Please wait a moment."



Caution

After program reading is complete, the device will start reading the map data from the program approx. 30 seconds after the map screen appears. Attempting to operate the device during this time may result in improper operation. Do not operate the switches during this time.







# 5 How to view this manual

## Item title

A number and title is assigned for each item.

## Section title

A title is assigned for each section.

## Operation title

A title is assigned for each operation purpose.

## Detailed operation title

A title is assigned for each detailed operation purpose.

## Attention

Additional points regarding the operations are given here.

## Operation procedure

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

**NAVIGATION**

## 2 Registering places

### ● Register your home

Register your home before starting to use the device. Registering your home will facilitate the setting of return routes when driving.

**ATTENTION** Press **[NAVI]** and proceed with operation after the map of the area surrounding your home appears.

- 1 Press **[MENU]** to retrieve the **MENU** screen.
- 2 Touch **[My Places]**.
- 3 Touch **[Register]** in Memory Points.
- 4 Touch **[Map]**.

**MENU** Map Div

Search Assistance Volume My Places Setup

**My Places** BACK

Memory Points 105/108 Free Register Edit Delete

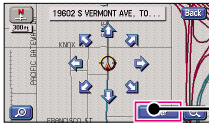
Area to avoid 10/10 Free Register Edit Delete

**Memory Point** 1/2 BACK

Disrupt Address POI Name Map Search Area Emergency Memory Previous

1 2 3 4 5

5 Touch **Enter** .



6 Touch **Attribute** .



7 Touch **Not Registered** for "Home".



8 Touch **Icon** .



9 Touch the mark to be registered on the map.

- Touch **Page 2** or **With Sound** to select a different mark. For details see 'Changing the symbol of the memory point' in the **OWNER'S MANUAL / Navigation**.



## Operation switch

Switches needed to perform operations are displayed.

## Section side heading

Only the section side heading will appear in dark letters.

## Operation screen

A screen showing the operation will appear.

Go to the next page ••➡

The operation procedures are continued on the next page.

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## Navigation

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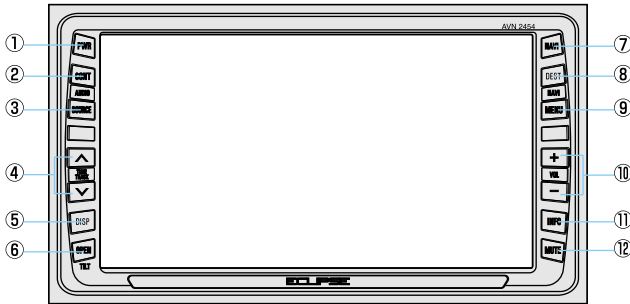
# 1 Name of parts

The unit can be operated by pressing buttons on the frame of the panel (panel buttons) and by touching buttons displayed on the screen (touch switches).

This device can be operated by remote control. Obtain a card remote control (sold separately) at the store of purchase.

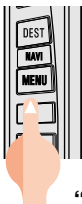
## Panel switches

Press the panel switches found on either side of the screen to operate the device.



①	<b>PWR switch</b>	Press to turn the DVD or audio ON or OFF.
②	<b>CONT switch</b>	Press to display the audio or DVD operation screens.
③	<b>SOURCE switch</b>	Press to display the audio menu screen that enables the switching of audio modes.
④	<b>TUNE / TRACK switch</b>	Press to select radio stations, CD audio tracks and DVD chapters.
⑤	<b>DISP switch</b>	Press to adjust the screen image quality or blacken the screen.
⑥	<b>OPEN / TILT switch</b>	Press to open the display. (Do not press for an extended period.) Press to adjust the screen angle. (Press until a "PEEP" sound is heard, then release the switch.)
⑦	<b>NAVI switch</b>	Press to display the navigation screen and present location.
⑧	<b>DEST switch</b>	Press to set the destination determined by the navigation system.
⑨	<b>MENU switch</b>	Press to display the navigation menu screen.
⑩	<b>VOL switch</b>	Press to adjust the DVD or audio volume.
⑪	<b>INFO switch</b>	Press to operate each navigation information function.
⑫	<b>MUTE switch</b>	Press to temporarily cut off the sound.

Press the **MENU** switch.



"PEEP"

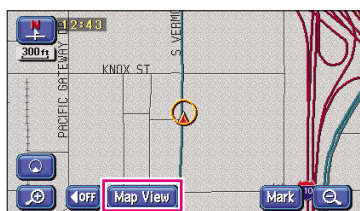


A menu screen appears.

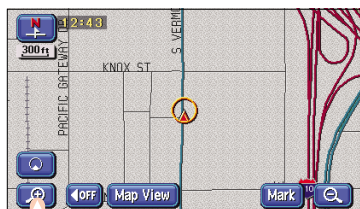


## Touch switches

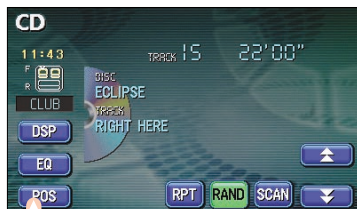
Unit can be operated by touching buttons on screen.



Touch switch



“PEEP”

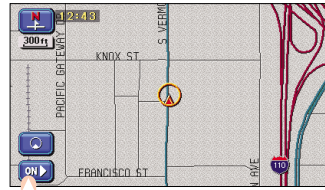


“PEEP”

### [About operation of touch switch]

- Touch the buttons until a beep sound is emitted.
- Touch the buttons lightly to prevent damage to the screen.
- If a button does not respond, remove your finger and touch it again.
- An unavailable button is shaded.
- Button color may continue with activated appearance while the function is being performed.
- When the switch function is activated, the touch switch for that function will appear green.

### Touch OFF



The touch switch displays will disappear. Touch **ON** to display the touch switches.



Caution

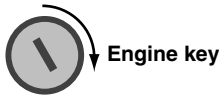
Touch these switches with your fingers.

Using a pen, pencil or other object with a hard or sharp tip to touch on the screen may cause damage.

# 2 Turning the power ON or OFF

## How to turn the power ON or OFF

When the engine is turned ON, the DVD/audio power will automatically turn ON and the Caution screen will appear. Touch **I Agree** to switch to the Navigation screen. The power will turn OFF when turning off the engine.



(Opening screen)



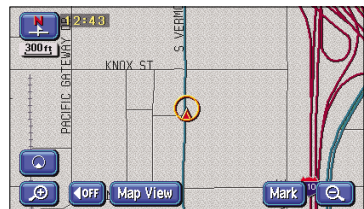
(Caution screen)



**I Agree**

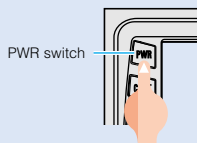


(Navigation screen)

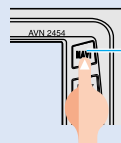


ATTENTION

- Press **NAVI** if the navigation screen does not appear.
- Press **PWR** if the audio or DVD does not turn ON.



PWR switch



NAVI switch

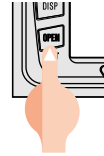
## 3 Inserting a disc

### How to insert or eject a CD or DVD

Insert an audio CD when wanting to listen to music.

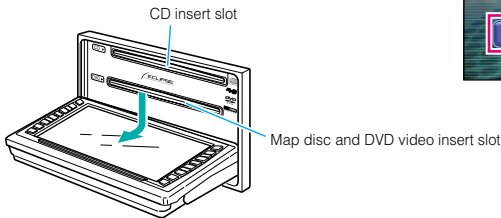
#### How to insert a CD or DVD

##### 1 Press **OPEN**



##### 2 Touch either **CD**, **DVD** or **OPEN**

The display will open showing each insert slot.



ATTENTION

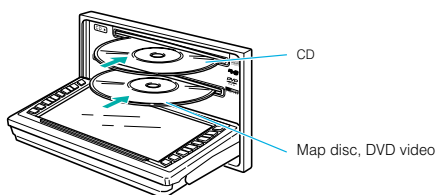
- The display can be opened even after pressing **OPEN** for approx. 1 second until a "PEEP" sound is heard.
- Pressing **OPEN** when the display is opened will close the display.



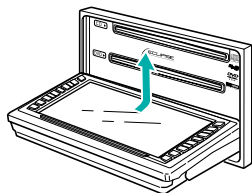
Caution

- If the vehicle's automatic transmission shift lever is in the "P" position or manual transmission lever is in the 1, 3, 5 or "R" position, or if a bottle or other container is in the cupholder, this could interfere with the opening and closing of the display. When it is safe to do so, move the shift lever to the "N" or "Neutral" position or remove the container from the cupholder before opening or closing the display.
- Do not place cups or cans on the display when it is opened.
- Quickly wipe away any liquid spilled on the display. Otherwise, damage may result.
- To protect the display from heat or dust, keep it closed at all times except when inserting or ejecting a disc.
- Do not press **OPEN** while inserting a disc.

### 3 Insert the desired disc into the slot.



### 4 When the CD or DVD is fully inserted, the display closes automatically.



- As soon as an audio CD is inserted, playback starts.
- As soon as a map disc is inserted, the navigation screen is displayed.
- As soon as a DVD is inserted, playback starts.



Do not touch **CLOSE** or press **OPEN** while a disc is being inserted.



## DVD

- DVDs labeled with the marks below can be used with this device.



- Some functions cannot be used depending on the type of DVD.
- When handling a DVD, hold it by pressing one finger on its center rim and another finger on its end with the label up.

## CD

- Insert CD and map discs with the label up.
- Audio CDs, CD-Rs (CD-Recordable) and CD-RWs (CD-Rewritable) labeled with the marks below can be used with this device. (For details, see “**Before using the deck**” in the **OWNER'S MANUAL / Audio**.)



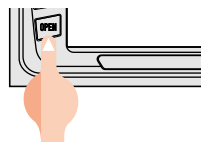
- CD-Rs and CD-RWs may not playback due to their particular properties or scratches, dirt or deterioration as a result of having been left for extended periods inside the vehicle. Also, CD-Rs and CD-RWs that haven't gone through finalized processing cannot be played back on this device.
- Do not use an adapter when inserting 8cm CDs. Ejecting may be rendered impossible.
- When handling a CD, hold it by pressing one finger on its center rim and another finger on its end with the label up.

## Map disc

- Only use a specially made DVD navigation disc (for details, contact the store of purchase).
- When handling the map disc, hold it by pressing one finger on its center rim and another finger on its end with the label up.

## How to eject a CD or DVD

- 1 Press **OPEN**.

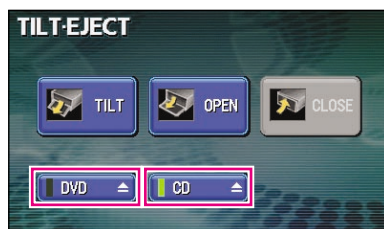


- 2 Touch **CD** or **DVD** to eject either disc.

The display will open and the disc(s) are ejected.

- 3 After removing the disc(s), touch **CLOSE** or press **OPEN**.

The display will close.



Caution

- If the vehicle's automatic transmission shift lever is in the "P" position or manual transmission lever is in the 1, 3, 5 or "R" position, or if a bottle or other container is in the cupholder, this could interfere with the opening and closing of the display. When it is safe to do so, move the shift lever to the "N" or "Neutral" position or remove the container from the cupholder before opening or closing the display.
- Be careful of the following items while a disc is being ejected.

### <Automatic transmission vehicle>

If the shift lever in the "P" position causes interference with disc ejection, switch the lever to the "N" position to eject discs. (Steering column mounted shift levers allow unit operation while lever is in either "P" or "N" position.)

### <Manual transmission vehicle>

If the shift lever in the 1, 3, 5 or "R" position causes interference with disc ejection, switch the lever to the Neutral position to eject discs.

- Do not close the display by hand. This could damage the display.
- Do not place objects such as cups or cans on the display when it is in the open position. This could damage the display.
- If a liquid such as a beverage is spilled on the display, immediately clean the display by wiping with a soft dry cloth. If the liquid is left on the display it could damage the display.



ATTENTION

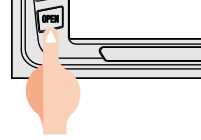
- The display can be opened even after pressing **OPEN** for approx. 1 second until a "PEEP" sound is heard. Pressing **OPEN** when the display is opened will close the display.
- Turning the engine OFF while the display is opened will emit a voice notification. Touch **CLOSE** or press **OPEN** to close the display.
- If the disc does not eject (not released from the internal mechanism), touch **CLOSE** to close the display and then press down on **OPEN** (for at least 5 seconds).

## 4 Display angle adjustment

### Adjust the angle of the display

The screen viewing angle can be adjusted to any of 6 stepped positions when light from outside the vehicle makes viewing difficult.

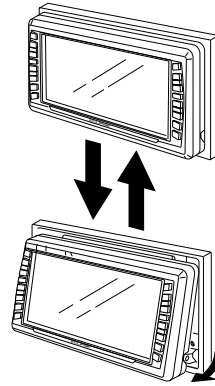
#### 1 Press **OPEN**.





#### 2 Touch **TILT**.

The display will tilt upwards by one step (5°). Each touch of the switch tilts the panel by another step.

Pressing the switch when the display is tilted to the 6th level (30°) will bring it back up to its original position (0°).



ATTENTION

- The display will open when pressing **OPEN** or touching **CD**  or **DVD**  even when tilted. When closed again, it will return to its tilted position.
- If the display is in an adjusted angle position when the vehicle ignition is turned off, the display will automatically return to the original position (0°). If the ignition switch is then turned to ACC or ON, the display will return to the adjusted angle position.



Caution

- Be careful not to pinch your hands or other objects when adjusting the angle of the display. This could cause an injury or damage to the display.
- Observe the following cautions when adjusting the angle of the display.

#### <Automatic transmission vehicle>

When setting the tilt position, choose an angle that does not interfere with operation of the shift lever in the "P", "R" or "N" lever positions. (If there is interference with the shift lever in operating positions, do not set a tilt position.)

#### <Manual transmission vehicle>

When setting the tilt position, choose an angle that does not interfere with operation of the shift lever in the 1, 3, 5 or "R" lever positions. (If there is interference, do not set a tilt position.)

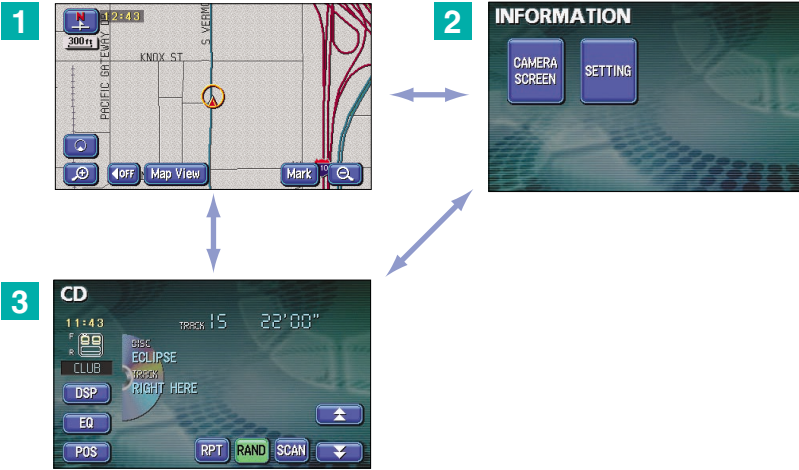


# 5 Modes

## Get to know each mode

This device has three main modes: “**Navigation**”, “**Information**” and “**Audio DVD**”.

You can switch from any mode to any mode.



	Mode	Main functions
1	Navigation	<ul style="list-style-type: none"> <li>• Present location display</li> <li>• Instructions to destination</li> <li>• Geographical point registration (home and memory points)</li> </ul>
2	Information	<ul style="list-style-type: none"> <li>• Back monitor function (optional)</li> <li>• Setting display</li> </ul>
3	Audio/DVD	<ul style="list-style-type: none"> <li>• AM/FM broadcast reception</li> <li>• CD player operation</li> <li>• MP3 player operation</li> <li>• DVD player operation</li> </ul>

# 6 Operational conditions

## Each operation condition for device functions

Depending on the following conditions (engine switch position), the device functions may or may not be operable.

:Operable x:Inoperable

Each function \ Engine switch	Engine switch		ACC/ON With parking brake released	Display opened
	OFF ( LOCK )	ACC/ON With parking brake set		
GPS voice Navigation / Information	x		Some functions are inoperable for safety reasons.	x Route and voice guidance continue.
Audio	x		Some functions are inoperable for safety reasons.	x Voice guidance continues.
DVD	x		For safety reasons, only the voice guidance is emitted.	x Voice guidance continues.

\*Only the sound of DVD playbacks will be emitted while driving for safety reasons.



ATTENTION

Inoperable switches fade and are disabled while driving. Pressing inoperable switches while driving will display a message on the screen prohibiting operation.



Warning

When installing this device to vehicles, please be sure to connect a parking signal. If the parking signal is not connected, this device will not operate normally but may cause an accident.

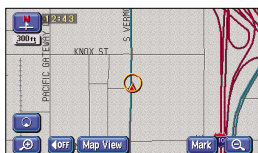
# 7 Switching modes

## Get to know how to switch modes

Press the switches below to switch modes.

### Navigation screen

Press **NAVI**.



### Information

Press **INFO**.

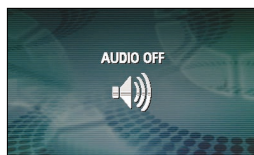


### Audio operation screen

Press **CONT** (Operation time) \*1



(OFF screen) \*2

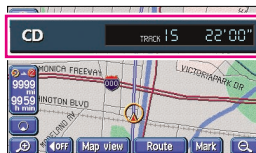


\*1: Appears when the audio or DVD functions are in operation. See the **OWNER'S MANUAL / Audio** for audio and DVD operations

\*2: Appears when the audio or DVD functions are turned OFF.

### Screen display (on-screen play)

Turn on the audio or DVD (selecting a track or chapter) when the screen is showing the navigation display or is turned off and this screen will appear. The screen will disappear automatically in a moment.

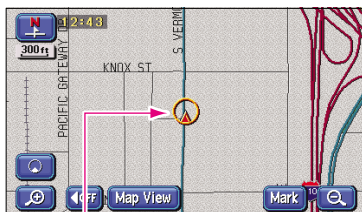
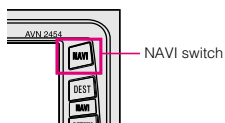


Screen display

# 1 Map operation

## Check the positioning of your vehicle

Press **NAVI** to display the area in which your vehicle is located.



### Vehicle mark

The present location and the heading are displayed. The mark will move automatically as per the movements of the vehicle.

## How to view the present location screen

### Orientation mark

Indicates the orientation of the map.

### Name of present location

Press the **NAVI** switch to display it in the present location screen.

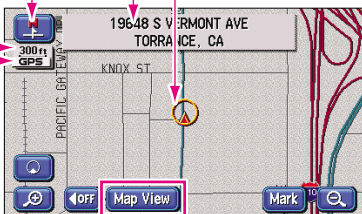
### Scale

Indicates the reduction scale of the displayed screen. In this case, the length of the line segment is 300ft.

### Present location mark

### GPS mark

Indicates the absolute positioning information from the GPS satellite.

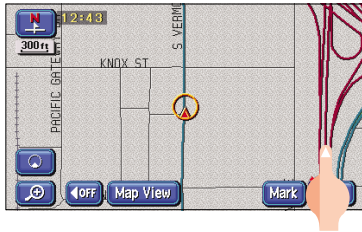


### Touch switch

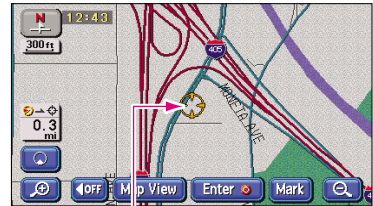
Each function switch is displayed depending on the screen.

## Move the map (one-touch scroll)

Touch the screen directly to move the map.



Scrolling



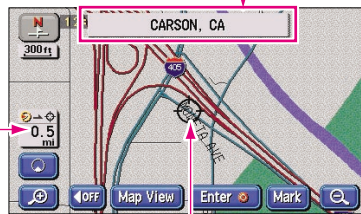
### Cursor mark

Touch the map and the cursor mark will appear in the middle of the screen.

## How to view the scroll screen

### Position name

After moving the map, the name of the cursor position will appear for approx. 6 seconds.





### Straight line distance display

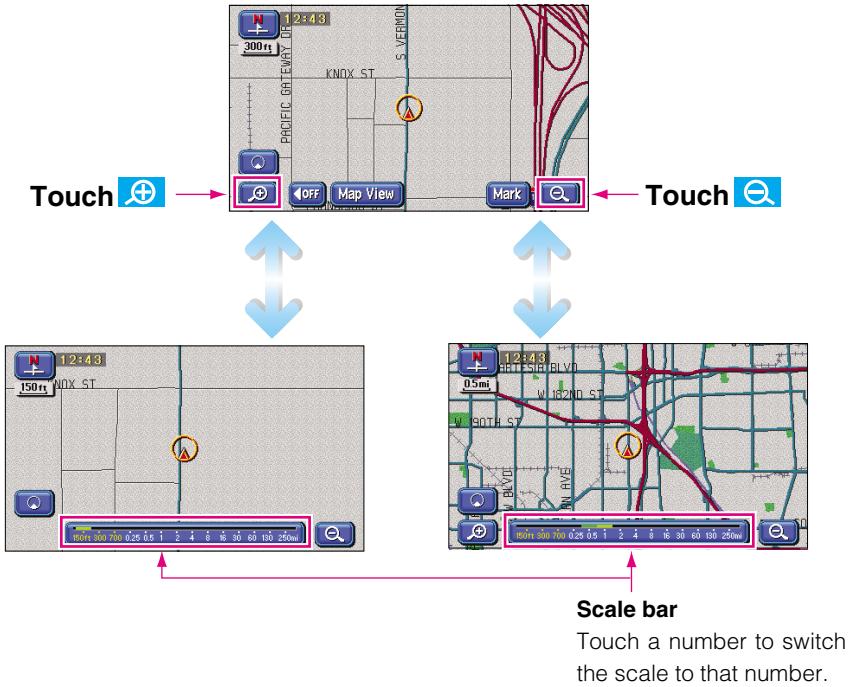
The distance in a straight line from the present location to the center of the cursor mark is shown.





### Cursor mark

Touch the cursor mark continuously and it will change color from black to yellow. Scrolling will be made faster.

## Change the map reduction scale

Touch the  switch and the map reduction scale increases making for a wider range display. Touch the  switch and the map reduction scale decreases for a more detailed map display.



Every time either  or  is pressed, the scale changes one level. Touch either  or  continuously for over 1 second to change the scale without going though each level.

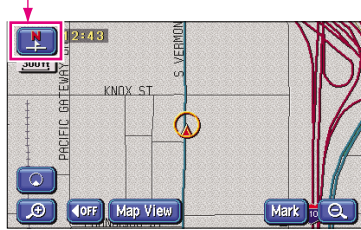
## Change the orientation of the map

The orientation of the map displayed on the screen can be switched to either north up (always having the map oriented north) or heading up (always having the map oriented in the direction of the heading).

Touch the orientation mark (  or  ) to switch the map orientation.

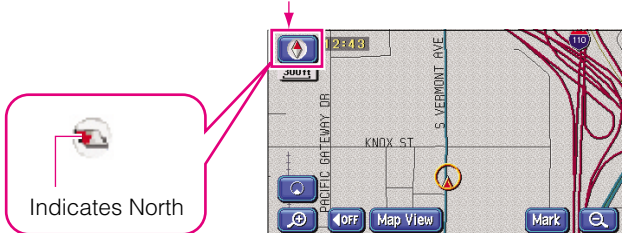
### North up display

#### Orientation mark display





### Heading up display

#### Orientation mark display



## Change the map display method

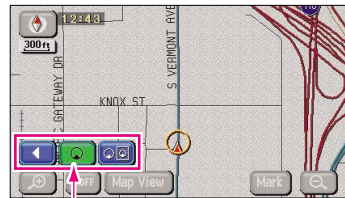
The map display can be changed according to several conditions. There are two types of map display methods:

	Shows a regular map (flat).
	Shows a map separated into two halves.

### 1 Touch .



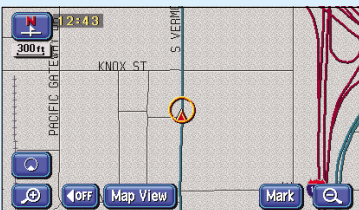
### 2 Touch the desired display method.



The touch switches on the displayed map brighter.

#### Touch and

A regular map (flat) will be displayed.



#### Touch and

A map separated into two vertical halves will be displayed.





## Display various points of interest on the map

Various points of interest (landmarks) can be shown on the displayed map.

1 Touch **Map View**.



2 Touch **Show POI Icon**.

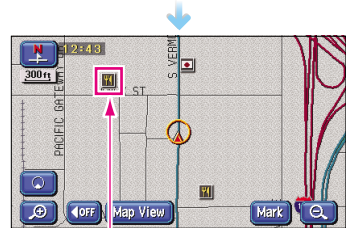


3 Touch the **POI Icon** to be displayed.

- Other than the 6 types of multiple landmarks and screens can be displayed. For details, see "POI display" in the **OWNER'S MANUAL / Navigation**.



- The selected POI landmark will appear.



POI landmark

## 2 Registering places

### Register your home

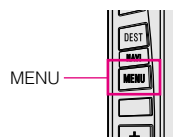
Register your home before starting to use the device.  
Registering your home will facilitate the setting of return routes when driving.

#### When at home

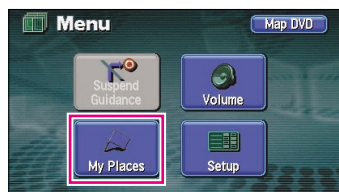


Press **NAVI** and proceed with operation after the map of the area surrounding your home appears.

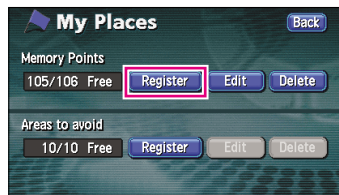
- 1 Press **MENU** to retrieve the MENU screen.



- 2 Touch **My Places**.



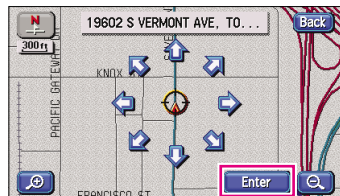
- 3 Touch **Register** in Memory Points.



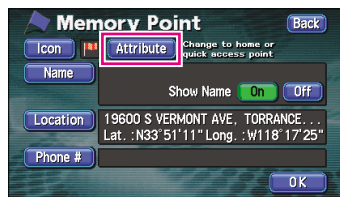
- 4 Touch **Map**.



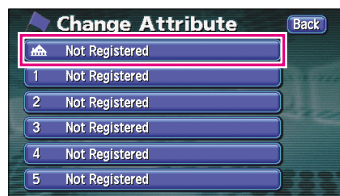
5 Touch **Enter** .



6 Touch **Attribute** .



7 Touch **Not Registered** for “Home”.



8 Touch **Icon** .

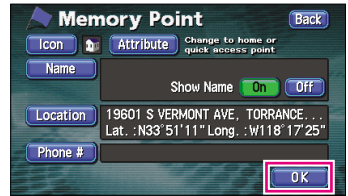


9 Touch the mark to be registered on the map.

- Touch **Page 2** or **With Sound** to select a different mark. For details see "**Changing the symbol of the memory point**" in the **OWNER'S MANUAL / Navigation**.

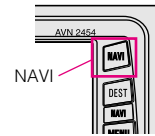


**10** Touch **OK** .



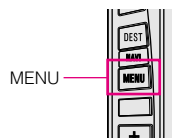
**11** Press **NAVI** .

- The present location will appear.

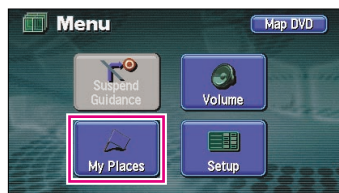


## When at a location other than your home

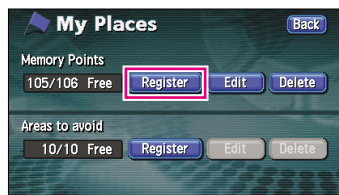
- 1 Press **MENU** to retrieve the MENU screen.



- 2 Touch **My Places**.




- 3 Touch **Register** in Memory Points.

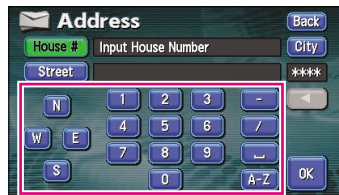


- 4 Touch **Address**.

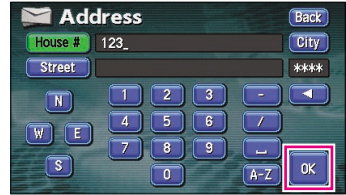


- 5 Enter the House Number one number at a time by touching the number switches on the screen.


- If having made a mistake, touch  to erase one entry at a time.

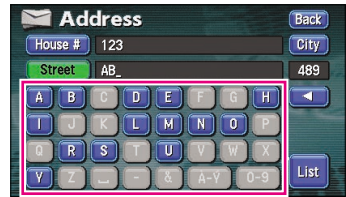


**6 Touch **OK** .**

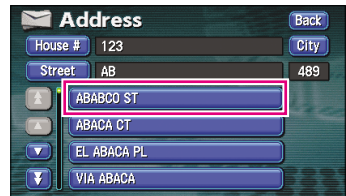


**7 Enter the Street Name.**

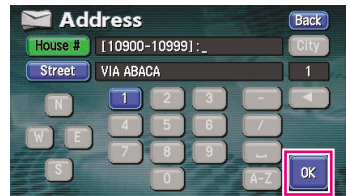
- If having made a mistake, touch  to erase one entry at a time.
- A list may appear as you enter the number to facilitate entry. Entering the entire number may not be necessary.



**8 Touch the desired Street Name.**



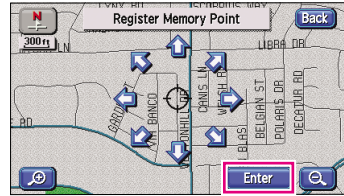
**9 Touch **OK** .**



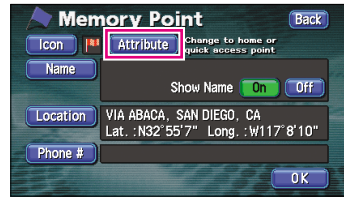
**10 Touch  to align the position of your home.**



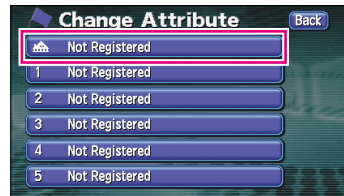
11 Touch **Enter** .



12 Touch **Attribute** .



13 Touch **Not Registered** for “Home”.



14 Touch **Icon** .

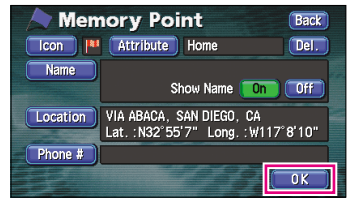


15 Touch the mark to be registered on the map.

- Touch **page 2** and **WithSound** to select a different mark. For details see “**Changing the symbol of the memory point**” in the **OWNER'S MANUAL / Navigation**.

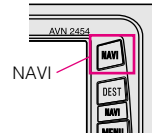


**16** Touch **OK** .



**17** Press **NAVI** .

- The present location will appear.





## Register favorite places

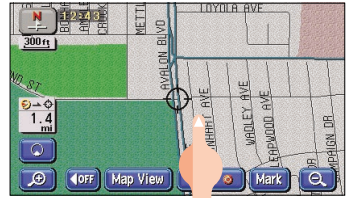
Up to 106 favorite places (including your home and special memory entries) can be registered on the map.

Registering a place will make a flag (🚩) or a name appear on that spot.




### How to register from the map

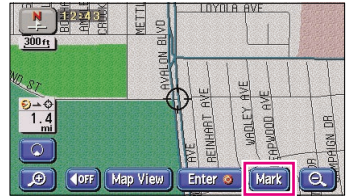
#### 1 Touch the map and move the mark to the spot to be registered.

- The map does not need to be moved when registering the present location.



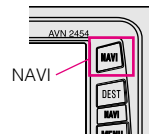
#### 2 Touch **Mark**.

- The position of  when the map is not moved and  when having moved the map will be registered with a  mark.



#### 3 Press **NAVI**.

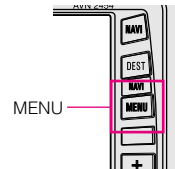
- The present location will appear.



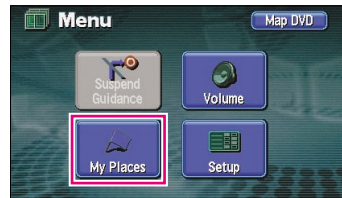
## To register a far away place

Register SAFECO FIELD located in Seattle, Washington.

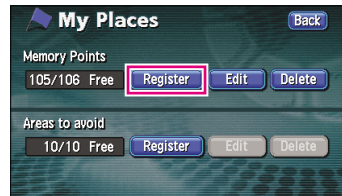
- 1 Press **MENU** to retrieve the MENU screen.



- 2 Touch **My Places**.



- 3 Touch **Register** in Memory Points.



- 4 Touch **Change**.



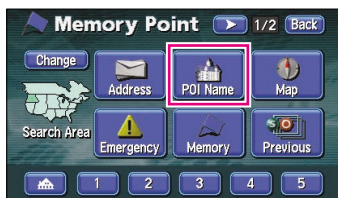
- 5 Touch **US1**.



6 Touch **OK** .

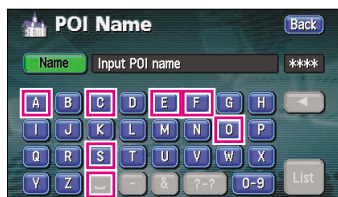


7 Touch **POI Name** .



8 Touch **S**, **A**, **F**, **E**, **C**, **O** and  in that order.

- A list may appear as you enter the number to facilitate entry. Entering the entire number may not be necessary.



9 Touch **List** .

- Narrow down the list of candidates using **City** and **Category** .



10 Touch **SAFECO FIELD** in the list.



11 Touch **196 S ATLANTIC ST.,**

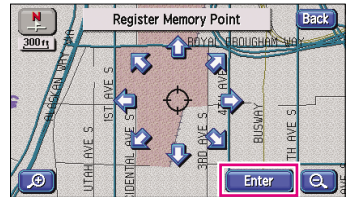


12 Touch **↑** to move the map.

- When not moving the map, start from 13.



13 Touch **Enter**.



14 Touch **Icon**.

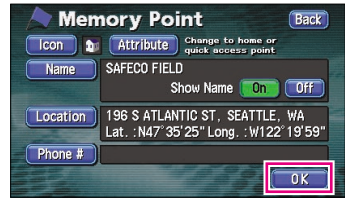


15 Touch the **Icon** to be registered in the map.

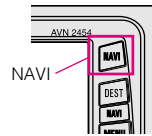
- Touch **Page 2** or **With Sound** to select a different mark. For details see "How to switch the list screens" in the OWNER'S MANUAL / Navigation.



16 Touch **OK** .



17 Press **NAVI** .



- The present location will appear.



## 3 Route guidance

### How to start route guidance

Indicating the destination will automatically start a search for routes to that place. This is called “Route Search”. When the route search is complete, a route to the destination is set. This is called “Route Setting”. When starting to drive the vehicle after having set the route, the route to the destination will be guided by voiced instructions and screens that appear as per the set conditions.

The voice and screen instruction operation is called “Route Guidance”.

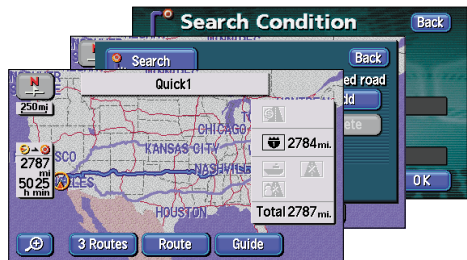
#### Route Search (indicate destination)

- One-touch search
- Search from registered points
- Search by making maps appear



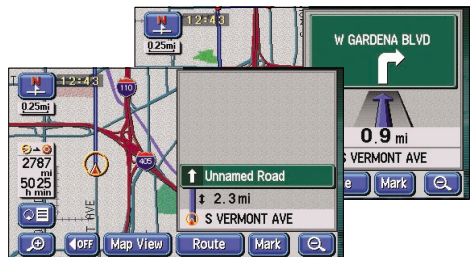
#### Route Setting

- Check the distance to the destination
- Select the desired route
- Add stops in your journey



#### Route Guidance

- Start guidance
- Announces intersections



# 4 Search a destination

## Decide on a destination and start a route search

Give information on the desired destination and search for a place.

- ① When searching immediately after moving the map...[Enter]
- ② When returning home  
(with your home being registered).....[My Places]
- ③ If the freeway entrance/exit name is known..... [Freeway Ent./Exit]
- ④ If the latitude/longitude coordinates of the destination are known..... [Coordinates]

You can also search from the POI NAME or the INTERSECTION.  
For details, see **“How to retrieve maps”** in the **OWNER’S MANUAL / Navigation**.



① When having moved the map

③ When searching using the freeway exit/entrance name



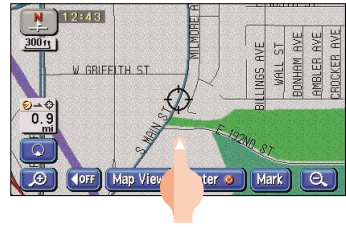
② When returning home



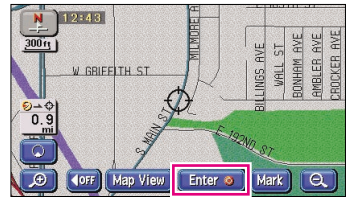
④ When searching using the latitude/longitude coordinates


## How to search after moving the map

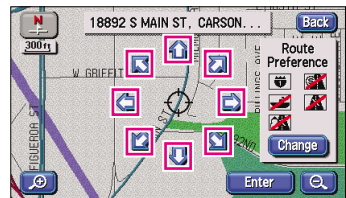
- 1 Touch the map and move the  mark.



- 2 Touch **Enter**.




- 3 Touch  and align the mark with the destination.

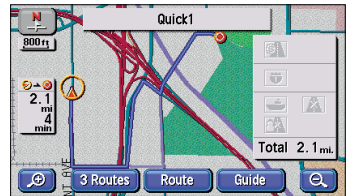


- 4 Touch **Enter**.

- A  symbol will appear on the  mark position.



All routes from the present location to the  symbol will be searched for and displayed.

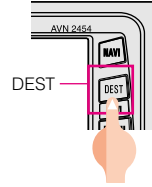


- All routes are displayed.



## How to return home

1 Press **DEST**.

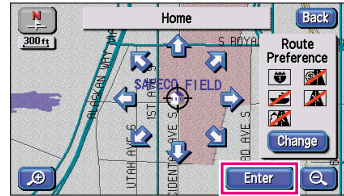


2 Touch .



3 Touch **Enter**.

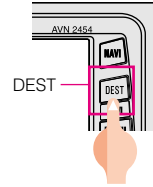
All routes from the present location to your home will be searched for and displayed.



• All routes are displayed.

## When searching using the freeway entrance/exit name

1 Press **DEST** .




2 Touch  .



3 Touch **Freeway Ent./Exit** .

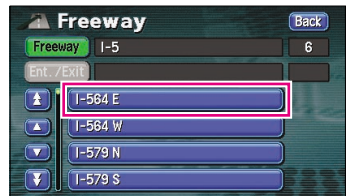


4 Enter the **Freeway Name** one number at a time by touching the switches on the screen.

- If having made a mistake, touch  to delete one entry at a time.
- The screen will switch to a list display with 4 search results or less.

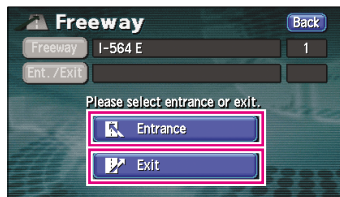


5 Touch the corresponding freeway name from the list.



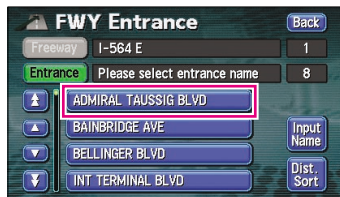
**6** Touch **Entrance** or **Exit** to select the entrance or exit.

- The freeway entrance/exit names will be listed.




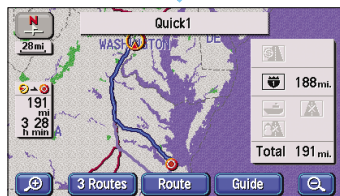
**7** Touch the corresponding entrance/exit name.

- The indicated entrance/exit map will appear.



**8** Touch **Enter** .

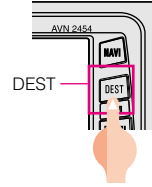
- Touch  to move the map. A route from the present location to the destination will appear.



- All routes are displayed.

## Searching using the latitude/longitude coordinates

1 Press **DEST** .



2 Touch  .

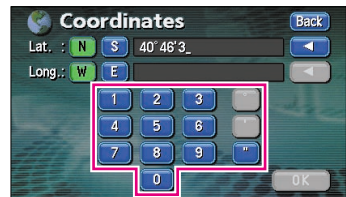


3 Touch **Coordinates** .



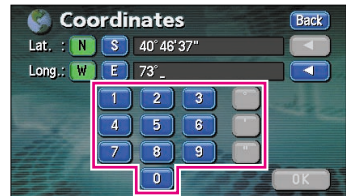
4 Enter the “Lat.” one number at a time by touching the switches on the screen.

- Touch **N** or **S** to switch between north latitude and south latitude. If the geographical point entered is not within the area recorded in the map disc, a map will not appear. The recorded area is between N24 and N64 39'59".



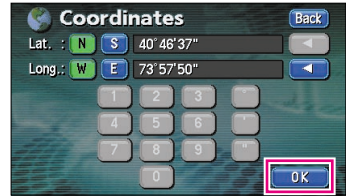
5 Enter the “Long.” one number at a time by touching the switches on the screen.

- Touch **W** or **E** to switch between west longitude and east longitude. If the geographical point entered is not within the area recorded in the map disc, a map will not appear. The recorded area is between W61 0'1" and W141.




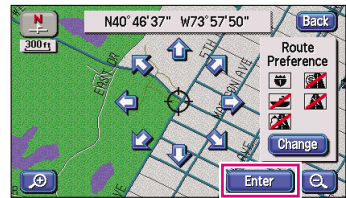
## 6 Touch **OK**.

The entered point will appear.



## 7 Touch **Enter**.

- Press  to move the map. A route from the present location to the destination will appear.



- All routes are displayed.

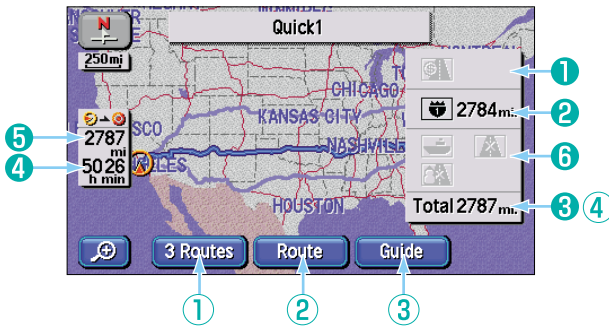
# 5 Route setting

## Set the desired route

After deciding on a destination, recommended routes from the present location to the destination are searched for and displayed on the screen.

Routes to the destination will be colored into the screen and the required time and distance to the destination will be displayed. This is called the “All Route Diagram”.

From the all route diagram, you can check the progress of your journey, select a different route and add stops along the route.



### Displays

① <b>Toll road distance display</b>	All toll road distances to the destination are displayed.
② <b>Freeway distance display</b>	All freeway distances to the destination are displayed.
③ <b>Distance display</b>	The distance to the destination is displayed (in case of multiple stops, the last stop is displayed).
④ <b>Required time display</b>	The required time and bearing to the destination is displayed.
⑤ <b>Remaining distance display</b>	The distance with the indicated route is displayed. In case of multiple stops, every time this switch is pressed, the required time and distance to each of them respectively are displayed.
⑥ <b>Used road overview display</b>	Icons for freeways, toll roads, ferry crossings and restricted roads will be active up to the destination.

### Touch switches

①	<b>3Routes</b>	Displays different routes enabling their selection. (See P58).
②	<b>Route</b>	Enables you to change the displayed route, add a destination or change an interchange (IC). (For details, see <b>“Changing the search result route”</b> in the <b>OWNER'S MANUAL / Navigation.</b> )
③	<b>Guide</b>	Starts route guidance.
④	<b>Remaining distance display</b>	When there are 2 or more destinations, touch the remaining distance display to switch distances to the destination (for details, see <b>“Switching the required time / distance remaining display”</b> , <b>“Changing the search result route”</b> in the <b>OWNER'S MANUAL / Navigation</b> ).



ATTENTION

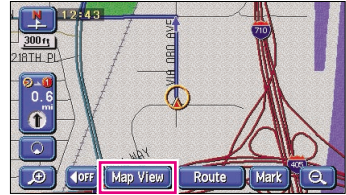
The route searched for is a reference route up to the area in which the destination is located. It is in no way the shortest, fastest or least congested route available.

## Check the progression of your journey

- 1 Touch **Guide** in the route guidance display.



- 2 Touch **Map View**.



- 3 Touch **Route Overview**.



- 4 Touch **Turn List**.




- 5 Touch **▲ ▲** or **▼ ▼**.

- The route information is displayed in segments at intersections, road type turning points, etc.
- Touch **Map** to display the map for that area.





## How to view the route information screen



The screenshot shows a 'Turn List' screen with a 'Back' button in the top right. The list contains the following items:

- CARSON ST (with a house icon) - 400 mi
- 1-405 NORTH (with a red '1' icon) - 300 mi (with a 'Map' button)
- SANTAFE AVE (with a right-turn arrow icon) - 0.5 mi (with an 'Interval distance display' annotation pointing to '0.5 mi')
- VIA ORO AVENUE (with a yellow circle icon) (with a 'Map' button)

Annotations on the left side include:

- 'Heading display' with an arrow pointing to the right-turn arrow icon for SANTAFE AVE.

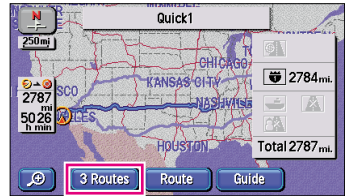
Annotations on the right side include:

- 'Intersection name display' with an arrow pointing to the text '1-405 NORTH'.
- 'Interval distance display' with an arrow pointing to the text '0.5 mi'.

## Select a different route

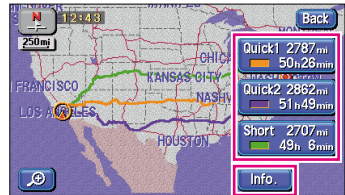
A total of 3 recommended routes will be displayed, Quick 1, Quick 2 and Short, from which you may select one.

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

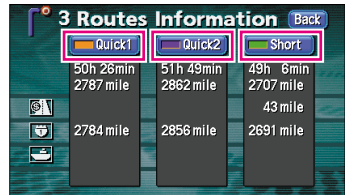


- 2 Touch **Info.** in the display where the 3 routes are displayed in different colors.

- Touch **Route Name** to display the entire selected route.



- 3 Touch the desired **Route Name**.

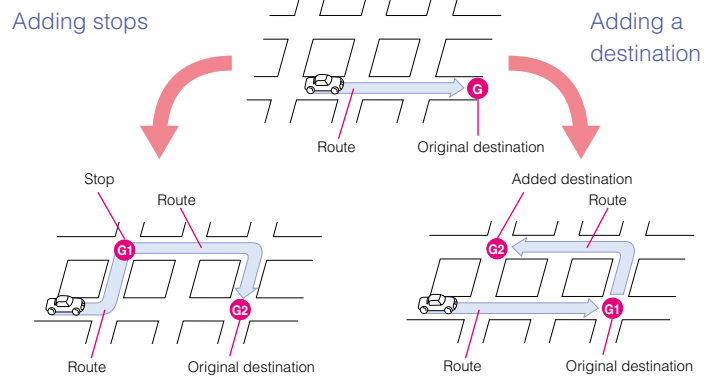


- The entire selected route will appear.



## Add stops along the route

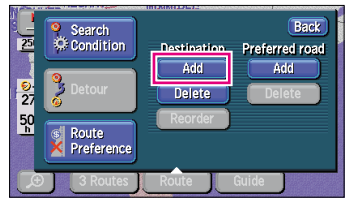
You can change the route in advance if, for example, wanting to pick up a friend along the way to your destination or add another destination further away from the original one.



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



**2** Touch **Add** in Destination.



**3** Touch on the stop and destination retrieval method.

- For "Retrieval Method", see "How to retrieve maps" in the **OWNER'S MANUAL / Navigation**.

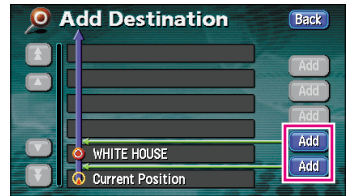


**4** Touch **Enter** in the retrieved map.



**5** Touch **Add** in the space to be added.

- An all route diagram display will appear with the changes.
- If setting between the present location and the destination, the addition becomes a stop.
- Setting after the destination will make it the next destination.
- Up to 5 stops and added destinations can be set. Repeat steps **2** to **5** for each setting.



- All routes are displayed.

# 6 Start route guidance

## Route guidance

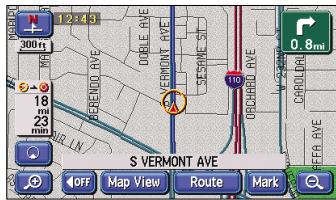
Start driving and the device switches screens for each set point of reference, such as intersections, in accordance with the movement of your vehicle. Also, each reference point is announced in a clear voice.

### Present location screen during route guidance

Depending on the route being taken, reference points will be explained using various screens.

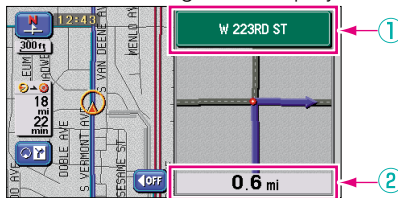
#### Announcing intersections

Present location



When approaching an intersection...

Intersection enlargement display



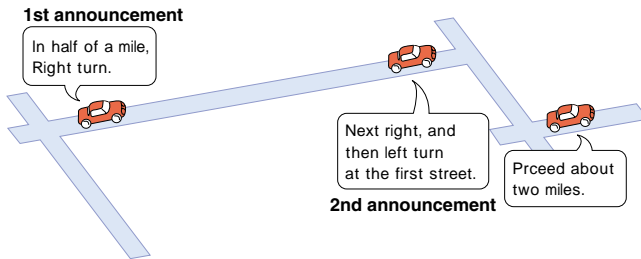
<b>1</b>	<b>Intersection name display</b>	The names of both the intersections where a turn is made and where a turn is not made are announced.
<b>2</b>	<b>Remaining distance display</b>	The distance up to the intersection is displayed.

## Voice route guidance

During route guidance, the distance up to a reference point and other information depending on road conditions and vehicle speed are announced with a clear voice.

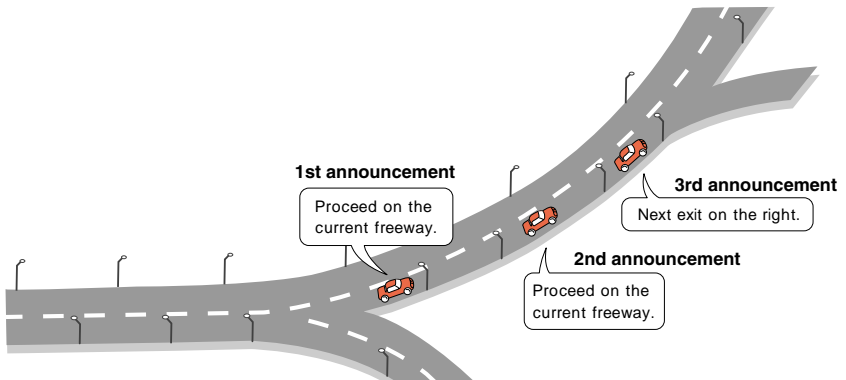
### When on a local road

Corresponding with the vehicle speed, intersection names, the distances remaining up to intersections and the direction of the turn to be made are announced vocally in accordance with their conditions.



### When on a highway

When about 2 km before an interchange or a junction, a guidance screen appears and a voice announces your direction and heading. At tollbooths, the voice guidance will announce the fare and direction.



## Start driving following the route guidance

### 1 Touch **Guide** in the all route diagram display.

- The present location screen appears and a voice will announce: You are now driving through ... Please follow the actual traffic regulations.



### 2 Start driving.



ATTENTION

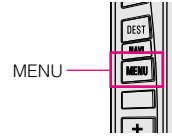
#### In the event of having gone off the set route

Even if having driven off the set route, the device will automatically make an adjustment to return you to the guided route (auto search function). For details, see "**Automatic rerout search**" in the **OWNER'S MANUAL / Navigation**.

## Stop and restart guidance while in progress

Guidance can be stopped and restarted while in progress.

- 1 Press **MENU**.




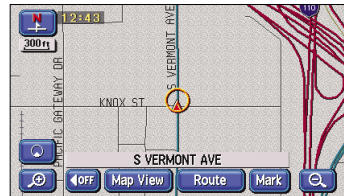
### Stop guidance

- 2 Touch **Suspend Guidance**.

- Guidance is stopped.



- The route on the map disappears (the  mark for the destination remains).



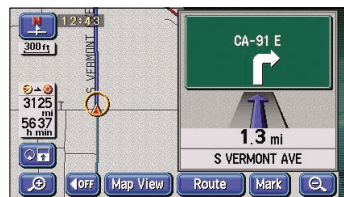
### Restart guidance

- 2 To restart guidance Touch **Resume Guidance**.

- Guidance is restarted.





- The route is redisplayed on the map.

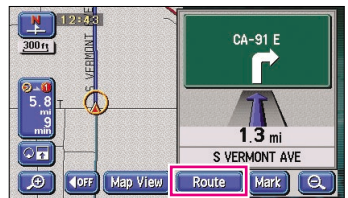




## Delete the destination

The set destination can be erased. Also, the set  mark does not disappear even after having arrived at your destination according to the prescribed route. Delete it by performing the operation described below. (However, if setting a new destination, that same  mark does not disappear.)

### 1 Touch **Route**.



### 2 Touch **Delete** in Destination.

- Go to **4** if there is only one destination.



### 3 Touch the destination name to be deleted.

- Touch **Delete All** to erase the entire list.



#### 4 Touch **Yes** .

- If there are destinations remaining, the device will automatically search the remaining destination(s) and an all route diagram will be displayed.



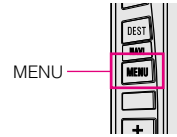
- All routes are displayed.

# 7 Other settings

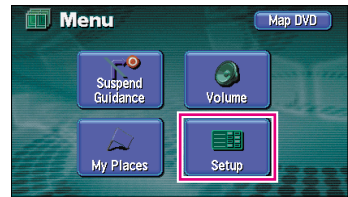
## How to display a clock on the navigation screen

A GPS clock can be displayed on the map screen.

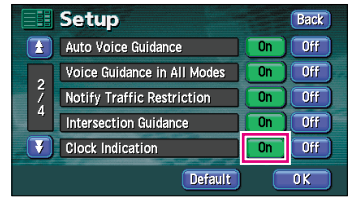
- 1 Press **MENU** to retrieve the MENU screen.



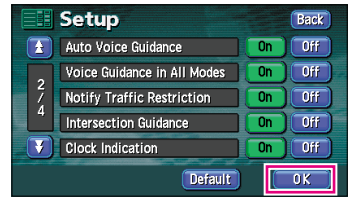
- 2 Touch **Setup**.



- 3 Touch **On** for Clock Indication.

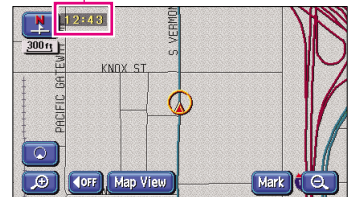


- 4 Touch **OK**.



Clock Indication ↓

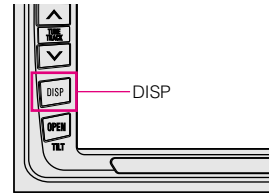
- A clock will appear in the upper left corner of the screen.



## How to turn off the navigation screen

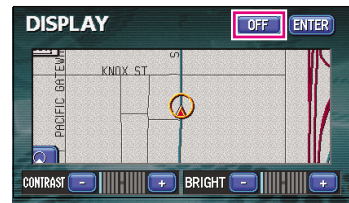
The map screen can be turned off when not using the navigation system.

- 1 Press **DISP** to retrieve the image quality adjustment screen.

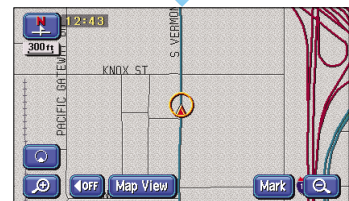
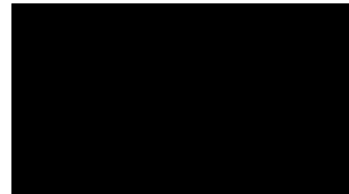


- 2 Touch **OFF**.

- The contrast and brightness can be adjusted from the image quality adjustment screen. For details, see "**Screen adjustment**" in the **OWNER'S MANUAL / Navigation**.



- 3 Press **NAVI** to return to the navigation screen.



## How to correct the present location

Even if the 📍 vehicle position mark on the map gets out of alignment, the device will automatically correct the present location using map matching and GPS data while you drive (it may take up to several minutes depending on the case). In the event the GPS data is not used and the present location is not automatically corrected, park your vehicle in a safe place and correct the present location.

The present location must be corrected in the following situations:

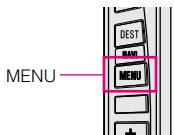
- When changing a tire, perform automatic correction. (Distance correction)

The present location can be corrected even in the following situations:

- When the 📍 vehicle position mark appears on a spot different from the actual present location (when the 📍 vehicle position mark is misaligned), the direction and position of the 📍 vehicle position mark can be corrected. (Present location correction)
- While driving, if the progression of the 📍 vehicle position mark on the map is absolutely different from the actual progression of your vehicle, the progression of the 📍 vehicle position mark can be corrected. (Distance correction)

### Correcting the present location

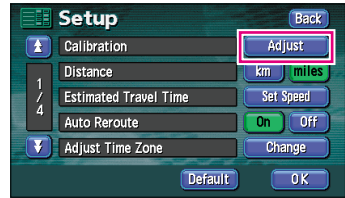
**1 Press MENU to retrieve the MENU screen.**



**2 Touch Setup .**



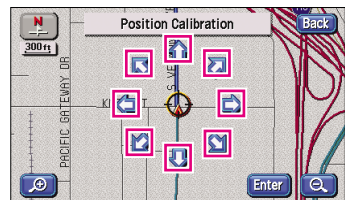
3 Touch **Adjust** for CALIBRATION.



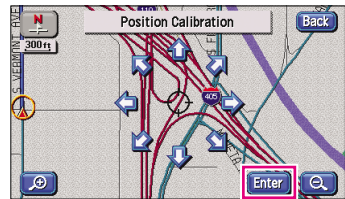
4 Touch **Position / Direction** .



5 Touch  and move the map to the actual present location.





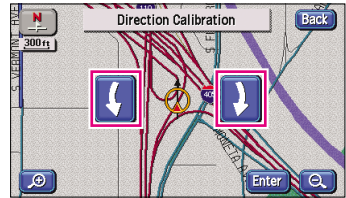
6 Touch **Enter** .



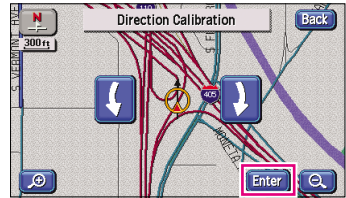
Correction can be made on a detailed map with a reduction scale of under 0.5 miles.

**7 Touch  or  to set the direction.**

- To move the direction counterclockwise, touch .  
To move it clockwise, touch .

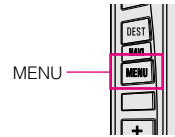


**8 Touch .**



## Distance correction

- 1 Press **MENU** to retrieve the MENU screen.



- 2 Touch **Setup**.




- 3 Touch **Adjust** for Calibration.



- 4 Touch **Tire Change**.

- Automatic correction is performed.



- This device uses the GPS and vehicle speed signals to automatically correct the distance (auto correction). However, for a variation greatly exceeding the limits of the automatic correction function (such as when changing a tire or reinstalling the device in another vehicle), distance correction may take some time. In such a case, drive for about 6 miles on a road indicated by favorable GPS signal reception conditions.
- If the device cannot make a correction, take it to the store of purchase for an inspection.
- The vehicle position may be misaligned during the auto correction.
- Even after the auto correction is complete, because the device has a distance correction learning function, the progressing of the  vehicle position mark may vary depending on the driving conditions.





# 1 Switching the audio source (mode)

## Switch the audio source (mode)

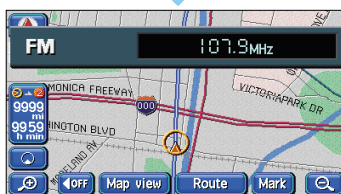
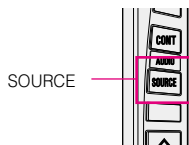
### How to switch to the FM source

#### 1 Press **SOURCE**.

The AUDIO MENU screen will appear.

#### 2 Touch **FM**.

Touch the desired audio source and that source will appear on the screen.

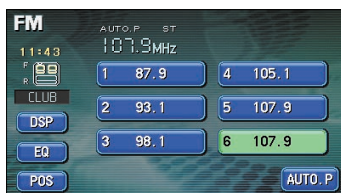
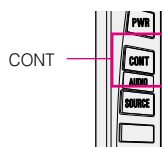


- On-screen display screen

### How to retrieve the operation screen

#### 1 Press **CONT**.

- The operation screen will appear.
- Operation screens for each source are retrieved as per the next page



- FM operation screen

### AM operation screen



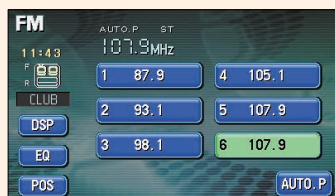
### CD operation screen



### DVD operation screen



### FM operation screen



### MP3 operation screen



### CD changer operation screen (optional)



The device can automatically switch to the navigation screen or other screen while an audio operation screen is displayed. For details, see **“Adjusting / setting the screen”** in the **OWNER'S MANUAL / Audio**.

## 2 Radio operation

### How to listen to the radio

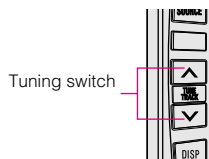
#### Select radio for the source

- 1 Touch **AM** or **FM** for AUDIO MENU.



#### Search for a broadcast station

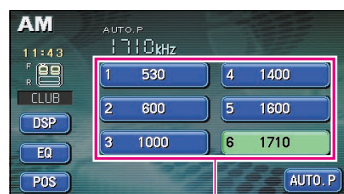
- 1 Press **▲** or **▼**.
  - Manual tuning press lightly.
  - Automatic tuning press until a “PEEP” sound is heard.



#### Record broadcast stations into preset switches

- 1 Select a broadcast station.
- 2 Touch a preset switch until a “PEEP” sound is heard.

To select a broadcast station from the preset switches, touch the desired broadcast station number.



Preset switch

## Automatically search for broadcast stations and record them

This convenient function can search for broadcast stations from which a signal can be received and record them temporarily into preset switches. If they are not needed, they can easily be switched back to the broadcast stations originally recorded.

### 1 Touch **AUTO.P** until a “PEEP” sound is heard.

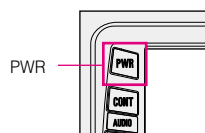
Touch **AUTO.P** once more to switch the display back to the broadcast station originally recorded.



## Stop the radio

### 1 Press **PWR**.

Press once more and the broadcast station signal last received will be tuned in.



## 3 CD/MP3 player operation

### How to listen to a CD/MP3

#### Playback a CD/MP3 file

When a disc is not inserted

##### 1 Insert a disc.

Playback will automatically start.

When a disc is inserted

##### 1 Touch **CD** or **MP3** in AUDIO MENU.



ATTENTION

Mixing music data and MP3 data on the same disc may render playback impossible. For details, see “CD player operation” or “MP3 player operation” in the **OWNER'S MANUAL / Audio**.

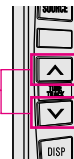


#### Select the desired track or music file

##### 1 Press **▲** or **▼**.

Switch to the next track when playing back a CD or to a music file when playing back an MP3.

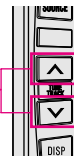
Track selection (track start point), fast-forward, rewind switch



#### Fast-forwarding and Rewinding

##### 1 Press **▲** or **▼** until you hear a “PEEP” sound.

Track selection (track start point), fast-forward, rewind switch

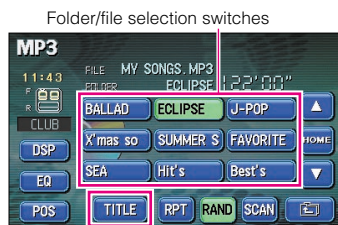


## Easy folder and music file selection (MP3 player)

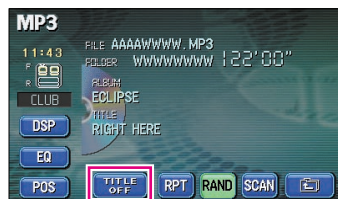
An MP3 compresses music data into 1/10 its original size enabling it to store about 10 times the music data of one CD. This device simultaneously displays 9 folders/files enabling the easy selection of desired music files.

### 1 Touch one of the folder/file selection switches

- Touch a folder and the data stored in it will appear. Touch a music file to playback that file.
- Touch **TITLE** to view the file information stored for the song being played back (album name, song title).



Touch **TITLE** ↓ ↑ Touch **TITLE OFF**



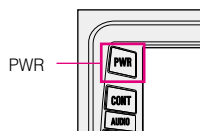
ATTENTION

- If there are 8 or more music files in the same folder, press **▲** or **▼** to switch and display the data.
- The file information (album name, song title) may not appear depending on the way the MP3 was compiled. For details, see **“How to use the MP3 player”** in the **OWNER'S MANUAL / Audio**.

## Stop playback

### 1 Press **PWR.**

Press again to playback the last song.



## 4 DVD player operation

### How to view a DVD video

#### Playback a DVD

When a disc is not inserted

#### 1 Insert a DVD.

Playback will automatically start.

When a disc is inserted

#### 1 Touch **DVD** in AUDIO MENU.



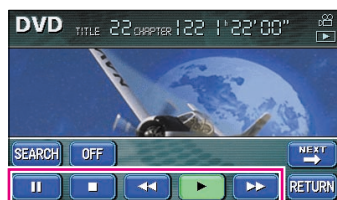
Some DVDs may not playback automatically. In this case, playback from the disc menu stored in the DVD.

#### Manipulated the image

The image being played back can easily be manipulated.

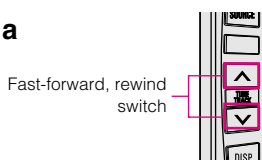
#### 1 Touch the operation switch.

Touch pause **⏸** and then **⏩** for slow-motion playback.



#### Fast-forwarding and rewinding

#### 1 Press **▲** or **▼** until you hear a “PEEP” sound.





## Use the disc menu

1 Touch **NEXT** on the DVD operation screen.



2 Touch **MENU** or **TOP MENU**.



3 Touch **+**.

4 Touch **↓** **↑** **←** **→** and select the desired image.

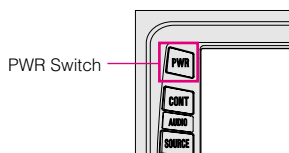


5 Touch **ENTER**.

## Stop the DVD

1 Press **PWR**.

Press again to playback the DVD from the exact image where it was stopped.



## 5 Adjusting the sound

### Adjust the sound

You can meticulously adjust the sound of the music you want to hear to create your own little pseudo-concert hall. The acoustic field can be adjusted to center around the desired position and each speaker's volume and balance can also be adjusted.

#### Recreate a concert hall as per the sound image

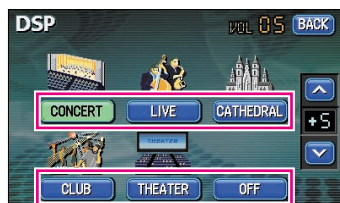
##### 1 Touch **DSP**.

**DSP** is displayed when touching **NEXT** and then **SET** for a DVD or pressing **CONT** for a VTR or touch the screen.



##### 2 Touch the desired acoustic field switch.

Touch **BACK** to record the setting and return the display to the previous screen.

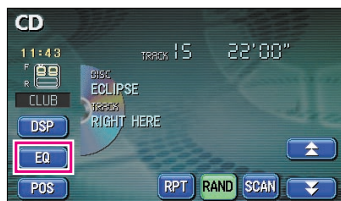


Touch switch	DSP Envioment	Touch switch	DSP Envioment
<b>CONCERT</b>	Concert Hall	<b>CLUB</b>	Disco, Club
<b>LIVE</b>	Live House	<b>THEATER</b>	Theater
<b>CATHEDRAL</b>	Church	<b>OFF</b>	DSP OFF

## Adjust the sound in tune with the music being played back

### 1 Touch **EQ**.

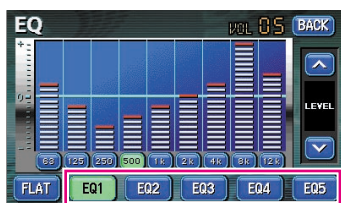
**EQ** is displayed when touching **NEXT** and then **SET** for a DVD or pressing **CONT** for a VTR or touch the screen.



### Select the set equalizer curve

### 2 Touch **EQ1** to **EQ5**.

Touch **BACK** to record the setting and return the display to the previous screen.



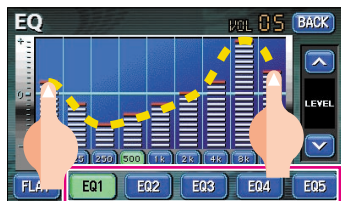
Touch switch	Equalizer Mode	Touch switch	Equalizer Mode
<b>FLAT</b>	EQ LEVEL 0	<b>EQ3</b>	JAZZ
<b>EQ1</b>	POPS	<b>EQ4</b>	CLASSIC
<b>EQ2</b>	ROCK	<b>EQ5</b>	VOCAL

### Creating an equalizer curve

### 2 Touch the screen when the desired equalizer curve image appears.

### 3 Touch **EQ1** to **EQ5** until you hear a "PEEP" sound.

- The equalizer curve just created is recorded into the touch switch touched.
- Touch **BACK** to record the setting and return the display to the previous screen.



Adjust the center of the acoustic field to center around the desired position

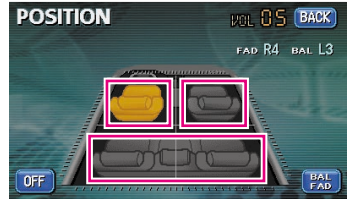
1 Touch **POS** .





**POS** is displayed when touching **NEXT** and then **SET** for a DVD or pressing **CONT** for a VTR or touch the screen.



2 Touch **POSITION** (seat).

Touch **BACK** to record the setting and return the display to the previous screen.



Display	Position	Display	Position
	Driver's Seat		Front Seat
	Passenger's Seat		Rear Seat

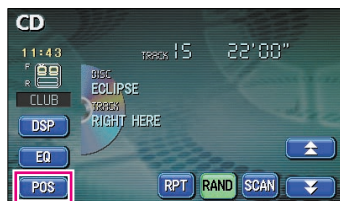


The volume balance adjustment (next page) cannot be performed simultaneously.

## Adjust the left/right front/rear volume balance

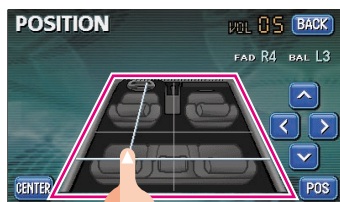
### 1 Touch **POS**.

**POS** is displayed when touching **NEXT** and then **SET** for a DVD or pressing **CONT** for a VTR or touch the screen.



### 2 Touch the desired spot within the rectangle ( ).

Touch **BACK** to record the setting and return the display to the previous screen.



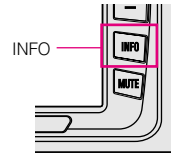
The acoustic field center adjustment (previous page) cannot be adjusted simultaneously.

## 6 Other settings

### Cancel the “PEEP” sound made when operating the switches

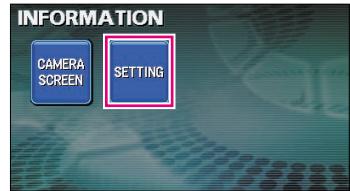
The sound emitted when operating the panel or screen switches can be canceled (muffled).

- 1 Press **INFO** to retrieve the **INFORMATION** screen.



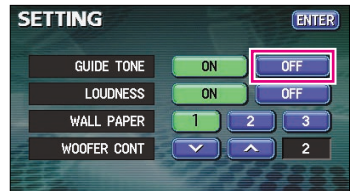
- 2 Touch **SETTING**.

Various adjustments can be done from **SETTING**. For details, see “Setting background screen” or “Adjusting and setting the screen” in the **OWNER'S MANUAL / Audio**.



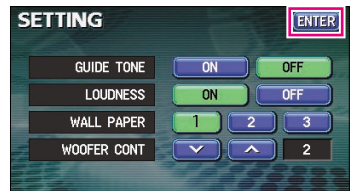
- 3 Touch **OFF** for **GUIDE TONE**.

Touch **ON** to emit the sound.



- 4 Touch **ENTER**.

This returns the display to the information screen or the screens displayed before and after.



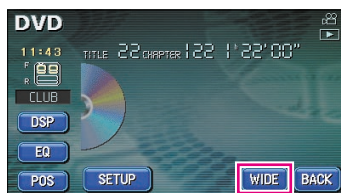
## Switch the screen display size

The screen size of DVD and VTR displays can be switched.

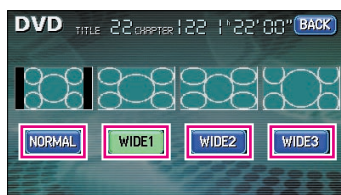
### Switch the DVD/VTR display screen size

#### 1 Touch **WIDE**.

**WIDE** is displayed when touching **NEXT** and then **SET** for a DVD.

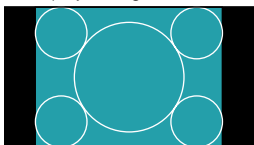


#### 2 Touch the desired size.



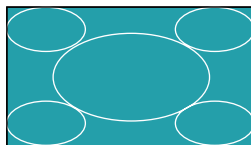
#### Normal mode

The size of a regular television screen with either side of the display having a black vertical bar.



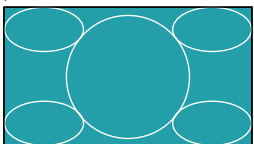
#### WIDE 1 mode

The size of a regular television screen widened evenly at the sides.



#### WIDE 2 mode

The size of a regular television screen widened unevenly at the sides.



#### WIDE 3 mode

The size of a regular television screen widened evenly sideways, upwards and downwards.



Caution

Viewing images with a wide screen privately poses no problem legally, however, if the images are compressed or expanded for public or commercial viewing purposes, this action may infringe upon the rights of the creators of those images protected by applicable copyright laws. Please exercise caution.

# 1 Specifications

## GPS antenna

Dimensions	34(W) x 13.2(H) x 38(D)mm
Weight	approx. 25g(Excluding cables and connectors)
Power supply voltage	4.6±0.4(V)
Power consumption	10 to 30(mA)
Usage temperature	-30 to 80(°C)
Storage temperature	-40 to 100(°C)

## Display

Liquid crystal panel	6.5 type wide low reflection panel
Screen dimensions	143.4(W)x79.3(H)mm
Pixel count	280,800 pixels(400(H)x234(V)x3)
Active pixel rate	Over 99.99%
Display format	Transmissive color filter format
Drive system	TFT (thin membrane transistor) active matrix format
Usage temperature range	-20 to +65°C
Storage temperature range	-40 to +85°C

## Radio tuner

Reception frequency	<ul style="list-style-type: none"> <li>•AM530 to 1,710kHz</li> <li>•FM87.75 to 107.9MHz</li> </ul>
Practical speed	<ul style="list-style-type: none"> <li>•AM22μV (S/N20dB)</li> <li>•FM12dBf (IHF)</li> </ul>
Frequency characteristic	30 to 15,000Hz (FM)
Stereo separation	38dB (1kHz)

## CD

Wow and flutter	Below measurement limit
Higher harmonic distortion rate	0.01% (0dB, 1kHz)
Frequency characteristic	20 to 20,000Hz
S/N ratio	90dB (1kHz)
Dynamic range	88dB



## Common component

Rated output	15Wx4(1kHz, 1%4Ω)(EIAJ)
Maximum output	50Wx4 (test voltage 14.4V)
Suitable load impedance	4Ω (each channel)
Power source voltage	DC13.2V(11-16V) Grounded
Power consumption	0.5Wx4 output time approx.3.7A Approx. 15A max
Exterior dimensions	180mm (W), 100mm (H), 165mm (D)
Weight	Approx. 3.7kg

## Back monitor (optional)

Image pickup device	1/4 inch color CCD
CCD pixel count	Approx. 270,000 pixels
Horizontal resolution	300TV (center) or above
Camera Focal distance	f = 1.7mm
F value	1:3.5
Field angle (horizontal, vertical)	120°, 84°
TV format	NTSC
Standard image output level	1Vp-p(75Ω)
Minimum object illumination	2 lux (25IRE)
White balance format	Automatic
Automatic sensitivity adjustment range	1:1600 or above
Power source voltage	DC6V ± 0.3V
Power consumption	190mA (max)
Cable length	11.5m
Usage temperature range	-20 to +65°C
Storage temperature range	-30 to +80°C
Camera unit exterior dimensions	Approx. 34mm (W) x 27mm (H) x 28mm (D)
Weight	Approx. 50g (cable not included)

Please acknowledge that due changes in specifications and external appearance, the content of this manual may not correspond with the device.



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. \_\_\_\_\_



# ECLIPSE<sup>®</sup>

by FUJITSU TEN

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